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2017 EDITION

# GENERAL COMPETITION RULES

**Updated Through TB 17-09**

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UNITED STATES ROAD RALLY CHALLENGE

The General Competition Rules of the Sports Car Club of America are intended to assist in the orderly conduct of race events. They are in no way a guarantee against injury or death to participants, spectators, or others. No express or implied warranties of safety or fitness for a particular purpose are intended or shall result from publication of or compliance with these rules.

## FOREWORD

Electronic and printed editions of the GCR are available. The electronic edition may be updated during the calendar year and will be available on the SCCA website. The electronic editions take precedence over the printed edition. Express permission is granted members and others to transmit and use the electronic editions for purposes related to SCCA Club Racing activities.

In all societies where men compete with one another - and in which societies, pray, do they not? - there must be laws to regulate that competition. The extent to which that competition is carried, whether by intensity or sophistication, determines the degree of complexity of the necessary laws; and the extent to which those laws are willingly accepted determines, no less, the degree of civilization of that society.

Translated from Thales of Miletus, c 600 BC.

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# 1. CONTROLLING COMPETITION

## 1.1. SCCA (SPORTS CAR CLUB OF AMERICA, INC.)

The SCCA is a non-profit organization, incorporated in the state of Connecticut, dedicated to owning, operating, and preserving sports cars; arranging and regulating sports car events and exhibitions; encouraging safe and sportsmanlike conduct on public highways; and developing technical information relevant to these purposes. ACCUS FIA has delegated the authority to sanction FIA listed events to the SCCA.
The address of SCCA can be found in the front of this rule book.

In these General Competition Rules, SCCA is sometimes referred to as "the National Office".

## 1.2. SCCA GENERAL COMPETITION RULES

SCCA has established these General Competition Rules (GCR) to govern all Club Racing events sanctioned by the SCCA. The GCR also includes the General Technical and Safety Specifications, and the Category Rules.

### 1.2.1. Replacing the GCR

Beginning January 1st each calendar year, the newest edition of the GCR takes effect and supersedes all prior editions. Rule revisions published in prior calendar year(s) must be included in the new edition of the GCR to remain effective. Court of Appeals decisions on technical specifications are effective for the calendar year during which they are rendered, and are superseded by the following year's edition of the GCR.

### 1.2.2. Revising the GCR

A. The latest published electronic GCR version on the official SCCA website supersedes all prior GCR versions, FasTrack, Racing Memos, Member Advisories, or Tech Bulletins published in writing or on the official SCCA web site as of the first day of the month of publication.

B. When a rule clarification or change must be implemented immediately, the Board of Directors will issue a memorandum stating the change and its effective date. These memoranda will be posted on the SCCA website and sent to all Executive Stewards and Divisional Administrators of Tech.

C. If preliminary performance estimates for a car initially classified or reclassified prove grossly inaccurate during its first year of classified or reclassified eligibility, the technical specifications may be changed on thirty days' notice.

### 1.2.3. Interpreting and Applying the GCR

A. Interpreting the GCR shall not be strained or tortured and applying the GCR shall be logical, remembering that the GCR cannot specifically cover all possible situations. Words such as "shall" or "shall not", "will" or "will not", "can not", "may not", "are" or "must" are mandatory; and words such as "may" and "should" are permissive.

B. References in the GCR to the SCCA Operations Manual and the SCCA Insurance Manual are for informational purposes; these SCCA documents may not be protested or appealed.

C. Conflicts among or between portions of the GCR are handled as follows:

1. The Category Rules take precedence over the General Technical Specifications.

2. Specific class rules in the Category Section of the GCR shall take precedence over the general Category Rules and the General Technical Specifications.

3. Any item not addressed in the Category Rules is controlled by the General Technical Specifications. The specification line for a particular car takes precedence over the specific class rules, the general Category Rules and the General Technical Specifications.

D. The interpretation and application of the GCR by SCCA officials is final and binding. To promote the sport of automobile competition; to achieve prompt finality in competition results; and to recognize the numerous benefits to them, all members expressly agree that:

1. SCCA officials' determinations are non-litigable;

2. They will not initiate or maintain litigation of any kind against SCCA or anyone acting on behalf of SCCA to reverse or modify such determinations, or seek to recover damages or other relief allegedly incurred or required as a result of such determination; and

3. Any member who initiates or maintains litigation violating this provision agrees to reimburse SCCA for all costs of litigation, including travel expenses and attorneys' fees.

E. All money amounts specified in the GCR are in US Dollars.

F. The pronouns "he", "his", and "him" are generic and are not intended to indicate gender.

G. All dimensions are in inches unless otherwise noted.

### 1.2.4. Submitting to the GCR

Any organizer who applies for a sanction to conduct an SCCA race event ex-pressly agrees, and will acknowledge the following in writing if requested:

A. Familiarity with the GCR.

B. Unreserved agreement to any consequences of not complying with the GCR.

C. Renunciation of any right to recourse, except with the written consent of the SCCA, to any arbitrator or tribunal not provided for in the GCR.

**1.3. Assumption of Risk**

Road racing is a dangerous sport that can result in serious injury or death. Participation in all aspects of the sport is voluntary. The ultimate responsibility for participant and vehicle safety lies with the participant, vehicle owner, driver and crew members.

The participant also acknowledges that by participating in the event, the participant may suffer bodily injury or death, or loss or damage to property. The participant further acknowledges that the participant has voluntarily, assumed the risk of bodily injury or death or loss or damage to, property and waives any claims for bodily injury or death, or loss or damage to property against SCCA, its directors, officers, employees and agents, event officials, event sponsors, racetrack operators and other participants; discharges such persons and entities from responsibility for such losses; and covenants not to sue such persons and entities for bodily injury or death or loss or damage to property.

**1.3.1. Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement**

**All participants shall be required as a condition of participation to sign all required entry forms including but not limited to such releases as shall be required by SCCA and/or its insurers consisting of the following or similar wording. Whether or not the participant signs such releases, the participant agrees to the terms set forth below and participant is hereby put on notice of such terms and makes such agreement either by receiving this Rulebook or by participating in the sport, or both.**

*IN CONSIDERATION of being permitted to compete, or officiate, observe, work for, or participate in any way in SCCA OR SCCA PRO SANCTIONED EVENTS and/or being permitted to enter for any purpose any RESTRICTED AREA(S) (defined to be any area which requires special authorization, credentials, or permission to enter or any area to which admission by the general public is restricted or prohibited), I, for myself, my personal representatives, heirs, and next of kin:*

*1. Acknowledges, agrees, and represents that he has or will immediately upon entering any of such RESTRICTED AREAS, and will continuously thereafter, inspect the RESTRICTED AREAS which he enters, and he further agrees and warrants that, if at any time, he is in or about RESTRICTED AREAS and he feels anything to be unsafe, he will immediately advise the officials of such and if necessary will leave the RESTRICTED AREAS and/or refuse to participate further in the EVENT(S).*

*2. HEREBY RELEASES,WAIVES, DISCHARGES AND COVENANTS NOT TO SUE the promoters, participants, racing associations, sanctioning organizations or any subdivision thereof, track operators, track owners, officials, car owners, drivers, pit crews, rescue personnel, any persons in any RESTRICTED AREA, sponsors, advertisers, owners and lessees of premises used to conduct the EVENT(S), premises and event inspectors, surveyors, underwriters, consultants and others who give recommendations, directions, or instructions or engage in risk evaluation or loss control activities regarding the premises or EVENT(S) and each of them, their directors, officers, agents, employees, representatives, owners, members, affiliates, successors and assigns all for the purposes herein referred to as "Releasees," FROM ALL LIABILITY TO THE UNDERSIGNED, his personal representatives, assigns, heirs, and next of kin FOR ANY AND ALL LOSS OR DAMAGE, AND ANY CLAIM OR DEMANDS THEREFOR ON ACCOUNT OF INJURY TO THE PERSON OR PROPERTY OR RESULTING IN DEATH OF THE UNDERSIGNED ARISING OUT OF OR RELATED TO THE EVENT(S), WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE.*

*3. HEREBY AGREES TO INDEMNIFY AND SAVE AND HOLD HARMLESS the Releasees and each of them FROM ANY LOSS, LIABILITY, DAMAGE, OR COST they may incur arising out of or related to the UNDERSIGNED'S INJURY OR DEATH, WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE.*

*4. HEREBY ASSUMES FULL RESPONSIBILITY FOR ANY RISK OF BODILY INJURY, DEATH OR PROPERTY DAMAGE arising out of or related to the EVENT(S) whether caused by the NEGLIGENCE OF RELEASEES or otherwise.*

*5. HEREBY acknowledges that THE ACTIVITIES OF THE EVENT(S) ARE VERY DANGEROUS and involve the risk of serious injury and/or death and/or property damage. Each of THE UNDERSIGNED, also expressly acknowledges that INJURIES RECEIVED MAY BE COMPOUNDED OR INCREASED BY NEGLIGENT RESCUE OPERATIONS OR PROCEDURES OF THE RELEASEES.*

*6. HEREBY agrees that this Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement extends to all acts of negligence by the Releasees, INCLUDING NEGLIGENT RESCUE OPERATIONS and is intended to be as broad and inclusive as is permitted by the laws of the State or Province in which the Event(s) is/are conducted and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.*

*I HAVE READ THIS RELEASE AND WAIVER OF LIABILITY, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT, UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT, AND HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE OR GUARANTEE BEING MADE TO ME AND INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.*

**1.4. Media Rights**
The Entrant agrees to permit the Sports Car Club of America Inc., and their assigns (including but not limited to series sponsors, promoters/organizer of an Event), free of any charges duties or fees, to use, license, reproduce, have reproduced, show, have shown, without limitation in space or time, all soundtracks, photographs, drawings, trademarks, films/video pictures concerning competitors, their drivers, teams or cars involved in the event(s) on any medium whatsoever that is sourced by or under the authority of SCCA (excepting medium submitted by a participant as part of a formal protest or appeal procedure) for any documents, reports, coverage, broadcast, program, publication, video game or model production, software, etc. whether past, present or future. The Entrant further acknowledges and agrees that SCCA may freely assign or license its rights to a third party.

## 2. PARTICIPANT CONDUCT

Each participant shall conduct himself to the highest standards of behavior and sportsmanship. His actions shall not prejudice the reputation of the SCCA or the sport of automobile racing. Failure to comply may result in penalties as specified in Section 7; an official may, in addition, lose his assignment for that event.

### 2.1. BREACH OF THE RULES

Beyond any other offenses or violations of specific rules, each of the following is a breach of the GCR.

**2.1.1. Bribing, or attempting to bribe, anyone connected with an event; soliciting, accepting, or offering to accept a bribe.**

**2.1.2. Acting to enable a person or car known to be ineligible, not properly entered, or credentialed to participate in an event.**

**2.1.3. Acting fraudulently or prejudicially to the interests of the SCCA or of the sport of automobile racing.**

**2.1.4. Driving recklessly or dangerously, anywhere on the track property.**

**2.1.5. Failing to obey a direction from an official.**

**2.1.6. Refusing to cooperate with, interfering with, or obstructing the actions of the Chief Steward, the Stewards of the Meeting (SOM), the Court of Appeals, or other review committees in the performance of their duties.**

**2.1.7. Acting in an unsportsmanlike manner.**

**2.1.8.** *Threatening or c***ommitting physical violence upon any other participant or spectator.**

*2.1.9. Possession of firearms is only permitted in compliance with federal and local ordinances and per facility rules and regulations. Firearms are not permitted in competition vehicles while on course.*

### 2.2. ADDITIONAL PARTICIPANT RESPONSIBILITIES

**2.2.1. Authorized Events**

SCCA licensed drivers and officials may participate in any events except those specifically disapproved by the Club Racing Board (CRB) or the Executive Steward of the Division concerned.

**2.2.2. Driver and Entrant Responsible for Crew**

The driver and entrant are responsible for the conduct of their crew at all times during an event, including a crew member's violation of the GCR or the Supplemental Regulations. For the purpose of this section, an event begins when registration opens and ends when the driver, entrant, and all crew members from that team have left the track property at the conclusion of the event.

**2.2.3. Waiver Signer Responsible for Minor**

*The parent (s) and/or guardian that has signed a minor waiver on behalf of a minor is fully responsible for that minor.*

**2.2.4. Official's Conflicts of Interest**

A. The Race Director or Chief Steward, Assistant Chief Stewards, and the SOM shall have no financial, employment or business interest; or significant personal relationship with the organizer or sponsor of an event. Being a member or holding an office in an SCCA Region is not considered a conflict of interest in the absence of any other evidence.

B. A steward should not operate a session where a family member, co-worker, or a person with whom he has a significant business, financial, or personal relationship is an entrant or driver.

C. An SOM shall not be involved in a hearing involving a family member, co-worker, or any person with whom he has a significant business, financial, or personal relationship.

**2.2.5. Pets at the Track**

The owner is fully responsible for actions of his pet(s), and for any liability arising from those actions. Unless a particular track has a stated policy to the contrary, a pet may be in the paddock, provided it is appropriately confined or on a leash. A pet on a leash must be controlled by an adult, and the leash may not exceed 10 feet in length. Pets are prohibited in the pits.

**2.2.6 Unmanned Aircraft Systems**

Commercial and private unmanned aircraft systems (aka "drones") are prohibited unless authorized in the Supplemental Regulations.

## 2.3. IMPAIRMENT

### 2.3.1. Alcoholic Beverages, Narcotics, and Dangerous Drugs

A. No driver, entrant, or crew may consume alcohol until all practice, qualifying, or racing for his class is finished for the day. No official may consume alcohol until his duties have been completed for the day. Anyone who has consumed any alcohol on the day of an event, other than following the conclusion of his activities, shall not participate on that day, may be excluded from the balance of the event, and may be penalized as specified in Section 7. Alcohol may not be consumed in the pits until after all the day's on track activities are concluded.

B. The use at an event by any participant of any Federal Schedule 1 controlled substance (including marijuana), or other drugs that affect the ability of the participant to safely participate in the event or may otherwise adversely affect the safety or integrity of the event is specifically prohibited. Certain prescription and non-prescription medicines may also impair performance so competent medical authority should be consulted prior to using such medicines and participating in the event. Any participant who violates this prohibition

- shall not seek to participate in the event
- may be excluded from the event by the Race Director or Chief Steward or the Chief of an official's specialty
- may be removed from the grounds by the order of the Race Director or Chief Steward
- may be penalized as provided in Section 7.

As a condition of continued participation and/or retention of any SCCA license, the participant may be required to submit to such testing procedures that may be established by SCCA in its sole discretion. Failure or refusal to submit to such testing shall be deemed a violation of the above prohibitions. However, SCCA assumes no obligation or duty to establish such testing procedures and/or to test participants on a random basis or in a specific case.

### 2.3.2. Medical Fitness

Each participant is encouraged to have someone at the track maintain his medical information in case it may be needed by a medical treatment team.

A. Medical Fitness of a Driver

1. Responsibility of a Driver

   The driver and the driver's physician are responsible for determining if the driver is medically fit for participation. The required medical examination form is a tool and guide for the physician in deciding an applicant's fitness to participate.

2. Required Medical Examination

   No driver shall participate in any event unless he has been examined by a physician within the period specified in App C.2.1.A., and has been approved by that physician for a competition license.

3. Changes in Medical Condition

   When a driver experiences a change in their medical condition that could affect their fitness to participate they must:

   a. Notify the national office of the change in medical status.

   b. Discontinue participation until examined and approved by their physician.

   c. Submit a new completed and approved-for-competition medical form.

   *d. If a driver seeks (or receives) medical attention during an event, that in the opinion of the event Medical Officer may compromise his on track driving ability, the Medical Officer shall notify the Safety Steward. The Safety Steward will inform the National Office in writing. Upon receipt the SCCA Licensing Department will contact the driver, reminding him of the obligations stipulated under GCR 2.3.2.A.3*

   Examples of medical conditions that may affect the ability to participate: pregnancy, cardiac or neurological problems, heart attack, heart surgery, stroke, loss of consciousness, seizures, major surgery or diagnosis of cancer.

4. Involvement in Accident at an Event

   A driver must report to the event Medical Service as soon as possible whenever any of the following conditions is met:

   1. He is involved in an incident where his car rolls over;

   2. His car collides with a stationary object hard enough to cause structural damage to the car;

3. He is aware that he may have been injured in an incident;

4. He has been directed by an official to do so.

A driver transported to an off-site medical facility cannot continue to compete in that event without a medical release signed by the attending physician at the treating facility or the event Chief Medical Official.

B. Medical Fitness of Crew

Any known medical condition (including pregnancy) which could affect medical fitness to perform the duties of a crew member may prevent admission to the pits or any other hazardous area.

C. Medical Fitness of an Official

Any known medical condition (including pregnancy) which could affect the ability to perform some or all of the assigned specialty duties requires reassignment based on the recommendations of the person's physician. Some medical conditions (including pregnancy) may require reassignment to non-hazardous areas only.

D. Concussion & Loss of Consciousness

A participant who suffers a concussion, defined as a traumatic brain injury caused by a bump, blow or jolt to the head, or loss of consciousness, defined as lack of response to others or amnesia for the incident, shall be medically evaluated by the track physician or ER and is prohibited from participating in the remainder of the event weekend. If the driver is diagnosed as having a head injury or concussion, regardless of the level, the driver must have a follow up evaluation by a neurologist upon his/her return home. The driver must obtain the approval of the neurologist to resume racing and submit the approval to SCCA Member Services. The event Safety Steward shall notify SCCA Member Services of accidents resulting in the above. The protocol for evaluation is available from the event Safety Steward and the National Office.

**2.4. DIVISIONAL ADMINISTRATOR AND EXECUTIVE STEWARD LICENSING AUTHORITY AND MEMBER RIGHTS**

2.4.1. Divisional Administrators and Executive Stewards manage licenses in their respective specialties for their Divisions. They may downgrade, refuse to upgrade, suspend, or not renew the license of any official for non- or under-participation, conduct violating the GCR, actions contrary to the best interests of the SCCA, or inability to perform satisfactorily at the current license grade.

2.4.2. Any official subject to a license action as described in Sections 2.4.1. may request a review of the license action.

A. Request:

1. Must be made to the official's Executive Steward in writing.

2. Must be made within ten days of the license action.

B. Review Management:

1. Non-steward Licenses - the member's Executive Steward.

2. Steward licenses - the Chairman of the Stewards' Program

C. Review Committee:

1. Will be established by the Executive Steward or the Chairman of the Stewards' Program according to Section 2.6.

2. Will be conducted in accordance with the Stewards' Manual guidelines.

3. May uphold, modify, or overturn the license action.

D. Appeal:

1. Parties have the right to appeal the decision of the Review Committee to the Court of Appeals, per Section 8.4.

**2.5. EXECUTIVE STEWARD DRIVER AND OFFICIAL REVIEW**

A Divisional Executive Steward may convene a Review Committee in compliance with Section 2.6 to review a driver or official's conduct, car legality, competition record, and/or other matters. The Review Committee may invoke penalties as specified in Section 7, suspend or change the grade of any license, and/or return a driver to an SCCA Drivers' School. The driver or official has the right to appeal the decision of the Review

Committee to the Court of Appeals, as specified in Section 8.4.

**2.6. REVIEW COMMITTEE MEMBERS CONFLICTS OF INTEREST**

Members of review committees created under Sections 2.4. and 2.5. may not have any significant conflicts of interest or ties to any of the parties. Members will be subject to the restrictions of 2.2.4.C., and may not have any other significant conflicts of interest with any of the parties. Reviews will be conducted in accordance with the Stewards Manual guidelines.

**2.7. CRB OFFICIAL REVIEW**

The license of any official may be suspended by the CRB, if in their view his actions are contrary to the best interest of the SCCA. A license may be suspended for a period of time specified by the CRB, or it may be revoked permanently. License revocation by the CRB may be appealed to the SCCA Board of Directors.

**NOTES:**

# 3. EVENTS

## 3.1. TYPES OF SCCA RACE EVENTS

The SCCA sanctions various types of race events conducted in compliance with the GCR. SCCA race events are classified by the persons eligible to participate, the categories of cars eligible to compete, defined organizational requirements, and the awards offered.

### 3.1.1. U.S. Majors Tour Races

U.S. Majors Tour races are high-profile events for drivers seeking an elevated level of competition. The Head of Club Racing oversees and is responsible for the U.S. Majors Tour; events are operated by host Regions, with assistance from the U.S. Majors Tour Staff *in some cases*. The U.S. Majors Tour is organized as series of events within *six* geographic units known as Conferences.

A. Types of U.S. Majors Tour Events

1. *Conference Events*

Points earned in *Conference* races in Runoffs-eligible classes will count toward Conference Championships (see 3.7.2), *and* qualification for the National Championship Runoffs (see 3.7.*4*). They may also count toward Divisional Championships (see 3.7.1).

There may be a non-Runoffs eligible component of an event.

Competitors will find information on the classes eligible and the structure for each event on the SCCA website and in the Supplemental Regulations.

*2. Super Tour Events*

*Super Tour Events are specially-designated Conference Events that include additional enhancements. Points earned in Super Tour Events in Runoffs-eligible classes will count toward Conference Championships (see 3.7.2), the Super Tour Championship (see 3.7.3) and qualification for the National Championship Runoffs (see 3.7.4).*

*3.* Festival

Entry invitations are limited to the particular class(es) specified in the Supplemental Regulations.

Points earned in Festival events do not count toward Conference Championships.

B. Driver Eligibility

Only drivers who hold an SCCA Full Competition License or an SCCA Pro License are eligible to enter.

*C.* Organizing Personnel

1. Head of Club Racing or their designate - oversees all aspects of the U.S. Majors Tour, including the appointment of personnel.

2. Race Director *(RD)*

a. *Appointed by Head of Club Racing for all Super Tours. Appointed by local Executive Stewards for their respective Conference. Conference RD serves as Asst. RD for Super Tour events within that Conference.*

*b.* The RD works with each Executive Steward and host Region to appoint the balance of the Stewards for each U.S. Majors Tour event.

*c.* The RD works with the event Stewards to conduct the event.

*d.* Only the RD in agreement with the Region's representative may modify the Supplemental Regulations, as permitted in 5.12.2, after the Sanction has been issued; he may act on these matters without filing a Request for Action with the SOM.

*e.* Administrative actions taken by the RD (including modifying the Schedule of Events and race groupings), are non-protestable; actions/penalties imposed by the RD for driving or compliance are protestable.

3. Series Administrator *(SA)*

*a. Required for all Super Tours, optional for other Conference events.*

*b.* The SA oversees series organization and administration of the U.S. Majors Tour series events for his Conference.

4. Series Chief Technical Inspector (SCTI)

*a. Required for all Super Tours, optional for other Conference events.*

*b.* The SCTI works with the CCC and event technical staff to provide consistent compliance checking across all the events in his Conference.

*5. Series Timing Administrator*

*a. Required for all Super Tours, optional for other Conference events.*

*b. The Series Timing Administrator works with the local Timing team to deliver enhanced timing functionality to events.*

*6. Series Public Relations Representative*

*a. Required for all Super Tours, optional for other Conference events.*

*b. The Series PR Representative provides communication and public relations support for the event.*

*7. Series Clerk of the Course*

*a. May be designated for Super Tours, optional for other Conference events.*

*b. The Clerk of the Course is an Operating Steward that works in Race Control with local stewards to provide consistency in race operations.*

*8.* One or more SCCA Regions may organize a U.S. Majors Tour event. The region or group hosting a U.S. Majors Tour event will enter into a written agreement with the National Office that details the responsibilities of both parties.

*D.* Event Format / Schedule

*1. Conference Events*

*a. The National Office has developed standard formats for each type of U.S. Majors Tour event. Regions are encouraged to utilize these standard formats to retain program consistency.*

*b. At least one race for each race group will be a minimum of 45 miles. Additional races on a weekend shall be a minimum of 20 minutes in length.*

*c. Minimum track time*

*1. Two-day events shall have a minimum of 35 minutes of non-racing track time available per Majors class entry.*

*2. Three-day events shall have a minimum of 65 minutes of non-racing track time available per Majors class entry.*

*2. Super Tour Events*

*a. The National Office has developed standard formats for each type of U.S. Majors Tour event, and works with Regions to create a specific schedule, which must be approved by the Head of Club Racing, who has final authority.*

*b. At least one race for each race group will be 35 minutes in length with a maximum of 50 miles (variations may be approved by the head of Club Racing and published in the supplemental regulations). Additional races on a weekend shall be a minimum of 25 minutes in length.*

*c. Minimum track time*

*1. Two-day events shall have a minimum of 35 minutes of non-racing track time available per Majors class entry.*

*2. Three-day events shall have a minimum of 65 minutes of non-racing track time available per Majors class entry.*

3. The schedule must show start times for all sessions, however, it is understood that actual start times will vary based on on-track situations and forces of nature. Minor running adjustments to the schedule do not require Requests for Action to the SOM.

4. All U.S. Majors Tour events are open to the public. Host Regions and the National Office jointly promote U.S. Majors Tour events.

*E.* Classes to be included in U.S. Majors Tour events:

*1. All Runoffs-eligible classes will be included in Conference and Super Tour events.*

*2. Run groups comprised of* non-Runoffs eligible classes may be included in U.S. Majors Tour *Conference* events to encourage participation.

*F. Additional Majors Requirements*

*1. Conference Preferred Numbers will be administered by the National office and shall be honored*

*at all Majors events until 14 days prior to the event. If two drivers holding the same Pre-ferred Number request that number for the same run group, the number will be assigned to the driver with the earliest request.*

*2. For the purposes of Conference points keeping, timing and scoring shall supply an Orbits database backup file (Orbits 4 preferred) to the SCCA National office (see front of book for email address) within three business days of the event to tabulate series points. Any revisions not included in that file shall be communicated with the submission.*

*a. All drivers listed on the final race results shall be consistent with the numbers included in the event audit.*

**3.1.2. Regional** *and Endurance* **Races**

All races, except U.S. Majors Tour events, are designated Regional races. The requirements for Regional races are given below and in the referenced appendices. Some Regional races may be designated as Division Championship races.

Regional races are ordinarily open to the following competitors:

A. Drivers holding SCCA Full Competition Licenses, SCCA Pro Licenses, SCCA Vintage Licenses, and those holding SCCA Novice Permits (AppC.2.7.F)

B. Canadian Residents holding current ASN National Licenses, are 21 or years of age or older, and are members of SCCA.

C. SCCA members holding competition licenses issued by SCCA-approved organizations. The event Supplemental Regulations must list the particular organizations and licenses not eligible for a specific race or else exclude the entire group of organizations and licenses by reference to this section. Minors possessing competition licenses issued by SCCA approved organizations must also complete the minor competition license requirements found in AppC.2.5. If a driver is currently listed on the SCCA Suspension List, then they may not use any other sanctioning body's competition license to participate in an SCCA event.

The organizations whose licenses are currently approved by SCCA for competition in Regional events are listed in AppC.

Please direct any questions about licenses to the Club Racing department in the National Office.

Section 9.1 identifies the classes of cars eligible to compete in Regional races.

*D. An endurance race is a single race that may allow multiple drivers in the same car.*

**3.1.3. Drivers' Schools**

Drivers' Schools provide instruction in safe and sportsmanlike wheel to wheel competition. They shall be conducted according to the GCR and under the following conditions:

A. The entered cars will be divided into at least open and closed wheel groups, which will run separately from one another. Sports Racing cars may be grouped with Formula cars. (See AppB.1.4.2.)

B. Only students undergoing instruction and their instructors may participate on track. However, a driver holding an SCCA competition license or a license from any organization listed in AppC.2.8.B may be admitted as a student at the discretion of the Chief Steward.

C. Alternative Drivers' Schools may be offered to permit novice drivers with prior racing, PDX, Time Trials, Solo and coaching experience to complete their school requirements. An alternative school may be used as credit for a single school completion See AppC.2.7.E.3. for the details of Alternative Drivers' Schools.

**3.1.4. Vintage/Historic Races**

Vintage/Historic races may be included on SCCA programs under the following conditions:

A. The Vintage/Historic segment is provided for in the sanction and Supplemental Regulations.

B. Each driver is an SCCA member holding an SCCA Full Competition License, SCCA Pro License, Vintage License or an SCCA Novice Permit as provided in AppC.2.7.D. and F., or an SCCA approved license.

The following organizations' licenses are currently approved by SCCA for competition in Vintage/Historic events:

1. Classic Sports Racing Group (CSRG)
2. Historic Sportscar Racing (HSR)
3. Society of Vintage Racing Enthusiasts (SOVREN)
4. Sportscar Vintage Racing Association (SVRA)
5. Vintage Auto Racing Association (VARA)

6. Vintage Motorsports Council (VMC) and VMC member organizations
7. Vintage Driver's Club of America (VDCA)

Please direct any questions about licenses to the Club Racing department in the National Office.

C. All Vintage cars must conform to Appendix Z of the SCCA Vintage Competition Rulebook (VCR), publication #5684 dated March 2005. Roll cages as defined in Appendix Z of the current VCR are required in all production cars considered model year 1973 or later. There is no requirement for cars from model year 1972 or earlier to have roll cages; however, members are encouraged to install roll cages in such cars where satisfactory installation can be achieved. At a minimum, roll bars are required for production cars from model year 1972 or earlier. Where allowed, roll bars must conform to Appendix Z of the current VCR.

Driver restraint systems must meet current GCR requirements. Driver window safety net or arm restraints are required in closed cars. Open cars require arm restraints.

D. Vintage/Historic cars shall not be allowed to be grouped with any other SCCA racing classes (except in a Drivers' School).

**3.1.5. Practice Days**
Practice Days are non-competition track days scheduled, sanctioned, and insured under standards included in AppB. Practice Days are conducted according to the GCR. In addition, the following standards apply:

A. A Practice Day sanction is valid for 1 day.

B. Each driver is an SCCA member holding an SCCA Full Competition License, SCCA Pro License, Vintage License or an SCCA Novice Permit showing Drivers' School requirements signed off as provided in AppC.2.7.D and F, or an SCCA approved license. A Novice Permit holder who is participating in an Alternate Drivers' School may participate in SCCA practice days in accordance with the provisions of AppC.2.7.E.3.

C. 9.1 identifies the classes of cars eligible to compete in Practice Days.

D. Officials meet the requirements of 5.1.3.

E. At a minimum, a Race Director or Chief Steward and Assistant Chief Steward – Safety are required.

F. Unless required by the track, or local authorities or ordinances, Sound Control is not in effect.

G. Staffing and equipment meet the requirements of 5.4. and 5.5.

H. Formula cars may be combined with Sports Racing cars, but may not be combined with other categories.

I. A maximum of 25 cars per mile may be on the course simultaneously, with no exception.

**3.2. SCHEDULING RACE EVENTS**
SCCA race date/event scheduling, postponement and cancellation policies and procedures are found in AppB.1.1.

**3.3. SANCTIONING RACE EVENTS**
A sanction is the documentary approval granted by SCCA Club Racing to organize and conduct an SCCA race event. The relevant policies and procedures are found in AppB.1.3.

**3.4. SUPPLEMENTAL REGULATIONS AND ENTRY FORMS**
The requirements for Supplemental Regulations and Entry Forms are found in AppB.1.4.

**3.4.1. Changing U.S. Majors Tour Supplemental Regulations**
The Race Director may change the Supplemental Regulations of a U.S. Majors Tour event as permitted in 5.12.2. in agreement with the event organizers prior to making changes and promptly inform the Chairman SOM of all changes.

**3.4.2. Changing Regional Race Supplemental Regulations**
All non-clerical errors and omissions changes to the Supplemental Regulations and event schedule must be approved by the SOM. Prior to the start of the event, the Chief Steward may make clerical errors and omissions changes to the schedule and/or class groupings and related information (for example, the omission of a class or a reference to the rules for a regional class). Except for modifications to the schedule and/or class groupings, no changes may be made to the Supplemental Regulations after the pre-entry period is open unless either there is unanimous agreement by all affected competitors who have already entered, or the SOM determine changes are necessary for reasons of safety or forces beyond their control.

**3.5. INSURANCE**
SCCA race/event insurance policies, procedures, and coverages are found in AppB.2. and the Insurance Handbook.

**3.5.1. Waivers**
All participants must be properly credentialed for the event. Each adult participant must also either sign the

SCCA waiver at the event or have an SCCA annual waiver on file at the National Office and present his hard card it at registration. Each minor participant must also have the event minor waiver signed by one or both parents or have an executed annual minor waiver on file at the National Office and present his hard card at registration.

### 3.6. AWARDS

Drivers compete primarily for points and trophies in SCCA events, although financial awards may also be offered.

#### 3.6.1. Distributing Awards

Organizers must have event awards for each race available to distribute as soon as Official Results are determined, or after the period for receiving protests has elapsed so placing drivers can take their trophies with them. Awards will not be distributed until after any protest affecting their distribution has been settled. If notified of an intent to appeal any decision which would affect awards, the SOM will direct that the distribution be held pending Court of Appeals decision.

#### 3.6.2. Trophies

U.S. Majors Tour event trophies will be awarded on the following minimum basis for each participating class:

| Number of Starters | Trophies Awarded for Finishing Position |
|---|---|
| 2 | 1st place only |
| 3 | 1st and 2nd |
| 4 | 1st, 2nd, and 3rd |

#### 3.6.3. Prize Money

The SCCA may require as a condition of an event sanction that any prize money be deposited in escrow a satisfactory period of time prior to the start of the event, and also that the SCCA controls the distribution of the prize money.

#### 3.6.4. Refuse Awards

A driver may refuse all event/series awards by notifying the Race Director or Chief Steward before his race. He must meet all other GCR requirements, including impound. He may earn a lap record and, provided he finishes, he may receive license credit for the race.

### 3.7 CHAMPIONSHIPS

#### 3.7.1. Division Championships

Each Division will conduct an SCCA approved championship program for Runoffs invitations. The program must be submitted for approval to the Head of Club Racing or his designate by October 1st each year. Division Championship rules will be posted on the SCCA website.

#### 3.7.2. Conference Championships

Each Conference will award Championships for each Runoffs-eligible class based on points earned in U.S. Majors Tour *Conference and Super Tour* races. A competitor may enter events in one or more Conferences, but points only accrue within the Conference in which the event is held. *If a single event is designated for multiple Conferences, points are scored in each Conference.* The *minimum* number of U.S. Majors Tour races *per Conference is 10 and the total* may vary; a driver shall count the best 8 finishes in a conference for the class championship. *Point standings are maintained by the SCCA National Office and posted at www.scca.com.*

A. Dead Heat Race Finish

When there is a dead heat in a race finishing position, the total points for the positions tied are added up and divided equally between or among the tied drivers. Points then continue starting with the next untied position.

B. Race Points Awarded Only to One Driver

Points are awarded to one driver per car *for each* race. When more than one driver competes in the same *car in the same* race, neither is awarded points.

C. Championship Ties

Ties in final Championship standings are resolved based on the drivers' records of first place finishes, then second place, then third *and so on*, as needed; including any finishes beyond the drivers' best *8*. If two or more drivers have identical records, they are tied for the position in the standings.

*3.7.3 Super Tour Championship*

*Super Tour Championship Point Standings will be complied for Super Tour event participants in each Runoffs-eligible class. A driver's best six points races in the same class count in the Super Tour Championship, regardless of the Conference in which the points were earned. Additionally, the National Championship Runoffs (in the same class) will count as a seventh scored race. Ties will be broken initially by Runoffs finishing position and then by 3.7.3.C, if needed.*

*A. Dead Heat Race Finish*

*When there is a dead heat in a race finishing position, the total points for the positions tied are added up and divided equally between or among the tied drivers. Points then continue starting with the next untied position.*

*B. Race Points Awarded Only to One Driver*

*Points are awarded to one driver per car for each race. When more than one driver competes in the same car in the same race group, neither is awarded points.*

*C. Championship Ties*

*Ties in final Championship standings are resolved based on the drivers' finishing position at that year's Runoffs. If tied drivers do not participate at the Runoffs, ties will be resolved by records of first place finishes, then second place, then third, and so on as needed; including any finishes beyond the drivers' best six (6). If two or more drivers have identical records, they are tied for the position in the standings.*

*D. Points are awarded to the top 20 starters that have completed half of the laps of the overall race winner in each race as follows: 25, 21, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8. 7, 6, 5, 4, 3, 2, 1.*

**3.7.*4*. SCCA Runoffs**

*SCCA schedules and conducts an event each year called the SCCA Runoffs, open to all U.S. Majors Tour participants and Division Championship participants who meet the invitation qualifications. A competitor must qualify in the same class(es) in which he is entering the Runoffs, though he may compete in any car eligible for the class(es).*

*The SCCA Runoffs determine the SCCA National Champion in each eligible class.*

*SCCA publishes the Supplemental Regulations defining driver and car eligibility and other event details.*

*A. Invitations to the SCCA Runoffs*

*Three distinct paths exist for qualifying for a Runoffs invitation. Invitations are issued to all drivers in each Runoffs-eligible class based on the following minimum qualifications:*

*1. U.S. Majors Tour Super Tour and/or Conference Events*

*A competitor must meet participation requirements.*

*a. Participation Requirements*

*Participate on track in a minimum of three separate U.S. Major Super Tour and/or Conference event weekends and have a minimum of three individual race starts, all in the same class. Events may be a part of any Conference.*

*A driver may substitute two Regional-sanctioned weekends for one of his three Majors weekend participation requirements. Eligible Regional weekends shall occur between January 1 of that year and a date not less than three weeks prior to the start of the Runoffs or as otherwise specified in the Runoffs supplemental regulations. Endurance races are not eligible.*

*Drivers in the following classes may replace participation in one Majors weekend with an SCCA Pro Racing weekend in the corresponding class. Drivers must request this replacement through the Club Racing Department, and pay the entry fee to a Majors event of their choice, to be collected and distributed by SCCA.*

*GT1- TA*

*GT2- TA2 or TA3*

*T1 - TA3 or TA4*

*T2 - TA4*

*FA - F4*

*This replaces participation but not the Majors starts requirement.*

*2. Division Championship Events*

*There are both participation and performance requirements to qualify for the Runoffs through Division Championships.*

*a. Participation Requirement: A competitor must participate on track in a minimum of four of a single Division's championship points weekends in the same class.*

*b. Performance Requirement: A competitor must finish in the top three positions in his class point standings, except SM and SRF3 where the top five will be invited.*

*c. If a Division Championship is not concluded at the time of the Runoffs, invitations will be extended to competitors meeting the requirements at a period of time three weeks prior to the*

*start of the Runoffs event. This allows Divisions to run programs year-round, if desired.*

*d. In addition to the Top 3 (Top 5 SRF3/SM) Divisional points earners nationwide, SCCA BoD will allow drivers in the top 50% in CenDiv and Great Lakes Divisions for 2017 to be eligible for Runoffs invitations on a space available basis.*

*3. Defending National Champions*

*In addition, a current defending National Champion, who has not met the Runoffs invitation requirements in 3.7.4.A.1 or 2, may be accepted as an entrant even if he did not meet the participation requirements of 3.7.4.A.1 or 2.*

*a. The entry will not be included in the total count of Runoffs invitations.*

*b. He may compete only in the class(es) being defended, though he may compete in any car eligible for the class(es).*

*c. He will not bump anyone from the field who was invited based on the qualifications in 3.7.4.A.1 or 2.*

*d. A driver may not invoke the provisions of this section in two consecutive years in the same class, even if he repeats as a National Champion.*

*4. Additional Requirements*

*The driver must hold a current SCCA Full Competition License or SCCA Pro License.*

*B. Refusal Of Entry*

*A competitor whose entry has been refused for the SCCA Runoffs may protest and appeal only the refusal of his entry, and he may protest up to 15 days before the start of the event. (See 4.4.6.)*

*C. Invited Runoffs Classes*

*All Runoffs eligible classes are invited to the Runoffs.*

*1. A Runoffs-eligible class with a minimum of 10 qualified drivers entered who have participated in at least one on track session at the current year's Runoffs will name a National Champion.*

*2. A Runoffs-eligible class with fewer than 10 qualified drivers entered who have participated in at least one on track session at the current year's Runoffs will name a National Champion but subsequently be on probation for the following year's Runoffs. Should a class on probation at the Runoffs fail to have a minimum of 10 qualified drivers enter and participate in at least one on-track session the year it is on probation, that class may run as a supplemental class but will not name a National Champion.*

*3. Classes may be combined as needed to limit the number of race groups with a preference for combining no more than 2 classes for any race.*

# 4. PARTICIPANT LICENSING, EVENT CREDENTIALS, & ENTRIES

## 4.1. SCCA RESERVATION OF RIGHTS

SCCA is a private, not for profit organization, and it reserves the right to deny any license, or to revoke any previously issued license, for any reason or no reason, except that SCCA will not deny or revoke a license solely on the basis of race, creed, color, sex, or national origin.

## 4.2. SUBMITTING TO THE GCR

Anyone who applies for an SCCA license expressly agrees, and will acknowledge the following in writing if requested:

A. Familiarity with the GCR;

B. Agreement without reservations to any consequences of *not* complying with the GCR;

C. Renunciation of any right to recourse, except with the written consent of the SCCA, to any arbitrator or tribunal not provided for in the GCR.

## 4.3. PARTICIPANT LICENSES

### 4.3.1. SCCA Licenses

SCCA issues Competition and Officials' Licenses based on qualifications and experience. Information and procedures about Competition and Official's licensing and grades are found in Appendix C. Any individual may be a Crew member. Crew must be SCCA members to gain access to the pit lane and other hazardous areas. (See 4.5.3.)

### 4.3.2. SCCA Membership

SCCA licenses are issued only to SCCA members in good standing. The types of membership are found in the SCCA Operations Manual.

### 4.3.3. Expiring License and Membership

All licenses show the month and year of expiration, which coincides with the individual's SCCA membership anniversary date. Any participant who is properly registered for an event may participate for its duration even if his membership and license expire while the event is in progress.

### 4.3.4. Possessing a Membership and License

A participant registered for an event must have his current membership and license in his possession. His license must be the proper level for the type of event and activity. All entrants must be members of the SCCA and they are subject to all provisions of the GCR. (Refer to 7.2.I.)

### 4.3.5. Presenting a License

When requested, any official, driver, entrant (if Entrant Licenses are required), or crew must show his license to an official.

### 4.3.6. Required Membership and License

Only licensed members may be in hazardous areas. Non-members may only be where the hazards do not exceed those to the general public. The exception is that employees of services hired by the organizer or the track who enter restricted areas to fulfill their job responsibilities (such as ambulance, wrecker, and fire crews) are not required, but are recommended, to be SCCA members. For the purpose of determining a hazardous area, the definition "outside the protection of a positive barrier" is used.

## 4.4. RACE EVENT ENTRIES

An entry submitted and accepted according to the GCR and event Supplemental Regulations is an agreement to participate in that event. Provided the entrant or driver has made every effort to participate, the organizers will adhere to their published refund policy. Failure by any party to adhere to the entry agreement may be treated as a breach of the GCR.

### 4.4.1. Entering an Event

An entry is considered official and a competitor is considered entered in an event under the following conditions:

A. The competitor is in good standing and his competition privileges have not been suspended.

B. An official event Entry Form has been completed, signed (or if an electronic entry, the approved Club Racing consent box is checked), submitted to and received by the organizers.

C. The entry fee has been submitted to and received by the organizers.

D. All monies due the SCCA have been submitted and paid.

### 4.4.2. Entering Multiple Classes

An entrant or driver who enters more than one class under a single sanction number must submit separate entry forms and fees for each class.

### 4.4.3. Withdrawing an Entry

If an entry is withdrawn prior to the entry deadline, there is no penalty, and the organizers will return the entry

fee. If the entry is withdrawn after the entry deadline, the organizers may return all or part of the entry fee. An entrant or driver may be found in violation of the GCR if he is officially entered in one event but participates in a different competition held on the same day.

**4.4.4. Falsifying an Entry**
An entry containing a false or incorrect statement may be determined null and void by the SOM or other reviewing group. The entrant or driver may be found in violation of the GCR, the entry fee may be forfeited, and additional penalties imposed.

**4.4.5. Racing Under an Assumed Name**
Unless the Club Racing Department authorizes a driver to use an assumed name, he must sign all official documents with his legal name for all events requiring an SCCA Competition License.

**4.4.6. Refusing an Entry**
Even if an entry meets all the requirements outlined in 4.4.1., above, the organizers have the right to refuse an entry without giving a reason. If an entry is refused, notification must be sent to the entrant or driver at the address on the Entry Form as soon as possible, and normally at least 5 days before the event.

## 4.5. EVENT CREDENTIALS

**4.5.1. Waivers**
Anyone participating in an event must sign the SCCA Release and Waiver of Liability Agreement before an event credential (pass) will be issued.

**4.5.2. Photo ID**

A. An SCCA-issued photo ID is required for any registered event participant who is an SCCA licensed member.

B. The member's name, current photograph, SCCA membership number, and credential for the event must be clearly visible.

C. Accepted photo IDs are those issued by the SCCA National Office, the Club Racing Department, the SCCA Pro Racing Department, or an SCCA Region. Any of these must be honored by any SCCA Region.

D. Identification cards from any other organization, including civil authorities, will not be accepted.

E. A non-member or weekend member will be issued a paper pass or a wristband rather than a photo ID.

**4.5.3. Hazardous Area Credentials**
SCCA members who are licensed and who are 18 and older may be issued credentials allowing them access to hazardous areas.

SCCA members 14 to 18 years old may be issued credentials allowing them access to hazardous areas only if they possess a Minor License issued by the SCCA National Office. (See AppC.1.4., AppC.2.5., AppC.3.2.) Otherwise, they may not enter any area where the hazards exceed those of the general public.

**4.5.4. Non-hazardous Area Credentials**
Non-member participants may be issued credentials which do not allow them access to hazardous areas.

Guests of the organizer or spectators may be issued credentials or tickets which do not allow them access to hazardous areas.

**NOTES:**

# 5. OFFICIALS, THEIR DUTIES, OPERATING PROCEDURES, AND EQUIPMENT

## 5.1. PRINCIPAL OFFICIALS

The principal officials, who direct the event, may include the following:

Race Chairman

Chief Course Marshal

Chief of Emergency Services

Chief of Flagging

Chief of Communications

Chief Registrar

Chief of Sound Control

Chief Starter

Chief Technical Inspector

Chief of Timing and Scoring

Chief Observer

Chief of Pit

Chief of Grid

Chief of Race Administration

Judges

Stewards of the Meeting (SOM)

U.S. Majors Race Director

Chief Steward

Assistant Chief Steward–Safety (ACS – Safety)

Except for the SOM, these officials may have assistants to whom any of their duties may be delegated.

### 5.1.1. Required Stewards

At a minimum, there shall be a Race Director or Chief Steward, an ACS – Safety, and at least 2 SOM (including a Chairman and one other licensed steward in addition to any Stewards-in-Training).

### 5.1.2. Appointment

#### A. Runoffs

The SCCA will appoint all Runoffs officials.

#### B. U. S. Majors Tour

The SCCA will appoint for each *Super Tour*, a Series Administrator, and, upon consultation with the Chairman of the Stewards Program, a Race Director and a Series Chief Tech Inspector. All other event stewards shall be appointed by the Executive Steward for the event's Division, with input from the Race Director. The organizer conducting the event appoints all other officials, subject to approval by the Executive Steward. U.S. Majors Tour Race Director and the Chief Steward at each event in their *Super Tour*. *At U.S. Majors Tour events, where there is a Race Director and a Chief Steward, the Race Director has final authority over the event. The Race Director must still adhere to the responsibilities stated in 3.1.1.D.2 and 5.12.2.*

#### C. SCCA Regional Events

The Division's Executive Steward appoints all event Stewards. The organizer conducting the event appoints all other officials, subject to approval by the Executive Steward.

### 5.1.3. Minimum Grades of Licenses

For the following events, these minimum licenses are mandatory:

| Stewards | U. S. Majors Tour | Regional | Drivers' School |
|---|---|---|---|
| Chief | National* | Divisional | National |
| Chairman of the SOM | National | Divisional | Divisional |

*Appointed by SCCA upon consultation with the Chairman of the Steward's program

| Chiefs of Specialty | U. S. Majors Tour | Regional | Drivers' School |
|---|---|---|---|
| Emergency Services | National | Divisional | National |
| Flagging and Comm | National | Divisional | National |
| Grid Marshal | National | Divisional | National |
| Pit Marshal | National | Divisional | National |
| Registrar | National | Divisional | National |
| Starter | National | Divisional | National |
| Technical Inspector | National | Divisional | National |
| Timing and Scoring | National | Divisional | Divisional |
| Sound Control | Divisional | Divisional | Divisional |

**5.1.4. Right to Oversight**
The SCCA reserves the right to designate a qualified person to evaluate any competition.

**5.1.5. Plurality of Duties**
Except for the Race Director, the Chief Steward and the Chairman SOM, the same person may hold more than one official position at an event.

**5.1.6. Separation of Duties**
An official may not perform duties not clearly attached to his appointment(s).

**5.2. RACE CHAIRMAN**
**5.2.1 U. S. Majors Tour Event Chairman Responsibilities**
The Race Chairman organizes the event in conjunction with the Conference Series Administrator in accordance with the event agreement between SCCA and the organizing region.

**5.2.2. Regional Event Race Chairman Responsibilities**
The Race Chairman organizes an event. Specifically, he will:

A. With the promoters, organizers, and the Chief Steward determine the schedule (including all activities during the event) and draft the Supplemental Regulations.

B. See that all Entry Forms are distributed.

C. Arrange for insurance conforming to SCCA requirements, and for a copy of the Insurance Certificate to be presented to the Chief Steward, the Chairman SOM, the ACS – Safety, and the track before the beginning of the event.

D. Arrange for trophies and their proper distribution.

E. Arrange for the use of the course and all necessary facilities.

F. See that qualified officials are appointed.

G. Work with each Chief of Specialty to assure that they have the proper equipment and facilities.

**5.3. COURSE MARSHAL**
The Course Chief prepares and maintains the course and performs other related duties assigned to him by the ACS – Safety and the Chief of Emergency Services (Chief of ES) in conjunction with the Race Directoror Chief Steward.

**5.4. EMERGENCY SERVICES – MEDICAL AND FIRE SAFETY**
The Chief of ES, in conjunction with the Race Chairman and ACS – Safety, staffs and equips the event for medical and fire safety.

**5.4.1. Purpose**

A. To establish equipment and personnel needed to affect a workable medical, fire, and safety plan. Detailed plans need to be based on the specific conditions at the event facility and local, state or federal protocols and regulations.

B. The Chief of ES shall be familiar with local, state, and federal regulations for accident and medical emergencies. At tracks where SCCA volunteer medical personnel cannot perform medical duties, the Chief of ES and the ACS – Safety will be responsible to ensure that proper medical equipment is available, and that proper medical procedures are being followed.

C. A copy of the medical and fire safety plan for each track must be submitted by the Divisional Executive Steward to the National Office.

### 5.4.2. Personnel

#### A. Medical

The following apply:

1. There will be a Chief Medical Official who is either: 1) Physician, MD or DO, preferably with an EMS background and licensed to practice in at least one (1) state or, 2) Paramedic or equivalent (advanced life support technician) with an active license or certification for the state in which they are operating, or, 3) PA (Physicians Assistant) or APN (Advanced Practice Nurse) trained and experienced in EMS and emergency medicine with an active license. The Chief Medical Official may be a person contracted with the track, and not an SCCA member, but he must coordinate with the Chief of ES.
2. There should be a second licensed medical person (EMT, paramedic, physician's assistant, registered nurse, etc) to assist the Chief Medical Official(s).
3. Medical personnel report to the event Chief Medical Official.
4. Medical units should be stationed so that the maximum time for a first medical response is no more than 2 minutes.

#### B. Fire Fighters

1. At least 2 persons who are trained to use the equipment should be assigned to each fire truck. A minimum of 2 persons should be assigned to each fire truck.
2. Fire fighters report to the Chief of ES. If no Chief is assigned, then to the ACS – Safety.

#### C. Wrecker Operator(s)

1. At least 1 person who is trained to use the equipment will be assigned to a wrecker.
2. Wrecker personnel report to the Chief of ES. If no Chief is assigned, then to the ACS – Safety.

### 5.4.3. Required Equipment

#### A. Ambulances

1. During any competition, there shall be at least 1 ambulance at the track which meets all Advanced Life Support requirements for the jurisdiction in which the event takes place (where "jurisdiction" means the governing body, such as a township, city, or county). A Basic Life Support ambulance is acceptable only if the track medical facility is equipped and staffed for Advanced Life Support.
2. Arrangements for transportation from the track by EMS service should be in the medical operations protocol.

#### B. Fire Truck

At least 1 fire truck shall be equipped to fight automobile fires. This vehicle should be stationed so that maximum response time is 2 minutes at a speed not to exceed 50 mph.

#### C. Wrecker

At least 1 wrecker must be capable of lifting any race car in the event. The wrecker may also serve as a fire truck if it is properly equipped and staffed.

#### D. Telephone

A telephone or radio in the tower or medical duty station must be able to contact community emergency services and hospitals.

#### E. Other Equipment

1. If a power compound rescue tool and trained operator is on call and available within 10 minutes, it does not have to be located at the event site.
2. Comparable equipment may be substituted with the advance approval of the Divisional Executive Steward.

### 5.4.4. Operating Rules

#### A. Emergency Plan

The Chief of ES and the ACS – Safety will verify that a written emergency plan has been distributed to all emergency and supervisory personnel before the event begins.

#### B. Briefing

All emergency service personnel should be briefed to review duties, duty stations, equipment, race circuit characteristics, vehicle, and other protocols.

#### C. Dispatching

Dispatching emergency vehicles onto the track must be authorized by the Race Director or Chief Steward, according to procedures agreed on in advance by the Chief Steward, Chief(s) of Flagging and Communica-

tions, Chief of ES, and ACS – Safety.

**D. Hospital Arrangements**

1. The Race Chairman and Chief Medical Official establish a primary route to the primary and secondary hospital prior to an event, and advise the vehicle drivers.
2. In advance of the event, the Chief Medical Official must confirm that adequate hospital staff and facilities are available, along with the protocols to be followed, and notify the Chief of ES.

**E. Identification of Personnel**

Emergency services personnel should be readily identifiable by some means other than the usual passes (e.g., vest, arm bands, jackets).

**F. Start of Race**

All emergency vehicles shall be staffed with engines running for the first lap of each race.

**G. Suspension of Racing**

Racing must be suspended if the personnel specified in 5.4.2. or the equipment specified in 5.4.3.A. - C. are no longer on the premises or are unable to perform their assigned duties, or if communications with emergency vehicles are interrupted.

**H. Counter-Race Direction Towing**

Specific approval of the Race Director or Chief Steward is required to tow a car in counter-race direction at any time or under any condition during an event. Violating this rule may result in penalties as specified in Section 7.

## 5.5. FLAGGING AND COMMUNICATIONS

### 5.5.1. Chief of Flagging and Communications

The Flagging and Communications Chief establishes and administers the Flagging and Communications organization; he recruits, trains, and assigns qualified individuals within the specialty. There may be separate Chiefs for Flagging and for Communications.

### 5.5.2. General Organization

The purpose of Flagging and Communications is to provide course control by:

A. Informing the drivers, through flags, lights, or other signals, of the conditions of the course, the condition of their cars, or of any unusual conditions affecting the running of the event;

B. Establishing and operating a communications system which includes all corner stations and race control, where all communications affecting the control of the event are conducted. Race control maintains direct communications with the Race Director or Chief Steward. Racing must be suspended if communications between race control and the corner stations or between race control and the Race Director or Chief Steward is interrupted;

C. Informing the Race Director or Chief Steward and other officials, through the communication network, of the condition of the course and the competing cars, and of any situation requiring decisions and/or action by the officials;

D. Relaying information and instructions from the Race Director or Chief Steward to the emergency vehicles and equipment around the course as well as to the race drivers and corner workers;

E. Acting to protect the lives and property of drivers, workers, or spectators in the event of an incident;

F. Maintaining a clear course;

G. Keeping the required log of all communications on the race network by a person located in the immediate vicinity of the Operating Steward.

### 5.5.3. Corner Stations

**A. Number**

The number, location, and staffing of corner stations must assure that the entire course is can be seen at all times and that areas of the course not immediately visible to oncoming race cars are covered.

**B. Location**

Corner stations will be located according to the following criteria:

- the corner personnel have a clear view of the area to be covered
- the oncoming drivers have maximum visibility of the flags and corner personnel
- corner crew have maximum protection from out of control automobiles

The yellow flag must be displayed when a corner worker or other personnel move to a less protected or unprotected area.

**C. Personnel**

Corner stations should be staffed with at least 4 people: a flagger, a communicator, a safety response, and a corner captain in charge of the station. If necessary, stations may be staffed with a minimum of 2 people.

At least 20 percent of the Flagging and Communications personnel should have experience in fighting actual or simulated vehicle fires.

**D. Equipment**

Along with communications hardware, each corner station will be equipped with sufficient flags and fire extinguishers so that they may respond adequately to any situation.

## 5.6. REGISTRATION

The Chief Registrar establishes and administers the Registration organization and systems; he recruits, trains, and assigns qualified individuals within the specialty.

The Chief Registrar accepts, certifies, and processes all entries and issues credentials for drivers, crew, and Officials and posts all required signs/placards in the registration area.

Registration provides all entry information to Timing and Scoring in the format requested by T&S. Information from late entries must be given to T&S promptly. Registration assigns the car numbers for all cars entered in the event. See section 9.3. Identification Markings.

Registration provides entry information to the Stewards as requested.

## 5.7. SOUND CONTROL

### 5.7.1. Sound Control Chief

The Sound Control Chief shall be responsible for monitoring and reporting sound levels of all racing vehicles at sound-controlled events in accordance with the GCR. Specifically, he shall:

A. Ensure that the sound monitoring equipment is located at an official certified site.

B. Ensure that readings shall be made in accordance with the GCR.

C Advise race control as soon as possible of any sound readings above the track limit.

D. Submit post-race reports to the Chairman of the SOM.

E. Monitor weather and ambient conditions throughout the day.

F. Perform field calibration of the equipment in accordance with the GCR.

G. Ensure that yearly certification of the equipment (meter, cables, microphone, and field calibrator) has been performed by the manufacturer or a certified laboratory.

### 5.7.2. General Procedures and Requirements

Competitors carry sole responsibility to determine that their vehicles comply with Sound Control Regulations at each event.

Sound Control may be in effect for all events, as approved by the Division Executive Steward. If Sound Control is in effect at an event, all cars will be monitored and readings will be posted for competitors' information. A driver registering a single sound level reading over the maximum for the event shall not be black flagged. If a driver is black flagged due to sound, the car shall not re-enter the course until corrective steps are taken.

### 5.7.3. Standards

A sound level instrument (meter) that meets American National Standards Institute (ANSI) S1.4-1983 Class 2 or better shall be used. The primary maximum for SCCA Sound Control shall be a sound pressure level of 103dB "A" frequency weighted (dBA) measured on the fast response setting at 50 feet (+/- 2 feet) from the edge of the track pavement, and/or artificial markers indicating track edge. Other maximum levels may be imposed at specific venues or events. These alternate levels shall be noted in the Supplemental Regulations. All sound readings shall be truncated to the lower whole number. (Anything after the decimal point is ignored.)

Proper location and use of all test instrumentation is essential to obtain valid measurements.

A. Acoustic calibration procedures should include extension cable influence.

B. Field calibration shall be done at least every 4 hours while in the operating mode.

C. The microphone shall be 3.5 feet (minimum) above the ground surface, 2.0 feet (minimum) above the level of the roadway, no more than 6 feet above the level of the roadway. Whenever possible, it is recommended (but not mandatory) that the microphone shall be located on the outside of the track between the race car and the outside perimeter of the racing facility, aimed into infield areas.

D. Weather conditions should be recorded every hour when conditions are unstable, or otherwise every 2 hours.

## 5.8. START

### 5.8.1. Chief Starter

The Chief Starter directs and manages the officials in the specialty, ensuring that directions given to competing drivers by flag, hand, and body signals are done so as prescribed by the GCR with respect to starting, suspending, and ending a race.

### 5.8.2. Responsibility

The Starter operates directly under, carries out the orders of, and is responsible solely to the Race Director or Chief Steward.

**5.8.3. Function**
The Starter controls the competing drivers by conveying to them the orders of the Race Director or Chief Steward.

**5.8.4. Location**
The Starter shall be stationed in a position that will provide maximum visibility to the competing drivers. The Starter shall have immediate communication with the Race Director or Chief Steward.

**5.8.5. Equipment**
The Starter must be equipped with a complete set of flags required by the GCR.

## 5.9. TECHNICAL AND SAFETY INSPECTION

### 5.9.1. Series Chief Tech Inspector and Chief Technical Inspector

The Series Chief Tech Inspector or the Chief Technical Inspector assures that cars comply with the GCR and Supplemental Regulations. Specifically, he:

A. Approves cars that comply with all safety regulations.

B. Inspects cars at the request of the Race Director or the Chief Steward and recommends inspecting cars to the Race Director or the Chief Steward.

C. Reports cars that do not comply with the GCR to the Race Director or the Chief Steward.

The Series Chief Tech Inspector or the Chief Technical Inspector approves every car before it competes, according to procedures defined in Sections 5.9.2 and 9. A driver or entrant whose car is not approved and who subsequently competes or who presents it for recheck without the corrections specified may be penalized as provided in Section 7.

### 5.9.2. Inspecting Automobiles

**A. Annual Inspection**

A car must have full and complete Annual Technical Inspection by a tech inspector holding either a Divisional, National or Senior license once a year (12 months). If the car passes the inspection, the tech inspector enters the date of the safety harness expiration in the Vehicle Logbook; he then stamps, decals, or inscribes approval; dates and signs the Vehicle Logbook. The driver's safety equipment does not have to be inspected at the same time the car is inspected, but it must be inspected by or at the driver's first race of each calendar year. An Annual Tech expiring on a race weekend is valid for the full weekend. (See 9.3. Driver's Safety Equipment )

**B. Minimum Event Safety Inspection/Logbook-Tech Sticker**

Following the Annual Technical Inspection, minimum inspection for each event requires reviewing of the current Vehicle Logbook and signing off the logbook page for the event. If it is in order, a Tech sticker is issued. The Series Chief Tech Inspector or the Chief of Tech may delegate signing the logbook page and issuing the Tech sticker to any worker holding a current Regional Tech license or above. The driver's safety equipment does not need to be reinspected.

All cars must display a Tech Sticker signifying successful completion of technical inspection to enter the course. Technical inspection assists event officials in determining, in their judgment, eligibility to participate in a SCCA sanctioned event. The technical inspection does not ensure, certify, or warrant that the vehicle or any part of it is safe or totally and ultimately compliant with all applicable rules nor does it in any way change the fact that the driver, crew members, and vehicle's owner are ultimately responsible for the safety and operation of the vehicle and equipment. By conducting a technical inspection, SCCA and each of its directors, officers, employees, and officials, make no representations, warranties, or assurances that a technical inspection, including the review of any written information, will do any or all of the following:

- Detect every or any problem with a vehicle or a driver's personal equipment or clothing; or
- Detect every problem with rule compliance; or
- Prevent bodily injury, death, or personal monetary damage.

The participant agrees that he bears the ultimate responsibility at all times to ensure the safety of his vehicle and equipment, and compliance with all SCCA rules, regulations, and agreements, including but not limited to those contained in the GCR. In addition, in the case of technical violations, he acknowledges, understands, and agrees that he is responsible to fully know every component of his vehicle and that even if a third party (for example, an engine builder) has caused his vehicle to be noncompliant, he will still be responsible for and will be charged with any applicable violation and penalty.

**C. Re-inspection**

A car must be re-inspected if damage or deficiencies from the car's previous event(s) are noted in the Vehicle Logbook or if the car changes category.

Inspection above the minimum level (see 5.9.2.B.) may be performed when:

- For vehicles as specified in Supplemental Regulations; or
- At the request of the Race Director or the Chief Steward.

Throughout the racing season, the Tech crew is encouraged to perform regular re-inspections through walk around observation in the pits and paddock, or through special impounds by group or class with the concurrence of the Race Director or the Chief Steward.

**D. Alterations or Damage After Inspection**

Cars which have been altered or damaged after they have been approved at event Tech Inspection are subject to re-inspection and re-approval.

### 5.9.3. Impound

**A. Post Race Impound**

Post-race impound is mandatory at all U.S. Majors Tour races as defined in the event-specific supplemental regulations and at the Runoffs; it is recommended at all other events.

**B. Impound Safety**

There should be at least 1 nominal 10 pound dry chemical agent capacity, minimum UL 60 BC or ABC rated, CO2 or equivalent Halon fire extinguisher present in the impound area.

**C. Minimum Impound Inspection**

Unless otherwise specified in the Supplemental Regulations, the first 3 finishers in each class shall be immediately impounded for a minimum of 30 minutes after their race is completed. The Race Director or the Chief Steward may direct that additional finishers in any class may likewise be impounded. It is the driver's responsibility to know his finishing position and present his car to impound immediately, without going to the paddock. Failure to do so promptly will be reported to the Race Director or Chief Steward, and may result in penalty.

For each impounded car, the weight and other items appropriate for the class *may* be inspected, as agreed upon by the Race Director or Chief Steward and the Series Chief Tech inspector or Chief Technical Inspector. The Race Director or Chief Steward may also order that a wheel or intake choke(s) or restrictors be removed during impound for inspection. These inspections are not subject to the fees outlined in 5.12.3.C.5. Additional inspections may be conducted through the protest procedures outlined in 8.3.3.

If there is any doubt about the weight, the car must be weighed in both directions. A car that is underweight in impound will be reported to the Race Director or Chief Steward, is subject to penalty, and the weight will be noted on the next page of the Vehicle Logbook. The car must be weighed at the next event and must meet the proper minimum weight before being allowed to qualify.

The Series Chief Tech Inspector or Chief Technical Inspector will report any questions or doubts about a car's compliance to the Race Director or Chief Steward.

### 5.9.4. Official Scales

A. The scales at the event are the official scales for the event. The Supplemental Regulations will include the hours scales will be available for drivers to weigh their cars.

B. The following scale configurations are acceptable:

- platform scales,
- individual scales that weigh 1 axle (2 wheels) at a time, or
- 4 individual scale pads that each weigh a single wheel.

If all 4 wheels cannot be weighed simultaneously, the driver must be weighed separately from the car.

C. Certification

Scales must be certified, as follows:

1. On-site certification by a commercial scale service within one calendar year prior to the event, OR
2. Use at the track of calibration weights, totaling 100 pounds up to 250 pounds total as recommended by the scale manufacturer, or minimum 250 pounds total if no recommendation is provided by the scale manufacturer for individual wheel scales; minimum 750 pounds total for platform scales. Where applicable, the calibration recommendation by the scale manufacturer (e.g., a manual or letter from the manufacturer) must be available at all times during an event where the scales are in use.

## 5.10. TIMING AND SCORING

### 5.10.1. Chief of Timing and Scoring

The Chief of Timing and Scoring (Chief of T&S) is responsible for accurately timing and scoring the event, specifically:

A. Recruiting, training, assigning, and supervising qualified personnel to time and score the event.

B. Providing the Race Director or the Chief Steward and the SOM any times and results they request.

C. Maintaining records of official times and lap charts for all competing cars.

D. Compiling and publishing the Official Results of all competitions. By the end of the weekend's on-track activities, results must be available for all competitors and officials. These may be Provisional Results, particularly if there are pending pro-tests or actions. (See also 5.10.4.) Results will be submitted to the Race Chairman, the SOM, the organizers, the U.S. Majors Tour and Divisional Pointskeeper(s), and the SCCA. Uploading each session to MyLaps is strongly encouraged. Complete Official Results for a U.S. Majors Tour race must be submitted within 2 days of the end of the event; results for a Regional race must be submitted within 5 days of the event. Every effort should be made to have Official Results ready to distribute by the end of the weekend.

E. At spectator events, working closely with the Press Officers, press, and other media, as well as with circuit, radio, and/or television announcers, providing qualifying information, results, and any other data requested, as quickly as possible.

F. Titles are used in this section in a functional sense. The Chief of T&S may delegate any task to any member of the Timing and Scoring staff as appropriate.

G. Live timing is required for all U.S. Majors Tour events. Set-up assistance is available through the U.S. Majors Series Administrator.

**5.10.2. Approved Systems**

Transponder/transmitter systems used in SCCA Club Racing shall be manufactured by AMB or be compatible with AMB systems. Those other transponder/transmitter systems which are currently in use may continue to be used, but shall not be the primary systems for any US Majors Tour race.

**5.10.3. Timing and Scoring Systems**

A. The use of two Timing and Scoring systems is required for SCCA U.S. Majors Tour races and is recommended for Regional races and Drivers' Schools.

B. Any Timing and Scoring system used for a U.S. Majors Tour or Regional race should enable the T&S staff to produce the following information: a set of grids for each race group, a set of time cards for each car from qualifying and the race, continuity tapes, independently prepared lap charts, provisional results, and final results. For Drivers' Schools, the T&S system should enable the T&S staff to produce the time on track for each session and comprehensive time for all sessions for each student, if requested by the Chief Instructor.

C. Should there be insufficient staff to run two separate systems as described, the Chief of T&S should notify the Race Director or Chief Steward. The Race Director or Chief Steward may decide to waive the two-system requirement, allowing the Chief of T&S to use the staff in the most productive manner possible. In this case, the primary function during qualifying is to establish grid positions. During a race, the emphasis should be on scoring the race and recording any timing-related race information that is possible with the available staff. Timing of class leaders during races is recommended to provide the information described in Section 5.10.4.B.3. No protests concerning the Timing and Scoring requirements will be accepted.

**5.10.4. Results**

**A. Provisional Results**

A lap chart or a printout showing the order of finish and number of laps completed for each car shall be posted and titled as Provisional Results. The time of posting will be on the Provisional Results with the Chief of T&S's initials or signature, and a public address announcement will be made. **When there is a pending action for a particular race group, Provisional Results for that group may be distributed to officials and competitors in lieu of Official Results, with a notation printed stating the reason (i.e., pending outcome of action involving X class).**

**B. Official Results**

1. At the expiration of the protest period (30 minutes or the time stated in the Supplemental Regulations), Provisional Results may be considered final if Tech has cleared impound and the Race Director or Chief Steward and/or SOM have no pending actions. The Final Results should be titled as Final or Official Results and shall include the following types of information: description of event, timing and scoring information, and driver information.

2. Official Results will be produced and distributed for a group with pending actions when the Race Director or Chief Steward or Chairman SOM notifies the Chief of T&S that all actions and appeals are complete. The Chief Steward or Chairman SOM will inform the T&S Chief of any penalties when the group is declared final. The T&S Chief will distribute Final Results to the Race Chairman, the race organizers, the Chairman SOM, the SCCA, and the appropriate Pointskeeper.

3. The timing and scoring information shall include: total number of entries, DNS's, the overall and class finishing positions for all starters, the number of laps completed for all starters, the overall time of the race, the winner's margin of victory, the winner's average speed, the fastest lap time for all starters and any new course records.

A starter is defined in Section 6.10.2. A DNS is defined as any car that turned a wheel on the track during practice or qualifying, but did not start the race. See 6.10.2.

4. The driver information shall include: driver's full name, hometown, state, region of record, membership number, car number, car make and model, and sponsor information.
5. Optional information on the Final Results might include: the overall time and average speed for each class winner, pit stop information, and accident reports. This information may be available on a separate document, such as an Entry List.
6. When a car is given a lap, time, or finishing position penalty, the reason should be shown on the Final Results, including the GCR reference.
7. When a car is disqualified, or withdrawn, the results should list the car at the bottom of the finishing order, showing the true finishing order as affected by the disqualification, or withdrawal. The results should show the final overall and class positions, as adjusted, for all finishers. The reason for the disqualification should be shown on the Official Results, including the GCR reference.
8. A driver not competing for event/series awards will be listed on the final results in the correct finishing position with a notation citing 3.6.4. No points will be assigned, if any would have been earned. An earned lap record remains intact.

**5.10.5. Media**
It is strongly recommended that at spectator events the Chief Timer and Scorer meet with the Course and Regional Press Officers in order to establish close cooperation with the announcer and all media, and to arrange for fast transmission of unofficial and official Timing and Scoring information to these people.

It is always preferable that the Circuit announcer and any radio and television announcers receive information relating to Timing and Scoring from members of the Official Timing and Scoring personnel, via the Circuit or Regional Press Officer.

## 5.11. ADDITIONAL OFFICIALS

**5.11.1. Driver Observer**
A Driver Observer is an optional official who occupies a post along the course assigned by the Race Director or Chief Steward, or by the Chief Observer, if there is one. Driver Observers are controlled by the Race Director or Chief Steward and they report all incidents which occur in their assigned section of the course to the Chief Steward.

**5.11.2. Press Officer**
A Press Officer is an optional official who advises other Officials on press information and who acts as liaison with the promoter's press director, if any. Chief Officials and SOM cooperate with the Press Officer in carrying out his responsibility to advise the press on matters of public interest.

**5.11.3. Judges**
Judges are optional officials who may perform one or more of following duties:

A. Starting Judges report to the Race Director or Chief Steward any false starts immediately after they occur. Finishing Judges declare the order in which cars cross the finish line. Judges of the Fact decide whether a car has touched or passed a given line or rule on other facts of the same type provided in the Supplemental Regulations.

B. A Judge's determination may not be protested.

C. A Judge may correct his determination with the approval of the SOM.

**5.11.4. Compliance**

A. Compliance Staff- Members of the compliance staff are assigned by the head of Club Racing and designated subject matter experts for particular classes or categories. As part of the technical inspection team, their sole responsibility is to advise the Chief Technical Inspector of cars not in compliance with the GCR and/or the Supplemental Regulations for the event.

B. Class Compliance Chief (CCC) - A member of the compliance staff may be specifically designated by the head of Club Racing as the CCC for a class. The CCC will work under the guidance of the Race Director or Chief Steward and with the event technical staff to provide consistent compliance checking across all events for the designated class. The CCC will report any findings of vehicles not complying with the GCR to the Race Director or Chief Steward for potential Chief Steward's Action (CSA) or Request for Action (RFA). Findings of the CCC regarding compliance items specific to that class are non-protestable. Decisions made by and/or penalties assessed by the Race Director, Chief Steward or Stewards of the Meeting (SOM) may be subject to protest or appeal.

**5.11.5. Race Data Technicians**
Data Technicians are optional Officials whose duties include:

A. Being responsible for placing, operating and removing SCCA supplied data boxes on cars at all Club races.

B. Analysis of data retrieved from all sources, including dyno runs, at-race data boxes and data provided by individual racers.

C. Prepare reports to the applicable Advisory Committees, and to the CRB, with recommendations for competition adjustments.

## 5.12. STEWARDS

### 5.12.1. Stewards of the Meeting (SOM)

The SOM are responsible only to SCCA, and they enforce compliance with the GCR and Supplemental Regulations. They act primarily in a judicial capacity, and therefore shall not incur any responsibility for the organization or execution of an event.

**A. Powers of the SOM**

1. Settle any dispute within the administrative functions, or protest arising from an event, subject to the rights of appeal provided by the GCR.
2. Hear and act on Requests for Action from the Race Director or Chief Steward. (See Section 8.1.2.)
3. Impose any penalty permitted by the GCR and Supplemental Regulations. (See Section 7.)
4. Appoint substitutes to replace any Stewards or Officials not able to perform their duties. This power shall be used by the remaining Steward or Stewards to ensure that there are always at least 2 SOM.
5. Modify the Supplemental Regulations. (See 3.4.2.)
6. Alter the schedule.
7. Modify the position of the starting or finishing lines where necessary to ensure the safety of drivers and spectators.
8. Amend the results of a competition:
   a. Based on a correction or error by the Chief of T&S.
   b. To take into account a time, distance, or lap penalty against a competitor.
   c. To change the sequence of finishing positions in case a competitor is disqualified.
9. Postpone a competition for reasons of safety or forces beyond their control.

**B. Chairman of the SOM**

One of the SOM shall be appointed Chairman of the SOM for the event. He may not be a member of the organizing Region at U.S. Majors Tour events, and should not be for Regionals and/or Drivers' Schools.

**1. Observer's Reports**

As soon as practical after the conclusion of an event (not later than 10 days), the Chairman of the SOM shall forward to the Club Racing Department an Observer's Report that includes:

a. Details of all protests,
b. Actions taken,
c. Penalties imposed (including reprimands and suspensions to be noted in driver's file),
d. Notice(s) of intention to appeal and appeals, including appeal fee(s),
e. Fine(s) collected,
f. Full details of any incidents,
g. Official results of all competitions,
h. General comments and recommendations of the SOM on the organization and conduct of the event.

**2. Notice of Probation**

The name(s) of anyone placed on probation must be faxed or emailed to the Club Racing Department on Monday following the event. Required information includes the name, member number, event date/location, and the name of the Chairman SOM. The confiscated license(s) and tear-off coupon(s) from the Probation Letter(s) must be sent with the Observer's Report.

**3. Notice of Suspension**

The name(s) of anyone whose competition privileges were suspended must be faxed or emailed to the Club Racing Department on Monday following the event. Required information includes the name, member number, event date/location, and the name of the Chairman SOM. The appropriate paperwork and suspended license must be sent with the Observer's Report.

**5.12.2 U.S. Majors Tour** Race Director
In addition to the Chief Steward's responsibilities and duties detailed in 5.12.3, the US Majors Tour Race Director has the power to change the Schedule and/or Race Groups, in agreement with the organizing Region, to correct any typographical or clerical errors or omissions (see 3.1.1.D.2.c and 3.1.1.D.2.d), or place a driver on probation per 7.2.G. For all other changes to the Supplemental Regulations, the Race Director must file a Request for Action with the SOM.

**5.12.3. Chief Steward**
The Chief Steward is the executive responsible for the general conduct of the event under the GCR and the Supplemental Regulations. He has the powers and the duties set out in this Section, and he may delegate any duties to Assistant Chiefs. See Appendix D, Duties, Authorities, and Responsibilities of the Chief Steward, for specific powers of the Chief Steward.

**A. Execution of the Event**

The Chief Steward shall:

1. Execute the program of competitions and other activities safely by controlling drivers, their cars, the Officials, and workers from the commencement of activities until the time for protests from the last competition has expired.
2. Determine whether Officials are at their posts and report any absences to the SOM.
3. Ensure that all Officials and workers are provided with necessary information.
4. Collect all reports and other official information to determine the results.
5. Provide any information required to enable the Chairman SOM to prepare the Observer's Report.
6. Authorize a change of driver or car.
7. Forward to the SOM any Chief Steward proposed modifications the schedule of competitions for approval.
8. Prevent an ineligible driver from competing.

**B. Maintenance of Order**

The Chief Steward:

1. Shall keep order in conjunction with public safety authorities who are policing the event.
2. May exclude from the event any entrant, driver, crew, official, worker, or SCCA member who is guilty of misbehavior.
3. May exclude from participating any worker or official who is ineligible for the position to which he is assigned or who the Chief Steward determines is incapable of carrying out his duties.
4. May order any person who refuses to obey the order of any responsible Official or of a public safety officer removed from the premises.
5. May prohibit any driver or car considered dangerous from competing.
6. Shall convey a report to the SOM of entrant or driver misbehavior. This may be accompanied by a Request for Action. (See 8.1.2.)
7. Shall receive protests from entrants, drivers, or officials and immediately transmits them to the SOM.

**C. Powers of the Chief Steward**

The Chief Steward may:

1. Disqualify a driver or an ineligible car.
2. Remove technical inspection stickers.
3. Disallow qualifying times.
4. Direct cars to be impounded at any time during the event.
5. At his discretion and without necessarily receiving a request to do so, order (or request the SOM order) disassembly and inspection of any entered car to determine whether it complies with the GCR. If the car is found to be compliant, the race organizers stand the expense of the disassembly, inspection, and reassembly. If it is not compliant, the entrant shall bear the expense, in addition to whatever penalties the Chief Steward may assess or the SOM may direct after receiving the Chief Steward's report. A representative of the race organizers authorized to approve financial expenditures must formally approve the bond established for disassembly, inspection, and reassembly before disassembly begins. If the process is the result of a Chief Steward's Action, the Chief Steward is directly responsible for monitoring all facets of the procedure until the time when the impounded parts are either retained by SCCA or returned to the competitor, in the same way

the Chairman SOM does for a protest or RFA.

6. Convey report(s) of any breach of the GCR or Supplemental Regulations to the SOM. This report may be accompanied by a Request for Action. (See 8.1.2.)
7. Impose a fine of up to $100.
8. Prevent an ineligible car from competing.
9. Reprimand.
10. Impose time, lap, event points, or position penalty.
11. *Impose up to a three race weekend probation.*

**D. Additional Powers of the Chief Steward**

See Appendix D. for additional/specific powers of the Chief Steward.

**5.12.4. Assistant Chief Steward – Safety**

The Assistant Chief Steward – Safety is responsible to the Race Director or Chief Steward for the following:

A. Investigate accidents and forward the originals of all reports, including original releases, to the Risk Management Department of SCCA.

B. The same day, notify Risk Management via telephone of any accident which involves serious injury to a participant or any injury to a spectator.

C. Mail copies of the material sent to the Risk Management Department to the Divisional Safety Administrator.

D. During the event, report to the Race Director or Chief Steward any hazards requiring further investigation or action.

E. Perform the duties delegated by the Race Director or Chief Steward.

F. Supervise Emergency Services personnel and equipment in conjunction with the Race Chairman (pre-event) and the Chief of ES (during the event).

**NOTES:**

## 6. RACING RULES AND PROCEDURES

### 6.1. FLAGS

Flags convey the commands or information indicated below. They must be obeyed immediately and without question. The content of this section cannot be amended by any event Supplemental Regulations.

#### 6.1.1. Meaning of Each Flag

**A. GREEN FLAG (Solid Green)**

When displayed, the green flag indicates that the course is clear, and that racing is underway. The green flag is ordinarily shown only by the Starter.

**B. YELLOW FLAG (Solid Yellow)**

STANDING YELLOW – Take care, Danger, Slow Down, NO PASSING FROM THE FLAG until past the emergency area.

WAVED – Great Danger, Slow Down, be prepared to stop – NO PASSING FROM THE FLAG until past the emergency area.

DOUBLE YELLOW, DISPLAYED AT ALL STATIONS – Indicates the entire course is under yellow (full course yellow). All stations will display double yellow flags for all pace and safety car laps. SLOW DOWN, NO PASSING. However, cars may carefully pass emergency vehicles and other cars that are disabled or off pace (see 6.6.2.).

NOTE: A driver may encounter several flags before reaching the emergency area. The requirements are still the same: SLOW DOWN, NO PASSING.

**C. BLUE FLAG (Blue with Diagonal Yellow Stripe)**

Another competitor is following very closely or is trying to overtake. This flag may be displayed standing or waving, depending upon the speed differential.

**D. SURFACE CONDITION (Yellow with Vertical Red Stripes)**

Take care. A slippery condition exists, or debris is present on the racing surface. This flag is displayed standing.

**E. WHITE FLAG (Solid White)**

STANDING WHITE - Caution and take care for a slow moving race car, ambulance or other emergency vehicle on the racing surface. The standing flag is displayed for 2 flag stations prior to the vehicle in question. In addition, a standing white flag will be displayed during the first lap of each race group's first session of the day unless another flag is already on display to indicate the location of the flagging stations.

WAVED - A waving white flag if displayed by the Starter shall indicate the start of the last lap of the race.

**F. BLACK FLAG (Solid Black)**

CLOSED BLACK FLAG (Furled) – Pointed or shaken at an individual car from the Starter's stand (optionally, accompanied by a number board indicating the car number): WARNING for driving in an unsafe and/or improper manner. Continued unsafe and/or improper driving will result in an OPEN BLACK FLAG.

OPEN BLACK – Displayed from the Starter's stand with a number board indicating the car number: Proceed directly to the pits and the location designated by the Race Director or Chief Steward or event Supplemental Regulations for consultation with Officials. DO NOT TAKE ANOTHER LAP.

NOTE: This flag and number board may also be displayed at station(s) elsewhere on the course.

OPEN BLACK, DISPLAYED AT ALL STATIONS – The session has been stopped; all cars must stop racing, and proceed directly and immediately to the pits, exercising extreme caution. This flag will be displayed with an 'ALL' sign at the Starter's stand and the sign may also be shown at station(s) elsewhere on the course.

NOTE: THE BLACK FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE RACE DIRECTOR OR CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

**G. MECHANICAL BLACK FLAG (Black with Orange Ball)**

Displayed from the Starter's stand with a number board indicating the car number. There is a mechanical problem with the car. Proceed directly to your pit or the location designated by the Race Director or Chief Steward or event Supplemental Regulations. DO NOT TAKE ANOTHER LAP.

NOTE: This flag and number board may also be displayed at station(s) elsewhere on the course.

**H. CHECKERED FLAG (Black and White Checks)**

Displayed at Finish to indicate that the session is finished. Continue cautiously to the pits.

**I. RED FLAG (Solid Red)**

Displayed at each station and on the Starter's stand – EXTREME DANGER – THE SESSION HAS BEEN STOPPED. Come to an immediate, controlled stop at the side of the race track (preferably before and within sight of a staffed station or where specified in the event Supplemental Regulations). When released by an

official, proceed cautiously to the pits. Once a red flag has been displayed, it will not be withdrawn until all cars have come to a stop.

NOTE: THE RED FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE RACE DIRECTOR OR CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

**6.1.2. Lights Instead of Flags**
Supplemental Regulations will state where on the course and for what purpose lights, if any, will be used.

**6.2. RULES OF THE PADDOCK**
**6.2.1. Paddock Area Defined**
The area where a car parks when not participating in its sessions is the Paddock. Event Supplemental Regulations may delineate the Paddock location and assignment of equitable amounts of space to each competitor.

**6.2.2. Retiring to the Paddock**
A car that retires to the paddock during its qualifying session, and then returns to the track automatically forfeits qualifying times earned before retiring. A car that retires to the paddock from the pits or the track during its race may not return to the track unless the Supplemental Regulations or the Race Director or Chief Steward specify.

**6.3. RULES OF THE PITS**
**6.3.1. Pit Area Defined**
The area that is part of or connects with the access roads leading to and from the racing surface is the hot pit lane, which is where competition vehicles park when not on course during their sessions. There must be a protective barrier between the hot pit lane and the area where support equipment and crews are located.

**6.3.2. Required Equipment**
There must be fire extinguishers with a nominal 10 pound dry chemical agent capacity and a minimum UL 60 BC or ABC rating placed at 50 foot intervals along the pit wall. If there will be refueling in the pits during the race, each team must provide 1, minimum 10 pound /60 BC or ABC rated fire extinguisher for each car.

**6.3.3. Fueling**
Fueling is not permitted in the pits unless authorized by the Supplemental Regulations or the Race Director or Chief Steward.

**6.3.4. Authorized Personnel in the Pits**
Crew members in the hot pits must be event credentialed SCCA licensed members.

**6.3.5. Number of Crew Members in the Hot Pit Lane**
Unless the Supplemental Regulations or the Race Director or Chief Steward provide otherwise, no more than 4 crew plus the driver or drivers may attend to any car in the hot pit lane.

**6.3.6. Control**
Pit crews are under the control of the Pit Marshal at all times.

**6.3.7. Pit Barrier**
Crew may only cross the pit barrier when their car is in the hot pit, except to signal the driver, when no more than 2 crew may cross the barrier.

**6.3.8. Overshooting the Pit**
If a car overshoots its pit location, the car must either be pushed back into the pit location by hand, or else continue for another lap. No car may be pushed back to the pit location if doing so would create an undue hazard.

**6.3.9. Air Bottles/Gas Cylinders**
All compressed air bottles/gas cylinders with a pressure in excess of 200 psi must have a protective structure around their gauges and valves when in the pit area.

**6.4. THE GRID**
*note: In section 6.4, the field is defined as all segments.*

**6.4.1 General**
A. 1 car in a class shall constitute a class. A car may not compete in more than one race class in the same race group.

B. Number of Cars allowed on Course

A maximum of 25 cars per mile may be on the course or started simultaneously in any type of session.

The Division's Executive Steward may increase or decrease the 25 car limitation for any or all race groups.

**6.4.2 Establishing the Race Grid**
A. A starting position is qualified by a driver/car combination.

B. The Chief Timer certifies official qualifying times to determine race grid positions. Cars are positioned on the race grid in order of their official qualifying times without regard to engine displacement or class,

with the fastest cars at the head of the grid. Any other method of determining starting positions must be described in the Supplemental Regulations and approved by SCCA.

C. Qualifying time ties are broken by comparing the second fastest times, and then the third, if needed, and so on until a difference is found.

D. The fastest qualifier may select the inside front row position (in the direction of the first turn) or the outside. If he does not choose, the pole position is presumed to be the inside. If he selects the outside position, the second qualifier is assigned the inside, the third outside, the fourth inside, and so on throughout the entire grid.

E. Each driver/car combination must qualify within 120% of the qualifying time of the fastest qualifier in his class to be allowed to start his race. The Race Director or Chief Steward may waive this requirement and may allow non-qualifiers to grid behind qualifiers.

F. Cars that are not in position on the grid prior to the 1 minute signal relinquish their starting positions. They will be held behind other cars, and must start from the back of the field.

**6.4.3. Qualifying for Oversubscribed Classes**
When the number of cars entered into a single class race group exceeds the maximum number of cars per mile, the following qualifying procedures apply:

A. The class is split into 2 qualifying groups.

B. The grid is determined according to 6.4.2.

C. Alternatively, if the Race Director or Chief Steward determines that track conditions are significantly different for the 2 groups, he may recommend the parallel column procedure in which one half of the race grid is taken from each session, and gridded in columns by group, by time. The fastest car is assigned the inside position on the front row and he is followed in that column by the cars from his session in qualifying time order. The SOM must approve this alternate procedure.

**6.4.4. Starting the Engine on the Grid**
In all SCCA competitions, engines shall be started by the driver sitting in the normal driving position, except F500, using an on-board or supplemental power supply. Carburetor or fuel injection systems may be manipulated and/or primed in the starting process. Push starts are permitted only as specifically authorized as specified in 6.4.5.

**6.4.5. Push Starts on the Grid**
A car that cannot start on the grid may be push started under the supervision of the Grid Marshal, provided it is back in position prior to the 1 minute signal. Cars push started after the 1 minute signal, or not in position at the 1 minute signal relinquish their grid positions. They will be held behind other cars, and must start from the back of the field.

**6.4.6. Fueling**
Fueling is not permitted on the grid unless authorized by the Supplemental Regulations or the Race Director or Chief Steward as specified in 6.3.3.

**6.4.7. Air Bottles/Gas Cylinders**
All compressed air bottles/gas cylinders with a pressure in excess of 200 psi must have a protective structure around their gauges and valves when in the grid area as specified in 6.3.9.

**6.5. RACES STARTS**
note: In section 6.5, the field is defined as all segments.

**6.5.1. The Grid**

A. The Race Director or Chief Steward instructs the 5 minute and 1 minute warnings to be given to the grid, indicating the time remaining before the start of the pace lap. These signals must be plainly audible and/or visible.

B. Engines should be started at or before the 1 minute signal.

C. At or before the expiration of the 1 minute warning, the cars will be released to begin the pace lap.

D. See 6.4.2. for additional requirements.

**6.5.2. The Pace Lap**

A. One pace lap precedes all races, unless the Race Director or Chief Steward authorizes an additional unscored pace lap.

B. The pace lap may begin at a brisk pace, but must be sufficiently slowed before the start line to allow orderly grouping of the field. The actual speed immediately prior to the start is dictated by the types of cars, size of the field, and course layout. However, the standard SCCA start is a rolling start and not a flying start. The same official should brief the front row drivers before each race, preferably the Starter, under the direction of the Race Director or Chief Steward.

1. If a pace car is used, it will be positioned at the head of the pack, with emergency lights flashing.

Drivers may not pass the pace car until it turns off its emergency lights and pulls off the track, and the pole car will maintain the speed of the pace car before it pulled off track until the green flag. The front row drivers must be advised not to pass the pace car.

2. If a pace car is not used, the pole car will pace the field complying with directions from the Race Director or Chief Steward or his designee. The pole car will maintain a constant speed from the grouping until the green flag and shall not modify his speed approaching the flag stand.

C. A car may not improve its position in the field after the cars are released from the grid for the pace lap.

1. A car that improves its position relative to the field during the pace lap by moving forward, moving out of line more than half a car width, or passing before the green flag is displayed may be penalized for a false start. If a false start has occurred, and the race has been started, the driver(s) may be black-flagged and held in the pits or at the start line for up to 1 minute, and other penalties may also be imposed, as specified in Section 7.

2. A car that fails to start with the pace lap or falls out of position during a pace lap relinquishes its grid position and may rejoin only at the back of the field.

3. A car that is disabled and cannot keep the pace should not hold up the field. The driver must signal that his car is disabled by raising an arm, pulling to the side of the course, and staying well off the racing line. Other cars may safely pass the signaling vehicle. The driver of a disabled car should seek assistance at the nearest corner station or pit at the first opportunity.

4. When a car drops out of the pace lap(s), everyone in the column behind that car must close up behind the car in front; moving up under this circumstance is not considered improving position or passing under yellow.

**6.5.3. The SCCA Standard Rolling Start**

A. The SCCA standard rolling start will be used at all SCCA races unless an alternate procedure has been approved by the Division's Executive Steward and is included in the event Supplemental Regulations.

B. The Starter shall be safely located where the majority of the drivers in the field can clearly see him as they approach his position. He shall remain motionless, with the green flag hidden, and no other flags visible.

C. The Starter will start the race by suddenly and continuously waving the green flag until all cars have passed the start line if the field is:

1. At a constant low speed;

2. Well bunched; and

3. Close enough to the Starter that the majority of the drivers can see the flag.

D. Racing begins and passing may occur throughout the field when the green flag is displayed.

**6.5.4. An Aborted Start**

A. The Starter will abort the start by displaying no flag and shaking his head in the negative if the field is not in good order, or if some drivers have improved their positions by moving out of line more than half a car width or by passing prior to the waving of the green flag. This advises the drivers to proceed on another pace lap. Drivers raise one hand to confirm that the start is aborted.

B. If the race is not started, another pace lap will be run. Depending on conditions, the pace car may overtake the field and resume its function. The front row drivers must be advised that the pace car may return to its position for the additional pace lap if there is no start.

C. Any additional pace lap(s) following aborted start(s) are under double standing yellow flags at all stations, and are scored as race laps. Timing starts when the pole car crosses the timing control line, unless otherwise specified by the event Supplemental Regulations.

**6.5.5. Split Starts**

A. Split starts are recommended when there is a large differential in speed or cornering ability between the classes or categories in a single race group. The procedure for a split start must be explained in the Supplemental Regulations or at a Drivers' Meeting.

B. The Race Director or Chief Steward will determine the class(es) in each segment. Segments will contain entire classes of cars, including those cars with no qualifying time. The Race Director or Chief Steward will determine which segment will start first. The cars assigned to each segment will be gridded by qualifying time, regardless of class.

C. Each segment should be led by a pace car, if possible. A following segment should have the previous segment in sight on the longest straight.

D. Split Starts

1. Provided each segment is properly formed, each will receive a separate green flag.

2. Drivers in each segment shall not improve their position until their respective green flag is displayed. Jump starts may be penalized.
3. If the first segment receives a green flag, the race is considered to have begun for the subsequent segment(s) when they cross the control line, regardless of the flags displayed by the starter.
4. The flags displayed by the starter have their normal meanings.
5. If the first segment receives a green flag, but on track safety conditions require an immediate full course yellow, cars in subsequent segments should fall into single file grid order and make every effort to safely catch the back of the first segment.
6. A driver in one segment who is unable to leave the grid when directed but is able to get underway before the first car in the next segment is released, may join the back of his segment at the direction of the Grid official. Otherwise, he relinquishes his grid position and will be held until the end of the last segment.

E. A starting judge should be appointed for a split start.

**6.5.6. Late Starters**
After the field has left the grid, the Race Director or Chief Steward may release cars that were not in position at the 1 minute warning to join the back of the pack either from the grid at the beginning of the pace lap or from the pit exit after the race has been started.

## 6.6. PACE AND SAFETY CAR

**6.6.1. Operation and Control**
Pace car procedures are located in 6.5.2.B.1.

The Race Director or Chief Steward is responsible for the control and safe operation of the pace/safety car(s), and he must approve the communicator/observer and the driver, who must either hold or have held an SCCA Full Competition License, or have other qualifying experience.

**6.6.2. Full Course Yellow Procedures**
The Race Director or Chief Steward may use a safety car as necessary to control the field and to assure expeditious restarts.

A safety car and/or the lead car will be used to control the field and to assure expeditious restarts. All vehicles must pass any on track incident(s) well under control.

A. Safety Car
1. A safety car will enter the course only under double yellow flags.
2. When dispatched, the safety car, with emergency lights flashing, will gather the field under steady and reduced speeds that are appropriate to track conditions.
3. If the safety car is not dispatched in front of the leader, an official in the safety car will wave cars by until the leader is behind it.
4. Prior to a restart, the safety car will maintain the established pace, extinguish the lights, and exit the course.

B. Lead Car
1. If there is a safety car, the lead car will control the field, as follows:
   i. Smoothly and orderly slow the field prior to the safety car entering the track.
   ii. Keep pace with the safety car, and not balk the field.
   iii. Maintain the speed of the safety car coming down to a restart.
2. If there is no safety car, the lead car will control the field, as follows:
   i Slow the field to permit the entire field to bunch up single file behind him.
   ii Maintain a consistent pace that is appropriate to the track conditions.
   iii Maintain a steady pace coming down to a restart.
3. The Field
   i. All drivers must make every effort to safely catch the field as soon as possible to form a single and evenly-spaced line behind the safety car or leader.
   ii. Race cars may not pass the safety car unless waved around by that official. Any car passing the safety car without being directed may be black-flagged into the pits, and other penalties may be imposed, as specified in Section 7.
   iii Drivers must maintain the safety car's pace and not improve their positions or begin racing

until the green flag has been displayed to restart the race.

iv. A driver of a disabled car or a car that cannot maintain the pace should not hold up the field. He must signal that his car is disabled by raising an arm, pulling to the side of the course, and staying well off the racing line. Other drivers may safely pass the signaling vehicle. A driver of a disabled car should seek assistance at the nearest corner station, or pit at the first opportunity.

## 6.7. STOPPING A SESSION

### 6.7.1. Methods

When it is necessary to stop a session, the Race Director or Chief Steward may do any of the following:

A. Order a black flag with an "ALL" sign at Start (this sign may also be shown at additional stations elsewhere on the course) and a black flag at all other flag stations around the course.

B. Order a red flag at Start and all other flag stations. Further instructions will be conveyed by officials.

C. Order the checkered flag to be displayed to the lead car if at least 50 percent of its scheduled time or distance has been completed.

### 6.7.2. Assistance During Race Session Stoppage

Replenishing or assisting cars is allowed after a practice or qualifying session is stopped and before it is restarted, but not after a race session is stopped and before it is restarted.

## 6.8. RESTARTING A RACE

If a race is stopped, the Race Director or Chief Steward may:

A. Restart in the original starting order. (See 6.7.2.)

B. Restart the cars single file in the physical order they crossed the control line on the last completely scored lap.

For all restarts, the lap count reverts to the end of the last completely scored lap (zero if no laps have been completely scored). When a race is restarted, each pace lap counts as a race lap. If the clock has been stopped in a timed session, it shall be restarted when the field is dispatched. Any method of restarting the engine is permitted.

## 6.9. RAIN RACING

If a race is started in the dry, and it starts to rain on all or part of the course, the Race Director or Chief Steward may use one of the following procedures:

A. If the race has covered half or more of the scheduled distance or time, it may be finished with the checkered flag.

B. If the race has not reached half distance or time, the black flag "ALL" procedure shall be used to bring all cars into the pits, and 15 minutes will be allowed to install rain tires, at the driver's discretion. The cars will restart single file in the physical order of the cars on the last completely scored lap.

## 6.10. TIMING LINE; STARTERS, AWARDING OF POINTS, AND WINNERS

### 6.10.1. Starting Line for Timing and Scoring

Unless otherwise defined in the Supplemental Regulations, the start line is the control line where timing begins when crossed by a car.

### 6.10.2. Race Starter

One of the following conditions must be met for a car to be considered a race starter:

A. The car receives a green flag at the start of the race.

B. If the start is aborted, the car crosses the control line.

C. The car is anywhere on the course when the green is displayed.

D. The car completes the pace lap for the first start.

E. The car enters the race any time after the start before the checkered flag is displayed.

### 6.10.3. Awarding of Points

A. A car that completes half the laps of the overall race winner for either a numbered lap event or a timed event shall be awarded earned points. Enduro events should define the awarding of points in the enduro supplemental regulations. If the race is an uneven number of laps, divide the overall winner's laps in half and round down to the nearest whole integer. A car has 5 minutes after the checkered flag to complete its current lap.

B. A car may complete a lap by being driven across the control line in the pit lane only using on-board power (such as the starter motor), but it may not be pushed across the line by its crew or any officials.

### 6.10.4. Race Winner

The race winner is the car that completes the race distance in the least time, or the greatest distance in the

timed length of the competition. If the race is shortened, the leader of the last completely scored lap is the winner, provided the race is completed.

**A. Checkered Flag**

The checkered flag is displayed at the finish line first to the winner as he completes the race distance or after he completes the prescribed time, and then to the other finishers as they cross the finish line.

**B. Checker to Wrong Car**

If the checkered flag is displayed first to the wrong car, it shall be continuously waved until seen by the entire field. The race finishing order will be determined by the last completely scored lap.

**C. Late Checker**

If the checkered flag is not displayed at the scheduled end of the race and the race is one or more laps longer than scheduled, the race is scored as if it had ended at the scheduled length. As soon as the Starter is aware that the checkered flag has not been displayed at the scheduled end of the race, he may show the checkered flag immediately, if both Timing and Scoring and the Operating Steward concur.

**D. Winning Car Not Running in Timed Race**

If the winning car is not running at the expiration of the timed length, the checkered flag will be displayed to the highest placing car still running. The winner in a timed race is not required to take the checkered flag.

**E. Dead Heats**

Competitors in a dead heat share the prizes allotted to their finishing positions.

**6.10.5 Shortened Races**

A. If a race is stopped at less than 50 percent of its scheduled time or distance and is not restarted, it is incomplete; championship points shall not be awarded, and organizers will not be required to distribute trophies or other awards.

B. A race that is stopped at 50 percent or more of its scheduled time or distance, and not restarted, is complete, and results will reflect the order of the end of the last completely scored lap (even if that lap is less than 50 percent of the scheduled distance).

**6.10.6. Lap Record**

Official lap records are set during races; not practice or qualifying. A driver whose car is penalized for non-compliance in a race may not set a lap record in that race.

## 6.11. RULES OF THE ROAD

**6.11.1 On Course Driver Conduct**

A. Drivers are responsible to avoid physical contact between cars on the race track.

B. Each competitor has a right to racing room, which is generally defined as sufficient space on the marked racing surface that under racing conditions, a driver can maintain control of his car in close quarters.

C. Drivers must respect the right of other competitors to racing room. Abrupt changes in direction that impede or affect the path of another car attempting to overtake or pass may be interpreted as an effort to deprive a fellow competitor of the right to racing room.

D. The overtaking driver is responsible for the decision to pass another car and to accomplish it safely. The overtaken driver is responsible to be aware that he is being passed and not to impede or block the overtaking car. A driver who does not use his rear view mirror or who appears to be blocking another car attempting to pass may be black flagged and/or penalized, as specified in Section 7.

**6.11.2. Hand Signals**

A. A driver should signal his intention to enter the pits from the course by raising his arm.

B. An overtaken driver should point to the side on which an overtaking driver should pass.

C. The driver of a stalled car should raise both arms to indicate that he will not move until the course is clear.

**6.11.3. Off-Course Excursions**

Drivers are required to follow the pavement or marked course, and may not gain an advantage from an off-course excursion. Unless the Supplemental Regulations specify otherwise, a driver who leaves an artificially marked course or an airport circuit with all four wheels must reenter the course at the same location where he went off, subject to the directions of officials controlling reentry.

**6.11.4. Counter-Race Direction Driving**

Specific approval of the Race Director or Chief Steward is required to drive a car in counter-race direction at any time or under any condition during an event. Violating this rule may result in penalties as specified in Section 7.

**6.11.5. Stopping on a Course; Accepting Assistance**

A. A driver who stops his car on course must make every effort to assure that the location does not pose a danger or obstruction to other competitors.

B. During a race, a driver may receive assistance only in the pit lane by his pit crew, except for safety assistance from race officials.

C. For assistance during restarts, see 6.8.

**6.11.6. Using the Engine Self-Starter on Course**
While on the course, a car may not be moved using the starting device, except to relocate to a position of greater safety or under provisions of 6.10.3.B.

**6.11.7. Passengers**
No one may ride outside the cockpit area or on the coach work of any automobile at any time, including victory laps.

## 7. PENALTIES

All Club Racing participants are subject to control by SCCA, the GCR, and the Supplemental Regulations. This Section specifies the penalties for violating the GCR and the Supplemental Regulations.

### 7.1. WHO MAY BE PENALIZED

Any entrant, driver, crew member, organizer, official, or SCCA member may be penalized.

### 7.2. RANGE OF PENALTIES

In increasing order of severity, the range of penalties is as follows:

A. Fine ($1-$99)

B. Reprimand

NOTE: A reprimand against an SCCA member shall be noted in his license file.

C. Fine ($100-$249)

D. Loss of event points

E. Fine ($250)

NOTE: All fines must be in whole dollar amounts only.

F. Loss of Time, Lap, or Finishing Position

G. Probation of competition privileges

Although the probation is effective immediately, the probation period does not begin until the license, as well as any imposed fine, is received by the Chairman SOM or the National Office. Any member on probation must notify the event Race Director or Chief Steward prior to his first on track session or beginning his assigned official's responsibilities. Failure to notify the Race Director or Chief Steward is a violation of probation.

1. Length of Probation

Probation may be up to 12 months; or it may be specified as a number of SCCA Club Racing event days or SCCA Club Racing event sanctions.

2. Term(s) of Probation

A driver on probation may be restricted to competing in his Division; limited to competing in certain types of levels of events; or required to perform specified event related activities, including attending an SCCA Drivers' School. Participating in SCCA Practice Days or SCCA events that are not sanctioned by SCCA Club Racing will not fulfill probation.

3. Violation of Probation

Failing to comply with the probation terms may result in further penalties assigned by a review committee appointed to hear the violation, by Driver or Official Review, or by the SOM at the event where the violation occurs.

H. Disqualification

An entrant, driver, or car may be disqualified from a competition or an event. Rights to awards in the competition or event are automatically forfeited.

I. Suspension of license privileges

SCCA license privileges for a driver, crew, or official may be suspended for a period of time not to exceed 12 months. A license holder whose privileges are suspended must immediately surrender his license to the Chairman of the SOM, review committee, or Court of Appeals. While the suspension is effective immediately, the suspension period does not begin until the license, as well as any imposed fine, is received by the Chairman of the SOM, review committee, or the National Office.

A member whose Competition License has been suspended shall not participate in a Club Racing event using any other grade or form of competition license. When the suspension is the result of a non-compliant vehicle, the infraction shall be noted in the Vehicle Logbook.

The suspension document for a Competition License holder will note whether a member whose license privileges have been suspended may participate in further Club Racing events in another capacity using another type or grade of license.

J. Loss of accrued points

A competitor may be penalized all points accrued during the current season.

K. Expulsion from SCCA

A member may be expelled from the SCCA as provided in the SCCA Bylaws.

### 7.3. MULTIPLE PENALTIES

Multiple penalties may be imposed. In addition, penalties may be consecutive (for example, 2 month suspension followed by 6 month probation). Both suspension and probation, each for the maximum allowable term, may be imposed for a single violation.

## 7.4. PENALTY POINTS

A. Penalties assessed by the SOM or the Court of Appeals accumulate points according to the following schedule:

| | | |
|---|---|---|
| 1. | Fine ($1 - $99) | no points |
| 2. | Reprimand | 1 point |
| 3. | Fine ($100 - $249) | 1 point |
| 4. | Loss of event points | 1 point |
| 5. | Fine ($250) | 2 points |
| 6. | Loss of time, lap, or finishing position | 2 points |
| 7. | Probation of SCCA competition privileges | 3 points |
| 8. | Disqualification | 4 points |
| 9. | Suspension of SCCA competition privileges | 6 points |
| 10. | Loss of accrued championship or series points | 7 points |

B. Penalties imposed by the Race Director or Chief Steward do not incur penalty points. If a Chief Steward's Action is protested and the protest is disallowed (upholding the Chief Steward's Action), the SOM may, at their discretion, assign penalty points as listed above.

C. When multiple penalties result from a single action, only the most severe penalty accrues points.

D. Automatic penalties are imposed according to the following schedule:

| Condition | Automatic Penalty |
|---|---|
| 11-14 points accumulated in consecutive 3 year period | Probation for 6 months or 6 events determined by Divisional Executive Steward |
| 15 or more accumulated in consecutive 3 year period | Suspension of competition privileges for 6 months |
| Invalid Statement of Facts Affidavit | Event disqualification, 60 day suspension of competition privileges, and 6 penalty points |
| Refusing to allow teardown in Mechanical Protest,Request for Action, or Chief Steward's Action | Event disqualification, 6 month suspension of competition privileges, $250 fine, and 6 penalty points |
| Non-Compliance in the following classes:<br>Formula Enterprise<br>Spec Racer Ford<br>Enterprises Sports Racer | FE: see 9.1.1.I.19<br>SRF: see 9.1.8.E.T<br>ESR: see 9.1.8.H.18 |

NOTES:

-Penalties caused by accumulated penalty points do not themselves result in further points.

-Penalty points expire 3 calendar years from the date they were incurred.

## 7.5. AMENDMENT OF RESULTS

Whenever a penalty affects the final results, including when a driver or car is disqualified, the SOM shall advance the subsequent competitors in the finishing order and advise the Chief of Timing and Scoring of any amendment to the results.

## 7.6. PUBLICATION

SCCA has the right to publish that any individual or organization has been penalized, the penalty, and the reasons. An individual or organization included in the notice of penalty has no right to act against the SCCA or against any other individual for publishing the notice or for its contents.

## 8. STEWARDS' ACTIONS, PROTESTS, AND APPEALS

### 8.1. TYPES OF JUDICIAL ACTIONS

#### 8.1.1. Chief Steward's Action

The Race Director or Chief Steward may file a Chief Steward's Action (CSA) with the SOM to describe a participant's breach of the GCR or the Supplemental Regulations and the action taken according to 5.12.2. All CSAs must be filed with the SOM within 30 minutes after the results of the final race of the event are posted, although the SOM may approve an extension of time.

#### 8.1.2. Request for Action

The Race Director or Chief Steward may submit to the SOM a Request for Action (RFA) describing a suspected breach of the GCR or the Supplemental Regulations, asking the SOM to investigate and determine whether there was a breach, and what, if any, penalties to impose. The Race Director or Chief Steward cannot submit an RFA for any single violation of the rules for which he has already imposed a penalty allowed in 5.12.3. An RFA resulting from a post-race impound inspection may be submitted within a reasonable time following the discovery of the suspected breach. All other RFAs must be submitted to the SOM within 30 minutes after the results of the final race of the event are posted, although the SOM may approve an extension of time.

#### 8.1.3. Chief Steward's Action Against a Car

The Race Director or Chief Steward may initiate an action against a car for non-compliance using a CSA or RFA. The procedures are the same as when one competitor protests the compliance of another's car (see 8.3.3.), except that the organizer replaces the protestor regarding expenses and the Chief Steward replaces the Chairman.

#### 8.1.4. Compliance Review

A member may request a determination on the compliance of their vehicle or its components by submitting a Compliance Request Form to the Club Racing Department at which time a letter will be entered into the CRB letter system. Formal rule clarifications may be submitted to the Club Racing Board at www.clubracingboard.com.

A. The Staff will review the request and must consult with the CRB and other appropriate experts.

B. Club Racing will schedule in-person inspection of the vehicle or components by a class expert. The expert will submit a written opinion back to Club Racing and the CRB.

C. Club Racing and the CRB will review the expert's opinion. If required, the CRB may initiate a clarification of the applicable rule(s). Club Racing will then submit a written ruling to the applicant.

D. A fee will be determined and paid in advance of the inspection. A portion of the fee may be refunded at the discretion of SCCA.

E. Verification of compliance is based on the GCR as of the date of the written response to the member. The GCR changes *monthly*, and there is no guarantee of compliance.

#### 8.1.5. Protests

Any entrant, driver, crew, organizer, or official participating in an event may protest any decision, act, or omission of another entrant, driver, crew, organizer, official, or any other person connected with that event whose actions the protestor believes to be in error or which violate the GCR, the Supplemental Regulations, or any condition involving SCCA's sanction of the event, except where exemption from protest is specified elsewhere in the GCR or the event Supplemental Regulations.

### 8.2. HEARINGS AND JUDGEMENTS

The SOM procedures for RFAs and Protests are the same.

All RFAs and Protests will be heard by the SOM as soon as practical. The parties concerned will be notified when and where the hearing will occur. This may include 3rd parties who were not immediately identified as being involved in the incident(s) in question. Although all parties have the right to call witnesses, they must state their cases in person. Each party or witness must be heard separately and privately.

Unless they are specifically released by the Chairman SOM, all parties must remain at the event until a ruling has been issued. If any party is absent, a judgment may still be rendered, and may by default go against him.

If the SOM are unable to rule immediately after the hearing, all parties will be notified when and how the decision will be conveyed.

All parties shall be bound by the decision, subject only to appeal, as specified in 8.4.

For the purpose of this section, the term "party" means anyone who has protested or been protested, or who is the subject of a Chief Steward's Request for Action, in addition to anyone found to have been involved with and possibly responsible for the incident(s) in question.

### 8.3. PROTEST PROCEDURES

#### 8.3.1. How to Protest

The following are requirements to protest. A Protest must:

A. be in writing;

B. must specify the sections of the GCR or Supplemental Regulations that are alleged to have been

violated;

C. be signed by the protestor;

D. be accompanied by a fee of $50, if at a U.S. Majors Tour race; $25 if at a Regional race or Drivers' School. These fees may be returned to the protestor at the discretion of the SOM.

E. be delivered, with fee, to the Race Director, Chief Steward or to an Assistant Chief Steward delegated to receive Protests, who will promptly convey it to the Chairman of the SOM.

F. be filed within the time limits specified below, although the SOM may extend the time in cases where the protestor can show that evidence relating to the Protest was not available within the time limit, or where the protestor can show that he was unable to meet the deadline because of circumstances beyond his control.

| Protest Type | Time Limit |
|---|---|
| Validity of an entry<br>Rules compliance of an entrant, driver, or car | No later than one hour before the start of the race session of the competition for the issue in question. Cars in impound may be protested within 30 minutes after any session. |
| Starting (Grid) position | Within 30 minutes after the grid is posted. |
| Driver's on track behavior | Within 30 minutes after the end of the session |
| Race results | Within 30 minutes after results are posted. |
| Race officials's action or decision | Within 30 minutes after the end of the session OR within 30 minutes of receiving the notification of the official's action. |

**8.3.2. Reasonable Protests**
Properly presented Protests must be reasonable, logical, and based on sound evidence. Reasonable people may differ and a properly presented Protest may not be upheld.

A. The protest fee will be forfeited if the Protest is not well-founded.

B. A protestor whose actions are in bad faith or vexatious may be penalized by the SOM as specified in Section 7.

**8.3.3. Actions Against Cars**
An entrant or driver may initiate an action against a car **in his race group** for non-compliance using a Protest. Any participant may protest the fuel used in any car in a competition as specified in 9.3. Fuel. A Protest against a car is also a Protest against its driver and entrant.

The protestor may request that the car be disassembled, inspected, or any other test made, provided he posts a tear down bond (also referred to as "bond") with the SOM sufficient to cover the total expenses of disassembly, inspection, reassembly, and other costs associated with the protest. A Protest may be reduced in scope but not added to at the time the bond is set. Unless the protestor wholly or partially withdraws his Protest, the stipulated inspections will be completed after the bond is set and received.

A claim that non-compliant item(s) offer no performance advantage has no influence on any ruling.

Non-compliant item(s) will be noted in the car's Vehicle Logbook. (See 9.2.1.I.)

**A. Setting a Bond**

1. The SOM will establish a bond after consulting separately with the protestor and the protested party(ies), with the Chief Technical Inspector, and any others whose advice the SOM believe to be useful.

2. A cost schedule must be established before the inspection can begin. Items covered by the bond may be priced individually, giving consideration to logically linking some items. Or else the bond may be allocated on the basis of an agreed-upon apportionment. Bond apportioning after the fact is not permitted, except where the protestor has withdrawn all or part of the Protest. If the protestor does withdraw all or part of his Protest, the SOM will apportion the costs incurred, including reassembly, up to the point of withdrawal, provided no non-compliance has been discovered.

3. The bond must be paid before the inspection can begin, and must be cash, check, or credit card (Visa, Mastercard, or Discover only).

4. If circumstances warrant, the SOM will require the protested party to post bond and/or sign a repair order with a service establishment to cover the costs of disassembly and inspection. The

bond shall be determined in the same manner as a protestor's bond.

5. The SCCA Technical Services Department offers verification services for protest and/or compliance resolution of components and/or assemblies with the following requirements:

   a. A complete description of the vehicle/engine combination (specifically - make, model, year, VIN #, engine code, displacement, and so on).

   b. A known stock example of the part in question must be shipped with the protested part. The sample must be the same make, model and year of the protested part.

   c. The cost for each inspection will be set according to the Club Racing Labor Rate Guide, published on the SCCA web site. Provisions for shipping to and from the National Office must also be included in the bond.

   d. A complete comparison will be produced within 5 working days of receiving the protested assembly and the stock sample, along with all the required information. The outcome will be conveyed to the Chairman SOM via email.

**B. Conducting an Inspection**

The SOM will oversee the inspection and/or disassembly. They determine which, if any, portions of the inspection and/or disassembly may be observed, and by whom.

Non-compliant items found during inspection and/or disassembly that were not part of the original Protest must be referred to the Race Director or Chief Steward. If additional non-compliant items are found and referred, the protested party will receive no portion of the protestor's bond, regardless of the compliance of the protested component(s).

**C. Refusing to Allow Inspection**

A driver or entrant of a protested car who refuses to allow inspection is subject to immediate automatic penalty as specified in 7.4.D.

**D. Bond Disposition**

If the car is found compliant, the protestor forfeits the bond. If the car is found non-compliant, the protestor's bond is returned, and the protested driver or entrant pays the expenses. 8.3.3.A.2. specifies the conditions for apportioning the bond.

**E. Time of Disbursement of Bond; Appeal Escrow**

The tear down bond shall be sent to the Club Racing Department to hold it in escrow until the time limit to Appeal expires, an Appeal has been rejected, or an Appeal has been decided by the Court of Appeals.

**F. Preserving Evidence**

1. Documentation – all recorded evidence, such as technical data, inspectors' reports, or measurements must be forwarded to the Club Office.

2. Impounded parts

   a. The Chairman SOM is authorized to impound parts.

   b. The Chairman SOM must assure that the chain of evidence is not broken.

      1. All impounded parts must be uniquely and identifiably marked when they are removed from the car.

      2. All impounded parts must remain under the direct control of a licensed Tech Inspector or Steward until they are returned to the competitor or are delivered by a licensed Tech Inspector or Steward into the direct control of a courier service for insured and traced shipping for third-party inspection.

   c. At an event, components may be returned to the protestee under the following conditions without either party losing the right to appeal.

      1. Both parties must agree in writing to the following:

         a. The official measuring the part(s) is qualified.

         b. The proper tool(s) was (were) properly used to take the measurement(s).

         c. The measurements as documented are not contested.

         d. The three items above are not subject to appeal.

   d. Parts found non-compliant

      1. Will be marked as such.

2. Will be retained by the SCCA.
3. May be the subject of appeal.

## 8.4. APPEALS

### 8.4.1. Right to Appeal

Any participant or organization named as a party to a protest, a Race Director or Chief Steward's RFA; or any member named as a party in a Review Committee, has the right to appeal a decision or penalty imposed upon him or it by the SOM or Review Committee. The Race Director or Chief Steward of an event has the right to appeal any decision or penalty imposed.

8.4.2. Appointment and Jurisdiction

Each year, the Board of Directors, SCCA, Inc., will appoint (5) active and experienced members to the Court of Appeals. At least three (3) members, selected from the members of the Court by its Chairman, shall review any appeal filed under this section and make a final decision. The purpose of the Court is to provide a mechanism to resolve differences by a committee composed of members with individual and collective expertise in racing matters.

### 8.4.3. Appeal Procedures

A. How to Appeal

The following are requirements to appeal. An Appeal:

1. must be in writing;
2. must specify who is appealing; what decision is being appealed; the sections of the GCR and/or Supplemental Regulations which are believed to have been administered inappropriately, unfairly, or inequitably; all information the appellant wishes the Court to consider; and the arguments in favor of the Appeal;
3. must be received by the National Office US Government postmarked or registered with a carrier service such as UPS or Federal Express or by Express Mail, fax or email within 10 days after the decision of the SOM or review committee has been delivered to the appellant;
4. must be accompanied by a fee of $175, payable to SCCA, Inc. A minimum of $100 of any appeal fee will be retained by the SCCA. Faxed or emailed Appeals must include a Visa or MasterCard account number for payment of the fee. Insufficient funds checks or credit card transactions that are rejected will be grounds for suspension of competition privileges. Any additional fees charged by the financial institution(s) will be assessed to the appellant.
5. may be withdrawn by the appellant, by writing the National Office before a decision is reached. The administrative portion of the appeal fee may be retained at the discretion of the Court of Appeals.

**B. Fines, Licenses, Financial Obligations**

Before an Appeal will be heard, all applicable following conditions must be met:

1. all fines must be received by the National Office;
2. a competition license surrendered to the Chairman of the SOM or the Race Director or Chief Steward in return for a Probation Letter must be received by the National Office; and
3. any other financial obligation to the SCCA, Inc., or to any Region as reported to SCCA by the Region, must be received by the National Office.

All fines must be paid in cash or by check.

**C. Stay of Decision**

An Appeal filed on a penalty of suspension of competition privileges or expulsion from the SCCA imposed by the SOM or other review permits the appellant to participate in subsequent races, until his Appeal has been decided and the decision announced by the Court. The results and awards from these races are Provisional until the Court's ruling upholds or overturns the suspension or expulsion, at which time the results and awards will be Final and Official. If the Court upholds the suspension or expulsion, the appellant's awards from races run while awaiting the Court's decision will be null and void. Race results for those events will be revised to expunge the appellant's information from the Final and Official Results.

**D. Multiple Sanction Weekends**

On a multiple event weekend, (i.e., where more than one Club Racing sanction number has been issued, in any permitted combination of events), an individual whose competition privileges are suspended as specified in 7.2.I. may file a Notice of Intent to Appeal, accompanied by the appeal fee, with the Chairman of the SOM, and be allowed to participate in an event that weekend whose sanction number is different than the one under which he was suspended. The Appeal shall be filed within ten days of the date the decision of the SOM was given to the appellant. THIS APPEAL CANNOT BE WITHDRAWN. The appellant may participate in subsequent events until the Court conveys its ruling.

If an individual's competition privileges are suspended by the SOM during a single sanction weekend, he is prohibited from further competition activities during that event from the time he receives their decision. At a single sanction weekend, the SOM may not accept A Notice of Intent to Appeal for any reason at any time.

**E. Reasonable Appeals**

Properly presented Appeals must be reasonable, logical, and based on sound evidence. Reasonable people may differ on the interpretation of the evidence. An Appeal may be properly presented even if the decision of the SOM or review committee remains unchanged or is overturned by the Court.

**8.4.4. Hearing Appeals**

All properly filed Appeals will be heard by the Court. The Court will review the SCCA Official Observer's Report, the Notice of Appeal, containing all the evidence the appellant wishes the Court to consider, and will make appropriate inquiries before coming to a decision. It may require the appellant to submit additional evidence necessary for it to reach an equitable decision; hear directly evidence from any person it believes has pertinent information or necessary data; permit other parties to the issue under appeal to make written comments on the Notice of Appeal; and/or seek information from any other source. The Court shall make every effort to come to a conclusion and convey a final written decision on each Appeal within 30 days of receiving the Notice of Appeal.

No member of the Court may consider the Appeal if he has participated in the event under review as a competitor or official, or if he is directly or indirectly interested or involved with the matters under consideration.

The Court shall determine the procedures for hearing appeals, and these procedures are not subject to appeal.

**8.4.5. Judgment of the Court of Appeals**

A. After considering all relevant material, the Court shall meet privately, reach a conclusion, and prepare a written decision. Actions of the Court may include, but are not limited to, the following:

   1. The penalty or other action should be nullified, mitigated, affirmed, increased, or a different penalty imposed.

   2. The Court may order a rehearing by the original SOM.

B. The Court may not order a competition to be re-run.

C. At no time shall the Court of Appeals act as a Chief Steward, SOM, or Review Committee.

D. Penalties imposed by the Court incur automatic penalty points as specified in 7.4.

E. The Court may or may not return appeal fees; and it will determine the disposition of protest fees and tear down bonds, if any, in cases where the decision being appealed is nullified or otherwise changed.

F. The Court's decision is final, binding and not subject to further appeals by any party, either inside or outside the SCCA.

**8.4.6. Publication and Effect of Decision**

The National Office will distribute a copy of the Court's decision to all parties of the Appeal as soon as possible after the decision becomes final and will use its best efforts to publish the final decision as soon as possible. Individuals or organizations referred to in any decision have no right of action against SCCA, or any person publishing the decision, and the decision shall be final and binding. Any penalty imposed by the Court is effective immediately, or as stated in the Court's decision. Penalties involving time, disqualification, or loss of points apply to the event involved, but are effective as of the date of the conclusion of that event. The Court will determine the effective date for a suspension, whether it is affirmed or imposed.

**8.4.7. Bad Faith Appeals**

An appellant whose actions are in bad faith or vexatious may be penalized by the Court as specified in Section 7.

**8.4.8. Appeals Affecting Final Points Standings**

For all Runoffs Qualifying Races held less than 28 days before the beginning of the Runoffs, any Appeal affecting Runoffs eligibility, including all evidence, must be received in the National Office within 48 hours after either the receipt of a judgment issued by the SOM or the completion of the event, whichever occurs later. Runoffs invitations to all parties named in or affected by the Appeal will be held until the Appeal decision is final. An "intent to appeal" will not be accepted. This section supersedes any other time allowances for filing an Appeal.

**NOTES:**

# 9. CARS AND EQUIPMENT

## 9.1. CATEGORIES AND CLASSES

All cars competing in SCCA sanctioned races must comply with the requirements of the GCR.

There are 3 types of SCCA classes.

**A. Runoffs Eligible Classes**

1. Runoffs Eligible classes are those listed below which are not designated "Regional Only".
2. Only Runoffs Eligible classes will be invited to the Runoffs.

**B. Regional Classes**

Regional classes are identified in the list below.

**C. Optional Regional Classes**

1. Organizers may develop classes of cars to accommodate local demand and interest, provided the preparation rules meet the General Technical Specifications and are reviewed annually and approved by the Club Racing Department before the first event of the calendar year in which the local class(es) will compete. It is the organizer's option to Include these classes in events defined in 3.1.2.
2. In addition, organizers may include either or both of the following Optional Regional Classes in their events defined in 3.1.2.
   a. Super Production Class (SP) (Optional Regional Class): Cars which exceed the preparation limitations of the applicable Production or GT Category Rules but which meet the General Technical Specifications of Section 9.2, 9.3 and 9.4 of the GCR for GT category cars. This includes cars not listed in the GT or Production specification pages, such as FIA homologated production cars.
   b. Legend Cars (LC) (Optional Regional Class): Cars that are manufactured by 600 Racing and that comply with current Legend Car Rules, published by 600 Racing. An LC competitor must have the current LC Rules at all events. LC should grouped with cars of similar weight, configuration, and speed potential. Note: Legend Cars are not eligible for any other Club Racing category. Modifications not permitted in the current LC rules render the car ineligible for SCCA Club Racing competition. Legend Cars may run with any DOT 205/60/13 tires.

      Cars shall have two (2) red brake lights per GCR Section 9.3. Lights with fifteen (15) watt (minimum) bulbs. Engine breathers shall be equipped with oil catch tanks per GCR Section 9.3. Oil Catch Tanks, Filters, and Breathers. Minimum catch tank capacity shall be one (1) U.S. quart. All cars shall be equipped with a master switch (per GCR Section 9.3. Master Switch) easily accessible from outside the car. It should be located in the rear window just behind the "B" post on the right side. All cars are required an on-board fire system per GCR Section 9.3. Fire System. All cars shall be equipped with a fuel cell meeting the specifications of GCR Sections 9.3. Fuel Cell Specifications. All suspension Heim joints shall be captured with a flat washer(s). Arm restraints are required in all Legends Cars. A current Legends Car Rules is required to be in the possession of each entrant. Legends Cars are specifically exempt from GCR 9.3. Exhaust System, 9.1.9.A.2.d.1 (as it applies to tire protrusion from the fenders), and 9.3. Window Safety Nets.

The abbreviations in parentheses are the class identifications as required in 9.3.29. Identification Markings.

### 9.1.1. FORMULA CATEGORY CLASSES

| | |
|---|---|
| Formula Atlantic | (FA) |
| Formula 1000 | (FB) |
| Formula Continental | (FC) |
| Formula Enterprises | (FE) |
| Formula Vee | (FV) |

| | | |
|---|---|---|
| Formula F | (FF) | |
| Formula 500 | (F5) | |
| Formula Mazda | (FM) | |
| Formula S | (FS) | Regional Class |
| Formula First | (FST) | Regional Class |

9.1.1 continues in the Formula Category Rules.

**9.1.2. GRAND TOURING CATEGORY CLASSES**

| | | |
|---|---|---|
| GT-1 | (GT1) | |
| GT-2 | (GT2) | |
| GT-3 | (GT3) | |
| GT-Lite | (GTL) | |
| GT-A | (GTA) | Regional Class |

9.1.2 continues in the GT Category Rules.

**9.1.3. IMPROVED TOURING CATEGORY CLASSES (REGIONAL CLASSES)**

| | |
|---|---|
| R | (ITR) |
| S | (ITS) |
| A | (ITA) |
| B | (ITB) |
| C | (ITC) |

9.1.3 continues in the Improved Touring Category Rules.

**9.1.4. SUPER TOURING CATEGORY CLASSES**

| | |
|---|---|
| Super Touring Under | (STU) |
| Super Touring Lite | (STL) |

9.1.4 continues in the Super Touring Category Rules.

**9.1.5. PRODUCTION CATEGORY CLASSES**

| | |
|---|---|
| E Production | (EP) |
| F Production | (FP) |
| H Production | (HP) |

9.1.5 continues in the Production Category Rules.

**9.1.6. SEDAN CATEGORY**

| | |
|---|---|
| American Sedan | (AS) |

9.1.6 continues in the American Sedan Category Rules.

**9.1.7. SPEC MIATA CLASS**

| | |
|---|---|
| Spec Miata | (SM) |

9.1.7 continues in the Spec Miata Class Rules.

**9.1.8. SPORTS RACING CATEGORY CLASSES**

| | | |
|---|---|---|
| A Sports Racing | (ASR) | Regional Class |
| Prototype 1 | (P1) | |
| Prototype 2 | (P2) | |

Spec Racer Ford (SRF)

Spec Racer Ford 3 (SRF3)

9.1.8 continues in the Sports Racing Category Rules.

**9.1.9. TOURING CATEGORY CLASSES:**

Touring 1 (T1)

Touring 2 (T2)

Touring 3 (T3)

Touring 4 (T4)

9.1.9 continues in the Touring Category Rules.

**9.1.10. B-SPEC CATEGORY CLASSES**

B-Spec (B-Spec)

9.1.10 continues in the B-SPEC Category Rules.

**9.1.11. SPEC MX-5 CLASS**

Spec MX-5 (SM5) Regional Class

9.1.11 continues in the Spec MX-5 Class Rules.

**9.1.12. CARS RUN IN THE PROPER CLASS**

A. All cars shall race in their respective classes.

B. Cars should not be run in classes and/or categories for which they were not designed or intended. The Race Director or Chief Steward must approve the proposed classification. He will not approve if the car is so dissimilar or the car/driver combination otherwise unsuitable that it is a hazard or impediment to fair competition among the other cars in the class and race group.

**9.1.13. RUNOFFS-ELIGIBLE CLASS PARTICIPATION REQUIREMENTS**

A. A class retains its Runoffs-eligible status as long as its annual average number of entries achieves 2.5 or higher per Runoffs-eligible race. (This section has been suspended by the Board of Directors until *2018*. See the BoD minutes from the *December 2016* meeting in the *January 2017* Fastrack.)

B. Should that annual average number of entries fall below 2.5, the class will have one additional year to bring the participation level above the current requirement. Alternatively, it may be immediately consolidated into an existing class. If the class does not exceed the current average requirement during the grace year, it will either be consolidated into existing classes or become a Regional Class. (This section has been suspended by the Board of Directors until 2018. See the BoD minutes from the *December 2016* meeting in the *January 2017* Fastrack.)

C. Based on member input, a Regional Class (except Improved Touring) meeting or exceeding the participation requirements outlined in paragraph 9.1.13.A. for 1 year may be reviewed to become a Runoffs-eligible Class.

D. Based on member or manufacturer input, the CRB may recommend creating new Runoffs-eligible classes for BoD approval. Runoffs-eligible classes created under this section have 5 years to achieve an average of 2.5 cars per Runoffs-eligible race before being consolidated or redefined as a Regional Class, according to 9.1.13.B.

**Note 1:** For the purposes of this section, the term "entries" is defined as drivers classified in the final official race results of Runoffs-eligible races as finishers, did-not-finish (DNF), did-not-start (DNS), or disqualified (DQ).

**Note 2:** Classes such as Improved Touring, Super Production, A Sports Racing, and Formula S (Regional and Optional Regional Classes) have been developed for competitors to race at a Regional level. These classes will not be eligible for National races since they were created with the express understanding that they remain Regional Classes only. There may be other classes added to this philosophy, as we identify classes for our members to race cars that do not fit within our Runoffs-eligible racing program.

**9.2. VEHICLE DOCUMENTATION**

### 9.2.1 VEHICLE LOGBOOKS

Each car shall have a complete and up-to-date logbook.

A. The standard SCCA Vehicle Logbook will be used by all competitors at all SCCA competitions, unless excepted in the Supplemental Regulations for an event shared with another sanctioning organization, or as specified in 9.2.1.D.

All unissued Vehicle Logbooks must remain the in possession and control of a Divisional or National Technical Inspector.

B. Only one logbook will be issued for each vehicle (except as a continuation of the original or a replacement). When a continuation logbook is issued, the date the initial logbook was issued must be written on the front page of the continuation logbook. (It is not necessary to present all old logbooks for issuance of annual inspection stamp or a tech sticker.) Possessing two logbooks for one vehicle is a breach of the rules under 2.1.3.

C. A complete description of the vehicle, its safety roll bar/roll cage, and the required photographs must be present in the places provided. All changes of ownership of the vehicle must be recorded.

D. ASN Canada FIA Vehicle History Logbooks will be accepted at all SCCA events.

E. The Vehicle Logbook must be issued by a Nationally licensed Technical Inspector, who will complete the required vehicle information in the front and back of the logbook. He will conduct a thorough inspection of the vehicle, as provided in Section 9.3, General Technical and Safety Specifications. The logbook issue date is the date of registration.

F. Identity Numbers:

1. Each vehicle shall be issued an identity number which will be permanently stamped on its roll bar, and which will correspond to the number on the Vehicle Logbook.

2. The first digit(s) corresponding to the region's identity number will be separated from the balance of the numbers by a dash (-).

3. The car numbering system, beginning with 001, shall be issued consecutively as the vehicles are registered during a thorough inspection.

G. All Formula and Sports Racing Cars may be required to be homologated by SCCA and issued a Certificate of Approval. Refer to section 9.2.2. for details. Exceptions are Spec Racer Ford, FE, SRSCCA, and Shelby Can-Am. The original certificate shall be presented along with the car for issuance of a new Vehicle Logbook. Additionally, former Spec Racer Renaults may compete in Vintage/Historic events using their originally issued logbook.

H. At each event, this Logbook and the Certificate of Approval (for cars required by these rules to have one) must be presented at Technical Inspection with the signature of the driver/entrant for that event in the space provided. During Technical Inspection, any deviations in compliance shall be noted in the logbook by the Technical Inspector. The Race Director or Chief Steward may issue a waiver for the noted compliance deviation for the current event only by making a notation in the competitor's log book. Competitor must remediate before any subsequent events.

I. If a car is protested or inspected during an event and found to be non-compliant, the results of this protest or inspection must be noted in the logbook by the Chairman SOM, or another delegated official, such as the Chief Technical Inspector. (See 8.3.3.)

J. If a car is involved in an accident or is damaged as a result of mechanical failure, the damage must be noted in the Vehicle Logbook by the accident investigator or Chief Technical Inspector.

K. Cars found to be underweight at impound are subject to penalty and the weight shall be noted on the next page of the Vehicle Logbook.

L. If the logbook is not available at Technical Inspection, the car may compete only after a thorough inspection of the car is completed, during which all details required to issue a logbook are recorded.

M. A car may be entered in multiple classes within a single sanction numbered event. A single Vehicle Logbook is required, but it must contain pictures of each configuration.

### 9.2.2. HOMOLOGATION REQUIREMENTS

All Formula, Sports Racing, P1 and P2 cars shall be constructed in strict accordance with the rules and regulations contained in the current GCR unless specifically excepted. Cars registered prior to January 1, 1983 do not require homologation certificates.

Cars which do comply with the design criteria set forth for roll hoops (GCR 9.4.5) do not require a homologation certificate. Cars which do not comply with the design criteria set forth for roll hoops (GCR 9.4.5) may submit an application to the Club Racing Technical Manager as defined in GCR 9.4.5.F. The Club Racing Technical Staff, may deny any application for a configuration which is not compliant with the rules, which incorporates design characteristics or conditions that are fundamentally divergent from standard safety considerations or is otherwise incompatible with the relevant class structure or philosophy. A fee to be determined by Club Racing shall be assessed for all such applications.

Cars which are excepted from the published design criteria, shall at all times have available for examination a current logbook, a copy of the letter of exception from Club Racing and supporting engineering documentation. Cars which have previously been issued Homologation Certificates may satisfy this rule by presentation of said certificate or a copy.

All cars are subject to inspection for compliance with the data which was submitted in support of the alternative roll structure. The existence of a Homologation Certificate or letter of exception from Club Racing is not conclusive evidence of rules compliance.

### 9.3. GENERAL TECHNICAL AND SAFETY SPECIFICATIONS

The points covered at Technical and Safety Inspection shall be:

#### 9.3.1. ACCUMULATORS (e.g., Accusumps)

An accumulator (e.g., Accusump) may be installed (except for Spec Miata). Location is free, but it shall be securely mounted within the bodywork. All oil lines that pass into or through the driver/passenger compartment shall be of metal braided hose (e.g., Aeroquip).

#### 9.3.2. ACTIVE SUSPENSIONS AND TRACTION CONTROL SYSTEMS

Active suspensions and traction control systems, as installed by the automobile manufacturer and unmodified, are allowed only in Touring.

#### 9.3.3. ADVERTISEMENTS AND GRAPHICS

Advertising and graphics (names, symbols and logos) may be displayed on cars provided they are in good taste and do not interfere with identification marks and SCCA logos.

#### 9.3.4. AERODYNAMIC SKIRTS

Aerodynamic skirts are prohibited in Club Racing.

#### 9.3.5. ALL-WHEEL DRIVE

Four wheel (All-Wheel) drive is prohibited except in Touring, Improved Touring, Super Touring.

#### 9.3.6. APPEARANCE NEAT AND CLEAN, AND SUITABLE FOR COMPETITION

Specifically, cars that are dirty either externally or in the engine or passenger compartments, or that show *substantial* bodywork damage, structural or surface rust, or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition.

#### 9.3.7. BALLAST

Ballast may be added to all cars as required, to meet minimum weight, provided it is securely mounted within the bodywork and serves no other purpose.

#### 9.3.8. BATTERIES

Battery location is unrestricted within the bodywork (except Spec Miata, Touring *2-4*, *B-Spec,* and Improved Touring). If located in the driver/passenger compartment, vented wet cell batteries shall be in a nonconductive marine type container or equivalent. The hot terminal shall be insulated on all cars. All batteries (on-board power supplies) shall be attached securely to the frame or chassis structure independent of the marine type container.

#### 9.3.9. BODY PANELS

Body panels shall be securely mounted. Fender skirts and hub caps shall be removed. The hood and engine compartment shall be securely fastened. Hood fasteners must be removable with simple tools; no fastener requiring a key to open it is permitted.

**9.3.10. BRAKES**
Shall be pedal-operated, working directly on each wheel, and in good working order. Rolling brake tests are prohibited. ABS or Anti-lock braking systems are not allowed except in Touring, and Super Touring. To satisfy this rule, the ABS shall be disabled by removing or disconnecting all of the wheel sensors.

**9.3.11. CAMERA MOUNTS**
The mounts for video / photographic cameras shall be of a safe and secure design. The body of the camera or recording unit that weighs more than 8 oz shall be secured at a minimum of 2 points on different sides of the camera body. Suction cups or elastic mounts are not permitted. If a tether is used to restrain the camera, the tether length shall be limited so that the camera cannot contact the driver.

**9.3.12. CARBURETOR FUEL INLET FITTING**
On all carburetors, (except SU, C and D Sports Racing cars with motorcycle-type carburetors and Formula 500 Mikuni VM38 and F600 cars) with a non-threaded fuel inlet fitting, the fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting.

**9.3.13. COOL SUITS**
Cool suits are allowed in all classes. Water tank mounts shall be of a safe and secure design.

**9.3.14. COOLANT CATCH TANKS**
Cooling systems shall be equipped with coolant catch tanks with a minimum capacity of 1 US Pint, except cars that are equipped with working OEM pressurized coolant reservoirs **, which may use an additional catch tank**.

**9.3.15. CRYOGENIC TREATMENT**
Cryogenic treatment of components is allowed unless specifically prohibited in the category or class preparation rules.

**9.3.16. DATA COLLECTION DEVICES**
Data collection devices are considered to be instrumentation and are therefore allowed in all classes that permit the installation, replacement or addition of gauges, indicators or instruments.

**9.3.17. DETACHABLE PANELS/SUNROOFS**
Detachable hardtops, detachable panels, and detachable doors (e.g., Lotus 7) shall be removed, unless authorized in the Category Rules or Specification Book for that car to remain in place. All glass panels in the roof must be removed. Movable or removable metal or composite panels in the roof may be either removed or positively secured in the closed position. Any openings in the roof resulting from the removal of a panel must be covered with panels of stock contour made of the same material as the stock surrounding roof structure.

**9.3.18. DRIVER'S RESTRAINT SYSTEM**
All drivers in SCCA sanctioned speed events shall utilize either a 5, 6, or 7 point restraint harness meeting the following specifications. A 7 point restraint harness is recommended. Arm restraints are required on all open cars including open Targa tops, sunroofs and T-tops. Arm restraints shall not be worn in a manner which limits the ability of the driver to provide visible signals to other competitors while on track. The restraint system installation is subject to approval of the Chief Technical Inspector.

A. The shoulder harness shall be the over the shoulder type. There shall be a single release common to the seat belt and shoulder harness. When mounting belts and harnesses it is recommended that they be kept as short as reasonably possible to minimize stretch when loaded in an accident.

   The shoulder harness shall be mounted behind the driver and supported above a line drawn downward from the shoulder point at an angle of 20 degrees with the horizontal. The seat itself, or anything added only to the seat shall not be considered a suitable guide. Guides must be a part of the roll cage or a part of the car structure.

   Only separate shoulder straps are permitted. ("Y" type shoulder straps are not allowed.) "H" type configuration is allowed.

B. The single anti-submarine strap of the 5 point system shall be attached to the floor structure and have a metal to metal connection with the single release common to the seat belt and shoulder harness.

C. The double leg straps of the 6 point or 7 point system may be attached to the floor as above for the 5 point system or be attached to the seat belt so that the driver sits on them, passing them up between his legs and attaching either to the single release common to the seat belt and shoulder harness or attaching to the shoulder harness straps. It is also permissible for the leg straps to be secured at a point

common to the seat belt attachment to the structure, passing under the driver and up between his legs to the seat belt release or shoulder harness straps.

All straps shall be free to run through intermediate loops or clamps/buckles.

D. Each seat (lap) and shoulder belt of the harness (5, 6, or 7 points) shall have an individual mounting point (i.e. 2 for seat belt and 2 for shoulder belt minimum). 6 or 7 point system anti-submarine straps may share a mounting point with one or both seat (lap) belt(s). The minimum acceptable bolts used in the mounting of all belts and harnesses is SAE Grade 5/Metric 8.8. Mounting hardware, including eye bolts, as provided by the belt manufacturer, may also be used for mounting belts and harnesses. Where possible, seat belt, shoulder harness, and anti-submarine strap(s) should be mounted to the roll structure or frame of the car. Where this is not possible, large diameter mounting washers or equivalent should be used to spread the load. Bolting through aluminum floor panels, etc., is not acceptable. Holes in the roll cage to accommodate the installation of the harness must be bushed and welded completely.

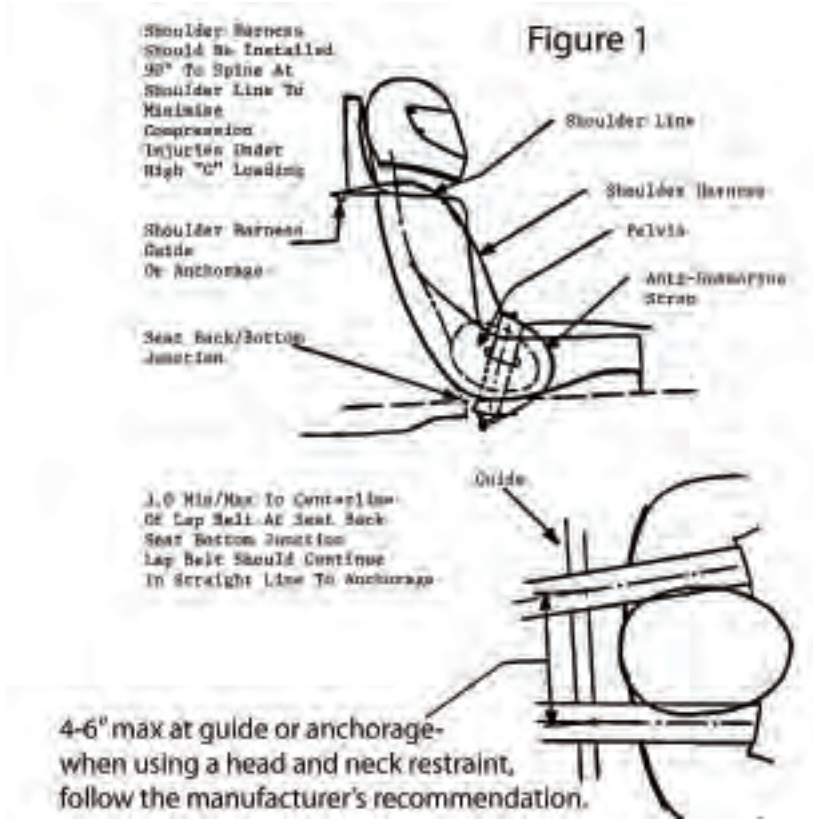
E. All driver restraint systems shall meet one of the following: SFI specification 16.1, 16.5, or FIA specification 8853/98, 8853-2016 or 8854/98.

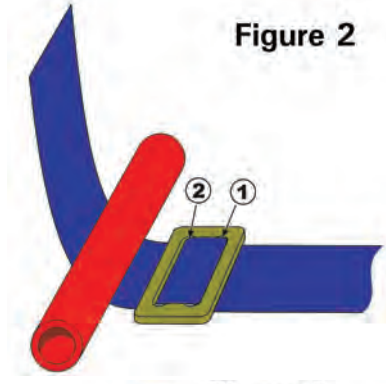
1. Restraint systems meeting SFI 16.1 or 16.5 shall bear a dated SFI Spec label. The certification indicated by this label shall expire on December 31st of the 5th year after the date of manufacture as indicated by the label. If for example the manufacture date is 2014 the fifth year after the date of manufacture is 2019.

2. Restraint systems homologated to FIA specification 8853/98 and 8854/98 will have a label containing the type of harness designation ('C-###.T/98 or D-###.T/98) and date of expiration which is the last day of the year marked. All straps in this FIA restraint system will have these labels.

3. If a restraint system has more than one type of certification label, the label with the latest expiration may be used.

F. Harness Threading: Assemble in accordance with manufacturers instructions. If no manufacturer instructions are given, use the methods shown in Figures 2-6.


Figure 1
Shoulder Harness Should Be Installed 90° To Spine At Shoulder Line To Minimize Compression Injuries Under High "G" Loading
Shoulder Line
Shoulder Harness
Pelvis
Anti-Submarine Strap
Shoulder Harness Guide Or Anchorage
Seat Back/Bottom Junction
Guide
3.0 Min/Max To Centerline Of Lap Belt At Seat Back Seat Bottom Junction Lap Belt Should Continue In Straight Line To Anchorage
4-6" max at guide or anchorage- when using a head and neck restraint, follow the manufacturer's recommendation.


Figure 2
2
1

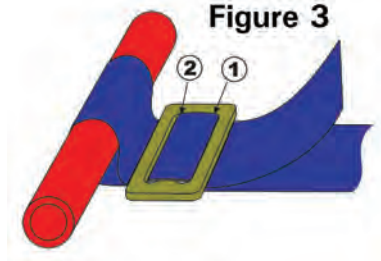

Figure 3
2
1

Figure 4

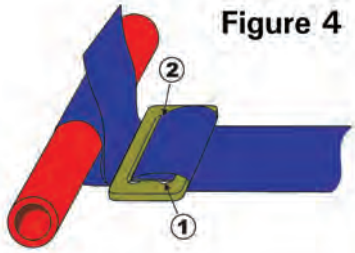



Figure 5

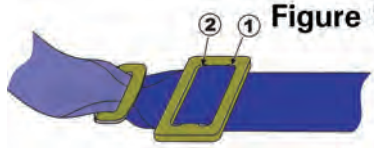
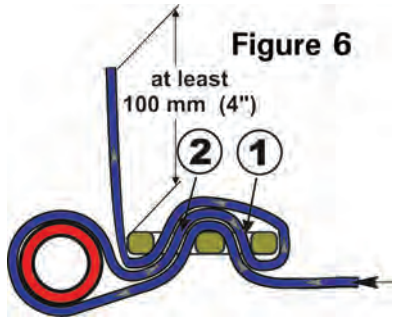



Figure 6




**9.3.19. DRIVER'S SAFETY EQUIPMENT**

All required driver's safety equipment must be worn at all times while on track. The participant agrees that the participant bears the ultimate responsibility at all times to ensure the safety of participant's driver's safety equipment, and compliance with all SCCA rules, regulations, and agreements, including but not limited to those contained in the GCR.

**A. Annual Inspection**

At or before the first event of the calendar year, all driver's safety equipment will be inspected by a licensed scrutineer. The scrutineer performing the inspection shall affix a dated, non-removable sticker or decal on the left side of helmets that comply with Section 9.3.20.C.2., to indicate that all driver's safety equipment has been inspected and is in compliance with this section. This sticker or decal, which shall be placed on the helmet in a manner such that it is visible from outside the car with the driver seated and belted in the normal driving position, may be checked by grid or scrutineering personnel on the starting grid. The presence of other externally visible driver's safety equipment (gloves, balaclava, and suit) may also be checked by grid or scrutineering personnel on the starting grid.

**B. Reinspection**

Throughout the racing season, a check of the condition and legality of driver's safety equipment should periodically be done by scrutineers in impound by group or class with the concurrence of the Race Director or Chief Steward.

**C. Required Equipment**

The following required equipment shall be in good condition and free of defects, holes, cracks, frays, etc.

1. Driving suits that effectively cover the body from the neck to the ankles and wrists. One piece suits are highly recommended. All suits shall bear an SFI 3.2A/1 or higher certification label or FIA 1986 Standard or FIA Standard 8856-2000 homologation label. Underwear of fire resistant material shall be used, but is optional with suits carrying an FIA Standard 1986 Standard or FIA Standard 8856-2000 label or SFI 3-2A/5 or higher (e.g., /10, /15, /20) certification label.

2 Crash helmets approved by the Snell Foundation with Snell sticker *2010* or later Special Application SA2010/SAH2010, or SA2015/SAH2015, or by the SFI with a SFI Sticker SFI 31.1, or by the FIA standard 8860-2004 or later, or British Standards Institute BS6658-85 type A/FR. Each driver's helmet shall be labeled with a minimum of the driver's name. The use of a head and neck

restraint system that has been certified in accordance with SFI 38.1 *or* FIA 8858-2002 or 8858-2010 is required; an SFI 38.1 or FIA 8858-2002 or 8858-2010 label must be properly affixed to the device. Accident damaged helmets should be sent by the driver or his or her representative to the Snell Memorial Foundation, 3628 Madison Ave., North Highland, CA. 95660 (ph.) 916-331-5073 (attn. Edward B. Becker). Details of the accident should be included. Freon based total loss helmet cooling systems are not allowed.

3. Gloves made of leather and/or accepted fire resistant material containing no holes.
4. Socks made of accepted fire resistant material.
5. Face coverings (balaclavas) of accepted fire resistant material for drivers with beards or mustaches. Hair protruding from beneath a driver's helmet shall be completely covered by fire resistant material. As an alternative to balaclavas, a full helmet skirt of accepted fire resistant material may be used. Double-layer balaclavas are recommended. If balaclavas are used voluntarily, they shall be of accepted fire resistant material.
6. Goggles or face shields, preferably made of new impact resistant materials, for drivers of open cars.
7. A driver's restraint system meeting SCCA standards (See section *9.3.* Driver's Restraint System) shall be used at all times while on the track.
8. Shoes, with uppers of leather and/or nonflammable material that at a minimum cover the instep. Ventilation pinholes by the manufacturer are allowed.

**9.3.20. ELIGIBILITY**
Eligibility for class entered–compliance with the GCR and Specification Books.

**9.3.21. EXHAUST SYSTEM**
Shall be directed away from the body and shall terminate at or behind a point which is equidistant from the front and rear hubs. Legends Cars exhaust systems must comply with the official Legends Cars technical specifications.

**9.3.22. FIRE SYSTEM**
All cars shall be equipped with an On-Board Fire System except *T3, T4 STL*, Spec Miata, and Improved Touring.

**A. On-Board Fire System Requirements**

Cars registered after 1/1/09 shall comply with the following onboard fire system requirements:

- Systems certified to SFI specification 17.1, or
- Those listed by the FIA on Technical List No. 16

The following information must be visible of the unit:

- Certification label
- Capacity
- Type of extinguishing agent
- Weight, or volume, of the extinguishing agent

The following is acceptable for cars registered before 1/1/09:
On-board fire systems shall use Halon 1301 or 1211, with a five pound minimum capacity (by weight). Alternatively, on-board fire systems may use AFFF or equivalent surfactant foam material, 2.25 liter minimum capacity (by volume). All AFFF fire system bottles, except non-pressurized AFFF systems with CO2 propellant, shall incorporate a functional pressure gauge and shall be marked with the manufacturer's recommended "filled weight." CO2 cartridge propellant fire extinguishing systems are permitted provided that the seal of the manufacturer specified CO2 cartridge is not punctured and the fire bottle is equal to the weight specified by the system manufacturer.

Cars shall meet the following regardless of registration date:

1. The fire system cylinder shall be securely mounted in such a manner that it can be checked during a technical inspection and may be removed for weighing periodically for compliance to full weight

shown on the cylinder. (Weight is without valve assembly.)

2. Manual or automatic release is allowed. The release mechanism shall be within reach of the driver when belted in the car.
3. All on-board fire systems shall be identified with a circle "E" decal.
   a. In GT and Production cars, two circle "E" decals may be required–one at the release location and the second on the outside bodywork in line with or as near to the release location as possible.
   b. In Formula and Sports Racing cars, a circle "E" decal shall be located on the outside bodywork as near to the release location as possible.




**On Board Fire System**
**Item #2607**

4. There shall be a minimum of two nozzle locations–one in the driver's compartment and one in either the engine area or the fuel cell area. The nozzles shall be suitable for the type of extinguishing agent used.
5. The firing safety pin(s) shall be removed from all on-board fire systems prior to going on track. It is recommended that a warning tag be attached to the safety pin to remind the driver to remove the safety pin before entering the racing surface.
6. All fire systems shall be serviced according to manufacturer's specifications.

**B. Hand-Held Fire Extinguisher Requirements**

The following are acceptable for Touring, Spec Miata, Super Touring and Improved Touring cars:

1. Halon 1301, 1211 or Dupont FE-36, two (2) pound minimum capacity by weight.
2. Dry chemical, two (2) pound minimum with a positive indicator showing charge. Chemical: 10 BC Underwriters Laboratory rating, potassium bicarbonate (Purple K) recommended, 1A10BC Underwriters Laboratory rating multipurpose, ammonium phosphate and barium sulfate or Monnex.
3. AFFF (aqueous film forming foam) or equivalent surfactant foam material, 2.25 liter minimum capacity (by volume). All AFFF fire bottles shall incorporate a functional pressure gauge.
4. The fire extinguisher shall be securely mounted in the cockpit. All mounting brackets shall be metal and of the quick release type.
5. The circle "E" decal of 9.3.23.A.3.b (above) shall not appear on cars which have only a hand-held fire extinguisher.

**9.3.23. FIREWALL AND FLOOR**

Firewall and floor shall prevent the passage of flame and debris into the driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids, except composite/honeycomb structures. All rear-engined Formula cars are required to have an undertray, from driver's foot area to the firewall, for protection of legs and torso. Insulation or heat-resistant material may be added to the interior (cockpit) surfaces of the firewall, floor, and transmission tunnel.

**9.3.24. FORMULA CAR VISIBILITY**

The driver of all Formula cars shall have a field of vision of not less than ninety (90) degrees to either side (total of 180 degrees) with both eyes by turning his or her head, but without lifting his or her head forward or otherwise moving from the normal driving position. Plexiglas or similar uncolored transparent material may be substituted for existing bodywork. "Token" portholes do not satisfy this requirement. Only a structural member such as a roll bar brace or frame tube may interrupt the required field of vision.

**9.3.25. FUEL**

All cars shall use fuel, as defined below, unless a specific exemption is made in the provisions for a specific category/class.

**A. Permitted Fuel**

Permitted fuel is herein defined as gasoline or diesel fuel meeting specified dielectric constant standards and not containing any prohibited substance in excess of stated limits. Gasoline is a mixture of refined hydrocarbons. Gasoline is an electrical insulator and its relative effectiveness as an insulator is represented by its dielectric constant (D.C.). The D.C. of gasoline will be measured by an SCCA Fuel Check Meter (Precision Fuel Testing G-01 Fuel Analyzer, Kavlico FT-K01 Fuel Tester or Digatron DT47-FT fuel tester). The 0 (zero) calibration of the SCCA Fuel Check Meter is set against reagent or laboratory grade cyclohexane. Gasoline may be tested and certified at SCCA events by the determination of the dielectric constant using the SCCA Fuel Check meter and through the application of various chemical analyses. If a competitor's fuel is not compliant with the fuel standards below, the Race Director or Chief Steward shall take appropriate action (Chief Steward's Action or Request for Action). In addition, fuel may be subject to laboratory testing.

If a car is required to run diesel fuel, it will be noted on its specification line. Diesel fuels must have a dielectric constant between 2.2 and 4.9 (G-01 or FTK-01) or between 24 and 55 (DT-47FT). Diesel fuels are subject to the same restrictions on prohibited substances as gasoline.

Any participant may protest the fuel in any car to determine compliance with the provisions of these fuel rules. In addition to the standard protest fee, a bond shall be collected from the protestor and the driver or entrant of the protested car. The bond covers the cost of laboratory testing of the fuel sample(s) and transportation costs. The laboratory testing shall be limited to determining the presence of any prohibited substance in excess of the allowed amount. If the test is negative, the protestor's bond will be used to pay the laboratory fees and transportation. If the test is positive (any banned substance present in excess of the stated limits), the protested driver's or entrant's bond will be used to pay the laboratory fees and transportation costs. The unused bond will be returned. In the case of a CSA or RFA resulting in laboratory testing, the organizing Region shall take the role of the protestor. If the laboratory results show that the protested fuel is non-compliant, the Chief Steward or the SOM shall assess appropriate penalties. The amount of each bond is $250.

| Fuel Standards | | |
|---|---|---|
| Classes | Type | DC max |
| All other classes | Gasoline with or without added oil | G-01 or FTK-01: 15<br>DT-47FT: 166 |

The use of any substance in the following table in excess of the stated limit is prohibited either in fuel or otherwise introduced into the engine.

| **Chemical Compounds Prohibited or Restricted in SCCA Race Fuels** | | |
|---|---|---|
| **Compounds** | **Examples** | **Maximum Weight or Percentage By Weight Allowed** |
| Total Aldehydes | Acetaldehyde, Acrolein, Formaldehyde | 1.0% |
| Benzene | | 0.75% |
| 3,3-dimethyl-1-butene | | 0.05% |
| Total ethers except MTBE | 1,4 Dioxane, Furan, Tetrahydrofuran | 0.05% |
| MTBE | | 3.0% |
| Total Dienes(Diolefins) | 1,3 Butadiene, Isoprene | 1.0% |
| Ethanol | | 10.0% |
| Total Epoxides | Ethylene oxide, Propylene oxide | 0.05% |
| Methanol | | 1.0% |
| Total Metals (elemental,non-lead) | Manganese (e.g.,MMT), Boron, Chromium | 0.05 gm/gal |
| Total Lead (elemental) | Lead (e.g.,TML, TEL) | 8.0 gm/gal |
| Total Nitrogen Compounds | Nitromethane, Nitroethane. Nitropropane, and all aromatic nitrogen compounds such as Nitrobenzene, Ammonia, Amines and their salts, Aniline, Hydrazine, Pyridine, Pyrrole, Benzidine | 0.05% |
| Styrene | | 1.0% |
| Total Sulfur Compounds | Dimethylsulfoxide, Thiophene | 0.05% |

**B. Fuel Sample Acquisition**

All cars shall be equipped with an accessible sampling port/valve/device located in a fuel line between the fuel tank or fuel cell and the carburetors or fuel injection system or in an unused carburetor port to allow safe acquisition of a fuel sample. If possible, the port/valve/device should be located outside the engine compartment. The sampling port/ valve/device will be installed and used by the competitor to obtain the sample without fuel leaking, spraying or squirting. Siphoning of fuel directly from the fuel tank or fuel cell or removing a hose or line is not allowed.

Competitors whose cars are equipped with a factory fuel pressure test port or who have factory fuel pressure test equipment available are not required to have an additional fuel sampling port, providing the test port is accessible and the competitor obtains the sample without fuel leaking, spraying or squirting.

Competitors will provide all the necessary and appropriate tools to obtain a fuel sample.

A tech observer and manned fire extinguisher will be at the car at the time the sample is taken and the com-

petitor will name the fuel brand and type for notation on the fuel sample bottle label.

**9.3.26. FUEL CELL SPECIFICATIONS**

All cars must be equipped with a safety fuel cell complying with these specifications, except for Touring, Spec Miata, Improved Touring, production-based Vintage cars, or as otherwise specified in the GCR. All safety fuel bladders shall be constructed and certified in accordance with the FIA FT-3 or higher (FT-3.5, FT-5, etc.) or SFI 28.3 specifications. Fuel cells do not time out and have no expiration date. Alternatively, safety fuel cells shall be constructed in accordance with FIA FT-3 or higher or SFI 28.3 specifications and tested to those requirements by an independent facility as witnessed and certified by a Professional Engineer. The results of these tests shall be submitted to the Club Racing department for inclusion on a list of approved suppliers. All safety fuel cells shall consist of a foam-filled fuel bladder enclosed in a metal container at minimum.

There is no restriction of fuel cell capacity or dimensions of the fuel cell, except where otherwise specified. The installation of more than one cell is permitted.

**1. Installation**

Internal body panels may be modified to accommodate the installation of fuel cells as long as modifications serve no other purpose. If installation includes encroachment into the driver's compartment, a metal bulkhead must prevent exposure of the driver to the fuel cell. The fuel cell must not be installed any closer to the ground than 6 inches, unless enclosed within the bodywork or OEM floor pan.

a. There must be a metal bulkhead between the driver/passenger compartment and the compartment containing the fuel cell. This includes fuel cells that are flush mounted with driver/passenger compartment panels or otherwise exposed to the driver/passenger compartment.

b. Fuel cells must be located within 12 inches of the standard tank. The 12 inch measurement is taken from the perimeter of the stock and alternative fuel cell. Fuel filler location is unrestricted with installation of a safety fuel cell.

**2. Container**

a. GT and Production Category

The bladder shall be installed in a container of .036 inch steel, or .059 inch aluminum that fully surrounds the bladder.

b. Sports Racing Category and Formula Cars

The fuel bladder shall be completely surrounded by a container (which may also be a part of the structure or bodywork of the car) to ensure rigid and secure mounting of the bladder and provide additional protection. A minimum of .036 inch steel, .059 inch aluminum, or an approved equivalent is required for all vehicles.

**3. Filler Cap and Vents**

A positive locking fuel filler cap (no Monza/flip type) shall be used. Fuel pickup openings and lines, breather vents, and fuel filler lines shall be designed and installed so that if the car is partially or totally inverted, fuel shall not escape. Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

If the fuel filler cap is located directly on the fuel cell, a check valve is not required, provided the filler cap is a positive locking type and does not use an unchecked breather opening. If the filler cap is not located on the fuel cell, a check valve must be installed on the fuel cell to prevent fuel from escaping if the cap and filler neck are torn from the tank.

Fuel cell breathers shall vent outside the car. The cell need not incorporate a drain fitting. It is recommended that all lines, filler openings, and vents be incorporated in a single fitting located at the top of the fuel cell.

In Formula and Sports Racing cars registered prior to January 1, 1994, the filler cap and neck are exempt from the bulkhead requirements of 9.3.27.1.a.

Factory installed gas tank evaporative emission control devices must be removed from all Production and GT Category cars. Fuel cell vents must not discharge into the driver/passenger compartments, even if installed that way by the manufacturer. The fuel system cannot vent through the roll bar/roll cage structure.

**4. Rotary Molded Cell**

The use of rotary molded fuel cells not having a bladder, or not contained in a metal can, is allowable in those cars that do not require the use of a fuel cell, but where they are an allowed option.

**5. Fuel Tank Filler Doors**

On vehicles where a stock fuel tank is allowed, the unleaded fuel filler trap door and restrictor plate in the filler neck may be removed.

### 9.3.27. FUEL, OIL, AND WATER LINES

All fuel, oil, and water lines, including gauge and vent lines, that pass into or through the driver/passenger compartment, shall be of steel tube or metal braided hoses or bulkheaded (Cool suit lines are exempt). The driver shall not be exposed to header tanks. Heat shielding between fuel/oil lines and fuel/oil filters and exhaust components is strongly recommended.

### 9.3.28. IDENTIFICATION MARKINGS

Each car shall carry identification numbers and class letters per A and B, below, SCCA logos per C, below; and any markings required by the Supplemental Regulations.

**A. Numbers and Class Letters**

Numbers shall be placed on the front and both sides of the car so that they are legible. All Formula cars with a rear wing shall have legible numbers on each rear wing side plate. Numbers may be 1, 2 or 3 digits. 3 digit numbers must start with the number "1". Class letters shall be placed on both sides of the car so that they are legible. Rear numbers and class letters are recommended. Cars running in multiple classes must clearly identify which class and weight they are running. The numeral "1" shall be exclusively reserved for the current national champion in each class for national events. The numeral "1" will be reserved until the end of the period for submitting advanced or pre-event entries, and then will be released. If 2 or more national champions are entered in the same run group, the first to enter shall have preference.

**B. Size of Numbers and Class Letters**

Numbers shall be at least 8 inches high, with a 1.5 inch stroke on a contrasting background (rear winged Formula cars shall have as large a number as possible on their rear wing side plates). Metallic (reflective) numbers and class letters are prohibited. The distance between 2 numbers shall be at least as wide as the stroke of the numbers. Class letters shall be at least 4 inches high, with a 1/2 inch stroke on a contrasting background.

**C. SCCA Logo**

Each driver's suit shall display *one of* the SCCA logo*s shown in figure 2. It is preferred that the logo be placed on the upper right side of the driver's suit (see figure 3).* Each car competing in an event shall display the official SCCA field logo (see figures *4* and 5) unobstructed and prominently on both sides of the car and adjacent to the side numbers. A third logo shall be displayed on the front of the car unobstructed and prominently near the front number. The logo shall be on the spoiler of cars so equipped.

**D. Displaying Minimum Weight and Restrictor Size Type**

Except for classes in which there is only 1 required minimum weight (e.g., ASR, FE, FS, FST, FV, SM5, SRF), all cars shall display the correct minimum weight specified in the current GCR in a manner that is clearly legible to the scrutineers at the scales. Cars that are run in more than one class must display the correct minimum weight for each class so that it is clear which weight applies to each class. Any car required to run a restrictor must display the restrictor size and type in a manner that is clearly legible to the scrutineers. If the car also displays a minimum weight, it is recommended that the restrictor information be located near the displayed minimum weight.

## Figure 2
## Official SCCA Logo




**Item #3619**
**(4.5 x 2.0 Inches)**




**Discontinued**
**(4.5 x 2.0 Inches)**




**Item #3632**
**(3.5 x 1.0 Inches)**

**Figure 3**
**SCCA Uniform Patch (Right Side Preferred)**




Logos and decals of sanctioning bodies other than SCCA shall be removed or covered (car and driver's suit).

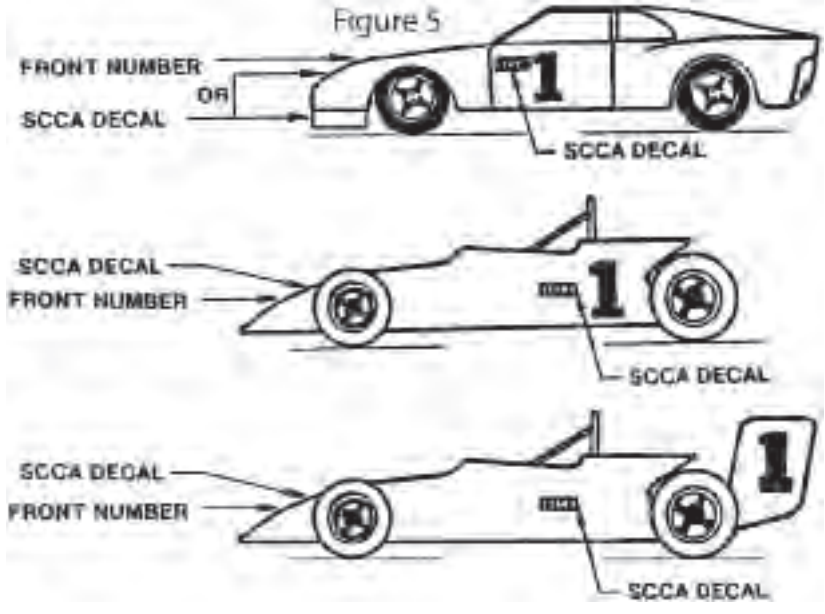
Vintage cars when participating in vintage events may use the four (4) inch diameter "SCCA Wire Wheel" in place of the current field logo.

**Figure 4**




**Official SCCA Field Logo**

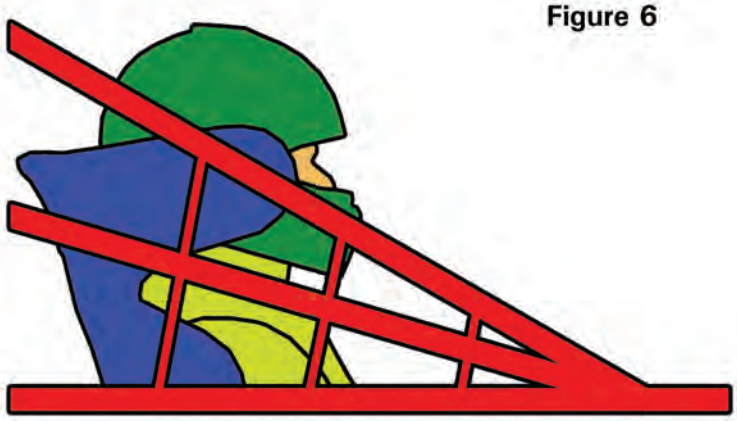
Figure 5



**9.3.29. INSIDE NET**

An inside net running between the main roll hoop and the dash is recommended for all production-based cars and two-seater Sports Racing cars (see figure 6). It is recommended that the lower strand of the net pass the shoulder and run horizontally from the cage to the dash. The upper strand should pass the Cg of the helmet in the side view. The net should run parallel to the center of the car in plain view and be as close to the seat as possible. It is recommended that the net be tensioned tightly and have a way to quickly disconnect it in case the driver needs to exit through the car in an emergency. Metal collars, or some other equivalent method, should be used to keep the strands of the net from moving along the roll cage. If possible, the recommended mounting method is to wrap the net strands around the back of the seat and attach them to the main hoop upright. However, teams should consult the net manufacturer to verify their recommended method of mounting.

Figure 6



**9.3.30. LEAKAGE AND CAPS**

There shall be no visible fluid leaks.

**9.3.31. LIGHTS**

All non-Formula cars shall have two operating red brake lights. All Formula (open wheel) and Sports Racing cars shall be equipped with a red taillight of at least the equivalent illumination power of a 15 watt bulb. This light shall be mounted as high as possible on the centerline of the car and be clearly visible from the rear. The taillight shall be illuminated when ordered by the Race Director or Chief Steward. Light assemblies shall be considered one light for the purposes of this rule, irrespective of the number of individual lamps the assembly may contain. Light assemblies may perform both rain and brake light functions provided they have two distinct illumination levels. An optional tail light ("rain light"), as described above, may be added to cars in all other classes. Lights that function as a strobe lights are not permitted except that in Formula and Sports Racer classes, the tail light may strobe when directed to be used as a rain light.

Exposed glass headlights shall be taped. Rear brake lights may be taped with transparent tape. Turn signals, front parking lights, backup lamps, and side marker lights may be taped or painted. Lights mounted on or below the bumper shall be removed, and all resulting holes shall be covered to prevent air passage through said holes. Lights mounted within the bumper may be removed or covered and any resulting holes shall be covered to prevent air passage through said holes.

**9.3.32. LOSS OF BODYWORK**

All major body components such as front and rear hoods, fenders, doors, and windscreens shall be maintained in normal position throughout the competition. If loss of bodywork is a safety hazard, the car may be black-flagged. A car completing a competition with bodywork missing may be penalized.

**9.3.33. MASTER SWITCH**

All cars, except Touring*, and B-Spec* shall be equipped with a master switch easily accessible from outside the car. Spec Racer Fords shall be wired per RFSRII. The master switch shall be installed directly in either battery cable and shall cut all electrical circuits but not an on-board fire system. All terminals of the master switch shall be insulated to prevent shorting out. It shall be clearly marked by the international marking of a spark in a blue triangle and mounted in a standard location. Off position shall be clearly indicated at the master switch location. The standard locations shall be as follows:




Kill Switch
Item #2606

A. Formula and Sports Racing Cars–In proximity to the right-hand member of the roll bar, but in a location so that it cannot be operated accidentally. It can be mounted on a bracket welded to the inside of the upright member or mounted so that the operating lever or knob is outside of the body panel immediately in-board of the upright member. This is the standard location on Formula cars built to the Constructor's Association requirements for Formula 1.

B. Closed Sports Racing Cars, Production Cars, Improved Touring and GT Cars–In front of the windshield on either the cowl or on top of the fender, but close enough to the windshield to be accessible if the car is overturned. Alternatively, it may be mounted below the center of the rear window or on a bracket welded, clamped or bolted to the roll cage or dash, easily accessible through the open window. (Drilling of holes in roll cage to attach the bracket is prohibited.)

C. Open Production, GT, and Improved Touring Cars–May exercise a choice among the above locations.

**9.3.34. MIRRORS**
Shall provide driver visibility to the rear of both sides of the car.

**9.3.35. NON-METALLIC WHEEL/CHASSIS CONSTRUCTION**
Non-metallic wheel construction is prohibited. Non-metallic chassis construction is prohibited, except in ASR, P1, P2, S2, FS and FA. New chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Contact the SCCA national office for a list of the relevant FIA specifications/SCCA requirements.

**9.3.36. OIL AND OIL ADDITIVES**
Any oil or oil additive may be used. Oil additives are defined as: Any liquid or particulate compound(s) delivered into the engine via the engine oil for the purpose of friction/temperature reduction, and/or metal surface conditioning (i.e. PTFE resins (Teflon, "Slick-50"), Molybdenum Disulfide, etc.).

**9.3.37. OIL CATCH TANKS, FILTERS, AND BREATHERS**
Oil holding tanks and engine breathers, whether directly or indirectly ventilating the crankcase, and all transmission/transaxle breathers shall be equipped with oil catch tanks. Minimum catch tank capacity shall be one U.S. quart for the engine and transmission/transaxle. Oil holding tanks and oil filters may be mounted in the driver/passenger compartment. A metal bulkhead shall prevent exposure of the driver to oil spillage. Oil catch tanks shall vent into the engine compartment or outside the driver's compartment. A crankcase vacuum breather that passes through the oil catch tank(s) to exhaust systems or vacuum devices that connect directly to exhaust systems is prohibited.

**9.3.38. ROLL CAGE/ROLL BAR**
Shall comply with Section 9.4., Driver Protection Structures.

**9.3.39. SCATTERSHIELDS/CHAIN GUARDS**
The installation of scattershields or explosion-proof bell housings shall be required on all cars (except Spec Miata, Touring and Improved Touring) where the failure of the clutch or flywheel could create a hazard to the driver. Chain drive cars shall be fitted with a protective case/shield to retain the chain in case of failure.

Minimum material specifications are:

.125 inch SAE 4130 alloy steel

.250 inch mild steel plate

.250 inch aluminum alloy

NHRA or SFI approved flexible shields.

**9.3.40. SEATS**

*The driver's seat shall be a one-piece bucket-type seat and shall be securely mounted, so as to provide fore/aft and lateral support. Passenger seat back, if a folding seat, shall be securely bolted or strapped in place.*

Mounting structures for racing seats may attach to the floor, cage and or center tunnel. Seat mounting points forward of the main hoop, between the center line of the car and the driver's side door bar and rearward of the front edge of the seat bottom are not considered cage attachment points in classes with limitations on the number of attachments.

A system of head rest to prevent whiplash and rebound, and also to prevent the driver's head from striking the underside of the main hoop shall be installed on all vehicles. Racing seats with integral headrests satisfy this requirement.

The head rest on non-integral seats shall have a minimum area of 36 square inches and be padded with a minimum of one inch thick padding. It is strongly recommended that padding meet SFI spec 45.2 or FIA Sports Car Head Rest Material. The head rest shall be capable of withstanding a force of two-hundred (200) lbs. in a rearward direction. The head rest support shall be such that it continues rearward or upward from the top edge in a way that the driver's helmet can not hook over the pad.

**9.3.41. STEERING WHEEL LOCKS**

Steering wheel lock devices shall be removed or disabled (except Touring).

**9.3.42. STEERING WHEELS**

Wood rim steering wheels are prohibited.

**9.3.43. SUSPENSION AND STEERING**

Suspension and steering shall be of suitable design and in good working order. Four wheel steering is prohibited. Unless specifically permitted, non-metallic suspension control arms, locating links, toe/steering links and pushrods are prohibited.

**9.3.44. TIRES**

Tires shall be 124 ("U") mph rated or better unless otherwise specified or controlled.

In the Improved Touring, Super Touring, American Sedan, Spec Miata and Touring categories, any U rated, or better, DOT approved tire are required. Re-grooving of tires by any method once the tire has left the manufacturer is not permitted. Recapped, or re-grooved tires are not allowed. Tire size is unrestricted unless otherwise stated. The only modifications allowed to tires are having treads "shaved" or "trued."

**9.3.45. TIRE WARMERS**

Pre-heating of tires prior to competition by electrically heated covers or similar means is prohibited on the grid.

**9.3.46. TONNEAU AND BOOT COVERS**

Tonneau covers and boot covers shall be removed.

**9.3.47. TOWING EYES**

All cars without an exposed roll bar shall have a towing eye or strap, front and rear that does not dangerously protrude from the bodywork when the car is racing, to be used for flat towing or hauling the vehicle. A removable towing eye carried inside the car is not acceptable, except in formula cars and Sports Racing cars. These towing eyes or straps shall be easily accessible without removal or manipulation of bodywork or other panels. Towing eye minimum ID 2 inches.

The required tow eyes must be strong enough to tow the car from a hazard such as a gravel trap. Front tow eye may be mounted in the driver/passenger side window openings, or any location forward of the windshield. If mounted in the driver/passenger side window openings, it must be attached to the forward roll cage down tube as close to the base of the windshield as possible. If the front tow eye is located in the side window openings there shall be one on each side of the car. Rear tow eyes must be accessible rearward of the rear axle centerline.

In addition, for Formula and Sports Racing cars, if the main hoop is faired in, the fairing shall have access holes to allow the insertion of a bar or strap to allow the car to be lifted by a wrecker.

**9.3.48. VENTILATION**

Holes for ventilation in quarter or rear windows on Production or GT cars are not allowed, unless specified in PCS or GTCS, respectively.

**9.3.49. WEIGHT**
All cars shall meet or exceed the minimum weight specified with driver, exactly as they come off the race circuit, at the conclusion of any race or qualifying session

**9.3.50. WHEEL FANS**
Wheel fans are permitted, unless otherwise restricted.

**9.3.51. WHEEL RIM WIDTH**
Wheel rim width shall be measured at the base of the bead seat.

**9.3.52. WINDOWS**
Windows shall be clear or uncolored, except in Production, Super Tour¬ing and Touring if no factory or aftermarket clear windows are available. Officials may require the replacement of windshields that are considered a safety hazard. *Factory (OEM Manufacturer) and FIA GT3/GT4, race prepared cars with fixed Lexan front door windows may race with windows as delivered and noted on the Spec Line.* All *other* closed cars shall run with both front door windows fully open.

**9.3.53. WINDOW SAFETY NETS**
Window safety nets shall be used on the driver's side window of all closed cars *unless these are factory (OEM manufacturer) and FIA GT3/GT4 race prepared cars with fixed Lexan front door windows as noted on Specification Line*. All window nets shall meet SFI Specification 27.1., and shall bear an "SFI Spec 27.1., Label" to that effect. (Note: Window nets need not be dated.) The window net shall be equipped with a quick-release device and when released it shall fall down, thus not having to be flipped up on the roof. Nets shall be attached to the roll cage; plastic buckles, cable ties, hose clamps, and elastic cords are not permitted. Holes in the roll cage to accommodate either support rod are unacceptable unless bushed and welded completely. Refer to figures 7 and 8, "Proper Window Net Installation," for additional information on mounting methods. Closed cockpit Sports Racing cars may use arm restraints in lieu of a window net. Legends Cars are not required to have window net.

**Figure 7**

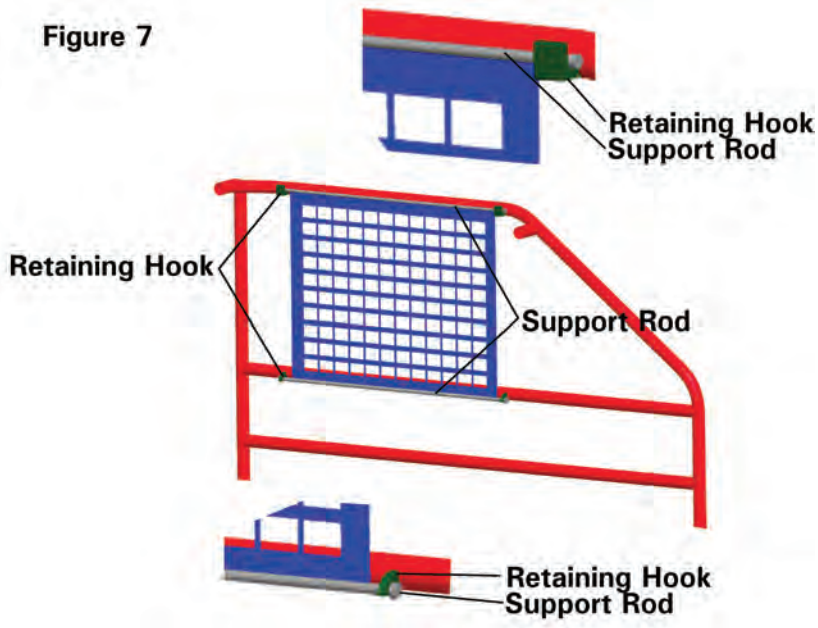
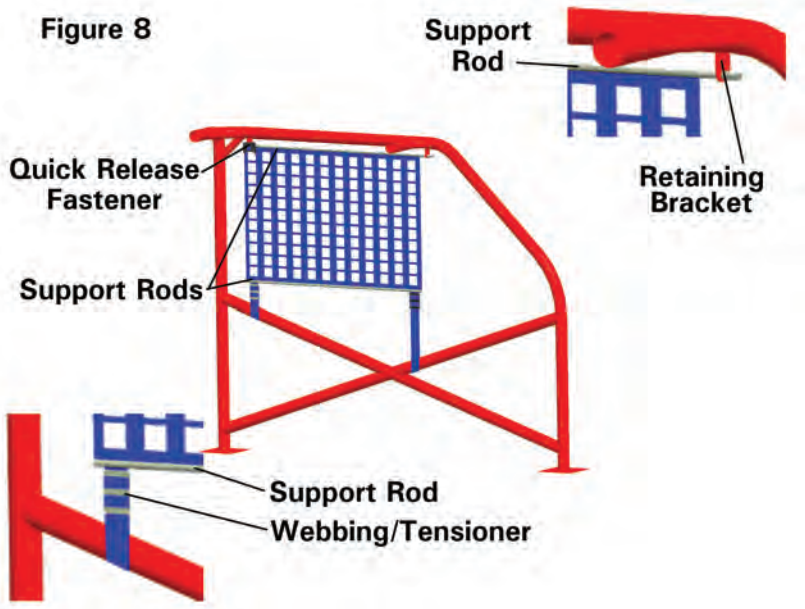


Figure 8




**9.3.54. WINDSHIELDS/WINDSHIELD CLIPS/REAR WINDOW STRAPS**

Polycarbonate windshields such as Lexan are allowed except in Improved Touring, American Sedan, B-Spec, Spec Miata, and Touring. Alternate windshields must be of 6mm minimum thickness.

Windshield safety clips and rear window safety straps are required on all closed cars, except on American Sedan, B-Spec, Spec Miata, Touring, Improved Touring, and Super Touring, where they are optional. Alternatively, no clips or straps are required if polycarbonate windshields and rear windows are securely bolted to the frame.

3 clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the body at the top of the windshield.

2 clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips shall be spaced a minimum of 12 inches apart.

It is recommended that 3 – 1 inch wide strips of steel or aluminum be installed behind the windshield to support it from collapsing inwards if it becomes damaged. The rear window shall be secured with 2 metal straps (1 inch wide x 1/8 inch thick) bolted or riveted to the body at the top and bottom of the rear window.

**9.4. ROLL CAGES FOR GT AND PRODUCTION BASED CARS**

All cars must utilize a roll cage compliant with the following specifications. These specifications apply to all vehicles registered (issued an SCCA logbook) after 1/1/08. Cars registered before 1/1/08 may continue to compete with their previous roll cage as specified in Appendix I or comply with the following specifications. Cars registered as Production class cars prior to 1/1/08 may continue to use their existing roll cage per Appendix J or comply with the following specifications.

**A. DEFINITION**

The roll cage consists of the main hoop, front hoop, side protection, and braces as specified in these rules.

**B. MAIN HOOP**

1. The main hoop (behind the driver) must be the full width of the cockpit for all cars. It must be one continuous length of tubing with smooth bends and no evidence of crimping or wall failure. The main hoop must maintain a single plane.

    a. On all closed cars, the main hoop must be as close as possible to the roof and “B” pillars.

    b. Open cars without the windshield frame may use an asymmetric main hoop. The main hoop must be full width to the passenger side of the car. On the passenger side of the car the hoop must be at least as high as the top of the rear corner of the door as illustrated in figure 9.

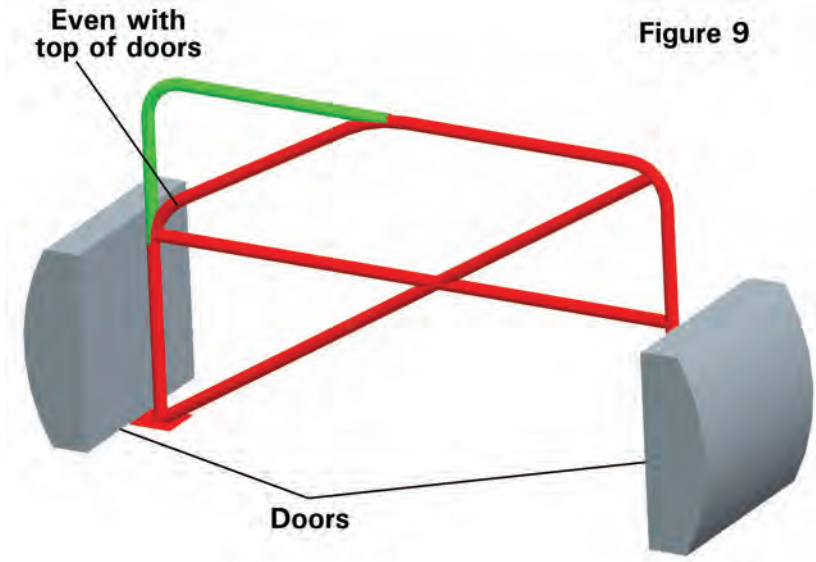



Figure 9

The main hoop must be high enough that a straight line drawn from the top of the main hoop to the top of the front hoop would pass over the driver's helmet and steering wheel when the driver is seated in the normal driving position. Additionally, the top of the main hoop must be at least 2 inches above the driver's helmet as illustrated in figure 10.

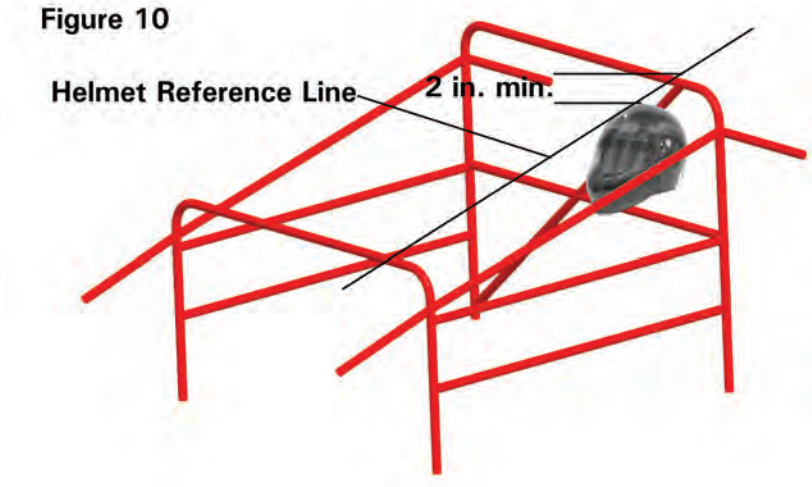
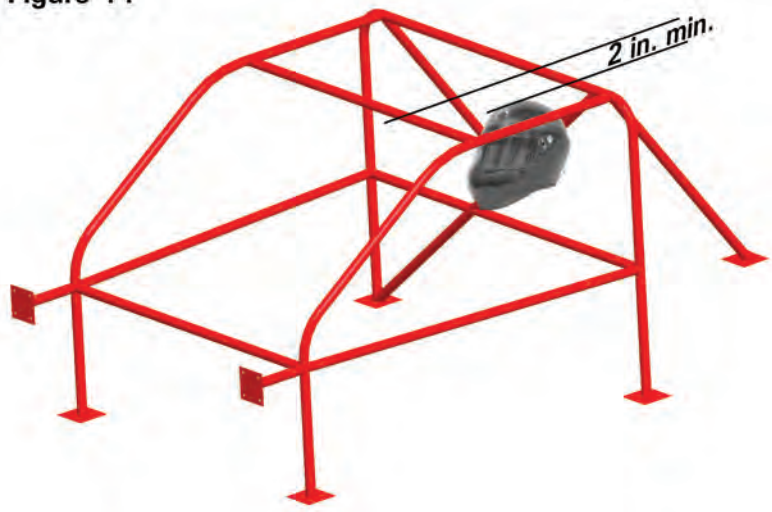



Figure 10

c. On open cars retaining the windshield frame the main hoop must be full height for the entire width of the hoop. The top of the main hoop must be at least 2 inches above the driver's helmet as illustrated in figure 11.

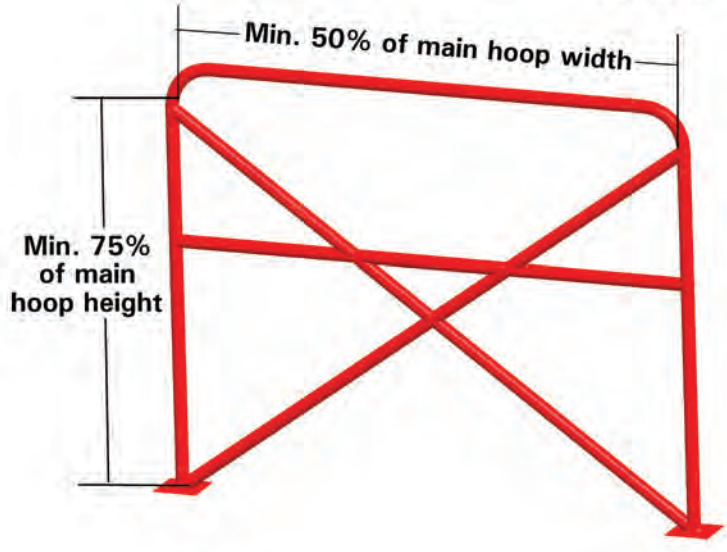
Figure 11




2. Main Hoop Bracing

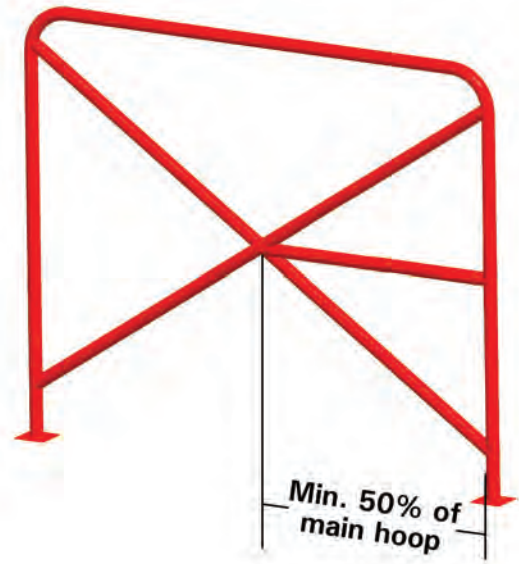
a. Main hoops shall incorporate a diagonal brace. The brace shall either be in the plane of the main hoop, or extend from the top of one rear brace (described in 9.4.B.2.c) to the bottom of the opposite rear brace. Automobiles with mid mounted engines can have the lower mounting point attach to the frame of the automobile within six inches of the main hoop. In the case of braces in the plane of the main hoop, the brace must span at least 50% of the width of the main hoop, and at least 75% of the height of the main hoop as shown in figure 12.

Figure 12




b. Cars must incorporate a main hoop horizontal brace at the approximate level of the driver's shoulders but not lower than the shoulder belt mounting point as described in section 9.3. Driver's Restraint Systems. If a double-diagonal "X" brace is used in the plane of the main hoop, a half-width horizontal brace may be used behind the driver's seat to mount the seat back and shoulder harness as shown in figure 13.

**Figure 13**




c. Cars must have 2 braces extending to the rear from the main hoop and attaching to the frame or chassis. Braces must be attached as near as possible to the top of the main hoop (not more than 6 inches below the top), and at an included angle of at least 30 degrees.

d. Open cars must have 2 braces extending forward from the main hoop and attaching to the front hoop, not more than 6 inches below the top of the front and main hoop. It is recommended that the front and rear braces attach to the main hoop as close as possible to each other.

e. On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g. Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point (Petty Bar). Alternatively, the rear window may be removed and a clear, lexan replacement installed. The rear cage braces may pass through this replacement window and through the engine cover or bodywork to allow connection to the frame or unibody. Such allowances shall be noted on the car's specification line.

**C. FRONT HOOP**

1. Roll cages may be of two designs, low front hoop or high front hoop. All closed top cars and cars that retain the windshield frame must have a high front hoop design. Open cars may incorporate a high or low front hoop design. High front hoop are also referred to as side hoops.

   a. Closed cars

      The front hoop (side hoop) must follow the line of the A-pillars to the top of the windshield and be connected by horizontal bars to the top of the main hoop on each side (as close to the roof as possible). Instead of a single front hoop, two side hoops (down tubes) may be used. Alternatively, a top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the A-pillars to the floor may be used. Regardless of which one of the two approved tubing configurations there shall be a tube connecting the two A-pillar tubes at the top of the windshield.

   b. Open cars

      The height of the front hoop (per section 9.4.B.1.b) must be consistent across the full width of the cockpit.

   c. Front Hoop Bracing

All open cars with a high front hoop and all closed cars except those competing in the T4, Improved Touring, Spec Miata*, and B-Spec* classes must incorporate a horizontal front hoop brace at the approximate level of the dashboard. It is recommended that cars competing in T4, Improved Touring, and Spec Miata classes also have the front hoop brace.

2. One tube must extend, from each front down tube, forward to the firewall or through the firewall except in vehicles in Improved Touring, Spec Miata, Touring*, and B-Spec*. This tube, one on each side, must connect to the chassis at a point not more than 12 inches forward of the front axle centerline.

3. Cars competing in Improved Touring, Spec Miata, Touring, *and B-Spec* may extend one tube, from each front down tube, forward to the firewall, bulkhead or wheel well, but not penetrating any panel.

**D. SIDE PROTECTION**

Two side tubes connecting the front and main hoops across both door openings are mandatory. Tubes that are welded to any part of the same mounting plate are considered to be connected to one another (see 9.4.E.3 below). NASCAR-style side protection or one bar bisecting another to form an "X" is permitted. Door side tubes may extend into the front door. In Improved Touring, Spec Miata, Touring*, and B-Spec* the door window glass, window operating mechanism, inner door trim panel, armrest, map pockets, wiring harnesses for door locks, windows, power mirrors, seat wiring, etc., and inside door latch/lock operating mechanism may be removed and the inner door structural panel may be modified, but not removed only if the door bars extend into the door cavity. The stock outside door latch/lock operating mechanism shall not be removed or modified unless specifically authorized in the category rules. All categories except Production and GT shall not remove or modify stock side impact beams unless specifically authorized.

**E. ROLL CAGE ATTACHING POINTS**

1. Improved Touring, Spec Miata, B-Spec AND Touring (excluding T1 *and T2*) classes–The roll cage must attach to the vehicle structure within the passenger compartment in a minimum of 6 points and a maximum of 8 points as specified in these rules. Roll cage may not pass through any structural member, except Miata rear main hoop braces may pass through the package tray.

2. All other classes–There is no limit on cage attachment points. The roll cage shall be integrated into the frame or chassis.

3. Mounting Plates

   a. Mounting plates welded to the structure of the car shall not be less than .080 inches thick nor more than 0.25 inches thick. The maximum area of each mounting plate in the Improved Touring, Spec Miata, and Touring classes shall be 144 square inches. Plates may be on multiple planes but shall not be greater than 15 inches on any side.

   b. The thickness of mounting plates bolted or riveted to the structure of the car must not be less than the thickness of the roll hoop or brace that they attach to the chassis, and must be backed up with a plate of equal size and thickness on the opposite side of the chassis panel. The maximum area of each mounting plate must be 144 square inches. Plates may be on multiple planes but shall not be greater than 15 inches on any side.

   c. Fasteners for bolted or riveted mounting plates must be Grade 5/Metric 8.8 or better with a minimum diameter of 5/16".

**F. TUBING**

1. Seamless or DOM mild steel tubing (SAE 1020 or 1025 recommended) or alloy steel tubing (SAE 4130 or T45) *, or Docol R8 tubing* must be used for all roll cage structures. Alloy and mild steel tubing may not be mixed. ERW tubing is not allowed.

2. The following table shows the minimum allowed tubing outer diameter and wall thickness by vehicle weight:

| Vehicle Weight | Tubing Size (inches)<br>(outer diameter x wall thickness) |
|---|---|
| Up to 1700 lbs | 1.375 x .080 |

| Vehicle Weight | Tubing Size (inches)<br>(outer diameter x wall thickness) |
|---|---|
| 1701 - 2699 lbs | 1.500 x .095<br>1.625 x .080 |
| 2700 lbs and up | 1.50 x .120<br>1.750 x .095<br>2.00 x .080 |

3. For purposes of determining tubing sizes, the vehicle weight is as raced without driver, fuel and ballast. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness.

4. The required tubing elements must meet the material minimums set forth above. Optional tubing elements may be any size.

5. The minus variance of tubing wall thickness due to manufacturing tolerances is limited to .010 inch.

6. Either an inspection hole between 3/16 and 1/4 inch diameter must be drilled in a non-critical area of the front and rear hoops, as well as one of the supplemental braces to facilitate verification of wall thickness; or alternatively, wall thickness may be determined by non-invasive means and noted in the logbook as inspected by such means.

**G. BASIC DESIGN CONSIDERATIONS**

1. All portions of the roll cage subject to contact by the driver must be padded with a minimum 1 inch of material. Padding that meets or exceeds SFI 45.1 or FIA 8857-2001 (curved padding), or SFI 45.2 or FIA sports car head rest material (flat padding) specification is recommended.

2. No portion of the roll cage may have an aerodynamic effect by creating a vertical force.

3. The radius of all bends in the roll cage (measured at centerline of tubing) must not be less than 3 times the diameter of the tubing.

4. It is recommended that all joints of the roll cage be welded. All welding must include full penetration, no cold lap, no surface porosity, no crater porosity, no cracks, no whiskers, and so forth. Welds shall be continuous around the entire tubular structure. Procedures for welding alloy steel shall be in accordance with accepted industry practice. It is recommended that a certified AWS D1.1 welder do all welding.

5. It is recommended that gussets be used at all joints. In Improved Touring, and Spec Miata a maximum of 2 gussets per joint are allowed and must be no thicker than .125".

6. Any number of additional tube elements is permitted within the boundaries of the cage structure. Such tube elements may pass through any mandatory or optional bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/fuel tank/fuel cell area provided the bulkhead is sealed around such tube elements.

7. Removable roll cage bracing is acceptable in one of the following configurations:

   a. If one tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom by design, and at least 2 bolts must be used to secure each joint. The telescoping section must be at least 8 inches long. The minimum bolt diameter is 3/8 inch.

   b. Removable bracing may incorporate connectors of the double-lug, double ear-type, tapered, or muff-type as shown in figures 14 and 15. The double-lug type must include a doubler, gusset, or capping arrangement to avoid distortion or excessive strain caused by welding. Double ear-type joints must be fully welded at all the mating surfaces.

Figure 14

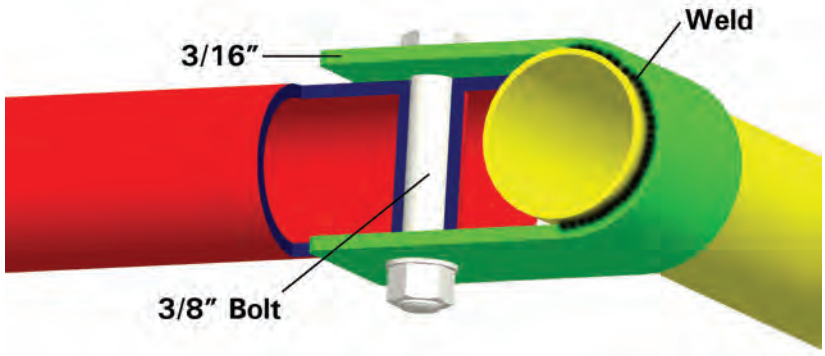
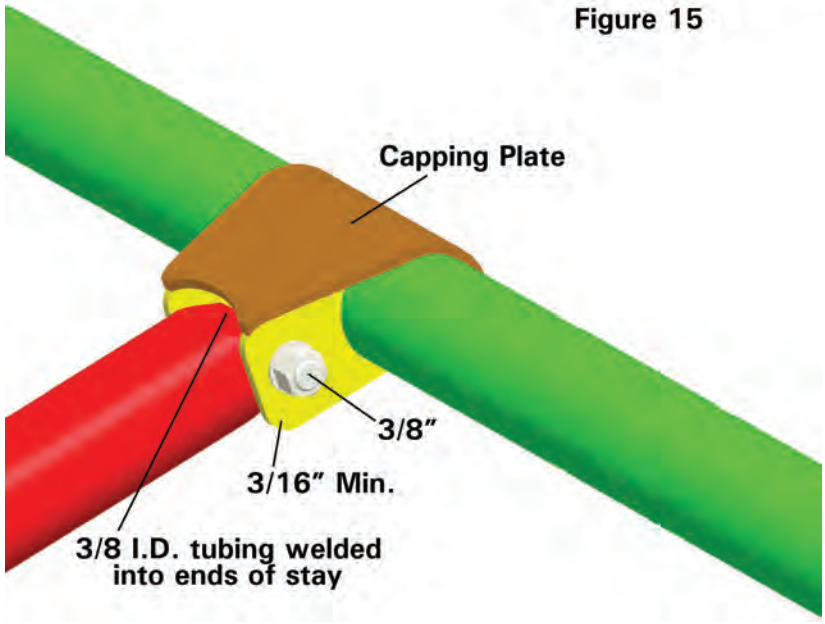



Figure 15




**8. MANUFACTURER SUPPLIED/FIA/**MSA **HOMOLOGATED ROLL CAGES**

1. Cars may compete with FIA or FIA-Approved Test Houses homologated cages provided the cage was built by the manufacturer or a manufacturer designated shop/team and approved for use. Cars must have the FIA identification plate attached to the cage along with a letter from SCCA Technical Services certifying the origins of the car, or confirmation that the cage was certified by an FIA-Approved Test House.

2. Cars may compete with an approved MSA (Motor Sports Association UK) Roll Over Protection System Certificate. All related engineering drawings and documents shall be submitted to SCCA Technical Services. Cars must have MSA identification plate attached to the cage along with a letter from SCCA Technical Services certifying the cage was approved by the MSA.

**9.4.5. ROLL CAGES FOR FORMULA CARS AND SPORTS RACING CARS**

All Formula and Sports Racing automobiles are required to have full roll cages. Cage may be of two designs, low front hoop (top of steering wheel) or high front hoop (equal to rear hoop) but with no diagonal brace. 2 seat Sports Racing cars shall have full cockpit width cages. All tube frame automobiles shall have both front and rear hoops formed of tubing per 9.4.5.E.4. On automobiles of full monocoque construction, a fabricated sheet metal front hoop structure may be approved upon specific application to the SCCA. Closed cockpit Sports Racing car cages may be constructed in accordance with 9.4 ROLL CAGES FOR GT AND PRODUCTION BASED CARS. All Formula car and Sports Racing car roll cage tubing specifications must meet the current GCR specifications, effective 1/1/98.

**A. Main Hoop**

The main hoop shall be constructed of tubing per 9.4.5.E.4. The minimum bend radius shall not be less than 3 times the tube diameter measured from the tube centerline. The main hoop shall not be less than 2 inches above the driver's helmet, seated normally and restrained by seat belt/shoulder harness. A straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet. On Formula cars and single seat Sports Racing cars the vertical members of the main hoop shall not be less than 15 inches apart (inside dimension) at their attachment to the chassis. If the hoop does not go to the belly pan, proper gussets and tube triangulation shall be used under its attachment. On monocoque chassis the main hoop shall be welded to mounting plates not less than .080" thick. It is important that these plates be attached to the chassis in such a way as to spread the loads over a wide area. There shall be a plate of equal thickness on the inside of the monocoque with solid rivets or bolts (5/16" minimum bolt diameter) through the non-ferrous metal and/or composite material.

**B. Front Hoop**

Low front hoops must be no lower than the top of the steering wheel. It is recommended the hoop extend to the belly pan. If not, it shall be attached to the chassis with gussets and triangulation in order to spread the loads. In automobiles of full height (top of the steering wheel) monocoque or composite construction, a steel cap plate, not less than .080" thick must be attached as a rub block.

**C. Roll Cage Bracing**

1. The main hoop must have 2 forward braces extending from the hoop and attached to the frame, monocoque, or front hoop. Braces must be attached as near as possible to the top of the hoop but must not be more than 6 inches below the top and at an included angle of at least 30 degrees. If these braces do not extend to the front hoop, an additional brace or gusset (14 gauge - .078" minimum thickness) must be installed between the lower frame rail and the upper frame rail at the point of attachment of the forward hoop brace. If these braces do not extend to the front hoop, an additional brace or gusset must be installed at the point of attachment to the main rear hoop or lower frame rail or other major frame member in such a manner as to reinforce the attachment point to help prevent collapse of the frame rail at the point of attachment. These tubes shall be 1" x .080" minimum and gussets shall be 14 gauge - .078" minimum thickness.

   Two (2) seat Sports Racing cars with full width main hoops must incorporate a lateral brace to prevent lateral distortion of the of the hoop (See figure 12). All bracing on full width cages must be the same diameter and wall thickness as the main hoop. Formula and single seat Sports Racing cars under 1500 lbs. may use bracing with a minimum dimension of 1.0" diameter by .080" wall thickness or Chromoly 4130 *, or Docol R8 tubing* 1.0" diameter by .065" wall thickness. F500 cars up to 875 pounds may use 1020 DOM mild steel roll cage bracing with a 1.0" diameter by .065 wall thickness. Braces attached to monocoque chassis must be welded to plates not less than .080" thick and backed up on the inner side by plates of equal thickness using bolts of Grade 5/Metric 8.8 or better with 5/16" minimum diameter.

2. The front hoop must have 2 braces near its top extending forward to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but in any case it must be integrated into the chassis to provide substantial support for the front hoop. Full width front hoop bracing shall be a minimum dimension of 1.0" diameter by .080" wall thickness tubing.

   Formula and single seat Sports Racing cars under 1500 lbs., may use tubing with a minimum dimension of 1.0" diameter by 080" wall thickness or Chromoly 4130 *, or Docol R8 tubing* 1.0" diameter by .065" wall thickness. F500 cars up to 875 pounds may use 1020 DOM mild steel roll cage bracing with a 1.0" diameter by .065 wall thickness. When monocoque construction is used as bracing for the front hoop, it must be approved on an individual basis. If a high front hoop is used, it must be similar in shape to the rear hoop and have two horizontal tubes connecting the top of the front hoop to the top of the main hoop. The bracing for the main hoop remains the same.

3. Removable bracing must incorporate connectors of the double-lug, tapered, or muff-type as shown in figures 14, and 15. The double-lug type must include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

**D. Composite Chassis Safety Structures**

1. The basic purpose of safety structures is to protect the driver. This purpose is the primary design consideration.

2. All cars must have at least 2 roll over structures, but the use of titanium is prohibited.

   The first roll over structure must be in front of the steering wheel, not more than 25cm forward of the steering wheel rim, and at least as high as the top of the steering wheel rim.

   The second roll over structure must not be less than 50cm behind the first. It must be high enough for a line extending from the top of the front structure to the top of the rear structure to pass over the driver's helmet when he is seated normally in the car with his helmet on and the seat belt fastened. This second structure behind the seat must be symmetrical about the lengthwise centerline of the car and comply with the following dimensions: The top of the roll bar must be at least 2 inches (5cm) above the driver's helmet when the driver is seated in a normal driving position. No second roll structure on a composite chassis will be considered unless it contains a main hoop having a minimum tubing size of 1.375" x .080" wall thickness. Supplemental braces must have a minimum tubing size of 1.00" x .080" wall thickness.

   The roll bar must be capable of withstanding the following stress loading applied simultaneously to the top of the roll bar:

   1.5 (X) laterally

   5.5 (X) longitudinally in either direction

   7.5 (X) vertically

   where (X) = the minimum weight of the car.

   The induced loads must be carried over into the primary structure of the chassis.

   The ability of the roll bar to bear and distribute the load through the chassis must be demonstrated satisfactorily in test conditions to the SCCA. In conjunction with SCCA, manufacturers of cars utilizing carbon fiber composite survival cell construction will be required to designate repair locations capable of proper evaluation and damage repair. In the event of damage to the chassis, repairs can only be made at these locations.

   Proper documentation must be made in the vehicle logbook. No car will be allowed to compete after damage without following this procedure.

**E. Basic Design Considerations**

1. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence, or is struck by another car. It shall be designed to withstand compression forces from the weight of the car coming down on the rollover structure and to take fore/aft and lateral loads resulting from the car skidding along on its rollover structure.
2. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.
3. Roll cage or chassis design shall prevent engine intrusion into the driver compartment.
4. Material:

   a. Seamless, or DOM (Drawn Over Mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE, 4130 or T45)*, or Docol R8 tubing* shall be used for all roll cage structures. Proof of use of alloy steel is the responsibility of the entrant.

   b. Minimum tubing sizes for all required roll cage elements (All dimensions in inches):

| Vehicle Weight | Tubing Size (inches)<br>(outer diameter x wall thickness) |
|---|---|
| Up to 1700 lbs. | 1.375 x 0.080 |
| 1701-2699 lbs. | 1.50 x 0.095 or 1.625 x 0.080 |
| Over 2699 lbs. | 1.50 x .120<br>1.75 x 0.095<br>2.00 x .080 |

   c. For purposes of determining tubing sizes, the vehicle weight is as raced without driver, fuel and ballast. The minus tolerance for wall thickness should not be less than .010" below the

nominal thickness.

d. Either an inspection hole at least 3/16 inch diameter, but no greater than 1/4 inch diameter shall be drilled in a non-critical area of the front and rear hoop as well as the one of the supplemental braces to facilitate verification of wall thickness; or alternatively, wall thickness may be determined by non-invasive means and noted in the logbook as inspected by such means. Formula Cars and Sports Racing cars with alternate roll structures are not required to have inspection holes, the wall thickness will be indicated on the back of the homologation certificate.

5. One continuous length of tubing shall be used for the main hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than 3 times the diameter of the tubing. Whenever possible, the roll cage hoop should start from the floor of the car, and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used.

6. All welding must include full penetration, no cold lap, no surface porosity, no crater porosity, no cracks, no whiskers, and so forth. Welds shall be continuous around the entire tubular structure. Procedures for welding alloy steel shall be in accordance with accepted industry practice. It is recommended that a certified AWS D1.1 welder do all welding.

7. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care shall be used in preparation of parts before bronze welding and in the design of the attaching joints.

8. Forward braces and portions of the main hoop subject to contact by the driver's helmet (as seated normally and restrained by seatbelt/shoulder harness) shall be padded with a non-resilient material with a minimum thickness of 1/2 inch. Padding meeting SFI spec 45.1 or FIA 8857-2001 is strongly recommended.

9. Cars may compete with FIA homologated cages provided the cage was built by the manufacturer or a manufacturer-designated shop/team and approved for use.

10. Single seat cars may compete with an approved MSA (Motor Sports Association UK) National Single Seater Roll Structure Certificate. All related engineering drawings and documents shall be submitted to SCCA Technical Services with the homologation request. SCCA homologation will only be approved for designs that incorporate a main hoop having a minimum tubing size of 34mm x 2mm wall thickness.

**F. Exceptions for Formula Cars and Sports Racing cars**

Any roll hoop design which does not comply with the specifications in 9.4.5, will only be considered if it is accompanied by engineering specifications signed by a registered engineer stating that the design meets the stress loading requirements below. No alternate roll hoop will be considered unless it contains a main hoop having a minimum tubing size of 1.375" x .080" wall thickness. The roll bar must be capable of withstanding the following stress loading applied simultaneously to the top of the roll bar: 1.5 (X) laterally, 5.5 (X) longitudinally in both the fore and aft directions, and 7.5 (X) vertically, where (X) = the minimum weight of the car.

**G. Front Impact Attenuation**

1. All formula cars registered or homologated with SCCA as of 1/1/1986 must have a front impact attenuation device meeting at least one of the following criteria:

   a. An FIA-approved front impact attenuation structure.

   b. A metallic structure, securely attached to the front bulkhead, with a minimum cross section of 200 sq cm (31 sq in.), 40 cm (15.75 in.) forward of the clutch and brake pedals (not depressed), constructed of a minimum of 18 gauge 6061-T4 or equivalent aluminum.

   A non-metallic composite structure, securely attached to the front bulkhead or incorporated into the nose piece, with a minimum cross section of 200 sq cm (31 sq. in.), 40 cm (15.75 in.) forward of the clutch and brake pedals (not depressed), constructed of a minimum of 6 mm stabilized (e.g., honeycomb) material with inner and outer reinforcements of a minimum of 2 5-ounce laminate

material (fiberglass, carbon, Kevlar, and so on).

2. Formula Vee and other formula cars using the VW sedan H-beam front suspension must satisfy the requirements of section 9.1.1.C.3.A.10 or use any of the structures listed in 9.4.5.G.1.
3. Formula Mazda cars may use the spec front wing support as a front crush structure, or any of the structures listed in G.1 above.
4. Radiators may be incorporated in impact attenuation structures.
5. Composite impact attenuation structures may incorporate carbon and/or kevlar regardless of any class restrictions on materials.
6. Rear impact attenuation structures are strongly recommended for all formula cars, and may incorporate the materials and/or construction techniques listed above for front impact attenuation structures.
7. Pre-1986 formula cars and all Sports Racing cars are strongly urged to use front and rear impact attenuation structures, and may incorporate the materials and/or construction techniques for front impact attenuation structures listed above.

## APPENDIX A. ADMINISTRATIVE GLOSSARY

The following nomenclature, definitions, and abbreviations shall be used in the GCR, all Supplemental Regulations and Entry Forms, and for general use.

When used throughout the SCCA Club Racing Program, the GCR, and all event related material, the following terms and abbreviation will be defined as indicated.

**1. Federation Internationale de l'Automobile (FIA)**
The International Federation of National Automobile Clubs.

**2. Federation Internationale du Sport Automobile (FISA)**
The International Sporting Commission which is appointed by the FIA to deal with competition matters.

**3. Code Sportif Internationale of the FIA (The Code)**
The International Sporting Code. FIA listed events sanctioned by the SCCA are also governed by The Code.

**4. National Sporting Authority (ASN)**
A national governing body of automobile competitions recognized by the FIA.

**5. Automobile Competition Committee for the United States FIA, Inc. (ACCUS FIA)**
The ASN of the United States of America.

The Automobile Competition Committee for the United States (ACCUS) is recognized by the FIA as the ASN (National Sporting Authority) of the USA. Under the terms of the International Sporting Code of the FIA, ACCUS is the sole authority for the control of international automobile competition in the USA, its territories, and protectorates.

**6. Club Racing Board**
The SCCA Club Racing Club Racing Board (CRB) establishes rules and standards for scheduling, organizing, and conducting SCCA sanctioned Club Racing events, and the licensing of drivers and officials. The CRB supervises the execution of these rules and standards.

The CRB may appoint Advisory Committees to assist in reviewing member requests for rules development and changes to individual vehicle specifications, and to solicit and make recommendations to the CRB based on their research and knowledge. Advisory Committee members serve at the discretion of the CRB and the Board of Directors.

**7. SCCA Divisions**
Geographic segments of the SCCA, established to facilitate administering SCCA policies, competitions, events and the GCR under the direction of the CRB and its Advisory Committees.

**8. Executive Steward**
The individual appointed by the Board of Directors in each SCCA Division to supervise and administer SCCA policies and standards for all Club Racing events.

**9. Car (Automobile)**
A self propelled land vehicle running on 4 wheels which are not in a line and which must be in contact with the ground. At least 2 wheels affect the steering and at least 2 the propulsion.

**10. Class**
A group of cars, classified according to the provisions of the GCR.

**11. Category**
A combination of similar classes of cars.

**12. Competition**
A contest for driver and car, given a competitive nature by publication of results. Practice and qualifying for starting positions are included in the term "competition". A competition may also be referred to as a "race".

**13. Event**
An entire program of competitions. Also known as a "race event". This term includes all sessions run under a single, or multiple sanction numbers.

**14. Speed Event**
A program of competitions when there is more one car on the course at a time, cars are driven at maximum speeds, and a high level of driver and vehicle safety equipment is essential. See also "competition", "sanction", and "event".

**15. Non-Speed Event**
An event in which the hazards do not exceed those encountered in legal travel on public roads, and which therefore do not require drivers to hold Competition Licenses.

**16. Sanction**
The documentary authority, granted by the SCCA, to organize and hold a competition. This term also is used to describe the event organized under a single sanction number, which is evidence of that documentary authority.

**17. Session**

A session begins when the first race car in the Race Group exits the grid onto the racing surface and ends when the last running race car exits the racing surface. If the session is a race, see 6.10.3.A. for time limits.

**18. Supplemental Regulations**
Event regulations that establish the additional ground rules of competition and that are consistent with the GCR. See 3.5.

**19. Driver**
A person named as the driver of a car in any competition. Also, any person who drives a race car in any competition whether or not properly registered, entered, or named as the driver.

**20. Entrant**
A regular SCCA member who submits an entry to compete in an SCCA Club Racing event. The entrant may also be the driver. If the entrant is not also the driver, the entrant has the same rights and responsibilities as the driver except that he may not drive the competition vehicle on course nor may he substitute for the driver in an SOM or Court of Appeals hearing.

**21. Participant**
Any person admitted to an event after having signed a SCCA authorized Release and Waiver of Liability Agreement.

**22. SCCA Conferences**
Geographic segments of the SCCA established for the purpose of hosting U.S. Majors Tour events that result in Conference Championships.

**23. Region of Record**
A driver may belong to an unlimited number of Regions. One shall be designated as his Region of Record.

**24. Division of Record**
A driver's Division is determined by his designated Region of Record recorded in the membership files at the National Office.

## APPENDIX B. ORGANIZATIONAL AND ADMINISTRATIVE PROCEDURES FOR EVENTS

This section contains administrative procedures and information for members and race organizers. This section mandates certain actions, but it may not be protested or appealed.

### 1. ORGANIZING EVENTS
### 1.1 SCHEDULING
#### 1.1.1 Divisional Scheduling Representative
**The Executive Steward of each Division will appoint a Divisional Scheduling Representative who will:**

A. Work with the Regions to prepare a Race Schedule for the following calendar year for all events to be conducted within his Division, including potential U.S. Majors Tour dates. All U.S. Majors Tour dates must be confirmed by the Head of Club Racing before being listed on the calendar.

B. Submit the necessary documents and fees to the National Office to support those events.

C. Mail copies of the final racing schedule for his Division to the Manager of Club Racing (with the appropriate non-refundable calendar listing fees) and to the Chairman of the Club Racing Board, the Regional Executives of all Regions in the Division, and to the Scheduling Representatives of the other Divisions no later than December 1st.

The Scheduling Representative must be appointed in sufficient time to assure that the Race Schedule is completed and filed with the National Office no later than December 1.

#### 1.1.2. Scheduling Policies and Procedures
A. The Division's Race Schedule encompasses all club race activities, including Regional Events, Drivers' Schools, Practice Days, Performance Driving Experience and TimeTrial events.

B. Alternative Drivers' Schools (3.1.3.C) and Racing Experience Sessions are not required to appear on Divisional Schedules, but must be sanctioned.

C. Calendar Listing Fee

1. A Region must pay a non-refundable Calendar Listing Fee for each race weekend it will sanction and conduct during the following calendar year.
2. A single fee of $25, made payable to SCCA, is required for each weekend of racing.
3. Calendar Listing Fees are submitted to the Scheduling Representative, who forwards the fees and the approved Racing Schedule to the National Office.
4. If a date request is denied, the Fee will be refunded.
5. Change of date requests are considered new applications and a separate fee is required. The Scheduling Representative shall notify the parties listed in, AppB.1.1.1.C as changes are made in the final schedule.

D. No U.S. Majors Tour events may be scheduled for a weekend that is less than two weeks prior to the start of the Runoffs.

### 1.2 POSTPONING OR CANCELLING EVENTS
All or part of an event may be postponed or cancelled under the following conditions:

A. Provision is made in the Supplemental Regulations for the event, or

B. The SOM order that all or part of the event be postponed or cancelled for reasons of safety or forces beyond their control.

1. Postponement. After consulting with the organizing Region, the SOM may postpone the classes not afforded the opportunity to race (as opposed to practice or qualify), provided a scheduled date is available at the same facility within the same competition year. The postponed races shall be run under the original sanction number.
2. Cancellation. An entire event (all classes, all sessions) postponed for more than 24 hours is considered cancelled, and entry fees shall be returned. If an event is cancelled during the competition, then the entry fees shall be prorated and a reasonable portion of the entry fee shall be returned.
3. Credit for Start. If an entire event is cancelled (all classes, all sessions), there shall be no credit for a start. If a race is postponed, the competitors have the option of either competing in the postponed race, or receiving a prorated refund and being classified as DNS for that race, provided they have participated in a practice session or are shown on the qualifying results for that race.

### 1.3 SANCTIONING EVENTS
A. Organizers of SCCA sanctioned races may be the SCCA or one or more SCCA Regions.

B. The SCCA name and emblem (logo) may be used only with events sanctioned by SCCA.

C. The National Office will issue a sanction within 5 business days from date of receiving the completed sanction application.

#### 1.3.1. Applying for an SCCA Sanction

Sanction applications must be submitted for approval at least 45 days prior to the scheduled date of the event with the following:

A. Completed current SCCA Sanction Application Form

B. Appropriate sanction fee to be paid within 14 days of the completion of the event with the event insurance audit.

C. Entry Form

D. Supplemental Regulations

E. Schedule of Events

**1.3.2. Sanction Requirements**
In addition to the items listed in AppB.1.3.1, the following conditions must be met before a sanction number can be issued:

A. The race event is listed on the official SCCA calendar.

B. SCCA has approved the course for Club Racing.

C. The organizer owes no event related fees for prior events. See AppB.1.6 for information about event fees.

**1.3.3. Sanctioning for Alternative Drivers' Schools**
SCCA Regions wishing to hold a Drivers' School using the Alternative Driving School method must submit a sanction applications to the National Office no less than 10 days prior to holding a school and include the following:

A. Sanction Application Form

B. Names of students

C. Name(s) of Instructor(s)

D. Dates of "school" elements (classroom/on-track)

E. Brief outline of the training components/schedule

F. Approval letter from one of the following:

   a. Divisional Chief Driving Instructor

   b. Divisional Driver Licensing Administrator

   c. Certified Driving Instructor (list of who is considered Certified to be provided by Divisional Chief Driving Instructors)

   d. Executive Steward

**1.3.4 Courses**
The words "course" and "circuit" and "track" are considered interchangeable for the purpose of these rules.

**1.3.4.1. Types of SCCA Course Approval**
SCCA must approve any course for a Club Racing event. For a particular track, the SCCA may:

A. Limit the types of events.

B. Restrict the number of cars which may be started simultaneously or in total.

C. Restrict the number of entries which may be accepted for an event.

D. Restrict the classes and categories of cars.

E. Restrict the license grades of drivers.

F. Disapprove the course for all SCCA speed events.

**1.3.4.2. Application For An Event On An Unapproved Course**
A Sanction Application for an event at a course not already approved by the SCCA must be submitted at least 2 months before the proposed event, and must include a full description of the course and facilities, including a scale map.

**1.4 SUPPLEMENTAL REGULATIONS AND ENTRY FORMS**
Organizers shall not distribute Supplemental Regulations or Entry Forms for an SCCA event prior to obtaining an SCCA sanction.

**1.4.1 Required Contents of Supplemental Regulations**
Supplemental Regulations establish specific conditions for an event.

Before a sanction for an event can be issued, the Divisional Executive Steward or his designee must approve

all Regulations different than those of the GCR. The Club Racing Board has the right of review and final approval at their discretion.

For U.S. Majors Tour events, Supplemental Regulations are drafted by the sanctioning Region and the U.S. Majors Tour staff. The Supplemental Regulations are submitted by the sanctioning Region, reviewed and approved by the Division's Executive Steward (or his designee), and reviewed and approved by the Head of Club Racing.

Supplemental Regulations must contain the following information for the event:

A. The name, location, dates, nature, and event type.

B. The sanction number and type of sanction.

C. Conspicuously placed words: "Held under the SCCA General Competition Rules."

D. The name and address of the organizers.

E. A complete description of the event, including the course length and types of sessions and races, the classes of cars eligible, and the race groups (See AppB.1.4.2.)

F. Schedules and locations of on and off-track activities, inspections, and meetings.

G. The name and address of the Registrar or other person to whom the entry is to be sent, closing date for receipt of entries, and amount of the entry fee.

H. The names of the Chief Steward and the Chairman SOM. For U.S. Majors Tour events, add the Race Director and the Series Administrator.

I. The way results will be determined and trophies and prizes awarded.

J. The times official scales will be available for competitors to check the weight of their cars.

K. The brand and general description of any required spec fuel (e.g., Sunoco 100 octane unleaded).

L. All other information necessary for the proper conduct of the event, not already included in the GCR.

**1.4.2 Combining Classes into Race Groups**

A. The speed and performance differences among the cars may not be extreme.

B. Any Formula classes may be combined with Sports Racing classes.

C. It is more preferable to combine Sports Racing classes with appropriate Formula classes than with Production or GT classes.

D. It is preferable not to combine FA, FB, FC, FE, and FM with FV and/or F500. FV may be combined with F500.

E. SRF may be combined with F and H Production and GTL.

F. Formula classes shall not be combined with cars from any other category except Sports Racing. The only exception is in race groups con-sisting solely of Vintage/Historic cars.

G. It is preferable not to combine GT1, AS, T1, T2, T3, and STU with P1, P2, SRF, FP, HP, or GTL.

H. Vintage cars may not be grouped with any other type of cars, except at Drivers' Schools.

**1.4.3 Additional Classes**

Organizers may include classes not specified in 9.1, provided the conditions and specifications are clearly outlined or referred to in the Supplemental Regulations. Including those additional classes may not jeopardize the full schedule of sessions for the SCCA recognized classes.

**1.4.4 Multiple Types of Events on a Single Weekend**

It is not generally permitted for race groups from different types of events on the same weekend to run simultaneously.

**1.4.5 Required Contents of Entry Forms**

A. Spaces for full names, addresses, membership numbers, sponsorship information and license type and numbers of entrant(s) and driver(s), and for driver's Region of Record.

B. Space for full description of cars to be entered.

C. The words: "Held under the SCCA General Competition Rules."

D. Spaces for signature(s) of entrant(s) and driver(s) for waiving liability and/or indemnity declarations, acknowledging the authority of the GCR, declaring that the entered car complies with the provisions of the GCR, and the person(s) to be notified in case of accident.

E. The sanction number assigned to the event.

F. Any other information required for the clarification of all other details of the event.

### 1.5. ORGANIZER'S ADDITIONAL RESPONSIBILITIES

In addition to the responsibilities listed above, organizers must fulfill the following requirements:

#### 1.5.1. Entry List

An official list of competitors entered in the event shall be made available to all entrants at no charge as early as possible before the event begins.

#### 1.5.2. Results

The organizer is responsible to distribute results as follows:

Printed or photocopied Official Race Results available for each entrant at the event; or mailed at the organizer's expense or emailed (at the entrant's option) within 7 days of the event, 7 days of the notification of any protest decision affecting Results, or 7 days of a Court of Appeals decision, whichever is applicable and whichever comes first.

#### 1.5.3. Post-Event Reporting

The organizer is responsible to submit all SCCA required audits and appropriate fees to the National Office within the time limits, as specified in AppB.1.6 and the SCCA Insurance Handbook.

### 1.6 RACE EVENT FEES

A. Sanction Fee

The sanction fee for a Regional event listed on the sanction application must be paid within 14 days of the completion of the event.

B. Late Sanction Fee

A late fee of 50 percent of the sanction fee shall be charged on all sanctions postmarked after the applicable deadline, unless prior arrangements have been made and approved by the National Office Sanction Administrator.

C. Sanction Fee Refunds

There shall be no refunds of Sanction fees unless notice of cancellation is received by the National Office at least 15 days prior to the event.

D. Compliance Surcharge

Upon the conclusion of Regional race events, a surcharge for each Spec Racer and Formula Enterprises car that turned a wheel on the course must be submitted to the SCCA National Office.

E. Volunteer Fee

Upon the conclusion of Regional race events, a Volunteer Incentive Fee must be submitted to the SCCA National Office to support the SCCA volunteer incentive and rewards program. The fee schedule is available from the SCCA National Office, or on the SCCA website.

F. Insurance Fee

The appropriate premium for Regional race events must be sent to the SCCA for mandatory event insurance coverage within 14 days of the completion of the event. The fee schedule is available from the SCCA National Office, or on the SCCA website.

G. U.S. Majors Tour Assessment

For all U.S. Majors Tour Events, a "per entry" fee will be assessed and must be paid within 14 days of the event. No further sanctions will be issued to a region until this has been paid. This fee includes the following components:

1. Sanction fee
2. Compliance Surcharge
3. Insurance Assessment - The fee schedule is available from the SCCA National Office, or on the SCCA website.
4. Volunteer Incentive Fee - The fee schedule is available from the SCCA National Office, or on the SCCA website.
5. U.S. Majors Tour Assessment

## 2. INSURANCE COVERAGES AND LIMITS

### 2.1. Insurance Requirements

All SCCA sanctioned events must be insured for Event Liability and Participant Accident insurance coverage. General Liability and Participant Accident coverage must be provided by the SCCA Event Insurance Plan.

The Race Director or Chief Steward must delay an event until he is satisfied that the required insurance is in place.

## APPENDIX C. LICENSING AND TYPES

### 1. OFFICIAL'S LICENSING AND TYPES

#### 1.1. Official

1. Regional
2. Divisional
3. National
4. Senior

#### 1.2. Steward

1. Steward-in-training
2. Regional
2. Divisional
3. National
4. Senior

#### 1.3. Licensing Requirements

A. Only SCCA members may be licensed.

B. License applications are available from Divisional Specialty Administrators, Regional Licensing Chairmen, online at the SCCA official website, and by mail from the SCCA National Office.

C. Except for the Senior License level, all Licenses are for one year, concurrent with the membership term.

D. Following the initial year, the renewal minimums are as follows:

1. Divisional Renewal: Six (6) days at SCCA Sanctioned events in the preceding 12 months.
2. National Renewal: Eight (8) days at SCCA Sanctioned events in the preceding 12 months.
3. Senior Renewal: Must be approved by Divisional Administrator and Executive Steward every three (3) years.

E. Anyone not meeting the participation requirements for his license (upgrade or renewal) is advised to contact his Divisional Specialty Administrator, who may waive requirements.

F. Upgrading to the next level of license is dependent upon the specialty.

G. License Renewal/Upgrade Forms are mailed automatically to license holders in advance of the expiration of the current License.

#### 1.4. Licensing Minors

A. The SCCA defines a Minor as an individual between 14 years and the age of majority as determined by the law in the state of the individual's residence (typically 18 years old, but it may vary). A Minor may apply for an SCCA Official's License.

B. Only the National Office may issue an Official's License to a Minor. In addition to the Specialty License Application, a Minor applicant must submit the following to the National Office:

1. A completed *Annual* Parental Consent, Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement *and a completed Minor's Assumption of Risk Acknowledgement (note: forms vary by state and witnessing method).* This document must be filed annually until the Minor achieves the age of majority in his state.

### 2. COMPETITION LICENSES

#### 2.1. Medical Requirements

A. Everyone who applies for an SCCA Competition License or Permit must submit a completed SCCA Physician's Examination and Medical History Form, a completed Federal Aviation Administration medical form or a *complete* NASA approved *Medical Evaluation* form. For the purposes of SCCA competition licensing, the term "form" refers to any of these. The form must be submitted every 5 years for applicants ages 14-39; every 3 years for applicants ages 40-49; every 2 years for applicants ages 50-69; and every year for applicants' age 70 and over. The examination date cannot be more than 6 months before the Competition License or Permit application date. A new Form is not required for a 14 year-old Novice Permit holder or Novice Permit holder applying for a Full Competition or Vintage License, provided the current Form is within the specified term for his age group. The form remains valid for an SCCA license only when a member maintains continuous SCCA membership and permit or license.

B. An individual may be issued a Novice Permit by a Divisional or Regional Licensing Chairman provided there is no medical condition identified on the Form which requires review.

C. SCCA Physician's Examination and Medical History Forms are available from Regions, from the National Office, and on SCCA's website, www.scca.com.

D. A competitor who is issued a license under medical waiver must submit the Form annually.

**2.2. Credit Towards License**

A. To qualify for renewing or upgrading a license, a competitor must participate in the minimum number of SCCA races specified in Table 1. However, no license credit shall be given for the following:

1. Drivers Schools
2. Races held as part of a Drivers School
3. Events not sanctioned by the SCCA
4. Events resulting in a DNS or DQ from a race. At multi-race events, successful completion of another race(s) is acceptable on the same weekend.

B. A Full Competition license holder may enter multiple races in an event, but will earn only one license credit for each class raced per weekend. See Table 1 for Vintage License renewal requirements.

**2.3. Competition Licensing Requirements**

Table 1 below shows the standard licensing requirements and progressions.

**2.4. Additional Licensing Information**

A. All 14 Year-Old Novice Permit, Novice Permit and License applications must be signed by the applicant and sent, along with all required paperwork and fees to the address in the front of this rule book.

B. An applicant for any Permit or License who requests expedited processing must add an additional $125 to the license fee shown in Table 1. The special handling fee guarantees a 24 hour business day turn-around and the License is returned via Federal Express.

C. License Renewal/Upgrade Forms are mailed automatically to Full Competition or Vintage License holders in advance of the expiration of the current License.

D. An applicant's Divisional Driver Licensing Administrator, or the National Administrator of Driver Licensing, or the Club Racing Department may waive some or all of the participation requirements for issuing or renewing a Full Competition or Vintage License. Anyone not meeting the participation requirements for Full Competition or Vintage License (upgrade or renewal) is advised to contact one of these sources to request a waiver.

E. In addition to the basic items for each license level and upgrade in the Table 1, please note the following sections, particularly with respect to licensing Minors.

**2.5. Licensing Minors**

A. The SCCA defines a Minor as an individual between 14 years and the age of majority as determined by the law in the state of the individual's residence (typically 18 years old, but it may vary).

B. With the approval of the Divisional Licensing Administrator, only the *National Office* may issue a Novice Permit to a minor. In addition to the paperwork and fees indicated in Table 1, a Minor applicant must submit the following to the *National Office*:

1. A completed *Annual* Parental Consent, Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement *and a completed Minor's Assumption of Risk Acknowledgement (note: forms vary by state and witnessing method).* This document must be filed *annually* until the Minor achieves the age of majority in his state.
2. A photocopy of both sides of his State Operator's Permit/Driver's License.

C. Only the Divisional Licensing Administrator may waive Drivers' School, Full Competition License, or Vintage License participation requirements for a Minor.

**2.6.** 14 and **15 Year-Old Novice Permits and Licensing**

A 14 and 15 Year-Old Novice Permit is a provisional license for young drivers with previous racing experience in karts, quarter-midgets, etc.

A. Applicants with prior racing experience in karts, quarter-midgets, etc., will be considered for a 14 or 15 Year-Old Novice Permit. Applicants must submit a resume of their prior racing experience that will be evaluated by their Divisional Driver Licensing Administrator. If the Divisional Driver Licensing Administrator is satisfied with the applicant's experience, he will schedule an interview with the applicant to complete the evaluation. It is preferred that the interview be in person, but if necessary, a telephone interview is acceptable. If the Divisional Licensing Administrator judges that the applicant's experience and maturity is satisfactory, he will recommend to the Club Racing Office that a 14 or 15 Year-Old Novice Permit be issued. A completed *Annual* Parental Consent, Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement and a completed Minor's Assumption of Risk Acknowledgment must be submitted to the Club Racing Office *(note: forms vary by state and witnessing method).* The requirement of AppC.2.5.B.3 may be waived by the Divisional Driver Licensing Administrator.

B. A 14 or 15 Year-Old Novice Permit will be issued in the form of a Novice Permit with a distinctive

cover. It must be used for all Driver School and Regional race events until the driver reaches the age of 16. If the requirements for a Full Competition or Vintage license are satisfied before the permit holder turns 16, the 14 or 15 Year-Old Novice Permit shall be returned to the Club Racing Office, with the appropriate license fee, to be replaced by a Full Competition or Vintage license. If the requirements for a Full Competition or Vintage license are not fulfilled by the time the driver reaches the age of 16, the 14 or 15 Year-Old Novice Permit shall be returned to the Club Racing Office to be replaced by a Novice Permit. Any successfully completed Driver Schools and races will be transferred to the Novice Permit.

C. 14 or 15 Year-Old Novice Permits may be issued only by the Club Racing Office.

D. At every driver school and every race before the permit holder is licensed, he must present the Novice Permit to the Chief Steward before participating in any on-track session. The Chief Steward will complete the appropriate permit page at the end of the event.

E. At any event before the permit holder is licensed (school or race), the Chief Steward may recommend revocation of the permit.

F. In addition to the successful completion of the required driver school(s), the Chief Steward must explicitly state that the driver is prepared to race; otherwise, additional school(s) are required.

G. A 14 or 15 year-old must complete his first SCCA driver school in a car not classed in GT1, GT2, FA, FB, FS, ITR, ASR, P1, P2, or T1. Upon successful completion of the first school, any car may be used thereafter.

H. No 14 or 15 year-old will be allowed to race without having successfully completed at least one SCCA driver school. In Divisions in which SCCA driver schools are not available, the student may be allowed to race after completing two SCCA Accredited Schools subject to the approval of the Divisional Driver Licensing Administrator.

I. The 14 or 15 Year-Old Novice Permit is treated as a Novice Permit for the purposes of licensing while participating in Driver Schools and Regional races.

**2.7. Novice Permit**

A Novice Permit is a training license for student drivers as they develop the experience necessary to safely race with the SCCA.

A. After submitting the required materials, an applicant will receive his Novice Permit with one photo attached. The Permit must be presented at each Drivers' School and subsequent SCCA races until replaced by a Full Competition License or Vintage. The requirement of AppC.2.5.B.3 may be waived by the Divisional Driver Licensing Administrator.

B. A Novice Permit is valid for 24 months with continuous SCCA membership. However, Novice Permit holders age 70 and over and those requiring a medical waiver must submit the Medical Form annually for the Permit to remain in effect.

C. A Novice Permit holder who does not complete requirements to upgrade to a Full Competition or Vintage License by the expiration date of the Permit may renew the Permit. Credit for schools or races completed in the previous 24 months will carry over to the renewed permit, if it is renewed within 3 months of the expiration date.

D. Successful completion of 1 SCCA Drivers School or its equivalent is required before a Novice Permit holder may race. The following must be noted in the Novice Permit:

1. A total of at least 3 hours of in-car, on-course time.
2. A Satisfactory rating in SCCA Drivers School.
3. The Signature of the Race Director or Chief Steward indicating participation in the School attended.
4. In addition to the successful completion of the required Driver School, the Race Director or Chief Steward must explicitly state that the driver is prepared to race; otherwise, additional school(s) are required.

E. Novice Permit holders may offer equivalencies to replace the SCCA Drivers Schools' requirements.

1. The Race Director or Chief Steward of an SCCA Drivers School or the Novice Permit holder's Divisional Licensing Chairman may waive all or part of the Drivers School requirements for drivers with prior racing experience.
2. Club Racing will publish the list of accredited private schools whose curricula and methods have been approved and who have submitted a service fee to the SCCA.
3. Alternative Drivers' Schools- Chief Driving Instructors and Divisional Licensing Chairmen should coordinate with the Divisional Executive Steward and the Chief Steward of the event to ensure that the prospective student has had the proper ground school before the event and the right attitude and capabilities to complete the program. This is especially important for novice drivers with little or no prior experience.

At the request of the Divisional Chief Driving Instructor, Divisional Driver Licensing Administrator, Certified Driving Instructor or Divisional Executive Steward, a Novice Permit holder may be offered an alternative path to an SCCA Full Competition or Vintage license under the following conditions:

a. The ground school/classroom component may be satisfied informally via telephone, email, or one-on-one meetings between the student and his designated Driving Instructor. The student must demonstrate knowledge of the GCR and the flags as used in SCCA Club Racing.

b. After successfully completing the ground school, the student must enter a track test day or SCCA sanctioned test day during which his driving will be observed and evaluated by his Driving Instructor along with any other individuals the Instructor and the Chief Steward for the race may designate.

c. Driving Instructors for this program will be approved by the Division's Chief Driving Instructor or by the Divisional Driver Licensing Administrator.

d. The driving instructor for the alternate school may witness participating student(s) sign the SCCA insurance waiver for that event.

e. The host region may charge a fee to cover costs associated with this type of school.

f. For students with recent on-track and/or competition experience, upon recommendation of the Driving Instructor, the Chief Steward, the Divisional Chief Driving Instructor or the Divisional Driver Licensing Administrator may waive all Drivers' School requirements for the student.

g. For students without recent on-track and/or competition experience, the driving evaluation must include sufficient on track activity to satisfy the Driving Instructor and Chief Steward that the student is prepared to participate in Regional races.

F. Drivers who have fulfilled the Drivers' School requirements complete the Novice Permit by successfully competing in 3 Regional event weekends within the 2 year term of the Permit. The Chief Steward for each race must sign the Permit to indicate participation.

When the third Regional event weekend is credited, the Chief Steward or Chairman SOM for that event must also sign the Permit acknowledging completion of the Novice Permit requirements. If the Chief or Chairman will not sign the Permit, a Novice Permit holder may appeal that decision to his Divisional Licensing Chairman for a final decision.

G. A Novice Permit may be revoked by the holder's Divisional Driver Licensing Administrator upon the recommendation of the event Chief Steward.

**2.8. Full Competition License**

A. A driver who has completed all Novice Permit requirements, including the acknowledgment signature of the Race Director, Chief Steward or Chairman SOM, may follow the directions in the Permit to apply for an upgrade to a Full Competition License. For the three consecutive weekends after he has submitted his Full Competition License application to the National Office for processing, he may use a photocopy of the Permit as a Full Competition License to race.

B. Licenses listed below will be accepted as equivalent to a SCCA Full Competition License at SCCA Regional events if the requirements of AppC.2.1 are met and the license holder is an SCCA member in good standing.

1. BMW CCA Club Racing Full Competition
2. Confederation of Autosport Car Clubs (CACC) Competition
3. FIA Issued by any sanctioning body
4. Historic Sportscar Racing (HSR) HSR License
5. ICSCC Area Road Racing or International Road Racing licenses
6. IMSA
7. Midwestern Council of Sports Car Clubs (MCSCC) Full and Novice permit
8. Miller Motorsports Park Racing Association Full Competition Li-cense
9. NASA Full Competition
10. Ontario Region CASC Regional
11. Porsche Club of America Full Competition
12. SCCA Pro Racing or SCCA Vintage
13. Sportscar Vintage Racing Association (SVRA)
14. Vintage Auto Racing Association Full Competition

15. Vintage Motorsports Council (VMC) and VMC member organiza-tions
16. Waterford Hills Road Racing Club Full *and Novice permit*
17. West Canada Motorsport Association Amateur
18. Eastern Motor Racing Association (EMRA) Competition License.
19. Atlantic Region Motor Sports (ARMS) Regional Competition License
20. Grand American Road Racing Association (Grand-Am)
21. Autobahn Country Club Level 1/Level 2
22. Independent Motorsports Group (IMG)

C. A Canadian resident holding a current ASN Professional Grade C License or higher may apply for an SCCA Full Competition or Vintage License if he is an SCCA member in good standing and submits a copy of his current ASN License and ASN Medical Form, along with the License fee.

**2.9 Vintage License**

A Driver who has completed all Novice Permit requirements, may apply to the National Office for a Vintage Competition License. A current medical form and appropriate license fee to be included.

**2.10 Renewal**

Requirements for renewing Full Competition Licenses and Vintage Licenses are noted in Appendix C. Table 1.

**2.11 Applicants with Prior Racing Experience**

Participation requirements for issuance or renewal of Novice Permit, Vintage or Full Competition Licenses may be waived in total or part by the Divisional Licensing Chairman of the applicant's Division of Record or the Manager of Club Racing.

**3. NON-STANDARD LICENSE SITUATIONS**

A. Probation Letter as License

1. The Chairman SOM or other review committee or Court of Appeals issues a Probation Letter to temporarily replace the confiscated License of a member whose penalty is probation.
2. The member uses the Probation Letter as a License until the terms of the probation have been met completely.
3. When the terms are completed, the member sends the Probation Letter to the National Office and receives his License in return.

B. Statement of Facts Affidavit in Lieu of License

A Statement of Facts Affidavit is available ONLY to a competitor who has received a current SCCA Competition License but does not have it in his possession at the event. A competitor whose claim to have been issued an SCCA Competition License cannot be verified is subject to automatic penalty, as specified in 7.4.D.

**NOTES:**

Table 1

| LICENSE LEVEL | SCCA MEMBER TYPE | AGE | LICENSE ISSUER | APPLICATION | MEDICAL FORM | FEE | MAX. TERM | OTHER |
|---|---|---|---|---|---|---|---|---|
| 14 and 15 YEAR-OLD NOVICE PERMIT | Individual/Family/ First Gear in good standing | 14-15 years old | SCCA National Office | Novice Permit Application | Required | $125 (Region retains $40) | 2 years | 2 Passport Photos or Proof of Age + Divisional Licensing Chairman Approval |
| NOVICE PERMIT | Individual/Family/ Spouse/First Gear in good standing | 16 years or older | SCCA National Office or National/ Divisional/ Regional Driver Licensing Administrator | Novice Permit Application | Required | $125 (Region retains $40) | 2 years | 2 Passport Photos + Proof of Age + Operator's Permit/State Driver's License allowing solo motor vehicle operation |
| NOVICE TO VINTAGE | Individual/Family/ Spouse/First Gear in good standing | 14 years or older | SCCA National Office or National/ Divisional/ Regional Driver Licensing Administrator | Completed Novice Permit + Vintage License Application | When needed | $60 | 1 year | Complete School Requirements + 2 Regional Races on Permit + Appropriate Officials' Signatures on Permit |
| NOVICE TO FULL COMPETITION | Individual/Family/ Spouse/First Gear in good standing | 14 years or older | SCCA National Office | Completed Novice Permit + Full Competition License Application | When needed | $100 (waived if applied for within 90 days of paying Novice Permit Fee) | 2 years | Complete School Requirements + 3 Regional Race weekends. All in prior 24 months. Note: 1 SCCA Time Trial Level 1,2 and 3 events may be substituted for 1 of the Regional Race events. Appropriate Officials' Signatures on Permit |
| VINTAGE RENEWAL | Individual/Family/ Spouse/First Gear in good standing | 14 years or older | SCCA National Office | Vintage License Renewal Application | When needed | $60 | 1 year | Results of 2 Vintage Races or 2 SCCA Regional Races from the prior 12 months |

| Table 1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **LICENSE LEVEL** | **SCCA MEMBER TYPE** | **AGE** | **LICENSE ISSUER** | **APPLICATION** | **MEDICAL FORM** | **FEE** | **MAX. TERM** | **OTHER** |
| FULL COMPETITION RENEWAL | Individual/Family/ Spouse/First Gear in good standing | 14 years or older | SCCA National Office | Full Competition License Renewal Application | When needed | Fee noted on SCCA Website (comp. license form) | 3 year | Results of 1 SCCA U.S. Majors Tour or Regional Sanctioned Race/Pro/FIA weekend per year |

## APPENDIX D. DUTIES, AUTHORITIES, AND RESPONSIBILITIES OF RACE DIRECTORS, CHIEF STEWARDS, AND THE SOM.

This Appendix summarizes the duties, authorities, and responsibilities of the Race Director, Chief Steward, the Chairman of the Stewards, and the SOM in the GCR, except those in 5.12, the primary section governing the powers and responsibilities of Stewards. This appendix is a digest and is intended to direct the reader to the appropriate specific sections for the full citation. Because these are summaries only, the statements in this Appendix may not form the basis of a protest or appeal.

1. Duties, Authorities, and Responsibilities of the Race Director or Chief Steward

2.1.6. Refusing to cooperate with, interfering with or obstructing the RD or CS is a breach of the rules.

2.2.4. The RD or CS may have no conflict of interest as defined in this section.

2.3.1.B. The RD or CS may exclude any participant using narcotics or CS or dangerous drugs, may have that person removed from the grounds, and may cause that person to be penalized.

3.1.1.D.2.d Administrative actions taken by the RD (including modifying the Schedule of Events and race groupings), are non-protestable; actions/penalties imposed by the RD for driving or compliance are protestable.

3.1.5.E. A RD or CS is required for an SCCA sanctioned Practice Day.

3.4.1 The RD may change the Supplemental Regulations as permitted in 5.12.2.

3.4.2 The CS may correct clerical errors and omissions to the schedule and class groupings prior to the start of an event.

3.6.4 The RD or CS will accept a driver's request for refusal of awards.

5.1. The RD or CS is listed among the principal officials.

5.1.1. There shall be a RD or CS at every event.

5.1.3. Grades of Licenses for RD or CS

5.1.5. The RD or CS shall have no plurality of duties.

5.2.2.A. With the Race Chairman, the organizer, and the promoter, the CS determines the schedule, and drafts the Supplemental Regulations.

5.2.2.C. The CS must receive a copy of the Insurance Certificate prior to beginning the event.

5.3. The RD or CS, the ARD or CS – Safety, and the Chief of Emergency Services oversee the activities of the Course Marshal.

5.4.4.C. The RD or CS authorizes dispatching emergency vehicles. The RD or CS, F&C Chief, Chief of ES, and ARD or CS-Safety agree on dispatch procedures.

5.4.4.H. The RD or CS must specifically approve counter-race towing.

5.5.2.B There must be immediate communications among the RD or CS, Race Control, and the corner stations.

5.5.2.C Descriptions of course and car conditions, and on-track situations will be conveyed to the RD or CS via the communications net-work.

5.5.2.D Information and instructions from the RD or CS to the on-track emergency vehicles, the corners, and the drivers will be conveyed via the communications network, and racing suspended if communication is interrupted.

5.8.2. The RD or CS oversees the activities of the Starter.

5.8.3. The Starter controls the field by conveying RD or CS orders while the cars are on course.

5.8.4. The Starter and the RD or CS must have immediate communica-tion with one another.

5.9.1.B. The RD or CS may request that the Chief of Tech conduct in-spections; the Chief of Tech may recommend inspections to the RD or CS.

5.9.1.C. The Chief of Tech will report non-conforming cars to the RD or CS.

5.9.2.C. The RD or CS may request re-inspection of any car (beyond the Annual), and may request special impounds.

5.9.3.C. The RD or CS may require impounding cars post-race beyond the top three finishers. The RD or CS may penalize drivers who fail to report to impound with their cars. The RD or CS and the Chief of Tech determine items to be checked. Underweight cars will be reported to the RD or CS. Cars of doubtful compliance will be reported to the RD or CS.

5.10.1.B. T&S will provide times and results at the request of the RD or CS.

5.10.3.C. The RD or CS may waive the two-system T&S requirement when there is insufficient staff. T&S protests will not be accepted.

5.11.1. The RD or CS may assign Driver Observers on course, whose activities are overseen by the RD or CS, and to whom they report in writing regarding all incidents or accidents witnessed.

5.11.3.A. The RD or CS may assign Start, Finish, and Judges of Fact who shall report directly to the RD or CS.

5.12.2 The RD may change the schedule and race groups and correct errors and omissions in the Supplemental Regulations. The RD has the duties and responsibilities of 5.12.3.

5.12.5 The RD or CS may delegate all or part of his or her powers under 5.12.3.C, and 8.1.1. to the Compli-ance Checking Crew, who are responsible to advise the RD or CS of non-compliant cars.

6.1.1.F. The RD or CS or the Supplemental Regulations will define where a car stops in the pits upon receiving an Open Black Flag with a number board.

6.1..F. The RD or CS will direct the Black Flag "ALL" procedure when needed.

6.1.1.G. The RD or CS or the Supplemental Regulations will define where a car stops in the pits upon receiving a Mechanical Black Flag with a number board.

6.1.1.I. The RD or CS will direct the Red Flag procedure when needed.

6.2.2. The RD or CS or the Supplemental Regulations must approve a car returning to the course from the paddock during a race.

6.3.3. The RD or CS or the Supplemental Regulations must approve fueling in the pits.

6.3.5. The RD or CS or the Supplemental Regulations must approve more than 4 hot pit crew.

6.4.2.E. The RD or CS may waive the 120% qualifying rule, and may allow non-qualifiers to grid behind qualifiers.

6.4.3.C. The RD or CS may recommend the parallel column procedure to establish the grid when conditions merit for oversubscribed clas-ses.

6.4.6. The RD or CS or the Supplemental Regulations must approve fueling on the grid.

6.5.1.A. The RD or CS initiates the 5 and 1 minute warnings to the grid.

6.5.2.A. The RD or CS may authorize a second unscored pace lap.

6.5.2.B. The RD or CS may direct the Starter or someone else to brief the front row prior to a race.

6.5.5.B. The RD or CS will determine the class(es) in each segment of a split start.

6.5.6. After the field has left the grid, the RD or CS may allow cars not in position at the 1 minute warning to join the field at the back during the pace lap or from the pit exit after the green.

6.6.1. The RD or CS is responsible for the pace cars, and will approve the driver and communicator/ observer.

6.6.2. The RD or CS may use a safety car to control the field and re-starts.

6.7.1. The RD or CS may stop a session in any of the following ways:

A. Black Flag "ALL"

B. Red flag

C. Checkered Flag, if at least 50% of a race scheduled time or dis-tance has been completed

6.8. The RD or CS may restart a race in one of the following ways:

A. Restart in original grid positions.

B. Single file restart by the last completely scored lap.

6.9. The RD or CS may use the Black Flag "ALL" procedure to stop a race less than 50% complete to give competitors 15 minutes to change to rain tires (at their discretion); or if it is more than 50% complete, he may checker the race.

6.11.4. The RD or CS must approve counter-race driving.

7.2.G. The RD or CS must receive notification from any driver on probation before that driver enters the course the first time.

7.4.B. Penalties imposed by the RD or CS do not incur automatic penalty points, but the SOM may assign points when an RD or CSA is protested and is upheld.

8.1.1. The RD or CS may file a Chief Steward's Action describing a breach and the action taken. All CSAs

must be filed within 30 minutes after the results of the final race are posted, unless the SOM approve an extension.

8.1.2. The RD or CS may file a Request for Action with the SOM de-scribing a breach, but he may not file an RFA for a single breach for which he has already imposed a penalty. Unless the SOM ap-prove an extension, RFAs must be filed within 30 minutes after the results of the final race are posted, except RFAs resulting from post-race impound.

8.1.3. The RD or CS may file a CSA or an RFA against a car for non-compliance. The procedures are the same as for a mechanical protest.

8.3.1.E. The RD or CS shall receive protests and shall promptly forward them to the Chairman SOM.

8.3.3.B. Items beyond the scope of a mechanical protest found non-compliant during the inspection must be forwarded to the RD or CS.

8.4.1. The RD or CS may appeal any decision or penalty imposed by the SOM.

8.4.4.B.2. The RD or CS must receive the competition license and forward it to the national office before an appeal will be heard.

8.4.6.C. The Court of Appeals will not act as a RD or CS.

9.1.12.B. The RD or CS approves the classification of cars; and will not approve if the proposed classification poses a safety hazard or an impediment to fair competition.

9.2.1.H. The RD or CS may waive deviations compliance requirements for a car for an event.

9.3.20.B. The RD or CS approves reinspection of driver's safety equipment.

9.2.26.A. The RD or CS or SOM will assess appropriate penalties when fuel is tested non-compliant.

9.3.32. The RD or CS may direct that the taillight on formula or sports racers be illuminated.

AppB.2.1. The RD or CS must delay an event until he is satisfied that the required insurance is provided.

AppC.2.7.D.3. The RD or CS signs Novice Permits attesting to participation in SCCA Drivers' Schools.

AppC.2.7.D.4. The RD or CS must explicitly state that the driver is prepared to race.

AppC.2.7.E.1. The RD or CS of a Drivers' School may waive all or part of the school requirements for drivers with prior racing experience.

AppC.2.7.F. The CSOM (or CS) must sign the Novice Permit acknowledge completion of Novice Permit requirements after the driver's third Regional race weekend is credited. An SOM (or CS) refusing to sign off a Novice Permit may be appealed to the driver's Divisional Licensing Chairman.

AppC.2.7.G. The CS may recommend to the driver's Divisional Licensing Chairman that his Novice Permit be revoked.

AppC.2.8.A. The RD or CS (or the Chair SOM) signs off the Novice Permit following completion of the third satisfactory Regional Race weekend.

AppC.3.A.1. A Probation Letter is a temporary replacement for a confiscated license issued by, among others, a CSOM.

AppE.5.4.B. The CS determines the order of single car qualifying at an oval event.

AppE.5.5.A.2. The CS announces the number of pace laps before the start of an oval race.

AppE.5.5.B.2. The CS may use a safety car at an oval race, or may designate the lead car to pace the field safely to a restart or to slow the field for the safety car.

AppF.Qualifier (a) One who receives a time, or (b) One who is waived into a race by the RD or CS and starts the race.

2. Duties, Authorities, and Responsibilities of the Chairman of the SOM and the SOM STEWARDS OF THE MEETING

2.1.6. Refusing to cooperate with, interfering with or obstructing the SOM is a breach of the rules.

2.2.4. An SOM may have no conflict of interest as defined in this section.

3.1.1.C. The SOM may reschedule National races to 30 minutes in length.

3.2.1.B. The SOM may cancel or postpone all or part of an event.

3.5.1.H. The name of the CSOM must appear in the Supplemental Regula-tions.

3.5.5. The SOM must approve changes to the schedule and Supplemental Regulations.

3.8.1. The SOM will prevent distribution of awards if a named party in-dicates that he will appeal their

decision.

4.4.4. The SOM may nullify an entry containing a false or incorrect statement and penalize the driver or entrant.

5.1. The SOM are listed among the principal officials. The SOM may not delegate their responsibilities.

5.1.1. There must be at least 2 SOM at every event.

5.1.3. Grades of licenses for CSOM:

A. Nationals – National Steward. Senior Steward or Divisional Stew-ard if appointed by the Division's Executive Steward and approved by the Chairman of the Stewards Program.

B. Regionals – minimum Divisional Steward.

C. Driver Schools – minimum Divisional Steward.

5.1.5. The CSOM may have no plurality of duties.

5.2.1.C. The CSOM must receive a copy of the Insurance Certificate prior to the beginning of an event.

5.7.1.D. The Sound Control Chief will provide reports to the CSOM.

5.10.1.B. T&S will provide times and results at the request of the SOM.

5.10.1.D. T&S will provide completed Official Results to the SOM.

5.10.4.B.1. SOM pending actions will hold publication of Official Results.

5.11.2. SOM will cooperate with the Press Officer.

5.11.3. The SOM may approve a corrected determination by a Judge.

6.4.3.C. The SOM must approve using the alternate qualifying procedure for an oversubscribed single class group.

7.2.G. A probation period begins when the license and any fine are col-lected by the Chairman of the SOM who assessed the penalty or by the National Office.

7.2.G.3. The SOM at the event where a violation of probation occurs may be asked to hear the violation.

7.2.I. The CSOM whose committee suspends competition privileges must collect the license immediately. The suspension begins when the penalty is assessed, however, the period begins when the license and any fine are collected by the body who suspended the license or by the National Office.

7.4.A. Penalties assessed by the SOM incur penalty points.

7.4.B. The SOM may assign penalty points when upholding a protested CSA.

7.5. The SOM shall advance subsequent competitors when a penalty affects the final results, and shall notify T&S.

8.1.1. The CS may file a CSA with the SOM for a breach of the GCR or Supplemental Regulations. CSAs must be filed with the SOM within 30 minutes after the results of the last race of the weekend are posted, although the SOM may extend the time.

8.1.2. The CS may file an RFA with the SOM for a suspected breach of the GCR or Supplemental Regulations. RFAs from post-race in-spections may be filed within a reasonable amount of time fol-lowing discovery. While all other RFAs must be submitted within 30 minutes after the results of the last race of the weekend are posted, the SOM may extend the time.

8.2. SOM procedures for RFAs and Protests are the same.

A. The SOM will hear actions as soon as practical.

B. Only the CSOM can release parties from the track.

C. The SOM will notify all parties if there is a delay in ruling on the action.

8.3.1.D. The SOM may return protest fees at their discretion.

8.3.1.E. The CSOM will promptly receive protests from the CS or ACS.

8.3.1.F. The SOM may extend time limits for filing protests.

8.3.2.B. The SOM may penalize a protestor whose actions are judged in bad faith or vexatious.

8.3.3. The SOM will receive a bond to cover the expense of disassem-bling, inspecting, and reassembling a car that is protested.

8.3.3.A.1. The SOM will consult separately with all appropriate parties in setting the bond.

8.3.3.A.2. The SOM will apportion the bond if the protestor withdraws all or part of the protest.

8.3.3.A.4. The SOM may require that the protested party posts a bond or signs a repair order.

8.3.3.A.5.d. The CSOM requesting verification services will receive an email within 5 working days from the SCCA Technical Services De-partment.

8.3.3.B. The SOM will oversee the inspection or disassembly of the pro-tested vehicle, and determine who else may be allowed to observe which parts of the process.

8.3.3.F. The CSOM is responsible to assure unbroken chain of evidence and may impound parts.

8.4.1. An SOM decision may be appealed by any named party.

8.4.3.B.2. An appeal will not be heard until a license surrendered to a CSOM is received by the National Office.

8.4.3.D. The CSOM may accept a notice of intent to appeal the suspension of privileges to allow the individual to compete in subsequent events during a multiple sanction weekend. However, the SOM cannot accept a notice of intent to appeal during a single sanction weekend for any reason.

8.4.3.E. An SOM decision may be upheld or overturned by a properly pre-sented appeal.

8.4.5.A.2. The original SOM may be ordered by the Court of Appeals to rehear an action.

8.4.5.C. The Court of Appeals will not act as an SOM.

9.2.1.I. The CSOM, or his designee, will note technical non-compliance in the vehicle logbook.

9.3.26. The SOM (or the CS) will assess appropriate penalties when fuel tests non-compliant.

**Notes:**

## APPENDIX E. OVAL TRACK RACING

This section is intended as a guideline and recommendation for SCCA Club Racing events conducted entirely on paved oval tracks.

### 1. EVENTS

Club Racing events on oval tracks will be sanctioned only on paved ovals and only as Regional events. U.S. Majors Tour events may not be conducted as oval track events. A Drivers' School in preparation for an event on an oval track may be conducted, but not as a substitute for a road course Drivers' School. Regions conducting oval Drivers' Schools are encouraged to seek out local drivers who have experience at that track to advise students at the event.

All items of Section 3, Events, which apply to Regional events shall apply to oval track events.

Depending on the length and banking of the oval course being used, it is rec-ommended that Regions consider restricting the faster classes (GT1, FA, and CSR) from competition at oval track events.

Oval track events may consist of any combination of practice sessions, qualifying sessions, heat races, and feature races. On tracks of less than 1 mile in length, it is recommended that qualifying be conducted one car at a time.

### 2. COURSES

Courses for oval track events must be approved by the Divisional Executive Steward prior to applying for a race sanction. These approvals shall expire at the end of the calendar year or upon written notification to the region by the Executive Steward which ever comes first.

### 3. TIMING AND SCORING

Timing and Scoring standards may be modified in favor of short-track scoring techniques. It is not necessary to time every lap of every car during a race, though an overall time for the winner should be recorded.

### 4. FLAGGING AND COMMUNICATIONS

Generally, all communications with drivers while they are on course will be via flags at the Starter's Stand and/or signal lights around the course. It is recommended that Flagging and Communications personnel be stationed around the course to communicate to Race Control the observations they make regarding the condition of the course or the nature of any incidents they witness.

### 5. RULES OF THE ROAD

#### 5.1. Racing Surface

For the conduct of all competitions (qualifying or race), the racing surface shall be defined as only the marked, paved race track and it's curbing. Pit lanes, their entries and exits; grass verges; and so on, are expressly excluded from the racing surface.

#### 5.2. Flags

For oval track events, flags will normally be only displayed at the Starter's Stand. Flags may be supplemented by signal lights displayed around the course. The flags used in an Oval Event are defined in Section 6.1.2., Flags, with the following exceptions:

A. RED FLAG – Come to a stop as soon as possible on driver's left (for counterclockwise tracks) or driver's right (for clockwise tracks). Then proceed very slowly and with great caution to the hot pit area and await further instructions.

B. Yellow Flag and/or Yellow Light

STANDING YELLOW — Take care, Danger, Slow Down, NO PASSING. The entire course is yellow.

WAVED — Great Danger, Slow Down, be prepared to stop. NO PASSING. The entire course is yellow.

DOUBLE YELLOW – Not used.

C. SURFACE CONDITION FLAG (Yellow with Vertical Red Stripes) – Not used. Any course condition warranting a surface condition flag is cause a yellow flag until the course condition can be corrected.

D. WHITE FLAG (Solid White) – The leader is starting his last lap. The white flag shall be waved to the leader and then to each following car during that lap.

#### 5.3. Practice / Multi-Car Qualifying

A. During practice and multi-car qualifying sessions, all cars enter the pit area and stop at their pit at the first opportunity after observing a yellow flag or yellow light at any flag or light station on the track. No car may re-enter the track from the pit lane until the course becomes green again.

B. The scheduled practice time is total running clock time, not on-track green flag time, subject to event scheduling requirements.

#### 5.4. Single-Car Qualifying

A. The number of warm-up laps, timed laps, and cool-down laps allowed in a qualifying session will be defined in the supplemental regulations and/or announced at the drivers meeting.

B. Cars will qualify in an order determined by the Chief Steward. If a random drawing is used to determine qualifying order, details of the drawing will be announced prior to the drawing. Positions in the qualifying order are reserved as long as the car is in the qualifying line prior to the order to begin its

qualifying attempt.

C. If a car does not proceed with the qualification attempt when ordered to do so, the qualifying order position will be forfeited. The car may be penalized further by the loss of one qualifying lap.

D. A qualifying attempt shall be considered started when the front tires of the car cross the starting line after the qualifying start signal is given by the Starter.

E. If the car stops anywhere on the course after the qualifying start signal is given by the Starter, the driver will be charged with an attempt. Time permitting, those cars having started a qualifying attempt, but unable to complete the attempt, will be permitted to begin a second qualifying attempt. First priority for a second qualifying attempt will go to cars that failed to receive any qualifying time during their first attempt.

F. In the event qualification cannot be held or completed within the allotted qualification time, the field, or remaining field, will be filled by means of a seeded lottery by those drivers who have entered, but who have not qualified.

**5.5. Races**

A. Initial Race Start

1. A pace car may or may not be used. If no pace car is used, the responsibility of pacing the field will fall to the pole car.
2. The number of pace laps prior to the start of the race will be announced by the Chief Steward.
3. On the final pace lap prior to start, the pace car, if used, will turn its lights out and accelerate to leave track.
4. The pole car will bring the field gradually up to speed for possible start.
5. Cars shall not improve position prior to crossing start/finish line. (Pulling out of line alongside the car in front of you is improving your position.)
6. In case of an aborted start, the starter will display a standing green flag to the field. After the cars have entered turn one, the course will go yellow and the field will reform on the back straight for a restart.

B. Yellow Light/Flag.

1. In the event of a yellow flag, the lead car is responsible for controlling the field and getting the field to slow down in a smooth, orderly fashion.
2. A pace or safety car may be employed to bring the field under control. Whenever a pace car is used, it will remain out for a minimum of two laps subject to race conditions and at the discretion of the Chief Steward. The Chief Steward may designate to the lead car the duties of pace car to safely pace the field to a restart or to slow the field down gradually prior to a safety car entering the track.
3. In case of a pass in progress when the yellow light goes on, the over-taking car is expected to fall back and take station behind the car he was attempting to pass. The field does not race to the start/finish line.
4. The running order as of the last completed green flag lap immediately prior to the yellow flag shall determine the running order for the re-start.
5. Any yellow light or flag at an oval track is a full course yellow, whether or not there is a safety car. The lead car will slow the field down to permit the entire field to “bunch up” single file behind the leader. The track will stay yellow until the field is consolidated behind the leader. Drivers strung out around the track are expected to quickly move up to catch “the pack” while observing the yellow flag situation.
6. Cars entering the pits during a yellow flag condition, or cars responsible for causing the yellow flag condition, shall, assume a position at the rear of the formed pack on rejoining the field.

C. Restarts

1. On the lap prior to a possible yellow-to-green restart, the field will be notified of a possible restart on the next lap by:
   a. Safety car turning lights off and exiting the track.
   b. If no safety car is used, Starter indicating one more lap.
2. In either case, the lead car gradually brings the field up to speed for a possible restart.
3. At the instant the starter waves the green flag, all yellow lights will go green. Racing resumes immediately over the entire track.

**5.6. Driving Conduct**

A. It is the responsibility of all drivers to avoid physical contact between cars on the race track.

B. All competitors have a right to "racing room" on the marked racing surface. "Racing room" shall be generally defined as sufficient space on the marked racing surface so as to allow a competitor to maintain control of his car in close quarters, under racing conditions.

C. It shall be incumbent on all drivers to preserve the right of his fellow competitors to "racing room" on the race track. Abrupt changes in direction so as to impede or affect the path of a car attempting to overtake or pass may be interpreted by Officials as an attempt to deprive a fellow competitor of his right to "racing room".

**NOTES:**

NOTE: Should any of the definitions contained in this Glossary appear to be in conflict with a specific rule, then the GCR or Specification Book will take precedence.

2 Cycle – A reciprocating engine in which the intake, compression, combustion and exhaust phases are completed each revolution of the crankshaft.

4 Cycle – A reciprocating engine in which the intake, compression, combustion and exhaust phases are completed each two revolutions of the crankshaft.

A-Pillar – The forward most roof support in a passenger car, which also serves as the side support for the windshield.

Accelerator Pedal – A foot-operated device which allows the driver to vary the degree of opening of the induction system throttle(s).

Accessible – Capable of being reached without removal of other components.

Accumulator – A pressurized free-piston device, in which the compression of a fixed volume of air by the piston, upon the application of a force caused by fluid under pressure, provides a pressurized reservoir of the fluid.

Active Aerodynamic Devices – No active aerodynamic devices are permitted. These include, but are not limited to, those that allow any degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), movable or hinged skirts, or that can be adjusted from within the cockpit. Adjustment of aerodynamic devices may only be made by mechanical changes performed from outside the car.

Active Suspension – Automatic ride height and / or roll control by an active system receiving power from a pump or compressor.

Addition – To introduce a component not present in the cars stock state, or attachment to an existing component.

Adhesive – A bonding agent designed to cause two or more components to adhere to each other without fusing them into a single component.

Adjustable Timing Gear – A camshaft drive gear or sprocket which permits a range of angular adjustment of the outer portion relative to the attachment point of the driven camshaft.

Advance Curve – The degrees of distributor advance from the static setting as a function of rotational speed, usually achieved by mechanical or electronic means.

Advance Plate – The plate inside a distributor on which the ignition points are mounted, which is free to rotate over a prescribed angle in response to the actions of the advance mechanism(s), thus altering the phase relationship of the points and distributor cam.

Advance Springs – Springs which provide the restoring force against the actions of the advance mechanism(s) in a distributor.

Aerodynamic Device – An attachment to, or an integral part of, a car intended to generate atmospheric downforce by the action of air flowing through or around the attachment.

Aerodynamic Skirts – Body panels, movable or fixed, at the bottom of the sides of a car's body, which aid in the creation of "ground effects" downforce by ensuring that little air passing under the car can escape at the sides.

Aeroquip Line – A brand name, used generically, for a braided metal-covered hose.

Air Cleaner – An induction system component intended to filter particulate matter from the incoming air.

Air Dam – An air control device at the lower front of a car, intended to divert some of the air which would normally pass under the car when the car is in motion.

Air Horn – See Velocity Stack.

Air Pump – An engine-driven pump intended to provide a supply of air (without fuel) to the engine to assist in the reduction of pollution components.

Air Throttle – The valve which allows the driver to modulate the volume of air passing into a fuel injection induction system.

Airfoil – An aerodynamic device or part of a car which the flow of air over its surface will generate a vertical force by creating a pressure differential between top and bottom surfaces.

Air Throttle/Throttle Body – The component which allows the driver to regulate the volume of air passing into a fuel injection induction system.

Alloy – A homogeneous mixture of two or more elements, at least one of which is a metal, and where the resulting material has metallic properties.

Alter (verb) – To change a component by modifying.

Alternator – A component intended to generate current with which to maintain a proper level of charge in the on-board storage battery.

AN Coupler – A threaded high pressure hydraulic coupling of the type normally used with metal braided hose.

Annular Discharge – A carburetor type in which the fuel is introduced into the flowing air from an annulus on the periphery of the main duct.

Anti-Roll Bar (Sway bar) – A torsion control device connected to a car's structure, and to moving portions of the suspension, which is intended to control body roll. (Some types of ARB may also serve as a suspension component.)

Anti-Submarine Strap – A safety strap intended to provide additional support against motions of the driver's lower torso in the forward direction.

Aspect Ratio – The ratio of tire section height to section width, expressed as a percentage.

Attachment Points (Suspension) – The locations at which the fixed and moving ends of a shock absorber are mounted and/or the location of the suspension component on the frame or structure of a car.

Automatic Transmission – A transmission which is capable of allowing a car to start from a stop without use of a clutch, which may be shifted from gear to gear without use of a clutch, and in which such shifting of gears is accomplished by hydraulic, pneumatic, or electric actuation.

Automobile – See Car, Appendix A.

Axle Housing – The housing which contains axle shafts and may provide support for wheel hubs.

Axle Shaft – A shaft whose purpose is to carry rotational drive from a differential or transaxle to the driven wheels, or simply to support 1 or 2 undriven wheel hub(s).

Axle Tube – See Axle Housing. Also, the beam connecting the rear wheels on a front wheel drive car.

B-Pillar – The center roof support in a passenger car.

Backing Plate – A braking component used in drum type brake systems, generally to support the brake shoes and wheel cylinder(s) at a wheel.

Baffle – A plate or panel in a fluid container, which is designed to inhibit the rapid transfer of the fluid within the container when it is subject to changing dynamic forces.

Balance (Verb) – To minimize the dynamic off-axis forces of rotating components, or to equalize the weights of like reciprocating components.

Balance Pipe – A tubular induction system component which connects 2 or more independent branches of the system.

Ball Joint – A bearing coupling, generally in suspension or steering systems, consisting of 2 mating surfaces, 1 convex and 1 concave, which permits a range of angular displacements of the 2 attached shafts over a prescribed range.

Ballast – Non-functional mass fastened inside a car to increase the weight of the car.

Base Circle – The constant radius portion of a camshaft lobe which is closest to the centerline of the camshaft.

Battery (Storage) – An on-board electrical storage component which may be used to activate electrical devices or systems, such as starter, ignition, etc.

Battery Box – A covered container for an on-board storage battery.

Beam Axle – A solid, non-rotating axle connecting the undriven wheels of a car.

Bearing – A mechanical component provided to allow connected parts to move with respect to one another in a manner consistent with durability and minimal friction.

Bearing Carrier – A housing in which the bearings carrying a shaft are mounted.

Bell Housing – A nominally bell-shaped extension or attachment to the engine or transmission which serves as a coupler between these assemblies, and usually encloses the clutch/flywheel assembly.

Belt Drive (Car) – A drive system in which the engine power is coupled to the driven wheels through a flexible belt and pulleys.

Bezel/Rim – Outer trim components which determine the assembled appearance.

Bias Ply Construction – A tire construction in which the structural plies of the main carcass form an angle considerably greater than zero relative to a cross section of the tire.

Big End – The crankshaft end of a connecting rod.

Blanking Sleeve – A replacement for a thermostat designed to divert the flow of cooling water away from the cooling system bypass circuit.

Block – The elemental component of a reciprocating engine which contains at least the cylinder location(s) and the crankshaft mounting points.

Block Deck Height – The distance between the crankshaft centerline and the machined surface that forms the head/block interface of the block.

Blueprinting – The practice of engine improvement achieved by the use of selected standard parts and/or by optimizing the factory machined surfaces of stock engine components to achieve the most advantageous specifications within the normal range as defined by the manufacturer for that engine.

Within the above definition of blueprinting, any procedures that involve the following are not permitted unless specifically authorized:

a) The addition of material of any kind to any component (this includes, but is not limited to, the addition of sleeves/bushings and the application of anti-friction, oil shedding and thermal barrier/retention coatings).

b) The machining, tooling or any other physical or chemical modification (including shot blasting) of any surface that was not originally a factory machined surface. Glass or other media blasting for cleaning purposes only is allowed as long as it does not remove or modify the base material of the original part.

c) Mixing/matching of parts from any other year, make, model or type of vehicle or engine.

d) Balancing procedures that involve spot machining of all rotating and/or reciprocating parts (i.e. one rod/piston assembly must remain untouched).

e. Any edges resulting from authorized machining processes may be deburred up to .040".

Note: Under no circumstances may any factory specification be exceeded as a result of any permitted blueprinting operation(s) (i.e. compression ratio, valve lift, bore, stroke, etc.).

Body – All parts of the car licked by the air stream and situated above the belly / floor with exception of the roll bar or cage. For Formula and Sports Racing cars, further exceptions are those units definitely associated with the function of the engine or transmission.

Body Panel – A replaceable section of the body.

Bodywork – See Body.

Bolt Pattern – The arrangement of bolts or other fasteners used to join 2 components.

Boost – The degree of induction pressurizing in a turbo/supercharged engine.

Boot Cover – A cover for the area behind the driver/passenger seating area in an open car.

Bore – The diameter of a cylinder.

Boss – A protrusion from a casting or forging which provides the surface(s) and/or structure necessary to accomplish particular function of the component.

Brake Light – A signaling light mounted on the rear of the car, which may be actuated only by driver braking actions.

Brake Lining/Pad – Replaceable friction material which accomplishes braking action by making rubbing contact with the brake drum or rotor.

Brake Rotor – The disc component of a braking system, which is attached to a wheel hub and provides a friction surface for braking actions.

Brake Rotor Hat – The integral part of a brake rotor or a separate component that locates and provides attachment for the brake rotor to the hub.

Braking System – A system, including hydraulic and mechanical components, which allows the driver to reduce the velocity of a car.

Breather Vent – An aperture which allows the flow of air into or out of an enclosure.

Bulb – A lighting system component which contains the actual light emitting element(s).

Bulkhead – A partition separating compartments.

Bump Steer – The change in toe-in or toe-out which results from changes in suspension geometry as the wheel(s) rises or falls from its neutral position.

Bump Stop – A cushioning pad which acts as the limit to suspension travel in one vertical direction.

Bumper – A semi-rigid attachment to the structure of a car at the front or rear, which is intended to absorb a portion of low speed front or rear collision forces.

Bumper Block – See Bump Stop.

Bushing/Bush – A sleeve or tubular insert, whose purpose is to reduce the dimension(s) of an existing hole. A protective liner that cushions noise, friction, or movement such as a rod end or spherical bearing.

C-Pillar – The body roof support bordering on the rear window or hatch.

Caliper – A braking system component which is the disc brake equivalent of a wheel cylinder, and converts hydraulic pressure into mechanical braking force at a wheel.

Cam Carrier – That portion of a reciprocating engine that contains the supporting bearings for an overhead camshaft.

Cam Cover – Equivalent to a valve cover in an engine with an overhead cam.

Camber – The angle of a wheel relative to true vertical. Negative camber implies that the top of the wheel is closer than the bottom to the car's centerline.

Camber Compensator – A wheel location device designed to control the wheel camber under varying conditions of bump/rebound.

Camshaft – An engine component, driven by the crankshaft, whose function is to actuate the valves, and often, to drive other engine components.

Camshaft Timing – The phase relationship of the camshaft to the crankshaft, which determines when in the crankshaft cycle the valves will open.

Canard – A near-horizontal aerodynamic device normally mounted at the extreme front of a (race) car.

Carburetor – The component of a non-fuel injection induction system which achieves the mixing of fuel and air to create a combustible mixture.

Car – See Appendix A, Car.

Caster – The angle which the swivel axis of a steered wheel makes with the vertical in the fore/aft direction.

Catalytic Converter – An emissions control device in the exhaust system which reduces emissions by catalysis.

Catch Tank – A container with the purpose of collecting liquid, generally lubricant or coolant, vented from an engine, transmission, transaxle, or differential and preventing the loss, from the car, of the liquid.

cc – Cubic centimeter (a unit of volume).

Center-Lock – A type of road wheel/hub which is retained by a single central fastener.

Centerline – A line coincident with the axis of rotational symmetry of a component.

Centrifugal Clutch – A clutch which automatically engages in response to an increase from low engine speed, and disengages upon return to low speed operation.

Chain Drive – A drive system in which the engine power is transmitted through a chain and sprockets.

Chapman Strut – An adaptation of the McPherson strut for a rear suspension (without steering swivel).

Check Valve – A valve designed to prevent the flow of a fluid in one direction, while allowing relatively unimpeded flow in the opposite direction.

Choke – A carbureted induction system mechanism which, when actuated, causes an enrichment of the fuel/air mixture to assist cold starting or an intake restrictor (venturi) for the purpose of limiting intake air volume. Also see Restrictor, Intake.

Clinch Nut – A threaded female fastener which has been distorted on one end to supply a gripping force when assembled to a stud or bolt thread.

Clutch – A device whose function is to permit the driver to engage/disengage a power coupling between the engine and the transmission or transaxle.

CO – Carbon monoxide.

Cockpit – The driver/passenger volume within a car in which driver control devices, gauges, and seating are provided.

Coil – The transformer component of an ignition system which converts each low voltage pulse into a pulse of sufficiently high voltage to bridge the gap in a spark plug and initiate combustion in the engine.

Coil-Over Shock – A tubular shock absorber which contains top and bottom mounting locations for a coaxial coil spring, and is used with such a spring supporting the weight of the car.

Cold Air Box – An engine carburetor attachment of unspecified size and composition, whose purpose is to provide a source of ambient air alternate to that existing in the engine compartment.

Component – A constituent part of an assembly.

Compression Ratio – Reciprocating engines: the ratio of the sum of swept plus unswept volumes to the unswept volume. Rotary engines: the ratio of the largest to the smallest volume of the working chamber.

Compression Ring – A reciprocating engine component which is intended to seal the gap between the piston and cylinder wall against the pressure differential arising from compression, induction or combustion.

Compressor (AC) – The engine-driven pressurizing pump in an automotive air conditioning system.

Concentric – Two components or objects are concentric if they share a common centerline.

Condenser (AC) – The portion of an automotive air conditioning system in which the refrigerant in vapor phase is converted to liquid phase.

Connecting Rod – A component physically connecting a piston to a crankshaft in such a way as to convert

the rotary motion of the crankshaft to a reciprocating motion of the piston.

Constant-Velocity Joint – A type of universal joint in which the angular velocities of input and output shafts are held approximately equal.

Cool Suit – A driver's safety suit which has provision to be cooled by a circulating liquid.

Cooling System – Those components directly associated with the cooling of an engine, including any hoses, fans, pumps, radiators, internal engine passages, galleries, coolant retention components, and coolant entry and exit points, etc.

Cowl Induction – An arrangement in which the incoming air for an induction system is ducted from the cowl area below the windshield.

Crank-Triggered Ignition – An ignition system in which the triggering pulses are obtained from a pickup and wheel connected directly to the crankshaft, or to an intermediate pulley.

Crankshaft – The rotating engine component which, driven by piston/connecting rod assemblies, transmits, for external coupling, the torque resulting from the combustion process.

Crossflow Head – A cylinder head in which the intake and exhaust ports for each cylinder are on opposite sides of the head.

Crown – The top face of a piston at which combustion takes place.

Curvature – The dimension defined by the maximum distance between a curving surface and the straight line between its ends.

Cylinder Liner (Sleeve) – An insert in an engine block which defines the path followed by a piston in its reciprocating motion.

Dash board – See instrument panel.

Decamber (Verb) – To make the wheel camber more negative.

Deck – Generally the rearmost upper body panel of a car, but not present in all cars.

Deck Height – The distance between the top of the piston at its outer edge and the machined surface which forms the head/block interface of the block.

Deck Lid – The access door into the volume (often "trunk") beneath a deck.

Differential – A gear assembly whose purpose is to reduce the rotational velocity transmitted from the engine/gearbox, while providing a division of driving force to 2 wheels.

Differential Housing – The housing in which the differential (final drive) gears are mounted.

Diffuser – See Aerodynamic Device definition.

Disc Brake – A braking system which relies on the friction between a suitable material in the form of a "pad" and a rotating disc to supply the braking force at a wheel.

Discriminator Valve – A check valve designed to install on the vent line of a fuel cell, allowing vapors to vent while retaining liquid.

Dish – A concave piston crown.

Displacement (Engine) – Reciprocating engine: the swept volume of 1 cylinder times the number of cylinders. Rotary engine: the difference between the largest and smallest volumes of the working chamber, times the number of lobes, times the number of rotors.

Distributor Cap – An ignition system distributor component which contains the high voltage distribution contacts and means for securing the high voltage wires.

Dome – A convex piston crown.

Door Panel – The inner shell of a door which normally supports the trim.

Dowel – A tubular or cylindrical pin, the sole purpose of which is to make positive location of two assembled components possible.

Drive Belt – A continuous flexible reinforced elastomer band which provides the driving force for engine accessories, when attached by pulley to a rotating part of the engine, such as the crankshaft.

Drive Shaft – The mechanical drive train coupling between transmission and differential, which may allow an angular displacement of the driving and driven axes by the use of universal, constant velocity, or flex joints.

Drivetrain – Those rotating components in a car that convey the driving power from the engine flywheel to the ground and the housings containing these parts. This is inclusive of the clutch, transmission, driveshaft, differential, halfshafts/axles or any systems providing such functionality. Wheel bearings, driveshaft carrier bearings, wheels, and tires are specifically excluded.

Dry Break Coupling – An attachment to an on-board fuel cell/tank filler neck/hose which is designed to prevent the spillage of fuel during refueling operations.

Dry Sump – An engine lubrication system in which the residual lubricant is pumped to an external storage tank by a "scavenge pump," and an additional pump or pumps return a supply of pressurized lubricant to the engine from the storage tank.

Dry Tire – A race tire, often with groove-less tread, intended strictly for use in competition under dry conditions.

Dryer (AC) – A component of an automotive air conditioning system which is intended to remove water from the refrigerant.

Duct/Ducting – A tube or enclosed passage for conveying a substance, usually air.

Dust Shield – A cover intended to protect disc brake components from mud, dirt, etc.

Eccentric Shaft – The analog of a crankshaft in a rotary engine, the shaft driven by the actions of the rotor.

EGR Valve – An engine pollution control device which channels a portion of the exhaust gases back into the combustion regions of the engine.

End Plate – An air control panel mounted at each end and perpendicular to a wing, intended to maximize the efficiency of the wing by preventing spillage of flowing air at the ends.

Engine – The primary power plant of a car, including all physically attached ancillary components necessary for power production.

Engine Air Box – An induction system attachment, generally part of the bodywork, which ducts air from an opening protruding into the airstream to the induction system intake(s).

Engine Case – See rotor housing and/or block.

Engine Compartment – The loosely defined volume, nominally enclosed by panels on top and sides, which is the normal location of the engine in a car.

Engine Mount – A passive mechanical coupling used to support the weight of an engine at its attachment points to the structure of a car.

Engine Steady Bar (Torque suppressor) – A constraining beam or rod intended to resist the tendency of an engine to rotate on its mounts in reaction to torque forces.

Epitrocoidal Curve – The contour of the interior surface of a rotary engine rotor housing, which, with the rotor, determines the volume of the working chambers at any point in the rotation of the rotor.

Equivalent – The same form, fit, function, and dimensions.

Evaporator (AC) – That portion of an automotive air conditioning system in which the transition from liquid phase to vapor phase occurs.

Exhaust Pipe – A duct of unspecified dimensions, whose function is to convey exhaust products toward the rear of a car and away from the driver.

Exhaust Port – The duct within a cylinder head or rotor housing through which the exhaust gases pass from the exhaust valve(s) to the outer flange of the head.

Exhaust System – A passive system, whose components serve to convey the exhaust of an engine past the driver and away from the car.

Expansion Tank – A container, often operating at system pressures, which is designed to contain engine coolant on expansion at operating temperatures.

Extension – An external modification resulting in more material on the outside of the component than originally existed.

Fairing – A covering intended to divert airflow in a specific region of a car, to reduce air drag.

Fan – A rotating bladed device intended to provide a cooling flow of air to a heat exchanger.

Fan Belt – A flexible drive belt which is used to drive a water radiator cooling fan, and, often simultaneously, furnish drive to 1 or more other rotating attachments to the engine.

Fasteners – Any mechanism which serves no other purposes than to cause a component to maintain a fixed position (e.g. bolt, nut, screw, etc.).

Fender – The body panel covering a road wheel assembly.

Fender Flare – An attachment to an existing fender which extends the fender outward so as to more completely cover the tire within.

Fender Skirt – A removable fender extension which partially closes the wheel opening, smoothing the air flow in this region.

Ferrous – An alloy containing more than 50% iron.

Filler Cap – A closure which prevents the loss of fuel from the filler neck/hose when the car is in use, but which may be removed for refueling.

Filler Neck/Hose – The attachment to a fuel cell/tank through which fuel is supplied from a source external to the car.

Final Drive Housing – See Rear Axle Housing.

Final Drive Ratio – The ratio of input to output shaft motions in a final drive or differential.

Fire Extinguisher – An on-board container of specified capacity charged with approved fire extinguishing material which provides the driver or others with the capability to control small fires. See Section 9.3.Fire System.

Fire System – An on-board fire extinguishing system designed to be activated in the event of fire, whose purpose is to extinguish or retard the fire, thus providing a measure of protection for driver and car. See Section 9.3.Fire System.

Firewall – A vertical (plus or minus 10 degrees) metal panel separating and protecting the driver/passenger compartment from the engine compartment, preventing the passage of flame and debris. Metal ducts may penetrate the firewall, but must begin and end outside of the driver/passenger compartment. No intakes are allowed in the firewall.

Firing Order – The order in which the cylinders in a reciprocating engine produce power under normal conditions.

Flare (Verb) – 1. To extend by extrusion or attachment a fender so as to more completely cover the tire mounted within (Noun) – 2. Extruded end of a pipe or tube.

Flat Bottom – A race car construction in which the underside of the car is nominally flat and contains no "ground effects" shaping or ducting.

Flat Plate Intake Restrictor – a metal plate through which all engine combustion chamber air (and possibly fuel) must pass. Unless otherwise specified in a category, class or individual engine specification, all flat plate restrictors must meet the following requirements (more than one plate may be required in some applications; each shall meet the requirements):

- The restrictor shall be made from flat steel or aluminum sheet at least 0.060 inches thick.
- The hole through which all air to the engine must pass shall be round, centered with respect to the throttle body bore or carburetor bore or intake manifold bore to which it is attached; no radiusing, chamfering or beveling of the hole is permitted.
- The restrictor plate must be located between the throttle body or carburetor and the engine within 4 inches of the centerline of the carburetor or fuel injection butterfly.
- A steel or aluminum spacer no more than 0.75 inch thick may be placed between the throttle body or carburetor and the restrictor to allow for clearance of the butterfly. The hole must be the same shape and size as the throttle body or carburetor flange; no radiusing, chamfering or beveling of the hole is permitted.
- The restrictor plate shall be mounted on the bolts or studs used to locate the throttle body or carburetor. There shall be no movement of the restrictor plate possible when mounted.

Flex Joint – A coupling designed to fulfill the function of a universal joint, but employing flexible materials to achieve changes in the drive axis.

Float – A carburetor component which, with an associated valve, controls the fuel level in the reservoir supplying the carburetor jet(s).

Float Chamber – The carburetor component which contains the reservoir of fuel supplying the jet(s).

Float Valve – The shut off valve actuated by a carburetor float, which controls the maximum level of the fuel in the float chamber.

Floor Pan – The section(s) of a car normally used as a supporting platform for seats and to physically separate the interior (cockpit) area from the underside of the car.

Fluid – Any material which readily flows at the specified temperature, e.g., liquids and gases at room temperature.

Flywheel – An engine attachment whose normal functions are to provide a gear appropriate for starter engagement, to provide a friction drive surface and attachment points for a clutch pressure plate, and to smooth the flow of power.

Frame – The minimal configuration of a car necessary to contain all running gear and to provide support for the body. Not present on "frameless" or "unibody" cars.

Fuel – The chemical mixture which, when mixed with air, is burned in an engine to produce power.

Fuel Cell – A crash-resistant container for the on-board fuel supply of a car.

Fuel Distribution Unit – A fuel injection induction system component which accomplishes the distribution of fuel to the injection nozzles.

Fuel Injection – A system, including mechanical and/or electrical components, whose function is to provide fuel, via pressurized nozzles, to the engine in lieu of carburetion.

Fuel Line – A hose or tube which conveys fuel from one point to another.

Fuel Metering Unit – A component of a fuel injection system which, under external control, determines the quantity of fuel supplied to the engine at any given time.

Fuel Pickup – The attachment to a fuel tank or fuel cell at which point the supply line(s) leading to the fuel pump(s) are attached.

Fuel Pump – A pump, mechanical or electromechanical, whose function is to cause the transport of fuel from the fuel cell or tank to the induction system.

Fuel Tank – A conventional OEM container, not of the safety fuel cell type, for the on-board fuel supply of a car.

Gas Cap – See Filler Cap.

Gasket – A sealing component of unspecified composition which is intended to prevent the leakage of a fluid (air, water, oil, etc.) at the interface between two demountable assemblies.

Gauges – Mechanical or electronic readouts of automotive parameters.

Gear – A toothed drive train component used, in mesh with another gear, for the transmission of rotational force.

Generator – An engine-driven attachment which produces direct current to replenish an on-board storage battery.

Girdle – A component whose purpose is the structural reinforcement of the bottom end of an engine block. It either replaces the main bearing caps with a continuous block of material containing equivalent bearing mounts or it is a continuous block of material that mates with the existing main bearing caps (which may be machined to achieve the mating).

Grille – The decorative covering for the grille opening.

Grille Opening – The opening in the front of a car, through which cooling air is ducted to the radiator(s), and in some cases, to other accessories, or to the engine.

Ground Effects – A term for a car design in which airflow produces a significant pressure differential between the upper and lower portions of the body/chassis, creating downforce on the assembly.

Gudgeon Pin – English term for piston wrist pin.

Gusset – A brace generally formed by attaching, by welding, a plate at or near the junction of two structural beams or tubes, providing reinforcement particularly in the plane including the tubes and the plate.

H.D. – Heavy duty.

H.T. – High tension. English term for spark plug voltage in regard to ignition components.

Hand Brake – A braking system component causing a braking action on 1 or more wheels, or on another part of the drive train, which may be actuated and locked in the engaged position by the driver.

Hardtop – A removable rigid substitute for a convertible or roadster top.

Hatchback – A hinged body component containing the rear window which, in the open position, gives access to the interior of a car from the rear.

Head and Neck Restraint – A protection device which attaches to the helmet and is intended to decease neck stresses and forward head movement during an impact.

Head Rest – See Head Restraint.

Head Restraint – A cushioned, fixed restraining object intended to protect the driver under conditions which cause the driver's head to be thrust rearward.

Header – A multibranch exhaust system assembly, whose function is to convey the exhaust products from more than one cylinder to one or more exhaust pipes.

Header Tank – A component of an engine cooling system, generally at the top or above the radiator, which is often used as the filling point for the system.

Headlight Cover – A protective cover for headlight(s) which is part of the original configuration of the body design.

Heat Riser Tube – An attachment to an induction system which provides a source of warmed air, generally from the exhaust system, as an aid to cold running.

Heat Sink – A part of a system used to convey and dissipate heat from another part of the system.

Helicoil – A commercial repair for internal threads.

Homologation – A system whereby the manufacturer/competitor certifies that a Formula or Sports Racing

car, as produced, complies with the applicable construction specifications. compliance with the construction specifications does not certify that the car meets the class specific specifications.

Hood – The panel or assembly of panels which cover the engine compartment.

Horn – The audible signaling device with which highway cars are equipped.

Hot Terminal – The terminal of a storage battery which is not connected to the frame or chassis of the car.

Hub – A component to which a road wheel is attached, which provides support for the wheel, and has the capability, via attached internal bearings to rotate on a fixed shaft.

Hub Caps – Decorative removable attachments to the central area of road wheels.

Hub Carrier – A suspension component which provides the means for mounting a rotating wheel hub, and for attachment of suspension components and stabilizers.

Idler Shaft – A shaft which rotates, or supports another component which rotates, without itself transmitting the rotational force.

Ignition System – A system which converts on-board storage battery supply voltage into a timed sequence of high voltage pulses suitable for igniting engine combustion mixtures in a controlled manner.

Independent Suspension – A suspension system in which either wheel on the referenced end of the car can undergo its normal vertical motions without directly influencing the motions of the other wheel.

Induction System – Those engine components directly associated with the creation and conveyance of the combustible mixture, and any functional associated attachments thereto.

Injection Nozzle – The fuel induction system component through which fuel is forced under pressure to form a combustible mixture with air.

Inlet Port – The cylinder head duct leading to intake valve(s).

Insert (Strut) – The replaceable portion of a suspension strut, basically a tubular shock absorber with the necessary fastening element(s) for the upper strut mounting point.

Instrument – An indicator or readout which, when active, contains information about some aspect of car operation for driver reference.

Instrument Panel – A panel, the associated mounting bracket(s), and HVAC ducting components, located within the cockpit of a car, and in a position convenient for driver visibility, which may provide a mounting area for various gauges and controls. Also referred to as a dash pad or dash panel.

Intake – An opening through which fluid/air enters an enclosure.

Intercooler – A heat exchanger associated with a turbocharging or super-charging system, which is intended to reduce the temperature of the incoming air or air/fuel mixture, and is located in ducting between the turbo/super-charger and the engine.

IR – Individual runners. (No balance pipe, no plenum)

Jack Points – Locations on the underside of a car suitable for the application of a lifting jack.

Jack Shaft – A shaft which transfers a driving force from one element of an engine to another, such as the drive for an oil pump and/or distributor, taken from an overhead camshaft.

Jet – A carburetor aperture component which is used to meter air and/or fuel flowing into the mixing region of the carburetor by presenting restriction to the flow.

Kill Switch – See Master Switch.

Lamp – see Bulb.

L.T. – Low tension. English term for battery voltage in regard to ignition components.

Limited Slip Differential – A differential which is designed in such a way as to overcome the normal action of a differential to apply most of the available torque to the least loaded wheel, and instead to apply a significant portion of the torque to the most loaded wheel.

Linkage – A link or system of links (cables, rods, etc.) which convey a mechanical force from one location to another.

Lip-Type Rear Spoiler – A directly attached aerodynamic device which generates downforce from the action of air flowing over a single surface, creating a turbulent depression away from the direction of motion.

Lobe Center – The angular position of a camshaft, defined as that position in the rotation at which the lift of an associated tappet will be greatest.

Locked Differential – A variation of the limited slip differential in which no relative slippage of the two driven wheels is permitted under any conditions.

Lubricant – A substance which, when interposed between components moving with respect to each other, reduces friction and promotes durability. (see section 9.3 Oil and Additives)

Lubrication System – those components directly associated with the lubrication of an engine, including hoses, pumps, heat exchangers, internal engine passages, galleries, lubricant retention components, and lubricant entry and exits points, etc.

Luggage Compartment – The region within the bodywork of a car which is designated as being intended for the carrying of luggage.

Magneto – An ignition system component which generates the electrical power for ignition of combustion with a system of magnets and coils in relative motion.

Main Bearing Cap – A reciprocating engine component which has provision for nominally half of one main crankshaft bearing, and which, when attached to the engine block, may also provide lateral location for the crankshaft.

Manifold – A passive device for conveying gases into or out of an engine, generally to achieve the connection of differing numbers of ducts.

Master Cylinder – A hydraulic component of the braking system which produce positive pressure in the hydraulic lines on the application of mechanical force.

Master Switch – A safety switch which can be actuated by the driver or other to disable all operating electrical functions, without disconnecting the electrical supply to any fire system present.

McPherson Strut – (See strut type suspension) A front suspension type utilizing a strut with integral tubular shock absorber and coil spring, with the steering swivel axis that of the strut/shock. Upper location is by strut only.

Metal – An element that forms metallic bonds between its atoms, is usually shiny, is usually ductile and malleable, usually has a high melting point, is usually hard, and conducts electricity and heat well.

Metallic – A material having iridescent or specular (mirror-like) reflective qualities (e.g. aluminum foil).

Metering Rod – A carburetor component which aids in the metering of fuel flow.

Mirror (Rear View) – A reflective device whose sole purpose is to enable the driver's field of vision to extend in a rearward direction.

Modify/Modification – To change a component from stock.

Monocoque – A frameless construction in which the main structure of a car is composed of a permanent assembly of panels to which the running gear, suspension and body are attached.

Motor Mount – See Engine Mount.

Mudguard – A partial fender, generally not contiguous with the car body.

Muffler – A component, whose function is to reduce the sound level from an exhaust system.

NASCAR-Style Door Bars – If installed, shall consist of one or more sidebars that intrude into the door cavity and connect the main hoop to the front hoop.

Needles (Carb) – Tapered carburetor fuel flow metering shafts, or tapered shafts used in float shutoff valves.

Nitride (Verb) – To heat process ferrous metal components so as to increase the surface hardness.

O-Ring – A seal or gasket, generally made from an elastomer or metal, in the shape of a torus with a circular cross section.

O E M – Original Equipment Manufacturer.

Offset Key – A metal drive key for coupling a shaft and a pulley, wheel, or sprocket, in which opposite radial ends of the key are offset to achieve adjustment of the phase relationship of the driving and driven parts.

OHC (Overhead Cam) – A type of reciprocating engine in which the camshaft(s) are located in the cylinder head(s), and act on the valves, either directly or through a linkage.

OHV (Overhead Valve) – A type of reciprocating engine in which the camshaft(s) are located in the engine block, and act on the valves through linkage, generally including pushrods and rocker arms.

Oil Filter – An engine accessory intended to intercept all or a portion of the lubricant circulating from the oil pump, and to remove, by trapping, solid particles from the lubricant.

Oil Galley – A passage within an engine block which carries the flowing lubricant to various internal distribution points.

Oil Line – A hose or pipe, external to the engine, which conveys lubricating oil from one point to another.

Oil Pan – An oil sump fixed to the bottom of an engine.

Oil Passage – A duct within an engine component intended to convey lubricating oil.

Oil Pump – A mechanically-driven pump designed to draw lubricant from a reservoir, or sump, and supply it under pressure to the balance of the lubrication system.

Oil Separator – Sealed inline catch tank, generally located between the crankcase vent and intake tract.

Oil Strainer – A screen surrounding the oil pickup in an engine which is intended to keep relatively large solid particles from being drawn into the pump.

Oil Sump – The container in which the return lubricant from the engine is collected to form the supply from which the pump may draw.

Orientation – Alignment relative to its major axis.

Outline – A line that marks the outer limits of an object or figure.

Overhang – The distance which the end of the bodywork extends away from the wheels at the referenced end of the car.

Panhard Rod – A rear axle lateral locating device, which has one end connected via a link to the axle housing, and the other end connected to the car structure or bodywork.

Parkerizing – A commercial process in which a metal part, usually a camshaft, is treated to increase resistance to break-in scuffing.

Parking Brake – See Hand Brake.

Parking Light – A non-racing lighting component, frequently combined with lighting components of other functions, intended to illuminate the extremities of a car while parked.

Phase – The angular relationship between two rotating components, or between 1 rotating component and a periodic event.

Pickup point (Suspension) – The location of attachment of a suspension component on the frame or structure of the car. Pickup point is also referred to as "pivot axis."

Pilot Bearing – A bearing, generally within one end of a shaft, which is intended to support another shaft under conditions of relative rotary motion.

Piston – A reciprocating engine component whose functions are to provide a partial vacuum with which to induce the flow of fuel/air into the combustion region, to convert the combustion pressures to reciprocating motion, and to expel exhaust gases.

Piston Deck Height – The distance between the top of the piston at its outer edge and the machined surface that forms the head/block interface of the block (piston).

Piston Ring – A reciprocating engine component which, when mounted on a piston, provides either sealing or oil control functions when the engine is in operation.

Pitman Arm – A steering system component which translates the rotation of the steering gears to a linear motion of steering links.

Plenum – An induction system chamber generally interposed between carburetor(s) or air intake(s) and ducts feeding ports.

Points (Ignition) – The switch portion of a distributor actuated by cam lobes, which interrupts the current flowing through the primary windings of an ignition coil, thus generating high voltage pulses which are conveyed to the spark plug.

Polish (Verb) – To reduce the roughness of a surface by mechanical, chemical, or electrochemical means.

Port – See Intake, Exhaust Ports.

Power Brakes – A braking system in which the driver-initiated mechanical force acting on a master cylinder is assisted by a servo mechanism, generally derived from manifold vacuum.

Power Steering – A steering system in which the driver-initiated force acting on the steering gears is assisted by a servo mechanism, usually involving an engine-driven hydraulic pump.

*Power Train – Consists of the combination of an internal combustion Engine and Drive Train components. The Engine specifically includes induction systems (carburation, fuel injection, forced and natural, intake manifolds) and exhaust systems (manifolds, headers, turbochargers) up thru and including the flywheel. Ancillaries such as electrical (charging or ignition) or cooling are specifically excluded.*

Pressure Equalizing Device – A braking system component intended to equalize or allow adjustment of the relative pressures in separate branches of the hydraulic system (e.g. front/rear).

Pressure Plate – The clutch assembly component which provides the force necessary to couple the engine to the next component in the drive train through friction surfaces.

Pressure Regulator Spring – A spring whose installed force determines the pressure at which a valve or valve system will open to allow the flow of fluid.

Profile (Verb) – To measure or to reshape the contour of a camshaft lobe, rocker arm or similar component.

Propeller Shaft – See Drive Shaft.

Proportioning Valve – A braking system component intended to allow adjustment of the hydraulic pressures available in separate branches of the system (e.g., front/rear).

Pulley – A rotational attachment for a drive belt.

Pushrod – A cylindrical or tubular reciprocating engine component which transmits a reciprocating motion arising from camshaft rotation to or toward the valves.

Pushrod Tube – An engine component which encloses a pushrod in the region between the engine block and the cylinder head.

Qualifier – (a) One who receives a time, or (b) One who is waived into a race by the Race Director or Chief Steward and starts the race.

Racers Tape – Generally duct tape, an adhesive, fabric-backed tape.

Rack and Pinion – A type of steering system, or the gear components thereof, in which the rotary motions of a pinion gear attached to the steering shaft act on a rack, or linear gear.

Radiator (Cooler) – A heat exchanger intended to remove heat from engine or gear fluids.

Radius (Verb) – To contour an abrupt edge on a component by increasing the radius of the transition.

Rain Light – A light used at the rear of a race car during periods of low visibility as a warning to following cars.

Rain Tire – A racing tire intended solely for competition in wet conditions.

Ram Air – A type of induction system in which the incoming air is obtained from an extension into the airstream outside the bodywork.

Ratio (Gear) – The number of rotations of the drive shaft which produces one (1) rotation of the driven shaft(s).

Rebound – A suspension term referring to motion in the upward direction.

Reciprocating Engine – An internal combustion engine in which the driven actions of one or more pistons are converted to the rotary motion of a crankshaft.

Relief Valve – A check valve intended to vent at a predetermined pressure differential.

Remote Reservoir Shock Absorber – Any shock absorber or dampening device which uses an externally mounted (connected either by hose or "piggy back" design) fluid and/or gas reservoir.

Removal – To take off a component.

Repair (Verb) – To remove the effect(s) of accidental damage to a component, returning it to original or legally modified dimensions and function.

Replica – A component identical to or very similar in appearance and function to the original which it replaces.

Resistor Spark Plug – An ignition system spark plug containing electrical resistance which is intended to reduce radio interference.

Restrictor, Intake - any of the following methods of restricting the volume of air entering the intake system on and internal combustion engine.

The following applies to all restrictors:

The specified ID of the restrictor is listed on the vehicle's spec line, the engine spec line or within general engine specifications for the class. The engine air intake system must be fitted with an aluminum, (alternate materials are permitted where specified) air restrictor. The intake system is defined as an assembly of parts, including but not restricted to: the restrictor, restrictor housing, ducting, filters, air box, velocity stacks, throttle body, carburetors, manifold and manifold gasket up to the intake ports on the cylinder head. The intent of a restrictor in the system is to have a sealed system from the restrictor to the intake ports of the cylinder head. All of the air entering the intake ports shall pass through the specified restrictor. Modification or addition to any part of the intake system that allows the introduction of air into the intake ports that has not passed through the specified restrictor is prohibited.

All restrictors internal shape must be round and centered with respect to the throttle body bore or carburetor bore or intake manifold bore to which it is attached. On engines requiring a restrictor all air entering the intake ports must pass through the restrictor.

Choke - an intake restrictor (venturi) for the purpose of limiting intake air volume.

Flat Plate Intake Restrictor (FPIR) – a metal plate through which all engine combustion chamber air (and possibly fuel) must pass. Unless otherwise specified in a category, class or individual engine specification, all flat plate restrictors must meet the following requirements (more than one plate restrictor may be required in some applications; each shall meet the require-ments):

The restrictor shall be made from flat steel or aluminum sheet at least 0.060 inches thick no radiusing, chamfering or beveling of the hole is permitted. The restrictor plate must be located between the throttle body or carburetor and the engine within 4 inches of the centerline of the carburetor or fuel injection butterfly. Alternate locations may be specified in class specific rules. A steel or aluminum spacer no more than .75 inches thick may be placed between the throttle body or carburetor and the restrictor to allow for clearance of the butterfly. The hole must be the same shape and size as the

throttle body or carburetor flange; no radiusing, chamfering or beveling of the hole is permitted. The restrictor plate shall be mounted on the bolts or studs used to locate the throttle body or carburetor. There shall be no movement of the restrictor plate possible when mounted. Alternate mounting may be may be specified in class specific rules.

Single Inlet Restrictor (SIR) – A system to limit engine performance that meets the following criteria:

The restrictor's specified ID must be maintained for a minimum length of 3.0 mm. Restrictor mounting/placement within the intake system is free, but must allow accessibility for measurement. It is acceptable to have some minor disassembly of the intake system to provide access to the restrictor for measurement. Measurement device and restrictor shall be similar temperatures when used.

SIR testing procedure:

The inlet side of the SIR can be cleared of debris that would hinder the proper sealing of the designated SIR Ball. Pressure sensors present inside the intake system must be disconnected. The SIR stall test is to be administered with the idle of the vehicle set at 2500 RPM. The competitor must be prepared to set the RPM at a sustained 2500rpm. The competitor may not be inside the vehicle during testing. The competitor should be prepared to perform the test at full operating temperature or cold. Testing should be accomplished with a stopwatch and measured from the time of insertion of the SIR test ball to the time the crank stops moving. If the vehicle stalls within 4 seconds, the vehicle is deemed compliant of the stall test. In the event of a failed stall test, run the engine to clear any accumulated fuel in the Plenum. At this point, the test is to be repeated two (and only two) more times and it must pass both times. All parts of the intake system, must withstand all three of the possible stall tests without modification or repair to any part of the system. If the system suffers damage that prohibits the system from achieving a compliant result it cannot be repaired to conduct subsequent tests. The system is to be tested as is and the result is considered "as raced". It is the responsibility of the competitor to present a system that can withstand every possible scenario that would or could result in a failed SIR stall test. The intake system shall be visually inspected for devices and design that could result in induction of additional air that did not pass through the SIR. Introduction of air behind the SIR by any means is prohibited.

Supercharger Inlet Restrictor (SCIR) - The restrictor's specified ID must be maintained for at least 3.0 mm. This 3.0 mm restrictor segment shall be placed within 50 mm of the rotating section (impeller assembly) of the pressurizing unit.

Turbo Inlet Restrictor (TIR) –

The restrictor's specified ID must be maintained for at least 3.0 mm. This 3.0 mm restrictor segment shall be placed within 50 mm of the rotating section (impeller assembly) of the pressurizing unit. On engines where the approved turbo prohibits meeting this distance, different locations may be approved by the CRB on a case-by-case basis. If an alternative location is approved, the entire restrictor assembly shall have a maximum length of 50 mm. There shall be no other provisions for airflow to the turbocharger other than through this single orifice.

Venturi Restrictor- see venturi and choke.

Ride Height – The distance from level ground to the specified portion of the car, with the tires, wheels, air pressure, etc., as normally raced.

Rim Width – The distance between the opposing lateral sides of a road wheel in the region where the bead of a tire seats. Measuring method per tire and rim association standard.

Ring Gear – The main driven gear in a final drive assembly, driven by a pinion gear. Also the starter engagement gear on a flywheel.

Rocker Arm – A valve train component which transfers the motions of the camshaft, often with a multiplication of travel, to a valve.

Rocker Cover – See Valve Cover.

Rocker Panel – The body panel closest to the ground extending along either outer side of a car between the wheels.

Rod End – A load-bearing threaded mechanical coupling with angular freedom of the relative axes and which allows rotation of the inner portion with respect to the outer, i.e. spherical bearing.

Roll Bar – A safety device designed to protect the driver from injury in the event of a roll over accident. See Section 9.4.

Roll Cage – An extension of a minimal roll bar, designed to protect the driver from injury from accidental forces in several directions. See Section 9.4.

Roller Cam Follower – An engine component (tappet) which utilizes a rolling member to contact the camshaft.

Rotary Engine – A non-reciprocating engine of the NSU-Wankel type.

Rotary Engine Rotor – The main rotating component of a rotary engine, which essentially accomplishes the

compression, power delivery and exhaust functions of a reciprocating engine in constrained rotation in a specially shaped housing.

Rotary Piston – See Rotary Engine Rotor.

Rotor Housing – The housing of a rotary engine in which the rotor rotates. Analogous to the engine block of a reciprocating engine.

Rub Strip – Expendable material added to bottom of a car to prevent contact with the road surface from damaging non-expendable portions of the car.

Runner – A duct of an induction system leading to the cylinder head.

Running Light – A signaling light of specified size and location, which can be activated by driver control, and is intended to improve the ability of other drivers to detect the signaling car.

Scattershield – A stationary safety device intended to protect the driver in the event of catastrophic clutch/flywheel failure.

Scraper – A passive internal attachment to an oil pan whose purpose is to control the return flow of lubricant by removing it from the rotating crankshaft.

Seal – A conformable sealing component generally used to inhibit the passage of fluids along the shafts of moving parts, such as valves, master cylinders, etc.

Seat Belt – A safety strap, generally containing the attachment/release mechanism for all other safety straps, intended to restrain the driver against forces tending to move the driver. See Section 9.3. Driver's Restraint System.

Section Width – The lateral cross section of a tire, sidewall to sidewall.

Servo Assist – The application of mechanical assistance, through vacuum or hydraulic or other external action, to reduce the forces required from the driver.

Shaved Tread – A tire tread which has been abraded or cut to reduce the tread depth.

Shift Fork – A transmission or transaxle component which directly moves gears into engagement or disengagement in response to driver actions.

Shock Absorber – A device intended to dampen the actions of road springs.

Short Shift Kit – A mechanical modification or replacement of shift lever or shift linkage parts only, to modify the throw of the shifter. It does not change the pattern, syncros, gear ratios, gears, bearings or any other internal parts from the original.

Shot Blasting – See Shot Peening.

Shot/Glass Peening – A treatment, consisting of impelling small glass or metal balls into metal parts, intended to reduce stresses in components.

Shoulder Harness – A safety strap assembly intended to restrain the driver's upper body under conditions of rapid reduction of forward velocity. See Section 9.3. Driver's Restraint System.

Side Marker Light – A small light fixture normally mounted on the side of a fender, which is intended to make the car more readily visible from the side under appropriate conditions.

Signal Light – A light fixture used to signal turns or, in some cases, stops.

Single Inlet Restrictor (SIR) – See Restrictor, Intake.

Slave Cylinder – A hydraulic system component which achieves the conversion of hydraulic pressure to mechanical force, usually to accomplish a disengagement of the clutch.

Space Frame – An automotive frame constructed of multiple small tubes. See also Tube Frame.

Spark Plug – An engine component which, by means of high voltage supplied by an ignition system, initiates the combustion of the air/fuel mixture.

Specification – A detailed presentation of parameters which determine the performance or suitability of a system or assembly of systems to accomplish design goals.

Spherical Bearing – A load-bearing connector in which the central portion is convex and the outer portion is concave, allowing both angular displacements of the axes and relative rotation.

Spider Gears – Components of the torque division section of a conventional differential gear assembly.

Spindle (Stub Axle) – The shaft, and integral assembly supporting a wheel hub, and often, braking and/or steering components.

Spoiler – A panel attached to the body of a car at the front or rear, intended to alter the airflow around or under that end of the car when in motion.

Spring Cap – See Valve Spring Retainer.

Spring Shock – A suspension assembly containing a coil spring surrounding a tubular shock absorber.

Spring Washer – A spacer designed to exert force against securing pressure, thus reducing the tendency of an attached threaded fastener to separate.

Sprocket – A gear made specifically for use with a drive chain.

Stabilizer – An attachment to the suspension system, not usually part of the suspension, which aids in maintaining the relative alignment of a wheel or wheels to the car.

Starter (Self Starter) – An electrical device which is used to initiate normal engine operation by converting electrical energy into mechanical rotation of the engine.

Starter Ring – The gear on the outer periphery of a flywheel for application of drive from a starter.

Stayrod – A rigid reinforcement bar or rod interconnecting opposite sides of a car at structurally significant locations.

Steering – The mechanical system of components that allow a wheel to be turned side to side to follow the desired course of its driver.

Steering Arm – The rigid link in a steering system which conveys the steering action from the steering gears and linkage to a wheel assembly.

Steering Column – The shaft forming the connection between the steering wheel and the steering gear, through which driver-initiated steering motions are transmitted.

Steering Linkage – The various components, exclusive of gears, steering column and steering wheel, which transmit the driver's steering motions to the steered wheels.

Steering Lock – The degree of turning motion given to the steering wheel, and hence to the steered wheels. "Full lock" denotes the maximum available turning angle.

Steering Lock Mechanism – An antitheft device used to lock the steering shaft or wheel when the ignition key is withdrawn.

Stock – In the exact same state or location as supplied by the original manufacturer.

Streamlining – Smoothing the airflow over a portion of the car.

Stroke – The length of travel of an engine piston from uppermost to lowermost positions.

Strut (Stabilizer) – A rigid beam used to assist in the location of suspension components.

Strut Type Suspension – Strut suspension consists of three pivoting attachment points including a single upper attachment point, the spindle being mounted on a telescoping post with no vertical movement at the top attachment point.

Stub Axle – See Spindle.

SU-type Carburetor – Any single barrel automotive-type side draft, overhead sliding piston type carburetor regardless of manufacturer.

Sub-frame/Cross Member – A component attached to the frame or structure of a car in order to augment its strength while at the same time serving as a platform for mounting suspension and drive train components.

Substitution – To remove a component and replace it with another.

Surround – To enclose on all sides.

Sunroof – A movable panel in the roof of a car, which may normally be partially opened from within the car.

Supercharger – An induction system compressor component, mechanically driven from the engine, which provides forced flow of the fuel/air mixture into the engine by the generation of positive pressure.

Suspension – A mechanical system of components controlling vertical motion and connecting the axle housing and wheels to the chassis of a car.

Suspension Bushing – A hollow cylindrical mounting component which acts as a bearing, allowing constrained motion, between a suspension component and attachment point.

Suspension Control Arm – A beam or frame intended to limit the normal motion of the affected suspension part to predetermined paths.

Swaged Fitting – A tubing fitting which utilizes some form of extrusion of the tubing to form a seal against the leakage of pressurized fluid from within the tubing.

Sway Bar – See Anti Roll Bar.

Synchronizer – A transmission component which aids in matching speeds of 2-gears as they are engaged.

System – An assembly of components with an identifiable primary function.

T-type Top – A body design in which the roof contains, above the front seats, 2 removable panels separated by a fixed section which joins to the balance of the roof.

Taillight – The running (parking) light assembly at the rear of a car, which may include lights with stop and/

or turn signaling functions.

Tap (Verb) – To cut threads in a hole to retain a stud or bolt with threads of matching pitch and diameter.

Tappet – (Cam follower, valve lifter) An engine component which, in contact with the camshaft, follows its rotating profile, resulting in a programmed reciprocating motion suitable for actuating valves.

Targa-Type Top – An automotive roof design in which the area over the front seats is removable.

T D C – Top dead center, referring to the rotational position of the crankshaft when the number one piston is farthest from the crankshaft.

Tender Spring – A spring used to capture the spring with the perches at full droop and are completely compressed when the car is at static ride height. Static ride height shall be determined with driver seated in the normal driving position.

Thermostat – An engine cooling system regulator device which is intended to control the temperature of the coolant by modulating the flow through an aperture.

Throttle Butterfly – An induction system component which may effectively vary the area of the induction port when turned (in response to driver input) from parallel to the flow in the port ("full throttle"), to almost perpendicular to the flow ("closed throttle").

Throwout Bearing – A bearing which, in response to driver actuation, accomplishes the application of the force needed to release the friction clutch through the actuation of the pressure plate.

Tie Rod – The link connecting a portion of the steering system which is fixed to the chassis to a sprung wheel.

Time (Verb) – To adjust the phase relationship of ignition and crankshaft, or of camshaft(s) and crankshaft.

Timing Belt – A toothed belt used, with appropriate pulleys, to convey drive force in a synchronous manner from the crankshaft to one or more camshafts.

Timing Gear – The engine gear or sprocket attached to a camshaft and driven by the crankshaft via gear(s) or chain.

Tire Tread – The portion of a tire containing the material intended to be in road contact while a car is in straight-ahead motion.

Toe (-In, -Out) – The measure of the position of the wheels on either axle of a car with respect to each other, with reference to the fore/aft direction.

Tonneau Cover – A cover for the passenger portion of an open car.

Top (Removable) – A removable covering for an open car, normally supplied for protection against the elements.

Torque Biasing Differential – A form of limited slip differential.

Torque Converter – An engine-driven power transmission device which couples driving and driven shafts with a variable speed reduction.

Torque Suppressor – See Engine Steady Bar.

Torsion Bar – A bar or beam intended to act as a springing medium, in which the "springing" is derived from resistance to twisting along the main axis of the bar.

Track – The distance between the center of the rims of two wheels at one end of a car, with any angular adjustments at normal settings and steered wheels in the straight ahead position.

Traction Bar – A longitudinal link to an axle housing or hub carrier which resists torque reaction from the driven wheel(s) by acting in compression or tension.

Traction Control – Any system that employs electronic signals to reduce wheel spin, independent of direct driver inputs. To achieve their goal, such systems may, for example, reduce engine speed, reduce fuel flow, selectively apply braking, or modify differential input.

Trailing Arm – A wheel control linkage locating the wheel in the fore/aft direction, which is attached to the car structure at the forward end of the arm, and to the wheel carrier at the rear of the arm.

Transaxle – A component containing the mechanisms necessary to achieve the combined functions of a transmission and a differential.

Transistor Ignition – A system of ignition in which electronic components are utilized.

Translucent – Permitting the passage of a reasonable amount of visible light. In the case of fluid containers, permitting the visual assessment of fluid levels by observing these through the container.

Transmission (Gearbox) – An assembly of driver-selectable gears in an independent housing, located between the engine and driven wheels, whose function is to alter the rotational velocity reaching the wheels.

Transmission Short Shift Kit – see Short Shift Kit.

Transparent – Offering very little resistance to the passage of visible light, suitable for use in the line of sight.

Transverse Engine – An engine located in a car such that the crankshaft centerline is nominally perpendicular to the normal direction of car motion.

Trim – Coverings or attachments whose function is solely cosmetic.

Trued Tread – The tread of a tire which has been cut after mounting on a wheel so as to ensure that the surface of the tread is equidistant from the center of the wheel at all angles of rotation.

Trumpet – See Velocity Stack.

Trunk Area – The spare tire and/or luggage region inside the body of a car.

Tub – The central contiguous assembly of stressed panels which form the basic structure of a frameless car.

Tub-based (non tube-frame) Car – A non-tube frame car has a stock floor pan, firewall, door pillars, sills, windshields conforming to stock profile, and window frames, etc.

Tube Frame Car – A car intended solely for racing, whose main structure or frame is fabricated from an assembly of tubes welded into the desired configuration.

Tuftriding – A commercial surface hardening process for ferrous metals.

Turbo Boost Control – An adjustment which causes a change in the degree of turbo boost available.

Turbo Inlet Restrictor – See Restrictor, Intake.

Turbocharger – An induction system compressor component, driven by exhaust gases from the engine, which provides forced flow of the fuel/air mixture into the engine by means of positive pressure.

Undertray (Belly Pan) – An attachment to the underside of a car intended to smooth airflow and/or to offer driver protection in this region of the car.

Unibody – A type of construction in which the main car structure is fabricated from an assembly of panels and reinforcements, permanently fastened together, generally by welding, into a single unit.

Universal Joint – A mechanical drive train component which permits a change in direction of the axis of rotation conveying the force.

Unswept Volume – The enclosed volume existing in a cylinder/cylinder head with the piston at its closest approach to the cylinder head.

Vacuum Advance Mechanism – An ignition distributor mechanism which, under the influence of manifold vacuum, changes the ignition timing in a prescribed fashion.

Valance – Bodywork welded or bolted to the cars body/structure, at the front or rear of a car, normally but not always located behind and/or below the bumper.

Valve – A reciprocating engine component, consisting of head and a stem, which may be opened or sealed in phase with crankshaft rotation, so as to control the induction of fuel/air mixtures or the exhaust of products of the combustion process.

Valve Cover – A cylinder head attachment whose function is to contain lubricants and to protect the valve actuation mechanism from outside contaminants.

Valve Guide – A sleeve bearing whose function is to provide axial location of a valve, while allowing normal reciprocating motions.

Valve Head – the portion of the valve that is larger than the stem.

Valve Keeper – The component, generally two-piece, which secures the valve spring retainer to the valve stem in a cylinder head.

Valve Relief – A cutout in a piston crown to allow close approach of a valve.

Valve Seat – The area in a cylinder head in which the head of a valve under spring pressure forms a gas seal.

Valve Size – The diameter of the head of a valve.

Valve Spring Retainer (Collar) – A valve train component which serves the dual purpose of containing the outer end of the valve spring(s), and, by means of valve keepers, connecting the valve stem to the spring.

Valve Spring Shim – A valve train component whose purpose is to allow the adjustment of the seated valve spring pressure by effectively changing its seated length.

Valve Stem (Engine) – The shaft portion of a reciprocating engine poppet valve.

Valve Stem (Wheel) – The attachment to a road wheel through which pressurizing air is admitted/released.

Vapor Lock – A condition in the fuel delivery system caused by the existence of vapors, rather than liquid fuel, in the fuel pump, resulting in abnormal fuel delivery.

Variable Ratio Drive – A power transmission device in which at fixed input shaft rotational velocity the rotational velocity of the driven shaft is continuously variable over a prescribed range of ratios.

Velocity Stack (Air Horn/Trumpet) – An induction system attachment, generally in the form of a cylindrical

flare, used to alter the dynamic coupling between carburetor and the mass of incoming air.

Vent – An aperture which allows pressure equalization between a semi-sealed volume and the outside of this volume by providing a flow path for gases.

Ventilation – Cooling a component by an intentional flow of air, or modifying a component so as to facilitate this process.

Venturi – A region of constriction in an air duct of a carburetor in which, through the actions of incoming air flow, a reduced pressure is created to induce the inflow of fuel through one or more jets. Also see Restrictor, Intake.

Vibration Dampener – Generally a rubber-mounted rotating circular disc or pulley whose function is to reduce the amplitude of vibrations in the mechanism or part to which it is attached.

Visible – Capable of being seen, perceptible to the eye, apparent, evident.

Voltage Regulator – An electronic or electromechanical device intended to regulate the charging actions of an alternator or generator.

Watts Linkage – A rear axle lateral location system which employs a frame/body-mounted central pivoting attachment (bell crank) for 2 lateral links, whose opposite ends are attached to either end of the axle housing or vice versa.

Wave Washer – A thin, continuous spring washer.

Welding – The process of fusing one or more components into a single unit by means other than adhesives or fasteners (i.e. TIG, MIG, soldering, brazing, etc.).

Wheel – Flange and Rim.

Wheel (Steering) – The cockpit-mounted control device, normally circular, which allows the driver to exert manual force with which to control the car's direction of motion.

Wheel Cover – A removable decorative covering for a road wheel.

Wheel Cylinder – A hydraulic component of the braking system, which produces mechanical force at the wheel brakes in response to positive hydraulic pressure.

Wheel Fan – An integral part of or attachment to a wheel assembly with blade-like elements, intended to improve brake cooling.

Wheel Spacer – A plate of unspecified thickness or material which is mounted between a road wheel and hub to increase the distance from the inside of the wheel to the hub, thereby increasing track.

Wheel Trim Rings – Decorative removable attachments to road wheels effectively covering the rim area of the wheels.

Wheel Well – The volume under a fender.

Wheelbase – The distance between the front and rear axle centerlines of a car, with the front wheels in the straight ahead position.

Windage Tray – An internal baffle attachment to an engine oil pan which is intended to help maintain a sufficient supply of lubricant at the location of the oil pickup under cornering, braking or acceleration.

Windows: –

A. Door or Side – The opening where the window normally is raised or lowered in a door. Does not include a "vent" window whether fixed or movable.

B. Quarter (1/4) – On a 2-door or 4-door vehicle, the window to the rear of the rearmost door. Such windows are not generally raised or lowered, but they may be hinged and open to the rear. Quarter windows are not "rear" windows.

C. Rear – Rear windows are positioned at right angles to the longitudinal axis of the car.

Windshield (Windscreen) – An attachment to the bodywork of a car intended to divert the flow of air from forward motion without obstructing forward vision.

Windshield Pillar – A body component which extends nominally upward from the cowl area, forming one supporting attachment for the windshield.

Wing – An aerodynamic attachment to the structure of a car specifically intended to generate downforce from the action of air flowing over the upper and lower surfaces, creating a pressure differential.

Wiring Harness – Bundles of electrical wires which provide the electrical links in a car.

Wishbone Type Susp. – A form of suspension in which the lower (and often upper) locating links are in the form of a wishbone or "A-frame", and provide the lateral and at least a portion of the fore/aft wheel location.

Working Chamber – The volume in a rotary engine which is defined by the case and the two adjacent rotor tip seals, and which will vary in capacity with position in rotation.

Worm and Sector – A steering gear type in which the steering forces from the driver are transmitted to the steering linkage via a worm gear and a sector gear in mesh.

Wrist Pin – The one-piece physical link between a connecting rod and a piston.

Zerk Fitting (Grease gun fitting) – A small check valve attachment to a bearing housing through which pressurized lubricant may be applied to the bearing.

NOTES:

## APPENDIX G. FACTS, FORMULAS, AND MEASUREMENT STANDARDS

### 1. FACTS AND FORMULAS TO BE USED AT ALL SCCA EVENTS

1 inch = 2.54 cm = 25.4 mm

1 cubic inch = 16.387 cubic cm

1 millimeter = .03937 inch

1 kilometer = 1000 meters = .62137 mile = 1093.6 yards

1 mile = 1,760 yards = 1.60934 kilometers

Miles per hour = kilometers per hour x .62137

Kilometers per hour = miles per hour x 1.60934

1 cubic centimeter = .061 cubic inch

1 liter = 61.03 cubic inches = 1000 cubic centimeters (cc)

1 kilogram = 2.21 pounds

1 pound = 453.6 grams

Cylinder volume (displacement) =

$$\frac{3.1416 \times \text{bore} \times \text{bore} \times \text{stroke}}{4}$$

Engine displacement = Cylinder volume times number of cylinders

$$\text{Compression ratio} = \frac{V1 + V2}{V2}$$

Where V1 is total volume of one cylinder

V2 is volume of space above piston at top of stroke

Piston speed (ft. per min.) = 2 x RPM x stroke in feet

$$\text{Brake Horsepower (BHP)} = \frac{\text{RPM} \times \text{torque (in lbs ft.)}}{5252}$$

Note: Formula is actually: $\frac{6.28 \times \text{RPM} \times \text{torque}}{33{,}000}$

6.28 into 33,000 we get 5250

$$\text{Torque} = \frac{\text{BMEP} \times \text{Swept volume (in cc)}}{2473}$$

$$\text{Frontal Area (for figuring air resistance)} = \frac{T \times H}{144} \text{ (square feet)}$$

Where T is front tread in inches, H is overall height in inches.

$$\text{MPH} = \frac{\text{RPM} \times \text{wheel diameter (in inches)}}{\text{gear ratio} \times 336}$$

Note: Wheel diameter is overall diameter of the inflated tire, not the nominal diameter of the wheel.

### 2. MEASUREMENT STANDARDS

The following specifications shall meet the standards set below unless otherwise specified or unrestricted in the individual category or class preparation rules. Any specification not listed herein shall meet stock factory specifications unless otherwise specified or unrestricted in the individual category or class preparation rules. For these specifications, the tolerance shall be equivalent to ½ of the final digit of the specification (e.g. .01" tolerance equals +/- .005"). Absolute maximum means tolerances of +0.000 inches or +0.00 millimeters. Absolute minimum means a tolerance of -0.000 inches or -0.00 millimeters. Measuring devices available to scrutineers differ from location to location so it is the responsibility of the driver to insure that measurements comply with these rules.

1. Weight is absolute minimum.
2. Track is absolute maximum.
3. Rim width is absolute maximum.

4. Wheelbase has a tolerance of +/-1.0"
5. Valve size is absolute maximum *+0.1 mm*.
6. Throttle bore and/or venturi size and intake restrictor size is absolute maximum.
7. Drum brake size is nominal i.d. plus manufacturer's "turning" tolerance.
8. Disk brake rotor diameter has a tolerance of +0.1".
9. Engine cylinder bore is absolute maximum before allowable overbore.
10. Engine stroke length is absolute maximum *+0.1 mm*.
11. Valve lift is absolute maximum.
12. Compression ratio is absolute maximum
13. Dialectric Constant has a tolerance of +0.2. (G-01 and FTK-01 meters) or +2 (DT-47FT meter).

**3. MEASURING COURSES**
The official length of a course shall be measured along the centerline of the road.

**4. MEASURING TRACK**
Track is the distance between the centerlines of the wheels as raced, without driver, measured at a horizontal plane through the wheel hub centerline. Alternatively, it may be measured from the inside of one wheel at the hub centerline height to the outside of the other wheel, then conversely from the outside of the first wheel at hub centerline to the inside of the second wheel. The 2 dimensions obtained are to be added together and divided by 2 to obtain the average. Measurements are to be taken at both front and rear of the wheels and averaged to compensate for toe-in/out. Under certain circumstances it may be preferable to measure from the outside of one wheel to the outside of another and from this dimension deduct the thickness of one wheel. This should be repeated 180° opposite to the first measurement and the two dimensions averaged.

**5. MEASURING WINGS**
For all Formula and Sport Racing cars and unless otherwise specified in the applicable rules the measurement of aero dynamic devices and reference areas shall include end plates but not include fasteners as long as the fasteners serve no other purpose. Fasteners may protrude no more than 1/2" from the mounting surface.

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## APPENDIX I. 2007 ROLL CAGE RULES

**This appendix is present so that cages in cars with logbooks from 2007 and earlier can be verified for compliance with the construction rules required at the time the car was built.**

### 9.4. DRIVER PROTECTION STRUCTURES

These general specifications are for all automobiles. Roll cages are required in all automobiles.

Roll cages may be of two (2) designs, low front hoop (top of steering wheel) or high front hoop (top of windshield). Specific installations are subject to approval by the Technical and Safety Inspectors at each event.

The Technical Staff of Club Racing shall have the responsibility to ensure specification compliance with SCCA safety standards. To that end, the Technical Staff of Club Racing may or may not accept alternate construction standards from any source that significantly vary from SCCA standards of protection.

### 9.4.1. BASIC DESIGN CONSIDERATIONS

A. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence, or is struck by another car. It shall be designed to withstand compression forces from the weight of the car coming down on the rollover structure and to take fore/aft and lateral loads resulting from the car skidding along on its rollover structure.

B. Forward braces and portions of the main hoop subject to contact by the driver's helmet (as seated normally and restrained by seatbelt/shoulder harness) shall be padded with non-resilient material such as Ethafoam® or Ensolite® with a minimum thickness of one-half (1/2) inch. Padding meeting SFI spec 45.1 or FIA 8857-2001 is strongly recommended.

C. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.

D. Roll cage or chassis design shall prevent engine intrusion into the driver compartment.

E. Material:

1. Seamless, or DOM (Drawn Over Mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE, 4130) shall be used for all roll cage structures. Proof of use of alloy steel is the responsibility of the entrant.

2. Minimum tubing sizes (all Formula, Sports Racing, GT, and Production Category automobiles, and all automobiles registered prior to June 1, 1994) for all required roll cage elements (All dimensions in inches):

| Vehicle Weight Without Driver | Material: Mild Steel | Material: Alloy Steel |
|---|---|---|
| Up to 1500 lbs. | 1.375 x .095 | 1.375 x .080 |
| 1500-2500 lbs. | 1.50 x .095 | 1.375 x .095 |
| Over 2500 lbs. | 1.50 x .120 | 1.50 x .095 |
| | 1.625 x .120 | |
| | 1.75 x .095 | |

3. Minimum tubing sizes for (all Showroom Stock, Touring and Improved Touring Category automobiles registered after June 1, 1994) for all required roll cage elements (All dimensions in inches):

| | |
|---|---|
| Up to 1500 lbs. | 1.375 x .095 DOM / Seamless / Alloy |
| 1501-2200 lbs. | 1.500 x .095 DOM / Seamless / Alloy |
| 2201-3000 lbs. | 1.500 x .120 DOM / Seamless / Alloy |
| | 1.625 x .120 DOM / Seamless / Alloy |
| | 1.750 x .095 DOM / Seamless / Alloy |
| (American Sedans may construct to these specs regardless of weight.) | |
| 3001-4000 lbs. | 1.750 x .120 DOM / Seamless / Alloy |
| Over 4000 lbs. | 2.000 x .120 DOM / Seamless / Alloy |

Note: ERW tubing is not permitted in any car registered after 1/1/2003.

Main hoop: 4 bends max., totaling 180° ± 10°
Front hoop: 4 bends max. or
Front downtubes: 2 bends max.
Rear hoop supports: No bends.

If any of the above bend requirements cannot be met, all components of the roll cage shall be fabricated from the tubing size(s) listed for the next heavier category of automobiles.

4. For purposes of determining tubing sizes, the vehicle weight is as raced without fuel and driver. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness. Improved Touring roll cage tubing size are to be calculated based on the published vehicle weight minus 180 lbs.

5. An inspection hole at least 3/16 inch diameter, but no greater than 1/4 inch diameter shall be drilled in a non-critical area of the front and rear hoop as well as the one of the supplemental braces to facilitate verification of wall thickness. Formula Cars and Sports Racers with alternate roll struc-

tures are not required to have inspection holes, the wall thickness will be indicated on the back of the homologation certificate.

F. General Construction
   1. One (1) continuous length of tubing shall be used for the main hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than three (3) times the diameter of the tubing. Whenever possible, the roll cage hoop should start from the floor of the car, and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used.

   2. Welding shall conform to American Welding Society D1.1:2002, Structural Welding Code, Steel Chapter 10, Tubular Structures. Whenever D1.1 refers to "the Engineer" this shall be interpreted to be the owner of the vehicle. Welds shall be continuous around the entire tubular structure.

      All welds shall be visually inspected and shall be acceptable if the following conditions are satisfied:
      a. The weld shall have no cracks.

      b. Thorough fusion shall exist between weld metal and base metal.

      c. All craters shall be filled to the cross section of the weld.

      d. Undercut shall be no more than 0.01 inch deep.

   3. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care shall be used in preparation of parts before bronze welding and in the design of the attaching joints.

**9.4.2. SHOWROOM STOCK ROLL CAGE**

A. Full width roll cages are required in all Showroom Stock automobiles. Roll cages installed in Showroom Stock automobiles are for driver safety and shall be contained entirely within the driver/passenger compartment without removing any panel or accessory not specifically authorized in these rules. The carpet/padding may be cut around the mounting base plates.

   1. The cage need not be removable. It shall be bolted and/or welded to the car.

   2. It shall attach to the car at no more than eight (8) points, consisting of the basic cage with six (6) points and two optional braces.

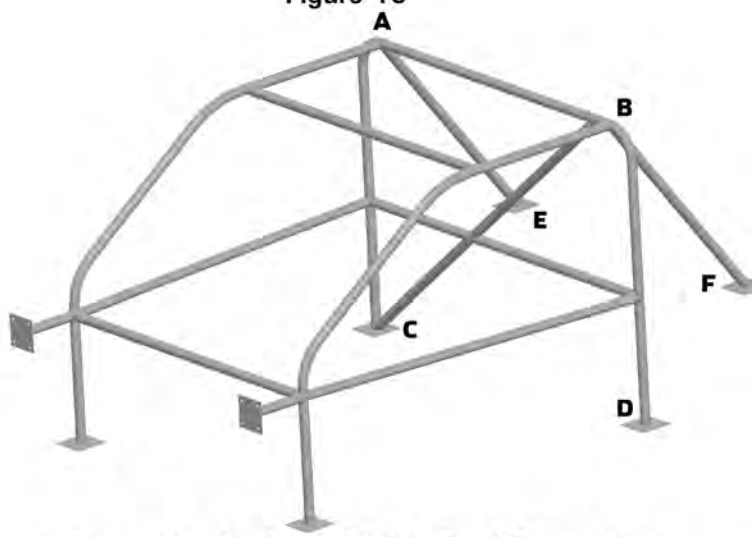
   3. The forward part of the cage shall be mounted to the floor of the vehicle. In addition, if the two optional braces referred to in item 2, above are utilized they shall be mounted, one on either side, from the forward section of the cage to the firewall or front fender wells (see figure 16). No braces shall pass through the front firewall.

   4. Rollcage gussets shall be no thicker than .125". A maximum of two gussets per rollcage joint are allowed.

B. Removable roll cages and braces shall be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion shall fit tightly and shall bottom by design and at least two (2) bolts shall be used to secure each such joint. The telescope section shall be at least eight (8) inches in length except forthe door bars which shall be a minimum of four (4) inches in length. Minimum bolt diameter is 3/8 inches.

C. For tubing sizes for front and main hoop and all required bracing, see 9.4.1.E.3.

**Figure 16**




**Improved Touring diagonal: tube A-D or B-C is required**
**Six point minimum, eight point maximum**

D. Main Roll Hoop:
1. Main roll hoop (behind the driver) shall extend the full width of the driver/passenger compartment and shall be as near the roof as possible. It shall incorporate a diagonal lateral brace to prevent lateral distortion of the hoop (See figure 16). Any number of additional reinforcing bars are permitted within the structure of the cage. It is required that the horizontal brace behind the driver's seat (described in Section 9.4.2.J.) continue from the diagonal to the passenger side main hoop upright or that a second diagonal be installed in the main hoop.

E. Front Roll Hoops:
1. The front or side hoops shall follow the line of the front pillars to the top of the windshield (as close to the roof as possible) then horizontally to the rear attaching to the main hoop. These two side hoops are to be connected together by a tube over the top of the windshield, or
2. A front hoop following the line of the front pillars and connected by horizontal bars to the main hoop on each side at the top may be used, or
3. A top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.
4. The front or side hoops may extend through the dash pad. This includes the forward part of the door panel if it is an extension of the dash panel.
5. One (1) bar is recommended in a horizontal plane between forward cage braces in the dash area.

F. Bracing:
The main roll hoop shall have two braces extending to the rear attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop not more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g., Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must also incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point ("Petty Bar").

1. Rear hoop braces may pass through the factory bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/, fuel tank/fuel cell area, provided the bulkhead is sealed around said cage braces. Metal tape may be used to seal the openings between the bulkhead and the tubes.

G. Side Protection:
Two (2) side tubes connecting the front and rear hoops across both door openings are mandatory. Door side tubes may extend into the door. NASCAR-style side protection, or one bar bisecting another to form an "X" is permitted. The door window glass, window operating mechanism, inner door trim panel, armrest, map pockets, and inside door latch/lock operating mechanism may be removed and the inner door structural panel may be modified, but not removed to facilitate this type of side protection. The stock side impact

beam and the outside door latch/lock operating mechanism shall not be removed or modified.

H. Mounting Plates:
1. Each mounting plate shall be at least .080 thick if welded and 3/16" thick (with appropriate backing plates) if bolted. There shall be a minimum of three (3) bolts per mounting plate if bolted.
2. Each mounting plate shall not be greater than 100 square inches and shall be no greater than twelve (12) inches or less than two (2) inches on a side.
3. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).
4. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.
5. Any number of tubes may attach to the plate or each other.

I. Hardware: (Bolts)
All hardware shall be Grade 5/Metric 8.8 or better. 5/16" minimum diameter.

J. In order to provide a secure seat back support a section of tubing equal to the roll bar shall be installed horizontally from the main hoop upright to the diagonal brace. This tube shall be no higher than shoulder height.

**9.4.3. TOURING ROLL CAGE**

A. All cars registered after 1/1/03 shall conform to these roll cage rules. Effective 1/1/08 all Touring cars shall conform to these roll cage rules. Full width roll cages are required in all Touring automobiles. Roll cages installed in Touring automobiles are for driver safety and shall be contained entirely within the driver/passenger compartment without removing any panel or accessory not specifically authorized in these rules. The carpet/padding may be cut around the mounting base plates.
1. The cage shall be welded to the car, and all mandatory tubes shall use welded joint construction.
2. It shall attach to the car at no more than *twelve (12), (T2);* eight (8) points, *(T3-T4);* with the forward section of the cage attaching to the front bulkhead or front fender wells (see figure 16).
3. The front down tubes of the cage shall be mounted to the floor of the vehicle.

B. For tubing sizes for front hoop, main hoop, and all required bracing, see Section 9.4.1.E.3. It is recommended that gussets (flat steel, tubing, etc.) be utilized to strengthen the joints of all required cage elements.

C. Main Roll Hoop:
1. Main roll hoop (behind the driver) shall extend the full width of the driver/passenger compartment and shall be as near the roof as possible. It shall incorporate a diagonal lateral brace to prevent lateral distortion of the hoop (See figure 16). Any number of additional tubes/braces are permitted within the structure of the cage. It is required that the horizontal brace behind the driver's seat (described in Section 9.4.2.J.) continue from the diagonal to the passenger side main hoop upright or that a second diagonal be installed in the main hoop.

D. Front Roll Hoops:
1. The front or side hoops shall follow the line of the front pillars to the top of the windshield (as close to the roof as possible) then horizontally to the rear attaching to the main hoop. These two side hoops are to be connected together by a tube over the top of the windshield, or
2. A front hoop following the line of the front pillars and connected by horizontal bars to the main hoop on each side at the top may be used, or
3. A top "halo" hoop following the roofline from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.
4. The front or side hoops may extend through the dash pad. This includes the forward part of the door panel if it is an extension of the dash panel.
5. One (1) bar is required in a horizontal plane between forward cage braces in the dash area.

E. Bracing:
The main roll hoop shall have two braces extending to the rear attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop but, not more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g., Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must also incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point ("Petty Bar").
1. Rear hoop braces may pass through the factory bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/, fuel tank/fuel cell area, provided the bulkhead is sealed around said cage braces. Metal tape may be used to seal the openings between the bulkhead and

the tubes.

F. Side Protection:
Two side protection tubes (door bars) are mandatory on each side of the car. NASCAR-style side protection is required on the driver's side and is optional on the passenger side. The driver's window safety net may be mounted to this side protection and the top cage tube. NASCAR-style side protection tubes shall extend into the door. The door window glass, window operating mechanism, inner door trim panel, armrest, map pockets, and inside door latch/lock operating mechanism may be removed only if it interfered with the installation of NASCAR-style side protection tubes. The inner door structural panel may be modified, but not removed to facilitate this type of side protection. The stock side impact beam and the outside door latch/lock operating mechanism shall not be removed or modified.

G. Mounting Plates:
1. Each mounting plate shall be at least .080 thick.
2. Each mounting plate shall not be greater than 100 square inches and shall be no greater than twelve (12) inches or less than two (2) inches on a side.
3. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).
4. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.
5. Any number of tubes may attach to the plate or each other.

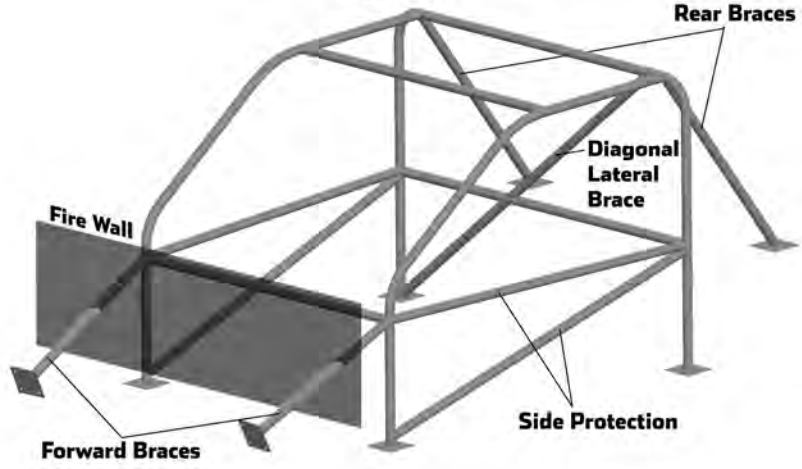
**9.4.4. GT ROLL CAGE**
All GT automobiles shall have full width roll cages. Open automobiles without full windshields may have a low front hoop. All closed automobiles shall have full height (top of windshield) front hoops.

A. Main and Front Hoops

1. Main Hoop:
The main hoop (behind the driver) shall be full width of the cockpit. The main hoop shall be as near to the roof as possible on closed automobiles and not less than two (2) inches above the driver's helmet on open automobiles, with the driver seated normally and restrained by seat belt/shoulder harness. Low front hoops shall be cowl height, or at a minimum, a straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet.

2. Front Hoop:
   a. The front hoop shall follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop on each side (as close to the roof as possible).
   b. Two (2) side hoops following the line of the front pillars to the top of the main hoop may be used. These two (2) side hoops are to be connected by a horizontal bar over the top of the windshield. (See figure 17), or
   c. A top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.
   d. Double "ear-type" joints are allowed, provided that they are fully welded at all mating surfaces.

Figure 17



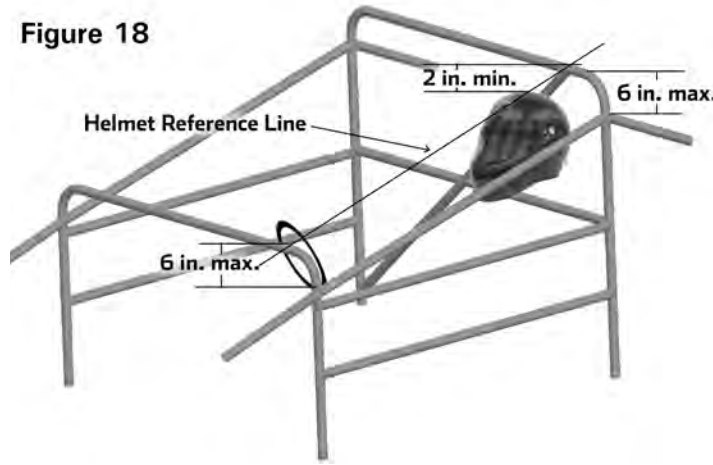

3. Fabrication:
The main hoop shall be one continuous length of tubing with smooth continuous bends with no evidence of crimping or wall failure. The minimum radius for all bends shall be three (3) times the tube diameter measured from the tube centerline. Whenever possible, the roll hoops should start from the floor of the automobile, and, in the case of tube frame construction, be attached to the tubes by means of gussets or metal webs in order to distribute the loads. On automobiles of frameless construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the automobile and attached with suitable mounting plates.

B. Bracing
All required bracing shall be the same diameter and wall thickness as listed in 9.4.1.E, Material. (Main and Front Hoops)

All main hoops shall incorporate a diagonal brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop.

1. Main Hoop Bracing:
Main hoops shall have two (2) braces extending to the rear, attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least thirty (30) degrees. Open cars with a low front hoop shall have (Effective 1/1/99) two braces extending from the main hoop to the low front hoop. These braces shall be mounted no lower than six inches below the top of the main hoop as illustrated in figure 18.

Figure 18




2. Front Hoop Bracing:
There shall be two (2) braces extending forward from the front hoop to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but, in any case, it

shall be integrated into the frame or chassis to provide substantial support for the front hoop.

C. Side Protection - Open and Closed Automobiles

1. The minimum side protection shall consist of a side tube connecting the front and rear hoops across both the door openings. Additionally, there shall also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.

2. In automobiles with full roll cage installations including side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections shall be protected.

D. Mounting Plates:

The thickness of mounting plates bolted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and shall be backed-up with a plate of equal dimensions on the opposite side of the panel, with the plates through-bolted together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) shall be Grade 5/Metric 8.8 or better with 5/16" diameter minimum. Mounting plates welded to the structure of the car shall not be less than .080" thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar).

**9.4.6. PRODUCTION ROLL CAGE**

All automobiles shall have full width roll cages. Roll cages may be of two (2) designs, low front hoop or high front hoop. Specific installations are subject to approval by the Technical and Safety Inspectors at each event. The Technical Staff of Club Racing, with the concurrence of the Club Racing Board, shall have the responsibility to ensure specification compliance with SCCA safety standards. Alternate structures which do not meet the following criteria will not be considered unless they are eligible under Section 9.4.6.D.

A. Main Hoop

For all cars, the main hoop (behind the driver) shall be full width of the cockpit.

1. Closed Automobiles:

The main hoop shall be as near to the roof as possible on closed automobiles

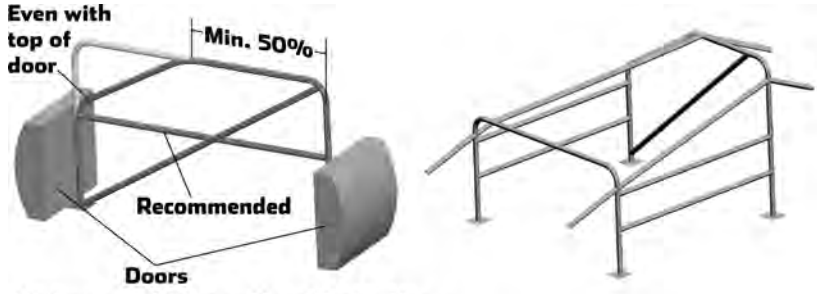
2. Open top Automobiles:

a. The main hoop shall be not less than two (2) inches above the driver's helmet on open automobiles, with the driver seated normally and restrained by seat belt/shoulder harness as illustrated in figure 18.

b. Open top automobiles without a windshield may use an asymmetric main hoop provided:

i. The main hoop shall be full height (over the driver) for at least 50% of the width of the hoop as illustrated in figure 19.

ii. On the passenger side of the car, the hoop shall be at least as high as the top of the rear corner of the door as illustrated in figure 19.




**Minimum main hoop - Open Production**

B. Front Hoop

For all cars, the front hoop shall be full width of the cockpit.

1. Closed Automobiles and open top automobiles with a windshield:

a. The front hoop shall follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop.

b. Instead of a single front hoop, two (2) side hoops following the line of the front pillars to the top of the main hoop may be used. These two (2) side hoops are to be connected by a horizontal bar over the top of the windshield. (See figure 17)

c. Another option is a top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.

d. Double "ear-type" joints are allowed, provided that they are fully welded at all mating surfaces.

e. It is recommended the hoop extend to the belly pan. If not, it shall be attached to the chassis with gussets and triangulation in order to spread the loads.

f. It is recommended that the vertical bars of the front hoop be connected by a horizontal bar at a point above the driver's legs

g. All front hoop options (a, b, c) shall be connected to the main hoop in the following manner.
   i. On open top cars, attachments shall be no more than six inches below the top of the main hoop.

   ii. On closed top cars, attachments shall be as close to the roof as possible.

2. Open top Automobiles without a windshield and with a high front hoop design. Front hoop requirements for open top automobiles with a windshield are to be followed with the following exceptions.

   a. Since the windshield frame is to be removed with the windshield, there is no requirement to follow the line of the A-pillar.

   b. Since there is no windshield for the hoop to be above, the front hoop shall be above the driver's line of sight.

3. Open top Automobiles without a windshield and with a low front hoop design

   a. Low front hoops shall be cowl height, or at a minimum, a straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet (See figure 18).

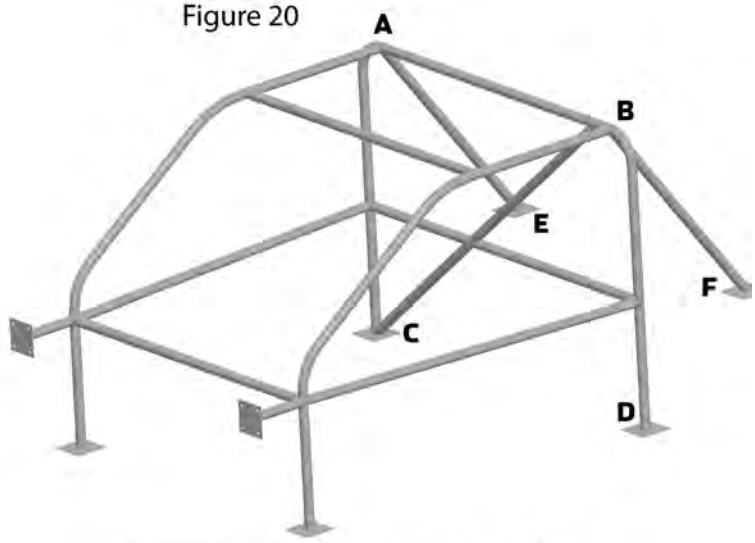
   b. Open cars with a low front hoop shall have two braces extending from the main hoop to the low front hoop. These braces shall be mounted no lower than six inches below the top of the main and front hoops as illustrated in figure 18.

   c. Fabrication - Open and Closed Automobiles
   The main hoop shall be one continuous length of tubing with smooth continuous bends and no evidence of crimping or wall failure. The minimum radius for all bends shall be three (3) times the tube diameter measured from the tube centerline. Whenever possible, the roll hoops should start from the floor of the automobile, and, in the case of tube frame construction, be attached to the tubes by means of gussets or metal webs in order to distribute the loads. On automobiles of frameless or uni-body construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the automobile and attached with suitable mounting plates.

C. Bracing - Open and Closed Automobiles
All required bracing shall be the same diameter and wall thickness as listed in 9.4.1.E, Material. (Main and Front Hoop)

All main hoops shall incorporate a diagonal brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop. The brace shall either be in the plane of the main hoop or extend from the top of one rear brace (see figure 20) to the bottom of the opposite brace. In the case of braces in the plane of the main hoop, the brace must be attached at both ends to the main hoop, span at least 50% of the main hoop, and at least 75% of the height of the main hoop.

Figure 20




Diagonal brace may run B-C, A-D, A-F or B-E

1. Main Hoop Bracing
Main hoops shall have two (2) braces extending to the rear, attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least thirty (30) degrees. Rear braces may penetrate required bodywork provided the resulting hole serves no other function, and the holes are sealed around the braces.

2. Removable Bracing
Removable bracing shall incorporate connectors of the double lug, tapered, or muff-type as shown in figures 14 and 15. The double-lug type shall include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

3. Front Hoop Bracing
There shall be two (2) braces extending forward from the front hoop to brace the front hoop and protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but, in any case, it shall be integrated into the frame or chassis to provide substantial support for the front hoop. Front braces may penetrate required bodywork provided the resulting hole serves no other function, and the holes are sealed around the braces.

D. Exceptions
When it is manifestly impractical or unsafe to construct and install a roll structure meeting the minimum requirements as set forth above, an alternate design roll structure may be submitted to the SCCA Technical Staff who may, in a proper case, accept such alternate roll structure design on a specific case by case basis.

E. Side Protection - Open and Closed Automobiles
1. The minimum side protection shall consist of a horizontal side tube connecting the front and rear hoops across both the door openings. Additionally, there shall also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.

2. In automobiles with full roll cage installations including side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections shall be protected.

F. Mounting Plates:
1. Bolt In cages.
The thickness of mounting plates bolted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and shall be backed-up with a plate of equal dimensions on the opposite side of the panel, with the plates through-bolted together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) shall be Grade 5/Metric 8.8 or better with 5/16" diameter minimum.

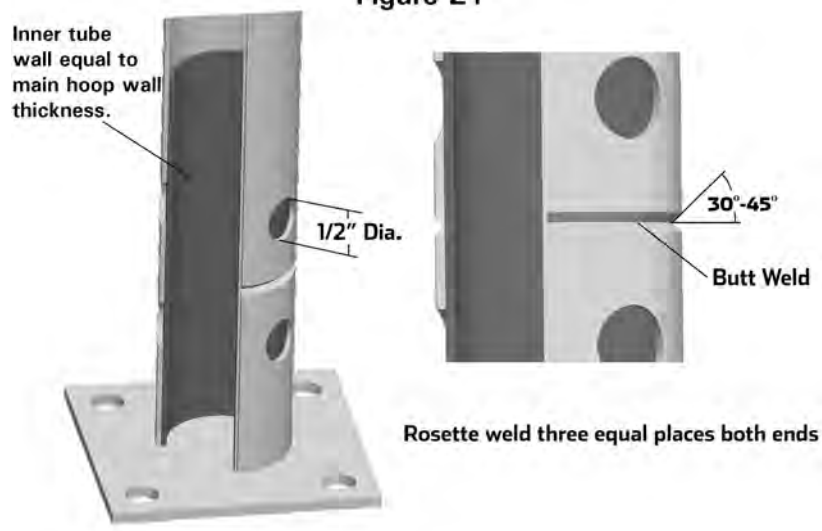
2. Welded in cages.

Mounting plates welded to the structure of the car shall not be less than .080" thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar).

**9.4.7. APPENDAGES**

The following procedures are approved for modification to roll bars/cages that do not meet the two (2) inch required minimum: The old main hoop may be cut off near the chassis mounting and a new main hoop of equal tube size or a section of equal tubing size may be added, and inner tube(s) must be used to mate all sections together. All braces must be minimum distance from top of hoop per Section 9.4. All welding for this modification must be arc welded (min.). The inner tube(s) must be rosette welded three (3) places near top and bottom, see figure 21.

**Figure 21**



## APPENDIX J. 2004 PRODUCTION CATEGORY ROLL CAGE RULES

**This appendix is present so that cages in Production cars with logbooks from 2004 and earlier can be verified for compliance with the construction rules required at the time the car was built.**

### 18. PRODUCTION ROLL CAGES

All Production Category automobiles shall have full width roll cages. Open automobiles without full windshields may have a low front hoop. All closed automobiles shall have full height (top of windshield) front hoops.

Roll cages may be of two (2) designs, low front hoop (top of steering wheel) or high front hoop (top of windshield). Specific installations are subject to approval by the Technical and Safety Inspectors at each event.

The Technical Staff of Club Racing shall have the responsibility to ensure specification compliance with SCCA safety standards. To that end, the Technical Staff of Club Racing may or may not accept alternate construction standards from any source that significantly vary from SCCA standards of protection.

### 18.1. BASIC DESIGN CONSIDERATIONS

1. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence, or is struck by another car. It shall be designed to withstand compression forces from the weight of the car coming down on the rollover structure and to take fore/aft and lateral loads resulting from the car skidding along on its rollover structure.
2. Forward braces and portions of the main hoop subject to contact by the driver's helmet (as seated normally and restrained by seatbelt/shoulder harness) shall be padded with non-resilient material such as Ethafoam® or Ensolite®, or other similar material with a minimum thickness of one-half (1/2) inch. Padding meeting SFI spec 45.1 is recommended.
3. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.
4. Roll cage or chassis design shall prevent engine intrusion into the driver compartment.
5. Material:
   A. Seamless, or DOM (Drawn Over Mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE, 4130) shall be used for all roll cage structures. Proof of use of alloy steel is the responsibility of the entrant.

   B. Minimum tubing sizes for all required roll cage elements (All dimensions in inches):

| Vehicle Weight Without Driver | Material | |
|---|---|---|
| | **Mild Steel** | **Alloy Steel** |
| Up to 1500 lbs. | 1.375x.095 | 1.375x.080 |
| 1500-2500 lbs. | 1.50x.095 | 1.375x.095 |
| Over 2500 lbs. | 1.50x.120 | 1.50x.095 |
| | 1.625x.120 | |
| | 1.75x.095 | |

   C. For purposes of determining tubing sizes, the vehicle weight is as raced without fuel and driver. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness.

   D. An inspection hole at least 3/16 inch diameter, but no greater than 1/4 inch diameter shall be drilled in a non-critical area of all tubes with a specified size to facilitate verification of wall thickness.

6. General Construction
   A. One (1) continuous length of tubing shall be used for the main hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than three (3) times the diameter of the tubing. Whenever possible, the roll cage hoop should start from the floor of the car, and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used.

   B. Welding shall conform to American Welding Society D1.1:2002, Structural Welding Code, Steel Chapter 10, Tubular Structures. Whenever D1.1 refers to "the Engineer" this shall be interpreted to be the owner of the vehicle. Welds shall be continuous around the entire tubular structure. All welds shall be visually inspected and shall be acceptable if the following conditions are satisfied:

      1. The weld shall have no cracks.
      2. Thorough fusion shall exist between weld metal and base metal.
      3. All craters shall be filled to the cross section of the weld.
      4. Undercut shall be no more than 0.01 inch deep.

   C. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care shall be used in preparation of parts before bronze welding and in the design of the attaching joints.

**18.4.1. Main and Front Hoops**

A. Main Hoop: The main hoop (behind the driver) shall be full width of the cockpit. The main hoop shall be as near to the roof as possible on closed automobiles and not less than two (2) inches above the driver's helmet on open automobiles, with the driver seated normally and restrained by seat belt/ shoulder harness. Low front hoops shall be cowl height, or at a minimum, a straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet.

B. Front Hoop:
   1. The front hoop shall follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop on each side (as close to the roof as possible).
   2. Two (2) side hoops following the line of the front pillars to the top of the main hoop may be used. These two (2) side hoops are to be connected by a horizontal bar over the top of the windshield. (See figure 17), or
   3. A top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.
   4. Double "ear-type" joints are allowed, provided that they are fully welded at all mating surfaces.

C. Fabrication: The main hoop shall be one continuous length of tubing with smooth continuous bends with no evidence of crimping or wall failure. The minimum radius for all bends shall be three (3) times the tube diameter measured from the tube centerline. Whenever possible, the roll hoops should start from the floor of the automobile, and, in the case of tube frame construction, be attached to the tubes by means of gussets or metal webs in order to distribute the loads. On automobiles of frameless construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the automobile and attached with suitable mounting plates.

**18.4.2. Bracing**

All required bracing shall be the same diameter and wall thickness as listed in 18.1.5., Material. (Main and Front Hoops) All main hoops shall incorporate a diagonal brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop. A horizontal bar connecting the sides of the main hoop is highly recommended.

A. Main Hoop Bracing:
Main hoops shall have two (2) braces extending to the rear, attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least thirty (30) degrees. Open cars with a low front hoop shall have (Effective 1/1/99) two braces extending from the main hoop to the low front hoop. These braces shall be mounted no lower than six inches below the top of the main hoop as illustrated in figure 18.

B. Removable Bracing:
Removable bracing shall incorporate connectors of the double lug, tapered, or muff-type as shown in figures 14, and 15. The double-lug type shall include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

C. Front Hoop Bracing:
There shall be two (2) braces extending forward from the front hoop to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but, in any case, it shall be integrated into the frame or chassis to provide substantial support for the front hoop. It is recommended that the verticle bars of the fornt hoop be connected by a horizontal bar at a point above the driver's legs.

**18.4.3. Side Protection - Open and Closed Automobiles**

A. The minimum side protection shall consist of a side tube connecting the front and rear hoops across both the door openings. Additionally, there shall also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.

B. In automobiles with full roll cage installations including side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections shall be protected.

**18.4.4. Mounting Plates:**

The thickness of mounting plates bolted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and shall be backed-up with a plate of equal dimensions on the opposite side of the panel, with the plates through-bolted together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) shall be Grade 5/Metric 8.8 or better with 5/16" diameter minimum. Mounting plates welded to the structure of the car shall not be less than .080" thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar).

These specifications are a part of the SCCA GCR and all automobiles shall conform to GCR section 9.

**A. Purpose and Philosophy**

The intent of the Super Touring category is to allow competition of production-based vehicles, at a higher level of preparation, using DOT-approved tires. Vehicles used in this category must be identifiable with the vehicles offered for sale to the public and available through the manufacturer's distribution channels in the US. No chassis or engines older than 1985 will be eligible, except that model runs that began before 1985 are eligible (e.g., if a model was produced in 1983-1988, the 1983 and 1984 cars are eligible). The SCCA does not guarantee the competitiveness of any car.

Super Touring Under (STU) vehicles are mid-level multi-purpose performance cars of 3.2 liters and under. Case-by-case approval of engines over 3.2 liters from "Pony Cars" or "American Iron" with stock camshaft lift at a heavier weight will be considered. No engines over 4 liters shall be allowed under any circumstances. Spec lines are not required for STU eligibility; unless otherwise specified, any vehicle meeting the model year and engine displacement limits is eligible for this class.

World Challenge vehicles compliant to a SCCA Pro VTS may be approved on a case-by-case basis for STU. See the STU "Approved World Challenge Cars" table.

Super Touring Lite (STL) is a small-bore "tuner" class for reciprocating piston engines of displacements of 2.0 liters and under. STL encompasses a lower level of allowed modifications compared to STU. As with STU, spec lines are not required for STL eligibility; unless otherwise specified, any vehicle meeting the model year and engine displacement limits is eligible for this class.

Alternate allowances may be approved on a case-by-case basis for individual vehicles that do not meet these parameters; see "Alternate Vehicle Allowances" tables. Engines components from these approved vehicle allowances may not be installed in other chassis without specific line-item approval (e.g., the STU 3.8L Mustang engine may not be installed into a Ford Focus).

Vehicle modifications are limited to those listed herein. Unless a particular modification or part is approved in these rules, the vehicle and all of its relevant parts and assemblies shall be stock for the correct make and model of car. Some amount of latitude will be considered to facilitate engine installations, however if extensive modifications are required it is recommended to seek clarification from the Club Racing Board.

Replacement parts may be obtained from sources other than the manufacturer provided they are the exact equivalent of the original parts. The intent of this rule is to allow the competitor to obtain replacement parts from standard industry outlets, e.g., auto-parts distributors, rather than from the manufacturer. It is not intended to allow parts that do not meet all dimensional and material specifications of new parts from the manufacturer, unless otherwise allowed in the Super Touring category or class rules.

Each class will have a baseline target power-to-weight ratio. Weights may be adjusted or cars may be subject to changes in intake restrictors to meet these targets. Cars may be required to carry data acquisition equipment for review of performance.

**B. Eligibility**

Vehicles meeting one of the following criteria may compete in the Super Touring category:

- 1985 and newer cars built specifically under these ST rules
- World Challenge Touring cars, with a VTS sheet dated 2009 or earlier, are eligible for classification in STU under the following criteria:
  - Cars will be approved on a case-by-case basis with supporting World Challenge VTS documentation
  - Competitors must have the VTS sheet, as approved, available for scrutineers when requested.
  - Weight will be set at the greater of the World Challenge weight plus 5% or the STU rules weight plus 5%.
  - Cars approved to run in accordance with their World Challenge VTS must adhere to those specifications and are not permitted to adopt general STU specifications.
  - See 9.1.4.2.I, table of Approved World Challenge Cars.
  - Cars must meet tire rule 9.1.4.P.1

  Note: World Challenge VTS cars are subject to adjustments (i.e., weight, restrictor) as necessary.
- Any GCR listed IT cars, 1985 and newer, under their current IT specifications may compete in STU. GCR listed ITS, ITA, ITB, and ITC cars with reciprocating piston engines of 2 liters and less engine displacement, 1985 and newer, may compete in STL under their current IT specifications.

  Note: While IT cars may not be competitive in the ST category, their inclusion in the category will allow regional competitors to participate in national events.
- Spec Miata cars completely conforming to Spec Miata class specifications are eligible for STL. Spec Tire not required in STL.
- SM5 and MX-5 Cup cars completely conforming to SM5 or MX-5 Cup class specifications are eligible

for STL. Spec Tire not required in STL.

- Rocky Mountain Division SpecM3 cars completely conforming to the 2011 rules may compete in STU. Competitors must have a copy of the 2011 rules in their possession.
- Cars modified beyond SS, SM or IT rules in any fashion must meet full ST safety requirements.

**C. Bodywork**

1. Standard body appearance must be strictly maintained. Standard body appearance includes the OEM grille and badge. A photographic replica is not sufficient.
2. Body and frame seams and joints may be welded. The OEM radiator supports may be replaced or reinforced to make repairs easier. The radiator supports shall not reinforce the rest of the chassis or diminish the OEM crush zones.
3. Bumper brackets may be modified, but bumpers must remain in OEM locations.
4. Non-essential body items and trim may be removed including attaching brackets and supporting structure. Any holes in bodywork exposed by the removal of these items shall be covered or filled.
5. All of the vehicle's doors must be able to be opened from both inside and outside the vehicle. Latches and hinges for the doors may be modified, but must remain in working order. Aftermarket latches and hinges may be used but shall not protrude beyond outer surface of bodywork. The stock side impact beams may be removed when NASCAR style door bars are installed.
6. Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches and hinges may be disabled or removed; if so, a positive action external fastening method shall be used. Engine compartment insulation may be removed.
7. Openings in the bodywork may be temporarily covered, wholly or partially, with tape for the purpose of regulating airflow. Bodywork openings may be closed off using close-out panels mounted behind body openings. Bodywork seams may not be taped except to temporarily secure it after contact.
8. All bodywork and windows shall be sufficiently rigid, adequately supported and properly secured such that it does not noticeably flutter, move, or deform while vehicle is in motion.
9. Aftermarket OEM style hardtops are allowed. Aftermarket carbon fiber hardtops are not allowed.
10. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed.

**D. Aerodynamic Devices**

1. Front Air Dam
   a. A front spoiler/air dam may be added. It shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground, or aft of the forward most part of the front fender opening.
   b. The spoiler/air dam shall be mounted to the body, and may extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. The air dam shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.
   c. The minimum ride height of the air dam is 3.0 inches.
   d. Openings are permitted for the purposes of ducting air to the brakes, cooler(s), and radiator(s).
2. Undertray
   a. An undertray may be added. The undertray may close out the underbody from the leading edge of the approved bodywork (including air dam) back to the centerline of the front axle.
   b. The minimum ride height of the undertray is 3.0 inches.
3. Splitter
   a. Definition: A horizontal, single-plane aerodynamic device attached to the lower front of the vehicle, protruding forward. It is intended to divert air and produce downforce through vertical pressure differential. A splitter shall have no vertical deviations.
   b. A front splitter may be added. A maximum of 4 rods or cables may be used to support the front and/or sides of the splitter. No other material(s) may be used external to the body to support the splitter.
   c. The front splitter must not extend more than 2.0 inches past the original or approved bodywork as viewed from above for the entire profile of the splitter.
   d. No part of the splitter shall extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead.

e. The splitter may have vertical deviations, fences, etc., only if they are part of the production bodywork for street use.

f. The minimum ride height of the front splitter is 3.0 inches.

4. Rear Wing

a. The wing shall be mounted to the trunk/deck lid with 2 mounting brackets. Each mounting bracket shall attach to the wing at a point that is at least 2.0 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow the two parts of each bracket to be fastened together.

b. Factory wings, and spoilers, and roof vortex generators are permitted, but must be removed if an approved aftermarket wing is installed.

c. See individual class regulations for further restrictions.

5. A close-out panel may be mounted behind the grille.

6. OEM side skirts may be used if they were available on the car from the dealer provided they meet the minimum ride height rule.

7. Aftermarket side skirts may be used provided they meet the minimum ride height rule, have no openings/ducts in them other than for jacking insert(s), are no wider than the approved fascias, do not extend any higher than the bottom of the door and do not reinforce the chassis.

8. Canards or dive planes are not permitted unless part of the OEM bodywork.

**E. Interior**

1. The following items must be removed : tool kit, spare tire, supplemental restraint systems (SRS) and passive restraint systems.

2. The following items may also be removed:

Headliner, sun visor, carpeting, carpet pad and/or insulation, soundproofing, OEM seats, all trim except the dashboard, heating and air conditioning systems, window winding mechanisms, central locking systems, audio system, and any other systems fitted to the original car solely for the comfort of the driver and/or passengers.

3. The following items may be installed:

Safety equipment/structures, seat, controls necessary for driving, instrumentation, electronic equipment, radio, camera, battery, driver cooling system, driver ventilation system, replacement door panels/interior trim, anti-sway bar controls (not within reach of driver). None of the above items may hinder driver exit from the car.

4. The above components shall be attached to/contained in the chassis in such a way as to be able to withstand 25g deceleration. Any sharp edges shall be covered, padded, protected, etc. to prevent injury to driver, crew, course workers, and officials.

5. The driver's seat shall be located in the same lateral location as the OEM seat, unless otherwise allowed on a car's spec line. The transmission tunnel may be modified for the purpose of installing a competition driver seat. The floor pan must remain in its original position. The floor pan must remain in its original position. The driver's seat shall be located longitudinally.

6. Original instruments/gauges may be replaced, or supplemented, with additional engine monitoring gauges. Accessories, lights and switches may be added or removed. Box-type extensions from the dash pad may be used to mount switches and controls, in the areas where the OEM insert panels were mounted, so that they more easily accessible to the driver. Audio and video systems may be removed.

7. Vertical bulkheads, and enclosures, within the cockpit shall not be any higher than the bottom of the side windows, and shall not extend more than 18.0 inches above the floor pan. No bulkheads shall cover the rear foot wells.

a. Sedan Body (4-door) and Hatchback Body (3-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back shall not extend laterally from one side of the chassis to the other, but rather shall only be large enough to cover the individual components necessary.

b. Coupe Body (2-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back, if applicable, may extend laterally from one side of the chassis to the other.

8. Dash pad modification – It is permitted to modify the dash pad in order to run the roll cage tubes through the dash area as long as the dash pad is modified only enough for roll cage fitment. If necessary, the dash pad may be parted to ease installation around roll cage. Any such parting shall be done in such a way as to minimize the appearance that they have been separated once pieces of dash pad

are installed.

**F. Chassis**

1. All cars shall have the OEM rear package shelf and/or rear seat back support structure installed if applicable. As an alternative, a metallic close out panel may be installed that simulates the rear package shelf and/or the rear seat back support structure if applicable. If a close out panel is used to clean up the appearance of the rear package shelf and/or rear seat bulkhead in conjunction with the OEM structure, the close out panel material is free.
2. Cables, wiring and fluid lines in the engine compartment and cabin interior may be replaced, rerouted, and/or protected.
3. Cars that have drive shafts shall have 2 steel, 360-degree loops of sufficient strength located as close as possible to the front and rear universal joints to prevent the driveshaft from dropping in case of failure of either universal joint. Floor materials, torque tubes and cross members may also be utilized to provide this protection.
4. It is permitted to attach one or more plates, or pads, under the car to provide for jacking of the car, provided they serve no other purpose. It is prohibited to install any kind of device, which protrudes from the rocker panel or side of the car. However, tubes may be attached to the roll cage or chassis and extend to the inner surface of the rocker panel or bodywork to act as a receptacle for a jacking fixture. Air jacks are permitted, but no air source may be carried on board.
5. Ride height will be measured at the lowest point of the rocker panel, not including the pinch weld.
6. The OEM firewall between the cockpit and engine compartment shall be intact to prevent the passage of flames from the engine compartment to the cockpit. Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed.
7. Both front windows, driver and passenger, shall be down (preferably removed) whenever the vehicle is on track. The OEM window opening on the front doors shall not be filled in with any material, other than the material required to mount a NACA-duct for driver cooling. If used, the NACA-duct shall be mounted in the front, lower, corner of the window opening. The area closed off to mount the NACA-duct shall not exceed 50 square-inches. In rain conditions, a quarter window larger than 50 square-inches may be used in the area normally used to mount the permitted NACA-duct, in an attempt to minimize the amount of water entering the cockpit. Enough open area for the driver to exit in an emergency shall remain open at all times.
8. All vehicles must use a stock, OEM equivalent, safety glass windshield, or 0.25 inch minimum thickness Lexan replacement, mounted in the stock location, at the stock angle and maintaining the stock profile.
9. Windshield clips, per GCR section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.
10. Side windows, not including the front door windows, and rear windows may be replaced by clear Lexan-type plastic material having a minimum thickness of 0.125 inch, but must retain the same shape, size, and location as the original glass. NACA-ducts may be mounted in the side windows. The rear window must be secured by 2 additional straps 1.0 inch wide by 0.0625 inch thick minimum, bolted or riveted to the body at both the top and bottom of the rear window. If a Lexan rear window is mounted with multiple, evenly spaced screws around each side of its perimeter, safety straps are not required. If a DOT spec glass rear window is used in conjunction with the OEM method of mounting, safety straps are recommended, but not required.
11. Windows may be mounted and sealed with silicone. Any silicone used to bridge the gap between the perimeter of the window and the chassis shall be neat in appearance and uniform in thickness. Tape may only be used to seal the windows during wet track sessions for the purpose of reducing the amount of water entering the cockpit.
12. OEM side window framework shall be intact.
13. Acrylic or glass removable/moveable roof panels may be replaced with the same material as the surrounding roof. All brackets, mounts, and moldings must be removed. Fabric tops are not permitted and shall be removed along with all associated hardware. It may be replaced with an OEM hardtop if one is available.
14. Unused mounting tabs and brackets that are non-structural, excluding the rear seat back support and package tray, may be removed.
15. The OEM “rain gutter/tray” at the base of the windshield shall be intact and in the OEM location.
16. The floor pan may be modified to provide clearance for the exhaust system and allowed alternate transmission/transaxle.
17. Inner fender panels may be modified or replaced.
18. Convertible model cars may compete with a hardtop or as an open car.

**G. Engine**

1. Alternate engines may be used, if the manufacturer of the vehicleand engine are the same (e.g., an Acura engine installed into a Honda car) and was available in a car delivered in the United States. Vehicles delivered with engines from other manufacturers (e.g. Morgan, Panoz, etc) may only use the originally installed engine, or another engine manufactured by the chassis manufacturer (e.g. Lotus Elise may use the Toyota ZZ engine, or any other Lotus manufactured engine that complies with the class rules, however a Lotus Esprit may not install a Toyota ZZ engine).

   The chosen engine must retain its original cylinder head and intake manifold. Competitors must have in their possession a copy of the factory shop manual for both the drivetrain and chassis for use by scrutineers. If an engine from a front wheel drive vehicle is installed in a rear wheel drive vehicle, alternate OEM intake manifolds may be considered. The long block assembly of the alternate engine must remain within the engine compartment with no modifications, however the firewall may be modified to provide clearance for intake manifolds and/or engine accessories. It is permitted to use the OEM intake and throttle body for either the chassis or the installed engine. If needed to allow the intake manifold fit on the engine, an adapter plate between the engine and manifold is permitted. This adapter plate must be no more than 1.0 inch thick and must be made of the same material as either the head or intake manifold.

   Engines from vehicles not available in a car delivered in the United States will be considered and approved on a case-by-case basis for use in ST. For an engine to be considered, a member must submit to the CRB a Vehicle Technical Specifications (VTS) sheet with all engine parameters filled out. Copies of the appropriate factory shop manual are also useful for this consideration. Any deviations from the STCS that will be required for installation (e.g., trans adapter plate, alternate intake manifold, etc) must be noted in the "Requested Non-Stock Allowances" section, otherwise they will not be allowed. Once this information is received and considered, any approved engines will be noted in a separate table within the STCS.

2. The crankshaft shall be a stock OEM part or an aftermarket part as long as it is of identical dimensions and material as the OEM part for the specific engine. The crankshaft may be balanced. The maximum weight reduction allowance for balancing of the crankshaft is 0.5 lbs. The maximum weight reduction allowance for the balancing of the reciprocating assembly is 15 grams. Alternate connecting rods are permitted, but must be ferrous unless OEM supplied.

3. Blocks may be sleeved to repair cylinder walls. Engines may be bored to a maximum of .040 inch over standard bore size.

4. Rocker arm, lifter, follower, pushrod, valve spring, keeper, retainer, guide, seat, and valve materials are free; Titanium is not permitted, except for retainers or OEM parts. The head may be machined to fit valve train components.

5. Alternate camshafts are allowed. Camshaft timing is free.

6. Cars produced with an electronic throttle body may use the OEM electronic throttle body. The OEM electronic throttle body may be converted to manual actuation and the actuation cam on a manual throttle body may be changed to alter the opening/closing rate of the butterfly. Alternately actuated throttle bodies may be considered on a case by case basis.

7. The ignition system is unrestricted.

8. A programmable ECU is permitted. Engine calibration (spark and fuel) is free.

9. Fuel injectors and fuel rails must maintain the original number and mounting locations, but are otherwise free. Fuel pumps and fuel filters are free in type, size and number.

10. The location and type of the fuel pressure regulators are free provided they are mounted within the engine compartment or the OEM location.

11. The oil pan and oil pickup may be baffled, modified, or replaced. The OEM oil pump may be modified, or replaced with an OEM-style oil pump. Cars using a wet-sump oil system shall safety wire or in some other way secure the oil drain plug.

12. Vents, breathers, and oil filters may be added, or substituted. All emission control devices may be removed and the resulting holes plugged. It is recommended that cars using a wet-sump oil system safety wire or in some other way secure the oil drain plug.

13. Replacement gaskets and seals are free, including head gaskets. Replacement gaskets and seals must be made out of material(s) designed to seal the parts of an engine. Replacement gaskets and seals may not perform any other functions. Head gaskets may be used to adjust compression ratio.

14. The intake manifold on piston engines may be port matched to the head(s), provided no material is removed further than one inch in from the manifold to head mounting surface(s).

15. Variable cam timing (VTEC, VANOS, etc.) and variable length intake manifolds may be partially, or wholly, disabled. Variable cam timing systems that use multiple cam lobes for each valve(s) may

remove lobes from the camshaft(s) that are not being used. For 13B Rotary Engines the 5th and 6th intake port actuators and valves may be removed or disabled.

16. To inrease the compression ratio, the bottom of the head may be machined. Alternate pistons are permitted and/or the pistons may be machined.
17. Cars utilizing forced induction may not have a boost controller within reach of the driver. A car must enter pit lane to have the boost level changed by the crew if necessary. Competitors must be prepared to demonstrate the boost adjustment process to officials.
18. Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered.
19. All cars shall use the installed engine's stock air throttling devices (e.g., throttle body, carburetor) and intake manifold, unless noted otherwise. Components upstream of the throttling devices are free.
20. Unless otherwise noted, the follow restrictions apply to turbochargers. The inlet restrictor (if required) shall be positioned in the compressor inlet housing. Turbochargers may be added to engines that did not originally come equipped with one on a case by case basis. Swapping of turbochargers between engine makes and models is prohibited. Supercharged cars may be approved on a case-by-case basis. Contact the Club Racing Technical Office for details.
21. Alternate water pump, alternator, crankshaft dampers, and/or power steering pulleys are unrestricted. Crankshaft pulley is unrestricted for all non-supercharged engines; supercharged engines must use OEM crankshaft and supercharger pulleys.

**H. Cooling Systems**

1. Water Cooling

   Provided that the stock method of cooling is retained, the cooling system is free, including cooling fans, but the water radiator must remain in the approximate OEM location. The mounting angle may be changed.

2. Engine Oil Cooling- Coolers for the engine oil are free in number, type and location.
3. Intake Air Cooling- Cars utilizing forced induction may install intercoolers. The number, type, and location of intercoolers are free.
4. Water Spray Systems- Water may not be sprayed on any intercoolers, radiators, etc. Water spray systems may only be used to inject water into the brake ducts.

**I. Fluid Piping & Fuel Tank**

1. Fuel Cells/Tanks- The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (i.e., frame rails, etc.). All fuel cells must comply with GCR 9.3. Proper bracing to protect the fuel cell in the event of a rear-end crash is required. If a fuel cell is installed in the rear hatch/rear trunk area, the OEM floor pan in that area may be replaced with metal in order to make it easier to mount the fuel cell and close out the area around the fuel cell.
2. There must be a metal bulkhead completely separating the cockpit from the compartment containing the fuel cell. This does not negate the requirement that the fuel cell bladder be contained in a metal container.
3. No line containing engine coolant may pass through the cockpit. No hydraulic fluid lines may have removable connectors inside the cockpit.
4. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver, shall be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. Waterproof flexible wraps may also be used to prevent fluid from spraying on the driver. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.
5. No fuel cooling devices are permitted in the car.

**J. Oil System**

1. If oil storage tanks are not located in the original position they must be surrounded by a 10 mm thick crushable structure. Provided that the oil tank is not located in close proximity to the outer surface of the bodywork, and there is some of the structure of the vehicle between the oil tank and the bodywork, the car's structure will meet the 10mm crushable structure rule.
2. If the oil tank is located in the cockpit area, or a trunk area that is open to the driver, it must be separated from the driver by a metal enclosure made up of .036 inch steel, or .059 inch aluminum. This is in addition to the 10mm thick crushable structure that is required in section 9.1.4.I.2. The floor of the enclosure must be designed to prevent accumulation of fluids.

3. Accusump-type systems may be used.

**K. Exhaust System**

**1.** The exhaust system may be modified, or replaced.

2. Outlets must be located rearward of the midpoint of the wheelbase.

3. The exhaust pipe may not protrude more than 3.0 inches at the point where it exits the bodywork. If the exhaust pipe(s) exit the bodywork at the widest part of the body such that any extension of the exhaust pipe(s) beyond the body would make pipe(s) the widest point, the exhaust pipe(s) must be trimmed flush (+/- 0.5 inch) with the bodywork at the point that they exit the body. Minor body modifications are permitted to accommodate exhaust systems. Modifications shall serve no other purpose. The underbody rocker panels may be modified for the installation of the exhaust system, but these modifications may only serve to provide clearance for the exhaust system. The exhaust system must be adequately isolated from the driver's compartment.

4. If the exhaust system is routed in such a way that damage to it could cause hot exhaust to contact any part of the fuel system, there shall be a metallic heat shield protecting the fuel system components. This heat shield shall be located at least 3.0 inches away from the exhaust system, and there shall be at least 3.0 inches between the heat shield and the fuel system components.

**L. Electrical System**

The electrical system is free provided that:

1. Batteries are free, subject to GCR 9.3. Batteries.

2. Standard headlights, headlight operating ancillaries, and parking light assemblies may be removed and replaced with a plate of identical shape and size of the lens. Standard headlight assemblies may be replaced with aftermarket units of equal dimension. Vehicles with pop-up and/or hidden headlights may modify and/or remove the headlight assemblies as long as the headlight cover and any other external hardware are properly secured in the stock closed location.

3. Fog/driving lights, parking lights and associated attaching hardware may be removed. The resulting openings may be used to duct air, or may be filled/covered. No ducting may extend beyond the outer surface of the bodywork.

5. Each car must be fitted with at least one effective windshield wiper assembly, which must be in working order throughout the event. Wiper blades, arms and associated hardware may be substituted freely. Other windshield wiper assemblies may be removed.

6. Each car must have an effective defogging/demisting system that is capable of keeping the windshield clear during wet sessions. Anti-fog films meet this requirement.

**M. Drivetrain**

1. Alternate differential housings are permitted from the same model of vehicle. Differential may be open, locked, or of a limited-slip type. The internals of limited-slip type differentials may be modified to change the amount of slip limiting. Differentials with external, or electric, adjustability are prohibited. Driveshaft and half-shafts may be aftermarket, but shall be the OEM-type and use the same types of materials as stock. Drive shafts may be replaced by one piece drive shafts, and conversely.

2. Vent and/or breather lines may be added to the transmission and/or differential. 1 transmission cooler and 1 differential cooler are permitted.

**N. Suspension and Steering**

1. All suspension members must be made from ferrous and/or aluminum materials. Chromium plating of suspension members is prohibited.

2. Suspension springs are free. Coil-over units may be added to supplement or replace OEM springs. Attaching points may be reinforced. It is permitted to use threaded spring seats for adjustability.

3. Shock absorbers and struts are free. Driver adjustable systems and electronically controlled shocks are not permitted. If a reservoir/adjustment canister is used, only one may be used per shock. The shocks at each individual wheel may not be connected in any way.

4. Stabilizer bars are free, and may be added, removed, or substituted. Driver adjustable stabilizer bars are not permitted. Adjustment controls for stabilizer bars may be located within the cockpit, but must be out of the reach from the driver's seat. Adjustments to stabilizer bars during practice, qualifying and race must be done in pit lane.

5. Suspension components shall be the stock OEM parts, but they may be reinforced. Spherical bearings are permitted on suspension components. Standard suspension bushings may be replaced with solid or spherical bushings. Drop spindles are allowed.

6. Any anti-roll bar(s) and rear axle traction bar(s), rear axle panhard rod and watts linkage can be added or substituted, provided their installation serves no other purpose. The mounts for these devices can be

welded or bolted to the car. These devices and their mounts cannot be located in the trunk or driver/passenger compartment unless fitted as stock. Rear axle traction bar(s) used to control axle housing rotation must be solid bar or tube.

7. When a car's anti-roll bar also acts as a suspension locating device, the bar's attachment points and pivot points on the chassis and suspension control arms must remain in their stock locations.
8. Slotted plates may be added over original shock mounts on front and rear shock towers for camber/caster adjustment. One bolt-in brace may connect the front strut towers, and one bolt-in brace may connect the rear strut towers.
9. All steering components, with the exception of the steering wheel, column and tie-rods/toe-links, must be original equipment supplied by the manufacturer. These parts may be strengthened provided the original part can still be identified.
10. The steering wheel may be replaced with an aftermarket, or racing steering wheel. Wood-rimmed steering wheels are not permitted. An all-metal quick release coupling on the steering wheel may be added.
11. A collapsible steering column shall be used. Most recent OEM steering columns have at least 2 universal joints in them that allow the steering column to collapse on impact. This type of design (with at least 1 universal joint) must also be used in any steering column extension(s) that may be used to reach the driver's competition seating position.
12. Power steering may be modified in any of the following ways:
    a. disconnected
    b. an OEM manual steering rack for that model may be fitted
    c. an electric power steering pump may be fitted
    d. An OEM electric-assisted steering system may be used.

**O. Brakes**

1. Brake lines may be relocated, and rubber lines may be replaced with stainless steel braided brake lines. Hand brake assemblies may be removed. Brake proportioning valves may be used provided that they are of the in line, pressure limiting type. Non-pressurized brake fluid lines and master cylinders need not be metal, metal shielded, or bulkheaded. Pressurized brake fluid lines must be metal, metal shielded, or bulkheaded.
2. Brake proportioning valves may be used provided that they are of the in line, pressure limiting type. Brake pad friction material is free.
3. Hand brake assemblies may be removed. Backing plates and dust shields may be modified, ventilated, or removed.
4. Brake duct inlets incorporated in the front spoiler as standard, or in light openings, other than headlights, may be used to duct air to the front brakes. Additionally, brake ducts may be fitted into the intermediate mounting surface of a permitted splitter.
5. Water spray cooling systems are permitted. The amount of water carried for injection into the brake duct is free. Water-cooled calipers are forbidden.
6. Wheel fans are not permitted.
7. When any allowed alternate calipers are used, calipers must be mounted in the same location and orientation as the OEM calipers. OE caliper mounting tabs may be modified or removed to facilitate installation.
8. Titanium piston inserts are permitted.
9. May run OEM ABS or convert to an aftermarket ABS controller with 100 lb. weight penalty.
10. See individual class regulations for further restrictions/allowances.

**P. Tires & Wheels**

1. Tires must conform to 9.3. Tires. GT1/ST tire make/size is free, DOT tires are not required. DOT tires per 9.3. Tires are required for GT2/ST cars.
2. Wheels / Hubs- The standard wheels may be replaced with direct, bolt-on racing/aftermarket wheels under the following provisions:
    a. Loose wheel spacers of any type are not recommended.
    b. All cars must run the same size wheel on the same axle.
    c. As viewed from above at the centerline of the wheel; the fender shall completely cover the "tread" portion of the tire. Only the tire sidewalls may be visible.

d. The wheel material is free, but they must be constructed of metallic material(s). No modifications (including grinding) are permitted on a vendor-supplied wheel.

e. Valve stems and caps are free.

3. Wheel Attachment

a. Center-locking type hubs and wheels may be used if vehicle is supplied with them from the manufacturer. If vehicle is not supplied with center-locking type wheels they may be used in conjunction with an adapter that bolts onto the OEM, or approved, hub.

b. If a single wheel nut is used, a safety spring must be in place on the nut whenever the car is running and must be replaced after each wheel change. These springs must be painted Day-Glo red or orange. Alternatively, another method of retaining the wheels may be used provided it has been approved by FIA.

## K.1 2012 STO SPECIFIC TECHNICAL REGULATIONS

**A. Bodywork**

1. OEM non-metallic composite body panels (i.e., plastic fascias, fiberglass hoods, etc.) may be replaced with panels of any type composite, provided that the panel maintains the OEM profiles. All cars may replace the hood, hatch, and/or trunk/deck lid with nonmetallic composite parts. The hood may have heat exhaust vents installed in it. Hood inlets (scoops) are not allowed. The vents shall not expose the mechanical components of the car when looking down from above. The permitted transmission and differential coolers may vent through rear license plate frame. There shall be a screen, painted the same color as the surrounding bodywork, covering the vent opening. Any OEM non-functional, decorative vents/ducts may be made to be functional provided the exterior body appearance is not modified.

**B. Aerodynamic Devices**

1. Front Splitter
    a. The front splitter must not extend more than 2.0 inches past the original or approved bodywork as viewed from above for the entire profile of the splitter.
    b. The splitter shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead. The splitter may not extend more than 2.0 inches beyond the bodywork, regardless of where the outside edges of the front tires are.
    c. The splitter may have vertical deviations, fences, etc., only if they are part of the production bodywork for street use.
2. Rear Wing
    a. Wings shall be a single element with a maximum chord length of 12.00 inches, including any wicker.
    b. The entire wing assembly may be no wider than the widest part of the car, not including fender flares/lips and mirrors, or a maximum width of 72.0 inches, whichever is the lesser.
    c. The entire rear wing assembly, including the end plates and any wicker , shall be mounted level with, or below, the peak of the roof.
    d. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part of the approved bodywork.
    e. Wing end plates must not exceed 144.0 square inches each.
    f. APR performance wing GTC-500 part #AS-1070xx, variable cord length 12.75" Inner/9" Outer), is permitted.

**C. Interior**

1. The required dash pad may be made of any material. The dash pad shall maintain the stock profile.

**D. Chassis**

1. Fasteners are free. Fasteners may be replaced with adhesives.
2. Rounded coverings may be used at the rear of the front window openings to bridge gap between the leading edge of b-pillar and inner edge of main roll hoop. The material and design of these coverings is free, but shall be neat in appearance and securely fastened.
3. A third (3rd) tube on each side may extend through the firewall to the chassis in the engine compartment. These tubes shall not extend forward of the shock towers.
4. An underbody close-out panel(s) may be used in the area behind the rear axle. These panels shall not alter the external appearance of the car when looking from the rear and sides of the car (i.e. we want to have to lay on the ground to see them). If the production car uses underbody trim pieces, the OEM trim pieces may be removed or replaced, but any close-out panel(s) used may not visually hide any more of the mechanical components, when looking from the rear and sides of the car, than the OEM trim pieces do. The close-out panels shall not completely bridge the gap between the rear floor pan area and the rear axle centerline. On rear engine cars, any close-out panels shall not extend any further forward than the rear axle centerline. Cars with a fuel cell, engine, etc. that extend down into external visual range shall fit the close-out panel(s) around the component in such a way that it does not alter the external appearance of the car.
5. Minimum ride height is 3.0 inches.

**E. Engine**

1 Intake Requirements: All cars shall use the stock or approved air throttling device (e.g., carburetor, throttle body) and intake manifold for the installed engine, unless noted otherwise.

2. All cars may fit the approved carburetor and manifold. The approved manifold may be ported and polished, but its design and configuration shall not be altered in any other way. The lowering of or boring of holes in the center divider is prohibited. Removal or obliteration of the manifold part number is prohibited.

a. The approved carburetor shall be a maximum of 650 cfm and 4 barrels. The approved optional insulator (Holley #108- 12), and manifold (Edlebrock Performer RPM #7101-General Motors / #7121-Ford/Mercury) shall be fitted to cars.

b. Except as permitted in these rules, the carburetor shall not be modified in any way. Any carburetor jets, accelerator pump, pump cam, and accelerator pump nozzles may be used. Power valves, metering blocks, and floats may be altered or replaced. No venturi (including secondary or auxiliary) shall be modified in any way, but they may be aligned. Idle holes may be drilled in the throttle plates (butterflies). Carburetors may be modified to allow "four corner" idle adjustment.

c. The external throttle linkage to the carburetor may be modified or changed. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. No removal or alteration of the carburetor air horn is permitted.

d. All air entering the intake tract shall pass through the carburetor air inlet.

3. Cars may modify, or replace, motor and gearbox mounts provided that the engine is located in the specified location. This includes the use of "torque plates". All engines will be mounted in the stock position unless otherwise specified. Where an engine setback is allowed, the OEM firewall may be modified only enough to accommodate the engine set back.

   a. The following cars may set the engine rearward a maximum of 4.0 inches and may lower the engine a maximum of 1.5 inches:

      1. Cadillac CTS-V (04-07)
      2. Pontiac GTO (04-08)
      3. Ford Mustang (85-06)
      4. GM F-Body (93-02)

4. The intake and exhaust ports on piston engines may be ported at a 1% weight penalty. The valve guide may be machined as part of this porting.

5. Compression ratio is limited to 12.0:1.

6. Valve lift is limited to .600 inches.

7. Dry sump systems are allowed. The dry-sump system is limited to 5 stages. It shall consist of 1 pressure stage and a maximum of 4 scavenge stages. If the OEM style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of 2 two-port scavenge stages, or a maximum of 4 single-port scavenge stages, or any combination such that oil is not being scavenged from more than a maximum of 4 locations.

**F. Drivetrain**

1. Alternate flywheels and clutches are permitted. Flywheel material shall be ferrous or aluminum and the ring gear diameter must be the same as the OEM flywheel. Clutch and pressure plate design is free. Carbon clutches are permitted.

2. Transmissions and ratios are free. Forward gears are limited to six speeds. Cars with aftermarket sequential shift transmissions shall increase the required minimum weight by 100 lbs.

3. Traction Control/Launch Control is permitted, but must operate solely through the engine managements system (i.e., spark and fuel control) and may not interface with, or affect, the braking system or throttle control.

**G. Suspension and Steering**

1. Cars that come with a solid rear axle or trailing arm suspension are permitted an aftermarket or fabricated rear suspension. Cars with an altered rear suspension must add 50 lbs. Cars with live axle rear wheel drive may reduce the minimum weight by 50 lbs

2. Original suspension pick-up points below the upper line of the wheel rim must be used within a tolerance of 1.0 inch; however, if the lower suspension pickup point is changed from the OEM location, 50 lbs. must be added to the car. The body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 1.0 inch tolerance applies to pick-up points on the chassis only.

3. Suspension mounting points above the upper line of the wheel rim must be retained within a tolerance of 3.0 inches, however, the body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 3.0 inch tolerance applies to pick-up points on chassis only.

4. The spindle and/or outer joint on the a-arm and/or strut may be moved to correct bump steer caused by changing the vehicle ride height. These components are not limited to the 1.0 inch of movement that applies to the suspension pick-up points located on the chassis.

5. Alternate control arms permitted.

**H. Brakes**

1. Rotors- 1 or 2 piece ferrous rotors that do not exceed 355mm in diameter or 33mm in thickness are permitted. Maximum brake rotor diameter of 380mm is permitted at a 100 pound penalty.
2. Calipers- The standard production calipers or any caliper with 6 or less pistons may be used. 4-piston calipers may use a maximum of 4 pads per caliper. 6-piston calipers are limited to 2 pads per caliper.
3. Original equipment master cylinders and pedals may be replaced.
4. Power assisted braking systems are permitted.
5. The balance of braking forces between the two wheels on an axle shall be equal and non-adjustable.
6. The balance of braking forces between the front and rear axles may only be adjusted by the driver through:
   a. Direct intervention on the position of the center of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.
   b. Direct intervention on a proportioning valve in which the intake pressure is adjusted through a pre-loaded spring.

**I. Wheels**

1. Rear wheels may not exceed 18.0 inches in diameter and 13.0 inches in width. Front wheels may not exceed 18.0 inches in diameter and 11.0 inches in width.

**J. Approved Cars and Engines**

1. The following car and engine combinations are approved in STO. Send a request to the Club Racing Board http://www.crbscca.com/ to add additional cars.

## ARTICLE 4.8: TRANS AM AMERICAN MUSCLE CLASS

**4.8.1: CLASSIFICATION**

4.8.1.1: This class will consist of all cars meeting the prescribed Trans Am Series rules for the American Muscle class.

**4.8.2: COST CONTROL**

4.8.2.1: The following items have cost caps. Teams must submit a "COST CONTROL INSPECTION" form prior to the team's first race of the season (form available from the Trans Am Technical Manager). Information the team must provide will include the Make; Model; Part #; Supplier contact information; and the commercially available cost.

Maximum Cost

| | |
|---|---|
| Shock Absorbers | $800 each |
| Brake Calipers | $500 each |
| Brake Pads | $200 /axle |
| Wheels | $500 each |

4.8.2.2: Data systems are limited to basic GPS based systems. Steering and throttle position sensors may be used, and RPM may be monitored. Shock/suspension position, brake pressure, wheel speed, and other advanced data devices may not be used.

4.8.2.3: No titanium components are allowed.

4.8.2.4: No carbon fiber components are allowed, except for the driver seat.

**4.8.3: WEIGHT**

4.8.3.1: The minimum weight for all American Muscle Class cars is 2830 pounds.

4.8.3.2: The maximum rear weight bias is 52%. If the percentage exceeds 52%, some or all of the fuel may be pumped out, but the car must still meet the minimum weight requirement with the fuel removed.

4.8.3.3: Ballast must solidly mounted and attached in such a way that tools are required for its removal. The location/configuration of any ballast shall not perform a function that is not otherwise approved in the PRR.

4.8.3.4: All weight and percentage measurements will be made, with the driver in place, as the car exits the track at the end of a practice, qualification, or race session.

**4.8.4: BODY**

The body rules are divided into two sections. The "American Muscle" (2010+ Camaro-Mustang Challenger) body rules are found in Article 4.8.7.1. The "Stock Car" body rules are found in 4.8.7.2. Either body type may be used in 2013, but the stock car bodies will be phased out at some time in the future (TBD).

4.8.4.1: American Muscle Bodies

4.8.4.1.1: The following 2010+ make/model bodies are allowed.

**1**. Chevrolet Camaro (Howe and ARBodies currently approved manufacturers)

**2.** Ford Mustang (Howe approval pending, ARBodies approved manufacturer)

**3**. Dodge Challenger (no manufacturers approved at this time)

The body manufacturer approval process consists of a Trans Am application from the manufacturer, a complete measurement session conducted by the Trans Am Technical Manager, and a set of body templates provided to Trans Am by the manufacturer. For information contact the Trans Am Technical Manager.

4.8.4.1.1.1: The maximum overall width of the body (except mirrors) is 80.0 inches.

4.8.4.1.1.2: The minimum height of the body (measured 10.0 inches behind the top of the windshield) is 47.0 inches.

4.8.4.1.2: All body components must be utilized in an as-produced, unmodified form and must retain all manufacturer identifying markings.

4.8.4.1.3: Absolutely no additional holes, vents, modifications, etc., will be permitted on the body panels except as provided herein.

4.8.4.1.4: The bottom of the car must not be "belly-panned" or flush paneled. No fixed or moveable air-directing devices are permitted underneath or inside the car, other than ductwork that serves no other purpose than to direct cooling air to the brakes, fuel/air metering device (carburetor or throttle body), and/or driver.

4.8.4.1.5: Full-width bottom shrouding of the front spoiler/nosebox area (front undertray) is permitted, but must be flat, and can extend no farther rearward than the center of the trailing edge of the radiator. Undertray may not be stepped or curved. Undertray may be angled in side view to produce a maximum height at the trailing edge of 3.50 inches above the ground.

4.8.4.1.6: Installation of air ducts to direct air to cool the driver is permitted. Air ducts to direct air to cool the driver can

be installed behind the a-pillar. Duct and mount cannot exceed 8 inches in height by 12 inches in length. A maximum of three vents may be added to each rear side window to exhaust hot air from the driver's compartment.

4.8.4.1.7: The hood must have a minimum of four (4) positive locating pins on the leading edge of the hood and must be securely fastened by either pins or hinges at the rear

4.8.4.1.8: If used, a cowl opening shall be located at the rear edge of the hood at the base of the windshield and have a maximum opening of 2.5" deep by 20.0 inches wide. Fresh air boxes to the fuel/air metering device (carburetor or throttle body) are allowed as long as that ductwork serves no other purpose.

4.8.4.1.9: A front splitter must be used.

4.8.4.1.9.1: A front splitter must follow the contour of the front bumper and may extending a maximum of 6.75 inches beyond the forward-most vertical portion of the center of the bumper. The splitter must follow the contour of the front body work.

4.8.4.1.9.2: The minimum ground clearance for the splitter is 2.5 inches.

4.8.4.1.10: Cars must use either a Derhaag rear wing, or Howe rear wing.

4.8.4.1.10.1: The Derhaag single plane wing (# T-A W2), if used, must include the end plates mounted in the original location. The wing profile (Liebeck Airfoil #1LD104E) may not be altered.

**4.8.4.1.10.1.1:** The maximum height of the wing, including end plates and wicker, can be no greater than the highest point on the roof. The roof may not be altered or pushed up to increase its height.

**4.8.4.1.10.1.2:** The wing may not extend behind the rear bumper or bodywork measured at the centerline of the body.

**4.8.4.1.10.1.3:** The maximum wing width, including end plates, is TBD inches.

**4.8.4.1.10.1.4:** The cord length is a maximum of 10.75 inches.

**4.8.4.1.10.1.5:** The wing end plates must fit within a rectangle measuring 11.00 inches long by 4.00 inches tall. All wing elements, including the wicker bill, must be kept within the profile of the end plates. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs.

**4.8.4.1.10.1.6:** A wicker bill (Gurney) may be added to the wing element. It must be a uniform shape across the complete width of the wing. No air may pass between the wicker bill and the wing. It must form a 90 degree angle with the wing surface. The size of the wicker bill cannot exceed 0.50 inch high as measured from the wing surface. The thickness of the wicker material must be 0.625 inch.

**4.8.4.1.10.1.7:** Maximum angle of the rear wing element, from horizontal, is 30 degrees.

4.8.4.1.10.2: The Howe dual element wing (# AS105552), if used, must have the lower wing element mounted to the endplates in the original location as supplied by Howe. The upper element mounting location can be altered by slotting the existing holes, or adding holes in the end plates. The wing profiles must remain unmodified.

**4.8.4.1.10.2.1:** The maximum height of the wing can be no greater than the highest point on the roof of the car.

**4.8.4.1.10.2.2:** The wing may not extend behind the rear bumper or bodywork measured at the centerline of the body.

**4.8.4.1.10.2.3:** The maximum wing width, including end plates, is 55.75 inches.

**4.8.4.1.10.2.4:** The dog leg style Howe endplates must be used without modification. All wing elements, including the wicker bill, must be kept within the profile of the end plates. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs.

**4.8.4.1.10.2.5:** A wicker bill (Gurney) may be added to the upper wing element. It must be a uniform shape across the complete width of the wing. No air may pass between the wicker bill and the wing. It must form a 90 degree angle with the wing surface. The size of the wicker bill cannot exceed 0.375 inch. The thickness of the wicker bill must be 0.0625 inches

**4.8.4.1.10.2.6:** The maximum angle of the rear wing lower element, from horizontal, is 30 degrees.

4.8.4.1.11: A full, stock-dimension molded front windshield is mandatory and must be constructed from 3/16" (minimum) Lexan. Three (3) 1-inch by 1/8" thickness internal windshield support braces must be spaced at least on six-inch centers and roughly centered on the windshield. The windshield must be secured to the body by fasteners to prevent the windshield from popping out under internal pressure.

4.8.4.1.12: A full, stock dimension molded rear "glass" constructed of minimum .093' thickness Lexan is required. It must be held securely in place by a minimum of two (2) 1.0" wide external straps as well as fasteners mounting the "glass" to the rear bodywork around the perimeter of the opening. Back "glass" must also be securely braced internally to prevent significant bowing or distortion under racing conditions.

4.8.4.1.13: Side windows openings (driver and passenger side) must remain as produced in dimensions. Models with rear quarter or opera windows must have the stock opening covered with clear, securely mounted 0.093" thick Lexan.

4.8.4.1.14: Cockpit floors must be complete with no tunnels and/or air ducts allowed.

4.8.4.1.15: No body streamlining is allowed (windshields, radiator grills, headlights, etc.).

4.8.4.1.16: Body seams may not be taped for practice, qualifying, or race sessions. Exception may be granted by the Technical Manager for the temporary repair of damaged parts. If permission is granted the tape must match the color of the portion of the car being taped, or be clear.

4.8.4.1.17: Headlight decals and taillight decals or the model's original taillights are required at all times. Two functioning brake lights in the approximate location of the stock taillights are required. Two functioning taillights are also required.

4.8.4.1.18: Vent windows, with or without air ducts, may be used at the A-pillar. The maximum dimension, measured along the bottom of the window opening in the door is eleven (11) inches. The trailing edge must be ninety (90) degrees from the top of the door to bottom of the window opening.

4.8.4.1.19: Mirrors of sufficient size/area must be mounted on both sides of the race car and allow the driver to clearly see cars to their left and right.

4.8.4.1.20: The upper half of the grill area on the 2010+ Camaro may be taped closed to help control the engine temperature. The tape must be trimmed to allow the complete manufacturer's emblem in the center of the grill to be visible.

4.8.4.1.21: For 2010+ Camaro and Mustang bodied cars, two hood louver panels (Howe part #B940) may be installed. The panels are .083" aluminum x 15 1/2" long x 4" wide. They must be mounted on the top of the hood with the rear of the panel 8" forward of the rear edge of the hood, and spaced as shown in the diagram.

Other body styles may also use the louvers. Teams must contact the Technical Director prior to installation to determine the location dimensions

4.8.4.2: Stock Car Bodies

4.8.4.2.1: Cars in the class must use 1997, through current year, commercially available stock car bodywork. The following make/model bodies are allowed:

1. Cadillac CTS
2. Chevrolet Impala
3. Chevrolet Malibu
4. Chevrolet Monte Carlo
5. Dodge Charger
6. Dodge Intrepid
7. Ford Fusion
8. Ford Taurus
9. Lincoln MKS
10. Pontiac G8
11. Pontiac GTO
12. Pontiac Grand Prix
13. Toyota Camry

4.8.4.2.1.1: The maximum overall width of the body (except mirrors) is 80.0 inches.

4.8.4.2.1.2: The minimum height of the body (measured 10.0 inches behind the top of the windshield) is 47.0 inches.

4.8.4.2.2: All body components must be utilized in an as-produced, unmodified form and must retain all manufacturer identifying markings. No "one-off" or "high downforce" body packages are allowed.

4.8.4.2.3: Absolutely no additional holes, vents, modifications, etc., will be permitted on the body panels except as provided herein.

4.8.4.2.4: The bottom of the car must not be "belly-panned" or flush paneled. No fixed or moveable air-directing devices are permitted underneath or inside the car, other than ductwork that serves no other purpose than to direct cooling air to the brakes, fuel/air metering device (carburetor or throttle body), and/or driver.

4.8.4.2.5: Full-width bottom shrouding of the front spoiler/nosebox area (front undertray) is permitted, but must be flat, and can extend no farther rearward than the center of the trailing edge of the radiator. Undertray may not be stepped or curved. Undertray may be angled in side view to produce a maximum height at the trailing edge of 3.50 inches above the ground.

4.8.4.2.6: Installation of air ducts to direct air to cool the driver is permitted. Air ducts to direct air to cool the driver can be installed behind the a-pillar. Duct and mount cannot exceed 8 inches in height by 12 inches in length. A maximum of three vents may be added to each rear side window to exhaust hot air from the driver's compartment.

4.8.4.2.7: The hood must have a minimum of four (4) positive locating pins on the leading edge of the hood and must

be securely fastened by either pins or hinges at the rear

4.8.4.2.8: If used, a cowl opening shall be located at the rear edge of the hood at the base of the windshield and have a maximum opening of 2.5" deep by 20.0 inches wide. Fresh air boxes to the fuel/air metering device (carburetor or throttle body) are allowed as long as that ductwork serves no other purpose.

4.8.4.2.9: A front air dam or splitter must be used.

4.8.4.2.9.1: A front air dam, if used, shall not protrude beyond the overall outline of the car as viewed from above. The air dam shall not extend aft of the forward most part of the front fender opening (cutout). The minimum ground clearance for the air dam is 2.5 inches.

4.8.4.2.9.2: A front splitter, if used, must follow the contour of the front bumper and may extending a maximum of 3 inches beyond the bumper. The minimum ground clearance for the splitter is 2.5 inches.

4.8.4.2.10: Cars must use either a rear spoiler, a Derhaag rear wing, or Howe rear wing.

4.8.4.2.10.1: The single-plane rear blade spoiler, if used, must be mounted at an angle from 50 to 75 degrees (perpendicular to the ground being 90 degrees) and may not extend beyond the rear bumper when from directly above the rear bumper. Spoilers must be a minimum of .063 aluminum or Lexan and may vary in overall height to match the contours of the bodywork. The rear spoiler dimensions shall not exceed 59.0 inches wide by 5.0 inches in height, (measured on the material surface) or 295.0 square inches total surface area. Braces to prevent spoiler deflection are allowed, but may not serve any other purpose.

4.8.4.2.10.2: The wing, Derhaag single plane wing (# T-A W2), if used, must include the end plates mounted in the original location as supplied by Derhaag. The wing profile must remain an unmodified single element Liebeck Airfoil #1LD104E scaled to a cord length of 10.75 inches.

4.8.4.2.10.2.1: The maximum height of the wing can be no greater than the highest point on the roof of the car.

4.8.4.2.10.2.2: The wing may not extend behind the rear bumper or bodywork measured at the centerline of the body. Wing mounting brackets may be fabricated to achieve the proper wing location.

4.8.4.2.10.2.3:The maximum wing width, including end plates, is TBD inches.

4.8.4.2.10.2.4: The wing end plates must fit within a rectangle measuring 11.00 inches long by 4.00 inches tall. All wing elements, including the wicker bill, must be kept within the profile of the end plates. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs.

4.8.4.2.10.2.5: A wicker bill (Gurney flap) may be added to the upper wing element. It must be a uniform shape across the complete width of the wing, and must be kept within the profile of the end plates. No air may pass between the tab and the wing It must form a 90 degree angle with the wing surface. The size of the wicker bill cannot exceed 1/2 inch high as measured from the wing surface. The thickness of the wicker material must be 1/16 inch.

4.8.4.2.10.2.6: Maximum angle of the rear wing element, from horizontal, is 30 degrees.

4.8.4.2.10.3: The Howe dual element wing (# AS105552), if used, must have the lower wing element mounted to the endplates in the original location as supplied by Howe. The upper element mounting location can be altered by slotting the existing holes, or adding holes in the end plates. The wing profile must remain unmodified.

4.8.4.2.10.3.1: The maximum height of the wing can be no greater than the highest point on the roof of the car.

4.8.4.2.10.3.2: The wing may not extend behind the rear bumper or bodywork measured at the centerline of the body. Howe wing mounting brackets may be modified or replaced to achieve the proper wing location.

4.8.4.2.10.3.3: The maximum wing width, including end plates, is 55 3/4 inches.

4.8.4.2.10.3.4: The dog leg style Howe endplates must be used without modification. All wing elements, including the wicker bill, must be kept within the profile of the end plates. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs.

4.8.4.2.10.3.5: A wicker bill (Gurney flap) may be added to the upper wing element. It must be a uniform shape across the complete width of the wing, and must be kept within the profile of the end plates. It must form a 90 degree angle with the wing surface. The size of the wicker bill cannot exceed 0.375 inch high as measured from the wing surface. The thickness of the wicker material must be 0.0625 inch.

4.8.4.2.10.3.6: Maximum angle of the rear wing lower element, from horizontal, is 30 degrees.

4.8.4.1.11: A full, stock-dimension molded front windshield is mandatory and must be constructed from 3/16" (minimum) Lexan. Three (3) 1-inch by 1/8" thickness internal windshield support braces should be spaced at least on six-inch centers and roughly centered on the windshield. The windshield must be secured to the body by fasteners to prevent the windshield from popping out under internal pressure.

4.8.4.1.12: A full, stock dimension molded rear "glass" constructed of minimum .093' thickness Lexan is required. It must be held securely in place by a minimum of two (2) 1.0" wide external straps as well as fasteners mounting the "glass" to the rear bodywork around the perimeter of the opening. Back "glass" must also be securely braced internally to prevent significant bowing or distortion under racing conditions.

4.8.4.2.13: Side windows openings (driver and passenger side) must remain as produced in dimensions. Models with rear quarter or opera windows must have the stock opening covered with clear, securely mounted .093" thick Lexan.

4.8.4.1.14: Cockpit floors must be complete with no tunnels and/or air ducts allowed.

4.8.4.1.15: No body streamlining is allowed (windshields, radiator grills, headlights, etc.).

4.8.4.1.16: Body seams may not be taped for practice, qualifying, or race sessions. Exception may be granted by the Technical Manager for the temporary repair of damaged parts. If permission is granted the tape must match the color of the portion of the car being taped, or be clear.

4.8.4.2.17: Headlight decals and taillight decals or the model's original taillights are required at all times. Two functioning brake lights in the approximate location of the stock taillights are required. Two functioning taillights are also required.

4.8.4.2.18: Vent windows, with or without air ducts, may be used at the A-pillar. The maximum dimension, measured along the bottom of the window opening in the door is eleven (11) inches. The trailing edge must be ninety (90) degrees from the top of the door to bottom of the window opening.

4.8.4.2.19: Mirrors of sufficient size/area must be mounted on both sides of the race car and allow the driver to clearly see cars to their left and right.

**4.8.5: CHASSIS/SUSPENSION:**
The chassis shall be designed to provide maximum protection to the driver. The intent of the following rules is to maintain the recognizable external features of the manufacturer's make and model while providing for necessary safety and performance modifications. Chassis must be produced by a "Trans Am Approved Manufacturer" and must be commercially available. For information on the approval process, contact the Trans Am Technical Manager. (Howe is an approved chassis manufacturer, others are pending for 2013). For older chassis rule see 4.8.5.9.

4.8.5.1: **Frame**

4.8.5.1.1: Configuration must be full-frame, front engine, front steering, rear drive, and shall provide all suspension mounting points. The frame must be constructed of mild steel tubing (SAE 1010, 1020, or 1025 recommended). All construction and materials must conform to all SCCA Pro Racing Rules (2013 PRR).

4.8.5.1.2: Each frame must have a permanent tag attached to identify the original manufacturer and serial number.

4.8.5.1.3: All cars must have mainframe rails of rectangular steel tubing with minimum dimensions of 2.0" x 3.0" x 0.083" wall thickness. Mainframe rails are defined as the lower outboard frame rails between the front firewall bulkhead and the rear main hoop bulkhead.

4.8.5.1.4: The roll cage and side door bars must be constructed of mild steel tubing and according the specifications found in Appendix J.

4.8.5.1.5: The minimum ground clearance for any part of the chassis, rearward of the centerline of the front tires is 3.50 inches

4.8.5.2: **Front Suspension**

4.8.5.2.1: Only basic-type coil-over, upper A-arm, with lower A-arm, or lower control arm/strut type front suspension is allowed.

4.8.5.2.2: The upper A-arm must made of steel and be 7.0"-11.0" long when measured from the center of the ball joint to the center of the cross shaft, or a line connecting the two spherical rod ends. Cross shafts, if used can be made of steel or aluminum.

4.8.5.2.3: Lower arms must be made of steel and be 13.0"-19.0" long when measured from the center of the ball joint to the center of the cross shaft, or a line connecting the two spherical rod ends (A-arm style); or from the center of the ball joint to the center of the spherical rod end (control arm style). Struts used in conjunction with control arm style arms may be made of steel or aluminum. Cross shafts, if used can be made of steel or aluminum.

4.8.5.2.4: Front spindles/uprights must be steel, designed for racing applications, and be commercially available to all competitors.

4.8.5.3: **Rear Suspension**

4.8.5.3.1: Only basic-type live solid axle, 3 link, coil-over suspension is allowed. This shall consist of two (2) fore/aft control arms, and a single third link arm. Independent rear suspensions are not allowed.

4.8.5.3.2: Axle housings may not rotate inside the axle mounting brackets (no birdcage designs).

4.8.5.3.3: A 3-link design shall consist of three (3) attaching points on the rear axle housing and three (3) attaching points on the chassis.

4.8.5.3.4: The two fore/aft control arms must be directed forward from the rear axle, be 23"-29" long, and run parallel to the car's centerline (+/- 10 degrees) in the plan view. Fore/aft control arms must be one piece (no springs/shocks/rockers). The control arm ends may be spherical rod ends or rubber/plastic bushings.

4.8.5.3.5: The single third link arm must be directed forward from the rear axle, be 15"-21" in length, and run parallel to the car's centerline (+/- 10 degrees) in the plan view. The third link arm ends may be spherical rod ends or rubber/plastic bushings. Spring-loaded and/or cushioned (torque absorbing) third link arms are allowed.

4.8.5.3.6: A Panhard bar or Watts linkage may be used to control rear suspension centering and lateral motion.

4.8.5.3.7: Driver-controlled adjustment of the suspension while the car is in motion is not allowed.

4.8.5.4: **Track Width**

4.8.5.4.1: The front and rear track width must be 63"- 65".

4.8.5.5: **Wheel Base**

4.8.5.5.1: The wheel base must be 102"-105", and be the same on both sides of the car (+/- .75").

4.8.5.6: **Shocks/Springs**

4.8.5.6.1: Only one coil-over shock/spring assembly may be used at each corner of the suspension.

4.8.5.6.2: Driver adjustable or electronically controlled shocks are not allowed.

4.8.5.7: **Anti-Roll Bars**

4.8.5.7.1: One (1) front and one (1) rear anti-roll bar are permitted.

4.8.5.7.2: Anti-roll bars must be made of steel. The arms may be made of steel or aluminum.

4.8.5.7.3: Driver adjustable anti-roll bars are not permitted.

4.8.5.8: **Steering**

4.8.5.8.1: The steering wheel must be mechanically coupled to the front wheels only (no "steer by-wire" or "four wheel" steering is allowed)

4.8.5.8.2: Power assisted steering is allowed.

4.8.5.9: **Older Chassis/Suspensions**

4.8.5.9.1: For 2013-TBD, race cars that competed in the Trans Am 2 class during 2010-2012, may continue to run the chassis/suspension combination that was used during that time period. Cars built in 2012 meeting the 2012 rules will also be allowed.

**4.8.6: WHEELS/TIRES/BRAKES**

4.8.6.1: Wheels must be 15"diameter specifically designed for racing. Wheel back spacing must be a minimum of 3.00 inches and a maximum of 7.00 inches. Maximum wheel width is 10". Wheels can be steel or aluminum and must weigh at least 18 pounds.

4.8.6.2: American Muscle cars must compete on Goodyear TBD race tires.

4.8.6.3: All vehicles must use dual master cylinder, 4-wheel disc brake systems.

4.8.6.4: Driver adjustable brake bias is allowed.

4.8.6.5: Brake rotors must be iron with a maximum diameter of 12.19", a minimum thickness of .810", and a maximum thickness of 1.25".

4.8.6.6: Brake fluid recirculators are allowed.

4.8.6.7: Inline blowers may be used in the brake cooling ducts.

4.8.6.8: Water cooling of the brakes is not allowed.

4.8.6.8: Electronically controlled anti-lock braking systems are not permitted.

4.6.6.9: Brake pad materials are unrestricted except for cost (4.8.2.1).

**4.8.7: DRIVETRAIN**

4.8.7.1: **TRANSMISSION/CLUTCH /BELLHOUSING**

4.8.7.1.1: Transmissions must be commercially available manual units with four forward gears and an operating, driver-engageable, reverse gear. All forward gears must be at least 1.00 inches thick. A manual "H-style" shift linkage is required. No sequential shift mechanisms are allowed. Ceramic bearings are not allowed.

4.8.7.1.2: The clutch is limited to no more than three steel disks and floater plates with a minimum clutch diameter of 5.25 inches. No carbon parts or carbon clutches are allowed.

4.8.7.1.3: Bellhousings must be Quarter Master, Tilton or meet requirements found in Appendix E. Transmissions must bolt directly to the rear bellhousing surface. (i.e. - the 10" spacers common in the Trans Am class are not allowed).

4.8.7.2: **DRIVESHAFT**

4.8.7.2.1: The driveshaft must be one piece and made of metal.

4.8.7.2.2: A minimum of two steel 360-degree driveshaft hoops shall be installed. The hoops must be of sufficient strength to contain the driveshaft in case of u-joint or driveshaft failure. The hoops shall be located within twelve (12) inches of the frontof the shaft and as close as practical to the rear u-joint.

4.8.7.3: **REAR END**

4.8.7.3.1:. All cars must utilize a commercially available quick change *or Ford 9"* rear end.

4.8.7.3.2: All axles and axle tubes must be made of steel.

4.8.7.3.3: Differentials must be of the Detroit Locker type (ratcheting), or the Trutrack type (helical/worm gear). A spool may also be used. Externally adjustable differentials are prohibited. Final drive units which permit ratio changes while the car is in motion are prohibited.

4.8.7.3.4: The maximum rear camber per wheel is +/- 2.0 degrees.

**4.8.8: ENGINES**

The "base" engine for Trans Am's American Muscle class is the GM LS3 as described in Addendum A. This engine can be used in all body types. Other engine packages are described in Addendums B, C and D. Specific rules for these engine packages are found in:

ADDENDUM A: American Muscle "Base" Engine

ADDENDUM B: American Muscle GM LS1 Engine

ADDENDUM C: American Muscle Traditional Carbureted Engine

ADDENDUM D: American Muscle Restricted Carbureted Engine

ADDENDUM E: Additional New American Muscle Engine Packages

As new engine packages are proposed, they will be evaluated by the Trans Am Series and may be added under these rules. New engines packages cannot exceed the American Muscle "Base" Engine's average power and torque levels over the normal operating RPM range. Any newly proposed engine package will be evaluated by the Trans Am Technical Manager. Evaluation will consist of the submission of a detailed American Muscle Engine Component Build Sheet, along with presenting a prototype engine for dynamometer testing. Contact the Trans Am Technical Manager for details.

The following rules apply to all engine packages:

4.8.8.1: All engines will be normally aspirated V-8s.

4.8.8.2: Engine offset is a maximum of 1.0 inch, measured from the crankshaft centerline to the longitudinal centerline of the chassis.

4.8.8.3: Engine setback is a maximum setback of TBD inches, measured from the left side top ball joint to the engine bellhousing flange.

4.8.8.4: Engine height is a minimum of 9.5 inches, measured from the center of the crankshaft centerline to the ground.

4.8.8.5: Alternators must be OEM type and must be belt driven. They may be driven off the engine or drivetrain components.

4.8.8.6: Water pumps must be OEM type. Water pump impellers may be altered for improved cooling. The OEM coolant flow direction must be maintained

4.8.8.7: Spark plugs are unrestricted.

4.8.8.8: The radiator must retain a stock appearance and must be located in front of the engine. The top of the radiator may be laid back a maximum of 3.00 inches from vertical.

4.8.8.9: Any commercially available exhaust system that meets the Trans Am sound requirements may be used. Exhaust systems may be constructed from mild or stainless steel, and be chromed, ceramic coated, and/or painted. No Inconel, titanium, or other high cost materials may be used.

**ADDENDUM A:**

**AMERICAN MUSCLE "BASE" ENGINE:**

**(GENERAL MOTORS LS3 ENGINE EXCEPT AS MODIFIED BELOW)**

A.1: A stock Mass Air Flow (MAF) sensor, GM part #25168491, or #15865791 must be used. Any commercially available air filter may be used. All tubes between the air filter and throttle body must be metal (except unions used to connect intake tubes). The maximum outside diameter of the tubes is 4.0 inches. No tapered tubing, tapered inserts, or airflow directing devices may be used in the tubing connecting the air filter to the throttle body.

A.2: The throttle body must be either a GM 90mm, electronic, part #12570790, or Edelbrock 90mm, mechanical, part #3869.

A.2.1: Throttle bodies may not be modified.

A.2.2: A 2.250 inch diameter flat plate restrictor must be in place during all practice, qualification, and race sessions. The restrictor must be mounted in the inlet side of the throttle body. The restrictor will be supplied by Trans Am Technical Manager at the start of each event, and must be returned at the conclusion of that event. Teams using the LS3 engine must notify the Trans Am Technical Manager, at least 3 weeks before their first race, to ensure an adequate supply of restrictors. Teams or engine builders wishing to test using the restrictor should contact the Technical Manager for a dimensional drawing of the plate, or to obtain a "loaner" plate.

A.3: An unmodified LS3 GM part # TBD (short), or L92 GM part # TBD (tall) intake manifold must be used. Identically equivalent GM part number intake manifolds may also be used. These part numbers include TBD.

A.4: Unmodified GM LS3 cylinder heads, GM casting #'s 0821, 0823, or 5364 must be used. Porting and/or polishing is not allowed. No more than a three angle valve job with a bottom cut of 60 degrees is permitted. A maximum of 0.250"inches from the head of the valve seat to the bottom of the 60 degree bottom cut is allowed. No grinding in the combustion chamber bowl area is allowed. No interior or exterior coatings are permitted. Valve covers are unrestricted.

A.5: The maximum compression ratio is 10.7:1.

A.6: The spec "American Muscle" camshaft must be used. Prior to use, each cam must be measured by the Trans Am Technical Manager. A Trans Am serial number will then be applied. The cam must be ordered through Schwanke Engines, (507.723.4120). Stock rocker arms, with a 1.7:1 ratio must be used. Stock valve spring retainers and keepers (locks/keys) must be used (no titanium). Any valve springs are allowed.

A.7: The stock engine bore is 4.065 inches (103.25 mm). Cylinders may be honed as part of the normal freshening

procedure, but the engine displacement cannot exceed 378 cubic inches.

A.8: The stock crankshaft, with a 3.622 inch (92 mm) stroke, must be used.

A.9: Aftermarket pistons, piston rings, piston pins and connecting rods may be used if the basic design and weight is the same as the stock GM components.

A.10: Aftermarket fasteners, including rod bolts are allowed (no titanium).

A.11: The oil pan is unrestricted, but the oiling system may not exceed a four-stage system (three scavenge and one pressure).

A.12: A GM ECU must be used. It may be re-flashed and the maximum RPM set at 6800 RPM.

**ADDENDUM B:**

**AMERICAN MUSCLE GM LS1"ENGINE:**

**(GENERAL MOTORS LS-1 CORVETTE ENGINE EXCEPT AS MODIFIED BELOW)**

B.1: A stock Mass Air Flow (MAF) sensor, GM part #25168491, or #15865791 must be used. Any commercially available air filter may be used. All tubes between the air filter and throttle body must be metal (except unions used to connect intake tubes). The maximum outside diameter of the tubes is 4.0 inches. No tapered tubing, tapered inserts, or airflow directing devices may be used in the tubing connecting the air filter to the throttle body.

B.2: Throttle bodies can be mechanically or electronically operated.

B.3: Intake manifold/fuel system options include:

B.3.1: A stock, unmodified LS-1 intake manifold, GM #12560894, with the stock GM 75 mm throttle body

B.3.2: A stock, LS-2 intake manifold, modified only to fit a 90 mm throttle body, with any 90 mm throttle body.

B.3.3: A stock, LS-6 intake manifold, GM #12573572 or #88894339, with the stock GM 75mm throttle body.

B.3.4: The fuel injection system may be completely replaced with a Holley carburetor, 650 CFM, double pumper, part #0-80541. The carburetor must be completely unmodified except for changing of jets and changes (safety wire or epoxy) to keep the booster nozzles from falling into the intake manifold. No porting, polishing or addition of any other material is permitted. A maximum 1.00 inch thick spacer may be used between the intake manifold and the carburetor. This conversion also requires a GM intake manifold #88958675 and a MSD #6010 timing module.

B.4: Unmodified LS cylinder heads, part numbers 241, 243, 799, or 853 must be used. Porting and/or polishing is not allowed. No more than a three angle valve job with a bottom cut of 60 degrees is permitted. A maximum of 0.250"inches from the head of the valve seat to the bottom of the 60 degree bottom cut is allowed. No grinding in the combustion chamber bowl area is allowed. No interior or exterior coatings are permitted.

B.5: The maximum compression ratio is 10.1:1.

B.6: The camshaft must be a GM #12480110 ("LS" V8 ASA cam).

B.6.1: Max lift, measured at the intake and exhaust valves, = 0.525 inches

B.6.2: Duration at .050" lift: intake = 226 degrees, exhaust = 236 degrees

B.6.3: Lobe center separation angle = 110 degrees

B.6.4: Stock rocker arms, with a 1.7:1 ratio must be used.

B.6.5: Stock valve spring retainers and keepers (locks/keys) must be used (no titanium).

B.6.6: Any valve springs are allowed.

B.7: The stock engine bore is 3.898 inch (99 mm). Cylinders may be honed as part of the nomal freshening procedure, but the engine displacement cannot exceed 350 cubic inches.

B.8: The stock crankshaft stroke, of 3.622 inch (92 mm) stroke, must be maintained.

B.9: The crankshaft may be replaced with Eagle # 434636226100. Rods may be replaced with Eagle # 612503D2000, Callies Compstar # 6125LS1, or Engine Pro# 10-1108-8.

B.10: Aftermarket fasteners, including rod bolts are allowed (no titanium).

B.11: The oil pan is unrestricted, but the oiling system may not exceed a four-stage system (three scavenge and one pressure).

B.12: A GM ECU must be used. It may be re-flashed and the maximum RPM set at 6800 RPM.

**ADDENDUM C:**

**AMERICAN MUSCLE TRADITIONAL CARBURETED ENGINE**

C.1: Air cleaners are required at all times. The air filter housing must be centered on the carburetor and all air entering the engine shall pass through the filter. The air filter element may not exceed 15.00 inches in diameter and the maximum element height is 4.00 inches.

C.2: The carburetor must be a Holley, 650 CFM, double pumper, part #0-80541. The carburetor must be completely unmodified except for changing of jets and changes (safety wire or epoxy) to keep the booster nozzles from falling into the intake manifold. No porting, polishing or addition of any other material is permitted. A maximum 1.00 inch thick

spacer may be used between the intake manifold and the carburetor

C.3: Intake Manifolds:

C.3.1: No modifications to the intake manifold are allowed. No porting, polishing or filling of ports with any kind of material is allowed. No internal or external coatings or painting of any type is allowed.

C.3.2: Chevrolet intake manifold must be an Edelbrock Victor Jr., part #2975.

C.3.3: Ford intake manifold must be an Edelbrock Victor Jr., part #2980 or #2981.

C.3.4: Chrysler intake manifold must be an Edelbrock Victor W-2, part #2920.

C.4: Cylinder Heads:

C.4.1: The minimum combustion chamber allowed is 62.0 cc and the internal cylinder head chamber dimensions must remain identical to the cylinder head's original chamber dimensions. Grinding for cc adjustments is allowable only in the combustion chamber cavity area. The cylinder head's original squish area must not be modified from the original dimensions at any point in the cylinder head. Porting and polishing is not allowed. No more than a three-angle valve job with a bottom cut of 60 degrees is permitted. A maximum of 0.250 inches from the head of the valve seat to the bottom of the 60-degree bottom cut is allowed. No interior or exterior coatings are permitted.

C.4.2: Maximum intake valve diameter is 2.020 inches. Maximum exhaust valve diameter is 1.600 inches. No titanium valves are allowed. Valve stem size must be a minimum of 11/32" and must remain as delivered from the manufacturer without modification. No pro-flow or any type of valve that steps down in diameter beyond the listed dimensions are allowed.

C.4.3: Chevrolet cylinder heads must be Dart Iron Eagle 200 cast iron heads, part #10310010, which replaced part #1112B and #1115B.

C.4.4: Ford cylinder heads must be Dart Iron Eagle 200 cast iron heads, part #5302B, or World Products' Windsor Sr. iron heads, part #053040.

C.4.5: Mopar cylinder heads must be Mopar Performance Econo W2, part #P4529994.

C.4.6: Valve covers are unrestricted.

C.5: The maximum compression ratio is 10.2:1.

C.6: Any roller or flat tappet camshaft with a maximum lift of 0.612 inches (measured at the valve with zero lash) may be used. Engle cam ¬ shaft part #RK-38 meets these specifications. The cam drive may use either a chain or belt system. Rocker arms may be any OEM, or roller bearing type. No split shaft or shaft mounted rocker arms are permitted. The maximum rocker arm ratio is 1.6:1.

C.7: Aftermarket engine blocks are allowed, but must be equal to or greater in weight and exterior dimensions compared to the original manufacturer of the make and model. No aftermarket aluminum blocks are allowed. Engine displacement can be a maximum of 358 cubic inches.

C.8: The crankshaft must be made of steel or iron. The stroke may be increased or decreased, but the minimum stroke length is 3.25 inches. The minimum (bare crank) allowable weight is 46 pounds. Lightweight, knife-edge, 180-degree, pendulum cut, scalloped, and/or undercut counterweight crankshafts are prohibited.

C.9: Aftermarket or OEM pistons must be any forged flat top version, however valve reliefs may be cut into the top surface. No portion of the piston may protrude from the block. Each piston must have two compression rings and one oil ring groove. The minimum wall thickness of the piston wrist pin must be .125 inches and must be made of steel. Any type of wrist pin locking device may be used. Connecting rods must be solid steel. No titanium, aluminum, stainless steel or composite rods are allowed.

C.10: Aftermarket fasteners, including rod bolts are allowed.

C.11: The oil pan is unrestricted, but the oiling system may not exceed a four-stage system (three scavenge, and one pressure).

C.12: Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver's side of the chassis. The ignition(s) must have a soft touch rev limit chip set at 7000 rpm (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate 7000 RPM rev limiter.

**NOTE:** It is Trans Am's intention to phase out this engine category in TBD

**ADDENDUM D:**

**AMERICAN MUSCLE RESTRICTED CARBURETED ENGINE**

D.1: Air cleaners are required at all times. The air filter housing must be centered on the carburetor and all air entering the engine shall pass through the filter. The air filter element may not exceed 15.00 inches in diameter and the maximum element height is 4.00 inches.

D.2: Any 4 barrel, modular carburetor may be used, subject to the following restrictions:

D2.1: Engines using a Holley, 650 CFM, double pumper, part #0-80541 will be limited to 7000 RPM. The carburetor

must be completely unmodified except for changing of jets and changes (safety wire or epoxy) to keep the booster nozzles from falling into the intake manifold. No porting, polishing or addition of any other material is permitted. A maximum 1.00 inch thick spacer may be used between the intake manifold and the carburetor.

D.2.2: Restricted engines using any other carburetor will be limited to 6500 RPM. A maximum 1.00 inch thick spacer may be used between the intake manifold and the carburetor.

D.3: Any intake manifold may be used.

D.4: Any cylinder heads may be used. Maximum intake valve diameter is 2.050 inches. Maximum exhaust valve diameter is 1.600 inches. No titanium valves are allowed. Valve covers are unrestricted

D.5: The maximum engine compression ratio is 9.5:1.

D.6: Any roller or flat tappet camshaft with a maximum lift of 0.550 inches (measured at the valve with 0 lash) may be used.

D.7: Aftermarket engine blocks are allowed, but must be equal to or greater in weight and exterior dimensions compared to the original manufacturer of the make and model. No aftermarket aluminum blocks are allowed. Engine displacement can be a maximum of 362 cubic inches.

D.8: The crankshaft must be made of steel or iron. The stroke may be increased or decreased, but the minimum stroke length is 3.25 inches. The minimum (bare crank) allowable weight is 46 pounds. Lightweight, knife-edge, 180-degree, pendulum cut, scalloped, and/or undercut counterweight crankshafts are prohibited.

D.9: Connecting rods must be solid steel. No titanium, aluminum, stainless steel or composite rods are allowed.

D.10: Aftermarket fasteners, including rod bolts are allowed.

D.11: The oil pan is unrestricted, but the oiling system may not exceed a four-stage system (three scavenge and one pressure).

D.12: Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver's side of the chassis. The ignition(s) must have a soft touch rev limit chip set at a maximum of 6500 or 7000 rpm depending the carburetor being used (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate RPM rev limiter.

**NOTE:** It is Trans Am's intention to phase out this engine category in TBD

## ADDENDUM E:

## ADDITIONAL NEW AMERICAN MUSCLE ENGINE PACKAGES

Specific rules for any new American Muscle engine packages will be established after the Trans Am Technical Manager has evaluated the proposed American Muscle Engine Component Build Sheet, and determined, through engine dynamometer testing, that the new engine package does not exceed the American Muscle "Base" engine's average power and torque levels over the normal operating RPM range. Contact the Trans Am Technical Manager for details on the engine approval process.

## APPENDIX M. SMG TECHNICAL REGULATIONS

The Spec Mustang class is for the S197 Ford Mustang *GT* built from 2005-2009. The goal of this class is to provide a fast and safe race car that is affordable to build *and maintain with readily available parts and a fully adjustable racing suspension*.

Cars must meet the general regulations of Section 9 of the SCCA General Competition Regulations (GCR) for Touring category cars.

Ford Racing Parts listed may or may not be available *from* Ford *Performance*. If, at any time *there is a loss of supply* of any of these parts, please notify *SMG* immediately *so that SMG,* as a group, *can* select an equivalent alternative.

The following items represent *approved* modifications and safety items permitted and/or required on Spec Mustangs*, in addition to* safety items required *by* Section 9 of the GCR. Permitted components or modifications must not perform a prohibited function.

**1. ELIGIBILITY**

- Ford Mustang GT hardtops with manual transmissions from 2005-2009 (S197)
- Bullitt Option Mustangs and Shelby GT Option Mustangs are *permitted*, but must be brought to spec per the rules and part numbers listed below.

**2. SPECIFICATIONS**

a. Engine Type:

SOHC 24-valve V-8, aluminum block and heads, port fuel injection Displacement: 281 cu in, 4601cc 4.6 liter)

b. Transmission: 5-speed manual, factory.

c. Dimensions: Wheelbase: 107.1 inches; Length: 188.0 inches; Width: 73.9 inches

Front and rear track measured from outside to outside of tires front and rear:

Front: 75 inches Rear: 74-3/8 inches

d. Weight with driver: 3400 lbs.

e. Allowed Interior Modifications

1. *R*emove all interior trim, door panels, sound system and components, air bags and related wiring, A/C, compressor and condenser with hoses/fittings, heater/heater motor/core, glove box, headliner, driver and passenger windows with hardware, column steering lock, seats and hardware/motors, carpeting and sound insulation, interior lighting, console. Radio/HVAC panel in center of dash may be removed. Otherwise, face of dash to remain intact with air vents removed. Blinkers and switches to be removed.
2. Driver "dead pedal" allowed.
3. Ballast, if required to be located on floor of front or rear passenger area, secured per GCR approved method.
4. Interior rear view mirror is open *and mandatory*.
5. *Emergency brake may be removed.*
6. *Removable steering wheel allowed.*

f. Body

1. Body to remain intact including rocker panel valance. *M*ust run the Steeda splitter and wing listed below. Fog lights may be removed and replaced with cosmetic panel. No flaring of fenders is allowed. Rolling of inner fender lips is allowed.
2. Stock windshield, rear backlight and quarter windows are required. Lexan is not allowed. Windshield and *backlight* may have retention straps installed.
3. Trunk lock assembly to be removed and replaced *with* external fastener(s).
4. Hood pins allowed *and encouraged*.
5. 1" square steel tube welded to inside body seam under each door for the purposes of jacking the car is allowed.
6. Stock *side* view mirrors to remain in place and functional.
7. Fuel cells are not allowed.

8. Radiator side air deflectors (M-8310-A or equivalent) and lower connecting plate is permitted as a replacement structure for air inlet flow to the radiator. It may not serve any other purpose and must be within the confined area of the OEM plastic lower air deflector. This will be used in conjunction with the OEM lower air deflector.

g. Safety

1. Cars must meet the safety regulations of Section 9 of the SCCA GCR for Touring category cars.
2. SCCA General Competition Regulations compliant head restraint racing seat to be installed for driver. Optional similar seat for passenger is allowed. In no circumstances will the roll cage obstruct the passenger area from being functional Six-point harness is required for driver and passenger (if seat is installed).
3. Window net *required* on driver's side.
4. SCCA compliant fire bottle or fire system required.
5. GCR compliant, (per Section 9.4 GT and Production Car specs) roll cage *required*, double side bars required both sides. SMG *roll cages* limited to 6 points of contact to the car. Optionally, two additional bars, extending forward to, but not penetrating the firewall for foot protection may be added. Additional gusseting connecting the cage to the body is also prohibited.
6. Master on/off switch to be mounted at lower front of driver's window, not to block rear view mirror.
7. *Steel* tow hooks required front and rear, *welded to bumpers*.

h. Suspension

1. The Cortex Racing Spec Mustang Xtreme-Grip Suspension Kit PN CCS-40-1000SPEC is required. Suspension modifications are limited to this kit as specified below. Any replacement of items in this kit must be the current component part number from this kit.
2. Either: Koni Struts and Rear Coilover Shock with Springs Kit comprised of single adjustable, Koni struts and Koni rear coilover dampers with matching springs. Strut system part number:

   *CSS-40-1000-JRI-SMG*, rear shock system PN: *SHK- 40-1000-JRI-SMG.*

   or

   JR Single Adjustable Coilover Kit Part #CCK-40-1000-JRI-SMG

   No mixing of the Koni and Jri shocks is allowed.

3. Spring rates: 600 lbs. OR 500 lbs., front, 450 lbs. OR 400 lbs. rear.

   Eibach part numbers:

   1. Front 0700.250.0600; 0700.250.0500
   2. Rear 0800.250.0400; 0800.250.0450

4. Maximum negative front camber is 3.5 degrees. The approved technique to accomplish this is by using the Cortex P/N CFS-40-ALIGN-SMG, SMG alignment kit (which includes camber slugs P/N CFS-40-1010), in all SMG strut housings. Installation guidelines are provided by Cortex. The Jri front strut housing will already have this feature. This CFS-40 kit is allowed, not required. But this IS the only allowed means to go beyond 3.0 degrees of negative camber. Potential tire clearance issues, resulting from this modification, are addressed in section: o.

   No machining of body to allow further travel.

   Caster: min. +6.35 max. +7.85

   Camber plate PN MM5CC-5 or CCP197-05-09.

   Figure 1: SMG Strut housing with Slotted Upper Hole. (Note: Jri housings have the slot on the bottom hole)

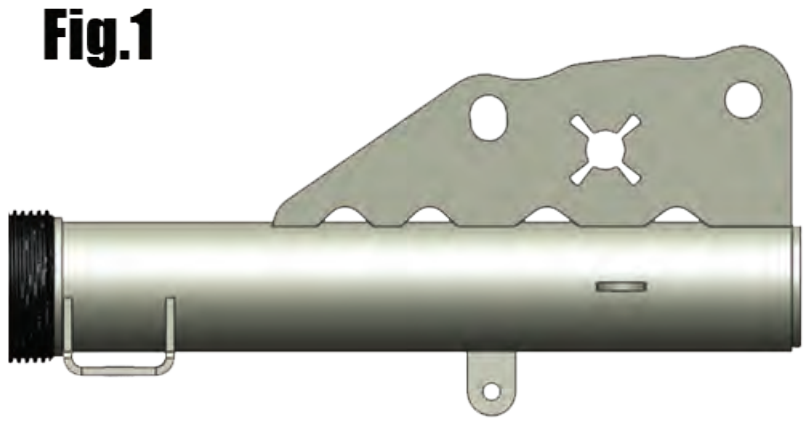
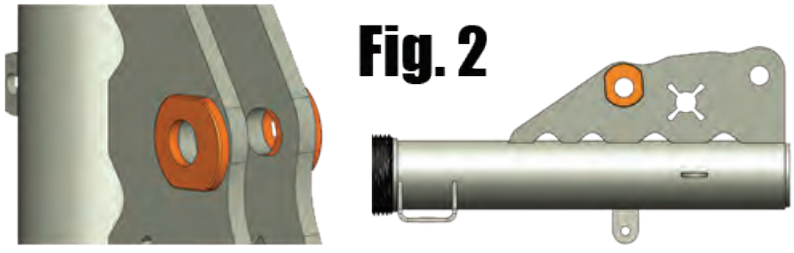



Figure 2: SMG Strut Housing with Camber Slug Installed.




*REAR:*

5. Bump stops - Stock rear bump stops require modification or removal to install the Cortex suspension. The shocks and struts that come with the Cortex Kit have bump stops installed and must be retained.
6. Cortex Rear lower control arm bracket, PN CLCA-40-1001 (left), CLCA-40-1003 (right).
7. Rear tubular lower control arms with heim joints and angle-correction spacers at both ends (set), PN CLCA-1000.
8. Rear shock mounts allowing fitment of up to 18" x 10.5" rear wheels, PN RUSM-40-1000L-ASSY, RUSM-40-1000R-ASSY, RLSM-40-1000L-ASSY, RLSM-40-1000R-ASSY.
9. Cortex Watts Link package, PN CWL-40-1000*SMG*
    a. Cortex's differential cover: incorporates the Watts pivot mount as well as provision for a differential cooler and temperature sensor (allowed option), PN CWL-1001.
    b. Eibach PN 35101.310 front, adjustable anti-sway bar or Ford Racing PN M5490A (Front only).
    c. Ford Racing PN M-20201F Strut tower brace – Also Hotchkiss PN 2016016.
    d. Upgraded ball joints (Steeda X5), PN 555-8108.
    e. Lower control arm part #M-3075-RA is allowed.

*FRONT:*

10. Allowed modification not included in Cortex Package: front, lower control arm bushings: Prothane PN 6-218-BL forward bushing PN 6-220-BL Rearward bushings (replace large hydro-bushing.. This is not seen as a significant performance enhancement, rather *and* a cost savings when bushings are worn. This allows them to be replaced without entire control arm replacement.
11. Cortex Racing Adjustable length anti-roll bar end links for corner balance, PN ARB-40-1002. (Included with CSS-40-1000*JRI-SMG*).
12. Cortex Racing bump steer adjustment kit, PN CBS-40-1000 (Included with CSS-40-1000SPEC).
13. Steeda 555-4104 upper link/differential mount spherical bearing is permitted.
14. Any type/origin of upper 3rd link and mount bracket assembly may be used. Factory original loca-

tions for mounting holes (on both body and differential) must be retained.

15. Rear anti-sway bar allowed – must be OEM, either 18 mm (6R335A771BB) or 22 mm (Ford Racing #M-5490-AR Eibach #35101.12).

16. Rear lower control arm to axle housing relocate bracket, and the rear lower shock mount bracket may be welded for reinforcement.

i. Brakes

1. StopTech STR40 Trophy front brake kit (PN 87.330.4C00.R1) with 355mmx35mm rotors (PN 31.747.1101.87, 31.747.1102.87) and the STR40 calipers (PN 379.444.7133, 379.44.7134). Aftermarket rotor of same size allowed.

2. Rear brakes stock caliper required. Aftermarket rotor of stock size allowed.

   Elimination of the parking brake and adjuster cylinder is allowed, which will require the installation of the StopTech knockback spring.

3. Shelby GT500 ABS module required Ford Racing PN M-2353A.

4. Stainless braided lines are allowed.

5. Brake pads are free.

6. Ducting to front and rear brakes is allowed.

7. Removal of dust shields front and rear is allowed (highly recommended).

8. The OEM brake booster assembly from a 2007-2009 Shelby GT500 (7R3Z-2005-AA/8R3Z-2005-AB) is permitted and rec-ommended.

j. Transmission/Differential

1. Stock transmissions: 5 speed to run with 3.73 ratio rear end.

2. Ford Racing Short-shift kit with knob PN M-7210T, Hurst PN 391-0201*, or* MGW Short Throw shifter for 2005-2009 Mustang GT. Stock shifter can be run.

3. Eaton Truetrac limited slip differential required (PN 913A561); overflow bottle allowed. If housed inside *trunk* this triggers need for full bulkhead of trunk area.

4. Driveshaft loop required.

5. Metallic, one-piece driveshaft is allowed.

k. Engine

1. No modifications to the engine are allowed except where specifically authorized within these rules. RACE-BUILT ENGINES ARE NOT ALLOWED. All engines will be as built and delivered by Ford Motor Company.

2. Cars in this class are to run stock 4.6 liter engines from 2005-2009 cars at no more than 315 rear wheel horsepower, and 325 ft lbs of torque. Updating or backdating of entire engine long block is allowed.

3. Dyno testing may be required if it appears that an engine in a competing car has an edge in power. Determination of any potential power advantage will be made by SCCA stewards. Test to be done at owner's expense by dyno shop approved by the SCCA.

4. Engine is to be unmodified internally. No balancing or blueprinting is allowed.

5. Ford Racing radiator required: M-8005-MGT or BE COOL PN 60205.

6. Ford Racing de-gas overflow bottle/radiator cap allowed: PN M-8080-A or Moroso PN 63768.

7. Long tube headers: Borla PN 17237 *with* X pipe (Ford Racing short tube on Miller cars grandfathered).

8. Cold air intake kit: M-9603-M463; Steeda #555-3131 or Ford Racing #M-9603-GT06.

9. Ford Racing power steering cooler required: Ford PN M3746A or Derale PN 13225.

10. Ford Racing idler pulley required: PN M19216-D46 or Dorman PN 34191.

11. ECU tuning is allowed not to exceed the HP limit regulation listed in this Engine section.

12. The Steeda PN 701-0005A which is an Underdrive Pulley System consisting of a water pump pulley and a SFI rated crankshaft pulley/damper" is allowed, but does not exempt competitor from meeting HP and torque limits. (Optional)

13. Fuel shall comply with GCR Section 9.3. Fuel.

14. Clutch replacement: The following specified replacement clutch parts are:
    a. Clutch disc Centerforce PN DF380800

       Clutch disc limited to OEM diameter (11") with OEM equivalent pressure plate and flywheel.
15. Stock pressure plate: Ford PN 8R3Z-7563-A or Sachs PN SC70272.
16. Dorman throw out bearing Ford PN 4R3Z-7A-508-AA, or Dorman PN CS650109.
17. Road racing oil pan, Moroso P/N 20548/18548 is allowed.
18. Ford Racing high volume oil pump #M-6600-F46 is allowed.
19. EVAP/emissions system components on engine and chassis may be modified, removed, or disabled, but, not vented from engine to exhaust or any vacuum source other than the engine air intake. An engine oil/air separator is permitted but is restricted to the driver's side PCV hose and must be mounted within the engine compart-ment. Charge motion delete plates or plugs are permitted. Throttle body spacers are NOT PERMITTED.
20. Ford Racing #M-6038-R or Prothane #6-505-BL motor mounts are permitted as a replacement to the OEM motor mounts. The engine must retain its original mounting location and height.

l. Exhaust

1. Stock GT exhaust to be retained with catalytic converters and resonators removed. Car to be legally able to run at 92db at 100 feet.

m. Electrical

1. *Stock wiring recommended but removal of unused wiring is allowed.*

n. Aero package

1. All Spec Mustangs will run the Steeda fixed rear wing, PN 307-0009
2. Splitter, two options allowed:
   a. Classic Design Concepts – Steeda PN 067-110020 Chin Spoiler-GT
   b. Front fascia that includes integrated splitter: Steeda part PN 555-0500
3. Miller Cup Mustang carbon fiber splitter grandfathered on original Miller cars.

o. Wheels/Tires

1. Jongbloed Wheel, Part PN 70010545 - 18" X 10.5" front and rear. All tires and wheels on car must be the same size.
2. Wheels for practice and rain conditions are free; they must all be the same size.
3. Tires: SMG cars competing in Touring Category may run any tire that meets 9.3 and that meets the size specified by the SMG rules *(max tire size 295, aspect ratio open). SMG cars competing elsewhere should consult the supplemental regulations for that event for any potential tire specification requirements when running as a regional only SMG class*.
4. 0.5" hub-centric wheel spacers are an allowed option in front only.

*p. Graphic Requirements:*

*1. All Spec Mustang must have SCCA Club Racing decals on each side and front per GCR, SMG Class stickers and numbers per GCR.*

*2. Other graphic requirements are based on annual sponsors, to be distributed accordingly.*

q. Allowed options

1. Tiger racing vented, fiberglass hood
2. AIM dash/transponder system
3. Oil Cooler - Derale PN 52508 *or equivalent*

## APPENDIX N. SPECE46 TECHNICAL REGULATIONS

1. Introduction

   Spec E46 is a road racing class based on BMW's E46 chassis that emphasizes high performance, vehicle consistency, reasonable cost, and ease of entry in order to provide a highly competitive, driver-focused racing experience.

2. Intent

   Spec E46 is a spec racing series combining vehicle equality with a high level of chassis performance and adjustability to maximize driver involvement. Engine development above a stock power level is not included in the intent of Spec E46. Future additions to this rulebook, potentially including but not limited to maximum power definitions, mandatory teardowns, and engine claim rules, can and will be made to eliminate engine development if needed to maintaincar parity within the originally intended budget.

3. Sanctioning Body

   In order to maximize participation and flexibility, Spec E46 is not targeted at any particular organization. However, in order to simplify this ruleset the SCCA GCR is referenced to cover safety and other items that are generally accepted.

4. Vehicle Eligibility

   The series is open to BMW E46-chassis 330 USDM models. This includes 2001-05 sedans and 2001-06 coupes. ZHP, 330xi, wagon, and convertible models are not permitted.

5. Safety
   1. Cars must meet the safety requirement of GCR section 9.
   2. A stationary fixed nozzle fire system must be installed.
   3. A master electrical kill switch must be installed.
   4. Steering wheel lock must be disabled.
   5. Airbags must be removed.
   6. Glass sunroof must be removed and replaced with a metal or composite panel securely attached to the roof.
   7. The roll cage must be of the standard six point design, or a 6+2 design with an additional two bars and associated chassis attachment points added for foot protection, provided that the foot protection bars do not go through the front firewall. *Cars may utilize OEM type steering column and transmission tunnel attachment points to the dash bar if equipped. A driver seat mounting cradle integrated into the cage structure may attach to the chassis at the transmission tunnel at two points, each with a maximum mounting surface of 40 sq. in. Factory brackets 41118239493 and 41118233493 may be modified or removed but may not provide additional attachment points.* No additional tabs or attachment points are permitted.

6. Definitions and Defaults
   1. Cars must compete as equipped by the manufacturer, except as permitted by these regulations.
   2. Addition, removal, modification, or disabling of parts is not permitted unless specified.
   3. OEM equivalent parts may be used provided they do not provide a performance advantage over stock.
   4. 'Replaced' means that parts may exceed OE specifications, provided they are mounted in the stock location and perform the same function.
   5. If a part may be removed any related brackets, fasteners, electrical components, etc may also be removed.

7. General Specifications
   1. Fuel must meet the requirements of GCR section 9.3 Fuel.
   2. All lubricating and hydraulic fluids may be replaced.
   3. All filters may be replaced.

8. Graphics
   1. Front fenders are reserved for sponsor and other required stickers.
   2. The area above each wheel is reserved for the tire sponsor.

9. Engine
   1. Regardless of factory specification or procedure, no oversize pistons are permitted.
   2. Compression ratio may be changed only within the tolerances affected by resurfacing for trueness and within factory tolerances, and shall not exceed 10.5:1 [exact value TBD] as measured by a whistler device.

3. Time-Sert or similar product may be used with threaded components.
4. Oil pan baffle may be added.
5. Spark plugs may be replaced.
6. Head gasket may be replaced with any gasket having the same or greater compression thickness as stock. Other engine gaskets and seals may be replaced.
7. Stock oil pump assembly may be modified.
8. Oil separator (CCV system) may be replaced.
9. Oil filter housing may be replaced with the E46 M3 part number 11 42 7 839 858.
10. Engine must be controlled by the stock ECU flashed with the Epic Motorsports Spec E46 tune. The Epic tamper proof seal must be intact.
11. Emissions related equipment may be removed.
12. Horsepower or other engine checks may be performed to ensure compliance.

10. Engine Bay
    1. Engine accessory belts may be replaced.
    2. Pulleys may be replaced with metal versions of the same diameter.
    3. Windshield washer system may be removed.
    4. Power steering hoses and reservoir may be replaced.
    5. Horn may be removed.
    6. All HVAC components may be removed.
    7. Fittings, adapters, senders, and sensors for monitoring or data acquisition systems may be added.
11. Cooling System
    1. Radiator may be replaced provided it retains the mounting points, plane of orientation, and requires no body or structure modification to install.
    2. Electric fan may be replaced, mechanical fan may be removed.
    3. Extraneous coolant hoses may be removed or plugged.
    4. Coolant hoses may be replaced or reconfigured.
    5. Thermostat may be replaced or an alternate configuration used.
    6. Water pump may be replaced, provided it remains mechanically driven.
    7. Alternate coolant expansion tank may be installed.
    8. Oil coolers for engine, transmission, and differential are allowed.
12. Exhaust System
    1. Exhaust system provided by BimmerWorld, 1004184 Race Exhaust and 1004187 Ypipe, must be used.
    2. Exhaust must mate to factory OBD2 E36 exhaust manifolds, part number 11 62 1 744 250 and 251.
    3. Air injection ports may be welded/filled and ground.
    4. Unmodified stock exhaust may be retained if the spec exhaust is not installed.
13. Drivetrain
    1. Either the 5 or 6-speed E46 330 manual transmission may be used.
    2. Flywheel and clutch assembly may be replaced provided they use the stock hydraulic actuating mechanism. Clutch must be a single disc type.
    3. Shifter mechanism may be replaced or modified.
    4. Motor and transmission mounts may be replaced *provided they are no more than 10mm shorter than stock*.
    5. Upgraded differential is permitted using a 3.46 gear ratio, factory housing, flanges, and mounting points. The internal parts of the differential are otherwise unrestricted, including the use of limited slip units.
    6. Finned and/or larger capacity differential cover may be used.
    7. Differential bushings may be replaced.
14. Suspension

1. Shocks must be MCS non-remote reservoir single-adjustable (1WNR). *OE bump stops in stock configuration may be used.*
2. Front springs must be Hyperco 6" 2.25" ID 750# part number 186A0750.
3. Rear springs must be Hyperco 5" 2.25" ID 850# part number 185A0850.
4. SSwaybars may be replaced provided they use stock mounting locations and either individual hole or sliding collar adjustment. Remote adjustable or *pivoting blade* bars are not permitted.
5. Swaybar links may be replaced.
6. Adjustable camber/caster plates are permitted. The three front strut mounting holes and center hole may be notched/trimmed to provide clearance for fitment or achieving full range of adjustment.
7. Any OE-spec E46 non-M3 front control arm may be used.
8. Front control arm bushings and housings may be replaced with a non-spherical bearing.
9. Rear upper shock mounts may be replaced.
10. Rear trailing arm bushings may be replaced with a non-spherical bearing.
11. Height adjustable rear spring adjusters may be added.
12. Rear lower control arms may be replaced.
13. *Rear lower control arm bushing may be replaced with BMW part number 33 32 6 775 551.*
14. *Headlights may be replaced with any complete, commercially available, functional headlight assemblies. Ballast may be removed from Xenon/HID lights. Bulb assemblies may be replaced.*

15. Tires and Wheels
    1. Wheels may be replaced, 17" diameter and maximum width 9".
    2. Wheels and tires must fit within the bodywork and fenders.
    3. Minimum wheel weight is 16.2 pounds.
    4. Wheel studs and lug nuts may be added.
    5. Wheel spacers may be used.
    6. Toyo RR *255/40-17 is the required tire.*
    7. *Toyo RA1 235/40-17 may be used instead of the RR.*

16. Brakes
    1. Brake pads may be replaced.
    2. Brake rotors may be replaced provided they are one piece steel.
    3. Dust shields may be removed or replaced.
    4. Flex lines may be replaced.
    5. Brake caliper guide bushings may be replaced.
    6. Parking brake may be removed.
    7. Ducting to the brakes is permitted. Two openings in the front valance to allow the passage of up to a three (3) inch diameter duct leading to each front brake are permitted for this purpose.

17. Body and Chassis
    1. Bumpers must be USDM OEM or non-M3 fitment replica of USDM M3.
    2. Factory rear trunk lid spoiler must be removed if installed.
    3. Engine under-tray panels may be removed.
    4. Fenders may be rolled inside for clearance but can not be visibly or measurably altered on the outside profile or width.
    5. Non-metallic inner fender liners may be removed.
    6. Screening of 1/4" minimum mesh may be added over all openings in the front of the vehicle, contained entirely with the bodywork of the vehicle.
    7. Side moldings, side reflectors, etc may be removed and attachment holes may be filled.
    8. Hood and trunk pins, clips, or positive action external latches may be added. If alternate parts are used the stock releases and components may be removed.
    9. Chassis reinforcements for the rear subframe, rear trailing arm pocket, front subframe, front strut

towers, and swaybar mounts may be added.

10. Rear subframe bushings may be replaced.
11. *Transmission cross member support may be replaced.*
12. Both driver and passenger front side windows may be removed. Side windows to the rear of the B-pillar may be permanently fixed in position.
13. Secondary fuel pump to minimize fuel starvation may be installed. The secondary fuel pump must be located in the fuel tank and have no other function. The M3 fuel pump baffle 16 11 2 229 656 may also be used.
14. Fuel filler neck may be modified, relocated, or replaced provided the fuel tank and capacity are unchanged.
15. Battery may be replaced *and/or relocated* provided the positive terminal is properly insulated.
16. Ballast is permitted and must be securely mounted within the passenger compartment or trunk. Ballast segments must not exceed 50 lbs.

18. Interior
    1. All non-essential hardware and material in the interior and trunk may be removed. This includes carpeting, headliner, sound and thermal insulation, lighting, HVAC components, audio systems, passenger and rear seats, seat belts, trim pieces, tools, spare wheel/tire, storage compartments. *Unibody structure may not be modified or removed unless otherwise specified.*
    2. Stock dash must be retained. The portion of the dash extending below the middle trim strip may be modified or removed. The factory dash support may be removed.
    3. Steering wheel may be replaced and a quick release added.
    4. Steering column may be mounted to the roll cage front cross bar if equipped.
    5. Driver side dead pedal/foot rest and pedal covers may be added.
    6. The stock instrument cluster may be removed and replaced with a panel suitable for mounting gauges. Areas directly behind the gauge panel may be modified/trimmed to accommodate gauge mounting.
    7. Driver and passenger outside mirrors may be removed, modified, or replaced provided that side mirror functionality is retained. Interior rear view mirror may be replaced.
    8. Inner door panels may be removed. If front door retains door glass and window regulators, interior door panels must be replaced with aluminum sheeting of 0.060-inch or thicker or comparable shatter-proof material, securely attached to the door.
    9. Rear bulkhead panel on non-folding rear seat cars may be cut out.
    10. Aesthetic panels or covers may be added provided they are not welded or structurally mounted.
    11. Interior door steel panels may be removed along with window regulators and lock mechanisms.
    12. Driver's door must be capable of being opened from both inside and outside the car.
    13. Rear side glass (coupe) or door glass (sedan) may be replaced with lexan provided it retains factory appearance. Ducts for driver comfort may also be utilized in these locations.
    14. Turn signal, headlight, and windshield wiper stalks may be modified, removed, or replaced with alternate switches located elsewhere in the driver compartment.
    15. Accessories including but not limited to gauges, dash systems, cool suits, helmet blowers, data acquisitions systems, video capture systems, two-way radios, and associated equipment are permitted, provided that such accessories are properly secured.

## APPENDIX O. SMALL REGIONAL EVENT STEWARD MODEL

This section is intended to provide Regions with an alternate Steward model for small Regional and Drivers' School events. Its intent is to reduce the required number of Race Officials and streamline some of the processes and procedures required at larger events.

Unless specifically listed below all other sections of the GCR shall apply.

**1. EVENTS**
This model may be used to conduct small Regional and Drivers' School events, about 70 entries or less. The Region may request its use with the approval of the Executive Steward. The Executive Steward will approve the number of entries allowed at the event.

**2. SUPPLEMENTAL REGULATIONS**
The Chief Steward with the approval of the host Region's representative may make changes to the event Supplemental Regulations prior to and during the event for reasons of errors, omissions, safety or forces beyond their control.

**3. REQUIRED STEWARDS**

A. The minimum stewards required for the event are the Chief Steward andand the Assistant Chief Steward Clerk of the Course (COC). The duties of the Chief Steward shall include the role traditionally assigned to the Assistant Chief Steward – Safety. The Chief Steward and the COC may delegate some of their authorities to other Stewards or Race Officials in attendance.

B. The Executive Steward shall appoint will approve the Chief Steward and the COC at the time the Small Event Request is made.

C. If a protest or RFA is not finalized at the event, the Executive Steward shall appoint a Stewards of the Meeting (SOM) court to hear and determine the outcome of the protest or RFA.

**4. STEWARDS**

A. Powers of the Chief Steward

1. Unless specifically altered in this section, the Chief Steward prior to and during the event, shall have all of the powers and responsibilities assigned to the Stewards of the Meeting in GCR Section 5.12.1, as well as Section 7, and Section 8.
2. In certain circumstances it may be necessary to defer a protest or RFA of an incident to the SOM. The Chief Steward shall inform all parties involved that the action will be processed by the SOM. The Chief Steward or his designee shall collect and forward all related information regarding the actions to the SOM. The SOM will make every effort possible to ensure the action will be processed in a timely manner.
3. The Chief Steward shall have all of the powers and responsibilities assigned to the Chief Steward in GCR Section 5.12.3, as well as Section 7, and Section 8.
4. The Chief Steward shall have all of the responsibilities assigned to the Assistant Chief Steward – Safety in GCR Section 5.12.4. The Chief Steward may delegate some of these responsibilities to other Stewards or Race Officials.

B. Assistant Chief Steward – Clerk of the Course (COC)

1. The COC is the Lead Operations Steward and primarily controls all on-track sessions and any other activities where circuit safety and functionality may be involved or impaired. These duties are performed in accordance with the GCR, supplemental regulations and schedule for the event.
2. The COC works under the authority of the Chief Steward. The COC, with the approval of the Chief Steward, may delegate responsibilities to other Stewards and Race Officials at any time as needed.

## 9.1.1. FORMULA CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 9.

The Formula Category is intended to provide the membership and interested manufacturers with the opportunity to compete in purpose built, highly modified open wheel single seat cars. The Club may alter or adjust specifications and require, permit, or restrict certain specific components to equate competitive potential.

In an effort to control shock/damper technology and cost to a level reasonable for Club Racing, any fluid dampers are allowed with the following restrictions:

1. Maximum of 4 dampers/shock absorbers per vehicle.

2. Dampers must be independent from each other with no interconnectivity. However, data acquisition is permissible, as long as it serves no other purpose.

3. Dampers must be manually adjustable only.

4. Mechatronic valves, G valves, hybrid inerters, inerters and mass dampers are prohibited.

5. Electro/Magnetic shock fluid is prohibited.

## A. FORMULA ATLANTIC PREPARATION RULES

Formula Atlantic is a restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions.

The SCCA shall publish Formula Atlantic Category Specifications containing the basic officially recognized specifications for each car eligible to compete in the Category during the calendar year. These classifications are listed in Table 2.

**1. General**

a. A single seat, four open wheeled racing car with firewall, floor, and safety equipment conforming to GCR Section 9. Homologation may be required. Refer to section 9.2.2. for details.

b. Cars shall be equipped with on-board self starter controlled by the driver in a normal driving position.

c. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel except for a removable steering wheel and/or cockpit padding.

d. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

e. Superchargers or turbochargers are not permitted.

f. Power shall not be applied to more than two (2) wheels.

g. Bodywork:

1. No part of the bodywork and aerodynamic devices shall exceed in height a horizontal plane 90cm (35.4") above the ground. The safety roll bar/roll cage and the engine air box are not included in this height restriction. Measurements are to be made as raced with driver on-board.

2. The overall maximum width of the bodywork behind the front wheels shall not exceed 130cm (51.18 inches). The maximum width of any aerodynamic device situated behind the rear wheels, including the rear wing, shall not exceed 110cm (43.307 inches).

3. The bodywork ahead of the front wheels may be extended to an overall maximum width of 150cm (59.055 inches) provided it does not extend beyond the outside of the front tires. Flexible or movable aerodynamic skirts are prohibited. No part of the body or suspended part of the car shall extend more than 1cm (0.394 inches) below the horizontal plane forming the bottom of the tub or chassis floor (both static or in motion).

4. Any part of the bodywork ahead of the front wheels exceeding an overall width of 110cm (43.307 inches) shall not extend above the height of the front wheel rims.

5. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle shall be mounted on the entirely sprung part of the car and shall be firmly fixed while the car is in motion. Aerodynamic devices, including wings and end plates, shall not extend to the rear more than one meter (39.4 inches) from the centerline of the rear wheel hubs.

6. Neither the safety roll bar nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating a vertical thrust.

7. The leading edge of an airfoil fixed to the front of the car shall not be sharp. Minimum radius -- 0.5cm (0.2 inches).

8. Cars registered with SCCA January 1, 1976, and after, shall be fitted with deformable structures per FIA regulations for Formula II as follows: Deformable Structure: The entire fuel tank area of the car licked by the airstream shall incorporate a crushable structure conforming to the following specifications. The term "licked by the airstream" is considered to define the complete external area of the body/monocoque construction irrespective of such added items as water radiators, inlet ducts, windscreens, etc.

   A. The crushable structure shall be a sandwich construction based on a fire-resistant core of minimum crushing strength of twenty-five (25) lbs./ square inch. Water pipes are permitted to pass through this core. The sandwich construction shall include two (2) sheets of 1.5mm (.060") thickness, one of which shall be aluminum sheet having a tensile strength of fourteen (14) tons/ square inch and a minimum elongation of five (5) percent.

   B. The use of a magnesium sheet will be authorized only if its thickness exceeds 3mm (.120").

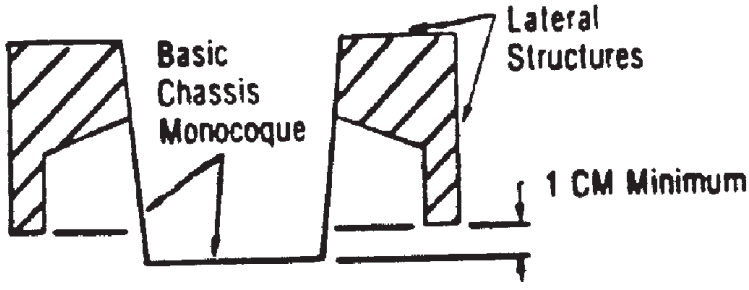
   C. The minimum thickness of the sandwich construction shall be 10mm (.3937"). The fore and aft fuel tank area, however, shall provide for a crushable structure of at least 100mm (3.937") thickness at such crushable structure's thickest point. The position of this widest point to be at the manufacturer's discretion over a length of at least 35cm (13.78") after which it may be gradually reduced to 10mm (.3937").

9. The minimum wheel diameter is thirteen (13) inches. Ex-FSV cars are permitted front wheel width: minimum six (6) inches, maximum eight (8) inches; rear wheel width: minimum eight (8) inches, maximum ten (10) inches. All other cars front wheel width: ten (10) inches; rear wheel width: minimum fourteen (14) inches, maximum fifteen (15) inches.

10. All cars with venturi section side pods (e.g. Ralt RT-4) shall comply to the following rule. Aerodynamic devices shall comply with the rules relating to bodywork. Any part having an aerodynamic influence and/or any part of the bodywork and attachments to the bodywork shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times. At any transverse section through the car from the rear edge of the front wheels to the forward edge of the rear wheels, no part of the car except the basic chassis/ monocoque structure shall be below a horizontal line situated 1cm (0.4") above the bottom of the chassis/ monocoque. This measurement will be taken without regard to bolt heads, rivets, etc.

    Movable or hinged skirts are prohibited. Flexible sidepod skirts are allowed on cars which have their primary load bearing structure (tub) constructed of ferrous or non-ferrous alloys. No part of the bodywork or suspended part of the car between the front and rear wheels shall extend more than one (l) cm (.3937") below the horizontal panel forming the bottom of the chassis. Within the above restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polypropylene, Telflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, plexiglass, plastic, and other materials which shatter or break-up causing hazardous track condition are prohibited.

    The intention of this Section (9.1.1.A.1.g.10.) is to control ground effects on all cars by prohibiting "sealing" or bridging the gap between the bodywork and the road surface, and to do so in a uniform and consistent manner. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.




h. Exhaust outlets shall be positioned not more than twenty-four (24) inches above the ground and shall not extend more than six (6) inches beyond the overall length of the car. In no case can the exhaust terminate more than 45.4" behind the centerline of the rear axle.

**2. Engines**

a. Engines shall be derived from automobiles and may be prepared for competition in accordance with SCCA GT preparation rules, except as specified in the Table below. OEM blocks and heads must be

used except when noted in the FA Engine Tables.

Note: If intake restrictors are specified, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. Restrictors shall be a minimum 0.060" thick and of the specified diameter. SIR location is unrestricted so long as all SIR criteria are met.

b. The following modifications are permitted.
   1. Any carburetor(s), fuel injection, or intake manifold(s), are permitted. Fuel injected engines shall use the specified intake restriction. Where Weber or Weber-type carburetors are specified and used, they shall retain their standard configuration of fuel distribution. This is to prohibit annular discharge carburetors.
   2. The use of any exhaust manifold(s).
   3. The use of any oil sump.
   4. The use of any oil pump(s).
   5. The use of a dry sump lubrication system.
   6. The bore, crankshaft, stroke, and flywheel are unrestricted, providing the appropriate specified displacement limit is not exceeded, unless restricted in the engine table above.
   7. Main bearing caps may be reinforced or substituted.
   8. The make and location of the ignition coil and condenser may be changed.
   9. Any distributor and/or transistor ignition may be used provided it's installation does not require any modification of the engine.
   10. Any make or type of spark plug may be used.
   11. The use of any starter is permitted provided it can be fitted without any modification to the engine.
   12. Substitution of the clutch and flywheel is allowed provided there is no increase in clutch diameter. The use of dowel pins is permitted.
   13. Any pistons and piston pins may be used.
   14. Any camshaft(s) may be used.
   15. Cam followers may be altered or substituted.
   16. It is permitted to lighten, balance, or modify in shape by tooling the standard or optional components of the engine, provided it is always possible to identify them positively as such. It is not permitted to add any material to the components unless specifically authorized.
   17. The use of any alternate engine components considered replacement parts such as seals, bearings, valve guides, nuts, bolts, studs, washers, and gaskets is allowed, provided they are of the same type and dimension. Bushings may be added where none are fitted as standard, provided they are concentric and that the centerline of the bushed part is not changed. Water and oil passages may be restricted or plugged. The substitution of valve springs, valve spring retainers, and keepers is permitted. Any pushrods may be used.
   18. Pulleys, including camshaft drive pulleys, may be altered or replaced with others of unrestricted origin. The use of any crankshaft vibration dampener is permitted.
   19. The compression ratio may be increased by machining, using any head gasket(s), or eliminating of head gasket(s), unless otherwise noted in the FA Engine Table at http://www.scca.com/clubracing/content.cfm?cid=44472.
   20. The installation of any engine vent or breather is permitted.
   21. Generator or alternator is unrestricted.
   22. The use of any rocker arms or rocker arm supports.
   23. Use of any connecting rod of the same basic material.
   24. Valves are unrestricted in both size and material, provided the valve centerline is not altered.
   25. Exhaust emission control air pumps, and associated lines and nozzles cannot be modified in any way except they may be completely removed. When these nozzles are removed from a cylinder head, the holes shall be completely plugged.
   26. The use of any fuel pump(s) is permitted.
   27. Valve or cam covers may be substituted.
   28. Any external surface of the engine may be plated, painted, or anodized.

29. Engines produced with a cam carrier as a separate and distinct piece from the cylinder head or engine block may replace that cam carrier with a cam carrier of other manufacture, provided the replacement cam carrier affords no additional function other than the original cam carrier and provided the type and number of camshaft bearings remains the same.

30. The replacement of any jack shaft or idler shaft with another of the same basic material as the standard shaft is permitted, provided it performs no additional function over the original shaft.

c. Honda Civic (K20Z3) Base Engine

a. General

1. No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Honda Civic factory service manual, Honda PN 61SNA05 and all superseding years, or as specified in these rules. The factory service manual or its equivalent is required to be in the possession of each entrant. The manual may be the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases.

2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.

3. All rubber fluid lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps maybe installed on the rubber coolant lines.

4. No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.

5. Only stock Honda manufactured gaskets and seals as specified in the Honda Civic factory service manual are permitted (Including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).

6. For all Honda part numbers in these specifications, superseding part numbers are considered equivalent.

b. Block

1. The only permitted cylinder block is Honda PN: 11000-RRB-810

2. Honing of cylinders is permitted to a maximum diameter of 86.070 mm (3.3886 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.

3. Block must use stock main bearing caps, girdle and hardware as supplied.

4. Minimum deck height from crank centerline: 211.95 mm (8.3445 inches).

c. Crankshaft

1. The stock Honda Civic crankshaft, Honda PN: 13310-PRB-A00, must be used with no modifications allowed.

2. Minimum weight: 37.5 lbs. No pilot bearing or bushing.

3. Maximum stroke at piston: 86.1 mm (3.390 inches)

4. Main and rod bearings must not be modified in any way. OEM bearings must be used from within the standard range as allowed in the Honda Civic factory service manual.

5. The crank pulsar must not be altered in any way.

6. The crank pulley/balancer must not be altered or modified in any way.

a. Minimum weight: 3.90 lbs.

b. Honda PN: 13810-RRB-A01.

d. Connecting Rods

1. Stock Honda Civic connecting rod must be used PN: 13320-PRB-A01.

2. Minimum connecting rod weight with cap and bolts: 580.0 grams (20.45 ounces).

3. Maximum connecting rod length center to center: 138.95 mm (5.470 inches).

e. Pistons

1. Honda Civic OEM standard size pistons, PN: 13010/13020-PRB-A01, must be used.

2. The use of oversize pistons is not permitted.

3. Piston dimensions and weights:
    a. Maximum standard piston diameter, measured at a point 11mm from the bottom of the skirt: 85.990 mm (3.3854 inches).
    b. Centerline of wrist pin to crown maximum: 32.7 mm (1.287 inches).
    c. Maximum overall height from skirt to crown edge: 52.1 mm (2.051 inches).
    d. Minimum weight: 320 grams (11.287 ounces).
    e. Minimum weight of piston pin: 87 grams (3.07 ounces).
    f. Combined minimum weight of piston, piston pin and connecting rod: 973 grams (34.32 ounces).
4. Piston rings must be as used in the K20Z3 engine. The only modification allowed is ring end gap width. Two compression rings and one 3 piece oil control ring must be used.
    a. The standard ring pack PN 13011-PRA-E02.
    b. No modification of the piston is permitted for the installation of rings.
    c. Ring groove widths.

    Top ring groove: 1.240mm (0.0488 inches) +/- 0.01mm.

    Middle groove: 1.235mm (0.0486 inches) +/- 0.01mm.

    Oil ring groove: 2.015mm (0.0793) +/- 0.01mm.

f. Cylinder Head
    1. The only permitted heads are Honda PN: 12100-RBC-000.
    2. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded or to a service limit of 0.2mm (0.008 inches) based on a height of 140mm (5.511 inches).
    3. The cylinder head must not be ported, polished or machined. The original casting must not be modified in any way or polished.
    4. Head gasket to be stock Honda Civic PN: 12251-RBC-004. Minimum compressed thickness of 0.70 mm +/- 0.05mm.

g. Camshaft
    1. The only permitted camshafts are PN: 14110-RRB-A00 (Intake) & 14120-PRB-A01 (Exhaust); must not be modified.
    2. The Cam, TDC, & Crankshaft pulse plates must be as supplied, Honda PN 14113-PNA-003 (Cam), 14114-PNA-003 (TDC) & 13622-RAA-A01 (Crankshaft).
    3. The camshaft and crankshaft sprockets must be as supplied, Honda PN: 14310-RBC-003 (Intake VTC Actuator Sprocket), 14210-PRB-A00 (Exhaust Camshaft Sprocket) and 13620-RAA-A02 (Crankshaft Sprocket). Cam timing must not be altered; the timing chain must be installed as specified in the Honda Civic factory service manual. The timing chain cover and crankshaft pulley may not be altered. With the engine at TDC (No. 1 cylinder), the TDC marks on the camshaft sprocket must line up with the each other horizontally and the indicator on the crankshaft sprocket or crank pulley should line up with the arrow on the cylinder block or timing chain case (respectively).
        a. Timing chain Honda PN: 14401-PNA-004.
        b. Cam Chain Case PN: 11410-RRA-A00
        c. Pulley comp, crankshaft, PN: 13810-RRB-A01
        d. Cam timing at 1mm after opening to 1mm before closing on center / VTEC lobes (+/- 2.0 degrees):
            i. Exhaust:
                1. Open: 139 degrees ATDC
                2. Peak Lift: 258.5 degrees ATDC (total cycle) or 101.5 degrees BTDC (partial cycle degree wheel indication)
                3. Closing: 377 degrees ATDC (total cycle) or 11 degrees ATDC (partial cycle degree wheel indication)

ii. Intake

1. Open: 15.5 degrees ATDC
2. Peak Lift: 135.5 degrees ATDC
3. Closing: 253 degrees ATDC (total cycle) or 107 degrees BTDC (partial cycle degree wheel indication)
4. Camshaft profile and lobe centers shall be checked using the official procedure published by the SCCA.
5. Cam lobe heights:
   a. Exhaust PRI (front): 32.772 mm
   b. Exhaust MID: 34.768 mm
   c. Exhaust SEC (rear): 32.661 mm
   d. Intake PRI (front): 32.791 mm
   e. Intake MID: 35.534 mm
   f. Intake SEC (rear): 32.678 mm
6. Maximum valve lift measured at the retainer:
   a. Exhaust PRI (front): 6.90.
   b. Exhaust MID: 10.70
   c. Exhaust SEC (rear): 7.10
   d. Intake PRI (front): 7.20.
   e. Intake MID: 12.00.
   f. Intake SEC (rear): 7.00
7. Valve Duration above 1mm measured at the retainer (+/- 2 degrees):
   a. Exhaust PRI (front): 94 degrees
   b. Exhaust MID: 116.5 degrees
   c. Exhaust SEC (rear): 96.5 degrees
   d. Intake PRI (front): 90.5 degrees
   e. Intake MID: 118.5 degrees
   f. Intake SEC (rear): 92.5 degrees
8. Valve rockers must not be modified in any way.
   a. Honda PN: 14620-PNA-040 Arm Assy, rocker.
9. The VTEC system must be stock. The VTEC activation valve must be stock. The HPD ECU will activate the VTEC at 4000 RPM. Honda PN: 15810-PRB-A03.
10. The timing chain tensioner may be replaced with an aftermarket alternative.

h. Valves

1. OEM valves must be as used in the Civic.
2. Dimensions
   a. Inlet PN: 14711-PRB-A01, Exhaust PN: 14721-PRB-A00
   b. Maximum diameter:
      i. Inlet: 35.15mm
      ii. Exhaust: 30.15mm
   c. Maximum overall length:
      i. Inlet: 109.10mm
      ii. Exhaust: 109.00mm
   d. Minimum stem diameter:

i. Inlet: 5.445mm

ii. Exhaust: 5.420mm

3. Valve location or angle must not be moved.
4. Reshaping of the valves is strictly prohibited.
5. Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts.
   a. Inlet PN: 12204-PNA-305 (over size)
   b. Exhaust PN: 12205-PNA-305 (over size).
6. It is permitted to replace or re-cut valve seats provided the valve seat angles are stock Honda three angle cut per the Honda Civic factory service manual.
7. Valve stem installed height must be per the Honda Civic factory service manual:
   a. Intake maximum: 44.7mm.
   b. Exhaust maximum: 44.8mm.
8. Valve stem seals must be Honda OEM parts.
   a. Honda PN: Intake: 12210-PZ1-004 seal A.
   b. Honda PN: Exhaust: 12211-PZ1-004 seal B.

i. Valve Springs

1. Valve springs are Honda OEM as specified in the Honda Civic factory service manual.
   a. Intake PN: 14761-PRB-A02, free length: 49.77mm.
   b. Exhaust PN: 14762-PRB-A02, free length: 50.39mm.
2. Valve spring shims are not permitted.

j. Compression Ratio

1. The maximum compression ratio is 11.0:1 utilizing Honda Civic factory service manual limits. Carbon may be removed.

k. Intake Manifold and Fuel System

1. The intake manifold and throttle body assembly must be used as delivered from HPD.
2. Intake manifold may be machined for the purposes of port matching only. Any work done to the intake manifold must not reach beyond 1.00" into the ports.
3. The fuel rail and fuel injectors must be stock Honda Civic OEM parts (PN 16450-RBB-003).

l. Fuel Pump

1. The fuel pump is unrestricted.

m. Exhaust Manifold

1. The Lambda sensor placement must be within 24 – 48 inches from the head mating surface.
2. Exhaust coatings and wraps and heat shields may be used to control engine bay temperatures and protect other components.

n. Lubrication System

1. The oil sump and pump must be as supplied by HPD. No modifications are permitted.
2. Hose routing and filter system are unrestricted.

o. Cooling System

1. Water pump must be stock Honda Civic parts. No modifications are permitted.

   Honda PN: 19200-RBC-013 Pump, Water.
2. Thermostat is unrestricted provided the housing is not modified. The thermostat bypass may be plugged using the HPD Mechanical Water Pump Dress Kit PN: 19220-F25S-A200.
3. Drive belt manufacture is unrestricted.
4. Radiator is unrestricted.

p. Electrical Equipment

1. The ECU and engine electrical harness must be as supplied by HPD. No modifications are permitted.
2. The ECU will be a sealed unit supplied by HPD. The ECU maps and inputs must not be modified The ECU is capable of being swapped in the case of a protest.
3. Ignition coils must be stock Honda Civic, PN: 30520-RRA-007. No modifications are permitted.
4. All sensors related to engine operating parameters and/or supplied by HPD must be used. These sensors, their locations and mounts, and their wiring harness leads may not be altered or "piggy backed". Any sensors required for analog type gauges must be in addition to the HPD supplied sensors.
5. The alternator and all drive system pulleys may be replaced except that the stock crankshaft pulley must be used. The alternator must not be disabled and must be accessible to SCCA officials.

q. Miscellaneous

1. All emission control devices must be removed and blocked off by the blanking hardware provided by HPD, except the VTEC activation solenoids. The VTC & VTEC activation solenoids must be retained and functioning in the original conditions.
2. Air filter is unrestricted.
3. The use of unleaded premium "pump" gas with a minimum of 91 RON is required. Leaded race fuel is not allowed and can cause serious damage to the engine.
4. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component.
    a. Fasteners – nuts, bolts, screws, washers, studs, etc. Head bolts, rod bolts, flywheel bolts, and crank pulley bolt may be substituted by sufficiently designed, direct, of the shelf replacements.
    b. Gaskets and seals, except those specified in the above rules.
    c. Spark plugs.
    d. Mechanical tachometer and analog gauges.

d. Honda Civic (K20Z3) Uprated Engine

a. General

1. No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Honda Civic factory service manual, Honda PN 61SNA05 and all superseding years, or as specified in these rules. The factory service manual or its equivalent is required to be in the possession of each entrant. The manual may be the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases.
2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.
3. All rubber fluid lines may be replaced with braided metal covered (Aeroquip type) lines. Hose clamps maybe installed on the rubber coolant lines.
4. No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.
5. Only stock Honda manufactured gaskets and seals as specified in the Honda Civic factory service manual are permitted (Including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).
6. For all Honda part numbers in these specifications, superseding part numbers are considered equivalent.

b. Block

1. The only permitted cylinder block is Honda PN: 11000-RRB-810
2. Honing of cylinders is permitted to a maximum diameter of 86.070 mm (3.3886 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.

3. Block must use stock main bearing caps, girdle and hardware as supplied.
4. Minimum deck height from crank centerline: 211.95 mm (8.3445 inches).

c. Crankshaft

1. The stock Honda Civic crankshaft, Honda PN: 13310-PRBA00, must be used with no modifications allowed.
2. Minimum weight: 37.5 lbs. No pilot bearing or bushing.
3. Maximum stroke at piston: 86.1 mm (3.390 inches)
4. Main and rod bearings must not be modified in any way. OEM bearings must be used from within the standard range as allowed in the Honda Civic factory service manual.
5. The crank pulsar must not be altered in any way.
6. The crank pulley/balancer must not be altered or modified in any way.
   a. Minimum weight: 3.90 lbs.
   b. Honda PN: 13810-RRB-A01.

d. Connecting Rods

1. Stock Honda Civic connecting rod must be used PN: 13320-PRB-A01.
2. Minimum connecting rod weight with cap and bolts: 580.0 grams (20.45 ounces).
3. Maximum connecting rod length center to center: 138.95 mm (5.470 inches).

e. Pistons

1. Honda Civic OEM standard size pistons, PN: 13010/13020-PRB-A01, must be used.
2. The use of oversize pistons is not permitted.
3. Piston dimensions and weights:
   a. Maximum standard piston diameter, measured at a point 11mm from the bottom of the skirt: 85.990 mm (3.3854 inches).
   b. Centerline of wrist pin to crown maximum: 32.7 mm (1.287 inches).
   c. Maximum overall height from skirt to crown edge: 52.1 mm (2.051 inches).
   d. Minimum weight: 320 grams (11.287 ounces).
   e. Minimum weight of piston pin: 87 grams (3.07 ounces).
   f. Combined minimum weight of piston, piston pin and connecting rod: 973 grams (34.32 ounces).
4. Piston rings must be as used in the K20Z3 engine. The only modification allowed is ring end gap width. Two compression rings and one 3 piece oil control ring must be used.

a. The standard ring pack PN 13011-PRA-E02.

b. No modification of the piston is permitted for the installation of rings.

c. Ring groove widths.

Top ring groove: 1.240mm (0.0488 inches) +/- 0.01mm.

Middle groove: 1.235mm (0.0486 inches) +/- 0.01mm.

Oil ring groove: 2.015mm (0.0793) +/- 0.01mm.

f. Cylinder Head

1. The only permitted heads are Honda PN: 12100-RBC-000.
2. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded or to a service limit of 0.2mm (0.008 inches) based on a height of 140mm (5.511 inches).
3. The cylinder head must not be ported, polished or machined. The original casting must not be modified in any way or polished.
4. Head gasket to be stock Honda Civic PN: 12251-RBC-004. Minimum compressed thickness of 0.70 mm +/- 0.05mm.

g. Camshaft

1. The only permitted camshafts are PN: 14110-RRB-A00

   (Intake) & 14120-PRB-A01 (Exhaust); must not be modified.

2. The Cam, TDC, & Crankshaft pulse plates must be as supplied, Honda PN 14113-PNA-003 (Cam), 14114-PNA-003 (TDC) & 13622-RAA-A01 (Crankshaft).

3. The camshaft and crankshaft sprockets must be as supplied, Honda PN: 14310-RBC-003 (Intake VTC Actuator Sprocket), 14210-PRB-A00 (Exhaust Camshaft Sprocket) and 13620-RAA-A02 (Crankshaft Sprocket). Cam timing must not be altered; the timing chain must be installed as specified in the Honda Civic factory service manual. The timing chain cover and crankshaft pulley may not be altered. With the engine at TDC (No. 1 cylinder), the TDC marks on the camshaft sprocket must line up with the each other horizontally and the indicator on the crankshaft sprocket or crank pulley should line up with the arrow in the cylinder block or timing chain case (respectively).

a. Timing chain Honda PN: 14401-PNA-004.

b. Cam Chain Case PN: 11410-RRA-A00

c. Pulley comp, crankshaft, PN: 13810-RRB-A01

d. Cam timing at 1mm after opening to 1mm before closing on center / VTEC lobes (+/- 2.0 degrees):

   i. Exhaust:

      1. Open: 139 degrees ATDC

      2. Peak Lift: 258.5 degrees ATDC (total cycle) or 101.5 degrees BTDC (partial cycle degree wheel indication)

      3. Closing: 377 degrees ATDC (total cycle) or 11 degrees ATDC (partial cycle degree wheel indication)

   ii. Intake

      1. Open: 15.5 degrees ATDC

      2. Peak Lift: 135.5 degrees ATDC

      3. Closing: 253 degrees ATDC (total cycle) or 107 degrees BTDC (partial cycle degree wheel indication)

      4. Camshaft profile and lobe centers shall be checked using the official procedure published by the SCCA.

      5. Cam lobe heights:

         a. Exhaust PRI (front): 32.772 mm

         b. Exhaust MID: 34.768 mm

         c. Exhaust SEC (rear): 32.661 mm

         d. Intake PRI (front): 32.791 mm

         e. Intake MID: 35.534 mm

         f. Intake SEC (rear): 32.678 mm

   6. Maximum valve lift measured at the retainer:

      a. Exhaust PRI (front): 6.90.

      b. Exhaust MID: 10.70

      c. Exhaust SEC (rear): 7.10

      d. Intake PRI (front): 7.20.

      e. Intake MID: 12.00.

      f. Intake SEC (rear): 7.00

   7. Valve Duration above 1mm measured at the retainer (+/- 2 degrees):

      a. Exhaust PRI (front): 94 degrees

      b. Exhaust MID: 116.5 degrees

c. Exhaust SEC (rear): 96.5 degrees
d. Intake PRI (front): 90.5 degrees
e. Intake MID: 118.5 degrees
f. Intake SEC (rear): 92.5 degrees

8. Valve rockers must not be modified in any way.
   a. Honda PN: 14620-PNA-040 Arm Assy, rocker.
9. The VTEC system must be stock. The VTEC activation valve must be stock. The HPD ECU will activate the VTEC at 4000 RPM. Honda PN: 15810-PRB-A03.
10. The timing chain tensioner may be replaced with a suitable aftermarket alternative.

h. Valves
   1. OEM valves must be as used in the Civic.
   2. Dimensions
      a. Inlet PN: 14711-PRB-A01, Exhaust PN: 14721-PRBA00
      b. Maximum diameter:
         i. Inlet: 35.15mm
         ii. Exhaust: 30.15mm
      c. Maximum overall length:
         i. Inlet: 109.10mm
         ii. Exhaust: 109.00mm
      d. Minimum stem diameter:
         i. Inlet: 5.445mm
         ii. Exhaust: 5.420mm
   3. Valve location or angle must not be moved.
   4. Reshaping of the valves is strictly prohibited.
   5. Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts.
      a. Inlet PN: 12204-PNA-305 (over size)
      b. Exhaust PN: 12205-PNA-305 (over size).
   6. It is permitted to replace or re-cut valve seats provided the valve seat angles are stock Honda three angle cut per the Honda Civic factory service manual.
   7. Valve stem installed height must be per the Honda Civic factory service manual:
      a. Intake maximum: 44.7mm.
      b. Exhaust maximum: 44.8mm.
   8. Valve stem seals must be Honda OEM parts.
      a. Honda PN: Intake: 12210-PZ1-004 seal A.
      b. Honda PN: Exhaust: 12211-PZ1-004 seal B.
         i. Valve Springs
            1. Valve springs are Honda OEM as specified in the Honda Civic factory service manual.
               a. Intake PN: 14761-PRB-A02, free length: 49.77mm.
               b. Exhaust PN: 14762-PRB-A02, free length: 50.39mm.
            2. Valve spring shims are not permitted.

j. Compression Ratio
   1. The maximum compression ratio is 11.0:1 utilizing Honda Civic factory service manual limits. Carbon may be removed.

k. Intake Manifold and Fuel System

1. The intake manifold and throttle body assembly must be used as delivered from HPD.
2. The fuel rail and fuel injectors must be stock Honda Civic OEM parts (PN 16450-RBB-003).

l. Fuel Pump

1. The fuel pump is unrestricted.

m. Exhaust Manifold

1. The Lambda sensor placement must be within 24 – 48 inches from the head mating surface.
2. Exhaust coatings and wraps and heat shields may be used to control engine bay temperatures and protect other components.

n. Lubrication System

1. The oil sump and pump must be as supplied by HPD. No modifications are permitted.
2. Hose routing and filter system are unrestricted.

o. Cooling System

1. Water pump and water pump pulley must be stock Honda Civic parts. No modifications are permitted. Honda PN: 19200-RBC-013 Pump, Water.
2. Thermostat is unrestricted provided the housing is not modified. The thermostat bypass may be plugged using the HPD Mechanical Water Pump Dress Kit PN: 19220-F25S-A200.
3. Drive belt manufacture is unrestricted.
4. Radiator is unrestricted.

p. Electrical Equipment

1. The ECU and engine electrical harness must be as supplied by HPD. No modifications are permitted.
2. The ECU will be a sealed unit supplied by HPD. The ECU maps and inputs must not be modified The ECU is capable of being swapped in the case of a protest.
3. Ignition coils must be stock Honda Civic, PN: 30520-RRA-007. No modifications are permitted.
4. All sensors related to engine operating parameters and/or supplied by HPD must be used. These sensors, their locations and mounts, and their wiring harness leads may not be altered or "piggy backed". Any sensors required for analog type gauges must be in addition to the HPD supplied sensors.
5. The alternator and all drive system pulleys may be replaced except that the stock crankshaft pulley must be used. The alternator must not be disabled and must be accessible to SCCA officials.

q. Miscellaneous

1. All emission control devices must be removed and blocked off by the blanking hardware provided by HPD, except the VTEC activation solenoids. The VTC & VTEC activation solenoids must be retained and functioning in the original conditions.
2. Air filter is unrestricted.
3. The use of unleaded premium "pump" gas with a minimum of 91 RON is required. Leaded race fuel is not allowed and can cause serious damage to the engine.
4. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component.
    a. Fasteners – nuts, bolts, screws, washers, studs, etc. Head bolts, rod bolts, flywheel bolts, and crank pulley bolt may be substituted by sufficiently designed, direct, of the shelf replacements.
    b. Gaskets and seals, except those specified in the above rules.
    c. Spark plugs.
    d. Mechanical tachometer and analog gauges.

e. Honda Civic (K20Z3) Engine for Swift 016 only

The following upgrades are allowed for the Honda Civic (K20Z3) as listed in the rules above for use in the Swift 016 only

a. General

1. No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Honda Civic factory service manual, Honda PN 61SNA05 and all superseding years, or as specified in these rules. The factory service manual or its equivalent is required to be in the possession of each entrant. The manual may be the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases.
2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.
3. All rubber fluid lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps maybe installed on the rubber coolant lines.
4. No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.
5. Only stock Honda manufactured gaskets and seals as specified in the Honda Civic factory service manual are permitted (Including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).
6. For all Honda part numbers in these specifications, superseding part numbers are considered equivalent.

b. Block

1. The only permitted cylinder block is Honda PN: 11000-RRB-810
2. Honing of cylinders is permitted to a maximum diameter of 86.070 mm (3.3886 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.
3. Block must use stock main bearing caps, girdle and hardware as supplied.
4. Minimum deck height from crank centerline: 211.95 mm (8.3445 inches).

c. Crankshaft

1. The stock Honda Civic crankshaft, Honda PN: 13310-PRB-A00, must be used with no modifications allowed.
2. Minimum weight: 37.5 lbs. No pilot bearing or bushing.
3. Maximum stroke at piston: 86.1 mm (3.390 inches)
4. Main and rod bearings must not be modified in any way. OEM bearings must be used from within the standard range as allowed in the Honda Civic factory service manual.
5. The crank pulsar must not be altered in any way.
6. The crank pulley/balancer must not be altered or modified in any way.

    a. Minimum weight: 3.90 lbs.

    b. Honda PN: 13810-RRB-A01.

d. Connecting Rods

1. Stock Honda Civic connecting rod must be used PN: 13320-PRB-A01.
2. Minimum connecting rod weight with cap and bolts: 580.0 grams (20.45 ounces).
3. Maximum connecting rod length center to center: 138.95 mm (5.470 inches).
4. Piston pin bore should be honed out to a diameter of 22.000 +0.005 ~ +0.009 mm

e. Pistons

1. HPD supplied pistons, PN: 13100-FC4Y-A000 (kit of 4 with rings, pins, and circlips), must be used.
2. The use of oversize pistons is not permitted.
3. Piston dimensions and weights:

    a. Maximum standard piston diameter, measured at approximately6mm from the bottom of the skirt: 85.925 mm (3.3829 inches).

    b. Centerline of wrist pin to crown maximum: 38.5 +/- 0.15 mm (1.516 inches).

c. Maximum overall height from skirt to crown edge: 48.0 mm (1.89 inches).

d. Minimum weight: 325 grams (11.46 ounces).

e. Minimum weight of piston pin: 101 grams (3.56 ounces).

f. Combined minimum weight of piston, piston pin and circlips: 448 grams (15.80 ounces).

4. Piston rings must be as supplied in the piston kit. The only modification allowed is ring end gap width. Two compression rings and one 3 piece oil control ring must be used.

a. No modification of the piston is permitted for the installation of rings.

b. Ring groove widths.

Top ring groove: 1.22mm (0.0480 inches) +/- 0.01mm.

Middle groove: 1.22mm (0.0480 inches) +/- 0.01mm.

Oil ring groove: 2.82mm (0.1110 inches) +/- 0.01mm.

f. Cylinder Head

1. The only permitted heads are Honda PN: 12100-RBC-000.

2. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded, or to a service limit of 0.2mm (0.008 inches) based on a height of 140mm (5.511 inches).

3. The cylinder head may be ported, polished or machined for port matching purposes only, on the intake and exhaust. Any work done to the cylinder head must not reach beyond 1.00" into the ports.

4. Head gasket to be stock Honda Civic PN: 12251-RBC-004. Minimum compressed thickness of 0.70 mm +/- 0.05mm.

5. Valve guides may be machined flush with the port, or otherwise removed and replaced with a suitable alternative. Guide material is unrestricted.

g. Camshaft

1. The only permitted camshafts are PN: 14100-FC4Y-A000 (IN & EX set); must not be modified.

a. Timing chain Honda PN: 14401-PNA-004.

b. Cam Chain Case PN: 11410-RRA-A00

c. Pulley comp, crankshaft, PN: 13810-RRB-A01

d. Cam timing at 1mm after opening to 1mm before closing on center / VTEC lobes (+/- 5.0 degrees):

i. Exhaust:

1. Open: 135 degrees ATDC

2. Peak Lift: 280.0 degrees ATDC (total cycle) or 100.0 degrees BTDC (partial cycle degree wheel indication)

3. Closing: 386 degrees ATDC (total cycle) or 26 degrees ATDC (partial cycle degree wheel indication).

ii. Intake

1. Open: 2.0 degrees ATDC

2. Peak Lift: 135 degrees ATDC

3. Closing: 264 degrees ATDC (total cycle) or 96 degrees BTDC (partial cycle degree wheel indication).

2. Camshaft profile and lobe centers shall be checked using the official procedure published by the SCCA.

3. Cam lobe heights:

a. Exhaust PRI (front): 33.40 mm

b. Exhaust MID: 35.30 mm

c. Exhaust SEC (rear): 33.40 mm

d. Intake PRI (front): 33.75 mm

e. Intake MID: 36.20 mm
f. Intake SEC (rear): 34.20 mm

4. Maximum valve lift measured at the retainer:
   a. Exhaust PRI (front): 8.00 mm
   b. Exhaust MID: 12.2 mm
   c. Exhaust SEC (rear): 8.00 mm
   d. Intake PRI (front): 8.50 mm
   e. Intake MID: 13.50 mm
   f. Intake SEC (rear): 9.50 mm
5. Valve Duration above 1mm measured at the retainer (+/- 5 degrees):
   a. Exhaust PRI (front): 202.0 degrees
   b. Exhaust MID: 250.0 degrees
   c. Exhaust SEC (rear): 202.0 degrees
   d. Intake PRI (front): 202.0 degrees
   e. Intake MID: 262.0 degrees
   f. Intake SEC (rear): 210.0 degrees
6. Valve rockers must not be modified in any way. Honda PN: 14620-PNA-040 Arm Assy, rocker.
7. The VTEC system must be stock. The VTEC activation valve must be stock. Honda PN: 15810-PRB-A03.
8. The timing chain tensioner may be replaced with a suitable aftermarket alternative, but must remain as a ratcheting, adjustable type (no solid tensioners allowed).

h. Valves
1. OEM valves must be as used in the Civic.
2. Dimensions
   a. Inlet PN: 14711-PRB-A01, Exhaust PN: 14721-PRB-A00
   b. Maximum diameter:
      i. Inlet: 35.15mm
      ii. Exhaust: 30.15mm
   c. Maximum overall length:
      i. Inlet: 109.10mm
      ii. Exhaust: 109.00mm
   d. Minimum stem diameter:
      i. Inlet: 5.445mm
      ii. Exhaust: 5.420mm
4. Valve location or angle must not be moved.
5 Reshaping of the valves is strictly prohibited.

Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts or a suitable equivalent. Guide material is unrestricted.

i. Valve Springs
1. HPD supplied valve springs, seats, and retainers (Titanium) must be used PN: 14700-FC4Y-A000 (set of 16 springs, seats, and retainers).
   a. Valve spring seat load should be approximately 92 lbs.
2. Valve spring shims are not permitted.

j. Compression Ratio

1. The maximum compression ratio is 12.7:1 +/- 0.2.

k. intake Manifold and Fuel System

1. The intake manifold and throttle body assembly must be used as delivered from HPD.
2. Intake manifold may be machined for the purposes of port matching only. Any work done to the intake manifold must not reach beyond 1.00" into the ports.
3. The fuel rail and fuel injectors must be stock Honda Civic OEM parts (Fuel Injector PN: 16450-RBB-003, Fuel Rail PN: 16220-RAA-A01).

l. Fuel Pump

1. Fuel pump is unrestricted.
2. Fuel pressure regulator is unrestricted.
   a. Fuel pressure: 58psi +/- 3 PSI

**3. Transmission**

a. For all types of transmissions, no more than five forward speeds and an operational reverse gear shall be used.

b. The use of an automatic gearbox is prohibited.

c. All gear changes shall be initiated by the driver. Mechanical gear shifters, direct-acting electric solenoid shifters, air-shifters and similar devices are permitted. Electronically controlled differentials and devices that allow pre-selected gear changes are prohibited.

d. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

## 9.1.1. FA Spec Lines

**Table 1**

| FA Spec Line | Engine Series | Max. Displ. (cc) | Max. Valves / Cyl. | Notes | Req'd Restrictor | Min. Weight (lbs) |
|---|---|---|---|---|---|---|
| A. | Toyota 4age | 1615 | DOHC (4-valve) | | n/a | *1175* |
| B. | Toyota 4age | 1800 | DOHC (4-valve) | | *n/a* | 1205 |
| C. | Ford BD Series | 1600 | BD Series 4-valve | Any BD series iron or alloy cylinder block and alternate crankshaft permitted with max. displacement of 1615cc | n/a | 1200 |
| D. | Mazda MZR | 2500 | 4-valve | | 29mm SIR | 1400 |
| E. | Volkswagen | 1835cc SOHC | | FI restrictors – between cylinder head and butterflies. Alt block and crankshaft permitted with max. displacement of 2135cc, | Unrestricted carbs or F.I. | 1190 |
| F. | Mazda 12A Streetport Rotary | n/a | n/a | no peripheral port or bridgeport | n/a | 1230 |
| G. | Mazda 12A Rotary | n/a | n/a | Bridgeport. One (1) auto-type 2 bbl carb or one (1) 2 bbl throttle body. Restrictors/venturis shall be no more than 4 inches from the center line of the throttle butterfly shaft. All intake air shall pass through the required restrictors and the throttle body or carburetor body. Intake manifold for either carburetion or injection shall have individual runners connecting one throttle plate to one rotor, only. No balance tubes or other device shall connect runners between rotors. | 36mm | 1230 |
| H. | Mazda 13B Streetport Rotary | n/a | n/a | One (1) 2-bbl auto-type carb or throttle body. Intake manifold shall have individual runners connecting one throttle plate/butterfly to one rotor, only. No balance tubes or other devices shall connect runners between rotors. | 44mm | 1230 |
| I. | Mazda 13B Rotary | NA | NA | Peripheral Port | 36mm SIR | 1230 |
| J. | Mazda Renesis Rotary | n/a | n/a | Porting not permitted. Unmodified OEM lower intake manifold required, upper manifold unrestricted. Balance tube not permitted. Apex seals unrestricted. Fuel injection only. | 70mm Throttle Body. | 1230 |
| K. | Honda K20Z3 Base Engine | 2000 | 4 | See section 9.1.1.A.2.c. | NA | 1200 |
| L. | Honda K20Z3 Uprated engine | 2000 | 4 | See section 9.1.1.A.2.d. | NA | 1275 |
| M. | Ford Duratec/ Mazda | 1615 | 4 | 2.0L engine destroked to 1615cc. | NA | 1250 |
| N. | Ford Duratec/ Mazda | 2296 | 4 | Maximum compression permitted 14.0:1. | 32mm SIR | 1345 |
| O. | Honda B16 | 1600 | 4 | | NA | 1160 |
| P. | MZR 2.0 | 2000 | 4 | Sealed engine sourced by Elite Engines. Swift 014 Chassis only. | *NA* | *1300* |

| **Engine Notes** |
|---|
| (only apply to Table 1 and Table E) |
| Note 1: Add 25 lbs for sequential transmission. |
| Note 2: Add 25 lbs for fuel injection (except Volkswagen). |
| Note 3: Add 25 lbs for non-metallic chassis. |

| Table 2 | | | | | | |
|---|---|---|---|---|---|---|
| **Car** | **Engine** | **Wheel Width (in) ± .060** | **Aero** | **Transmission** | **Weight** | **Notes** |
| **Purpose built and Ex-Pro Atlantic cars** | **See Table 1** | **(F) 10 (R) 14 Min. & 15 Max.** | **See FA rules** | **Up to 5 forward gears, limited slip and locked differential allowed (sequential trans. carries 25 lb penalty** | See Table 1 | **All current FA rules apply** |
| Pro Formula Mazda | *See Table 1* | *Pro Star Mazda specified series wheels (F) 9 (R) 11 or (F) 10 (R) 14 Min. & 15 Max.* | *See FA rules* | 6 spd sequential transmission with open differential. Traction control is allowed. | *1275* | *All current FA rules apply.* |
| Formula 3 car | All FIA compliant engines years 1997 to 2008. Engines must be run per FIA spec. with 30mm required restrictor | (F) 9 Min. (R) 10 Min. | | Up to 6 Forward Gears, Limited Slip Differential (sequential Carries a 25 lb Weight Penalty) | See Table 1 | Cars must run per FIA spec for year and model of chassis. Competitor must carry and be able to present year specific FIA rules to tech. upon request. Cars must meet all SCCA safety requirements including roll structure. |
| Ex-Fran-Am 2000 | Renault 2.0L with Magneti-Marelli Renault Sport Formula Renault 2000 ECU | (F) 8 (R) 10 | See FA Rules | Renault Sport Formula 2000 6 Speed sequential transmission with limited slip differential. Gear ratios unrestricted. | 1250 | Must have roll bar meeting the requirements of GCR 9.4. Must use Formula Renault or Fran-Am engine seals on the cam cover, oil pan and crankshaft pulley bolt as applied by an approved engine builder. An SIR will be required at a time to be determined by the CRB. |
| Ex-Pro Formula Super Vee | 1600 VW (non Crossflow head) or 1835cc Volkswagen with carbs (no restrictor), FI with 37mm restrictor located between cylinder head and butterfly | (F) 6 Min. (R) 8 Min. or (F) 8 Min. (R) 10 Min. | See FA Rules | Up to 5 Forward Gears, Limited Slip and Locked Differentials allowed (sequential transmission carries a 25 lb Weight Penalty) | See Table 1 | Water cooled Super Vee cars compete in the FA class and may be prepared to their professional racing rules. GT engine prep rules, no changes in bore x stroke, unrestricted weber type side draft carburetors with no modifications. These cars can also run the present fuel injection with these engine prep rules. |
| Pro Formula F 2000 | 2.0 Liter Zetec | (F) 8 Max (R) 10 Max | See FA Rules | Up to 5 Forward Gears, Limited Slip Differential (sequential Carries a 25 lb Weight Penalty) | 1230 | Engine must be prepared to current FC rules except that ECU map and cams are unrestricted. An air restrictor is not required. |
| | Mazda MZR 2.0 | | | | 1220 | USF2000 cars using the MZR 2.0L Mazda shall comply with the technical regulations set forth in the 2016 USF2000 rule book excepting the following: Tires shall be open subject only to limitations otherwise applicable to FA. ICAR and other USF Series specific timing/scoring equipment is not required. References to parts being inspected by INDYCAR prior to use shall be disregarded. Wheel tethers (SWEMS) are not required. Fuel shall be any SCCA legal and permitted fuel. |

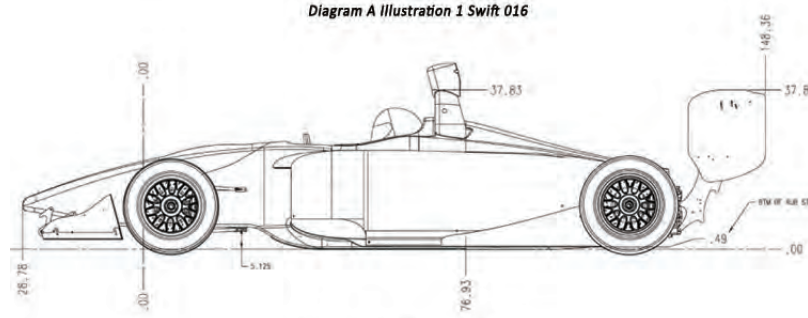
Table 2

| Car | Engine | Wheel Width (in) ± .060 | Aero | Transmission | Weight | Notes |
|---|---|---|---|---|---|---|
| Swift 016 | 2.3 liter Mazda Duratec | (F) 10<br>(R) 14 Min.<br>&<br>15 in Max. | See notes | 5 speed sequential | 1420 | Cars must conform to Appendix A as provided by Swift Engineering (see diagram A illustration 1-5 at the end of the spec line for drawings). Engine: The 2.3 Liter Mazda Duratec engine and ECU is unrestricted with the exceptions that a 33mm SIR must be used with a sealed air box (part no. FA11016INT) supplied by SCCA Enterprises, the maximum compression ratio is 14.0:1, and the maximum displacement is limited to 2266cc. OEM engine blocks and cylinder heads must be used. Dimensions: Wheel Base: 109.3 inches (277.6 cm) Overall Length: 177.1 inches (449.8 cm) Overall Width: F: 76.0 inches (193.0 cm) R: 75.8 inches (192.5 cm). The overall width will be measured at the wheel hub center by projecting a vertical plane from the widest outside rim surface. Other Dimensions: Reference Appendix A illustrations provided by Swift Engineering. All dimensions of the car within this table and Appendix A shall have a tolerance of + or - 0.2 inches. The bodywork may not be modified in shape or size; however, replacement bodywork may be supplied by sources other than Swift. Exception: In Appendix A illustrations 1 and 3 the un-dimensioned camera mount on the roll bar above the 37.83 height dimension may be removed. If the camera mount is removed the faring must be re-shaped to continue the contour lines of the roll bar below the 37.83 height dimension. Wings: The wings and end plates may not be changed. All wings must conform to the wing angles and dimensions specified in the Appendix A illustrations provided by Swift Engineering. Wings and endplates may be copies of the original Swift components whereas no profiles are changed. Contact the SCCA Technical Services department for copies of the wing profiles and end plate templates. Rear Wing Top Element: The rear wing top element may be adjusted within the designed range of +2.00 to +16.00. Front Wing Main Plane and Rear Wing Lower Element At all times, the front wing and lower rear wing element must be maintained at the designed angle (as seen in illustrations 4 and 5 of Appendix A provided by Swift Engineering) relative to the chassis zero line. Wickers: Wickers/gurneys may be added to the top of the trailing edge of the front flaps, front main plane, and rear wing lower elements only, and may not be used on the rear wing upper element. They must be 90 degrees to the mounting surface and may be no more 0.500 inch high as measured from the upper surface of the wing element. Wicker/gurney height must remain constant across the width of the individual component span. No saw tooth wickers/gurneys are allowed. The trailing edge of wings and flaps may be drilled for the purposes of attaching wickers/gurneys. All wing angles shall have a tolerance of + or - 0.30. For Honda engine package the following part numbers from HPD are required:<br>60330-F25S-A010__ADAPTER, 016 ENGINE COVER, 60300-F25S-A000__COMP,016 ENGINE COVER, 17205-F25S-A010__AIRBOX, 016, 17203-F25S-A000__PIPE, INTAKE, 12510-F25S-A000__BLISTER, 016 OIL LINE. |

| Table 2 | | | | | | |
|---|---|---|---|---|---|---|
| **Car** | **Engine** | **Wheel Width (in) ± .060** | **Aero** | **Transmission** | **Weight** | **Notes** |
| Swift 016 | 2.5 Mazda | (F) 10<br>(R) 14 Min. &<br>15 in Max. | See Notes | 5 speed sequential | 1420 | 2.5 Mazda Notes: The max compression ratio is 11.5 with a 3.500 Bore x 3.94 Stroke (+/-.005). It must be a 2.5 Mazda Turbo Block, part# L3K9-10-300H. The cylinder head, part# L504-10-090, and valves shall be 2.5 Mazda. They must remain unmodified with no porting or valve modifications. Intake valve diameter is 35.1mm and exhaust valve diameter is 30.1mm. Valve springs must be a single type of spring of any manufacturer. The crankshaft must be stock Mazda part# LF-9-G-11-301. No profiling of counter weights and the balance shaft drive gear may be removed. The rod and main journals may be reground and a woodruff key slot may be added. Connecting rods shall be steel with a min. weight of 495 gr. center to center 6.092. Pistons may be any aftermarket part using 3 rings with a minimum weight, with pin, of 390 gr. Camshafts must be Cosworth YDX profiles supplied by Crower Cams. Cam timing specs shall be as follows: 104 º TDC Intake 100 º BTDC Exhaust +/- 1º. Chain or belt driven camshaft drive is permissible. An adapter plate is necessary between throttle body & cylinder head with a maximum thickness of 1 inch. The adapter plate must be uniform in thickness. The following engine parts must be used and are supplied by Cosworth: Barrel style throttle body (part# YD8183), Integral dry sump pan and pump (part# YD8154 YD 8139), Flywheel (part# YD0449). A carbon fiber 5.5 double plate clutch is optional. Exhaust system shall be the standard 4 into 1 Swift 016. A 35mm SIR is required. They are manufactured by Racetech and MUST be used with sealed air box kit, part# FA11016INT, supplied by SCCA Enterprises. |
| Formula Speed2.0 (FS2.0) | 2.0 Liter Mazda MZR | (F) 8<br>(R) 10 | Dual rear adjustable main planes. Front main plane is fixed. Front winglets are adjustable. Wings and bodywork are delivered with an FS2.0 marking that is to remain visible for scrutineering. | 6 forward speeds and reverse with an open differential. No lift shift system. | 1350 | ECU map and engine shall be sealed by Hasselgren Engineering. FS2.0 sealed Ohlins TTX dampers. Goodyear 475 compound tires. Wheels must me 3 piece FS2.0 wheels with FS2.0 logo. Hasselgren Engineering spec FS2.0 intake must be used. No part of the car shall be altered from FS2.0 original parts, except for repairs that do not affect performance. |

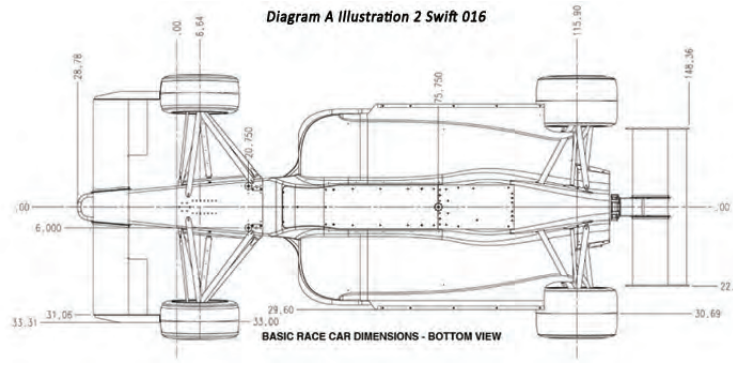
| Table 2 | | | | | | |
|---|---|---|---|---|---|---|
| **Car** | **Engine** | **Wheel Width (in) ± .060** | **Aero** | **Transmission** | **Weight** | **Notes** |
| USF2000 | 2.0 Liter Mazda MZR | see notes | see notes | see notes | see notes | Car must comply with the 2012 Pro USF2000 rules. Competitors must have the current rules in their possession and present them upon request. The following sections of the 2012 Pro rules do not apply: 14.1.1 thru 14.1.4; 14.12.2 thru 14.12.13; 14.13.1; 14.13.2; 14.13.5; 14.18 in its entirety; 14.19 in its entirety; 14.27 in its entirety; 13.34 in its entirety |
| US F4 | see notes | see notes | see notes | see notes | see notes | Car must run per all current US F4 series rules. Competitors must provide current US F4 rules upon request. |

*Diagram A Illustration 1 Swift 016*



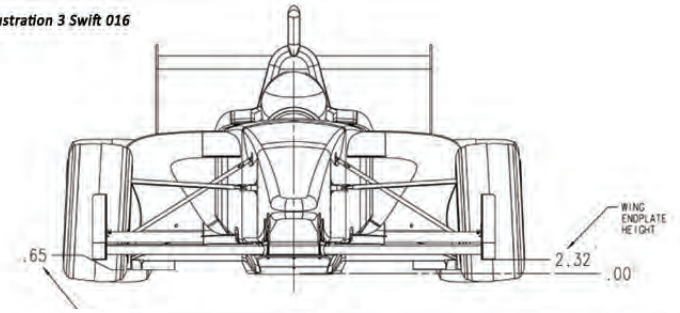

**BASIC RACE CAR DIMENSIONS - SIDE VIEW**

*Diagram A Illustration 2 Swift 016*




**BASIC RACE CAR DIMENSIONS - BOTTOM VIEW**

*Diagram A Illustration 3 Swift 016*



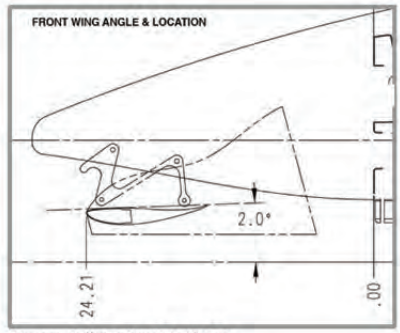




*Diagram A Illustration 4 Swift 016*

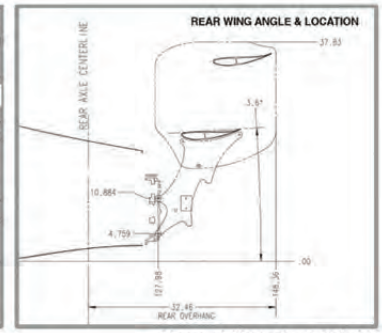



*Diagram A Illustration 5 Swift 016*

## B. FORMULA CONTINENTAL / F PREPARATION RULES

### 1. FORMULA CONTINENTAL AND FORMULA F PREPARATION RULES

Definitions

a. Formula F: A formula for single-seat, tubular frame, flat bottom, open-wheel racing cars using standard Ford 1600 "crossflow" pushrod engines, or a Honda Fit 1500 (L15A7) overhead cam engine, with firewall, floor, and safety equipment conforming to the GCR.

b. Formula Continental: A formula for single-seat, tubular frame, flat bottom, open-wheel racing cars using the Ford 2 liter single overhead camshaft "NE" series engine, the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine, or the Ford Zetec ZX-3 2 liter dual overhead camshaft engine.

c. Formula F and Formula Continental are restricted classes. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. IF IN DOUBT, DON'T.

d. Homologation may be required. Refer to section 9.2.2. for details.

### 2. General Construction Restrictions

NOTE: Contained herein are the 1986 Formula F chassis construction requirements, revised January 1, 2013. All new Formula Continental and Formula F cars are to be built to these specifications. Any class-specific differences are stated explicitly. For cars registered prior to January 1, 1986, see section B.21. The use of carbon fiber and/or Kevlar reinforcement, titanium, beryllium, metal matrix composites, ceramics, high strength composites and similar materials is prohibited unless specifically permitted. The use of the word "unrestricted" in any section does not indicate the allowance of these prohibited materials. The use of non-metal materials for seals, bearing and bearing liners, thread locking systems, windscreens, mirrors, instruments, wiring, electronic systems, electrical systems, hydraulic and oil and cooling systems, etc, are permitted unless specifically restricted.

Fuel Capacity: Maximum capacity 41 liters (10.83 gallons)

Refer to the Formula F and Formula Continental Dimensions Table for general dimensional limitations.

### 3. Chassis/Frame

a. The chassis/frame and all bulkheads shall be of steel tube, bar and sheet space-frame construction only, and shall comply with GCR construction requirements. Monocoque-type structures are prohibited.

b. The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position (i.e., pedals not depressed) and shall remain behind the front bulkhead (per 9.4.5). The lower main frame rails shall be a minimum of 25 centimeters (9.84 inches) apart (inside dimension) from the front bulkhead to the rear roll hoop.

c. Forward-facing braces that protect the driver's legs and feet shall extend from the front roll hoop to the front bulkhead (The front bulkhead is defined as the transverse section of the frame immediately ahead of the pedals and drivers feet.) This does not preclude a secondary forward bulkhead ahead of this "front" bulkhead). The front bulkhead may be constructed from aluminum plate.

d. Further reinforcement of the frame structure shall be in accordance with the allowances specifically stated herein. No other methods of reinforcement are permitted. No panels other than those which are explicitly described within the "Preparation Rules" set forth herein may be attached to the chassis/frame.

    1. The chassis shall carry a mandatory floorpan, and may incorporate optional bulkhead panels on the main and dash hoops, the front bulkhead immediately ahead of the drivers feet, and any secondary bulkhead located forward of the front bulkhead. The optional bulkhead panels may be attached in the same manner as the requirements set forth for the floorpan.

    2. A metal floorpan shall be rigidly attached to the lower surface of the bottom frame rails. At a minimum, it shall extend from the main roll hoop bulkhead to the front bulkhead. Floorpan material must be a minimum of .060 heat treated aluminum alloy and/or 18 gauge steel sheet only. Its curvature shall not exceed 25.4 mm (1.0 inch).

    3. The floorpan shall be, at the minimum, attached to the chassis lower rails at or adjacent to its full perimeter by any combination of welding, bonding, riveting, or bolting. The centers between any two adjacent fasteners shall be no more than 6 inches apart as measured along the panel surfaces. The floorpan may not "wrap up" on to the chassis sides to any point above the top surface of the lower main frame rails.

    4. The floorpan may be constructed in more than one section.

e. The area between the upper and lower main frame tubes from the front instrument/dash roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend to the forward most bulkhead, but

must otherwise comply with these regulations.

1. Panel(s), minimum of either .060 inch heat treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.
2. Reinforced body, consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.) For either method, fasteners shall be no closer than 6 inch centers. The steel tubes used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.
3. Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform with the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc). Such material shall be at least 1.5mm (.060 inches) in thickness not counting the carbon fiber.
4. Composite anti-intrusion panels shall be attached with no more than eight fasteners per side. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

   Alternatively, FIA mounting is permitted as follows:

   One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

   Panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.
5. Alternate attachment method. Composite anti-intrusion panels may be attached to the outside frame with fasteners no closer than 6 inches (15 cm) centers. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. No adhesives may be used for attachment purposes. Cars with composite panels, either interior or exterior, attached in this manner, are subject to a 25 pound weight penalty. Inlet restrictors may also be required. Composite panels attached to the interior and exterior of the frame rails must use common attachment points on opposite sides of the frame rail.

f. No other exterior panels (excepting body work) shall be permitted in the area between the upper and lower main frame tubes from the forward most bulkhead to the rear roll hoop bulkhead.

   Suspension components shall not be mounted directly to any frame exterior panel (including, but not limited to body and anti-intrusion panels). The chassis must be capable of rolling without any such frame-exterior panels installed. The engine, bell housing/oil tank and gearbox are exempt from this limitation.

   No panels or other components other than the required and optional load bearing panels may be attached to the chassis for structural purposes, except that the engine, bell housing/oil tank and gearbox are permitted to be stressed and/or load bearing.

g. A firewall(s) that seals the drivers' compartment (cockpit) and the engine compartment is required. Forward facing ducts may be installed to delivering air directly to the engine compartment. Air duct openings may be located within the cockpit provided the firewall is extended to prevent the passage of flame and debris from reaching the driver.

h. Brackets are permitted for the exclusive purpose of mounting components, such as the engine, transmission, suspension pickups, clutch and brake components. They shall be metal. Brackets shall not be used to otherwise reinforce the frame. Composite and/or non-metal bellhousings are prohibited.

i. Brackets for the purpose of mounting or attaching bodywork may be of glass fiber or metal construction, and may incorporate honeycomb, wood, or foam coring for purposes of maintaining its shape under aero loading. Kevlar reinforcement is permitted.

j. Instruments may be mounted in non-metal panels (e.g., composite, wood or plastic) securely affixed to the dash bulkhead.

k. Impact Attenuators: See 9.4.5.G.

l. No engine oil or water tubes are allowed within the cockpit, except for shielded (stainless steel braid) mechanical oil pressure lines. Chassis tubes shall not be used as oil or water transport tubes.

m. Fuel cell vents shall be located at least 25cm (9.84 inches) to the rear of the cockpit.

**4. Bodywork**

For the purposes of this section, bodywork includes all panels external to the chassis/frame and licked directly by the air stream. This includes panels above or below the floor pan, and the bottoms of any side pods.

a. The bodywork opening giving access to the cockpit shall have the following minimum dimensions:

   Length: 60cm (23.62 inches)

   Width: 45cm (17.72 inches)

   This width extends over a length of 30cm (11.81 inches) minimum. This minimum rectangular opening may exist anywhere forward of the firewall. Forward-facing roll bar/cage bracing and padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround must be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended. Bead seats are recommended.

c. Bodywork and rear spoiler(s) and any attached components except for suspension components shall not exceed a maximum width of 95cm (37.40 inches). No part of the bodywork, rear spoiler or exhaust system shall extend more than 100cm (39.37 inches) FF; 80cm (31.50 inches) FC behind the centerline of the rear axle. Allowances shall be made for radius of bodywork along primarily horizontal surfaces in this area. Undertrays and floorpans may extend laterally past cockpit sides, sidepods, and engine compartment enclosures, but only up to the 95cm (37.40 inches) maximum allowed width.

d. Diffusers and undertrays shall not exceed a maximum width of 95 cm (37.40 inches). No part of the diffuser or undertray shall extend more than 80 cm (31.50 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90cm (35.43 inches) above the ground with the car as qualified or raced with the driver on board.

e. Bodywork shall be of aluminum or glass fiber construction and may incorporate honeycomb, wood, or foam coring for purposes of maintaining its shape under aero loading. Kevlar reinforcement is permitted. All bodywork shall be attached to the chassis such that it is not capable of coming loose when the car is in operation.

f. Cockpit is defined as the volume which is inside the inner surface of any panel attached to the outside of the frame rails between the rear roll hoop and the front bulkhead.

g. Cockpit interior panels may be constructed of glass fiber, carbon fiber, metal and/or Kevlar. Such panels shall be contained completely within the frame and may not be attached to the frame with fasteners closer than 6 in (15 cm) centers measured along the surface of the panel. The chassis must be capable of rolling without any such interior panels installed. Cars with composite panels, either interior or exterior, attached in this manner, are subject to a 25 pound weight penalty. Inlet restrictors may also be required.

h. Mirrors, air ducts/intakes which do not serve any structural purpose other than directing air flow into the engine or other permitted areas and the required Zetec air scoop may be constructed of carbon fiber and/or other composites.

**5. Control of Undersides Shaping**

It is the intent of these rules to minimize (not eliminate) the use of "ground effects."

a. A reference area is defined

   Formula F: by the full width of the lowest surfaces of the car licked by the air stream between the front bulkhead as described in B.3.a above and the rear of the rear tires.

   Formula Continental: by the full width of the lowest surfaces of the car licked by the air stream between the rear edge of the front tires and the front edge of the rear tires.

   These surfaces may include the floor pan, undertrays, diffusers, side pod bottoms and any essentially horizontal bodywork that is included in the lowest surfaces licked by the air stream. Within this reference area, the lowest surfaces licked by the air stream must be flat with a total vertical tolerance of 25.4mm. An undertray beneath the engine, bell housing and/ or gearbox is not required.

   1. Mirrors and any primarily vertical bodywork (e.g., cockpit/radiator sides that are oriented 45 degrees or greater relative to the ground) that extend laterally past the outer edges of the floor pan and/or undertrays are not subject to the reference area restrictions.

   2. Fairings for streamlining suspension pickups are not subject to the reference area restrictions; however, such fairings shall be symmetrical about their horizontal axis.

   3. The perimeter of any reference area surface that transitions upward to any bodywork may use a maximum 1 inch radius and shall be included in the reference surface measurement.

b. Measurement for compliance of the defined area shall be performed as follows:

   1. A non-flexible straight-edge bar shall be placed against the lower surface of the reference area in a suitable section (unworn and flat enough to prevent rocking of the bar) from which the bar can be oriented to measure all parts of the reference area. The competitor shall be responsible for the availability and condition of such a surface. The bar shall be of sufficient length to reach all portions of the reference area from that surface.

   2. All measurements shall be taken vertically from the bar to the reference area surfaces. The total maximum vertical distance (additive upward and downward) from the bar to any part of the reference area surfaces shall be 2.54 cm. Skid blocks and or rub strips are not included in this measurement.

c. No aerodynamic devices (e.g., skirts, body sides, skid "planks", undertrays, skid blocks, etc.) may extend more than 1 cm (.394 inches) below the reference area.

**6. Aerodynamic Aids**

a. A wing shall be defined as any shape that has a leading edge and a trailing edge and creates downforce.

b. Wings and other airfoil devices ("dive planes", etc.), whose primary purpose are to create aerodynamic downforce, are prohibited in Formula F.

c. Both front and rear wings/airfoils are a requirement for FC. See the Formula F and Formula Continental Dimensions Table. Cockpit or remote adjustment is not permitted; wings and airfoils shall be non-movable when the car is in operation.

d. Any part of the car which that has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary downforce while the car is in motion.

e. Shaping of the lower surfaces to create "venturi" type tunnels is prohibited. An example of venturi tunnels is shown in the following figure.



f. It is not permitted to duct air through any part of the bodywork for the purpose of aerodynamic downforce. There shall be no forward facing gaps or openings in or about the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All ducted air for heat exchangers shall pass through those heat exchangers

g. Primarily vertical (see B.5.a.1) air diverters greater than 30 inches forward of the main hoop (i.e. - "bargeboards") that stand away from the cockpit sides and are attached to (or through) the cockpit sides, undertrays and/or sidepods shall be considered as creating forward facing gaps and shall be prohibited.

h. (Formula F only) A single rear spoiler, that may be capable of adjustment, is permitted. Cockpit adjustment is not permitted. This spoiler shall be no wider than the surface to which it is attached, and there shall be no gap between the spoiler and the body surface to which it is attached.

i. (Formula F only) No part of the bodywork is allowed to have any down-turned fences or intermediate strakes. Undertrays are allowed, but any portion within the reference area (B.5) must comply with the reference area measurement rules. No bodywork below the horizontal centerline of the differential and to the rear of the rear tires may be wider than 16 inches.

j. (FC only) Diffuser undertrays, to the maximum allowed bodywork width are permitted, but any portion within the reference area (B.5) must comply with the reference area measurement rules.

k. Wings, endplates and their attachment(s) shall be of metal or glass fiber construction, and may incorporate honeycomb, wood, or foam coring for purposes of maintaining its shape under aero loading. Kevlar reinforcement is permitted.

**7. Suspension**

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering components, etc., are not considered as suspension

in this section.

a. All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings, bushings, spring caps, abutment nuts, shock absorber caps and nuts, which may be of aluminum alloy. Material restrictions as set forth in Section B.2 above shall control.

b. Front and rear hub carriers shall be only steel, aluminum or magnesium alloy for cars manufactured after January 1, 1983.

c. Springs shall be steel only.

d. Control arms and all associated items that attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit. "Anti-Intrusion" bars are highly recommended on the front suspension arms.

e. Shock absorbers: Design - unrestricted; casing material: steel or aluminum alloy.

f. Sway bars, sway bar links and steering components are unrestricted, except as specified in B.2.

g. It is not permitted to attach spoilers, fairings or other devices that may exert downforce to the movable suspension members. If the suspension member is of streamline or airfoil cross section, it shall be symmetrical about its horizontal axis. Brake lines may be attached to suspension members. Brake lines may be enclosed in a symmetrical fairing.

**8. Brakes**

Unrestricted, except:

a. Maximum of 2 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.

b. Brake rotors are restricted to ferrous material.

c. (FC only) Inner wheel fairings and/or ducts are permitted. They shall however not sport any wings, dive planes or other airfoil type devices. (FF only) inner wheel fairings and/or ducts are prohibited.

**9. Steering**

Unrestricted.

**10. Wheels** and Tires

Wheels are unrestricted except that:

a. Material must be metal.

b. Diameter shall be thirteen (13) inches.

c. Rim width:

Formula F: shall not exceed 5.5 inches.

Formula Continental: shall not exceed 6.0 inches front and 8.0 inches rear.

d. All measurements shall be taken between the beads.

e. Formula F shall be limited to the following tires (front tires may not be used as rears):

Dries:

Front- Hoosier R60A Radial 43322 or F1600 Radial 43321 185/60R13

Rear- Hoosier R60A Radial 43327 or F1600 Radial 43326 205/60R13

Wets:

Front-Hoosier Wet Radial 44421 185/60R13

Rear-Hoosier Wet Radial 44426 205/60R13

f. All Formula F competitors competing in an SCCA sanctioned event shall place three (3) "Hoosier Tires" decals on their car in the following locations: one (1) 8"x2" on the vertical plane of the front nose section, and two (2) 11"x3", one on each side of the engine cover on a vertical plane.

**11. Engines**

Formula F engines

The only permitted engines are:

a. The Ford 1600 GT "Kent" pushrod "crossflow" as installed in the Ford Cortina in 1971 and later. The Kent engine specifications are contained in B.12.

b. The Ford 1600 GT "Cortina" engine as installed in the Ford Cortina through 1970. The Cortina engine specifications are contained in B.13.

c. The Honda Fit (L15A7) 1500cc overhead cam engine as installed in a Honda Fit (all models starting 2009). The Honda Fit engine specifications are contained in B.14.

Formula Continental Engines

The only permitted engines are:

a. The Ford 2 liter single overhead camshaft "NE" series engine or the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine. The specifications are contained in B.15.

b. The Ford Zetec ZX3 2 liter dual overhead camshaft engine. The specifications are contained in B.16.

**12. Kent Engine**

**a. General**

1. Components shall not be interchanged between the Kent and Cortina versions of the engine unless specifically authorized.

2. The engine shall not be altered, modified, or changed in any respect unless specifically authorized herein. When a system is specified to be "unrestricted" (e.g. paragraphs p and q), the restrictions of this paragraph do not apply.

3. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded.

4. Valve guides are unrestricted provided the position of the valve is not changed. Standard Ford replacement valves, with oversize stems, may be used as normal repair/maintenance procedures. The specifications, in B.12.f are mandatory. It is permitted to re-cut or replace valve seats. Valve seat angles are unrestricted.

5. Exhaust emission control, air pumps, and associated lines and nozzles shall be completely removed. When these air nozzles are removed from a cylinder head, the holes shall be completely plugged.

6. Balancing of all moving parts of the engine is permitted. The pistons, rods, crankshaft, and flywheel may be lightened to their stated minimum weights. It is permitted to polish parts of the engine providing the contour of the part is not altered and can be recognized as the original part. Pistons may be balanced to the minimum weight by removing weight from the pin boss, the underside of the piston crown, or the bottom edge of the skirt. "Gas porting", re-profiling, or any other modification to the piston, other than expressly permitted herein, is prohibited. Knife-edging the crankshaft throws is not permitted.

7. Compression Ratio

Maximum compression ratio: 9.3 to 1

The following specifications are used in determining compression ratio:

A. Maximum bore size: 3.200"

B. Minimum cylinder volume at Top Dead Center: 42.0cc

C. Maximum valve protrusion from head surface: .040"

D. Only approved head gaskets may be used (see B.12.c.3)

**b. Block**

1. Bore may be enlarged for clearance between cylinder and piston.

2. Cylinder sleeves may be fitted. The top surface of the block may be milled or surface ground to obtain the maximum compression ratio specified above. Any steel center main bearing cap may be used. The oil pump mounting face on the block may be machined for the purpose of fitting an oil pump.

3. The 1600 Fiesta block is permitted as a replacement part.

4. The Ford Racing block, part number M-6010-16K, is permitted as a replacement part.

**c. Cylinder Head**

1. Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:

Inlet: 1.50" Exhaust: 1.20"

2. The use of the Pierce aluminum cylinder head is permitted.

3. The following head gaskets are allowed:

A. Ford Part # 931M6051AA

B. Payen Part # AH-750

C. Felpro Part # 8360PT-1

**d. Inlet Manifold**

1. The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:

Maximum dimension at head face: 1.340"

2. Carburetor Flange- Maximum dimensions at carburetor flange: see Figure 1.
3. The carburetor face of the inlet manifold may be machined to the horizontal to compensate for fore/aft tilt of the carburetor.
4. Epoxy exposed in the manifold used to make repairs is acceptable, providing the total area is less than 0.75 square inches.
5. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

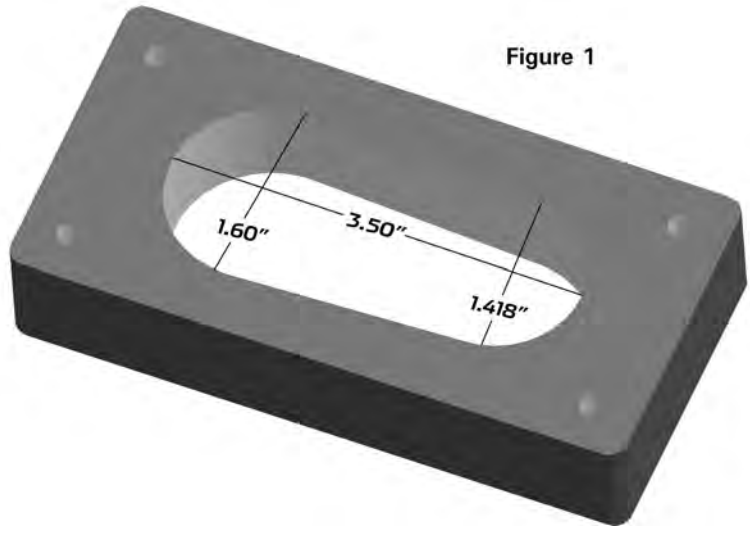


Figure 1

**e. Pistons**

1. Standard or 0.005 inch oversize pistons shall be used.
2. Standard size AE pistons P/N 18649, casting P/N 18634, standard size CP piston, part # 81-2 FF1600, or CP oversize piston, part # 81-2- FF1600+5 may be used.
3. Alternate piston identified as follows is allowed: P/N AE-M717D, casting number 711 M 6110. AE Hepolite P/N 20552, Casting # 20548A. Note: Mahle pistons are not allowed.
4. Dimensions and Weights

| | | |
|---|---|---|
| Maximum diameter: | | |
| Standard: | 3.187" | |
| 0.005" o/s: | 3.192" | |
| Depth of bowl: | 0.470" (minimum) | |
| Maximum diameter of bowl: | 2.44" | AE Hepolite, |
| | 2.50" | CP Piston |
| Centerline of wrist pin to crown: | 1.702" +/- .002" | |
| Overall height: | 3.30" | AE Hepolite |
| | 2.80" | CP Piston |
| Minimum weight | 515 grams (w/ clips, pins and rings) | |
| Weight of pin: | 115 +/- 2 grams | |
| Ring Groove Widths: | Top Groove: | 0.064" |
| | 2nd Groove : | 0.0795" |
| | Oil Groove: | 0.159" |

5. Piston rings are unrestricted provided that:
   A. One oil control and two compression rings are used.
   B. No modification is made to the piston for the installation of rings.
   C. Pocketing of the piston valve reliefs is allowed up to a maximum of .050" to obtain the maximum combustion chamber volume.
6. Wrist Pins are unrestricted provided that:

A. Weight is 115 +/- 2 grams.

B. No modification is made to the piston for the installation of the wrist pins.

**f. Valves**

1. Dimensions

| Iron head | Alloy head |
|---|---|

Distance apart at centers 1.540" +/- .020" 1.570" +/- .020"
Max. diameter:
Inlet: 1.560"
Exhaust: 1.340"
Overall length:
Inlet: 4.367" +/- .020"
Exhaust: 4.355" +/- .020"

2. Reshaping of the valves is specifically prohibited.
3. Alternate valve AE p/n V34524 (intake), V34525 (exhaust) are permitted.

**g. Camshaft**

1. Regrinding camshaft lobes is permitted, providing they are ground to meet FORD and SCCA profile.
2. Camshaft Lobe Centers: 109° +/- 2°

Lift at top of pushrod:
Inlet: 0.231" +/- .002" Maximum

Exhaust: 0.232" +/-.002" Maximum

Lift at spring cap: (Valve Lift)
Inlet: 0.356" Maximum

(Zero tappet setting)

Exhaust: 0.358" Maximum

3. Recontouring of the valve stem contact pad of the rocker arm is permitted, provided the maximum lift at the spring cap is not exceeded
4. Offset camshaft/sprocket dowels are permitted.
5. Camshaft profile and lobe centers shall be checked using the official procedure published by SCCA.
6. A camshaft that is a replica of the original camshaft and of the same material may be used.

**h. Valve Springs**

Valve springs and valve spring shims are unrestricted, except that:

1. Springs and shims shall be made of steel.
2. No more than one spring shall be used per valve.
3. Conically wound springs are not allowed.
4. The standard spring cap and retainers shall be used.

**i. Pushrods**

*Any pushrod made of a ferrous material may be used, provided that the minimum dimensions and weight are met.*

Minimum stem diameter: 0.25"

Overall length: 7.64" Minimum

Minimum weight: 50 grams

**j. Connecting Rods**

Any ferrous connecting rod may be used provided it meets a minimum weight of 630 grams and has a center to center length of 4.925 +/- 0.020 inches. (Note: Weights include cap, bolts, and small end bush, but not big end bearing shells).

**k. Crankshaft**

An alternate cast steel crankshaft meeting original Ford Kent and SCCA dimensions and weight is permitted.

Weight: 24 lbs. 8 oz. Minimum

Max Stroke (at piston): 3.056" +/- .004"

Crankshaft pulley: unrestricted

The crankshaft from the Cortina engine may be used.

The crankshaft from the Fiesta engine may be used.

The crankshaft may be shot peened.

**l. Flywheel**

1. Weight with ring gear: 15.5 lbs minimum.
2. The flywheel may be machined to reduce weight to the above minimum weight. Flywheel locating dowels are permitted.
3. Weight may be added to the flywheel, providing it is added ONLY to the existing clutch bolt holes, i.e., single cap screws or set screws. No continuous material shall be used.
4. An alternate flywheel, part # JAE1600 is also allowed at the above weight of 15.5 lbs.

**m. Carburetor**
Weber 32/36 DGV or Holley 5200

| | | |
|---|---|---|
| Venturi diameter: | Primary: | 26mm |
| | Secondary: | 27mm |

It is permitted to:
1. Fit any jets (including accelerator pump discharge nozzle) as long as no modifications to the carburetor body are required.
2. Modify or substitute the external throttle linkage.
3. Fit internal and/or external surge pipes.
4. Remove the air cleaner
5. Fit velocity stacks
6. Remove the choke butterflies and linkage.
7. Use an alternate carburetor gasket provided it is the same thickness as the original gasket and doesn't exceed the manifold opening dimensions
8. Modify the carburetor housing for the installation of throttle shaft bearings provided the modification serves no other purpose.

**n. Fuel Pump**
Unrestricted

**o. Exhaust Manifold**
Unrestricted

**p. Lubrication System**
Lubrication system is unrestricted; any oil pump and oil sump permitted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.Dry sump system is permitted.

**q. Cooling System**
Cooling system is unrestricted. Any radiator, fan, water pump and drive belt permitted.Pump/fan/generator drive belt: Unrestricted

**r. Electrical Equipment**
Distributor: Distributors are unrestricted provided the original drive, location, and housing are retained. The distributor is defined as the component that triggers the LT current and distributes the HT current. The ignition timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition. The vacuum advance mechanism may be removed, and the distributor advance plate may be secured by soldering or welding or by suitable fasteners. The advance curve and advance springs are unrestricted. Generators/ Alternators: not required. All other electrical components are unrestricted.

**s. Miscellaneous**
1. The timing chain/sprocket cover may be altered or replaced.
2. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component:
   A. Fasteners - nuts, bolts, screws, studs, etc. Intake manifold fasteners may be of either a socket head or hex head configuration, and must be 5/16" diameter.
   B. Gaskets, except head gasket.
   C. Washers.
   D. Seals.
   E. Connecting rod, crankshaft, and camshaft bearings of the same size and type as original. Normal oversize/undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.
   F. Spark plugs.

G. Rocker pedestals that are of the same material and dimensionally identical (i.e., shaft location, offset, etc.) to the original components may be used.

3. Mechanical tachometer drive is permitted.

4. The crankcase breather may be altered or removed.

5. The standard rocker cover may be altered to provide for crankcase ventilation, and the filler cap may be altered or replaced. Valve or rocker covers may be substituted, provided that the replacement cover affords no additional function than that of the original stock cover. (relocated text from 8 below)

6. The crankshaft and main bearing caps may be treated with salt-bath nitriding cover under SAE specification AMS 2755A (tuftriding, etc.)

7. Any oil or lubricants may be used.

8. Water pump, fan, and generator/alternator pulley(s) are unrestricted.

9. Exhaust Outlets

Exhaust outlets on cars registered after January 1, 1986 shall not extend more than 60 cm (23.60″) behind the centerline of the rear axle and shall be positioned between 10 cm (3.9″) and 60 cm (23.6) from the ground, measured to the bottom of the exhaust pipe.

Exhaust Outlets: Cars registered prior to January 1, 1986.

A. It is recommended that all exhaust outlets be no longer than 60cm (23.60″) behind the centerline of the rear axle and positioned between 30cm (11.8″) and 60cm (23.6″) from the ground.

B. For cars unable to comply with the above rule (A.), they shall have a support bracket that attaches within six (6) inches of the outlet end, and the support bracket shall extend no more than thirty (30) degrees from vertical to the rear. Beginning January 1, 1986, it is mandatory for all Formula F cars.

**13. Cortina Engine**

All of B.12 applies to the Cortina engine except as specified in this section. Components shall not be interchanged between the Kent and Cortina versions of the engine unless specifically authorized.

**a. Compression Ratio**

Maximum compression ratio: 10.0 to 1. The following specifications are used in determining compression ratio:

1.64cc - top ring to top of piston

5.60cc - head gasket.

Minimum unswept volume per cylinder:

44.4cc (original engine with standard pistons)

45.1cc (original engine with .030″ o/s pistons)

**b. Block**

The 1600 Pinto block, P/N DIFZ-6010-C, may be used as a replacement for the Cortina block; Standard Pinto tappets, P/N DORY 6500A and DIFZ 6500A may also be used when this block is used as a Cortina replacement.

**c. Cylinder head**

Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:

Inlet: 1.50″ Exhaust: 1.16″

Combustion chamber:

| | |
|---|---|
| Minimum depth | 0.115″ |
| Maximum length: | 3.15″ |

Minimum volume per cylinder: 7.8cc

Reshaping is prohibited.

Ford Pinto cylinder head P/N DORY 6049B is permitted.

**d. Inlet Manifold**

The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:

Maximum Size at head face:

| | |
|---|---|
| Cyl. 1 & 4: | 1.48″ x 1.28″ |
| Cyl. 2 & 3: | .25″ |
| Maximum size at carburetor flange: | 3.060″ x 1.389″ |
| Maximum width: | 3.80″ |
| Primary choke end radius: | .709″ |
| Secondary choke end radius: | .787″ |

**e. Pistons**
Standard, 0.015 inch oversize or 0.030 inch oversize pistons may be used.

| | |
|---|---|
| Piston Maximum diameter: | |
| Standard: | 3.189″ |
| 0.015″ o/s: | 3.204″ |
| 0.030″ o/s: | 3.219″ |
| Depth of bowl: | 0.500″ +/-.005″ |
| Minimum volume of bowl: | 31.5cc |
| Maximum diameter of bowl: | 2.28″ |
| Centerline of wrist pin to crown: | 1.737″ +/- .002″ |
| Overall height: | 3.30″ |
| Minimum weight | |
| w/rings & pin: | 485 grams |
| Weight of pin: | 115 +/- 2 grams |

Wrist Pins are unrestricted provided that:
No modification is made to the piston for the installation of the wrist pins

**f. Valves**

| | |
|---|---|
| Distance apart at centers: | 1.540″ +/- .020″ |
| Max. diameter: | |
| Inlet: | 1.502″ |
| Exhaust: | 1.252″ |
| Overall length: | |
| Inlet: | 4.280″ +/- .006″ |
| Exhaust: | 4.260″ +/- .006″ |

**g. Crankshaft**
Weight: 23 lbs. 8 oz. minimum

The crankshaft from the Kent engine may be used.

**h. Carburetor**
Weber 32 DFM or DFD or Holley 5200

| | | |
|---|---|---|
| Venturi Diameter: | Primary: | 26mm |
| | Secondary: | 27mm |

**14. Honda Fit 1500 (L15A7) Engine**

a. General

1. No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Honda Fit factory service manual, Honda PN 61TK600 and all superseding years, or as specified in these rules. The factory service manual or its equivalent is required to be in the possession of each entrant. The manual may be the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases.
2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.
3. All rubber fluid lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps maybe installed on the rubber oil lines.
4. No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.
5. Only stock Honda manufactured gaskets and seals as specified in the Honda Fit factory service manual are permitted (Including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).
6. For all Honda part numbers in these specifications, superceding part numbers are considered equivalent.

b. Block

1. The only permitted cylinder blocks are Honda PN:

   11000-RP3-810 (2009-2010)

   11000-RTW-810 (2010-2012)

2. Honing of cylinders is permitted to a maximum diameter of 73.065 mm (2.8766 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.

3. Block must use stock main bearing caps, girdle and hardware as supplied.
4. Minimum deck height from crank centerline: 220.00 mm (8.661 inches).

c. Crankshaft

1. The stock Honda Fit crankshaft, Honda PN: 13310-RB1-000, must be used with no modifications allowed.
2. Minimum weight: 27.7 lbs. No pilot bearing, pulsar or hardware.
3. Maximum stroke at piston: 89.55mm (3.526 inches)
4. Main and rod bearings must not be modified in any way. OEM bearings must be used from within the standard range as allowed in the Honda Fit factory service manual.
5. The crank pulsar must not be altered in any way.
6. The crank pulley/balancer must not be altered or modified in any way.
    a. Minimum weight: 3.90 lbs.
    b. Honda PN: 13810-RB0-003.

d. Connecting Rods

1. Stock Honda Fit connecting rod must be used PN: 13320-RB1-000.
2. Minimum connecting rod weight with cap and bolts: 280.0 grams (9.88 ounces).
3. Maximum connecting rod length center to center: 149.05mm (5.868 inches).

e. Pistons

1. Honda Fit OEM standard size pistons, PN: 13010-RB1-000, must be used.
2. The use of over size pistons is not permitted.
3. Piston dimensions and weights:
    a. Maximum standard piston diameter, measured at a point 16mm from the bottom of the skirt: 72.990mm (2.8736 inches).
    b. Centerline of wrist pin to crown maximum: 26.21mm (1.032 inches).
    c. Maximum overall height from skirt to crown edge: 47.80mm (1.882 inches).
    d. Minimum weight: 198.0 grams (6.984 ounces).
    e. Minimum weight of piston pin: 66 grams (2.25 ounces).
    f. Combined minimum weight of piston, piston pin and connecting rod: 543.5 grams (18.85 ounces).
4. Piston rings must be as used in the Fit engine. Two compression rings and one 3 piece oil control ring must be used.
    a. The standard ring pack PN 13011-RB1-004 (Riken) or 13011-RB1-006 (Nippon).
    b. No modification of the piston is permitted for the installation of rings.
    c. Ring groove widths.

        Top ring groove: 1.04mm (0.0409 inches) +/- 0.01mm.

        Middle groove: 1.02mm (0.04016 inches) +/- 0.01mm.

        Oil ring groove: 2.00mm (0.07874) +/- 0.01mm.

    d. Ring gaps must be from 0.006 inch to 0.024 inch.

f. Cylinder Head

1. The only permitted heads are Honda PN:

    12200-RB0-G00 (2009-2010) (US spec)

    12200-RP3-A00 (2010-2012) (US spec)

    12200-RB0-000 (Japan Spec)

2. The gasket face of the cylinder head may be resurfaced to a service limit of 0.2mm (0.008 inches) based on a height of 120.0 mm (4.720 inches). However, the maximum compression ratio of 10.55:1 may not be exceeded.

3. The cylinder head must not be ported, polished or machined. The original casting must not be modified in any way or polished.
4. Head gasket to be stock Honda Fit PN: 12251-RB0-004. Minimum compressed thickness of 0.76 mm +/- 0.05mm.
5. Cylinder head breather restrictor must be used as supplied by HPD, unmodified. PN: 15262-F21S-A200.

g. Camshaft

1. The only permitted camshaft is PN: 14110-RB1-J00; must not be modified.
2. The CMP pulse (cam trigger) plate must be as supplied, Honda PN 14221-RB0-003.
3. The camshaft and crankshaft sprockets must be as supplied, Honda PNs: 14211-RB0-J00 and 13621-RB0-003, respectively. Cam timing must not be altered; the timing chain must be installed as specified in the Honda Fit factory service manual. The timing chain/sprocket cover and crankshaft pulley may not be altered. With the engine at TDC (No. 1 cylinder), the "UP" mark on the camshaft sprocket must be at the top and the TDC grooves on the camshaft sprocket must line up with the top edge of the cylinder head.
    a. Timing chain Honda PN: 14401-RB1-003.
    b. Case assy, chain (sprocket cover) PN: 11410-RB1-000
    c. Pulley comp, crankshaft, PN: 13810-RB0-003
    d. Cam timing at lobe centers: (at 1mm after opening to 1mm before closing).
        i. Exhaust: 119 degrees, +/-1.0 degree.
        ii. Intake VTEC on: 111 degrees, +/-1.0 degree.
4. Camshaft profile and lobe centers shall be checked using the official procedure published by the SCCA.
5. Cam lobe heights: Intake, Primary: 35.240mm, secondary: 36.200mm, exhaust: 35.490mm.
6. Valve lift measured at the retainer:
    a. Exhaust: 9.200mm
    b. Intake VTEC off: 8.680mm
    c. Intake VTEC on: 9.900mm
7. Valve rockers must not be modified in any way.
    a. Honda PN: 14620-RB1-010 Arm Assy, rocker.
8. The VTEC system must be stock. The VTEC activation valve must be stock. The HPD ECU will activate the VTEC at 5200 RPM. Honda PN: 15810RB0-G01.

h. Valves

OEM valves must be as used in the Fit.

1. Dimensions
    a. Inlet PN: 14711-RB0-000 Exhaust PN: 14721-RB0-000
    b. Maximum diameter: Inlet: 28.15mm Exhaust: 23.15mm
    c. Maximum overall length: Inlet: 119.15mm Exhaust: 117.85mm
    d. Minimum stem diameter: Inlet: 5.45mm Exhaust: 5.42mm
2. Valve location or angle must not be moved.
3. Reshaping of the valves is strictly prohibited.
4. Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts.

Inlet PN: 12204-PJ7-305 (over size)

Exhaust PN: 12205-PJ7-305 (over size).

5. It is permitted to replace or re-cut valve seats provided the valve seat angles are stock Honda three angle cut per the Honda Fit factory service manual.
6. Valve stem installed height must be per The Honda Fit factory service manual:

Intake maximum: 46.8mm.

Exhaust maximum: 46.9mm.

7. Valve stem seals must be Honda OEM parts.

Honda PN: Intake: 12210-PZ1-004 seal A.

Honda PN: Exhaust: 12211-PZ1-003 or 12211-PZ1-004 seal B.

i. Valve Springs

1. Valve springs are Honda OEM as specified in the Honda Fit factory service manual.

   a. Intake PN: 14761-RB1-003, free length: 48.55mm.

   b. Exhaust PN: 14762-RB1-007, free length: 54.52mm.

2. Valve spring shims are not permitted.

j. Compression Ratio

The maximum compression ratio is 10.55 to 1 utilizing Honda Fit factory service manual limits. Carbon may be removed.

k. Intake Manifold and Fuel System

1. The lower manifold must be stock Honda Fit parts. It is not permitted to add or remove material. No coating is permitted on the exterior or interior of the manifold. (SCCA Club Racing will have a standard port model for comparison.)

Honda PN: 17100-RB1-000

2. The upper manifold, air box and throttle body assembly must be used as delivered from HPD. External throttle return springs are unrestricted.

   a. Air filters are unrestricted. All air entering the engine must pass through the air filter prior to entering the throttle body. No devices such as, but not limited to, air horn(s), trumpet(s), bell mouth(s), velocity stack(s), vortex generators and or turning vanes are permitted inside the air filter or between the air filter and the throttle body.

3. All gaskets and sensors utilized on the inlet manifold from head to throttle body must be Honda Fit OEM or HPD supplied.

   a. Gasket In. manifold: 17105-RB0-004, Honda Fit OEM.

   b. Gasket, EGR chamber cover: 17146-RB0-004, Honda Fit OEM.

   c. Gasket In. port: 17115-RB0-007, Honda Fit OEM.

   d. Gasket, restrictor: 17399-F21S-A200, (2 required) HPD.

4. The fuel rail must be as supplied by HPD. Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01). The fuel pressure regulator may be the unit supplied by HPD or any alternate as long as the fuel pressure regulator serves no additional purpose. Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01).

5. The Honda Fit engine is required to have an HPD supplied air inlet restrictor with internal diameter of 30.5mm and thickness of 3.175mm (0.125 inches) correctly installed within the intake system. The restrictor may not be modified in any way; the specified value can not be exceeded in any measurement of the diameter. The restrictor centerline or shape must not be altered. SCCA Club Racing will have go-no go gauges to verify that all competitors are in compliance.

l. Fuel Pump

1. The fuel pump is unrestricted.

m. Exhaust Manifold

1. The exhaust manifold must be as supplied by HPD, HPD part #18150-F21S-A200 or #181850-F21S-B200.

2. The exhaust manifold exit may be shortened within HPD specified limits to direct the tail pipe as necessary. The tail pipe must be made from a single wall thickness tubing for its' entire length and may not be swaged, shaped or formed in any way other than bending required for fitment. The exhaust pipe must maintain a 2 inch outside diameter from the manifold exit to its outlet and must meet 9.1.1.B.12.s.9.

3. The Lambda sensor may be placed anywhere in the exhaust system after the required exhaust manifold.

4. Exhaust coatings and wraps and heat shields may be used to control engine bay temperatures and

protect other components.

n. Lubrication System

1. The oil pan must be as supplied by HPD. No modifications are permitted.
2. Oil feed pump must be stock Honda Fit. No modifications are permitted. Oil pressure may be adjusted for wear.
   a. The oil pressure sensor location must be as supplied by HPD.
   b. It is recommended that oil pressure be maintained at the factory service manual specification.
3. The scavenge pump must be as supplied from HPD. No modifications are permitted.
   a. Rotor length: 25.400mm (1.000 inches)

b. Rotor outside diameter: 44.400mm (1.748 inches)

4. Scavenge drive pulleys must be as supplied by HPD. Drive belt manufacture is unrestricted provided the belt type and dimensions are as specified by HPD.
5. Hose routing and filter system are unrestricted.

o. Cooling System

1. Water pump and water pump pulley must be stock Honda Fit parts. No modifications are permitted.

Honda PN: 19200-RB0-003 Pump, water.

Honda PN: 19224-RB0-000 Pulley, water pump.

2. The water inlet and outlet at engine must be as supplied by HPD. The thermostat is unrestricted provided the housing is not modified. The thermostat bypass may be plugged.
3. Drive belt manufacture is unrestricted provided it is designed for use with Honda Fit crank pulley.
4. Radiator is unrestricted.

p. Electrical Equipment

1. The ECU and engine electrical harness must be as supplied by HPD. No modifications are permitted.
2. The ECU will be a sealed unit supplied by HPD. The ECU maps and inputs must not be modified The ECU is capable of being swapped in the case of a protest.
3. Ignition coils must be stock Honda Fit, PN: 30520-RB0-003. No modifications are permitted.
4. All sensors related to engine operating parameters and/or supplied by HPD must be used. These sensors, their locations and mounts, and their wiring harness leads may not be altered or "piggy backed". Any sensors required for analog type gauges must be in addition to the HPD supplied sensors.
5. The alternator must be stock Honda Fit PN: 31100-RB0-004 or HPD part #3100-F21S-A200. The alternator drive pulley must be stock. Alternator connections must be through the HPD engine electrical harness only. The alternator must not be disabled and must be accessible to SCCA officials.

q. Flywheel

1. The stock Honda Fit flywheel must be used. No modifications are permitted except for normal resurfacing for clutch wear.
   a. Stock Honda flywheel PN: 22100-RB0-005.
   b. Minimum weight with ring gear: 14.4 lbs.
2. The stock Honda Fit clutch must be used. No modifications are permitted.
   a. Honda PN: 22300-RB0-005; Quicksilver PN: QSHDR-411.
   b. Minimum weight without friction disk: 7.0 lbs.
3. Only stock Honda friction disk or friction disk from Quicksilver Race Engines may be used. No modifications are permitted.
   a. Honda PN: 22200-RB0-005.
   b. Weight of new friction disk: 2.1 lbs.

r. Miscellaneous

1. All emission control devices must be removed and blocked off by the blanking plate provided by HPD, except the VTEC activation valve. The VTEC activation valve must be retained; it must be

functioning.

2. Air filter is unrestricted.
3. The use of unleaded premium "pump" gas: 91 – 93 RON is recommended.
4. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component.
   a. Fasteners – nuts, bolts, screws, washers, studs, etc. Head bolts, rod bolts, flywheel bolts, and crank pulley bolt must be used as provided by Honda and HPD.
   b. Gaskets and seals, except those specified in the above rules.
   c. Spark plugs.
   d. Mechanical tachometer and analog gauges.
   e. Oil and lubricants are unrestricted. HPD strongly recommends the use of oil and lubricants as described in the Honda Fit factory service manual.
   f. The oil filler cap may be removed and plugged.

**15. Ford NE series and Pinto Engines**

The Ford 2 liter single overhead camshaft "NE" series engine and the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine shall conform to the following specifications. The nominal bore is 90.84mm and the nominal stroke is 76.95mm (Note: All blocks shall contain casting number HM6015BA, HM6015AA, HM6015BB, HM6015AB, HM6015DA, or HM6015AD. Dashes in the casting number are not relevant.). Production tolerances are permitted providing the total swept volume does not exceed 2000cc.

a. The rockers shall remain entirely unmodified. Alternate manufacturers may be used as long as the original materials and dimensions are the same. Camshafts must be from Ford Motor Company, or Crower part #E57553 FF2000, or any camshaft that is a replica of the original and of the same material may be used. Camshaft geometry shall be stock. An alternate optional camshaft, Elgin part number 2000FC, may be used only in the original iron head. Regrinding camshaft lobes is permitted as long as the camshaft lobe center is 112° ± 2°. Offset keys are permitted. Tuftriding or Parkerizing is permitted. Maximum valve lift at determined points by camshaft rotation will be established. The use of a low rate substitute valve spring is permitted. Load characteristics of special checking spring: twelve (12) lbs., at 1.417 inches, thirty (30) lbs., at 1.000 inches. An adjustable camshaft sprocket which retains the same number of teeth and pitch as the stock sprocket may be used.

b. A standard crankshaft shall be used or any crankshaft that is a replica of the original crankshaft and of the same material may be used. Spot machining to achieve balance is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight: twenty-seven point five (27.5) lbs.

c. The flywheel shall be a standard component or the approved alternate Elite-001. The minimum weight is 10.5 lbs. with ring gear. The flywheel may be machined to achieve minimum weight. Spot machining to achieve balance is permitted. Flywheel bolts are free and locating dowels are permitted. A 1600 GT starter ring may be fitted. The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel. Carbon fiber clutches are not permitted.

d. Maximum compression ratio will be controlled as follows:
   1. Minimum Cylinder Head combustion chamber volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.
   2. Standard Ford gasket, Fel-Pro #8361PT, or Ferrea part number G50100 may be used. Gaskets will have a minimum thickness of 0.9mm, minimum diameter of cylinder aperture of 92mm.
   3. Pistons shall not protrude above cylinder block surface at TDC.

e. It is permissible to reshape inlet and exhaust port by removal of metal within limits. Addition of material in any form is prohibited. Maximum diameter of inlet port at manifold head face 39.5mm. Maximum dimensions of exhaust port at manifold face 35.5mm x 27mm. The distance between the valve centers and the angles of the valves shall not be altered.

f. Pistons shall be standard Ford Mahle, AE Hepolite, CP, or J&E. Pistons must be unmodified in any way except for balancing and as detailed herein.

   The following combinations are permitted:

   1. Mahle piston P/N 80HM6102LA with rings, pin, connecting rod (with bolts), but without bearings:Minimum permitted weight = 1332.5 grams.

2. Mahle piston P/N 85HM6102DA with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.

   NOTE: This piston may have either casting #90V108 or #90V118.

3. AE Hepolite piston P/N 21426, casting P/N 21426 (AE Hepolite) with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.

4. CP piston P/N IV 2.0 LTR with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams. Part number and Ivey logo stamped on wrist pin bosses.

5. JE piston P/N M-6102-B200 with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.

NOTE: M-6102-B200 piston assembly is now made by JE and is visually different. I.D. Marks: M-6102-B200, Ford racing logo. All marks pin stamped on wrist pin bosses.

Rings are unrestricted provided that:

A. One oil control and two compression rings are used.

B. No modification is made to the piston for the installation of the rings.

Localized machining of the gudgeon pin bosses to achieve balance and weight by simple machining; all external surfaces, dimensions, and profiles shall remain standard with the exception of the top surface of the piston crown which may have simple machining to achieve balance, and as required in Section 9.1.1.B.3.d.

g. Valves may be of Ford manufacture or Ferrea part numbers VSOIN200 and VSOEX2000. Valves shall remain standard; no reprofiling or polishing is permitted.

   The original forty-five (45) degree seat angle shall be maintained.

   Maximum face diameter inlet 42.2mm.

   Maximum face diameter exhaust 36.2mm.

   Maximum valve stem diameter 8.4mm.

h. Full connectng rods may be standard Ford, Cosworth, Oliver, or Crower. The approved Crower part numbers are SP93230B-4 or SP93230PF-4. Any rod bolts may be used. Floating piston pins may be used. Standard rod length must be 5.00 inches (+.005" -.010"). Machining is permitted to remove metal from the balancing bosses to achieve balance only. Tuftriding, Parkerizing, shot peening, shot blasting, polishing, etc., are permitted.

i. Maximum valve lift against cam angle with zero tappet clearance: (Lift measured in mm)

| Standard Camshaft | | | | |
|---|---|---|---|---|
| | Intake | | Exhaust | |
| Angle | Opening | Closing | Opening | Closing |
| | | | | |
| 0 | 10.442 | 10.442 | 10.442 | 10.442 |
| 5 | 10.36 | 10.36 | 10.36 | 10.36 |
| 10 | 10.11 | 10.11 | 10.11 | 10.11 |
| 15 | 9.69 | 9.69 | 9.69 | 9.69 |
| 20 | 9.11 | 9.11 | 9.11 | 9.11 |
| 25 | 8.37 | 8.37 | 8.37 | 8.37 |
| 30 | 7.45 | 7.45 | 7.45 | 7.45 |
| 35 | 6.38 | 6.38 | 6.38 | 6.38 |
| 40 | 5.17 | 5.17 | 5.17 | 5.17 |
| 45 | 3.86 | 3.86 | 3.86 | 3.86 |
| 50 | 2.59 | 2.58 | 2.58 | 2.59 |
| 55 | 1.5 | 1.47 | 1.47 | 1.5 |
| 60 | 0.86 | 0.81 | 0.81 | 0.86 |
| 65 | 0.65 | 0.56 | 0.56 | 0.65 |

| | | | | |
|---|---|---|---|---|
| 70 | 0.54 | 0.43 | 0.43 | 0.54 |
| 75 | 0.46 | 0.33 | 0.33 | 0.8 |
| 80 | 0.37 | 0.19 | 0.19 | 0.37 |
| 85 | 0.26 | 0.08 | 0.08 | 0.26 |
| 90 | 0.2 | 0.01 | 0.01 | 0.2 |

| Alternate Camshaft | | | | |
|---|---|---|---|---|
| | Intake | | Exhaust | |
| Angle | Opening | Closing | Opening | Closing |
| 0 | 11.182 | 11.182 | 10.149 | 10.149 |
| 5 | 11.102 | 11.092 | 10.07 | 10.071 |
| 10 | 10.853 | 10.821 | 9.831 | 9.829 |
| 15 | 10.423 | 10.363 | 9.426 | 9.415 |
| 20 | 9.821 | 9.721 | 8.854 | 8.826 |
| 25 | 9.069 | 8.916 | 8.117 | 8.073 |
| 30 | 8.177 | 7.955 | 7.205 | 7.154 |
| 35 | 7.131 | 6.85 | 6.132 | 6.071 |
| 40 | 5.96 | 5.624 | 4.92 | 4.866 |
| 45 | 4.702 | 4.313 | 3.611 | 3.6 |
| 50 | 3.425 | 3.01 | 2.346 | 2.38 |
| 55 | 2.242 | 1.851 | 1.325 | 1.406 |
| 60 | 1.278 | 0.994 | 0.722 | 0.825 |
| 65 | 0.642 | 0.509 | 0.488 | 0.604 |
| 70 | 0.334 | 0.307 | 0.385 | 0.524 |
| 75 | 0.215 | 0.208 | 0.303 | 0.461 |
| 80 | 0.134 | 0.13 | 0.224 | 0.404 |
| 85 | 0.064 | 0.063 | 0.146 | 0.343 |
| 90 | 0.022 | 0.024 | 0.09 | 0.279 |

j. Engines will be mounted upright, and aligned fore and aft in the chassis.

k. A single carburetor only will be used on a standard inlet manifold. The carburetor will be a Weber 32/36 DGV 26/27mm venturi, its origin being from a 1600 GT "Kent" or 2000 SOHC NE engine. The Holly 5200 32/36 carburetor also may be used; carburetor with the swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting. The air cleaner may be removed and a trumpet fitted, and jets may be changed, both throttles may open together, cold start devices and diffused bar may be removed, internal and external antisurge pipes may be fitted, and seals on emission control carburetors may be removed. The bottom of the lower column portion of the auxiliary venturi may be machined for purposes of high speed enrichment. No other modifications are permitted. Chokes (venturi) shall remain standard and no polishing or profiling is permitted.

l. The addition of material by any means to any component is prohibited.

m. It is permitted, as a means of repair, to replace damaged valve seats and cylinder bores by replacement cast iron valve seat inserts and cast iron cylinder liners; valve guides may be replaced with cast iron or bronze, all to standard dimensions. Repairs to the cam towers to facilitate replacement of cam bearing and/or replacements of broken or cracked towers is permitted as long as the cam bearing center line is not changed and that one original cam tower is retained. Line boring of cam bearing caps is permitted.

n. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

o. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

p. Standard valve spring retainers shall be used, and single valve springs only are permitted. Shims are

permitted, and valve springs are otherwise free.

q. Exhaust system and manifold are unrestricted, within SCCA safety regulations.

r. Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

s. Oil coolers are unrestricted.

t. Cooling system unrestricted. The radiator, if housed in or incorporating a cowl air-scoop deflector, shall comply with body regulations.

u. Fuel Pump: Unrestricted.

v. Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component which triggers the L.T. current and distributes the H.T. current. The Ignition Timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

w. Only the standard inlet manifold shall be used.

The ports may be reshaped by the removal of metal as long as the following dimensions are maintained: maximum size at head face = 1.437" (36.5mm), maximum size at carburetor flange = 3.405" (86.5mm) x 1.595" (40.5mm). The carburetor seat face may be machined to horizontal in the fore to aft plane. The diameter of the ports may exceed the above listed dimensions if the casting bore is untouched and in its original state. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

x. Gaskets and seals are unrestricted except for the cylinder head gasket that has the requirements listed in B.15.d.2. and the intake gasket. The intake gasket thickness must not exceed 1.1mm. Intake gasket is not to be construed as a spacer.

y. Pump, fan, and generator drive pulleys are unrestricted.

z. The crankcase breather may be altered or removed, but all breathers shall discharge into a catch tank.

aa. Mechanical tachometer drives may be fitted.

bb. Generators are optional.

cc. Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

dd. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine is permitted.

ee. Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations shall remain completely standard and unmodified. When a system is specified to be "unrestricted" (e.g. paragraphs r and t), the restrictions of this paragraph do not apply.

ff. The use of the Fast Forward aluminum cylinder head is permitted. The following dimensions must be maintained.

Intake port maximum volume 70.0 cc.

Exhaust port maximum volume 52.0 cc.

Intake port surface to exhaust port surface 5.580 +/- 0.020 inches

Intake valve center line to (adjacent) intake valve center line 4.015 +/- 0.015 inches

Exhaust valve center line to (adjacent) exhaust valve center line 4.015 +/- 0.015 inches

The machine tool marks in the intake and exhaust ports must remain untouched for 0.750 inches from the respective gasket surfaces.

gg. Any spark plugs may be used.

**16. Ford Zetec Engine**

The Ford Zetec ZX3 engine shall conform to the following specifications and may be modified only as specifically allowed. If these specifications do not explicitly allow a modification, then it may not be done. The philosophy of the Zetec engine in FC is to allow limited engine rebuilds but no performance modifications to the engine. Blue printing, balancing, head porting, polishing, etc. are strictly prohibited and against the spirit of the Zetec formula. Where Ford part numbers are specified, normal industry part number supersession is expected and the superseding part numbers are automatically included.

a. a. The cylinder head may not be ported or polished. Machining the cylinder head is not permitted except as specified in these rules. A standard three- angle "production" valve job is required and the only

allowed angles are those defined in the Ford factory manual. The intake valve seats must be 30° 45° 70° with the 45° face a minimum 1.5 mm wide. The exhaust valve seats must be 30° 45° 55° with the 45° seat 1.5 mm wide minimum. Valve seats and guides may be replaced providing that they remain in the original stock locations. The camshaft, valves, springs, and shim/bucket com- ponents must be original Ford parts and may not be modified in any way. Only original unmodified Ford parts may be used for direct replacement. The camshafts must remain as ground by Ford; no polishing is permitted. The head may not be surfaced or milled beyond the minimum thickness of 5.230" measured between the cam cover seating surface and the lower plane of the head. Only the Ford #RFYS4E6090AC or RFYS4E6090AD head is allowed. The only allowed camshafts are the Ford #L913B YSAA intake and #L913B C2B exhaust. The original, unmodified Ford camshaft and crankshaft timing pulleys must be used. Required camshaft timings are as follows:

| | |
|---|---|
| Intake centerline | 116-117 degrees ATDC |
| Exhaust centerline | 106-107 degrees BTDC |

b. Only original Ford or Sealed Power H872cp pistons may be used. Crankshaft, and rods may be replaced only with standard original Ford replacement parts. The crankshaft, rod and main bearing journals may be reground or polished for the purpose of installing oversize main or rod bearings. The big end of the connecting rod may be honed to fit .002 inch larger rod bearings. Connecting rod bearings may be replaced with unmodified bearings which are specifically designated for use in this engine. The required original crankshaft main bearing journal dimension is 2.282-2.283 inches and the required original crankshaft rod journal dimension is 1.846-1.847 inches. The corresponding main journal dimensions for oversized bearings are either 2.273-2.274 inches or 2.263-2.264 inches; the corresponding rod journal dimensions for oversized bearings are either 1.837-1.838 inches or 1.827-1.828 inches. The crankshaft centerline to deck dimension is 8.378 inches and may not be altered. The main bearing housing bore is 2.452-2.453 inches and the rod housing bore is 1.9642-1.9650 inches. Only original Ford rod bolts with a minimum weight of 24.6 grams or ARP rod bolts with a minimum weight of 23.5 grams may be used.

c. Only original stock Ford replacement piston rings (part number 2S4Z6148AA) or Hastings Rings (part number 2M4887 Std) may be used. The ring end gaps may not be altered and must remain as manufactured. All of the rings must be installed including the complete oil scraper assembly. The piston bore may be honed solely to allow piston ring seating. The first and second compression rings must be installed in the positions designated by the manufacturer.

d. All surfaces on the head, block, rods, pistons, and crankshaft must remain as manufactured by Ford and may not be altered in any way unless specifically provided for in these rules. The original casting marks and cast surfaces must remain as-cast and also meet all of the Ford design values and tolerances as stated in the Ford factory manual or as delineated in these specifications. The block may not be decked. Only Ford Zetec ZX3 blocks with block numbers #RFYS4G6015AA, or #RFYS4G6015AD or #RFYS4G6015AE are permitted. The blocks may be sleeved however all bore tolerances must remain stock or as otherwise provided for in these rules. The required compression ratio is 9.6:1, the required standard bore is 3.3390–3.3420 inches and the required stroke is 3.461 +/-.004 inches. The maximum bore dimension of 3.3420 inch is intended to allow for cylinder wear only. It is not permitted to machine to this dimension. This measurement will be taken .250 below the block deck where the bore is untouched by the piston ring.

e. Flywheel: The minimum weight is 8.0 lbs. and any weight removal from the specified flywheel must come from the clutch plate surface. The friction and clamping force surface of the flywheel may be resurfaced. Only the Quarter Master #QM107160 flywheel may be used. It is permitted to install a new ring gear on the flywheel.

f. Any 7¼ inch single plate or double plate, non-carbon fiber clutch is allowed.

g. Any oil pan is allowed. The oil pan may not contain an oil scraper between the oil pan and the block. No device in the oil pan may be contoured to the crankshaft assembly to function as an oil scraper nor may any device be closer to the rotating crankshaft assembly than 0.500 inches.

h. Any three-stage oil pump with a maximum of two scavenge stages is allowed. The maximum scavenge rotor dimensions are 1.600 inches in diameter and 1.375 inches in length. The maximum pressure rotor dimensions are 1.600 inches in diameter and *1.025* inches in length.

i. The exhaust system manifold tubing OD must be 1.5 inches (as measured 1 inch or more from the face of the head) and the manifold tubes must be a minimum of 24 inches in length and must terminate into a single exhaust pipe through a 4 into 1 collector. The collector angles must be the standard 15 degree bend, (30 degree included angle) with an exit diameter of 2 inches. The tail pipe must be a minimum of 24 inches in length. The tail pipe includes a muffler, if present, as long as the inlet and outlet pipes of the muffler are the same diameter as the tail pipe. 4 into 2 into 1 exhaust collectors or reduced diameter venturi sections are prohibited.

j. ECU: The Pectel T2 or the Performance PE-3 unit is required. The current specification SCCA Club map or 2013 Pro map as published by SCCA is required. The SCCA Club and 2013 Pro map are available on the SCCA website.

k. Intake manifold and fuel injection components: The Quicksilver Race Engines (QSRE) intake air scoop, intake manifold, throttle bodies, air horns, fuel rail, injector system, pressure regulator and carbon fiber air scoop with filter are required and must be used with no modifications of any kind unless specifically provided for in these rules. (Due to the aging of the air scoops alternative means of securing the filter will be permitted which may include modifications to the debris tube and other mounting hardware. The air scoop however must have a minimum .430 inch operable air bleed at its rear most point.) The only allowed intake manifold and throttle body combination is the #0138 manifold available through QSRE. Only 19 pound fuel injectors may be used and they may not be modified in any way. Fuel injectors may be replaced only with stock Ford injector part number #0280155887 XS4U-AA or Accel injector part number ACC150819.

l. Intake restrictor must meet FPIR specifications: The QSRE #1975 intake restrictor must be used and may not be modified in any way. The restrictor internal diameter is 1.340. The restrictor is to be placed between the air scoop mounting flange and the intake manifold.

m. Engines will be mounted and aligned fore and aft in the chassis

n. The addition of material by any means to any component is prohibited

o. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

p. Oil coolers are unrestricted.

q. A liquid cooling system is mandatory, but radiators are unrestricted. The stock water pump may be modified; electric water pumps are prohibited.

r. Fuel pump is unrestricted.

s. Gaskets and seals are unrestricted except for

   1. cylinder head gasket, Ford part number XS7Z6051CA or Victor Reinz part number 54502

   2. a continuous o-ring of cross-section of 0.100 inches must be fitted to each intake runner groove between the intake manifold and the head which to ensures that no air by-passes the o-ring seal

t. Pump, fan, and generator drive pulleys are unrestricted.

u. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine are permitted.

v. Any tapered seat 14mm x 25mm (.984 inch) reach spark plugs may be used.

w. Ford OEM coil P/N 988Z12029A or any other single OEM type replacement coil is allowed.

**17. Transmission**

Any transmission may be used with not more than four (4) forward gears and an operational reverse gear. The change gear ratios are unrestricted.

a. The use of an automatic and/or sequentially shifted gearbox is prohibited.

b. Electronic and/or electro-mechanical assisted gear change mechanisms are prohibited.

c. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exceptions are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts).

d. All change gears must be located in the case aft of the final drive.

**18. Final Drive**

Any final drive unit may be used except:

a. Drive shall be to rear wheels only.

b. The differential shall be of standard “open” type and cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

c. Electronically controlled differentials are prohibited.

**19. Clutch**

a. Formula F: The use of any single plate clutch on the Ford Cortina and Kent is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel, and provided that it shall have an operable clutch system. Carbon Fiber clutches are not permitted.

b. The Honda Fit shall use the clutch specified in Section B.14.

Formula Continental

See B.15 and B.16.

**20. Weight**

A. Formula F

1. Ford Cortina Engine: 1060 lbs.
2. Ford Kent and Honda Fit Engines: 1110 lbs.
3. *Cars complying with the English FF rules under the Alternate Vehicle Allowance table add 25lbs.*

B. Formula Continental

1. Pinto Engine: 1200 lbs.
2. Pinto with aluminum cylinder head: 1200 lbs.
3. Zetec Engine: 1200 lbs.

**21. Cars Registered Prior To 1/1/86**

The following specifications are for cars registered prior to January 1, 1986 and for Technical Inspection only. No cars are to be built to these specifications as of January 1, 1986.

A. Chassis/Frame

The chassis is defined as the frame. It shall be a steel space frame. Monocoque type structures are prohibited. Sheet material affixed to the frame by welding, bonding, or riveting, or by bolts or screws which are six (6) inch centers are defined as stress bearing panels.

FCS
The undertray, for safety reasons, shall be a stress bearing panel. Its curvature shall not exceed one (1) inch. The mountings for brake and clutch pedals and cylinders, and for the instrument panel and the bulkhead (panel) behind the driver may be stress-bearing. No other stress-bearing panels are permitted.

Brackets for mounting components, such as the engine, transmission, suspension pick-ups, instruments, clutch, and brake components, and body panels may be non-ferrous, of any shape, and fastened to the frame in any manner.

Gussets are defined as of steel, fastened to a maximum of two (2) members, and are specifically permitted.

The firewall portion of the bulkhead (panel) shall extend the full width of the cockpit and be as high as the top of the carburetor. Forward facing air ducts may be installed for the purpose of delivering air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the driver. (Any shape may be used to form firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

B. Suspension and Running Gear

Suspension is defined as the system of springs, shock absorbers, A-arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering rack housings, steering links, etc., are not classified as suspension or running gear for this application.

All components shall be of steel, with the exception of hubs, hub adapters, rear hub carriers, and bearings and bushings. Front hub carrier material shall be of steel or aluminum alloy. The materials for front and rear hub carriers on cars manufactured after January 1, 1983 will be only steel or aluminum alloy. Springs: steel only,Titanium is prohibited.

Shock absorbers: Design: Unrestricted.
Casing Material: Steel or aluminum alloy.

All components which are not defined as chassis/frame or suspension or running gear are unrestricted, unless otherwise restricted by the GCR. Titanium is prohibited.

C. Body

1. Definition of Bodywork
Internally: All visible parts of the passenger compartment.

a. The bodywork opening giving access to the cockpit shall have the following minimal dimensions:

Length: 60cm (23.622 inches)
Width: 45cm (17.72 inches)

This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the firewall. Forward facing roll bar/cage bracing and required padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel.

c. Bodywork, including fuel tanks, shall not exceed a maximum width of 95cm (37.4 inches).

d. No part of the bodywork and aerodynamic devices shall exceed the height of a horizontal plane 90cm (35.4 inches) above the ground. The safety roll bar/roll cage and engine air box are not included in this height restriction. Measurements are to be made in any condition, driver on board.

e. No part of the bodywork shall extend more than 100cm (39 inches) behind the centerline of the rear axles.

f. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle shall be firmly fixed with no provisions for adjustment to vary downforce.

g. Side-mounted radiators (behind the front wheels) may extend beyond the 95cm (37.4 inches) limitation, but not beyond a vertical plane passing through the centerlines of the front and rear tires. Any portion of a radiator that extends beyond the 95cm (37.4 inches) limitation cannot be covered with any type of shrouding. Radiators mounted in front of the front wheels are considered front mounted and cannot exceed the 95cm (37.4 inches) limitation.

2. Wings and other airfoil devices which have the principal effect

of creating aerodynamic down-thrust are prohibited. Airfoil: Any device or part of a car (excepting normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downthrust. Within this definition may be included forward facing gaps or openings in the bodywork, but shall not include spoilers in the form of raised surfaces, continuous with the body surface, and not wider than the body surface.

3. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic down-force on the vehicle. Thus, for the full width of the body between the front and rear axles, the lower surface (surface licked by the air-stream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) No aerodynamic devices (e.g., skirts, body sides, etc.) may extend more than 1cm (0.394 inches) below the lower surface of the tub or chassis floor to the rear of the front axle. Seat buckets or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.

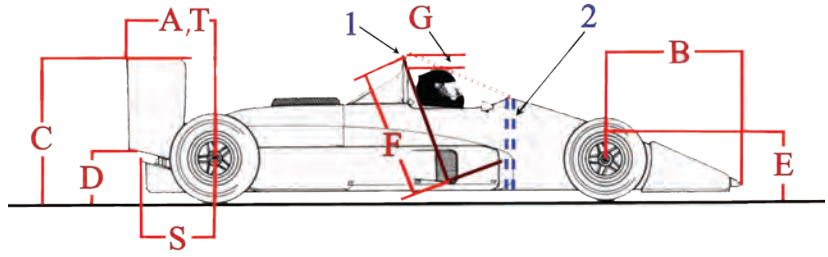
4. Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

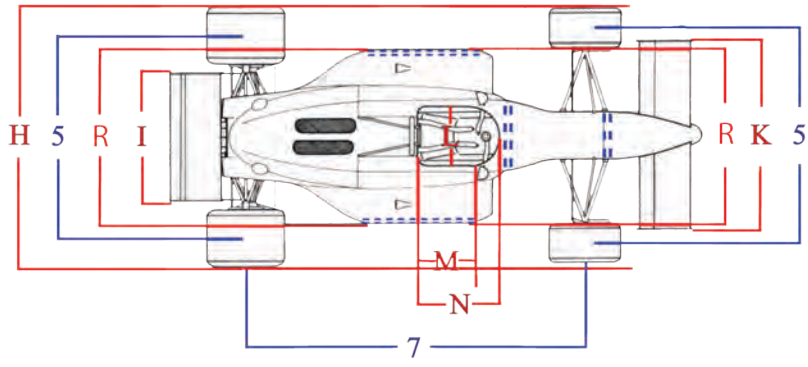
| FF/FC Dimensions - Table 4 | |
|---|---|
| **Dimension (refer to drawing)** | **Measurement (cm)** |
| A. Maximum rear wing overhang from rear wheel axis | **80** |
| B. Maximum front overhang from front wheel axis | **100** |
| C. Maximum wing height measured from the ground with the driver on board | **90** |
| D. Exhaust height measured from the ground | **20-60 FC; 10-60 FF** |
| E. Maximum height of any aerodynamic device forward of the front wheel axis | **Rim height** |
| F. Minimum safety rollover bar height inline with driver's spine | **92** |
| G. Minimum allowed helmet clearance | **5** |
| H. Maximum width - To be taken on the wheel at the axle centerline. | **185** |
| I. Maximum rear aerofoil width (includes endplates) | **95** |
| K. Maximum nose width | **135** |
| L. Minimum cockpit opening | **45** |
| M. Minimum cockpit parallel opening length | **30** |
| N. Minimum cockpit overall opening length | **60** |
| R. Maximum body width behind front wheels | **95** |
| S. Maximum exhaust length from rear wheel axis | **80 FC; 100 FF** |
| T. Maximum rear body overhang from rear wheel axis | **80 FC; 100 FF** |
| 7. Minimum wheelbase | **200** |
| 5. Minimum track | **120** |

**F-2000 SPECIFICATION**

1. Safety roll-over bar.
2. Substantial support structure.
3. Crushable structure.
4. Substantial structure.
5. Front track.
6. Rear track.
7. Wheelbase

Maximum height is measured with the driver aboard. Maximum height excludes safety rollover bar on which there is no maximum height.




| Alternate Vehicle Allowance | | |
|---|---|---|
| Car | Class | Notes: |
| Cars complying with English FF rules. | FF only | Car must comply with published English FF regulations (Formula Ford 1600 – Formula Ford Championship of Great Britain: Dated 01/01/2010; Version 1) Article 3 (Bodywork & Dimensions); Article 13 (Cockpit); Article 15 (Safety Structure); and Appendix A excepting Wheel width and ground clearance. Allowed Engines: 1600cc Ford Kent or 1500cc Honda per SCCA rules. Tires, wheels, transmission, weight and all other items not specifically governed by the aforementioned English rules must comply with current SCCA FF rules. Competitors must have the English FF rules in their possession and present same upon request. |
| Stohr 98 FF | FF only | Homologation numbers 990089 and 990094 permitted allowance for using chassis tubes for radiator water tubes. |

## C. FORMULA VEE PREPARATION RULES

### 1. Background

A. History and philosophy of the class

Formula Vee was recognized by SCCA in 1963. The class is highly restricted, originally requiring the use of genuine VW parts "from the standard Volkswagen 1200 Sedan Series type 1, US model sedan as imported by VW" in the engine, drivetrain and suspension. Over the years, the rules have changed slowly to maintain parts availability and allow a gradual evolution of the class. However, the focus remains the same: to provide a cost effective, highly competitive class that, through consistent and tightly controlled component and preparation rules, emphasizes driver ability rather than technological development of the car. Today, as throughout its long history, FV is one of the most highly subscribed classes in SCCA. The goal of these rules is to maintain both the competitiveness and cost effectiveness of the class.

B. Definition

A formula for single seat, open wheel racing cars based on standard Volkswagen 1200 series Type 1, U.S. model sedan (imported by VW) components, and restrictive in specifications so as to emphasize driver ability and preparation rather than design and technology of the car.

Formula Vee is a Restricted Class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation may be required. Refer to section 9.2.2. for details.

No component of the engine, power train, front suspension, brakes shall be altered, modified, or substituted unless specifically authorized. Mass-produced, direct replacement components may be substituted for the following as long as they are of the same material and dimensionally identical to the original VW components they replace:

- VW transmission components
- Rear axle components
- Front suspension
- Brake components

These replacement parts must be generally available to all competitors and must offer no competitive advantage over the original VW parts. Replacement engine components are allowed as described in section C.5.

Any external surface of the suspension, brakes, and transmission/ rear axle may be painted, plated, or anodized.

Engine components shall be assembled in standard configuration. Exceeding the wear limits specified in the VW manual or other official VW guides is allowed provided that tolerances, dimensions, and specifications stated in the GCR are met.

### 2. Weight and Dimensions

Minimum weight as qualified or raced, with driver: 1025 lbs.
Wheel base, minimum: 81.5"
Wheel base, maximum: 83.5"
Track, front: Standard VW – maximum 52.5" (no spacers allowed)
Track, rear: 49.125" minimum, 50.750 maximum
(no spacers allowed)
Overall length, minimum: 123" (includes exhaust)
Overall length, maximum: 127" (includes exhaust)
Body height at firewall (bottom of frame to top of bodywork), minimum: 25"

### 3. Suspension

A. The front suspension and steering shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. The following modifications are allowed:

1. Removal or modification of spring packs including the use of ride height adjusters incorporated into the front beam provided they are not adjustable from the cockpit. At least one spring pack shall be retained as the primary spring media for the front suspension.
2. The use of any anti sway bar(s), mounting hardware, and trailing arm locating spacers.
3. The use of any direct acting, tube type shock absorber(s) mounted in a longitudinal, vertical plane and acting through the standard mounting points. Spring shocks and linkage activated shocks are prohibited.
4. Relocation of the steering gearbox to any position utilizing an appropriate mounting structure and replacements of the tie rods. Steering damper mount and/or the steering box locating bumps may be removed.
5. Any desired pitman arm may be used.
6. Steering column may be altered or replaced and any steering wheel may be used.

7. Standard steering arms may be altered or replaced and speedometer cable hole may be plugged. No other modification of the wheel spindle is permitted. Non-VW replacement spindles shall maintain the same bearing dimensions and locations and shall maintain the geometric relationship between the spindle and the king pin bore and boss.

   Wheel tethers are recommended. If wheel tethers are used, a hole may be drilled in the spindle for the purpose of attachment.

8. The rubber portion of the bump stop and any portion or all of the bump stop horn may be removed up to its base at the beam upright.

9. Caster, camber, and toe in/out settings are unrestricted. Offset link pin suspension bushings and alternate locating spacers are permitted. Shims/spacers used solely for camber adjustment are open. Clearancing of the link pin carrier and/or trailing arms to eliminate binding is permitted. No other modifications to the link pin carrier are permitted.

10. No structure, item, or component (including the battery) other than bodywork, can protrude further forward than ten (10) inches from the front of the lower axle beam tube. Any item protruding further than eight (8) inches must include a vertical safety plate. This plate must be constructed of no less than .060" 6061-T-6 aluminum or no less than 16 gauge steel. The plate shall have a minimum frontal surface area of 42 square inches, and shall have a height of not less than four (4) inches and a width of not less than six (6) inches. The plate may have no more than ½ inch curvature or deflection from the vertical plane, and shall be attached to the chassis (frame) at all four corners. The lower braces shall not exceed a 15-degree upward angle when measured from the horizontal plane of the lower frame tubes.

    If a vented lead acid battery is mounted in front of the axle beam, it shall be encased in a marine-type container.

    It is recommended that the front area of the nose be filled with foam to aid in impact absorption.

11. Alternate spindle from cip1.com part number C26-412-020 and alternate spindle carrier C26-412-025 are allowed.

B. The rear axle assembly shall be standard VW sedan as defined herein with axle location provided by a single locating arm on each axle.

   1. The rear axle tube may be rotated about its axis.

   2. Coil spring(s) shall provide the primary springing medium, with telescopic shock absorber(s) mounted inside the spring(s). Cables, straps, or other positive stops may be used to limit positive camber. An anti roll bar or camber control device may also be used. When said anti roll bar or camber control device is removed, the required coil springs shall continue to perform functionally.

   3. The shock absorber mounts may be modified.

C. Wheels shall be standard fifteen (15) inch X 4J as used on the 1200cc and 1300cc VW sedan as defined herein, or any steel (15) inch X 4.5J wheel within the track dimensions of C.2. Wheels may be balanced only by the use of standard automotive balance weights (adhesive or clip on). Hub cap clips shall be removed.

D. Any tire size may be fitted, except that ungrooved radial race tires (radial slicks) are not allowed.

**4. Brakes**

A. Brake drums, backing plates, and wheel cylinders shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. Ribbed type rear drums (VW Part # N113-501 615 D or ICP Part # 113 501 615 D) may be used in place of the 1200 series rear brake drums. Rear backing plates may be from any Type 1 model year.

B. These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels. Any master cylinder(s) may be used.

C. A separate hand brake (emergency brake) is not required. Removal of the hand brake and operating mechanism is permitted.

**5. Engine**

A. The engine shall be a standard VW power plant, as normally fitted to VW sedans as defined herein. Any engine part(s), listed by the manufacturer (VW) as a current, superseding, replacement part for the standard VW 1200 series, Type 1, U.S. model sedan and interchangeable with the original part(s), may be used. Turbocharging is not permitted.

B. The engine/transmission shall be mounted in the chassis with the transmission to the rear.

C. The following component parts may be replaced with that of other manufacture, provided said part is of the same material, is dimensionally identical, and meets all other tolerances and specifications stated in the GCR.

1. Engine Case – Type I or Type III style single or dual relief cases only
2. Cylinder Heads
3. Cylinders (an O ring for centering is permitted).
4. Pistons and wrist pins minimum combined weight without clips or piston rings = 330.0 grams.
   a. Piston material shall be cast aluminum with steel inserts.
   b. Maximum distance from bottom of wrist pin bore to top of #1 (top) compression ring groove: 1.655 inches (20 mm wrist pin bore assumed).
   c. Width of #1 and #2 (compression) ring grooves: .100 +.003 inches or -.023 inches (2.0-2.5mm nominal).
   d. Width of #3 (oil) ring groove: .158 +/- .003 inches (4.0mm nominal).
   e. Wrist pin offset from centerline: .059 +/- .005 inches.
   f. Eccentricity of piston below the oil ring groove: .012 +/- .008 inches. Eccentricity shall be defined as the difference between the largest diameter and smallest diameter measured at the same distance from the crown of the piston and below the oil ring grove.
5. Cam followers Minimum weight = 60.0 grams
6. Connecting rods with bolts and small end bushing minimum weight = 425.0 grams. Crower part #SP93280B is allowed as a direct replacement connecting rod but must meet the same minimum weight requirement as the OEM part.
7. Oil pump exact replica of any standard VW oil pump
8. Distributor
9. Ignition points or drop-in ignition triggering module (e.g., Pertonix)
10. Distributor cap
11. Fuel pump any standard type VW fuel pump which can be fitted without modification of any other part
12. Crankshaft minimum weight sixteen (16) lbs.
13. Crankshaft gear
14. Flywheel minimum weight twelve (12) lbs.
15. Pressure plate, or alternate SACHS 211 141 025 DAM pressure plate
16. Clutch disc – 180mm nominal diameter only
17. Throw out bearing
18. Push rods
19. Push rod tubes

D. Allowed Modifications

1. Replacement of standard exhaust system with any exhaust system terminating one (1) to three (3) inches behind the rearmost part of the body.
2. Lightening of the flywheel to a minimum of twelve (12) lbs.
3. Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance except on those component parts where weights are specified.
4. The crankshaft may be ground and the case may be machined to accommodate the use of standard factory oversize/undersize crankshaft bearings, provided the crankshaft location is not changed.
5. Where minimum weights are specified, any lightening is permissible provided the original part complied with the dimensional restrictions set forth.
6. The following standard dimensions and tolerances of engine components are included as information and shall be observed:
   a. Maximum bore: 3.040 inches
   b. Stroke: 2.520 inches +/ 0.005 inch.
   c. Minimum capacity of combustion chamber in head: 43.0cc (Polishing and/or tooling is prohibited.)

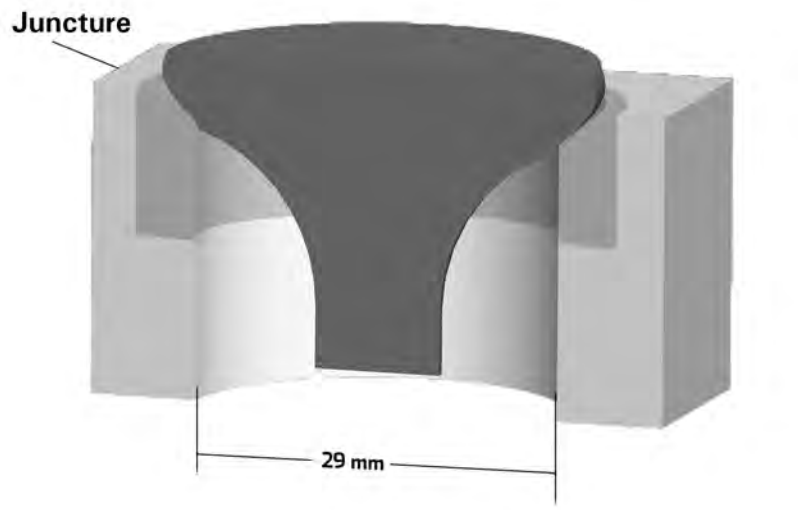
d. Minimum depth, top of cylinder barrel to top of piston: 0.039 inch.

The above dimensions may be achieved by machining any previously machined surface, provided that the total surface is machined on the same plane as the previously machined surface. The above dimensions shall be the average of all four (4) cylinders.

7. Complete or partial removal of any cooling duct component. Removal of the fan and the fan housing. Fan belt origin is unrestricted. The use of a fan belt is optional.

8. Installation of a spark plug hole repair utilizing standard thread repair methods, such as Helicoil or welding and rethreading is permitted providing that the spark plug centerline is not changed. The original size and shape of the combustion chamber must be maintained.

9. Polishing of the intake and exhaust ports, provided such polishing does not enlarge the intake port beyond 29mm (1.142") inside diameter and the exhaust port beyond 33mm (1.299") inside diameter. The measurements are to be taken at the juncture of the seat insert and the aluminum port material, and at the manifold face. Valve seat angles shall be machined as specified in the official VW Workshop Manual.




10. Replacement of intake and exhaust valve seats is allowed for the purpose of repair only. Valve Seats may not be moved from their original position. Welding is allowed to facilitate repair and installation of replacement seats. The original size and shape of the combustion chamber must be maintained. Installed seats may neither be proud or recessed of the combustion chamber surface.

| Seat Dimensions | | | | |
|---|---|---|---|---|
| | VW O.D. (inches) | Max O.D. (inches) | Max I.D. (inches) | Max Depth (inches) |
| Intake | 1.385 | *1.495* | 1.142 | *0.395* |
| Exhaust | 1.265 | *1.365* | 1.299 | *0.395* |

Inside diameter of intake seat shall be 1.142" at the juncture of the seat to the aluminum on original seats. A depth of 0.340" from the combustion chamber on replacement seats. This is to allow blending of the seat to the port. Valve seat angles may not be larger than the outer diameter of the original VW seat (1.385" intake, 1.265" exhaust).

11. The following standard dimensions are included for information only and must be observed:

a. Exhaust valve diameter: 1.18 inches

b. Intake valve diameter: 1.24 inches

c. Reprofiling of valves is not permitted.

12. Alternate exhaust valves are allowed provided the dimensions and materials are the same as standard (VW) exhaust valves.

13. In addition to the original VW manufactured valve, any mass produced, replacement intake valve may be used provided the material, profile, and finish remain essentially identical to the original VW

valve, including the prominent lip at the inner edge of the valve seat. The valve must also meet the following dimensions:

| | |
|---|---|
| stem diameter | 0.305 inches minimum, measured just below the keeper grooves |
| head diameter | 1.24 inches maximum |
| length | 4.450 inches maximum |
| valve face width | 0.090 inches |
| distance from combustion chamber face to seat surface (including any chamfer at valve head) | 0.020 - 0.090 inches |
| stem diameter within 1.25 inches of the head of the valve | 0.293 inches minimum |

14. Valve springs are unrestricted providing:
    a. No more than one spring shall be used per valve.
    b. Any steel spring cap and retainers may be used.
    c. Spring shall be made of steel.
    d. Valve spring shims may be used.
    e. The circumference of the valve guide boss may be machined to accommodate the inside diameter of the valve spring.
15. Rocker arms may be lightened to a minimum weight of 80.0 grams. VW parts must be used, from 1200, 1300, 1500 or 1600 Type 1 engines; 1:1 or 1.1:1 ratios only. Valve adjuster screws are open. The end of the screw that contacts the valve may be profiled but must maintain the design and integrity of the original VW part. Swivel feet, elephant's feet, rollers or any other similar pieces are not allowed.
16. Rocker arm shafts may be modified or replaced by those of other manufacture, including shafts that replace the stock clips with a solid center spacer and bolt on end caps/washers. Wave type spacer washers may be replaced by solid steel type flat washers.
17. The rocker arm shaft assembly may be shimmed out on the cylinder head mounting studs by placing appropriate shims between the cylinder head mounting boss and the blocks on the rocker arm shaft assembly.
18. Valve covers are unrestricted and may be bolted on.
19. Fitting of any standard Solex 28 PCI or 28 PICT carburetor and any jets and emulsion tube may be used. Any venturi of standard VW/Solex dimensions may be fitted without alteration to the carburetor body. The venturi shall be fitted in the standard position, but its internal diameter may be machined. The carburetor may be rotated 180 degrees about its vertical axis. Modification of the float is allowed as long as no change is made to the float chamber and/or float valve.

    The carburetor must remain untouched with the following exceptions:

    a. No material shall be added.
    b. Bead blasting is permitted for cleaning only.
    c. Throttle shaft Shall be a minimum of 0.185" with throttle plate installed. Machined sides shall remain flat and parallel with no chamfering or radiusing.
    d. Throttle Plate Shall be a minimum of 0.053", flat and parallel with no chamfering or radiusing. Diameter shall be a minimum of 1.095 inches.
    e. Carburetor Top The junction of the bowl and bore may be radiused. The bore beneath the radius shall be a maximum of 1.120 inches. Accelerator pump boss shall remain original. The orifice in the base of the accelerator pump boss shall not allow a #56 (0.046 in.) drill bit to pass through (maximum hole diameter shall be less than 0.046 in.).
    f. Carburetor Body The removal of mold flashing from cast surfaces, including the emulsion tube carrier (holder), is permitted, but no additional material is to be removed. The emulsion tube carrier (holder) must not be otherwise modified. Bore diameter from throttle shaft down shall not exceed 1.110 inches.
    g. Carburetor air cleaner and choke mechanism may be removed. Choke shaft holes may be plugged. Plugs may not protrude into the choke bowl.

20. US imported VW Type 1, 1200 sedan manifold must be used. The manifold heat riser tube and heat sink shall be removed. Removal of metal from the interior of the intake manifold and the interior rust-proofed is permitted provided that the following dimensions are not exceeded.

    See Figures 1 and 2 at the end of this subsection for application of certain measurements specified herein.

a. Down Tube: The O.D. of the down tube shall be measured at two different locations within an area between 0.500" and 2.00" above the horizontal manifold tube. Each measurement shall be taken four times rotating around the circumference of the tube, and averaged.

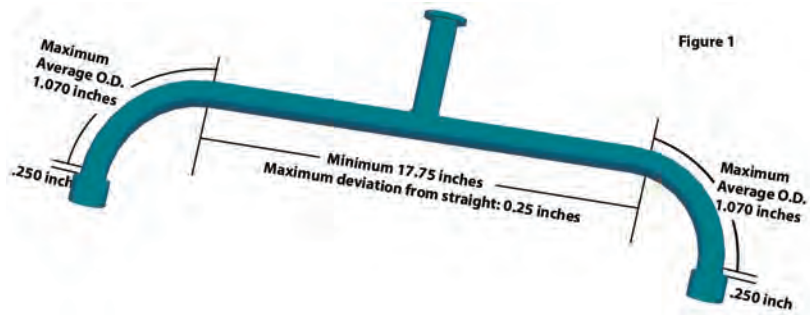
   The averaged O.D. of the down tube shall not exceed 1.140 inches. Removing material from the outside of the manifold to achieve the legal dimension is not permitted. Removal of the manifold down tube from the horizontal tube is prohibited. The original factory furnace bronze attaching process and original factory bronze repair material MAY be visible, inside and outside the manifold.

b. Horizontal tube: The O.D. of the horizontal tube shall be measured at four different locations on each side of the down tube. The area to be measured on each side of the down tube is defined as being between the bend and a point that is 1.500" from the center of the down tube connection. Each measurement will be taken four (4) times, rotating around the circumference of the tube, and averaged. The averaged horizontal tube dimensions shall not exceed 0.994 inches. Removing material from the outside of the manifold to achieve the legal dimension is not permitted.

   The tubes making up the manifold must also meet the following requirements:

1. The minimum bend-to-bend distance is 17.75 inches (Bend-to-bend distance is the distance between points along the horizontal tube where the .994 inch OD, as described above, is first exceeded.)
2. At no point in the bends of the horizontal tube may the average O.D. exceed 1.070 inches. Measurements will be taken four (4) times rotating around the circumference of the tube and averaged.
3. The maximum carburetor flange height is 9.25 inches (measured from the intake cylinder head sealing surface to the centerline of the top of the carburetor flange.
4. The maximum deviation from straight along the 17.75 inch bend-to bend section of the horizontal tube is 0.25 inches.

Figure 1



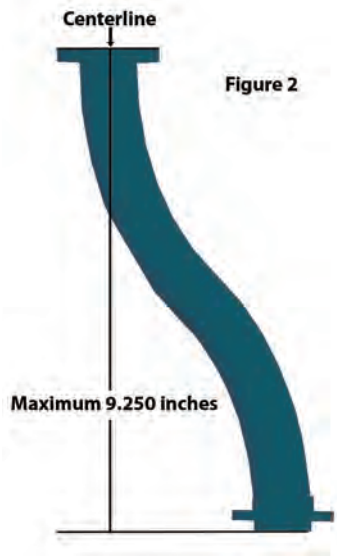



Figure 2

c. The finished, race prepared, manifold shall not weight less than 24 ounces. Intake manifolds may be repaired. Repaired manifolds shall start at 24 ounces BEFORE repair. The addition of excessive material to achieve the minimum weight is not permitted. Manifolds that have not been repaired shall retain the 1.070 inch averages from where the tube exits the 2-hole flange through the entire manifold bend. The area of the 0.250 inch dimension in Figure 1 above is considered to be the average length of the tube where most repairs have been made. This area may vary slightly among manifolds; discretion should be used by scrutineers to determine if the repair is excessive. Inspection of the inside of the manifold in this area will aid in this determination. Enlarging the inside of the manifold and attempting to hide it with repair material is not permitted. The measurement averaging (in b.2 above) shall start just above the repaired area and continue through the manifold bend.

d. All exterior surfaces shall be in original condition. Bead blasting is permitted for cleaning only. Manifolds may have a thin, transparent or translucent coating of rust proofing material applied. Discoloration or darkening of the manifold itself from heating or aging, or yellowing of coatings with aging, is allowed. Other than the allowed coating for rust protection, any other type of coating including conversion coatings are prohibited. Removing material from the outside of the manifold to achieve the legal dimensions is not permitted.

e. Matching of manifold flanges (to the ports) is permitted. Seal rings or "gaskets" of any type are acceptable as long as the bottom of the manifold flange is not raised above the cylinder head casting around the port opening. Removal of the manifold flanges that connect the manifold to the cylinder head is prohibited. Factory "VW" casting marks surrounded by a circle and VW casting numbers shall be visible on the bottom side of the flanges, closest to the head. No repair material of any type shall be visible or cover these markings on the bottom of the flanges. Factory furnace Bronze and manifold repair material may be visible where the horizontal tube enters the top of the flange. The exterior dimensions of these flanges must not exceed 2.990" x 1.360".

21. Voltage regulator, generator, and/or generator stand may be removed.

22. Fitting of any standard VW distributor (not restricted to 1200, series) may be used. Use of any standard 6- or 12-volt non transistorized ignition coil is allowed. Coil mounting location is unrestricted.

23. A VW "D" camshaft, Part Numbers 113 109 015D,113 109 017D, 113 109 019D, 113 109 021D,113 109 023D, 113 109 025D, 13 109 027D, or an exact replica of the same material and dimensionally identical shall be used. The maximum lift at the valve spring collar with zero valve clearance is as follows:

    a. Intake .354" + 0.000"

    b. Exhaust .3365" + 0.000"

    The camshaft profile shall match those which are specified by the official SCCA camshaft plots, plus or minus .002 inch. It is permitted to regrind the camshaft to duplicate the official SCCA profile. In so doing, the relationship between the centerlines of peak lift at the exhaust/intake lobes shall remain at 214 degrees fifteen (15) minutes, plus or minus 1degree. (Reference the Official

SCCA Camshaft Checking Procedure). The camshaft timing may be changed in relationship to the crankshaft by utilizing an offset key at the crankshaft timing gear. The camshaft timing may also be changed in its relationship to the crankshaft by utilizing an adjustable cam gear that retains the existing helical gear thrust angle and that is statically adjustable only (e.g., no dynamic adjustment mechanisms that respond to engine speed changes). Camshaft timing is unrestricted within the restrictions provided as authorized above. The camshaft profile shall be checked using the official procedure published by the SCCA.

24. The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed.
25. Crankshaft pulley is unrestricted and may be fitted with an oil seal. The engine case may be machined to facilitate the installation of an oil seal.
26. The installation of baffles housed completely within the original oil sump and crankcase.
27. The use of any oil temperature indicating device.
28. The oil pump cover may be modified or replaced.
29. An oil sump extension may be fitted to the engine with a maximum internal volume not to exceed 1500cc. In operation, all movement of oil and crankcase air in and out of the extension shall be through the original oil strainer cover opening of the engine case. No additional openings in the extension are allowed above the plane of the oil strainer flange of the engine case. The oil pump pickup pipe may be extended into the sump extension. Any baffling is allowed within the extension and may extend between the engine case and the sump extension through the original oil strainer opening. Any sump may not extend below the frame rails of the chassis when viewed from the side. Accumulators (Accusump) may be fitted.
30. Replacement of oil galley plugs with threaded plugs.
31. A single standard automotive oil filter of not more than one quart total capacity, and a suitable mounting bracket and by-pass valve may be installed. Modification to the lubrication system to facilitate installation of the oil filter is permitted. All components shall be contained within the body to the rear of the firewall.
32. Any oil cooler is allowed. Oil coolers shall be mounted completely inside a plumb line extending downward from the outermost edge of the bodywork.
33. An alternate oil pressure regulator spring and/or shims may be used.
34. The standard clutch operating arm may be modified to allow its attachment in any appropriate position. Dowel pinning of the clutch pressure plate to the flywheel is permitted.
35. The use of any starter is permitted provided it can be fitted without any modification to the engine/transmission.
36. A tapped hole for the installation of a Cylinder Head Temperature (CHT) sensor may be added to the cylinder head adjacent to the spark plug, provided that the tapped hole does not penetrate through the casting into the combustion chamber.
37. In addition to repairs and modifications specifically authorized in the FV rules, engine cases and cylinder heads may be repaired within the definition of "repair" in Appendix F. Technical Glossary. Any such repairs shall provide no competitive advantage and shall not allow the fitment of any alternate part unless specifically authorized in the FV rules.

**6. Transmission/Rear Axle**

A. The transmission/rear axle assembly shall be standard VW sedan, as defined herein.

B. The synchromesh components shall be in place and operating on at least three gears.

C. Reverse gear shall be operable from the driver's seat.

D. Transmission shall not be installed in an inverted position.

E. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

F. Allowed modifications:
Installation of any standard VW gear set which can be fitted without modification of any component of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation. Permanent attachment of the synchro sleeve to 3rd and 4th gears is permitted.

| **Fully synchromeshed transmission** | | | |
|---|---|---|---|
| **Gear** | **Part Number** | **# of Teeth** | **Ratio** |

| | | | |
|---|---|---|---|
| 1st | 113 311 251A | 10:38 | 3.80 |
| 2nd | 113 311 261 | 17:35 | 2.06 |
| 3rd | 113 311 275 | 22:29 | 1.32 |
| | 113 331 275B | 23:29 | 1.26 |
| | 113 331 275A | 23:28 | 1.22 |
| 4th | 211 311 341 | 28:23 | 0.82 |
| | 113 311 341 | 27:24 | 0.89 |
| Ring & Pinion | 211 517 143A | 8:35 | 4.375 |
| | 311 517 143B | 8:33 | 4.125 |
| **Partly synchromeshed transmission** | | | |
| **Gear** | **Part Number** | **# of Teeth** | **Ratio** |
| 1st | 113 309 251 | 10:36 | 3.60 |
| 2nd | 113 309 261A | 17:33 | 1.94 |
| | 113 309 261 | 17:32 | 1.88 |
| 3rd | 113 309 275 | 23:28 | 1.22 |
| | 113 309 275A | 22:27 | 1.23 |
| 4th | 113 309 341A | 28:23 | 0.82 |
| Ring & Pinion | 113 517 141B | 7:31 | 4.43 |
| There are different part numbers for various gears in addition to the ones listed here. This in general indicates changes on the parts such as: | | | |
| **Gear** | **Part Number** | **Ratio** | **Comment** |
| 4th | 113 311 341 | 0.82 | with key way |
| | 113 311 341A | 0.82 | with splines |
| Ring & Pinion | 113 517 143 | 4.125 | 6 mgt bolts |
| | 113 517 143 | 4.125 | 8 mgt bolts |
| However, there are no other standard ratios than the ones listed here. A gear removed from a transmission can be identified by the number of teeth. | | | |

**7. Ballasting**

Ballasting is permitted, per GCR.

**8. Frame**

A. The frame/chassis shall be constructed of steel tubing of a maximum diameter or width of 4 inches and be of a safe and suitable design.

B. The driver's feet shall not extend beyond the rear of the front axle beam tubes.

C. There shall not be frame/chassis rigidity or strength derived by means other than the frame tubes. Stressed skin, monocoque, or semi monocoque construction is not permitted, except that:

The firewall panel and undertray(s) may be rigidly attached to the frame tubes.

D. The undertray (belly pan) from the nose to the rear roll hoop shall not be wider than the bodywork at the bottom of the frame rail or no more than 1/4 inch wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis.

E. Engine bay undertrays shall be no wider than the frame rails in this area or no more than 1/4 inch wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis.

F. Any undertray(s) between the axle center lines shall be rigidly attached to the frame provided the curvature of said tray(s), measured vertically from the lowest point to the highest point at their attachments to the frame rail members at their sides, shall not exceed 1 inch and have no downward turned edges.

G. Transmission undertrays for cars with a rear subframe shall be no wider than the subframe or no more

than 1/4 inch wider (on each side) than the subframe when the undertray has an upward turned edge that facilitates mounting the undertray to the subframe or that facilitates mounting the body to the subframe or 16 inches, whichever is wider. For cars without a subframe, the tray shall be no wider than 16 inches and shall not deviate more than 1 inch from the horizontal plane. Undertray must be firmly attached and have no downward turned edges.

H. The area between the upper and lower main frame tubes from the front instrument/dash roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend to the forward most bulkhead, but must otherwise comply with these regulations.

1. Panel(s), minimum of either .060 inch heat treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.

2. Reinforced body, consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)

   For either method, fasteners shall be no closer than 6 inch centers (no stress-bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

3. Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform to the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc). Such material shall be at least 1.5mm (.060 inches) in thickness not including the carbon fiber.

   Composite anti-intrusion panels shall be attached with no more than eight fasteners per side. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

   Alternatively, FIA mounting is permitted as follows:

   One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

   Composite panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.

**9. Body**

A. The chart (figure - Section C.12) illustrates both the intended minimum frontal area and car configuration.

B. The rear bodywork shall enclose the engine by surrounding it from a point no higher than the lower edge of the intake manifold and extending from the front of the engine to its rear on each side.

C. The rear bodywork must have the ability to enclose the original Volkswagen fan shroud mounted in its stock location (see illustration in Section C.12).

D. The top of the rear bodywork shall extend from the back of the firewall to a point at least 16 inches to the rear of the centerline of the rear axle.

E. Any bodywork forward of the center of the torsion bar tubes shall not extend outward beyond the centerline of the shock towers (maximum width of 31.75 inches or 80.645cm).

F. No part of the frame or bodywork shall project beyond a plane connecting the vertical centerline of the front and rear tires.

G. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround must be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended. Bead seats are recommended.

H. Wings (airfoils) are prohibited.

I. Floor and safety equipment shall conform to Section 9 of the GCR.

J. A firewall to prevent passage of flame and debris between the engine area and driver's compartment shall extend the full width of the cockpit and be at least equal to the top of the carburetor in vertical height.

K. Air ducting may be attached to the carburetor and/or the engine. Brake ducts are not permitted.

L. Forward facing air ducts may be installed for the purpose of delivering cooling air directly to the engine, cylinder heads, oil cooler, and/or carburetor. If these ducts are within the profile area defined in Section C.12, then the ducted air must make a 90 degree bend within the bodywork.

M. Air duct openings may be located within the cockpit area, and/or penetrate the firewall, provided the duct is baffled or the firewall is extended to prevent flame and debris from reaching the driver. Any shape may be used to form firewall extension. Any other firewall inlet shall also prohibit passage of flame and debris.

(Recommended: All of this extension be the same width as the firewall, allowing for bodywork contour limitations, and extend in a horizontal plane back 2 inches, minimum, past the carburetor body.)

N. The bottom of any bodywork that extends below the frame members shall be on the same flat plane as the undertray (ref. C.8) and shall not deviate from that flat plane by more than 1 inch front to rear effective for any newly registered cars after January 1, 1983.

O. The space between the rear locating arm and axle tube up to the outer casting flange may be enclosed in bodywork for the purpose of streamlining. The enclosing bodywork may not extend above or below the triangular space nor beyond the axle tube or locating arm away from the triangular space so enclosed except that the panels may be wrapped tightly around the locating arm or axle tube as a method of location or attachment. The panels shall be securely attached. Brackets and fasteners used for attachment shall serve no aerodynamic purpose.

P. The front suspension upright(s) (shock absorber mounts), shock absorbers, and/or trailing arms shall not be faired in by covering or shrouding away from the air-stream except that the front shocks may be mounted behind the shock uprights.

Q. Bodywork shall be defined as all panels external to the chassis/frame and licked directly by the air stream. This includes the floor pan. All bodywork shall be securely attached to the chassis and shall not move relative to the chassis while the car is in operation, except where specifically allowed in the FV rules. For the purposes of this definition, the rigid portion of the front beam is considered part of the chassis/frame.

**10. Non-Standard Parts**

The use of the following non standard replacement parts is permitted provided that no unauthorized modification of any other component results.

A. Fasteners (nuts, bolts, screws, etc.)

B. Wiring

C. Gaskets and seals

D. Brake lines and fuel line

E. Spark plugs (maximum ½ inch reach)

F. Piston rings

G. Wheel bearings

H. Connecting rod bearings and crankshaft main bearings of same type and size as standard VW

I. Brake shoes and brake lining

J. Valve guides

**11. Battery**

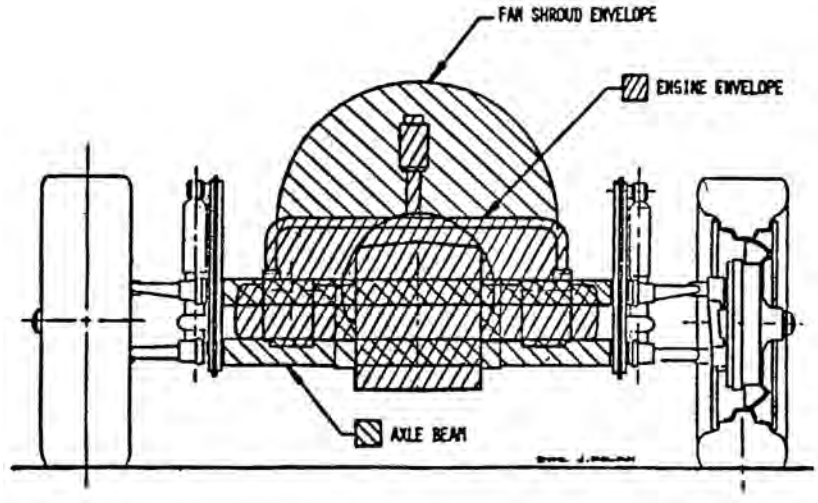
*A. The use of any single 6- or 12- volt battery is permitted to power the starter, engine ignition system, gauges and/or data acquisition system, video cameras/recorders and communications equipment.*

*B. Any secondary batteries are only permitted to run video cameras/recorders, communications equipment and/or gauges and data acquisition systems.*

*C. If an accumulator (Accusump) is in use in the vehicle, it is permitted to power an electric accumulator (Accusump) valve with the vehicle batteries.*

**12. Front View**

The following illustrates a fan shroud in its stock location.


FAN SHROUD ENVELOPE
ENGINE ENVELOPE
AXLE BEAM

## D. FORMULA 500 PREPARATION RULES

**1. Definition**
A class for single seat, open wheel, rigid suspension race cars using either a snowmobile derived engine and drive components or a 600cc motorcycle engine. Specifications are restrictive in nature in order to emphasize driver ability, rather than design.

Formula 500 is a restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T.** Homologation may be required. Refer to section 9.2.2. for details.

**2. Weight and Dimensions**
Minimum weight as qualified and raced with driver.

| | | |
|---|---|---|
| Wheelbase: | Maximum | 80″ |
| Overall Length: | Minimum | 110″ |
| | Maximum | 150″ |
| Overall Width: | Minimum | 50″ |
| | Maximum | 55″ |
| Weight: | see spec line at end of section | |

**3. Suspension shall be restricted and of a safe, suitable design. "Restricted" is defined as follows:**

A. There shall be no springs or shock absorbers acting either directly or indirectly between the frame/chassis and axle.

B. Rear driving axle shall be of solid or tubular steel. Axle shall be one piece live axle, driving both rear wheels. Trailing arms are allowed. Differentials and/or slip joints are not permitted. The object of E.3.B., is to eliminate independent rear suspension of any type, or provision for lateral movement of the axle shaft to facilitate independent-type suspension.

C. Blocks, bushings, and/or mounts of rubber or similar material shall be used to isolate engine and drive assemblies, and/or axles from vibration, shock, or track irregularities. The number of mounts shall not exceed one (1) per wheel and shall not exceed *1.0* inch in thickness in uncompressed state nor shall they be stacked. The diameter of the mounts shall not exceed two (2) times their thickness. The mounts shall carry the weight of the car. Installation will be evaluated on compliance with both the letter and the intent of this provision.

D. Front axle(s) design and/or mounting configuration shall be such that the axle(s) does not function as a torsion bar. Split-axle/independent front suspension is permitted so long as suspension control is effected solely by the mounting defined herein.

E. Anti-sway bars are not permitted.

**4. Brakes**
Brakes shall be foot-pedal operated, hydraulic disc or drum-type, acting on all four wheels. The brakes shall be a dual system, arranged in a manner to provide braking for at least two (2) wheels in the event of failure in part of the system.

**5. Steering**
Steering is unrestricted provided it is of a safe and suitable design.

**6. Transmission and Final Drive**

A. Snowmobile derived engines

Transmission of power from the engine to the rear wheels shall be through an automatic torque converter type, centrifugal variable ratio drive, using a belt and/or drive chain and centrifugal clutch. Sprocket and/or pulley diameters may be changed to alter the drive ratio. No electronically or driver controlled variable drive is permitted.

B. Motorcycle - engines

1. Only rear wheel drive is permitted.
2. The final drive ratio is unrestricted. Internal transmission gears shall remain stock.
3. Engines must use the sequentially shifted motorcycle transmission as supplied with the engine. Reverse gear is not required.
4. All gear changes must be initiated and made by the driver. Only mechanical gear shifting mechanisms are permitted. This may include cables, rods, or other mechanical linkage systems. All other shifting mechanisms are not permitted. This prohibition shall include electric solenoid shifters, air-shifters, etc. Devices that allow pre-selected gear changes are also prohibited.

5. The clutch assembly is unrestricted except that the clutch engagement system shall be operated solely by driver input and may be mechanical or hydraulic in nature. The driver's hands or feet must manually operate the clutch and there shall be no operation of the clutch by any assisted method. There shall be no modifications to the engine/transmission to enable the use of replacement clutch components or assemblies.
6. Mechanical throttle mechanisms must be used on all engines. Computer, electronic or pneumatic control of the throttle position is not permitted.
7. The use of jackshafts to transmit power from the output shaft to the rear axle is permitted.
8. Final drive chain tensioners are permitted.

**7. Frame/Chassis**
The frame/chassis assembly shall be constructed of steel tubing, and shall be of a safe and suitable design. The monocoque-type chassis is permitted but shall have reinforcement plates at all points of attachment for axles, engine, drive components, roll cage, and driver restraint system. There shall be a bulkhead incorporated in the chassis forward of the soles of the driver's feet with the pedals depressed. Forward-facing braces protecting the driver's legs and feet shall extend from the front roll hoop to the front bulkhead, unless foot protection is provided in accordance with 9.4.5.G.1.B.

The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedal not depressed).

**8. Roll Cage**
Cars shall have a full roll cage complying with section 9.4, made of steel, designed so that when viewed from overhead, an opening, having a minimum width of fourteen (14) inches and a minimum length of seventeen (17) inches is available for driver extraction under emergency conditions.

**9. Bodywork**
*a.* All mechanical components of the car, forward of the roll cage, shall be covered by suitable bodywork. Exceptions are the wheels, brakes, front suspension components, and the cockpit. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel.

*b.* Sports car noses are recommended provided they do not extend beyond the outside edge of the front tires, do not stand taller than the top of the front tires, and their rearward most portion does not extend beyond an imaginary line drawn from the center of the front wheel, forty (40) degrees forward from vertical. *A sports car nose shall be closed across the front and top except for air duct openings ducted to heat exchangers, provided that ALL air directed to heat exchangers shall pass through those exchangers, except for ducts directed at brake assemblies.*

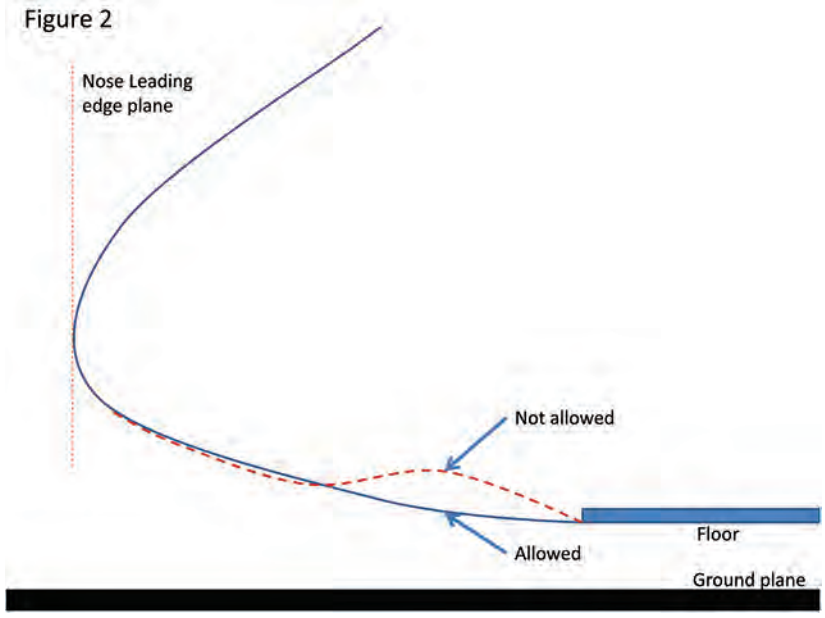
*c.* Bodywork behind the front wheels and forward of the rear wheels shall extend to within one (1) inch of a line connecting the outer edges of the front and rear wheels. In a horizontal plane, it shall begin within 2.5 inches of the rear-most part of the *front* tire in the completely turned position and extend to within 4.5 inches of the front of the rear tire. The sidepod(s) shall be continuous from the outside edge of the main bodywork, at a minimum height of nine (9) inches, maximum twelve (12) inches measured from the bottom plane of the car. The sidepod(s) shall be closed across the front except for air duct openings to heat exchanger(s), but ALL ducted air shall pass through those exchanger(s). The sidepod(s) may be open to the rear. Sidepod(s) is (are) intended to restrict wheel entanglement between cars.

*d. Along the outer edge of the required sidepods between the front and rear wheels, lateral protrusions of the bottom or floor of the sidepods are allowed, provided that they do not extend more than one inch beyond the floor under the required sidepods, and provided that the overall length and width of the car conforms to the dimensions provided in these rules.*

*e.* The purpose of these rules is to *limit* the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, for full width of the body between the front and rear axles, the lower surface (surface licked by the airstream) shall not exceed 2.54cm (1 inch) deviation from the horizontal through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor or rear axle.) *Except for rub strips within that 2.54cm (1 inch) deviation rule, the bodywork shall not extend below the surface of the tub or chassis floor to the rear of the front axle.* Seat bucket or other protrusions shall not circumvent this rule.

*f.* It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. *It is not permitted to duct any air through the downward facing surface of the nose of the car extending to the front axle or through the lower surface of the car between the front and rear axles. The surface of the nose - facing the ground plane aft of the nose leading edge plane - along it's entire length at or before the front axle, must be either parallel to or convex, as compared to the ground as illustrated in Figure 2.*

Figure 2

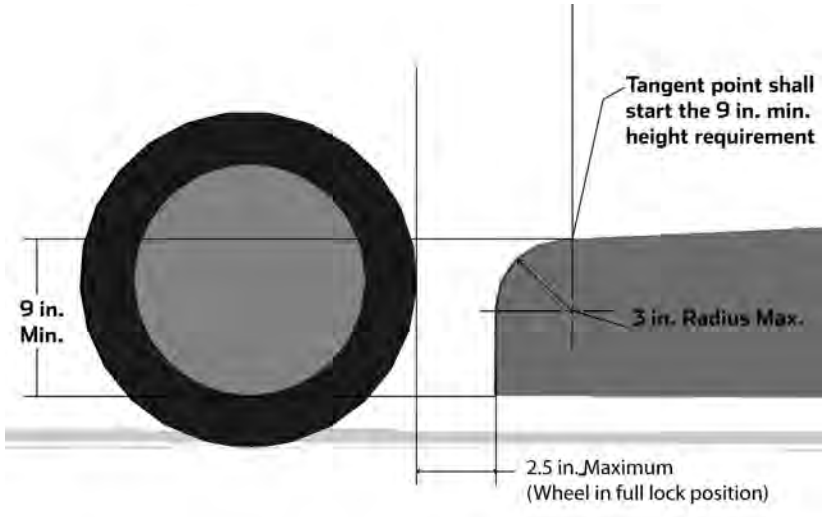



*g. Ducts through the side or top of the body and/or sidepods to duct air to and through heat exchangers or to allow cooling air into the engine compartment are permitted, provided that they are not used to generate aerodynamic downforce. Engine air intake ducts and scoops are permitted, provided that they are not used to generate aerodynamic downforce.*

*h.* Wings are prohibited.

*i.* Diffusers are allowed, *with or without strakes, provided that the overall length and width of the car conforms to the dimensions provided in these rules.*

*j. Splitters are allowed, provided that they extend at least to and do not extend more than one inch beyond the line(s) defined by the leading edge(s) and corners of the nose and the sponsons of the sports car nose, and provided that the overall length and width of the car conforms to the dimensions provided in these rules.*




**10. Tires**
Any recognized ten (10) inch racing tire with any tread width up to a designed 7.5 inch width may be used. Any HR rated radial tire may be used as a rain tire.

**11. Wheels**
Wheels shall not exceed a ten (10) inch diameter and 8.5 inch width.

**12. Ballast**

Ballast may be added to meet the minimum weight requirement provided it is securely mounted within the bodywork and serves no other purpose. It is recommended that underweight cars be brought to the minimum limit by adding strengthening material to areas providing driver protection; i.e., roll cages, frame rails, etc., rather than simply bolting in additional weight.

**13. Fuel Tank**
The fuel container shall be located within the bodywork, ahead of the rear wheels and behind the centerline of the front wheels.

**14.** Snowmobile Derived Engines
Engines shall be two-cylinder, two-cycle, water-cooled in stock configuration as listed below: Fuji "Chaparral" Model G44bw. "Kawasaki TC440A"/C-200, B-201, C-201, C-202, F-202, and G-203. The F-202 and the G-203 are electric start engines. Cylinder head P/N 440/2A is permitted for the engines listed. Only the "A" series engine is legal; the use of any parts from other Kawasaki series engines is prohibited. Rotax Model 494 and Model 493, single expansion chamber and electric and/or pull starter, and Rotax 494 RAVE engine must use the 494 non-RAVE rotor, Ski Doo part numbers 420 924 509 or 420 924 508, 147 degree designation. RAVE valves may be blocked in the "full open" position or left as delivered. 494 RAVE and non-RAVE cylinder heads may not be interchanged between engines. Rotax 593 in a carbureted, non-HO version; must run inlet tract restrictors, Cometic gasket part number MA0242SP1020A, one in each tract immediately after the carburetor; single expansion chamber; electric and/or pull starter. Alternate restrictor plate option allowed the Rotax 593 engine part number
MA0242SP1063A.

AMW engine as specified:
The AMW engine approved for F500 shall be the AMW model no. 250-2 RC2, two-cylinder, two cycle, liquid cooled, reed valve engine with a nominal bore and stroke of 72mm x 61mm and a displacement of 497cc. All components of the engine shall be in "as cast" condition or as delivered from AMW. No component of the engine may be altered, modified, or changed nor be of any other origin than the original equipment manufacturer (OEM) unless specifically authorized in these rules. Any Y-pipe exhaust manifold and single expansion chamber meeting 9.1.1.E.14.B is permitted. All factory technical bulletins shall be approved by the Club Racing Board prior to implementation and publication. AMW Technical Bulletins #10/96.01, Published October 1996, #03/97.01, Published January 1997 and Technical Bulletin #04/99.01, Published February 1999, have been approved by the Club Racing Board.

The engine must be installed in the chassis so that the exhaust ports face the front of the car. The engine may be inclined from vertical.

Hardware items (nuts, bolts, etc.) may be replaced with similar items performing the same fastening function(s).

No component of approved engines may be altered, modified, or changed, nor be of any other than original equipment manufacture unless specifically authorized. Engine components shall be assembled in stock configuration. Stock configuration is defined as including: water outlet elbow, ignition harness, etc.

Authorized Changes:

A. Carburetors: The induction system is restricted to two (2) 38mm Mikuni VM 38 round slide carburetors (except AMW). No modifications are permitted to the carburetor bodies. The use of any jets or jet needles is permitted.

   Carburetor mounting shall be of individual runners, no balance pipes, no plenums unless fitted as standard as on the 493 and 593 engine. The use of the intake plenum/resonator on the 493 and the 593 engines is optional. If the intake resonator is removed the resulting holes MUST be completely plugged and the plugs must be held in place by appropriate clamps. Plugs may be of any material and must serve no other purpose than to plug the holes originally intended for the resonator. 38mm intake boots, BPP 420867860 (last 6 digits 867860 are embossed on the boot) or Kimpex 07-100-33, shall be used for the 493 and 593 engines. Supercharging, turbocharging, and direct fuel injection are prohibited.

   Stock air filters and air boxes may be removed, and air filters and air boxes are unrestricted.

B. Any exhaust pipe(s) may be used (unless otherwise specified). Maximum exhaust length behind the rear axle centerline is twenty-four (24) inches. It is the intent of this rule that the exhaust pipe includes the exhaust manifold.

C. Alternate piston replacement for Chaparral engine only, "Wiseco" one-ring piston.

D. Any thermostat may be used. The thermostat may be modified in any manner, replaced with a "restrictor" of any similar shape/design to regulate coolant flow, or removed entirely.

E. Alternate AMW/Wiseco piston (#2687) is permitted.

F. Engine specifications will not be changed during the current year.

G. Rotax 494, 493, and 593 engines: Any Rotax 494, 493, or 593, respectively, model thermostat housing or water outlet elbow may be used. The water bypass may be blocked. Either upper or lower cylinder head water outlet may be blocked in any safe manner to facilitate use of a single water outlet.

H. Kawasaki and Rotax 494/493 engines: "OEM Type" replacement pistons of cast aluminum construc-

tion permitted. Must match OEM design, specifications, and compression ratio (such as SPI/Kimpex). No forged pistons permitted, except as specified in 9.1.1.E.14.I.

I. Forged pistons

Only the following forged replacement pistons are permitted:

1. Kawasaki: Wiseco # 2084M06800

   Rotax 494: Wiseco # 2381M06950

   Rotax 493: Wiseco # 2436M06950

   Rotax 593: Wiseco # 2411M07600

2 Rotax 593 (standard bore): Wiseco # 2411M07600

3. Rotax 593 (0.010" overbore): Rotax P/N 420889171

J. Overbore pistons

"OEM Type" cast replacement pistons as allowed in 9.1.1.E.14.H. are permitted as acceptable substitutes for those listed below. Engines may be overbored as specified by Rotax to allow fitting of specified piston.

1. Rotax 493 engine only: Rotax OEM 0.010" overbore piston (P/N 420888446).
2. Rotax 494 engine only: Rotax OEM 0.010" overbore piston (P/N 420887556).
3. Rotax 593 engine only: Rotax OEM 0.010" overbore piston P/N420889171 is permitted.
4. The following aftermarket replacement cylinder sleeves manufactured by Los Angeles Sleeve of Santa Fe Springs, CA are for the Rotax 493 and 494 respectively:

   Rotax 493: Part Number FL-1286 (69.5mm)

   Rotax 494: Part Number FL-1224 (69.5mm)

   Note: the appearance of the port is machined as opposed to the as-cast port of the OEM sleeve and the sleeves are machined to size after installation in the cylinder casting.

K. Rotax 593 engine only: Rotax OEM 0.010" overbore piston P/N 420889171 is permitted. Engines may be overbored as specified by Rotax so that this piston may be fitted.

The following aftermarket replacement cylinder sleeves manufactured by Los Angeles Sleeve of Santa Fe Springs, CA are for the Rotax 493 and 494 respectively: Rotax 493: FL-1286 (69.5mm) Rotax 494: FL-1224 (69.5mm) Note: the appearance of the port is machined as opposed to the as-cast port of the OEM sleeve and the sleeves are machined to size after installation in the cylinder casting.

L. The following aftermarket replacement cylinder sleeves manufactured by Los Angeles Sleeve of Santa Fe Springs, CA are for the Rotax 493 and 494 respectively:

Rotax 493: FL-1286 (69.5mm)

Rotax 494: FL-1224 (69.5mm)

Note: the appearance of the port is machined as opposed to the as-cast port of the OEM sleeve and the sleeves are machined to size after installation in the cylinder casting.

15. 600cc Motorcycle Engines

A. Mass produced water-cooled, 4 cylinder, 4-cycle motorcycle engines up to 600cc are allowed as per spec line (end of section).

B. It is the purpose of this section to control the power level of current and future 4 cycle engines to yield approximately the same on track performance as the 2 strokes. Thus all engines must use individual inlet restrictors (IIRs) that comply with Appendix F, Flat Plate Intake Restrictor, except the third and fourth bullet items. The IIRs holes shall be as listed in table 1. The IIRs shall be placed between each cylinder throttle body and its corresponding inlet port. The CRB may at any time require adjustments to items including but not limited to restrictors, minimum weights and final drive ratios by publication in Fastrack.

C. All engine internals and compression ratio must remain stock. The competitor must present, on demand, an original factory manual for the engine to allow compliance verification. There shall be no modifications or removal of any component of the engine or addition of any component of the engine unless specifically authorized in these rules.

D. The stock ECU shall be used. The ECU fuel and ignition map may be changed. Devices that modify inputs to or outputs from the ECU (e.g., Power Commander) may be used. Stand-alone after market ECUs are not permitted.

E. Turbochargers and superchargers are prohibited.

F. Carburetion or fuel injection may be used. Fuel injection, if used, must be stock and unmodified for the model and year of the engine that is used. Stock air filters and air boxes may be removed, and air filters and air boxes are unrestricted.

G. The exhaust system and exhaust manifold are unrestricted, within SCCA safety regulations, except that stepped exhaust headers are not allowed.

H. The lubrication system is unrestricted. Any oil pan and/or baffling are permitted. The use of dry sumps is specifically not allowed. Accusumps or similar oiling assist systems are permitted. Crankcase vacuum pumps are prohibited.

I. Oil coolers are unrestricted.

J. The cooling system is unrestricted, however the stock engine water pump must be retained.

K. Replacement of the stock camshaft chain tensioner with any other chain tensioner is permitted. The replacement chain tensioner must attach directly to the engine in the original chain tensioner position. There shall be no modifications to the engine to enable the use of the replacement chain tensioner.

L. Replacement of the standard connecting rod fasteners with alternate fasteners is permitted as long as there are no modifications to the production connecting rods Replacement of other nuts, bolts, fasteners, and washers with common hardware items performing only the same fastening/fitting functions also is permitted as long as there are no modifications to the production parts being assembled or to the production assembly.

M. The engine head gasket must be the thickness of the OEM gasket for the year and model of the engine.

N. Camshafts and camshaft drive mechanisms may not be modified or adjusted in any way unless specifically authorized in these rules.

O. Self-starter: Cars shall be equipped with an on-board self-starter and an on-board power supply controlled by the driver while in a normal driving position.

P. The engine must be installed in the chassis so that the exhaust ports face the front of the car. The engine may be inclined from vertical. Mounting 'bolt bosses' may be removed from the exterior of the cases of the motorcycle engines to enable installation. Sprocket covers may be removed or modified from the motorcycle engines to provide for fitment of jackshafts or final drive chains.

16. **Chain/Belt Guards**
Protective guards made from 1/8" aluminum or 3/32" steel are required where belt or chain breakage could result in injury to the driver or damage to items necessary for the safe operation of the vehicle. This includes, but is not limited to, fuel lines, fuel tanks, brake lines, radiator, and water hoses.

17. **Radiator**
Capacity, size, shape, location, and number are unrestricted. Overhead radiators shall be at least six (6) inches rearward of driver's head.

18. **Safety Items**
In addition to previously mentioned items, the following equipment is required. Vehicle will be fitted with:

A. Mirrors affording the driver clear fields of vision behind him/her, and on both sides of the car.

B. Cars shall not be started with rear wheels on the ground unless a driver is on board.

| F500 | Version/Model | Weight (lbs) | Inlet Restrictor | Outlet Restriction | Notes |
|---|---|---|---|---|---|
| Fuji "Chaparral" | Model G44bw | 700 | | | Note 4 |
| Kawasaki TC440 | A-200, C 200, B-201, C-201, C 202, F 202, and G 203 | 700 | | | Note 4 |
| AMW | model no. 250-2 RC2 | 800 | | Y-pipe exhaust manifold and single expansion chamber (ref 9.1.1.E.14.B) | Note 4 |
| Rotax 494* | Non-RAVE | 800 | | | Note 4 |
| Rotax 494* | RAVE | 800 | | Y-pipe exhaust manifold and single expansion chamber (ref 9.1.1.E.14.B) | Must use the 494 non-RAVE rotor valve (Ski Doo part numbers 420 924 509 or 420 924 508, 147 degree designation). RAVE valves may be blocked in the "full open" position or left as delivered. Note 1 and 4. |
| Rotax 493* | | 825 | | Y-pipe exhaust manifold and single expansion chamber (ref 9.1.1.E.14.B) | Note 1 and 4. |
| Rotax 593* | Carbureted and non-HO versions only | 850 | MA0242SP1020A or MA0242SP1063A | Y-pipe exhaust manifold and single expansion chamber (ref 9.1.1.E.14.B) | Note 1 and 4. Restrictor size and type is to be displayed by the following designation: 593 RSTR |
| Honda CBR600RR (03-13) | | 875 | *29mm* Flat Plate Intake Restrictor | stepped exhaust headers are not allowed | Notes 2, 3, 4, and 5 |
| Suzuki GSXR600 (03-13) | | 875 | *29mm* Flat Plate Intake Restrictor | stepped exhaust headers are not allowed | Notes 2, 3, 4, and 5 |
| Yamaha R6 (03-13) | | 875 | *29mm* Flat Plate Intake Restrictor | stepped exhaust headers are not allowed | Notes 2, 3, 4, and 5 |

Notes:

1. Any model thermostat housing or water outlet elbow may be used. The water bypass may be blocked. Either upper or lower cylinder head water outlet may be blocked in any safe manner to facilitate use of a single water outlet.
2. Fasteners, cooling system and oiling systems are free.
3. Clutches are free as long as no mods are made to the engine to accommodate the replacement clutch.
4. Competitors must be able to supply a printed factory service manual for the year of engine being used to tech upon request.

## E. FORMULA MAZDA

**1. Eligibility**
Only cars homologated as Formula Mazda are eligible for competition in this class.

**2. Formula Mazda Description**
Formula Mazda cars are one design, single seat, open wheel automobiles conforming to safety standards as per regulations. Engine - Mazda 13B rotary as approved by SCCA Club Racing.

**3. The Intent of the Rules**
All components of the car shall be purchased from Moses Smith Racing, sourced from the supplying manufacturer to Moses Smith Racing or fabricated as exact replicas of components supplied by Moses Smith Racing. It is the explicit intention of these rules and regulations to prohibit innovation and alteration of the cars except as provided by these regulations or supplements.

**4.** Additional Safety Requirements, Decals, and Patches
A firewall, full width between the roll bar upright, securely attached at the level of the shoulder harness attachment bolts, up to and bolted to the upper headrest cross member, is mandatory. The manufacturer's new rollover bar design (February 2000) for the Star Race Car FM chassis is accepted. All Moses Smith Racing Formula Mazda chassis shall be converted to the manufacturer's new rollover bar design by 1/1/2001.

**5. Electrical**

A. Alternators, Moses Smith Racing P/N 080-120, shall be in working order and not modified in any manner. Belt tension shall be within the factory tolerance.

B. Battery shall be securely mounted in front of the master cylinders, in the center nose support frame. Battery type is unrestricted.

C. The wiring harness may be modified so long as it does not change the actual electrical function of the car and does not override the alternator or rev limiter.

D. The use of the MSD (P/N 6446 only) 6T spark box, MSD Soft Touch limiter, or MSD (P/N 6420-6AL), or MSD (P/N 6430-6ALN) is mandatory. Location of the spark box and limiter is unrestricted, provided that access to visually inspect and remove the limiter chip is not impeded. A 6600 rpm limiter chip is standard. A maximum rpm of 6850rpm is allowed. Competitors may use adjustable rev chip (Moses Smith Racing part # 080-135). Competitors are advised that MSD chip function may vary with temperature, and should take measures to ensure compliance at all times.

E. Instrumentation is unrestricted

F. Bosch Blue coil is mandatory.

G. MSD Spark Plug wires (Part #31919) are mandatory.

**6. Radiators and Plumbing**

A. Fluidyne oil cooler #DB30130 or any brand oil cooler measuring (+/- 1/2") 2" thick x 12" wide x 12 1/4" high shall be fitted behind the engine in front of the wing, above the gearbox.

B. Water radiators shall be fitted in both sidepods. They shall be installed in series with each other. The swirl pot shall be connected to the inboard inlet of the left radiator. The outboard outlet of the left radiator shall be connected to the right side radiator's outboard inlet. Approved radiators: Volkswagen P/N 171121253D. Moses Smith Racing P/N 100-101 and Moses Smith Racing P/N 100-142.

C. All cars shall be equipped with oil and coolant catch tanks per GCR Section 9.3 Oil Catch Tanks, Filters, and Breathers.

D. Flat sheet metal blanking material may be fitted surrounding the radiators and oil cooler to prevent cooling air from leaking around the radiators or oil cooler rather than passing through. Synthetic foam sealing material may also be used for this purpose, provided that any combination of materials do not extend more than 3" beyond the plane of the radiator or cooler, and may not extend outside the standard bodywork.

**7. Engine**

A. The spec engine shall be the six (6) port Mazda 13B Rotary or the four (4) port Mazda Renesis Rotary as approved by SCCA Inc. Said engine is to be sealed by an approved engine builder and shall remain so with no modifications to the engine or any of its accessories or components.

All engines shall be returned to an SCCA approved engine builder to be dynoed and resealed with the new generation engine seals.

B. No engine may be rebuilt except by a rebuilder approved by SCCA Club Racing.

Approved Engine Builders:
Daryl Drummond Enterprises, Inc.
3590 North River Rd
Gold Hill OR 97525
mailing address:
PO Box 678
Rogue River OR 97537

(541) 582-1786

C. The use of any impregnating material in the engine is expressly prohibited.

D. Engine drain plugs shall be safety wired.

E. Alternate Header (13B) Moses Smith Racing P/N 050-133 or Moses Smith Racing system provided with Renesis conversion kit is permitted.

F. Minimum flywheel weight - 8.5 lbs.

G. Alternate one-piece intake manifold (part # 050-142) is permitted. If the Renesis motor is used, the standard, unmodified factory fuel injection must be used.

H. Spark plugs are unrestricted

I. Ceramic apex seals, Mazda part number 0000-01-9115, may be used.

J: Replacement Water Pump, Mazda part number 8AF2-15-010B may be used.

K. Two functional belts must be used to drive the alternator and water pump.

L. External Oil Metering Pump, Oil Injection Lines, Oil Injectors, and Associated Vacuum Lines may be removed and replaced with Oil Metering Pump Block Off Kit (MSR P/N 050-189). Metering Pump block off plate and Oil Injector ports must be plugged and/or sealed to avoid any leakage. When Oil injection system is removed, it is required to use premixed fuel. A minimum of one (1)oz of premium race grade premix oil per gallon of fuel is recommended.

**8. Fuel System**

A. All carburetor jets are unrestricted, but no other modifications shall be made to the carburetor (50mm DCO/sp or 48mm DCO modified to 50mm, as supplied). Chokes 44mm. F.15 emulsion tubes are required.

B. Only the standard Weber 48 DCOE intake horns are permitted.

C. Fuel pump, fuel filter(s), fuel pressure regulator are unrestricted. Fuel lines shall be –6 metal braided hose, otherwise unrestricted.

D. Only the factory fuel injection can be used with the Renesis motor. A restrictor plate supplied by the engine builder must be utilized in the throttle body. The plate shall measure .250" thick and contain one 44.0mm hole centered in the plate with no radiusing. No air shall bypass the restrictor.

**9. Drivetrain**

A. Limited slip differentials, torque biasing devices, locking differentials or full locked differentials are prohibited. Aluminum or modification of the unit provided is prohibited.

B. 10:31, ring and pinion.

C. Polishing of driveline components is permissible through either conventional mechanical polishing techniques or by way of chemically assisted systems such as the REM Isotropic finishing system. Coatings are not permitted.

**10. Weight and Dimensions**

A. Maximum wheelbase - 94-5/8"

B. Maximum track front - 59-1/4"

C. Maximum track rear - 57-3/4"

D. Minimum weight with driver = 1350 lbs w/ 6 port 13B, 1400 lbs w/ 4 port Renesis.

E. Ballasting is permitted. Ballast shall be mounted forward of the fuel cell but aft of the instrument panel bulkhead and/or aft of the nose pole but ahead of the master cylinder bulkhead. Ballast shall be mounted securely.

**11. Suspension**

A. Ride height is unrestricted within the standard adjustment range. Droop limiters are not allowed.

B. Anti-roll bar stiffness may be adjusted within the range allowed by sliding clamps on the anti-roll bar or front bars may be drilled for adjustment. Anti-roll bars may be disconnected.

C. 5/8 or 11/16 inch front and 11/16 or 3/4 inch rear anti-roll bars (solid) are required.

D. Shock absorber settings are unrestricted, but no alteration to the internal mechanism or fluid medium is allowed. Extended top shock spring retainers may be used to ensure clearance from suspension members, or to prevent spring disengagement at full droop.

E. Shock absorber - front: Koni P/N 82x-2236, rear: 82x-2269. Alternates: front: 8216-2420, rear: 8216-2421, or front: 3012-1604FMF, rear: 3012-1616FMR. Spring rates are unchanged. Shock absorber sealastic – 55mm P/N 000-141 (Koni P/N 70-34-53-000-0) or 40mm P/N 000-146 (Koni P/N 70-34-54-

000-0). Shock absorber packer(s) P/N 000-147 (Koni P/N 15-34-62-000-0). The number of packers is unrestricted. Sealastics and packers shall be unmodified except that the standard slit may be widened or made into a wedge shape to facilitate installation and removal. When Koni shock absorbers 3012-1604FMF and/or 3012-1616FMR are used, the Koni shock bumpers P/N 000-152, Koni part # 72-34-48-000-0 may be used.

F. Springs: Front: six (6) or seven (7) inch + or - 1/4", unloaded free length, 450, or 750 lbs./inch rate. Rear: eight (8) inch + or - 1/4", unloaded free length, 400 or 500 lbs./inch rate.

G. Camber, caster, toe-in/out, bump steer, are unrestricted within the adjustment range provided on the car.

H. Manufacturer and construction of spherical bearings and rod ends are unrestricted; however, geometry and length cannot be changed.

I. Allowable Lower Control Arm Configurations

1. Original Front Lower Control Arm Moses Smith Racing P/N 000-118 can only be used with Camber Sleeve Moses Smith Racing P/N 000-119 and Camber Nut Moses Smith Racing P/N 000-120 with no modifications to any of the parts.

2. Updated Front Lower Control Arm Moses Smith Racing P/N 000-158 can only be used with Updated Camber Sleeve Moses Smith Racing P/N 000-159 and Camber Nut Moses Smith Racing P/N 000-160 with no modifications to the parts.

3. Original Rear Lower Control Arm Moses Smith Racing P/N 020-110 can only be used with Camber Sleeve Moses Smith Racing P/N 000-119 and Camber Nut Moses Smith Racing P/N 000-120 with no modifications to any of the parts.

4. Updated Rear Lower Control Arm Moses Smith Racing P/N 000-133 can only be used with Updated Camber Sleeve Moses Smith Racing P/N 000-159 and Camber Nut Moses Smith Racing P/N 000-160 with no modifications to the parts.

**12. Wings**

A. Wing "angle of attack" (front and rear) is unrestricted within the adjustment range. Rear wing adjuster link (P/N 110-126) length is 2.25" overall. It is permitted to shorten existing rear wing adjuster links to 2.25" overall length to match revised part (P/N 110-126).

B. Wings may be of aluminum construction, but shall conform to stock dimensions as described by the manufacturer.

C. Gurney flaps for wings (3/4" Front max. & 3/8" Rear max.) are permitted, provided they are mounted on the upper surface of the wing). Note: Gurney flaps are measured from the upper wing surface, normal to the surface and must not serve to increase the plane of the wing. (Quick change attachment is prohibited, bolted or riveted only)

**13. Brakes**

A. Tilton brakes bias adjustment may be fitted.

B. Brake master cylinder - Use of (any) 3/4" or 5/8" master cylinders (with individual reservoir) is approved.

C. Any mass produced brake pad that fits the standard caliper without modification is permitted.

D. Modification of brake rotor is prohibited. Option: Two piece brake rotor, Moses Smith Racing P/N 040-126 and Moses Smith Racing P/N 040-127 may be used. Minimum brake rotor thickness = 0.300".

E. Optional brake caliper Moses Smith Racing P/N 040-130 may be substituted.

F. The use of any ferrous brake caliper piston is permitted.

**14. Tires and Wheels**

A. Formula Mazda Tire Specification -

1. Dry Tire - Goodyear 470 Compound Tire

a. Front Tire - Goodyear P/N D2659 - 20.0 x 7.0 - 13 - 470 Compound

b. Rear Tire - Goodyear P/N 2660 - 22.0 x 9.0-13 - 470 Compound

2. Rain Tires - open

B. A competitor shall start the race on tires used in a qualifying session for the race as identified by markings made on the tires by a race official. It is the responsibility of the competitor to ensure that his or her tires are appropriately marked prior to, during, or immediately after a qualifying session. On weekends where there are two races and only 1 qualifying session, this rule may be waived for the second race.

C. For races with more than one qualifying session, a competitor shall start the race on any marked tires from any qualifying session for the race.

D. If a competitor chooses to start the race on any tires that were not used in a qualifying session for the race and not appropriately marked, the competitor shall forfeit his or her grid position and start from the back of the grid. This forfeiture of grid position shall not apply if all qualifying sessions for the race were run under rain or wet conditions.

E. If a tire is damaged during a qualifying session, the competitor may replace that tire with a used tire upon approval by the Chief Steward. Should a tire be replaced for any other reason, the competitor shall forfeit his grid position and start at the back of the grid.

F. Rain tires may be used at any time. In the event that a grid position is determined by use of a manufactured rain tire (excluding hand grooved tires), the competitor may elect to start the race on either the rain tire which was used in qualifying or slicks which are otherwise compliant.

G. Any competitors deemed to have taken steps to circumvent these rules, or deemed to have used a foreign substance on the tire in order to gain an advantage shall be immediately disqualified from that event.

H. All cars shall run BBS (8" x 13") front and (10" x 13") rear wheels as specified by the manufacturer. Alternate BBS wheel center (Moses Smith Racing P/N 000-143 & 000-104) are permitted.

I. Use of tire warmers or cooling methods other than natural air convection or conduction is prohibited.

**15. Gearbox**

A. All cars shall be equipped with some combination of the following gears:

Mark5, or Mark8 Series Gears 15:36 – 15:30 – 15:25 – 17:34 – 19:32 – 18:25 – 21:29 – 17:23 – 22:30 – 24:27 – 19:23 – 23:28 – 25:26 – 26:25 – or 26:26 Webster; 24:24 Hewland

B. Additional approved gear ratios may be added by the manufacturer with SCCA Club Racing authorization.

C. Reverse shall be installed and in workable condition.

D. Gearbox rear covers may be modified to permit installation of longer shift finger shafts.

E. Transmission drain plugs shall be safety wired.

F. Shift rail stops may be added to transmission shift mechanism.

**16. Clutch**

A. Only a 1700 Pound KEP, 2300 Pound KEP, or Stage 2 KEP (Moses Smith Racing part # 060-104) all steel pressure plate is permitted and must be used unmodified. The pressure plate may be resurfaced; minimum thickness shall be .475 inch measured from the friction face to the inside face of the mounting tab. [The original pressure plate is no longer available. The replacement is the KEP Stage 2, all steel plate.]

B. Clutch disc may be a "Dalkin" or "Marchal" or L&T disc remanufactured on VW core with organic friction material. Moses Smith Racing P/N 060-103

C. Minimum flywheel weight - 8.5 pounds. Moses Smith Racing P/N 060-102

**17. Mufflers**

A. All cars shall be equipped with a SuperTrapp muffler P/N 5AS-2556 with none or any number of plates installed as needed to meet sound If no plates are present the end plate is not required.

B. The main muffler, Power Pulse Muffler (Racing Beat) P/N 16400, shall be in good working order with no removal of steel wool or other alternations allowed.

C. The following options are allowed:
   1. Use of the approved "Lo-back" muffler as a substitute for the Racing Beat muffler. Alternate Muffler Moses Smith Racing P/N 050-134 and header Moses Smith Racing P/N 050-133, are permitted. All other specifications to remain the same.
   2. Use of deflectors such as the SuperTrapp mud ring are allowed.

**18. Headers**

Headers must be unmodified except that high-temperature coatings are permitted.

**19. Hardware and Fluids**

A. Fasteners, links, and rod ends may be either metric or standard threads, but shall be at least grade five (5). Hardware and fasteners may not be modified to change adjustment parameters. Titanium hardware is not permitted. Tubular or Hollow bolts are not permitted.

B. Brake fluid, clamps, and radiator hoses are unrestricted.

C. Lubricants and fluids, except fuel, are unrestricted.

D. Ceramic bearings are not permitted. All bearing components must be ferrous metal, except for bearing retainers and bearing cages. This definition is applicable to all bearings, including, but not limited to, wheel bearings and transmission / gearbox bearings.

**20. Cockpit**

A. Cockpit controls and mechanisms may be adjusted within their stock operating range.

B. It is permissible to modify the driver's seat. The driver's seat attachment bracket on the chassis may be modified to facilitate adjustment, but shall ensure positive retention of seat attachment bolts. Seat shell may be removed and the assembly replaced by a poured foam seat.

C. The head rest may be extended forward to improve head support, provided the spacer(s) and attachments serve no other purpose.

D. A quick disconnect steering wheel may be used. Make and diameter are unrestricted.

E. A fabricated sheet aluminum cockpit liner is permitted.

**21. Bodywork**

A. Engine covers are required. Air inlet ducts may be trimmed but must not change profile of outside bodywork.

B. Mirrors are California by Vitaloni - Model #01CBT. Alternate rear view mirror (P/N 110-136) is permitted.

C. No modification to body external contour or dimensions is permitted. No openings may be added or reshaped. A blister may be added to the engine cover if needed for clearance between carburetor linkage and bodywork. Optional: rearmost, rear face of sidepods may be open, closed, or vented by drilling.

D. The aluminum undertray may be replaced with a stress-bearing undertray, minimum of eighteen (18) gauge steel. This undertray shall be attached to the frame by welding, bonding, or by rivets or threaded fasteners.

E. Star Formula Mazda bodywork or exact equivalent is required.

F. A windscreen may be added to the bodywork, it shall: 1) Not exceed 144 square inches of surface, nor stand more than six inches normal (measured 90 degrees to the surface) to the bodywork. 2) Be constructed from flat stock with no compound curves. 3) Be symmetrical left to right. 4) Not extend more than 12 inches to each side from the car's longitudinal centerline, measured along the cockpit opening. 5) Not constitute a potential hazard to driver, emergency crews or other competitors.

G. Engine compartment belly pan, Moses Smith Racing P/N 030-132, or any sheet metal pan covering the underside of the engine compartment, provided it is flat when viewed from the bottom (may have a bend up at the leading edge for stiffness), and does not extend past the trailing edge of the frame, nor more than 1.5" past the outer edges of the frame on each side.

**NOTES:**

## F. FORMULA S CLASS (FS) (REGIONAL CLASS ONLY):

**1. Definition**

A formula for purpose built, highly modified single-seat, open-wheel, open cockpit racing cars, which meet the general regulations of Section 9. of the GCR for Formula Category cars, yet are different in concept and specifications from the current SCCA Formula classes. Homologation is may be required. Refer to section 9.2.2. for details.

All Formula S cars registered after January 1, 2003 shall meet all preparation rules of Section G. Formula S cars registered prior to January 1, 2003 may be updated to Section G. specifications but they shall meet all requirements of Section G. without exception.

Exceptions to the FS specifications must be made to the Club Racing Board. Cars must have a letter from SCCA Technical Services documenting the exception.

**2. Chassis/Frame**

Chassis/frame construction is unrestricted within the following limitations:

A. Chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. There are no exceptions. Contact SCCA National Office for a list of the relevant FIA specifications/SCCA requirements.

B. Chassis of metallic tube and/or metallic monocoque construction shall be manufactured to be consistent with the safety requirements outlined within these rules and the GCR.

**3. Engines**

Any engine(s) may be used within the following limitations:

A. Piston or rotary internal combustion, gasoline-fueled engines only. No turbines. Turbo and/or supercharging is permitted.

**4. Fuel System**

Fuel system is unrestricted within the following limitations:

A. Fuel Cell Vents: Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

**5. Electrical System**

Electrical system is unrestricted within the following limitations:

A. Self Starter: Cars shall be equipped with on-board self-starter and on-board power supply controlled by the driver while in a normal driving position.

**6. Transmission / Final Drive**

Transmission / final drive system is unrestricted within the following limitations:

A. Power shall not be applied to more than two (2) wheels.

**7. Bodywork and Airfoils**

Bodywork and airfoils are unrestricted within the following limitations:

A. Cockpit Opening:

The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel and removable cockpit padding).

The cockpit opening of metallic chassis shall have the following minimal dimensions:

Length: 60cm (23.622 inches)

Width: 45cm (17.717 inches)

This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.

The cockpit opening of non-metallic chassis shall be designed to meet the FIA F3 homologation requirements (article 275).

B. Aerodynamic Devices:

1. The mounting apparatus of any part having an aerodynamic influence (i.e. bodywork, floor, sidepods, wings, spoilers, etc.), shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times.

2. No Aerodynamic skirts per GCR Section 9.3 Aereodynamic Skirts. Within the preceding restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polyethylene, polypropylene, Teflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, brittle plastics (i.e. Plexiglas), and other materials which shatter or break-up causing hazardous track conditions are prohibited.

3. Ground effects are permitted, but may not be attained by "sealing" or bridging the gap between the bodywork and the road surface. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.

4. Leading Edges of Airfoils: The leading edge of any airfoil fixed to the front of the car shall not be sharp. Minimum radius: 0.5cm (0.2 inches).

**8. Suspension**

Suspension is unrestricted within the following limitations:

A. All cars shall be equipped with a full suspension system (i.e. springs, torsion bars, etc.) front and rear. Rigid mounted suspensions are prohibited. Monoshock/monospring systems are permitted.

**9. Steering**

Unrestricted provided that it is of a safe/secure design and acts upon at least two wheels at one end of the vehicle.

**10. Wheels and Tires**

Wheels and tires are unrestricted within the following limitations:

A. Tires shall have a minimum speed rating of 120 mph or better. Tires shall be the same size and design (i.e. radial, bias-ply, etc.) for the right and left sides of the front axle(s), and same size and design (i.e. radial, bias-ply, etc.) for the right and left sides of the rear axle(s).

B. Wheels: Minimum diameter 10", minimum width 5.5". Wheels shall be identical for the right and left sides of the front axle(s), and identical for the right and left sides of the rear axle(s). Wheel material shall be metal. Cars shall be equipped with a minimum of four (4) wheels. Wire wheels are prohibited.

**11. Brakes**

Brakes are unrestricted within the following limitations:

A. Cars shall have a braking system that acts upon all wheels of the vehicle. Chain/belt driven cars may have a single brake caliper that acts upon the differential, thereby applying braking force to the two (2) drive wheels.

B. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

**12. Weight (without driver)**

The minimum weight of the vehicle as raced, without driver, shall be 750 lbs.

**13. Additional Safety Equipment**

A. Mirrors per GCR Section 9.3 Mirrors. Additionally, there shall be at least two (2) mirrors, each with a minimum 55cm² (8.53 in²) of reflective surface.

B. Towing Eyes per GCR Section 9.3 Towing Eyes. Additionally, if the rollbar is faired-in, the fairing shall have rollbar access hole(s) to allow for quick retrieval.

C. The area between the upper and lower main frame tubes from the front instrument/dash roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend to the forward most bulkhead, but must otherwise comply with these regulations.

1. Panel(s), minimum of either .060 inch heat treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.

2. Reinforced body, consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)

   The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

3. Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform to the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc). Such material shall be at least 1.5mm (.060 inches) in thickness not including the carbon fiber.

   Composite anti-intrusion panels shall be attached with no more than eight fasteners per side. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

   Alternatively, FIA mounting is permitted as follows:

   One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

   Composite panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.

4. Non-metallic chassis are covered under the FIA chassis homologation.

D. Driver's Feet Position

For metallic chassis, the frame shall incorporate forward-facing braces to protect the driver's legs and feet. The braces shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of twenty-five (25) centimeters (9.84") apart (inside dimension) from the front bulkhead to the rear roll hoop.

1. Non-metallic chassis are covered under the FIA chassis homologation.

## G. FORMULA 1000 (FB) PREPARATION RULES

Formula 1000 is a restricted class. Therefore, all allowable modifications, changes, or additions are as stated herein. There are no exceptions. I**F IN DOUBT, DON'T**. Homologation may be required. Refer to 9.2.2. for details. All FB Sport Racing Cars competing in Majors Races and the Runoffs must have the AIM part #DNKT-KPFSOL5 data box mount installed on their vehicle to provide the necessary mounting of the AIM Solo Data box. The mounting surface is to be approximately oriented either horizontally or vertically either parallel or perpendicular to the longitudinal axis of the car and must be accessible from the exterior of the car with the driver on board -- it should have a view of the sky, and not be located under carbon fiber or metallic body-work. In addition the mount must not be on wings, and or wing end plates and where possible should be in the cockpit. The purpose of this requirement is to allow the random placement of data boxes on cars on pre-grid by SCCA assigned personal and the collection of the box when the car exits the race track. Effective date March 1, 2014. Contact AIM and their distributors for direct purchase.

**1. Definition**

A formula for purpose built, open-wheel, open cockpit racing cars. F1000 allows converted Formula Continental, Formula 2000, Formula F, and purpose-built motorcycle-powered tube frame chassis.

**2. Chassis**

A. The chassis shall be of tubular steel construction only. Composite construction (defined as carbon fiber, Kevlar, honeycomb or fiberglass) in a structural application is prohibited, except as specifically allowed in these rules. Stress bearing panels are not permitted except as specifically allowed in these rules. Stress bearing panels are defined as sheet metal affixed to the frame by welding, bonding, rivets, bolts, or screws which have centers closer than 150mm.

B. The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower mainframe tubes shall be a minimum of 25cm apart (inside dimension) from the front bulkhead to the rear roll hoop.

C. The area between the upper and lower main frame tubes from the front instrument/dash roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend to the forward most bulkhead, but must otherwise comply with these regulations.

1. Panel(s), minimum of either .060 inch heat treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.

2. Reinforced body, consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)

   For either method, fasteners shall be no closer than 6 inch centers (no stress-bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

3. Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform to the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc). Such material shall be at least 1.5mm (.060 inches) in thickness not including the carbon fiber.

   Composite anti-intrusion panels shall be attached with no more than eight fasteners per side. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

   Alternatively, FIA mounting is permitted as follows:

   One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

   Composite panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.

D. A stress-bearing floor pan/undertray is permitted between the front bulkhead and the rear axles. Composite or stabilized materials shall not be used for stress-bearing panels. The mountings for brake and clutch pedals and cylinders (front bulkhead), instruments, (front roll hoop bulkhead), and rear roll hoop bulkhead (behind the driver) may be stress bearing panels, also. The firewall portion of the rear roll hoop bulkhead (panel) shall extend the full width of the cockpit. Forward facing air ducts may be installed to deliver air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the driver. (Any shape may be used to form the firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

E. Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be ferrous, aluminum alloy, or magnesium

alloy, of any shape, and fastened to the frame in any manner.

F. No engine oil or water tubes are permitted within the cockpit.

G. It is not permitted to construct any suspension member in the form of an asymmetrical airfoil or to incorporate a spoiler in the construction of any suspension member. Symmetrical streamlining of suspension members is permitted.

H. Front impact attenuation structures are required and rear impact attenuation structures are highly recommended. Impact attenuation structures shall be securely attached to the entirely sprung part of the car. Attachment of any front impact attenuation structure shall not extend more than 50mm to the rear of the front bulkhead. Impact attenuation structures may be fabricated from metallic and/or composite materials.

**3. Bodywork and Airfoils**

A. See Table 5. (Airfoils are a requirement for this class.) Forward-facing roll bar/roll cage bracing and required padding will not be considered in the cockpit opening dimensions shown in the table.

B. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel, except the steering wheel and/or driver's head surround structure. The steering wheel and head surround must be removable by the driver without the use of any tools.

C. Carbon fiber is prohibited in any external panels or any panels licked by the airstream (e.g., radiator ducting or engine air inlet), with the exception of impact attenuation structures. Carbon fiber may be used in internal panels and components (e.g., instrument panel, radio boxes) unless otherwise restricted.

D. The entrant shall designate a flat rectangular reference area with minimum dimensions of 30cm by 30cm. This reference area is located on the lower surface of the car (the surface licked by the air stream) between the rear of the front tire and the front of the rear tire. The center of the reference area must be no more than 75mm from the longitudinal centerline of the vehicle.

Between the rear of the front tire and the front of the rear tire, no point on the lower surface of the car (the surface licked by the air stream) shall be more than 25mm above the plane determined by the reference area designated by the entrant and on a line perpendicular to that reference plane. No point on the lower surface of the car may be below the plane determined by the reference surface on a line perpendicular to that reference plane, except as specifically permitted herein. Compliance with these requirements shall be accomplished by placing a straight edge on the reference surface designated by the entrant and verifying that the requirements are met. A maximum of four (4) rub blocks of maximum dimension 75mm by 125mm are allowed anywhere on the lower surface of the chassis, and may extend below the reference plane.

E. A diffuser is permitted behind the front of the rear tires. The diffuser may be divided internally into multiple sections. The radius of transitions between the diffuser sides and adjacent horizontal structures may be up to 25mm. The width of the diffuser, as measured between its sides and above any radiused transitions, may not exceed 95cm in any lateral section. Strakes within the diffuser are allowed.

F. Movable aerodynamic devices, including aerodynamic skirts, are prohibited.

G. The maximum permitted width of the bodywork is 150cm. The width of the entire lower surface of the car between the rear of the front tires and the front of the rear tires shall not exceed the maximum width of the bodywork by more than 50mm and shall not exceed 150cm.

H. The safety roll bar/roll cage and engine air box are not included in the maximum height restriction (dimension C in Table 5).

I. There shall be no forward facing gaps or openings in the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All bodywork shall be firmly attached to the chassis.

**4. Engines**

A. Motorcycle-based 4-cycle up to 1000cc.

B. Engine components (including cylinder heads and blocks) must remain stock, except as specifically permitted in these rules. No material may be removed from any engine component, except as specifically permitted in these rules. Valve jobs are permitted, but the valve seat diameter must not be changed. The competitor must present, on demand, an original factory manual for the specific engine make, model and year to allow compliance verification.

C. The stock or factory racing ECU shall be used. The ECU fuel and ignition maps may be changed. Devices that modify inputs to the ECU (e.g., Power Commander) may be used. Stand-alone aftermarket ECUs are not permitted.

D. Turbochargers and superchargers are prohibited.

E. Carburetion and fuel injection are unrestricted, with the exception that the stock throttle bodies for

a fuel injected engine must be used. Throttle plates, shafts and other mechanisms may be removed, substituted and/or disconnected. All holes or passages resulting from the removal of any components must be plugged. No other material may be added or removed from the stock throttle body bores through which any air for engine combustion processes flows.; except as noted in FB Restrictor Table.

F. The exhaust system and exhaust manifold are unrestricted, within SCCA safety regulations.

G. The lubrication system is unrestricted. A dry sump system is permitted; any oil pan and/or baffling is permitted.

H. Oil coolers are unrestricted.

I. The cooling system is unrestricted. Radiators, if housed in or incorporating a cowl air-scoop deflector, shall comply with bodywork rules.

J. The stock chain tensioner may be replaced with any mechanical chain tensioner.

**5. Inlet Restrictors**

Flat plate Individual Inlet Restrictors (IIRs) (FPIR) shall be used on all engines as indicated in Formula B Restrictor Table below. The restrictors shall conform to the definition within Appendix F of the GCR. All restrictors shall be installed within 4 inches of the primary throttle shaft on the upper inlet side of the throttle body.

**6. Fuel system**

The fuel system is unrestricted within the following limitations:

A. Fuel Cell Vents: Fuel tank air vents shall be located at least 25cm to the rear of the cockpit.

B. Fuel capacity: maximum 10.83 gallons.

**7. Electrical System**

The electrical system is unrestricted within the following limitations:

A. Self-starter: Cars shall be equipped with an on-board self-starter and an on-board power supply controlled by the driver while in a normal driving position.

**8. Transmission/Final Drive**

A. Rear wheel drive only is permitted.

B. The final drive ratio is unrestricted. Internal transmission gears shall remain stock.

C. Cars may use sequentially shifted motorcycle transmissions. Reverse gear is not required.

D. All gear changes must be initiated by the driver. Mechanical gear shifters, direct-acting electric solenoid shifters, air-shifters and similar devices are permitted. Devices that allow pre-selected gear changes are prohibited.

E. The clutch assembly is unrestricted.

F. Any open, limited-slip, or locking differential is permitted. Electronic control of the differential is prohibited. A solid axle or spool is permitted.

**9. Suspension**

A. All suspension components shall be of steel or ferrous material, except that hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings and bushings, spring caps, abutment nuts, anti-roll bar links, shock absorber caps, and nuts may be aluminum alloy or magnesium alloy.

B. Springs: steel only.

C. Shock absorbers: Steel or aluminum alloy body.

D. Control arms and all associated items that attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit.

E. Front A-arms shall be equipped with anti-intrusion bars to limit intrusion into the cockpit.

**10. Brakes**

Unrestricted, except:

A. All pistons in a given caliper must be of the same size. Calipers must be ferrous or aluminum alloy.

B. Brake rotors are restricted to ferrous material.

**11. Steering**

Unrestricted.

**12. Wheels and Tires**

Thirteen (13) inch diameter wheels with a maximum rim width of ten (10) inches are the only wheel sizes permitted. Material is unrestricted providing it is metal.

**13. Minimum weight**

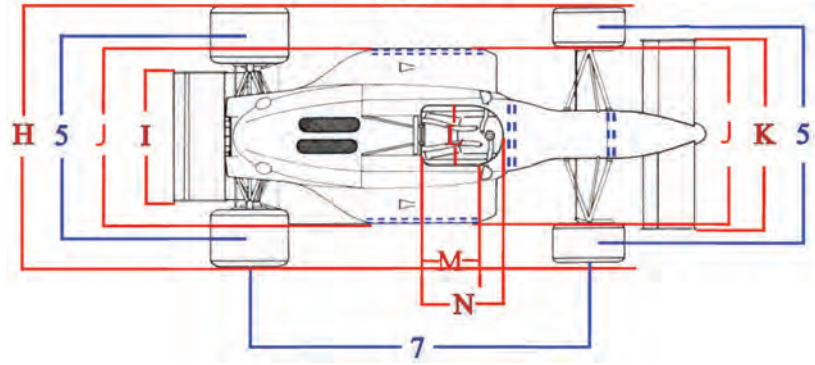
Minimum weight *for cars using model year 2010 or older engines* is 1000 lbs. *Minimum weight for cars using*

*model year 2011 or newer engines is 1025 lbs.*

| F1000 Dimensions - Table 5 | |
|---|---|
| Dimension (Refer to Figure 7a and 7b) | Measurement (cm) |
| A. Maximum rear overhang from rear wheel axis | 80 |
| B. Maximum front overhang from front wheel axis | 100 |
| C. Maximum height measured from the ground | 90 |
| D. Exhaust height measured from the ground | 20-60 |
| E. Maximum height of any aerodynamic device forward of the front wheel axis. | Rim height |
| H. Maximum width of entire car | 185 |
| I. Maximum rear aerofoil width (includes endplates) | 95 |
| J. Maximum width of body and lower surface of the car behind the front wheels | 150 |
| K. Maximum front wing width (includes endplates) | 135 |
| L. Minimum cockpit bodywork opening | 45 |
| M. Minimum cockpit parallel opening length | 30 |
| N. Minimum cockpit overall opening length | 60 |
| S. Maximum exhaust length from rear wheel axis | 80 |
| 7. Minimum wheelbase | 200 |
| 5 & 6. Minimum track | 120 |
| Maximum diffuser width | 95 |

Note: Maximum height is measured with the driver aboard. The safety roll bar/roll cage and engine air box are not included in the maximum height restriction (dimension C).

Figure 7a



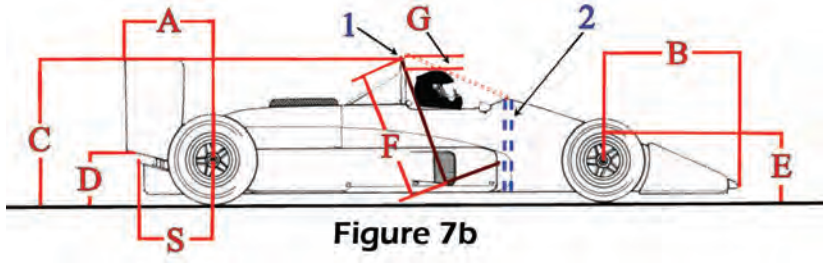




Figure 7b

| Formula B Restrictor Table | | | | |
|---|---|---|---|---|
| Engine Make | Model | Years | Restrictor (mm) | Notes |
| All Engines | All | 2008 and newer; 2007 Suzuki | NA | May use upper and lower shaped velocity stacks with 37.5mm diameter at restrictor interface surface. |
| All Engines | All | 2007 and older except 2007 Suzuki | NA | May use upper and lower shaped velocity stacks with 37.5mm diameter at restrictor interface surface. |

-Proposed changes to the specified restrictor sizes must be accompanied by engine dynamometer data.

-Competitor wishing to use any engines newer than 2014 model year must supply dynamometer data to the CRB to be approved for use.

## H. FORMULA FIRST

### 1. Definition

1. Formula First is a class for single seat racing cars based on compo¬nents from the standard Volkswagen Types 1 sedan, as originally manufactured by Volkswagen from 1966 to 2004. Since it is a restricted class, all allowable modifications are stated herein. The purpose of the Formula First class is to emphasize driver ability and to encourage the participation of owner/builders and owner/ preparers while using proven Volkswagen components (or exact replicas). Homologation may be required. Refer to section 9.2.2. for details.

2. No component of the engine, power train, front suspension, or brakes shall be altered, modified, or changed, or be of other than VW manufacture (or an exact replica thereof), unless specifically authorized herein. Parts used are classified as original, made by VW parts, exact replacement parts usually bearing a VW part number used in the VW model range specified below. Finally, mass-produced direct replacement parts can be substituted for the original components if authorized in the rules. These direct replacement components must be constructed of original material(s) or an acceptable substitute, maintain the original function(s) and general dimension(s) of the VW components they replace. Furthermore, these replacement parts must be generally available to all competitors and offer no competitive advantage over the original VW parts. There are no exceptions. IF IN DOUBT, DON'T.

3. Any VW Type 1 component, of VW manufacture or an exact replica in size, shape, and material, may be used unless a specific part (VW or aftermarket) is specified.

4. All measurements given in these rules are exact unless a specific tolerance is stated. A car exceeding any measurement or outside a tolerance, BY ANY AMOUNT is not in compliance.

5. Any external surface of the suspension, brakes, and transmission/rear axle tubes may be painted, plated, or anodized.

6. Weights and Measurements
    1. Minimum weight, as qualified or raced, with driver: 1125 pounds
    2. Wheelbase minimum 81.5"; maximum 85.5"
    3. Front track maximum: 57" at zero camber & toe
    4. Rear track maximum: 55" at zero camber & toe
    5. Overall length: Maximum 140" (includes exhaust)

### 2. Suspension

1. Front Suspension

The front suspension shall be standard VW Type 1 sedan ball joint H-beam front suspension or an exact replica of one of them and dimensionally identical. The following modifications are permitted:

1. Lugs may be welded, brackets attached by welding or otherwise, and holes drilled in the ball joint H-beam to permit attachment of the beam to the chassis, and other components wholly or partially to the beam. Brackets may be welded to the torsion arms for the sole purpose of actuating the shock(s) and/or external mounted anti-roll bar and shall perform no other function.

2. Front spring(s) are unrestricted except that the front suspension lifting spring(s) must be a continuous unit measuring 37.63" (+ or - .13") in length, is completely housed internal of the torsion spring tube(s), and fit unaltered control arm spring sockets.

3. Removal of the shock towers above the upper H-beam tube centerline.

4. Relocation of the shock dampers is permitted. Shock dampers and their actuation are free providing that no VW components are altered, modified or changed unless specifically authorized herein. Bump rubbers with a maximum length of 2 ½" may be used to protect the shock(s)/chassis from bottoming. Use of related bump rubber packing washers/solid spacers is free. Coil spring mounted (coil-over) shocks are not permitted.

5. The use of any anti-sway bar or bars, internal or external, mounting hardware, and trailing arm locating spacers. The anti-sway bar fitted as part of the standard suspension may be removed. Sway bars may not be cockpit adjustable. Front suspension Z-bars are not permitted.

6. Replacement of torsion bar rubbers with spacers of another material.

7. Installation of ride height adjuster(s), constructed for use with standard VW spring packs, to the H-beam allowing rotation of the spring pack. One (1) ride height adjuster per torsion spring tube is permitted. No cockpit adjustment of ride height is permitted.

8. Removal of the brake backing plates.

9. Camber/caster eccentric adjusting nut may be replaced with an aftermarket nut of different design. Caster, camber, and toe-in are free.

10. Any wheel bearings that fit the VW type 1 spindles and disk brake hubs without modification may be used.

11. Steering column may be altered or replaced. Steering wheel is free, and may be detachable. Steering mechanism is free, but tie rods must attach to the spindle using existing steering arm, a modified steering arm, or a suitable new or modified bracket welded to the spindle. Ball joints in

the tie rods may be replaced with rod ends.

2. Rear Suspension
    1. The rear axle and tube assembly shall be standard VW Type I up to 1966, sedan swing axle (no outer pivot point for a half shaft) with axle location provided by a single locating arm on each axle. The rear axle tube may be rotated about its axis. The standard shock mounting and brake pipe brackets may be removed. Rear axle O.A. length: 26 11/16" + or – 1/8".
        1. The rear axle bearing retainer flange mating surface may be machined, or shims may be installed under the rear axle bearing, for the sole purpose of adjusting bearing axial float.
    2. Springs, shock dampers, their actuation, and camber compensating devices are free.

**3. Braking System**

1. Standard VW Type 1 disc brake components must be used, including any standard VW Type 1 original or aftermarket direct replacement brake caliper constructed of cast iron material. Front rotor minimum weight: 13.0 lbs. each without wheel mounting studs.
    1. Caliper housing material may be removed on the outer radius surface of the outer piston housing to clear the inside of the rotating wheel. This metal removal shall only be to allow wheel clearance.
2. Any type pad material may be used on standard VW Type 1 brake pads.
3. Adapter plates may be fitted to allow mounting of front or rear brake calipers.
4. Cross-drilling or grooving of rotors is not permitted.
5. Rear brake drum assemblies must be removed and replaced with one-piece cast iron rear brake rotors with machined-in rear axle splines. Caliper mounting is free. Min. rotor weight: 15.0 lbs each, without wheel mounting studs.
6. The car shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels.
7. A separate hand brake is not required. Removal of the hand brake and operating mechanism is permitted.
8. Brake lines may be of any suitable material, including steel braided lines.
9. Wheel mounting lug bolts may be replaced with studs.
10. All brake components must remain within the safety tolerances and minimum dimensions established by the component manufacturer.

**4. Wheels and Tires**

1. Wheels shall be 13" diameter by 6" wide. (+ or – 1/8" for all dimensions).
    1. Wheels must be of one-piece construction and may be constructed of steel, aluminum, or magnesium, but each wheel must comply with a minimum weight of 10 pounds, less tire, wheel weights and valve stem assembly.
    2. Wheel bolt pattern is free, except that it must use 4 lug bolts or studs with lug nuts. No center-locks. As a recommended standard, the common bolt pattern for Formula First is 4"x 4 bolt.
    3. Spacers between the wheel and rotor are permitted.
2. Tires shall be Formula F slicks in standard front and rear sizes and using a hard compound. The Region, Division and/or racing series sanctioning the races shall specify which manufacturer or manufacturer's tires meeting this general description shall be permitted.

Regional, Divisional and/or Race Series Tire Options:

1. Option 1. The spec tire manufacture for Formula First shall be Hoosier Tire. Front tires shall be #43130 20.0"x 6.0" – 13" R60 or R60A compound. Rear tires shall be #43302 22.5"x 7.5"– 13" R60 compound or #43307 22.5" x 7.2" x 13" R60A compound.
2. Option 2. The spec tire manufacture for Formula First shall be Goodyear Tire. Front tires shall be #807-366-068 3321 20.0"x 6.0" – 13" R600 compound. Rear tires shall be #870-274-068 2015 22.5"x 7.5"– 13" R600 compound.
3. Option 3. The spec tire manufacture for Formula First shall be American Racer Tire. Front tires shall be 20.0"x 6.0" – 13" 133 compound. Rear tires shall be # 22.5"x 7.5"– 13" 133 compound.
4. Inter divisional races or special events may choose to allow more than one tire option by listing the options allowed for said event in the event supplemental regulations.

3. Any tires (brand, size, tread or construction) fitting the 13 x 6 rims may be used when the Chief Steward declares a rain race.

**5. Engine**

1. The engine shall be the standard VW "1600" (1584 cc) twin port, unless otherwise stated in these

rules.

1. Engine components shall be assembled in standard configuration. Exceeding the wear limits specified in the VW manual or in other official VW guides is permitted provided that the specifications, tolerances, and dimensions specified in these rules are not exceeded.
2. Standard engine reconditioning practices are permissible as set out below. Such machining shall occur on the same plane as original VW specification. It is not permissible to add metal or any other material to any engine component, unless specifically stated herein.
3. Balancing of the following moving parts of the engine is allowed: pistons, connecting rods, crankshaft, flywheel, front pulley, and clutch disc and clutch cover. Balancing may not remove more material than is necessary to achieve the balance, except on those component parts where minimum weights are specified herein. The addition of weight to the clutch cover plate, for the sole purpose of achieving balance, is permitted.
4. Polishing of the contact faces of moving parts is permitted.

2. 1584 cc engine dimensions
Bore 85.7 mm maximum
Stroke: 69.1 mm maximum
Exhaust valve diameter: 32.10mm maximum
Intake valve diameter: 35.60mm maximum
Intake port dimension at head: 33 mm maximum
Exhaust port dimension at head: 33 mm maximum
Intake manifold horizontal inside diameter: 33 mm maximum
Manifold casting maximum diameter at flange: 33 mm maximum
Maximum valve lift: .455". Measured at Valve cap with 0" lash. An average of the four exhaust valves must be .455" or less and an average of the four intake valves must be .455" or less.
Rod weight with bolt and small end bushing: Minimum 560 grams. Rod length, center to center: 5.35" to 5.45". Any piston rod may be used that meets the VW dimensional and weight specifications listed herein.
Piston weight with pin: Minimum 515 grams.
Minimum distance: Top of piston to top edge of #1 ring groove: 8.0 mm
Crankshaft weight: 20 pounds minimum
Flywheel: Clutch diameter 200 mm; weight - 12 pounds minimum
Deck height: .045" minimum
Cam followers: 90 grams minimum
Rocker arms: 80 grams minimum (w/o adjuster)

3. Crankcase, Clutch and Flywheel
   1. Any 1200 or 1600 VW case or exact replica may be used. (Aftermarket competition cases that vary in design from the original VW case are not permitted.)
   2. Standard reconditioning of the case halves is permitted.
   3. The case may be drilled to accept an external oil cooler or oil filter.
   4. Generator/alternator, stand, and fan housing and fan may be removed.
   5. Oil baffles may be installed. They must be housed completely within the original oil sump and crankcase.
   6. An oil temperature sending unit may be installed in the crankcase.
   7. Oil galley plugs may be replaced with threaded plugs.
   8. Cylinder head studs may be replaced with studs of different material.
   9. The crankshaft may be ground and the case may be machined to accommodate the use of the standard VW oversize/undersize crankshaft bearings, provided the crankshaft location is not changed. It may also be machined to permit installation of camshaft bearings.
   10. The use of an aftermarket counterweighted crankshaft with standard VW stroke, index and journal sizes is mandatory. Bearings may be standard VW undersized/oversized and rods ground to accommodate them.
   11. Crankshaft front pulley is free.
   12. The flywheel may be lightened to a minimum of 12 pounds. Flywheel dowels may be reconditioned. Additional dowels may be added on the same face. The flywheel clutch plate surfaces may be machined.
   13. Any 200 mm VW clutch disc, pressure plate and throwout bearing (or replacement replica) as fitted to the VW Type 1, 2 and 3 are permitted. The standard VW clutch actuation arm may be modified to allow its attachment to the standard VW clutch throwout bearing shaft in any appropriate position. Clutch shaft arm actuation (cable, levers, or hydraulic) is free.

14. Oil filler/engine vent(s), dry sump tank and catch tank(s) are unrestricted provided they meet section 9.3 Oil Catch Tanks, Filters, and Breathers.
15. The installation of a crankshaft pulley oil seal is permitted.
16. The installation of case center main web location pins or shuffle pins are permitted.

4. Camshaft
   1. Only the Engle W110 camshaft is permitted. Specifications listed herein are for checking purposes only. Re-grinding of the Engle W110, or any camshaft, to meet or maximize these specifications is strictly prohibited.

      Cam lift: Exhaust and Intake .392" variance + .003"

      Lobe centers: 108 deg +/- 30 sec.

      Intake opens @ 19 deg. Intake closes @ 48 deg. (at .050" valve lift) (+/- 30 sec)

      Exhaust opens @ 55 deg. Exhaust closes @ 12deg. (at .050" valve lift) (+/- 30 sec)

   2. Cam timing (advance/retard) may be achieved by offset keys or adjustable cam gear. Cam timing may not be adjustable without disassembling the case. No form of VTEC, cockpit adjustment, or other variable cam timing is permitted.
   3. Cam gear must be of stock dimensions, including angle and width of teeth.
   4. Cam followers may be reconditioned and/or may contain camshaft face lubrication holes.

5. Pistons and Cylinders

Pistons and cylinders shall be standard VW replacement parts or exact replicas. Any piston rings that can fit the standard grooves are permitted. Piston pin retaining clips may be replaced with Teflon buttons.

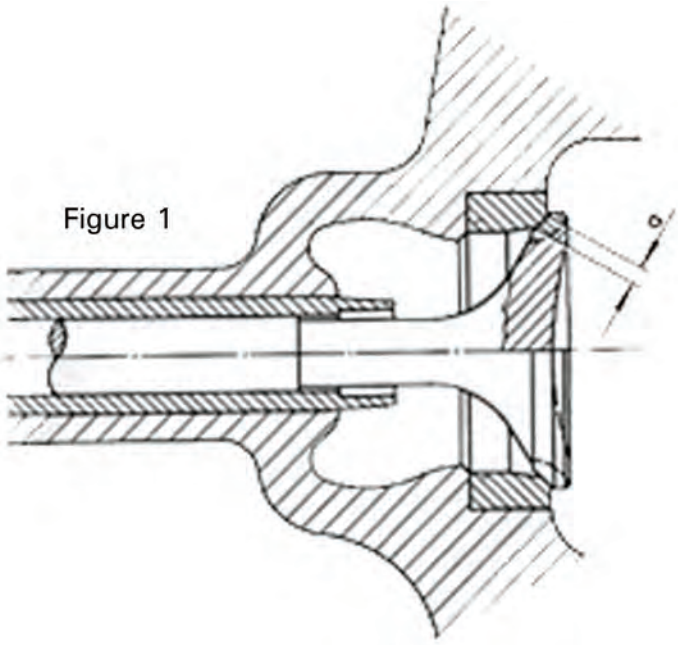
6. Cylinder Head
   1. The original standard VW twin port cylinder heads or any direct replacement cylinder head that complies with the original standard VW twin port cylinder head dimensions listed herein are permitted.

      Reference list of some common manufacturers, part and casting numbers:

| | | |
|---|---|---|
| Auto Lineas | P/N 040-101-375 xx (Note: xx varies) | Casting "040" |
| Auto Lineas | P/N 043-101-375A | Casting "043" |
| Mofoco 040 | P/N CHH 040 | Casting "040" |
| OE VW Original | P/N 113-101-375 A | Casting "113" |
| OE VW Replacement | P/N 040-101-355 | Casting "040" |
| OE VW Replacement | P/N 043-101-375H | Casting "043" |

      Other cylinder heads can be added as requested if the castings are the same dimensionally (e.g., combustion chamber volume, valve size and location) as an approved VW manufactured head. This allows casting duplicates that may be of better quality (longevity), appearance, and/or price.

   2. The intake and exhaust ports are to remain in as-cast condition, except that material may be removed from the intake ports for the sole purpose of matching/blending up to 1.5 inches from the intake flange mating point and up to 1.5 inches from an intake valve seat. Material may be removed from the exhaust ports for the sole purpose of matching/blending up to .75 inches from the exhaust flange mating point and up to 1 inch from an exhaust valve seat. The remainder of the ports must be untouched.
   3. The combustion chamber must hold a minimum of 47 cc, with valves in place.
   4. Replacement of valve seats and valve guides with others of standard dimensions and material is permitted.
   5. Valves and valve seats may not be reshaped. Valve to valve seat mating surface (figure 1) shall be cut as follows. The 45 deg valve seat width (figure 2) shall be maintained by cutting a 15 deg chamfer (figure 3) at the outside edge of the seat and a 75 deg chamfer (figure 4) at its inner edge. Seats cannot be refaced if too little material remains for a 15 deg chamfer to be cut without going beyond the boundary of the insert. If the chamfer extends to the head, the seat or the head must be replaced.



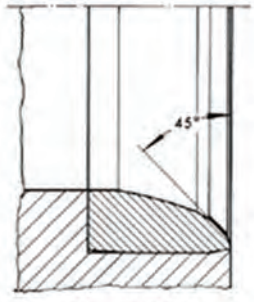




Figure 2

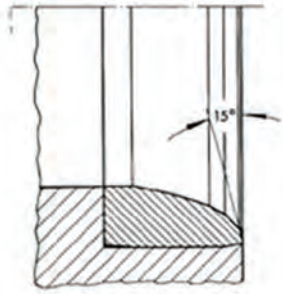



Figure 3

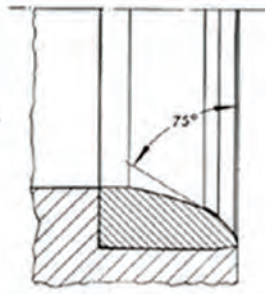



Figure 4

1. Valve specifications (figures 1 & 5):
Dimension “a” – valve seat contact width: Intake – 1.30 mm to 1.60 mm

Exhaust – 1.70 mm to 2.00 mm Seat contact angle on valve: 45 deg Intake and Exhaust

Dimension “A” – valve head dia: Intake – 35.56 mm max. Exhaust – 32.06 mm

Dimension “B” – valve length: 110.5 mm to 112.5 mm

Dimension “C” – valve stem dia: Intake – 7.94 mm min. Exhaust – 7.91 mm

Dimension “b” – valve head margin: Intake - .80 to 1.50 mm Exhaust – 1.00 to 1.70 mm

Dimension “d” – face angle of valve only: Intake - 44 deg Exhaust – 45 deg

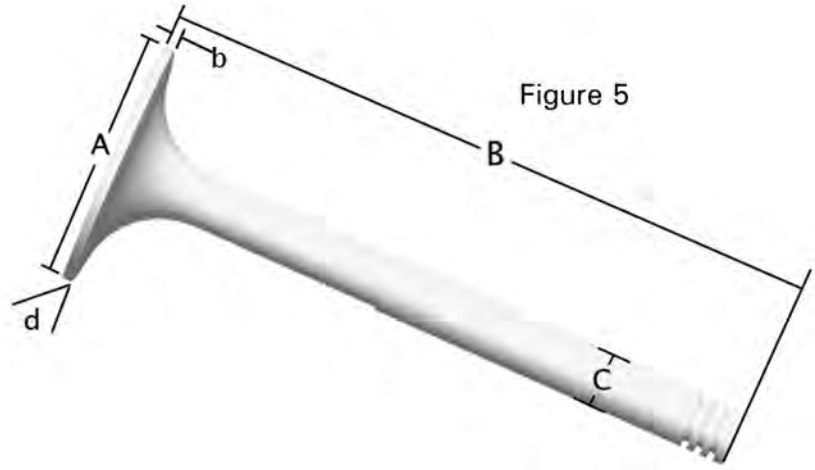



Figure 5

6. Stainless steel valves of the same dimensions as stock are permitted.
7. Single valve springs must be used, but are otherwise free except that no unauthorized modifications to other parts may be made to accommodate them.
8. Shimming of valve springs is permitted.
9. Combustion chambers are to remain in standard, as cast condition, except that fly cutting is permitted to obtain the permitted compression ratio. No other tooling or polishing of the combustion chamber is permitted.
10. Any aluminum or steel pushrod may be used. Length is free.
11. Only standard 1.1:1 ratio 1600 rocker arms may be used. The two bars need to be visible. Minimum rocker arm weight listed under 5.2.
12. Wavy washers in the rocker gear may be replaced with solid washers.
13. Swivel-foot valve adjusters may be used, provided that they are on the same center plane as the standard screw and offer no increase in valve lift.
14. The rocker shaft posts may be shimmed to restore original geometry after authorized fly cutting.
15. Spark plug holes may be repaired using standard thread repair methods, such as Helicoil inserts, providing that the spark plug centerline is not changed.
16. Valve covers are unrestricted and may be bolted on.
17. Push rod tubes are unrestricted.
18. Any ferrous metallic valve spring retainers and keepers are permitted.

7. Oil system
    1. Any standard VW Type I, or replacement replica in size, shape, and material, oil pump may be used. Oil pump pressure port plugging is permitted.
    2. Any oil pump cover may be used.
    3. A dry sump oiling system is permitted.
        1. The dry sump pump must bolt into the standard location, must be driven by the camshaft and have no more that two stages.
    4. A sump extension may be fitted using or in place of the oil strainer cover plate. The oil pump pickup pipe may be extended into the sump extension. The sump extension shall not extend below the lower frame members surrounding the engine.
    5. Any oil cooler is allowed provided it is located within the bodywork and behind the firewall.
    6. An alternate oil pressure regulator spring or springs may be used.
    7. A standard or racing type automotive oil filter of not more than one-quart capacity may be installed provided it is located within the bodywork and behind the firewall. No cooling fins are permitted on the filter or connecting lines. Connecting lines shall not exceed 12 feet in total length, including oil cooler connections if part of the oil filter circuit.
8. Fuel pump

Fuel pump is free. A block off plate may be installed if the mechanical fuel pump is removed.

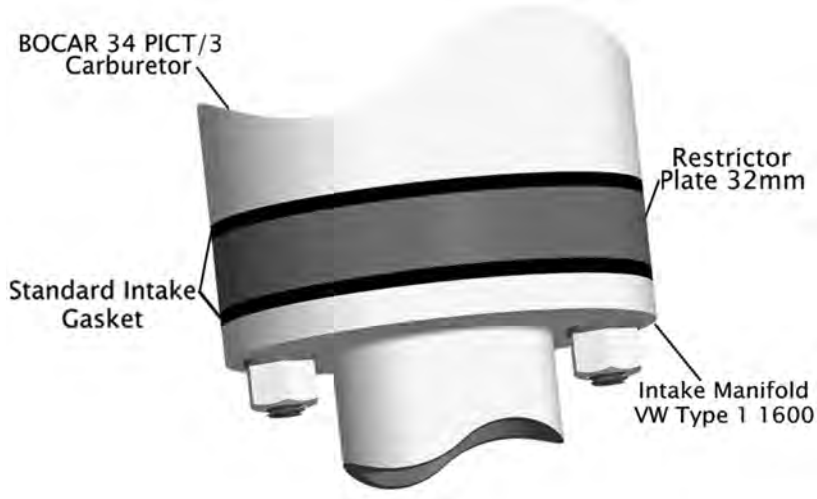
9. Carburetor
    1. Only the Mexican made Bocar 34 PICT/3 replacement carburetor shall be permitted. The carburetor shall be in "as new" condition. The carburetor may be cleaned with commercially available "carb cleaner". NO MEDIA BLAST CLEANING IS PERMITTED. Original replacement replica gaskets, float, needle & seat may be replaced as needed. Float level may be adjusted via shim(s) under the needle & seat. Only the modifications listed herein are permitted. If you don't see it listed herein, you can't do it, NO EXCEPTIONS.
    2. The choke plate, choke heater element and related components, choke shaft and related hardware may be removed and the shaft holes taped or plugged. Any air filter, air horn, or combination of filter and horn may be used.
    3. Modification or removal of the idle shutoff solenoid to allow air/fuel flow without power is permitted.
    4. Main fuel and air correction jet sizes are free.
    5. The carburetor may be rotated 180 degrees about its vertical axis.
    6. The choke heater element housing may be cut off the carburetor top housing.
    7. The fuel inlet must be threaded into the carburetor top housing, the original brass swaged in fitting is not permitted.
    8. Vacuum fittings may be removed and ports plugged.
    9. The full throttle stop bracket may be modified to allow for full throttle operation.
    10. Throttle plate screws shall be "as supplied" from Bocar, no grinding, filing or trimming on these screws, NO EXCEPTIONS.
    11. NO OTHER TOOLING OR MODIFICATIONS ARE PERMITTED. REBUILDING IS NOT AN EXCUSE FOR MACHINING, MODIFYING OR CHANGING ANY DIMENSIONS OR ANY COMPONENT OF THE CARBURETOR, NO EXCEPTIONS.
    12. Carburetor dimensions: Specifications listed herein are for checking purposes only. Re-working of the Bocar PCIT/3 to meet or maximize these specifications is strictly prohibited.

        Throttle plate thickness: .055" Minimum

        Throttle shaft thickness: .210" Minimum

        Venturi/Choke inside dimension: 26 mm Maximum

10. Intake Manifold
    1. The intake manifold shall consist of standard VW Type 1 1600 (1584 cc) twin port components, or direct replacement, unless stated otherwise in the following rules.
    2. The heat sink casting may be removed or modified.
    3. Other EXTERNAL modifications to the cast sections are permitted for clearance purposes, provided no performance advance results.
    4. The standard 1600 manifold end castings must be untouched internally other than for the purpose of port matching.
    5. Port matching to a depth of 1.0" into the manifold casting from the manifold/head joining surface is permitted.
    6. The official Formula First 32mm restrictor plate, *SR Racing part number SRA-FST-RESTRICTOR*, must be installed per the instructions below. Absolutely no modifications are permitted to the restrictor plate. Any defects or marks on the blue anodize is not allowed and must be exchanged immediately for a new official Formula First 32 mm restrictor plate. *Small external scratches are considered normal wear.*
        1. The official Formula First 32 mm restrictor plate must be installed/assembled exactly in the following order, using only the listed parts. No exceptions allowed.
            1. Intake manifold
            2. (1) Standard VW (or direct replacement) carburetor gasket
            3. Official Formula First 32 mm restrictor plate




4. (1) Standard VW (or direct replacement) carburetor gasket
5. Bocar 34 PICT/3

2. Installation diagram supporting I.5.10.6.1.
3. Any Formula First car may be subject to a "spot check" for restrictor plate compliance. A spot check may be visual or may require a vacuum leak check performed as follows:
    1. Run engine at 2500 RPM
    2. Seal the carburetor air inlet
    3. Engine must stall within 4 seconds
7. All intake manifold vacuum fittings or ports must be plugged.

11. Engine cooling system
The air-cooling system for cylinders and cylinder heads is free, subject to limitations on bodywork. See I.5.7.7. with respect to oil coolers and lines.

12. Exhaust System
The exhaust system is free, but must comply with SCCA and local noise requirements and with overall body dimensions requirements.

13. Electrical System
    1. 12-volt electrical systems shall be used.
    2. The distributor must be a standard VW mechanical advance distributor, or Bosch 009, or a replacement replica, with the following modifications permitted.
    3. The advance curve may be adjusted.
    4. Standard Bosch or replica points may be replaced with an electronic replacement points set (Pertronix, Comp-U-Fire, etc.). The replacement set must be totally within the distributor.
    5. Any coil is permitted.
    6. Any 12v on-board automotive starter capable of starting the engine from the driver's compartment is permitted.

14. Other non-standard components.
Use of the following non-standard replacement parts is permitted provided that no unauthorized modification of any component results: Any fasteners (nuts, bolts, screws, etc); wiring; gaskets and seals; fuel line; spark plugs; piston rings; fan belt; and connecting rod bearings, camshaft bearings, and crankshaft main bearings, provided the bearings are of the same type and size and VW standard or oversize bearings.

**6. Transaxle**

1. The standard VW Type 1, 2 or 3 swing axle type transaxle must be used in standard configuration unless stated otherwise in these rules. All five gears (including reverse) must be operable, and controllable from the driver's seat. Synchromesh must be operating on all four forward gears. A direct replacement transmission case, VW part # 081-301-051, or replacement replica, "Rhino" case is permitted.
2. Shock damper mounts may be modified or removed.

3. Transmission shall not be installed in an inverted position.
4. The crown wheel must be transposed in the transmission case.
5. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.
6. The following gear ratios must be used with the 1600(1584) engine:
1 - 3.80; 2 – 2.06; 3 – 1.26; 4 – 0,89; differential 4.125

**7. Frame and Body**

The area between the upper and lower main frame tubes from the front instrument/dash roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend to the forward most bulkhead, but must otherwise comply with these regulations.

1. Panel(s), minimum of either .060 inch heat treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.
2. Reinforced body, consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)

   For either method, fasteners shall be no closer than 6 inch centers (no stress-bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.
3. Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform to the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc). Such material shall be at least 1.5mm (.060 inches) in thickness not including the carbon fiber.

   Composite anti-intrusion panels shall be attached with no more than eight fasteners per side. Fasteners shall be AN or superior grade of not more than 0.25 inch diameter. Two flat or countersunk Mil Spec or SAE washers of no more than 1 inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

   Alternatively, FIA mounting is permitted as follows:

   One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

   Composite panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.

2. Body
   1. The body shall be constructed of fiberglass, aluminum, steel, Kevlar, carbon fiber or any combination thereof.
   2. The body must not be rigidly attached so as to form part of the structural integrity of the car.
   3. Rear (Tail) Bodywork: The rear bodywork shall extend from the firewall to a point at least 16" aft of the rear axle centerline.
   4. Front (Nose) Bodywork: Any bodywork forward of the front beam torsion spring tubes shall have a maximum width of 31.75" (80.65 cm)
   5. Main (Center) Bodywork: No part of the frame or bodywork shall project beyond a plane connecting the vertical centerline of the front and rear tires. Fuel filler necks, caps or lids shall not protrude beyond the bodywork of the car. The bottom of any bodywork that extends below the frame members shall be on the same flat plane as the undertray and shall not deviate from that flat plane by more than 1".
   6. Cockpit Opening: The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel and removable cockpit padding). The cockpit opening of the bodywork shall have the following minimal dimensions: Length: 60cm (23.622 inches) Width: 45cm (17.717 inches). This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.
   7. Air Ducting: Air ducts may be installed for the purpose of delivering air to, or extracting air from the cylinders, cylinder heads, oil cooler and/or carburetor. Air duct opening(s) may be located within the cockpit area and/or penetrate the firewall provided the duct(s) design and construction would prohibit flame and debris from reaching the driver.

8. Aerodynamic Devices: Wings are prohibited. Any device specifically designed to use air speed to create aerodynamic downforce is prohibited.

## I. FORMULA ENTERPRISES PREPARATION RULES

**1. Definition**
One design, fixed specifications, open cockpit, single seat Formula car with Mazda 2.3 engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official Spec Formula Car parts except where noted in J.4. No modifications may be made to any part or system unless specifically permitted in these rules.

**2. Safety Requirements**
Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through SCCA Enterprises, except safety harnesses may be replaced by any other that conforms to GCR Section 9.

**3. Vehicle Configuration**
All cars to GCR section 9 with the following exceptions: Section 9.3 Accumulators.

**4. Maintenance and Repairs**
It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official Enterprises Formula Car parts. If any official Enterprises' seal is broken, lost by accident or intent, the procedures outlined under I.18., shall be followed. Parts and materials with an Enterprises part number having the prefix "WM10" are considered to be unrestricted, providing their dimensions and materials are comparable. No other parts are to be considered "unrestricted" except where specified.

**5. Chassis**
NO MODIFICATIONS ALLOWED except as noted in these rules.

a. All cars shall use the stock, as delivered by Enterprises, wood floor of 6mm, with an allowable deviation of 3 mm across the surface for wear.

b. Seats are free. Panels inside the cockpit may be attached to the frame as long as the points of attachment are no closer than 6 inches apart. No welding or gluing of the seat to the structure of the car is allowed.

   Definition of cockpit is: area between the front roll hoop and rear roll hoop.

c. Painting or powder coating of the chassis is allowed.

d. Enterprises foot drop box part # WM180020J may be installed.

e. Enterprises impact attenuator part #WM180023 (crush box) shall be installed.

f. Transponder must be used per SCCA Enterprises Technical Bulletin 002-2016.

**6. Bodywork**
NO MODIFICATIONS ALLOWED (except as specified). If any seal, label, stamp is missing the parts must be returned to Enterprises for resealing.

a. Bodywork shall remain unmodified with the exception of holes for a slave or jumper battery plug, trackside beacon receiver, and tow hooks. All repair work must match original body dimensions and contours.

b. Bodywork fasteners are free.

c. The car may be painted any color(s), except primer.

d. It is required that all cars display the official sponsors of Enterprises decals and locations as specified by Enterprises.

e. Radiator screens are allowed and recommended.

f. All aerodynamic devices shall be used as delivered: i.e. wings, body winglets. No modification to mounting location or holes.

g. TThe front wing main plane, front wing secondary elements, front wing support mounts, and front wing endplates must be used and mounted as delivered from Enterprises. Any modification to these parts, except as specifically noted herein, is strictly forbidden. The main wing plane angle is zeroed on the rear upper aft transmission surface measured with a suitable angle gauge, i.e.: digital level on the top main plane 2 inches outward from the nose box mounts. It must meet a minimum measurement of negative .5 degrees (angled down in the back) and a maximum measurement of positive 2.5 degrees (angled up in the back). It is acceptable to shim the main plane to obtain this measurement. Wicker bill (Gurney flaps) are permitted as an option for installation on the trailing edge upper surface of the front wing secondary elements only, not the wing main plane. They must be attached in a secure fashion, without modification to the wing element except for mounting hardware. Total height is .500". Maximum number of mounting locations on front flaps is 2 on each flap and maximum hardware size is #8 (.156). Gurney flaps, where attached, shall be 90 degrees and parallel to the upper surface of the wing element and no taper or "saw toothed" Gurneys are permitted.

h. The rear wing and its related mounting components are to be used and mounted as delivered. Any modifications, except as specifically noted herein, are strictly prohibited. The lower plane angle, zeroed on the rear upper aft transmission surface, measured with a suitable angle gauge. i.e.; digital level on

the top surface of the lower rear wing must meet a minimum of −3.0 degrees (angled down in the back) and a maximum of +2.0 degrees (angled up in the back). It is acceptable to adjust the lower rear element to meet these requirements. The upper rear wing element may only be adjusted within the parameter of the endplates and wing adjusters as provided from Enterprises. No additional holes may be added. Wicker bill (Gurney flaps) are permitted as an option for installation on the trailing edge upper surface of the wing element. They must be attached in a secure fashion, without modification to the wing element except for mounting hardware. Total height is .250" on one or both elements. The Gurney flap only, may extend beyond the parameters of the end plate. Maximum number of mounting locations is 5 and maximum hardware size is #8 (.156). Gurney flaps, where attached, shall be 90 degrees and parallel to the upper surface of the wing element and no taper or "saw toothed" Gurneys are permitted.

i. The stock headrest may be modified or replaced with any headrest meeting GCR section 9.4. The stock lateral bolsters may be modified or removed.

j. Enterprises windscreen P/N: WM137000 is allowed.

**7. Engine and Drivetrain**

a. Engine

1. NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated and supplied by Enterprises. All fluids, except fuel, are unrestricted.
2. Enterprises, Inc., seals on the engine, and other components shall remain in place at all times. All engines shall be rebuilt, checked on an engine dynamometer, and sealed through Enterprises.
3. Engine maintenance, which is permitted, includes the replacement, but not modification of external engine and engine systems parts.
4. There are six (6) seals on the engine. Two (2) on the timing cover, two (2) on the top of the valve cover, and two (2) on the oil sump. They may not be removed or tampered with.
5. All rubber oil lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.
6. Intake manifold: No modifications are allowed. Absolutely no porting or the addition of material is allowed. No coating is allowed on the exterior or interior of the manifold.
7. Engine Control Unit (ECU): Manufactured by MBE and sealed by Enterprises. Tampering of the ECU, ECU program, seal, wiring or sensors is prohibited.
8. The flywheel weight is a minimum of 2.6 pounds for the Enterprises supplied flywheel. No modifications to the flywheel with the exception of normal resurfacing for clutch wear are allowed.
9. No modification to the crankshaft dampener is allowed.

The following parts must be used:

10. Clutch: Enterprises supplied clutch and flywheel contained in kit #WM701000A, Piston #WM701004A, Throw out bearing #WM701006A, Small O-ring #WM1010405, Large o-ring #WM1010406, Flexplate and Ring Gear # WM1101053.
11. Spark Plugs, Part # NGK PTR5F-11, NGK ITR5F-13, or Motorcraft # AGSF32FEC.
12. Fuel Injectors: Part # WM591929
13. Throttle Body: Part # WM591930
14. Fuel Filter: *Any 10 micron fuel filter may be used as long as it performs no other purpose than to filter fuel.*
15. Air Filter: Part # WM301020
16. Exhaust systems may be thermal coated or wrapped.
17. A heat shield between the engine block and the exhaust system is recommended for the purpose of protecting hoses, shifter cable, and wiring from the heat of the exhaust.
18. An Enterprises muffler kit part #WM1131046 is required. The muffler may not extend beyond the back of the transmission. An additional muffler may be added to accompany the stock muffler as needed to meet sound requirements.
19. An optional air to oil cooler is allowed. The maximum core size is 13 inches wide by 6.5 inches high. No water to oil heat exchanger is allowed.
20. An optional Enterprise alternator kit is allowed, Part # WM1100101

b. Transmission

1. The 5 speed sequential transaxle supplied by Enterprises is the only permitted gearbox. The casting has to remain original. No internal or external modification (including lightening) other than normal racing repair.

2. The servicing, replacement and modification of internal components is permitted by the competitor. With the following exceptions:

   a. All components must be ferrous metal, except for bearing retainers and bearing cages.

   b. Components manufactured by alternate manufacturers are permitted. Replacement components must be direct replacements to the original components. Absolute minimum weights are listed below.

3. The rear cover plate may manufactured or remanufactured using aluminum.

4. Only the following gear ratios are permitted:
   1st gear combination 12:29 Ratio number 2.41
   2nd gear combination 15:28 1.86
   3rd gear combination 16:24 1.50
   4th gear combination 18:22 1.22 or 20:25 1.25
   for 2011beginning 2012, only 20:25 1.255th gear

   combination 24:26 1.08

5. Differential – Only final drive ratio allowed is 12:33 2.75. The differential must remain an open differential. No limited slip mechanism is allowed. Differential must work as supplied (no tightening of the differential to limit slip) Must be able to use existing components.

6. Polishing, shot peening, REM© Isotropic treatment, heat and cold treatments are allowed. No coatings or plating is allowed.

7. Any mechanical device may be used between the shift lever and the transmission barrel to provide the required actuation. No electronic or pneumatic devices are allowed. Gear position indicators are allowed.

8. Throttle cable is free, but must remain cable operated.

**MINIMUM WEIGHTS OF THE FOLLOWING PARTS**
Differential Housing (both parts including bearings) 7.4 lbs
Ring Gear 3.6 lbs
Pinion Shaft 4.0 lbs
1st gear 2.7 lbs
2nd gear 1.2 lbs
3rd gear 1.1 lbs
4th gear 1.1 lbs
5th gear 1.0 lbs

**8. Suspension**

a. NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension and steering components. All rod ends shall be engaged at least 1.5 times the diameter of the end.

b. Front Springs: 600 lbs. ±25 lbs. Part # WM203008. Wire size shall measure .360" ±.005".

Rear Springs: 1000 lbs. ±25 lbs. Part # WM203009. Wire size shall measure .410" ± .005".

c. Competitors may use the entire travel of all suspension adjusted components as delivered. Alternate parts are not allowed.

d. All suspension parts shall have the SCCA code embedded (a label/or an Enterprises stamp) in the part. If they do not it is required to return part to Enterprises for proper labeling.

e. Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. This includes dimensional material and strength specifications. Replacement rod ends shall be capable of being installed with no modifications to any original components.

f. Anti-roll bars (sway bars) may be disconnected, but not removed.
Anti-roll bar sizes:

**Front**

Main Shaft 0.875" OD ±.005" Top Tee .750" x .135" wall, ±.005"

Length: 7.5" maximum end to end

**Rear**

lower stalk .615" Dia. ±.005"

Upper stalk .765" ±.005"

Arm length 5.470" shoulder to shoulder

Optional: Front rotating blade Anti-roll bars

PN: WM201023 Blade Minimum thickness 0.155" ±.005"

PN: WM201022 0.590" ±.005 Main Shaft Length 6.006 _+ .010"

PN: WM201029 0.875 +/- .005" Main Shaft Length 6.006" ±.010".

PN: WM1121008 0.590" Full Bar kit / Cockpit adjustable.

PN: WM1121010 0.875" Full Bar kit / Cockpit adjustable.

PN: WM1121007 0.590" Bar Kit / set screw lock.

**9. Shocks**

a. NO MODIFICATIONS ALLOWED. 4 Bilstein Shocks, Part # WM203001 or 4 Penske shocks, Part # WM1180090. Same type on all 4 corners.

b. Only shims provided on the shocks are legal (no bump rubbers, packers or modification to shims).

c. Adjustments for the Bilstein will be at the spring perch and with pressure (if rebuilt). Adjustments for the Penske will be at the spring perch or with the rebound adjuster.

d. Bilstein shocks may be used in the original configuration or may be rebuilt. Both shock types can only be rebuilt by Enterprises or its authorized rebuilder.

e. All shock absorbers must be sealed by Enterprises or its authorized rebuilder.

**10. Steering**

NO MODIFICATIONS ALLOWED, except as described within these rules

a. An alternate steering wheel may be used. "Butterfly" style steering wheels are not allowed.

b. Upper steering shaft may be modified to accept an alternate steering wheel and/or hub (if applicable). It may also be modified to accommodate a larger driver.

**11. Brakes**

NO MODIFICATIONS ALLOWED, except as described within these rules. Only the AP 4 PISTON CALIPER BRAKE SYSTEM AS SUPPLIED WITH VENTED ROTORS as supplied by Enterprises shall be used

a. Brake pads as labeled and supplied from Enterprises.

b. Brake rotors are used as delivered, no drilling or lightening is allowed. Minimum Diameter is 10.450". Part # WM801002x Left, Part # WM801003x Right. Min width is .600"

c. Master cylinders must be the Girling type.

Front master cylinder is.700" piston diameter, Part # WM802005

Rear master cylinder is .750" piston diameter, Part # WM802006

d. Calipers must be AP 4 piston. Part numbers are:

LF # WM802004 RF #WM802003

LR # WM802002 RR # WM802001

e. Brake lines are free (no plastic allowed).

**12. Wheels (Only wheels supplied by Enterprises)**

NO MODIFICATIONS or MACHINING ALLOWED Aluminum racing wheel supplied from Enterprises with SCCA logo. If logo is worn off or wheels that have been painted or powder coated, wheels must be inspected by Enterprises or one of their designated Customer Service Representatives and logos replaced.

Front: 8 in X 13 in Part # WM 205001

Rear: 10 in X 13 in Part # WM205002

a. All wheel bearings shall be run with grease (not oil), no special coatings are allowed, and the bearing grease seal shall be intact. No ceramic wheel bearings are permitted.

b. Wheel spacers are not allowed.

**13. Tires**

Tires must run in sets of 4 as stated below:

*DRY*

*American Racer*

*Front: P/N: JE3C3, 22.0 X 8.0-13S*

*Rear: P/N: JE3MA, 22.5 X 10.0-13S*

*or*

*Front: P/N: JFEC3, 22.0 X 8.0-13S*

*Rear: P/N: JFEMA, 22.5 X 10.0-13S*

*WET*

*American Racer*

*Front: P/N: JWWC3: 22.0 X 8.0-13*

*Rear: P/N: JWWMA, 22.5 X 10.0-13*

a. A competitor shall start the race on *at least* 3 tires used in a qualifying session for the race as identified by markings made on the tires by a race official. It is the responsibility of the competitor to ensure that his or her tires are appropriately marked prior to (e.g. on the false grid), during, or immediately after (e.g. as the car leaves the track) a qualifying session.

b. For races with more than one qualifying session, a competitor shall start the race on *any 3 or 4* marked tires from any qualifying session for the race.

c. If a competitor chooses to start the race on any *more than one* tires that *was* not used in a qualifying session for the race and not appropriately marked, the competitor shall forfeit his or her grid position and start from the back of the grid. This forfeiture of grid position shall not apply if all qualifying sessions for the race were run under rain or wet conditions.

d. A complete set of four (4) rain or wet track tires may be used at the competitor's discretion for any race. Rain tires may be in new or used condition and require no special marking if used as a complete set of four.

**14. Electrical System**

NO MODIFICATIONS ALLOWED, except as described within these rules.

a. Wiring harnesses must remain as delivered.

b. Battery may be replaced with a larger one as long it remains in the same location.

c. Battery wiring is free. Car must shut off when master switch is turned off.

d. Any instrumentation is allowed.

e. Data acquisition is allowed, no telemetry is allowed.

f. Any rain light is allowed.

**15. Weight**

The car shall weigh 1270 lbs. minimum, including the driver.

a. Ballast must be placed between the front dash bulkhead and the front engine bulkhead. They shall be fastened securely to the floor with flat head 5/16 bolts, washers and nuts on both ends of the weight.

**16. Updates**

Provisions will be made for updates on all safety and mechanical improvements. When part updates are needed, because of reliability, supply or obsolescence, testing of parts from alternative, updated sources with direction and approval from SCCA Enterprises may be used in sanctioned events. Such updates will be effective when finalized by Enterprises, announced by the National Office, and published in Fastrack.

**17. Vehicle Logbook**

The Vehicle Logbook for each Enterprises Formula Car remains the property of Enterprises and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the name plate mounted on the fuel cell behind the driver's shoulders. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc.,. 14550 E. Easter Ave Suite 400 Centennial, Co. 80112. The logbook will them be reissued to the new owner. When the logbook has been filled, a new one shall be requested from SCCA Enterprises, Inc.

A FEE OF $200 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All Enterprises Formula Cars are subject to normal safety inspection. Additionally, scrutineers will check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, damaged, lost or part not properly labeled but the part may be considered suspect and will be treated as such and will be required to be sent back to Enterprises for inspection. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine

shall be removed and sent to Enterprises for testing and resealing. The competitor will bear all expenses at the competitor's cost prior to the next event.

**18. Seals**

Enterprises engine seals are required for all races. Any competitor who runs an event without all proper engine seals in the required locations shall have his engine removed and shipped to Enterprises for testing and sealing after that event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises, Inc., seals are required on all Formula Car Engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. Enterprises, Inc., will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: 19.1., 19.2., 19.3., and 19.4.

**19. Penalties (Specific to Enterprises Spec Cars)**

If a competitor refuses to give his engine and/or unlabeled parts for testing per a request of the Chief Steward, the following penalties will automatically be imposed:

a. Vehicle logbook will be impounded.

b. Disqualification from a competition or the event.

c. Suspension of SCCA competition privileges for thirty (30) days.

d. The car and drive train are suspended from competition until the unit(s) specified by the Chief Steward are replaced.

In a case where a competitor does comply with the Chief Steward's request to have an engine and/or parts inspected and the impounded unit(s) are found legal, the SCCA, will stand all the costs incurred for the testing, including shipping. Should the impounded unit(s) be found illegal, the following penalties will be imposed:

1. Disqualification from a competition or the event.
2. A fine of $250.00.
3. $500.00 testing fee plus freight charges paid to Enterprises.
4. Competition privileges will be suspended immediately, and the suspension will continue for a minimum of thirty (30) days after the date when all fines and costs are paid in full and the license is received by the Chairman SOM or the SCCA Topeka Office.
5. For a second illegal drive train offense, the competitor will be permanently disqualified from further Enterprises Formula Car competition.

**20. Enterprises Formula Car Drive Train Protest**

a. Protests shall be filed per the GCR.

b. Protestor will specify the drive train item suspected (i.e., transmission or engine). The teardown bond to remove the motor and transmission is in three (3) parts:

   1. Remove and replace motor and transmission - $400.00

      a. Will be done by an SCCA representative or other shop that is equipped for this type of work and will be paid directly.

   2. Ship motor to Enterprises and test - $500.00 plus freight and crating charges

      a. Enterprises will inspect the motor, (item 2), and will notify the Chairman SOM as soon as possible as to the results.

   3. Protest Fee: Regional - $25.00, National - $50.00.

c. Enterprises shall retain the evidence, and the SCCA shall retain the fee, (item 3), until the period for appeal has passed.

d. The Chairman SOM is required to inform Enterprises of the protest using the FE Protest Information Form. A copy of the protest shall be sent to Enterprises.

   If the protest proves to be valid and any appeal fails, the protest fee, (item 3), will be returned to the protestor. Also, the protestee will be required to reimburse the protestor the remaining fees ($900). The protestee will not be allowed to compete again until all costs are paid. If found legal, the protester forfeits fee (items 1 and 2) above.

e. If found illegal, competition privileges will be suspended immediately, and the suspension will continue for thirty (30) days after all costs are paid in full.

f. For a second illegal drive train offense, the competitor will be permanently disqualified from competing in FE competition.

**21. Accessory Items**

a. Mirrors are free.

b. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible. Taping of body joints is not allowed

d. The spark plug wires may be fire sleeved and may be loomed, but must be original Mazda wire as supplied by Enterprises.

e. Engine compartment fluid hoses may be insulated using heat shield or wrap.

f. Front and rear tow hooks are required, see GCR section 9.3 Towing Eyes.

g. Enterprises P/N WM11592302 Throttle Cam/Cable Update is recommended.

h. Enterprises P/N WM114001 Thermostat Kit is permitted.

i. Enterprises P/N WM 801004 Rotor Temp Bands are permitted.

## 9.1.2. GT1 CATEGORY SPECIFICATIONS

These specifications are part of the SCCA GCR, and all automobiles shall conform with GCR Section 9.

**A. PURPOSE**

The GT Category is intended to provide the membership and interested manufacturers with the opportunity to compete in purpose built, highly modified replicas of series produced automobiles. To that end, cars shall be classified in GT Classes based on their competitive potential. The Club may alter or adjust specifications and require, permit, or restrict certain specific components to equate competitive potential. The SCCA does not guarantee the competitiveness of any car.

**B. INTENT**

It is the intent of these rules to allow modifications useful and necessary in the construction and preparation of an extremely high performance road racing vehicle. It is understood that such a vehicle can be updated and/or changed from marque-to-marque, based on member interest and manufacturer incentive. With this in mind, the Club will use the following guidelines in the determination of the suitability for classification in the GT Category:

1. Basic vehicle size, shape, engine displacement, and cylinder head design of the standard and/or alternate engine(s).
2. Member interest.
3. Manufacturer interest and potential support to competitors.
4. Vehicle production quantities of no less than 3000 units of the specified make/model within a twelve (12) month period, all such units being approved by the EPA and DOT for sale in the United States.

**C. SPECIFICATIONS**

The SCCA shall publish the GT Category Specifications (GTCS) containing recognized specifications for each car eligible to compete in the GT Category during the calendar year. Cars shall be listed according to the manufacturer's make and model designation. In the case of doubt involving specifications not adequately described in the GTCS, Scrutineers/Stewards may refer to maintenance manuals, spare parts books, general catalogs and performance catalogs published by the vehicle manufacturer, MVMA specifications, and FIA Homologation Certificates for the make and model, or may inspect other cars of the same make and model.

1. Cars may be updated or backdated within the specifications of the recognized make and model as listed on the Approved Automobile List of the GTCS (GT-1), or as listed on a single GT Specification Form line of the GTCS. Any classified engine may be used in a classified chassis within the same manufacturer as shown on the specification line.
2. Cars shall meet or exceed their minimum specified weight, as listed in the GTCS, as qualified or raced, with driver.
3. No permitted component/modification shall additionally perform a prohibited function.
4. Turbocharging/supercharging is not permitted.
5. Construction of tube frame cars is permitted. Standard maximum track dimensions for all cars, unless otherwise noted, are as follows:

| | |
|---|---|
| GT-1 | 70.0" F & R |

**D. AUTHORIZED MODIFICATIONS (GT-1)**

**1. Engine (GT-1)**

**a. Component Modification**

1. It is permitted to lighten, balance, or modify in shape, by any mechanical or chemical means, the standard, optional, or alternate components of the engine, provided it is always possible to positively identify them as such.
2. Material shall not be added to these components unless specifically authorized by these rules.
3. The original direction of engine rotation shall be retained.

**b. Induction System**

1. All inducted air shall pass through the throttle venturis.
2. The specified carburetor(s) or specified fuel injection may be modified. The number, model, type, throttle bore and/or venturi restriction shall remain as specified. Refer to Section E.1.a. of these rules for additional induction specifications.
3. Any air filter(s), velocity stack(s), and or air box(es) may be fitted. Air may be ducted to the carburetor or fuel injection provided that the ducting is completely contained within the engine compartment and that the air to be ducted is supplied through normal (or as specifically authorized herein) openings in the bodywork. Cars may duct air to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20 inches, maximum length of 3.5 inches.
4. Intake manifolds are unrestricted.

5. Any throttle linkage may be used. All throttle linkages shall be equipped with more than one system of positive throttle closure

**c. Fuel System**

1. Any fuel line(s) may be used. All fuel line(s) passing through the driver/passenger compartment shall be made of metal braided hose with AN-Series threaded couplings.
2. Any fuel pump(s), filter(s), and pressure regulator(s) may be used. Such components may not be located in the driver/passenger compartment, but their location within the bodywork of the car is otherwise unrestricted.

**d. Emission Equipment**

1. Exhaust emission control equipment shall be removed in their entirety. When air injection nozzles are removed from a cylinder head, the resultant holes shall be completely plugged.

**e. Cylinder Heads**

1. The standard production, optional, or specified alternate(s) cylinder head(s) shall be used. Any valve guides and valve seats may be used.
2. Material(s) may be added to the combustion chamber(s) and interior ports/passages of the cylinder head(s). The addition of such material(s) shall not enable the combustion chamber and/or interior ports/passages to be moved external to the original physical limitations of the cylinder head(s).
3. V-6 and V-8 General Motors engines are permitted: Buick, Chevrolet, Oldsmobile, Pontiac, aluminum V-6 GM bow tie block, Brodix, Brownfield, Dart, Edlebrock, Pro Action 14-degree, or Airflow Research 210, 215, 220, and 227 cylinder heads of cast iron or aluminum. All Pro cylinder head, part # 270-LM-13 is permitted Any cylinder head(s) utilized shall be of a conventional design (siamesed intake ports, two (2) valves per cylinder, all valves inline), direct replacement type. General Motors SB-2 cylinder heads are permitted.
4. V-6 and V-8 Ford engines are permitted: Ford Motorsports inline-valve or canted-valve cylinder heads of cast iron or aluminum. Alternate cylinder heads from Airflow Research, Brodix, Cylinder Head Innovations, Dart, Edelbrock, Pro Action, and World Products. Any alternate cylinder head(s) utilized shall be of a conventional design (two valves per cylinder, all valves inline) direct replacement type.
5. V-6 and V-8 Chrysler engines are permitted: MOPAR Performance conventional design (siamesed intake ports, two (2) valves per cylinder, all valves inline), direct replacement cylinder heads.

**f. Camshaft and Valve Gear**

1. Any camshaft(s) mounted in the standard location(s) may be used. Any cam followers may be used. Springs and mounting hardware which act directly on the cam followers may be added.
2. Camshaft drive mechanism is unrestricted.
3. Push rods, rocker arms, and rocker arm supports are unrestricted.
4. Valves are unrestricted.
5. Valve springs, retainers, keepers, and seals are unrestricted.

**g. Block**

1. The standard production, manufacturer's heavy duty (of the same basic materials as the original block), or specified alternate engine block shall be used. Aluminum block V8 engines are not permitted unless specifically classified in 9.1.2.E.1.c
2. The block may be bored and/or sleeved to achieve the correct displacement.
3. The block may be machined, and O-rings may be added to replace or supplement the head gasket(s).
4. The crankshaft main bearing caps may be substituted. Additional main bearing caps and/or bolts may be used provided that no material is added to the block for their attachment.

**h. Pistons and Rods**

1. Pistons and piston pins are unrestricted. The compression ratio is unrestricted.
2. Connecting rods are unrestricted, provided that they are made of a ferrous material, e.g., steel. Aluminum, titanium, graphite, etc., rods are prohibited.

**i. Crankshaft and Flywheel**

1. The crankshaft is unrestricted, provided it is made of the same basic material as the standard production crankshaft. Those vehicles originally equipped with an iron crankshaft may use a steel crankshaft. All alternate crankshafts shall retain the same angle(s) of crank throws as the

original crankshaft.

2. The use of any crankshaft vibration damper is permitted.

3. The use of any flywheel and clutch is permitted.

**j. Oiling System**

1. The use of any oil pan (sump), oil pump(s), and/or oil pickup(s) is permitted. Oil pump(s) shall be mechanically driven by the engine. Dry sump systems are permitted. Any oil tank(s) used by such a system shall be located within the bodywork, and any oil lines utilized within the system shall be metal or metal braided, equipped with AN-Series threaded couplers.

2. The use of any oil filter(s) is permitted.

3. The oil tank(s), cap(s), oil filter(s), and any fittings attached thereto shall be isolated by a metal bulkhead(s), so that in the event of any spillage, leakage, or failure, oil will not reach the driver.

**k. Electrical System**

1. The use of any driver operated electrical starter is permitted.

2. The use of any ignition system (except magneto ignition) is permitted, provided the number of spark plugs remains the same as that of the standard production, optional, or alternate cylinder head(s). Driver controlled adjustable spark timing is prohibited.

3. The remaining components of the engine electrical system are unrestricted.

**l. Exhaust System**

1. The components of the exhaust system are unrestricted. Refer to sections D.8.c.2., and D.8.j.3., of these rules for additional exhaust system and bodywork specifications.

**m. Other Engine Components**

1. Alternate engine components considered replacement parts, such as seals, bearings, water pumps, nuts, bolts, studs, washers, and gaskets are permitted. Bushings or offset keys of unrestricted origin may be installed.

2. Generator/alternator, crankshaft, and water pump pulleys are unrestricted.

3. Engine mountings are unrestricted.
   A. Cars with the engine mounted longitudinal to the chassis may relocate the engine in a longitudinal direction, centered along the longitudinal centerline of the vehicle as defined by the track. A one (1) inch transverse deviation tolerance from the absolute centerline is permitted. Unless otherwise so fitted in its standard production location or specifically authorized in the vehicle's GTCS specifications, said relocation shall align the center of the foremost spark plug hole with the front axle centerline.

   B. Transverse mounted engines may be relocated for axle/CV joint alignment. Alternately, they may be relocated to a longitudinal position if authorized specifically by the GTCS.

   C. General Motors, Ford, and Chrysler front mounted V-6 engines may be positioned so that the center of the foremost spark plug hole is no more than 4.5 inches behind the front axle center line (bellhousing and transmission locations are the same as a V-8 motor).

**2. Engine, Rotary Piston (GT-1)**

**a. Component Modification**

1. Rotary piston engines in GT-1 may be prepared using GTCS specifications D.1.a., b., c., d., j., k., l., and m.

2. The standard production or specified alternate rotor housings shall be used. No changes in the epitrochoidal curve of the motor are permitted.

3. The capacity of the working chamber(s) shall not be changed.

4. The eccentric shaft may be replaced with another of the same basic material, but no changes in its eccentricity or bearing journal dimensions are permitted.

5. The rotor(s) is/are unrestricted, provided the material and number of lobes remains unchanged.

**3. Cooling System (GT-1)**

**a. Radiator**

1. Only one radiator is allowed provided that there are no changes to the exterior bodywork to accommodate its use. It shall not be located in the driver/passenger compartment. Radiator overflow line (s) shall terminate in a catch tank.

2. Separate expansion or header tank(s) are permitted. Any such tanks shall not be located in the driver/ passenger compartment.

3. The heater core and all attendant heater controls, lines, and accessories may be removed in

their entirety, but shall not be modified or replaced.

**b. Radiator Fan**

1. The cooling fan(s) may be modified, substituted, or removed.
2. Electrically operated cooling fan(s) may be installed, provided it/they serve no other purpose.

**c. Radiator Shroud/Ducting**

1. The original radiator shroud may be altered, removed, or replaced.
2. Sealing or shrouding the airflow area between the normal grill opening and the water radiator is permitted.

**d. Water Pump**

1. The water pump(s) may be replaced with any other water pump(s) mechanically driven by the engine.
2. Mid-engine vehicles may use an electric water pump.

**e. Thermostat**

1. The thermostat(s) may be modified or replaced with blanking sleeves or restrictors.

**f. Oil/Lubricant Coolers**

1. The use of any engine, transmission, and differential cooler(s) is permitted, provided that it/they are mounted completely within or under the bodywork, but not in the driver/passenger compartment.
2. Associated cooler pumps and lines are permitted for the transmission and differential coolers.
3. Air may be ducted to said coolers only through normal openings in the bodywork. Air ducts or other openings shall be added to body parts only where specifically authorized by these rules.
4. Air may be ducted to the rear brakes and rear mounted coolers from an interior bulkhead behind the driver. Air may also be ducted to these components from free air under the car, provided that such under car ducting does not create "ground effects."

**4. Transmission/Final Drive (GT-1)**

**a. Component Modification**

1. It is permitted to lighten, balance, or modify in shape, by any mechanical or chemical means, the standard, optional, or alternate components of the transmission and final drive, provided that it is always possible to identify them as such.

**b. Transmission**

1. Automatic transmissions are not permitted unless specifically authorized on a vehicle's GTCS line.
2. Any readily available manual transmission having no more than five (5) forward speeds and an functional reverse speed may be used, provided that it is fitted in the same basic location used in the standard production automobile. Any relocation or repositioning of the transmission-to-engine dimensional relationship shall be specifically authorized by the GTCS. Sequential shifting transmissions are permitted with a 75 lb. weight penalty. Air, hydraulic or electric actuation of the gearshift mechanism is not allowed.

   A functional reverse is defined as "operable by the driver from his normal seated position and capable of sustained movement of the vehicle, under its own power, in a reverse direction." A driver-operated device for locking out reverse gear may be added provided it does not prevent prompt engagement of reverse in an emergency situation.
3. Front engine/transmission vehicles shall locate the front mounting surface of the transmission within sixteen (16) inches of the back of the engine block.
4. Any shift linkage may be used.
5. The linkage between the clutch pedal and the clutch housing/clutch actuating mechanism is unrestricted. A mechanical linkage may be replaced with a hydraulic system.
6. Transmission mountings are unrestricted.

**c. Final Drive**

1. Any axle tube, final drive housing, gear ratio, limited slip or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited.
2. Heavy duty propeller shaft(s) and/or drive shaft(s) may be used. A minimum of two (2) steel 360 degree "loops" shall be installed of sufficient strength to prevent the driveshaft(s) from contacting the ground in the event of shaft and/or U-joint failure. Said loops shall be located within twelve (12) inches of the front of the shaft, and as close as practical to the rear universal joint.

**5. Suspension (GT-1)**

**a. Ride Height**

1. No part of the car to the rear of the front tire opening, including the exhaust, may touch the ground when two (2) tires on the same side of the vehicle are deflated.

**b. Suspension Components**

1. Suspension components may be reinforced, modified, or replaced with units of alternate design, and their mounting points may be relocated. The addition or substitution of anti roll bars, camber compensating devices, and/or suspension stabilizers is permitted. If these devices or any other suspension components extend into the driver/passenger compartment, they shall be completely sealed off from said compartment by metal panels.

2. Hubs, bearings, spindles, axles, U-joints, CV joints, bushings, ball joints, and rod ends may be freely modified or substituted.

3. The wheelbase of the automobile shall not be changed or relocated in the fore/aft direction. A tolerance of +/- 2.00 inches from published specification shall be permitted unless otherwise noted in the GTCS. Alternatively, any purpose built tube frame car can be built to a 102 inch wheel base to enable eligibility in both GT-1 and Transam events.

**c. Springs/Shock Absorbers**

1. Suspension springs may be replaced with others of unrestricted origin and type.

2. Shock absorbers are unrestricted, except that the number of shock absorbers fitted shall not be changed from that of the standard production automobile. No hydraulic or pneumatic interconnecting or cross linking of shocks is allowed.

3. Shock absorber mountings are unrestricted.

**d. Suspension Control**

1. The manufacturer's basic system of front suspension shall be retained, i.e., independent. Strut type front suspension may be replaced with a double A-arm type suspension. Rocker Arms, push/pull rods, etc. are prohibited.

2. The manufacturer's basic system of rear suspension may be retained, i.e., independent, live axle, etc.. All forms of independent rear suspension may be replaced with a closed tube beam, live axle suspension. Cars originally equipped with live axle rear suspension shall not replace said suspension with any type of independent suspension.

3. Automobiles originally manufactured as FWD vehicles may convert to RWD, but shall only use a closed tube beam, live axle rear suspension.

**e. Steering**

1. The front wheels only shall be steered by the driver.

2. The type of steering is unrestricted, provided that a collapsible type of steering column is used.

**6. Brakes (GT-1)**

**a. Brake Components**

1. The use of any dual master cylinder and/or pressure equalizing device is permitted. All cars shall be equipped with a dual braking system operated by a single control. In the case of leakage or failure to any point in the system, effective braking power shall be maintained to at least two (2) wheels.

2. Servo assist braking systems are unrestricted.

3. Backing plates or shields may be removed. Brake air ducts may be fitted, provided they extend only in a forward direction, and that no changes are made in the bodywork for their installation.

4. Parking brakes may be removed.

5. The brake lines shall be steel tubing, metal braided hose, or flexible brake hose. Lines may be relocated and given additional protection.

6. Brake discs, calipers, and/or drums are unrestricted, provided that the discs or drums are mounted in the same location (e.g., outboard vs. in-board) as the standard production automobile.

7. Water spray brake cooling systems are permitted. No water cooled calipers are permitted.

8. Carbon brake rotors are prohibited.

**7. Wheels and Tires (GT-1)**

**a. Wheels**

1. Wheels shall be made of steel, aluminum, magnesium, or a combination thereof. Multi-piece

wheels shall utilize mechanical fasteners (bolts, rivets, etc.) for assembly.

2. Wheels may be thirteen (13), fourteen (14), fifteen (15), or sixteen (16) inches in diameter, but all four (4) wheels shall be of the same diameter.

3. Wheels shall have a maximum width of twelve (12) inches in the front and (13) inches in the rear.

4. Centerlock or quickchange wheels are permitted.

**b. Tires**

1. Tires are unrestricted, except that they must meet the requirements of GCR Section 9.3 Tires.

**8. Body/Structure (GT-1)**

a. The intent of these bodywork/configuration rules is to maintain the recognizable external features of the standard production automobile while providing for necessary safety and performance modifications.

1. Lightening of the bodywork is permitted, but the exterior shape of the body shall not be changed except where specifically authorized herein.

2. The method of bodywork attachment is unrestricted, and shall meet the requirements of the GCR. Section 9.3 Loss of Bodywork.

3. Maximum overall car width shall not exceed 80.65 inches. Existing cars built to 84.75 inches with a logbook history of running in that configuration may continue to do so.

4. Trans Am approved bodywork and wheelbase specifications are allowed unless otherwise specifically prohibited by these rules. Trans Am bodywork shall be in a configuration that is approved for past or present Trans Am competition. If body panels do not have the official Trans Am bodywork approval decal, the competitor is allowed to present a receipt of purchase from the manufacturer or it's agent for verification. No additional spoilers, splitters, air dams or other aerodynamic devices not incorporated in the original approved body may be run. No undertray may extend beyond the outline of the original Trans Am approved body.

5. Convertible tops, sunroofs, and removable panels shall meet GCR Section 9.3 Detachable Panels/Sunroofs. As of 1/1/2002, all newly classified convertible models will be required to compete with a windshield and hardtop. Convertible models classified before 1/1/2002 will be allowed to compete without a windshield and/or top, regardless of logbook issue date, unless specified differently on the vehicle specification line.

6. Two (2) hood louver panels are allowed, they must be located on the hood/front fender between the radiator and the rearward edge of the hood, max. size of 20" x 10" with a minimum of five (5) slots.

b. Any bodywork components may be fabricated of alternate material(s), provided that their shape remains as specified herein, unless specifically prohibited elsewhere in these rules.

c. Fenders may be flared for tire clearance, provided that their shape and opening contour in horizontal projection is similar to the original opening.

1. Modified wheel opening(s) shall not confuse the identity of the car. The fender flares shall completely cover the highest point of the tires, and may extend into the doors and bumpers.

2. Rear fenders may have holes or slots to accommodate exhaust outlets. These holes or slots shall be below a line seven (7) inches above the bottom of the rocker panel, and shall be no wider than seven (7) inches.

3. The inner fender panels separating the wheel wells from the engine compartment may be altered, replaced, or removed, provided that there are panels which provide total separation between the wheel wells and the driver/ passenger compartment.

d. The hood and deck lid/trunk hinges and latches may be removed. The hood and deck lid/trunk may be "molded in" with other bodywork components to create "one-piece" front and rear ends. Misalignments or modifications to create ventilation openings where none previously existed are prohibited.

The hood may be modified for clearance of an airbox, provided that such alteration does not confuse the identity of the car.

e. Bumpers that are not an integral part of the bodywork may be removed, providing that all projecting hardware is also removed. Alternately, they may be replaced with replicas of alternate material(s). In those cases where bumpers are an integral part of the bodywork, they may be replaced with replicas of alternate material(s). Bumper bracket holes in the bodywork may be covered, provided such covering serves no other purpose.

f. The standard grille(s) or approved facsimile(s) shall be retained, except where covered by the front

spoiler or intermediate spoiler mounting device.

g. The original angle of the windshield shall be maintained unless alternate components and/or specifications are specifically authorized in the GTCS.

h. All cars may use a standard safety glass windshield, mounted in the stock location and at the stock angle. In addition to any other method of retention, the windshield shall be secured within the specifications of GCR Section 9.3 Windshield Clips. Polycarbonate windshields such as Lexan are allowed. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Alternate material windshields must have in addition, three (3) inner supports to prevent the windshield from collapsing inward. These supports must be 0.75" by .125" minimum straps of aluminum. Spacing between these inner supports must be eight (8) inches minimum. In place of clips, polycarbonate windscreens may be mounted using a fastener spaced a minimum of every 12 inches across the top and sides, with a minimum of four across the bottom. Alternatively, the bottom may be captured in a channel.

i. The rear quarter (side) and rear windows may be made of clear, transparent, and uncolored polycarbonate material having a minimum thickness of 3mm.

   1. Ducts may be installed in the side windows or window openings for the purpose of supplying cooling air to the driver and/or differential/transmission coolers. Air passing through the differential/transmission coolers may be exhausted through an opening identical in size and location to the rear license plate frame.

j. Doors

   1. Driver and passenger door window glass or plastic shall be removed. Inside door handles, door panels, window cranks and mechanisms, and other interior trim pieces may be removed.

   2. The doors shall be pinned or otherwise positively fastened to prevent their opening in the event of an accident. Standard door hinges and latches may be removed, but the doors shall remain capable of being opened or removed, unless the doors are integral to the remainder of the bodywork. The stock side impact beams may be removed.

   3. Doors may contain holes or slots to accommodate exhaust outlets. Any such openings in the door(s) shall be below a line ten (10) inches above the bottom of the rocker, and no wider than seven (7) inches. A maximum of two (2) such exhaust openings are permitted on the door.

k. Spoilers

   1. A front spoiler may be fitted. It shall not protrude beyond the overall outline of the car as viewed from above except for a front splitter that may extend up to five (5.0) inches. Trans Am approved bodies have a unique splitter that is approved as a part of the body, and as such, is exempt from the 5.0 inch dimension. The additional splitter is allowed only on air dams not already incorporating a splitter that extends forward of the factory bumper. The spoiler shall not extend aft of the forward most part of the front fender opening (cutout), and shall not be mounted more than four (4) inches above the horizontal centerline of the front wheel hubs. Full-width bottom shrouding of the front spoiler/nosebox area (front undertray) is permitted but must be flat and can extend no farther rearward than the center of the engine harmonic balancer. Undertray may not be stepped or curved. Undertray may be angled in side view to produce a maximum height at the trailing edge of 3.25 inches above the ground.

      Openings are permitted for the purpose of ducting air to the brakes, radiator, airbox and/or oil cooler(s); equal openings may be placed in the standard lower front panel directly behind openings placed in the spoiler. Joint separations need not be shown. The spoiler "pan" area forward of the leading edge of the front wheel openings shall be flat and follow, but not exceed, the line of the front fender/spoiler bottom. No components may protrude or extend below this plane.

   2. The Club Racing specified rear wing or a flat plane rear spoiler may be used. If a flat plane rear spoiler is used, it shall be contiguous with the rear bodywork rearward of the rear window, and shall comply with the following:

      A. Height: No higher than eight (8) inches, measured from the bodywork along the face of the spoiler, from the point of attachment to the top of the spoiler. In the case of a spoiler with a curved top edge conforming to the shape of the bodywork (rearview), the measurement is to be made perpendicular to the tangent of the body at the point of attachment. In the case of a spoiler mounted with a vertical mounting flange on the rear face of the bodywork, the measurement shall be made ignoring any slight amount of mounting flange exposed due to the curvature of the rear bodywork at the point of attachment.

      B. Width and Overhang: No wider than the body, excluding fender flares, from the forward most point of the spoiler (or mounting flanges) rearward. It shall not extend rearwards of the rearmost extremity of the bodywork for the entire width of the car (when viewed vertically from above the car at any point, the spoiler shall not protrude beyond the bodywork).

C. Mounting: Spoilers shall be strong enough to be self supporting, and shall be mounted directly to the rear hatch, deck, or trunk lid. A mounting flange no greater than one and one-half (1-1/2) inches wide, contiguous with the bodywork (either forward facing on the top surface of the bodywork or downward facing on the rear surface of the bodywork) shall be employed. No other forward facing sheet metal supports are permitted. Supplemental bracing may be added in the form of two (2) rods (maximum diameter one-quarter inch), mounted at least ten (10) inches inboard from the ends of the spoiler. Small rear supports may be added.

D. Configuration: the spoiler shall be a single plane spoiler (a straight line in any vertical cross-section), uniform in height from the rear bodywork. There shall be no gaps or openings below the spoiler for its entire width. Only enough curvature (in a fore-and-aft direction as viewed from above) shall be permitted to facilitate mounting. The use of fences, end rails, Gurney lips, wickerbills, or other forward facing lips or aerodynamic devices is prohibited.

NOTE: O.E.M. rear spoilers are not permitted unless specifically listed on the vehicle's specification form.

E. A single element, single plane airfoil scaled to a chord length of 10.75 inches is permitted. The maximum cross-sectional tolerance of the wing profile is 0.060 inch. A maximum 0.50 inch Gurney tab is allowed at the trailing edge of the wing element. The tab must be mounted 90 degrees to the upper wing surface. No air may pass between the tab and the wing. The wing end plates must fit within a rectangle measuring 11.00 inches long by 4.00 inches tall. No portion of the wing element or tab may extend beyond the perimeter of the endplate. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs. The maximum width of the entire wing assembly (wing element, endplates, Gurney tab, and mounting hardware) is 72.00 inches.

F. Wing mounting specs: The entire wing assembly must be mounted below the peak of the roof (measured at the highest point of the roof). Trailing edge of wing assy. must be located within an area defined by a point; 6" forward of rearmost bodywork and the rearmost bodywork (measured at vehicle centerline). Two wing mounting posts must be used, with each one located between 16"-20" inboard from end of wing. The exposed portions of the wing posts shall not exceed 85 square inches each. Curved mounting brackets will be measured as if they're in a flat plane as viewed from the side. Mounting brackets are to be included in the measurement. Max. wing angle from horizontal is 30-degrees.

l. Glass/plastic headlights, front parking and signal lights, lenses, and bulbs shall be removed. Other front lighting parts and ancillaries may be removed. Headlight, front parking and signal light, and similar standard openings in the front of the car may be used for ducting air to the engine, front brakes, and/or coolers. Such ducting may pass through interior panels for these purposes.

1. The cross sectional area of a single duct shall not exceed the cross sectional area for the original (single) headlight lens.

2. It is not permitted to relocate the standard openings for headlights, parking lights, signal lights, etc.. The headlight openings shall be covered with a wire screen or a panel of an alternate material, provided that such covering does not confuse the identity of the car.

3. The side marker light assemblies shall be removed, and the resultant openings shall be completely closed.

m. The windshield wiper system is unrestricted.

n. Floors

1. Driver/Passenger Compartment: The floor of the driver/passenger compartment shall maintain the basic shape and position of the original floor, i.e., flat and horizontal, relative to the car and rocker panels. It may not be curved, angled, recessed, or channeled other than as specifically authorized by these rules, and shall be made of steel and/or aluminum only.

A. On the passenger side of the driver/passenger compartment (only), the floor may be raised up to ten (10) inches, or a secondary floor installed at that level, to accommodate the installation of the exhaust system and mufflers. Such raising of the floor shall serve no other purpose.

B. The driver/passenger compartment floor shall cover the area from the forward firewall the full width between the rocker panels, and shall extend no further aft than the forward most point of the rear wheel openings. The floor panels between the rocker panels and the outboard frame rails may be cut out or removed.

2. For front engine cars – floor panels between the engine bay firewall and the forward most point of the front wheel openings are prohibited. For mid or rear engine cars – floor panels

between the engine bay firewall and the rearward most point of the rear wheel opening are prohibited.

3. The fuel cell bottom and/or floor behind the rear wheel opening shall be flat, angled upwards, and shall follow, but not exceed, the line of the rear fender bottom.

**9. Driver/Passenger Compartment - Trunk (GT-1)**

**a. Seating**

1. All standard production seats and seat backs shall be removed. The driver's seat shall be replaced with a one-piece bucket-type race seat. Such seat shall be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating), or a beaded or poured formed seat with fore, aft and lateral support equivalent to that of a bucket-type seat. Such seat shall be installed on one side of the Chassis and driveline (no center seating).

**b. Steering Wheel**

1. Any steering wheel and wheel quick release mechanism complying with GCR Section 9.3 Steering Wheel Locks, may be used.

**c. Gauges/Accessories/Driver Convenience**

1. The replacement, addition, or removal of accessories (gauges, switches, indicators, etc.) is permitted. Such installations and/or modifications shall have no influence on the mechanical performance of the car. Similarly, they shall not include the substitution or replacement of any element of the bodywork or chassis except where specifically authorized by these rules.
2. Fresh-air ducts to the driver may be added to the A-pillar area. They shall be distinctly separate parts from the bodywork. Roof louvers (vents) are allowed for the express purpose of venting the driver's compartment. A maximum of 24 square inches of open area and a maximum number of twelve openings are allowed. Each opening shall be no larger than 4" x ½".
3. The use of any mirror(s) meeting the requirements of GCR Section 9.3 Mirrors, is permitted.

**d. Interior Modifications - Firewall/Bulkheads**

1. Modifications may be made to the driver/passenger compartment for the convenience of the driver and to permit the installation of required safety equipment. Such modifications shall have no influence on the mechanical performance of the car. Similarly, they shall not include the substitution or replacement of any element of the bodywork or chassis except where specifically authorized by these rules.
2. Floor mats, upholstery, and all interior trim shall be removed.
3. There shall be a firewall between the driver/passenger compartment and the engine compartment/ bay. It shall be made of steel and/or aluminum and shall be transversely positioned in the approximate location of the original.
   A. It shall extend, at minimum, from the left outboard frame rail to the right outboard frame rail, and at maximum from the left outer door skin to the right outer door skin.
   B. It shall be designed, in conjunction with the floor and driver/passenger compartment interior panels and bulkheads, to prevent the passage of and isolate the driver from flame, fluids, and debris.
4. There shall be a steel and/or aluminum bulkhead completely separating the driver/passenger compartment from the compartment containing the fuel cell.
   A. The forward most element of this separation shall consist of a vertical transverse bulkhead behind the driver, extending the full width of the compartment from the floor to the top of the door.
   B. Behind this rear bulkhead there shall be a steel and/or aluminum horizontal bulkhead the full width of the interior of the car or between the inner fenders extending from the vertical bulkhead to the rear of the fuel cell.
   C. These two bulkheads shall, together, completely cover and isolate the rear suspension, coolers, ducting, etc. so that none of these items are visible when viewed from above. The fuel cell shall also be covered and isolated unless the car is equipped with the optional bulkhead listed below in Paragraph 5. *Oil tank tops may be visible.*
   D. All fuel filler, overflow, vent, discriminator, or return lines or components that extend beyond the limits of the vertical or horizontal bulkheads into the driver/passenger compartment shall be metal, metal braided line, or independently shielded with an additional steel and/or aluminum bulkhead.
5. An additional vertical, transverse bulkhead is permitted behind the driver. It shall be located

above the mandatory vertical bulkhead and shall allow the driver adequate vision to the rear. It is recommended that this additional bulkhead be made of a clear, transparent polycarbonate material.

**10. Safety (GT-1)**

**a. Steering Column/Locks**

1. The steering column shall be a collapsible type, either by layout design or by column construction, and shall comply with GCR Section 9.3 Steering Wheel Locks.

**b. Fuel Cell**

1. No part of the fuel cell shall be closer to the ground than six (6) inches, unless contained within and above the lowest part of the basic structural frame rails of the vehicle and fully enclosed.
2. The fuel cell shall be located in approximately the same location as in the original vehicle, or may be relocated behind the rear axle. It shall not be located within the protected area of the driver/passenger compartment unless specifically authorized in the GTCS.

**c. Brake Lights**

1. Two (2) operating brake lights and two (2) operating tail lights are required at the rear of the car.
2. The original tail light and brake light lenses shall be retained, and shall be located in their original positions.
3. Tail lamp decals are permitted only on GTA/ASA/NASCAR type bodies. The decals must be in the approximately stock location and the brake lights must be centered and visible within or behind the decals.

**d. Hoses/Lines**

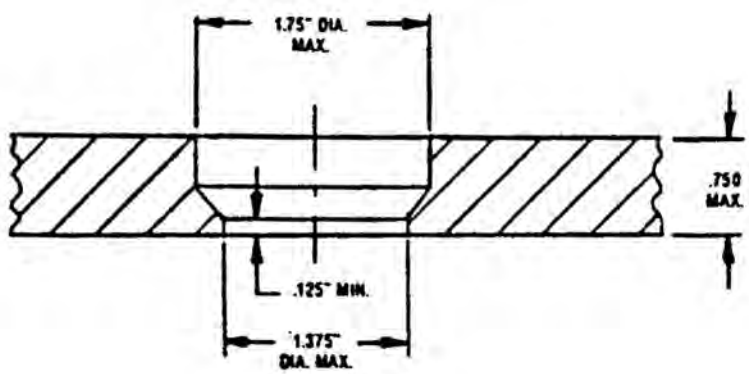
1. All fuel, oil, and coolant lines (including those lines that perform fill, overflow, vent, return, etc., functions) which pass through the driver/passenger compartment shall be made of metal or metal braided hose, and shall be equipped with AN-Series threaded couplers.
2. For front engine cars, no oil or fuel line located to the rear of the transverse engine compartment firewall shall be located in a compartment or otherwise restricted area which also contains any component of the exhaust system.

## E. APPROVED AUTOMOBILES/NOTES

**1. Notes (GT-1)**

**a. Carburetors/Fuel Injection**

1. Any modular 4bl carburetor may be used with a maximum of a one and eleven-sixteenths (1-11/16) inch throttle bore, unless alternate carburetion and/or dimensions are specified in the GTCS.
2. Unless otherwise specified or permitted by the GTCS, fuel injection is prohibited on GT-1 automobiles as of January 1, 1994.
3. Pushrod V-6 engines may run a single Holley Model 4500 carburetor, but the minimum weight shall be increased to that of the same displacement fuel injected car.
4. V-8 engine cars with engine displacements of greater than 366 cubic inches (6.0 liters) shall use a one and three-eighths (1-3/8) inch throttle bore restrictor plate, mounted beneath the carburetor, as specified in the diagram.



Required Restrictor Plate for GT Engines over 6.0 Liters (366CID).

Throttle Restrictor Plate Material: Aluminum, Thickness 0.75" Maximum.

1.375" Restrictor – Hole must be maintained for a depth of 0.125" Min.

Relief angles to clear Butterflies, Unrestricted.

5. Refer to Sections D.1.b. and c. of these rules for additional induction system specifications.

**b. Weight**

1. The weight chart is applicable to all cars unless alternate weight(s) is/are specified in the GTCS.

**WEIGHT CHART FOR GT-1**

| **Type - cubic inches (liters)** | **= Carb** |
|---|---|
| V-6 - up to 275 (4.5) | = 2345 |
| V-8 - up to 311 (5.1) | = 2585 |
| V-8 - 312 (5.1) to 335 (5.5) | = 2685 |
| V-8 - 336 (5.5) to 366 (6.0) | = 2780 |
| V-8 - over 366 (6.0) * | = 3070 |

*With restrictor to 1-3/8" throttle bores per restrictor plate diagram.

Weight in pounds with driver

2. All cars using a production based transmission *with syncros* and having no more than four (4) forward speeds and a working reverse speed may reduce the listed weight by fifty (50) pounds.

   Note: A production based manual transmission is defined as a unit that retains original type gears (i.e., no straight cut, dog ring type gears). It shall be located in the same basic position as used in the production automobile, retaining the standard bellhousing dimensions, and may use any shift linkage.

3. All cars competing on ten (10) inch wide rims may reduce the listed weight by fifty (50) pounds.

**c. GT1 Approved Automobile List**

| Make/Model | Wheelbase |
|---|---|
| **American Motors Corporation** | |
| Concord | 108.0″ |
| Javelin | 109.0″ |
| Spirit | 96.0″ |
| **Chrysler Corporation** | |
| Chrysler Laser X/T | 97.0″ |
| Dodge Challenger SRT (2014) | 102.0/104.0″ |
| Dodge Daytona | 97.0″ |
| Dodge Avenger | 106.0″ |
| Dodge Viper GTS | 96.2″ |

Note: Viper shall use a class legal Dodge engine.

Dodge Viper Competition Coupe

8.3L sealed engine (4.03″ x 3.96″), Comp. ratio: 9.6:1, Trans ratios: 2.66, 1.78, 1.30, 1.00, 0.74, 0.50, Wheelbase: 98.8″, Track (F&R): 62.8″ / 63.3″, Wheels (F&R): 18x11 / 18x13, Tire size (F&R): 305/30 / 335/30, Weight: 3065 lbs. Cars must remain in the original configuration, factory optional equipment is not allowed.

| | |
|---|---|
| **Ford Motor Company - Ford** | |
| Falcon | 105.0″ |
| Fusion (bodywork) | 106.0″ |
| Mustang (1965-68) | 108.6″ |
| Mustang (1969-70) | 108.0″ |
| Mustang (1979-93) | 100.5″ |
| Mustang (1994-1998) | 100.5″ |
| Mustang (1999-2004) | 100.5″ |
| Mustang (bodywork) (05-10)* | 106.0/110.0″ |

* ACP (2010) MUSTANG bodywork only may add 2.0″ to the front splitter length.

Roof height 46.5″ min. (measured from the ground). Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield.

| | |
|---|---|
| Probe V-6 or V-8 | 99.0″ |
| Thunderbird (1983-89) | 104.0″ |
| Thunderbird (1990-) | 105.0″ |
| Taurus (2 door) (98-) | 110.0″ |
| **Ford Motor Company - Lincoln/Mercury** | |
| Capri (1979-86) | 100.5″ |
| **General Motors Corporation - Buick** | |
| Regal | 108.1″ |
| Somerset | 108.1″ |
| **General Motors Corporation - Cadillac** | |
| CTS-V (2015) | 102.0″ |
| **General Motors Corporation - Chevrolet** | |
| Beretta | 103.4″ |

Only a beam-type, live-axle rear suspension is permitted.

| | |
|---|---|
| Camaro (1967-69) * | 108.0″ |
| Camaro (1970-81) * | 108.0″ |
| Camaro (1982-92) V-6 or V-8* | 101.0″ |
| Camaro (1993-) V-6 or V-8* | 102.0″ |
| Camaro (2010-) V-6 or V-8* | 108.0″/112.0″ |
| Corvette (1963-67) * | 98.0″ |
| Corvette (1968-77) * | 98.0″ |
| Corvette (1978-82) * | 98.0″ |
| Corvette (1984 -96) V-6 or V-8* | 96.2″ |
| Corvette (1997) V-8 | 104.5″ |

* Alternate transmissions: THM350 based or THM400 based 3 speed.

| | |
|---|---|
| Corvette C6 (bodywork only) (05-) ** | 102.0″ |

** The front undertray and rear fascia and diffuser included in the ACP kit must be replaced with bodywork compliant with the GT1 rules. ACP C-6 Corvette bodywork only may add 2.0″ to splitter length.

| | |
|---|---|
| Lumina (1990-) | 106.0″ |
| Monte Carlo (95-00) | 103.0″/106.0″ |

Monte Carlo (01-02) 103.0″/110.0″
Monza 97.0″

Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield.

LS1 V8 engine allowed with stock plastic intake manifold and 75mm throttle body @ 2585 lbs.

**General Motors Corporation - Oldsmobile**

Cutlass Ciera (1987-) 105.0″
Cutlass (1988-) 104.0″
Toronado (1987-) 105.0″
Aurora (2dr.) 106.0″

Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield.

**General Motors Corporation - Pontiac**

Fiero 94.0″

3300cc (4-cyl.), multi-carb and fuel injected weight = 1765 lbs.
3100cc (GM V-6) multi-carb and fuel injected weight = 1765 lbs.
4500cc Chevrolet 90 deg V-6 weight = 2345 lbs.
V-6 engine may be repositioned longitudinally in the engine bay along vehicle centerline. GM V-6 bow tie block #10051141 may be used.
Mid engine configuration – may place fuel cell within the protected area of the driver/passenger compartment provided that it meets all constraints of GCR section 9.3 Fuel Cell Specifications.

Transverse V-6 may deduct fifty (50) lbs.

Firebird/Trans-Am (1969)* 108.0″
Firebird/Trans-Am (1970-81)* 108.0″
Firebird/Trans-Am (1982-1992 )* 101.0″
Firebird/Trans-Am (1993- )* 102.0″
Grand Prix 106.0″
GTO 102″/110″

*Alternate transmissions: THM350 based or THM400 based 3 speed. Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield.

LS1 V8 engine allowed with stock plastic intake manifold @ 2585 lbs.

**Jaguar**

XK8 / XKR 100.5″
Note: shall use a class legal Ford engine.

**Mazda**

RX-7 95.2″/95.7″
RX-8 102″
12A engine, multi-carb or fuel inj. weight = 1710 lbs.
13B engine, multi carb or fuel inj. weight = 1710 lbs.
20B engine, multi carb or fuel inj. weight = 1965 lbs.*

* Alternate transmission: 6 speed transmission permitted.

**Nissan**

300ZX/Z31 101.2″

3000cc V-6 engine, multi-carbs weight = 1815 lbs.

300ZX/Z32 (1990- ) 101.2″

VG30D V-6 engine, (3) 48mm IDF with 40mm venturis weight = 1860 lbs. Permitted alternate hood: P/N 99996-Z32HP

**Porsche**

911 89.4″

3800cc 6, multi-carb or fuel injection weight, twin-plug head, dual ignition distributor weight = 1815 lbs. Factory spoiler P/N 930-512-023-00 & 930-512-021-00 (or kit# 930-512-901-01). Entire assembly only (with rubber lip). No alternate materials, no reproductions.

911 Cup 3.8 RSR

with the following additional specifications: Wheels: (F) 18 x 12, (R) 18 x 13, Allow FIA GT-2 front bumper cover, Allow FIA GT-2 "banana" rear spoiler, Transmission: 6 speed, Type G50/30, Weight: 2230 lbs (w / driver). Original, factory-installed Matter roll cage structures permitted.

Boxster 89.4″

alternate engine: 3.8 liter air-cooled, multi-carb or fuel injection, twin-plug head, dual ignition distributor.

weight =1815 lbs. Shall have windshield and hardtop installed by 1/1/2003.

GT3 R/RS (00-02)
3600cc, Wheels: (F) 18 x 10", (R) 18 x 11", Allow FIA GT-2 front bumper cover, Allow FIA GT-2 "banana" rear spoiler, Transmission: 6 speed Type G50/30, Original, factory-installed Matter roll cage structures permitted, weight 2340 lbs. May use fuel per the IT specs of GCR section 9.3 Fuel. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.*

997 GT3 Cup
Shall run as delivered for the GT3 Cup Challenge except that tires are unrestricted and fuel per IT specs. Cars shall meet the safety requirements as specified in the GCR except that original, factory installed roll cage is permitted. Competitors shall have a copy of the Cup Challenge rules in their possession. Minimum weight 2710 lbs w/ driver. Alternatively, may run in conformance with the Grand-Am specification. Competitors shall have a copy of the Grand-Am rules in their possession. Minimum weight 2710 lbs with driver. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.*

**Panoz**
Esperanté 106.0"
Note: Shall use a class legal Ford engine.

**Qvale**
Mangusta 104.0"
Note: Shall use a class legal Ford engine.

**Shelby**
Cobra 90.0"
*SIN*
*R1 GT4 (16-17)*
*Weight: 3120 lbs.*
*Note: Must be compliant to 2017 World Challenge rules/specifications and must have appropriate rules in their possession.*

**NOTES:**

**Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. GT1/ST Tire make/size are free, DOT tires are not required.**

| GT1-ST | Maximum Displacement | Minimum Weight | Restrictor | Notes |
|---|---|---|---|---|
| Aston Martin Vantage GT3 (2012) | 5956 | 3020 | 2 x 41.5mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Audi R8 LMS Ultra GT3 (10-14) | 5200 | 3050 | 2 x 49mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| BMW Z4 GT3 (10-13) | 4017 | 3000 | 70mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Corvette | 5967 | 2900 | | GM LS2. May use the LSX cast iron block with OEM LS2 bore and stroke. |
| | 6162 | 2950 | | GM LS3 |
| | 6162 | 3100 | | GM LT1 |
| | 6178 | 2900 | | GM LT1/LT4/L98 (only), with alternate 3.75" stroke crankshaft. Max stroke 3.75", max bore 4.04". |
| | 7011 | 3200 | | GM LS7 |
| | Chassis-specific notes: The top 12 inches of the firewall must be covered with metal or reflective heat shielding material. The OE firewall may also be replaced with a metal panel running between the A-pillars. For Chevrolet Corvette Z06, carbon fiber lip, APR performance part number FA-208026 is permitted. World Challenge body work for C6 Corvette Advanced Composite Products: Deck lid (p/n:C6/A0028), door (RH) (p/n:C6/A0030), door (LH) (p/n:C6/A0031), front fascia (p/n:C6/A0001), rear fascia (p/n:C6/A0011), rear fender (LH)(p/n:C6/A0009), rear fender (RH) (p/n:C6/A0010), front fender (LH)(p/n:C6/A00-L), front fender (RH)(p/n:C6/A00-R), left front mounting rail (p/n:C5A0015-L), right front mounting rail (p/n:C5A0015-R), headlight mounting panel (LH)(p/n:C6/A0018-L), headlight mounting panel (RH)(p/n:C6/A0018-R), headlight cover (RH) (p/n:C6/A0040-WC), headlight cover (LH)(p/n:C6/A0041-WC), hood (p/n:C6/A0021), instrument panel (p/n:C6/A0032), roof (p/n:C6/A0027), rocker (LH)(p/n:C6/A0005), rocker (RH)(p/n:C6/A0006), rear spoiler (C6/A00013), front under tray (p/n:C6/A0022), rear wing (p/n:C6R-1272) may be used. Note: the max width of the front fascia and splitter is 1930mm (76") edge-to-edge as measured across the bottom of the splitter. | | | |
| Corvette Z06 (2015) | 6200 | 3300 | | GM LT4 Supercharged. Must be run in as built, OEM configuration. Competitor must present factory service manual upon request. |
| Dodge Viper GT3R (2012-) | 8414 | 3060 | 2 x 40mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. |

**Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. GT1/ST Tire make/size are free, DOT tires are not required.**

| GT1-ST | Maximum Displacement | Minimum Weight | Restrictor | Notes |
|---|---|---|---|---|
| Dodge Viper, incl Comp Coupe, ACR/ ACR-X | 7990 | 3100 | | |
| | 8000 | 3100 | | |
| | 8300 | 3100 | | |
| | 8400 | 3200 | 68mm flat plate | 380mm brakes, 12" front and 14" rear width wheels, full engine porting, 6 speed sequential trans, any OEM intake configuration allowed. |
| | 8400 | 3400 | | |
| | Chassis-specific Notes: OEM fuel tank may be used. | | | |
| Ferrari 430 | 4310 | 3000 | | Kessel 430 GT3 front fenders, hood and bumper permitted; if installed, single radiator is permitted. Must conform to 9.1.4.F.7. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Ferrari 458 Challenge | 4499 | 2800 | | Must have copy of the Ferrari 458 Challenge rules that matches the year of car being raced in their possession. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Ferrari 458 GT3 (2011-) | 4497 | 3000 | 2 x 43mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Ford GT FIA GT3-016 | 5000 | 2557 | | Must have copy of the FORD GT FIA GT3-016 homologation paperwork & rules that matches the year of the car being raced in their possession. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Lamborghini Gallardo GT3 (2013) | 5212 | 2950 | 2 x 47mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Lamborghini Gallardo | 5204 | 3000 | | Must comply with Super Trofeo series rules. Competitor must have the series rules in their possession. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Lamborghini Huracan | 5204 | 3000 | | Must comply with Super Trofeo series rules. Competitor must have the series rules in their possession. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |

**Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. GT1/ST Tire make/size are free, DOT tires are not required.**

| GT1-ST | Maximum Displacement | Minimum Weight | Restrictor | Notes |
|---|---|---|---|---|
| Noble M12/ M400 | 3000 | 2650 | | Must be run in as built OEM configuration. Competitor must present specifications on demand. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| McLaren GT Sprint | 3799 | 2080 | | Competitor must have a copy of the factory build spec in their possession. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| McLaren MP12C GT3 (2013-) | 3799 | 2950 | 2 x 36mm 1.50 bar | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Mercedes Benz SLS GT3 (2011-) | 6208 | 3100 | 2 x 36 mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Noble/Origin HVRx | 7011 | 2650 | | Must be run in as built OEM configuration, non-turbo V8 only. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Porsche 991*.1* GT3 Cup | 3800 | 2900 | | Cars must be prepared in accordance with the appropriate model/ year Porsche factory 991 GT3 Cup parts catalog/service manual. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| *Porsche 991.2 GT3 Cup* | *3997* | *2950* | | *Cars must be prepared in accordance with the appropriate model/ year Porsche factory 991 GT3 Cup parts catalog/service manual. Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Porsche 991 GT3-R (2016) | 3997 | *2899* | *(2) 35 mm* | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered. ABS and traction systems must be disabled. It is the responsibility of the competitor to provide proof of system disabling.* |

**Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. GT1/ST Tire make/size are free, DOT tires are not required.**

| GT1-ST | Maximum Displacement | Minimum Weight | Restrictor | Notes |
|---|---|---|---|---|
| Porsche 996 Turbo AWD | | 3050 | | Intercooler: ERP Intercooler kit complete with all ducting and components #ERP.DP996TT.1055.S. Body: L.F. fender #ERP.996.031; R.F. fender #ERP.996.032; Front bumper #ERP.996.311; Front splitter 2" #ERP.996.345; Rear bumper #ERP.996.211. Engine: Intake manifold R&L #997.110.619.90; Intake manifold center #997.110.120.53; Throttle body - single #997.110.039.93; Cylinder heads (non Vanos) #996.104.012.94; Intake cams #996.105.235.92 (0.484 lift); Exhaust cams #996.105.245.90 (0.440 lift); Cam housing R. (non Vanos) #996.105.040.91; Cam housing L. (non Vanos) #996.105.039.91; Garrett GT28 turbo chargers; 2 - 50 mm TIRs. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Porsche 997 GT3 R (2013-) | 3998 | 2925 | 65mm | Competitor must provide World Challenge, Appendix A, upon request. Cars must pass SCCA World Challenge Tech and have World Challenge Dog Tag fixed to vehicle. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Rossion Q1 | 3000 | 2650 | | Must be run in as built OEM configuration. Competitor must present specifications on demand. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |

## 9.1.2.F. GT-2, 3, LITE CATEGORY SPECIFICATIONS

*These specifications are part of the SCCA GCR, and all automobiles shall conform with GCR Section 9.*

*F.1. PURPOSE*
*The GT Category is intended to provide the membership and interested manufacturers with the opportunity to compete in purpose built, highly modified replicas of series produced automobiles. To that end, cars shall be classified in GT Classes based on their competitive potential. The Club may alter or adjust specifications and require, permit, or restrict certain specific components to equate competitive potential. The SCCA does not guarantee the competitiveness of any car.*

*F.2. INTENT*
*It is the intent of these rules to allow modifications useful and necessary in the construction and preparation of an extremely high performance road racing vehicle. It is understood that such a vehicle can be updated and/or changed from marque-to-marque, based on member interest and manufacturer incentive. With this in mind, the Club will use the following guidelines in the determination of the suitability for classification in the GT Category:*

*1. Basic vehicle size, shape, engine displacement, and cylinder head design of the standard and/or alternate engine(s).*

*2. Member interest.*

*3. Manufacturer interest and potential support to competitors.*

*4. Vehicle production quantities of no less than 3000 units of the specified make/model within a twelve (12) month period, all such units being approved by the EPA and DOT for sale in the United States (Production Cars that have been reclassified into the GT Category need not meet minimum production quantities).*

*F.3. SPECIFICATIONS*
*The SCCA shall publish the GT Category Specifications (GTCS) containing recognized specifications for each car eligible to compete in the GT Category during the calendar year. Cars shall be listed according to the manufacturer's make and model designation. In the case of doubt involving specifications not adequately described in the GTCS, Scrutineers/Stewards may refer to maintenance manuals, spare parts books, general catalogs and performance catalogs published by the vehicle manufacturer, MVMA specifications, and FIA Homologation Certificates for the make and model, or may inspect other cars of the same make and model.*

*1. GT Category automobiles shall be divided into Classes based on relative performance as follows: GT2, GT3, and GTLite.*

*2. Cars may be updated or backdated within the specifications of the recognized make and model as listed on the Approved Automobile List of the GTCS, or as listed on a single GT Specification Form line of the GTCS. Any classified engine may be used in a classified chassis within the same manufacturer as shown on the specification line.*

*3. Cars shall meet or exceed their minimum specified weight, as listed in the GTCS, as qualified or raced, with driver.*

*4. No permitted component/modification shall additionally perform a prohibited function.*

*5. Turbocharging/supercharging is not permitted.*

*6. Construction of tube frame cars is permitted. Standard maximum track dimensions for all cars, unless otherwise noted, are as follows:*

*GT-2 64.0" F & R*

*GT-3 / GT-Lite 60.0" F & R*

*F.4.* **GT Cars registered as GT cars prior to January 1, 1990.**
All GT cars registered as GT cars prior to January 1, 1990 shall use the manufacturer's original engine location, i.e., front, mid, rear; drive location, i.e., front or rear, and type of front and rear suspension, i.e., MacPherson strut, double A-arm, live axle, semi trailing arm, etc., unless authorized by the GTCS for a specific make and model.

Front-engined GT cars registered as GT cars prior to January 1, 1990 may be converted to Section F.2., specifications, but shall meet ALL specifications of Section F.2.

*F.5.* **GT cars registered as GT cars after January 1, 1990.**
All front engined GT cars registered as GT cars after January 1, 1990 shall utilize McPherson strut or double A-arm front suspension. A-arm front suspensions shall have the shocks attached to the outboard end of an upper or lower control arm. Rocker arms, push-pull rods, etc., are prohibited. Front wheel drive cars may convert to rear wheel drive. Cars classified in GT2-Lite that retain the original front wheel drive (FWD) config-

uration may retain the original type of rear suspension with no weight penalty or use a beam axle.

Cars classified in GT2-Lite running front engine, rear wheel drive (RWD) may use independent rear suspension (IRS), by choice at a weight increase equal to 2.5% of the car's specified weight.

All GT cars registered as GT cars after January 1, 1990 or updated to Section F.2. specifications shall utilize left side driver placement.

Disenfranchised small bore GT2 cars will be allowed classification in GT3 "In GT2 spec" on a case by case basis but will be classified with the appropriate SIR and GT3 weight + 150 lbs. to offset any advantage in the wider wheel/tire, track and wing width. Max wheel/tire 16.0". Cars must have a GT2 logbook issued prior to 1-01-2013

*F.6.* **Safety Equipment required on all cars.**

**a. Bulkheads**

1. A metal bulkhead shall separate the driver/front passenger compartment from the compartment containing the fuel cell. The fuel cell, cap, filler neck, and all fittings shall be isolated so that in case of spillage, leakage, or failure, fuel will not reach the driver. The bulkhead separating the driver/passenger compartment from the fuel cell shall not be above the bottom of the rear window and the bottom of the side/quarter windows. An additional vertical, transverse bulkhead is permitted behind the driver. It shall be located above the mandatory vertical bulkhead and shall allow the driver adequate vision to the rear. It is recommended that this additional bulkhead be made of a clear, transparent polycarbonate material.

**b. Fuel Cells**

A safety fuel cell complying with GCR Section 9.3 Fuel Cell Specifications, shall be installed. All fuel cell vents shall incorporate check valves to prevent fuel spillage. Dry-break refueling couplings and discriminator valves may be installed, provided they do not extend beyond the bodywork. The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (e.g. frame rails). Spec line allowances will be added on a case by case basis.

**c. Windows**

1. Windshield safety clips and rear window safety straps shall be installed on all closed cars. Three (3) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the body at the top of the windshield. Two (2) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips shall be spaced a minimum of twelve (12) inches apart. The rear window shall be secured with two (2) metal straps (1 inch wide x 1/8 inch thick) bolted or riveted to the body at the top and bottom of the rear window. Polycarbonate windshields such as Lexan are allowed. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Alternate material windshields must have in addition, three (3) inner supports to prevent the windshield from collapsing inward. These supports must be 0.75" by .125" minimum straps of aluminum. Spacing between these inner supports must be six (6) inches minimum. In place of clips, polycarbonate windscreens may be mounted using a fastener spaced a minimum of every 12 inches across the top and sides, with a minimum of four across the bottom. Alternatively, the bottom may be captured in a channel.

3. Open cars must remove the windshield glass, door window glass, quarter window glass, rear glass, vent glass, frames/channels and all mounting brackets. Window winding mechanisms can be removed. A replacement windshield must be installed. The replacement windshield must be fitted within the vertical planes of the front most and rear most elements of the stock windshield and frame. The replacement windshield must not exceed the height or width of the stock windshield and frame. Any portion of the windshield that is in the driver's line of sight, must be constructed of a clear material. No part of the replacement windshield can be constructed of glass.

4. Ducts may be installed in the side windows or window openings for the purpose of supplying cooling air to the driver and/or differential/transmission coolers and/or the rear brakes. Air passing through the differential/transmission coolers may be exhausted through an opening identical in size and location to the rear license plate frame.

*F.7.* **Authorized Modifications**

The following modifications are authorized on all GT-2, 3, and Lite cars. Modifications shall not be made unless specifically authorized herein. No permitted component/modification shall additionally perform a prohibited function.

**a. General**

1. It is not permitted to make any changes, alterations, or modifications to any component produced by the manufacturer, unless specifically authorized by these rules, or required by the GCR.

2. Any springs (including torsion bars) may be replaced by others of unrestricted origin, unless specifically prohibited by these rules.

3. Where alternate suspension and/or drive train equipment is authorized, modifications to the car/

chassis are permitted to install authorized equipment, provided the modifications serve no other purpose.

4. All component parts of the bodywork, such as hood, doors, fenders, deck lid, rocker panels, windshield surround, roof, etc., may be lightened or replaced by ones of alternate materials, provided the shape, size, and relative position is identical to the original or approved alternate. The original size, angle, and relative position of the windshield shall be maintained. Convertible tops, sunroofs, and removable panels shall meet GCR Section 9.3 Detachable Panels/Sunroofs.

   Vents may be added to the roof panel or rear window for the express purpose of venting the driver's compartment. There may be no more than 12 openings with a total area of not more than 24 square inches.

5. Spare wheel and tire shall be removed.

6. Glass and/or plastic headlights, front parking lights, front signal lights, lenses, and bulbs shall be removed. Headlight openings shall be covered with a wire mesh screen or panel having the same contour as the original lens, mounted so that the headlight bezel/rim remains in place, maintaining the standard appearance of the Production automobile. Side marker light assemblies shall be removed and the resulting openings covered with a plate whose dimensions do not exceed those of the original parts; side marker lights that are an integral part of the taillight assembly cannot be removed. Other lighting parts and operating mechanisms may be removed. In the case of pop-up headlights, the entire assembly may be removed and the opening covered with a screen or plate (as above, without the headlight bezel/rim requirement) which provides a stock appearance. It is not permitted to relocate the standard headlight, parking light, signal light, etc., openings. Taillights shall be in the original location and shall be the original style/type of taillight for the make, model, and year of car.

   Ducts from headlights, front parking lights, and front signal lights in the front of the car may be used for ducting air to the engine, front brakes, and/or oil cooler(s). These ducts may pass through interior panels for this purpose. The cross section area of a single duct shall not exceed the cross sectional area of the original (single) headlight.

**b. Chassis and Bodywork**

The purpose of the following rules is to maintain recognizable external features of the manufacturer's make and model, while providing necessary safety and performance modifications.

Restrictions regarding external body shape and use of belly pans are aimed at preventing attempts to obtain ground effect or streamlining. Provisions in the rules permit one-off chassis and frames, to reduce the cost of building and repairing GT cars, not to permit high technology (streamlining and/or ground effects). Semi-monocoque or monocoque construction is prohibited.

1. The external shape of the body cannot be changed, except when specifically authorized. Standard grills, window openings, or approved facsimiles shall be retained. All external trim and model identification may be removed. Misalignment or modifications to create ventilation where none previously existed are prohibited. One piece front and one piece rear bodywork is allowed. Rocker panels and doors may be parted and/or integrated with associated body panels. Rocker panels of an alternate material may be a flat vertical panel having the same dimensions as the original component when viewed from the side. Overall width of the vehicle/rocker panel measured at the door sill must remain stock. Roof/A-pillars shall be separate pieces. The cowl trim panel may be modified or removed. *GT2 only: Four (4) hood/fender louvered panels are allowed. Total maximum area of panels shall not exceed 600 sq. inches with a minimum of five (5) slots for each panel. All louvers must be mounted in front of the windscreen.*

2. Chassis, frame, or subframe may be lightened, reinforced, or replaced, provided components and attachments are not relocated, except where specifically permitted. Reinforcing does not authorize the use of belly pans forward of the firewall, or aft of the front edge of the rear wheel opening. There shall be no pans, whether factory supplied or otherwise, between the spoiler pan and the floor pan nor between the floor pan and the floor behind the rear wheel opening. The floor behind the rear wheel opening shall be flat and follow, but not exceed, the line of the rear fender bottom. Only the fuel cell container may protrude or extend below this plane. There shall be no pans, whether factory supplied or otherwise, between the spoiler pan and the floor pan nor between the floor pan and the floor behind the rear wheel opening.

3. No part of the bodywork or chassis, to the rear of the front wheel opening, shall touch the ground when both tires on the same side of the car are deflated.

4. The firewall and floor may be replaced with aluminum alloy or steel. Firewalls may be modified or notched.

5. Bumpers may be removed providing all projecting hardware is removed except when it (they) are an integral part of the bodywork, in which case it (they) may be replaced with replica(s) of different material. Non-integral bumpers may be replaced with a replica of alternate material or removed. Bumper bracket holes in the bodywork may be covered provided such covering serves no other

purpose.

6. All standard production seats and seat backs shall be removed. The driver's seat shall be replaced with a one-piece bucket-type race seat. Such seat shall be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating).

7. Doors shall be pinned or otherwise positively fastened to prevent their opening in case of an accident. Standard door hinges and latch mechanisms may be removed, but the doors shall be capable of being opened or removed unless integrated into the bodywork. Interior door panels may be removed and the door window slots may be covered. Pins or straps may be added to hood and deck lid to supplement or replace the latches. Hood and deck lid hinges may be removed.

8. All driver and front passenger door window glass shall be removed. Window cranks and mechanisms may be removed. Rear quarter, rear side, and rear windows may be of transparent (clear) polycarbonate material, minimum thickness 3mm, but shall remain in the same position in the frame or opening as the original glass it replaces; rubber molding optional. Rear windows/hatchbacks and deck lids shall be completely closed. No bumper blocks or other means of poor alignment of bodywork will be permitted. Rear quarter (side) windows may be run in their original open or closed position.

9. Fenders may be flared for tire clearance, provided their shape and opening contour, in the horizontal projection, is similar and proportional to the original opening. Rear doors on 4-door automobiles may be considered part of the fender for purposes of fender flaring. The tire shall not extend beyond the fender openings at the highest point of the tire. The rear fender flares on GT-2 cars may extend forward into the door, no more than 26 inches from the rear axle centerline (GT-2 only). Wheel opening location may be altered in accordance with the allowable wheelbase tolerance in order to maintain vehicle's stock appearance. Ventilation openings, other than those which are standard production on the recognized model, are prohibited.

10. Front and rear inner fender panels may be altered, replaced, or removed provided there are panels providing total separation between driver compartment and wheel wells.

11. Replacement, addition, or removal of accessories (gauges, switches, indicators, etc.), or other interior modifications for driver convenience, or to permit installation of required safety equipment, is authorized provided such modifications have no influence whatever on the mechanical performance of the car. Such modifications do not include the substitution or replacement of any bodywork or chassis component except those specifically authorized by these rules. Floor mats and all interior trim shall be removed.

12. A spoiler may be fitted to the front of the car. It shall not protrude beyond the overall outline of the car as viewed from above except as follows:

    - GT2: a front splitter may extend up to 3 inches.
    - GT3: a front splitter may extend up to 2 inches.
    - GTLite: a front splitter may extend up to 2 inches.

    In all classes, the spoiler shall not extend aft of the forward most part of the front fender opening (cutout), and shall not be mounted more than four (4) inches above the horizontal centerline of the front wheel hubs. The spoiler shall not cover the normal grill opening at the front of the car. An intermediate mounting device may be used on cars whose front bodywork is above the four (4) inch minimum. Openings are permitted for the purpose of ducting air to the brakes, radiator, airbox and/or oil cooler(s); equal openings may be placed in the standard lower front panel directly behind openings placed in the spoiler. When bumpers are retained, the spoiler and bumper shall appear to be two separate parts. Spoiler "pans" are only permitted forward of the leading edge of the front wheel openings and shall be flat and follow, but not exceed, the line of the front fender/spoiler bottom.

13. A spoiler or a Club Racing specified rear wing for GT2 and GT3 may be fitted to the rear of the car. Note: OEM rear spoilers and wings are not permitted unless specifically listed on the vehicle's specification line. If a spoiler is used, it shall be contiguous with the bodywork and shall comply with the following:

    A. Height (max): six (6.0) inches (GT-2 & 3) or five (5.0) inches (GT-Lite) measured from the bodywork along the face of the spoiler from the point of attachment to the top of the spoiler. In the case of a spoiler with a curved top edge conforming to the shape of the bodywork (rear-view), the measurement is to be made perpendicular to the tangent of the body at the point of attachment. In the case of a spoiler mounted with a vertical mounting flange on the bodywork, the measurement shall be made ignoring any slight amount of mounting flanges (see below) exposed due to the curvature of the rear bodywork at the point of attachment.

    B. Width and Overhang: If roof mounted, no wider than the roof at its mounting point when viewed from above the car. Mounting to be no further rearward than the forward most part of

the rear window. If rear mounted, no wider than the body, excluding fender flares, from the forward most part of the spoiler (or mounting flange) rearward. Shall not extend rearwards of the rearmost extremity of the bodywork for the entire width of the car (when viewed vertically from above the car at any point, the spoiler shall not protrude beyond the bodywork).

C. Mounting: Spoilers shall be strong enough to be self-supporting. A mounting flange no greater than one and one-half (1-1/2) inches wide, contiguous with the bodywork, (either forward facing on the top surface of the bodywork or downward facing on the rear surface of the bodywork) shall be employed. Supplemental forward bracing may be added in the form of two (2) rods, mounted at least ten (10) inches inboard from the ends of the spoiler. Rear supports may be added.

D. Configuration: The spoiler shall be a single plane spoiler (a straight line in any vertical cross section) uniform in height from the bodywork with no more than 1/8" gaps/openings below the spoiler to facilitate imperfect mounting. The gaps/ openings are to be included in the overall height of the spoiler. Only enough curvature (in a fore and aft direction as viewed from above) shall be permitted to facilitate mounting. The use of fences, end rails, Gurney flaps, wickerbills, or other forward facing lips or aerodynamic devices is prohibited.

NOTE: O.E.M. rear spoilers are not permitted unless specifically listed on the vehicle's specification form.

If a Club Racing specified wing is used (GT2 and GT3 only), it shall comply with the following:

E. A single element, single plane airfoil scaled to a chord length of 10.75 inches.

A maximum 0.50 inch Gurney tab is allowed at the trailing edge of the wing element. The tab must be mounted 90 degrees to the upper wing surface. No air may pass between the tab and the wing.

The wing end plates must fit within a rectangle measuring 11.00 inches long by 4.00 inches tall. No portion of the wing element or tab may extend beyond the perimeter of the endplate. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs.

- GT2: The maximum width of the entire wing assembly (wing element, endplates, Gurney tab, and mounting hardware) is 68.00 inches, but no wider than the rear body width including fender flares.
- GT3: The maximum width of the entire wing assembly (wing element, endplates, Gurney tab, and mounting hardware) is 64.00 inches, but no wider than the rear body width including fender flares.

F. Wing mounting
GT2 and GT3: The entire wing assembly must be mounted below the highest point of the roof or roll cage main hoop whichever is higher measured at the highest point.

GT2 and GT3: The trailing edge of the wing assembly must be located within an area not forward of 6" forward of the rear most bodywork and not rearward of the rearmost bodywork. The rearmost bodywork is to be measured at the vehicle centerline.

Two wing mounting posts must be used, with each one located between 2"-20" inboard from the end of the wing. The exposed portion of the wing mounting posts shall not exceed 85 square inches each. Curved brackets will be measured as if they're in a flat plane as viewed from the side. Mounting brackets are to be included in measurement.

The maximum wing angle from horizontal is 30-degrees.

14. GTL Wing Rules

A. The maximum width of the entire single element, flat plane wing assembly (wing element, endplates, and mounting hardware) is 56.0 inches, but it may be no wider than the bodywork including fender flairs. The maximum chord is 8.0 inches. Wing endplates must fit within a rectangle measuring 8.5 inches wide by 3.0 inches high. Endplates must be flat, with no curvature or Gurney tabs. A maximum 0.5-inch wicker-bill may be employed.
B. The wing shall be mounted with two brackets. Each mounting bracket shall attach to the wing at least 2.0 inches inboard of the endplates. The brackets may protrude through the trunk/ deck lid to allow the brackets to be fastened together and/or to the chassis of the car beneath the lid.
C. The entire wing assembly shall be at least 6.0 inches below the highest point of the roof or roll cage main hoop whichever is higher measured at the highest point.
D. The trailing edge of the wing assembly must be located between 6.0 inches forward of the rearmost bodywork and the rearmost bodywork as measured along the vehicle longitudinal centerline.
E. Cars with a wagonback/notchback/hatchback style body must have the entire wing positioned

between 6.0 and 28.0 inches of the rearmost bodywork as measured along the vehicle longitudinal centerline, and a maximum of 4.0 inches above the highest point of the roof. For this subsection, a wagonback/notchback/hatchback style body (or variations of these) is a car in which the rear edge of the roofline is no more than 28.0 inches forward of the rearmost bodywork as measured along the vehicle longitudinal centerline.

15. GTLite front splitter: A front splitter may be added that is a flat single-plane. The splitter shall be mounted flat. The splitter must not extend laterally any further than the widest point of the front fenders. The splitter must have no vertical deviations. Additionally, a maximum of four (4) rods or cables may be used to support the front, and/or the sides of the splitter. A single-plane vertical close-out panel may be used to bridge any gaps between the front fascia and splitter.

**c. Suspension and Wheels**

1. Wheelbase will be homologated on a case by case basis as requested by the manufacturer. Wheelbase may be changed from -3" to +1" from printed stock dimensions in a fore/aft direction.
2. Suspension components may be reinforced, modified, or replaced as long as the type of suspension is not changed from that authorized in this GTCS.
3. Suspension mounting points, including suspension springs, may be relocated.
4. Suspension springs may be replaced with others of unrestricted origin.
5. Modifications or substitution of hubs, bearing, spindles, axle shafts, universal B joints, flex joints, and CV joints is permitted.
6. Addition or substitution of antiroll bars, camber compensating devices, and/or suspension stabilizers is permitted. If these devices extend into the driver/passenger compartment, they shall be completely sealed off by metal panels.
7. Suspension bushings and joints may be replaced by others of different material and/or design. Offset bushings and spherical bearings are permitted, including adjustable type.
8. Steering arms, pitman arms, and steering linkage component parts may be modified, reinforced, or substituted. The steering system may be changed and/or relocated.
9. The steering wheel may be replaced and rake of the steering column may be altered. A collapsible type of steering column equivalent to Federal Motor Vehicle Safety Standard No. 204 is required in all cars registered after January 1, 1983 and highly recommended for prior registered cars. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications shall have left side driver placement.
10. Substitute wheels of any type may be used. All four (4) wheels shall be of the same diameter except in GT2.
    a. GT2 cars may run any tire/wheel combination provided that the tire does not exceed a maximum cross section width of 12.0" in the front and 13.75" in the rear. GT2 cars using 15 x 7" wheels exclusively may reduce the listed weight by 50 lbs. GT2 cars may run Hoosier DOT tires #46846 front, P315/30ZR18 A7 and #46850 rear, P335/30ZR18 A7.
    b. The maximum wheel size for GT3 cars is 15 x 7". Alternatively, any wheel up to 18" with a maximum tire cross section of 12.0" and a maximum tire diameter of 26.0" may be used with a weight penalty equal to eight percent of the car's weight as listed on the specification line. The minimum vehicle weight shall be rounded to the nearest pound. A maximum brake rotor diameter of 13.0" may be used with alternate wheels. Cars using 15" American Racer 23.5-10.0-15, bias ply, non-belted tire may do so without the weight penalty.
    c. The maximum wheel size for GTL is 13" X 7" unless otherwise noted on the vehicle specification line. Alternatively, any wheel up to 15" x 7" may be used in GTL with a weight penalty equal to four percent of the car's weight as listed on the specification line. The minimum vehicle weight shall be rounded to the nearest pound. Cars using 13" wheels may run 13" x 8" wheels, but only with American Racer 20.0-8.0-13, bias ply, non-belted tires, without weight penalty. GTL cars using 15" wheels may run 15" x 10" wheels, but only with American Racer 23.5-10.0-15, bias ply, non-belted, tire without weight penalty.
11. Shock absorbers: It is not permitted to alter the number of shock absorbers. The make of shock absorber and its points of attachment may be moved. Shock absorbers may have load bearing capacity; e.g., gas filled or coil over. When using load bearing shocks, the original springs may be removed. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications shall have the shock absorber attached to the outboard end of an upper or lower control arm. Rocker arms, push-pull rods, etc., are prohibited.

**d. Electrical Systems**

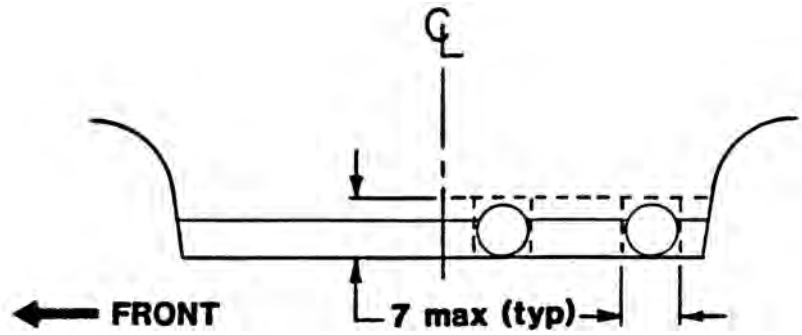
1. The electrical/electronic system may be modified or replaced provided an operating starter motor and two (2) brake lights are retained.

2. Any distributor or transistorized ignition system (including crank triggered), firing the same number of spark plugs as the original distributor, may be used.

3. Magneto ignition is prohibited unless listed in the GTCS. Ignition wiring and spark plugs are unrestricted.

**e. Engine and Drive Train/General**

1. Exhaust manifold(s), header(s), tailpipe(s), and muffler(s) may be of unrestricted origin. The exhaust pipe(s) and/or muffler(s) may be recessed into the floor panel and rocker panel. The exhaust may be recessed into the bottom of the door or rear fender below a line seven (7) inches above the bottom of the rocker. There maybe a maximum of two (2) such areas in the door or fender, with the maximum length for each no more than seven (7) inches. Note that the exhaust outlet shall still be mounted as low as possible; this does not authorize exhaust outlets through the door. Exhaust opening(s) shall exit to the rear of the wheelbase centerline and away from the body.




180 degree headers: The passenger's side floor pan may be raised not more than ten (10) inches *or a secondary floor may be installed at that level* to accommodate the installation of the exhaust system and muffler(s) provided such raising of the floor serves no other purpose. Exhaust may pass through the rear bodywork no higher than the rear axle centerline.

2. Exhaust emission control air pumps, associated lines and nozzles, and EGR devices cannot be modified in any way except that they may be completely removed. When air nozzles are removed from the cylinder head, the holes shall be completely plugged.

3. Substitution or modification of the clutch and/or flywheel is permitted.

4. It is permitted to lighten, balance, or modify in shape, by tooling, the standard or optional components of the engine and drive train, provided it is always possible to identify them as such. Material shall not be added to these components unless specifically authorized by these rules.

5. Alternate engine and drive train components considered replacement parts, such as seals, bearings, valve guides, pushrods, water pump (including electric), timing chains/belts and sprockets, nuts, bolts, studs, washers, and gaskets are permitted. Bushings or offset keys of unrestricted origin may be installed.

6. The substitution of valve spring retainers and keepers is permitted. Valve springs are unrestricted (including number) provided the type and location remain unchanged.

7. Generator (alternator), crankshaft, and water pump pulleys may be altered or replaced with others of unrestricted origin. Any crankshaft vibration dampener is allowed.

8. Any oil pan (sump), oil pump(s), and/or pickups are allowed. Oil pump(s) shall be driven mechanically by the engine. Dry sump systems are permitted. The oil tank shall be located within the bodywork. The oil tank, cap, and all fittings shall be isolated so that in case of spillage, leakage, or failure, oil will not reach the driver. Any oil filter(s) may be used.

9. Installation of any vent or breather on the engine, transmission, or differential is permitted (See "Oil Catch Tanks"). Crankcase vacuum devices are prohibited, but a conventional dry sump system is permitted.

10. Any readily available manual transmission having no more than six (6) forward speeds in GT2 and five (5) forward speeds in GT3 and Lite and a functional reverse speed may be used, provided that it is fitted in the same basic location used in the standard production automobile. Any shift linkage may be used. If a sequential shift gearbox is used, the car must carry a weight penalty equal to 1.25 percent of the weight as listed on the spec line. If a synchromesh engagement transmission is used, the weight may be reduced by 1.25 percent of the weight listed on the spec line. A synchromesh gearbox is one having a friction mechanism to allow engagement. Note: The minimum vehicle weight is to be rounded to the nearest pound. Air, hydraulic or electric actuation of the gearshift mechanism is not allowed. For front engine, rear drive cars requiring the transmis-

sion to be attached to the engine, the transmission front seal shall be within twelve (12) inches of the back of the engine block. On front engine/rear drive cars, the transmission front seal is that seal which is within 5" of the gear on the input shaft which meshes with the foremost gear on the counter/layshaft.

A functional reverse is defined as "operable by the driver from his normal seated position and capable of sustained movement of the vehicle, under its own power, in a reverse direction." A driver-operated device for locking out reverse gear may be added provided it does not prevent prompt engagement of reverse in an emergency situation.

11. Heavy duty propeller shaft(s) and/or drive shaft(s) may be used. Steel retaining strap(s) shall be used to prevent drive shaft failure from dropping or entering driver compartment.
12. Any axle tube, final drive housing, gear ratio, limited slip, or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications, using the front engine/rear drive configuration, shall use a "closed tube" rear axle housing.
13. OEM body-engine-chassis combinations may run in their stock locations. If *the factory chassis is altered with respect to engine mounting or spindle location then engine location must comply with the following:* Engine location is defined such that the forward-most spark plug is within 1.0 inch of the front axle centerline .Engine and transmission mounts may be of alternate shape and/or material. Cars with engines mounted longitudinal to the chassis MAY relocate the engine in a longitudinal, not lateral, direction within the following restrictions: (Note: A tolerance of up to a 1.0 inch setback is allowed if the engine is relocated.)
    A. V8, V6, and V4 engines shall align the center of the foremost spark plug hole in line with the front axle spindles.
    B. In-line six (6) cylinder engines shall align the center of the first spark plug hole (from the front) in line with the front axle spindles.
    C. In-line four (4) cylinder engines shall align the center of the first spark plug hole (from the front) in line with the front axle spindles.
    D. Rotary engines setback from the front spindle centerline to the front spark plug is 4.5 inches.
    E. The engine may be rotated about the crankshaft centerline (lean over) a maximum of fifteen (15) degrees unless otherwise noted and shall not cause hood bulges.
14. Any transverse mounted engine may be rotated for axle/CV joint alignment. Any readily available transmission having a functional reverse and no more than five (5) forward speeds may be used, provided it is mounted to the rear of the engine. All transverse engines may be rotated 180 degrees. A transverse mounted engine may be rotated to a longitudinal position that places the crankshaft centerline on the longitudinal centerline of the car (shall conform to all restrictions in Section 9.1.2.F.4.e). The engine may be rotated about the crankshaft (lean over) a maximum of fifteen (15) degrees unless otherwise noted and shall not cause hood bulges. Rear axle / suspension per GTCS 9.1.2.F.2.

**f. Engine, Reciprocating**

1. Engines may be rebored a maximum of 1.2mm (0.047 inch) over the standard bore size listed in the GTCS. A cylinder block from any model from the same manufacturer which is of the same material and dimensionally identical throughout, except for non-critical bosses, is permitted.
2. Crankshaft main bearing caps may be modified or substituted. Main bearing cap straps or girdles and/or additional main bearing cap bolts may be used, provided that no material is added to the block for their attachment.
3. The crankshaft may be replaced with another of the same basic material, but with no change in stroke and provided the angles of the crank throws remain the same. The engine firing order shall remain unchanged.
4. Connecting rods may be replaced with any connecting rod of steel (ferrous) material. Aluminum, titanium, and non-metal connecting rods are prohibited, except where fitted as standard.
5. Any pistons and piston pins may be used.
6. Any camshaft(s) may be used, provided locations are (is) the same as standard.
7. Any cam followers may be used, except that roller cam followers shall not be used unless fitted as standard equipment.
8. Any rocker arms and rocker assembly supports may be used.

9. Valve sizes are unrestricted except when limited by the GTCS for specific automobiles. Centerlines shall not be altered. Valves may be of alternate material; non-metal is prohibited.

10. Compression ratio may be altered by machining, using any head gasket(s) or elimination of head gasket(s).

**g. Engine, Rotary Piston**

1. The capacity of the working chamber(s) shall not be changed.

2. The eccentric shaft may be replaced with another of the same basic material, but no changes in eccentricity or journal dimensions are permitted.

3. Rotor is unrestricted, providing the material and number of lobes remain unchanged.

4. Alternate rotor housings are allowed only as listed in the GTCS for specific automobiles. No changes are allowed in the epitrochoidal curve in alternate housing.

**h. Cooling Systems**

1. Cooling fan(s) may be modified, substituted, or removed. Electrically operated cooling fan(s) may be installed, provided it (they) serve no other purpose. The use of any engine, transmission, and/ or differential oil coolers(s) is (are) permitted provided it (they) are mounted completely within or under the bodywork, but not in the driver/passenger compartment. Associated oil cooler pumps and lines are permitted for the transmission and differential. Air ducts may be fitted to the oil cooler(s) as specifically authorized herein.

2. Any water radiator is allowed, provided there are no changes in the exterior bodywork to accommodate its use. It shall not be located in the driver/ passenger compartment. Separate expansion or header tank(s) are permitted, provided they are mounted in the engine compartment. The heater core may be removed entirely but not modified or replaced.

3. Sealing or shrouding the airflow area between the normal grill opening and the water radiator is permitted.

4. On water cooled cars, thermostats may be modified or replaced with blanking sleeves or restrictors.

5. Alternate fan and fan shroud are permitted on air cooled engines.

6. Radiator intake and brake openings may be covered with screen and/or taped as necessary to protect the radiator and/or regulate air flow.

**i. Fuel Induction System**

All inducted air shall pass through venturi(s), maximum one (1) per cylinder or rotor.

1. Any air filter(s) may be used, or the filter(s) may be removed. Velocity stack(s) and/or air box(es) may be fitted. Air may be ducted to the carburetor(s) provided the ducting is contained within the engine compartment and air is supplied through normal openings in the bodywork (or as specifically authorized herein).

2. Any fuel pump(s) may be used and the location(s) may be changed. Fuel pump(s) shall not be located in the driver/passenger compartment.

3. All fuel/oil lines passing through the driver/passenger compartment shall be steel or metal braided hose. Number of fuel lines is unrestricted.

4. Carburetors:
   A. Reciprocating engines: Carburetor(s) and intake manifold(s) are unrestricted except as limited in the GTCS for a specific make/ model. All cars with restricted carburetion are required to use I.R. manifolds with no plenums or balance pipes unless using an SIR or otherwise restricted for specific automobiles. Intake manifold(s) shall be attached to the head(s) without modification to the head(s).

   B. Rotary engines: Carburetor and intake manifold are unrestricted except as limited in the GTCS for a specific make/model. All cars with restricted carburetion are required to use I.R. manifolds with no plenums or balance pipes, unless using an SIR. Intake manifold(s) shall be attached to the end cover(s) or rotor housing(s) without modification to the end cover(s) or rotor housing(s).

   C. No portion of the intake manifold(s) may extend into the intake ports (reciprocating and rotary engines.)

   D. Carburetors shall incorporate a butterfly-type throttle plate for engine speed control.

   E. Where Weber or Weber-type carburetors are specified and used, they shall retain their standard configurations of fuel distribution. This is to prohibit annular discharge carburetors.

   F. Where Weber carburetors are specified, Weber-type carburetors may be substituted. The

following are approved Weber-type carburetors: Weber, Solex, SK, Mikuni, Delorto, Berg, and PMO.

5. Any car may utilize fuel injection, whether originally equipped with fuel injection or not. The following restrictions apply.
   A. Both method and manufacturer are open.
   B. Intake manifold shall be of the individual runner type, unless using an SIR or otherwise notes on the vehicle spec line. Cars using an SIR may use any manifold type.
   C. Only butterfly-type throttle plates for engine speed control, one per cylinder or rotor, are permitted if intake restrictors and/or chokes are specified on the vehicle specification line, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. SIR location is unrestricted so long as all SIR criteria are met. Restrictors shall be a minimum .060" thickness and of the specified diameter.
   D. All inducted air for each cylinder must pass through the specified restrictor. Fuel injected cars, unless otherwise specified, shall use the same individual venturi restriction size specified for a car using carbureted induction.
   E. The number of injectors shall be one (1) per cylinder (unless otherwise noted on the vehicle specification line). Direct injection is not permitted.
   F. Rotary engines may use two (2) injectors per rotor.
6. Supercharging/turbocharging is prohibited.
7. Float(s) shall not be removed or altered to produce (a) floatless carburetor(s).
8. Any throttle linkage may be used.
9. Induction systems shall be equipped with a positive method of throttle closing by means of (an) external spring(s).

**j. Brakes**

1. Any dual master cylinders and/or pressure equalizing/regulating device(s) are permitted.
2. Servo-assist systems are unrestricted.
3. Backing plates/dirt shields may be ventilated or removed. Brake air ducts may be fitted within the provisions of these rules.
4. The hand brake may be removed.
5. Brake lines shall be steel or metal braided hose. They may be relocated and may be given additional protection.
6. Brake calipers and/or drums are unrestricted except as limited by the GTCS for a specific make/model. Brake rotors shall be ferrous material but are otherwise unrestricted. Brake rotors/drums shall be located in the original position (e.g., inboard vs. outboard).
7. Water cooled brakes are permitted, maximum reservoir capacity two (2) gallons, maximum line size 3/16 inch I.D. The water shall be atomized by an atomizing nozzle, and the water shall enter the air duct a minimum of twelve (12) inches from the centerline of the spindle/axle.

**k. GTLite Rules Concerning Alternate Weights and SIRs**

1. Allow currently restricted 2V and 3V engines <1400ccs to run unrestricted at a 100 lb weight penalty.
2. Allow all 2V and 3V restricted engines less than 1600ccs to run 1mm larger SIR as an option at a 125 lb weight penalty.
3. Allow all 4V restricted engines less than 1600ccs to run 1mm larger SIR as an option at a 175 lb weight penalty.
4. Competitors running the alternate SIR must display "+1mm" on the side of their car next to their new weight.
5. Competitors running the unrestricted option must display "UNR" on the side of their car next to their new weight.
6. Limit compression ratio to 15:1 for SIR restricted engines effective 1/1/2014.

**l. GT2 Rules Concerning Alternate Weights and SIRs**

1. Traditional GT2 cars that are currently required to run an SIR may run unrestricted induction with a 350 lb. weight penalty. This weight penalty is to be added prior to any "add-on" penalties, such as sequential shifting, IRS, etc.

# GT2 Cars - ACURA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| NSX | NA | 2dr | RWD | 99.6 | The fuel cell(s) may be relocated to the front trunk area. |
| *NSX* | *2017* | *2dr* | *AWD* | *103.5* | *Cars must be prepared in accordance with the appropriate model/year Acura factory parts catalog/service manual. Drivers must have the correct year manual as it applies to their specific car in their possession. Cars may not be altered in any way except as authorized below. NSX GT3 spec wing allowed. (2) 34mm TIRs required.* |
| RSX | NA | 2dr | FWD | 101.2 | No mid-engine mounting. Hood bulge permitted with no openings. |

## Engines - ACURA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 87.0 x 84.0 | 1997 | Alum, Cross-flow | 4 | Automotive type sidedraft | 1830 | |
| K20A | DOHC | 86.0 x 86.0 | 1998 | Alum, Cross-flow | 4 | Unrestricted | 1830 | |
| | DOHC | 87.0 x 90.7 | 2157 | Alum, Cross-flow | 4 | Automotive type sidedraft | 1830 | |
| | DOHC | 89.9 x 78.0 | 2971 | Alum, Cross-flow | 4 | Automotive type sidedraft | 2140 | |
| | DOHC | 93.0 x 78.0 | 3176 | Alum, Cross-flow | 4 | Automotive type Unrestricted | 2190 | |
| | SOHC | 89.0 x 86.0 | 3210 | Alum, Cross-flow | 4 | | 2280 | |
| | SOHC | 89.0 x 93.0 | 3471 | Alum, Cross-flow | 4 | | 2280 | |

# GT2 Cars - ALFA ROMEO

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| GTV | NA | 2dr | RWD | 94.5 | Hood modifications allowed for carburetors. |

## Engines - ALFA ROMEO

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 88.0 x 68.3 | 2492 | Alum, Cross-flow | 2 | Unrestricted | 1900 | |
| | SOHC | 93.0 x 72.6 | 2959 | Alum, Cross-flow | 2 | Unrestricted | 2040 | |

# GT2 Cars - AUDI

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| TT Coupe | NA | 2dr | FWD | 97.3 | |

## Engines - AUDI

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 82.5 x 92.8 | 1984 | Alum, Cross-flow | 4 | Unrestricted | 1730 | |

## GT2 Cars - BMC thru Rover Group

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| MGB GT V8 & RV8 | NA | 2dr | RWD | 91.0 | |
| TR8 | NA | 2dr | RWD | 85.0 | |

## Engines - BMC thru Rover Group

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 71.1 x 88.9 | 3528 | Alum, Cross-flow | 2 | | 2280 | Alternate induction: Holley P/N 0-80507-1 (390 CFM) on unrestricted manifold with a mandatory plate between the carburetor and plenum of 0.060" flat steel or aluminum plate with four (4) 1.15"" holes. Spacer is unrestricted. The restrictor plate shall be positioned within 4" of the throttle butterflies. All inducted air shall pass through the specified restrictor plate. |

## GT2 Cars - BMW

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 325 | 84-91 | 2dr | RWD | 101.2 | |
| M3 (E30) | 88-91 | 2dr | RWD | 101.2 | |
| M3 (E36) | 95-99 | 2dr | RWD | 106.3 | |
| M3 (E46) | 00- | 2dr | RWD | 106.3 | |
| 330ci (E46) | 01- | 2dr | RWD | 107.3 | |

## Engines - BMW

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| S14 | DOHC | 93.4 x 84.0 | 2302 | Alum, Cross-flow | 4 | Unrestricted automotive type | 1950 | |
| M20 | SOHC | 84.1 x 75.0 | 2494 | Alum, Cross-flow | 2 | Unrestricted automotive type | 1950 | |
| M50 | DOHC | 84.1 x 75.0 | 2494 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2140 | |
| M52B28 | DOHC | 84.0 X 84.0 | 2793 | Alum, Crossflow | 4 | Unrestricted automotive type | 2140 | |
| S50 | DOHC | 86.0 x 85.8 | 2990 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2140 | |
| S50B32 | DOHC | 86.4 x 91.0 | 3201 | Alum. Cross-flow | 4 | | 2280 | |
| S52 | DOHC | 86.4 x 89.6 | 3152 | Alum, Cross-flow | 4 | | 2280 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| S54 | DOHC | 87.0 x 91.0 | 3246 | Alum. Cross-flow | 4 | | 2280 | |

## GT2 Cars - CHEVROLET

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Cavilier Z24 | NA | 2dr | FWD | 104.0 | |
| Monza | 75-80 | 2dr | RWD | 97.0 | |

## Engines - CHEVROLET

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 89.9 x 89.03 | 2210 | Alum, Cross-flow | 4 | | 1830 | GM racing block #XGB615 and cylinder head #XGBH614 allowed. |
| | DOHC | 92.2 x 85.09 | 2272 | Alum, Cross-flow | 2 | | 1950 | |
| EcoTec | DOHC | 88.9 x 94.6 | 2349 | Alum. Cross-flow | 4 | | 1950 | |
| | DOHC | 90.0 x 94.0 | 2392 | Alum, Cross-flow | 4 | | 1950 | |
| | OHV | 101.6 x 82.6 | 2679 | Alum, Cross-flow | 2 | Unrestricted automotive type | 1900 | |
| | OHV | 89.0 x 84.0 | 3136 | Iron, Cross-flow | 2 | Unrestricted | 2020 | |

## GT2 Cars - CHRYSLER/DODGE/PLYMOUTH

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Breeze / Stratus | NA | 2dr | FWD | 108.0 | |
| Neon | NA | 2dr, 4dr | FWD | 104.0 | |
| Daytona / Laser | 84-87 | 2dr | FWD | 97.0 | Turbo Z body panels allowed. |
| Viper Roadster | NA | 2dr | RWD | | Roadster must run windscreen and frame per “stock” dimensions. |

## Engines - CHRYSLER/DODGE/PLYMOUTH

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 87.5 x 83.0 | 1995 | Alum, Cross-flow | 4 | Unrestricted automotive type | 1830 | |
| | DOHC | 87.5 x 83.0 | 1995 | Alum, Cross-flow | 4 | Unrestricted automotive type | 1830 | |
| | SOHC | 87.5 x 92.0 | 2213 | Alum, Non-Crossflow | 2 | (2) Automotive type | 1950 | |

## GT2 Cars - FERRARI

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 308 GTB | 76- | 2dr | RWD | 92.1 | Fuel cell(s) must comply with GCR 9.3 Fuel Cell Specifications but may be relocated to front trunk or remain in OEM saddle tank locations. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 288, 328, 348, 355 | NA | 2dr | RWD | 96.5 | Fuel cell(s) must comply with GCR 9.3 Fuel Cell Spefifications but may be relocated to front trunk or remain in OEM saddle tank locations. Engine may be rotated longitudinally. | | | |

## Engines - FERRARI

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 81.0 x 71.0 | 2926 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 2140 | |
| | DOHC | 83.5 x 68.0 | 2980 | Alum, Cross-flow | 4 | | 2280 | |

## GT2 Cars - FORD

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Capri I, II | NA | 2dr | RWD | 100.8 | |
| Mustang | 74-78 | 2dr | RWD | 100.8 | |
| Mustang | 79-93 | 2dr | RWD | 100.5 | |
| Mustang | 10-11 | 2dr | RWD | 101.0/107.1 | Duratech DOHC engine, as specified in GT3, to run unrestricted in GT 2. Minimum weight is 1950 lbs. |
| Probe | NA | 2dr | FWD | 99.0/102.9 | |

## Engines - FORD

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 91.0 x 77.0 | 1993 | Alum, Cross-flow | 2 | (2) Automotive type | 1830 | |
| | DOHC | 84.5 x 74.2 | 2496 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2105 | |
| | OHV | 90.0 x 66.8 | 2550 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2040 | |
| | OHV | 93.0 x 68.6 | 2796 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2040 | |
| | OHV | 93.0 x 72.6 | 2934 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2040 | World Products 2.9 OHV cylinder head allowed. |

## GT2 Cars - INFINITI

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| G20 | 99-02 | 4dr | FWD | 102.4/97.5 | |

## Engines - INFINITI

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 86.0 x 86.0 | 1998 | Alum, Cross-flow | 4 | Unrestricted automotive type | 1830 | |

## GT2 Cars - HONDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Prelude | 93- | 2dr | FWD | 100.4 | |
| Civic Coupe | 92-95 | 2dr | FWD | 103.2 | |
| Civic Hatchback | 92-95 | 2dr | FWD | 101.3 | |
| CRX | 88-91 | 2dr | FWD | 90.6 | |
| S2000 | 00-09 | 2dr | RWD | 94.5 | |

## Engines - HONDA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| K20A | DOHC | 86.0 x 86.0 | 1998 | Alum, Cross-flow | 4 | Unrestricted | 1830 | |
| KA20A2, KA20A3 | DOHC | 87.0 x 90.7 | 2157 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2040 | VTEC not allowed. |
| | DOHC | 87.0 x 90.7 | 2157 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2040 | VTEC not allowed. |
| | DOHC | 86.9 x 95.0 | 2252 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2090 | |
| K24A | DOHC | 87.0 x 99.0 | 2354 | Alum, Cross-flow | 4 | Unrestricted | 1950 | |

## GT2 Cars - JAGUAR

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| XKE Coupe, Roadster | NA | 2dr | RWD | 96.0 | Roadster windshield may be removed and a low front hoop roll cage fitted. |

## Engines - JAGUAR

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 87.1 x 105.9 | 3781 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 2110 | |
| | DOHC | 92.0 x 105.9 | 4235 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 2110 | |

## GT2 Cars - LOTUS

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Esprit | 75- | 2dr | RWD | 96.0 | |

## Engines - LOTUS

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 95.3 x 76.2 | 2174 | Alum, Cross-flow | 4 | Unrestricted (2)Automotive type | 2040 | |

# GT2 Cars - MAZDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| MX-5 / Miata | 90- | 2dr | RWD | 89.2 | |
| RX-7 | NA | 2dr | RWD | 95.2 / 95.5 / 95.7 | Downing GTS body kit allowed with 75 lbs. weight increase. This "one-off" body allowance is not meant as an open invitation for others to be classified. May run transaxle with 100 lb. weight penalty. |
| RX-8 | NA | 2dr | RWD | 98.0 | May run transaxle with 100 lb. weight penalty. |

## Engines - MAZDA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| 12A | Street Port | | 2292 | | | Unrestricted Automotive type | 1720 | |
| 12A | Street / Bridge / Peripheral Port | | 2292 | | | Unrestricted automotive type | 1810 | |
| 13B | Street / Bridge Port | | 2616 | | | Unrestricted Automotive type | 1810 | |
| 13B | Peripheral Port | | 2616 | | | Unrestricted automotive type | 1900 | |
| Renesis | Street Port | | 2616 | | | Unrestricted Automotive type | 1810 | |
| | DOHC | 89.0 x 79.5 | 2967 | Alum, Cross-flow | 4 | Unrestricted Automotive type | 2090 | Hood bulge allowed. |
| 20B | Street / Bridge / Peripheral Port | | 3924 | | | *Unrestricted Automotive type* | *2280* | |
| 20B | Street / Bridge / Peripheral Port | | 3924 | | | Unrestricted Automotive type | 2500 | Must run +100 lbs. for Grand Am transaxle and independent rear suspension. Must comply with all other GT2 rules. |

# GT2 Cars - MERCEDES BENZ

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 190E | 85-92 | 4dr | RWD | 104.9 | |

## Engines - MERCEDES BENZ

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 82.9 x 80.3 | 2599 | Alum, Cross-flow | 2 | Unrestricted automotive type | 2060 | |

# GT2 Cars - MERCURY

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Capri | 79-86 | 2dr | RWD | 100.8 | |

## Engines - MERCURY

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 93.0 x 68.6 | 2796 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2040 | |
| | OHV | 93.0 x 72.6 | 2934 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2040 | World Products 2.9 OHV cylinder head allowed. |

## GT2 Cars - NISSAN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 240Z / 260Z / 280Z | -78 | 2dr | RWD | 90.7 | Headlight covers allowed. Hood bulge allowed. |
| 280-Z 2+2 | NA | 2dr | RWD | 102.6 | |
| 280-ZX | 79- | 2dr | RWD | 91.3 | |
| 240-SX | NA | 2dr | RWD | 97.5 | |
| 240-SX S13 | NA | 2dr | RWD | 97.5 | Hood bulge allowed. |
| 240-SX S14 | NA | 2dr | RWD | 99.4 | Hood bulge allowed. |
| 300-ZX Z31 | -89 | 2dr | RWD | 91.3 | Hood bulge allowed. |
| 300-ZX Z32 | 90- | 2dr | RWD | 96.5/101.2 | Hood bulge allowed. |
| 350Z/370Z | NA | 2dr | RWD | 97.5 / 99.4 /104.3/90.7 /91.3/102.6 /104.3/91.3 /96.5/101.2 / 104.4 | Doors may be pinned from the bottom at door bar height. Hood bulge allowed. |

## Engines - NISSAN

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| SR20DE/VE | DOHC | 86.0 x 86.0 | 1998 | Alum, Cross-flow | 4 | Unrestricted automotive type | 1830 | |
| L24 | SOHC | 83.0 x 73.3 | 2380 | Alum, Non-Crossflow | 2 | Unrestricted Automotive type | 1950 | |
| KA24E | SOHC | 89.0 x 96.0 | 2389 | Alum, Cross-flow | 3 | Unrestricted | 1920 | |
| KA24DE | DOHC | 89.0 x 96.0 | 2389 | Alum, Cross-flow | 4 | | 1950 | |
| QR25DE/DD | DOHC | 89.0 x 100.0 | 2489 | Alum, Cross-flow | 4 | | 2080 | Direct injection not permitted. |
| VQ25 | DOHC | 85.0 x 73.3 | 2495 | Alum, Cross-flow | 4 | | 2130 | Nismo cyl head #11040RRZ30 and 11090RRZ30 allowed. |
| L26 | SOHC | 83.0 x 79.0 | 2565 | Alum, Non-Crossflow | 2 | Unrestricted Automotive type | 1950 | |
| VG30 | SOHC | 87.0 x 77.2 | 2754 | Alum, Non-Crossflow | 2 | Unrestricted Automotive type | 1950 | |
| L28 | SOHC | 86.1 x 79.0 | 2760 | Alum, Non-Crossflow | 2 | Unrestricted Automotive type | 1950 | |
| L28 | SOHC | 86.1 x 83.0 | 2899 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 2040 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| VG30 | DOHC | 87.0 x 83.0 | 2960 | Alum, Cross-flow | 4 | Automotive type sidedraft w/ 40mm choke(s) | 2140 | An SCCA approved F.I. kit of OEM origin is allowed. Contact the National Office for part numbers and specs. |
| VQ30 | DOHC | 93.0 x 73.3 | 2988 | Alum, Cross-flow | 4 | *Unrestricted Automotive type* | *2200* | Nismo cyl head #11040RRZ30 and 11090RRZ30 allowed. |
| VQ35 w/ VQ30 crankshaft | DOHC | 95.5 x 73.3 | 3150.3 | Alum, Cross-flow | 4 | | 2280 | Nismo cyl head #11040RRZ30 and 11090RRZ30 allowed. |
| VQ30 w/ VQ35 crankshaft | DOHC | 93.0 x 81.4 | 3317.7 | Alum, Cross-flow | 4 | | 2280 | Nismo cyl head #11040RRZ30 and 11090RRZ30 allowed. |
| VG33 | SOHC | 81.5 x 83.0 | 3275 | Alum, Cross-flow | 2 | 40mm chokes | 2090<br>2230 | |
| VG33E | DOHC | 91.5 x 83.0 | 3275 | Alum. Cross-flow | 4 | | 2280 | |
| VQ35 | DOHC | 95.5 x 81.4 | 3498 | Alum, Cross-flow | 4 | | 2280 | Nismo cyl head #11040RRZ30 and 11090RRZ30 allowed. |

## GT2 Cars - PANOZ

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Esperante GTS | NA | 2dr | RWD | 107.6 | Cars must be prepared to Panoz Esperante GTS specifications and competitors must have a copy of the current GTS rules in their possession. Wheels: (F) 18x10 (R) 18x11. Track (F) 64.0 (R) 67.8. Any tire with a diameter of 17" or 18" may be used provided the tire does not exceed a maximum cross section width of 11.5" in the front and 12.5" in the rear; or may use conventional GT2 tires and wheels per GTCS 9.1.2.F.4.c.10. Internal modification to stock Penske 7500 shocks are permitted. Shock seals are not required. Brakes are unrestricted. Front and rear anti-roll bars are unrestricted. Shock and springs are free, transmission type and ratios are free, differential gear ratio only is free (all GT2 transmission rules apply), roof vents allowed per GTCS. |
| Panoz GTWC | NA | 2DR | RWD | 107.6 | Cars must be prepared to Panoz GTWC specifications. Wheels: (F) 18x10 (R) 18x11. Track (F) 64.0 (R) 67.8. Any tire with a diameter of 17" or 18" may be used provided the tire does not exceed a max¬imum cross section width of 11.5" in the front and 12.5" in the rear; or may use conventional GT2 tires and wheels per GTCS 9.1.2.F.4.c.10. Internal modification to stock Penske 7500 shocks are permitted. Shock seals are not required. Brakes are unrestricted. Front and rear anti-roll bars are unrestricted. Shock and springs are free, transmission type and ratios are free, differential gear ratio only is free (all GT2 transmission rules apply), roof vents allowed per GTCS. |

## Engines - PANOZ

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 101.6 x 88.9 | 5754 | Alum, Cross-flow | 2 | Holly 4bbl. 750 cfm #0-4779C. ProForm 67100C throttle body - Panoz part #GTS6-3349 allowed. | 2880 | Maximum compression ratio of 10.5:1. Fresh air intake air cleaner housing Panoz #GTS9-3348 allowed. Engine seals are no longer being installed; engines must comply with Panoz GTS engine requirements available at http://www.scca.com/clubracing/content.cfm?cid=44722. |
| Ford V8 | OHV | 89.45-100.38 x 89.9 | 4.6L | Alum, Cross-flow | 4 | Fuel Injection | 2880 | Fresh air intake air cleaner housing Panoz #GTS9-3348 allowed. Must comply with Panoz GTWC engine requirements available at http://www.scca.com/clubracing/content.cfm?cid=44722. |

## GT2 Cars - PONTIAC

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Fiero | NA | 2dr | FWD | 93.4 | May convert to front engine/rear wheel drive. If OEM engine location is used (i.e. rear-engine) IRS weight penalty is waived. Air cleaner may protrude through engine hatch. |
| Grand Am | NA | 2dr | FWD | 103.4 | |
| Sunfire GT | NA | 2dr | FWD | 104.0 | |

## Engines - PONTIAC

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 86.0 x 94.6 | 2198 | Alum, Cross-flow | 4 | | 1830 | |
| LE5 Ecotech | DOHC | 88.9 x 89.03 | 2210 | Alum, Cross-flow | 4 | | 1830 | GM racing block #XGB615 and cylinder head #XGBH614 allowed. |
| | DOHC | 92.2 x 85.09 | 2272 | Alum, Cross-flow | 4 | Unrestricted Automotive type | 1950 | |
| EcoTec | DOHC | 88.9 x 94.6 | 2349 | Alum, Cross-flow | 4 | | 1950 | GM racing block #XGB615 and cylinder head#XGBH614 allowed. |
| | DOHC | 90.0 x 94.0 | 2392 | Alum, Cross-flow | 4 | | 1950 | |
| | OHV | 101.6 x 76.2 | 2471 | Iron, Cross-flow | 2 | Unrestricted Automotive type | 1810 | |
| | OHV | 101.6 x 82.6 | 2679 | Iron, Cross-flow | 2 | Unrestricted Automotive type | 1900 | |
| | OHV | 89.0 x 76.0 | 2837 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2080 | Factory aluminum cylinder heads allowed. |
| | OHV | 89.0 x 84.0 | 3136 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2150 | |
| | OHV | 92.0 x 84.0 | 3350 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2090<br>2230 | |
| | OHV | 94.0 x 84.0 | 3498 | Iron, Cross-flow | 2 | Unrestricted automotive type | 2140<br>2280 | |

## GT2 Cars - PORSCHE

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 911 Coupe & Targa | 68- | 2dr | RWD | 89.4 | Factory spoiler: 930-512-023-00 & 530-512-021-00 (or kit #930-512-901-01), no reproductions. Windshield may be removed on Targa and a low front hoop roll cage may be fitted. |
| 914-6 | NA | 2dr | RWD | 96.5 | Top panels may remain if bolted or pinned. Roof of alt. material allowed. Windshield may be removed and a low front roll cage may be fitted. 75-76 bumpers allowed. |
| 944 | NA | 2dr | RWD | 94.5 | |
| 968 | NA | 2dr | RWD | 94.5 | |
| Boxster | NA | 2dr | RWD | 95.1 | Top panels may remain if bolted or pinned. Roof of alt. material allowed. Windshield may be removed and a low front roll cage may be fitted. |

| | | | | | |
|---|---|---|---|---|---|
| 996/997 GT3 Cup | 996: 98-05 997: 06-09 | 2dr | RWD | 996: 92.5 997: 92.7 | Cars must be prepared in accordance with the appropriate model/year Porsche factory 911 GT3 Cup parts catalog/service manual. Cars may not be altered in any way except as authorized below. Drivers must have the correct year manuals as they apply to their specific car in their possession. Safety, drivers comfort, driver control and instrumentation items may be modified per the GCR. Original factory installed Matter/IMV roll cages are allowed. The stock unmodified fuel tank is allowed. Side door windows must be removed and windshield clips must be installed per GCR 9.3 Windshield Clips/Rear Window Straps. All other SCCA safety standards apply. The following additional modifications are authorized: Alternate hood provided it is a facsimile of the stock part. Any wheel, including 5 bolt (and the required 5 bolt modification to the hubs) provided they do not exceed 18x9 F and 18x11 R. Tires per GCR 9.3 Tires. Battery size and location is unrestricted. Shocks are unrestricted but they shall be installed in the stock locations with the stock, unmodified pick up points. Any suspension settings are allowed provided they are achieved without modifications. Machining of suspension components and pick up points to achieve caster/camber/toe is not allowed. Lubricants, consumable fluids (brake fluid, coolant etc.) and oil filters are open free. Modifications listed in Grand Am, IMSA Cup, World Challenge or any other rules, except those listed above, are specifically not allowed. No updating or backdating permitted between 996 and 997 cars. 996 required gear ratios: Crown wheel and pinion 8/32; 1st gear 13/41, 2nd gear 20/40, 3rd gear 25/39, 4th gear 29/36 or 26/34, 5th gear 32/33 or 32/35, 6th gear 35/30 or 34/31; 997 required gear ratios: Crown wheel and pinion 8/32; 1st gear 12/38, 2nd gear 15/32, 3rd gear 18/31, 4th gear 20/28, 5th gear 23/26, 6th gear 29/27. Aftermarket exhaust header is allowed (996 only). Paddle shift system allowed with 100 lb. weight penalty. *Factory (OEM manufacturer) Lexan front windows allowed as delivered. ABS allowed with a 100lb. penalty.* |
| *Porsche 991.1 GT3 Cup* | *(14-16)* | *2dr* | *RWD* | *92.7* | *3.8L flat six. 3000lbs. w/62mm Throttle Body Restrictor (TBR). Cars must be prepared in accordance with the appropriate model/year Porsche factory 911 GT3 Cup parts catalog/service manual. Cars may not be altered in any way except as authorized below. Drivers must have the correct year manuals as they apply to their specific car in their possession. Safety, drivers comfort, driver control and instrumentation items may be modified per the GCR. Original factory installed Matter/IMV roll cages are allowed. The stock unmodified fuel tank is allowed. Side door windows must be removed and windshield clips must be installed per GCR 9.3 Windshield Clips/Rear Window Straps. All other SCCA safety standards apply. The following additional modifications are authorized: Alternate hood provided it is a facsimile of the stock part. Any wheel, including 5 bolt (and the required 5 bolt modification to the hubs). Tires per GCR 9.3 Tires. Battery size and location is unrestricted. Shocks are unrestricted but they shall be installed in the stock locations with the stock, unmodified pick up points. Any suspension settings are allowed provided they are achieved without modifications. Machining of suspension components and pick up points to achieve caster/camber/toe is not allowed. Lubricants, consumable fluids (brake fluid, coolant etc.) and oil filters are open free. Modifications listed in Grand Am, IMSA Cup, World Challenge or any other rules, except those listed above, are specifically not allowed. Factory (OEM manufacturer) Lexan front windows allowed as delivered. ABS allowed with a 100lb. penalty.* |
| *997.2 GT3 Cup* | *(10-14)* | *2dr* | *RWD* | *92.7* | *3.8L flat six. 3000lbs. w/70mm Throttle Body Restrictor (TBR). Cars must be prepared in accordance with the appropriate model/year Porsche factory 911 GT3 Cup parts catalog/service manual. Cars may not be altered in any way except as authorized below. Drivers must have the correct year manuals as they apply to their specific car in their possession. Safety, drivers comfort, driver control and instrumentation items may be modified per the GCR. Original factory installed Matter/IMV roll cages are allowed. The stock unmodified fuel tank is allowed. Side door windows must be removed and windshield clips must be installed per GCR 9.3 Windshield Clips/Rear Window Straps. All other SCCA safety standards apply. The following additional modifications are authorized: Alternate hood provided it is a facsimile of the stock part. Any wheel, including 5 bolt (and the required 5 bolt modification to the hubs). Tires per GCR 9.3 Tires. Battery size and location is unrestricted. Shocks are unrestricted but they shall be installed in the stock locations with the stock, unmodified pick up points. Any suspension settings are allowed provided they are achieved without modifications. Machining of suspension components and pick up points to achieve caster/camber/toe is not allowed. Lubricants, consumable fluids (brake fluid, coolant etc.) and oil filters are open free. Modifications listed in Grand Am, IMSA Cup, World Challenge or any other rules, except those listed above, are specifically not allowed. Factory (OEM manufacturer) Lexan front windows allowed as delivered. ABS allowed with a 100lb. penalty.* |

## Engines - PORSCHE

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 80.0 x 66.0 | 1991 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 1900 | OEM 2-valve air-cooled heads may be modified to utilize two spark plugs per cylinder. Alt. head: 911-104-302-OR (w/ sealed injector port). |
| | SOHC | 84.0 x 66.0 | 2195 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 1900 | OEM 2-valve air-cooled heads may be modified to utilize two spark plugs per cylinder. Alt. head: 911-104-302-OR (w/ sealed injector port). |
| | SOHC | 84.0 x 70.4 | 2341 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 1900 | |
| | SOHC | 100.0 x 78.9 | 2478 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 1950 | Alt. 4 valve head #944 104 013 03. |
| | DOHC | 85.5 x 72.0 | 2480 | Alum, Cross-flow | 4 | Unrestricted Automotive type | 1950 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 104.0 x 78.9 | 2681 | Alum, Cross-flow | 2 | | 2020 | |
| | DOHC | 90.0 x 70.4 | 2687 | Alum, Cross-flow | 4 | | 2180 | |
| | SOHC | 100.0 x 88.0 | 2766 | Alum, Cross-flow | 2 | | 2180 | |
| | SOHC | 92.0 x 70.4 | 2808 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 1900 | |
| | DOHC | 104.0 x 88.0 | 2981 | Alum, Cross-flow | 4 | Unrestricted automotive type | 2040 | |
| | DOHC | 105.0 x 94.0 | 3300 | Alum, Cross-flow | 4 | Unrestricted | 2080 | |
| | SOHC | 95.0 x 70.4 | 2992 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 1950 | |
| | DOHC | 93.0 x 78.0 | 3179 | Alum, Cross-flow | 4 | Unrestricted Automotive type | 2230 | |
| | SOHC | Unspecified | 3200 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 2030 | |
| | SOHC | Unspecified | 3400 | Alum, Cross-flow | 2 | Unrestricted (2) Automotive type | 2086 | |
| | DOHC | 100.0 x 76.4 | 3598 | Alum, Cross-flow | 4 | | 2280 | |
| | SOHC | Unspecified | 3600 | Alum, Cross-flow | 2 | | 2160 | |
| | SOHC | Unspecified | 3600 | Alum, Cross-flow | 2 | Unrestricted automotive type | 2140 | |
| | SOHC | Unspecified | 3800 | Alum, Cross-flow | 2 | | 2140 | |
| | SOHC | Unspecified | 3800 | Alum, Crossflow | 2 | Unrestricted automotive type | 2230 | |
| | DOHC | 100.0 x 76.4 | 3598 | Alum, Cross-flow | 4 | OEM fuel injection w/ stock, unmodified throttle body | 996: 2730<br>997:2775 | 996 and 997 Porsche Cup cars only. |

## GT2 Cars - SUNBEAM

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Tiger | NA | 2dr | RWD | 86.0 | Windshield may be removed and a low front hoop roll cage may be fitted. |

## Engines - SUNBEAM

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | OHV | 96.5 x 72.9 | 4265 | Iron, Cross-flow | 2 | Ford C30 FAB, C30F-9510E, C40F-9519-1E* *Manifold: Stock Sunbeam Tiger manifold only. Holley P/N 0-80507-1 (390 CFM) on unrestricted manifold. Spacer is unrestricted. The restrictor plate shall be positioned within 4" of the throttle butterflies. | 2280 | Cylinder Heads: Any Ford 260, 289, or 302 Windsor V-8 cast-iron production cylinder head, delivered on U.S. model cars or trucks, and bearing unmodified factory casting numbers beginning in C, D, E, or F are allowed. Edelbrock "SCCA American Sedan" aluminum heads, part number 602479 are permitted. Competitor shall be able to provide documentation from the manufacturer identifying application(s), displacement, engine family, and casting identification. Ford Motorsport engine blocks P/N M-6010-A50, & M-6010-B50 and M6010-BOSS302 are allowed. |
| | OHV | 101.6 x 72.9 | 4728 | Iron, Cross-flow | 2 | | 2280 | |

## GT2 Cars - TOYOTA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Celica incl. GTS | 82-89 | 2dr | FWD | 99.4 | |
| Celica incl. GTS | 90-05 | 2dr | RWD | 93.7 /99.4 | RWD only. Hood bulge permitted with no openings for 2000-2005. |
| MR-2 | 85-89 | 2dr | RWD | 91.3 | No factory rear spoiler/wing. Fuel cell may be relocated to front trunk area. 3S front engine/rear drive conversion @ 1950 lbs. |
| MR-2 | 91-95 | 2dr | RWD | 94.5 | No factory rear spoiler/wing. Fuel cell may be relocated to front trunk area. 3S front engine/rear drive conversion @ 1950 lbs. |
| Solora | 00- | 2dr | FWD | 107.1 / 102.4/97.0 | |
| Supra | NA | 2dr | RWD | 94.5 | |

## Engines - TOYOTA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| 3S | DOHC | 86.0 x 86.0 | 1998 | Alum, Cross-flow | 4 | Automotive type sidedraft | 1830 | |
| 5S | DOHC | 87.0 x 91.0 | 2164 | Alum, Cross-flow | 4 | Automotive type sidedraft | 1830 | |
| 2RZ | DOHC | 95.0 x 86.0 | 2438 | Alum, Cross-flow | 4 | | 2080 | |
| 5M | DOHC | 83.0 x 85.0 | 2759 | Alum, Cross-flow | 2 | Unrestricted Automotive type | 2040 | |
| 1MZ | DOHC | 87.5 x 83.0 | 2995 | Alum, Cross-flow | 4 | 6 individual throttle bodies w/ 40mm choke(s) | 2140 | |
| 2GR | DOHC | 94.0 x 86.36 | 3594 | Alum, Cross-flow | 4 | | 2280 | |

## GT2 Cars - VOLKSWAGEN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Corrado | NA | 2dr | FWD | 97.3 | |
| Golf incl. GTI | NA | 2dr | FWD | 97.3 | |

## Engines - VOLKSWAGEN

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 82.5 x 92.8 | 1984 | Alum, Cross-flow | 4 | Unrestricted (2) Automotive type | 1860 | |
| | DOHC | 81.0 x 90.3 | 2782 | Alum, Cross-flow | 4 | Unrestricted (2) Automotive type | 2140 | |
| **GT2 TA2 Cars** | | | | | | | | |
| Cars must comply with Appendix L. (2013 rules) or current Trans Am rules.Tire make/size are free. | | | | | | | | |

Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. *Slicks allowed on all GT2/ST cars with a 100-pound weight penalty.*

| GT2/ST | Max. Displacement | Min. Weight | Restrictor | Notes |
|---|---|---|---|---|
| Aston Martin DB9 | 6000 | 3300 | | |
| Aston Martin GT 4 | 4700 | 2900 | | |
| Aston Martin Vantage N24 (07-08) | 4280 | 2800 | | |
| Aston Martin Vantage | 6000 | 3300 | | *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Audi R8 | 5200 | 3200 | 40.5mm | Must meet February 2012 Grand Am Specs. The competitor must have the rules in their possession and present them upon request. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| BMW E46 M3 & E36 / BMW Z3 / BMW 5000cc V8 | 3200 | 2600 | | The 3.4L (87.0 bore x 93.0 stroke) engine is permitted at 2650 lbs. BMW 5000cc V8 is permitted at 3000 lbs. Flossman body kit is permitted. 4.0L V8 permitted at 2900 lbs. |
| BMW M3 E92 (08-09) | 3999 | 2900 | | |

Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. *Slicks allowed on all GT2/ST cars with a 100-pound weight penalty.*

| **GT2/ST** | **Max. Displacement** | **Min. Weight** | **Restrictor** | **Notes** |
|---|---|---|---|---|
| Chevrolet Corvette (-2016) | 5733 | 2950 | | GM V-8 engines with OEM specs 4.00" bore x 3.48" stroke; e.g., LT1, LT4, L98, etc |
| | 6178 | 3150 | | GM LT1/LT4/L98 (only), with alternate 3.75" stroke crankshaft. Max stroke 3.75", max bore 4.04". |
| | 5665 | 3000 | 75mm flat plate | GM LS1, LS6. LS1/LS6 C6 Corvettes using the OEM C6 intake manifold and 90 mm throttle body must use a 75mm flat plate restrictor. OEM 75mm throttle body and manifold do not require a restrictor. |
| | 5967 | 3000 | 75mm flat plate | GM LS2/L76. May use the LSX cast iron block with OEM LS2 bore and stroke. |
| | 6162 | 3000 | 74mm flat plate | Stock OEM LS3. Maximum camshaft lift: intake 8.24 mm, exhaust 7.77mm; rocker arm ratio 1.70:1; maximum compression ratio 10.7:1; cylinder heads must be as delivered from the factory. |
| | 6162 | 3250 | 71mm flat plate | GM LS3 |
| | 6162 | 3250 | 68mm flat plate | GM LT1 |
| | 7011 | 3200 | 65mm flat plate | GM LS7 |
| | 7011 OEM | 3400 | | Stock OEM LS7. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. Must present factory shop manuel upon request. |
| | The top 12 inches of the firewall must be covered with metal or reflective heat shielding material. The OE firewall may also be replaced with a metal panel running between the A-pillars. For Chevrolet Corvette Z06, carbon fiber lip, APR performance part number FA-208026 is permitted. World Challenge body work for C6 Corvette Advanced Composite Products: Deck lid (p/n:C6/A0028), door (RH) (p/n:C6/A0030), door (LH) (p/n:C6/A0031), front fascia (p/n:C6/A0001), rear fascia (p/n:C6/A0011), rear fender (LH)(p/n:C6/A0009), rear fender (RH)(p/n:C6/A0010), front fender (LH)(p/n:C6/A00-L), front fender (RH)(p/n:C6/A00-R), left front mounting rail (p/n:C5A0015-L), right front mounting rail (p/n:C5A0015-R), headlight mounting panel (LH)(p/n:C6/A0018-L), headlight mounting panel (RH)(p/n:C6/A0018-R), headlight cover (RH)(p/n:C6/A0040-WC), headlight cover (LH)(p/n:C6/A0041-WC), hood (p/n:C6/A0021), instrument panel (p/n:C6/A0032), roof (p/n:C6/A0027), rocker (LH)(p/n:C6/A0005), rocker (RH)(p/n:C6/A0006), rear spoiler (C6/A00013), front under tray (p/n:C6/A0022), rear wing (p/n:C6R-1272; 72.25 inches wide including endplates/fasteners) may be used. Note: the max width of the front fascia and splitter is 1930mm (76") edge-to-edge as measured across the bottom of the splitter. LG Motorsports World Challenge Carbon Hood #1958 may be used. Deck lid (p/n:C5/A0028), door (RH) (p/n:C5/A0030), door (LH) (p/n:C5/A0031), front fascia (p/n:C5/A0001 or C5A/0002), rear fascia (p/n:C5/A0011), rear fender (LH)(p/n:C5/A0009), rear fender (RH)(p/n:C5/ A0010), front fender (LH)(p/n:C5/A0048-L), front fender (RH)(p/n:C5/A0048-R), left front mounting rail (p/n:C5A0015LT), right front mounting rail (p/n: C5A0015RT), headlight mounting panel (LH)(p/n:C5A0018-L), headlight mounting panel (RH)(p/n:C5/A0018-R), hood (p/n:C5/A0029), instrument panel (p/n:C5/A0032), roof (p/n:C5/A0027), rocker (LH)(p/n:C5/A0005), rocker (RH)(p/n:C5/A0006), rear spoiler (C5/A00013), front under tray (p/n:C5/A0022), rear wing (p/n:C5/A0012-CF-72") may be used. Black Dog W/C carbon fiber nose for Corvettes part#BDWC-FFSCX-CKP-P. Must be an exact OEM duplicate part. | | | |

Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. *Slicks allowed on all GT2/ST cars with a 100-pound weight penalty.*

| GT2/ST | Max. Displacement | Min. Weight | Restrictor | Notes |
|---|---|---|---|---|
| Cadillac CTS/CTS-V<br>Chevrolet Camaro<br>Pontiac Fiero<br>Pontiac Firebird<br>Pontiac GTO<br>Pontiac Solstice | 5733 | 2950 | | GM V-8 engines with OEM specs 4.00" bore x 3.48" stroke; e.g., LT1, LT4, L98, etc |
| | 6178 | 3150 | | GM LT1/LT4/L98 (only), with alternate 3.75" stroke crankshaft. Max stroke 3.75", max bore 4.04". |
| | 5665 | 2950 | | GM LS1, LS6 |
| | 5967 | 3240 | | GM LS2/L76. May use the LSX cast iron block with OEM LS2 bore and stroke. |
| | 6162 | 3110 | | Stock OEM LS3. Maximum camshaft lift: intake 8.24 mm, exhaust 7.77mm; rocker arm ratio 1.70:1; maximum compression ratio 10.7:1; cylinder heads must be as delivered from the factory. |
| | 6162 | 3350 | | GM LS3 |
| | 7011 | 3300 | 75mm flat plate or 45mm SIR | GM LS7 |
| | 7011 | 3500 | 80mm flat plate | GM LS7 |
| | Chassis-specific notes: Camaro/Firebird: Aftermarket K members are permitted. Pontiac Solstice: May use hardtop GM PCS-0664 or equivalent aftermarket. May compete with stock fuel tank. | | | |
| Dodge Viper, incl Comp Coupe, ACR/ ACR-X | 7990 | 3300 | | |
| | 8000 | 3300 | | |
| | 8300 OEM | 3300 | | Stock OEM engine. Engine long block, valve train, and intake system must meet stock, shop manual specifications. Hybrid update including Mopar Performance Part #P5156137 and 8.4L mechanical throttle body allowed. |
| | 8300 | 3300 | (2) 55mm flat plates | Hybrid update including Mopar Performance Part # P5156137 and 8.4L mechanical throttle body allowed using (2) 50 mm flat plate restrictors. |
| | 8400 | 3300 | (2) 50mm flat plates | Intake and Throttle Body from Mopar Performance Part # P5156137 allowed using (2) 45mm flat plate restrictors. |
| | 8400 OEM | 3400 | | Stock OEM engine. Engine long block, valve train, and intake system must meet stock, shop manual specifications. 19 inch Dodge Viper ACR-X wheels as delivered from the factory are permitted. |
| | Chassis-specific Notes: OEM fuel tank may be used. OEM Rear Spoiler may be used in its original configuration. | | | |
| Ferrari 360 | 3600 | 2780 | | |
| Ferrari 430 Challenge | 4310 | 2950 | | Must be prepared to the 2006 Ferrari Challenge engine and transmission specifications; The competitor must have the rules in their possession and present them upon request; DOT tires per 9.1.4.P.1; weight as specified; side windows must be removed; OEM carbon brakes or the Ferrari steel brakes from the 360 Challenge car (F 355 x 32 vented disc, R 330 x 18 vented disc) are permitted; If 18 inch "360" brakes are used, 18 inch wheels are permitted; 19 inch Ferrari Challenge wheels as delivered from factory permitted. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Ford Mustang/ Thunderbird | 4600 | 2380 | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |

Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. *Slicks allowed on all GT2/ST cars with a 100-pound weight penalty.*

| GT2/ST | Max. Displacement | Min. Weight | Restrictor | Notes |
|---|---|---|---|---|
| Ford V6 | 4000 | 2800 | | Rotrex C38-81 supercharger permitted. |
| Ford 5.0L "Cammer" engine | 5000 | 3000 | | "Boss" intake manifold permitted. |
| Ford 5.0L "Coyote" engine | 5000 | 3000 | | "Boss" intake manifold permitted. |
| Ford Mustang Challenge | 4600 | 3300 | | Must be prepared to World Challenge GTS rules dated 11/16/2011. Competitor must have Ford factory FR500S specifications in their possession. |
| Ford Mustang/ Thunderbird (pushrod) | 5000 | 2550 | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| Ford Mustang/ Thunderbird (Boss 302) | 5000 | 3100 | | Allow Laguna Seca intake manifold and throttle body. OEM independent rear suspension is permitted. |
| Ford Mustang/ Thunderbird | 5400 | 2790 | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| Ford Mustang/ Thunderbird | 5800 | 3000 | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| Ford Mustang (05-09) | 5687 | 3250 | | Aftermarket K members are permitted. Allow Ford racing crate engine DS 347 SR w/650 CFM Holley Carb. Competitor must have "Proper Engine Spec" documentation in possession. All other ST rules apply. |
| *Ginetta G55* | *3700* | *2650* | | *Must comply with FIA-GT4 specs. Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Lotus Evora GT4 | 4000 | 2750 | | |
| Maserati GT4 | 4700 | 3100 | 65mm | Must comply with WC rules. *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Maserati Trofeo Light | 4244 | 2900 | | *Factory (OEM manufacturer) Lexan front windows allowed as delivered.* |
| Panoz Esperante GTS | 5800 | 3000 | | |
| Porsche Cayman (05-11) | 3600 | 2875 | | |
| *Porsche Cayman GT4 Clubsport* | *3800* | *2950* | | *Cars must comply to 2017 GT4 specs.* |
| Porsche 944 | 2500 | 2700 | | May use Jayco super 50 Turbo. |
| Porsche 996 | 3600 | 2808 | | |
| Saleen SR | 5800 | 3190 | | |

Note: Cars must comply with 2012 STO rules as stated in Appendix K of the GCR. Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used. *Slicks allowed on all GT2/ST cars with a 100-pound weight penalty.*

| GT2/ST | Max. Displacement | Min. Weight | Restrictor | Notes |
|---|---|---|---|---|
| Toyota Supra (93-98) | 4300 | *2900* | | Max. valve lift is .600". Max. compression ratio of 12.1:1. Must conform to Appendix K STO rules. The following parts are approved: Front Bumper - RDT0-001; Side Skirt - RDT0-002; Front Fenders - RDT0-006; Front Splitter - RDT0-007; Rear Fenders - RDT0-009; Front Fender Panel - RDT0-013. *Toyota OEM intake manifold part #00647-17101-001 permitted.* |

# GT3 Cars - ACURA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Integra | -93 | 2dr | FWD | 96.5 | |
| Integra | -94 | 2dr | FWD | 101.2 | |
| RSX | 02/05/09 | 2dr | FWD | 96.5/101.2 | *Stock fuel tank allowed.* |

## Engines - ACURA

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| D16A | SOHC | 75 | 90 | 1590 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| B16A | DOHC | 81 | 77.4 | 1595 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| B18C | DOHC | 81 | 87.2 | 1797 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| B18B | DOHC | 81 | 89 | 1834 | Alum, Crossflow | 4 | Unrestricted | 2060 | |
| F20C | DOHC | 87 | 84 | 1997 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| K20A | DOHC | 86 | 86 | 1998 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| K24 | DOHC | 87 | 99 | 2354 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |

# GT3 Cars - ALFA ROMEO

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| GTV 1750 / 2000 | NA | 2dr | RWD | 92.5 | |
| Sport Sedan | NA | 2dr | RWD | 98.8 | |

## Engines - ALFA ROMEO

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | DOHC | 80 | 88.5 | 1779 | Alum, Crossflow | 2 | Unrestricted | *1805* | Alt. Heads: 19510-01053-04, 60541066, 60567584 (all twin plug) w/ 100 lb. penalty |
| | DOHC | 84 | 88.5 | 1962 | Alum, Crossflow | 2 | Unrestricted | 1960 | Alt. Heads: 19510-01053-04, 60541066, 60567584 (all twin plug) w/ 100 lb. penalty |

# GT3 Cars - AMC

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Gremlin | -78 | 2dr | RWD | 96 | 33mm SIR at 2270 lbs. |

| | | | | | |
|---|---|---|---|---|---|
| Spirit | -79 | 2dr | RWD | 96 | 33mm SIR at 2400 lbs. |

## Engines - AMC

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 95.3 | 88.8 | 2537 | Iron Crossflow | 2 | Holley 5210/2V | 2455 | |
| | OHV | 95.3 | 88.9 | 3805 | Iron Crossflow | 2 | Carter YF-1V, Holley 500 CFM 2bbl | 2680 | |

## GT3 Cars - AUDI

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| TT Coupe | NA | 2dr | FWD | 95.6 / 97.3 | |

## Engines - AUDI

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 82.5 | 92.8 | 1984 | Alum, Crossflow | 2 | Unrestricted | 1960 | Alt. Eurospec Sports cyl. head may be used. |
| | DOHC | 82.5 | 92.8 | 1984 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |

## GT3 Cars - BMW

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 2002 / 2002ti/tii | NA | 2dr | RWD | 100.5/98.5 | |
| 318 Coupe (E36) | -92 | 2dr | RWD | 106 | |
| 318i (E30) | 83-91 | 4dr | RWD | 101.2 | |
| 318i / 320i (E21) | 77-82 | 4dr | RWD | 100.9 | |
| E46 | 0 | 2, 4dr | RWD | 106.0 / 101.2 / 100.9 | |
| Z3 | NA | 2dr | RWD | 96.3 | |

## Engines - BMW

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 89 | 71 | 1767 | Alum, Crossflow | 2 | Unrestricted | *1805* | |
| | DOHC | 84 | 81 | 1796 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| | DOHC | 85 | 83.5 | 1895 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 89 | 80 | 1991 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | DOHC | 93 | 84 | 2302 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |

## GT3 Cars - CHEVROLET

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Cavalier Z-24 | NA | 2dr/4dr | FWD | 101.2 | |
| Corvair Coupe / Yenko Stinger | NA | 2dr | RWD | 108 | Corvair coupes may be modified to Yenko configuration. Non-tube frame track 59.7 (F), 62.9 (R). Rear wheel width: 8". Engine may be centered (side to side) to allow installation of alternate transaxle. |
| Vega | NA | 2dr | RWD | 97 | |

## Engines - CHEVROLET

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 86 | 86 | 1998 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | DOHC | 88.9 | 80.3 | 1998 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| | SOHC | 88.9 | 92.1 | 2287 | Iron, Non-Crossflow | 2 | Unrestricted | 2060 | |
| | OHV | 87.4 | 74.7 | 2689 | Alum, Crossflow | 2 | (2) Weber 40 IDT or IDA w/ 36mm choke(s) or (4) Rochester 7025023 &7026026 1.5" 1 bbl carbs | 2290 | |

## GT3 Cars - CHRYSLER/DODGE/PLYMOUTH

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Neon | NA | 2dr, 4dr | FWD | 104 | |
| Daytona / Laser | 84-88 | 2dr | FWD | 97 | |
| Daytona / Laser | -89 | 2dr | FWD | 97.3 | |
| Horizon | NA | 2dr | FWD | 96.7 | |
| Omni 024 / Shelby Charger | 79-82 | 2dr | FWD | 96.6 | |
| Shadow | NA | 2dr | FWD | 97 | |

## Engines - CHRYSLER/DODGE/PLYMOUTH

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 85 | 88 | 1997 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | DOHC | 85 | 88 | 1997 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| | SOHC | 87.5 | 92 | 2213 | Alum, Non-Crossflow | 2 | Unrestricted | 2060 | |

## GT3 Cars - FIAT

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 131 Coupe & Sedan, Brava | NA | 2dr, 4dr | RWD | 98 | |

## Engines - FIAT

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | DOHC | 84.1 | 89.9 | 1995 | Alum, Crossflow | 2 | Unrestricted | 1960 | |

## GT3 Cars - FORD

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Capri | NA | 2dr | RWD | 100.8 | |
| Mustang II | 74-78 | 2dr | RWD | 96.2 | |
| Mustang | 79-93 | 2dr | RWD | 100.4 | |
| Mustang | 94-98 | 2dr | RWD | 101.2 | |
| Mustang | 10-11 | 2dr | RWD | 101.0/107.1 | |
| Pinto | NA | 2dr | RWD | 94 | Non-tube frame track: 60.52 (F&R). Spoiler: #D9FZ-6440555-A, End Pieces: D9FZ-6428010-A and D9FZ-6428011-A. |
| Probe | NA | 2dr | FWD | 99.0/102.9 | |

## Engines - FORD

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 91 | 77 | 1993 | Iron, Crossflow | 2 | Unrestricted | 1960 | |
| | SOHC | 86 | 86 | 1998 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | SOHC | 86 | 94 | 2189 | Alum, Crossflow | 3 | 31mm SIR | 2130 | |
| Duratech | DOHC | 87.5 | 94 | 2260 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 96 | 79.4 | 2301 | Iron, Crossflow | 2 | Unrestricted | 2130 | Alt. Head: SVO #M-6049-A230 |

## GT3 Cars - HONDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Civic | 88-91 | 3dr | FWD | 90.6 | Hood bulge allowed, no openings. |
| Civic Coupe | 92-95 | 2dr | FWD | 98.4 | |
| *Civic Coupe* | *2017-* | *2dr* | *FWD* | *106.3* | |
| Civic Si | 06-10 | 2dr/4dr | FWD | 2dr: 104.3<br>4dr: 106.3 | Hood bulge allowed, no openings. |
| CRX | 84-87 | 3dr | FWD | 86.6 | Hood bulge allowed, no openings. |
| CRX | 88-91 | 3dr | FWD | 90.6 | Hood bulge allowed, no openings. |
| CRZ | 10-14 | 3dr | FWD | 95.9 | |
| Insight | 00-06 | 2dr | FWD | 94.5 | |
| S2000 | 00-09 | 2dr | RWD | 94.5 | |

## Engines - HONDA

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| EW | SOHC | 74 | 86.5 | 1488 | Alum, Crossflow | 3 | Unrestricted | *1690* | Alt. heads: #12100-PE3-000 or #12100-PE7-000. |
| D15B | SOHC | 75 | 84.5 | 1493 | Alum, Crossflow | 4 | Unrestricted | *1690* | |
| D16A | SOHC | 75 | 90 | 1590 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| B16A | DOHC | 81 | 77.4 | 1595 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| B18C | DOHC | 81 | 87.2 | 1797 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| B18B | DOHC | 81 | 89 | 1834 | Alum, Crossflow | 4 | Unrestricted | 2060 | |
| F20C | DOHC | 87 | 84 | 1997 | Alum, Crossflow | 4 | 31mm SIR | 2060 | *K24 crankshaft allowed with a 31mm SIR at 2195 lbs.* |
| K20A | DOHC | 86 | 86 | 1998 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| K24 | DOHC | 87 | 99 | 2354 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |

## GT3 Cars - MAZDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| *323* | *85-89* | *3dr* | *FWD* | *94.5* | |
| 626 | 83-87 | 4dr | FWD | 98.8 | |

| | | | | | |
|---|---|---|---|---|---|
| MX-3 | NA | 2dr | FWD | 96.3 | |
| MX-5 / Miata | -05 | 2dr | RWD | 89.2 / 91.0 | |
| MX-5 | 06-10 | 2dr | RWD | 91.7 | |
| *MX-5 Miata* | *2016-* | *2dr* | *RWD* | *91.0* | |
| *MX-5 Miata RF* | *2017-* | *2dr* | *RWD* | *91.0* | |
| MX-6 | -88 | 2dr | FWD | 99.0/102.8 | |
| RX-2 | NA | 2dr | RWD | 97.3 | |
| RX-3 | NA | 2dr | RWD | 91 | |
| RX-7 | NA | 2dr | RWD | 95.3 / 95.5 / 95.7 | Non-tube frame track: 63.2 (F), 62.8 (R). |
| RX-7 | NA | 2dr | RWD | 95.2 / 95.5 / 95.7 | Must run GT3 spec engine with 150 lb. disenfranchised GT2 weight penalty. |
| RX-8 | NA | 2dr | RWD | 98 | |
| Protégé | NA | 4dr | FWD | 98.4 | |

## Engines - MAZDA

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| B6D | DOHC | 78 | 83.6 | 1597 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| BP | DOHC | 83 | 85 | 1839 | Alum, Crossflow | 4 | Unrestricted | 2060 | |
| | SOHC | 86 | 86 | 1998 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| MZR | DOHC | 87.38 | 83.06 | 1999 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| | SOHC | 86 | 94 | 2189 | Alum, Crossflow | 2 | Unrestricted | 2060 | |
| MZR | DOHC | 87.5 | 94 | 2260 | Alum, Crossflow | 4 | 31mm SIR | 2195 | Hood bulge allowed w/ no openings. |
| MZR/L5-VE | DOHC | 89.0 | 100.0 | 2488 | Alum, Crossflow | 4 | 31mm SIR | 2195 | Direct injection not permitted. |
| 12A | Street Port | | | 2292 | | | Unrestricted | 2060 | Contact National Office for specific details of various allowable port configurations. |
| 12A | Bridge Port | | | 2292 | | | (1) auto-type 2bbl w/ 40mm choke(s). | 2060 | Contact National Office for specific details of various allowable port configurations. |
| 12A | Peripheral Port | | | 2292 | | | 37mm SIR | 2250 | Contact National Office for specific details of various allowable port configurations. |
| 13B | Street Port | | | 2616 | | | Unrestricted | 2130 | Contact National Office for specific details of various allowable port configurations. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13B | Bridge / Peripheral Port | | 2616 | | | 37mm SIR | 2250 | Contact National Office for specific details of various allowable port configurations. |
| 13B | Bridge/Peripheral Port | | 2626 | | | 37mm SIR | 2400 | GT2 spec |
| Renesis | Street Port | | 2616 | | | Unrestricted | 2250 | Contact National Office for specific details of various allowable port configurations. |
| Renesis | Bridge / Peripheral Port | | 2616 | | | 37mm SIR | 2250 | Contact National Office for specific details of various allowable port configurations. |

## GT3 Cars - MERCURY

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Capri | 79-86 | 2dr | FWD | 100.4 | |
| Cougar | 99-02 | 2dr | FWD | 103.0 / 106.4 | |

## Engines - MERCURY

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 91 | 77 | 1993 | Iron, Crossflow | 2 | Unrestricted | 1960 | |
| | SOHC | 96 | 79.4 | 2301 | Iron, Crossflow | 2 | Unrestricted | 2130 | Alt. Head: SVO #M-6049-A230 |

## GT3 Cars - MITSUBISHI / EAGLE

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Eclipse | NA | 2dr | FWD | 97.3 | |
| *Lancer* | *00-07* | *4dr* | *FWD* | *102.4* | |
| *Lancer* | *2017* | *4dr* | *FWD* | *102.4* | *Body work must conform to all GT3 specs.* |
| Talon | NA | 2dr | FWD | 97.3 | |

## Engines - MITSUBISHI / EAGLE

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *4G93* | *DOHC* | *81.0* | *89.0* | *1834* | *alum crossflow* | | *unrestricted* | *2060* | *Direct injection is not allowed.* |
| | SOHC | 85 | 88 | 1997 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | DOHC | 85 | 88 | 1997 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |
| | SOHC | 97.5 | 92 | 2213 | Alum, Non-Crossflow | 2 | Unrestricted | 2060 | |

# GT3 Cars - NISSAN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 200-SX / S10 | 77-79 | 2dr | RWD | 92.1 | |
| 200-SX / S11 | 80-83 | 2dr | RWD | 94.5 | |
| 200-SX / S12 | 84-88 | 2dr | RWD | 95.5 | |
| 200-SX SER | 95-97 | 2dr | RWD | 95.7 / 99.8 | |
| 240-SX / S13 | NA | 2dr | RWD | 97.5 | Hood bulge allowed, no openings. |
| 240-SX / S14 | NA | 2dr | RWD | 99.4 | Hood bulge allowed, no openings. |
| 240Z / 260Z / 280Z | NA | 2dr | RWD | 90.7 | |
| 280-ZX | 79-83 | 2dr | RWD | 91.3 | Disenfranchised GT2 car allowed with 150lbs weight penalty. |
| 300-ZX | NA | 2dr | RWD | 91.3 / 96.5 / 101.2 | |
| 350Z/370Z | NA | 2dr | RWD | 95.3 / 98.4 /104.3/94.5 / 92.1/95.3 / 97.5/ 99.4 / 104.3 | |
| 710 | NA | 2, 4dr | RWD | 98.4 | |
| PL510 | NA | 2, 4dr | RWD | 95.3 | |
| Sentra SER Spec V | 2002 | 4dr | FWD | 95.7 | |

# Engines - NISSAN

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| L18 | SOHC | 85 | 78 | 1770 | Alum, Non-Crossflow | 2 | Unrestricted | *1755* | Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120. |
| L20 | SOHC | 85 | 86 | 1952 | Alum, Non-Crossflow | 2 | Unrestricted | 1855 | Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120. |
| L20 w/ Z22 block | SOHC | 87.0 | 86.0 | 2045 | Alum, Non-Crossflow | 2 | Unrestricted | 1960 | Alt. Heads: #11041-22010, 11041-U0600-A, 11-41_U0602-SV, 11041-21901, 11041-N7120 |
| L20 w/Z22 block (Alternate Disp) | SOHC | 87.0 | 92.0 | 2188 | Alum, Non-Crossflow | 2 | Unrestricted | 2010 | Alt. Heads: #10141-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120 |
| | SOHC | 84.5 | 88.0 | 1974 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| QR25DE/DD | DOHC | 89.0 | 80.3 | 1988 | Alum, Crossflow | 4 | 31mm SIR | 2060 | Direct injection not permitted. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SR20DE/VE | DOHC | 86.0 | 86.0 | 1998 | Alum, Crossflow | 4 | 31mm SIR | 2060 | High port (89-94) and low port (95-01) allowed. |
| NAPZ | SOHC | 87.0 | 92.0 | 2188 | Alum, Non-Crossflow | 2 | Unrestricted | 1960 | |
| L24 | SOHC | 83.0 | 73.3 | 2380 | Alum, Non-Crossflow | 2 | Unrestricted | 2060 | |
| KA24E | SOHC | 89.0 | 96.0 | 2389 | Alum, Crossflow | 3 | 32mm SIR | 2195 | For 2011-2012 only, may use 32mm chokes at 2280 lbs. |
| KA24DE | DOHC | 89 | 96 | 2389 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |
| QR25DE/DD | DOHC | 89.0 | 100.0 | 2489 | Alum, Crossflow | 4 | 31mm SIR | 2195 | Direct injection not permitted. |
| L26 | SOHC | 83.0 | 79.0 | 2565 | Alum, Non-Crossflow | 2 | 33mm SIR | 2130 | |
| L28 | SOHC | 86.1 | 79.0 | 2760 | Alum, Non-Crossflow | 2 | 33mm SIR | 2130 | |
| L28 | SOHC | 86.1 | 79.0 | 2760 | Alum, Non-crossflow | 2 | 33mm SIR | 2280 | GT2 spec |
| VG30 | SOHC | 87.0 | 83.0 | 2960 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |

## GT3 Cars - PONTIAC

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Fiero | NA | 2dr | RWD | 93.4 | May convert to front engine/rear wheel drive. If OEM engine location is used (rear engine) IRS weight penalty is waived. Air cleaner may protrude through engine hatch. |
| Sunfire GT | NA | 2dr | FWD | 104.0 | Disenfranchised GT2 car allowed with 150 lbs weight penalty. |

## Engines - PONTIAC

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 101.6 | 82.55 | 2677 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |
| | DOHC | 86.0 | 94.6 | 2198 | Alum, Crossflow | 4 | 31mm SIR | 2280 | |
| LE5 Ecotech | DOHC | 88.9 | 89.03 | 2210 | Alum, Crossflow | 4 | 31mm SIR | 2280 | GM racing block #XGB615 and cylinder head #XGBH614 allowed. |
| | DOHC | 88.9 | 94.6 | 2349 | Alum, Crossflow | 4 | 31mm SIR | 2345 | |

## GT3 Cars - PORSCHE

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 911 Coupe & Targa | -68 | 2dr | RWD | 87.0 / 89.4 | Windshield may be removed on Targa and a low front hoop may be fitted. Rear rim width: 8". Factory spoiler: #930-512-023-00 & 930-512-021-00 (or kit #930-512-901-01). No alternate materials or reproductions. |
| 914 | NA | 2dr | RWD | 96.5 | Top panels may remain if securely bolted or pinned. Windshield may be removed and a low front hoop roll cage fitted. (75-76) bumpers allowed. |

| | | | | | |
|---|---|---|---|---|---|
| 924 | NA | 2dr | RWD | 94.5 | |
| 944 | NA | 2dr | RWD | 94.5 | |
| Boxster | NA | 2dr | RWD | 96.5 | |

## Engines - PORSCHE

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 94 | 70.9 | 1968 | Alum, Crossflow | 2 | Unrestricted | 1960 | Cylinder barrels may be of alternate material. Alt. head: Type 1/Type 3. OEM 2-valve air cooled heads may be modified to utilize two (2) spark plugs per cylinder. |
| | SOHC | 86.5 | 84.4 | 1984 | Alum, Crossflow | 2 | Unrestricted | 1960 | Alt. Head: #933-104-302-50. |
| | SOHC | 80 | 66 | 1991 | Alum, Crossflow | 2 | Unrestricted | 1960 | OEM 2-valve air cooled heads may be modified to utilize two (2) spark plugs per cyl. Alt Head: 911-104-302-OR (w/sealed injector port). |
| | SOHC | 84 | 66 | 2195 | Alum, Crossflow | 2 | Unrestricted | 2060 | OEM 2-valve air cooled heads may be modified to utilize two (2) spark plugs per cyl. |
| | SOHC | 84 | 70.4 | 2341 | Alum, Crossflow | 2 | Unrestricted | 2130 | |
| | SOHC | 100 | 78.9 | 2478 | Alum, Crossflow | 2 | 33mm SIR | 2270 | Alt. 4 valve head: #944 104 013 03 w/ 31mm SIR @ 2270lbs . |
| | SOHC | 104 | 78.9 | 2681 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |
| | SOHC | 90 | 70.4 | 2687 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |
| | SOHC | 100 | 88 | 2766 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |
| | SOHC | 92 | 70.4 | 2808 | Alum, Crossflow | 2 | 33mm SIR | 2270 | |
| | SOHC | 95 | 70.4 | 2992 | Alum, Crossflow | 2 | 33mm SIR | 2270 | OEM 2-valve air cooled heads may be modified to utilize two (2) spark plugs per cyl. |

## GT3 Cars - SAAB

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 900 | -79 | 2dr | FWD | 99.4 | |
| 99E, CM, EMS, GL, LE | NA | 2/4dr | RWD | 97.4 | |
| Sonnet III | NA | 2dr | FWD | 84.6 | |

## Engines - SAAB

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 89.9 | 66.8 | 1698 | Iron, crossflow | 2 | Unrestricted | *1805* | |
| | SOHC | 87 | 78 | 1854 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | SOHC | 90 | 78 | 1985 | Alum, Crossflow | 2 | Unrestricted | 1960 | |
| | DOHC | 90 | 78 | 1985 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |

## GT3 Cars - SCION

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| tC | -5 | 2dr | FWD | 93.7 | May use any class legal Toyota engine. |

## GT3 Cars - TOYOTA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Celica | 94-99 | 2dr | FWD | 99.4 | |
| Celica | 00-05 | 2dr | FWD | 102.4/93.7 | |
| Celica Sport, Coupe GT, ST, Liftback GT | NA | 2dr | FWD | 98.3 | |
| Corolla | NA | 2/4dr | FWD | 94.5/102.4 / 93.7 | |
| MR-2 | -89 | 2dr | RWD | 91.3 | |
| MR-2 | 00-05 | 2dr | RWD | 91.3 | |
| Paseo | 92-99 | 2dr | FWD | 93.7 | |
| Tercel | -91 | 4dr | FWD | 95.3 / 93.7 | |

## Engines - TOYOTA

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 4AG | DOHC | 81 | 77 | 1587 | Alum, Crossflow | 4 | Unrestricted | *1740* | |
| 4AG | DOHC | 81 | 85.5 | 1762 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| 7AFE | DOHC | 81 | 85.5 | 1762 | Alum, Crossflow | 4 | Unrestricted | *1910* | Alternate heads 11101-16010 and 11101-16030. 77mm stroke allowed at 1855 lbs. (must run identical deck height as 4AG block). |
| | OHV | 85 | 78 | 1770 | Alum, Crossflow | 2 | Unrestricted | *1805* | 2TG cyl. head allowed. |
| 1ZZ | DOHC | 79 | 91.5 | 1794 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| 2ZZ | DOHC | 82 | 85 | 1796 | Alum, Crossflow | 4 | Unrestricted | *1910* | |
| 3S | SOHC | 84.2 | 90.1 | 1998 | Alum, Crossflow | 2 | Unrestricted | 1960 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5S | DOHC | 87 | 91 | 2164 | Alum. Crossflow | 4 | 31mm SIR | 2130 | |
| 20R | SOHC | 88.5 | 89 | 2189 | Alum, Crossflow | 2 | Unrestricted | 2060 | |
| 2AZ | DOHC | 88.5 | 96 | 2362 | Alum, Crossflow | 4 | 31mm SIR | 2195 | |
| 2RZ | DOHC | 95 | 86 | 2438 | Alum, Crossflow | 4 | 31mm SIR | 2195 | Alt. head: #11101-75015. |

## GT3 Cars - TRIUMPH

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| GT6, GT6+ & Mk III | -74 | 2dr | RWD | 83 | |
| TR-250 / TR-6 | NA | 2dr | RWD | 88 | Windshield may be removed and a low front hoop roll cage fitted. |

## Engines - TRIUMPH

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 74.4 | 75.9 | 1998 | Iron, Non-Crossflow | 2 | Unrestricted | 1855 | |
| | OHV | 74.4 | 95 | 2498 | Iron, Non-Crossflow | 2 | Unrestricted | 2130 | |

## GT3 Cars - VOLKSWAGEN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Beetle | 98-01 | 2dr | FWD | 98.9 | |
| Corrado | NA | 3dr | FWD | 97.3 | |
| Golf & GTI | NA | 3, 5dr | FWD | 97.3 / 98.9 | |
| Jetta | NA | 4dr | FWD | 97.3 | |
| Rabbit | 75-84 | 3, 5dr | FWD | 94.5 | |
| Scirocco | NA | 3dr | FWD | 94.5 | |

## Engines - VOLKSWAGEN

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | SOHC | 79.5 | 86.4 | 1715 | Alum, Non-Crossflow | 2 | Unrestricted | *1755* | Alt. Heads: #026-103-373G, 049-103-351C, Eurospec Sports head at 1805 lbs. |
| | SOHC | 81 | 86.4 | 1780 | Alum, Crossflow | 2 | Unrestricted | *1805* | Alt. Heads: #026-103-373G, 049-103-351C, Eurospec Sports head at 1805 lbs. |
| | DOHC | 81 | 86.4 | 1780 | Alum, Crossflow | 4 | Unrestricted | *1910* | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 058, 06A, 06B | DOHC | 81 | 86.4 | 1780 | Alum, Crossflow | 5 | Unrestricted | *1910* | |
| | SOHC | 82.5 | 92.8 | 1984 | Alum, Crossflow | 2 | Unrestricted | 1960 | Alt. Heads: #026-103-373G, 049-103-351C, Eurospec Sports head at 1855lbs. |
| | DOHC | 82.5 | 92.8 | 1984 | Alum, Crossflow | 4 | 31mm SIR | 2060 | |

## GT3 Cars - VOLVO

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 122S | NA | 2dr | RWD | 102.5 | |
| 142 / 142E | NA | 2dr | RWD | 102.5 | |
| 242 / 244DL | NA | 2dr | RWD | 104 | |
| S40 | NA | 4dr | FWD | 100.4 | |
| 1800 E/S/ES | NA | 3dr | RWD | 96.5 | |

## Engines - VOLVO

| Engine Family | Engine Type | Bore (mm) | Stroke (mm) | Disp. (cc) | Head Type | Valves / Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | OHV | 88.9 | 80.0 | 1986 | Iron, Non-Crossflow | 2 | Unrestricted | 1855 | |
| B20 | SOHC | 92.0 | 80.0 | 2127 | Alum, Crossflow | 2 | Unrestricted | 2060 | |
| B21 | SOHC | 96.0 | 80.0 | 2320 | Alum, Crossflow | 2 | Unrestricted | 2130 | |
| B1234 | DOHC | 96.0 | 80.0 | 2320 | Alum, Crossflow | 4 | 31mm SIR | 2130 | |

## GT3 World Challenge Grand Am spec ST cars

Must be prepared to 2014 Grand Am spec ST rules. Competitor must provide rules upon request.

## GT3 World Challenge spec TC cars

Must be prepared to 2014 World Challenge TC rules. Competitor must provide rules upon request.

## GTL Cars - Acura

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Integra | (-93) | 2dr | FWD | 96.5 | May use any class legal Honda engine. |
| Integra | (94-) | 2dr | FWD | 101.2 | May use any class legal Honda engine. |
| RSX | (02-05) | 2dr | FWD | 96.5 / 101.2 | May use any class legal Honda engine. |

## GTL Cars - ALFA ROMEO

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| GT-1300 Junior | NA | 2dr | RWD | 92.5 | |
| GTA Junior | NA | 2dr | RWD | 92.5 | |
| Alfetta GT | NA | 2dr | RWD | 94.5 | |
| Guilia 1300 | NA | 2dr | RWD | 98.8 | |
| Guilia 1300 TI | NA | 2dr | RWD | 98.8 | |
| GTV 1600 | NA | 2dr | RWD | 92.5 | |
| GTV 1750 / 2000 | NA | 2dr | RWD | 92.5 | |
| Giulietta Spider / Giulia Spider | NA | 2dr | RWD | 86.6 / 88.6 | |
| All Spider Models | (-94) | 2dr | RWD | 88.6 | |

## Engines - ALFA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 78.0 x 67.5 | 1130 | Alum, Crossflow | 2 | Unrestricted | 1605 | |
| | DOHC | 74.0 x 75.0 | 1290 | Alum, Crossflow | 2 | Unrestricted | 1605 | |
| | DOHC | 80.0 x 67.5 | 1357 | Alum, Crossflow | 2 | Unrestricted | 1605 | |
| | DOHC | 78.0 x 82.0 | 1570 | Alum, Crossflow | 2 | 24.5mm SIR | 1935 | |
| | DOHC | 80.0 x 75.0 | 1508 | Alum, Crossflow | 2 | 24.5mm SIR | 1905 | |
| | DOHC | 80.0 x 88.5 | 1779 | Alum, Crossflow | 2 | 24mm SIR | 2040 | Alt. head: 19510-01053-04 (twin plug). |

## GTL Cars - AMC

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| AMC/Renault Alliance | NA | 3dr | FWD | 93.5 | |
| AMC/Renault Encore | NA | 2dr | FWD | 93.5 | |

## Engines - AMC/Renault

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | OHV | 73.0 x 77.0 | 1289 | Alum, Crossflow | 2 | Unrestricted | 1660 | Alternate crossflow head #7700597627. |
| | OHV | 76.0 x 77.0 | 1397 | Alum, Crossflow | 2 | 24.5mm SIR | 1850 | Alternate crossflow head #7700597627. |

## GTL Cars - BMC thru Rover Group

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Austin-Healey Sprite | NA | 2dr | RWD | 80.0 | Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 4/1/82. |
| MGB & MGB-GT | NA | 2dr | RWD | 91.0 | |
| MG Midget | NA | 2dr | RWD | 80.0 | Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 4/1/82. |
| Mini Cooper | NA | 2dr | FWD | 80.2 | 1) Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82.<br>2) Reduce by 100 lbs with original suspension and 10" wheels.<br>3) Front and rear body seams may be removed.<br>4) Full flat bottom floors are permitted.<br>5) Rear valance panel may be removed or modified.<br>6) Rain gutters may be modified. |
| Austin America | NA | 2dr | FWD | 93.5 | |
| BMW Mini | 2002- | 2dr | FWD | 97.1 | |
| Triumph Spitfire | NA | 2dr | RWD | 83.0 | Roll cage meeting requirements for cars under 1500 lbs. are acceptable for cars registered prior to 4/1/82. |

## Engines - BMC thru Rover Group

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| MG "B" Series | OHV | 80.3 x 88.9 | 1798 | Iron, non-Crossflow | 2 | 24.5mm SIR | 2035 | |
| Mini | OHV | 62.992 x 76.2 | 948 | Iron, non-Crossflow | 2 | Unrestricted | *1210* | *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs.* |
| Mini | OHV | 70.6 x 61.91 | 970 | Iron, non-Crossflow | 2 | Unrestricted | *1235* | *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs*. Pierce aluminum cylinder head part #99003.843 allowed. |
| Mini | OHV | 70.6 x 68.26 | 1071 | Iron, non-Crossflow | 2 | Unrestricted | *1330* | *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs.* Pierce aluminum cylinder head part #99003.843 allowed. |
| Mini | OHV | 64.516 x 83.82 | 1098 | Iron, non-Crossflow | 2 | Unrestricted | *1380* | *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs.* |
| Triumph Spitfire | OHV | 69.34 x 76.2 | 1147 | Iron, non-Crossflow | 2 | Unrestricted | 1530 | |
| Mini/Sprite/Midget | OHV | 2.78 x 3.20 (70.6 x 81.33)<br><br>alt. bore: 73.5 max. or 74.0 max. | 1275<br><br>1380<br>1399 | Iron, non-Crossflow | 2 | Unrestricted | *Mini:*<br>1275@*1570*<br>1380@*1650*<br>1399@*1670*<br>Sprite/ Midget:<br>1275@1680<br>1380@1760<br>1399@1780 | *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs.* Pierce aluminum cylinder head part #99003.843 allowed. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mini/Sprite/Midget | OHV | 2.78 x 3.20<br>(70.6 x 81.33)<br><br>alt. bore:<br>73.5 max. or<br>74.0 max. | 1275<br><br><br>1380<br>1399 | Alum.<br>Crossflow | 2 | Unrestricted<br>24.5mm SIR<br>24.5mm SIR<br><br>Unrestricted<br>24.5mm SIR<br>24.5mmSIR | *Mini:*<br>1275@*1700*<br>1380@*1900*<br>1399@*1939*<br>Sprite/<br>Midget:<br>1275@1680<br>1380@1760<br>1399@1780 | See all notes above. Pierce 7 port alum. crossflow cylinder head part #99003.849 is allowed. Mini Spares 8 port alum. Crossflow cylinder head part #C-AHT346 is allowed. *Any mini that retains the OE common sump gearbox configuration may reduce their weight by 50 lbs.* |
| Triumph Spitfire | OHV | 73.66 x 75.997 | 1296 | Iron, non-crossflow | 2 | Unrestricted | 1680 | |
| Triumph Spitfire | OHV | 73.66 x 87.376 | 1493 | Iron, non-crossflow | 2 | 25mm SIR | 1895 | |
| BMW Mini<br>W10B16 | SOHC | 77.0 x 85.8 | 1598 | Alum,<br>Crossflow | 4 | 23.5mm SIR | 1950 | |

## GTL Cars - BMW

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 1600-2 / 1602 | NA | 2dr | RWD | 98.5 | |
| Z3 | 96-02 | Roadster | RWD | 96.3 | |

## Engines - BMW

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 84.0 x 71.0 | 1573 | Alum,<br>Crossflow | 2 | 24.5mm SIR | 1935 | |
| M42B19 | DOHC | 84.0 x 81.0 | 1796 | Alum,<br>Crossflow | 4 | 22.5mm SIR | 2070 | |

## GTL Cars - DODGE

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Colt Coupe | NA | 2dr | FWD | 96.0 | Mitsubishi bodywork allowed. |
| Omni | NA | 2dr | FWD | 99.2 | |
| 024 | 1978 | 2dr | FWD | 96.7 | |

## Engines - DODGE

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 79.0 x 86.0 | 1597 | Alum,<br>Crossflow | 2 | 24.5mm SIR | 1950 | |
| | SOHC | 79.5 x 86.4<br>alt. bore: 81.0 | 1715<br>1781<br>1715<br>1781 | Alum, non-Crossflow<br>Alum.<br>Crossflow | 2 | 24.5mm SIR<br>24.5mm SIR<br>24mm SIR<br>24mm SIR | 2010<br>2040<br>2010<br>2040 | |

## GTL Cars - FIAT

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 124 Sport Coupe | NA | 2dr | RWD | 95.3 | |
| 124 Special | NA | 2dr | RWD | 95.3 | |

| | | | | | |
|---|---|---|---|---|---|
| 128 Coupe | NA | 2dr | FWD | 87.5 | |
| 128 | NA | 2dr | FWD | 96.4 | |
| 131 Coupe | NA | 2dr | RWD | 98.0 | |
| 131 Sedan | NA | 4dr | RWD | 98.0 | |
| X19 | NA | 2dr | RWD | 86.7 | |

## Engines - FIAT

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 80.0 x 55.5 | 1116 | Alum, Non-Crossflow | 2 | Unrestricted | 1365 | |
| | SOHC | 86.0 x 55.5 | 1290 | Alum, Non-Crossflow | 2 | Unrestricted | 1595 | Roll cage meeting requirements for cars under 1500 lbs are acceptable for cars registered prior to 1/1/82. |
| 1300 w/ 1500 block | SOHC | 86.0 x 55.5 | 1290 | Alum, Non-Crossflow | 2 | Unrestricted | 1620 | |
| | OHV | 80.0 x 71.5 | 1438 | Alum, Non-Crossflow | 2 | 25mm SIR | 1870 | |
| | SOHC | 86.4 x 64.0 | 1498 | Alum, Non-Crossflow | 2 | 25mm SIR | 1900 | |
| | DOHC | 80.0 x 79.2 | 1592 | Alum, Crossflow | 2 | 24.5mm SIR | 1945 | |
| | DOHC | 80.0 x 80.0 | 1608 | Alum, Crossflow | 2 | 24.5mm SIR | 1955 | |
| | DOHC | 84.0 x 79.2 | 1756 | Alum, Crossflow | 2 | 24mm SIR | 2040 | |

# GTL Cars - FORD

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Anglia Super | NA | 2dr | RWD | 90.5 | |
| Cortina GT | 64-68 | 2dr | RWD | 98.0 | |
| Escort Super | 68-74 | 2dr | RWD | 96.0 | |
| Escort Lynx, EXP, LN7 | 81-90 1982 | 2dr | FWD | 94.2 | |
| Escort Mexico | 70-74 | 2dr | RWD | 96.0 | |
| Fiesta | 78-80 | 2dr | FWD | 90.0 | |
| Pinto | NA | 2dr | RWD | 94.0 | Non-tube frame track: (F&R) 60.52" |

## Engines - FORD

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 3.19 x 2.29 | 1198 | Iron, Non-crossflow | 2 | Unrestricted | 1550 | Alternate 1500cc Block: casting # 27333E6015 @ +23 lbs. |
| | OHV | 3.19 x 2.48 | 1297 | Iron, Non crossflow | 2 | Unrestricted | 1550 | Alternate 1500cc Block: casting # 27333E6015 w/ 23 lb penalty, 1600cc block w/ 25 lb penalty. Any Formula F cyl. head may be used, including aluminum version w/ 75 lb. penalty. |
| | OHV | 81.0 x 73.2 | 1499 | Iron, Non crossflow | 2 | 25mm SIR | 1900 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 78.0 x 83.6 | 1597 | Alum Crossflow | 4 | 23.5mm SIR | 1950 | |
| | OHV | 81.0 x 77.5 | 1598 | Iron, Crossflow | 2 | 24.5mm SIR | 1950 | Any Formula F cylinder head may be used, including aluminum version. |
| | SOHC | 80.0 x 79.5 | 1598 | Alum, Crossflow | 2 | 24.5mm SIR | 1950 | |
| Zetec | DOHC | 80.6 x 88.0 | 1796 | Alum, Crossflow | 4 | 22.5mm SIR | 2050 | Alt. 2.0L cyl block may be sleeved to specified bore size. |
| | DOHC | 83.0 x 85.0 | 1839 | Alum Crossflow | 4 | 22.5mm SIR | 2070 | |

## GTL Cars - HONDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Civic | 73-79 | 3dr | FWD | 86.6 | |
| Civic | 80-87 | 3dr | FWD | 88.6 | |
| Civic | 84-87 | 2dr, 3dr | FWD | 93.7 | Hood bulge permitted, no openings. |
| Civic | 84-87 | 4dr | FWD | 96.5 | Hood bulge permitted, no openings. |
| Civic | 88-91 | 3dr | FWD | 98.4 | Hood bulge permitted, no openings. |
| Civic | 92-95 | 2dr | FWD | 103.2 | Hood bulge permitted, no openings. |
| Civic | 96-06 | 2dr | FWD | 103.2 | Hood bulge permitted, no openings. |
| Civic | 06-09 | 2dr | FWD | 104.3 | |
| Civic Coupe | 96-00 | 2dr | FWD | 101.3 | |
| *Civic Coupe* | *2017-* | *2dr* | *FWD* | *106.3* | |
| Civic Del Sol | 93-97 | 2dr | FWD | 93.3 | |
| Civic Hatchback | 96-00 | 2dr | FWD | 103.2 | |
| CRX | 84-87 | 3dr | FWD | 86.6 | Hood bulge permitted, no openings. May mount wing per hatchback-station wagon spec, but no part of the wing assembly may be above the highest point of the roof. May utilize IRS with a 2.5% weight penalty |
| CRX | 88-91 | 3dr | FWD | 90.6 | Hood bulge permitted, no openings. May mount wing per hatchback-station wagon specs, but no part of the wing assembly may be above the highest point of the roof. May utilize IRS with a 2.5% weight penalty |
| CRZ | 10-14 | 3dr | FWD | 95.9 | |
| *CRZ* | *15-16* | *3dr* | *FWD* | *103.1* | |
| Insight | 00-06 | 2dr | FWD | 94.5 | |

## Engines - HONDA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| EB | SOHC | 70.0 x 76.0 | 1170 | Alum, Crossflow | 2 | Unrestricted | 1590 | Alt heads: #12100-634-000. |
| EB | SOHC | 72.0 x 76.0 | 1237 | Alum, Crossflow | 2 | Unrestricted | 1675 | Alt heads: #12100-634-000. |
| EN | SOHC | 72.0 x 82.0 | 1335 | Alum, Crossflow | 3 | 24mm SIR | 1820 | Alt. Heads: #12100-PB9-000 (2 valve, Crossflow w/ unrestricted fuel induction at 1719 lbs), 12100-PA1-000. |
| EW | SOHC | 74.0 x 78.0 | 1342 | Alum, Crossflow | 3 | 24mm SIR | 1820 | Alt. Heads: #12100-PE3-000 or 12100-PE7-000. |
| EW | SOHC | 74.0 x 86.5 | 1488 | Alum, Crossflow | 3 | 24mm SIR | 1895 | Alt. Heads: #12100-PE3-000 or 12100-PE7-000. |
| D15 | SOHC | 75.0 x 84.5 | 1493 | Alum, Crossflow | 4 | 23mm SIR | 1895 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| D15b7 | SOHC | 75.0 x 84.5 | 1493 | Alum, Crossflow | 4 | Fuel Injection | 1895 | Comp. Ratio limited to 11.0:1, Valve lift limited to .390". Valve size: (I) 29.0mm (E) 25.0mm, drysump and alternate connecting rods allowed. Refer to PCS 9.1.5.E.2.a,e,f,g,h,I for permitted limited prep level 2 build specs. |
| Fit | DOHC | 73.0 x 89.4 | 1497 | Alum Cross-flow | 4 | 23mm SIR | 1900 | |
| D16 | SOHC | 75.0 x 90.0 | 1590 | Alum, Crossflow | 4 | 23.5mm SIR | 1945 | |
| D16A | DOHC | 75.0 x 90.0 | 1590 | Alum, Crossflow | 4 | 23.5mm SIR | 1945 | |
| B16A | DOHC | 81.0 x 77.4 | 1595 | Alum, Crossflow | 4 | 23.5mm SIR | 1950 | |
| B18 | DOHC | 81.0 x 87.2<br>81.0 x 89.0 | 1797<br>1834 | Alum, Crossflow | 4 | 22.5mm SIR | 2050<br>2065 | |

## GTL Cars - Hyundai

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Accent | 2010- | 2DR | RWD | 97.0 | |

## GTL Cars - KIA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Rio | 00-05 | 4dr | RWD | 95.0 | |
| Rio | 06-11 | 4dr/5dr | RWD | 98.4 | |
| Rio | 12-17 | 4dr/5dr | RWD | 101.9 | |
| Forte | 09-12 | 2dr/4dr | RWD | 104.3 | |
| Forte | 13-17 | 2dr/4dr | RWD | 106.3 | |

## Engines - KIA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| Gamma | DOHC | 77.0 x 85.44 | 1591 | Alum, Crossflow | 4 | 23.5mm SIR | 1950 | |
| BP | DOHC | 83.0 x 85.0 | 1839 | Alum, Crossflow | 4 | 22.5 mm SIR | 2270 | |

## GTL Cars - LANCIA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Scorpion | 76-77 | 2dr | RWD | 90.5 | Trunk mounted fuel cell is permitted. Fabric roof panel may be replaced with alternate material. Non-tube frame track (R) 61.5". |

## Engines - LANCIA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 84.0 x 79.2 | 1756 | Alum, Crossflow | 2 | 24mm SIR | 2030 | |

## GTL Cars - LOTUS

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Cortina | 64-66 | 2dr | RWD | 97.5 | |
| Cortina | 67 | 2dr | RWD | 98.0 | |
| Elan S2, S4 (Rdstr, Cpe, Drphead) | NA | 2dr | RWD | 84.0 | Windshield may be removed and a low front hoop roll cage may be fitted. |
| Europa | | 2dr | RWD | 91.0 | |

## Engines - LOTUS

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 82.6 x 73.0 | 1558 | Alum, Crossflow | 2 | 24.5mm SIR | 1930 | Alternate cylinder heads allowed: Ford 1500 Non-crossflow and Ford 1600 crossflow (including aluminum version) |

## GTL Cars - MAZDA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Protégé | 1999 | 2dr | FWD | 96.5/98.4/ 102.8 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| Protégé 5 | 2002 | 5dr | FWD | 96.3/102.8 | OEM roof spoiler is permitted (P/N:B25T-51-960C-XX, "XX"=color code) Engine setback from the front spindle centerline to the front spark plug is 4.5 |
| GLC | NA | 2dr | FWD | 93.1/98.4 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| MX-3 | 92-94 | 2dr | FWD | 91.1/96.3 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| MX-5 / Miata | 90-05 | 2dr | RWD | 89.2 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| MX-5 | 06-10 | 2dr | RWD | 91.7 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| 323 | 88-91 | 2dr | FWD | 94.5 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| 3 | | 2dr | FWD | 97.0 | Rotary engine setback from the front spindle centerline to the front spark plug is 4.5". |
| RX-3 | | 2dr | RWD | 91.0 | |
| RX-7 | | 2dr | RWD | 95.3, 95.5, 95.7 | Non-tube frame track (F) 60.7" (R) 60.3". |

## Engines - MAZDA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 73.0 x 76.0 | 1272 | Alum, Crossflow | 2 | Unrestricted | 1680 | 1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B. |
| | SOHC | 77.0 x 69.6 | 1296 | Alum, Crossflow | 2 | Unrestricted | 1645 | 1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B. |
| | SOHC | 77.0 x 80.0 | 1490 | Alum, Crossflow | 2 | 24.5mm SIR | 1895 | Alt. Head: #E515-10-100B. |
| | SOHC | 78.0 x 83.6 | 1597 | Alum, Crossflow | 2 | 24.5mm SIR | 1950 | |
| | DOHC | 78.0 x 83.8 | 1597 | Alum, Crossflow | 4 | 23.5mm SIR | 1900 | |
| | DOHC | 83.0 x 85.0 | 1839 | Alum, Crossflow | 4 | 22.5mm SIR | 2070 | |
| 12A | Street Port | | 2292 | | | 27mm SIR | 2000 | |
| 13B | Street Port | | | | | 24mm SIR | 1950 | |

## GTL Cars - NISSAN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| PL510 | 68-73 | 2dr, 4dr | RWD | 95.3 | |
| 1200 (B110) | 70-73 | 2dr | RWD | 90.6 | |
| B210 | 74-78 | 2dr, 3dr, 4dr | RWD | 92.1 | |
| Note | 2016 | 5dr. | FWD | 94.0/97.0 | |
| 210 (B310) | 79-82 | 2dr, 3dr, 4dr | RWD | 92.1 or 94.2 | |
| SPL 311/311U | NA | 2dr | RWD | 89.9/95.7 | |
| Pulsar (N12) | 83-86 | 3dr | FWD | 95.1 | |
| Pulsar (KN13) | 87-90 | 3dr | FWD | 95.1 | |
| Sentra | 2016 | 2dr., 4dr. | FWD | 94.0/97.0 | |
| Sentra (B11) | 82-85 | 2dr, 3dr, 4dr | FWD | 94.5 | |
| Sentra (B12) | 86-90 | 2dr, 3dr, 4dr | FWD | 94.5 | |
| Sentra (B13) | 91-94 | 2dr, 4dr | FWD | 95.7 | |
| 200SX | 75-79 | 2dr | RWD | 92.0 | |
| 200SX SE-R (B14) | 95-97 | 2dr | FWD | 95.7 or 99.8 | |
| 240SX (S13/S14) | NA | 2dr | RWD | 97.5 | |
| Sentra SE-R (B15U) | 2002 | 4dr | FWD | 95.7 or 99.8 | |
| Versa | 2016 | 5dr. | FWD | 94.0/97.0 | |

## Engines - NISSAN

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| A12 | OHV | 73.0 x 70.0 alt. bore: 75.2 max. | 1171 1243 (w/ alt. bore) | Alum, Non-crossflow | 2 | Unrestricted | 1550 (1590 w/ alt. bore) | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A12A | OHV | 75.0 x 70.0 alt. bore: 77.2 max. | 1237 1310 (w/ alt. bore) | Alum, Non-crossflow | 2 | Unrestricted | 1645 (1685 w/ alt. bore) | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A12A w/A14 Block | OHV | 75.0 x 70.0 alt. bore: 77.2 max. | 1237 1310 (w/ alt. bore) | Alum, Non-crossflow | 2 | Unrestricted | 1665 (1705 w/ alt. bore) | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A13 | OHV | 73.0 x 77.0 alt. bore: 75.2 max. | 1288 1368 (w/ alt. bore) | Alum, Non-crossflow | 2 | Unrestricted | 1720 (1760 w/ alt. bore) | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A14 | OHV | 76.0 x 77.0 | 1397 | Alum, Non-crossflow | 2 | 25mm SIR | 1850 | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A15 | OHV | 76.0 x 82.0 | 1488 | Alum, Non-crossflow | 2 | 25mm SIR | 1895 | Alt heads: #11041-H2303, 11041-H5704, 11041-H9204. |
| A16H | OHV | 76.0 x 88.0 | 1597 | Non-crossflow | 2 | 25mm SIR | 1950 | Must use A14/15 “A” series block. Must use non crossflow “A” series cylinder. |
| E15 | SOHC | 76.0 x 82.0 | 1488 | Alum, Crossflow | 2 | 24.5mm SIR | 1895 | Alt head: #11041-15M00. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| E16 | SOHC | 76.0 x 88.0 | 1597 | Alum, Crossflow | 2 | 24.5mm SIR | 1950 | Alt heads: #11041-15M00, 11041-17M00. |
| GA16 | DOHC | 76.0 x 88.0 | 1597 | Alum, Crossflow | 4 | 23.5mm SIR | 1950 | |
| L16 | SOHC | 83.0 x 73.7 | 1595 | Alum, Non-crossflow | 2 | 25mm SIR | 1950 | Alt Heads: #11041-22010, 11041-U0600A, 11041-U0602-SV, 11041-N7120, 11041-21901. |
| L16 (Limited Prep) | SOHC | 83.0 x 73.7 | 1596 | Alum. Non-Crossflow | 2 | (2) auto type sidedrafts w/ 32mm choke(s). | 1950 | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". Valve size: (I) 41.9mm (E) 33.0mm, drysump and alternate connecting rods allowed. Refer to PCS 9.1.5.E.2.a,e,f,g,h,i for permitted limited prep level 2 build specs. |
| R16 (Limited Prep) | 4 cyl OHV | 3.43 x 2.63 | 1596 | Iron or Alum, non crossflow | 2 | (2) auto type sid-edrafts w/32mm choke(s). | 1950 | Comp. Ratio limited to 12.0:1. Valve lift limited to .450". Valve size: (I) 41.9mm (E) 33.0mm. Drysump and alternate connecting rods allowed. Refer to PCS 9.1.5.E.2.a.e.f.g.h.i for permitted limited prep level 2 build specs. |
| SR16VE | DOHC | 86.0 x 68.7 | 1596 | Alum, Crossflow | 4 | 23.5mm SIR | 1950 | Alt. Heads: #11040-1N591. |
| QG18DE | DOHC | 80.0 x 88.0 | 1769 | Alum, Crossflow | 4 | 22.5mm SIR | 2035 | |
| L18 | SOHC | 85.0 x 78.0 | 1770 | Alum, Non-Crossflow | 2 | 24.5mm SIR | 2035 | #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120. |
| MR18DE | DOHC | 84.0 x 81.1 | 1797 | Alum. Crossflow | 4 | 22.5mm SIR | 2050 | |
| CA18 | SOHC | 83.0 x 83.6 | 1809 | Alum, Crossflow | 2 | 24mm SIR | 2055 | |
| CA18DE | DOHC | 83.0 x 83.6 | 1809 | Alum, Crossflow | 4 | 22.5mm SIR | 2055 | |

## GTL Cars - OPEL

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 1900 | 1995 | 2dr | RWD | 95.7 | |
| Mk 51 | | 2dr | RWD | 95.7 | |
| Mk 53 | | 2dr | RWD | 95.7 | |
| Sport Coupe Rallye | | 2dr | RWD | 95.7 | |
| Mk 57R | | 2dr | RWD | 95.7 | |
| Sport Coupe | | 2dr | RWD | | |
| Mk 77 | | 2dr | RWD | 95.7 | |
| GT 1900 | 1995 | 2dr | RWD | 95.7 | |

## Engines - OPEL

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 93.0 x 69.9 | 1897 | Iron, Non-crossflow | 2 | 24.5mm SIR | 2100 | |

## GTL Cars - PORSCHE

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 914-4 | | 2dr | RWD | 96.5 | |
| *Porsche Boxster* | | *2dr* | *RWD* | *96.5* | *May utilize any engine listed in GTL VW engine spec line.* |

## Engines - PORSCHE

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 93.0 x 66.0 | 1795 | Alum, Crossflow | 2 | 24mm SIR | 2050 | Material may be added as required only to relocate spark plug hole as per 2.0L head. Alum crossflow head from 2.0L may be utilized. |
| | OHV | 90.0 x 66.0 | 1679 | Alum, Crossflow | 2 | 24mm SIR | 1990 | Material may be added as required only to relocate spark plug hole as per 2.0L head. Alum crossflow head from 2.0L may be utilized. |

## GTL Cars - RENAULT

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| R5 | NA | 2dr | FWD | 94.6 | Left Hand Drive Wheelbase - 95.8. See AMC/Renault for engines. |
| R1228 | 1978 | 2dr | FWD | 96.6 | Left Hand Drive Wheelbase - 95.8. See AMC/Renault for engines. |
| LeCar | 78-79 | 2dr | FWD | 94.6 | Left Hand Drive Wheelbase - 95.8. (Firewall modifications permitted with use of alt. head.) Removal only of rain rail permitted, no modification. See AMC/Renault for engines. |

## GTL Cars - SAAB

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Sedan | -1964 | 4dr | FWD | 98.4 | |
| Sonet V4 | 67-69 | 2dr | FWD | 84.6 | |
| Sonet III | 70-74 | 2dr | FWD | 84.6 | |

## Engines - SAAB

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | OHV | 90.0 x 58.9 | 1498 | Iron, crossflow | 2 | 24.5mm SIR | 1900 | Alternate intake manifold: #379050. |
| | OHV | 90.0 x 66.8 | 1698 | Iron, crossflow | 2 | 24mm SIR | 2000 | Alternate intake manifold: #379050. |

## GTL Cars - SCION

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Xa | (05-06) | 5dr | FWD | 93.3 | May use any class legal Toyota engine. |

## GTL Cars - SUBARU

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| GL Coupe | NA | 2dr | FWD | 96.6 | CVT transmission prohibited. |
| Justy (2WD) | 88-94 | 2dr | FWD | 89.9 | CVT transmission prohibited. |

## Engines - SUBARU

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | SOHC | 78.0 x 83.0 | 1189 | Alum, Crossflow | 3 | Unrestricted | 1545 | |
| | OHV | 3.23 x 2.36 | 1267 | Alum, Non-crossflow | 2 | Unrestricted | 1675 | |

# GTL Cars - SUZUKI

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Swift | 89-94 | 2dr | FWD | 89.2 | |
| Swift | 89-94 | 4dr | FWD | 93.1 | |
| Swift | 95-01 | 2dr | FWD | 93.1 | |

## Engines - SUZUKI

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| | DOHC | 74.0 x 75.5 | 1299 | Alum, Crossflow | 4 | 23mm SIR | 1800 | |

# GTL Cars - TOYOTA

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| Celica | 00-05 | 2dr | FWD | 102. 4 or 93.7 | |
| Corolla 1200 | NA | 2dr | RWD | 90.0 or 91.9 | Rollcage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82 |
| Corolla SR-5 | -74 | 2dr | RWD | 91.9 | |
| Corolla SR-5 | 75 | 2dr | RWD | 93.3 | |
| Corolla Sport Coupe & Lift Back | 76-79 | 2dr, 3dr, 4dr | | 93.3 | |
| Corolla | 80-83 | 2dr, 3dr | RWD | 94.5 | |
| Corolla | 84 | 2dr, 3dr, 4dr | RWD | 90.6 | |
| Corolla Sport / Sport Coupe (8V) | 84-87 | 2dr, 3dr | RWD | 94.5 | |
| Corolla SR-5 / Sport Coupe | 88 | 2dr | FWD | 95.7 | |
| MR2 | 85-89 | 2dr | RWD | 91.3 | Hood bulge allowed. |
| MR2 | 91-95 | 2dr | RWD | 91.3 | Hood bulge allowed. |
| Starlet | 81 | 3dr | RWD | 90.6 | |
| Tercel | 91- | 2dr, 3dr | FWD | 93.7/95.3 | |
| Paseo | 92-99 | 3dr | FWD | 93.7 | |

## Engines - TOYOTA

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| 3K | OHV | 75.0 x 66.0 | 1166 | Alum, Non-Crossflow | 2 | Unrestricted | 1610 | |
| 4K | OHV | 75.0 x 73.0 | 1290 | Alum, Non-Crossflow | 2 | Unrestricted | 1645 | |
| | OHV | 77.5 x 77.0 | 1452 | Alum, Non-Crossflow | 2 | 25mm SIR | 1875 | |
| 5K | OHV | 80.5 x 73.0 | 1486 | Alum, Non-Crossflow | 2 | 25mm SIR | 1895 | |
| 4A-C/L/LC | SOHC | 81.0 x 77.0 | 1587 | Alum, Non-Crossflow | 2 | 25mm SIR | 1945 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4AG | DOHC | 81.0 x 77.0 | 1587 | Alum, Crossflow | 4 | 23.5mm SIR | 1945 | |
| 4AG | DOHC | 81.0 x 85.5 | 1762 | Alum, Crossflow | 4 | 22.5mm SIR | 2030 | Must run identical deck height as 4AG block. |
| 2T-C | OHV | 85.0 x 70.0 | 1588 | Alum, Crossflow | 2 | 24.5mm SIR | 1945 | |
| 7AFE | DOHC | 81.0 x 85.4 | 1762 | Alum, Crossflow | 4 | 22.5mm SIR | 2030 | Alternate heads 11101-16010 and 11101-16030. 77mm alternate stroke permitted at 2040 lbs. |
| 3TC | OHV | 85.0 x 78.0 | 1770 | Alum, Crossflow | 2 | 24mm SIR | 2035 | |
| 1ZZ | DOHC | 79.0 x 91.5 | 1794 | Alum, Crossflow | 4 | 22.5mm SIR | 2045 | |
| 2ZZ | DOHC | 82.0 x 85.0 | 1796 | Alum. Crossflow | 4 | 22.5mm SIR | 2050 | |

## GTL Cars - VOLKSWAGEN

| Model | Years | Body Style | Drive-line | Wheel-base (in) | Notes |
|---|---|---|---|---|---|
| 1300/1500/1600 (Bug) | 65-69 | 2dr | rear engine | 94.5 | |
| 1600 (Bug) / Super Beetle | 70-77 | 2dr | rear engine | 95.3 | |
| Rabbit | 75-84 | 3dr, 5dr | FWD | 94.5 | |
| Scirocco | | 3dr | FWD | 94.5 | |
| Corrado | | 3dr | FWD | 97.3 | |
| Fox | 88-92 | 2dr | FWD | 92.8 | |
| Golf | 85- | 3dr, 5dr | FWD | 94.5 | |
| Golf Mark - IV | | 3dr, 5dr | FWD | 98.9 | |
| Jetta Mark - IV | | 4dr | FWD | 98.2 | |
| Beetle | 98-01 | 3dr | FWD | | |
| Cabriolet | 75-84 | 3dr | FWD | 94.5 | |

## Engines - VOLKSWAGEN

| Engine Family | Engine Type | Bore x Stroke (mm) | Disp. (cc) | Head Type | Valves/ Cyl. | Fuel Induction | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|
| air cooled, flat 4 | OHV | 77.0 x 69.0 | 1285 | Alum, Non-Crossflow | 2 | Unrestricted | 1520 | Siamesed intake port. |
| air cooled, flat 4 | OHV | 77.0 x 69.0 | 1285 | Alum, Non-Crossflow | 2 | Unrestricted | 1615 | Dual intake port. |
| water cooled | SOHC | 79.5 x 73.4 | 1457 | Alum, non-crossflow | 2 | 25mm SIR | 1880 | |
| water cooled | SOHC | 76.5 x 80.0 | 1471 | Alum, Non-Crossflow | 2 | 25mm SIR | 1885 | Alt. Heads: #026-103-373G, 049-103-351C, Eurospec Sports head. |
| air cooled, flat 4 | OHV | 83.0 x 69.0 | 1493 | Alum, Crossflow | 2 | 24.5mm SIR | 1895 | Alt. Heads: #043-101-375H. |
| air cooled, flat 4 | OHV | 85.5 x 69.0 | 1584 | Alum, Crossflow | 2 | 24.5mm SIR | 1940 | Alt. Heads: #043-101-375H. |
| water cooled | SOHC | 79.5 x 80.0 | 1588 | Alum, Non-Crossflow | 2 | 25mm SIR | 1945 | Alt. Heads: #026-103-373G, 049-103-351C, Eurospec Sports head. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| air cooled | OHV | 90.0 x 66.0 | 1679 | Alum, Crossflow | 2 | 24mm SIR | 1990 | Alt. Heads: #043-101-375-H. |
| water cooled | SOHC | 79.5 x 86.4 | 1715 | Alum, Non-Crossflow | 2 | 24.5mm SIR | 2010 | Alt. Eurospec cyl. head may be used. |
| water cooled | SOHC | 81.0 x 86.4 | 1780 | Alum, Non-Crossflow | 2 | 24.5mm SIR | 2040 | Alt. Eurospec cyl. head may be used. 8 valve aluminum crossflow head may be used. Must run 24mm SIR at 2050 lbs. as this is a change to the original engines architecture. |
| water cooled | DOHC | 81.0 x 86.4 | 1780 | Alum, Crossflow | 4 | 22.5mm SIR | 2040 | |
| water cooled (Production Limited Prep Level 2) | SOHC | 81.0 x 86.4 | 1780 | Alum, Non-Crossflow | 2 | Fuel injection or Two (2) 45mm carbs restricted to 32mm venturis | 2040 | Comp. Ratio limited to 12.0:1, Valve lift limited to .425". Use of manufacture's 52mm throttle body permitted. Intake manifold inlet may be machined to throttle body mating surface to a depth of no more than one inch. Drysump and alternate rods allowed. Refer to PCS 9.1.5.E.2.a.e,f.g.h.i for limited prep level 2 build specs. |
| 058, 06A and 06B | DOHC | 81.0 x 86.4 | 1780 | Alum Crossflow | 5 | 22.5mm SIR | 2040 | |
| air cooled | OHV | 93.0 x 66.0 | 1795 | Alum, Crossflow | 2 | 24mm SIR | 2050 | Alt. Heads: #043-101-375-H. |

NOTES:

## 9.1.2.G. GTA CATEGORY SPECIFICATIONS (REGIONAL ONLY)

The following rules are intended to allow competitors to use proven stock-car technology to compete in SCCA road racing events at a reasonable cost. The philosophy of GTA is to provide opportunities to build a car from readily available stock-car parts.

I. General Specifications

A. All cars competing in this class must meet all SCCA safety requirements for GT category automobiles found in Section 9 of the GCR unless otherwise specified herein. Car number and class designations must meet SCCA GCR specifications. The class designation is "GTA".

B. All weights and ride height measurements shall be as raced.

C. The maximum rear weight bias at any point during the competition is 52.0 %.

D. Weight shifting devices of any type are prohibited.

E. No titanium components are allowed for any purpose.

II. Chassis Specifications

A. Any commercially available, mild steel stock car chassis with a minimum wheelbase of 102" and a maximum wheelbase of 110" may be used.

B. Chrome alloy chassis are not allowed.

C. There are two basic styles of chassis used in GTA - the "narrow track" chassis and the "wide track" chassis as defined by track width:

1. The "narrow track" chassis has a track no greater than 62.0 inches.

2. Any chassis with a track wider than 62.0 inches is considered a "wide track" chassis. The maximum track for any chassis is 65.0 inches.

D. The minimum overall body height of any chassis (measured 10 inches behind the top of the windshield) is 46.5 inches.

E. The base minimum weight for a car based on a narrow track chassis is 2800 pounds.

F. The base minimum weight for a car based on a wide track chassis is 2850 pounds.

G. The minimum ground clearance for any part of the chassis or bodywork rearward of the front tires is 3.5 inches.

H. The minimum ground clearance for the front air dam or splitter is 2.5 inches.

I. The maximum overall width is 75.0 inches for a narrow track car.

J. The maximum overall width is 80.0 inches for a wide track car.

K. A minimum of 9.5 inches, measured from the center of the crankshaft bolt to the ground, must be maintained at all times.

III. Body Specifications

A. All cars in this class must use 1997 through current-year commercially available stock car bodywork. The types of bodies allowed are:

1. Cadillac CTS
2. Chevrolet Camaro (2010+)
3. Chevrolet Impala
4. Chevrolet Malibu
5. Chevrolet Monte Carlo
6. Dodge Challenger (2010+)
7. Dodge Charger
8. Dodge Intrepid
9. Ford Fusion
10. Ford Mustang (2010+)
11. Ford Taurus
12. Ford Thunderbird
13. Lincoln MKS

14. Oldsmobile Cutlass
15. Pontiac G8
16. Pontiac Grand Prix
17. Toyota Camry

B. All body components must be used in an as-produced, unmodified form and must retain all manufacturer identifying markings. No "one-off" or "high downforce" body packages are allowed.

C. Absolutely no additional holes, vents, modifications, etc., will be permitted on the body panels except as provided herein.

D. Unless damaged by an accident during the racing weekend, all body panels must remain in their standard orientation when the car is at speed (i.e. - no flexing or cocking of body panels to vent air from underneath or inside the car is allowed).

E. The bottom of the car must not be "belly-panned" or flush paneled. Panning may not extend rearward of the trailing edge of the radiator. Other than ductwork that serves no other purpose than to direct cooling air to the brakes, fuel/air metering device (carburetor or throttle body), and/or driver, no fixed or moveable air-directing devices are permitted underneath or inside the car.

F. Installation of air ducts to direct air to cool the driver is permitted. Air ducts to direct air to cool the driver can be installed behind the a-pillar. Duct and mount cannot exceed 8 inches in height by 12 inches in length. A maximum of three vents may be added to each rear side window to exhaust hot air from the driver's compartment.

G. The hood must have a minimum of four (4) positive locating pins on the leading edge of the hood and must be securely fastened by either pins or hinges at the rear. Cars using Late Model hoods may install the Five Star hood hold down (part #570-3700 or part #660-3700) to stabilize the front of the hood.

H. If used, a cowl opening shall be located at the rear edge of the hood at the base of the windshield and have a maximum opening of 2.5" deep by 20.0 inches wide. Fresh air boxes to the fuel/air metering device (carburetor or throttle body) are allowed as long as that ductwork serves no other purpose.

I. The single-plane rear blade spoiler must be mounted at an angle from 50 to 75 degrees (perpendicular to the ground being 90 degrees) and may not extend beyond the rear bumper when viewed from directly above the rear bumper. Spoilers must be a minimum of .063 aluminum or Lexan and may vary in overall height to match the contours of the bodywork. The rear spoiler dimensions shall not exceed 59.0 inches wide by 5.0 inches in height, or 295.0 square inches total surface area. Braces to prevent spoiler deflection are allowed, but may not serve any other purpose.

J. A full, stock-dimension molded front windshield is mandatory and must be constructed from 3/16" (minimum) Lexan. Three (3) 1-inch by 1/8" thickness internal windshield support braces should be spaced at least on six-inch centers and roughly centered on the windshield. The windshield must be secured to the body by bolts and/or rivets to prevent the windshield from popping out under internal pressure such as a spin.

K. A full, stock dimension molded rear "glass" constructed of minimum .093' thickness Lexan is required. It must be held securely in place by a minimum of two (2) 1.0" wide external straps as well as bolts and/or rivets mounting the "glass" to the rear bodywork around the perimeter of the opening. Back "glass" must also be securely braced internally to prevent significant bowing or distortion under racing conditions.

L. Side windows (driver and passenger side) must remain as produced in dimensions. Models with rear quarter or opera windows must have the stock opening covered with clear, securely mounted .093" thick Lexan. All window net installations must meet SCCA specifications.

M. All cars must have complete bodies, fenders, hoods, grills, and bumpers. Cockpit floors must be complete with no tunnels and/or air ducts allowed. No streamlining will be allowed, such as windshields, underpans, radiator grills or headlights. Taping of hood and/or body seams is not allowed.

N. Headlight decals and taillight decals or the model's original taillights are required at all times. Two functioning brake lights and two functioning taillights in the approximate location of the stock units are required.

O. Late model bodies may use "vent windows" to stabilize the A-post at high speeds. The maximum dimension along the top of the door will be nine (9) inches, and the trailing edge must be ninety degrees from the top of the door to the A-post. No vent windows may be added to the existing panels of the flange-fit bodies.

IV. Suspension/Shock Absorber Specifications

A. Shocks and Springs are open, with one shock per wheel. Driver adjustable shock absorbers are not allowed.

B. The steering wheel must be mechanically coupled to the front wheels and activate only those wheels (no "steer by wire" or "four-wheel steering"). Power assist is allowed and may be driven off the differential.

C. A collapsible steering column, either by layout design or column construction, is required.

D. Front lower control arms must be made of steel. Upper control arms, strut arms and upper pivot shafts may be aluminum.

E. Front spindles/uprights must be steel, designed for racing applications, and be readily available to all competitors. No one-off, "center cooled" or Riley style spindles/uprights/hubs are permitted. Zero-scrub geometry is not permitted.

F. Independent front suspension with articulated upper and lower control arms is mandatory.

G. Major steering components including steering arms, tie rods, idlers, etc., must be fabricated from approved ferrous or non-ferrous alloys. All spherical bearings must be of aircraft quality.

H. Sway (anti-roll) bars must be made of steel. Sway bar arms must be made of steel or aluminum. Spherical bearings are allowed to be attached to the lower control arm(s) and/or rear end. Driver adjustable sway bars are not allowed.

I. The longitudinal linking system for the rear of the chassis may not exceed four locations and may not include a "torque tube" of any design. Spring-loaded and/or cushioned (torque absorbing) links are permitted.

J. Either a panhard bar, Satchel link, or Watts link may be used to locate the rear axle laterally.

K. Independent rear suspensions are not allowed.

V. Rear End Specifications

A. Ford 9" or Quick Change units only. No "rear drive" or modified driven Quick Change rear ends are allowed.

B. All axle tubes must be made of steel.

C. The maximum rear camber per wheel is +/- 1.75 degrees.

D. Electronic and/or electronic/hydraulic traction control devices are not allowed. Competitors found with any type of traction control device on the vehicle, whether operational or not, will be disqualified from the class for twelve (12) months.

VI. Transmission, Clutch, Flywheel, Bell housing, and Driveshaft Specifications

A. Transmissions must be of readily available stockcar-style technology with four forward gears and an operating, driver-engaged reverse gear. No five-speed, semi-automatic or automatic transmissions are allowed. Manual "H-style" shift linkage is required. No sequential shift mechanisms are allowed. Ceramic bearings are not allowed.

B. The clutch is limited to no more than three steel disks and floater plates with a minimum clutch diameter of 5.25 inches. No carbon parts or carbon clutches are allowed.

C. Bell housings must be Quarter Master, Tilton or OEM. Transmissions must bolt directly to the rear bell housing surface (i.e. - the 10" spacers common in GT-1 are not allowed).

D. The driveshaft must be one piece and made of metal.

E. A minimum of two steel 360-degree driveshaft hoops shall be installed of sufficient strength to contain the driveshaft in case of u-joint or driveshaft failure. Said hoops shall be located within twelve (12) inches of the front of the shaft and as close as practical to the rear u-joint.

VII. Wheel and Tire Specifications

A. Rims must be 15" diameter steel stock car rims of a one-piece construction specifically designed for racing. Wheel backspacing must be a minimum of 3.00 inches and a maximum of 7.00 inches (i.e. - zero-scrub front suspension is not allowed). Maximum wheel width is 10".

B. All four tires on the car at any time must be the same model number. Tires will be specified by manufacturer and part number. Allowed Tires:

Hoosier 3035

*Hoosier F45*

Hoosier 3045

Race Tires America American Racer EC-84

*Race Tires America American Racer SC5200*

*McCreary Speed Star*

Goodyear D2902

C. Soaking or chemical treating of the tires is prohibited.

D. In the event the race is declared a rain race by the Chief Steward, any tire may be used that fits a GTA-legal rim.

E. When a vendor changes the specified tire model because a tire is no longer being manufactured, both the previous model and current model for that manufacturer may be used the next season, but the obsolete tire cannot be used after July 1.

VIII. Brake Specifications

A. All vehicles must use dual master cylinder, 4-wheel disc brake systems.

B. Driver adjustable brake bias is allowed.

C. Brake rotors must be iron.

D. Brake re-circulators are allowed.

E. Any brake calipers may be used that fit within the specified wheels.

F. Inline blowers may be used in the brake cooling ducts, but water cooling of the brakes is not allowed.

G. Electronically controlled anti-lock braking systems are not allowed.

H. Brake pad materials are open.

IX. Engine Specifications

There are multiple engine preparation packages that can be used, but any engine must comply with all the specifications of the selected package. i.e. – no "cherry picking" of items across multiple engine packages is allowed. All cars must comply with the general engine specifications found in Appendix A, and then must comply with one of the following:

- "Traditional" GTA carbureted engine as defined in Appendix B.
- "ASA Tour" LS-1 engine as defined in Appendix C.
- "Upgraded" LS-1 based engine as defined in Appendix D.
- "ZZ4 Fast Burn 385" engine as defined in Appendix E.
- Ford "DS347SR/MEP 425 LM Circle Track" engine as defined in Appendix F.
- GM "604 Circle Track" engine as defined in Appendix G.
- "Restricted" carbureted engine as defined in Appendix Z.

As new common engine packages become available they will be evaluated by the Advisory Committee and may be added as optional engines under these rules.

Appendix A: General Engine Specification (apply to all engine packages).

1. All engines will be normally aspirated, pushrod V-8s.
2. The centerline of the crankshaft shall be located within 1.00 inches of the centerline of the entire chassis (no more than 1.00" offset is permitted).
3. Engine setback will be measured from the center of the front most spark plug hole to the centerline of the top ball joints. For narrow track cars the maximum setback is 2.00 inches. For wide track cars the maximum setback is 4.00 inches.
4. A minimum of 9.5 inches, measured from the center of the crankshaft bolt to the ground, must be maintained at all times (with all tires inflated to a maximum of 25 psi).
5. Aftermarket engine blocks are allowed, but must be equal to or greater in weight and exterior dimensions compared to the original manufacturer of the make and model. No aftermarket aluminum blocks are allowed.
6. The crankshaft must be made of steel or iron. The stroke may be increased or decreased, but the minimum stroke length is 3.25 inches. The minimum (bare crank) allowable weight is 46 pounds. Lightweight, knife-edge, 180-degree, pendulum cut, scalloped, and/or undercut counterweight crankshafts are prohibited.
7. Connecting rods must be solid steel. No titanium, aluminum, stainless steel or composite rods

are allowed. Rods may be tested by using a magnet.

8. Valve covers are open.
9. Alternators must be OEM type, belt driven, and are optional. One-wire alternators are permitted and may be driven off the engine or the differential.
10. Water pumps must be OEM type. Water pump impellers may be altered for improved cooling. No reverse cooling systems are allowed.
11. The accelerator pedal must be mechanically coupled to the fuel/air metering device (no "fly by wire" throttles).
12. Each car must utilize a verifiable device that limits maximum engine RPM. The unit cannot be in a location where it can be modified or adjusted by the driver while the car is in motion. It is incumbent on each team to demonstrate that their rev limiting device is (a) functional, (b) accurate, and (c) tamper-proof.
    - For the soft touch systems all chips of the same setting may be thrown in a box and distributed randomly. At any event a test chip (3000 RPM) may be used to verify all rev limiters are functional. After verification, distribution and installation, chips also may be tie-wrapped into place or otherwise marked by a Tech Inspector. Cars with chips that are dislodged during qualifying will start at the rear of the entire grid while chips dislodged during the race will result in disqualification.
    - To enforce rev limits on the computer controlled engines (both standard and upgraded) ECUs may be randomly exchanged and/or swapped out with a standard ECU for the engine package being used. For the carbureted LS-1 engines, this would involve random assignment of the MSD 6010 timing modules.
13. Spark plugs are open.
14. The radiator must retain a stock appearance and must be located in front of the engine. The top of the radiator may be laid back a maximum of 3.00 inches from vertical.
15. Any commercially available stock car exhaust system that meets track-specific sound requirements may be used. Exhaust systems may be chromed, ceramic coated and/or painted.

Appendix B: "Traditional" carbureted GTA engine specifications.

1. Must meet all requirements listed in Appendix A.
2. Engine displacement can be a maximum of 358 cubic inches.
3. Pistons must be any forged flat top version, however valve reliefs may be cut into the top surface. No portion of the piston may protrude from the block. Each piston must have two compression rings and one oil ring groove.
4. The minimum wall thickness of the piston wrist pin must be .125 inches and must be made of steel. Any type of wrist pin locking device may be used.
5. Chevrolet cylinder heads must be Dart II cast iron heads, part #10310010P, which replaced part #1112B and #1115B.
6. Ford cylinder heads must be Dart II cast iron heads, part #5302B or World Products' Roush head, part #053040.
7. Chrysler cylinder heads must be Mopar Performance part #P4529994.
8. Maximum intake valve diameter is 2.020 inches. Maximum exhaust valve diameter is 1.600 inches. No titanium valves are allowed.
9. The minimum combustion chamber allowed is 62.0 cc and the internal cylinder head chamber dimensions must remain identical to the cylinder head's original chamber dimensions. Grinding for cc adjustments is allowable only in the cavity area. The cylinder head's original squish area must not be modified from the original dimensions at any point in the cylinder head. Porting and polishing is not allowed. No more than a three-angle valve job with a bottom cut of 60 degrees is permitted. A maximum of 0.250 inches from the head of the valve seat to the bottom of the 60-degree bottom cut is allowed. No grinding in the valve bowl area is permitted. No interior or exterior coatings are permitted.
10. Valve stem size must be a minimum of 11/32" and must remain as delivered from the manufacturer without modification. No pro-flow or any type of valve that steps down in diameter beyond the listed dimensions are allowed.
11. Externally measured compression ratio may not exceed 10.7:1. Engine compression ratio is designed to be 10.2:1, so a variance of 0.5 has been established in the maximum allowable

externally measured compression ratio of 10.7:1.

12. Chevrolet intake manifold must be an Edelbrock Victor Jr., part #2975.
13. Ford intake manifold must be an Edelbrock Victor Jr., part #2980 or #2981.
14. Chrysler intake manifold must be an Edelbrock Victor W-2, part #2920.
15. No modifications to the intake manifold are allowed. No porting, polishing or filling of ports with any kind of material is allowed. No internal or external coatings or painting of any type is allowed. The maximum intake manifold port size is 1.900 inches high by 1.100 inches wide. The height from the top of the manifold mounting flange to the bottom of the port must be no less than 1.000 inches.
16. The carburetor must be a Holley 650 DBL pump, part #0-80541-1 and must be completely unmodified except for changing of jets and changes (safety wire or epoxy) to keep the booster nozzles from falling into the intake manifold. No porting, polishing or addition of epoxy (except to retain the booster nozzles), resin or any other material is permitted. A maximum 1.000 inch thick spacer may be used between the intake manifold and the carburetor.
17. Any roller or flat tappet camshaft with a maximum lift of 0.612 inches (measured at the valve with 0 lash) may be used. Engle camshaft part #RK-38 meets these specifications. The cam drive may use either a chain or belt system.
18. Rocker arms may be any OEM, steel or roller bearing type. No split shaft, shaft mounted or trunk-lined rocker assemblies are permitted. The maximum rocker arm ratio is 1.600:1.
19. The oil pan is open, but the oiling system may not exceed a three-stage system (two scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
20. Air cleaners are required at all times. The air filter housing must be centered on the carburetor and all air entering the engine shall pass through the filter. The air filter element may not exceed 15.00 inches in diameter and the maximum element height is 4.00 inches.
21. Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver's side of the chassis. The ignition(s) must have a soft touch rev limit chip set at 7000 rpm (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate 7000 RPM rev limiter.

Appendix C: "ASA Tour" LS-1 engine.

1. Must meet all requirements listed in Appendix A.
2. This includes but is not limited to General Motors LS-1 Corvette engine as modified below.
    a. ASA-spec filter box
    b. ASA-spec air meter ducting (bellows)
    c. Stock Mass Air Flow (MAF) sensor
    d. Unmodified LS-1 intake manifold, part number 12560894
    e. Unmodified LS-1 cylinder heads, part numbers 241 or 853
    f. Camshaft part number 12480110 ("LS" V8 ASA cam) with 1.7:1 rockers
        1. max lift measured at the intake and exhaust valves is .525"
        2. duration at .050" lift: intake = 226, exhaust = 236
        3. lobe separation is 110
    g. Maximum compression ratio is 10.1:1
3. The 75mm throttle body must remain in place.
4. The stock stroke must be maintained. Cylinders may be honed as part of the normal freshening procedure, but the engine displacement can be a maximum of 350 cubic inches.
5. Crankshaft may be replaced with Eagle # 434636226100.
6. Rods may be replaced with Eagle # 612503D2000, Callies Compstar # 6125LS1, or Engine Pro # 10-1108-8.

7. Pistons may be replaced with Mahle # LS1314-898-F04, LS1314-905-F04, or LS1314-908-F04 (depending on the overbore needed).
5. Maximum engine RPM as controlled by the ECU is 6500 rpm.
6. All ECU's must have either the ASA Tour or Schwanke-certified logos intact.
7. Cars using this engine may reduce their minimum weight by fifty (50) pounds.
8. The oil pan is open, but the oiling system may not exceed a three-stage system (two scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
9. All LS-1 engines, whether sealed or not, are subject to the same teardown policies as covered by the GCR.

Appendix D: "Upgraded" LS-1 engine.

ASA Tour LS-1 based engines (Appendix C) may be modified only as follows:

1. Must meet all requirements listed in Appendix A.
2. The base LS-1 heads may be replaced with unmodified cylinder heads, part numbers 243 or 799.
3. An ECU re-flash to raise the maximum RPM limit to 6800 is allowed.
3. Optional upgraded intake systems:
   - Option 1: Any 90mm throttle body may be installed. One example is GM part #12589181. A stock, unmodified LS-2 intake manifold to fit the larger throttle body must be installed.
   - Option 2: An LS-6 intake manifold (part # 12573572 or 88894339) may be installed, but the stock 75mm throttle body must remain in place.
   - Option 3: The fuel injection system may be completely replaced with a Holley 650 carburetor as specified in Appendix B, item 16. This conversion also requires GM intake manifold part #88958675 and an MSD 6010 timing module.
4. The ASA-spec filter box and air meter ducting (bellows) may be replaced by aftermarket parts, but the stock Mass Air Flow (MAF) sensor must remain in place.
5. New valve springs, Isky #165A or GM part #12586484, should be installed to handle the higher RPM limit.
6. New ARP rod bolts, part #134-6006, should be installed to handle to higher RPM limit.
7. Competitors may upgrade their own ASA LS-1 engines, but ONLY the items listed in Appendix D, numbers 2 through 6 may be modified. NO other modifications are allowed.
8. All LS-1 engines, whether sealed or not, are subject to the same teardown policies as covered by the GCR.

Appendix E: "ZZ-4 Fast Burn 385" based engine.

This is a 23-degree aluminum head GM crate engine P/N 12499712 that must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Must retain the stock 3.48" stroke.
3. Engine displacement can be a maximum of 355 cubic inches.
4. Maximum engine RPM is 6200 rpm.
5. Maximum compression ratio is 10.0:1.
6. Maximum intake valve diameter is 2.00', maximum exhaust valve diameter is 1.55".
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
   a. maximum valve lift: .525", intake and exhaust
   b. duration at .050" lift: intake - 218, exhaust - 228
   c. any hydraulic lifter allowed
   d. 1.6:1 roller rockers are allowed

8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
9. Any carburetor may by used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.

Appendix F: Ford "DS347SR/MEP 425 LM Circle Track" based engine. (For GM version see Appendix G.)

This is a readily available circle track crate engine that is based off the BOSS 302 P/N M-6007-DS347SR. It is highly recommended that the oiling system be modified to enable the package to survive in a road racing environment. The engine must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A,
2. Must retain the stock 3.40" stroke.
3. Engine displacement can be a maximum of 351 cubic inches.
4. Maximum engine RPM in 6500 rpm.
5. Maximum compression ratio is 10.1:1.
6. Maximum intake valve diameter is 2.02", maximum exhaust valve diameter is 1.60"
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
   a. maximum valve lift: .528" intake, .528" exhaust (with 1.65 rocker)
   b. duration at .050" lift: intake- 226, exhaust- 226
   c. any hydraulic lifter allowed
   d. 1.65:1 roller rockers are allowed
8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi and Heineker pumps are not allowed.
9. Any carburetor may by used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.
10. See Ford 347 Series Sealed Racing Engine handbook for complete specifications.

Appendix G: GM "604 Circle Track" based engine. (For Ford version see Appendix F.)

This is a readily available circle track crate engine that is based off the ZZ-4 Fast Burn 385 P/N 24502609, P/N88959604. It is highly recommended that the oiling system be modified to enable the package to survive in a road racing environment. The engine must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Must retain the stock 3.48" stroke.
3. Engine displacement can be a maximum of 355 cubic inches.
4. Maximum engine RPM is 6500 rpm.
5. Maximum compression ratio is 9.6:1.
6. Maximum intake valve diameter is 2.00", maximum exhaust valve diameter is 1.55".
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
   a. maximum valve lift: .474" intake, .510" exhaust
   b. duration at .050" lift: intake - 208, exhaust - 221
   c. any hydraulic lifter allowed
   d. 1.6:1 roller rockers are allowed
8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.

9. Any carburetor may by used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.

10. See the GM Performance Parts Circle Track Crate Engine Technical Manual for complete specification.

Appendix Z: "Restricted" carbureted engine.

If your engine does not fall into one of the categories listed above it may still be used as long as it meets the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Engine displacement can be a maximum of 366 cubic inches.
3. Maximum intake valve diameter is 2.050 inches. Maximum exhaust valve diameter is 1.600 inches.
4. The maximum engine compression ratio is 9.5:1.
5. Any carburetor may be used, subject to the following restrictions:
   a. Restricted engines using a Holley 650 DBL pump, part #0-80541-1, as defined in Appendix B.16 will be limited to 7000 RPM.
   b. Restricted engines using any other carburetor will be limited to 6500 RPM.
6. Any roller or flat tappet camshaft with a maximum lift of 0.550 inches (measured at the valve with 0 lash) may be used.
7. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
8. Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver's side of the chassis. The ignition(s) must have a soft touch rev limit chip set at a maximum of 6500 or 7000 rpm depending the carburetor being used (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate RPM rev limiter.

## 9.1.3. IMPROVED TOURING CATEGORY

These specifications are part of the SCCA GCR and all automobiles shall conform with GCR Section 9.

**A. PURPOSE**

Improved Touring classes are intended to provide the membership with the opportunity to compete in low cost cars with limited modifications, suitable for racing competition. To that end, cars will be models, as offered for sale in the United States. They will be prepared to manufacturer's specifications except for modifications permitted by these rules.

Cars from the previous four (4) model years and the current model year will not be eligible. No car older than a 1968 model of any listed vehicle will be accepted for Improved Touring competition. Turbocharged/Supercharged cars are not eligible for Improved Touring competition. Cars need not be eligible for state license or registration.

**B. INTENT**

It is the intent of these rules to restrict modifications to those useful and necessary to construct a safe race car. This class is intended to allow a variety of popular, inexpensive cars to be eligible; however, those determined by the Club to be outside of these parameters will not be classified. Entrants shall not be guaranteed the competitiveness of any car, and competition adjustments, other than as outlined in section 9.1.3.C, are not allowed. Other than those specifically allowed by these rules, no component or part normally found on a stock example of a given vehicle may be disabled, altered, or removed.

Note: This new statement of purpose and intent eliminates the dual purpose version which does not accurately reflect the current IT technology. In addition, it emphasizes the philosophy that we will give you a place to race your car and have fun, but not guarantee that you will be competitive.

**C. SPECIFICATIONS**

The SCCA shall publish the Improved Touring Category Specifications (ITCS) containing the officially recognized specifications for each car eligible to compete in the Improved Touring Category during the calendar year.

To maintain the stock basis of Improved Touring, updating and/or backdating of components is only permitted within cars of the same make, model, body type (e.g., sedan, station wagon, convertible, etc.), and engine size as listed on a single Improved Touring Specification Line. Any updated/backdated components shall be substituted as a complete assembly (engine long block, transmission/transaxle, induction system, differential/axle housing). No interchange of parts between assemblies is permitted, and all parts of an assembly shall be as originally produced for that assembly (such parts may, however, be coated, painted or plated). Additionally, it is not permitted to "create" a model or type of car by updating or backdating assemblies. Parts or assemblies which the manufacturer lists in factory service manuals or parts guides for a particular model which supersede or replace original parts or assemblies are permitted. Documentation of the superseding parts or assemblies must be supplied to the Club Racing Department and the appropriate part numbers listed on that particular model's specification line.

Stock replacement parts may be obtained from sources other than the manufacturer provided they are the exact equivalent of the original parts. The intent of this rule is to allow the competitor to obtain replacement parts from standard industry outlets, e.g., auto-parts distributors, rather than from the manufacturer. It is not intended to allow parts that do not meet all dimensional and material specifications of new parts from the manufacturer.

To establish the originality and configuration of the vehicle, each driver/entrant shall have a factory shop manual for the specific make, model, and year of the automobile. This manual shall be presented when so requested at any technical inspection. If the factory shop manual is no longer available from the vehicle manufacturer, an aftermarket shop manual will be accepted with proof of non-availability from the vehicle manufacturer. The proof of legality shall rest upon the protestor and/or protestee.

During the initial vehicle classification process, the Club shall assess vehicle performance factors such as – but not limited to – manufacturer's published specifications for engine type, displacement, horsepower, and torque; vehicle weight; brake type and size; suspension design; and aerodynamic efficiency. Based only on such clearly measurable physical factors, a minimum allowable weight shall be established. At the end of the second, third, and fourth full years of classification, the vehicle's racing performance relative to other vehicles in its class shall may be evaluated. If the Club deems that, in the interest of fostering greater equity within a class, a vehicle should be reclassified to another Improved Touring class, such a reclassification may be made. Alternatively or additionally, if the Club deems that an upward or downward revision in the minimum allowable weight is warranted, such an adjustment may be made. At the end of a vehicle's fourth full year of Improved Touring classification, the vehicle's minimum weight shall be established.

Cars with weights assigned prior to 1/1/2005 may have their weights reassigned using the same process that is used for new listings. Should this occur, the assessment clock will start anew. Racing history of this particular model may be considered at this time and an adjustment may be included in the new minimum weight, and the adjustment may be reconsidered at the end of any of the first four full years of competition.

If at any time an error is discovered in the physical factors used to assess a vehicle's weight or an error was made during the application of the weight-assignment process, the error may be corrected. Should such an error correction occur, the assessment clock will start anew. Racing history of this particular model may be considered at this time and a performance compensation adjustment may be included in the new minimum

weight, and the racing history of this model may be evaluated for an adjustment at the end of any of the first four full years of competition after the correction is made.

On rare occasion—and only after careful review of the actual racing performance of a particular make/model/year of vehicle—the Club may reclassify a vehicle, revise a vehicle's minimum allowable weight, and/or in the most extreme situation an intake restrictor may be required. Such an action shall be taken solely for the purpose of restoring equity within the vehicle's class.

**D. AUTHORIZED MODIFICATIONS**

The following modifications are authorized on all Improved Touring Category cars. Modifications shall not be made unless authorized herein. No permitted component/modification shall additionally perform a prohibited function.

**1. Reciprocating Engines (only)**

a. Any carburetor jets, needles, and/or metering rods may be used in the stock or approved optional carburetor(s). Alternate needle valves are permitted. Removable jets may be replaced or resized. The number of carburetors may not be changed from standard. No venturi (including secondary or auxiliary) of any carburetor may be modified in any way.

1. Certain cars have optional carburetors listed. On these cars, adaptor(s) may be used to mount the optional carburetor(s), provided the adaptor serves no performance function, i.e., plenum chamber, etc.

2. External throttle linkage to the standard or optional carburetor(s) may be modified or changed. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. Method of operating the secondary throttle may not be modified.

3. The original, standard intake manifold shall be maintained. No porting or polishing of the manifold is permitted except as allowed by rule D.1.l.

4. All air entering the intake tract shall pass through the carburetor or fuel injection air inlet. All air must also pass through the stock air metering device, eg MAF, or AFM, etc if so equipped. Air intake source shall be within the confines of the engine compartment or stock location.

5. All single carbureted cars may fit an approved optional carburetor. Approved optional carburetors are:

1 Weber 32 DGV/DGAV/DGEV
1 Weber 32/36 DGV/DGAV/DGEV
1 Weber 32/36 DFV/DFAV/DFEV
1Weber 34 DAT/DATR/DATRA/DMTR
1 Holley-Weber 5200

Weber carburetor(s) with swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting.

Fuel injection manifold(s) shall not be replaced with carburetor manifold(s) from a different model, type, or engine size in order to fit an optional carburetor. All cars equipped with multiple carburetors shall run the original induction system, except for modifications allowed by Sections D.1.a., and D.1.a.2., above.

6. The engine management computer may be altered or replaced. A throttle position sensor and its wiring may be added or replaced. A MAP or MAF sensor and its wiring may be added. Other existing sensors, excluding the stock air metering device, may be substituted for equivalent units.

7. Wires and connectors in the engine wiring harness may be modified or replaced.

b. Any fuel pump(s)/filter(s) may be used. Pump(s) may be relocated, but shall not be located in the driver/passenger compartment. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting location. Fuel line(s) may be replaced, relocated, and given additional protection. If the relocated line(s) passes through the driver/ passenger compartment, it/they shall be metal or metal braided, and shall be securely fastened. An external fuel pump pressure regulator may be installed.

1. Fuel system evaporative emissions systems may be removed or replaced. Use or addition of rollover spill protection (i.e. check valve) is required.

c. Air cleaner assemblies may be modified, removed or replaced. Velocity stacks, ram air or cowl induction are not permitted unless fitted as original equipment. Air intake source shall be within the confines of the engine compartment or stock location. Air intake hoses, tubes, pipes, resonators, intake mufflers, housings, etc., located ahead of the carburetor/throttle body may be removed or substituted. On cars so equipped, the air metering/measuring device (i.e. air flow meter, air mass meter, MAF) must be operational and shall not be modified.

d. Exhaust emission control air pumps, associated lines, nozzles, and electrical/mechanical EGR

devices may be removed. If such items are not removed, they shall not be modified in any way. If EGR devices/nozzles are removed from a cylinder head or manifold, any holes remaining shall be completely plugged. Water to an intake manifold may be blocked or removed as part of the emission system.

1. If fitted, catalytic converter(s) may be removed.
2. Those vehicles which have emission control devices removed and which are not registered and licensed for street operation may use any gasoline meeting the requirements of GCR Section 9.3 Fuel.
3. Those vehicles registered and licensed for street use shall use the fuel specified by the workshop/owner's manual.

e. Any ignition system which utilizes the original distributor for spark timing and distribution is permitted. Internal distributor components and distributor cap may be substituted. Crankfire ignition systems are prohibited unless fitted as original equipment. Any spark plugs and ignition wires may be used. Ignition timing is unrestricted. Batteries may be replaced with those of alternate manufacture provided they are of similar amp-hour capacity and weight and are fitted in the standard location. Additional battery hold-down devices may be used, and are strongly recommended. Cars originally equipped with two (2) 6-volt batteries may replace them with one (1) 12-volt battery installed in either of the original battery locations.

f. Cars originally equipped with plastic/phenolic timing gears may substitute metal gears, provided that the design, dimensions, and cam timing remain as stock. Adjustable timing gears are prohibited on all cars unless fitted as stock.

g. Any exhaust header and exhaust system may be used. Exhaust shall exit behind the driver, and shall be directed away from the car body. Original exhaust system heat shields may be removed. A suitable muffler may be necessary to meet sound control requirements.

h. Oil pans, pan baffles, scrapers, windage trays, oil pickups, lines, and filters are unrestricted. Oil and power steering hoses may be replaced with metal braided hose (i.e. Aeroquip). A pressure accumulator/"Accusump" may be fitted. The location of the filter and accumulator are unrestricted, but they shall be securely mounted within the bodywork. All oil lines that pass into or through the driver/passenger compartment shall be metal or metal braided hose. Dry sump systems are prohibited unless fitted as standard equipment. Engine oil and oil additives are unrestricted.

i. Oil catch tanks are permitted. All engine breathers or vapor recirculation lines, if disconnected, shall vent to a catch tank of one (1) quart minimum capacity. Such catch tanks shall not be mounted in the driver/passenger compartment. Original valve cover(s) may be modified to alter or to add breather/filler.

j. Engines may be bored to a maximum of .040 inch over standard bore size. Factory replacement pistons or their equivalent with the exception of diameter shall be used. Cast or forged equivalent pistons shall provide the same dome/dish/valve relief configuration, ring groove width and spacing, pin height relationship, weigh no less than the factory standard bore pistons. Piston rings are unrestricted.

k. Balancing and "blueprinting" of the engine assembly are permitted. Lightening of parts beyond the minimum material removal necessary to balance is prohibited.

l. Manifold and cylinder head port matching is permitted. No material may be removed further than one (1) inch in from the manifold to cylinder head mounting face(s). Carburetor mounting surface(s) shall not be modified, and external dimensions of the cylinder head or intake manifold may not be reduced to facilitate internal porting. Two piece manifolds are not intended to be port matched at their intermediate point.

   Valve guide material is unrestricted.

   Where a factory specification for original cylinder head thickness can be proven, a tolerance of .025 inch less than the service limit will be permitted. Under no circumstances may the compression ratio be increased by more than one-half (.5) point. An offset key may be used to return cam timing to the factory specifications. On engines with dual overhead camshafts, this key shall be installed on the crankshaft only.

m. Any clutch disc and pressure plate of stock diameter may be used, provided that they shall be bolted directly to an unmodified stock flywheel. Balancing of the flywheel/clutch/pressure plate assembly is permitted. Lightening of the flywheel beyond the minimum material removal necessary to balance is prohibited. The addition of an external scattershield per GCR 9.3 Scattershield/Chain Guards, is permitted and recommended. Cars originally equipped with hydraulically-actuated clutches may replace the clutch hydraulic lines with steel lines or Teflon-lined metal braided hose.

n. Alternate water pump, alternator, power steering, and crankshaft pulleys of any diameter or material may be used. Type of accessory drive (e.g., V-belt, toothed belt, etc.) shall remain as stock.

o. Hardware items (nuts, bolts, etc.) may be replaced with similar items performing the same fastening function(s). Cylinder head gasket(s) may be replaced with any gasket(s) having the same *or greater* compressed thickness as stock. Other engine gaskets are unrestricted. Engine drive belts may be replaced with others of equivalent OEM specifications.

p. All engine components not otherwise listed in these rules shall meet factory specifications for stock parts. Where factory specifications are absent or unclear, e.g., cylinder head thickness and/or combustion chamber depth, etc., the Club may establish an acceptable dimension and/or allowable tolerance from stock. Engine compartment cosmetic trim pieces may be removed.

q. The application and/or use of any painting, coating, plating, or impregnating substance (i.e. anti-friction, thermal barrier, oil shedding coatings, chrome, anodizing, etc.) to any internal engine surface, including intake manifold internal surface, is prohibited.

r. One (1) engine stayrod may be added.

s. To allow commonly available engine mount aftermarket inserts, replacement units, or "window weld" like solutions without allowing solid metal or rigid materials or bearings that could result in the driveline becoming a stressed member of the chassis, the following is permitted. Engine, transmission, differential or any other driveline mounts may be replaced. Mounts may use only stock mounting points, must maintain stock location and orientation of the mounted component, and must be non-rigid.Rubber or other inserts in stock mounts may be replaced with any other non-metallic material.

**2. Rotary engines (only)**

a. Any porting or polishing is prohibited.

b. Rules D.1.a.-k., and D.1.m.-r., also apply.

c. Crankshaft pulley is unrestricted.

d. Alternate rotor seals and springs are permitted.

e. Alternate mounts are permitted as in 9.1.3.D.1.s.

**3. Engine Cooling System**

a. Any radiator may be used, provided it is mounted in the original location, maintains the same plane as the original core and requires no body or structure modifications to install. No new openings created by fitting an alternate radiator may be used for the purpose of ducting air to the engine.

b. Oil cooler(s) may be added or substituted. Location within the bodywork is unrestricted, provided that it/they are not mounted within the driver/passenger compartment.

c. Cooling fans may be removed or replaced. Electrically operated fans with manual or automatic actuation may be fitted.

d. Thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

e. Climate control systems may be removed in whole or in part.

f. Screens of one-fourth (1/4) inch minimum mesh may be mounted in front of the radiator and/or oil cooler(s) and contained within the bodywork.

g. Engine coolant fluid, coolant/heater hoses and clamps may be substituted. Heater hoses may be plugged or bypassed (looped) or removed. Heater water control valve(s) may be added or substituted. Heater core may be removed.

h. Non-pressurized coolant overflow tanks may be replaced with aftermarket units. These replacements must have a minimum volume of 1 pint, and a maximum not to exceed the larger of the stock tank or 2 quarts. Tanks may not be mounted in the driver/passenger compartment.

**4. Transmission/Final Drive**

a. Any final drive ratio is permitted provided it fits the stock differential/transaxle housing without modification to the housing.

b. Any limited-slip or locked differential is permitted. In AWD cars, the center differential must remain stock.

c. No alteration to the stock transmission gear ratios for the make, model, type and engine size of automobile is allowed.

d. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

e. Shift lever may be bent or cut above tunnel or floor. The use of a Short Shift Kit is permitted.

f. Traction control, if available, must be disabled by disconnecting or removing a minimum of three wheel speed sensors.

**5. Chassis**

**a. Ride Height**

1. Minimum ride height is five (5) inches, to be measured without driver at the lowest point of the rocker panel, but not to include welded seams or fasteners.

**b. Springs and Shock Absorbers**

1. Shock absorbers may be replaced provided that the replacements (a) attach to the original mounting points, and (b) are of a non-remote-reservoir design. The number and type (e.g., tube, lever, etc.) of shock absorbers shall be the same as stock. The interchange of gas and hydraulic shock absorbers is permitted. External adjustments of shock control shall be limited to two (2). No shock absorber may be capable of adjustment while the car is in motion.

2. MacPherson strut equipped cars may substitute struts, and /or may use alternate inserts. Spring seat ride height location may be altered from stock. Remote reservoir struts and/or inserts are prohibited. External adjustments of shock control shall be limited to two (2).

3. Springs of any origin may be used, provided they are of the same number and type as originally fitted, i.e., coil, leaf, torsion bar, and that they shall be installed in the original location using the original system of attachment. The joining of two or more coil springs by any means is prohibited. The use of tender springs are permitted. Shackles or spacers may be used to adjust leaf spring ride height. Spacers, including threaded units with adjustable spring seats, may be used with coil springs. Coil over threaded body shock/struts are permitted.

4. Spacers or lowering blocks may be used between leaf springs and the point(s) of attachment to the axle housing.

**c. Suspension Control**

1. Any anti-roll bar(s), traction bar(s), panhard rod or watts linkage may be added, removed, or substituted, provided its/their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. No suspension control mount or component shall be located in the trunk or driver/passenger compartment unless installed by the manufacturer as original equipment. Traction bars used to control axle rotation shall be one piece solid bar or tube. Spherical bearing rod ends may be fitted.

2. On those cars where an anti-roll bar also acts as a suspension locating device, the diameter of the bar may be changed. Bar attachment and pivot points on the chassis and control arms shall remain as stock, except as provided for in these Rules, Sections D.5.d.1., and 3.

**d. Suspension Mounting Points**

1. Cars equipped with MacPherson strut suspension may decamber wheels by the use of eccentric bushings at control arm pivot points, by the use of eccentric bushings at the strut-to-bearing-carrier joint, and/or by use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and may not serve as a reinforcement for that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plate.

2. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.

3. All forms of suspension may adjust caster by means of shims or eccentric bushings. Additionally, MacPherson strut-equipped cars may adjust caster at the upper strut mounting point/plate.

4. Independent rear suspension mounting holes may be slotted and reinforced for purposes of camber and/or toe adjustment. Material may be removed from the top of the strut tower to facilitate installation of adjuster plate.

5. Cars may add one (1) front stayrod, located in one of the following areas:

   A. Between lower suspensions mounting points.

   B. Between the upper strut towers on Mac-Pherson strut equipped cars.

   C. Between upper front shock absorber mounts on cars with other forms of suspension.

6. Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted. This includes the use of spherical bearings, so long as no suspension component is modified to facilitate their installation. Retention of spherical bearings by use of tack welds is allowed, as long as the welds serve no other purpose.

7. Rubber bump stops may be removed, modified, or replaced, but their chassis mounts, brackets, etc., may not be altered in any way.

8. No other relocation or reinforcement of any suspension component or mounting point is permitted.

9. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

*e. Power Steering*

*1. Power steering may be disabled or removed in whole or in part. Hydraulic steering assist pumps, valves, reservoirs, hoses, and heat exchangers, and electric steering assist motors, sensors, and controllers may be removed. Hydraulic hoses may be looped and a reservoir may be added to maintain a supply of fluid for depowered racks. Electric systems may be disconnected. Openings to the mechanical steering system created by this allowance may be plugged or filled. If power steering is present, it must be the system fitted as stock for the vehicle without modification except where expressly permitted otherwise by these rules.*

*2. Power steering coolers or cooling systems may be added or replaced. Location within the bodywork is unrestricted, provided that it/they are not mounted within the driver/passenger compartment. Hydraulic hoses are unrestricted.*

**6. Brakes**

a. Brake pads, brake linings, and brake fluid are unrestricted.

b. Backing plates and dirt shields may be ventilated or removed. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use. Brake rotors and drums shall not be modified other than for truing within manufacturer's specifications.

c. Brake lines may be replaced with steel lines or Teflon-lined metal braided hose. Lines/hoses may be relocated and maybe given additional protection. Brake fittings, adaptors, and connectors are unrestricted. Brake system circuitry may be revised, but no modification or substitution of the original master cylinder, its location, or mounting is permitted. Cars with antilock braking systems must completely disable or remove the operational components of the system. It is permissible to disable ABS system function by removing or disconnecting a minimum of three wheel speed sensors. Components that perform no other function than to assist in the activation of the ABS portion of the brake system may be removed.

*d. Cars with antilock braking systems may completely disable or remove the operational components of the system. It is permissible to disable ABS system function by removing or disconnecting a minimum of three wheel speed sensors. Components that perform no other function than to assist in the activation of the ABS portion of the brake system may be removed.*

*e. Cars equipped with antilock brakes may keep the stock ABS system provided all ABS related components, including electronic controls and software, are maintained as stock. Cars with ABS must add a percentage of the spec line weight to the minimum weight as follows:*

| *Class* | *Additional Weight Required* |
|---|---|
| *ITR* | *0%* |
| *ITS* | *0%* |
| *ITA* | *2%* |
| *ITB* | *2%* |

*f.* Brake proportioning valves may be used provided that they are of the in-line, pressure limiting type.

*g.* Parking brakes, mechanisms, and actuating components may be removed.

**7. Wheels/Tires**

a. Any wheel/tire may be used within the following limitations:

1. Knockoff/quickchange type wheels are prohibited. Wheels must be made of metal.

2. Tires must conform to GCR section 9.3. Tires.

3. Track may be changed to accommodate larger tires, provided that there is safe tire/fender/chassis clearance under all conditions of steer, bump, and rebound. Wheel spacers are permitted.

4. Tire tread (that portion of the tire that contacts the ground under static conditions) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground. To determine compliance, the vehicle should be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions.

5. Any wheel stud, bolt, and or nut is permitted.

6. *Maximum allowable wheel rim and tire section widths are as follows:*

| *Class* | *Max. Rim Width (inches)* | *Max. Tire Section Width* |
|---|---|---|
| *ITR* | *9.0* | *275* |
| *ITS* | *8.0* | *225* |
| | *7.0* | *275* |
| *ITA* | *7.0* | *225* |
| *ITB* | *7.0* | *205* |
| | *6.0* | *225* |
| *ITC* | *6.0* | *225* |

*7. Original equipment wheels supplied by the manufacturer for the year(s), make, model and trim level(s) of the car as listed on the spec line may be used regardless of size unless noted otherwise on the vehicle's spec line. Note that this allowance does NOT permit the use of tires of a greater section width or aftermarket wheels of the stock size when larger than listed in D.7.1.a.6.*

**8. Body/Structure**

a. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed.

b. A front spoiler/air dam is permitted. It shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground, or aft of the forward most part of the front fender opening. This body outline does not include bumpers or bumper mounts. The spoiler/air dam shall be mounted to the body, and may extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. It shall not cover the normal grille opening(s) at the front of the car. Openings are permitted for the purposes of ducting air to the brakes, cooler, and radiator. Dealer installed or limited production front/rear spoilers/air dams/wings are prohibited. The spoiler shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.

NOTE: Integrated bumper assemblies are defined as those designs where an external non-metallic bumper cover completely encloses the primary energy-absorbing bumper and where this cover could be installed in its normal position with the underlying bumper removed. On cars with integrated bumpers, the front spoiler or airdam may be attached to the bumper cover.

Where an air dam/spoiler is used, two total openings may be cut in the front valance to allow the passage of up to a three (3) inch diameter duct leading to each front brake/rotor assembly.

Where no air dam/spoiler is used, two total openings of a maximum size five (5) inches by seven (7) inches maybe cut in the front valance so that brake ducts can be added with a three (3) inch diameter hose leading to each front brake/rotor assembly.

c. No part of the car, except for the exhaust system and suspension components, shall be lower than the lowest part of the wheel rims.

d. Windshield clips and rear window straps per the GCR Section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.

e. Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches may be disabled or removed; if so, some positive action external fastening method shall be used. Engine compartment insulation may be removed.

f. Convertible tops and attaching hardware shall be completely removed. Note: Convertible model cars are permitted if they were only available as convertibles (e.g. MG Midget), or if the convertible model is specifically allowed on the vehicle spec line. Convertible models may compete with their respective OEM hardtop. All latches shall be replaced with positive fasteners. Manual and electric sunroofs, original or aftermarket, where the panel is not normally removable shall be retained and run in the closed position. Components (motors, cables, rails) may be removed provided the panel is securely retained. Removable sunroof or T-top may be retained if bolted or welded in, or removed completely. Glass sunroofs must be removed. All sunroofs may be replaced with panel or replacement skin of the same material as the original surrounding roof material.

g. Any paint scheme and markings meeting GCR specifications are permitted.

h. All chassis/structural/electrical repair, if performed, shall be in concurrence with factory procedures, specifications, and dimensions. Unless specifically authorized by the manufacturer for repair or allowed by these rules, no reinforcement, i.e., seam welding, material addition, etc., is permitted.

i. Body repair shall be performed using every reasonable effort to maintain stock body contours, lips, etc. Any body repair modification having as its purpose increased clearance is prohibited. Stock trim/molding pieces may be replaced with parts of alternate material provided they have the same dimensions as stock.

j. Radio antennas may be removed. Antennas for two-way radio may be added.

k. Body side moldings, rocker panel moldings and wheel opening trim pieces (not stock flares) may be removed. Resulting holes may be filled.

l. A maximum of two (2) jacking points may be reinforced. The reinforcement may be no larger than 12x6x6 inches and may not serve any additional purpose. Any added material must fit within the minimum ride height.

**9. Driver/Passenger Compartment - Trunk**

a. All seats and seat brackets may be removed.

b. Any steering wheel except wood rimmed types may be used. Any shift knob may be used.

c. Gauges and instruments may be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s), or any other location using a secure method of attachment. Other than modifications made to mount instruments and provide for roll cage installation, the remainder of the dash "board" or panel shall remain intact. Switches to activate the ignition, the lights, the windshield wipers, the starter and other accessories located within the passenger compartment may be replaced and their location changed.

d. Any interior or exterior mirrors may be used.

e. Front passenger seat, rear seat back, rear seat bottom cushion(s), sun visors, seat belts and their attaching hardware and bracketry may be removed. In any automobile where allowed removal of rear seats, upholstery, etc., creates an opening between the driver/passenger compartment and an exposed gas tank, fuel cell, or part thereof, a metal bulkhead which completely fills such opening shall be installed (See GCR 9.3 Fuel Cell Specifications).

f. Carpets, center consoles, floor mats, headliners, sun roof liner and frame, dome lights, grab handles, and their insulating, attaching or operating mechanisms may be removed. Sound deadening (melt sheets) and undercoating may be removed. Door interior trim panels may be replaced with 0.060" - 0.065" aluminum securely attached to the door. All other interior trim panels, except the dashboard, may be removed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compartment alterations or gutting are permitted.

g. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry. Carpets, mats, and their insulating or attaching materials may be removed from the floor and recesses of the cargo/ trunk/spare tire area.

h. Dead pedal/foot rest and heel stop may be added.

i. Ducting may be added to provide fresh air to the driver/passenger compartment. This ducting shall be located in the driver and/or passenger window area, with no modifications to the bodywork. Only the cooling duct is permitted in the window area. It is not permitted to otherwise fill in the window area. The complete duct assembly in the plane of the window shall be no larger than 100 square inches.

j. Audio systems may be removed in their entirety. Two-way radios are permitted.

k. Modifications may be made to the foot pedals to improve the comfort of and control accessibility to the driver.

l. Ballast may be used. All ballast shall be located in the front passenger footwell/seating area, aft of the firewall and any footwell angle, and forward of the aft-edge of the forward-most passenger door opening, unless otherwsie specified on the vehicle's spec line. OEM front passenger seat location.

   1. It shall be in segments no heavier than fifty (50) pounds, and shall be capable of being removed to be weighed apart from the car.

   2. Each segment shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5/Metric 8.8 or better, and shall utilize large-diameter, load-distributing washers.

   3. Holes may be drilled in the front passenger footwell/seating area floorpan for purposes of mounting the ballast (only), and said floorpan may be reinforced as required for the same purpose.

m. If equipped, the vent window and its supporting structure may be removed.

n. Windshield washer systems, rear windshield wiper systems, cruise control systems, horns and the wiring associated wiring with any of these may be removed. Any holes left in the body must be covered or plugged.

**10. Electrical**

a. Wiring specific to any component permitted to be removed, or disabled, may be removed. Required wiring rendered redundant by allowed modifications (i.e. engine management harness) must remain.

**11. Safety**

a. The stock fuel tank may be replaced with a fuel cell. The fuel cell shall be located within twelve (12) inches of the original fuel tank location. Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not attach to the roll cage. Floor pan may be modified for installation. See GCR Section 9.3 Fuel Cell Specifications, for requirements.

b. Spare wheels and tires may be removed.

c. Air bag systems shall be disarmed and may be removed.

d. If so equipped, the rolling door lock mechanism may be deactivated by unplugging the components.

**E. MEASUREMENT STANDARDS**

Measurement standards shall be as specified in Appendix G. with the following exceptions: wheelbase has a tolerance of + 2″/- 1″.

| ITR | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura Integra Type R (97-98/00-01) | 4 Cyl DOHC | 81.0 x 87.2 1797 | (I) 33.0 (E) 28.0 | 10.6 | 101.2 | 3.23, 2.10, 1.46, 1.11, 0.85 | (F) 286 Vented Disc (R) 260 Solid Disc | 2535 | |
| Acura Legend (91-95) | 6 Cyl SOHC | 90.0 x 84.0 3206 | | 9.6 | 114.6 | 2.937, 1.692, 1.060, 0.769, 0.581 or 2.937, 1.692, 1.151, 0.868, 0.682 or 2.940, 1.690, 1.150, 0.870, 0.680, 0.520 | (F) 286 Vented Disc (R) 260 Solid Disc | 3135 | |
| Acura RSX-S (02-04) | 4 Cyl DOHC | *86.0* x 86.0 *1998* | (I) 35.2 (E) 30.2 | 11.0 | 101.2 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.74 | (F) 300 Vented Disc (R) 260 Solid Disc | 2595 | |
| Acura RSX-S (05-06) | 4 Cyl DOHC | *86.0* x 86.0 *1998* | (I) 35.2 (E) 30.2 | 11.0 | 101.2 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.74 | (F) 300 Vented Disc (R) 260 Solid Disc | 2605 | |
| Acura TSX (04-08) | 4 cyl DOHC | 87 x 99 2345 | (I) 35.15 or 36.15 (E) 30.15 | 10.5 | 105.1 | 3.27, 1.88, 1.36, 1.03, 0.83, 0.66 | (F) 300 x 23 Vented Disc (R) 260 x 9 Solid Disc | 2760 | |
| BMW 325i/is (92-95) | 6 Cyl DOHC | 84.0 x 75.0 2494 | (I) 33.0 (E) 30.5 | 10.5 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 286 Vented Disc (R) 280 Solid Disc | 2765 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 325i/ci Coupe E46 (01-06) | 6 Cyl DOHC | 84.0 x 75.0 2494 | (I) 33.0 (E) 30.5 | 10.5 | 107.3 | 4.21, 2.45, 1.66, 1.24, 1.00 | (F) 300 Vented Disc (R) 294 Vented Disc | 2800 | |
| BMW 328i/ is E36 (96-99) | 6 Cyl DOHC | 84.0 x 84.0 2793 | (I) 33.0 (E) 30.5 | 10.2 | 106.3 | 4.21, 2.49, 1.66, 1.24, 1.00 | (F) 286 Vented Disc (R) 280 Solid Disc | 2740 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 328i/ ci E46 (99-00) | 6 Cyl DOHC | 84.0 x 84.0 2793 | (I) 33.0 (E) 30.5 | 10.2 | 107.3 | 4.21, 2.45, 1.66, 1.24, 1.00 | (F) 325 Vented Disc (R) 320 Solid Disc | 2900 | |
| BMW 330i/ci *E46* excludes ZHP (01-06) | 6 Cyl DOHC | 84.0 x 89.6 2979 | (I) 33.0 (E) 30.5 | 10.2 | 107.3 | 4.21, 2.45, 1.66, 1.24, 1.00 | (F) 325 Vented Disc (R) 320 Vented Disc | 3290 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 535i (E34) (89-93) | 6 Cyl DOHC | 92 x 86 3430 | (I) 46.4 (E) 37.6 | 9.0 | 108.7 | 3.83, 2.20, 1.40, 1.00, 0.81 | (F) 302 Vented Disc (R) 300 Vented Disc | 2925 | |
| BMW M3 (88-91) | 4 Cyl DOHC | 93.5 x 84.1 2302 | (I) 37.0 (E) 33.0 | 10.5 | 101.0 | 3.38, 2.20, 1.40, 1.00, 0.81 | (F) 280 Vented Disc (R) 282 Solid Disc | 2650 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW Z3 2.8L Coupe & Rdstr. (97-00) | 6 Cyl DOHC | 84.0 x 84.0 2793 | (I) 33.0 (E) 30.5 | 10.2 | 96.3 | 4.21, 2.49, 1.66, 1.24, 1.00 | (F) 286 Vented Disc (R) 272 Solid Disc | (97-98): 2740 (99-00): 2800 | |
| BMW Z3 3.0L Coupe & Rdstr. (01-02) | 6 Cyl DOHC | 84.0 x 89.6 2979 | (I) 33.0 (E) 30.5 | 10.2 | 96.3 | 4.21, 2.49, 1.66, 1.24, 1.00 | (F) 300 Vented Disc (R) 272 Solid Disc | 3240 | |
| BMW Z4 2.5 (03-06) | 6 Cyl DOHC | 84.0 x 75.0 2494 | (I) 33.0 (E) 30.5 | 10.5 | 98.2 | 4.23, 2.52, 1.66, 1.22, 1.00 | (F) 286 Vented Disc (R) 280 Solid Disc | 2795 | |
| Chevrolet Camaro (83-86) | V-8 OHV | 94.9 x 88.4 5000 | (I) 1.84 (E) 1.50 | 9.5:1 | 101.1 | 2.95, 1.94, 1.34, 1.00, .73 | (F) 267 x 37 (vented) (R) 296 x 21 (vented) (R) 242 x 51 (drum) | 2890 | No fuel injection or engine parts specific to the fuel injected models allowed. |

| ITR | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Camaro (87-92) (exclude BC4 Package) | V-8 OHV | 94.9 x 88.4 5000 | (I) 1.84 (E) 1.50 | 9.3 | 101.1 | 2.95, 1.94, 1.34, 1.00, .73 | (F) 301/267 x 37 (vented) (R) 296 x 21 (vented) Alt: 242 x 51 (drum) | 3465 | 1LE package allowed. |
| Chevrolet Camaro (83-86) | V-8 OHV | 94.9 x 88.4 5000 | (I) 1.84 (E) 1.50 | 9.5:1 | 101.1 | 2.95, 1.94, 1.34, 1.00, .73 | (F) 267 x 37 (vented) (R) 296 x 21 (vented) or 242 x 51 (drum) | 2890 | No fuel injection or engine parts specific to the fuel injected models allowed. |
| Chevrolet Camaro (96-02) | V-6 OHV | 96.5 x 86.36 3790 | (I) 45.72 (E) 38.6 | 9.4 | 101.1 | 3.75, 2.19, 1.41, 1.00, 0.72 | (F) 302 Disc (R) 305 Disc | 2815 | |
| Chevrolet Corvette (1984) | V8 OHV | 101.6 x 88.4 5700 | (I) 49.28 (E) 38.1 | 9.0 | 96.2 | 2.88, 1.91, 1.33, 1.00 | (F) 292.1 Disc (R) 292.1 Disc | 3200 | |
| Dodge Stealth R/T (non-turbo FWD) (91-96) | V-6 DOHC | 91.2 x 79.5 2972 | (I) 34.9 (E) 30.5 | 10.0 | 97.2 | 3.09, 1.83, 1.22, 0.89, 0.74 | (F) 277 Disc (R) 267 Disc | 3120 | |
| Ford Contour SVT (98-00) | V-6 DOHC | 82.4 x 79.5 2544 | (I) 32.0 (E) 26.0 | 10.0 | 106.5 | 3.42, 2.14, 1.45, 1.03, 0.77 | (F) 279 Disc (R) 251 Disc | 2590 | |
| Ford Mustang GT (1986) | 8 cyl OHV | 101.6 x 76.2 4942 | (I) 45.3 (E) 36.9 | 9.2 | 101.3 | 2.95, 1.94, 1.34,1.00, .63 | (F) 255 Disc (R) 229 Drum | 2915 | |
| Ford Mustang GT & LX (89-93) (exclude Cobra) | V-8 OHV | 101.6 x 76.2 4942 | (I) 45.3 (E) 36.9 | 9.0 | 100.4 | 2.95, 1.94, 1.34, 1.00, 0.63 | (F) 280 vented (R) 254 x 51 (drum) | 3340 | |
| Ford Mustang GT (94-95) (exclude Cobra) | V-8 OHV | 101.6 x 76.2 4942 | (I) 45.3 (E) 36.9 | 9.0 | 101.3 | 3.35, 1.99, 1.33, 1.00, 0.68 | (F) 276 x 26 vented (R) 266 x 14 solid | 3195 | |
| Ford Mustang GT (96-98) | 8 Cyl. SOHC | 90.2 x 90.0 4601 | (I) 44.5 (E) 34.0 | 9.0 | 101.3 | 3.37, 1.99, 1.33, 1.00, 0.67 | (F) 273 Vented (R) 267 Solid | 3390 | |
| Ford Mustang (99-04) | V-6 SOHC | 96.8 x 86.0 3797 | (I) 47.3 (E) 37.1 | 9.3 | 101.3 | 3.37, 1.99, 1.33, 1.00, 0.67 | (F) 276 Vented Disc (R) 266 Solid Disc | 2670 | |
| Ford Mustang (05-07) | 6 Cyl. SOHC | 100.4 x 84.4 4010 | (I) 46.1 (E) 39.1 | 9.7 | 107.1 | 3.75, 2.19, 1.41, 1.00, 0.72 | (F) 292.1x30.5 vented (R) 299.7x19.0 vented | 2955 | |
| Ford Taurus SHO (89-95) | V-6 DOHC | 89.0 x 80.0 2986 | (I) 35.0 (E) 30.0 | 9.8 | 106.0 | 3.60, 2.12, 1.39, 1.02, 0.77 | (F) 258/276 Vented Disc (R) 256 Vented Disc | 2890 | |
| *Honda Civic Si (06-11)* | *4 Cyl. DOHC* | *86.0 x 86.0 1998* | *(I) 35.0 (E) 30.0* | *11.0* | *104.3* | *3.27, 2.13, 1.52, 1.15, 0.92, 0.66* | *(F) 296 x 26 Vented Disc (R) 270x 14 Solid Disc* | *2655* | |
| Honda Prelude (93-96) | 4 Cyl. DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 100.4 | 3.31, 1.95, 1.36, 1.07, 0.87 | (F) 280 Vented Disc (R) 258 Solid Disc | 2570 | |
| Honda Prelude (non SH) (97-01) | 4 Cyl. DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 101.8 | 3.31, 1.95, 1.31, 1.07, 0.87 or 3.29, 1.96, 1.34, 1.03, 0.81 | (F) 280 Vented Disc (R) 258 Solid Disc | 2640 | |
| Honda Prelude SH (97-01) | 4 Cyl. DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 101.8 | 3.31, 1.95, 1.31, 1.07, 0.87 or 3.29, 1.96, 1.34, 1.03, 0.81 | (F) 280 Vented Disc (R) 258 Solid Disc | 2640 | |

| ITR | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Honda S2000 (00-03) | 4 Cyl. DOHC | 87.0 x 84.0 1997 | (I) 36.0 (E) 31.0 | 11.0 | 94.5 | 3.13, 2.05, 1.48, 1.16, 0.97, 0.81 | (F) 300 Vented Disc (R) 282 Solid Disc | 3005 | |
| Honda S2000 (04-09) (Exclude CR package) | 4 Cyl. DOHC | 87.0 x 90.7 2157 | (I) 36.1 (E) 31.1 | 11.1 | 94.5 | 3.13, 2.05, 1.48, 1.16, 0.94, 0.76 | (F) 300 Vented Disc (R) 282 Solid Disc | 3005 | |
| Lexus IS300 (01-02) | 6 Cyl. DOHC | 86.0 x 86.0 2997 | (I) 33.6 (E) 29.0 | 10.5 | 105.1 | 3.57, 2.06, 1.38, 1.00, 0.85 | (F) 296 Vented Disc (R) 307.1 Solid Disc | 3025 | |
| Lexus SC300 (92-00) | 6 Cyl. DOHC | 86.0 x 86.0 2997 | (I) 33.6 (E) 29.0 | 10.5 | 105.9 | 3.26, 1.89, 1.28, 1.00, 0.78 | (F) 275 or 296 Vented Disc (R) 307 Vented Disc | 3165 | |
| Mazda RX-8 (04-08) | 2 Rotor | 2600cc | NA | 10.0 | 2703 | 3.76, 2.27, 1.65, 1.19, 1.00, 0.84 | (F)323 Vented Disc (R)303 Vented Disc | 2850 | |
| Mazda RX-8 (09-11) | 2 Rotor | 2600cc | NA | 10.0 | 2703 | 3.76, 2.27, 1.65, 1.19, 1.00, 0.84 | (F) 323 Vented Disc (R) 303 Vented Disc | 2850 | |
| Mitsubishi 3000 GT (non-turbo FWD) (91-99) | V-6 DOHC | 91.2 x 79.5 2972 | (I) 34.9 (E) 30.5 | 10.0 | 97.2 | 3.09, 1.83, 1.22, 0.89, 0.74 | (F) 277 Disc (R) 267 Disc | 3120 | |
| Nissan 300ZX (89-96) | V-6 DOHC | 87.0 x 83.0 2960 | (I) 34.0 (E) 29.5 | 10.5 | 96.5 | 3.21, 1.93, 1.30, 1.00, 0.75 | (F) 295 Disc (R) 297 Disc | 3120 | |
| Nissan Maxima (00-01) | V-6 DOHC | 93.0 x 73.3 2988 | (I) 36.3 (E) 31.5 | 10.0 | 108.3 | 3.29, 1.85, 1.27, 0.95, 0.80 | (F) 280 Vented Disc (R) 278 Solid Disc | 3040 | |
| Pontiac Fire-bird (87-92) (exclude BC4 Package) | V-8 OHV | 94.9 x 88.4 5000 | (I) 1.84 (E) 1.50 | 9.3 | 101.1 | 2.95, 1.94, 1.34, 1.00, .73 | (F) 301/267 x 37 (vented) (R) 296 x 21 (vented) Alt: 242 x 51 (drum) | 3465 | 1LE package allowed. |
| Pontiac Firebird (96-02) | V-6 OHV | 96.5 x 86.36 3790 | (I) 45.72 (E) 38.6 | 9.4 | 101.1 | 3.75, 2.19, 1.41, 1.00, 0.72 | (F) 302 Disc (R) 305 Disc | 2815 | |
| Porsche 911S 2.0 (1969) | 6 Cyl. SOHC | 80.0 x 66.0 1991 | (I) 45.0 (E) 39.0 | 9.8 | 89.3 | 3.09, 1.88, 1.31, 1.04, 0.79 | (F) 282.5 x 20 vented (R) 286.0 x 20 vented | 2365 | Other transaxle gear sets that can be shown through factory documentation to have been available for factory order on a new car are allowed. |
| Porsche 911S 2.2 (1970-71) | 6 Cyl. SOHC | 84.0 x 66.0 2195 | (I) 45.0 (E) 39.0 | 9.8 | 89.3 | 3.09, 1.77, 1.22, 1.08, 0.75 | (F) 282.5 x 20 vented (R) 286.0 x 20 vented | 2505 | Other transaxle gear sets that can be shown through factory documentation to have been available for factory order on a new car are allowed. |
| Porsche 911S 2.4 (1972-73) | 6 Cyl. SOHC | 84.0 x 70.4 2341 | (I) 46.0 (E) 40.0 | 8.5 | 101.2 | 3.18, 1.77, 1.125, 0.82; 3.27, 1.94, 1.26, 0.96, 0.75 | (F) 282.5 x 20 vented (R) 286.0 x 20 vented | 2630 | Other transaxle gear sets that can be shown through factory documentation to have been available for factory order on a new car are allowed. |
| Porsche 911/911S/911 Carerra (74-77) | 6 Cyl. SOHC | 90.0 x 70.4 2687 | (I) 46.0 (E) 44.0 | 8.5 | 89.4 | 3.18, 1.83, 1.26, 1.00, 0.82 | (F) 282.5 Vented Disc (R) 290 Solid Disc | 2400 | |
| Porsche 911SC (78-83) | 6 Cyl SOHC | 95.0 x 70.4 2994 | (I) 49.0 (E) 41.5 | 9.3 | 94.0 | 3.18, 1.83, 1.26, 1.00, 0.78 | (F) 282.5 Vented Disc (R) 290 Vented Disc | 2630 | |
| Porsche 928 (78-82) | 8 cyl. SOHC | 95.0 X 78.9 4474 | | 9.0 | 98.4 | 3.60, 2.41, 1.75, 1.34, 1.00 | (F) 282 Vented Disc (R) 290 Vented Disc | 3080 | |
| Porsche 928 S (83-84) | 8 cyl. SOHC | 97.0 X 78.9 4664 | | 9.3 | 98.4 | 3.60, 2.41, 1.75, 1.34, 1.00 | (F) 282 Vented Disc (R) 290 Vented Disc | 3345 | |
| Porsche 944S2 (89-91) | 4 Cyl DOHC | 104.0 x 88.0 2990 | (I) 37.0 (E) 33.0 | 10.9 | 94.5 | 3.18, 2.00, 1.44, 0.91, 0.78 | (F) 298 Vented Disc (R) 299 Vented Disc | 2810 | |
| Porsche 968 (93-97) | 4 Cyl DOHC | 104.0 x 88.0 2990 | (I) 37.0 (E) 33.0 | 10.9 | 94.5 | 3.50, 2.06, 1.40, 1.03, 0.83, 0.78 | (F) 298 Vented Disc (R) 299 Vented Disc | 3055 | |

| ITR | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Porsche Boxster (97-99) | 6 Cyl DOHC | 85.5 x 72.0 2480 | | 11.0 | 95.1 | 3.50, 2.12, 1.43, 1.03, 0.79 | (F) 298 Vented Disc (R) 292 Vented Disc | 2830 | |
| Porsche Boxster (00-02) | 6 cyl. DOHC | 85.5 X 78.0 2687 | (I) 33.0 (E) 28.1 | 11.0 | 95.1 | 3.50, 2.12, 1.43, 1.09, 0.84 | (F) 298 Vented Disc (R) 292 Vented Disc | 3050 | |
| Subaru SVX AWD (92-97) | 6 cyl. DOHC | 96.9 X 75.0 3318 | (I) 36.0 (E) 32.1 | 10.0 | 102.8 | 2.79, 1.55, 1.00, 0.64 Automatic | (F) 302 x 28 Vented Disc (R) 290 x 10 Solid Disc | 3205 | |
| Toyota Celica GTS (00-05) | 4 Cyl DOHC | 82.0 x 85.0 1796 | (I) 32.0 (E) 27.5 | 11.5 | 102.3 | 3.17, 2.05, 1.48, 1.17, 0.92, 0.73 | (F) 272 Vented Disc (R) 267 Solid Disc | 2380 | |
| Toyota Supra (87-92) | 6 Cyl DOHC | 83.1 x 90.9 2956 | (I) 32.5 (E) 28.5 | 9.2 | 102.2 | 3.28, 1.89, 1.27, 1.00, 0.78 | (F) 302 Vented Disc (R) 292 Solid Disc | 2925 | |
| Toyota Supra (93-97) | 6 Cyl DOHC | 86.0 x 86.0 2997 | (I) 33.5 (E) 29.0 | 10.0 | 100.4 | 3.29, 1.89, 1.28, 1.00, 0.78 | (F) 294 Vented Disc (R) 305 Vented Disc | 3195 | |

| ITS | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura Integra GSR (92-93) | 4 Cyl DOHC VTEC | 81.0 x 81.4 1678 | (I) 33.0 (E) 38.0 | 9.3 | 100.4 | 3.31, 2.11, 1.46, 1.11, 0.88 | (F) 262 x 21 Vented Disc (R) 239 x 10 Solid Disc | 2430 | |
| Acura Integra GSR (3 door) (94-00) | 4 Cyl DOHC VTEC | 81.0 x 87.2 1797 | (I) 33.0 (E) 28.0 | 10.0 | 101.2 | 3.23, 1.9, 1.36, 1.0, 0.79 | (F) 262 x 21 Vented Disc (R) 239 x 10 Solid Disc | 2590 | |
| Acura RSX-S (02-04) | 4 Cyl DOHC | *86.0 x* 86.0 *1998* | (I) 35.2 (E) 30.2 | 11.0 | 101.2 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.74 | (F) 300 Vented Disc (R) 260 Solid Disc | 3000 | |
| Acura RSX-S (05-06) | 4 Cyl DOHC | *86.0* x 86.0 *1998* | (I) 35.2 (E) 30.2 | 11.0 | 101.2 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.74 | (F) 300 Vented Disc (R) 260 Solid Disc | 3200 | |
| Acura TSX (04-08) | 4 cyl DOHC | 87 x 99 2345 | (I) 35.15 or 36.15 (E) 30.15 | 10.5 | 105.1 | 3.267, 1.880, 1.355, 1.028, 0.825, 0.659 | (F) 300 x 23 Vented Disc (R) 260 x 9 Solid Disc | 3175 | |
| Alfa Romeo GTV-6 (81-86) | V-6 SOHC | 88.0 x 68.3 2492 | (I) 41.0 (E) 36.5 | 9.0 | 94.5 | 3.50, 1.96, 1.26, 0.95, 0.78 | (F) 267 Disc (R) 249 Disc | 2680 | Bosch L-Jetronic Fuel Injection |
| Alfa Romeo Milano 2.5L (87-89) | V-6 SOHC | 88.0 x 68.3 2492 | (I) 41.0 (E) 36.6 | 9.0 | 98.8 | 2.88, 1.72, 1.23, 0.95, 0.78 or 3.50, 1.96, 1.26, 0.95, 0.78 or 3.50, 1.96, 1.35, 1.03, 0.78 or 2.88, 1.72, 1.23, 0.95, 0.78 | (F) 267 Disc (R) 249 Disc | 2780 | Bosch L-Jetronic Fuel Injection |
| Alfa Romeo Milano 3.0L (87-89) | V-6 SOHC | 93.0 x 72.6 2959 | (I) 44.0 (E) 36.6 | 9.5 | 98.8 | 2.88, 1.72, 1.23, 0.95, 0.78 | (F) 267 Disc (R) 249 Disc | 2780 | Bosch L-Jetronic Fuel Injection |
| BMW 323 is (E36) (1999) | 6 Cyl DOHC | 84.1 x 75.0 2494 | (I) 33.0 (E) 30.5 | 10.5 | 106.3 | 4.23, 2.52, 1.66, 1.22, 1.00 | (F) 286 Vented Disc (R) 276 Vented Disc | 3000 | |
| BMW 323i (E46) (98-00) | 6 Cyl DOHC | 84.1 x 75.0 2494 | (I) 33.0 (E) 30.5 | 10.5 | 107.3 | 4.23, 2.52, 1.66, 1.22, 1.00 | (F) 286 Vented Disc (R) 276 Vented Disc | 3000 | |
| BMW 325i/is (87-91) | 6 Cyl SOHC | 3.31 x 2.95 2494 | (I) 41.9 (E) 36.1 | 8.8 | 101.0 | 3.83, 2.20, 1.40, 1.00, 0.81 | (F) 262 Disc (R) 259 Disc | 2710 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 325i/is (2 & 4door) (92-95) | 6 Cyl DOHC | 84.1 x 75.0 2494 | (I) 33.0 (E) 30.5 | (1992): 10.0 (93-95): 10.5 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 287 Disc (R) 280 Disc | *Re-stricted:* 2850 *Unre-stricted: 3265* | Trunk mounted fuel cell may be used but shall be no larger than stock. 29mm SIR required and must comply with Appendix F. |
| Chevrolet Camaro 3.4L (93-95) | 6 cyl OHV | 92 x 84 3350 | (I) 43.7 (E) 36.3 | 9.0 | 101.1 | 3.75, 2.19, 1.41, 1.00, 0.74 | (F) 272 Vented Disc (R) 241 Drum | 2680 | |
| Chevrolet Cobalt SS (2006) | 4 cyl. DOHC | 88.0 x 98.0 2384 | (I) 35.25 (E) 30.25 | 10.9 | 103.5 | 3.58, 2.02, 1.35,0.98, 0.69 | ((F) 296 x 26 vented (R) 270 x 14 solid | 2605 | Non-supercharged. |

| ITS | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Contour V-6 (non-SVT) (1995) | V-6 DOHC | 82.4 x 79.5 2544 | (I) 32.0 (E) 26.0 | 9.7 | 106.5 | 3.42, 2.14, 1.45, 1.03, 0.77 | (F) 259 Disc (R) 252 Disc | 2665 | |
| Ford Focus SVT (02-04) | 4 Cyl DOHC | 84.8 x 88.0 2000 | (I) 33.5 (E) 28.0 | 10.2 | 2616mm | (overall) 12.7, 7.7, 5.7, 4.6, 3.8, 3.1 | (F) 300 Vented Disc (R) 280 Solid Disc | 2590 | |
| Ford Mustang LX V-6 (94-98) | V-6 OHV | 96.8 x 86.0 3797 | (I) 45.0 (E) 37.0 | 9.0 | 101.3 | 3.35, 1.93, 1.29, 1.00, 0.73 | (F) 275 Vented Disc (R) 267 Disc | 2470 | |
| Ford Probe GT (1993) | V-6 DOHC | 84.5 x 74.2 2495 | (I) 32.2 (E) 27.8 | 9.2 | 102.9 | 3.31, 1.83, 1.31, 1.03, .80 | (F) 258 Disc (R) 261 Disc | 2570 | |
| Honda Civic Del Sol VTEC (94-96) | 4 Cyl DOHC | 81.0 x 77.4 1595 | (I) 33.0 (E) 28.0 | 10.2 | 93.3 | 3.307, 2.105, 1.458, 1.107, 0.848 | (F) 262 Disc (R) 239 Disc | 2430 | Petty-bar style cage is permitted. Rear cage braces may pass through rear window. Roll cage for cars under 2200 lbs are acceptable for cars registered with SCCA before 5/1/06. |
| Honda Civic Si (99-00) | 4 Cyl DOHC | 81.0 x 77.4 1595 | (I) 33.0 (E) 28.0 | 10.2 | 103.2 | 3.23, 2.11, 1.46, 1.11, 0.88 | (F) 262 Vented Disc (R) 239 Solid Disc | 2430 | Roll cage for cars under 2200 lbs are acceptable for cars registered with SCCA before 5/1/06. |
| Honda Civic Si (06-*11*) | 4 cyl. DOHC | *86.0 x 86.0* 1998 | (I) 35.0 (E) 30.0 | 11.0:1 | 104.3 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.66 | ((F) 296 x 26 Vented (R) 270 x 14 Solid | 3000 | |
| Honda Prelude Si (92-96) | 4 Cyl DOHC | 87.0 x 95.0 2259 | (I) 34.0 (E) 29.0 | 9.8 | 100.4 | 3.31, 1.86, 1.32, 1.03, 0.81 | (F & R) 259 Disc | 2555 | |
| Honda Prelude Si VTEC (93-96) | 4 Cyl DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 100.4 | 3.31, 1.95, 1.36, 1.07, 0.87 | (F) 280 Vented Disc (R) 258 Solid Disc | 2905 | |
| Honda Prelude SH (97-01) | 4 Cyl DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 101.8 | 3.31, 1.95, 1.31, 1.07, 0.87 & 3.29, 1.96, 1.34, 1.03, 0.81 | (F) 280 x 24 Vented Disc (R) 258 x 9 Solid Disc | 2905 | |
| Honda Prelude non-SH (97-01) | 4 Cyl DOHC | 87.0 x 90.0 2157 | (I) 35.0 (E) 30.0 | 10.0 | 101.8 | 3.31, 1.95, 1.31, 1.07, 0.87 & 3.29, 1.96, 1.34, 1.03, 0.81 | (F) 280 x 24 Vented Disc (R) 258 x 9 Solid Disc | 2825 | |
| Hyundai Tiburon V6 (03-08) | 6 cyl DOHC | 86.7 x 75 2657 | (I) 32.0 (E) 26.4 | 10.0 | 99.6 | 3.15, 1.94, 1.33, 1.06, 0.86, 0.70 | (F) 280 x 26 Vented Disc (R) 257x 10 Solid Disc | 2620 | |
| Jensen Healey (Roadster) (73-79) | 4 Cyl DOHC | 95.2 x 69.3 1973 | | 8.4 | 92.0 | 3.37, 2.16, 1.58, 1.24, 1.00 | (F) 254 Disc (R) 229 x 45 Drum | 2240 | (2) Zenith-Stromberg IV Carburetors |
| Mazda 626 LX/ES (93-97) | V-6 DOHC | 84.5 x 74.2 2495 | (I) 32.2 (E) 27.8 | 9.2 | 102.9 | 3.31, 1.83, 1.31, 1.03, .80 | (F) 258 Vented Disc (R) 261 Solid Disc | 2570 | |
| Mazda MX-5 / Miata (99-00) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.10 (E) 28.15 | 9.5 | 89.2 | 3.14, 1.89, 1.33, 1.00, 0.81 & 3.76, 2.27, 1.65, 1.26, 1.00, .84 | (F) 255 Vented Disc (R) 252 Solid Disc | 2375 | |
| Mazda MX-5 / Miata (01-05) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.10 (E) 28.15 | 10.0 | 89.2 | 3.14, 1.89, 1.33, 1.00, 0.81 & 3.76, 2.27, 1.65, 1.26, 1.00, .84 | (F) 255 or 269.5 Vented Disc (R) 252 or 267.9 Solid Disc | 2375 | |

| ITS | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda MX-5 (06-10) | 4 cyl. DOHC | 87.4 x 83.1 1998 | (I) 35.0 (E) 30.0 | 10.8:1 | 91.7 | 3.82, 2.26, 1.64,1.18, 1.00, 0.83 or 3.14, 1.89, 1.33, 1.00, 0.81 | ((F) 290.0x22 vented (R) 280.0x10 solid | 2740 | |
| Mazda MX-6 (1993) | V-6 DOHC | 84.5 x 74.2 2495 | (I) 32.2 (E) 27.8 | 9.2 | 102.9 | 3.31, 1.83, 1.31, 1.03, .80 | (F) 258 Vented Disc (R) 261 Solid Disc | 2570 | |
| Mazda RX-7 (13B) (84-85) | 2 Rotor | 2616 | | 9.4 | 95.3 | 3.62, 2.19, 1.42, 1.00, 0.76 & 3.62, 1.19, 1.42, 1.00, 0.81 | (F) 250 Disc (R) 256 Disc | 2350 | |
| Mazda RX-7/ Convertible (13B) (86-91) | 2 Rotor | 2616 | | 9.4/9.7 | 95.7 | 3.48, 2.00, 1.37, 1.00, 0.71 & 3.48, 2.00, 1.37, 1.00, 0.70 & 3.48, 2.00, 1.37, 1.00, 0.76 | (F) 250 Disc (R) 256 Disc alt. (F) 277 Disc (R) 272 Disc | 2680 | 16" wheel not allowed. 5th and 6th intake port actuators and valves may be removed or disabled. |
| Mazda RX-8 (04-08) | 2 Rotor | 2600cc | NA | 10.0 | 2703 | 3.76, 2.27, 1.65, 1.19, 1.00, 0.84 | (F) 323 Vented Disc (R) 303 Vented Disc | 3270 | |
| Mazda RX-8 (09-11) | 2 Rotor | 2600cc | NA | 10.0 | 2703 | 3.76, 2.27, 1.65, 1.19, 1.00, 0.84 | (F) 323 Vented Disc (R) 303 Vented Disc | 3270 | |
| Mercedes-Benz 190 E 2.3L 16V | 4 Cyl SOHC | 96.5 x 80.3 2299 | (I) 38.0 (E) 33.0 | | 104.9 | | | 2800 | |
| Mercedes-Benz 190 E 2.6L 12V (87-93) | 6 Cyl SOHC | 82.9 x 80.3 2599 | (I) 40.0 (E) 35.0 | 9.2 | 104.9 | 3.86, 2.18, 1.38, 1.00, 0.80 | (F) 262 Disc (R) 258 Disc | 2695 | |
| Mercury Cougar (1999) | 6 Cyl DOHC | 82.4 x 79.5 2544 | (I) 32.0 (E) 28.0 | 9.7 | 106.4 | 3.42, 2.14, 1.48, 1.11, 0.85 | (F) 278 Vented Disc (R) 253 Solid Disc | 2650 | |
| Nissan/Datsun 240-Z (70-73) | 6 Cyl SOHC | 83.0 x 73.3 2380 | (I) 42.0 (E) 33.0 | 9.0 | 90.7 | 3.55, 2.20, 1.42, 1.00 & 3.59, 2.25, 1.42, 1.00 | (F) 272 Disc (R) 229 x 41 Drum | 2430 | (2) Hitachi-SU (1V) Carburetors |
| Nissan/Datsun 260-Z (73-74) | 6 Cyl SOHC | 83.0 x 79.0 2565 | (I) 42.0 (E) 35.0 | 8.8 | 90.7 | 3.59, 2.25, 1.42, 1.00 | (F) 272 Disc (R) 229 x 41 Drum | 2480 | (2) Hitachi-SU (1V) Carburetors |
| Nissan/Datsun 280-Z (75-78) | 6 Cyl SOHC | 86.1 x 79.0 2760 | (I) 44.2 (E) 35.3 | 8.3 | 90.7 | 3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86 | (F) 272 Disc (R) 229 x 41 Drum | 2505 | Nissan (Bosch) L-Jetronic fuel injection |
| Nissan/Datsun 280-ZX 2+2 (79-83) | 6 Cyl SOHC | 86.1 x 79.0 2760 | (I) 44.2 (E) 35.3 | 8.3 | 102.6 | 3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86 | (F) 252 Vented Disc (R) 258 or 269 Solid Disc | 2530 | Nissan (Bosch) L-Jetronic fuel injection |
| Nissan/Datsun 280-ZX (79-83) | 6 Cyl SOHC | 86.1 x 79.0 2760 | (I) 44.2 (E) 35.3 | 8.3 | 91.3 | 3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86 | (F) 252 Vented Disc (R) 258 or 269 Solid Disc | 2530 | Nissan (Bosch) L-Jetronic fuel injection |
| Nissan 200-SX V-6 (1987) | V-6 SOHC | 87.0 x 83.0 2960 | (I) 42.0 (E) 35.0 | 9.0 | 95.4 | 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 274 Disc (R) 290 Drum | 2725 | |
| Nissan 240-SX / S13 (91-94) | 4 Cyl DOHC | 89.0 x 96.0 2389 | (I) 38.1 (E) 31.8 | 9.5 | 97.4 | 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 257 Disc (R) 258 Disc | 2600 | |

| ITS | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Nissan 240-SX / S14 (95-98) | 4 Cyl DOHC | 89.0 x 96.0 2389 | (I) 38.1 (E) 31.8 | 9.5 | 99.4 | 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 257 Vented Disc (R) 258 Solid Disc | 2600 | |
| Nissan 300-ZX (84-88) | 6 Cyl SOHC | 87.0 x 83.0 2960 | (I) 42.0 (E) 35.0 | 9.0 | 91.3 | 3.35, 2.06, 1.38, 1.00, 0.78 or 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 274 Disc (R) 290 Disc | 2725 | Bosch L-Jetronic Fuel Injection |
| Nissan 300-ZX 2+2 (1986) | 6 Cyl SOHC | 87.0 x 83.0 2960 | (I) 42.0 (E) 35.0 | 9.0 | 95.7 | 3.35, 2.06, 1.38, 1.00, 0.78 or 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 274 Disc (R) 290 Disc | 2725 | Bosch L-Jetronic Fuel Injection |
| Nissan Sentra SER Spec V (02-06) | 4 Cyl DOHC | 89.0 x 100.0 2488 | (I) 35.8 (E) 30.8 | 9.6 | 99.8 | 3.15, 1.94, 1.39, 1.06, 0.81, 0.63 | (F) 305 Vented Disc (R) 278 Solid Disc | 2825 | |
| Oldsmobile Achieva SCX (92-93) | 4 Cyl DOHC | 92.0 x 85.1 2263 | (I) 36.6 (E) 31.5 | 10.0 | 103.4 | 3.50, 2.05, 1.38, 1.03, 0.81 | (F) 259 Disc (R) 200 Drum | 2655 | Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed. |
| Oldsmobile Calais (88-89) | 4 Cyl DOHC | 92.0 x 85.1 2263 | (I) 36.6 (E) 31.5 | 10.1 | 103.4 | 3.50, 2.05, 1.38, 0.94, 0.72 & 3.50, 2.19, 1.38, 1.03, 0.81 | (F) 247 Disc (R) 201 x 46 Drum | 2505 | Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed. |
| Oldsmobile Calais (90-91) | 4 Cyl DOHC | 92.0 x 85.1 2263 | (I) 36.6 (E) 31.5 | 10.1 | 103.4 | 3.50, 2.05, 1.38, 0.94, 0.72 & 3.50, 2.19, 1.38, 1.03, 0.81 | (F) 247 Disc (R) 201 x 46 Drum | 2655 | Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed. |
| Pontiac Grand-Am (Quad 4) (88-91) | 4 Cyl DOHC | 92.2 x 85.1 2272 | (I) 36.6 (E) 31.5 | 10.1 | 103.4 | 3.50, 2.05, 1.38, 0.94, 0.72 & 3.50, 2.19, 1.38, 1.03, 0.81 | (F) 247 Disc (R) 201 x 46 Drum | 2505 | Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed. |
| Pontiac Solstice / Saturn Sky (06-09) | 4 cyl. DOHC | 88.0 x 98.0 2384 | (I) 35.25 (E) 30.25 | 10.9 | 95.1 | 3.75, 2.26, 1.37,1.00, 0.73 | ((F) 296.0x26 vented (R) 278.0x12 solid | 2905 | |
| Porsche 911 T & E (68-69) | 6 Cyl SOHC | 80.0 x 66.0 1991 | (I) 42.0 (E) 38.0 | 9.1 | 1968: 87.0 1969: 89.3 | 3.09, 1.89, 1.32, 1.04, 0.79 | (F) 282 Disc (R) 290 Disc | 2385 | |
| Porsche 911 T & E (70-71) | 6 Cyl SOHC | 84.0 x 66.0 2195 | (I) 46.1 (E) 40.1 | 9.1 | 89.3 | 3.09, 1.89, 1.32, 1.04, 0.79 | (F) 282 Disc (R) 290 Disc | 2485 | |
| Porsche 911 T & E (72-73) | 6 Cyl SOHC | 84.0 x 70.4 2341 | (I) 46.1 (E) 40.1 | 8.0 | 89.3 | 3.09, 1.89, 1.32, 1.04, 0.79 | (F) 282 Disc (R) 290 Disc | 2585 | |
| Porsche 924-S (86-88) | 4 Cyl SOHC | 100.0 x 78.9 2479 | (I) 45.0 (E) 40.0 | 10.2 | 94.5 | 3.60, 2.13, 1.46, 1.07, 0.83 | (F) 283 Disc (R) 289 Disc | 2575 | |
| Porsche 944 (2V) (83-88) | 4 Cyl SOHC | 100.0 x 78.9 2479 | (I) 45.0 (E) 40.0 | 10.2 | 94.5 | 3.60, 2.13, 1.46, 1.07, 0.73 & 3.60, 2.13, 1.46, 1.07, 0.83 | (F) 283 Disc (R) 289 Disc | 2575 | Maximum wheel size is 16 x 7 @ all 4 corners. |
| Porsche 944 2.7L (1989) | 4 Cyl SOHC | 104.0 x 78.9 2681 | (I) 45.0 (E) 40.0 | 10.2 | 94.5 | 3.60, 2.13, 1.46, 1.07, 0.73 & 3.60, 2.13, 1.46, 1.07, 0.83 | (F) 283 Disc (R) 289 Disc | 2635 | Maximum wheel size is 16 x 7 @ all 4 corners. |

| ITS | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Porsche 944S (4V) (87-88) | 4 Cyl DOHC | 100.0 x 78.9 2479 | (I) 37.0 (E) 33.0 | 10.9 | 94.5 | 3.50, 2.059, 1.40, 1.034, 0.829 | (F) 282 Disc (R) 289 Disc | 2850 | |
| Subaru Impreza 2.5 RS (98) | 4 Cyl SOHC | 99.5 x 79.0 2457 | (I) 36.0 (E) 31.5 | 9.7 | 99.2 | 3.55, 2.11, 1.45, 1.09, 0.78 | (F) 277x24 Vented (R) 266x10 Solid | 2660 | Center differential must remain stock. |
| Subaru Impreza 2.5 RS (99-01) | 4 Cyl SOHC | 99.5 x 79.0 2457 | (I) 36.5 (E) 32.0 | 10.0 | 99.2 | 3.55, 2.11, 1.45, 1.09, 0.78 | (F) 277x24 Vented (R) 266x10 Solid | 2660 | Center differential must remain stock. |
| Toyota Corolla XRS (2005) | 4 cyl. DOHC | 82.0 x 85.0 1796 | (I) 34.0 (E) 29.0 | 11.5:1 | 102.4 | 3.17, 2.05, 1.48,0.92, 0.73 | ((F) 275.0 Vented (R) 254.0 Solid | 2590 | |
| Toyota MR2 Spyder (2001-03) | 4 cyl. DOHC | 79.0 x 91.5 1794 | (I) 32.0 (E) 27.5 | 10.0 | 96.5 | 3.17, 1.90, 1.39,1.03, 0.82 | (F) 253.0x20 Vented (R) 262.0x16 Vented | 2275 | |
| Toyota Supra (82-85) | 6 Cyl DOHC | 83.0 x 85.0 2759 | (I) 44.0 (E) 36.0 | 9.2 | 103.0 | 3.29, 1.89, 1.28, 1.00, 0.78 | (F) 256 Disc (R) 264 Disc | 2750 | |
| Toyota Supra (86 1/2-92) | 6 Cyl DOHC | 83.0 x 91.0 2954 | (I) 32.0 (E) 27.5 | 9.2 | 102.2 | 3.29, 1.89, 1.28, 1.00, 0.78 | (F) 299 Disc (R) 290 Disc | 3275 | |
| Triumph TR8 (80-82) | 8 Cyl OHV | 88.9 x 71.1 3528 | (I) 39.9 (E) 34.3 | 8.1 | 85.0 | 3.32, 2.09, 1.39, 1.00, 0.83 | (F) 249 Disc (R) 229 x 46 Drum | 2610 | (2) Stromberg 1V Carburetors or Lucas/Bosch L-Jetronic Injection. Convertible allowed @2560 lbs. |
| Volkswagen Corrado SLC | V-6 DOHC | 81.0 x 90.3 2782 | (I) 39.0 (E) 34.2 | 10.0 | 97.3 | 3.30, 1.94, 1.31, 1.03, 0.84 | (F) 280 Vented Disc (R) 226 Solid Disc | 2680 | |
| Volkswagen Golf GTI VR-6 (95-99.5) | V-6 DOHC | 81.0 x 90.3 2782 | (I) 39.0 (E) 34.2 | 10.0 | 97.3 | 3.30, 1.94, 1.31, 1.03, 0.84 | (F) 280 Vented Disc (R) 226 Solid Disc | 2680 | |
| Volkswagen Jetta VR-6 (94-96) | V-6 DOHC | 81.0 x 90.3 2782 | (I) 39.0 (E) 34.2 | 10.0 | 97.3 | 3.30, 1.94, 1.31, 1.03, 0.84 | (F) 280 Vented Disc (R) 226 Solid Disc | 2680 | |
| Volkswagen Rabbit 2.5L (08-09) | 5 cyl DOHC | 82.5 x 92.8 2480 | | 10.5 | 101.5 | 3.78, 2.12, 1.36, 0.97, 0.77 | (F) 288 x 25 Vented Disc (R) 260 x 12 Solid Disc | 2560 | |
| Volvo 850 GLT (93-97) | Inline 5 DOHC | 83.0 x 90.0 2435 | | 10.5 | 2665.0 | 3.38, 1.90, 1.19, 1.03, 0.84 | (F) 279 Vented Disc (R) 292 Solid Disc | 2635 | |

NOTES:

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura CL 2.3L (98-99) | 4 cyl SOHC | 86.0 x 97.0 2254 | (I) 34.2 (E) 29.2 | 9.3 | 106.9 | 3.29, 1.81, 1.19, 0.90, 0.69 | (F) 260 x 23 Vented Disc (R) 260 x 10 Solid Disc | 2715 | |
| Acura Integra 1.6 (86-89) | 4 Cyl DOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 27.0 | 9.3 | 96.5 | 3.18, 1.95, 1.29, 1.03, 0.85 | (F) 242 Disc (R) 239 Disc | 2200 | |
| Acura Integra (90-93) | 4 Cyl DOHC | 81.0 x 89.0 1835 | (I) 31.0 (E) 28.0 | 9.2 | 100.4 | 3.17, 1.86, 1.26, 0.94, 0.74 | (F) 262 Disc (R) 239 Disc | 2595 | |
| Acura Integra GS/ LS/RS(3 door) (94-00) | 4 Cyl DOHC | 81.0 x 89.0 1835 | (I) 31.0 (E) 28.0 | 9.2 | 101.2 | 3.23, 1.9, 1.27, 0.97, 0.71 | (F) 262 x 21 Vented Disc (R) 239 x 10 Solid Disc | 2620 | |
| Acura RSX (base) (2002-2006) | 4 cyl DOHC | 86.0 x 86.0 1998 | (I) 35.0 (E) 30.0 | 9.8 | 101.2 | 3.27, 1.88, 1.21, 0.92, 0.74 | (F) 262 x 21 Vented Disc (R) 260 x 9 Solid Disc | 2840 | |
| AMC Spirit (79-83) | 6 Cyl OHV | 95.3 x 99.1 4235 | (I) 45.5 (E) 35.9 | 8.3 | 96.0 | 3.98, 2.14, 1.42, 1.00 & 3.50, 2.21, 1.43, 1.00 & 4.04, 2.39, 1.49, 1.00 | (F) 274 Disc (R) 254 Drum | 2730 | |
| Audi GT Coupe (1987) | 5 Cyl SOHC | 82.5 x 86.4 2309 | (I) 39.5 (E) 31.0 | 8.0 | 99.8 | 2.85, 1.52, 0.97, 0.70, 0.54 | (F) 256 Vented Disc (R) 245 x 10 Solid Disc | 2230 | |
| Audi Coupe Quattro (90-91) | 5 Cyl SOHC | 86.0 x 86.0 2309 | (I) 32.0 (E) 28.0 | 9.8 | 100.4 | 3.55, 2.11, 1.43, 1.03, 0.84 | (F) 276 vented (R) 245 solid | 3055 | Center differential must remain stock. |
| BMW 318 (E36) (92-94) | 4 Cyl DOHC | 84.0 x 81.0 1796 | | 10.0 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 287 x 23 Vented Disc (R) 280 x 11 Solid Disc | 2600 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 318i/is Twin Cam (90-91) | 4 Cyl DOHC | 84.7 x 81.0 1799 | (I) 33.0 (E) 30.5 | 10.0 | 101.2 | 3.72, 2.02, 1.32, 1.00, 0.81 | (F&R) 259 Disc | 2600 | |
| BMW 318ti & Club Sport (1995) | 4 Cyl DOHC | 84.0 x 81.0 1796 | (I) 33.0 (E) 30.5 | 10.0 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 286 Solid Disc (R) 272 Solid Disc | 2600 | |
| BMW 318ti / Sport (96-99) | 4 Cyl DOHC | 85.1 x 83.6 1895 | (I) 33.0 (E) 30.5 | 10.0 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 286 Solid Disc (R) 272 Solid Disc | 2600 | |
| BMW 318i/is (96-99) | 4 Cyl DOHC | 85.1 x 83.6 1895 | (I) 33.0 (E) 30.5 | 10.0 | 106.3 | 4.23, 2.52, 1.67, 1.22, 1.00 | (F) 286 Solid Disc (R) 272 Solid Disc | 2600 | |
| BMW 325e/es (2 & 4 door) (84-87) | 6 Cyl SOHC | 84.0 x 81.0 2693 | (I) 40.0 (E) 34.0 | 9.0 | 101.2 | ZF: 3.84, 2.20, 1.39, 1.00, 0.81 & Gertrag: 3.83, 2.20, 1.40, 1.00, 0.81 | (F) 287 x 23 Vented Disc (R) 280 x 11 Solid Disc | 2550 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 2002tii (71-74) | 4 Cyl SOHC | 89.0 x 80.0 1990 | (I) 46.0 (E) 38.0 | 9.0 | 98.4 | 3.76, 2.02, 1.32, 1.00 | (F) 256 Disc (R) 230 Drum | 2310 | Kugelfischer Mechanical Fuel Injection |
| BMW Z3 1.9 (96-98) | 4 Cyl DOHC | 85.1 x 83.6 1895 | (I) 33.0 (E) 30.5 | 10.0 | 96.3 | 4.23, 2.52, 1.66, 1.22, 1.00 | (F) 286 Solid Disc (R) 272 Solid Disc | 2600 | |
| BMW 528e (82-87) | 6 cyl SOHC | 81 x 84 2963 | (I) 40.0 (E) 34.0 | 9.0 | 103.5 | 3.83, 2.20, 1.40, 1.00, 0.81 | (F) 284 Disc (R) 284 Disc | 2550 | |
| Buick Skyhawk V-6 (75-80) | 6 Cyl OHV | 96.6 x 86.4 3786 | (I) 43.5 (E) 38.1 | 8.0 | 97.0 | 3.50, 2.48, 1.66, 1.00 & 3.11, 2.20, 1.47, 1.00 & 3.10, 1.89, 1.27, 1.00, 0.80 & 2.95, 1.94, 1.34, 1.00, 0.80 | (F) 254 Disc (R) 242 Drum | 2810 | |

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Cavalier Z-24 (86-87) | 6 Cyl OHV | 89.0 x 76.0 2800 | (I) 43.6 (E) 36.2 | 8.9 | 101.2 | 3.92, 2.04, 1.36, 0.92, 0.75 | (F) 247 Disc (R) 200 Drum | 2480 | Alternate rear bearing, flange, and disc brakes from Saturn are allowed. 16" wheels not allowed. |
| Chevrolet Citation X-11 (81-83) | 6 Cyl OHV | 89.0 x 76.0 2800 | (I) 43.6 (E) 36.2 | 8.9 | 104.9 | 3.31, 1.95, 1.24, 0.81 | (F) 247 Disc (R) 200 Drum | 2620 | |
| Chevrolet Corvair 140 (68-69) | 6 Cyl OHV | 87.3 x 74.7 2685 | (I) 43.8 (E) 34.6 | 8.6 | 108.0 | 3.11, 2.20, 1.47, 1.00 | (F & R) 242 Drum | 2580 | (4) Rochester Carburetors: (2) 7025023 & (2) 7026026, All w/1.375" venturi. |
| Chevrolet Cosworth Vega Twin Cam (75-76) | 4 Cyl DOHC | 88.9 x 80.3 1998 | | 8.0 | 97.0 | 3.41, 2.08, 1.40, 1.00, 0.80 | (F) 251 Disc (R) 242 Drum | 2580 | Bendix MPC Fuel injection |
| Chevrolet Monza V-6 (78-80) | 6 Cyl OHV | 96.6 x 86.4 3786 | (I) 43.5 (E) 38.1 | 8.0 | 97.0 | 3.50, 2.48, 1.66, 1.00 & 3.11, 2.20, 1.47, 1.00 & 3.10, 1.89, 1.27, 1.00, 0.80 & 2.95, 1.94, 1.34, 1.00, 0.80 | (F) 254 Disc (R) 242 Drum | 2810 | |
| Chrysler Neon SOHC (2&4 door) (incl. ACR) (95-99) | 4 Cyl SOHC | 87.5 x 83.0 1995 | (I) 33.0 (E) 28.0 | 9.8 | 104.0 | 3.54, 2.12, 1.36, 1.03, 0.81 3.54, 2.12, 1.36, 1.03, .72 | (F) 257 x 20 Disc (R) 270 x 9 Disc or (F) 240 Disc (R) 200 Drum | 2345 | |
| Chrysler Neon DOHC (2 & 4 door) (incl. ACR) (95-99) | 4 Cyl DOHC | 87.5 x 83.0 1995 | (I) 34.8 (E) 30.5 | 9.6 | 104.0 | 3.54, 2.12, 1.36, 1.03, 0.81 3.54, 2.12, 1.36, 1.03, .72 | (F) 257 x 20 Disc (R) 270 x 9 Disc or (F) 240 Disc (R) 200mm drum | 2560 | |
| Dodge Daytona (1986) | 4 Cyl SOHC | 87.5 x 104.0 2501 | (I) 40.6 (E) 35.4 | 9.0 | 97.0 | 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 257 Disc | 2620 | |
| Dodge / Plymouth Neon RT & ACR (01-03) | 4 Cyl SOHC | 87.5 x 83.0 1995 | (I) 34.9 (E) 28.5 | 9.8 | 103.0 | 3.50, 1.95, 1.36, 0.97, 0.81 | (F) 257 Vented Disc (R) 270 Solid Disc | 2670 | |
| Dodge / Plymouth Neon incl. SE, ES, SXT (00-03) | 4 Cyl SOHC | 87.5 x 83.0 1995 | (I) 33.4 (E) 28.8 | 9.3 | 103.0 | 3.50, 1.95, 1.36, 0.97, 0.81 | (F) 257 Vented Disc (R) 270 Solid Disc | 2345 | |
| Ford Escort GT/ LX-E 1.8L 16V (91-95) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.0 (E) 28.0 | 9.0 | 98.4 | 3.30, 1.83, 1.31, 1.03, 0.79 | (F) 235 Disc (R) 232 Disc | 2325 | |
| Ford Escort ZX2 (98-00) | 4 Cyl DOHC | 84.8 x 88.0 1988 | (I) 32.0 (E) 28.0 | 10.0 | 98.4 | 3.32, 1.83, 1.23, 0.91, 0.72 | (F) 259 Vented Disc (R) 228 Drum | 2400 | |
| Ford Focus ST (05-06) | 4 cyl. DOHC | 87.38 x 94.0 2255 | (I) 35.0 (E) 30.0 | 9.9 | 102.9 | 3.42, 2.14, 1.45,1.03, 0.77 | (F) 277.9 Vented (R) 251.0 Solid | 2680 | |
| Ford Focus ZX-3 (00-01) | 4 Cyl DOHC | 84.8 x 88.0 1988 | (I) 32.0 (E) 28.0 | 9.6 | 103.0 | 3.67, 2.14, 1.45, 1.03, 0.77 | (F) 258 Solid Disc (R) 252 Solid Disc (R) 203 Drum | 2400 | |
| Ford Focus Coupe (08-10) | 4 Cyl DOHC | 87.5 x 83.1 1999 | (I) 35.0 (E) 30.0 | 10.0 | 102.9 | 3.67, 2.14, 1.45, 1.03, 0.77 | (F) 275 x 25 Vented Disc (R) 203 x 45 Drum | 2490 | |

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Focus Sedan (08-10) | 4 Cyl DOHC | 87.5 x 83.1 1999 | (I) 35.0 (E) 30.0 | 10.0 | 102.9 | 3.67, 2.14, 1.45, 1.03, 0.77 | (F) 275 x 25 Vented Disc (R) 203 x 45 Drum | 2490 | |
| Ford Mustang II V-6 (74-78) | 6 Cyl OHV | 93.0 x 68.6 2796 | (I) 39.9 (E) 32.3 | 8.2 | 96.2 | 3.50, 2.21, 1.43, 1.00 | (F) 237 Disc (R) 229 Drum | 2840 | |
| Ford Mustang V-6 (1979) | 6 Cyl OHV | 93.0 x 68.6 2796 | (I) 39.9 (E) 32.3 | 8.7 | 100.4 | 3.98, 2.14, 1.42, 1.00 | (F) 237 Disc (R) 229 Drum | 3000 | |
| Honda Accord EX (94-97) | 4 Cyl SOHC | 85.1 x 91.0 2157 | (I) 34.0 (E) 29.0 | 8.8 | 106.9 | 3.29, 1.81, 1.19, 0.93, 0.69 | (F) 259 Vented Disc (R) 228 Solid Disc | 2735 | |
| Honda Accord DX/LX/EX (03-05) | 4 cyl DOHC | 87.0 x 99.0 2345 | (I) 35.2 (E) 30.2 | 9.7 | 107.9 | 3.27, 1.77, 1.15, 0.87, 0.66 | (F) 282 x 23 Vented Disc (R) 260 x 9 Solid Disc | 2895 | |
| Honda Civic Del Sol Si (93-95) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 26.0 | 9.2 | 93.3 | 3.25, 1.90, 1.25, 0.90, 0.75 | (F) 240 Disc (R) 239 Disc | 2270 | Rear cage braces may pass through rear window. |
| Honda Civic Del Sol Si (96-97) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 26.0 | 9.2 | 93.3 | 3.25, 1.90, 1.25, 0.90, 0.75 | (F) 240 Disc (R) 239 Disc | 2305 | Rear cage braces may pass through rear window. |
| Honda Civic Si (89-91) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 29.0 (E) 25.0 | 9.1 | 98.4 | 3.25, 1.89, 1.26, 0.94, 0.77 | (F) 242 Disc (R) 181 Drum | 2250 | PGM Fuel Injection |
| Honda Civic Si (92-95) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 26.0 | 9.2 | 101.3 | 3.25, 1.90, 1.25, 0.91, 0.70 | (F) 262 Disc (R) 201 Disc | 2270 | |
| Honda Civic EX Coupe*/Sedan* (96-00) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 26.0 | 9.6 | 103.2 | 3.25, 1.90, 1.25, 0.91, 0.70 | (F) 262 Vented Disc (R) 201 Drum | 2305 | |
| Honda Civic EX Coupe/Sedan VTEC (92-95) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 30.0 (E) 26.0 | 9.2 | 103.2 | 3.25, 1.90, 1.25, 0.91, 0.70 | (F) 262 x 20 Vented Disc (R) 201 Drum/Solid Disc | 2270 | |
| Honda Civic EX (90-91) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 29.0 (E) 25.0 | 9.1 | 98.4 | 3.25, 1.89, 1.26, 0.94, 0.77 | (F) 262 Vented Disc (R) 181 Drum | 2250 | |
| Honda Civic Si (02-05) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 35.0 (E) 30.0 | 9.8 | 101.2 | 3.06, 1.77, 1.21, 0.92, 0.74 | (F) 262 vented (R) 259 solid | 2840 | |
| Honda CRX Si (88-91) | 4 Cyl SOHC | 75.0 x 90.0 1590 | (I) 29.0 (E) 25.0 | 9.1 | 90.6 | 3.25, 1.89, 1.26, 0.94, 0.77 | (F) 242 Disc (R) 181 Drum (R) 239 Disc | 2250 | |
| Honda Prelude-S (1992) | 4 Cyl SOHC | 85.1 x 95.0 2157 | (I) 34.0 (E) 29.0 | 9.4 | 100.4 | 3.31, 1.86, 1.32, 1.03, 0.81 | (F & R) 259 Disc | 2680 | |
| Honda Prelude Si (88-91) | 4 Cyl | 80.0 x 91.0 1950 | (I) 30.0 (E) 35.0 | | | 3.181, 1.842, 1.250, 0.937, 0.771 | | 2550 | |
| Honda Prelude Si (90-91) | 4 Cyl DOHC | 83.0 x 95.0 2056 | (I) 33.1 (E) 28.1 | 9.4 | 101.0 | 3.31, 1.81, 1.29, 0.96, 0.81 | (F) 214 Vented Disc (R) 208 Vented Disc | 2550 | |
| Isuzu Impulse (83-87) | 4 Cyl OHC | 87.0 x 82.0 1949 | | 9.2 | 96.0 | | | 2855 | |
| Mazda Cosmo (76-78) | 2 Rotor | 2616 | | 9.2 | 99.0 | 3.68, 2.26, 1.40, 1.00, 0.86 | (F) 204 Disc (R) 242 Drum | 2780 | |
| Mazda MX-3 V-6 | V-6 DOHC | 75.0 x 69.6 1844 | (I) 28.5 (E) 23.1 | 9.2 | 96.3 | 3.31, 1.83, 1.31, 1.03, 0.80 | (F) 257 Disc (R) 252 Disc | 2510 | |

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda MX-5 / Miata (90-93) | 4 Cyl DOHC | 78.0 x 83.6 1597 | (I) 31.1 (E) 26.3 | 9.4 | 89.2 | 3.14, 1.89, 1.33, 1.00, 0.81 | (F) 235 Disc (R) 232 Disc | 2255 | |
| Mazda MX-5 / Miata includes R (94-97) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.10 (E) 28.15 | 9.0 | 89.2 | 3.14, 1.89, 1.33, 1.00, 0.81 | (F) 255 Disc (R) 251 Disc | 2460 | |
| Mazda Protege LX (90-94) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.0 (E) 28.0 | 9.0 | 98.4 | 3.30, 1.83, 1.31, 1.03, 0.79 | (F) 257 Vented Disc (R) 252 Solid Disc | 2325 | |
| Mazda Protege ES (95-98) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.0 (E) 28.0 | 9.4 | 102.6 | 3.42, 1.84, 1.29, 1.02, 0.78 | (F) 257 Vented Disc (R) 252 Solid Disc | 2325 | |
| Mazda Protege ES/LX (01-03) | 4 Cyl DOHC | 83.0 x 92.0 1991 | (I) 31.5 (E) 27.6 | 9.1 | 102.8 | 3.31, 1.84, 1.31, 0.97, 0.76 | (F) 258 Vented Disc (R) 261 Solid Disc | 2305 | |
| Mazda Protégé MP3 (2001) | 4 cyl. DOHC | 83.0 x 92.0 1991 | (I) 31.5 (E) 27.6 | 9.1 | 102.8 | 3.31, 1.84, 1.31, 0.97, 0.76 | (F) 259 x 22 Vented (R) 262 x 8 Solid | 2485 | |
| Mazda Protege5 (02-03) | 4 Cyl DOHC | 83.0 x 92.0 1991 | (I) 31.5 (E) 27.6 | 9.1:1 | 102.8 | 3.31, 1.84, 1.31, 0.97, 0.76 | (F) 258 Vented Disc (R) 261 Solid Disc | 2305 | |
| Mazda RX-2 (71-74) | 2 Rotor | 2292 | | 9.4 | 97.2 | 3.68, 2.26, 1.40, 1.00, 0.86 | (F) 232 Disc (R) 201 Drum | 2300 | |
| Mazda RX-3 / 3SP (72-78) | 2 Rotor | 2292 | | 9.4 | 91.0 | 3.74, 2.20, 1.44, 1.00, 0.79 & 3.74, 2.20, 1.44, 1.00, & 3.68, 2.26, 1.40, 1.00, 0.86 & 3.38, 2.00, 1.39, 1.00, 0.79 | (F) 232 Disc (R) 201 Drum (R) 229 Drum | 2280 | |
| Mazda RX-4 (74-78) | 2 Rotor | 2616 | | 9.2 | 99.0 | 3.68, 2.26, 1.40, 1.00 & 3.38, 2.08, 1.32, 1.00, 0.79 | (F) 232 Disc (R) 229 Drum | 2550 | |
| Mazda RX-7 (12A) (79-85) | 2 rotor | 2292 | | 9.4 | 95.3 | 3.68, 2.22, 1.43, 1.00, 0.83 | (F) 227 Disc (R) 200 Drum (R) 236 Disc | 2280 | |
| Mazda 3s (04-09) | 4 Cyl DOHC | 87.5 x 94.0 2260 | (I) 33.5 (E) 28.3 | 9.7 | 2639mm | 3.31, 1.84, 1.31, 0.97, 0.76 | (F) 300 Vented Disc (R) 280 Solid | 2840 | |
| Mercedes-Benz 190E 2.3L 8V | 4 Cyl SOHC | 95.5 x 80.3 2299 | (I) 46.1 (E) 39.1 | 9.0 | 104.9 | 3.91, 2.17, 1.37, 1.00, 0.78 | (F) 262 Disc (R) 258 Disc | 2730 | |
| Mercury Capri I V-6 72-74) | 6 Cyl OHV | 90.0 x 66.8 2550 93.0 x 68.5 2796 | (I) 39.9 (E) 32.3 | 8.2 | 100.8 | 3.65, 1.97, 1.37, 1.00 | (F) 244 Disc (R) 229 Drum | 2390 | |
| Mercury Capri II V-6 (76-77) | 6 Cyl OHV | 93.0 x 68.5 2796 | (I) 39.9 (E) 32.3 | 8.2 | 100.8 | 3.65, 1.97, 1.37, 1.00 | (F) 249 Disc (R) 229 Drum | 2670 | |
| Mercury Capri (91-94) | 4 Cyl DOHC | 78.0 x 83.6 1597 | (I) 31.1 (E) 26.3 | 9.4 | 94.7 | 3.31, 1.83, 1.23, 0.97, 0.80 | (F) 260 Vented Disc (R) 221 Solid Disc | 2440 | |
| Mercury Tracer LTS (91-96) | 4 Cyl DOHC | 83.0 x 85.0 1839 | (I) 33.0 (E) 28.0 | 9.0 | 98.4 | 3.30, 1.83, 1.31, 1.03, 0.79 | (F) 235 Disc (R) 232 Disc | 2430 | |
| Merkur Scorpio (87-89) | V-6 OHV | 93.0 x 72.0 2935 | (I) 46.0 (E) 36.0 | 9.2 | 108.0 | 3.36, 1.81, 1.26, 1.00, 0.83 | (F) 260 Vented Disc (R) 260 Solid Disc | 2815 | |

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mitsubishi Eclipse / Eagle Talon (95-98) | 4 Cyl DOHC | 87.5 x 83.0 1997 | (I) 34.93 (E) 30.63 | 9.6 | 98.8 | 3.54, 2.13, 1.36, 1.03, 0.81 | (F) 204 Vented Disc (R) 222 Solid Disc (R) 231 x 41.3 Drum | 2600 | |
| Mitsubishi Eclipse RS/GS (00-05) | 4 Cyl SOHC | 86.5 x 100.0 2351 | (I) 33.0 (E) 29.0 | 10.0 | 100.8 | 3.58, 1.95, 1.38, 1.03, 0.82 | (F) 256 x 24 Vented Disc (R) 262 x 10 Solid Disc | 2700 | |
| Nissan 200 SX SE-R (95-98) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 34.2 (E) 30.2 | 9.5 | 95.7 | 3.06, 1.83, 1.29, 0.98, 0.76 | (F) 247 Vented Disc (R) 234 Solid Disc | 2490 | |
| Nissan 240-SX / S13 (89-90) | 4 Cyl SOHC | 89.0 x 96.0 2389 | (I) 34.0 (E) 40.0 | 9.5 | 97.4 | 3.32, 1.90, 1.31, 1.00, 0.76 | (F) 252 Disc (R) 258 Disc | 2630 | Front brake discs may be stock 257 x 22mm ABS discs w/ 4-lug hub & ABS front calipers. |
| Nissan NX-2000 (91-93) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 34.2 (E) 30.2 | 9.5 | 95.7 | 3.06, 1.83, 1.29, 0.98, 0.76 | (F) 257 Disc (R) 234 Disc | 2515 | |
| Nissan Sentra SE-R (91-94) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 34.2 (E) 30.2 | 9.5 | 95.7 | 3.06, 1.83, 1.29, 0.98, 0.76 | (F) 249 Disc (R) 234 Disc | 2490 | |
| Nissan Pulsar NX (87-91) | 4 Cyl DOHC | 76.0 x 88.0 1597 | (I) 37.0 (E) 30.0 | 9.4 | | 3.06, 1.83, 1.21, 0.90, 0.76 | (F) 258 Disc (R) 203 Drum | 2250 | KN13 engine |
| Plymouth Laser / Eagle Talon / Mitsubishi Eclipse 2.0L (90-94) | 4 Cyl DOHC | 85.0 x 88.0 1997 | (I) 34.0 (E) 30.5 | 9.0 | 97.2 | 3.36, 1.95, 1.29, 0.94, 0.76 | (F & R) 264 Disc | 2500 | |
| Pontiac Fiero GT & Formula V-6 2.8 (85-88) | 6 Cyl OHV | 89.0 x 76.0 2837 | (I) 43.7 (E) 36.3 | 8.5 | 93.4 | 3.50, 2.05, 1.38, 0.94, 0.72 & 3.31, 1.95, 1.24, 0.81 | (F) 260 or 247 Disc (R)260 or 247 Disc | 2600 | "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Porsche 912-E (1976) | 4 Cyl OHV | 94.0 x 71.0 1971 | (I) 42.0 (E) 36.0 | 7.6 | 89.4 | 3.18, 1.83, 1.26, 0.96, 0.72 | (F) 282 Disc (R) 290 Disc | 2480 | |
| Porsche 914-6 (70-72) | 6 Cyl SOHC | 80.0 x 66.0 / 1991 | (I)42.0 (E)38.0 | 8.6 | 96.5 | 3.09, 1.78, 1.22, 0.93, 0.76 | (F)282.5 x 20 Vented Disc (R)286 x 10.5 Solid Disc | 2095 | |
| Saab 900 16V (B212i) (91-92) | 4 Cyl DOHC | 2118 | | | | | | 2680 | |
| Saturn SC Coupe & SC2 (91-96) | 4 Cyl DOHC | 82.0 x 90.0 1901 | (I) 32.3 (E) 27.4 | 9.5 | 102.4 | 3.25, 2.01, 1.42, 1.03, 0.73 | (F) 251 x 18 Vented Disc (R) 245 x 11 Solid Disc (R) 200 x 30 Drum | 2360 | |
| Saturn SC2 (97-98) | 4 Cyl DOHC | 82.0 x 90.0 1901 | (I) 32.3 (E) 27.4 | 9.5 | 102.4 | 3.25, 2.01, 1.42, 1.03, 0.73 | (F) 251 x 18 Vented Disc (R) 245 x 11 Solid Disc (R) 200 x 30 Drum | 2360 | |
| Saturn SL2 (91-95) | 4 Cyl DOHC | 82.0 x 90.0 1901 | (I) 32.3 (E) 27.4 | 9.5 | 102.4 | 3.25, 2.01, 1.42, 1.03, 0.73 | (F) 251 x 18 Vented Disc (R) 245 x 11 Solid Disc (R) 200 x 30 Drum | 2360 | |
| Saturn SL2 (96-98) | 4 Cyl DOHC | 82.0 x 90.0 1901 | (I) 32.3 (E) 27.4 | 9.5 | 102.4 | 3.25, 2.01, 1.42, 1.03, 0.73 | (F) 251 x 18 Vented Disc (R) 245 x 11 Solid Disc (R) 200 x 30 Drum | 2360 | |
| Saturn SC1 & SC2 Coupe (1997) | 4 Cyl DOHC | 82.0 x 90.0 1901 | (I) 32.3 (E) 27.4 | 9.5 | 102.4 | 3.25, 2.01, 1.42, 1.03, 0.73 | (F) 251 x 18 Vented Disc (R) 245 x 11 Solid Disc or (R) 200 x 30 Drum | 2360 | |
| Toyota Celica Supra (79-81) | 6 Cyl DOHC | 83.0 x 85.0 2759 | | 8.8 | 102.9 | 3.29, 1.89, 1.28, 1.00, 0.79 | | 2930 | |

| ITA | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Toyota Celica GTS (86-88) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 33.5 (E) 29.0 | 9.2 | 94.5 | 3.59, 2.02, 1.38, 1.00, 0.86 | (F) 232 Disc (R) 231 Disc | 2500 | |
| Toyota Celica GT Coupe/Liftback (89-93) | 4 Cyl DOHC | 87.0 x 91.0 2164 | (I) 32.0 (E) 27.0 | 9.5 | 99.4 | 3.29, 2.04, 1.32, 1.03, 0.82 | (F) 255 Disc (R) 201 Drum | 2590 | |
| Toyota Celica GTS Coupe & HB (1989) | 4 Cyl DOHC | 86.0 x 86.0 1998 | (I) 33.5 (E) 29.0 | 9.2 | 99.4 | 3.29, 2.04, 1.32, 1.03, 0.82 | (F) 258 Disc (R) 269 Disc | 2615 | |
| Toyota Celica GT Liftback / Coupe (94-99) | 4 Cyl DOHC | 87.0 x 91.0 2164 | (I) 32.0 (E) 27.0 | 9.5 | 100.0 | 3.29, 1.96, 1.32, 1.03, 0.82 | (F) 273 Vented Disc (R) 267 Solid Disc | 2400 | |
| Toyota Celica (00-05) | 4 Cyl DOHC | 79.0 x 91.5 1794 | NA | 10.0 | 2703 | 3.17, 1.90, 1.39, 1.03, 0.82 | (F)254 Vented Disc (R)192 Drum | 2490 | |
| Toyota Corolla GTS (84-87) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 95.0 | 3.59, 2.02, 1.38, 1.00, 0.86 | (F) 234 Disc (R) 231 Disc | 1950 | |
| Toyota Corolla GTS (88-92) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 94.5 | 3.59, 2.02, 1.38, 1.00, 0.86 | (F & R) 231 Disc | 2300 | |
| Toyota FX-16 (1987) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 95.7 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 244 Disc (R) 242 Disc | 1910 | |
| Toyota MR-2 1.6L (85-89) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 91.3 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 244 Disc (R) 239 Disc (F) 257 Disc (R) 262 Disc | 2000 | Factory aero package allowed (wing & skirts). Trunk mounted fuel cell with no larger capacity than stock is permitted. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Toyota MR-2 (90-94) | 4 Cyl DOHC | 87.0 x 91.0 2164 | (I) 32.0 (E) 27.0 | 9.5 | 94.5 | 3.29, 1.96, 1.32, 1.03, 0.82 | (F) 258 Disc (R) 263 Disc | 2545 | Rear cage braces may pass through the rear window. |
| Triumph GT-6 Mk.III (70-74) | 6 Cyl OHV | 74.2 x 76.0 1998 | (I) 36.5 (E) 32.0 | 9.25 | 83.0 | 2.65, 1.78, 1.25, 1.00, 0.80 | (F) 247 Disc (R) 203 Drum | 2005 | (1) Stromberg 150CP |
| Triumph TR6 (69-76) | 6 Cyl OHV | 74.7 x 95.0 2498 | (I) 36.83 (E) 32.00 | 8.5 | 88.0 | 3.14, 2.01, 1.33, 1.00 | (F) 273 Disc (R) 228.6 Drum | 2060 | |
| Volkswagen Golf GTI 16V (87-89) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2185 | |
| Volkswagen Golf GTI 2.0 16V (90-92) | 4 Cyl DOHC | 82.5 x 92.8 1984 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F & R) 245 Disc | 2475 | |
| Volkswagen Jetta GLI (91-92) | 4 Cyl DOHC | 82.5 x 92.8 1984 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 256 Disc (R) 245 Disc | 2475 | |
| Volkswagen Jetta GLI 16V (87-89) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, .91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2185 | |
| Volkswagen Rabbit 2.5L (06-07) | 5 cyl DOHC | 82.5 x 92.8 2480 | | 10.5:1 | 101.5 | 3.78, 2.12, 1.36, 1.03, 0.77 | (F) 285 x 25 Vented Disc (R) 260 x 12 Solid Disc | 2765 | |
| Volkswagen Sci-rocco 16V (86-88) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 94.5 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2185 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Alfa Romeo Alfetta GT, GTV, Sprint Veloce (75-79) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.2 (E) 40.2 | 9.0 | 95 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 261 Disc (R) 249 Disc | 2520 | |
| Alfa Romeo Alfetta Sedan (75-79) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.0 (E) 41.0 | 9.0 | 98.8 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 261 Disc (R) 249 Disc | 2605 | |
| Alfa Romeo GTV2000 (72-75) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.0 (E) 41.0 | 9.0 | 92.5 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 261 Disc (R) 267 Disc | 2410 | |
| Alfa Romeo all Spider models (72-89) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.0 (E) 41.0 | 9.0 | 88.6 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 268 Disc (R) 263 Disc | 2400 | 77-81 SPICA Mech. fuel injection, 82- Bosch L-Jetronic injection 5. |
| Alfa Romeo Spider Quadri-foglio (85-89) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.0 (E) 41.0 | 9.0 | 88.6 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 268 Disc (R) 263 Disc | 2400 | |
| Alfa Romeo all Spider models (90-94) | 4 Cyl DOHC | 84.0 x 88.5 1962 | (I) 44.0 (E) 41.0 | 10.0 | 88.6 | 3.30, 2.00, 1.37, 1.04, 0.83 | (F) 268 Disc (R) 263 Disc | 2400 | |
| Audi 4000 & 4000S (1986) | | | | | | | | 2500 | |
| Audi 5+5 (81-83) | 5 Cyl SOHC | 79.5 x 86.4 2144 81.0 x 86.4 2226 | (I) 38.0 (E) 31.0 | 8.0 | 99.8 | 2.85, 1.52, 0.97, 0.70, 0.54 | (F) 239 Disc (R) 200 Disc | 2380 | |
| Audi Coupe (81-84) | 5 Cyl SOHC | 79.5 x 86.4 2144 81.0 x 86.4 2226 | (I) 38.0 (E) 31.0 2226: (E) 33.0 | 8.0 2226: 8.5 | 99.8 | 2.85, 1.52, 0.97, 0.70, 0.54 or 3.45, 1.70, 1.10, 0.75, 0.60, or 3.46, 1.94, 1.29, 0.97, 0.80 | (F) 239 Disc (R) 200 x 40 Drum | 2380 | |
| Audi GT Coupe (84-86) | 5 Cyl SOHC | 81.0 x 86.4 2226 | (I) 38.0 (E) 33.0 | 8.5 | 99.8 | 3.45, 1.70, 1.10, 0.75, 0.60 or 3.45, 1.70, 1.06, 0.77, 0.60 or 2.85, 1.52, 1.07, 0.78, 0.64 | (F) 256 Vented Disc (R) 200 x 40 Drum | 2380 | |
| BMW 318i (E30) (84-86) | 4 Cyl SOHC | 89.0 x 71.0 1767 | (I) 44.0 (E) 38.0 | 9.3/9.0 | 101.2 | 3.72, 2.02, 1.32, 1.00, 0.81 | (F) 261 Disc (R) 229 Drum | 2210 | Trunk mounted fuel cell may be used but shall be no larger than stock. Bosch L-Jetronic Fuel Injection. |
| BMW 320i 1.8 (E21) (80-83) | 4 Cyl SOHC | 89.0 x 71.0 1767 | (I) 44.0 (E) 38.0 | 8.8 | 100.9 | 3.68, 2.00, 1.33, 1.00, 0.80 | (F) 254 Disc (R) 250 Drum | 2210 | Trunk mounted fuel cell may be used but shall be no larger than stock. Bosch L-Jetronic Fuel Injection. |
| BMW 320i 2.0 (77-79) | 4 Cyl SOHC | 89.0 x 80.0 1990 | (I) 44.0 (E) 38.0 | 8.1 | 100.9 | 3.76, 2.02, 1.32, 1.00 | (F) 254 Disc (R) 250 Drum | 2340 | Trunk mounted fuel cell may be used but shall be no larger than stock. |
| BMW 2002 (68-76) | 4 Cyl SOHC | 89.0 x 80.0 1990 | (I) 44.0 (I) 46.0 w/ E12 head (E) 38.0 | 8.5 | 98.4 | 3.76, 2.02, 1.32, 1.00 | (F) 240 Disc (R) 232 Drum | 2280 | |
| Chevrolet Cavalier Coupe 2.2L (95-02) | 4 Cyl OHC | 89.0 x 88.0 2190 | (I) 44.0 (E) 37.0 | 9.0 | 104.1 | 3.58, 2.02, 1.35, 0.98, 0.69 | (F) 260 x 20.5 vented Disc (R) 200 Drum | 2500 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Dodge Charger / 024 (81-85) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.0 | 96.6 | 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 228 Disc (R) 200 Drum | 2320 | |
| Dodge Shelby Charger (83-84) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.6 | 96.5 | 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 256 Disc (R) 200 Drum | 2290 | |
| Dodge Colt GT 2.0 (76-77) | 4 Cyl SOHC | 84.0 x 90.0 1995 | (I) 41.9 (E) 34.0 | 8.5 | 95.3 | 3.37, 2.04, 1.36, 1.00, 0.86 | (F) 229 Disc (R) 229 Drum | 2280 | |
| Dodge Omni 2.2 (80-90) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.0 | 99.2 | 3.45, 1.94, 1.29, 0.97 or 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 229 Disc (R) 201 Drum | 2290 | |
| Dodge Omni GLH 2.2 | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.6 | 99.1 | 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 256 Disc (R) 200 Drum | 2430 | |
| Dodge Shadow (89-91) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.5 | 97.2 | 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 259 Disc (R) 200 Drum | 2680 | Bosch/Holley TBI |
| Dodge Stratus (95-00) | 4 Cyl SOHC | 87.5 x 83.0 1995 | (I) 33.0 (E) 28.0 | 9.8 | 108.0 | 3.54, 2.13, 1.36, 1.03, 0.72 | (F) 254 Vented Disc (R) 229 Solid Disc | 2870 | |
| Fiat 124 Spider 2.0 (79-83) | 4 Cyl DOHC | 84.0 x 90.0 1995 | (I) 41.7 (E) 36.3 | 8.5 | 89.7 | 3.67, 2.10, 1.36, 1.00, 0.88 | (F & R) 227 Disc | 2330 | Weber 28/32 DHA Carburetor, Bosch L-Jetronic injection, Bosch CIS injection |
| Fiat Brava 2.0 (79-81) | 4 Cyl DOHC | 84.0 x 90.0 1995 | (I) 41.7 (E) 36.3 | 8.1 | 98.0 | 3.61, 2.04, 1.35, 1.00, 0.87 | (F) 227 Disc (R) 229 Drum | 2530 | 79-mid 80: Weber 28/32 ADHA carburetor, Mid 80 on: Bosch CIS injection |
| Fiat 124 1800 (Spider & Coupe) (74-78) | 4 Cyl DOHC | 84.0 x 79.2 1756 | (I) 41.7 (E) 36.3 | 8.0 | 89.7 | 3.67, 2.10, 1.36, 1.00, 0.88 or 3.61, 2.05, 1.36, 1.00, 0.87 | (F & R) 227 Disc | 2230 | |
| Ford Capri I 2.0 | 4 Cyl SOHC | 91.0 x 77.0 1993 | (I) 42.2 (E) 36.2 | 9.2 | 100.8 | 3.65, 1.97, 1.37, 1.00 | (F) 244 Disc (R) 229 Drum | 2300 | |
| Ford Escort/ GT 1.9 (86-90) | 4 Cyl SOHC | 82.0 x 88.0 1859 | (I) 42.0 (E) 37.0 or (I) 39.0 (I) 34.0 | 9.0 | 94.2 | 3.21, 1.81, 1.15, 0.78 or 3.60, 2.12, 1.39, 1.02, 0.75 or 3.60, 2.12, 1.39, 1.02, 0.77 | (F) 235 Vented Disc (R) 180 or 203 Drum | 2280 | |
| Ford Escort EXP (86-88) | 4 Cyl SOHC | 82.0 x 88.0 1859 | (I) 42.0 (E) 37.0 | 9.5 | 94.3 | 3.60, 2.12, 1.39, 1.02, 0.77 or 0.75 | (F) 235 x 24 Vented disc (R) 180 Solid Disc | 2415 | |
| Ford Mustang 2.3 (79-93) | 4 Cyl SOHC | 96.0 x 79.4 2301 | (I) 44.1 (E) 38.1 | 9.5 | 100.4 | 3.98, 2.14, 1.42, 1.00 or 3.98, 2.14, 1.49, 1.00 or 4.07, 2.57, 1.66, 1.00 or 3.72, 2.23, 1.48, 1.00, 0.76 or 3.97, 2.34, 1.46, 1.00, 0.79 or 4.05, 2.43, 1.48, 1.00, 0.82 | (F) 237 or 255.5 Disc (R) 229 Drum | 2550 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Mustang II 2.3 (74-78) | 4 Cyl SOHC | 96.0 x 79.4 2301 | (I) 44.1 (E) 38.1 | 9.0 | 96.2 | 3.98, 2.14, 1.42, 1.00 | (F) 237 Disc (R) 229 Drum | 2830 | |
| Ford Pinto 2.0 (71-74) | 4 Cyl SOHC | 91.0 x 77.0 1993 | | 8.6 | 94.0 | 3.65, 1.97, 1.37, 1.00 | (F) 237 Disc (R) 229 Drum | 2230 | |
| Ford Pinto 2.3 (74-80) | 4 Cyl SOHC | 96.0 x 79.4 2301 | (I) 44.1 (E) 38.1 | 9.0 | 94.5 | 3.98, 2.14, 1.42, 1.00 or 3.65, 1.97, 1.37, 1.00 | (F) 237 Disc (R) 229 Drum | 2340 | |
| Ford Probe GL/ LX 2.2L non-turbo (89-92) | 4 Cyl SOHC | 86.0 x 94.0 2184 | (I) 32.5 (E) 34.0 | 8.6 | 99.0 | 3.31, 1.83, 1.23, 0.91, 0.71 | (F) 264 Vented Disc (R) 228.6 Drum | 2530 | |
| Geo Prism GSi (1990) | 4 Cyl DOHC | 81.0 x 77.0 1588 | (I) 30.5 (E) 25.4 | 10.3 | 95.7 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 259 Disc (R) 242 Disc | 2455 | |
| Geo Storm GSi (90-91) | 4 Cyl DOHC | 80.0 x 79.0 1588 | (I) 31.0 (E) 28.0 | 9.8 | 96.5 | 3.91, 2.15, 1.45, 1.03, 0.83 | (F) 248 Disc (R) 200 Drum | 2380 | |
| Honda Accord 1.7L (79-83) | 4 Cyl SOHC | 77.0 x 94.0 1751 | (I) 34.1 (E) 28.1 | 8.8 | 93.7 | 3.18, 1.84, 1.20, 0.90, 0.72 or 3.38, 2.80, 2.38, 1.56, 0.97 | (F) 191 Disc (R) 193 Drum | 2270 | |
| Honda Accord Lxi 12V Coupe & HB (86-89) | 4 Cyl SOHC | 82.7 x 91.0 1955 | (I) 30.1 (E) 35.1 | 9.3 | 102.4 | 3.181, 1.842, 1.208, 0.878, 0.694 | (F) 240 or 214 Disc (R) 200 x 42.5 Drum | 2550 | |
| Honda Accord SE-i (1989) | 4 Cyl SOHC | 82.7 x 91.0 1955 | (I) 30.1 (E) 35.1 | 9.3 | 102.4 | 3.181, 1.842, 1.208, 0.878, 0.694 | (F) 240 or 214 Disc (R) 240 Disc | 2550 | |
| Honda Civic Si (86-87) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 27.1 (E) 33.0 | 8.7 | 93.7 | 2.92, 1.76, 1.81, 0.85, 0.71 | (F) 231 Disc (R) 180 Drum | 1970 | PGM Fuel Injection |
| Honda Civic Del Sol S (93-95) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.2 | 93.3 | 3.25, 1.76, 1.17, 0.91, 0.70 | (F) 240 Disc (R) 180 Drum | 2345 | Rear cage braces may pass through rear window. |
| Honda Civic DX (sedan & HB) (88-91) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.2 | 98.4 | 3.25, 1.89, 1.26, 0.94, 0.77 | (F) 242 x 21 Vented Disc (R) 181 x 39 Drum | 2110 | |
| Honda Civic DX (2&4 door) (92-95) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (IN) 29.0 (EX) 25.0 | 9.2 | 103.2 | 3.25, 1.76, 1.17, 0.91, 0.70 | (F) 240 x 21 Vented Disc (R) 180 Drum | 2345 | |
| Honda Civic DX (3 door) (92-95) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (IN) 29.0 (EX) 25.0 | 9.2 | 101.3 | 3.25, 1.76, 1.17, 0.91, 0.70 | (F) 240 x 21 Vented Disc (R) 180 Drum | 2345 | |
| Honda Civic LX (4 door) (92-95) | 4 cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.2 | 103.2 | 3.25, 1.76,1.17, 0.91, 0.70 | (F) 262 x 21 Vented Disc (R) 230 x 9 Solid Disc | 2345 | |
| Honda CRX Si (84-87) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 27.1 (E) 33.1 | 8.7 | 86.6 | 2.92, 1.76, 1.18, 0.85, 0.71 | (F) 231 Disc (R) 180 Dum | 1970 | Plastic front fenders, nose, lower body segments (Aero package) permitted. PGM fuel injection. |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Honda CRX HF 1.5L (88-91) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.6 | 90.6 | 3.25, 1.65, 1.03, 0.92, 0.69 | (F) 231 x 17 Solid Disc (R) 180 x 39 Drum | 2030 | |
| Honda CRX 1.5L (standard) (88-91) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.2 | 90.6 | 3.25, 1.89, 1.26, 0.94, 0.77 | (F) 242 x 21 Vented Disc (R) 181 x 39 Drum | 2110 | |
| Honda Fit (07-08) | 4 Cyl SOHC | 73.0 x 89.4 1496 | (I) 27.65 (E) 23.15 | 10.4 | 96.5 | 3.46, 1.87, 1.32. 0.97, 0.76 | (F) 262 x 21 Vented disc (R) 200 Drum | 2270 | |
| Honda Prelude 1.8 (83-87) | 4 Cyl SOHC | 80.0 x 91.0 1829 | (I) 30.0 (E) 35.0 | 9.1 | 96.5 | 3.18, 1.94, 1.25, 0.93, 0.76 | (F) 229 Disc (R) 237 Disc | 2350 | |
| Honda Prelude Si (86-87) | 4 Cyl SOHC | 82.7 x 91.0 1955 | (I) 30.1 (E) 35.1 | 8.8 | 96.5 | 3.181, 1.842, 1.250, 0.937, 0.771 | (F) 207 Vented Disc (R) 208 Solid Disc | 2450 | |
| Isuzu Stylus XS (1991) | 4 Cyl OHC | 80.0 x 79.0 1588 | (I) 31.0 (E) 28.0 | 9.8 | 96.5 | 3.91, 2.15, 1.45, 1.00, 0.83 | (F) 246 Disc (R) 254 Disc | 2430 | |
| Mazda 323 1.6 (1989) | 4 Cyl SOHC | 78.0 x 83.6 1597 | (I) 38.1 (E) 32.1 | 9.3 | 94.5 | 3.42, 1.84, 1.29, 0.92, 0.73 | (F) 238 Disc (R) 200 Drum | 2190 | |
| Mazda 323 1.6 (86-88) | 4 Cyl SOHC | 78.0 x 83.6 1597 | (I) 38.1 (E) 32.1 | 9.3 | 94.5 | 3.42, 1.84, 1.29, 0.92, 0.73 or 3.42, 1.84, 1.29, 0.92 | (F) 238 Disc (R) 200 Drum | 2060 | |
| Mazda 626 (83-84) | 4 Cyl SOHC | 86.0 x 86.0 1998 | (I) 44.0 (E) 36.0 | 8.6 | 98.8 | 3.31, 1.83, 1.23, 0.97, 0.80 | (F) 231 Disc (R) 229 Drum | 2300 | |
| Mazda 626 DX/LX (93-97) | 4 Cyl DOHC | 83.0 x 92.0 1991 | (I) 31.6 (E) 27.7 | 9.0 | 102.8 | 3.31, 1.83, 1.23, 0.91, 0.72 | (F) 258 Vented Disc (R) 261 Solid Drum | 2550 | |
| Mazda MX-3 RS 1.6L (94-96) | 4 Cyl DOHC | 78.0 x 83.6 1597 | (I) 31.0 (E) 26.2 | 9.0 | 103.2 | 3.42, 1.84, 1.29, 0.97, 0.78 | (F) 257x 22 Vented Disc (R) 251 x 9 Solid Disc or 200 Drum | 2230 | |
| Mazda MX-6 (88-91) | 4 Cyl SOHC | 86.1 x 94.0 2189 | (I) 32.5 (E) 34.0 | 8.6 | 99.0 | 3.31, 1.83, 1.23, 0.91, 0.72 | (F) 265 Disc | 2530 | |
| Mazda Protege ES (99-00) | 4 Cyl DOHC | 83.0 x 85.0 | (I) 31.5 (E) 27.6 | 9.1 | 102.8 | 3.42, 1.84, 1.29, 1.03, 0.78 | (F) 258 Vented Disc (R) 200 Drum | 2645 | |
| Mercury Bobcat 2.3 (74-80) | 4 Cyl SOHC | 96.0 x 79.4 2301 | (I) 44.1 (E) 38.1 | 9.0 | 94.5 | 3.98, 2.14, 1.42, 1.00 or 3.65, 1.97, 1.37, 1.00 | (F) 237 Disc (R) 229 Drum | 2520 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mercury Capri 2.3 (79-86) | 4 Cyl SOHC | 96.0 x 79.4 2301 | (I) 44.1 (E) 38.1 | 9.5 | 100.4 | 3.98, 2.14, 1.42, 1.00 or 3.98, 2.14, 1.49, 1.00 or 4.07, 2.57, 1.66, 1.00 or 3.72, 2.23, 1.48, 1.00, 0.76 or 4.05, 2.43, 1.48, 1.00, 0.82 | (F) 237 or 255.5 Disc (R) 229 Drum | 2550 | |
| MGB 1.8 (68-80) | 4 Cyl OHV | 80.3 x 89.0 1798 | (I) 41.4 (E) 34.3 | 8.8 | 91.0 | 3.64, 2.21, 1.37, 1.00, 0.79 (0.82 or 0.88), or 3.44, 2.17, 1.38, 1.00 | (F) 273 Disc (R) 254 Drum | 2050 | 68-72: (2) SU HS4 Carburetors, 73-74: (2) SU HIF Carburetors, 75-80: (1) Zenith/Stromberg Carburetor. |
| MGB GT 1.8 (68-74) | 4 Cyl OHV | 80.3 x 89.0 1798 | (I) 41.4 (E) 34.3 | 8.8 | 91.0 | 3.64, 2.21, 1.37, 1.00, 0.79 (0.82 or 0.88) | (F) 273 Disc (R) 254 Drum | 2100 | (2) SU HS4 Carburetors. |
| Mini Cooper (02-06) | 4 Cyl SOHC | 77.0 x 85.8 1598 | (I) 30.3 (E) 23.3 | 10.6 | 97.1 | 3.42, 1.95, 1.33, 1.05, 0.85 | (F) 276 Vented Disc (R) 239 Solid Disc | 2500 | |
| Mini Cooper (07-10) | 4 Cyl DOHC | 77.0 x 85.8 1598 | (I) 28.8 (E) 26.0 | 11.0 | 97.1 | 3.21, 1.79, 1.19, 0.91, 0.78, 0.68 | (F) 280 x 22 Vented Disc (R) 259 x 10 Solid Disc | 2555 | |
| Mitsubishi Lancer 2.0L (02-07) | 4 Cyl SOHC | 81.5 x 95.8 1999 | (I) 30.0 (E) 27.0 | 9.5 | 102.4 | 3.58, 1.95, 1.38, 1.03, 0.77 | (F) 256 x 24 ventilated Disc (R) 205 Drum 262 x 10mm Solid Disc | 2500 | OZ Rally package permitted. |
| Mitsubishi Mirage coupe (93-96) | 4 Cyl SOHC | 81.0 x 89.0 1834 | (I) 30.0 (E) 27.0 | 9.5 | 96.1 | 3.36, 1.945 1.29, 0.94, 0.78 | (F) 236 x 18 Vented Disc (R) 180 Drum | 2355 | |
| Nissan/Datsun 200-SX / S10 (L20) (77-79) | 4 Cyl SOHC | 85.1 x 86.1 1952 | (I) 42.1 (E) 35.2 | 8.5 | 92.0 | 3.38, 2.01, 1.31, 1.00, 0.85 | (F) 244 Disc (R) 229 Drum | 2350 | |
| Nissan/Datsun 200-SX / S10 (Z20) (80-81) | 4 Cyl SOHC | 85.1 x 86.1 1952 | (I) 42.2 (E) 38.2 | 8.5 | 94.5 | 3.32, 2.08, 1.31, 1.00, 0.86 | (F) 254 Disc (R) 270 Disc | 2530 | |
| Nissan/Datsun 200-SX / S11 (Z22) (82-83) | 4 Cyl SOHC | 87.0 x 92.0 2187 | (I) 42.2 (E) 38.2 | 8.5 | 94.5 | 3.59, 2.24, 1.41, 1.00, 0.81 | (F) 254 Disc (R) 270 Disc | 2705 | |
| Nissan/Datsun 200-SX / S12 (CA20) (84-86) | 4 Cyl SOHC | 84.5 x 88.0 1974 | (I) 41.2 (E) 35.2 | 8.5 | 95.5 | 3.59, 2.24, 1.41, 1.00, 0.81 or 3.59, 2.08, 1.36, 1.00, 0.81 | (F) 254 Disc (R) 270 Disc | 2530 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Nissan/Datsun HL-510 2.0 (78-81) | 4 Cyl SOHC | 85.1 x 86.1 1952 | (I) 42.1 (E) 35.2 | 8.5 | 94.5 | 3.17, 1.92, 1.31, 1.00, 0.85 or 3.38, 2.01, 1.31, 1.00, 0.85 | (F) 247 Disc (R) 229 Drum | 2280 | |
| Nissan/Datsun 610 (1973) | 4 Cyl SOHC | 85.0 x 78.0 1770 | (I) 42.2 (E) 35.2 | 8.5 | 98.4 | 3.38, 2.01, 1.31, 1.00 | (F) 232 Disc (R) 229 Drum | 2450 | |
| Nissan/Datsun 610 (74-76) | 4 Cyl SOHC | 85.1 x 86.1 1952 | (I) 42.2 (E) 35.2 | 8.5 | 98.4 | 3.38, 2.01, 1.31, 1.00 | (F) 232 Disc (R) 229 Drum | 2450 | |
| Nissan Sentra / B12 (1989) | 4 Cyl SOHC | 76.0 x 88.0 1597 | (I) 29.0 (E) 32.8 | 9.4 | 95.7 | 3.33, 1.96, 1.29, 0.90, 0.76 | (F) 239 Disc (R) 204 Drum | 2165 | |
| Nissan Sentra E/XE/CXE/SL/ Limited Edition (B13) (91-94) | 4 Cyl DOHC | 76.0 x 88.0 1597 | (I) 34.0 (E) 24.0 | 9.5 | 95.7 | 3.33, 1.96, 1.29, 0.93, 0.73 | (F) 239 Disc (R) 258 Disc (F) 257 x 26 Ventilated Disc or 239 x 18 Ventilated Disc (R) 234 x 7 Solid Disc or 180 Drum | 2290 | |
| Opel 1900 Sedan (71-75) | 4 Cyl SOHC | 93.0 x 69.9 1897 | (I) 40.0 (I) 42.0 (E) 34.0 | 7.6 | 95.7 | 3.43, 2.16, 1.37, 1.00 | (F) 247 Disc (R) 229 Drum | 2180 | |
| Opel GT 1900 (69-73) | 4 Cyl SOHC | 93.0 x 69.9 1897 | (I) 40.0 (I) 42.0 (E) 34.0 | 9.0 | 95.7 | 3.43, 2.16, 1.37, 1.00 | (F) 247 Disc (R) 229 Drum | 2180 | (1) Solex 32 DIDTA-4 Carburetor |
| Opel Manta 1.9 (71-75) | 4 Cyl SOHC | 93.0 x 69.9 1897 | (I) 40.0 (I) 42.0 (E) 34.0 | 7.6 | 95.7 | 3.43, 2.16, 1.37, 1.00 | (F) 247 Disc (R) 229 Drum | 2230 | (1) Solex 32 DIDTA-4 Carburetor or Bosch L-Jetronic injection |
| Plymouth Fire Arrow 2.6 (79-80) | 4 Cyl SOHC | 91.0 x 98.0 2555 | (I) 43.0 (E) 35.0 | 8.2 | 92.1 | 3.37, 2.04, 1.36, 1.00, 0.86 | (F) 226 Disc (R) 229 Disc | 2360 | |
| Plymouth Hori-zon 2.2 (80-90) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.0 | 99.2 | 3.45, 1.94, 1.29, 0.97 or 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 229 Disc (R) 201 Drum | 2320 | |
| Plymouth TC3 / Turismo 2.2 (81-85) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.0 | 96.6 | 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 229 Disc (R) 201 Drum | 2320 | |
| Pontiac Fiero 2.5 (84-87) | 4 Cyl OHV | 101.6 x 76.2 2471 | (I) 43.7 (E) 36.3 | 9.0 | 93.4 | 3.53, 1.95, 1.24, 0.84 or 3.73, 2.04, 1.45, 1.03, 0.74 | (F) 247 Disc (R) 256 Disc | 2315 | GM Throttle body injection. “Petty Bar” style cage is permitted. Rear cage braces may pass through rear window. |
| Pontiac Fiero 2.5 (1988) | 4 Cyl OHV | 101.6 x 76.2 2471 | (I) 43.7 (E) 36.3 | 9.0 | 93.4 | 3.53, 1.95, 1.24, 0.84 or 3.73, 2.04, 1.45, 1.03, 0.74 | (F) 247 Disc (R) 256 Disc | 2315 | GM Throttle body injection. “Petty Bar” style cage is permitted. Rear cage braces may pass through rear window. |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Porsche 914-4 1.8 (74-75) | 4 Cyl OHV | 93.0 x 66.0 1795 | (I) 40.9 (E) 34.0 | 7.3 | 96.5 | 3.09, 1.89, 1.26, 0.93, 0.71 | (F) 280 Disc (R) 282 Disc | 2080 | "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Porsche 914-4 2.0L (73-76) | 4 Cyl OHV | 94.0 x 71.0 1971 | (I) 42.0 (E) 36.0 | 7.6 | 96.5 | 3.09, 1.89, 1.26, 0.93, 0.71 | (F) 280 Disc (R) 282 Disc | 2260 | Torsion bar front suspension. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Porsche 924 & Sebring (77-82) | 4 Cyl SOHC | 86.5 x 84.4 1984 | (I) 38.0 (I) 40.0 (E) 33.0 | 8.0 8.5 9.0 | 94.5 | 3.60, 2.13, 1.36, 0.97, 0.73 | (F) 257 Disc (R) 232 Drum (F) 282 Disc (R) 290 Disc | 2495 | |
| Renault Alliance GTA (1987) | 4 Cyl SOHC | 3.23 x 3.66 1965 | (I) 38.5 (E) 32.5 | 9.5 | | 3.09, 1.84, 1.32, 0.97, 0.76 | (F) 239 Disc (R) 204 Drum | 2140 | |
| Saab 900 (79-88) | 4 Cyl SOHC | 90.0 x 78.0 1985 | (I) 42.0 (E) 35.5 | 9.3 | 99.1 | 3.54, 2.00, 1.34, 0.96, 0.78 or 3.80, 2.15, 1.44, 1.04, 0.84 | (F) 278 Disc (R) 268 Disc (R) 258 Disc | 2680 | Bosch K or L-Jetronic injection |
| Saab 900 16V B202i (86-90) | 4 Cyl DOHC | 90.0 x 78.0 1985 | (I) 32.0 (E) 29.0 | 10.2 | 99.0 | 3.80, 2.15, 1.44, 1.04, 0.84 | (F) 276 Disc (R) 276.5 Disc | 2680 | |
| Saab 99E (1972) | 4 Cyl SOHC | 87.0 x 78.0 1854 | | 9.0 | 97.4 | 3.39, 2.15, 1.45, 0.95 | (F & R) 270 Disc | 2637 | Bosch injection |
| Saab 99EMS 2.0 (73-80) | 4 Cyl SOHC | 90.0 x 78.0 1985 | (I) 42.0 (E) 35.5 | 9.0 | 97.4 | 3.44, 2.07, 1.39, 1.00 or 3.57, 2.08, 1.39, 1.00 or 3.31, 2.00, 1.34, 0.98 | (F) 280 Disc (R) 270 Disc | 2540 | Bosch injection |
| Suzuki Swift GT/GTi (89-94) | 4 Cyl DOHC | 73.9 x 75.4 1299 | (I) 36.0 (E) 30.0 | 10.0 | 89.2 | 3.42, 1.89, 1.28, 0.91, 0.76 | (F) 248 Vented Disc (R) 237 Solid Disc | 1895 | |
| Suzuki Swift GA (89-94) | 4 Cyl DOHC | 73.9 x 75.4 1299 | (I) 36.0 (E) 30.0 | 10.0 | 89.2 | 3.42, 1.89, 1.28, 0.91, 0.76 | (F) 229 x 17 Vented Disc (R) 180 x 25 Drum | 1735 | |
| Toyota Celica I 2.0L (71-73) | 4 Cyl SOHC | 88.5 x 80.1 1968 | | 8.5 | 95.5 | 3.58, 2.08, 1.40, 1.00 | (F) 232 Disc (R) 228 x 40.6 Drum | 2350 | |
| Toyota Celica I 2.2 (74-77) | 4 Cyl SOHC | 88.5 x 89.0 2189 | (I) 43.0 (E) 36.6 | 8.4 | 95.5 | 3.29, 2.04, 1.39, 1.00, 0.85 | (F) 232 Disc (R) 228 Drum | 2300 | |
| Toyota Celica II 2.2 (78-80) | 4 Cyl SOHC | 88.5 x 89.0 2189 | (I) 43.0 (E) 36.6 | 8.4 | 98.4 | 3.29, 2.04, 1.39, 1.00, 0.85 | (F) 254 Disc (R) 229 Drum | 2430 (CP) 2490 (HB) | |
| Toyota Celica II 2.4 (81-82) | 4 Cyl SOHC | 92.0 x 89.0 2366 | (I) 45.0 (E) 37.0 | 9.0 | 98.4 | 3.57, 2.06, 1.39, 1.00, 0.85 | (F) 254 Disc (R) 229 Drum | 2470 (CP) 2510 (HB) | |
| Toyota Celica III 2.4 (83-85) | 4 Cyl SOHC | 92.0 x 89.0 2366 | (I) 45.0 (E) 37.0 | 9.0 | 98.4 | 3.29, 1.89, 1.28, 1.00, 0.78 | (F) 264 Vented (R) 257 x 20 Solid | 2350 | (1) Aisan 2 bbl or Bosch L-Jetronic injection |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Toyota Celica III GTS (83-85) | 4 Cyl SOHC | 92.0 x 89.0 2366 | (I) 45.0 (E) 37.0 | 9.0 | 98.4 | 3.29, 1.89, 1.28, 1.00, 0.78 | (F) 229 Disc (R) 256 Drum | 2425 | Bosch L-Jetronic injection |
| Toyota Celica ST (1986) | 4 Cyl SOHC | 84.0 x 90.0 1995 | | 8.7 | 99.4 | 3.29, 2.04, 1.32, 1.03, 0.82 | (F) 241 Disc (R) 200 Drum | 2480 | |
| Toyota Corolla AE-92 Sedan/ Corolla SR5 (87-92) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.0 (E) 24.5 | 9.5 | 95.7 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 238 x 18 Disc (R) 200 Drum | 2150 | |
| Toyota Corolla 1.8 (80-82) | 4 Cyl OHV | 85.0 x 78.0 1770 | (I) 41.9 (E) 35.9 | 9.1 | 94.5 | 3.59, 2.02, 1.39, 1.00, 0.86 | (F) 226 Disc (R) 228 Drum | 2050 | |
| Toyota Corolla SR-5 (1987) | 4 Cyl SOHC | 81.0 x 77.0 1587 | | 9.0 | 94.5 | | (F) 226 Disc (R) 228 Drum | 2330 | |
| Toyota Corolla GTS (84-87) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.0 | 95.0 | 3.59, 2.02, 1.38, 1.00, 0.86 | (F) 234 Disc (R) 231 Disc | 2285 | |
| Toyota FX-16 (1987) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 95.7 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 244 Disc (R) 242 Disc | 2240 | |
| Toyota MR-2 1.6L (85-89) | 4 Cyl DOHC | 81.0 x 77.0 1587 | (I) 30.7 (E) 26.0 | 9.4 | 91.3 | 3.17, 1.90, 1.31, 0.97, 0.82 | (F) 244 Disc (R) 239 Disc (F) 257 Disc (R) 262 Disc | 2335 | Factory aero package allowed (wing & skirts). Trunk mounted fuel cell with no larger capacity than stock is permitted. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Triumph TR-7 2.0 (76-81) | 4 Cyl SOHC | 90.3 x 78.0 1998 | (I) 39.6 (E) 32.5 | 8.0 | 85.0 | 3.32, 2.08, 1.39, 1.00, 0.83 or 2.65, 1.78, 1.25, 1.00 | (F) 248 Disc (R) 229 Drum | 2440 (CP) 2420 (Conv.) | |
| Volkswagen Golf III (93-97) | 4 Cyl SOHC | 82.5 x 92.8 1984 | | 10.0 | 97.3 | 3.45, 1.94, 1.29, 0.97, 0.80 or 3.45, 1.94, 1.37, 1.03, 0.85 | (F) 257 Disc (R) 227 Disc or 200 Drum | 2395 | |
| Volkswagen Golf 2.0 (99-03) | 4 Cyl DOHC | 82.5 x 92.8 1984 | (I) 39.5 (E) 32.9 | 10.0 | 98.9 | 3.78, 2.12,1.36, 1.03, 0.84 | (F) 280 Disc (R) 232 Disc | 2350 | |
| Volkswagen Golf GTI / GT / GL (85-92) | 4 Cyl SOHC | 81.0 x 86.4 1780 | (I) 40.0 (E) 33.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.89 | (F) 239 x 20 Ventilated Disc (R) 226 x 10 Solid Disc (R)180/200 Drum | 2280 | Includes 1985 Golf Cup cars prepared to IT specifications. |
| Volkswagen Golf GTI 16V (87-89) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2560 | |

| ITB | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Volkswagen Jetta/ GL / GLI (85-92) | 4 Cyl SOHC | 81.0 x 86.4 1780 | (I) 40.0 (E) 33.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, 0.89 | (F) 239 x 20 Ventilated Disc (R) 226 x 10 Solid Disc (R)180/200 Drum | 2280 | |
| Volkswagen Jetta GLI 16V (87-89) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 97.3 | 3.45, 2.12, 1.44, 1.13, .91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2560 | |
| Volkswagen Jetta III (93-97) | 4 Cyl SOHC | 82.5 x 92.8 1984 | | 10.0 | 97.3 | 3.46, 1.94, 1.21, 0.97, 0.81 | (F) 257 Disc (R) 227 Disc or 200 Drum | 2395 | |
| Volkswagen Rabbit GTI (83-84) | 4 Cyl SOHC | 81.0 x 86.4 1780 | (I) 40.0 (E) 33.0 | 8.5 | 94.5 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 Disc (R) 180 Drum | 2080 | Bosch K-Jetronic injection |
| Volkswagen Scirocco II 8V (83-88) | 4 Cyl SOHC | 81.0 x 86.4 1780 | (I) 40.0 (E) 33.0 | 8.5 | 94.5 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 Disc (R) 180 Drum | 2080 | Bosch K-Jetronic injection. |
| Volkswagen Scirocco 16V (86-88) | 4 Cyl DOHC | 81.0 x 86.4 1780 | (I) 32.0 (E) 28.0 | 10.0 | 94.5 | 3.45, 2.12, 1.44, 1.13, 0.91 | (F) 239 x 20 Disc (R) 226 x 10 Disc | 2560 | |
| Volvo 142 / 144 2.0 (69-74) | 4 Cyl OHV | 88.9 x 80.0 1986 | (I) 44.0 (E) 35.0 | 10.5 | 103.0 | 3.13, 1.99, 1.36, 1.00, 0.80 & 3.13, 1.99, 1.36, 1.00 | (F) 272 Disc (R) 295 Disc | 2560 | |

| ITC | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Austin-Healey Sprite (68-69) | 4 Cyl OHV | 71.0 x 81.0 1275 | (I) 33.2 (E) 30.6 | 8.8 | 80 | 3.20, 1.92, 1.34, 1.00 | (F) 211 Disc (R) 178 Drum | 1615 | |
| BMW 1600 (68-71) | 4 Cyl SOHC | 84.0 x 71.0 1573 | (I) 42.0 (E) 35.0 | 8.6 | 98.4 | 3.84, 2.05, 1.35, 1.00 | (F) 257 Disc (R) 232 Drum | 2160 | One barrel manifold |
| Chevrolet Chevette 1.6 (76-87) | 4 Cyl SOHC | 82.0 x 75.7 1598 | (I) 39.1 (E) 32.1 | 8.6 | 94.3 | 3.75, 2.16, 1.38, 1.00 or 4.13, 2.50, 1.48, 1.00, 0.86 | (F) 246 Disc (R) 201 Drum | 2130 | |
| Dodge Colt (89-92) | 4 Cyl SOHC | 75.5 x 82.0 1468 | (I) 35.0 (E) 30.0 | 9.4 | 93.9 | 3.36, 1.95, 1.29, 0.94, 0.78 | (F) 232 Disc (R) 181 Drum | 2270 | |
| Dodge Colt 1.6 (FWD) (79-84) | 4 Cyl SOHC | 76.9 x 86.0 1597 | (I) 38.3 (E) 31.3 | 8.5 | 90.6 | 4.23, 2.37, 1.47, 1.11 or 3.27, 1.83, 1.14, 0.86 | (F) 227 Disc (R) 229 Drum | 2040 | |
| Dodge Colt 1.6 (RWD) (71-78) | 4 Cyl SOHC | 76.9 x 86.0 1597 | (I) 38.3 (E) 31.3 | 8.5 | 92.1 | 3.21, 2.00, 1.31, 1.00, 0.85 or 3.53, 2.19, 1.44, 1.00 | (F) 227 Disc (R) 229 Drum | 2190 | |
| Dodge Day-tona/ Chrysler Laser 2.2 (84-89) | 4 Cyl SOHC | 87.5 x 92.0 2213 | (I) 40.6 (E) 35.4 | 9.0 | 96.6 | 3.29, 2.08, 1.45, 1.04, 0.72 | (F) 257 Disc (R) Drum | 2380 | |
| Fiat X-1/9 1.3 (74-78) | 4 Cyl SOHC | 86.0 x 55.5 1290 | (I) 36.2 (E) 31.2 | 8.5 | 86.7 | 3.58, 2.24, 1.45, 0.96 or 3.58, 2.24, 1.45, 0.85 | (F & R) 227 Disc | 2090 | Trunk mounted fuel cell with no larger capacity than stock is allowed. "Petty Bar" style cage is permitted. Rear cage braces may pass through the rear window. |
| Fiat Bertone & X-1/9 1.5L (79-87) | 4 Cyl SOHC | 86.4 x 63.9 1498 | (I) 36.0 (E) 33.0 | 8.5 | 86.7 | 3.58, 2.24, 1.45, 0.85 or 3.58, 2.24, 1.45, 1.04, 0.86 or 3.58, 2.24, 1.46, 1.03, 0.86 | (F & R) 227 Disc | 2150 | 79-80 Carburetor, Mid-80 Bosch L-Jetronic injector. Trunk mounted fuel cell with no larger capacity than stock is allowed. "Petty Bar" style cage is permitted. Rear cage braces may pass through the rear window. |
| Fiat 124 Coupe (70-73) | 4 Cyl DOHC | 80.0 x 79.2 1592 80.0 x 80.0 1608 | (I) 41.7 (E) 36.3 | 8.0 / 8.5 | 95.3 | 3.80, 2.18, 1.41, 1.00, 0.91 or 3.67, 2.10, 1.36, 1.00, 0.88 | (F & R) 227 Disc | 2200 | |
| Fiat 124 Spider (70-73) | 4 Cyl DOHC | 80.0 x 79.2 1592 80.0 x 80.0 1608 | (I) 41.7 (E) 36.3 | 8.0 / 8.5 | 89.7 | 3.67, 2.10, 1.36, 1.00, 0.88 or 3.61, 2.05, 1.36, 1.00, 0.87 | (F & R) 227 Disc | 2170 | |
| Fiat 128 Coupe | 4 Cyl SOHC | 86.0 x 55.5 1290 | (I) 36.0 (E) 31.0 | 8.5 | 87.5 | 3.583, 2.235, 1.454, 0.959 | (F) 227 Solid Disc (R) 185.4 Drum | 1950 | |
| Ford Cortina GT (68-70) | 4 Cyl OHV | 80.97 x 77.62 1598 | | | 98.0 | | | 1780 | |
| Ford Escort EXP (82-85) | 4 Cyl SOHC | 80.0 x 79.5 1598 | (I) 42.0 (E) 37.0 | 9.0 | 94.2 | 3.60, 2.12, 1.39, 1.02 or 3.58, 2.05, 1.36, 0.95 | (F) 236 Disc (R) 203 Drum | 2130 | |
| Ford Escort / GT (81-85) | 4 Cyl SOHC | 80.0 x 79.5 1598 | (I) 42.0 (E) 37.0 | 8.8 | 94.3 | 3.21, 1.81, 1.15, 0.78 or 3.60, 2.12, 1.39, 1.02, 0.75 or 3.60, 2.12, 1.39, 1.02, 0.77 | (F) 236 Disc (R) 203 Drum | 2100 | |
| Ford Festiva (88-93) | 4 Cyl OHV | 71.0 x 83.6 1324 | | 1989: 8.6 1990: 9.7 | 90.2 | 3.45, 1.94, 1.28, 0.86 | (F) 218 Disc (R) 170 Drum | 1870 | Induction: 89: Carburetion, 90: Fuel Injection. |

| ITC | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Fiesta (78-80) | 4 Cyl OHV | 81.0 x 78.0 1598 | (I) 35.8 (E) 31.5 | 9.0 | 90.0 | 3.58, 2.06, 1.29, 0.88 | (F) 221 Disc (R) 178 Drum | 1780 | |
| Geo Spectrum (1989) | 4 Cyl SOHC | 77.0 x 79.0 1481 | | 9.6 | 86.8 | | (F) 239 Disc (R) 180 Drum | 2020 | |
| Geo Storm 1.6L (90-93) | 4 Cyl SOHC | 80.0 x 79.0 1588 | (I) 28.0 (E) 32.0 | 9.8 | 96.5 | 3.909, 2.150, 1.448, 1.027, 0.829 | (F) 247 Disc (R) 200 x 25 Drum | 2355 | |
| Honda Accord 1.6 (76-78) | 4 Cyl SOHC | 74.0 x 93.0 1599 | (I) 35.1 (E) 28.1 | 8.0 | 93.7 | 3.18, 1.82, 1.18, 0.84, 0.71 | (F) 188 Disc (R) 180 Drum | 2180 | |
| Honda Civic 1.2 (73-79) | 4 Cyl SOHC | 72.0 x 76.0 1237 | EB1&2: (I) 34.0 (E) 30.0 EB3: (I) 36.0 (E) 32.0 | 8.3 | 86.8 | 3.00, 1.79, 1.18, 0.85 or 3.18, 1.82, 1.18, 0.85, 0.66 | (F) 229 Disc (R) 180 Drum | 1710 | |
| Honda Civic CVCC 1.5 (75-79) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 35.0 (E) 29.0 | 8.1 | 86.6 | 3.00, 1.74, 1.13, 0.78, 0.66 or 3.18, 1.82, 1.18, 0.85 or 3.18, 1.82, 1.18, 0.85, 0.71 | (F) 229 Disc (R) 180 Drum | 1820 | |
| Honda Civic CVCC (80-83) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 35.1 (E) 28.1 | 9.3 | 88.6 | 2.92, 1.76, 1.18, 0.85, 0.71 or 3.18, 1.82, 1.18, 0.85, 0.71 | (F) 229 Disc (R) 180 Drum | 1870 | |
| Honda Civic standard (HB & Sedan) (88-91) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.2 | 98.4 | 3.25, 1.65, 1.03, 0.82 | (F) 240 Disc (R) 180 Drum | 2140 | |
| Honda Civic HB / Sedan (84-87) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 27.1 (E) 32.1 | 9.6 | 93.7 | 2.92, 1.76, 1.18, 0.85, 0.71 | (F) 231 Disc (R) 180 Drum | 1955 | CVCC Cylinder head |
| Honda Civic CX (3-door HB) (92-95) | 4 Cyl SOHC | 75.0 x 84.5 1493 | (I) 29.0 (E) 25.0 | 9.1 | 101.2 | 3.25, 1.76, 1.07, 0.85, 0.70 | (F) 240 x 21 Vented Disc (R) 180 Drum | 2170 | |
| Honda CRX 1.5 (84-87) | 4 Cyl SOHC | 74.0 x 86.5 1488 | (I) 27.1 (E) 32.1 | 9.6 | 86.6 | 2.92, 1.76, 1.18, 0.85, 0.71 | (F) 231 Disc (R) 180 Drum | 1955 | Plastic front fenders, nose, lower body segments. CVCC Cylinder head. |
| Hyundai Excel (86-94) | 4 Cyl SOHC | 75.5 x 82.0 1469 | (I) 35.0 (E) 30.0 | 9.4 | 93.9 | 3.36, 1.95, 1.29, 0.94 | (F) 242 x 19 Vented Disc (R) 182 x 45 Drum | 2370 | |
| Isuzu (Buick/ Opel) I-Mark (76-82) | 4 Cyl SOHC | 84.0 x 82.0 1817 | (I) 42.4 (E) 34.0 | 8.5 | 94.3 | 3.51, 2.17, 1.42, 1.00 or 3.79, 2.18, 1.42, 1.00, 0.86 | (F) 237 Disc (R) 229 Drum | 2280 | |
| Isuzu I-Mark (88-89) | 4 Cyl SOHC | 77.0 x 79.0 1471 | | 9.6 | 94.6 | 3.73, 2.04, 1.33, 0.92, 0.74 or 3.27, 2.04, 1.45, 1.03, 0.83 | (F) 225 Disc (R) 180 Drum | 2130 | |
| Mazda GLC (RWD) (1980) | 4 Cyl SOHC | 77.0 x 76.0 1415 | (I) 36.0 (E) 31.0 | 9.0 | 91.1 | 3.66, 2.19, 1.43, 1.00 or 3.66, 2.19, 1.43, 1.00, 0.83 | (F) 207 Disc (R) 200 Drum | 2080 | |
| Mazda GLC (FWD) (81-85) | 4 Cyl SOHC | 77.0 x 80.0 1490 | (I) 36.0 (E) 31.0 | 9.0 | 93.1 | 3.42, 1.95, 1.29, 0.92, 0.73 | (F) 226 Disc (R) 180 Drum | 2000 | |

| ITC | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda MX-3 (92-93) | 4 cyl. SOHC | 78.0 x 83.6 1598 | (I) 29.5 (E) 23.54 | 9.0 | 96.3 | 3.42, 1.84, 1.29,0.92, 0.73 | ((F) 258.0x22.2 vented (R) 200.0x35 drum | 2070 | |
| Mazda Protege SE/DX (90-94) | 4 Cyl SOHC | 83.0 x 85.0 1839 | (I) 30.0 (E) 25.0 | 8.9 | 98.4 | 3.31, 1.83, 1.23, 0.91, 0.71 | (F) 235 Vented Disc (R) 200 Drum | 2375 | |
| Mercury LN7 (82-85) | 4 Cyl SOHC | 80.0 x 79.5 1598 | (I) 42.0 (E) 37.0 | 9.0 | 94.2 | 3.60, 2.12, 1.39, 1.02 or 3.58, 2.05, 1.36, 0.95 | (F) 236 Disc (R) 203 Drum | 2130 | |
| Mercury Lynx 1.6 (81-84) | 4 Cyl SOHC | 80.0 x 79.5 1598 | (I) 42.0 (E) 37.0 | 8.8 | 94.3 | 3.58, 2.05, 1.23, 0.81 | (F) 236 Disc (R) 203 Drum | 2100 | |
| MG Midget (68-74) | 4 Cyl OHV | 71.0 x 81.0 1275 | (I) 33.2 (E) 30.6 | 8.8 | 80.0 | 3.20, 1.92, 1.34, 1.00 | (F) 211 Disc (R) 180 Drum | 1615 | |
| MG Midget Mk III (75-79) | 4 Cyl OHV | 73.7 x 87.5 1491 | (I) 36.6 (E) 29.7 | 8.0 | 80.0 | 3.41, 2.11, 1.43, 1.00 | (F) 211 Disc (R) 180 Drum | 1740 | |
| Mitsubishi Mirage (1989) | 4 Cyl SOHC | 75.5 x 82.0 1468 | (I) 35.0 (E) 30.0 | 9.4 | 93.9 | 3.36, 1.95, 1.29, 0.94, 0.78 | (F) 231 Disc (R) 180 Drum | 2270 | |
| Nissan/Datsun 1200 (71-73) | 4 Cyl OHV | 73.0 x 70.0 1171 | | 9.0 | 90.6 | 3.76, 2.17, 1.40, 1.00 | (F) 213 Disc (R) 198 Drum | 1740 | |
| Nissan/Datsun 210 1.4 (79-82) | 4 Cyl OHV | 76.0 x 77.0 1397 | (I) 37.2 (E) 30.0 | 8.9 | 92.1 | 3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82 | (F) 245 Disc (R) 203 Drum | 2080 | |
| Nissan/Datsun 210 1.5 (79-82) | 4 Cyl OHV | 76.0 x 82.0 1488 | (I) 35.0 (E) 30.0 | 8.9 | 92.1 | 3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82 | (F) 245 Disc (R) 203 Drum | 2080 | |
| Nissan/Datsun B210 (74-78) | 4 Cyl OHV | 76.0 x 77.0 1397 | (I) 37.2 (E) 30.0 | 8.5 | 92.1 | 3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82 | (F) 245 Disc (R) 203 Drum | 2010 | |
| Nissan/Datsun PL-510 (68-73) | 4 Cyl SOHC | 83.0 x 73.7 1595 | (I) 41.9 (E) 33.0 | 8.5 | 95.3 | 3.38, 2.01, 1.31, 1.00 | (F) 231 Disc (R) 229 Drum | 2170 | |
| Nissan Pulsar NX (83-86) | 4 Cyl SOHC | 76.0 x 88.0 1597 | (I) 37.0 (E) 30.0 | 9.4 | 95.1 | 3.06, 1.83, 1.21, 0.90, 0.73 | (F) 240 Disc (R) 203 Drum | 2080 | |
| Nissan Sentra / B11 1.5 (82-83) | 4 Cyl SOHC | 76.0 x 82.0 1488 | (I) 37.0 (E) 30.0 | 9.3 | 94.5 | 3.33, 1.95, 1.29, 0.90, 0.73 | (F) 239 Disc (R) 180 Drum | 1980 (SD) 2100 (HB) | |
| Nissan Sentra / B12 1.6 (83-86) | 4 Cyl SOHC | 76.0 x 88.0 1597 | (I) 37.0 (E) 30.0 | 9.4 | 94.5 | 3.33, 1.95, 1.29, 0.90, 0.73 | (F) 239 Disc (R) 180 Drum | 1980 (SD) 2100 (HB) | |
| Nissan Sentra / B12 (E16) (87-88) | 4 Cyl SOHC | 76.0 x 88.0 1597 | (I) 37.0 (E) 30.0 | 9.4 | 95.7 | 3.33, 1.96, 1.29, 0.90, 0.76 | (F) 238 Disc (R) 203 Drum | 2180 | |

| ITC | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Plymouth Arrow 1.6 (76-80) | 4 Cyl SOHC | 76.9 x 86.0 1597 | (I) 38.0 (E) 31.0 | 8.5 | 90.6 | 3.21, 2.00, 1.31, 1.00, 0.85 or 3.53, 2.19, 1.44, 1.00 | (F) 227 Disc (R) 229 Drum | 2190 | |
| Plymouth Champ 1.6 (79-83) | 4 Cyl SOHC | 76.9 x 86.0 1597 | (I) 38.0 (E) 31.0 | 8.5 | 90.6 | 4.23, 2.37, 1.47, 1.11 or 3.27, 1.83, 1.14, 0.86 | (F) 227 Disc (R) 155 Drum | 2040 | |
| Plymouth Colt 1.5 (1989) | 4 Cyl SOHC | 75.5 x 82.0 1468 | (I) 35.0 (E) 30.0 | 9.4 | 93.9 | 3.36, 1.95, 1.29, 0.94, 0.78 | (F) 232 Disc (R) 181 Drum | 2270 | |
| Plymouth Horizon 1.7 (78-79) | 4 Cyl SOHC | 79.5 x 86.4 1716 | (I) 34.0 (E) 31.2 | 8.2 | 99.2 | 3.45, 1.94, 1.29, 0.97 | (F) 229 Disc (R) 201 Drum | 2050 | |
| Plymouth Horizon TC3 1.7 (79-80) | 4 Cyl SOHC | 79.5 x 86.4 1716 | (I) 34.0 (E) 31.2 | 8.2 | 96.7 | 3.45, 1.94, 1.29, 0.97 | (F) 229 Disc (R) 201 Drum | 2110 | |
| Porsche 914-4 1.7 (70-73) | 4 Cyl OHV | 90.0 x 66.0 1679 | (I) 39.4 (E) 33.0 | 8.2 | 96.4 | 3.09, 1.89, 1.26, 0.93, 0.71 | (F) 280 Disc (R) 282 Disc | 2080 | "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window. |
| Renault Alliance 1.4 (83-87) | 4 Cyl OHV | 76.0 x 77.0 1397 | (I) 34.2 (E) 30.3 | 8.8 | 97.8 | 3.72, 2.06, 1.27, 0.90, 0.73 | | 2070 | Bendix T.B. injection |
| Renault Alliance 1.7 (84-87) | 4 Cyl SOHC | 81.0 x 83.5 1721 | | 9.5 | 97.8 | 3.72, 2.06, 1.32, 0.97, 0.79 | | 2100 | Bendix T.B. injection |
| Renault Encore 1.4 (83-87) | 4 Cyl OHV | 76.0 x 77.0 1397 | (I) 34.2 (E) 30.3 | 8.8 | 97.8 | 3.72, 2.06, 1.27, 0.90, 0.73 | | 2070 | Bendix T.B. injection |
| Renault Encore 1.7 (84-86) | 4 Cyl SOHC | 81.0 x 83.5 1721 | | 9.5 | 97.8 | 3.72, 2.06, 1.32, 0.97, 0.79 | | 2100 | Bendix T.B. injection |
| Renault LeCar/R-5 1.3 (76-78) | 4 Cyl OHV | 73.0 x 77.0 1289 | (I) 33.5 (E) 29.0 | 9.5 | 95.8 L 94.6 R | 3.89, 2.38, 1.52, 1.03 | (F) 229 Disc (R) 180 Drum | 1910 | |
| Renault LeCar/R-5 1.4 (79-84) | 4 Cyl OHV | 76.0 x 77.0 1397 | (I) 34.2 (E) 30.3 | 8.8 | 95.8 L 94.6 R | 3.84, 2.38, 1.52, 1.03 | (F) 229 Disc (R) 180 Drum | 1910 | |
| Toyota Corolla / SR5 (83-87) | 4 Cyl OHC | 81.0 x 77.0 1587 | | 9.0 | 94.5 | 3.586, 2.021, 1.383, 1.000, 0.860 | (F) 231.5 Disc (R) 229 x 40 Drum | 2270 | |
| Toyota Corolla / SR5 (2TC) (71-74) | 4 Cyl OHV | 85.0 x 70.0 1588 | (I) 41.0 (E) 36.0 | 8.5 fed 9.0 cal | 91.9 | 3.59, 2.02, 1.38, 1.00 or 3.59, 2.02, 1.38, 1.00, 0.86 | (F) 229 Disc (R) 231 Drum | 2130 | Screwed-on fender flares standard equipment on SR5. |
| Toyota Corolla / SR5 1.6 (75-79) | 4 Cyl OHV | 85.0 x 70.0 1588 | (I) 40.0 (E) 34.0 | 8.5 | 91.9 | 3.59, 2.02, 1.38, 1.00, 0.86 | (F) 229 Disc (R) 231 Drum | 2230 | Screwed-on fender flares standard equipment on SR5. |
| Toyota Starlet (81-83) | 4 Cyl OHV | 75.0 x 73.0 1290 | (I) 36.0 (E) 29.0 | 9.0 | 90.6 | 3.79, 2.12, 1.32, 1.00, 0.86 | (F) 226 Disc (R) 200 Drum | 1850 | |
| Toyota Tercel (91-94) | 4 cyl. DOHC | 72.9 x 89.9 1456 | (I) 31.0 and 24.0 (E) 31.0 | 9.3 | 93.7 | 3.545, 1.904, 1.233,0.885 | ((F) 238.0x17 vented (R) 207.0 drum | 1930 | |

| ITC | Engine Type | Bore x Stroke(mm)/ Displ. (cc) | Valves IN & EX (mm) | Stock Comp. Ratio | Wheel-base (inch) | Gear Ratios | Brakes Std. (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Triumph Spitfire (73-80) | 4 Cyl OHV | 73.7 x 87.5 1493 | (I) 36.6 (E) 29.7 | 8.0 | 83.0 | 3.75, 2.16, 1.39, 1.00 | (F) 229 Disc (R) 178 Drum | 1840 | |
| Triumph Spitfire Mk III (68-70) | 4 Cyl OHV | 73.7 x 75.9 1296 | (I) 33.0 (E) 29.7 | 9.0 | 83.0 | 3.75, 2.16, 1.39, 1.00 | (F) 229 Disc (R) 178 Drum | 1750 | |
| Volkswagen Beetle (68-77) | 4 Cyl OHV | 85.5 x 69.0 1584 | (I) 35.5 (E) 32.0 | 7.3 | 94.5 | 3.78, 2.06, 1.26, 0.93 | (F & R) 230 x 40 Drum | 2000 | |
| Volkswagen Super Beetle (71-77) | 4 Cyl OHV | 85.5 x 69.0 1584 | (I) 35.5 (E) 32.0 | 7.5 | 94.5 | 3.78, 2.06, 1.20, 0.93 or 3.80, 2.06, 1.26, 0.89 | (F) 244 Drum (R) 231 Drum | 2000 | |
| Volkswagen Beetle (98-99) | 4 Cyl SOHC | 82.5 x 92.8 1984 | (I) 39.5 (E) 32.9 | 10.0 | 98.9 | 3.78, 2.12, 1.36, 1.03, 0.84 | (F) 280 Vented Disc (R) 232 Solid Disc | 2760 | |
| Volkswagen Jetta 1.7 (82-84) | 4 Cyl SOHC | 79.5 x 86.4 1715 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.45, 1.94, 1.29, 0.91, 0.71 | (F) 239 Disc (R) 180 Drum | 2080 | |
| Volkswagen Rabbit (75-80) | 4 Cyl SOHC | 79.5 x 73.4 1457 76.5 x 80.0 1471 79.5 x 80.0 1588 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.45, 1.94, 1.37, 0.97 or 3.45, 1.94, 1.29, 0.97 or 3.45, 1.94, 1.29, 0.97, 0.76 | (F) 239 Disc (R) 200 Drum (R) 180 Drum | 2000 | 78-79: Bosch CIS injection, 80: carbureted, 76: carbureted, 77, 80: Bosch CIS injection |
| Volkswagen Rabbit 1.7 (81-84) | 4 Cyl SOHC | 79.5 x 86.4 1715 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.45, 1.94, 1.29, 0.91, 0.71 | (F) 239 Disc (R) 180 Drum | 2050 | Bosch CIS injection |
| Volkswagen Rabbit 1.7 (82-84) | 4 Cyl SOHC | 79.5 x 86.4 1715 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.06, 2.05, 1.31, 0.91 | (F) 239 Disc (R) 180 Drum | 2110 | Carbureted Model |
| Volkswagen Scirocco (75-80) | 4 Cyl SOHC | 79.5 x 73.4 1457 76.5 x 80.0 1471 79.5 x 80.0 1588 | (I) 34.0 (E) 31.0 | 79: 8.0 8.2 | 94.5 | 3.45, 1.94, 1.37, 0.97 or 3.45, 1.94, 1.29, 0.97 or 3.45, 1.94, 1.29, 0.97, 0.76 | (F) 239 Disc (R) 180 Drum | 2040 | |
| Volkswagen Scirocco I 1.7 (1981) | 4 Cyl SOHC | 79.5 x 86.4 1715 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.45, 1.94, 1.29, 0.91, 0.71 | (F) 239 Disc (R) 180 Drum | 2110 | Bosch CIS injection |
| Volkswagen Scirocco II 1.7 (82-84) | 4 Cyl SOHC | 79.5 x 86.4 1715 | (I) 34.0 (E) 31.0 | 8.2 | 94.5 | 3.45, 1.94, 1.29, 0.91, 0.71 | (F) 239 Disc (R) 180 Drum | 2110 | Bosch CIS injection |
| Volvo 240 2.3 (83-93) | 4 Cyl SOHV | 96.0 x 80.0 2320 | (I) 44.0 (E) 35.0 | 10.3 | 104.3 | 4.03, 2.16, 1.37, 1.00, 0.80 or 4.03, 2.16, 1.37, 1.00, 0.82 | (F) 262 Vented (R) 280 Solid | 2735 | |
| Volvo 242 / 244 2.0 (1975) | 4 Cyl OHV | 88.9 x 80.0 1986 | (I) 44.0 (E) 35.0 | 8.7 | 104.0 | 3.13, 1.99, 1.36, 1.00, .79 | (F) 262 Vented (R) 280 Solid | 2570 | |
| Volvo 242 / 244 2.1 (76-82) | 4 Cyl SOHC | 92.0 x 80.0 2127 | (I) 44.0 (E) 35.0 | 9.3 | 104.0 | 3.71, 2.16, 1.37, 1.00, 0.80 | (F) 262 Vented (R) 280 Solid | 2570 | Bosch CIS injection |
| Yugo GV (1986) | 4 Cyl SOHC | 80.0 x 55.5 1116 | (I) 36.15 (E) 31.15 | 9.2 | 84.6 | 3.91, 2.06, 1.35, 0.96 | (F) Disc (R) Drum | 1850 | |

## 9.1.4. SUPER TOURING CATEGORY

These specifications are a part of the SCCA GCR and all automobiles shall conform to GCR section 9.

**A. Purpose and Philosophy**
The intent of the Super Touring category is to allow competition of production-based vehicles, at a higher level of preparation, using DOT-approved tires. Vehicles used in this category must be identifiable with the vehicles offered for sale to the public and available through the manufacturer's distribution channels in the US. No chassis or engines older than 1985 will be eligible, except that model runs that began before 1985 are eligible (e.g., if a model was produced in 1983-1988, the 1983 and 1984 cars are eligible). The SCCA does not guarantee the competitiveness of any car.

Super Touring Under (STU) vehicles are mid-level multi-purpose performance cars of 3.2 liters and under. Case-by-case approval of engines over 3.2 liters from "Pony Cars" or "American Iron" with stock camshaft lift at a heavier weight will be considered. No engines over 4 liters shall be allowed under any circumstances. **Spec lines are not required for STU eligibility; unless otherwise specified, any vehicle meeting the model year and engine displacement limits is eligible for this class.**

World Challenge *Touring Cars* that are non-compliant to the STCS but compliant to a SCCA Pro VTS may be approved on a case-by-case basis for STU. See 9.1.4.H.4.

Super Touring Lite (STL) is a small-bore "tuner" class for reciprocating piston engines with displacements of 2.0 liters or under, and rotary engines, 12A, 13B, and Renesis. STL encompasses a lower level of allowed modifications compared to STU. As with STU, spec lines are not required for STL eligibility; unless otherwise specified, any vehicle meeting the model year and engine displacement limits is eligible for this class.

Alternate allowances may be approved on a case-by-case basis for individual vehicles that do not meet these parameters; see "Alternate Vehicle Allowances" tables. Engines components from these approved vehicle allowances may not be installed in other chassis without specific line-item approval (e.g., the STU 3.8L Mustang engine may not be installed into a Ford Focus).

Vehicle modifications are limited to those listed herein. Unless a particular modification or part is approved in these rules, the vehicle and all of its relevant parts and assemblies shall be stock for the correct make and model of car. Some amount of latitude will be considered to facilitate engine installations, however if extensive modifications are required it is recommended to seek clarification from the Club Racing Board.

To establish the originality and configuration of the vehicle, each driver/entrant shall have a factory shop manual for each of the specific make, model, and year of the automobile and engine (if changed). This manual shall be presented when so requested at any technical inspection. If the factory shop manual is no longer available from the vehicle manufacturer, an aftermarket shop manual will be accepted with proof of non-availability from the vehicle manufacturer. The proof of legality shall rest upon the protestor and/or protestee.

Replacement parts may be obtained from sources other than the manufacturer provided they are the exact equivalent of the original parts. The intent of this rule is to allow the competitor to obtain replacement parts from standard industry outlets, e.g., auto-parts distributors, rather than from the manufacturer. It is not intended to allow parts that do not meet all dimensional and material specifications of new parts from the manufacturer, unless otherwise allowed in the Super Touring category or class rules.

Each class will have a baseline target power-to-weight ratio. Weights may be adjusted or cars may be subject to changes in intake restrictors to meet these targets. Cars may be required to carry data acquisition equipment for review of performance.

**B. Eligibility**
Vehicles meeting one of the following criteria may compete in the Super Touring category:

1. 1985 and newer cars built specifically under these ST rules
2. World Challenge Touring cars are eligible for classification in STU under the following criteria:
    a. Cars will be approved on a case-by-case basis with supporting World Challenge VTS documentation
    b. Competitors must have the VTS sheet and Appendix A, as approved, available for scrutineers when requested.
    c. Weight will be set at the greater of the World Challenge weight plus 5% or the STU rules weight plus 5%.
    d. Cars approved to run in accordance with their World Challenge VTS must adhere to those specifications and are not permitted to adopt general STU specifications.

**Note:** World Challenge VTS cars are subject to adjustments (i.e., weight, restrictor) as necessary.

3. Alternate categories/classes may be allowed to compete in their own specification; please see individual class regulations for specific allowances. While these cars may not be competitive within this category, their inclusion will allow these regional-only categories to participate in national events. Cars modified in any fashion beyond these allowances must meet full STCS safety and prep regulations.

**Note:** While IT cars may not be competitive in the ST category, their inclusion in the category will allow regional competitors to participate in national events.

**C. Bodywork**

1. Unless otherwise allowed, standard body appearance must be strictly maintained.
2. Body and frame seams and joints may be welded. The OEM radiator supports may be replaced or reinforced to make repairs easier. The radiator supports shall not reinforce the rest of the chassis or diminish the OEM crush zones.
3. Bumper brackets may be modified, but bumpers must remain in OEM locations.
4. Non-essential body items and trim may be removed including attaching brackets and supporting structure. Any holes in bodywork exposed by the removal of these items shall be covered or filled.
5. All of the vehicle's doors must be able to be opened from both inside and outside the vehicle. Latches and hinges for the doors may be modified, but must remain in working order. Aftermarket latches and hinges may be used but shall not protrude beyond outer surface of bodywork. The stock side impact beams may be removed when NASCAR style door bars are installed.
6. Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches and hinges may be disabled or removed; if so, a positive action external fastening method shall be used. Engine compartment insulation may be removed.
7. Openings in the bodywork may be temporarily covered, wholly or partially, with tape for the purpose of regulating airflow. Bodywork openings may be closed off using close-out panels or screens mounted behind body openings. Bodywork seams may not be taped except to temporarily secure it after contact.
8. All bodywork and windows shall be sufficiently rigid, adequately supported and properly secured such that it does not noticeably flutter, move, or deform while vehicle is in motion.
9. Convertible tops and attaching hardware shall be completely removed. It may be replaced with an OEM hardtop if one is available. Aftermarket OEM-style hardtops are allowed; aftermarket carbon fiber hardtops are not allowed.
10. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed.
11. All cars may replace the hood, hatch, and/or trunk/deck lid with nonmetallic composite parts. The OEM appearance shall be maintained on the part. All other body panels shall be OEM parts.
12. The OEM front and rear fascias shall maintain the OEM crushable structure/support. The OEM crushable structure/support may be lightened as long as it is still recognizable as being the OEM crushable structure/support. The bumper shock absorbers may be removed. The OEM front and rear fascias shall be attached at the stock locations.
13. Fasteners are free provided they are of the same material family and diameter as the fastener it is replacing.
14. Any interior or exterior mirrors may be used.

**D. Aerodynamic Devices**

1. Front Air Dam
   a. A front spoiler/air dam may be added. It shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground, or aft of the forward most part of the front fender opening.
   b. The spoiler/air dam shall be mounted to the body, and may extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. The air dam shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.
   c. The minimum ride height of the air dam is 3.0 inches.
   d. Openings are permitted for the purposes of ducting air to the brakes, cooler(s), and radiator(s).
2. Undertray
   a. An undertray may be added. The undertray may close out the underbody from the leading edge of the approved bodywork (including air dam) back to the centerline of the front axle.
   b. The minimum ride height of the undertray is 3.0 inches.
3. Splitter
   a. Definition: A horizontal, single-plane aerodynamic device attached to the lower front of the vehicle, protruding forward. It is intended to divert air and produce downforce through vertical pressure differential. A splitter shall have no vertical deviations.

b. A front splitter may be added. A maximum of 4 rods or cables may be used to support the front and/or sides of the splitter. No other material(s) may be used external to the body to support the splitter.

c. The front splitter must not extend more than 2.0 inches past the original or approved bodywork as viewed from above for the entire profile of the splitter.

d. No part of the splitter shall extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead.

e. The splitter may have vertical deviations, fences, etc., only if they are part of the production bodywork for street use.

f. The minimum ride height of the front splitter is 3.0 inches.

4. Rear Wing

a. A rear wing may be added.

b. The wing shall be mounted to the trunk/deck lid with 2 mounting brackets. Each mounting bracket shall attach to the wing at a point that is at least 2.0 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow the two parts of each bracket to be fastened together.

c. Factory wings, spoilers, underbody diffusers, and roof vortex generators are permitted, but must be removed if an approved aftermarket wing is installed.

d. Wings shall be a single element with a maximum chord length of 8.50 inches, including any wicker.

e. The entire wing assembly may be no wider than a maximum of 48.25 inches.

f. The entire rear wing assembly, including the end plates and any wicker, shall be mounted a minimum of 6.0 inches below the peak of the roof or roll cage main hoop whichever is higher, measured at the highest point. Cars with a wagonback/notchback/hatchback style body may have the rear wing assembly, including the end plates and any wicker, mounted a maximum of 4.0 inches above the highest point of the roof. For this subsection, a wagonback/notchback/hatchback style body (or variations of these) is a car in which the rear edge of the roofline is no more than 28.0 inches forward of the rearmost bodywork as measured along the vehicle longitudinal centerline.

g. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part approved bodywork.

h. Wing end plates must not exceed 64.0 square inches each.

i. APR performance GTC-200 “SCCA Spec” wing element, part #AS-104801, variable cord length (8.75” inner chord), is permitted. All other GCR 9.1.4 requirements - including, but not limited to, mounting, location, height, and end plates limits - must be met.

5. A close-out panel may be mounted behind the grille.

6. Aftermarket side skirts may be used provided they meet the minimum ride height rule, have no openings/ducts in them other than for jacking insert(s), are no wider than the approved fascias, do not extend any higher than the bottom of the door and do not reinforce the chassis.

7. Canards or dive planes are not permitted unless part of the OEM bodywork.

**E. Interior**

1. The following items must be removed: tool kit, spare tire, supplemental restraint systems (SRS) and passive restraint systems.

2. The following items may also be removed:

Headliner, sun visor, carpeting, carpet pad and/or insulation, soundproofing, OEM seats, all trim except the dashboard, heating and air conditioning systems, window winding mechanisms, central locking systems, audio system, and any other systems fitted to the original car solely for the comfort of the driver and/or passengers.

3. The following items may be installed:

Safety equipment/structures, seat, controls necessary for driving, instrumentation, electronic equipment, radio, camera, battery, driver cooling system, driver ventilation system, replacement door panels/interior trim, anti-sway bar controls (not within reach of driver). None of the above items may hinder driver exit from the car.

4. The above components shall be attached to/contained in the chassis in such a way as to be able to

withstand 25g deceleration. Any sharp edges shall be covered, padded, protected, etc. to prevent injury to driver, crew, course workers, and officials.

5. The driver's seat shall be located in the same lateral location as the OEM seat, unless otherwise allowed on a car's spec line. The transmission tunnel may be modified for the purpose of installing a competition driver seat. The floor pan must remain in its original position. The driver's seat shall be located longitudinally.

6. Stock dash/instrument panel cover (dash pad) must be used. Original instruments/gauges may be replaced, or supplemented, with additional engine monitoring gauges. Accessories, lights and switches may be added or removed. Box-type extensions from the dash pad may be used to mount switches and controls, in the areas where the OEM insert panels were mounted, so that they more easily accessible to the driver. Audio and video systems may be removed.

7. Vertical bulkheads, and enclosures, within the cockpit shall not be any higher than the bottom of the side windows, and shall not extend more than 18.0 inches above the floor pan. No bulkheads shall cover the rear foot wells.

a. Sedan Body (4-door) and Hatchback Body (3-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back shall not extend laterally from one side of the chassis to the other, but rather shall only be large enough to cover the individual components necessary.

b. Coupe Body (2-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back, if applicable, may extend laterally from one side of the chassis to the other.

8. Dash pad modification – It is permitted to modify the dash pad in order to run the roll cage tubes through the dash area as long as the dash pad is modified only enough for roll cage fitment. If necessary, the dash pad may be parted to ease installation around roll cage. Any such parting shall be done in such a way as to minimize the appearance that they have been separated once pieces of dash pad are installed.

**F. Chassis**

1. All cars shall have the OEM rear package shelf and/or rear seat back support structure installed if applicable. As an alternative, a metallic close out panel may be installed that simulates the rear package shelf and/or the rear seat back support structure if applicable. If a close out panel is used to clean up the appearance of the rear package shelf and/or rear seat bulkhead in conjunction with the OEM structure, the close out panel material is free.

2. Cables, wiring and fluid lines in the engine compartment and cabin interior may be replaced, rerouted, and/or protected.

3. Cars that have drive shafts shall have 2 steel, 360-degree loops of sufficient strength located as close as possible to the front and rear universal joints to prevent the driveshaft from dropping in case of failure of either universal joint. Floor materials, torque tubes and cross members may also be utilized to provide this protection.

4. It is permitted to attach one or more plates, or pads, under the car to provide for jacking of the car, provided they serve no other purpose. It is prohibited to install any kind of device, which protrudes from the rocker panel or side of the car. However, tubes may be attached to the roll cage or chassis and extend to the inner surface of the rocker panel or bodywork to act as a receptacle for a jacking fixture. Air jacks are permitted, but no air source may be carried on board.

5. Ride height will be measured at the lowest point of the rocker panel, not including the pinch weld.

6. The OEM firewall between the cockpit and engine compartment shall be intact to prevent the passage of flames from the engine compartment to the cockpit. Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed.

7. Both front windows, driver and passenger, shall be down (preferably removed) whenever the vehicle is on track. The OEM window opening on the front doors shall not be filled in with any material, other than the material required to mount a NACA-duct for driver cooling. If used, the NACA-duct shall be mounted in the window opening. The area closed off to mount the NACA-duct shall not exceed 50 square-inches. In rain conditions, a quarter window larger than 50 square-inches may be used in the area normally used to mount the permitted NACA duct, in an attempt to minimize the amount of water entering the cockpit. Enough open area for the driver to exit in an emergency shall remain open at all times.

8. All vehicles must use a stock, OEM equivalent, safety glass windshield, or 0.25 inch minimum thickness Lexan replacement, mounted in the stock location, at the stock angle and maintaining the stock profile.

9. Windshield clips, per GCR section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.

10. Side windows, not including the front door windows, and rear windows may be replaced by clear Lexan-type plastic material having a minimum thickness of 0.125 inch, but must retain the same

shape, size, and location as the original glass. ducts may be mounted in the side windows. The rear window must be secured by 2 additional straps 1.0 inch wide by 0.0625 inch thick minimum, bolted or riveted to the body at both the top and bottom of the rear window. If a Lexan rear window is mounted with multiple, evenly spaced screws around each side of its perimeter, safety straps are not required. If a DOT spec glass rear window is used in conjunction with the OEM method of mounting, safety straps are recommended, but not required.

11. Windows may be mounted and sealed with silicone. Any silicone used to bridge the gap between the perimeter of the window and the chassis shall be neat in appearance and uniform in thickness. Tape may only be used to seal the windows during wet track sessions for the purpose of reducing the amount of water entering the cockpit.
12. OEM side window framework shall be intact.
13. Unused mounting tabs and brackets that are non-structural, excluding the rear seat back support and package tray, may be removed.
14. The OEM "rain gutter/tray" at the base of the windshield shall be intact and in the OEM location.
15. The floor pan may be modified to provide clearance for the exhaust system and allowed alternate transmission/transaxle.
16. Inner fender panels may be modified or replaced.
17. Convertible model cars may compete with a hardtop or as an open car.

**G. Engine**

1. Alternate engines may be used, provided:
    a. The manufacturer of the vehicle and engine are the same (e.g., an Acura engine installed into a Honda car) and was available in a car delivered in the United States.
    b. Vehicles delivered with engines from other manufacturers (e.g. Morgan, Panoz, etc) may only use the originally installed engine, or another engine manufactured by the chassis manufacturer (e.g. Lotus Elise may use the Toyota ZZ engine, or any other Lotus manufactured engine that complies with the class rules, however a Lotus Esprit may not install a Toyota ZZ engine).
    c. The chosen engine must retain its original long block, subject to STCS prep allowances.
    d. The long block assembly of the alternate engine must remain within the engine compartment with no modifications, however the firewall may be modified to provide clearance for intake manifolds and/or engine accessories.
    e. It is permitted to use the OEM intake and throttle body from either the chassis or the installed engine.
        1. Regardless of the intake chosen, the total number of throttle bodies must remain the same as the installed engine.
        2. If needed, to allow the intake manifold fit on the engine, an adapter plate between the engine and manifold is permitted. This adapter plate must be no more than 1.0 inch thick and must be made of the same material as either the head or intake manifold.
2. Engines from vehicles not available in a car delivered in North America will be considered and approved on a case-by-case basis for use in ST. For an engine to be considered, a member must submit a classification request to the CRB with the following information:
    a. Detailed request of the chosen engine (e.g., Honda K20A)
    b. Make and model of car from which the engine originates (e.g., 2007+ JDM Honda Civic Type-R (FD2)
    c. Manufacturer-stated power output specifications (e.g., 222hp@8000 RPM, 159ft-lbs torque@6000RPM)
    d. Vehicle Technical Specifications (VTS) form (see scca.com to obtain a copy) with all engine-related parameters filled out.
    e. Copies of the appropriate factory shop manual (PDF and/or scanned to PDF) with all pages relevant to the specifications of the chosen engine.
    f. Detailed list of any required/desired deviations from the STCS that will be required for installation (e.g., trans adapter plate, alternate intake manifold, etc.) noted in the "Requested Non-Stock Allowances" section of the VTS.
    g. Once this information is received and considered, any approved engines will be noted in a separate table within the STCS.
    h. Note that unless otherwise approved and specifically listed in the table, all specifications of the

engine (e.g., parts prep, valve lifts, compression ratio, etc.) must meet all STCS specifications.

3. The crankshaft shall be a stock OEM part or an aftermarket part as long as it is of identical dimensions and material as the OEM part for the specific engine. The crankshaft may be balanced. The maximum weight reduction allowance for balancing of the crankshaft is 0.5 lbs.
4. *Connecting rods are unrestricted*, but must be ferrous unless OEM supplied..
5. Blocks may be sleeved to repair cylinder walls. Engines may be bored to a maximum of 1.2mm (.0472in) over standard bore size. Any surface treatment originally applied from OEM manufacturer on the specific engines bore may be re-applied after sleeving engine block.
6. Rocker arm, lifter, follower, pushrod, valve spring, keeper, retainer, guide, seat, and valve materials are free; Titanium is not permitted, except for retainers or OEM parts. The head and camshaft carrier may be machined to fit valve train components.
7. Alternate camshafts are allowed; see individual class rules for lift limits. Camshaft timing is free.
8. Cars produced with an electronic throttle body may use the OEM electronic throttle body. The OEM electronic throttle body may be converted to manual actuation and the actuation cam on a manual throttle body may be changed to alter the opening/closing rate of the butterfly. Alternately actuated throttle bodies may be considered on a case by case basis.
9. The ignition system is unrestricted.
10. A programmable ECU is permitted. Engine calibration (spark and fuel) is free.
11. Fuel injectors and fuel rails must maintain the original number and mounting locations, but are otherwise free. Fuel pumps and fuel filters are free in type, size and number.
12. The location and type of the fuel pressure regulators are free.
13. The oil pan and oil pickup may be baffled, modified, or replaced. The OEM oil pump may be modified, or replaced with an OEM-style oil pump.
14. Vents, breathers, and oil filters may be added, or substituted. All emission control devices may be removed and the resulting holes plugged.
15. Replacement gaskets and seals are free, including head gaskets. Replacement gaskets and seals must be made out of material(s) designed to seal the parts of an engine. Replacement gaskets and seals may not perform any other functions. Head gaskets may be used to adjust compression ratio.
16. The intake manifold on piston engines may be port matched to the head(s), provided no material is removed further than one inch in from the manifold to head mounting surface(s).
17. Variable cam timing (VTEC, VANOS, etc.) and variable geometry intake manifolds may be partially, or wholly, removed or disabled. Variable cam timing systems that use multiple cam lobes for each valve(s) may remove lobes from the camshaft(s) that are not being used. For 13B Rotary Engines the 5th and 6th intake port actuators and valves may be removed or disabled.
18. To inrease the compression ratio, the bottom of the head may be machined. Alternate pistons are permitted and/or the pistons may be machined.
19. Cars utilizing forced induction may not have a boost controller within reach of the driver. A car must enter pit lane to have the boost level changed by the crew if necessary. Competitors must be prepared to demonstrate the boost adjustment process to officials.
20. Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered.
21. Components upstream of the throttling devices are free.
22. Alternate water pump, alternator, crankshaft dampers, and/or power steering pulleys are unrestricted. Crankshaft pulley is unrestricted for all non-supercharged engines; supercharged engines must use OEM crankshaft and supercharger pulleys.
23. Alternate flywheels are permitted. Flywheel material shall be ferrous or aluminum and the ring gear diameter must be the same as the OEM flywheel.
24. Accusump-type systems may be used.
25. Piston rings are free.
26. Rotary engines: Alternate rotor seals and springs are permitted.
27. Engine bearings are free.
28. Engine coatings are free.

29. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

**H. Cooling Systems**

1. Water Cooling

   Provided that the stock method of cooling is retained, the cooling system is free, including cooling fans, but the water radiator must remain in the approximate OEM location. The mounting angle may be changed.

2. Intake Air Cooling- Cars utilizing forced induction may install intercoolers. The number, type, and location of intercoolers are free.

3. Water Spray Systems- Water may not be sprayed on any intercoolers, radiators, etc. Water spray systems may only be used to inject water into the brake ducts.

**I. Fluid Piping & Fuel Tank**

1. Fuel Cells/Tanks- The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (i.e., frame rails, etc.). All fuel cells must comply with GCR 9.3. Proper bracing to protect the fuel cell in the event of a rear-end crash is required. If a fuel cell is installed in the rear hatch/rear trunk area, the OEM floor pan in that area may be replaced with metal in order to make it easier to mount the fuel cell and close out the area around the fuel cell.

2. There must be a metal bulkhead completely separating the cockpit from the compartment containing the fuel cell. This does not negate the requirement that the fuel cell bladder be contained in a metal container.

3. No line containing engine coolant may pass through the cockpit. No hydraulic fluid lines may have removable connectors inside the cockpit.

4. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver, shall be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. Waterproof flexible wraps may also be used to prevent fluid from spraying on the driver. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.

5. No fuel cooling devices are permitted in the car.

**J. Exhaust System**

**1.** The exhaust system may be modified, or replaced.

2. Outlets must be located rearward of the midpoint of the wheelbase.

3. The exhaust pipe may not protrude more than 3.0 inches at the point where it exits the bodywork. If the exhaust pipe(s) exit the bodywork at the widest part of the body such that any extension of the exhaust pipe(s) beyond the body would make pipe(s) the widest point, the exhaust pipe(s) must be trimmed flush (+/- 0.5 inch) with the bodywork at the point that they exit the body. Minor body modifications are permitted to accommodate exhaust systems. Modifications shall serve no other purpose. The underbody rocker panels may be modified for the installation of the exhaust system, but these modifications may only serve to provide clearance for the exhaust system. The exhaust system must be adequately isolated from the driver's compartment.

4. If the exhaust system is routed in such a way that damage to it could cause hot exhaust to contact any part of the fuel system, there shall be a metallic heat shield protecting the fuel system components. This heat shield shall be located at least 3.0 inches away from the exhaust system, and there shall be at least 3.0 inches between the heat shield and the fuel system components.

**K. Electrical System**

The electrical system is free provided that:

1. Batteries are free, subject to GCR section 9.3. Batteries.

2. Standard headlights, headlight operating ancillaries, and parking light assemblies may be removed and replaced with a plate of identical shape and size of the lens. Standard headlight assemblies may be replaced with aftermarket units of equal dimension. Vehicles with pop-up and/or hidden headlights may modify and/or remove the headlight assemblies as long as the headlight cover and any other external hardware are properly secured in the stock closed location.

3. Fog/driving lights, parking lights and associated attaching hardware may be removed. The resulting openings may be used to duct air, or may be filled/covered. No ducting may extend beyond the outer surface of the bodywork.

5. Each car must be fitted with at least one effective windshield wiper assembly, which must be in working order throughout the event. Wiper blades, arms and associated hardware may be substituted freely. Other windshield wiper assemblies may be removed.

6. Each car must have an effective defogging/demisting system that is capable of keeping the windshield clear during wet sessions. Anti-fog films meet this requirement.

**L. Drivetrain**

1. Alternate differential housings are permitted from the same model of vehicle. Differential may be open, locked, or of a limited-slip type. The internals of limited-slip type differentials may be modified to change the amount of slip limiting. Differentials with external, or electric, adjustability are prohibited. Driveshaft and half-shafts may be aftermarket, but shall be the OEM-type and use the same types of materials as stock. Drive shafts may be replaced by one piece drive shafts, and conversely.
2. Vent and/or breather lines may be added to the transmission and/or differential. Transmission and differential coolers are permitted.
3. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).
4. Drivetrain coatings are free.

**M. Suspension and Steering**

1. All suspension members must be made from ferrous and/or aluminum materials. Chromium plating of suspension members is prohibited.
2. Suspension springs are free. Coil-over units may be added to supplement or replace OEM springs. Attaching points may be reinforced. It is permitted to use threaded spring seats for adjustability.
3. Shock absorbers and struts are free. Driver adjustable systems and electronically controlled shocks are not permitted. If a reservoir/adjustment canister is used, only one may be used per shock. The shocks at each individual wheel may not be connected in any way.
4. Stabilizer bars are free, and may be added, removed, or substituted. Driver adjustable stabilizer bars are not permitted. Adjustment controls for stabilizer bars may be located within the cockpit, but must be out of the reach from the driver's seat. Adjustments to stabilizer bars during practice, qualifying and race must be done in pit lane.
5. Unless otherwise specified, suspension components shall be the stock OEM parts, but they may be reinforced. Standard suspension bushings may be replaced with solid or spherical bushings.
6. Cars equipped with MacPherson strut suspension may de-camber wheels by the use of eccentric bushings at control arm pivot points, by the use of eccentric bushings at the strut to bearing carrier joint, and/or by use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and may not reinforce that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plates.
7. For double wishbone suspension, camber adjustment devices (plates/shims/eccentric, etc.) are unrestricted but are limited to one per wheel. Front and rear upper control arms may be modified or replaced with items that allow camber and/or caster adjustment only. The OEM rear toe adjustment arm may be replaced with any substitute.
8. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.
9. Independent rear suspension mounting holes may be slotted and reinforced for purposes of camber and/or toe adjustment. Material may be removed from the top of the strut tower to facilitate installation of adjuster plate.
10. Any anti-roll bar(s) and rear axle traction bar(s), rear axle panhard rod and watts linkage can be added or substituted, provided their installation serves no other purpose. The mounts for these devices can be welded or bolted to the car. These devices and their mounts cannot be located in the trunk or driver/passenger compartment unless fitted as stock. Rear axle traction bar(s) used to control axle housing rotation must be solid bar or tube.
11. When a car's anti-roll bar also acts as a suspension locating device, the bar's attachment points and pivot points on the chassis and suspension control arms must remain in their stock locations.
12. Slotted plates may be added over original shock mounts on front and rear shock towers for camber/caster adjustment. One bolt-in brace may connect the front strut towers, and one bolt-in brace may connect the rear strut towers.
13. All steering components, with the exception of the steering wheel, column and tie-rods/toe-links, must be original equipment supplied by the manufacturer. These parts may be strengthened provided the original part can still be identified.
14. The steering wheel may be replaced with an aftermarket, or racing steering wheel. Wood-rimmed steering wheels are not permitted. An all-metal quick release coupling on the steering wheel may be added.
15. A collapsible steering column shall be used. Most recent OEM steering columns have at least 2 universal joints in them that allow the steering column to collapse on impact. This type of design (with at least

1 universal joint) must also be used in any steering column extension(s) that may be used to reach the driver's competition seating position.

16. Power steering may be modified in any of the following ways:
    a. disconnected
    b. an OEM manual steering rack for that model may be fitted
    c. an electric power steering pump may be fitted
    d. An OEM electric-assisted steering system may be used.
17. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

**N. Brakes**

1. Brake lines may be relocated, and rubber lines may be replaced with stainless steel braided brake lines. Non-pressurized brake fluid lines and master cylinders need not be metal, metal shielded, or bulk-headed. Pressurized brake fluid lines must be metal, metal shielded, or bulkheaded.
2. Brake proportioning valves may be used provided that they are of the in line, pressure limiting type. Brake pad friction material is free.
3. Hand brake assemblies may be removed. Backing plates and dust shields may be modified, ventilated, or removed.
4. Brake duct inlets may be added, solely for the purpose of ducting air to the front brakes. These allowed ducts must be incorporated in the front spoiler as standard, in light openings other than headlights, in an allowed air dam, and/or by the removal of the fog lights and/or stock false grills originally located in the front fascia.
5. Water spray cooling systems are permitted. The amount of water carried for injection into the brake duct is free. Water-cooled calipers are forbidden.
6. When any allowed alternate calipers are used, calipers must be mounted in the same location and orientation as the OEM calipers. OE caliper mounting tabs may be modified or removed to facilitate installation.
7. Titanium piston inserts are permitted.
8. Alternate brake rotors are allowed. Rotors may be 1- or 2-piece rotors made of ferrous material. If a 2-piece design hat and rotor is used, the hat must be made of ferrous or aluminum material. Rotors may be cross-drilled and/or slotted. Maximum allowed rotor sizes are noted within class specifications.
9. Vehicles with drum rear brakes may convert to disc.
10. *Vehicles not equipped with ABS brakes may reduce their weight by 2%.*
11. See individual class regulations for further restrictions/allowances.

**O. Tires & Wheels**

1. Tires must conform to GCR section 9.3. Tires.
2. Wheels / Hubs- The standard wheels may be replaced with direct, bolt-on racing/aftermarket wheels under the following provisions:
    a. All cars must run the same size wheel on the same axle.
    b. As viewed from above at the centerline of the wheel; the fender shall completely cover the "tread" portion of the tire. Only the tire sidewalls may be visible.
    c. The wheel material is free, but they must be constructed of metallic material(s). No modifications (including grinding) are permitted on a vendor-supplied wheel.
    d. Valve stems and caps are free.

## 9.1.4.1 STU SPECIFIC TECHNICAL REGULATIONS

**A. Chassis**

1. Minimum ride height is 4.0 inches.

**B. Engines**

1. Engines up to 6 cylinders and 3200 cubic centimeters factory displacement are permitted.
2. Turbo inlet restrictors designed per GCR Appendix F Technical Glossary definition of "Turbo Inlet Restrictor" may be required; see table 9.1.4.h.2. Swapping of turbochargers between engine makes and models is prohibited. Supercharged cars may be approved on a case-by-case basis; twin turbo engines are allowed on a case-by-case basis only. Contact the Club Racing Technical Office for details. Twin turbo engines may be converted to single turbo using one of the allowed alternate turbos (see 9.1.4.H.3).
3. All cars shall use the installed engine's stock air throttling device (e.g., throttle body, carburetor) and intake manifold, unless noted otherwise.
4. The intake and exhaust porting on piston engines is free.
5. Compression ratio on spark-ignition engines is limited to 12.0:1. Compression ratio on compression-ignition engines is unrestricted.
    a. On Spark-Ignition engines, in those cases where the stock compression ratio is greater than allowed above, stock compression ratio may be used. 1.8% shall be added to the engine base weight for every 0.50 point of additional compression ratio (e.g.., 12.01:1-12.50:1 = +1.8%, 12.51:1-13.00:1 = +3.6%). Competitor must provide proof of stock compression ratio being greater than 12.0:1 in order to utilize this allowance.
6. Valve lift is limited to .600 inches.
7. *Dry sump systems are permitted. The oil tank shall be located within the bodywork.*
8. Clutch and pressure plate is free. Carbon clutch components are prohibited.
9. *Boost control/wastegate actuation is free, subject to 9.1.4.G.19. Modifications to turbocharger are limited to only that necessary for wastegate control.*

**C. Drivetrain**

1. Engine and gearbox mounts may be solid.
2. Transmission and ratios are free. Forward gears are limited to 6 speeds. Cars with aftermarket sequential shift transmissions shall increase the required minimum weight by 100 lbs.

**D. Suspension and Steering**

1. Cars that come with a solid rear axle or trailing arm suspension are permitted an aftermarket or fabricated rear suspension. Cars with an altered rear suspension must add 50 lbs. Cars with live axle rear wheel drive may reduce the minimum weight by 50 lbs
2. Original suspension pick-up points below the upper line of the wheel rim must be used within a tolerance of 1.0 inch; however, if the lower suspension pickup point is changed from the OEM location, 50 lbs. must be added to the car. The body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 1.0 inch tolerance applies to pick-up points on the chassis only.
3. Suspension mounting points above the upper line of the wheel rim must be retained within a tolerance of 3.0 inches, however, the body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 3.0 inch tolerance applies to pick-up points on chassis only.
4. The spindle and/or outer joint on the a-arm and/or strut may be moved to correct bump steer caused by changing the vehicle ride height. These components are not limited to the 1.0 inch of movement that applies to the suspension pick-up points located on the chassis.
5. Alternate control arms permitted.
6. Spherical bearings are permitted on suspension components.

**E. Brakes**

1. Maximum rotor size 331mm in diameter, 32mm in thickness.
2. Calipers- The standard production calipers or any 4-piston or fewer calipers may be used.
3. Original equipment master cylinders and pedals may be replaced.
4. Power assisted braking systems are permitted.

5. The balance of braking forces between the two wheels on an axle shall be equal and non-adjustable.
6. The balance of braking forces between the front and rear axles may only be adjusted by the driver through:
   a. Direct intervention on the position of the center of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.
   b. Direct intervention on a proportioning valve in which the intake pressure is adjusted through a pre-loaded spring.
7. *Alternate suspension components including spindle, knuckle, hubs, etc. sourced from the same manufacture are permitted.*

**F. Wheels**

1. Wheels may not exceed 17.0 inches in diameter and 8.0 inches in width.

**G. Tires**

1. A maximum section width of 245 is permitted.

**H. Weights and Engine Allowances**

1. Minimum weights for cars with normally aspirated piston engines will be determined by 1.1 lbs/cc displacement for the installed engine (see following table). Displacement is the stock displacement for the installed engine. For the purpose of weight assignment, engine displacement will be rounded to the nearest 50cc (e.g., 2176cc = 2200cc and 2175cc = 2150cc).

| Factory Engine Displacement (cc) | Minimum Weight (lbs) |
|---|---|
| 1600 | 1760 |
| 1650 | 1815 |
| 1700 | 1870 |
| 1750 | 1925 |
| 1800 | 1980 |
| 1850 | 2035 |
| 1900 | 2090 |
| 1950 | 2145 |
| 2000 | 2200 |
| 2050 | 2255 |
| 2100 | 2310 |
| 2150 | 2365 |
| 2200 | 2420 |
| 2250 | 2475 |
| 2300 | 2530 |
| 2350 | 2585 |
| 2400 | 2640 |
| 2450 | 2695 |
| 2500 | 2750 |
| 2550 | 2805 |
| 2600 | 2860 |
| 2650 | 2915 |
| 2700 | 2970 |
| 2750 | 3025 |
| 2800 | 3080 |
| 2850 | 3135 |
| 2900 | 3190 |
| 2950 | 3245 |
| 3000 | 3300 |
| 3050 | 3355 |
| 3100 | 3410 |
| 3150 | 3465 |
| 3200 | 3520 |

2. Normally-aspirated engines of fewer than 4 valves per cylinder may reduce base engine weight 9%.
3. Normally-aspirated engines 2551cc-2975cc that breathe through a single throttle body may reduce base engine weight 5%.
4. Normally-aspirated engines 2976cc-3200cc that breathe through a single throttle body may reduce

base engine weight 10%.

5. Factory turbocharged cars must run the stock turbo or any turbo from the following list:

   - KKK/Borg-Warner K04

   - IHI VF30, *VF39, or VF48*

   -Garrett GT2554R, p/n 471171-3

6. All turbocharged engines shall use a turbo inlet restrictor/weight combination from the following table. Twin turbo engines are allowed on a case-by-case basis only. Turbocharged engines of greater than 2.7L displacement shall use the weight as listed in the lbs/cc or restrictor size/lbs charts, whichever is greater.

| Inlet Restrictor (mm) | Minimum Weight (lbs) |
|---|---|
| 34 | 2525 |
| 35 | 2675 |
| 36 | 2820 |
| 37 | 2985 |
| 38 | 3150 |
| 39 | 3315 |
| 40 | 3480 |
| AWD/RWD cars must reduce restrictor 2 mm from this table. | |

7. Front wheel drive cars may reduce their minimum weight by 5%. Front wheel drive cars with a strut type front suspension may reduce their minimum weight by an additional 2.5%.

8. All cars in Table B: Approved World Challenge Cars, listed in Table B must be run in accordance with an approved VTS sheet of 2009 or earlier and in accordance with World Challenge 2009 Appendix A. Appendix A is available on the www.scca.com website on the Club Racing Technical Forms and Downloads page (accessible from the Club Racing Cars and Rules page).

9. All weight adjustments for engines shall be applied first, then that total is to be used as the baseline for any chassis-related weight adjustments.

| Table A: Alternate Vehicle and Engine Requirements | | | |
|---|---|---|---|
| **Table A, Requirements specifies deviations from the STCS that competitors are required to do if they are running the following cars, engines, and/or combinations. All other GCR/STCS specs apply, except as noted below.** | | | |
| **STU** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| Mazdaspeed Miata | 1839 | Chart - 2mm | |
| Mazda MZR (LF, L3, L5) | varies | Chart | Short blocks, heads, and intakes may be freely swapped within these engine designations. |

| Table B: Alternate Vehicle and Engine Allowances | | | |
|---|---|---|---|
| **Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** All World Challenge-spec vehicles must meet World Challenge VTS as listed and World Challenge 2009 Appendix A, unless otherwise specified; competitors must have the VTS sheet for scrutineers upon request. Tires must meet GCR section 9.3 Tires. | | | |
| **STU** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| Audi A4 Turbo | 1797 | Chart | K04 turbocharger permitted. |
| | | 3050 | IHI VF30 turbo with 35mm turbo inlet restrictor permitted. |
| BMW E36 M3 (95-99) | 3200 | 3200 | Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift. |
| BMW E46 3 Series | 2500 | Chart | Adapter BMWAD1 or BMWAD2 permitted to mate M50 throttle body to M54 intake manifold. |
| BMW S14B20 | 1990 | Chart | Must meet all STU engine regulations |
| Chevrolet Camaro | 3790 | 3200 | Engines are permitted 0.040 overbore, 0.5 point increase in compression .Engines must use the OEM camshaft lift. |
| Chevrolet Cobalt /Cavalier (supercharged) | 1998 | 2650 | GM stage 2 kit allowed. OEM Camshaft lift. |
| Dodge SRT4 | 2458 | Chart | Mitsubishi TD05HR-15GK2 turbocharger permitted. |

| Table B: Alternate Vehicle and Engine Allowances | | | |
|---|---|---|---|
| **Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** All World Challenge-spec vehicles must meet World Challenge VTS as listed and World Challenge 2009 Appendix A, unless otherwise specified; competitors must have the VTS sheet for scrutineers upon request. Tires must meet GCR section 9.3 Tires. | | | |
| **STU** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| Ford Mustang | 3797 | 3200 | Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift. |
| | 4000 | 3300 | Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift. |
| *Honda JDM H22a* | *2157* | *Chart* | *Must meet all ST engine regulations.* |
| *Honda K20A (JDM)* | *1998* | *Chart + 2%* | |
| Honda K24 | 2354 | Chart + 2% | K20a2, k20z1, and k20z3 heads are permitted. Competitor must possess factory shop manuals for both engines. |
| Honda S2000 | | Chart | K series engines allowed with stock S2000 intake manifold and throttle body. Alternate differential cover Evasive motorsports #EVS-AP-DIFF-HC is permitted. |
| Honda S2000 | 2000 | 3100 | HKS Supercharger kit 12001-AH006 allowed, supercharger pulley 120mm diameter, crankshaft pulley diameter 152.3mm. *Comptech S/C Kit 354-090, Crank Pulley Diameter 5.9" measured at the top of the Groove, S/C Pulley 5".* |
| Honda S2000 | 2157 | 3150 | HKS Supercharger kit 12001-AH006 allowed, supercharger pulley 120mm diameter, crankshaft pulley diameter 152.3mm. *Comptech S/C Kit 354-090A, Crank Pulley Diameter 5.9" measured at the top of the Groove, S/C Pulley 5".* |
| Improved Touring Vehicles (1985-) | See GCR 9.1.3 | See GCR 9.1.3 | Must completely conform to ITCS requirements. |
| Lexus IS 300 | 2800 | 3080 | Maximum bore: 87mm; maximum stroke: 78mm. |
| Lotus Elise Cup R | 1797 | 2200 | Stock super charger pulley and injectors required. |

**Table B: Alternate Vehicle and Engine Allowances**

**Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** All World Challenge-spec vehicles must meet World Challenge VTS as listed and World Challenge 2009 Appendix A, unless otherwise specified; competitors must have the VTS sheet for scrutineers upon request. Tires must meet GCR section 9.3 Tires.

| STU | Maximum Displacement (cc's) | Minimum Weight | Notes |
|---|---|---|---|
| Lotus Elise SC/ Lotus Exige SC | 1796 | 2200 | Stock supercharger pulley and injectors required. |
| | | 2400 | Minimum 3.1" supercharger pulley, stock camshaft required, open injectors allowed. |
| *Mazda B6 Engine* | *1597* | *2400* | *Jackson Supercharger kit #1000-03-900 allowed, 90mm/6-rib supercharger pulley diameter, 152mm/6-rib crankshaft pulley diameter.* |
| Mazda KJ-ZEM Miller-Cycle 2.3L V6 | 2225 | chart | Mazda 2.5 KL non-supercharged intake allowed without supercharger. |
| Mazda Renesis | NA | 2300 | No porting allowed. Alternate 70mm choke throttle body from the following list allowed: OE from 1996-2004 Mustang 4.6 liter V8; BBK #1700 (e.g., Summit #BBK-1700); Summit #227204; Trickflow #24070 1" thickness max manifold adapter allowed. |
| Mazda 12A Street Port | NA | 2250 | Induction: 1 Nikki 4 barrel carburetor with primary chokes bored to match secondary chokes on a stock manifold, or 1 Auto-type 2 barrel carburetor with *42mm* chokes on a "dual-y" manifold. |
| Mazda 13B | NA | 2300 | Street porting allowed, contact SCCA Technical Services for details. Fuel injection or 1 Auto-type 2 barrel carburetor with 42mm chokes on a "dual-y" manifold. |
| Mazda 13B Bridge Port | NA | 2600 | Stock intake manifold & throttle body required, or automotive 2 barrel carb with 44 mm chokes |

**Table B: Alternate Vehicle and Engine Allowances**

**Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** All World Challenge-spec vehicles must meet World Challenge VTS as listed and World Challenge 2009 Appendix A, unless otherwise specified; competitors must have the VTS sheet for scrutineers upon request. Tires must meet GCR section 9.3 Tires.

| STU | Maximum Displacement (cc's) | Minimum Weight | Notes |
|---|---|---|---|
| Mercedes CLK | 2300 | 3200 | Precision turbo model 5557 allowed with 35mm TIR restrictor. Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift. |
| Mini Cooper S SC | 1598 | 1900 | Stock supercharger pulley |
| | | 2100 | JCW Pulley permitted. |
| Nissan 350Z | 3000 | 3300 | Nissan VQ30, 93.0 bore by 73.3 stroke |
| Nissan SR20DET | 2000 | Chart -2mm | |
| Pontiac Firebird | 3790 | 3200 | Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift. |
| Pontiac Solstice/Saturn Sky | 2400 | Chart | May use hardtop GM PCS-0664 or equivalent aftermarket. May compete with stock fuel tank. |
| Rocky Mountain Division SpecM3 cars | See class regs | See class regs | Must completely conform to the 2011 SpecM3 regs. Competitors must have a copy of the 2011 rules in their possession. |
| Scion FR-S / Toyota 86 | 2000 | Chart | 4U-GSE engine may use OEM 12.5:1 compression ratio. |
| Scion TC SC | 2362 | 2300 | TRD supercharger kit allowed. OEM camshaft lift. |
| Subaru BRZ | 2000 | Chart | FA20 engine may use OEM 12.5:1 compression ratio. |
| Subaru BRZ/ Scion FRS / Toyota 86 | 2000 | *2750* | Jackson Racing S/C Kit, part # 000-07-300 and 2130-07-R01 SC Pulley, 110mm, FR-S/BRZ permitted. |
| Subaru BRZ / Scion FRS / Toyota 86 | 2000 | 2850 | Cosworth Stage 2 Power Package supercharger kit, part #: COS2 20046685, stock crankshaft pulley, supercharger pulley diameter 68.6mm. |
| Subaru BRZ / Scion FRS / Toyota 86 | 2000 | 2850 | Edelbrock Supercharger Kit part #1556, 6-rib 3.25" pulley measured over .098" gauge wire placed in between grooves. |

**Table B: Alternate Vehicle and Engine Allowances**

**Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** All World Challenge-spec vehicles must meet World Challenge VTS as listed and World Challenge 2009 Appendix A, unless otherwise specified; competitors must have the VTS sheet for scrutineers upon request. Tires must meet GCR section 9.3 Tires.

| STU | Maximum Displacement (cc's) | Minimum Weight | Notes |
|---|---|---|---|
| Subaru BRZ/ Scion FRS / Toyota 86 | 2000 | 3000 | Kraftswerks C30-94 supercharger kit allowed, 127.5mm crankshaft drive pulley and 95mm blower pulley. |
| Toyota 4AGZE | 1587 | 1955 | Permitted with stock supercharger. |
| Volkswagen GTI/GLI | 1984 | Chart | K04 turbocharger permitted. |
| Volkswagen Jetta Mk4 | 1805 | Chart | IHI VF30 Turbo Permitted |
| World Challenge Spec* Acura Integra Type R | | 2475 | VTS v2 dated 1.09.2010 |
| World Challenge Spec Acura RSX Type S | | 2670 | VTS v1 dated 2.24.2009 |
| World Challenge Spec* Acura TSX (04-08) | | 2975 | VTS v1 dated 2.24.2009<br>52 mm restrictor per WC Appendix A |
| World Challenge Spec* Acura TSX (09-11) | | 2870 | VTS v4 dated 3.13.2009. 2009 VTS only; no 2010-11 specs permitted.<br>50 mm restrictor per WC Appendix A |
| World Challenge Spec* Ford Focus Coupe | | 2677 | VTS v1 dated 2.24.2009 |
| World Challenge Spec* Ford Contour/ Mercury Cougar (96-00) | | 2750 | VTS v3 dated 6.16.2002 |
| World Challenge Spec* Mazda 6 | | 2975 | VTS v3 dated 7.15.2009 52.5 mm restrictor per WC Appendix A |
| World Challenge Spec* Mazda MX5 (2005-) | 2489 | 2500 | VTS dated 1/15/2013. Must meet STCS Ride Height. |
| World Challenge Spec* Mazda MX-5 (2005-) | 2489 | 2750 | VTS dated 1/15/2013, Revision 4 Dated 2/5/2016. |

## 9.1.4.2 STL SPECIFIC TECHNICAL REGULATIONS

**A. Chassis**

1. Minimum ride height is 5.0 inches.

**B. Engines**

1. Engines up to 4 cylinders and 2000 cubic centimeters factory displacement are permitted, except those from cars and engines as follows:

   The following vehicles in their entirety are ineligible for STL:

   (none at this time)

   The engines from the following cars are ineligible for STL:

   (none at this time)

   Forced induction is not permitted in STL. Forced induction engines, 2.0 liters and under, may be approved to remove turbo/super chargers on a case by case basis. Engine must comply with all STL regulations.

2. Manifold and cylinder head port matching on piston engines is permitted. No material may be removed further than one (1) inch in from the manifold to cylinder head mounting faces. Carburetor mounting surfaces shall not be modified. External dimensions of the cylinder head or intake manifold may not be reduced to facilitate internal porting. Two piece manifolds must not be port matched at their intermediate point. Valve guide material is unrestricted.
3. Valve seat and valve head angles are free.
4. Compression ratio is limited to 11.0:1.
   a. In those cases where the stock compression ratio of an engine is greater than allowed above, stock compression ratio may be used. 1.5% shall be added to the engine base weight for every 0.50 of additional compression ratio (e.g., 11.01:1-11.50:1 = +1.5%, 11.51:1-12.00:1 = +3%). Competitor must provide proof of stock compression ratio being greater than 11.0:1 in order to utilize this allowance.
5. Valve lift is limited to .425 inch for 4 or more valve/cylinder engines, .425 inch intake and .450 inch exhaust for 3 valve/cylinder engines, and .450 inch for 2 valve/cylinder engines.
   a. In those cases where the stock valve lift of an engine is greater than allowed above, stock camshafts may be used. 0.5% shall be added to the engine base weight for every .025 inch of additional valve lift (e.g., .426-.450 = +.5%, .451-.475 = +1%). Competitor must provide proof of stock valve lift being greater than allowed above in order to utilize this allowance.
6. Any clutch disc and pressure plate of OEM diameter may be used. Carbon clutch components are prohibited.

**C. Drivetrain**

1. Engine and gearbox mounts may be solid, but must not relocate the engine or transmission in any direction.
2. Either the original transmission or an alternate transmission must be used; the alternate transmission must be from the same manufacturer as the vehicle (i.e., an Acura transmission may be installed in a Honda car). Alternate transmissions must be used in their entirety; any OEM gear sets (drive and driven gear pairs) that fit w/o any modifications to gears, shafts, and/or case are permitted.
3. Any final drive ratio is permitted provided it fits the differential/transaxle housing without modification to the housing.
4. Any limited-slip or locking differential is permitted.
5. Short shift kits are allowed.

**D. Suspension**

1. Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted. This includes the use of spherical bearings, so long as no suspension component is modified to facilitate their installation. Retention of spherical bearings by use of tack welds is permitted, as long as the welds serve no other purpose.
2. Rubber bump stops may be removed, modified, or replaced, but their chassis mounts, brackets, etc., may not be altered in any way.
3. Unless otherwise allowed in these regulations, no other relocation or reinforcement of any suspension component or mounting point is permitted.
4. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

**E. Brakes**

1. Maximum rotor size 300mm in diameter, 28mm in thickness.
2. Calipers - Any 4-piston or fewer calipers may be used.
3. Any alternate OEM master cylinder and/or booster are allowed, as long no modifications are done to any other component for installation. Booster may be removed and replaced with a fabricated mounting plate, and the actuator rod may be modified or replaced, as long as no others modifications are done to any other component.
4. Modifications may be made to the foot pedals to improve the comfort of and control accessibility to the driver.

**F. Wheels**

1. Wheels may not exceed 17.0 inches in diameter or 7.0 inches in width.

**G. Tires**

A maximum section width of 225 is permitted.

**H. Weight Requirements**

1. Minimum weights for cars with normally aspirated piston engines will be determined by 1.35 lbs/cc displacement for the installed engine (see following table). Displacement is the factory displacement for the installed engine. For the purpose of weight assignment, engine displacement will be rounded to the nearest 50cc (e.g., 2176cc = 2200cc and 2175cc = 2150cc).

| Factory Engine Displacement (cc) | Minimum Weight (lbs.) |
|---|---|
| 1300 | 1755 |
| 1350 | 1823 |
| 1400 | 1890 |
| 1450 | 1958 |
| 1500 | 2025 |
| 1550 | 2093 |
| 1600 | 2160 |
| 1650 | 2228 |
| 1700 | 2295 |
| 1750 | 2363 |
| 1800 | 2430 |
| 1850 | 2498 |
| 1900 | 2565 |
| 1950 | 2633 |
| 2000 | 2700 |

2. Rear wheel drive cars with strut front suspension must add 3.5 percent to their baseline STL weight. All other rear wheel drive cars must add 5.5 percent to their standard baseline STL weight.
3. Front wheel drive cars with a strut type front suspension may reduce their minimum weight by 2.5 percent.
4. All weight adjustments for engines shall be applied first, then that total is to be used as the baseline for any chassis-related weight adjustments.

**I. Car and Engine Specific Allowances**

(continued on following pages)

| Table A: Alternate Vehicle and Engine Requirements | | | |
|---|---|---|---|
| **Table A, Requirements specifies deviations from the STCS that competitors are required to do if they are running the following cars, engines, and/or combinations. All other GCR/STCS specs apply, except as noted below.** | | | |
| **STL** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| Acura/Honda B18C (JDM Type R), B18C5 (USDM Type R), B18C6 (UK and Euro Type R), B18C7 (Australia Type R) | | Chart + 2% | Any porting and or polishing of intake and or exhaust ports outside of the GCR 9.1.4.2.B.3, 1" port matching allowance, factory or otherwise, is prohibited. Must meet all other STL specifications. |
| Honda F20C | | Chart + 2% | 50 mm flat plate restrictor required. Must meet ALL STL regulations. |
| Honda/*Acura* K20 | | Chart | 50mm Flat Plate restrictor required. Honda throttle body #16400-RAA-A130 or #16400-PRB-A14 and Karcepts adaptor #KIM01 may be used. |
| Mazda MZR | | Chart | 55mm flat plate restrictor required. Unmodified cable-operated throttle body, Acura part number 16400-PND-A17, 60mm ID, allowed. Must meet ALL STL regulations. |
| Mazda 12A | | 2150 | No porting or port matching is permitted. The 5th and 6th intake port actuators and valves may be removed or disabled. |
| Mazda 13B | | *2498* | No porting or port matching is permitted. The 5th and 6th intake port actuators and valves may be removed or disabled. |

| Table B: Alternate Vehicle and Engine Allowances | | | |
|---|---|---|---|
| **Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** | | | |
| **STL** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| BMW S14B20 | 1990 | Chart | Must meet all STL engine regulations. 50mm flat plate restrictor required. |

| Table B: Alternate Vehicle and Engine Allowances | | | |
|---|---|---|---|
| **Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** | | | |
| **STL** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| ITA-spec and ITS-spec RX7 | See GCR 9.1.3 | See GCR 9.1.3 | Must completely conform to ITCS specifications. |
| ITS, ITA, ITB, or ITC vehicles with a reciprocating piston engine of 2.0L or less engine displacement, 1985+ | See GCR 9.1.3 | See GCR 9.1.3 | Must completely conform to ITCS specifications. |
| GM Ecotech LNF | 2000 | Chart | LNF Engine Permitted with turbocharger removed. Must meet all other STL specifications. |
| Honda B16A (JDM) | | Chart | Must meet all STL engine regulations. May not take advantage of over-cam or over-compression allowances per 9.1.4.2.B.4 or 9.1.4.2.B.5. |
| Honda D15B (JDM) | 1493 | Chart | Must meet all STL engine regulations. May not take advantage of over-cam or over-compression allowances per 9.1.4.2.B.4 or 9.1.4.2.B.5. |
| *Honda D16A8/D16A9 (JDM ZC)* | *1590* | *Chart* | *Must meet all STL engine regulations.* |
| *Mazda BP-Z3/BP-VE (EDM)* | | *Chart* | |
| Mazda BP5A | 1839 | Chart | Must meet all STL engine regulations. |
| Mazda MX-5 Cup | 2000 | 2600 | Must comply with 2014 SCCA Pro Racing MX-5 Cup Regulations. Competitor must have the rules in their possession and present them upon request. The driver's helmet clearance shall be measured over the driver's head from the driver's side hoop to the center hoop. |

| Table B: Alternate Vehicle and Engine Allowances | | | |
|---|---|---|---|
| **Table B, Allowances specifies deviations from the STCS that competitors are allowed to do if they are running the following cars/engines/combinations. If the competitor chooses an allowance from the below table they are required to meet all spec line notes. All other GCR/STCS specs apply, except as noted below.** | | | |
| **STL** | **Maximum Displacement (cc's)** | **Minimum Weight** | **Notes** |
| Mazda Renesis | NA | *2800* | No porting or port matching is permitted. 55mm flat plate restrictor required. |
| Mazda RX-7 12A (79-85) | NA | 2300 | Street Porting of the engine only. Bridge porting, peripheral porting, and eyelash porting are prohibited. Contact SCCA National Office for details of Street porting. Stock Nikki 4 bbl carburetor on a stock manifold only. Modification of the water jacket in the area of the spark plug for cooling purposes is permitted. |
| Mazda Spec MX-5 | 2000 | 2600 | Must Comply with 2014 SCCA Spec MX-5 Regulations. |
| Nissan SR20DE (USDM spec) | Chart | Chart | SR20DET block, part number 10103-50FMO, allowed for purpose of installation in Nissan/Infiniti RWD chassis only. All other components must meet STCS regulations. |
| Pontiac Solstice/Saturn Sky | | Chart | May use hardtop GM PCS-0664 or equivalent aftermarket. May compete with stock fuel tank. |
| Spec Miata | See GCR 9.1.7 | See GCR 9.1.7 | Must completely conform to SMCS specifications, except spec tire not required. |
| Toyota 20 Valve 4AGE (Black / Silver Top) | 1600 | Chart + 2% | Must meet all STL engine regulations. |
| Toyota 3S-GE VVTi | 1998 | Chart | 50mm Flat Plate required, Must meet all other STL specs including Valve Lift and Compression Ratio. |
| Volkswagen ABF | 1984 | Chart | |

## 9.1.5. PRODUCTION CATEGORY

**A. Philosophy**

The Production category exists to provide the membership with an opportunity to compete in series produced cars. While a Production car retains many **stock components**, the current rules allow for high performance **modifications** to enhance the safety, power and handling of the car. Production cars are specified at two levels of preparation, Level 1 (Full Prep) and Level 2 (Limited Prep). The commitment for the future of Production is to the Level 2 formula. Every aspect of a car being classed will be considered. The normal criteria for consideration are, but not limited to: **engine** size and configuration, horsepower potential, driveline **components**, brakes, car weight, **suspension** configuration, **wheels**, and **body** style. Any car with an aspect or aspects that the Club Racing Board feels has fallen outside the current classes and cars classed, can be excluded from one or all of the current Production classes. The Club can alter **specifications** to equate the competition potential of each car in its modified form.

**B. Classification**

The Club will use the following guidelines when determining a car's suitability for classification in the Production category:

1. Production cars are specified at two levels, Level 1 and Level 2. Cars can be specified at either level or a combination of both.
2. Classification will be based on the **specifications** of the base model of the car, as it was delivered for sale in the United States.
3. Cars submitted for new classification in the Production Category must be series produced in quantities of no less than 3000 within a twelve month period.
4. Requests for classification may be initiated by members, the Club Racing Board or its Production Advisory Committee. Members who wish to suggest a car for classification should fill out a Vehicle Technical Specification sheet (available at http://www.clubracingboard.com) and submit it to the Club Racing Board.
5. Any Improved Touring car meeting all the requirements of ITCS 9.1.3 may compete in the Production class in which the same make, model and engine displacement car is classified. For Improved Touring cars competing in Production, the level of preparation and modifications will be as determined by ITCS 9.1.3 and not by PCS 9.1.5. This is intended to allow Improved Touring competitors to become more familiar with Production to assist them in determining whether to modify their cars to meet the requirements of PCS 9.1.5 and also to permit Improved Touring competitors to compete in all events open to Production cars.

**C. Specifications**

The SCCA will publish Production Car **Specifications** (PCS) each year. The PCS will contain the **specifications** for each car eligible to compete in the Production Category for that calendar year.

1. Each line of the PCS will list the make, model(s), level of **drive train** and **suspension/steering** preparation, along with all other car specific **specifications**.
2. Cars can be updated or backdated within the **specifications** for the makes and models listed on the same **specification** line of the PCS.
3. The use of non **stock components** may be permitted. Non **stock components** can be permitted to equate competition potential.
4. **Track specifications** will be set at 103% of the car's **stock track** plus 2.5 inches.

**D. Interpretation**

1. An **addition**, **modification**, **substitution** or **removal**, must not be made unless specifically authorized.
2. An authorized **addition**, **modification**, **substitution** or **removal** can not perform a prohibited function. An authorized **addition**, **modification**, **substitution** or **removal** of one **component** does not permit the **addition**, **modification**, **substitution** or **removal** of any other **component** unless the **addition**, **modification**, **substitution** or **removal** is specifically authorized.
3. The levels of preparation on the cars **specification** line are the only levels that apply to that car. Authorized **modifications** in one level of preparation can not be used to determine or justify authorized **modifications** in another level of preparation.
4. The entrant of a car prepared to any of the level 2 **specifications**, must be in possession of a factory workshop manual at all competitions.
5. When the PCS refers to a **component** as being unrestricted, this permits the **addition**, **modification**, **substitution** or **removal** of that **component**.
6. A rule that pertains to a specific **component** supersedes a general rule that might otherwise apply.
7. If any word is used in the Production car **specifications** is defined in the technical glossary of the GCR, it will be interpreted as defined. Terms with corresponding glossary definitions are bold highlighted throughout the PCS.

**E. Authorized Modifications**

**1. Drive Train Level 1**

a. **Drive Train Component Modification**

1. **Stock** and permitted alternate **components** of the **drive train** can be modified by any mechanical or chemical means. **Modification** of a **drive train component** does not permit relocation of that **component**.

2. No material or mechanical **extension** can be added to any **stock** or alternate **component**, unless specifically authorized by these rules. **Repairs** to a **stock** or alternate **component** are permitted, provided the **repair** serves no prohibited function.

3. **Stock** and permitted alternate **components** of the **drive train** can have thermal barrier and friction altering coatings applied.

b. **Induction System**

1. All inducted air must pass through the **venturi(s)** of the car's **carburetor(s)**. On cars where the use of one (1) 40 DCN, DCNF, IDF **carburetor** is required, can fit one (1) of the following permitted optional **carburetors**:
   1. Weber 32 DGV/DGAV/DGEV
   2. Weber 32/36 DGV/DGAV/DGEV
   3. Weber 32/36 DFV/DFAV/DFEV
   4. Weber 34 DAT/DATR/DATRA/DMTR
   5. Holley-Weber 5200.

   **Carburetor jets, jet needles**, **metering rods** and needle valves are unrestricted. **Choke** mechanisms, plates, rods, and actuating cables, wires, or hoses can be **removed**.

   Where Weber **carburetors** are specified, Weber type **carburetors** can be **substituted**. The following are permitted Weber type **carburetors**:
   1. Solex
   2. SK
   3. Mikuni
   4. Delorto
   5. Berg
   6. PMO
   7. EMPI

2. **Stock** or permitted alternate sidedraft **carburetor(s)** can use an adaptor plate and/or a spacer in **addition** to any **stock** spacer, between the **carburetor(s)** and the **intake manifold**. Material for the adaptor plate and spacer is unrestricted. No adaptor plate or spacer can serve any purpose other than to space out and/or mate the **carburetor(s)** to the permitted **intake manifold**. The adapter or spacer cannot create a plenum or change the **carburetor(s) orientation**. The maximum thickness for the adapter, spacer, **stock** spacer or combination of all is 1.25". For the purpose of these rules an Isolator is a spacer.

3. **Stock** or permitted alternate downdraft **carburetor(s)** can use an adaptor plate and/or a spacer in **addition** to any **stock** spacer, between the **carburetor(s)** and the **intake manifold**. Material for the adaptor plate and spacer is unrestricted. No adaptor plate or spacer can serve any purpose other than to space out, or mate the **carburetor(s)** to the permitted **intake manifold**. The adapter or spacer cannot change the **carburetor(s) orientation**. Adaptors and spacers can have a **bore** larger than the throttle **bore** of the **stock** or permitted alternate **carburetor(s)**. The maximum thickness for the adapter, spacer, **stock** spacer or combination of all is 1.25". For the purpose of these rules an Isolator is a spacer.

4. Fuel injection: All inducted air must pass through the throttle body and be subject to control by the throttle butterfly. The stock throttle body casting/housing must be retained. The bore size and throttle butterfly dimensions must remain stock. The throttle body can be ported and polished. The throttle butterfly shaft shall not be relocated. The throttle butterfly and any throttle butterfly to shaft screws/bolts can be attached to the throttle butterfly shaft by any means including welding or brazing. Holes or slots can be created in the throttle butterfly for purposes of idle adjustment only. The number of injectors must remain stock. The mounting position and the injection point must be stock. Electronic fuel injection may be substituted for the stock type of fuel injection. In all other respects the fuel injection system is unrestricted.

5. All carburetors must retain the **stock** method of fuel distribution. Utilization or **modification** of a carburetor's **components** to effect an annular discharge configuration is prohibited.

6. **Air cleaners**, **velocity stacks**, air supply **ducts** and **cold air boxes** are unrestricted.

7. **Stock** or permitted alternate **intake manifold(s)** can be ported and **polished**. It/they can be cut apart to facilitate this work. When the **manifold** is re-welded, the external dimensions of the **manifold** must remain unchanged from **stock**.

8. No portion of the **intake manifold(s)** can extend into the **inlet ports** of the cylinder head or

**rotary engine** end plate. No **modification** of the cylinder head or end plate is allowed when fitting a permitted alternate **intake manifold**. Port to port **balance pipes** or tubes in all **intake manifolds** can be plugged or restricted.

9. The **accelerator pedal** and **linkage** to the **throttle butterfly** is unrestricted. Electric throttle control is prohibited unless fitted as **stock**. Two spring loaded **systems** of positive throttle closure are strongly recommended.

c. **Fuel pumps**, lines, filters, and pressure regulators are unrestricted, provided no **component** serves any fuel cooling purpose. **Fuel lines** can pass through the driver/passenger compartment. If a mechanical pump is **removed**, a blanking plate can be used to cover the **stock** opening.

d. Emission system **components**, control devices, associated lines, nozzles and wiring must be **removed** and any resultant holes plugged. The plugs must serve no other purpose.

e. Cylinder Head
   1. Porting, **polishing**, and machining within the limits of Production Car Rule E.1.a.1 E.1.a.2., is permitted. **Valve guides** and **valve seats** are unrestricted.
   2. If the **stock fuel injection** is **removed** and **carburetors** are utilized, the **stock fuel injection** ports in the cylinder head must be plugged. The plugs must serve no other purpose.
   3. The cylinder head can be machined to utilize **o-rings** to replace or supplement the cylinder head **gasket**.
   4. Holes resulting from the **removal** of **EGR valves** and air nozzles must be plugged. The plugs must serve no other purpose.

f. **Camshaft** and **Valve Gear**
   1. **Camshafts** are unrestricted. Any lifters, **tappets** or cam followers of the same type and diameter as **stock** are permitted. The interchange of hydraulic and solid lifters is permitted.
   2. Camshaft timing chains, **gears**, belts, and **sprockets** are unrestricted provided that they are of the same type and outside diameter as fitted **stock**. Single row or double row camshaft timing chains can be used. **Adjustable timing gears** are permitted.
   3. A timing chain/belt tensioner can be added to an **engine** where a tensioner is not fitted as **stock**, provided that it acts upon the portion of the chain/belt that travels from the final cam **sprocket**/**gear** to the **crankshaft**. The **timing belt** cover can be **removed**.
   4. Any **metal valves** meeting the specified head diameter can be used. Any **valve springs** of the same type as **stock** can be used. **Valve retainers**, lash pads, **valve keepers**, **seals** and adjustment shims are unrestricted.
   5. **Pushrods**, **valve rocker arms**, shafts and attendant assemblies are unrestricted.

g. **Block** and Cylinders
   1. The **block** can be rebored no more than 1.2mm (.0472 in) larger than the maximum dimension given on the **specification** line for that make, model, and **displacement**. A cylinder **block** from any model from the same manufacturer, which is of the same material and dimensionally identical throughout, except for non-critical **bosses**, is permitted. **Oil passages** can be re-routed, enlarged, restricted or plugged.
   2. Cylinders or **cylinder sleeves** of any material can be fitted to the **block**.
   3. C**rankshaft main bearing caps** and **main bearing cap** bolts are unrestricted. **Crankshaft main bearing cap** girdles are unrestricted. **Crankshaft main bearing caps** can be more than one piece.
   4. The **block** can be machined to utilize **o-rings** to replace or supplement a cylinder head **gasket**.
   5. **Crankshaft** oil **seal(s)** are unrestricted.

h. **Pistons** and **Connecting Rods**
   1. **Pistons**, pins, clips and/or pin retainers and **piston rings** are unrestricted. **Pistons** must be constructed of **metal**.
   2. Alternate **ferrous connecting rods** of the same crank pin center to the piston pin center dimension as **stock** are permitted.
   3. **Connecting rod** bolts and nuts are unrestricted.

i. **Crankshaft** and **Flywheel**
   1. An alternate **crankshaft** is permitted. The crankshaft must be constructed of **ferrous** material, and must have the same **stroke** as **stock**. Journal diameters can be a maximum undersize of 0.045 from **stock** diameter. The crankshaft must retain the **stock** throw angles and **firing order**.
   2. The direction of **crankshaft** rotation must remain **stock**.

3. External **Crankshaft vibration dampeners** are unrestricted.

4. Any **flywheel** of **stock** diameter or larger can be used, provided it attaches to the standard or permitted alternate **crankshaft** at the **stock** location. **Additional fasteners** can be used. The diameter of the **flywheel** includes the diameter of the **starter ring**. Cars that are permitted a specific alternate **transmission** on the **specification** line can use a **flywheel** of **stock diameter** or larger for that alternate **transmission**.

5. **Clutch** assemblies, clutch linkage and release bearings are unrestricted. Carbon **clutch components** are prohibited.

j. Oiling **System**

1. Any mechanically driven **oil pump** can be used. Chassis **components** can be modified to allow installation of the **oil pump**. **Dry sump systems** are permitted. The **dry sump** tank must be mounted within the **bodywork**.

2. The **Oil pan**/sump, **scraper(s)**, **baffle(**s), **windage tray(s)**, oil pickup(s), pressure accumulator(s) and **oil filter(s)** are unrestricted. The filter(s) and pressure accumulator(s) must be securely mounted within the **bodywork**. **Oil lines** are unrestricted. **Oil Lines** can pass through the driver/passenger compartment.

3. **Breather vents** are unrestricted.

4. No part of the oiling **system** can be connected to the **exhaust system**.

k. Electrical **System**

1. The use of any driver operated electric **starter** is permitted. The **starter** must be installed in the same general location as the **stock starter**. The **starter** must be mounted on the same side of the **flywheel** and **engine** as **stock**.

2. **Ignition systems** are unrestricted. **Magneto ignition systems** are prohibited. If the distributor is **removed** a blanking plate can be fitted in its place. **Components** that allow the incremental adjustment of ignition timing by the driver during competition are prohibited.

3. The **generator** or **alternator** is unrestricted. If a **generator** or **altenator** is used it must be mounted in the same general location as **stock**.

4. **Batteries** are unrestricted.

5. All other **components** of the electrical **system** are unrestricted.

l. **Exhaust System**

1. The exhaust **header** and **exhaust system** is unrestricted. **Floor pans** can be altered only to recess **mufflers**. No **modifications** can be made to the **bodywork** to fit any other part of the **exhaust system**.

m. Other **Engine Components**

1. The use of alternate **engine components** which are normally expendable and considered replacement parts, such as **fasteners**, **gaskets**, **seals**, **bearings**, water pumps, etc., is permitted. Electrically driven water pumps are prohibited.

2. **Bushings** can be installed where none are fitted as **stock**, provided they are **concentric**, and that the **centerline** of the bushed part is not changed.

3. The **addition** of alignment aides, such as dowels, bolts or keys can be added to **engine components**.

4. Other than the limitations in 9.1.5.E.1.f.2, **engine** drive **pulleys** are unrestricted.

5. **Engine steady bars** are unrestricted.

6. **Engine mounts** of alternate design and/or material can be used, but there can be no change to the **engine's** fore, aft or vertical location except as permitted in 9.1.5.E.1.o.6. **Engine mounts** must attach to the **engine** in their **stock** location.

7. Any engine balance shafts and associated gears or pulleys may be removed and the resulting openings plugged (including those in oil passages). Alternate pulleys or gears, of the same number as stock, may be installed in the location of the balance shaft pulleys or gears if required for timing belt or chain operation; they must serve no other purpose.

n. **Transmission**

1. The **Transmission** is unrestricted, providing that it is fit in the same basic location as **stock**. Sequential shifting **transmissions** are prohibited. Pneumatic, hydraulic or electric actuation of the **gear** shift mechanism is prohibited.

2. All **transmissions** must have a reverse **gear** that is operable by the driver from his normal seated position and capable of sustained movement of the car, under its own power, in the reverse direction. A driver operated device for locking out the reverse **gear** can be added,

provided it does not prevent prompt engagement of reverse in an emergency situation.

3. Shift **linkage** is unrestricted. The shift **linkage** opening in the transmission tunnel or tunnel cover can be modified to allow the installation of the alternate shift **linkage**.

4. For rear wheel drive cars, the transmission tunnel and tunnel cover can be altered to allow the installation of an alternate **transmission** and/or **driveshaft**. For front wheel drive cars, the **body**, **unibody**, **frame**, **suspension** crossmembers/subframes and their components may be altered to the extent required to allow the installation of an alternate **transmission**, **transaxle** and/or **driveshaft**.

5. The number of transmission speeds listed in a car's specification line is the number of forward gears operable by the driver from his normal seated position (e.g. a 6 speed transmission with 1 forward gear removed/disabled is considered a 5 speed transmission).

o. **Final Drive**

1. **Driveshaft(s)** are unrestricted.

2. **Final drive ratio** is unrestricted.

3. Internal **differential components** are unrestricted. Electric control of the **differential** is prohibited.

4. **Substitution** of the **differential housing** is only permitted on front **engine**/front drive or rear **engine**/rear drive cars through the use of an alternate **transaxle**.

5. **Axle shafts**, **bearings**, **bearing carriers**, **hubs**, and **universal joints**/CV joints are unrestricted.

6. **Transverse engine** cars can rotate the **engine** about the **crankshaft centerline** to align **axle shafts**/**constant velocity joints**. On rear **engine**/rear drive cars the **engine**/**drive train** can be relocated vertically upward, to a maximum of one inch, to allow alignment of **suspension** and driveline **components**.

**2. Drive Train Level 2**

a. **Drive train Component Modification**

1. **Stock** and permitted alternate **components** of the **drive train** can be modified by any mechanical or chemical means. **Modification** of a **drive train component** does not permit relocation of that **component**.

2. No material or mechanical **extension** can be added to any **stock** or alternate **component** unless specifically authorized by these rules. **Repairs** to a **stock** or alternate **component** are permitted provided the **repair** serves no prohibited function.

3. **Stock** and permitted alternate **components** of the **drive train** can have thermal barrier and friction altering coatings applied.

b. **Induction System**

1. All inducted air must pass through the **venturi(s)** of the cars **carburetor(s)**. All single carbureted cars may fit a permitted optional **carburetor**. Permitted optional **carburetors** are:
   1. Weber 32 DGV/DGAV/DGEV
   2. Weber 32/36 DGV/DGAV/DGEV
   3. Weber 32/36 DFV/DFAV/DFEV
   4. Weber 34 DAT/DATR/DATRA/DMTR
   5. Holley-Weber 5200

   The **stock** or permitted alternate **carburetor** must not be modified. **Carburetor jets, jet needles**, **metering rods** and needle valves are unrestricted. **Choke** mechanisms, plates, rods, and actuating cables, wires, or hoses can be **removed**. The number of **carburetors** must not be changed from **stock**.

2. **Stock** or permitted alternate sidedraft **carburetor(s)** can use an adaptor plate and/or a spacer in **addition** to any **stock** spacer, between the **carburetor(s)** and the **intake manifold**. Material for the adaptor plate and spacer is unrestricted. No adaptor plate or spacer can serve any purpose other than to space out and/or mate the **carburetor(s)** to the permitted **intake manifold**. The adapter or spacer cannot create a plenum or change the **carburetor(s) orientation**. The maximum thickness for the adapter, spacer, **stock** spacer or combination of all is 1.25". For the purpose of these rules an Isolator is a spacer.

3. **Stock** or permitted alternate downdraft **carburetor(s)** can use an adaptor plate and/or a spacer in **addition** to any **stock** spacer, between the **carburetor(s)** and the **intake manifold**. Material for the adaptor plate and spacer is unrestricted. No adaptor plate or spacer can serve any purpose other than to space out, or mate the **carburetor(s)** to the permitted **intake manifold**. The adapter or spacer cannot change the **carburetor(s) orientation**. Adaptors and spacers can have a **bore** larger than the throttle **bore** of the **stock** or permitted alternate **carburetor(s)**. The maximum thickness for the adapter, spacer, **stock** spacer or combination of all is 1.25". For the purpose of these rules an Isolator is a spacer.

4. Fuel Injection: All inducted air must pass through the throttle body and be subject to control by the throttle butterfly. The stock throttle body casting/housing must be retained. The inside dimensions of the throttle body casting/housing and all dimensions of the throttle butterfly must remain stock. The throttle butterfly shaft must not be relocated. The outside diameter of the portion of the throttle butterfly shaft located in the throttle body bore must be no smaller than stock. The contour of the interface between the throttle butterfly shaft and the butterfly must remain stock. The throttle butterfly and any throttle butterfly to shaft screws/bolts can be attached to the throttle butterfly shaft by any means including welding or brazing. Holes or slots can be created in the throttle butterfly for purposes of idle adjustment only. The number of injectors must remain stock. The mounting position and injection point must be stock. Electronic fuel injection may be substituted for the stock type of fuel injection. In all other respects the fuel injection system is unrestricted.
5. All carburetors must retain the **stock** method of fuel distribution. Utilization or **modification** of a carburetor's **components** to effect an annular discharge configuration is prohibited.
6. **Air cleaners**, **velocity stacks**, air supply **ducts** and **cold air boxes** are unrestricted.
7. The **intake manifold** may be port matched on the port mating surface to a depth of no more than one inch. **Balance pipes** or tubes on all **intake manifolds** can be plugged or restricted. In all other respects the intake manifold must be stock. Plating, painting or coating of the intake manifold is prohibited.
8. The **accelerator pedal** and **linkage** to the **throttle butterfly** is unrestricted. Electric throttle control is prohibited unless fitted as **stock**. Two spring loaded **systems** of positive throttle closure are strongly recommended.

c. **Fuel pumps**, lines, filters, and pressure regulators are unrestricted, provided no **component** serves any fuel cooling purpose. **Fuel lines** can pass through the driver/passenger compartment. If a mechanical pump is **removed**, a blanking plate can be used to cover the **stock** opening.

d. Emission system **components**, control devices, associated lines, nozzles and wiring must be **removed** and any resultant holes plugged. The plugs must serve no other purpose.

e. The Cylinder Head can only be modified:
1. To install an alternate **camshaft**, and/or adjustable cam **gears**.
2. To port match on the port mating surface to a depth of no more than one inch.
3. To facilitate the installation of permitted alternate **components**, provided the **modification** serves no other function.
4. To achieve the maximum specified **compression ratio** by the machining of the deck surface.
5. To completely plug the holes resulting from the **removal** of **EGR valves** and air nozzles. The plugs must serve no other purpose.
6. To completely plug the **stock fuel injection** ports in the cylinder head, if the **stock fuel injection** is **removed** and **carburetors** are utilized. The plugs must serve no other purpose.
7. To utilize **O-rings** to replace or supplement a cylinder head **gasket**.
8. To fit **valve seats**. **Valve seats** are unrestricted. Valve seat angles are unrestricted. The valve seat insert can be no taller than one half inch.

f. **Camshaft** and **Valve Gear**
1. **Camshafts** are unrestricted. Any lifters, **tappets**/cam followers of the same type and diameter as **stock** are permitted. The interchange of hydraulic and solid lifters is permitted.
2. Camshaft timing chains, **gears**, belts, and **sprockets** are unrestricted provided that they are of the same type, and outside diameter as fitted **stock**. Single row or double row timing chains can be used. **Adjustable timing gears** are permitted.
3. A timing chain/belt tensioner can be added to an **engine** where a tensioner is not fitted as **stock**, provided that it acts upon the portion of the chain/belt that travels from the final cam **sprocket**/**gear** to the **crankshaft**. The **timing belt** cover can be **removed**.
4. Any ferrous (including stainless steel) metal valves meeting the specified head diameter and having the stock diameter for the portion of the stem that travels inside the valve guide can be used. *The diameter of the portion of the valve stem that does not travel inside the valve guide can be no more than 17% smaller than the stock stem diameter.* Any ferrous valve springs of the same type as stock, can be used. Valve retainers, Spring retainers, Lash Pads, valve keepers, seals and adjustment shims are unrestricted.
5. Pushrods are unrestricted. Rocker shafts *and/or shaft pedestals,* when utilized in the stock system, can be replaced by alternate shaft*s and/or pedestals* and *are* unrestricted. Valve rocker arms, rocker type cam followers, rocker ratios and rocker/follower ratios must be stock.

6. **Valve guide** material is unrestricted, but must have **stock** external dimensions.
7. Where maximum valve lift is specified, valve lift is measured at the **valve** with zero lash or clearance.

g. **Block** and Cylinders
1. The **block** can be rebored no more than 1.2mm (.0472 in) larger than the maximum dimension given on the **specification** line for that make, model, and **displacement**. A cylinder **block** from any model from the same manufacturer, which is of the same material and dimensionally identical throughout, except for non-critical **bosses**, is permitted. **Oil passages** can be re-routed, enlarged, restricted or plugged.
2. Cylinders or **cylinder sleeves** of any material can be fitted to the **block.**
3. C**rankshaft main bearing caps** and **main bearing cap** bolts are unrestricted. **Crankshaft main bearing cap** girdles are unrestricted. **Crankshaft main bearing caps** can be more than one piece.
4. The **block** can be machined to utilize **o-rings** to replace or supplement a cylinder head **gasket**.
5. **Crankshaft** oil **seal(s)** are unrestricted.

h. **Pistons** and **Connecting Rods**
1. **Pistons**, pins, clips and/or pin retainers and **piston rings** are unrestricted. **Pistons** must be constructed of **metal**.
2. Alternate ferrous connecting rods, of the same crank pin center to piston pin center dimension and crank pin bore dimension as stock, are permitted.
3. **Connecting rod** bolts and nuts are unrestricted.

i. **Crankshaft** and **Flywheel**
1. **Stock crankshafts** are required. The **Crankshaft** can be lightened and **balanced**. Journal diameters can be a maximum undersize of 0.045 from **stock** diameter.
2. The direction of the **crankshaft** rotation must remain **stock**.
3. The use of any external **crankshaft vibration dampener** is permitted.
4. Any **flywheel** of **stock** diameter or larger can be used, provided it attaches to the standard or permitted alternate **crankshaft** at the **stock** location. **Additional fasteners** can be used. The diameter of the **flywheel** includes the diameter of the **starter ring**. Cars that are permitted a specific alternate **transmission** on the **specification** line can use a **flywheel** of **stock** diameter or larger for that alternate **transmission**.
5. **Clutch** assemblies, clutch linkage and release bearings are unrestricted. Carbon **clutch components** are prohibited.

j. Oiling **System**
1. Any mechanically driven **oil pump** can be used. Chassis **components** can be modified to allow installation of the **oil pump**. **Dry sump systems** are prohibited.
2. The **Oil pan**/sump, **scraper(s)**, **baffle(**s), **windage tray(s)**, oil pickup(s), pressure accumulator(s) and **oil filter(s)** are unrestricted. The filter(s) and pressure accumulator(s) must be securely mounted within the **bodywork**. **Oil lines** are unrestricted. **Oil Lines** can pass through the driver/passenger compartment.
3. **Breather vents** are unrestricted.
4. No part of the oiling **system** can be connected to the **exhaust system**.

k. Electrical **System**
1. The use of any driver operated electric **starter** is permitted. The **starter** must be installed in the same general location as the **stock starter**. The **starter** must be mounted on the same side of the **flywheel** and **engine** as **stock**.
2. **Ignition systems** are unrestricted. **Magneto ignition systems** are prohibited. If the distributor is **removed** a blanking plate can be fitted in its place. **Components** that allow the incremental adjustment of ignition timing by the driver during competition are prohibited.
3. The **generator** or **alternator** is unrestricted. If a **generator** or **altenator** is used it must be mounted in the same general location as **stock**.
4. **Batteries** are unrestricted.
5. All other **components** of the electrical **system** are unrestricted.

l. **Exhaust System**
1. The exhaust **header** and **exhaust system** is unrestricted. **Floor pans** can be altered only to recess **mufflers**. No **modifications** can be made to the **bodywork** to fit any other part of the

**exhaust system**.

m. Other **Engine Components**
1. The use of alternate **engine components** which are normally expendable and considered replacement parts, such as **fasteners**, **gaskets**, **seals**, **bearings**, water pumps, etc., is permitted. Electrically driven water pumps are prohibited.
2. **Bushings** can be installed where none are fitted as **stock**, provided they are **concentric**, and that the **centerline** of the bushed part is not changed.
3. The **addition** of alignment aides, such as dowels, bolts or keys can be added to **engine components**.
4. Other than the limitations in 9.1.5.E.1.f.2, **engine** drive **pulleys** are unrestricted.
5. **Engine steady bars** are unrestricted.
6. **Engine mounts** of alternate design and/or material can be used, but there can be no change to the **engine's** fore, aft or vertical location except as permitted in 9.1.5.E.1.o.6. **Engine mounts** must attach to the **engine** in their **stock** location.
7. Any engine balance shafts and associated gears or pulleys may be removed and the resulting openings plugged (including those in oil passages). Alternate pulleys or gears, of the same number as stock, may be installed in the location of the balance shaft pulleys or gears if required for timing belt or chain operation; they must serve no other purpose.

n. **Transmission**
1. The **Transmission** is unrestricted, providing that it is fit in the same basic location as **stock**. Sequential shifting **transmissions** are prohibited. Pneumatic, hydraulic or electric actuation of the **gear** shift mechanism is prohibited.
2. All **transmissions** must have a reverse **gear** that is operable by the driver from his normal seated position and capable of sustained movement of the car, under its own power, in the reverse direction. A driver operated device for locking out the reverse **gear** can be added, provided it does not prevent prompt engagement of reverse in an emergency situation.
3. Shift **linkage** is unrestricted. The shift **linkage** opening in the transmission tunnel or tunnel cover can be modified to allow the installation of the alternate shift **linkage**.
4. For rear wheel drive cars, the transmission tunnel and tunnel cover can be altered to allow the installation of an alternate **transmission** and/or **driveshaft**. For front wheel drive cars, the **body**, **unibody**, **frame**, **suspension** crossmembers/subframes and their components may be altered to the extent required to allow the installation of an alternate **transmission**, **transaxle** and/or **driveshaft**.
5. There is no weight penalty for the use of a stock transmission utilizing the stock case, stock gear ratio set (as defined in *acceptable* factory *documentation*) and stock synchromesh style of gear engagement. An alternate **transmission** that uses **stock** type, circular, beveled **synchronizers**, imposes a 2.5% weight penalty. An alternate **transmission** that uses a **gear** engagement mechanism different than **stock** type, circular, beveled **synchronizers** imposes a 5% weight penalty.

o. **Final Drive**
1. **Drive shaft(s)** are unrestricted.
2. **Final drive ratio** is unrestricted.
3. Internal **differential components** are unrestricted. Electric control of the **differential** is prohibited.
4. **Substitution** of the **differential housing** is only permitted on front **engine**/front drive or rear **engine**/rear drive cars through the use of an alternate **transaxle**.
5. **Axle shafts**, **bearings**, **bearing carriers**, **hubs**, and **universal joints**/CV joints are unrestricted.
6. **Transverse engine** cars can rotate the **engine** about the **crankshaft centerline** to align **axle shafts**/**constant velocity joints**. On rear **engine**/rear drive cars the **engine**/**drive train** can be relocated vertically upward, to a maximum of one inch, to allow alignment of **suspension** and driveline **components**.

**3. Drive Train Rotary Engine Level 2**

a. **Modifications**
1. The capacity of the **working chambers** must not be changed from **stock**.
2. The **eccentric shaft** can be replaced with another made from a **ferrous** material, but no changes in the eccentricity of journal dimensions are permitted.
3. **Rotary engine rotors** are unrestricted.

4. Street Porting of the **engine** only. Bridge porting, peripheral porting, and eyelash porting are prohibited. Contact SCCA National Office for details of Street porting.

5. **Modification** of the water jacket in the area of the **spark plug**, for cooling purposes is permitted.

**4. Suspension and Steering Level 1**

a. The **stock system** of **suspension**, e.g., live axle, swing axle, **McPherson strut**, A-arm, etc. must be retained.

b. **Ride height** is unrestricted.

c. Bolt on **suspension cross members/sub-frames** are unrestricted.

d. **Suspension pickup/pivot points** are unrestricted. **Suspension Components** including **anti-roll bars**, **camber compensating** devices, **panhard rods**, **watts linkage** and **suspension stabilizers** are unrestricted. These **components** can pass through any portion of the car with the exception of exterior **body work**. If these **components** extend into the driver/passenger/**trunk** compartments, they must be covered with **metal** panels.

e. **Suspension bushings**, **bearings** and **ball joints** are unrestricted.

f. Springs and **Shock Absorbers**

1. Any springs or **torsion bars** can be used, provided the quantity of these items remains as **stock**. The location and **attachment points** of springs and **torsion bars** are unrestricted. Spacers/lowering blocks can be used between leaf springs and the **axle housing**. The use of **tender springs** is permitted, provided the **tender springs** are completely compressed when the car is at static **ride height**. Static **ride height** will be determined with the driver seated in the normal driving position.

2. **Shock absorbers** and **McPherson struts**/**Chapman struts** are unrestricted. All cars can fit **coil-over** type springs with tubular, load bearing **shock absorbers** or struts. Such items must not exceed one spring and shock/strut per **wheel**.

A. **Attachment points** for the **shock absorbers** and **McPherson struts**/**Chapman struts** are unrestricted. Rear **attachment points** can be located in the driver/passenger/**trunk** compartment, but must be covered with **metal** panels.

B. When lever shocks are replaced with tubular shocks, the entire shock assembly can be replaced with a link and bracket that performs the control function.

C. **Bump stops** and bracketry are unrestricted.

D. No shock absorber, McPherson struts/Chapman struts can be capable of adjustment by the driver while the car is in motion, or can be electronically controlled.

3. Rockers, **rocker arms**, push and/or pull rods are prohibited.

g. **Steering**

1. The **stock steering system** must be retained e.g. **rack and pinion**, reciprocating ball, **worm and sector**. The **steering system** can be relocated.

2. **Steering system components** are unrestricted.

3. The **steering column** is unrestricted. A collapsible type **steering column** is strongly recommended. The driver's normal seated position must not be relocated.

4. Cars equipped with **power steering** as standard equipment can **modify**, **substitute**, disable and/or **remove** the power pump, related hoses and mounting brackets.

5. Suspension and Steering Level 2

a. Ride height is unrestricted.

b. **Suspension Components**

1. **Suspension control arms** are unrestricted, provided the quantity of these items remains as **stock**.

2. **Suspension bushings**, **bearings** and **ball joints** are unrestricted.

3. Any **anti-roll bar(s)** and rear axle **traction bar(s)**, rear axle **panhard rod** and **watts linkage** can be added or **substitute**d, provided its/their installation serves no other purpose. The mounts for these devices can be welded or bolted to the car. These devices and their mounts can not be located in the **trunk** or driver/passenger compartment unless fitted as **stock**. Rear axle **traction bar(s)** used to control **axle housing** rotation must be solid bar or tube.

4. When a cars **anti-roll bar** also acts as a **suspension** locating device, the bars **attachment points** and pivot points on the chassis and **suspension control arms** must remain in the **stock** location.

5. **Bump stops** and bracketry are unrestricted.

c. **Suspension** Mounting Points
   1. Cars equipped with a **McPherson strut**/**Chapman strut suspension** can adjust **camber** and **caster** at the upper strut mounting point. The upper strut mounting point must remain on **stock** chassis structure. Slotted adjusting plates at the upper mounting point are permitted. The slotted plates must be located on the **stock** chassis structure. Material can be **removed** or added to the top of the strut tower to facilitate installation of the slotted adjuster plate, provided it serves no other purpose.

   2. All forms of **suspension** can adjust **camber** and **caster** by the use of shims.

   3. Rear **independent suspension** mounting holes can be slotted within the limits of the **stock** structure for the sole purpose of **camber** and/or **toe** adjustment.

   4. **Suspension cross member**/**sub frame** mounting **bushing** material is unrestricted.

   5. **Suspension pickup**/**pivot axis points** can be reinforced but must remain in the **stock** location.

d. Springs and **Shock Absorbers**
   1. Any springs or **torsion bars** can be used, provided the quantity and type of these items remains as **stock**. Springs and **torsion bars** must be installed in the **stock** location using the **stock system** of attachment. The use of **tender springs** is permitted, provided the **tender springs** are completely compressed when the car is at static **ride height**. Static **ride height** will be determined with the driver seated in the normal driving position.

   2. **Shock absorbers** are unrestricted, provided the quantity and type (i.e. tube, lever) of these items remains as fitted **stock**. The manner of attachment of the shock absorber is unrestricted and the upper attachment point may be raised along the axis of the stock shock. The mounting of the remote reservoir of a **remote reservoir shock absorber** is unrestricted. No shock absorber can be capable of adjustment by the driver while the car is in motion, or can be electronically controlled.

   3. **Macpherson**/**chapman struts** must be installed in the **stock** location using the **stock system** of attachment. **Remote reservoir strut** dampeners are permitted. The mounting of the **remote reservoir** of a **remote reservoir Macpherson**/**chapman strut** is unrestricted. No Macpherson/chapman strut can be capable of adjustment by the driver while the car is in motion, or can be electronically controlled.

   4. **Macpherson**/**chapman strut:**
      A. **Macpherson**/**chapman strut** suspensions that are a two piece **spindle**/**bearing carrier** and bolt on damper design, can replace the bolt on damper portion of the **Macpherson**/**chapman strut** with any replacement damper.

      B. **Macpherson**/**chapman strut** suspensions that are a one piece **spindle**/**bearing carrier** and strut tube design, can **modify** the **stock** strut tube in order to fit a replacement damper, coil spring and perch. The **spindle**/**bearing carrier** portion of the strut can be modified in order to fit an alternate strut tube and any replacement damper. One piece design **Macpherson**/**chapman strut** suspensions can gusset between the tube and **spindle**/**bearing carrier** portion of the strut for the sole purpose of strengthening the strut tube.

      C. **Macpherson**/**chapman strut** suspensions that are a one piece **spindle**/**bearing carrier** and strut tube design that also incorporates an integral **steering arm** must retain the **stock steering arm** in its **stock** location.

      D. **Macpherson**/**chapman struts** that are a **bearing carrier**, cannot **modify** or replace the **bearing carrier** under the unrestricted **bearing carrier** rule in section 9.1.5.E.2.o.5.

   5. All types of suspensions can **modify** the brake caliper mounting portion of the **spindle**/**bearing carrier**, if necessary to fit an approved alternate brake **caliper**.

   6. Shackles or spacers/lowering blocks can be used with leaf springs to adjust **ride height**.

   7. Spacers and threaded sleeves with adjustable spring seats can be used with coil springs. **Coil-over** threaded body shocks/struts are permitted if coil-over shocks/struts were fitted as **stock**.

   8. **Bump stops** are unrestricted.

e. **Steering**
   1. **Steering system components** can be reinforced by the **addition** of material and/or the **addition** of support to the **stock component**.

   2. **Bushings** locating or retaining any **steering system components** can be replaced by **bushings** of any material. The alternate **bushing** can not relocate the **component** it retains.

   3. The outer **tie rod** end can be replaced by a **rod end**. The **rod end** can be coupled to the **steering system** by a rod or threaded tube of unrestricted origin and material. The tapered hole in the **steering arm** on the outboard side of the **tie rod** (**rod end**) can be drilled or reamed to allow a bolt to be used to retain the **rod end** to the **steering arm**. The **rod end** can be moved up or down

by the installation of spacers for the sole purpose of reducing **bump steer**.

4. The **steering column** is unrestricted. A collapsible type **steering column** is strongly recommended. The driver's normal seated position must not be relocated.

5. Cars equipped with **power steering** as standard equipment can **modify**, **substitute**, disable and/or **remove** the power pump, related hoses and mounting brackets.

**6. Cooling System Level 1 and 2**

a. Water **radiators** are unrestricted. The **radiator** must be installed in approximately the same the location as **stock**. There can be no **modifications** to the body, chassis, or internal structure of the car to accommodate the **radiator**, other than mounting brackets and attachment **fasteners**. A separate **cooling system expansion tank** can be mounted in the **engine compartment**. Coolant lines can run through the driver/passenger compartment.

b. Coolant lines are unrestricted. Openings resulting from the **removal** of a coolant line can be plugged, the plugs must serve no other purpose. Internal cooling passages can be restricted or plugged, the plugs must serve no other purpose.

c. **Radiator Fans** are unrestricted. Electrically operated **fans** must be mounted within four (4) inches of the **radiator**.

d. **Radiator** Shroud
   1. **Radiator** shrouds are unrestricted.
   2. Sealing the area between the **radiator**, its shroud, any **fan(s),** and the **stock grille** opening is permitted. No alternate **radiator** shroud can extend behind the **radiator** further than the rear edge of the rearmost mounted **fan**. If no cooling **fan** is fitted, the alternate shroud must end at the rear most edge of the **radiator**.

e. Air cooled **engine** shrouding and **fans** are unrestricted.

f. **Thermostat** and **Thermostat** housings are unrestricted. **Thermostats** can be replaced with a **blanking sleeve** or restrictor.

g. Oil/**Lubricant** Coolers
   1. **Engine**, **transmission**, and **differential** coolers are unrestricted. Coolers must be mounted completely within or under the **bodywork**, but can not be mounted in the driver/passenger compartment.
   2. **Transmission** and **differential** cooler pumps are unrestricted.
   3. Air **ducts** can be fitted to the cooler(s). No **Ducting** can extend forward of the most forward part of the front of the **body** or front **air dam**.

h. Radiator Screens
   1. Screens, block-off plates or tape that serve only to protect or restrict air flow to the radiator(s) and/or oil cooler(s) are unrestricted, but must be located a minimum of 2" behind the radiator/cooler opening or behind the stock grill.

**7. Brakes Level 1 and 2**

a. **Stock calipers** must be retained. Cars fitted with integral **hat brake rotors** can convert to a two piece design **hat** and **brake rotor**. The alternate design **hat** must be made of **ferrous** or aluminum material. Alternate discs can be used, but must be made of **ferrous** material. Alternate drums can be used, but must be made of a **ferrous** or aluminum material. Alternate discs and drums must be the **stock** diameter, width and design. **Brake rotors** can not be cross drilled or slotted unless fitted as **stock**.

b. Cars fitted with rear drum brakes, can convert to rear disc brakes. When converting from rear drum brakes to rear **disc brakes**:
   1. Rear **brake rotors** can be no larger in diameter than the largest permitted front **brake rotor**. Rear **brake rotors** must be solid and made of a **ferrous** material. Rear **brake rotors** can not be cross drilled or slotted.
   2. Rear **brake rotor hats** can be made of a **ferrous** or aluminum material.
   3. Rear **calipers** and mounting brackets are unrestricted but must be made of a **ferrous** or aluminum material.

   The standard and alternate brake listings on a vehicle's specification line, does not prohibit a car that was fitted with rear drum brakes as **stock** from converting to rear disc brakes under this rule.

c. Dual **braking systems** are required. Any dual brake **master cylinder(s)** and pedal assembly can be fitted. **Pressure equalizing** and **proportioning valve** devices are unrestricted.

d. **Servo assists** are unrestricted.

e. Drum brake **wheel cylinders** are unrestricted.

f. **Brake pads** and **brake linings** are unrestricted.

g. Brake lines are unrestricted.

h. The **hand brake** and its operating mechanism can be **removed**.

i. Brake **Ducting**
   1. Brake air **ducts** can be fitted.
   2. The front brake **duct** inlet(s) must not extend to the side beyond the **centerlines** of the front **wheels**, or forward of the forward most part of the front of the **body** or front **air dam**.
   3. Rear brake **duct** inlet(s) must face forward, they must be located no more than 24" forward of the rear axle **centerline** and must not extend to the side beyond the **centerlines** of the rear **wheels**.
   4. **Backing plates** and **dust shields** are unrestricted.

**8. Wheels and Tires Level 1 and 2**

a. **Wheels**, **wheel spacers** and **wheel fans** are unrestricted

b. Spare tires and **wheels** must be **removed**.

c. Cars using 13" wheels may run 8 inch wide (max) wheels, but only with Race Tires America American Racer 20.0-8.0-13, bias ply, non-belted tire. Cars using 15" wheels may run 10 inch wide (max) wheels, but only with Race Tires America American Racer 23.5-10.0-15, bias ply, non-belted tire.

**9. Body/Structure Level 1 and 2**

a. **Modifications**
   1. The body, **unibody**, **frame and** their **components** can be lightened, provided that structural rigidity is not compromised to the point of requiring **additional** support. No non-**stock** openings can be created in the bodywork. The lightening of the cars structure can not create any openings into the **cockpit,** or from the **wheel well** to the **engine**/**trunk** compartments. Existing seams in the **unibody** and **frame** can be **welded**.
   2. The **hood**, **hatchback**, deck lid and **fenders** can be replaced by **components** of an alternate material, provided their appearance remains **stock**. Factory bolt-on **fenders** can be replaced in their entirety. Cars with non-removable **fenders** can replace the front **fender** panels going forward from the foremost door opening and the rear **fender** panels going rearward from the rearmost door opening. Replacement components of an alternate material may not extend into the roof structure of a closed car above a horizontal line placed at the lowest point of the driver's door window opening.
   3. The exterior contour of all wheel openings may be **flared**. The ***fender***/wheel opening or any other part of the ***body*** forming the wheel opening, when viewed from the top perpendicular to the ground, must cover the portion of the tire that contacts the ground while the car is at rest. The ***flaring*** of the exterior contour of any wheel openings may not alter the basic body configuration or change the wheel opening size, location or shape when viewed from the side.
   4. One piece front **body** sections are permitted only on cars manufactured in that **stock** configuration. One piece front **body** sections must retain inner **wheel wells** if fitted as **stock**. The inner **wheel wells** can be constructed of an alternate material.
   5. **Wheel wells** can be altered, using the **stock** type of material, in order to provide clearance for tires and **wheels**. **Wheel well** alterations must not result in the creation of any **additional** openings between the **wheel well** and the **engine**, passenger and **trunk** compartments. Existing openings between the **wheel well** and these compartments can be covered but can not be enlarged. Non **metal wheel wells** can be **removed**. If the **removal** of the non **metal wheel well** creates an opening to the **engine**, passenger or **trunk** compartments the created openings must be covered.
   6. Misalignment or **modification** of the **bodywork** to create **ventilation** where none existed **stock**, is prohibited. All **bodywork** must be completely closed and securely fastened while the car is in competition. The **hood** and deck lid hinges can be **removed**. The **hood** and deck lid must be securely fastened; the manner in which they are secured is unrestricted. Stock door hinges must be retained and mounted in their stock location. Door hinges must be functional but can be lightened. Doors must be securely fastened closed, provided they can be opened or **removed** quickly in an emergency situation. Door handles can be **removed** and any resultant holes must be covered. The cover must not change the **stock** exterior contour of the door. The stock side impact beams may be removed.
   7. Bumpers that are integrated into the front or rear bodywork, can be replaced by replica components of an alternate material. The energy absorbing bumper components behind the front or

rear bumper cover can be removed or modified. Bumpers which are not an integral part of the body can be removed or replaced by components of an alternate material, provided their appearance remains as stock. If a bumper is removed, all mounting bracketry which projects outside the body must also be removed. Bumper bracket holes in the body created by removal of a bumper can be covered provided the covering serves no other purpose.

8. Glass - Windshield and Door
   A. Open cars may remove the windshield glass, door window glass, quarter window glass, rear glass, vent glass, as well as its frames/channels and all mounting brackets. Window winding mechanisms can be removed. If removed, a replacement windshield must be installed. The replacement windshield must be fitted within the vertical planes of the front most and rear most elements of the stock windshield and frame. The replacement windshield must not exceed the height or width of the stock windshield and frame. Any portion of the windshield that is in the driver's line of sight, must be constructed of a clear material. No part of the replacement windshield can be constructed of glass. If the stock windshield frames/channels are retained, a high front roll cage hoop must be utilized, and the stock windshield can be retained or replaced. If replaced, the replacement windshield must be of a polycarbonate material with a minimum thickness of 6mm, be identical in size and curvature to the stock glass windshield, and have a minimum of three vertical inner supports to prevent the windshield from collapsing inward. Inner windshield supports must be a minimum of 0.75" by .125" straps of aluminum. The inner supports must be mounted a minimum of eight inches apart. The rear window can be removed, as well as its frames/channels and mounting brackets.

   B. Closed cars can retain or replace the stock glass windshield. The replacement windshield must be constructed of a polycarbonate material with a minimum thickness of 6mm, and must be identical in size and curvature to the stock glass windshield. Replacement windshields must have a minimum of three inner supports to prevent the windshield from collapsing inward. Inner windshield supports must be a minimum of 0.75" by .125" straps of aluminum. The inner supports must be mounted a minimum of eight inches apart.

   C. All cars can remove all door window, quarter window and vent window glass. Window winding mechanisms can be removed. Door window, vent window and quarter window frames/channels can be removed. Door window slots can be covered. Rear, door, vent, and quarter window glass can be replaced with a clear polycarbonate material having a minimum thickness of 3mm. The windows in the rear door of a 4 door car and quarter windows can be run in their stock open or closed position. Ducts can be installed in the door, vent and quarter windows or resultant door window openings, for the sole purpose of supplying cooling air to the driver. The duct(s) and the mount for the same in any door window opening cannot exceed 8" in height and 12" in length.

   D. **Targa type top** cars can be prepared to either closed car or open car **windshield** and **window specifications**.

   E. All glass sunroof and T-top panels must be **removed**. The resulting opening(s) must be covered with panels of **stock** contour and of the same material as the **stock** surrounding roof structure. **Stock metal** sunroof and T-top panels may be either securely retained in the closed position or replaced with panels of **stock** contour and of the same material as the **stock** surrounding roof structure.

9. A front spoiler/air-dam can be fitted to the front of the car.
   A. The spoiler/air-dam shall not protrude beyond the overall outline of the body when viewed from above, perpendicular to the ground, or aft of the forward most part of the front fender wheel opening.

   B. The spoiler/air-dam can be mounted to the body, chassis and/or frame and may extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. An intermediate mounting device may be used in locations where the front body-work is above the four inch maximum.

   C. The spoiler/air-dam shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.

   D. If the spoiler/air-dam covers any portion of the stock grille, an opening must be created in the spoiler/air-dam. The width of the opening must be equal to or greater than the widest horizontal measurement of the portion of the grille that would otherwise be covered. The height of the opening must be equal to or greater than the distance measured perpendicularly to the ground between the lowest and highest point of the portion of the grille that would otherwise be covered. The opening in the spoiler/air-dam must be symmetrically aligned in both planes of the grille.

   E. Openings in the spoiler/air-dam are permitted for the purpose of ducting air to the brakes, radiator and/or oil coolers. Openings can be cut in the front valance to allow the passage

of up to a three (3) inch diameter round duct hose leading to each front brake. These openings can serve no other purpose.

10. An undertray may be added. The undertray may close out the area from the leading edge of the bodywork (including the spoiler/air-dam) back to the forward most part of the front fender wheel opening.

11. Glass headlight, front parking, side marker and signal light components must be removed. Plastic headlight, front parking, side marker and signal light components can be removed. The headlight bezels/rims must remain in their stock locations. If the stock headlight, front parking, side marker or signal light lenses/covers are removed the resulting openings must be covered with wire mesh screen or solid panels of the same or a flatter contour than the stock lenses/covers.

    A. Retractable or "pop up" headlight assemblies can be run in their open, partially opened, closed position or **removed** in their entirety. The openings created by the **removal** of the assembly must be covered with screens or panels. These covers must be the same or flatter contour as the **stock** assembly in its closed position, but need not retain any **bezels**/**rims**.

    B. The openings created by the **removal** of front lighting **components**/assemblies, can be used to **duct** air to the **engine**, **radiator**, oil cooler(s), and front brakes. Holes for the **ducting** no larger than 7.25" in diameter can be cut in interior panels provided the holes are completely filled by the **ducts**.

    C. **Taillights** must be the **stock** type and mounted in the **stock** location.

12. Open cars must remove convertible soft tops, and attaching bracketry and fasteners. Open cars retaining the stock windshield may retain the stock removable hardtop if attached to the car by positive fasteners.

13. **Windshield** wiper **system** can be modified, **substituted** or **removed**. Holes created in the **body** by the **removal** of these **components** can be covered.

14. Any interior or exterior trim pieces may be removed and the resulting openings may be covered with a solid panel.

15. Radio antennas can be **removed**. Holes created in the **body** by the **removal** of the antenna can be covered.

16. Heater plenums that do not serve as a major part of the structure of the **firewall** can be **removed** or modified. Any resulting holes must be covered with **metal** panels.

17. Non-**metal floor pans** can be replaced with **metal floor pans** of a minimum .060" thickness. The **metal floor pan** must have the same overall dimensions and be mounted in the same location as the **stock component**.

18. Stock or aftermarket rear spoiler or wing not permitted, unless factory installed for the listed base model or permitted on the car's spec line.

**10. Driver/Passenger/Trunk Compartment Level 1 and 2**

a. The driver's seat must be replaced with a one-piece racing seat. The driver's seat must be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating). All cars registered after July 1, 1985 must have the driver seated on the left when the car is viewed from the rear.

b. The **instrument panel**/**dashboard** and all contents are unrestricted. **Gauges/Instruments** are unrestricted.

c. **Modifications** can be made to the Driver/Passenger/**Trunk** compartment to permit the installation of required safety equipment and to improve driver comfort and driver control of the car. Covers for all equipment located in the driver/passenger compartment forward of the rear most portion of the door opening can not extend higher than six inches below the highest point of the door. The installation of a **dry sump** tank and cover that extends above six inches below the highest point of the door is permitted but the tank and cover must be located completely within 18" of the front or rear cowl and no higher than the cowl.

d. All interior **trim**, floor covering, upholstery panels and **stock** seats can be **removed**.

**11. Safety Level 1 and 2**

a. The use of a fuel cell is required unless the **stock** fuel tank is located between the axle centerlines and within the main chassis structure (e.g. frame rails). When the **stock** fuel tank is retained, it must be installed in its **stock** location, **additional** retention straps and other protection can be mandated on a car-by-car basis. Fuel cell mounting, location and fuel cell or **stock** fuel tank filler cap and vents, must meet the **specifications** of the GCR section 9.3 Fuel Cell Specifications.

**12. General preparation Level 1 and 2**

a. **Fastener** items can be replaced by similar items performing the same fastening function(s).
b. Any paint scheme or markings meeting GCR **specifications** are permitted.
c. Two way radios are permitted. A hole can be created in the body to mount a radio antenna.
d. Fluids and Lubricants are unrestricted.

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acura Integra (86-89) | 2 | 2040<br>*2091<br>**2142 | 4 Cyl DOHC | 75.0 x 90.0 (2.95x3.54) | 1590 (97.0) | Alum | Alum | (I) 30.0/(1.18) (E) 27.0/(1.06) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2451 (96.5) | 1489/1504 (58.6/59.2) |
| Acura Integra GSR (94-00) | 2 | 2090<br>* 2142<br>** 2195 | 4 Cyl DOHC | 81.1 x 87.2 (3.19x3.43) | 1800 (109.8) | Alum | Alum | (I) 33.0/(1.30) (E) 28.0/(1.10) | Fuel injection | 2570 (101.2) | 62.3 / 62.1 |
| Acura Integra Type-R (97-00) | 2 | 2190<br>* 2245<br>** 2300 | 4 Cyl DOHC | 81.0 x 87.2 | 1797 | Alum | Alum | (I) 33.0<br>(E) 28.0 | Fuel injection | 101.2 | 62.3 / 62.1 |
| Acura RSX Type S (02-06) | 2 | 2250<br>* 2306<br>** 2363 | 4 Cyl. DOHC | 86.02 x 86.0 | 1998 | Alum | Alum | (I) 35.15<br>(E) 30.15 | Fuel injection | 101.2 | 58.3 / 58.3 |
| Acura TSX (04-08) | 2 | 2450<br>* 2511<br>** 2573 | 4 Cyl. DOHC | 87.0 x 99.0 | 2354 | Alum | Alum | (I) 36.0<br>(E) 30.0 | Fuel injection | 2670 (105.1) | 63.9 / 63.9 |
| Alfa Romeo Alfetta GT (75-79) | 1 | 1950 | 4 Cyl DOHC | 84.0 x 88.5 (3.31x3.48) | 1961 (119.6) | Alum | Alum | (I) 44.15/(1.74) (E)40.15/(1.58) | (2) Auto-type sidedraft w/ 44mm choke(s) on I.R. manifold, or fuel injection. | 2413 (95.0) | 1445/1440 (56.9/56.7) |
| Alfa Romeo GTV 2000 | 1 | 1950 | 4 Cyl DOHC | 84.0 x 88.5 (3.31x3.48) | 1961 (119.6) | Alum | Alum | (I) 44.15/(1.74) (E)40.15/(1.58) | (2) 40, 45, 48 DCOE, 40 DHLA, 48 DHLA. 44mm choke(s) req'd, or fuel injection. | 2350 (92.5) | 1415/1377 (55.7/54.2) |
| Alfa Romeo GTV-6 (81-86) | 2 | 2300<br>* 2358<br>** 2415 | V-6 SOHC | 88.0 x 68.3 (3.46x2.69) | 2492 (152.0) | Alum | Alum | (I) 41.0/(1.61) (E) 36.5/(1.44) | Fuel injection | 2401 (94.5) | 1466/1443 (57.7/56.8) |
| Alfa Romeo all Spider models (-1994) | 1 | 1950 | 4 Cyl DOHC | 84.0 x 88.5 (3.31x3.48) | 1961 (119.6) | Alum | Alum | (I) 44.15/(1.74) (E)40.15/(1.58) | (2) 40, 45, 48 DCOE, 40 DHLA, 48 DHLA. 44mm choke(s) req'd, or fuel injection. | 2250 (88.6) | 1430/1377 (56.3/54.2) |
| *Alfa Romeo Milano (87-89)* | *2* | *2600<br>* 2665<br>** 2730* | *6 Cyl. SOHC* | *93.0 x 72.6* | *2959* | *Alum* | *Alum* | *(I) 44mm<br>(E) 38.7mm* | *Fuel injection Throttle Bore 75mm* | *(98.8)* | *(58.4/58.0)* |
| Alfa Romeo Spider Duetto & 1750 Spider (-1971) | 1 | 1870 | 4 Cyl DOHC | 78.0 x 82.0 (3.07x3.23) 80.0 x 88.4 (3.15x3.48) | 1570 (96.0) 1779 (108.5) | Alum | Alum | (I) 41.1 / (1.62) (E) 37.1/(1.46) | (2) Weber 40 DCOE 27, (2) Weber 40 DCOE 32, (2) Weber 45 DCOE w/ 42mm choke(s), (2) Zenith 75 CDSE, or (3) 2" SU. | 2250 (88.6) | 1415/1359 (55.7/53.5) |
| Audi Coupe GT (85-87) | 2 | 2100<br>* 2153<br>** 2205 | 5 cyl SOHC | 3.19 x 3.40 | (135.8) | Iron | Alum | (I) (1.50)<br>(E) (1.30) | Fuel injection | 99.8 | 59.3/60.1 |
| Austin-Healey 3000 Mk. I, II, III | 1 | 2340 | 6 Cyl OHV | 83.3 x 88.9 (3.28x3.50) | 2912 (177.6) | Iron | Iron | (I) 44.5 / (1.75) (E) 39.6/(1.56) | (2) 1.75" SU or Stromberg or (3) 1.75" or 2" SU or Stromberg on stock 3-carb intake manifold | 2329 (91.7) | 1359/1384 (53.5/54.5) |
| BMW 2002 / 2002tii | 1 | 2000 | 4 Cyl SOHC | 89.0 x 80.0 (3.50x3.15) | 1990 (121.5) | Iron | Alum | (I) 46.0 / (1.81) (E) 38.0/(1.50) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 38mm choke(s) on I.R. manifold, or fuel injection. | 2499 (98.4) | 1430/1430 (56.3/56.3) |
| BMW 318i & 320i | 1 | 2000 | 4 Cyl SOHC | 89.0 x 80.0 (3.50x3.15) | 1990 (121.5) | Iron | Alum | (I) 46.0 / (1.81) (E) 38.0/(1.50) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 38mm choke(s) on I.R. manifold, or fuel injection. | 2563 (100.9) | 1481/1494 (58.3/58.8) |
| BMW Z3 1.9L | 2 | 2000<br>* 2050<br>** 2100 | 4 Cyl DOHC | 85.1 x 83.6 (3.35x3.29) | 1895 (115.6) | Iron | Alum | (I) 33.0 /(1.30) (E) 30.5/(1.20) | (2) Auto-type sidedrafts w/ 30mm choke(s), or fuel injection. | 2446 (96.3) | 1481/1565 (58.3/61.6) |
| BMW Z3 2.5L | 2 | 2450<br>* 2511<br>** 2573 | 6 Cyl. DOHC | 84.0 x 75.0 | 2494 | Alum or Iron | Alum | (I) 33.0<br>(E) 30.5 | Fuel injection | 96.3 | 59.8 / 63.1 |
| BMW Z3 2.8L (97-00) | 2 | 2650<br>* 2716<br>** 2783 | 6 Cyl DOHC | 84.0 x 84.0 | 2793 | Alum or Iron | Alum | (I) 33.0<br>(E) 30.5 | Fuel Injection | 96.3 | 59.8 / 63.1 |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Acura Integra (86-89) | 15 x 7 | 5 | (F) 242 / (9.53) disc<br>(R) 239 / (9.41) disc | | 55 | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Acura Integra GSR (94-00) | 15 x 7 | 5 | (F) 10.32<br>vented disc<br>(R) 9.41 solid disc | | 60 | Comp ratio limited to 12.0:1, Valve lift limited to .500". |
| Acura Integra Type-R (97-00) | 15 x 7 | 5 | (F) 286 vented disc<br>(R) 260 solid disc | | 62 | Comp ratio limited to 12.0:1, Valve lift limited to .500". |
| Acura RSX Type S (02-06) | 18 x 8 | 6 | (F) 300x25 vented<br>(R) 260x9 solid | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Acura TSX (04-08) | 18 x 8 | 6 | (F) 300 vented<br>(R) 260 solid | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Alfa Romeo Alfetta GT (75-79) | 15 x 7 | 5 | (F) 272 (10.7) disc<br>(R) 267 (10.5) disc | (F) Alfa GTV-6 front calipers, Brembo aluminum<br>(R) Alfa Spider rear calipers, ATE cast iron | stock throttle body I.D. | |
| Alfa Romeo GTV 2000 | 15 x 7 | 5 | (F) 272 (10.7) disc<br>(R) 267 (10.5) disc | | stock throttle body I.D. | |
| Alfa Romeo GTV-6 (81-86) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Alfa Romeo all Spider models (-1994) | 15 x 7 | 5 | (F) 272 (10.7) disc<br>(R) 267 (10.5) disc | (F) 272 (10.7) Disc<br>(R) 267 (10.5) Disc<br>Front Discs: #105802205232<br>Rear Discs: #105802205333 | stock throttle body I.D. | Niki Lauda Edition rear spoiler |
| *Alfa Romeo Milano (87-89)* | *15 x 7* | *5* | *(F) 267 x20 vented<br>(R) 249 x 8 solid* | | | *Comp. Ratio limited to 12.0:1, Valve lift limited to .500"* |
| Alfa Romeo Spider Duetto & 1750 Spider (thru 1971) | 15 x 7 | 5 | (F) 264 (10.4) disc<br>(R) 246 (9.7) disc | (F & R) 264 (10.4) Disc<br>(F) 272 (10.7) Disc<br>(R) 267 (10.5) Disc | NA | Niki Lauda Edition rear spoiler |
| Audi Coupe GT (85-87) | 15x7 | 5 | (F) 10.1 vented<br>(R) 7.87 drum | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| Austin-Healey 3000 Mk. I, II, III | 15 x 7 | 4 | (F) 286 (11.3) Disc<br>(R) 279 (11.0) Drum | Rear Disc: #H82462 | NA | Laycock overdrive: .88, .82, .79, May use 5 speed gearbox w/o overdrive. |
| BMW 2002/ 2002tii | 15 x 7 | 4 | (F) 256 (10.1) Disc<br>(R) 230 x 40 (9.1 x 1.6) Drum | (F) 256 x 22 Disc, calipers: 34111101859, 34111101860 | stock throttle body I.D. | |
| BMW 318i/is & 320i/is | 15 x 7 | 4 or 5 | (F) 254 (10.0) Disc<br>(R) 249 x 41 (9.8 x 1.6) Drum | | stock throttle body I.D. | Trunk mounted fuel cell allowed, 1800cc engine from 318i allowed |
| BMW Z3 1.9L | 15 x 7 | 5 | (F) 286 (11.3) Disc<br>(R) 280 (11.0) Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max.Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| BMW Z3 2.5L | 18 x 8 | 5 | (F) 286 vented<br>(R) 272 solid | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". OEM hardtop permitted. Alternate throttle body from BMW 92-95 325i part number 13541748105 permitted only with Turner Motorsports adapter plate part number TEN9990850 to replace drive-by-wire throttle body. |
| BMW Z3 2.8L (97-00) | 18 x 8 | 5 | (F) 286 Vented Disc<br>(R) 272 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". OEM hardtop allowed. |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BMW Z4 (03-05) | 2 | 2550<br>* 2614<br>** 2678 | 6 Cyl DOHC | (3.30x2.95) | (152.0) | Alum | Alum | (I) (*1.30*)<br>(E) (1.20) | Fuel injection throttle body i.d. 2.52 | 98.2 | 62.2 / 64.3 |
| BMW 328i/is E36 (96-99) | 2 | 2675<br>* 2742<br>** 2809 | 6 Cyl DOHC | 84.0 x 84.0 | 2793 | Alum or Iron | Alum | (I) 33.0<br>(E) 30.5 | Fuel Injection | 106.3 | 59.6/60.1 |
| BMW 328i/*ci* E46 (01-06) | 2 | 2750<br>* 2819<br>** 2888 | 6 Cyl DOHC | (3.31x3.31) | (170.4) | Alum or Iron | Alum | (I) (1.30)<br>(E) (1.20) | Fuel injection | 107.3 | (61.2/62.7) |
| BMW 325i/is (E46) (01-06) | 2 | 2575<br>* 2639<br>** 2704 | 6 Cyl DOHC | (3.31x2.95) | (152.1) | Alum or Iron | Alum | (I) (1.38)<br>(E) (1.20) | Fuel injection | 107.3 | (61.2/62.7) |
| BMW 325i/is (E30) (84-91) | 2 | 2200<br>* 2255<br>** 2310 | 6 Cyl SOHC | 84.1 x 75.0<br>(3.31x2.95) | 2494<br>(152.1) | Iron | Alum | (I) 41.9 / (1.65)<br>(E) 36.1/(1.42) | Fuel injection | 2565<br>(101.0) | 1499/1506<br>(59.0/59.3) |
| BMW 325i/is E-36 (92-95) | 2 | 2500<br>* 2563<br>** 2625 | 6 Cyl. DOHC | 84.0 x 75.0 | 2494 | Alum or iron | Alum | (I) 35.0<br>(E) 30.5 | Fuel injection | (106.3) | 59.6 / 60.1 |
| BMW 325is M-Technic (1994) | 2 | 2650<br>* 2716<br>** 2783 | 6 Cyl DOHC | (3.31x2.95) | (152.1) | Iron | Alum | (I) (1.38)<br>(E) (1.20) | Fuel injection Throttle Bore 2.52" | (106.3) | (63.8/64.4) |
| Caterham Seven 280 | 2 | 1445<br>* 1481<br>** 1517 | 4 Cy. DOHC | (3.10x3.20) | (97.4) | Alum | Alum | (I) (1.18)<br>(E) (0.95) | Fuel injection | (87.6) | (56.7/57.1) |
| *Chevrolet Beretta (88-90)* | *2* | *2360<br>* 2419<br>** 2478* | *6 Cyl. OHV* | *89.0 x 66.8* | *2838* | *Iron* | *Alum* | *(I) 40.6<br>(E) 33.0* | *Fuel injection* | *(103.4)* | *(59.8/59.3)* |
| Chevrolet Cavalier 2.0 (82-87) | 1 | 2050 | 4 Cyl OHV | 89.0 x 80.0<br>(3.50x3.15) | 1990<br>(121.5) | Iron | Alum | (I) 43.0 / (1.69)<br>(E) 37.0/(1.46) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2570<br>(101.2) | 1407/1402<br>(55.4/55.2) |
| Chevrolet Corvair Coupe (65-69) | 1 | 2200 | 6 Cyl OHV | 87.4 x 74.7<br>(3.44x2.94) | 2689<br>(164.0) | Alum | Alum | (I) 43.7 / (1.72)<br>(E) 34.5/(1.36) | (4) 1 bbl 1.5" Rochester 7025023 or 7026026 on stock manifold, (2) 3 bbl carbs on I.R. manifold. 34mm choke(s) req'd. Holley 390 CFM w/ center mount, I.R. manifold. | 2743<br>(108.0) | 1516/1572<br>(59.7/61.9) |
| Dodge Omni GLH 2.2 | 1 | 2050 | 4 Cyl SOHC | 87.5 x 92.0<br>(3.44x3.62) | 2213<br>(135.0) | Iron | Alum | (I) 40.6 / (1.60)<br>(E) 35.4/(1.39) | (1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2517<br>(99.1) | 1560/1549<br>(61.4/61.0) |
| Dodge Shelby Charger / Omni 024 (83-84) | 1 | 2000 | 4 Cyl SOHC | 87.5 x 92.0<br>(3.44x3.62) | 2213<br>(135.0) | Iron | Alum | (I) 40.6 / (1.60)<br>(E) 35.4/(1.39) | (2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold, or fuel injection. | 2451<br>(96.5) | 1486/1473<br>(58.5/58.0) |
| Elva Courier Mk I, II, & III 1622 & 1798 | 1 | 1622cc:<br>1530<br>1798cc:<br>1630 | 4 Cyl OHV | 76.2 x 88.9<br>80.3 x 88.9 | 1622<br>1798 | Iron | Iron | (I) 39.9<br>(E) 34.3 | (2) 1.75" SU or Stromberg | 2286 | 53.5 / 54.6 |
| Elva Courier Mk III, IV 1800 & Mk IV R&C | 1 | 1630 | 4 Cyl OHV | 80.3 x 88.9 | 1798 | Iron | Iron | (I) 39.9<br>(E) 34.3 | (2) 1.75" SU or Stromberg | 2286 | 53.5 / 54.6 |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| BMW Z4 (03-05) | 18 x 8 | 5 | (F) 11.23 vented (R) 11.02 solid | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500", OEM hardtop permitted. |
| BMW 328i/is E36 (96-99) | 17 x 8.5 18 x 8 | 5 | (F) 286 vented (R) 280 solid | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| BMW 328i/is E46 (01-06) | 18 x 8 | 5 | (F) (11.81x.87) vented (R) (11.57"x.75) vented | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| BMW 325i/*ci* (E46) (01-06) | 18 x 8 | 5 | (F) (11.81x.87) vented (R) (11.57"x.75) vented | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| BMW 325i/is (E30) (84-91) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". Trunk mounted fuel cell allowed. *Convertible models allowed.* |
| BMW 325i/is E-36 (92-95) | 15 x 7 | 5 | (F) 286 vented (R) 280 solid | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| BMW 325is M-Technic (1994) | 18 x 8 | 5 | (F) (12.4 x 1.1) vented (R) (12.3 x .79) vented | | | Comp. Ratio limited to 12.0:1. Valve lift limited to .500". |
| Caterham Seven 280 | 13 x 7 | 5 | (F) (9.65 x.39) solid (R) (9.05 x.39) solid | | | Level 2 suspension preparation. Engine- Ford Sigma- is limited to IT preparation except modifications permitted in section 9.1.5.E.2.e. and *h.2*. Comp ratio is limited to 11.0:1. Valve lift is limited to .390. The roll cage must have a full width, high front and rear hoops that attach using the OEM cage mounting points. The side intrusion bars shall remain outside the passenger compartment. |
| *Chevrolet Beretta (88-90)* | *15 x 7* | *5* | *(F) 259(10.2) disc solid (R) 200(7.87) drum* | | | *Comp. Ratio limited to 12.0:1, Valve lift limited to .500"* |
| Chevrolet Cavalier 2.0 (82-87) | 13 x 7 | 5 | (F) 247 Disc (R) 200 x 45 Drum | | stock throttle body I.D. | |
| Chevrolet Corvair Coupe (65-69) | 15 x 7 | 4 | (F&R) 241 (9.5) Drum | (F&R) 270 x 26 Vented Disc Calipers shall be ferrous or aluminum and shall be limited to (1) piston per side. | NA | Yenko Stinger rear quarter windows, rear decklid, and trunk flaps are permitted. Cylinder barrels of alternate material are permitted. |
| Dodge Omni GLH 2.2 | 15 x 7 | 5 | (F) 256 (10.1) Disc (R) 200 x 33 (7.9 x 1.3) Drum | | stock throttle body I.D. | |
| Dodge Shelby Charger / Omni 024 (83-84) | 15 x 7 | 5 | (F) 256 (10.1) Disc (R) 200 x 33 Drum | | stock throttle body I.D. | |
| Elva Courier Mk I, II, & III 1622 & 1798 | 15 x 7 | 4 | (F) 229 Drum (R) 203 Drum | (F) 229 Disc (R) 254 Drum (w/ MGA axle) (F) 279 Disc (R) Mk. 4T 229 | NA | ATB 7224 MGA axle housing assy. Only the Mk III 1622cc is allowed to update to the 1798cc engine including the 15" wheel. A Mk III making this update may also use the 13" wheels. |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiat 124 Sport Spider 1600 & 124 Spider 2000 | 1 | 2050 | 4 Cyl DOHC | 80.0 x 80.0 (3.15x3.15) 84.1 x 89.9 (3.31x3.54) | 1608 (98.1) 1995 (121.7) | Iron | Alum | (I) 41.7 / (1.64) (E) 36.6/(1.44) | (2) Weber 40 IDF-40IFI, (2) Solex C40P116, 34mm choke(s) req'd, *(2) Weber 45DCOE w/ 34 mm choke(s) on I.R. manifold* or fuel injection. | 2281 (89.8) | *57.2 / 56.0* |
| Ford Escort 1.9 (85-87) | 1 | 1870 | 4 Cyl SOHC | 82.0 x 88.0 (3.23x3.46) | 1859 (113.4) | Iron | Alum | (I) 42.0 / (1.65) (E) 37.0/(1.46) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2393 (94.2) | 1455/1488 (57.3/58.6) |
| Ford Mustang (94-98) | 2 | 2700 * 2768 ** 2835 | 6 Cyl. OHV | (3.81x3.39) | 231.7 | Iron | Alum | (I) 1.78" (E) 1.46" | Fuel injection | (101.3) | 66.5/66.8 |
| Ford Pinto | 1 | 2190 | 4 Cyl SOHC | 96.0 x 79.4 (3.78x3.13) | 2301 (140.4) | Iron | Iron | (I) 44.1 / (1.74) (E) 38.1/(1.50) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 32 mm choke(s) on I.R. manifold. | 2388 (94.0) | 1488/1509 (58.6/59.4) |
| Ford Probe (93-97) | 2 | 2000 * 2050 ** 2100 | 4 Cyl DOHC | 83.0 x 92.0 | 1991 | Iron | Alum | (I) 31.5 (E) 27.6 | Fuel injection | 2614 | 64.1 / 64.1 |
| Honda Civic Si (06-11) | 2 | 2300 * 2358 ** 2415 | 4 Cyl. DOHC | 86.1 x 86.0 | 1998 | Alum | Alum | (I) 35.0 (E) 30.0 | Fuel injection | 104.3 | 59.0 / 60.1 |
| Honda Civic Si (12-15) | 2 | 2450 * 2511 ** 2573 | 4 Cyl. DOHC | (3.43x3.90) | (143.7) | Alum | Alum | (I) 1.42" (E) 1.22" | Fuel injection Throttle Bore 2.52" | 103.1" | 63.5"/64.2" |
| Honda S2000 (00-03) | 2 | 2450 *2511 **2573 | 4 Cyl DOHC | 87.0 x 84.0 | 1997 | Alum | Alum | (I) 36.0 (E) 31.0 | Fuel Injection | 94.5 | 62.1 / 63.7 |
| Honda S2000 (04-09) | 2 | 2510 *2573 **2636 | 4 Cyl DOHC | 87.0 x 90.7 | 2157 | Alum | Alum | (I) 36.1 (E) 31.1 | Fuel Injection | 94.5 | 62.1 / 63.7 |
| Honda Prelude Si | 2 | 2320 * 2378 ** 2436 | 4 Cyl DOHC | 87.0 x 95.0 (3.43x3.74) | 2259 (137.8) | Alum | Alum | (I) 34.0 / (1.34) (E) 29.0/(1.14) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2550 (100.4) | 1615/1605 (63.6/63.2) |
| Honda Prelude Si VTEC (1993) | 2 | 2425 * 2486 ** 2546 | 4 Cyl DOHC | 87.0 x 90.0 | 2157 | Alum | Alum | (I) 35.0 / (1.38) (E) 30.0/(1.18) | Fuel injection | 2550 (100.4) | 1632/1622 |
| Hyundai Tiburon FX 2.0L (97-98) | 2 | 2000 * 2050 ** 2100 | 4 Cyl DOHC | 82.0 x 93.5 (3.23x3.68) | 1975 | Alum | Alum | | Fuel injection | 2474 (97.4) | 1466/1450 (57.7/57.1) |
| Jensen-Healey and GT | 1 | 2090 | 4 Cyl DOHC | 85.3 x 69.3 (3.75x2.73) | 1973 (120.4) | Alum | Alum | (I) 35.6 / (1.40) (E) 30.5/(1.22) | (2) Weber 45 DCOE on I.R. Manifold w/ 34mm choke(s) | 2337 (92.0) | 1448/1422 (57.0/56.0) |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Elva Courier Mk III, IV 1800 & Mk IV R&C | 15 x 7 | 4 | (F) 229 Drum<br>(R) 203 Drum | (F) 229 Disc<br>(R) 254 Drum (w/ MGA axle)<br>(F) 279 Disc<br>(R) Mk. 4T 229 | NA | Mk IV T R&C have IRS, Mk III & IV 1800 have live axle. ATB 7224 MGA axle housing assy. |
| Fiat 124 Sport Spider 1600 & 124 Spider 2000 | 15 x 7 | 5 | (F) 226 (8.9) Disc<br>(R) 226 (8.9) Disc | (F & R) 254 (10.0) Disc<br>Alternate rotor: # 82346805 | stock throttle body I.D. | Intake manifold: #124A20079-3, Allow alternate PBS intake manifold. |
| Ford Escort 1.9 (85-87) | 15 x 7 | 4 or 5 | (F) 235 (9.3) Disc<br>(R) 180 (7.1) Drum | | stock throttle body I.D. | |
| Ford Mustang (94-98) | 15 x 7 | 5 | (F) (10.83)<br>Vented Disc<br>(R) (10.5)<br>Solid Disc | | | Comp. Ratio limited to 11.0:1, Valve lift limited to .500" |
| Ford Pinto | 15 x 7 | 4 or 5 | (F) 236 (9.3) Disc<br>(R) 229 x 36 (9.0x 1.4) Drum | | NA | |
| Ford Probe (93-97) | 15 x 7 | 5 | (F) 258 Vented Disc<br>(R) 228 Drum | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Honda Civic Si (06-11) | 18 x 8 | 6 | (F) 300x26 vented<br>(R) 260x10 solid | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Honda Civic Si (12-15) | 18 x 8 | 5 or 6 | (F) (11.8 x .98) Vented Disc<br>(R) (10.2 x .35)<br>Solid Disc | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500" |
| Honda S2000 (00-03) | 17 x 8.5<br>18 x 8 | 6 | (F) 300 Vented Disc<br>(R) 282 Solid Disc | | 62 | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". OEM hardtop allowed. Honda S2000 2004-2009 differential housing is permitted. |
| Honda S2000 (04-09) | 17 x 8.5<br>18 x 8 | 6 | (F) 300 Vented Disc<br>(R) 282 Solid Disc | | 62 | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". OEM hardtop allowed. |
| Honda Prelude Si | 15 x 7 | 5 | (F&R) 259 (10.2) Disc | | 60 | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. OEM or aftermarket rear wing is not permitted. |
| Honda Prelude Si VTEC (1993) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | 60 | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Hyundai Tiburon FX 2.0L (97-98) | 15 x 6 | 5 | (F) 257 (10.1) Disc<br>(R) 203 (8.0) Drum | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1., Valve lift limited to .450". |
| Jensen-Healey and GT | 15 x 7 | 4 or 5 | (F) 254 (10.0) Disc<br>(R) 229 (9.0) Drum | (F) 257 (10.1) Disc<br>(R) 229 (9.0) Drum<br>(F) 267 (10.5) Vented Disc<br>(R) 267 x 20 Disc from TR-8 | NA | Toyota rear differential w / 8" ring gear (4WD rear) |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lotus / Caterham 7 America | 2 | Zetec: 1460 * 1497 ** 1533 Zetec SVT: 1560 * 1599 ** 1638 | 4 Cyl DOHC (Ford ZETEC and Ford ZETEC SVT) | 84.8 x 88.0 (3.34x3.46) | 1989 (121.3) | Iron | Alum | ZETEC: (I) 32.0 (E) 28.0 ZETEC SVT: (I) 33.5 (E) 28.0 | IT fuel injection prep | 2235 (88.0) | 1336/1349 (52.6/53.1) |
| Lotus Elise | 2 | 2250 *2306 **2363 | 4 Cyl DOHC | 82.0 x 85.0 | 1796 | Alum | Alum | (I)36.1 (E)31.1 | fuel injection | 94.5 | 62.1/63.7 |
| Mazda MX-5 / Miata 1.6L (-1993) | 1 | 2125 | 4 Cyl DOHC | 78.0 x 83.6 (3.07x3.29) | 1597 (97.4) | Iron | Alum | (I) 31.1 / (1.22) (E) 26.3/(1.04) | (1) 40mm Auto-type sidedraft w/ 30mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2266 (89.2) | 1478/1491 (58.2/58.7) |
| Mazda MX-5 / Miata 1.8L (90-97) | 1/2 See Notes | 2258 | 4 Cyl DOHC | 83.0 x 85.0 (3.27x3.35) | 1840 (112.2) | Iron | Alum | (I) 33.1 / (1.30) (E) 28.2/(1.11) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2266 (89.2) | 1483/1509 (58.4/59.4) |
| Mazda MX-5 / Miata (94-97) | 2 | 2035 * 2086 ** 2137 | 4 Cyl DOHC | 83.0 x 85.0 | 1840 | Iron | Alum | (I) 33.1 (E) 28.2 | Fuel injection | 2266 | 58.4 / 59.4 |
| Mazda MX-5 / Miata (99-02) | 2 | 2150 * 2204 ** 2258 | 4 Cyl DOHC | 83.0 x 85.0 (3.27x3.35) | 1840 (112.2) | Iron | Alum | (I) 33.1 / (1.30) (E) 28.2/(1.11) | (1) 40mm Auto-type sidedraft w/ 30mm choke(s), (2) Auto-type sidedraft w/ 28mm choke(s) on I.R. manifold, or fuel injection. | 2266 (89.2) | 1483/1509 (59.9/60.9) |
| Mazda MX-5 (06-14) | 2 | 2250 * 2306 ** 2367 | 4 Cyl DOHC | 87.38 x 83.06 | 1999 | Alum | Alum | (I) 35.1 (E) 30.0 | Fuel Injection | 2329 | 63.0 / 63.2 |
| Mazda Protégé ES (01-03) | 2 | 2000 * 2050 ** 2100 | 4 Cyl DOHC | 83.0 x 92.0 | 1991 | Iron | Alum | (I) 31.5 (E) 27.6 | Fuel injection | 102.8 | 60.8 / 61.0 |
| Mazda RX-2 | 2 | 1950 * 1999 ** 2048 | Rotary | 12A | 2292 (139.8) | | | | (1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/ 42mm choke(s) on a "dual-y" manifold" | | |
| Mazda RX-3 & 3SP (72-78) | 2 | 1950 * 1999 ** 2048 | Rotary | 12A | 2292 (139.8) | | | | (1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/ 42mm choke(s) on a "dual-y" manifold" | 2311 (91.0) | 1410/1410 (55.5/55.5) |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Lotus / Caterham 7 America | 13 x 7 | 5 | (F&R) 229 (9.0) Disc | | stock throttle body I.D. | Level 2 suspension preparation. Engine is limited to IT preparation except modifications permitted in section 9.1.5.E.2.e and f. Comp. Ratio limited to 10.0: 1, Valve lift limited to .380". The rollcage may be modified or replaced. The rollcage must have a full-width, high front & rear hoop, using the OEM cage mounting points. The side intrusion bars shall remain outside the passenger compartment. The Caterham "clamshell" front fender is required. Front fenders shall be mounted in the normal position as provided from the factory. Front fenders may be modified as described here. The fender mounting flange shall be a minimum of 36" in length. At the rear of the fender, the lower edge of the mounting flange shall extend no higher than 8-1/2" above the undertray of the vehicle. At its maximum width, the fender shall be no narrower that 20-1/2" as measured along the upper curvature. At a point 18" rearward from the front of the flange, the fender shall be no narrower than 7" along the upper curvature and at 34" the fender shall be no less than 3" along the upper curvature. From 34" rearward, a radius may provide a transition between the outer and the rearmost fender edges. The contours resulting from this modification shall be gradual and describe a smooth curve in plan view. No further modifications are allowed. Zetec SVT casting number: 2M5V-6F 093 |
| Lotus Elise | 16 x 7 | 6 | (F)288 Vented Disc<br>(R)288 Vented Disc | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Mazda MX-5 / Miata 1.6L (-1993) | 15 x 7 | 5 | (F) 235 (9.3)<br>Vented Disc<br>(R) 231 (9.1)<br>Soli Disc | (F) 254 (10.0) Vented Disc<br>(R) 251 (9.9) Solid Disc | stock throttle body I.D. | "Dual Y" manifold required w / single DCOE carb., no plenum or balance tubes. 1994 Mazda Miata (1840cc) differential housing is permitted. OEM hardtop allowed. |
| Mazda MX-5 / Miata 1.8L (90-97) | 15 x 7 | 5 | (F) 235 (9.3)<br>Vented Disc<br>(R) 231 (9.1)<br>Solid Disc | (F) 254 (10.0)<br>Vented Disc<br>(R) 251 (9.9)<br>Solid Disc | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Drivetrain Level 2 preparation only. Listed spec line weight does not change with alternate or stock transmission. Level 1, dry sump, connecting rods, intake manifold porting, crankshafts, rocker arms and cam followers. OEM hard top allowed. |
| Mazda MX-5 / Miata (94-97) | 15 x 7 | 5 | (F) 235 Vented Disc<br>(R) 231 Solid Disc | (F) 254 Vented Disc<br>(R) 251 Solid Disc | stock throttle body I.D. | Comp. Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. OEM hardtop allowed. |
| Mazda MX-5 / Miata (99-02) | 15 x 7 | 5 | (F) 235 (9.3)<br>Vented Disc<br>(R) 231 (9.1)<br>Solid Disc | (F) 254 (10.0) Vented Disc<br>(R) 251 (9.9) Solid Disc | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. OEM hardtop allowed. Variable valve timing prohibited. |
| Mazda MX-5 (06-14) | 18 x 8 | 5 or 6 | (F) 289.6<br>Vented Disc<br>(R) 279.4 Solid Disc | | *60mm* | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". OEM hardtop allowed. *Stock Acura 60mm cable operated throttle body part number 16400-PND-A17 permitted.* |
| Mazda Protégé ES (01-03) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Mazda RX-2 | 15 x 7 | 5 | (F) 231 (9.1) Disc<br>(R) 201 (7.9) Drum | (F) 227 (8.9) Disc<br>(F) 250 Disc<br>(R) 229 (9.0) Drum<br>(R) 236 Disc<br>(R) 256 Disc | NA | Level 1 dry sump, intake manifold porting permitted. |
| Mazda RX-3 & 3SP (72-78) | 15 x 7 | 5 | (F) 231 (9.1) Disc<br>(R) 201 (7.9) Drum | (F) 227 (8.9) Disc<br>Discs and calipers from 79-85 12A RX-7<br>(R) 229 (9.0) Drum<br>(F) 250 (9.8) Disc<br>Discs and calipers from '84-'85 RX-7 GSL-SE | NA | Level 1 dry sump, intake manifold porting permitted. Alternate multi-piece hub and rotor allowed provided they are of the same dimensions as original and weigh a minimum of 10.2 lbs. |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mazda RX-4 (74-78) | 2 | 2100 * 2153 ** 2205 | Rotary | 13B 6-port | 2616 | | | | (1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/ 42mm choke(s) on a "dual-y" manifold" | 99.0 | 60.0 / 59.0 |
| Mazda RX-7 (12A/13B) (79-85) | 2 | 12A: 2050 * 2103 ** 2155 13B: 2140 * 2195 ** 2259 | Rotary | 12A 13B (84-85 6-port only) | 2292 (139.8) 2616 (159.6) | | | | 12A: (1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/42mm choke(s) on a "dual-y" manifold. 13B: (1) Auto-type 2 bbl w/ 42mm choke(s) on a "dual-y" manifold, or fuel injection. | 2421 (95.3) | 1524/1499 (60.0/59.0) |
| Mazda RX-7 (13B) (86-91) | 2 | 2250 * 2306 ** 2363 | Rotary | 13B | 2616 (159.6) | | | | (1) Auto-type 2 bbl w/ 42mm choke(s) on a "dual-y" manifold, or fuel injection. | 2431 (95.7) | 1542/1532 (60.7/60.3) |
| Mazda RX-8 (04-11) | 2 | 2300 * 2358 ** 2415 | Rotary | Renesis | 2616 | | | | Fuel Injection | 106.4 | 63.2 / 63.6 |
| MGB & MGB-GT | 1 | 1760 | 4 Cyl OHV | 80.3 x 88.9 (3.16x3.50) | 1798 (109.7) | Iron | Iron | (I) 39.9 / (1.57) (I) 41.4 / (1.63) (E) 34.3/(1.35) | (2) 1.5" SU HS-4, (2) 2" SU or Stromberg, (2) 1.75" SU | 2311 (91.0) | 1346/1351 (53.0/53.2) |
| Mercedes-Benz 190E 2.3L (8-valve) (84-93) | 2 | 2100 * 2153 ** 2205 | 4 Cyl SOHC | 96.5 x 80.3 (3.80x3.16) | 2299 (140.2) | Iron | Alum | (I) 46.1 / (1.81) (E) 39.1/(1.54) | Fuel injection | 2665 (104.9) | 1529/1510 (60.2/59.4) |
| Mercury Capri 2.3 (79-86) | 2 | 2100 * 2153 ** 2205 | 4 Cyl SOHC | 96.0 x 79.4 | 2301 | Iron | Iron | (I) 44.1 (E) 38.1 | (1) Holley-Weber 5200 or fuel injection. | 2550 (100.4) | 60.8 / 61.2 |
| Morgan Super Sport | 1 | 1820 | 4 Cyl OHV | 86.1 x 91.1 | 2138 | Iron | Iron | (I) 39.6 (E) 33.0 | (2) Weber 42 DCOE w/ 34mm choke(s) | 96.0 | 52.0 / 52.5 |
| Nissan Sentra SER Spec V (02-06) | 2 | 2400 * 2460 ** 2520 | 4 Cyl. DOHC | 80 x 100 | 2488 | Iron | Alum | (I) 35.8 (E) 30.8 | Fuel injection | 2535/99.8 | 61.9 / 61.2 |
| Nissan/Datsun 240Z | 2 | 2150 * 2204 ** 2258 | 6 Cyl SOHC | 83.0 x 73.3 (3.27x2.89) | 2380 (145.2) | Iron | Alum | (I) 42.0 / (1.65) (E) 33.0/(1.30) | (2) Hitachi-SU (1bbl) 46mm throttle bores | 2304 (90.7) | 1445/1438 (56.9/56.6) |
| Nissan/Datsun 260Z | 2 | 2250 * 2306 ** 2363 | 6 Cyl SOHC | 83.0 x 79.0 (3.27x3.11) | 2565 (156.5) | Iron | Alum | (I) 42.0 / (1.65) (E) 35.0/(1.38) | (2) Hitachi-SU (1bbl) 46mm throttle bores | 2304 (90.7) | 1445/1438 (56.9/56.6) |
| Nissan 280Z | 2 | 2560 * 2624 **2688 | 6 Cyl. SOHC | 86.1 x 79.0 | 2760 | Iron | Alum | (I) 44.2 (E) 35.3 | Fuel injection | 2304/ (90.7) | 56.9 / 56.6 |
| Nissan/Datsun SRL 311U Roadster | 1 | 2000 | 4 Cyl SOHC | 87.1 x 83.1 (3.43x3.27) | 1982 (120.9) | Iron | Alum | (I) 46.0 / (1.81) (E) 36.1/(1.42) | (2) Mikuni PHH 44mm. 38mm choke(s) req'd, (2) Hitachi-SU (1bbl) 46mm throttle bores. | 2281 (89.8) | 1364/1288 (53.7/50.7) (w / 6") 1389/1313 (54.7/51.7) (w / 7") |
| Nissan 200-SX / S10 (77-79) | 1 | 1950 | 4 Cyl SOHC | 85.1 x 86.1 (3.35x3.39) | 1952 (119.1) | Iron | Alum | (I) 42.1 / (1.66) (E) 35.2/(1.39) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold. | 2337 (92.0) | 1453/1405 (57.2/55.3) |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Mazda RX-4 (74-78) | 15 X 7 | 5 | (F) 232 Disc<br>(R) 229 Drum | (F) 227 (8.9) Disc<br>Discs and calipers from 79-85 12A RX-7<br>(F) 250 (9.8) Disc<br>Discs and calipers from '84-'85 RX-7 GSL-SE | NA | Level 1 dry sump, intake manifold porting permitted. Any 86-95 rotor housing permitted. |
| Mazda RX-7 (12A/13B) (79-85) | 15 x 7 | 5 | (F) 227 (8.9) Disc<br>(R) 200 (7.9) Drum | (F) 250 (9.8) Disc<br>(R) 236 (9.3) Disc<br>(R) 256 (10.1) Disc | stock throttle body I.D. | Level 1 dry sump, intake manifold porting permitted. Alternate multi-piece hub and rotor allowed provided they are of the same dimensions as original and weigh a minimum of 10.2 lbs. 13B (only): Any 13B rotor housing and any 84-92 non turbo 6-port side and/or intermediate housing permitted. Use of differential from 94-97 Mazda MX-5/ Miata permitted. |
| Mazda RX-7 (13B) (86-91) | 15 x 7 | 5 | (F) 250 (9.8) Disc<br>(R) 256 (10.1) Disc | (F) 277 (10.9) Disc<br>(R) 272 (10.7) Disc | stock throttle body I.D. | Any 13B rotor housing and any 84-92 non turbo 6-port side and/or intermediate housing permitted. Level 1 dry sump, intake manifold porting permitted. OEM or aftermarket rear spoiler not permitted. |
| Mazda RX-8 (04-11) | 18 x 8 | 6 | (F) 323 Vented Disc<br>(R) 303 Vented Disc | | stock throttle body I.D. | Pro Formula Mazda throttle body measuring 70mm inside dimension allowed. |
| MGB & MGB-GT | 15 x 7 | 4 | (F) 273 (10.8) Disc<br>(R) 254 (10.0) Drum | | NA | 17th 8152 (0.75") wheel cylinders, Alternate intake manifold for 2" SU: #12 H2838, Laycock overdrive, May use 5 speed gearbox w/o overdrive. Alt. Manifold: Any individual runner manifold with runner length of 3.0-4.0" measured flange to flange. |
| Mercedes-Benz 190E 2.3L (8-valve) (84-93) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1, Valve lift limited to .450". |
| Mercury Capri 2.3 (79-86) | 15 x 7 | 4 or 5 | (F) 256 Vented Disc<br>(R) 229 Drum | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Morgan Super Sport | 13 x 7 | 4 | (F) 11.0 Disc<br>(R) 9.0 Drum | | NA | |
| Nissan Sentra SER Spec V (02-06) | 18 x 8 | 6 | (F) 305<br>(R) 278 | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Nissan/Datsun 240Z | 15 x 7 | 4 | (F) 272 (10.7) Disc<br>(R) 229 (9.0) Drum | (F) 252 (9.92) Vented Disc<br>(R) 258 or 269 Solid Disc<br>Discs and calipers from 280-ZX. | NA | Comp Ratio limited to 12.0:1. Valve Lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan/Datsun 260Z | 15 x 7 | 4 | (F) 272 (10.7) Disc<br>(R) 229 (9.0) Drum | (F) 252 (9.92) Vented Disc<br>(R) 258 or 269 Solid Disc<br>Discs and calipers from 280-ZX. | NA | Comp Ratio limited to 12.0:1. Valve Lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan 280Z | 15 x 7 | 5 | (F) 272 disc<br>(R) 229 drum | (F) 252 vented disc<br>(R)258 or 269 solid discs and calipers from 280ZX | NA | Comp. Ratio limited to 12.0:1, Valve lift measured as raced with lash limited to .500". Level 1 dry sump, connecting rods, intake mnifold porting, crankshaft, rocker arms and cam followers permitted. |
| Nissan/Datsun SRL 311U Roadster | 15 x 7 | 5 | (F) 285 (11.2) Disc<br>(R) 229 (9.0) Drum | (F) 279 x 26 Vented Disc<br>Front calipers from: 240, 260, or 280Z (1970-78) w/spacers<br>Rotor origin is unrestricted | NA | |
| Nissan 200-SX / S10 (77-79) | 15 x 7 | 5 | (F) 244 (9.6) Disc<br>(R) 229 x 40<br>(9.0 x 1.6) Drum | | stock throttle body I.D. | |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nissan 200-SX SE-R | 2 | 2150<br>* 2204<br>** 2258 | 4 Cyl DOHC | 86.0 x 86.0 (3.39x3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1537/1516 (60.5/59.7) |
| Nissan 240-SX / S13 | 2 | 2320<br>* 2378<br>** 2436 | 4 Cyl SOHC (3 valve) | 89.0 x 96.0 (3.50x3.78) | 2389 (145.7) | Iron | Alum | (I) 34.0 / (1.34)<br>(E) 40.0/(1.57) | (2) Auto-type w/ 30mm choke(s), or fuel injection. | 2474 (97.4) | 1572/1567 (61.9/61.7) |
| Nissan 240-SX S13/S14 (91-98) | 2 | 2600<br>* 2665<br>** 2730 | 4 Cyl DOHC | 89.0 x 96.0 | 2389 | Iron | Alum | (I) 38.1<br>(E) 31.8 | Fuel injection | S13: 97.4<br>S14: 99.4 | 1587/1577 |
| Nissan NX-2000 | 2 | 2175<br>* 2229<br>** 2284 | 4 Cyl DOHC | 86.0 x 86.0 (3.39x3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1524/1501 (60.0/59.1) |
| Nissan Sentra SE-R (90-94) | 2 | 2150<br>* 2204<br>** 2258 | 4 Cyl DOHC | 86.0 x 86.0 (3.39x3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1524/1501 (60.0/59.1) |
| Nissan/Datsun HL510 (78-81) | 1 | 1900 | 4 Cyl SOHC | 85.1 x 86.1 (3.35x3.39) | 1952 (119.1) | Iron | Alum | (I) 42.1 / (1.66)<br>(E) 35.2/(1.39) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold. | 2388 (94.0) | 1478/1448 (58.2/57.0) |
| Pontiac Fiero GT & Formula (85-88) | 2 | 2500<br>*2563<br>**2625 | 6 Cyl OHV | 89.0 x 76.0 | 2837 | Iron | Iron | (I) 43.7<br>(E) 36.3 | Fuel Injection | 93.4 | 62.0 / 63.0 |
| Pontiac Solsitce (06-09) | 2 | 2500<br>*2563<br>**2625 | 4 Cyl DOHC | 88.0 x 98.0 | 2384 | Alum | Alum | (I) 32.25<br>(E) 30.25 | Fuel Injection | 95.1 | 65.1 / 65.8 |
| Porsche Boxster (97-99) | 2 | 2555<br>*2619<br>**2683 | 6 Cyl. DOHC | 85.5 x 72.0 | 2480 | Alum | Alum | (I) 33.3<br>(E) 28.1 | Fuel injection | 95.1 | 61.42 / 63.58 |
| Porsche Boxster (00-04) | 2 | 2700<br>*2768<br>**2835 | 6 Cyl. DOHC | 85.5x78.0 (3.37x3.07) | 2,687 (163.9) | Alum | Alum | 33.3(I)<br>28.1(E) | Fuel injection | 2415 (95.1) | 1560.1/ 1614.9 (61.4/63.6) |
| Porsche 911 2.2L | 1 | 2050 | Oppos'd 6 Cyl SOHC | 84.0 x 66.0 (3.31x2.60) | 2195 (133.9) | Alloy | Alloy | (I) 46.1 / (1.81)<br>(E) 40.1/(1.58) | (2) IDA-3C carburetors. 34mm choke(s) max. | 2271 (89.4) | 58.2 / 57.4 |
| Porsche 914-4 | 1 | 1820 | 4 Cyl OHV | 94.0 x 70.9 (3.70x2.79) | 1968 (120.1) | Alum | Alum | (I) 41.9 / (1.65)<br>(E) 36.1/(1.42) | (2) Solex 40 PII-4, (2) weber 40 IDF, (2) Del'Orto 40mm, 38mm choke(s) max, or fuel injection. | 2451 (96.5) | 57.0/58.2 |
| Porsche 914-6 2.0L | 1 | 1900 | Oppos'd 6 Cyl SOHC | 80.0 x 66.0 (3.15x2.60) | 1991 (121.5) | Alloy | Alloy | (I) 41.9 / (1.65)<br>(E) 38.1/(1.50) | (2) IDA-3C carburetors. 38mm choke(s) max. | 2451 (96.5) | 1452/1499 (57.2/59.0) |
| Porsche 924 | 1 | 2050 | 4 Cyl OHC | 86.5 x 84.4 (3.41x3.32) | 1984 (121.0) | Iron | Alum | (I) 40.0 / (1.57)<br>(E) 33.0/(1.30) | (2) Auto-type w/ 30mm choke(s) | 2400 (94.5) | 1420/1392 (55.9/54.8) |
| Porsche 944/ 924S 2.5L (2V) (83-88) | 2 | 2250<br>* 2306<br>** 2363 | 4 Cyl SOHC | 100.0 x 78.9 (3.94x3.11) | 2479 (151.2) | Alum | Alum | (I) 45.0 / (1.77)<br>(E) 40.0/(1.57) | Fuel injection | 2400 (94.5) | 1568/1542 (61.7/60.7) |
| Porsche 944S (87-88) | 2 | 2500<br>*2563<br>**2625 | 4 Cyl DOHC | 100.0 x 78.9 | 2479 | Iron | Alum | (I) 37.0<br>(E) 33.0 | Fuel injection | 2400 | 1568/1542 |
| Porsche 944S2 (89-91) | 2 | 2675<br>* 2742<br>** 2809 | 4 Cyl. DOHC | 4.09 x 3.46 | 182.4 | Alum | Alum | (I) (1.46)<br>(E) (1.30) | Fuel injection | 94.5" | 62.4 / 61.3 |
| Porsche 968 (92-95) | 2 | 2675<br>* 2742<br>** 2809 | 4 Cyl. DOHC | 104.0 x 88.0 | 2990 | Alum | Alum | (I) 37.0<br>(E) 33.0 | Fuel injection | 94.5 | 62.4/61.3 |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Nissan 200-SX SE-R | 15 x 7 | 5 | (F) 249 (9.8) Disc<br>(R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan 240-SX / S13 | 15 x 7 | 5 | (F) 252 (9.9) Disc<br>(R) 258 (10.2) Disc | (F) Stock 257 x 22 (10.1 x .87) ABS discs w/ 4-lug hub & ABS front calipers. | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan 240-SX S13/S14 (91-98) | 15 x 7 | 5 | (F) 257 Vented Disc<br>(R) 258 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1, Valve lift limited to .450". |
| Nissan NX-2000 | 15 x 7 | 5 | (F) 257 (10.12) Disc<br>(R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan Sentra SE-R (90-94) | 15 x 7 | 5 | (F) 249 (9.8) Disc<br>(R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. RLevel 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Nissan/Datsun HL510 (78-81) | 15 x 7 | 5 | (F) 244 (9.6) Disc<br>(R) 229 x 40<br>(9.0 x 1.6) Drum | (F) 251 (9.9) Vented Discs<br>Discs and calipers from 280-ZX. | stock throttle body I.D. | |
| Pontiac Fiero GT & Formula (85-88) | 15 x 7 | 4 or 5 | (F) 260 or 247 Disc<br>(R) 260 or 247 disc | | stock throttle body I.D. | Comp. ratio limited to 12.0:1. Valve lift limited to .500". |
| Pontiac Solsitce (06-09) | 18 x 8 | 5 | (F) 296 Vented Disc<br>(R) 278 Solid Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift limited to .500". GM part #PCS-0664 hardtop allowed. |
| Porsche Boxster (97-99) | 17 x 8.5 | 5 | (F) 298 vented<br>(R) 290 vented | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Porsche Boxster (00-04) | 17x8.5 | 5 | (F) 298 (11.7) vented<br>(R) 290 (11.4) vented | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Porsche 911 2.2L | 15 x 7 | 4 or 5 | (F) 282 (11.1) Disc<br>(R) 290 (11.4) Disc | (F&R) 300 (11.8) Disc | NA | Cylinder barrels of alternate material are permitted. |
| Porsche 914-4 | 15 x 7 | 5 | (F) 282 (11.1) Disc<br>(R) 285 (11.2) Disc | Front "M" calipers permitted, 914-6 calipers & discs allowed | NA | Standard intake manifold: Porsche part #021 129 705N. Alternate manifolds with the same length and configuration (4-5¼" center line axis) are allowed. (i.e. Pierce manifold part # 99004.822. Top panel may remain in place if securley bolted or pinned. Cylinder barrels of alternate material are permitted. |
| Porsche 914-6 2.0L | 15 x 7 | 5 | (F) 282 (11.1) Disc<br>(R) 287 (11.3) Disc | (F&R) 300 (11.8) Disc | NA | Cylinder barrels of alternate material are permitted. |
| Porsche 924 | 15 x 7 | 5 | (F) 257 (10.1) Disc<br>(R) 231 (9.1) Drum | (F) 282 (11.1) Disc<br>(R) 290 (11.4) Disc | NA | Can use the stock fuel tank if stock rear bumper and bumper support structure retained. |
| Porsche 944/ 924S 2.5L (2V) (83-88) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". Dry sump is allowed. Can use the stock fuel tank if stock rear bumper and bumper support structure retained. |
| Porsche 944S (87-88) | 15 x 7 | 5 | (F) 282 Vented Disc<br>(R) 289 Vented Disc | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". Dry sump is allowed. Can use the stock fuel tank if stock rear bumper and bumper support structure retained. |
| Porsche 944S2 (89-91) | 18 x 8<br>or<br>17 x 8.5 | 5 | (F) 11.73" vented<br>(R) 11.77" vented | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500", Dry sump is allowed. Can use the stock fuel tank if stock rear bumper and bumper support structure retained. |
| Porsche 968 (92-95) | 18 x 8 | 6 | (F) 298 vented<br>(R) 299 vented | | | Comp. Ratio limited to 11.0:1, Valve lift limited to .450" |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Saturn Sky (07-09) | 2 | 2500 *2563 **2625 | 4 Cyl DOHC | 88.0 x 98.0 | 2384 | Alum | Alum | (I) 32.25 (E) 30.25 | Fuel Injection | 95.1 | 65.1 / 65.8 |
| Subaru BRZ (2013) | 2 | 2400 * 2460 ** 2520 | 4 Cyl. DOHC | 3.386 x 3.386 | 121.9 | Iron | Alum | (I) stock (E) stock | Fuel injection | 101.2 | 64.1 / 64.9 |
| Toyota Celica GTS (00-05) | 2 | 2100 * 2153 ** 2205 | 4 Cyl. DOHC | 3.23 x 3.35 | 109.5 | Alum | Alum | (I)1.27" (E) 1.08" | Fuel injection | 102.4 | 62.9/62.5 |
| Toyota Celica II 2.4L (81-82) (excl. conv.) | 2 | 2140 * 2194 ** 2247 | 4 Cyl SOHC | 92.0 x 89.0 (3.62x3.50) | 2366 (144.3) | Iron | Alum | (I) 45.0 / (1.77) (E) 37.0/(1.46) | Carburetion | 2500 (98.4) | 1486/1456 (58.5/57.3) |
| Toyota Celica 2.4L (83-85) (excl. conv.) | 2 | 2140 * 2194 ** 2247 | 4 Cyl SOHC | 92.0 x 89.0 (3.62x3.50) | 2366 (144.3) | Iron | Alum | (I) 45.0 / (1.77) (E) 37.0/(1.46) | (2) Auto-type sidedraft w/ 36mm choke(s), or fuel injection. | 2500 (98.4) | 1486/1456 (58.5/57.3) |
| Toyota Corolla GTS (4AG) (84-89) | 1 | 2060 | 4 Cyl DOHC | 81.0 x 77.0 (3.19x3.03) | 1587 (96.8) | Iron | Alum | (I) 30.7 / (1.21) (E) 26.0/(1.02) | (1) DCOE w/ 36mm choke(s), (2) Auto-type sidedraft w/ 36mm choke(s) on I.R. manifold, or fuel injection. | 2413 (95.0) | 1524/1524 (60.0/60.0) |
| Toyota MR-2 | 1 | 1950 | 4 Cyl DOHC | 81.0 x 77.0 (3.19x3.03) | 1587 (96.8) | Iron | Alum | (I) 30.7 / (1.21) (E) 26.0/(1.02) | (1) DCOE w/ 42mm choke(s), (2) Auto-type sidedraft w/ 42mm choke(s) on I.R. manifold, or fuel injection. | 2319 (91.3) | 1532/1532 (60.3/60.3) |
| Toyota MR2 ZZW30 (00-05) | 2 | 2075 * 2127 ** 2179 | 4 Cyl. DOHC | 79.0 x 91.5 | 1794 | Alum | Alum | (I) 32.0 (E) 27.5 | Fuel injection | 96.5 | 62.34 / 61.73 |
| Toyota Scion FR-S (2013) | 2 | 2400 * 2460 ** 2520 | 4 Cyl. DOHC | 3.386 x 3.386 | 121.9 | Iron | Alum | (I) stock (E) stock | Fuel injection | 101.2 | 64.1 / 64.9 |
| Toyota Supra (82-85) | 2 | 2500 *2562 **2625 | 6 Cyl OHV | 83.0 x 85.0 | 2759 | | | (I) 44.0 (E) 36.0 | | 2517 | |
| Triumph GT6 | 1 | 1830 | 6 Cyl OHV | 74.7 x 76.0 (2.94x2.99) | 1998 (121.9) | Iron | Iron | (I) 36.6 / (1.44) (E) 32.0/(1.26) | (2) 1.5" SU or Stromberg | 2108 (83.0) | 1387/1387 (54.6/54.6) |
| Triumph TR2, 3, 3A, 4, 4A, TR4,TR4A, IRS | 1 | 1820 | 4 Cyl OHV | 83.1 x 92.0 86.1 x 92.0 | 1998 2138 | Iron | Iron | (I) 39.6 (E) 33.0 | (2) 1.75" SU or Stromberg, (2) 2" SU. (2) Weber DCOE on IR manifold, 34mm chokes required at 1900 lb. | 2235 | 1346/1334 1387/1361 |
| Triumph TR250, TR6 | 1 | 2140 | 6 Cyl OHV | 74.7 x 95.0 (2.94x3.74) | 2498 (152.4) | Iron | Iron | (I) 36.6 / (1.44) (I) 36.8 / (1.45) (E) 32.0/(1.26) | (3) Weber 40 DCOE on I.R. manifold. 30mm choke(s) req'd. | 2235 (88.0) | 1367/1354 (53.8/53.3) |
| Triumph TR7 | 1 | 2000 | 4 Cyl SOHC | 90.3 x 78.0 (3.56x3.07) | 1998 (121.9) | Iron | Alum | (I) 39.6 / (1.56) (E) 32.5/(1.28) | (2) Weber 45 DCOE. 32mm choke(s) req'd. | 2159 (85.0) | 1532/1499 (60.3/59.0) |

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Saturn Sky (07-09) | 18 x 8 | 5 | (F) 296 Vented Disc<br>(R) 278 Solid Disc | | stock throttle body I.D. | Comp Ratio limited to 12.0:1. Valve lift limited to .500". GM part #PCS-0664 hardtop allowed. |
| Subaru BRZ (2013) | 18 x 8 | 6 | (F) 11.6" vented<br>(R) 11.4" vented | | | Comp. Ratio limited to 12.5:1, Valve lift limited to 500". |
| Toyota Celica GTS (00-05) | 15x7 | 6 | (F) 10.7" vented<br>(R) 10.5" solid | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500" |
| Toyota Celica II 2.4L (81-82) (excl. conv.) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1, Valve lift limited to .450". |
| Toyota Celica 2.4L (83-85) (excl. conv.) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1, Valve lift limited to .500". |
| Toyota Corolla GTS (4AG) (84-89) | 15 x 7 | 5 | (F & R) 231 (9.1) Disc | | NA | Dual Y manifold required w / single DCOE carb., no plenum or balance tubes |
| Toyota MR-2 | 15 x 7 | 5 | (F) 244 (9.6) Disc<br>(R) 239 (9.4) Disc | (F) 257 (10.1) Disc<br>(R) 262 ( 10.3) Disc | stock throttle body I.D. | Trunk mounted fuel cell allowed. Can use stock fuel tank. "Dual Y" manifold required w / single DCOE carb., no plenum or balance tubes. Panel between trunk and engine compartment may be modified for the purposes of ducting air to the carbs. |
| Toyota MR2 ZZW30 (00-05) | 15 x 7 | 5 | (F) 253 vented<br>(R) 262 solid | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Toyota Scion FR-S (2013) | 18 x 8 | 6 | (F) 11.6" vented<br>(R) 11.4" vented | | | Comp. Ratio limited to 12.5:1, Valve lift limited to 500". |
| Toyota Supra (82-85) | 15 x 7 | 5 | (F) Disc<br>(R) Disc | (F) 256 Disc<br>(R) 264 Disc | stock throttle body I.D. | Comp. ratio limited to 12.0:1. Valve lift limited to .500". |
| Triumph GT6 | 13 x 7 | 4 | (F) 246 (9.7) Disc<br>(R) 203 (8.0) Drum | | NA | (2) 1.75" carburetors @ 1970 lbs. Laycock overdrive, May use 5 speed gearbox w/o overdrive. Three (3) Weber 40mm DCOE w/28mm venturi on individual runner manifold @ 2020 lb. |
| Triumph TR2, 3, 3A, 4, 4A, TR4,TR4A, IRS | 15 x 7 | 4 | ((F) 279 (11.0) Disc<br>(R) 229 (9.0) Drum | (F) Calipers & discs from TR-6 (std. or alt)<br>(R) 254 (10.0) Drum<br>Drum may be 9" or 10" and of alfin or steel. | NA | Front apron assembly may be made of alternate material. Laycock overdrive, may use 5 speed gearbox wothout overdrive. |
| Triumph TR250, TR6 | 15 x 7 | 4 | (F) 279 (11.0) Disc<br>(R) 229 (9.0) Drum | (F) 284 (11.2) Vented Disc<br>(R) 224 (8.8) Drum<br>(R) 229 Alfin Drum<br>(R) 273 (10.8) Disc<br>Disc: # C32764 Caliper: # 60-12796 LH # 60-12797 RH | NA | Laycock overdrive, May use 5 speed gearbox w/o overdrive |
| Triumph TR7 | 15 x 7 | 4 or 5 | (F) 248 (9.8) Disc<br>(R) 203 (8.0) Drum | (F) 267 (10.5) Vented Disc<br>(R) 229 (9.0) Drum<br>(R) 267 x 20 (10.5x.78) Disc<br><br>Discs from TR-8, JRT brake kit # STN 0068 and Rimmer Bros. brake kit #GRID007446 | NA | Rear Spoiler: # V-775, Alt. Manifold: # V-740 |

| EP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Triumph TR8 (78-81) | 2 | 2600<br>* 2665<br>** 2730 | 8 Cyl. OHV | 3.5"x2.8" | 215.2 c.i. | Alum | Alum | (I) 1.57"<br>(E) 1.35" | Zenith Stromberg carbs or fuel injection | 2159<br>(85) | 60.3"/59.0" |
| Volvo P-1800, 1800S, 1800E, 1800ES Sports Coupe | 1 | 1950 | 4 Cyl OHV | 84.2 x 80.0<br>(3.31x3.15)<br>88.9 x 80.0<br>(3.50x3.15) | 1780<br>(108.6)<br>1982<br>(120.9) | Iron | Iron | 1780:<br>(I) 41.9 / (1.65)<br>(E) 35.0/(1.38)<br>1982:<br>(I) 43.9 / (1.73)<br>(E) 39.9/(1.57) | (2) 1.75" SU, (2) 1.75" Stromberg CDSE, (2) 1.75" SU HS6, (2) 2.0" SU, or fuel injection. | 2451<br>(96.5) | 1407/1407<br>(55.4/55.4) |

* Alternate transmission w/ stock type syncros
** Alternate transmission w/ non-stock type syncros (i.e. dog-ring)

| EP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Triumph TR8 (78-81) | 15x7 | 5 | (F) 9.8" solid<br>(R) 9.0" drum | (F) 10.5 vented<br>(R) 9.0 drum or 10.5 x .78 disc JRT brake kit # STN 0068 and Rimmer Bros. brake kit #GRID007446 permitted. | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". |
| Volvo P-1800, 1800S, 1800E, 1800ES Sports Coupe | 15 x 7 | 4 or 5 | (F) 279 (11.0) Disc<br>(R) 229 (9.0) Drum | (F) 272 (10.7) Disc<br>(R) 295 (11.6) Disc | stock throttle body I.D. | Bosch Fuel Injection |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acura Integra 1600 (86-89) | 2 | 1950 *1999 **2048 | 4 Cyl DOHC | 75.0 x 90.0 (2.95x3.54) | 1590 | Alum | Alum | (I) 30.0/(1.18) (E) 27.0/(1.06) | Fuel injection | 2251 (88.6) | 1489/1504 (58.6/59.2) |
| Acura Integra (90-93) | 2 | 2235 * 2291 ** 2347 | 4 Cyl DOHC | 81.0 x 89.0 | 1835 | Alum | Alum | (I) 31.0 (E) 28.0 | (2) Auto-type side draft w/ 32mm choke(s) on I.R. manifold, or fuel injection | 2550 | (62.3/62.3) |
| Acura Integra LS (95-01) | 2 | 2235 *2291 **2347 | 4 Cyl DOHC | 81.0 x 89.0 | 1835 | Alum | Alum | (I) 31.0 (E) 28.0 | Fuel injection | 2570 | (62.3/62.1) |
| Acura Integra GSR (92-93) | 2 | 2325 * 2383 ** 2441 | 4 Cyl. DOHC | 81.0 x 84.0 | 1678 | Alum | Alum | (I) 33.0 (E) 28.0 | Fuel injection Throttle Bore 58mm | 2550 | (62.3/62.3) |
| Alfa Romeo Alfetta GT & Alfetta Sedan (75-79) | 2 | GT: 2365 * 2424 ** 2483 Sedan: 2465 * 2527 ** 2588 | 4 Cyl DOHC | 84.0 x 88.5 | 1961 | Alum | Alum | (I) 44.15 (E) 40.15 | Fuel injection, 34mm restrictor required between air filter and butterfly. | GT: 95.0 Sedan: 98.8 | (56.9/56.7) |
| Alfa Romeo Giulia Spider Veloce | 1 | 1850 | 4 Cyl DOHC | 75.2x79.14 (3.07x3.23) | 1570 (25.12) | Alum | Alum | (I) 39.69 (1.62) (E) 35.77(1.46) | (2) 40 DCOE or (2) auto-type sidedraft on IR manifold. | 2170.7 or 2121.7 (88.6 or 86.6) | (55.6/54.6) |
| Alfa Romeo Giulia Sprint/ Spider | 1 | 1918 | 4 Cyl DOHC | 75.2x79.14 (3.07x3.23) | 1570 (25.12) | Alum | Alum | (I) 39.69(1.62) (E) 35.77(1.46) | (1) Solex 32 PAIA, (1) 36 DCD Weber | Spider: 2170.7 /2121.7 (88.6 / 86.6) Sprint: 2295.7 (93.7) | (55.6/54.6) |
| Alfa Romeo GTV 1750 / Spider 1750 / Berlina 1750 (67-72) | 2 | GTV / Berlina: 1865 * 1912 ** 1958 Spider: 1950 * 1999 ** 2048 | 4 Cyl DOHC | 80.0 x 88.4 | 1779 | Alum | Alum | (I) 41.1 (E) 37.1 | Fuel injection, 34mm restrictor required between air filter and butterfly. | GTV: 92.5 Spider: 88.6 Berlina: 101.8 | GTV: (55.7/54.2) Spider: (56.3/54.2) Berlina: (52.1/50.2) |
| Alfa Romeo GTV & Berlina (72-74) | 2 | 2165 * 2219 ** 2273 | 4 Cyl DOHC | 84.0 x 88.5 | 1961 | Alum | Alum | (I) 44.15 (E) 40.15 | Fuel injection, 34mm restrictor required between air filter and butterfly. | GTV: 92.5 Berlina: 101.8 | GTV: 55.7 / 54.2 Berlina: 52.1 / 50.2 |
| Alfa Romeo Spider (72-86) | 2 | 2265 * 2322 ** 2378 | 4 Cyl DOHC | 84.0 x 88.5 | 1961 | Alum | Alum | (I) 44.15 (E) 40.15 | Fuel injection, 34mm restrictor required between air filter and butterfly. (72-80) w/ Spica, (81-86) w/ Bosch | 88.6 | 56.3 / 54.2 |
| Austin-Healey Sprite Mk. I, II, III, IV MG Midget Mk I, II, III, IV & 1500 | 1 | 1275 @ 1580 1500 @ 1670 | 4 Cyl OHV | 68.11x78.4 (2.78x3.20) 71.05x84.3 (2.90x3.44) | 1275 (77.78) 1491 (90.95) | Iron | Iron | 1275cc: (I) 32.1(1.31) (E) 28.42(1.16) 1500cc: (I) 35.28(1.44) (E) 28.67(1.17) | (2) 1.25" SU, (2) 1.5" SU CD4 (1275 only), (1) 1.5" Zenith, (1) 1.5" Stromberg SD, (1) 1.5" SU, maximum spacer block (isolator) length 1.25". (1) 1.75" SU (1500 only) | 1960 (80.0) | 1229.9/ 1193.2 (50.2/48.7) |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Acura Integra 1600 (86-89) | 15 x 7 | 5 | (F) 9.53 vented disc<br>(R) 9.41 solid disc | | 55 | Comp. Ratio limited to 10.0:1 Valve lift limited to .390".<br>Effective 10/1/11 Comp. Ratio limited to 12.0:1 Valve lift limited to .450". |
| Acura Integra (90-93) | 15 x 7 | 5 | (F) 10.32 vented disc<br>(R) 9.41 solid disc | | 58 | Comp. Ratio limited to 11.0:1 Valve lift limited to .450". |
| Acura Integra LS (95-01) | 15 x 7 | 5 | (F) 262 Vented Disc<br>(R) 239 Solid Disc | | 60 | Comp. Ratio limited to 11.0:1 Valve lift limited to .450". |
| Acura Integra GSR (92-93) | 15 x 7 | 5 | (F) 262x21 vented<br>(R) 239x10 solid | | | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Alfa Romeo Alfetta GT & Alfetta Sedan (75-79) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1 Valve lift limited to .450". |
| Alfa Romeo Giulia Spider Veloce | 15 x 7 | 5 | (F) 10.6 Disc<br>(R) 10.5 Drum | | NA | |
| Alfa Romeo Giulia Sprint / Spider | 15 x 7 | 5 | (F) 10.6 Disc<br>(R) 10.5 Drum | (F) 10.5 Drum<br>(3 shoe) | NA | |
| Alfa Romeo GTV 1750 / Spider 1750 / Berlina 1750 (67-72) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1 Valve lift limited to .450". |
| Alfa Romeo GTV & Berlina (72-74) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | NA | Comp. Ratio limited to 10.5:1 Valve lift limited to .450". |
| Alfa Romeo Spider (72-86) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1 Valve lift limited to .450". |
| Austin-Healey Sprite Mk. I, II, III, IV<br>MG Midget Mk I, II, III, IV & 1500 | 13 x 6 | 4 | (F) 203.4 (8.3) Disc<br>(R) 171.5 (7.0) Drum | (F) 231.6 (9.12) Disc | NA | Alternate intake manifold for 1275 (#NPN 500), 9.125 Disc (#208715), Calipers (#27H-4651), Battery tray may be removed, Parts may not be interchanged between engine units. Mk.I Body modification: Behind driver's seat rear deck only, width of shoulder or seat, depth 6" max. |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *BMW Z3 1.9L* | *2* | *2400 * 2460 ** 2520* | *4 Cyl DOHC* | *85.1 x 83.6 (3.35x3.29)* | *1895 (115.6)* | *Iron* | *Alum* | *(I) 33.0 (1.30) (E) 30.5 (1.20)* | *(2) Auto-type sidedrafts w/ 30mm choke(s), or fuel injection.* | *2446 (96.3)* | *1481/1565 (58.3/61.6)* |
| BMW 320i/is (E21) (77-79) | 2 | 2110 * 2163 ** 2216 | 4 Cyl SOHC | 89.0 x 80.0 | 1990 | Iron | Alum | (I) 46.0(1.88) (E) 38.0(1.55) | (1) 40 DCNF w/ 32mm chokes, or fuel injection. | 100.9 | 1481/1494 (58.3/58.8) |
| BMW 320i/is (E21) (80-83) | 2 | 2060 *2112 **2163 | 4 Cyl SOHC | 89.0 x 71.0 | 1767 | Iron | Alum | (I) 44.0 (E) 38.0 | (1) 40 DCNF w/ 32mm chokes, or fuel injection | 100.9 | 1481/1494 (58.3/58.8) |
| BMW 318i/is (E30) (84-85) | 2 | 2060 *2112 **2163 | 4 Cyl SOHC | 89.0 x 71.0 | 1767 | Iron | Alum | (I) 44.0 (E) 38.0 | (1) 40 DCNF w/ 32mm chokes, or fuel injection. | 101.2 | 59.0 / 59.3 |
| BMW 318i/is (1991) | 2 | 2350 * 2409 ** 2468 | 4 Cyl DOHC | 84.1 x 81.0 | 1796 | Iron | Alum | (I) 33.0 / (1.30) (E) 30.5/(1.20) | Fuel injection | 2570 | 1499/1506 |
| BMW 318i/is E36 (92-95) | 2 | 2400 * 2460 ** 2520 | 4 Cyl DOHC | 84.1 x 81.0 | 1796 | Iron | Alum | (I) 33.0 (E) 30.5 | Fuel injection | 2700 | 1513/1518 |
| BMW 325e/es (84-87) | 2 | 2555 * 2619 ** 2683 | 6 Cyl. OHC | 3.35 x 3.19 | 164.7 | Iron | Alum | (I) 1.58 (E) 1.34 | Fuel injection Throttle Bore 2.17" | 101" | 59.6 / 59.9 |
| BMW 1600 | 1 | 1891 | 4 Cyl SOHC | 84.0 x 71.0 | 1537 | Iron | Alum | (I) 42.0 (E) 35.0 | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) 40 DCOE side draft w/ 36mm choke(s). | 98.4 | 57.3 / 57.3 |
| BMW 2002/tii | 2 | 2075 * 2127 ** 2179 | 4 Cyl SOHC | 89.0 x 80.0 | 1990 (121.39) | Iron | Alum | (I) 46.0(1.88) (E) 38.0(1.55) | Fuel injection, or (1) 40 DCNF w/ 32mm choke(s). | 2410.8 (98.4) | 1379.4/ 1379.4 (56.3/56.3) |
| Chevrolet Chevette 1.6 | 1 | 1853 | 4 Cyl SOHC | 82.0 x 75.7 | 1598 | Iron | Iron | (I) 39.1 (E) 32.1 | (2) auto type side draft w/ 36mm choke(s) on I.R. manifold. | 94.3 | 55.75 / 55.75 |
| *Chevrolet Sonic (12-16)* | *2* | *2200 * 2255 ** 2310* | *4 Cyl. DOHC* | *80.5mm x 88.2mm* | *1796cc* | *Iron* | *Alum* | *(I) 31.3mm (E) 27.6mm* | *Fuel injection* | *99.4"* | *63.7 / 63.7* |
| Dodge Neon (95-99) | 2 | 2250 * 2306 ** 2363 | 4 Cyl DOHC | 87.5 x 83.0 | 1995 | Iron | Alum | (I) 34.8 (E) 30.5 | Fuel injection | 104 | 61.5 / 61.5 |
| Dodge Neon (95-99) | 2 | 2200 * 2255 ** 2310 | 4 Cyl SOHC | 87.5 x 83.0 | 1995 | Iron | Alum | (I) 33.0 (E) 28.0 | Fuel injection | 104 | 61.5 / 61.5 |
| Dodge Neon ACR (01-02) | 2 | 2275 * 2332 ** 2389 | 4 Cyl SOHC | 87.5 x 83.0 | 1995 | Iron | Alum | (I) 33.3 (E) 28.7 | Fuel Injection | 2667 | 62.3 / 62.4 |
| Dodge Shelby Charger / Omni 024 (83-84) | 2 | 2250 * 2306 ** 2363 | 4 Cyl SOHC | 87.5 x 92.0 | 2213 | Iron | Alum | (I) 40.6 (E) 35.4 | Carburetion of Fuel injection | 96.5 | 61.4 / 61.0 |
| Elva Courier Mk. I, II & III 1622 & 1798 | 1 | 1622cc: 1800 1798cc: 1875 | 4 Cyl OHV | 76.2 x 88.9 80.3 x 88.9 | 1622 1798 | Iron | Iron | (I) 39.9 (E) 34.3 | 1622cc: (2) 1.75" SU or Stromberg 1798cc: (2) 1.50" SU or Stromberg | 2286 | 53.5/54.6 |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| *BMW Z3 1.9L* | *15 x 7* | *5* | *(F) 286.0 (11.3) Disc (R) 280.0 (11.0) Disc* | | *stock throttle body I.D.* | *Comp Ratio limited to 11.0:1. Valve lift (measured as raced - w/ lash): .500" max. OEM hardtop allowed.* |
| BMW 320i/is (E21) (77-79) | 15 x 7 | 4 | (F) 254.0 Disc (R) 250.0 Drum | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". Trunk mounted fuel cell allowed. Factory 2bbl intake manifold from BMW 2002 is permitted. |
| BMW 320i/is (E21) (80-83) | 15 x 7 | 5 | (F) 254 Disc (R) 250 Drum | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". Trunk mounted fuel cell allowed. Factory 2bbl intake manifold from BMW 2002 is permitted. |
| BMW 318i/is (E30) (84-85) | 15 x 7 | 5 | (F) 261 Disc (R) 229 Drum | | NA | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". Trunk mounted fuel cell allowed. Factory 2bbl intake manifold from BMW 2002 is permitted. |
| BMW 318i/is (1991) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .500". Trunk mounted fuel cell allowed. |
| BMW 318i/is E36 (92-95) | 15 x 7 | 5 | (F) 286 Vented Disc (R) 272 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .500". Trunk mounted fuel cell allowed. |
| BMW 325e/es (84-87) | 15 x 7 | 5 | (F) 11.3x.91 vented (R) 11.02 solid | | | Comp. Ratio limited to 11.0:1, Valve lift limited to .450", Truck mounted fuel cell allowed. |
| BMW 1600 | 15 x 7 | 4 | (F) 10.1 Disc (R) 9.1 x 1.6 Drum | | NA | Factory 2bbl intake manifold from 2002 is permitted. |
| BMW 2002/tii | 15 x 7 | 4 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25". The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Chevrolet Chevette 1.6 | 15 x 7 | 4 or 5 | (F) 9.68 Disc (R) 7.88 Drum | | NA | |
| *Chevrolet Sonic (12-16)* | *15 x 7* | *5* | *(F) 274 mm 26mm solid (R) 229 drum* | | | *Comp. Ratio limited to 11.0:1, Valve lift limited to .450"* |
| Dodge Neon (95-99) | 15 x 7 | 5 | (F) 257 Vented Disc (R) 257 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Dodge Neon (95-99) | 15 x 7 | 5 | (F) 257 Vented Disc (R) 257 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Dodge Neon ACR (01-02) | 15 x 7 | 5 | (F) 257 Vented Disc (R) 270 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Dodge Shelby Charger / Omni 024 (83-84) | 15 x 7 | 5 | (F) 256 Vented Disc (R) 200 Drum | | stock throttle body I.D. | Comp. Ratio limited to 10.5:1, Valve lift limited to .450". |
| Elva Courier Mk. I, II & III 1622 & 1798 | 15 x 7 | 4 | (F) 229 (9.0) Drum (R) 203 (8.0) Drum | (F) 229 (9.0) Disc (R) 254 (10.0) Drum (w / MGA axle) (F) 279 (11.0) Disc (R) Mk.4T 229 (9.0) | NA | ATB 7224 MGA axle housing assy., Only the Mk.III 1622cc is allowed to update to the 1798cc engine including the 15" wheel. A Mk.III making this update may use the 13" wheels. |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Elva Courier Mk. III, IV 1800 & Mk, IV R & C | 1 | 1875 | 4 Cyl OHV | 80.3 x 88.9 | 1798 | Iron | Iron | (I) 39.9 (E) 34.3 | (2) 1.50" SU or Stromberg | 2286 | 53.5/54.6 |
| Fiat 124 Sport Spider (-1977) | 1 | 1875 | 4 Cyl DOHC | 3.15 x 3.15 3.15 x 3.12 3.31 x 3.12 | 1608 1592 1756 | Iron | Alum | (I) 1.64 (E) 1.43 | (1) 34 DFH1, 26/34 DHSA1, 28/36 DHSA2, 34 DMSA1/100, (1) 32 ADFA2/100 ATL, (1) 34 DMS201, 36 DCNF w/ 30mm choke(s)), (1) 40 DCNF w/ 30mm choke(s). | 95.3/89.8 | 57.2 / 56.0 |
| Fiat 124 Spider 2000 (79-83) | 2 | 2265 * 2322 ** 2378 | 4 Cyl. DOHC | 3.31 x 3.54 | 121.7 | Iron | Alum | (I) 1.64" (E) 1.44" | Weber 28/32 ADHA or fuel injection | 89.8" | 56.7 / 55.4 |
| Fiat X-1/9 & Bertone 1300 | 1 | 1715 | 4 Cyl SOHC | 86.0 x 55.5 | 1290 | Iron | Alum | (I) 1.43 (E) 1.21 (E) 1.23 | (1) Weber 32 DMTR or DATRA/100 w/ 32mm primary and secondary throttle bores, (1) 40 DCNF w/ 32mm choke(s) | 86.7 | 56.3 / 56.6 |
| Fiat X-1/9 & Bertone | 1 | 1815 | 4 Cyl SOHC | 3.40 x 2.52 | 1498 | Iron | Alum | (I) 1.43 (E) 1.31 | (1) 34 DMTR w/ 34mm primary & secondary throttle bores, (1) 36 DCNF w/34mm choke(s) and manifold adapter, or fuel injection, (1) 40 DCNF w/ 34mm choke(s). | 86.7 | 56.3 / 56.6 |
| Ford/Mercury Capri 2000 (71-74) | 1 | *2000* | 4 Cyl SOHC | 91.0 x 77.0 | 1993 | Iron | Iron | (I) 42.2 (E) 36.2 | (1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Automotive-type sid-edraft w/34mm choke(s) on I.R. manifold. | 100.8 | 57.4 / 56.4 |
| Ford Fiesta (78-80) | 1 | 1790 | 4 Cyl OHV | 81.0 x 78.0 | 1598 | Iron | Iron | (I) 1.41 (E) 1.24 | (1) 40 DCN, DCNF, IDF, (2) auto type side draft on I.R. manifold. 34mm choke(s) required. | 90.0 | 56.5 / 56.0 |
| Ford Mustang 2.3 (79-93) | 2 | 2200 * 2255 ** 2310 | 4 Cyl SOHC | 96.0 x 79.4 | 2301 | Iron | Iron | (I) 44.1 (E) 38.1 | (1) Holley-Weber 5200 or fuel injection. | 2550 (100.4) | 60.8 / 61.2 |
| Ford Pinto | 1 | *1980* | 4 Cyl SOHC | 91.0 x 77.0 | 1993 | Iron | Iron | (I) 42.2 (E) 36.2 | (1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Automotive-type sid-edraft w/30mm choke(s) on I.R. manifold. | 94.0 | 58.6 / 59.4 |
| Honda Civic 1.5 (88-91) | 1 | 1950 | 4 Cyl SOHC | 75.0 x 84.5 | 1493 | Alum | Alum | (I) 29.0 (E) 25.0 | (2) auto type side draft w/30mm venturi on I.R. manifold, or fuel injec-tion. | 98.4 | 59.8 / 60.0 |
| *Honda Civic EX (90-91)* | *2* | *1900 * 1948 ** 1995* | *4 Cyl. DOHC* | *75.0 x 90.0* | *1590* | *Alum* | *Alum* | *(I) 29.0 (E) 25.0* | *Fuel injection* | *98.4* | *61.4 / 61.7* |
| Honda Civic / Civic Si (84-87) | 1 | 1900 | 4 Cyl SOHC | 74.0 x 86.5 | 1488 | Alum | Alum | (I) 27.1 (E) 32.1 | (1) 40 DCN, DCNF, IDF w/32mm choke(s), (2) auto type side draft w/32mm choke(s) on I.R. manifold, or fuel injection. | 93.7 | 59.3 / 59.9 |
| Honda Civic Del Sol Si (93-94) | 2 | 1950 *1999 **2048 | 4 Cyl SOHC | 75.0 x 90.0 (2.95x3.54) | 1590 | Alum | Alum | (I) 30.0 / (1.18) (E) 26.0/(1.02) | Fuel injection | 2370 (93.3) | 1567/1557 (61.7/61.3) |
| Honda Civic Del Sol VTEC (94-97) | 2 | 2190 * 2245 ** 2300 | 4 Cyl DOHC | 81.0 x 77.4 (3.19x3.05) | 1595 | Alum | Alum | (I) 33.0/(1.30) (E) 28.0/(1.10) | Fuel injection | 2370 (93.3) | 1567/1557 (61.7/61.3) |
| Honda Civic Si (88-91) | 2 | 1900 *1948 **1995 | 4 Cyl SOHC | 75.0 x 90.0 | 1590 | Alum | Alum | (I) 29.0 (E) 25.0 | Fuel injection | 2500 | 1560/1567 |
| Honda Civic Si (88-91) | 1 | 2075 | 4 Cyl SOHC | 75.0 x 90.0 (2.95x3.54) | 1590 (97.0) | Alum | Alum | (I) 29.0 / (1.14) (E) 25.0/(0.98) | (1) 40 DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2500 (98.4) | 1560/1567 (61.4/61.7) |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Elva Courier Mk. III, IV 1800 & Mk, IV R & C | 15 x 7 | 4 | (F) 229 (9.0) Drum<br>(R) 203 (8.0) Drum | (F) 229 (9.0) Disc<br>(R) 254 (10.0) Drum<br>(w/ MGA axle)<br>(F) 279 (11.0) Disc<br>(R) Mk.4T 229 (9.0) | NA | Mk.IV T R & C have IRS, Mk.III & IV 1800 have live axle. ATB 7224 MGA axle housing assy., Only the Mk.III 1622cc is allowed to update to the 1798cc engine including the 15" wheel. A Mk.III making this update may use the 13" wheels. |
| Fiat 124 Sport Spider (-1977) | 13 x 7 | 5 | (F) 8.97 Disc<br>(R) 8.94 Disc | (F&R) 10.0 Disc | NA | Alternate rotor (#82346805). Allow (2) 40 IDF w/ 34mm choke(s) @ 1965 lbs. Orientation of the alternate carburetor is unrestricted. The alternate carb adaptor may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Fiat 124 Spider 2000 (79-83) | 15 x 7 | 5 | (F) 8.9" disc<br>(R) 8.9" disc | | | Comp. Ratio limited to 10.5:1, Valve lift limited to .450". |
| Fiat X-1/9 & Bertone 1300 | 13 x 7 | 5 | (F&R) 8.94 Disc | (F&R) 10.0 x .40 Disc (Lancia) | NA | Top panels may remain in place if securely bolted or pinned. Alt. Crankshaft: #4292177. Engine hatch rain tray may be removed. Trunk mounted fuel cell allowed. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Fiat X-1/9 & Bertone | 13 x 7 | 5 | (F&R) 8.94 Disc | (F&R) Lancia 9.875 x .40 Disc | NA | Fuel cell may be located in front trunk, Crankshaft (#4211630), Alternate grille for '79: '78 X19 grill & valence, Top panels may remain in place if securely bolted or pinned, Engine hatch rain tray may be removed, 4 speed trans from X19. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Ford/Mercury Capri 2000 (71-74) | 15 x 7 | 4 | (F) 9.6 Disc<br>(R) 9.0 x 2.25 Drum | | NA | |
| Ford Fiesta (78-80) | 13 x 7 | 4 | (F) 8.7 Disc<br>(R) 7.0 x 1.16 Drum | | NA | Combination of Formula F spec cylinder head and intake manifold may be used. |
| Ford Mustang 2.3 (79-93) | 15 x 7 | 4 or 5 | (F) 256 Vented Disc<br>(R) 229 Drum | | NA | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Ford Pinto | 15 x 7 | 4 or 5 | (F) 9.30 Disc<br>(R) 9.0 x 1.38 Drum | | NA | |
| Honda Civic 1.5 (88-91) | 15 x 7 | 5 | (F) 240 Disc<br>(R) 180 x 30 Drum | | NA | |
| *Honda Civic EX (90-91)* | *15 x 7* | *5* | *(F) 10.3 vented*<br>*(R) 7.09 x 1.5 drum*<br>*9.41 solid disc* | | | *Comp. Ratio limited to 12.0:1, Valve lift limited to .450".* |
| Honda Civic / Civic Si (84-87) | 13 x 7 | 5 | (F) 231 Disc<br>(R) 180 x 30 Drum | | 33 (primary)<br>42 (secondary) | Intake manifold from carbureted version of car is required |
| Honda Civic Del Sol Si (93-94) | 15 x 7 | 5 | (F) 10.32"<br>vented disc<br>(R) 9.41" solid disc | | 56 | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| Honda Civic Del Sol VTEC (94-97) | 15 x 7 | 5 | (F) 262 (10.3) Disc<br>(R) 239 (9.4) Disc | | 60 | Comp. Ratio limited to 11.0:1. Valve lift .425" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. May be prepared as a coupe or "targa top", Petty-bar roll cage allowed in lieu of rearward roll cage braces. |
| Honda Civic Si (88-91) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | 42 | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| Honda Civic Si (88-91) | 15 x 7 | 5 | (F) 241 (9.5) Disc<br>(R) 180 x 38<br>(7.1 x 1.5) Drum | (R) 239 (9.4) Disc | 55 | Single 40 DCOE requires "dual Y" manifold w / no balance tubes or plenum. |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Honda Civic Si (92-95) | 2 | 1950<br>*1999<br>**2048 | 4 Cyl SOHC | 75.0 x 90.0 | 1590 | Alum | Allum | (I) 30.0<br>(E) 26.0 | Fuel injection | 2573 | 62.3 / 61.9 |
| *Honda Civic Si (99-00)* | *2* | *2250<br>*2306<br>**2363* | *4 Cyl DOHC* | *81.0 x 77.4 (3.19x3.05)* | *1595* | *Alum* | *Alum* | *(I) 33.0 / (1.30)<br>(E) 28.0 /(1.10)* | *Fuel injection* | *2370 (93.3)* | *1567/1557 (61.7/61.3)* |
| Honda Civic EX VTEC SOHC (92-95)<br>Honda Civic EX (92-95) | 2 | 1950<br>*1999<br>**2048 | 4 Cyl SOHC | 75.0 x 90.0 | 1590 | Alum | Alum | (I) 30.0<br>(E) 26.0 | Fuel injection | 2573 | 62.3 / 61.9 |
| Honda CRX 1.5 (88-91) | 1 | 1950 | 4 Cyl SOHC | 75.0 x 84.5 | 1493 | Alum | Alum | (I) 29.0<br>(E) 25.0 | (2) auto type side draft w/30mm venturi on I.R. manifold, or fuel injection. | 90.6 | 59.8 / 60.0 |
| Honda CRX / CRX Si (84-87) | 1 | 1900 | 4 Cyl SOHC | 74.0 x 86.5 | 1488 | Iron | Alum | (I) 27.1<br>(E) 32.1 | (1) 40 DCN, DCNF, IDF w/32mm choke(s), (2) auto type side draft w/32mm venturi on I.R. manifold, or fuel injection. | 86.6 | 59.3 / 59.9 |
| Honda CRX Si (88-91) | 2 | 1900<br>*1948<br>**1995 | 4 Cyl SOHC | 75.0 x 90.0 | 1590 | Alum | Alum | (I) 29.0<br>(E) 25.0 | Fuel injection | 90.6 | 1560/1567 |
| Honda CRX Si (88-91) | 1 | 2075 | 4 Cyl SOHC | 75.0 x 90.0 (2.95x3.54) | 1590 (97.0) | Alum | Alum | (I) 29.0 / (1.14)<br>(E) 25.0/(0.98) | (1) 40 DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 90.6 | 1560/1567 (61.4/61.7) |
| Honda Prelude (84-87) | 2 | 2080<br>* 2132<br>** 2184 | 4 Cyl 12V SOHC | 80.0 x 91.0 | 1829 | Iron | Alum | (I) 30.0<br>(E) 35.0 | (2) auto type side draft w/30mm choke(s) on I.R. manifold | 96.5 | 62.1 / 62.1 |
| Jensen Healey | 2 | 2300<br>*2358<br>**2415 | 4 Cyl DOHC | 85.3 x 69.3 | 1973 | Alum | Alum | (I) 35.6<br>(E) 30.9 | (2) 1.75'' Stromberg | 2337 | 1448/1422 |
| Lancia Scorpion (1976) | 1 | 2030 | 4 Cyl DOHC | 3.31 x 3.12 | 1756 | Iron | Alum | (I) 1.67<br>(E) 1.44 | (2) Weber 40 IDF - 40IDI, (2) Solex C40P116, (2) DCOE w / 36mm choke(s) | 90.5 | 59.8 / 61.5 |
| *Lotus Europa (72-75)* | *2* | *1750<br>* 1794<br>** 1838* | *4 Cyl. DOHC* | *82.6 x 72.6* | *1558* | *Iron* | *Alum* | *(I) 39.8<br>(E) 33.7* | *(2) 1.75" Zenith-Stromberg or SU* | *92.0* | *57.6 / 57.1* |
| Lotus Super Seven | 1 | 91.7ci: 1530<br><br>60.8ci: 1045 | 4 Cyl OHV | 81.0 x 72.9 (3.19x2.87)<br><br>3.19 x 1.19 | 1503 (91.7)<br><br>997 (60.8) | Iron | Iron | 91.7:<br>(I) 36.6 (1.44)<br>(E) 30.2 (1.19)<br><br>60.8:<br>(I) 1.30 (E) 1.20 | (2) weber DCOE on I.R. manifold w/ 34mm choke(s) | 2235 (88.0) | 1293/1400 (50.9/55.1) |
| Lotus Super Seven Series Four | 1 | 1735 | 4 Cyl OHV | 81.0 x 77.7 (3.19x3.06) | 1599 (97.5) | Iron | Iron | (I) 38.4 / (1.51)<br>(E) 31.8/(1.25) | (1) Weber 32 DFM, DFD w/ 28mm primary & 28mm secondary, (1) Weber DCNF w/ 28mm choke(s). | 2286 (90.0) | 1331/1400 (52.4/55.1) |
| Lotus Mk 46, 54, 65 Europa | 1 | 1630 | 4 Cyl OHV | 75.9 x 81.0 (2.99x3.19)<br>77.0 x 84.1 (3.03x3.31) | 1470 (89.7)<br>1565 (95.5) | Alum | Alum | (I) 37.6 / (1.48)<br>(E) 31.2/(1.23) | (1) Solex 1 3/8" DIDSA2, (1) Weber 45 DCOE w / "Dual-Y" manifold | 2311 (91.0) | 1440/1440 (56.7/56.7) |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Honda Civic Si (92-95) | 15 x 7 | 5 | (F) 262 Vented Disc<br>(R) 201 Solid Disc | | 56 | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| *Honda Civic Si (99-00)* | *15 x 7* | *5* | *(F) 240 (9.4) Disc*<br>*(R) 239 (9.4) Disc* | | *60* | *Comp. Ratio limited to 11.0:1, Valve lift limited to .450".* |
| Honda Civic EX VTEC SOHC (92-95)<br>Honda Civic EX (92-95) | 15 x 7 | 5 | (F) 10.32<br>vented disc<br>(R) 7.91 solid disc | | 56 | Comp. Ratio limited to 12.5:1, Valve lift limited to .500".<br>Effective 10/1/11 Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| Honda CRX 1.5 (88-91) | 15 x 7 | 5 | (F) 240 Disc<br>(R) 180 x 30 Drum | | 33 (primary)<br>42 (secondary) | |
| Honda CRX / CRX Si (84-87) | 13 x 7 | 5 | (F) 231 Disc<br>(R) 180 x 30 Drum | | 42 | |
| Honda CRX Si (88-91) | 15 x 7 | 5 | (F) 9.49" vented disc<br>(R) 7.09x 1.50" drum, alt rear brake 9.41" solid disc | | 55 | Comp. Ratio limited to 12.0:1, Valve lift limited to .450". |
| Honda CRX Si (88-91) | 15 x 7 | 5 | (F) 241 (9.5) Disc<br>(R) 180 x 38<br>(7.1 x 1.5) Drum | (R) 239 (9.4) Disc | NA | Single 40 DCOE requires "dual Y" manifold w / no balance tubes or plenum. |
| Honda Prelude (84-87) | 13 x 7 | 5 | (F) 229 Vented Disc<br>(R) 237 Solid Disc | | NA | Comp. Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Jensen Healey | 15 x 7 | 5 | (F) 254 Disc<br>(R) 229 Drum | | NA | Comp. Ratio limited to 10.5:1, Valve lift limited to .450'' |
| Lancia Scorpion (1976) | 15 x 7 | 5 | (F & R) 8.9 Disc | (F&R) 254 x 10 Solid Disc | NA | Trunk mounted fuel cell is permitted. Fabric roof panel may be replaced with alternate material. The plastic front valence may be replaced by a component of alternate material provided its appearance remains stock. |
| *Lotus Europa (72-75)* | *13 x 7* | *4 or 5* | *(F) 248 disc*<br>*(R) 203 x 38.1 drum* | | | *Comp. Ratio limited to 11.0:1, Valve lift limited to .450"* |
| Lotus Super Seven | 13 x 6 | 4 | (F) 203 (8.0) Drum<br>(R) 178 (7.0) Drum | (F) 229 (9.0) Disc<br>#OAOB 405/6<br>(7/8" track increase)<br>(F) 244 (9.6) Disc | NA | Authorized frame modification: Info. available from SCCA. Headlights & associated hardware may be removed. Series 4 axle housing is permitted. Suspension components can pass through exterior bodywork. Front fenders may be modified as described here. The fender mounting flange shall be a minimum of 50 inches in length. At the rear of the fender, the lower edge of the mounting flange shall extend no higher than 4-1/2 inches above the undertray of the vehicle. At a point 6 inches rearward from the front of the flange, the fender shall be no narrower than 16-7/8 inches as measured along the upper curvature. At a point 18 inches rearward from the front of the flange, the fender shall be no narrower than 7 inches along the upper curvature and from 34 inches to 48 inches, the fender shall be no less than 3"inches along the upper curvature. From 48 inches rearward, a radius may provide a transition between the outer and the rearmost fender edges. The contours resulting from this modification shall be gradual and describe a smooth curve in plan view. A diagram is available from SCCA. No further modifications are allowed. |
| Lotus Super Seven Series Four | 13 x 6 | 4 | (F) 229 (9.0) Disc<br>(R) 229 (9.0) Drum | (F) 244 (9.6) Disc | NA | Headlights & associated hardware may be removed. NOTE: Rear edge of front fenders shall be 4.5" above body undertray. Floor pans: One (1) right, One (1) left, attached to bottom of frame tubes. Area beneath transmission / driveshaft shall remain open. |
| Lotus Mk 46, 54, 65 Europa | 13 x 7 | 4 or 5 | (F) 229 (9.0) Disc<br>(R) 203 (8.0) Drum | (F) 244 (9.6) Disc<br>(R) 231 (9.1) Disc from twin cam | NA | Renault R-16 (non-crossflow) cylinder head casting. Trunk mounted fuel cell is permitted. Any available transaxle with the same number of forward gears mounted in standard position. |
| Mazda 626 (84-87) | 15 x 7 | 5 | (F) 254 Solid Disc<br>(R) 231 Drum | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1 Valve lift limited to .450". |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mazda 626 (84-87) | 2 | 2000<br>* 2050<br>** 2100 | 4 Cyl SOHC | 86.0 x 86.0 | 1998 | Iron | Alum | (I) 44.0<br>(E) 36.0 | Carburetion or Fuel injection | 2510 | 60.5 / 60.3 |
| Mazda GLC / 323 (86-88) | 2 | 1800<br>* 1845<br>** 1890 | 4 Cyl SOHC | 78.0 x 83.6 | 1597 | Iron | Alum | (I) 38.1<br>(E) 32.1 | (2) auto type side draft w/32mm choke(s) on I.R. manifold, or fuel injection. | 94.5 | 57.4 / 58.4 |
| Mazda Miata 1.6L (90-97) | 2 | 2075<br>* 2127<br>** 2179 | 4 Cyl DOHC | 78.0 x 83.6 | 1597 | Iron | Alum | (I) 31.1<br>(E) 26.3 | Fuel injection | 2266 | 59.7 / 60.4 |
| Mercury Capri 1.6L (91-94) | 2 | 1950<br>*1999<br>**2048 | 4 Cyl DOHC | 78.0 x 83.6 | 1597 | Iron | Alum | (I) 31.1<br>(E) 26.3 | Fuel injection | 2406 | 1479/1524 |
| MGA 1500/1600 / 1622 Coupe & Roadster | 1 | 1862 | 4 Cyl OHV | 2.88 x 3.50<br>2.97 x 3.50<br>3.00 x 3.50 | 1469<br>1588<br>1622 | Iron | Iron | (I)1.63<br>(I) 1.57<br>(I) 1.50<br>(E) 1.44<br>(E) 1.35<br>(E) 1.28 | (2) 1.5" or 1.75" SU or Stromberg | 94.0 | 52.0 / 53.3 |
| MGB & MGB-GT | 1 | 1950 | 4 Cyl OHV | 80.3 x 88.9 (3.16x3.50) | 1798 (109.7) | Iron | Iron | (I) 39.9(1.57)<br>(I) 41.4(1.63)<br>(E)34.3(1.35) | (2) 1.75" SU or Stromberg | 2311 (91.0) | 1346/1351 (53.0/53.2) |
| Morgan 4/4 Mk.V | 1 | 1530 | 4 Cyl. OHV | 3.19 x 2.86 | 1498 | Iron | Iron | (I) 36.6<br>(E) 30.3 | Weber 28/36 DD or Weber 32/36; (2) Weber DCOEs on I.R. manifold with 34mm chokes | 96.0 | 51.5/52.3 |
| Nissan/Datsun PL510 | 1 | 1891 | 4 Cyl SOHC | 83.0 x 73.7 | 1595 | Iron | Alum | (I) 44.2<br>(I) 41.9<br>(E) 35.3<br>(E) 33.0 | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) auto type side draft w/ 36mm choke(s) on I.R. manifold. | 95.3 | 54.5 / 54.5 |
| Nissan/Datsun SPL 311/311-U | 1 | 1824 | 4 Cyl OHV | 3.43 x 2.63 | 1595 | Iron | Iron or Alum | (I) 1.86<br>(I) 1.66<br>(I) 1.69<br>(E) 1.47<br>(E) 1.38<br>(E) 1.26 | (2) Auto type side draft 45mm max. throttle bore w/ 38mm choke(s) or 46mm H46 Hitachi/SU on I.R. manifold | 89.8 | 54.7 / 51.7 |
| Nissan NX-2000 | 2 | 2300<br>*2358<br>**2415 | 4 Cyl DOHC | 86.0 x 86.0 (3.39 x 3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1524/1501 (60.0/59.1) |
| Nissan Sentra SE-R (90-94) | 2 | 2275<br>*2332<br>**2389 | 4 Cyl DOHC | 86.0 x 86.0 (3.39 x 3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1524/1501 (60.0/59.1) |
| Nissan 200-SX SE-R | 2 | 2275<br>*2332<br>**2389 | 4 Cyl DOHC | 86.0 x 86.0 (3.39 x 3.39) | 1998 (121.9) | Iron | Alum | (I) 34.2 / (1.35)<br>(E) 30.2/(1.19) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2431 (95.7) | 1537/1516 (60.5/59.7) |
| Opel GT | 1 | 1900 | 4 Cyl OHV | 93.0 x 69.9 | 1897 | Iron | Iron | (I) 40.0 / 42.0<br>(E) 34.0 | (1) 40 DCN, DCNF, IDF w/36mm choke(s), (2) auto type side draft w/36mm choke(s) on I.R. manifold, or fuel injection. | 95.7 | 53.4/54.6 |
| Opel Manta (71-75) | 1 | 1900 | 4 Cyl OHV | 93.0 x 69.9 | 1897 | Iron | Iron | (I) 40.0 / 42.0<br>(E) 34.0 | (1) 40 DCN, DCNF IDF w/36mm choke(s), (2) auto type side draft w/36mm choke(s) on I.R. manifold, or fuel injection. | 95.7 | 55.5 / 55.1 |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Mazda GLC / 323 (86-88) | 15 x 7 | 4 or 5 | (F) 238 Disc (R) 200 Drum | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1. Valve lift (measured as raced - w/ lash): .500" max. Level 1 dry sump, connecting rods, intake manifold porting, crankshaft, rocker arms and cam followers. |
| Mazda Miata 1.6L (90-97) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 10.0:1, Valve lift limited to .390". OEM hardtop allowed. 1994 Mazda Miata (1840cc) differential housing permitted, part #'s MA0227600A and MA0327100A. |
| Mercury Capri 1.6L (91-94) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Comp. Ratio limited to 10.0:1, Valve lift limited to .390". |
| MGA 1500/1600 / 1622 Coupe & Roadster | 15 x 7 | 4 | (F) 11.0 Disc (R) 10.0 Drum | (F) 10.0 Drum (F&R) 11.0 Disc | NA | It is permitted to replace wood floor boards with metal. MGB intake manifold permitted. Cylinder block (3 main bearing) from MGB. MGB 18G/18GA series 3 main bearing crankshaft allowed. |
| MGB & MGB-GT | 15 x 7 | 4 | (F) 273 (10.8) Disc (R) 254 (10.0) Drum | | NA | 17th 8152 (0.75") wheel cylinders, Alt. Manifold: Any individual runner manifold with runner length of 3.0-4.0" measured flange to flange. 4 speed gearbox w/o overdrive. |
| Morgan 4/4 Mk.V | 15 x 7 | 4 | (F) 280 disc (R) 229 drum | | NA | |
| Nissan/Datsun PL510 | 15 x 7 | 4 | (F) 9.1 Disc (R) 9.0 Drum | 1977-78 Datsun 240/260/ 280Z front rotors and calipers and rear aluminum drums are permitted. | NA | Allow any originally-delivered or superceding cylinder ead. Alternate cylinder head: P/N: 11041-V9182 casting #V912. |
| Nissan/Datsun SPL 311/311-U | 15 x 7 | 4 or 5 | (F) 11.2 Disc (R) 9.0 Drum | | NA | 1977-78 Datsun 240/260/280Z front rotors and calipers and rear aluminum drums are permitted. |
| Nissan NX-2000 | 15 x 7 | 5 | (F) 249 (9.8) Disc (R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 11.0:1. Valve lift (measured as raced - w/ lash): .450" max. |
| Nissan Sentra SE-R (90-94) | 15 x 7 | 5 | (F) 249 (9.8) Disc (R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 11.0:1. Valve lift (measured as raced - w/ lash): .450" max. |
| Nissan 200-SX SE-R | 15 x 7 | 5 | (F) 249 (9.8) Disc (R) 234 (9.2) Disc | | stock throttle body I.D. | Comp Ratio limited to 11.0:1. Valve lift (measured as raced - w/ lash): .450" max. |
| Opel GT | 13 x 7 | 4 | (F) 247 Disc (R) 229 Drum | (F) 247 Vented Discs and calipers from Opel Omega / 75 Opel 1900 Ascona / Manta, kit # 91305079. | stock throttle body I.D. | |
| Opel Manta (71-75) | 13 x 7 | 4 | (F) 9.7 Disc (R) 9.0 Drum | (F) 247 Vented Discs and calipers from Opel Omega / 75 Opel 1900 Ascona / Manta, kit # 91305079. | stock throttle body I.D. | |
| Opel 1900 | 13 x 7 | 4 | (F) 9.7 Disc (R) 9.0 Drum | (F) 247 Vented Discs and calipers from Opel Omega / 75 Opel 1900 Ascona / Manta, kit # 91305079. | stock throttle body I.D. | |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Opel 1900 | 1 | 1900 | 4 Cyl OHV | 93.0 x 69.9 | 1897 | Iron | Iron | (I) 40.0 / 42.0 (E) 34.0 | (1) 40 DCN, DCNF IDF w/36mm choke(s), (2) auto type side draft w/36mm choke(s) on I.R. manifold, or fuel injection. | 95.7 | 55.5 / 55.1 |
| Porsche 356, A, C (1500, 1600)C (1600) SC,B, Super 90 Cabriolet | 1 | 1840 | 4 Cyl OHV | 3.25 x 2.91 3.15 x 2.91 | 1582 1488 | Alum | Alum | (I) 1.58 (E) 1.34 | (2) Zenith 32 NDIX, (2) Solex 32 PBIC, (2) Solex 40 PBIC, (2) Solex P II 4 or PJ54. 38mm choke(s) req'd. | 82.7 | 55.0 / 53.7 |
| Porsche 912 Coupe / Targa (-1969) | 1 | 1870 | 4 Cyl OHV | 3.25 x 2.91 | 1582 | Alum | Alum | (I) 1.58 (E) 1.34 | (2) Solex PII-4. 38mm chok(s) req'd. | 87.0 or 89.2 | 57.5 / 56.2 |
| Porsche 914-4 | 1 | 1970 | 4 Cyl OHV | 90.0 x 66.0 93.0 x 66.0 | 1679 1795 | Alum | Alum | (I) 1.55/1.65 (E) 1.30/1.34 | (2) Solex 40 PII-4, (2) weber 40 IDF, (2) Del'Orto 40mm. 38mm choke(s) req'd. | 96.5 | 57.0/58.2 |
| Porsche 924 (76-84) | 2 | 2125 *2178 **2231 | 4 Cyl SOHC | 86.5 x 84.4 | 1984 | Iron | Alum | (I) 40.0 (E) 33.0 | Fuel Injection or (2) Auto-type w/ 30mm choke(s) | 2400 | 1420 / 1392 |
| Saab 900S (85-94) | 2 | Sedan: 2160 *2214 **2268 Conv.: 2260 *2317 **2373 | 4 Cyl DOHC | 90.0 x 78.0 | 1985 | Iron | Alum | (I) 32.0 (E) 29.0 | Fuel injection | 2515 | 60.5 / 60.9 |
| Saturn SL2/SC/ SC2 (91-95) | 2 | 2235 * 2291 ** 2347 | 4 Cyl DOHC | 82.0 x 90.0 | 1901 | Alum | Alum | (I) 32.3 (E) 27.4 | Fuel Injection | 2601 except 91-96 coupe: 2520 | 61.0 / 60.2 |
| Sunbeam Alpine I, II, III, IV, V, & Harrington LeMans | 1 | 1976 | 4 Cyl OHV | 3.21 x 3.25 3.21 x 3.00 3.11 x 3.00 | 1725 1592 1494 | Iron | Alum | (I) 1.50/1.48/ 1.43/1.44 (E) 1.21/1.18 1.17/1.18 | (2) Zenith-Stromberg 150CD, (1) Solex 32 PAIA, (1) Zenith 36 WIP2 | 86.0 | 55.1 / 54.0 |
| Suzuki Swift GT & GTi | 1 | 1691 | 4 Cyl DOHC | 2.91 x 2.97 | 1299 | Alum | Alum | (I) 29.0 (E) 23.9 | (1) 40 DCOE, (2) auto type side draft on I.R. manifold, 32mm choke(s) required, or fuel injection, alt. 52mm throttle body allowed. | 89.3 | 58.4 / 57.4 |
| Toyota Celica 94-99 | 2 | 2150 * 2204 ** 2258 | 4Cyl. DOHC | 81x85.5 3.19/3.37 | 1762 | Iron | Alum | (I) 32/1.26 (E) 27/1.06 | Fuel injection | 2540 | 64.0 / 63.2 |
| Toyota Celica GT (00-05) | 2 | 2250 *2306 **2363 | 4Cyl. DOHC | 79.0 x 91.5 | 1794 | Alum | Alum | (I) 32.0 (E) 27.5 | | 102.4 | 62.9/62.5 |
| Toyota Corolla 2TC (71-74) | 1 | 1853 | 4 Cyl OHV | 85.0 x 70.0 | 1588 | Iron | Alum | (I) 41.9 (I) 41.0 (E) 36.0 | (1) 40 DCN, DCNF, IDF, (2) auto type side draft w/ 36mm choke(s) on I.R. manifold. | 91.9 | 54.5 / 55.5 |
| Toyota MR2 (1991-1998) | 2 | 2300 * 2358 ** 2415 | 4 Cyl. DOHC | 3.43 x 3.59 | 132 c.i. | Iron | Alum | (I) 1.26" (E) 1.063" | Fuel Injection | 94.5" | 62.1/61.3 |
| Triumph TR2/3/4 | 1 | 2060 | 4 Cyl OHV | 83.1 x 92.0 86.1 x 92.0 | 1991 2138 | Iron | Iron | (I) 39.6 (E) 33.0 | (2) 1.75" SU | 2235 | 1346/1334 1387/1361 |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Porsche 356, A, C (1500,1600), C (1600) SC, B, Super 90 Cabriolet | 15 x 7 | 4 | (F) 10.8 Disc<br>(R) 11.2 Disc | (F & R)11.0 Drum<br># 64442095-60mm front brakes & vent backing plates. 1969-1975 Porsche 911/912 M calipers. | NA | 64451101018 - Alum front hood, 64451201018 - Alum rear hood, 64453100410 - Alum door, 64453100310 - Alum door. Cylinder barrels of alternate material are permitted. |
| Porsche 912 Coupe / Targa (-1969) | 15 x 7 | 4 or 5 | (F) 11.1 Disc<br>(R) 11.2 Disc | 901351 / 35240115 Vented Rotors | NA | Cylinder barrels of alternate material are permitted. |
| Porsche 914-4 | 15 x 7 | 4 or 5 | (F) 11.1 Disc<br>(R) 11.2 Disc | 914-6 calipers & rotors allowed. Front "M" calipers may be used on rear rotors. | NA | Standard intake manifold: Porsche part #021 129 705N. Alternate manifolds with the same length and configuration (4-5¼" center line axis) are allowed. (i.e. Pierce manifold part # 99004.822. Top panel may remain in place is securley bolted or pinned. Cylinder barrels of alternate material are permitted. |
| Porsche 924 (76-84) | 15 x 7 | 5 | (F) 282 Vented Disc<br>(R) 290 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". Can use the stock fuel tank if stock rear bumper and bumper support structure retained. |
| Saab 900S (85-94) | 15 x 7 | 5 | (F) 276 Disc<br>(R) 276.5 Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1 Valve lift limited to .380". |
| Saturn SL2/ SC.SC2 (91-95) | 15 x 7 | 5 | (F) 251 x 18 Vented Disc<br>(R) 245 x 11 Solid Disc | | stock throttle body I.D. | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Sunbeam Alpine I, II, III, IV, V, & Harrington LeMans | 13 x 6 | 4 | (F) 10.0 Disc<br>(R) 9.0 Drum | | NA | Laycock overdrive (0.803) |
| Suzuki Swift GT & GTi | 15 x 7 | 5 | (F) 248 Disc<br>(R) 237 Disc | | 52 (alternate) | "Dual Y" manifold required, no plenum or balance tubes. |
| Toyota Celica 94-99 | 15x7 | 5 | (F) 253 vented<br>(R) 200 Drum | | NA | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Toyota Celica GT (00-05) | 15 x 7 | 5 | (F) 254 Disc<br>(R) 300 Drum | | Stock | Comp Ratio limited to 11.0:1. Valve lift limited to 450" |
| Toyota Corolla 2TC (71-74) | 15 x 7 | 4 or 5 | (F) 229 Disc<br>(R) 231 Drum | (F) 10.0 Solid Disc Rotors and Calipers from 73 Corona | NA | |
| Toyota MR2 (1991-1998) | 15 x 7 | 5 | (F) 10.16" vented<br>(R) 10.35" vented | | | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". |
| Triumph TR2/3/4 | 15 x 7 | 4 | (F) 279 (11.0) Disc<br>(R) 229 (9.0) Drum | (F) Calipers & discs from TR-6 (std. or alt.)<br>(R) 254 (10.0) Drum<br>Drum may be 9" or 10" and of alfin or steel. | NA | Front apron assembly may be made of alternate material. Laycock overdrive may use 5 speed gearbox without overdrive. |
| Triumph TR7 | 15x7 | 4 or 5 | (F) 9.8 disc<br>(R) 8.0 drum | (F) 10.5 disc vented<br>(R) 9.0 drum or 10.5 x .78 disc<br>Discs from TR8 and alt.<br>JRT brake kit- STN 0068 | | Comp. Ratio limited to 11.0:1, Valve lift limited to .450" |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Triumph TR7 | 2 | 2200<br>* 2255<br>**2310 | 4 Cyl. SOHC | 3.6 x 3.1 | 121.9 c.i. | Iron | Alum | (I) 1.56″<br>(E) 1.28″ | SU or Zenith Stromberg carbs | 85″ | 60.3″/59.0″ |
| Triumph Spitfire Mk.III | 1 | 1620 | 4 Cyl OHV | 2.90x2.992 | 1296 | Iron | Iron | (I) 1.30<br>(E) 1.17 | (2) 1.25″ or 1.50″ Stromberg or SU, (1) CDSE Stromberg, (1) 1.50″ SU, maximum spacer block (isolator) length 1.25″. | 83.0 | 53.6 / 52.6 |
| Triumph Spitfire Mk. IV & 1500 | 1 | 1296:<br>1620<br>1493:<br>1700 | 4 Cyl OHV | 2.90 x 2.992<br>2.90 x 3.44 | 1296<br>1493 | Iron | Iron | (E) 1.17<br>1296cc:<br>(I) 1.30<br>1493cc:<br>(I) 1.44 | 1296cc = (2) 1.25″ or 1.50″ SU or Stromberg, 1493cc = (1) 1.5″ Stromberg type SU, (1) 1.5″ SU, or (1) 1.75″ SU | 83.0 | 53.6 / 54.6 |
| Turner 1500 | 1 | 1700 | 4 Cyl OHV | 3.19 x 2.86 | 1498 | Iron | Iron | (I) 1.45<br>(E) 1.20 | (1) 28/36 DCD 22, 32/36 DGN, 36 DCNF w/30mm choke(s), (1) 40 DCNF w/ 30mm choke(s), (2) Weber DCOE on I.R. manifold w/ 30mm choke(s). | 82.0 | 48.9 / 48.2 |
| Volkswagen Golf GTI<br>(87-89) | 2 | 2050<br>* 2101<br>** 2152 | 4 Cyl DOHC | 81.0 x 86.4<br>(3.19x3.40) | 1780<br>(108.6) | Iron | Alum | (I) 32.0 / (1.26)<br>(E) 28.0/(1.10) | Fuel injection | 2472<br>(97.3) | 60.5 / 60.2 |
| Volkswagen Golf GTI<br>(90-92) | 2 | 2200<br>* 2255<br>** 2310 | 4 Cyl. DOHC | 82.5 X 92.8<br>(3.25X3.65) | 1984<br>(121.05) | Iron | Alum | (I) 32.0 / (1.26)<br>(E) 28.0/(1.10) | Fuel injection | 2472<br>(97.3) | 60.5 / 60.2 |
| Volkswagen Golf 1.8<br>(85-92) | 1 | 1950 | 4 Cyl SOHC | 81.0 x 86.4<br>(3.19x3.40) | 1780<br>(108.6) | Iron | Alum | (I) 40.0 / (1.57)<br>(E) 33.0/(1.30) | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2472<br>(97.3) | 60.5 / 60.2 |
| Volkswagen Golf III / Jetta III<br>(93-98) | 2 | 1995<br>* 2045<br>** 2095 | 4 Cyl SOHC | 82.5 x 92.8 | 1984 | Iron | Alum | (I) 39.5<br>(E) 32.9 | Fuel Injection | 97.3 | 62.4 / 61.7 |
| Volkswagen Golf IV/ Jetta IV<br>(99-05) | 2 | 2050<br>* 2101<br>** 2153 | 4 Cyl. SOHC | 3.25 x 3.65 | 121 | Iron | Alum | (I) 1.1.56″<br>(E) 1.30″ | Fuel injection | 98.9″ | 63.9 / 63.1 |
| Volkswagen Jetta (includes GLI)<br>(82-84) | 1 | 1920 | 4 Cyl SOHC | 79.5 x 86.4<br>(3.13x3.40)<br>81.0 x 86.4<br>(3.19x3.40) | 1715<br>(104.6)<br>1780<br>(108.6) | Iron | Alum | 1715:<br>(I) 34.0 / (1.34)<br>(E) 31.0/(1.22)<br>1780:<br>(I) 40.0 / (1.57)<br>(E) 33.0/(1.30) | (1) 40 DCN, DCNF, IDF w/ 38mm choke(s), (2) Auto-type sidedraft w/ 34mm choke(s) on I.R. manifold, or fuel injection. | 2400<br>(94.5) | 58.9 / 57.2 |
| Volkswagen Jetta 1.8<br>(85-92) | 1 | 1950 | 4 Cyl SOHC | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0<br>(E) 33.0 | (1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2472 | 60.5 / 60.2 |
| Volkswagen Rabbit 1457/1471 (includes Cabrio-let/Convertible | 1 | 1520 | 4 Cyl SOHC | 76.5 x 80.0<br>79.5 x 73.4 | 1471<br>1457 | Iron | Alum | (I) 40.0<br>(I) 34.0<br>(E) 33.0<br>(E) 31.0 | (1) 40 DCN, DCNF, IDF w/ 32mm choke(s), or fuel injection. | 94.5 | 58.9 / 57.2 |
| Volkswagen Rabbit 1588 (includes Cabrio-let /Convertible | 1 | 1663 | 4 Cyl SOHC | 79.5 x 80.0 | 1588 | Iron | Alum | (I) 34.0<br>(I) 40.0<br>(E) 31.0<br>(E) 33.0 | (1) 40 DCN, DCNF, IDF w/ 34mm choke(s), or (2) auto type side draft w/ 34mm choke(s) on I.R. manifold, or fuel injection, alternate throttle body w/ 1.381 primary and 2.051 secondary allowed. | 94.5 | 58.9 / 57.2 |
| Volkswagen Rabbit (includes Convertible) 1715 / 1780 | 1 | 1853 | 4 Cyl SOHC | 79.5 x 86.4<br>(3.13x3.40)<br>81.0 x 86.4<br>(3.19x3.40) | 1715<br>(104.6)<br>1780<br>(108.6) | Iron | Alum | see Jetta | (1) 40 DCN, DCNF, IDF w/ 38mm choke(s). (2) Auto-type sidedraft w/34mm choke(s) on I.R. manifold, or fuel injection. | 2400<br>(94.5) | 58.9 / 57.2 |

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Triumph Spitfire Mk.III | 13 x 6 | 4 | (F) 9.0 Disc<br>(R) 7.0 Drum | (F) 9.7 Disc<br>(R) 8.0 Drum<br>May use Triumph GT6 caliper as alternate front caliper. | NA | Laycock "D" (0.802). NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 4/1/82. |
| Triumph Spitfire Mk. IV & 1500 | 13 X 6 | 4 | (F) 9.0 Disc<br>(R) 7.0 Drum | (F) 9.7 Disc<br>(R) 8.0 Drum<br>May use Triumph GT6 caliper as alternate front caliper. | NA | Parts may not be interchanged between two engine units, Laycock "D" (0.802). 1493cc may use (2) 1.25" SU carbs on 1296cc. manifold @ 1830 lbs. NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 4/1/82. |
| Turner 1500 | 13 x 6 | 4 | (F) 9.0 Disc<br>(R) 8.5 Drum | (F) 9.7 Disc (Spitfire) | NA | Hobbs mech-a-matic gearbox ratios: 1=3.78, 2=2.32, 3=1.46, 4=4.00. 125E crankshaft |
| Volkswagen Golf GTI (87-89) | 15 x 7 | 5 | Factory spec @ all 4 wheels. | | 35 (primary)<br>52 (secondary) | Comp. Ratio limited to 11.0:1, Valve lift limited to .450". Can use stock fuel tank if stock rear bumper and bumper support structure is retained. |
| Volkswagen Golf GTI (90-92) | 15 x 7 | 5 | | Factory spec @ all 4 wheels. | NA | Comp. Ratio limited to 10.0:1, Valve lift limited to .330". Can use stock fuel tank if stock rear bumper and bumper support structure is retained. |
| Volkswagen Golf 1.8 (85-92) | 15 x 7 | 5 | (F) 239 (9.4) Disc<br>(R) 180 x 30<br>(7.1 x 1.2) Drum | (F) 239 (9.4) Vented Disc<br>(R) 239 (9.4) Disc | 35 (primary)<br>52 (secondary) | Original carbureted manifold or alternate manifold is permitted. VW cyl. head #026103351BF or #026103265HX permitted. Can use stock fuel tank if stock rear bumper and bumper support structure is retained. |
| Volkswagen Golf III / Jetta III (93-98) | 15 x 7 | 5 | (F) 257 Disc<br>(R) 227 DIsc or 200mm drums | | stock throttle body I.D. | Comp. Ratio limited to 12.0:1 Valve lift limited to .500". Can use stock fuel tank if stock rear bumper and bumper support structure is retained. |
| Volkswagen Golf IV/ Jetta IV (99-05) | 15 x 7 | 5 | (F) 11.12x.74" vented<br>(R) 9.13x.35" solid | | | Comp. Ratio limited to 12.0:1, Valve lift limited to .500". Use of stock fuel tank allowed if stock rear bumper and bumper support structure retained. |
| Volkswagen Jetta (includes GLI) (82-84) | 15 x 7 | 5 | (F) 239 (9.4) Disc<br>(R) 180 x 30<br>(7.1 x 1.2) Drum | (F) 239 (9.4) Vented Disc | 35 (primary)<br>52 (secondary) | Intake manifold unrestricted w/ single downdraft carburetor. VW cyl. head #026103351BF or #026103265HX permitted. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Jetta 1.8 (85-92) | 15 x 7 | 5 | (F) 239 Disc<br>(R) 180 x 30 Drum | (F) 239 Vented Disc<br>(R) 239 Disc | 35 (primary)<br>52 (secondary) | Original carbureted manifold or alternate manifold is permitted. VW cyl. head #026103351BF or #026103265HX permitted. Can use stock fuel tank if stock rear bumper and bumper support structure is retained. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Rabbit 1457/1471 (includes Cabriolet/Convertible | 13 x 7 | 4 or 5 | (F) 9.41 Disc<br>(R) 7.86 x 1.57 Drum | | 35 (primary)<br>44 (secondary)<br>35/52 (alternate) | Factory roll bar must be removed on Cabriolet. Intake manifold unrestricted with single down draft carburetor. Only 1457cc engine may use fuel injection. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Rabbit 1588 (includes Cabriolet /Convertible) | 13 x 7 | 4 or 5 | (F) 9.41 Disc<br>(R) 7.1 x 1.57 Drum | | 35 (primary)<br>44 (secondary)<br>35/52 (alternate) | Intake manifold unrestricted with single down draft carburetor. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Rabbit (includes Convertible) 1715 / 1780 | 15 x 7 | 5 | (F) 239 (9.4) Disc<br>(R) 180 x 30<br>(7.1 x 1.2) Drum | (F) 239 (9.4)<br>Vented Disc | 35 (primary)<br>52 (secondary) | Intake manifold unrestricted w/ single downdraft carburetor. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Scirocco 1457/1471 | 13 x 7 | 4 or 5 | (F) 9.41 Disc<br>(R) 7.1 x 1.19 Drum | Front calipers from 1980 Scirocco/Rabbit. | 35 (primary)<br>44 (secondary)<br>35/52 (alternate) | Intake manifold unrestricted with single down draft carburetor. Only 1457cc engine may use fuel injection. VW cyl. heads 026103373G, AA, H and F permitted. |

| FP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/(in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheel-base mm/ (in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Volkswagen Scirocco 1457/1471 | 1 | 1520 | 4 Cyl SOHC | 76.5 x 80.0<br>79.5 x 73.4 | 1471<br>1457 | Iron | Alum | (I) 40.0<br>(I) 34.0<br>(E) 33.0<br>(E) 31.0 | (1) 40 DCN, DCNF, IDF w/ 32mm choke(s), or fuel injection. | 94.5 | 58.9 / 57.2 |
| Volkswagen Scirocco 1588 | 1 | 1663 | 4 Cyl SOHC | 79.5 x 80.0 | 1588 | Iron | Alum | (I) 40.0<br>(E) 33.0 | (1) 40 DCN, DCNF, IDF w/ 32mm choke(s), or (2) auto type side draft w/ 34mm choke(s) on I.R. manifold, or fuel injection, alternate throttle body w/ 1.381 primary and 2.051 secondary allowed. | 94.5 | 58.9 / 57.2 |
| Volkswagen Scirocco 1715 / 1780 | 1 | 1853 | 4 Cyl SOHC | 79.5 x 86.4<br>(3.13x3.40)<br>81.0 x 86.4<br>(3.19x3.40) | 1715<br>(104.6)<br>1780<br>(108.6) | Iron | Alum | see Jetta | (1) 40 DCN, DCNF, IDF w/ 38mm choke(s). (2) Auto-type sidedraft w/34mm choke(s) on I.R. manifold, or fuel injection. | 2400<br>(94.5) | 58.9 / 57.2 |
| Volvo P-1800/E/S /1800ES Sports Coupe | 1 | 1995 | 4 Cyl OHV | 3.31 x 3.15<br>3.50 x 3.15 | 1780<br>1982 | Iron | Iron | (I) 1.57 / 1.65 / 1.73<br>(E) 1.38 | (2) 1.75" SU, (2) 1.75" CDSE Stromberg, (2) 1.75" SU HS6 or fuel injection. | 96.5 | 55.4 / 55.4 |
| Volvo 142 / 142E | 1 | 2050 | 4 Cyl OHV | 88.9 x 80.0<br>(3.50x3.15) | 1986<br>(121.1) | Iron | Iron | (I) 44.0 / (1.73)<br>(E) 35.0/(1.38) | (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or fuel injection. | 2616<br>(103.0) | 1415/1415<br>(55.7/55.7) |

* Alternate transmission w/ stock type syncros
** Alternate transmission w/ non-stock type syncros (i.e. dog-ring)

| FP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/(in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Volkswagen Scirocco 1588 | 13 x 7 | 4 or 5 | (F) 9.41 Disc<br>(R) 7.1 x 1.19 Drum | | 35 (primary)<br>44 (secondary)<br>35/52 (alternate) | Intake manifold unrestricted with single down draft carburetor. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Scirocco 1715 / 1780 | 15 x 7 | 5 | (F) 239 (9.4) Disc<br>(R) 180 x 30<br>(7.1 x 1.2) Drum | (F) 239 (9.4) Vented Disc | NA | Intake manifold unrestricted w/ single downdraft carburetor. VW cyl. heads 026103373G, AA, H and F permitted for 1780 only. |
| Volvo P-1800/E/S /1800ES Sports Coupe | 15 x 7 | 4 | (F) 11.0 Disc<br>(R) 9.0 Drum | (F) 10.7 Disc<br>(R) 11.6 Disc | stock throttle body I.D. | Allow B20-E engine assembly |
| Volvo 142 / 142E | 15 x 7 | 5 | (F) 272 (10.7) Disc<br>(R) 295 (11.6) Disc | | stock throttle body I.D. | Bosch Fuel Injection |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alfa Romeo Giulietta Sprint & Spider, 750 & 101, Normale (Spider) & Veloce (Super Spider) | 1 | 2080 | 4 Cyl SOHC | 2.91 x 2.95 | 1290 | Alum | Alum | (I)1.46 (E)1.34 | (2) auto type 30mm side-drafts 2030 with downdraft solex | Sprint: 93.7 750 Spider: 86.6 101 Spider: 88.6 | 55.6 / 54.6 |
| Austin-Healey Sprite Mk I,II, III, IV MG MIdget Mk I, II, III, IV | 1 | 1420 | 4 Cyl OHV | 2.48 x 3.00 | 948 | Iron | Iron 2A629 12A185 12G202 | (I) 1.00 (E) 1.00 (I) 1.16 | (2) 1.25" SU or Stromberg | 80.0 | 50.2 / 48.7 |
| Austin-Healey Sprite Mk I, II, III, IV MG Midget Mk I, II, III, IV & 1500 | 1/2 See Notes | 1575 | 4 Cyl OHV | 2.78 x 3.20 | 1275 | Iron | Iron | (I) 1.31 (E) 1.16 | (2) 1.25" SU w/ no modifications | 80.0 | 50.2 / 48.7 |
| Austin-Healey Sprite Mk I, II, III, IV MG Midget (ALL) | 2 | 1445 *1481 **1517 | 4 Cyl OHV | 2.78 x 3.20 | 1275 | Iron | Iron | (I) 1.31 (E) 1.16 | (2) 1.25" SU w/ no modifications | 80.0 | 50.2 / 48.7 |
| Austin-Healey Sprite Mk I, II, III, IV MG Midget (ALL) | 2 | 1395 *1430 **1465 | 4 Cyl OHV | 2.54 x 3.30 | 1098 | Iron | Iron | (I) 1.22 (E) 1.00 | (2) 1.25" SU w/ no modifications | 80.0 | 50.2 / 48.7 |
| Austin-Healey Sprite Mk.I, II, III, IV MG Midget Mk.I, II, III, IV, Midget 1500 | 1 | 1660 | 4 Cyl OHV | 2.54 x 3.30 | 1098 | Iron | Iron | (I) 1.31 (E) 1.16 | (2) 1.25" SU or Stromberg, (2) 1.50" SU or Stromberg, (2) 1.25" SU or Stromberg w/ 34mm throttle plates on original intake manifold, maximum spacer block (isolator) length of 1.25". | 80.0 | 50.2 / 48.7 |
| BLMI Austin/Morris Mini-Cooper 1275 | 2 | 1385 * 1420 ** 1454 | 4 Cyl OHV | 2.78 x 3.20 | 1275 | Iron | Iron | (I) 1.406 (E) 1.219 | (1) 1.75" SU side draft (2) 1.25" SU side drafts | 80.2 | 53.0 / 53.0 |
| BLMI Austin/Morris Mini Cooper | 1/2 See Notes | 1575 | 4 Cyl OHV | 2.78 x 3.20 | 1275 | Iron | Iron | (I) 1.31 (I) 1.406 (E) 1.16 (E) 1.219 | (2) 1.25" SU w/ no modifications, (1) 1.75" SU | 80.2 | 53.0 / 53.0 |
| BMW 1600 (68-71) | 2 | *1900 * 1948 ** 1995* | 4 Cyl OHV | 84.0 x 71.0 | 1574 | Iron | Alum | (I) 42.0 (E) 35.0 | Carburetion | 98.4 | 56.5 / 56.5 |
| Dodge Colt (79-84) | 2 | 1850 * 1896 ** 1943 | 4 Cyl. SOHC | 76.9 x 86.0 | 1597 | Iron | Alum | (I) 38.3 (E) 31.3 | Carbureted | 90.6 | 57.3 / 56.9 |
| Fiat 124 Spider, Sport Coupe & Coupe (95.3 wheelbase only) | 1 | 2250 | 4 Cyl DOHC | 3.15 x 2.81 | 1438 | Iron | Alum | (I) 1.64 (E) 1.43 | (1) Weber 34 DFH-1, Weber 34 DMSA-1, or 34 DMS 201. | 89.9 | 56.7 / 55.4 |
| Fiat 124 Sport Coupe & Spider (2281 wheelbase only) | 2 | 2055 * 2106 ** 2158 | 4 Cyl DOHC | 80.0 x 79.3 80.0 x 80.0 | 1592 1608 | Alum | Alum | (I) 41.7 (E) 36.3 | (1) 40 DCNF w/ 32mm choke(s) req'd. | 2281 or 2421 | 1441 / 1408 |

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Alfa Romeo Giulietta Sprint & Spider, 750 & 101, Normale (Spider) & Veloce (Super Spider) | 15 x 7 | 4 or 5 | (F)10.3 Drum (R)10.0 Drum | (F) 10.6 Disc (girling), (R) 10.5 Drum, (F) 10.7 Disc | NA | Sebring headrest. |
| Austin-Healey Sprite Mk I,II, III, IV MG MIdget Mk I, II, III, IV (948) | 13 x 6 | 4 | (F&R) 7.0 Drum | (F) 8.2 Disc (F) 9.12 Disc #208715, calipers: #27H, 27H-4651 (R) RH BTA 566, LH BTA567 backing plates (R)GWC1102 wheel cyls | NA | Mk.III transmission case permitted. Battery tray may be removed. Mk.I Body modification: Behind drivers seat rear deck only, width of shoulder or seat, depth 6" max. |
| Austin-Healey Sprite Mk. I, II, III, IV MG Midget Mk I, II, III, IV & 1500 | 13 x 6 | 4 | (F) 8.2 Disc (R) 7.0 Drum | (F) 9.12 Disc #208715, calipers: #27H, 27H-4651 | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Drivetrain Level 2 preparation only. Listed spec line weight does not change with alternate or stock transmission. Battery tray may be removed. Mk.I Body modification: Behind driver's seat rear deck only, width of shoulder or seat, depth 6" max. |
| Austin-Healey Sprite Mk. I, II, III, IV MG Midget (ALL) (1275) | 13 x 6 | 4 | Factory Spec @ all 4 wheels | (F) 9.12 Disc #208715, calipers: #27H, 27H-4651 | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Mk.I Body modification: Behind driver's seat rear deck only, width of shoulder or seat, depth 6" max. |
| Austin-Healey Sprite Mk.I, II, III, IV MG Midget (ALL) (1098) | 13 x 6 | 4 | Factory Spec @ all 4 wheels | (F) 9.12 Disc #208715, calipers: #27H, 27H-4651 | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Mk.I Body modification: Behind driver's seat rear deck only, width of shoulder or seat, depth 6" max. |
| Austin-Healey Sprite Mk.I, II, III, IV MG Midget Mk.I, II, III, IV, Midget 1500 | 13 x 6 | 4 | (F) 8.2 Disc (R) 7.0 Drum | (F) 9.12 Disc #208715, Calipers: #27H, 27H-4651 | NA | Battery tray may be removed. Alt. crankshaft: Ferrous material, stock configuration & journal dimensions (no hollow core), max. undersize is 0.040". NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 04/01/82. Mk.I Body modification: Behind driver's seat rear deck only, width of shoulder or seat, depth 6" max. |
| BLMI Austin/Morris Mini-Cooper 1275 | 13 x 7 | 4 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Alternate intake manifold (#CAM-6618). |
| BLMI Austin/Morris Mini Cooper | 13 x 6 | 4 | (F) 8.4 Disc (R) 7.0 Drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Drivetrain Level 2 preparation only. Listed spec line weight does not change with alternate or stock transmission. Battery tray may be removed. Alternate intake manifold #CAM-6618. |
| BMW 1600 (68-71) | 13 x 7 | 4 | (F) 257 Disc (R) 232 Drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Factory 2bbl intake manifold from 2002 is permitted. *40 DCN or DCNF with 32mm chokes permitted.* (2) 40 DCOE sidedraft carbs w/ 32mm choke(s) permitted @ *2000 *2050 **2100*. Alternate differential from 75-83 e21 allowed. |
| Dodge Colt (79-84) | 13 x 7 | 4 | (F) 227 disc (R) 229 drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Fiat 124 Spider, Sport Coupe & Coupe (95.3 wheelbase only) | 13 x 6.5 | 5 | (F & R) 8.94 DIsc | (F & R) 10.0 x .40 Disc (Lancia) Alt. rotor: #82346805. | NA | |
| Fiat 124 Sport Coupe & Spider (2281 wheelbase only) | 13 x 6.5 | 5 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .425". |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiat Spider & Racer (-1973) | 1 | 1477 | 4 Cyl. OHV | 2.56 x 2.50<br>2.56 x 2.68 | 843<br>903 | Iron | Alum | (I) 1.146<br>(E) 1.063 | (1) 30 DICA, (1)Weber 4226434 (30/30), (1) 34 DMSA, (1) 32/36 DG Series | 79.8 | 49.5 / 51. |
| Fiat X-1/9 & Bertone 1500 | 2 | 1840<br>*1886<br>**1932 | 4 Cyl SOHC | 3.40 x 2.52 | 1498 | Iron | Alum | (I) 1.43<br>(E) 1.31 | (1) 32 DTMR or 32 DATRA, or fuel injection. (1) 40 DCNF w/ 32mm choke(s) req'd. | 86.7 | 56.3 / 56.6 |
| Fiat X-1/9 1300 | 2 | 1695<br>*1737<br>**1780 | 4 Cyl SOHC | 86.0 x 55.5 | 1290 | Iron | Alum | (I) 1.43<br>(E) 1.23 | (1) 32 DTMR or 32 DATRA. (1) 40 DCNF w/ 32mm choke(s) req'd. | 86.7 | 56.3 / 56.6 |
| Fiat X-1/9 1300 | 1 | 2115 | 4 Cyl SOHC | 86.0 x 55.5 | 1290 | Iron | Alum | (I) 1.43<br>(E) 1.23<br>(E) 1.21 | (1) Weber 32 DMTR w/ 32mm primary & secondary throttle bores, (1) 32 DATRA/100 w/ 32mm primary & secondary throttle bores, (1) 40 DCNF w/ 32mm choke(s). | 86.7 | 56.3 / 56.6 |
| Fiat X-1/9 1500 | 1/2 See Notes | 2000 | 4 Cyl SOHC | 3.40 x 2.52 | 1498 | Iron | Alum | (I) 1.43<br>(E) 1.31 | (1) 40 DCNF w/ 32mm choke(s), (1) 32 DTMR or 32 DATRA, or fuel injection | 86.7 | 56.3 / 56.6 |
| Ford Cortina GT (64-68) | 2 | 1790<br>* 1835<br>** 1880 | 4 Cyl. OHV | 3.19 x 3.06 | (97.5) | Iron | Iron | (I) 1.50<br>(E) 1.16 | 32/36 DGV | 98.0 | 57.1 / 55.6 |
| Ford Escort / Mercury Lynx (81-84) | 1 | 2190 | 4 Cyl SOHC | 3.15 x 3.13 | 1589 | Iron | Alum | (I) 42.0<br>(E) 37.0 | (1) 40 DCN, DCNF, IDF w/ 32mmchoke(s), (2) auto type side draft w/ 28mm choke(s) on I.R. manifold | 94.3 | 58.2 / 59.5 |
| Ford EXP (81-84) | 1 | 2190 | 4 Cyl SOHC | 3.15 x 3.13 | 1589 | Iron | Alum | (I) 42.0<br>(E) 37.0 | (1) 40 DCN, DCNF, IDF w/ 32mmchoke(s), (2) auto type side draft w/ 28mm choke(s) on I.R. manifold | 94.3 | 58.2 / 59.5 |
| Ford Fiesta (78-80) | 2 | 1775<br>* 1819<br>** 1864 | 4 Cyl OHV | 81.0 x 78.0 | 1598 | Iron | Iron | (I) 1.41<br>(E) 1.24 | (1) 40 DCN, DNCF, IDF w/32mm chokes. (2) automotive side draft w/30mm chokes @ 75 lbs. penalty. | 90.0 | 56.0 / 55.5 |
| Ford Fiesta (11-15) | 2 | 2026<br>* 2077<br>** 2127 | 4 Cyl. DOHC | (3.10<br>x<br>3.20) | (97.4) | Alum | Alum | (I) 1.19<br>(E) .96 | Fuel injection | 98.0 | 61.9/61.9 |
| Ford Festiva (88-93) | 2 | 1700<br>* 1743<br>** 1785 | 4 Cyl SOHC | 2.79 x 3.29 | 1324 | Iron | Alum | (I) 32.0<br>(E) 28.0 | Fuel injection or Carburetion. | 90.2 | 60.1 / 59.5 |
| Honda Civic | 1 | 1920 | 4 Cyl OHV | 72.0 x 76.0 | 1237 | Iron | Alum | EB 1&2<br>(I) 34.0<br>(E) 30.0<br>EB 3<br>(I) 36.0<br>(E)32.0 | (1) 40 DCN, DCNF, IDF w/ 25mm choke(s) | 86.8 | 53.7 / 52.9 |
| Honda Civic DX (92-95) | 2 | 2420<br>* 2481<br>** 2541 | 4 Cyl. SOHC | 75.0x84.5<br>(2.95x3.33) | 1493<br>(91.1) | Alum | Alum | (I) 29 (1.14)<br>(E) 25 (.98) | Fuel injection | 2/4 door:<br>2621 (103.2)<br>3 door:<br>2573 (101.3) | F:1582.4<br>(62.3)<br>R: 1572.3<br>(61.9) |
| Honda Civic/Si (84-87) | 2 | 1900<br>* 1948<br>** 1995 | 4 Cyl SOHC | 74.0 x 86.5 | 1488 | Alum | Alum | (I) 27.1<br>(E) 33.1 | Fuel injection or Carburetion. | 93.7 | 58.8 / 59.1 |
| Honda Civic 1.5 (88-91) | 2 | 2245<br>*2301<br>**2357 | 4 Cyl SOHC | 75.0 x 84.5 | 1493 | Alum | Alum | (I) 29.1<br>(E) 25.1 | Fuel injection | 98.4 | 59.8 / 60.0 |
| Honda CRX/Si (84-87) | 2 | 1900<br>* 1948<br>** 1995 | 4 Cyl SOHC | 74.0 x 86.5 | 1488 | Alum | Alum | (I) 27.1<br>(E) 33.1 | Fuel injection or Carburetion. | 86.6 | 58.5 / 59.1<br>Effective<br>10/1/11<br>59.3/59.9 |

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Fiat Spider & Racer (-1973) | 13 x 6.5 | 4 | (F) 8.9 Disc (R) 7.3 Drum | 9.25 Disc Girling Calipers 82346805 | NA | Aux. radiator mounted behind front spoiler w/ no mods to original bodywork. PBS 8-Port head (part # 850-8-P), Valves: (I) 31.0mm, (E) 27.0mm, Intake manifold (Part #850-8-PM) is required with alternate head. Carburetion (2) 40 DCOE w/ 28mm chokes, weight: 1527 lb. Alternate steering box or rack & pinion steering permitted. Fuel cell may be located in front trunk. Valve cover (Scuderia # 01-11) permitted for PBS head. |
| Fiat X-1/9 & Bertone 1500 | 13 x 6 | 5 | Factory Spec @ all 4 wheels | | stock throttle body I.D. | Compression ratio limited to 11.0:1, Valve lift limited to .450". Fuel cell may be located in front trunk. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Fiat X-1/9 1300 | 13 x 6 | 4 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Fuel cell may be located in front trunk. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Fiat X-1/9 1300 | 13 x 6 | 4 | (F & R) 8.94 Disc | (F & R) 10.0 x .40 Disc (Lancia) | NA | 5 speed transmission from new "FP" model. Top panels may remain in place if securely bolted or pinned. Alt. Crankshaft: #4292177. Engine hatch rain tray may be removed. Trunk mounted fuel cell allowed. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Fiat X-1/9 1500 | 13 x 6 | 5 | (F&R) 227 Disc | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Drive train Level 2 preparation only. Listed spec line weight does not change with alternate or stock transmission. Fuel cell may be located in front trunk. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Ford Cortina GT (64-68) | 13 x 7 | 4 | Factory Spec @ all 4 wheels | | | Compression ratio limited to 11.0:1, Valve lift limited to .450", 2 auto type side draft carbs w? 32mm chokes allowed at the following weights: 1880,*1927,**1974. |
| Ford Escort / Mercury Lynx (81-84) | 13 x 7 | 4 | (F) 9.3 Disc (R) 8.0 x 1.3 Drum | | NA | |
| Ford EXP (81-84) | 13 x 7 | 4 | (F) 9.3 Disc (R) 8.0 x 1.3 Drum | | NA | |
| Ford Fiesta (78-80) | 13 x 7 | 4 | (F) 8.7 Disc (R) 7.0 Drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Ford Fiesta (12-13) | 15 x 7 | 5 | (F) 10.2 vented (R) 7.99 drum | | | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Ford Festiva (88-93) | 13 x 7 | 4 or 5 | (F) 8.62 Solid Disc (R) 6.69 Drum | | stock throttle body I.D. | Compression ratio limited to 10.5:1. Valve lift limited to .450". |
| Honda Civic | 13 x 6 | 4 or 5 | (F) 9.0 Disc (R) 7.0 x 1.4 Drum | Brake Calipers: RF #45210-663-674 LF #45230-663-674 | NA | Orientation of the alternate carburetor is unrestricted. The alternate carburetor adaptor may not be thicker than 1.25". The adaptor may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Honda Civic DX (92-95) | 13 x 6 | 5 | (F) 240x21 (9.45x.83) vented (R) 180 (7.09) drum | | | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda Civic/Si (84-87) | 13 x 6 | 5 | (F) 231 Disc (R) 180 Drum | | 33 (primary) 42 (secondary) | Compression ratio limited to 11.0:1, Valve lift limited to .390". |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Honda CRX 1.5 (88-91) | 2 | 2245 *2301 **2357 | 4 Cyl SOHC | 75.0 x 84.5 | 1493 | Alum | Alum | (I) 29.1 (E) 25.1 | Fuel injection | 90.6 | 59.8 / 60.0 |
| Honda Fit (07-08) | 2 | 1970 *2019 **2069 | 4 Cyl SOHC | 73.0 x 89.4 | 1497 | Alum | Alum | (I) 27.65 (E) 23.15 | Fuel Injection | 96.5 | 61.5 / 61.3 |
| Honda Fit (09-13) | 2 | 1970 *2019 **2069 | 4 Cyl. SOHC | 73.0 x 89.4 | 1497 | Alum | Alum | (I) 28.15 (E) 23.15 | Fuel injection | 98.4 | 63.0 / 62.3 |
| Honda Fit (2015) | 2 | 2250 * 2306 ** 2363 | 4 Cyl. DOHC | (2.88x3.53) | (91.4) | Alum | Alum | (I) 1.15" (E) .99" | Fuel injection Throttle Bore 2.06" | 99.6 | 62.6 / 61.9 |
| Kia Rio 5 (12-14) | 2 | 2350 * 2409 ** 2468 | 4 Cyl. DOHC | 3.03 x 3.36 | (97.1) | Iron | Alum | (I) 1.24 (E) 1.02 | Fuel injection Throttle Bore 2.36" | 101.2 | 64.2 / 64.3 |
| Lotus 7 & 7 America | 1 | 1400 | 4 Cyl OHV | 2.48 x 3.00 | 948 | Iron | Iron | (I) 1.16 (E) 1.00 | Two (2) 1.25" or 1.125" SU or Stromberg | 88.0 | 51.5 / 52.5 |
| Mazda GLC (FWD) | 1 | 2075 | 4 Cyl SOHC | 77.0 x 80.0 | 1490 | Iron | Alum | (I) 36.0 (E) 31.0 | (1) 40 DCN, DCNF, IDF w/ 32mm choke(s) | 93.1 | 58.2 / 58.4 |
| Mazda GLC (77-80) (RWD) | 1 | 1825 | 4 Cyl SOHC | 2.87 x 2.99 | 77.6 | Iron | Alum | (I) 1.42" (E) 1.22 | (1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, (1) 32/38 DGV, (1) 32/36 DGVA, 26mm chokes | 91.1" | 53.5 / 44.5 |
| Mazda 2 (07-11) | 2 | *1920 *1968 **2016* | 4 Cyl. DOHC | 78 x 78.4 | 1499 | Alum | Alum | (I) 29.2 (E) 25.9 | Fuel injection 45mm throttle body | 90.0 | 62.6 / 62.2 |
| MGB & MGB-GT | 2 | 2050 *2101 **2153 | 4 Cyl OHV | 3.16 x 3.50 | 1798 | Iron | Iron | (I) 1.63 (E) 1.35 | (2) 1.50" SU | 91.0 | 53.0 / 53.2 |
| Mini Cooper (02-06) | 2 | 2080 * 2132 ** 2184 | 4 Cyl SOHC | 77.0 x 85.8 | 1598 | Iron | Alum | (I) 30.3 (E) 23.3 | Fuel injection | 97.1 | 61.6 / 61.9 |

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Honda Civic 1.5 (88-91) | 13 x 6 | 5 | (F) 231 Disc (R) 180 Drum | | 42 | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda CRX/Si (84-87) | 13 x 6 | 5 | (F) 231 Disc (R) 180 Drum | | 33 (primary) 42 (secondary) | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda CRX 1.5 (88-91) | 13 x 6 | 5 | (F) 231 Disc (R) 180 Drum | | 42 | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda Fit (07-08) | 15 x 7 | 5 | (F) 261.6 Vented Disc (R) 200.7 Drum | | 45 | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda Fit (09-13) | 15 x 7 | 5 | (F) 10.3 vented (R) 7.9 drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Honda Fit (2015) | 15 x 7 | 6 | (F) 10.31 x.83 vented (R) 7.87x.1.57 drum | | | Comp. Ratio limited to 11.5:1, Valve lift limited to .425" |
| Kia Rio 5 (12-14) | 15 x 7 | 6 | (F) 11.2 x 0.87 vented (R) 9.8 x.39.0 solid | | | Compression ratio limited to 11.0:1, Valve lift limited to .390" |
| Lotus 7 & 7 America | 13 x 6 | 4 | (F) 8.0 Drum (R) 7.0 Drum | COA-B405/6 front 9.0 disc brake kit | NA | Front track w/alternate front brakes : 51.8", Authorized frame modification: Info. Available from SCCA. BMC Mk. III transmission case w/948cc. Headlights and associated hardware may be removed. Manifold unrestricted for 2 SU carbs. Wood floorboards may be replaced with metal. rear edge of the front fenders is to be 4.5" above the body undertray. Series 4 axle housing is permitted. Suspension components can pass through exterior bodywork. Front fenders may be modified as described here. The fender mounting flange shall be a minimum of 50 inches in length. At the rear of the fender, the lower edge of the mounting flange shall extend no higher than 4-1/2 inches above the undertray of the vehicle. At a point 6 inches rearward from the front of the flange, the fender shall be no narrower than 16-7/8 inches as measured along the upper curvature. At a point 18 inches rearward from the front of the flange, the fender shall be no narrower than 7 inches along the upper curvature and from 34 inches to 48 inches, the fender shall be no less than 3"inches along the upper curvature. From 48 inches rearward, a radius may provide a transition between the outer and the rearmost fender edges. The contours resulting from this modification shall be gradual and describe a smooth curve in plain view. A diagram is available from SCCA. No further modifications are allowed. |
| Mazda GLC (FWD) | 13 x 7 | 5 | (F) 8.9 Disc (R) 7.1 x 1.2 Drum | | NA | Orientation of the alternate carburetor is unrestricted. |
| Mazda GLC (77-80) (RWD) | 13 x 6 | 4 or 5 | (F) 8.15" (R) 7.97x1.3" drum | | | Rear end housing from 1979-1985 RX-7 allowed. |
| Mazda 2 (07-11) | 15 x 7 | 5 | (F) 259 /10.2 (R) 201/7.9 | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| MGB & MGB-GT | 15 x 7 | 4 | (F) 273 Disc (R) 254 Drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Mini Cooper (02-06) | 15 x 7 | 5 | (F) 276 Vented Disc (R) 239 Solid Disc | | stock throttle body I.D. | Compression ratio limited to 10.6:1, Valve lift limited to .450". |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mini Cooper (07-11) | 2 | 2130<br>* 2183<br>** 2236 | 4 Cyl. SOHC | 77.0 x 85.8 | 1598 | Iron | Alum | (I) 28.8<br>(E) 26.3 | Fuel Injection | 97.1 | 61.6 / 62.0 |
| Nissan/Datsun 1200 | 1 | 1660 | 4 Cyl OHV | 73.0 x 76.0 | 1171 | Iron | Alum | (I) 35.0<br>(E) 29.0 | (1) 40 DCN, DCNF, IDF, 26mm choke(s) req'd. | 90.6 | 53.5 / 51.5 |
| Nissan/Datsun 210<br>(79-82) | 2 | 1850<br>* 1896<br>** 1943 | 4 Cyl OHV | 76.0 x 77.0<br>76.0 x 82.0 | 1397<br>1488 | Iron | Alum | (I) 37.2<br>(E) 30.0<br>(I) 35.0<br>(E) 30.0 | (1) 40 DCNF, DCN, IDF w/ 28mm choke(s) | 92.1 | 56.0 / 54.7 |
| Nissan/Datsun 210 1.4 | 1 | 2050 | 4 Cyl OHV | 76.0 x 77.0 | 1397 | Iron | Alum | (I) 37.2<br>(E) 30.0 | (1) 40 DCN, DCNF, IDF w/ 30mm choke(s), (2) auto type side draft w/ 30mm choke(s) on I.R. manifold. | 92.1 | 56.0 / 54.7 |
| Nissan/Datsun B-210 1.4 | 1 | 2050 | 4 Cyl OHV | 76.0 x 77.0 | 1397 | Iron | Alum | (I) 37.2<br>(E) 30.0 | (1) 40 DCN, DCNF, IDF w/ 30mm choke(s), (2) auto type side draft w/ 30mm choke(s) on I.R. manifold. | 92.1 | 52.7 / 51.5 |
| Nissan/Datsun PL510 | 2 | 1960<br>* 2009<br>** 2058 | 4 Cyl SOHC | 83.0 x 73.7 | 1595 | Iron | Alum | (I) 41.9<br>(E) 33.0 | (1) 40 DCN or DCNF. 32mm choke(s) req'd. or (1) 36mm DCNVH. | 95.3 | 54.5 / 54.5 |
| Nissan<br>Sentra<br>(91-94) | 2 | 2050<br>* 2101<br>** 2153 | 4 Cyl DOHC | 76.0 x 88.0 | 1597 | Iron | Aluminum | (I) 30.0<br>(E) 24.0 | Fuel injection | 2413 | 61.1 / 60.1 |
| Opel GT | 1 | 1595 | 4 Cyl OHV | 2.95 x 2.40 | 1078 | Iron | | (I) 1.26<br>(E) 1.06 | (2) Solex 35 PDSI-2 | 95.7 | 53.0 / 54.0 |
| Porsche 914-4 (1.8L) | 2 | 2100<br>*2153<br>**2205 | 4 Cyl OHV | 93.0 x 66.0 | 1795 | Alum | Alum | (I) 40.9<br>(E) 34.0 | Fuel injection | 96.5 | 56.5 / 58.1 |
| Renault Alliance 1.4 | 1 | 1935 | 4 Cyl. OHV | 76.0 x 77.0 | 1397 | Iron | Alum | (I) 34.2<br>(E) 30.3 | (1) 40 DCN, DCNF, IDF w / 32mm choke(s), or Weber 32 mm drt down draft carb or fuel injection | 97.8 | 57.7 / 55.3 |
| Renault Alliance / Encore 1.7<br>(84-87) | 2 | 1800<br>* 1845<br>** 1890 | 4 Cyl SOHC | 81.0 x 83.5 | 1721 | Iron | Alum | (I) 38.1<br>(E) 32.5 | Fuel injection | 97.8 | 58.7 / 56.3 |

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Mini Cooper (07-11) | 15 x 7 | 6 | (F) 280<br>(R) 259 | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Nissan/Datsun 1200 | 13 x 6 | 4 | (F) 8.37 Disc<br>(R) 8.0 x 1.38 Drum | Nissan/Datsun 240Z/260Z/280Z front rotors and calipers and rear aluminum drums are permitted. | NA | Alternate differential assy: H165 The alternate carburetor adaptor may not be thicker than 1.25 inches. The adaptor may have a bore larger than the throttle bore of the approved alternate carburetor. |
| Nissan/Datsun 210 (79-82) | 13 x 6 | 4 or 5 | Factory Spec @ all 4 wheels | Nissan/Datsun 240Z/260Z/280Z front rotors and calipers and rear aluminum drums are permitted. | NA | Compression ratio limited to 10.5:1, Valve lift limited to .450". Alternate differential assembly: H165. Alternate engine permitted with Bore and Stroke: 75mm/70mm, Displacement: 1237cc, Valve Diameters: IN 35.0 mm, EX 30.0 mm. |
| Nissan/Datsum 210 1.4 | 13 x 7 | 4 or 5 | (F) 9.65 Disc<br>(R) 8.0 x 1.38 Drum | (F) 254 Vented Disc<br>(R) 270 Solid Disc Discs and calipers from 80-83 200SX Nissan/Datsun 240Z/260Z/280Z front rotors and calipers and rear aluminum drums are permitted. | NA | Alternate differential assembly: H165, H190. |
| Nissan/Datsun B-210 1.4 | 13 x 7 | 4 or 5 | (F) 9.65 Disc<br>(R) 8.0 x 1.38 Drum | Nissan/Datsun 240Z/260Z/280Z front rotors and calipers and rear aluminum drums are permitted. | NA | Alternate differential assembly: H165, H190. |
| Nissan/Datsun PL510 | 13 x 7 | 4 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 12.0:1, Valve lift limited to .450". (2) auto type side drafts w/ 32mm choke(s) on I.R. manifold allowed @ 2050 (*2101 **2153). Nissan/Datsun 240Z/260Z/280Z front rotors and calipers and rear aluminum drums are permitted. |
| Nissan Sentra (91-94) | 15x7 | 5 | (F) 238mm x 9.37in solid rotors<br>(R) 180mm x 7.08in drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .400. |
| Opel GT | 13 x 6.5 | 4 | (F) 9.37 Disc<br>(R) 7.87 Drum | (F) 9.6 Disc #90000182<br>(R) 9.6 Disc 9280751 Calipers (L) 90000183 (R) 90000184 | NA | |
| Porsche 914-4 (1.8L) | 15 x 7 | 5 | (F) 280 Disc<br>(R) 282 Disc | | stock throttle body I.D. | Compression ratio limited to 10.5:1, Valve lift limited to .450". Cylinder barrels of alternate material are permitted. |
| Renault Alliance 1.4 | 13 x 7 | 5 | (F) Disc<br>(R) Drum | | stock throttle body I.D. | |
| Renault Alliance / Encore 1.7 (84-87) | 15 x 7 | 5 | Factory Spec @ all 4 wheels | | stock throttle body I.D. | Compression ratio limited to 10.5:1, Valve lift limited to .450". |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Renault LeCar/R5 (76-82) | 1 | 1990 | 4 Cyl. OHV | 76.0 x 77.0 | 1397 | Iron | Alum | (I) 34.2 (E) 30.3 | (1) 40 DCN, DCNF, IDF w / 32mm choke(s) | (L) 2433 (R) 2402 | 52.7 / 51.8 |
| Suzuki Swift GA 1.3L (89-94) | 2 | 1600 * 1640 ** 1680 | 4 Cyl. SOHC | 74.0 x 75.5 | 1298 | Alum | Alum | (I) 36.0 (E) 30.0 | Fuel injection | 2265 | 58.4 / 57.4 |
| Toyota Corolla (71-74) | 2 | 1960 * 2009 ** 2058 | 4 Cyl. OHV | 85.0 x 70.0 | 1588 | Iron | Alum | (I) 41.0 (E) 36.0 | Carburetion | 91.9 | 54.5 / 55.5 |
| Toyota MR-2 1.6L (85-89) | 2 | 2300 * 2358 ** 2415 | 4 Cyl. DOHC | 81.0 x 77.0 | 1587 | Iron | Alum | (I) 30.7 (E) 26.0 | Fuel injection | 2320 | 1532 / 1532 |
| Toyota Starlet (81-84) | 2 | 1650 * 1691 ** 1732 | 4 Cyl. OHV | 75.0 x 73.0 | 1290 | Iron | Alum | (I) 36.0 (E) 29.0 | Fuel injection | 90.6 | 54.8 / 54.2 |
| Toyota Yaris (06-11) | 2 | 1970 *2019 **2069 | 4 Cyl. DOHC | 74.9 x 84.6 | 1496 | Alum | Alum | (I) 30.5 (E) 25.5 | Fuel injection | 2462 | 62.1 / 61.7 |
| Toyota Yaris Sedan (07-12) | 2 | 1970 * 2019 ** 2069 | 4 Cyl. DOHC | 74.9 x 84.6 | 1496 | Alum | Alum | (I) 30.5 (E) 25.5 | Fuel injection | 100.4 | 62.1 / 61.7 |
| Toyota Yaris (12-15) | 2 | 1970 * 2019 ** 2069 | 4 Cyl. DOHC | 74.9 x 84.6 | 1496 | Alum | Alum | (I) 30.5 (E) 25.5 | Fuel injection | 98.8 | 62.6 / 62.1 |
| Triumph Spitfire Mk. I & II | 1 | 1750 | 4 Cyl. OHV | 2.73 x 3.00 | 1147 | Iron | Iron | (I) 1.30 (E) 1.15 | (2) 1.25" SU or Stromberg | 83.0 | 53.0 / 51.9 |
| Triumph Spitfire | 2 | 1560 *1599 **1638 | 4 Cyl OHV | 2.90x2.992 | 1296 | Iron | Iron | (I) 1.30 (E) 1.17 | Carburetion | 83.0 | 53.6 / 52.6 |
| Triumph Spitfire 1500 | 2 | 1560 *1599 **1638 | 4 Cyl OHV | 2.90 x 3.44 | 1493 | Iron | Iron | (I) 1.44 (E) 1.17 | Carburetion | 83.0 | 53.6 / 54.6 |
| Triumph Spitfire Mk. III & IV | 1/2 See Notes | *1296cc:* 1705 *1493cc: 1750* | 4 Cyl OHV | 2.90x2.992 *2.90 x 3.44* | 1296 *1493* | Iron | Iron | (I) 1.30 (E) 1.17 | Carburetion | 83.0 | 53.6 / 52.6 Mk. IV rear track: 54.6" |
| Volkswagen Golf (GTI, GT, GL) (85-92) | 2 | 2100 * 2153 ** 2205 | 4 Cyl SOHC | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0 (E) 33.0 | Fuel injection | 97.3 | 60.5 / 60.2 |
| Volkswagen Jetta 1780 (85-92) | 2 | 2100 * 2153 ** 2205 | 4 Cyl SOHC | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0 (E) 33.0 | Fuel injection | 97.3 | 60.5 / 60.2 |
| Volkswagen Rabbit Cabriolet 1780 | 2 | 2100 * 2153 ** 2205 | 4 Cyl OHV | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0 (E) 33.0 | Fuel Injection | 2401 | 58.9/57.2 |
| Volkswagen Rabbit 1588 (includes Cabriolet / convertible) | 2 | 1785 * 1830 ** 1874 | 4 Cyl SOHC | 79.5 x 80.0 | 1588 | Iron | Alum | (I) 34.0 (E) 31.0 | (1) 40 DCN, DCNF, fuel injection. 32mm choke(s) req'd. | 94.5 | 58.9 / 57.2 |
| Volkswagen Rabbit 1715 (81-84) (excl. conv.) | 2 | 1910 * 1958 ** 2006 | 4 Cyl SOHC | 79.5 x 86.4 | 1715 | Iron | Alum | (I) 34.0 (E) 31.0 | Fuel injection | 2401 | 58.9 / 57.2 |

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Renault LeCar/R5 (76-82) | 13 x 6 | 4 | (F) 228 Disc (R) 180 Drum | | NA | |
| Suzuki Swift GA 1.3L (89-94) | 13 x 7 | 5 | Factory Spec @ all 4 wheels | | stock throttle body I.D. | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Toyota Corolla (71-74) | 13 x 7 | 4 or 5 | (F) 229 Disc (R) 231 Drum | (F) 10.0 Solid Disc (Rotors and Calipers from 73 Corona) | NA | Compression ratio limited to 12.0:1, Valve lift limited to .450". (2) auto type side drafts w/ 32mm choke(s) allowed at 2050 (*2101 **2153). Weber 40DCNF carburetor with 32 mm chokes allowed. |
| Toyota MR-2 1.6L (85-89) | 15 x 7 | 5 | Factory spec @ all 4 wheels | | stock throttle body I.D. | Compression ratio limited to 11:1, Valve lift limited to .400". Trunk mounted fuel cell with no larger capacity than stock is permitted. Can use stock fuel tank. |
| Toyota Starlet (81-84) | 13 x 7 | 5 | (F) 225 disc (R) drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". |
| Toyota Yaris (06-11) | 15 x 7 | 5 | (F) 255 Disc (R) 200 Drum | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Toyota Yaris Sedan (07-12) | 15 x 7 | 5 | (F)255 disc (R) 200 drum | | NA | Comp. Ratio limited to 11.0:1, Valve lift limited to .390" |
| Toyota Yaris (12-15) | 15 x 7 | 5 | (F) 255 (R) 200 | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .390". |
| Triumph Spitfire Mk. I & II | 13 x 6 | 4 | (F) 9.2 Disc (R) 7.0 Drum | (F) 9.7 Disc #213227 (R) 8.0 Drum Front Discs: Girling 14P, Calipers and mounting kit: #V734 | NA | NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 04/01/82. Use of cylinder head casting #303014 is permitted. Cylinder head casting numbers must be maintained. |
| Triumph Spitfire | 13 x 6 | 4 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". The use of alternate material stub axles that are identical to stock components in all dimensions are permitted. |
| Triumph Spitfire 1500 | 13 x 6 | 4 | Factory Spec @ all 4 wheels | | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Alternate intake manifold, Pierce #J15-1952 allowed. |
| Triumph Spitfire Mk. III & IV | 13 x 6 | 4 | (F) 9.0 Disc (R) 7.0 Drum | (F) 9.7 Disc (R) 8.0 Drum May use Triumpg GT6 caliper as alternate front. | NA | Compression ratio limited to 11.0:1, Valve lift limited to .450". Drivetrain Level 2 preparation only. Listed spec line weight does not change with alternate or stock transmission. Battery tray may be removed. |
| Volkswagen Golf (GTI, GT, GL) (85-92) | 15 x 7 | 5 | (F) *9.41 x.787* Disc (R) *7.087* Drum | | 35 (primary) 52 (secondary) | Compression ratio limited to 12.0:1, Valve lift limited to .425". Can use stock fuel tank if stock rear bumper and bumper support structure is retained. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Jetta 1780 (85-92) | 15 x 7 | 5 | (F) *9.41 x.787* Disc (R) *7.087* Drum | | 35 (primary) 52 (secondary) | Compression ratio limited to 12.0:1, Valve lift limited to .425". Can use stock fuel tank if stock rear bumper and bumper support structure is retained. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Rabbit Cabriolet 1780 | 15 x 7 | 5 | (F) *9.41 x.787* Disc (R) *7.087* Drum | | 35 (primary) 52 (secondary) | Compression ratio limited to 12.0:1. Valve lift limited to .425". VW cyl. heads 026103373G, AA, H and F permitted. *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volkswagen Rabbit 1588 (includes Cabriolet / convertible) | 13 x 7 | 4 or 5 | *(F) 9.41 x.472 Solid Disc (R) 7.087 Drum* | | 35 (primary) 44 (secondary) | Compression ratio limited to 11.5:1, Valve lift limited to .450". (2) auto type side draft carburetors with 32mm chokes permitted at weights of 1875/* 1922/** 1969. *Mk2 VW front spindles, hubs and bearings are permitted.* |

| HP | Prep. Level | Weight (lbs) | Engine Type | Bore x Stroke mm/ (in.) | Displ. cc/ (ci) (nominal) | Block Mat'l | Head/PN & Mat'l | Valves IN & EX mm/ (in.) | Carb. No. & Type | Wheelbase mm/(in.) | Track (F/R) mm/(in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Volkswagen Rabbit GTI 1780 (83-84) | 2 | 2100<br>* 2153<br>** 2205 | 4 Cyl SOHC | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0<br>(E) 33.0 | Fuel injection | 2401 | 58.9 / 57.2 |
| Volkswagen Scirocco 1457/1471 | 2 | 1650<br>* 1691<br>** 1733 | 4 Cyl SOHC | 76.5 x 80.0<br>79.5 x 73.4 | 1471<br>1457 | Iron | Alum | (I) 34.0<br>(E) 31.0 | (1) 40 DCN, DCNF, IDF w/ 32mm choke(s), or fuel injection. | 94.5 | 58.9 / 57.2 |
| Volkswagen Scirocco 1588 | 2 | 1785<br>* 1830<br>** 1874 | 4 Cyl SOHC | 79.5 x 80.0 | 1588 | Iron | Alum | (I) 34.0<br>(E) 31.0 | (1) 40 DCN, DCNF, or fuel injection. 32mm choke(s) req'd. | 94.5 | 58.9 / 57.2 |
| Volkswagen Scirocco 1715 (81-84) | 2 | 1910<br>* 1958<br>** 2006 | 4 Cyl SOHC | 79.5 x 86.4 | 1715 | Iron | Alum | (I) 34.0<br>(E) 31.0 | Fuel injection | 2401 | 58.9 / 57.2 |
| Volkswagen Scirocco 1780 (8-valve) (83-88) | 2 | 2100<br>* 2153<br>** 2205 | 4 Cyl SOHC | 81.0 x 86.4 | 1780 | Iron | Alum | (I) 40.0<br>(E) 33.0 | Fuel injection | 2401 | 58.9 / 57.2 |
| Volvo 142/142E P-1800 engine | 2 | 2150<br>* 2204<br>** 2258 | 4 Cyl. OHV | 3.31 x 3.15 | 1780 | Iron | Iron | (I) 1.57<br>(E) 1.38 | (2) 1.75" SU, (2)1.75 CDSE Stromberg, (2) 1.75" SU HS6 or fuel injection | 2616<br>(103.0) | 1415 / 1415<br>55.7 / 55.7 |

* Alternate transmission w/ stock type syncros
** Alternate transmission w/ non-stock type syncros (i.e. dog-ring)

| HP | Wheels (max) | Trans. Speeds (max) | Brakes Std. (mm/(in.)) | Brakes Alt.: mm/ (in.) | Fuel Injected Equipped Throttle Body Inside Diameter (mm) +/- .25mm | Notes: |
|---|---|---|---|---|---|---|
| Volkswagen Rabbit 1715 (81-84) (excl. conv.) | 15 x 7 | 5 | *(F) 9.41 x.472 Solid Disc (R) 7.087 Drum* | | 35 (primary) 44 (secondary) | Compression ratio limited to 11.5:1, Valve lift limited to .450". *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volkswagen Rabbit GTI 1780 (83-84) | 15 x 7 | 5 | (F) *9.41 x.787* Disc (R) *7.087* Drum | | 35 (primary) 52 (secondary) | Compression ratio limited to 12.0:1, Valve lift limited to .425". Use of manufacturer's 52mm throttle body permitted. Intake manifold inlet may be matched to throttle body mating surface to a depth of no more than one inch. VW cyl. heads 026103373G, AA, H and F permitted. |
| Volkswagen Scirocco 1457/1471 | 13 x 7 | 4 or 5 | *(F) 9.41 x.472 Solid Disc (R) 7.087 Drum* | | 35 (primary) 44 (secondary) | Compression ratio limited to 11.5:1, Valve lift limited to .450". Only 1457cc engine may use fuel injection. *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volkswagen Scirocco 1588 | 13 x 7 | 4 or 5 | *(F) 9.41 x.472 Solid Disc (R) 7.087 Drum* | | 35 (primary) 44 (secondary) | Compression ratio limited to 11.5:1, Valve lift limited to .450". (2) auto type side draft carburetors with 32mm chokes permitted at weights of 1875/* 1922/** 1969. *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volkswagen Scirocco 1715 (81-84) | 15 x 7 | 5 | *(F) 9.41 x.472 Solid Disc (R) 7.087 Drum* | | 35 (primary) 44 (secondary) | Compression ratio limited to 11.5:1, Valve lift limited to .450". *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volkswagen Scirocco 1780 (8-valve) (83-88) | 15 x 7 | 5 | (F) *9.41 x.787* Disc (R) *7.087* Drum | | 35 (primary) 52 (secondary) | Compression ratio limited to 12.0:1, Valve lift limited to .425". Use of manufacturer's 52mm throttle body permitted. Intake manifold inlet may be matched to throttle body mating surface to a depth of no more than one inch. VW cyl. heads 026103373G, AA, H and F permitted. *Mk2 VW front spindles, hubs and bearings are permitted.* |
| Volvo 142/142E P-1800 engine | 15 x 7 | 5 | (F) 272 (10.7) Disc (R) 295 (11.6) Disc | | NA | |

## 9.1.6. AMERICAN SEDAN CATEGORY

These specifications are part of the SCCA GCR and all automobiles shall conform to GCR Section 9.

**A. PURPOSE**

The American Sedan (AS) class is intended to provide the membership with the opportunity to compete in lower cost V8 powered automobiles, suitable for racing competition. Cars eligible for this class are listed at the end of 9.1.6. They will be prepared to manufacturer's specifications except for modifications and alternate specifications permitted by these rules. Modifications will be grouped into two categories, "Full" preparation and "Restricted" preparation. All modifications will specify the category to which they apply. The Club may alter or adjust certain specifications to equate competitive potential.

**B. INTENT**

It is the intent of these rules to allow modifications useful and necessary to construct a safe, more reliable, competition automobile. Other than those items specifically allowed by these rules, no component or part normally found on a stock example of a given vehicle shall be disabled, altered, or removed. Cars need not be eligible for state licensure or registration.

1. The competitiveness of any car in American Sedan shall not be guaranteed.

   ***Restricted Preparation Cars Only:*** Restricted Preparation American Sedan automobiles shall, at all times, be in compliance with the specifications contained within their factory Shop/Service Manual(s) except as modified by these rules. Factory Shop/Service Manuals may come in the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases. It is the responsibility of the competitor to provide this information upon request from any SCCA official and to provide the electronic device capable of accessing the data for compliance verification. Failure to provide some form of the Factory Shop/ Service Manual upon request is adequate for disqualification from any event.

**C. SPECIFICATIONS**

1. To maintain the restricted basis of American Sedan, updating and/or backdating of components is only permitted within cars of the same make/model and listed on a single American Sedan Specification line. Any updated/backdated components shall be substituted as a complete assembly. No interchange of parts between assemblies is permitted, and all parts of an assembly shall be as originally produced for that assembly. No permitted or alternate component or modification shall additionally perform a prohibited function.
2. Cars are classified by year, make, model and/or engine displacement (see Section E., "Car Classification").
   a. Restricted Preparation American Sedan cars must provide their Vehicle Identification Number (VIN), upon request from any SCCA official, for the purpose of identifying the year in which the car was built. The VIN number shall not be used for any other purpose.
3. The SCCA shall specify the minimum weight for each classified car, as qualified or raced, with driver. Ballast is permitted.
4. Cars potentially eligible for Restricted Preparation may be required to run in Touring for at least two years before being classified in American Sedan. Cars not classified in Touring will be considered, on an individual basis, when adequate information is available to determine correct specifications.
5. Where Factory Specifications are absent or unclear, SCCA may establish an acceptable dimension and/or tolerance from known stock parts.
6. All rules referencing OEM parts, unless specified in these rules, must be unmodified OEM parts.

**D. AUTHORIZED MODIFICATIONS**

The following modifications are authorized on American Sedan Category cars. It is not permitted to make changes, alterations, or modifications to any component produced by the manufacturer unless specifically authorized by these rules, or required by the GCR. No permitted or alternate component or modification shall additionally perform a prohibited function. Replacement parts may be obtained from sources other than the manufacturer provided they are exact equivalent of the original parts. The intent of this rule is to allow the competitor to obtain replacement parts from standard industry outlets, such as, auto parts distributors, rather than from the manufacturer. It is not intended to allow parts that do not meet all dimensional and material specifications of new parts from the manufacturer, unless otherwise allowed in these rules.

1. Engine (additional specs., see Section F – Engine Build Sheets)
   a. Air Induction System:
      1. Full preparation cars only:
         a. All cars shall fit the approved carburetor and manifold. The approved manifold may be ported and polished, and exhaust crossover may be blocked, but its design and configura-

tion shall not be altered in any other way. The lowering of or boring of holes in the center divider is prohibited. Removal or obliteration of the manifold part number is prohibited.

b. Any external throttle linkage to the carburetor may be used. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. No removal or alteration of the carburetor air horn is permitted.

c. All air entering the intake tract shall pass through the carburetor air inlet.

d. An open-sided, closed-top air cleaner assembly, with a maximum diameter of 16 inches, with a filter element having a maximum diameter of 14 inches and a maximum height of 3 inches is required.

e. Filter element material is unrestricted.

f. Velocity stacks, ram air, cowl induction, shrouding or ducting of air to the air cleaner or carburetor are not permitted.

2. Restricted preparation cars only:

a. All unmodified OEM induction system components (such as, but not limited to: air cleaner assembly (less filter element), all hoses connecting the air cleaner assembly to the throttle body, throttle body, and intake manifold) must be maintained. All air entering the intake tract shall enter through the OEM throttle body.

b. Non OEM Cold air induction systems are prohibited unless indicated on specification line.

c. Air filter element material is unrestricted.

d. Restrictor plates may be required. Refer to vehicle specification line.

b. Fuel Pumps/Lines:

1. Any fuel pump(s), fuel pressure regulators, or filters may be used and may be relocated, but shall not be located in the driver/passenger compartment. If a mechanical pump is removed, a blanking plate may be used to cover the original mounting location.

2. Fuel line(s) may be replaced, relocated, and given additional protection. If the relocated line(s) passes through the driver/passenger compartment, it/they shall be metal or metal braided, and shall be securely fastened.

c. Fuel Delivery:

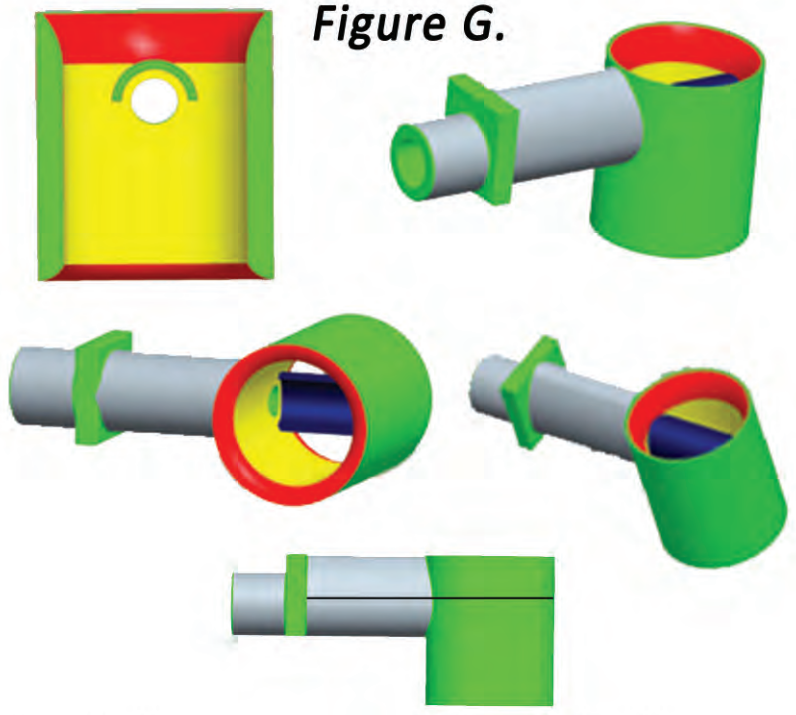
1. Full preparation cars only:

a. Only the approved carburetor (Holley #4776, 600cfm 4bll), insulator (Holley #108-12), and manifold (Edelbrock Performer RPM #7101-General Motors / #7121- Ford/Mercury) shall be fitted to cars. The carburetor shall be identified by the numbers “4776”. Additional numbers stamped on the horn section of the carburetor, such as “-X” (indicating the die lot number for that carburetor) and “XXXX” (up to 4 digits indicating the day of the year the carburetor was produced along with the year in the decade it was produced) shall not be used to identify the carburetor. Two carburetor base gaskets (each base gasket can be no thicker than .125 inches) may be used, one on each side of the insulator.

b. Other than as provided for in these rules, the carburetor shall not be modified in any way. Any carburetor jets, air jets, accelerator pump, pump cam, and accelerator pump nozzles may be used. Any power valves, metering blocks, and floats may be used. No venturi (including secondary or auxiliary) shall be modified in any way, but they may be aligned. Idle holes may be drilled in the throttle plates (butterflies). Any butterfly attach screws can be used. Carburetors may be modified to allow “four corner” idle adjustment. A Holley 600 carburetor test gauge kit, such as, BLP Racing Products Kit 7862 (with the exception of Combined Throttle Shaft and Plate gauges 78623P and 78623S), may be used to validate compliance of the carburetor (Note that the SCCA may use other kits not listed here, visual inspection, and comparison to SCCA supplied Holley 600 carburetors). Vent tubes may be modified or replaced and must be no taller than 2.0” when measured from the circular air cleaner mounting surface on the carburetor to the top most part of the tubes. The vent tubes shall not pass through the air cleaner. The vent tubes shall not be connected to each other.

Boosters must be shaped as shown fig. g below:

**Figure G.**



***Note: black line represents a casting line that should be present.***

2. Restricted preparation cars only:
    a. OEM fuel injectors and fuel rail assembly must be maintained. To reduce fuel fire hazard, OEM fuel rail inlet and outlet (return) ports may be changed to allow alternate fittings. No other changes to the OEM fuel rail assembly are permitted.
    b. The engine management computer or ECU may be altered but not replaced. All modifications shall be done within the original housing. ECUs must be able to communicate through the stock OBD reader port.

d. Exhaust emission control:
    1. A.I.R. (Air Injection Reaction) pumps, associated lines, nozzles, and other electrical/mechanical emission devices may be removed. If such items are not removed, they shall not be modified in any way. If EGR devices/nozzles are removed from a cylinder head or manifold, any holes remaining shall be completely plugged.
    2. Catalytic converter(s) may be removed.

e. Exhaust:
    1. Full preparation cars only:
        a. Replacement exhaust manifolds, or "headers," may be used. Cylinder head mounting flange(s) shall be no thicker than 0.375 inch, and tubing diameter shall be no greater than 1.625 inch O.D., measured at any tube location one (1) inch from the flange to the collector.
        b. Exhaust after the manifolds/headers must meet the below requirements but is otherwise unrestricted.
            1. No exhaust pipe(s) shall pass over the engine, bellhousing, or transmission.
            2. Exhaust shall exit behind the driver, and shall be directed away from the car body. A suitable exhaust muffling system may be necessary to meet sound control requirements.
    2. Restricted preparation cars only:
        a. OEM exhaust manifolds must be maintained unless indicated on a specification line.

b. Oxygen sensors may be removed and plugged.

c. Exhaust after the manifolds must meet the below requirements but is otherwise unrestricted.

1. No exhaust pipe(s) shall pass over the engine, bellhousing, or transmission.

2. Exhaust shall exit behind the driver, and shall be directed away from the car body. A suitable exhaust muffling system may be necessary to meet sound control requirements.

f. Ignition System:

1. Full preparation cars only:

a. Any ignition system which utilizes the distributor for spark timing and distribution is permitted. Any distributor that requires no modification to the engine may be fitted. Internal distributor components and distributor cap may be substituted.

b. Crank fire ignition systems are prohibited.

c. Any spark plugs, single coil, and ignition wires may be used.

d. Ignition timing is unrestricted.

2. Restricted preparation cars only:

a. OEM or factory equivalent ignition system must be utilized for detection and distribution.

b. OEM or factory equivalent coils must be utilized.

c. Any spark plugs and ignition wires may be used.

d. Ignition timing is unrestricted.

g. Battery:

1. Any 12 volt battery may be used.

2. The battery may be relocated as per GCR section 9.3 Batteries.

3. Additional battery hold down devices may be used, and are strongly recommended.

h. Camshaft/Valvetrain:

1. Full preparation cars only:

a. The camshaft may be replaced with a unit of any origin meeting specified maximum lift (see Section F – Engine Build Sheets), measured at the valve with zero lash.

b. Cam timing, timing chains, woodruff keys, dowel pins, and sprockets are unrestricted. Double row chains may be substituted for single row chains. Timing belts and gear driven timing systems are prohibited unless fitted as original equipment.

c. Valve lifters shall be of the solid (flat tappet) type only. Roller, hydraulic, or "mushroom" lifters are prohibited. See Section F – Engine Build Sheets for additional specifications.

d. Valve springs are unrestricted except that they shall be made of steel. Heads may be machined to accommodate any valve spring. Valve spring retainers and keepers are unrestricted.

e. Rocker arms may be replaced with any rocker arm. Shaft mounted rocker arms are permitted using a minimum of eight shafts. Valve train stud girdles are allowed.

f. Pushrods may be replaced with any pushrods of steel (ferrous) material.

g. Valve covers are unrestricted.

2. Restricted preparation cars only:

a. OEM camshaft and valvetrain components must be utilized based on vehicle year and model. Updating and/or backdating within a specification line is permitted.

b. All camshaft/valvetrain hardware shall be installed/timed in conformance with those specifications and procedures outlined by the vehicle's manufacturer.

c. Alternate camshafts may be specified for performance equity. See specification line.

d. Valve covers are unrestricted.

i. Oiling system:

1. Oil pans, pan baffles, scrapers, and windage trays, oil pickups, lines, and filters are unrestricted.
2. A pressure accumulator/"Accusump" may be fitted.
3. The location of the filter and accumulator are unrestricted, but they shall be securely mounted within the bodywork.
4. All oil lines that pass into or through the driver/ passenger compartment shall be metal or metal braided hose.
5. Engine oil and oil additives are unrestricted.
6. Oil catch tanks are permitted. All engine breathers or vapor recirculation lines, if disconnected, shall vent to a catch tank of one (1) quart minimum capacity. Such catch tanks shall not be mounted in the driver/passenger compartment.

j. Accessory Drive:

1. Full preparation cars only:
   a. Engine drive belts and pulleys may be replaced with any non-tooth driven belt and appropriate pulleys for the purpose of component RPM reduction.
   b. Any mechanical (non-electrical) water pump may be used provided it is mounted in the original position.
   c. Any belt driven, mechanical power steering pump and any alternator may be used. They must mount to the front of the engine. Remote reservoirs maybe added.
   d. Any power steering and/or alternator brackets may be used if they perform the same mounting function as the originals.
   e. Air conditioning systems may be removed in whole or in part.
2. Restricted preparation cars only:
   a. Engine drive belts and pulleys may be replaced with any non-tooth driven belt and appropriate pulleys for the purpose of component RPM reduction.
   b. OEM or factory equivalent alternator, power steering pump and water pump may be used for repair purposes.
   c. Air conditioning systems may be removed in whole or in part.

k. Engine Components:

1.Full preparation cars only:
   a. Engine block shall be cast iron as produced by the vehicle's manufacturer and must meet the requirements in Section F – Engine Build Sheets.
   b. Main cap girdles may be fitted.
   c. Any aluminum replacement piston with three piston rings may be used. See Section F – Engine Build Sheets for additional specifications.
   d. Piston rings are unrestricted.
   e. Balancing and "blueprinting" of the engine assembly are permitted. Lightening of parts beyond the minimum material removal necessary to balance is prohibited.
   f. An alternate, commercially available, vibration dampener may be fitted.
   g. Cylinder head to intake/exhaust manifold port matching is permitted. No material shall be removed from the cylinder head(s) further than one (1) inch in from the manifold to cylinder head mounting face(s). External dimensions of the cylinder head or intake/exhaust manifold shall not be reduced to facilitate internal porting.
   h. The throat area of the port consists of a single cut up to a maximum 90 degree angle at the very bottom of the steel valve seat as it transitions to the aluminum or cast iron casting below ("Throat Cut"). It is permitted to plunge cut the throats in order to correct for core shift that is commonly found in many cylinder heads. This cut cannot extend further than 1.100 inches below from the top of the ferrous valve seat. There can be no tooling or machine marks in the head below this point. The area where the cut meets the floor of the cylinder head port cannot be blended by hand, machined or chemically processed to create a smooth transition at this point. No aluminum or cast iron in the bowl area (other than that specified for the plunge cut) or the ports may be removed, added or manipulated for any reason. It is understood that many heads may look slightly different from bowl to bowl due to casting irregularities. No material may be removed or added

from the short turn radius in the port. Any modification of the cylinder head beyond that permitted in this section and Section F. (Engine Build Sheets) is prohibited. See Section F – Engine Build Sheets for additional specifications.

i. Valve guide material is unrestricted.

j. Milling of the cylinder head to increase compression ratio is permitted.

k. Any or all valve seats may be replaced. Valve seat material must be ferrous.

l. The combustion chamber may be repaired or modified in the area shown in Section F – Engine Build Sheets, Drawing 2 to repair or prevent pitting or damage between the intake and exhaust valves. For this repair or modification, it is permissible for the valve seats to contact each in the area shown in Section F, Drawing 2. This repair/modification may serve no other purpose.

m. Only stock, steel, or stainless steel intake and exhaust valves are permitted. Titanium or titanium alloy valves are not permitted. Valve seat specifications shall comply with Section F – Engine Build Sheets, Drawing 1. Valve length and valve stem installed height is open. Any valve seal may be used.

n. A valve job will consist of 3 valve angles only not including the throat cut angle. Each of these valve angles is open. The widths of the valve angles on the head and on the valve are open. The maximum diameter of the cut in each valve seat is .250 inches greater than the diameter of its valve head. All valve cuts must be concentric with the valve stem. Additional valve specifications are listed in Section F – Engine Build Sheets. Valve seat specifications shall comply with Section F – Engine Build Sheets, Drawing 1.

o. Aftermarket starters mounted in stock location are permitted.

p. Engine gaskets are unrestricted.

q. Motor mounts are unrestricted. Engine must remain in the original, or approved location.

2. Restricted preparation cars only:

a. OEM engine components must be utilized based on vehicle year and model. Updating and/or backdating within a specification line is permitted. Replacement parts may be purchased from alternative standard outlets such as parts stores, provided they are equivalent of the stock OEM part.

Replacements parts include:

Pistons and rings
Bearings
Oil pump
Starter
Seals
Gaskets

b. OEM oversized pistons or factory equivalent may be used for repair purposes (max .040 inches over the bore size listed in vehicle's specification line allowed).

c. OEM oversized piston rings or factory equivalent may be used for repair purposes.

d. OEM oversized bearings or factory equivalent may be used for repair purposes.

e. Engine repair procedures shall be performed utilizing OEM procedure or Factory Service bulletins. Where Factory Service Manual measurement specifications for engine components may conflict with assembled Factory Service Manual specifications for performance (such as, but not limited to, compression ratio), the performance specifications shall be the measurement used for compliance. The SCCA strongly encourages the measurement of performance specifications after engine assembly and the adjustment to compliance, if needed, through the use of items listed in 9.1.6.D.1.k.2.a.

f. Balancing is allowed. Removal of material solely for the purposes of balancing is permitted.

g. Motor mounts are unrestricted. Engine must remain in the original location.

h. Maximum allowed compression ratio for all restricted preparation cars is specified in the vehicle's specification line.

l. Flywheel/Clutch:

1. Full preparation cars only:

a. Any flywheel of stock diameter and weighing a minimum of 15.0 lbs with ring gear may be used.

b. Any clutch disc and pressure plate of stock diameter may be used.

c. Pressure plate/clutch cover assembly shall be ferrous only and shall bolt in the original stock mounting location.

d. Balancing of the flywheel/clutch cover assembly/pressure plate is permitted.

e. SFI 1.1 or 1.2 spec flywheel and clutch are allowed as long as they meet the above specifications. Method of clutch actuation is unrestricted.

2. Restricted preparation cars only:

a. OEM or factory equivalent flywheel, clutch disc, pressure plate, and throwout bearing must be utilized.

b. OEM method of clutch actuation must be maintained. i.e. hydraulic or mechanical with concentric or lever style throwout bearing.

m. Misc. Engine Components:

1. All engine components not otherwise listed in these rules shall meet factory specifications for stock parts.

n. Cleaning:

1. Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered.

o. Coatings/Paint:

1. Unless otherwise restricted within the AS rules, paints and coatings are permitted on drivetrain components except for the following locations: internal engine block surfaces, internal cylinder head surfaces, internal intake manifold surfaces, and internal carburetor surfaces.

2. Engine Cooling System:

a. Radiator:

1. Any radiator may be used, provided it can be mounted in the original location and requires no body or chassis modifications to install.

2. Catch and/or expansion tanks may be added or substituted.

3. Engine coolant fluid is unrestricted.

4. Coolant/heater hoses and clamps may be substituted. Heater hoses may be plugged. Heater water control valve(s) may be added or substituted.

5. The entire heater assembly may be removed. This includes all hoses, lines, ducts, coils and controls. Any resulting holes in the firewall must be plugged or covered.

6. Thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

7. Screens may be mounted in front of the radiator and/or oil cooler(s) and must be contained within the bodywork.

b. Coolers:

1. Engine and power steering oil cooler(s) may be added or substituted.

2. Location within the chassis is free, provided that it/they are not mounted within the driver/passenger compartment.

c. Cooling Fans:

1. Any cooling fans may be used. Cooling fans may be removed.

2. Electrically operated fans with manual or automatic actua tion may be fitted.

3. Transmission/Final Drive:

a. Transmission:

1. Full preparation cars only:

a. Any H-Pattern 4 or 5 speed transmission is permitted with the gear ratios listed on the vehicle spec line (with a tolerance of +/- .05 per gear). *4 speed transmissions must match either 4 speed gear ratios listed on their specification line or one of the car's specification line 5 speed gear ratio sets for gears 1 through 4, with a tolerance of +/- .05.* Sequential shifting transmissions are prohibited. Pneumatic, hydraulic or electric actuation of the gear shift mechanism is prohibited. Transmissions that use a gear engagement

mechanism different than stock type (e.g., circular, beveled) are prohibited. Face-tooth engagement gearboxes (e.g., dog rings) are permitted at an 50 lbs. weight penalty. Any first gear ratio greater than 2.5 is permitted.

b. Any conventional H-pattern, non-sequential shifter may be used.

c. Transmission mounts are unrestricted.

d. Transmission lubricants are unrestricted.

e. Transmission coolers are permitted. Dry Sump transmission coolers are not permitted.

2. Restricted preparation cars only:

a. OEM or Factory equivalent transmission components must be utilized. Updating and/or backdating within a specification line is permitted.

b. Transmission repair procedures may be performed utilizing OEM procedures.

c. Any conventional H-pattern, non-sequential shifter may be used.

d. Transmission mounts are unrestricted.

e. Transmission lubricants are unrestricted.

f. Transmission coolers are permitted. Dry Sump transmission coolers are not permitted.

b. Driveshaft:

1. Full preparation cars only:

a. OEM driveshafts may be replaced with any one piece driveshaft of steel or aluminum construction.

b. The driveshaft may be modified to fit alternate differentials and/or transmissions.

c. Driveshaft loops are permitted/recommended.

2. Restricted preparation cars only:

a. OEM driveshafts may be replaced with any one piece driveshaft of steel or aluminum construction.

b. Driveshaft loops are permitted/recommended.

c. Rear Axle/Final Drive:

1. Full preparation cars only:

a. Any OEM rear axle assembly is permitted, provided it was available in the listed vehicles contained within the specification line.

b. Ford 9" rear axles are permitted in all cars. Center section shall be of ferrous material.

c. Dana 44 axles are permitted in all cars.

d. Any final drive ratio is permitted.

e. Any limited slip or locked differential is permitted.

f. C-clip eliminators are permitted.

g. Full floater axles are permitted.

h. Aftermarket or modified rear differential covers are allowed.

i. Differential coolers are permitted. Dry Sump differential coolers are not permitted.

j. For any rear axle assembly, welding of the rear axle tubes is permitted.

2. Restricted preparation cars only:

a. Any OEM rear axle is permitted, provided it was available in the listed vehicles contained within the specification line.

b. Any final drive ratio is permitted, provided it fits the allowed stock differential housing without modification to the housing.

c. Any limited slip or locked differential is permitted.

d. Aftermarket or modified rear differential covers are allowed.

e. Aftermarket axle shafts and bearings are allowed

f. Differential coolers are permitted. Dry Sump differential coolers are not permitted.

*g. C-clip eliminators are permitted.*

*h. For any rear axle assembly, welding of the rear axle tubes is permitted.*

4. Suspension:

a. Ride Height- Minimum ride height is five (5) inches, to be measured at the lowest point of the sheet metal rocker panel, but not to include welded seams, stock ground effects cladding, or fasteners.

b. Springs and Shock Absorbers:

1. Springs of any origin may be used, provided they are of the same number and type as originally fitted and they must be installed in the original location. Coil over springs and shocks are prohibited, unless fitted as original equipment.

2. Any shock absorbers may be used, provided they attach to the original mounting points on the chassis. The number of shock absorbers shall be the same as stock. Remote reservoir shock absorbers are permitted. The location of the reservoir is unrestricted. No shock absorber may be capable of adjustment from within the cockpit *or by any other means, such as, but not limited to, any electronic, computer, or feedback control systems* while the car is in motion. *Magnetic shocks are not permitted.*

3. Strut equipped cars may substitute struts and/or may use any insert. On cars where the strut assembly also serves to locate a spring, the lower spring seat ride height location may be altered from stock. Spacers, including threaded units with adjustable spring seats, may be used.

4. Spacers, including threaded units with adjustable spring seats (weight jacks), may be used with coil springs. If spacers are used, they shall be located on and shall be permanently attached to existing chassis or suspension structure, but shall not serve as a reinforcement to that structure. Material may be removed from the upper or lower spring seat to facilitate installation of the spacers. Material may be removed from the chassis, but not the bodywork, to facilitate adjustment of the spacers.

5. Limiting straps to preclude a spring from becoming dislodged are permitted.

c. Suspension Control - Any anti-roll bar(s), traction bar(s) and rear upper control arms or like devices, panhard rod, or watts linkage may be added or substituted, provided its/their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. No suspension control mount or component shall be located in the trunk or driver/passenger compartment unless installed by the manufacturer as original equipment. No suspension control component may be capable of adjustment from within the cockpit while the car is in motion.

d. Suspension Mounting Points:

1. Cars may adjust camber by the use of eccentric bushings at the lower control arm pivot points, by the use of eccentric bushings at the upper suspension control mounting points, and/or by use of slotted adjusting plates at the upper suspension mounting point. If slotted plates are used, they shall be located on existing chassis structure. Material may be added or removed from the upper suspension mounting point to facilitate installation of adjuster plate.

2. Rear camber shall be no more than 1/2 degree negative per side. If equipped with IRS, rear camber shall be no more than 2 degree negative per side.

3. All forms of suspension may adjust caster by means of shims or eccentric bushings. All cars may adjust caster at the upper suspension mounting point/plate.

4. One (1) stay rod may be fitted between the upper front strut/shock towers. One (1) reinforcement bar may be fitted between each front strut/shock tower and the firewall.

5. Bushing material is unrestricted except that bushing material must be at least as stiff as stock (i.e. equal or higher durometer rating). “Air”, foam or other soft materials that render the control arms ineffective, are strictly forbidden. Control arm to spindle/knuckle ball joints must be stock or equivalent replacement. Ball joint may be welded or positively attached. Original unmodified lower control arms (front and rear), and original unmodified front upper control arms must be retained. Pins, keys, or weldment may be used to prevent the rotation of alternate bushings, but may serve no other purpose than that of retaining the bushing in the desired position.

6. Any rubber bump stops may be used, but their chassis mounts, brackets, etc., shall not be altered in any way. Rubber bump stops may be removed.

7. Pick-up points on the rear axle housing may be relocated. The removal and/or replacement of the rear suspension torque arm on GM F-body cars and the upper arm on Ford Mustangs is allowed. Pick-up points, on the chassis, for front and rear lower control arms, shocks and

springs, must remain in the original location.

8. The use of offset steering rack bushings is permitted. Any tie rods and tie rod ends may be used. Spindles may be machined so that tapered tie-rod end bolts can be replaced with straight bolts.

5. Brake System:

a. Materials:

1. Brake pads, brake linings, and brake fluid are unrestricted.
2. Brake lines may be replaced with steel lines or Teflon lined metal braided hoses. Lines/hoses may be relocated and may be given additional protection. Brake fittings, adapters, and connectors are unrestricted.
3. Hubs shall be of ferrous material or aluminum.
4. Rotor hat shall be of ferrous material or aluminum and may be part of the hub or rotor.
5. Rotor shall be of ferrous material. Rotor shall be the same diameter and thickness as the standard or alternate listed on the specification line for the vehicle.
6. Mounting brackets shall be of metallic material.
7. Materials may differ from above if OEM hardware is utilized.
8. Brake duct fans are permitted for cooling brakes. They shall perform no other function.

b. Components:

1. Full preparation cars only:
   a. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use.
   b. Parking brakes, mechanisms, and actuating components may be removed.
   c. One piece front or rear hub with rotor may be replaced with separate hub, rotor hat, and rotor.
   d. Front spindles/knuckles may be modified to facilitate mounting of alternate brake calipers. Spindle modifications shall serve no other purpose.
   e. Any front caliper using four (4) or fewer pistons and using one (1) brake line per caliper is allowed.
   f. Any rear caliper using four or fewer pistons and using one brake line per caliper is allowed.
   g. Rear caliper mounting brackets may be substituted.
2. Restricted preparation cars only:
   a. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use.
   b. Parking brakes, mechanisms, and actuating components may be removed. OEM brake hardware, including knuckle/spindle, caliper, rotor, hub, and associated mounting hardware must be utilized.
   *c. Full Preparation modifications as listed in 9.1.6.D.5.b.1 (Components) may be used with wheel sizes listed in a Restricted Preparation car's specification line. Maximum rotor size for this option (front and rear) is 12.2 inches X 1.27 inches.*

c. System Control:

1. Brake system circuitry may be revised.
2. The original master cylinder may be replaced with any single or dual master cylinder (with balance bar).
3. Any pedal assembly, including the throttle pedal, clutch pedal, clutch and brake master cylinders, mechanical linkage and hydraulic lines, may be used. The pedal assembly, and master cylinders, may be relocated. Firewalls and cowlings may be modified to allow for installation of the pedals and master cylinders. Modification must be the minimum required to complete the installation, and shall not serve any other purpose. Dead pedal/foot rest and heel stop may be added.
4. Any brake booster may be used. The brake booster may be removed. A vacuum reservoir or booster may be added.
5. A brake-bias adjustment cable is permitted.

6. Brake proportioning valves may be used provided that they are of the inline, pressure limiting type.
7. ABS and traction systems must be disabled. It is the responsibility of the competitor to provide proof of system disabling.

6. Wheels/Tires:

a. Wheels:

1. Maximum wheel diameter is 17 inches, unless otherwise indicated within the vehicle specification line.
2. Maximum wheel width is 8 inches, unless indicated within the vehicle specification line.
3. Knockoff or quick change type wheels are prohibited.
4. Track may be changed to accommodate larger tires, provided that there is safe tire/fender/chassis clearance under all conditions of steer, bump, and rebound. Wheel spacers are permitted.
5. Tire tread (that portion of the tire that contacts the ground) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground.
6. Any wheel stud, bolt, and/or nut is permitted.

b. Tires:

1. Max tire size for all cars is 275, unless indicated within the vehicle specification line.
2. Weight penalty for increased width may be assigned within specification line.
3. Tires must conform to GCR section 9.3 Tires.

7. Body/Structure:

a. Fenders:

1. Fenders and wheel openings shall remain unmodified.
2. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance.
3. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness.
4. Any non-metallic inner fender liners may be used or removed.

b. Air Dams/Spoilers:

1. A front spoiler/air dam is permitted.
2. The front spoiler/air dam shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground.
3. The front spoiler/air dam shall be mounted to the body, and shall extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. No part of the front spoiler/air dam shall be lower than three (3.0) inches from the ground. OEM (factory) front spoiler/air dam systems are permitted and if mounted in the stock location, have no height restrictions.
4. The front spoiler/air dam shall not extend toward the rear of the car further than the vertical centerline of the front wheel hubs.
5. The front spoiler/air dam shall not cover the normal grille opening(s) at the front of the car.
6. Openings in the front spoiler/air dam are permitted for the purposes of ducting air to the brakes, cooler, and radiator.
7. Rear spoilers or wings shall be as originally fitted or as specifically authorized on the specification line for that vehicle.

c. Bumpers/Fascias:

1. Unless authorized in these rules or stated in a spec line, all bumper covers, and metal bumper bars shall not be modified or removed. *Bumper absorbing material may be removed.*
2. Front parking light assemblies may be removed for ducting of air.

d. Hood/Roof/Trunk/Rear Deck:

1. Hood and trunk pins, clips, or positive action external latches are permitted.
2. Stock hood and trunk latches may be disabled or removed; if so, some positive action external fastening method shall be used.

3. Any hood/trunk hinges may be used. Hood/trunk hinges may be removed.
4. Underhood bracing on stock hoods may be modified or removed.
5. Steel, aluminum, or fiberglass hoods may include a sealed protrusion above the hood's external profile not to exceed 3 inches in height. Otherwise the external profile of the hood shall remain stock.
6. Ram air openings and rear openings must be blocked off to prevent passage of air.
7. Sunroofs, Targa tops, and T-tops are only permitted if installed by the manufacturer of the vehicle. If installed they must be retained on the vehicle, run in the closed position, and securely bolted in place unless the operating rails adequately secure the panel. Glass panels are permitted.

e. Glass:

1. OEM or factory equivalent windshield is required.
2. Side windows (not including the front door windows) and rear/deck glass must be OEM/ equivalent or clear polycarbonate type plastic material having a minimum thickness of 3 mm. Polycarbonate windows must retain the same shape, size and location as OEM and must be securely fastened to the car.
3. Door glass, quarter glass, and side marker assemblies may be removed. Openings left by the removal of side marker assemblies shall be completely closed. Quarter glass (if not removed or replaced with Lexan-type plastic material as noted in 9.1.6.D.7.e.2 , or NACA-ducts per 9.1.6.D.8.a.12) must be OEM or factory equivalent.
4. Windshield defrosters are allowed as long as they serve no other purpose.
5. Any windshield wipers, motors, arms and brackets may be used or removed.

f. Doors:

1. The door window operating mechanism, inner door trim panel, armrest, map pockets, and inside door latch/lock operating mechanism may be removed and the inner door structural panel may be modified or removed.
2. The stock side impact beams may be removed when NASCAR-style door bars are installed. Original door hinges and exterior door handles shall be retained. Doors may be pinned, not bolted.

g. Frame/Subframe:

1. The frame or subframe shall be stock for body used.
2. The front and rear subframes may be tied together (front to rear, without crossing the center-line of the chassis) with subframe connectors consisting of curved or straight steel tubing (round, square, or rectangular section) with a maximum wall thickness of 0.125".
3. Sub frame connectors may be bolted or welded to the subframes. These connectors may extend under the floor or may extend through the floor with the floor completely welded to this member. Seam/stitch welding is permitted.
4. A connector may be added between the left and right front frame rails forward of the front axle centerline.

h. Weather Stripping/Seals:

1. Engine compartment, trunk, hatch, and door rubber seals or weatherstripping may be removed.

i. Repair/Modification:

1. All chassis/structural repair, if performed, shall be in concurrence with factory procedures, specifications, and dimensions.
2. Body repair shall be performed using every reasonable effort to maintain stock body contours, lips, etc. Any body repair modification having as its purpose increased clearance is prohibited.
3. Unless authorized in this rule set, alteration by adding any materials, such as, but not limited to, tape, stickers, metal, or vinyl, for the purposes of improving aerodynamics is prohibited.
4. The unibody may be deformed or modified to accommodate the installation of components or other modifications allowed by these rules. The rear bulkhead may not be cut to accommodate the installation of traction bars or rear upper control arms or like devices. Deformations or modifications shall perform no other function.
5. All exterior and interior trim, grills, moldings, vents, badges, and screens may be removed.

Resulting holes may be covered.

**8. Driver/Passenger Compartment:**

a. Interior:

1. All seats and seat brackets may be removed.
2. In those automobiles where the rear seat back provides the only solid bulkhead between the driver/passenger compartment and an exposed stock gas tank, a metal bulkhead completely filling the exposed seat back opening shall be installed.
3. In those automobiles where rear seat back removal does not expose the stock gas tank directly to the driver/ passenger compartment, a metal (only) bulkhead is optional.
4. Any steering wheel except wood rimmed types may be used.
5. Any gear shift knob may be used.
6. Gauges and instruments are unrestricted. Any instrument panel may be used.
7. Any interior or exterior mirrors may be used.
8. Sun visors, seat belts and their attaching hardware and bracketry may be removed.
9. Complete removal of interior panels is allowed in all or part.
10. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry.
11. Carpets, mats, and their insulating or attaching materials may be removed from the floor and recesses of the cargo/trunk/spare tire area.
12. Installation of air ducts to direct air to cool the driver is permitted. Air ducts to direct air to cool the driver can be installed behind the a-pillar. Duct and mount cannot exceed 8 inches in height by 12 inches in length. NACA-ducts may be mounted in the side windows or quarter windows.

**9. Safety:**

a. Restraint Systems:

1. Airbags/passive restraint systems shall be removed.

b. Fuel cells:

1. Full preparation cars only:
   a. Fuel cells are mandatory.
   b. Fuel cell size is not restricted.
   c. Fuel cell shall be located within twelve (12) inches of the original fuel tank location or behind the rear axle.
   d. Additional reinforcement may be added to support the fuel cell.
   e. Floor pan may be modified for installation.
2. Restricted preparation cars only:
   a. Fuel cells are optional. If the original fuel tanks are utilized they must not be modified in any way that might jeopardize their crash worthiness.
   b. Fuel cell size is not restricted.
   c. Fuel cell shall be located within twelve (12) inches of the original fuel tank location or behind the rear axle.
   d. Additional reinforcement may be added to support the fuel cell.
   e. Floor pan may be modified for installation.

c. Headlights:

1. Headlight and headlight operating ancillaries may be removed.
2. All resulting openings shall be covered by solid panels of an alternate material. These covers shall be of the same contour and plane as the original lens.
3. OEM light assemblies (i.e. foglamps, driving lights, etc.) mounted on, in or below the bumper shall be removed. Resulting holes may be closed or used for the purpose of ducting air to the brakes, cooler and or radiator as permitted.

d. Steering Column:

1. The steering column is unrestricted.
2. A collapsible type steering column is strongly recommended.
3. The driver's normal seated position must not be relocated.
4. *Full Preparation cars that have OEM electric steering may remove it.*

e. Roll Cage - All cars must have a roll cage as specified in 9.4 Appendix I - 2007 roll cages, sections: 9.4, 9.4.1 and 9.4.4 GT Roll cages, or Appendix J – 2004 Roll Cage Rules.

**10. Miscellaneous:**

a. Hardware/Fasteners:

1. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

b. Wiring:

1. Removal of wiring associated with a component which may be removed by these rules is permitted.
2. All non-essential wiring, switches, gauges, horns, flashers, relays, and lights may be removed.
3. Existing wiring may be substituted.

**E. CAR CLASSIFICATION**

No automatic transmissions, turbochargers/superchargers, or convertibles are permitted in American Sedan. Cars are classified by body style and engine displacement. NOTE: For competition in American Sedan, Full Preparation General Motors products shall be prepared to 1982-1992 Chevrolet Camaro and Pontiac Firebird engine and transmission specifications per current American Sedan Category Specifications. Full Preparation Ford products shall be prepared to the 79-93 Mustang engine and transmission specifications per the current American Sedan Category Specifications.

**F. ENGINE BUILD SHEETS (Full Preparation only)**

**No. of Cylinders: V-8**
**Bore (Max): 4.040"**
**Stroke (Max): 3.500"**
**Compression Ratio: 10.30 Max.**
**Piston to Deck Clr: Not to exceed 0.013" above block deck surface (zero deck)**
**Valve Lift: 0.5000" Max. @ 0.0000" lash**
**Head Casting #'s: see spec lines**

**BLOCK**
**Crankshaft Housing Bore: 2.4412-2.6416"**
**Block Deck Height:**
**GM: GM: 8.9970"-9.0430"**
**Ford: 8.1880-8.2240"**
**Bore Spacing:**
**GM: 4.4000"**
**Ford: 4.3800"**

Roller bearings of any type are not permitted for the camshaft, rod, or crankshaft bearings.

**Options:**

1. One-piece rear main seal adapter (with seal) may be used.
2. Cylinder block oil restrictors may be installed.
3. Block may be machined for the purpose of installing cylinder O-rings.
4. Block may be machined to true warped surfaces.
5. Block casting seam flash may be deburred.
6. Lifter bore sleeving is permitted.
7. A maximum of two cylinders may be sleeved.

8. Steel main bearing caps and four bolt main bearing caps may be fitted provided no other modifications are made to any approved part or specified dimension. Blocks may be machined to accept four bolt bearing caps.

**CONNECTING RODS**
**Big End Bore:** 2.2247-2.2398″
**Pin Fit:** Floating or Interference Fit
**Center to Center:** 6.00″ Max
**Material:** Forged Steel / Cast Iron (No Billet)
**Alternate Manufacturer:** Any rod meeting the AS specs is permitted.
**Options:**
1. Wrist pin oiling holes may be added.

**CAMSHAFT**
**Drive Type:** Single or Dual-row chain
**Lifter Type:** Solid, flat-tappet
**Lifter Dia:** .8750″ nominal
**Options:**
1. Camshaft thrust button may be installed

**CRANKSHAFT**
**Main Journal Dia (Min):** 2.2182″
**Rod Journal Dia (Min):** 2.0690″
**Options:**

1. Any commercially available steel crankshaft (cast or forged) which meets approved stroke, journal diameters and other specified dimensions and requirements is permitted. The minimum weight for any steel crankshaft shall be 42 lbs.

2. Crankshaft casting seam flash may be deburred.

**PISTON**
**Material:** Aluminum (Cast or Forged)
**Ring Configuration:** 3 rings, above pin
**Dome Configuration:** Any dome configuration is permitted.
**Pin Diameter:** .930″ Max
**Options:**
1. Pins may be centered or offset. Offset shall not exceed factory specifications.

**CYLINDER HEADS**
**Valve Job (Head):** Refer to Figure 1
**Intake Valve Size (Max):** 1.94″
**Exhaust Valve Size (Max):** 1.55″
**Port Volume (Max.):** see spec line
**Options:**
1. Angle milling permitted on head gasket or intake manifold gasket surface(s) only. Modification or machining of exhaust manifold surfaces of cylinder head is prohibited.

2. Intake manifold surface may be milled to match angle milled head.

3. Heads may be machined to accept pushrod guide plates.

4. Heads may be machined to accept screw-in rocker studs.

5. Heads may be machined to for the purpose of installing integral o-ring head gaskets.

6. Heat riser passage may be blocked.

7. Valve spring pockets may be machined.

**Notes:**

1. Absolutely no modification, machining, tooling, etc. of the combustion chambers is permitted.

**MISCELLANEOUS**

1. Direct replacement high volume/pressure oil pumps may be fitted provided that no modification to the engine is required for their installation. Alternate oil pump drive shafts may be fitted.

**G. MEASUREMENT STANDARDS**

Measurement standards shall be as specified in Appendix G. with the following exceptions: Wheelbase has a tolerance of + 2″/- 1″.

**Figure 1 Valve Seat Cutting Dimensions**

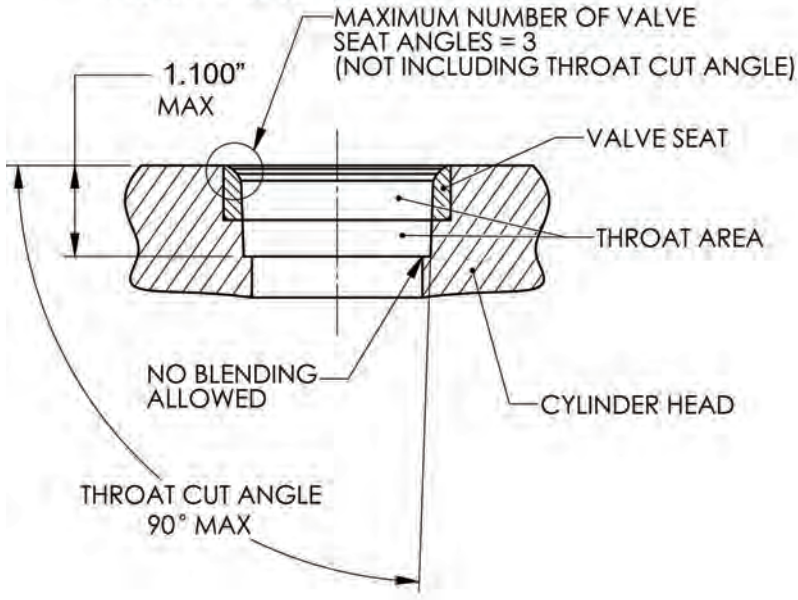
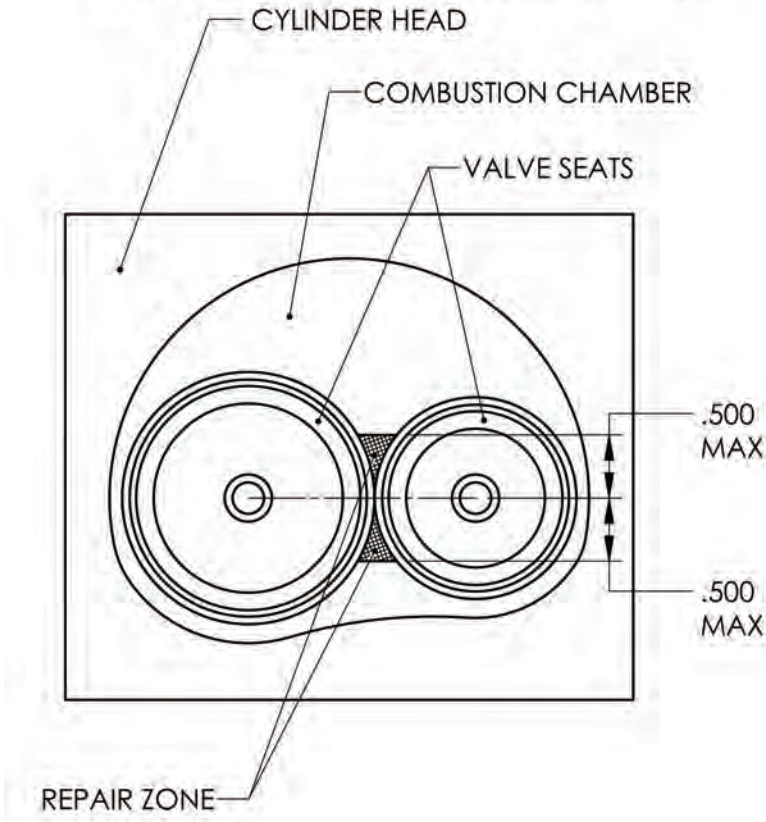


**Figure 2 Aluminum Cylinder Head Repair Zone**



| AS | Wheel-base | Gear Ratios Std. (or Alt.) | Brakes (Max) (in/mm) | Weight (lbs.) (tire sizes are max) | Notes: |
|---|---|---|---|---|---|
| Cadillac CTS-V (04-07) Restricted Prep. 5.7L V8 (Aluminum block, Aluminum heads), LS6, 2 valves/cylinder<br><br>Restricted Prep. 6.0L V8 (Aluminum block, Aluminum heads), LS2, 2 valves/cylinder | 113.4 | 2.97, 2.07, 1.43,1.00, 0.84, 0.56 | (F) 355 Vented Disc (R) 365 Vented Disc | 275 Tire: *3420*<br>295 Tire: *3470* | GM parts numbers 24255748 (Clutch), 12571611 (Flywheel), and 24237634 (Slave cylinder) may be fitted. Tire Size 295, add 50 lbs. (as noted in weight column). Max. Wheel Size: 18 x 9.5. LS6 engine: Compression Ratio, 10.7:1max; Cylinder Bore, 99 mm; Stroke, 92 mm; Intake Valve Diameter, 50.8; Exhaust Valve Diameter, 39.4 mm; Camshaft Lift @ Lobe, Intake (8.24 mm), Exhaust (8.19 mm); Camshaft Duration at .05 inches valve lift, (Intake, 204 degrees), (Exhaust, 218 degrees); Throttle Body Bore, 75 mm; Rocker Arm Ratio, 1.7:1. (Camshaft Lift tolerance .076 mm)<br><br>**LS2 engine:** Compression Ratio, 11.1:1 max; Cylinder Bore, 101.6 mm; Stroke, 92 mm; Intake Valve Diameter, 50.8; Exhaust Valve Diameter, 39.4 mm; Camshaft Lift @ Lobe, Intake (7.78 mm), Exhaust (7.77 mm); Camshaft Duration at .05 inches valve lift, (Intake, 204 degrees), (Exhaust, 211 degrees); Throttle Body Bore, 90 mm; Rocker Arm Ratio, 1.7:1. (Camshaft Lift tolerance .076 mm).<br><br>Either engine may be used in any car in this specification line, at the appropriate weight. ARE dry sump kit consisting of pump #3021S, Pan 1005M and oil tank 7007-2 or Aviaid dry sump kit #008-10001 consisting of pump 13110-1187, pan 52504-10001 and oil tank 57525 are allowed. Pumps may be driven by a crank mounted, toothed style pulley and belt. Plumbing, hardware, brackets, hoses, and fittings to install above kits are free. |
| Chevrolet/Pontiac Camaro & Firebird (82-92) | 101.0 | 3.42, 2.28, 1.45, 1.00 or 2.95, 1.94, 1.34, 1.00, 0.73 or 3.35, 1.93, 1.29, 1.00, 0.61 | 12.2 x 1.27 Disc | *3250*<br>Over 313 CID<br>*3550* | Engine built to A/S Build Sheet specifications with the following: Head Casting #s: 14101081, 14014416 Port Volume (Max.): 081 casting: 170.00 cc IN/65.00 EX; 416 Casting 168.00cc IN/60.00 EX with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 608979, 608879 are permitted. Camaro only: To aid cooling, the center of the grill opening (license plate area), absorbing material, metal bumper in the resulting open area, and bumper backing may be removed. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Chevrolet/Pontiac Camaro & Firebird (93-02) | 101.1 | 2.95, 1.94, 1.34, 1.00, 0.73 or 3.35, 1.93, 1.29, 1.00, 0.61 | 12.2 x 1.27 Disc | *3250*<br>Over 313 CID<br>*3550* | Underside of cowl may be modified to facilitate carb installation. The cowl and shock tower sheet metal may be modified to allow the installation of an 82-92 F-body brake booster and master cylinder. Engine/transmission installation procedure as provided by SCCA Club Racing Technical Dpartment shall be utilized. Engine built to A/S Build Sheet specifications with the following: Head Casting #'s: 14101081, 14014416; Port Volume (Max.): 081 casting: 170.00 cc IN/65.00 EX; 416 Casting 168.00cc IN/60.00 EX with a 150 lb weight reduction. Edelbrock Cylinder Head Part #'s 608979, 608879 are permitted. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. |
| Chevrolet/Pontiac Camaro & Firebird (93-97) Restricted Prep. 5.7L V-8 (Iron Block, Aluminum Heads) LT1, 2 valves per cylinder | 101.1 | 2.97, 2.07, 1.43, 1.00, 0.80, 0.62 or 3.36, 2.07, 1.35, 1.00, .80, .62 | 12.2 x 1.27 Disc | *3150* | Max. Wheel Size: 17 x 9. GM Performance Parts camshaft Kit P/N-12480002 is permitted. 98-02 stock brakes and/or spindles/knuckles may be used. Compression Ratio, 10.6:1 max; Cylinder Bore, 101.6 mm; Stroke, 88.39 mm; Intake Valve Diameter, 49.3; Exhaust Valve Diameter, 38.1 mm; Camshaft Lift @ Lobe, Intake (7.57 mm), Exhaust (7.77 mm); Camshaft Duration at .05 inches valve lift, (Intake, 205 degrees), (Exhaust, 207 degrees); Throttle Body Bore, 48 mm (twin bore); Rocker Arm Ratio, 1.5:1. Camshaft lift tolerance .076 mm. Parts specific to the SS Camaro and Firehawk/WS6 Firebird in the drivetrain/exhaust manifolds/headers/intake manifolds/intake components are not classified in American Sedan. Drivetrain/exhaust manifolds/headers/intake manifolds/intake components manufactured by, but not limited to Street Legal Performance (SLP), Inc., are not permitted. *Any commercially available cold air intake that bolts onto the engine is permitted. No modifications to the body, chassis, grill or bumper are permitted when installing a cold air intake.* |
| Chevrolet/Pontiac Camaro & Firebird (98-02) Restricted Prep. 5.7L V-8 (Aluminum Block, Aluminum Heads) LS1, 2 valves per cylinder | 101.1 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 12.2 x 1.27 Disc | *3250* | Max. wheel size: 17 x 9. Compression Ratio, 10.3:1 max; Cylinder Bore, 99 mm; Stroke, 92 mm; Intake Valve Diameter, 50.8; Exhaust Valve Diameter, 39.4 mm; Camshaft Lift @ Lobe, Intake ((98-00), 7.43 mm; (01-02), 6.96 mm), Exhaust ((98-00), 7.43 mm, (01-02), 7.13 mm); Camshaft Duration at .05 inches valve lift, (Intake, (98-00), 202 degrees; (01-02), 197 degrees), (Exhaust, (98-00) 210 degrees; (01-02), 207 degrees)); Throttle Body Bore, 75 mm; Rocker Arm Ratio, 1.7:1. Either camshaft may be used for any car in this specification line. Camshaft lift tolerance .076 mm. SLP Intake Lid (SLP part number 21044 (98-99) and 21045 (00-02)) is permitted. *Any commercially available cold air intake, including SLP, that bolts onto the engine is permitted. No modifications to the body, chassis, grill or bumper are permitted when installing a cold air intake.* All other parts specific to the SS Camaro and Firehawk/WS6 Firebird in the drivetrain/exhaust manifolds/headers/intake manifolds/intake components are not classified in American Sedan. Drivetrain/exhaust manifolds/headers/intake manifolds/intake components manufactured by, but not limited to Street Legal Performance (SLP), Inc., are not permitted. |
| Chevrolet Camaro SS (V8) (10-13) Restricted Prep. 6.2L V8 (Aluminum Blcok, Aluminum Heads), 2 valves per cylinder | 112.3 | 3.01, 2.07, 1.43, 1.0, .84, .57 | (F) 355 mm X 32.1mm Vented Disc (R) 300 mm X 19.2Vented Disc | 275 Tire: *3550*<br>295 Tire: *3600* | Max wheel size 20 X 10. 54mm flat plate restrictor required. Compression Ratio, 10.9:1 max; Cylinder Bore, 103.24 mm; Stroke, 92 mm; Intake Valve Diameter, 55.0; Exhaust Valve Diameter, 40.5 mm; Camshaft Lift @ Lobe, Intake (8.24 mm), Exhaust (7.27 mm); Camshaft Duration at .05 inches valve lift, (Intake, 204 degrees), (Exhaust, 211 degrees); Throttle Body Bore, 90 mm; Rocker Arm Ratio, 1.7:1. Camshaft lift tolerance .076 mm. ARE Dry Sump Kit #LS3-3Y permitted. |

| AS | Wheel-base | Gear Ratios Std. (or Alt.) | Brakes (Max) (in/mm) | Weight (lbs.) (tire sizes are max) | Notes: |
|---|---|---|---|---|---|
| Dodge Challenger (08-14) Restricted Preparation 5.7L V8 (Aluminum block, Aluminum heads), 2 valves/cylinder | 116.0 | 2.97, 2.1, 1.46, 1.00, 0.74, 0.50 | (F) 360 mm Vented Disc, 32 mm thick (R) 350 mm Vented Disc, 28 mm thick | 275 Tire: *3450*<br>295 Tire: *3500* | Max. Wheel Size 18 X 10. Stock brakes or alternate Dodge brakes (Part numbers: front caliper (05175106 (R) and 05175107 (L); rear caliper (R1542564 (R) and R1542565 (L))) *may be used with the brake rotor sizes listed in this specification line.* Compression Ratio: 9.7:1 max; Cylinder Bore, 3.9170 inches; Stroke, 3.5780 inches; Intake Valve Diameter, 2.050 inches; Exhaust Valve Diameter, 1.550 inches; Camshaft Lift @ Lobe, Intake (12 mm), Exhaust (11.7 mm), Camshaft Duration at .05 inches valve lift, (Intake, 192 degrees), (Exhaust, 196 degrees); Throttle Body Bore, 81 mm; Rocker Arm Ratio, 1.650:1. (Camshaft Lift tolerance .076 mm). Minimum ride height, 4.00 inches. Dodge 1GL20RXF and 82211606 rear spoilers permitted. Dodge 68043390AA air dam permitted. |
| Ford Mustang Incl. Cobra & Cobra R (79-93) | 100.4 | 3.07, 1.72, 1.00, 0.70 or 2.95, 1.94, 1.34, 1.00, 0.63 or 3.35, 1.99, 1.33, 1.00, 0.68 | 12.2 x 1.27 Disc | *3150* Over 313 CID *3450* | Engine built to A/S Build Sheet specifications with the following: Head Casting #s: F3ZE AA (GT40), F1ZE-AA (GT-40), F77E-AA (GT-40P), Port Volume (Max.): 143.00cc IN/54.00cc EX (GT-40 & GT-40P) with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 602579, 602479 are permitted. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang Incl. Cobra thru 95 (94-98) | 101.3 | 2.95, 1.94, 1.34, 1.00, 0.63 or 3.35, 1.99, 1.33, 1.00, 0.68 | 12.2 x 1.27 Disc | *3250* Over 313 CID *3550* | Hydro boost braking system is not permitted. Engine built to A/S Build Sheet specifications with the following: Head Casting #s: F3ZE AA (GT40), F1ZE-AA (GT-40), F77E-AA (GT-40P), Port Volume (Max.): 143.00cc IN/54.00cc EX (GT-40 & GT-40P) with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 602579, 602479 are permitted. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang Cobra and GT (94-95) Restricted Prep. 5.0L V8 pushrod engine (Iron Block, Iron Heads), 2 valves per cylinder | 101.3 | 3.35, 1.99, 1.33, 1.00, 0.68 | (F) 330 Vented Disc (R) 296 Vented Disc | *3250* | Max. Wheel Size: 17 x 9. 4.00" (bore) X 3.00" (stroke), Compression ratio, 9.2:1 max.; cam lift at lobe, .28 " (intake and exhaust); cam lift at valve .45" intake and (exhaust). Camshaft lift tolerance .003 inches. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang Cobra R (1995) Restricted Prep. 5.8L V8 pushrod engine (Iron Block, Iron heads), 2 valves per cylinder | 101.3 | 3.27, 1.98, 1.34, 1.00, 0.68 | (F) 330 Vented Disc (R) 296 Vented Disc | *3350* | Max. Wheel Size: (F)17 x 9 (R)17x10. Replacement exhaust manifolds, or "headers," may be used. Cylinder head mounting flange(s) shall be no thicker than 0.375 inch, and tubing diameter shall be no greater than 1.625 inch O.D., measured at any tube location one (1) inch from the flange to the collector. 4.00" (bore) X 3.00" (stroke), Compression ratio, 9.2:1 max.; Cam lift at lobe, .29" (intake and exhaust); cam lift at valve .48" (intake and exhaust). Camshaft lift tolerance .003 inches. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang Cobra and GT (96-98) Restricted Prep. GT: 4.6L V8 OHC engine (Iron Block, Aluminum heads), 2 valves per cylinder Cobra: 4.6L dual OHC engine (Aluminum Block, Aluminum Heads), 4 valves per cylinder | 101.3 | 3.37, 1.99, 1.33, 1.00, 0.67 | (F) 330 Vented Disc (R) 296 Vented Disc | *3200* | Max. Wheel Size: 17 x 9. GT: 90.2 mm (bore) and 90.0 mm (stroke); Compression ratio 9.57:1 max; cam lift at lobe, .26" (intake and exhaust), cam lift at valve .48" (intake and exhaust). Cobra: 90.2 mm (bore) and 90.0 mm (stroke); Compression ratio 10.05:1 max; cam lift at valve, .40" intake and exhaust. Either engine may be used in any car in this specification line. Camshaft lift tolerance .003 inches. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang Cobra (99-02) Restricted Prep. 4.6L dual OHC V8 Aluminum Block, Aluminum Heads), 4 valves per cylinder | 101.3 | 3.37, 1.99, 1.33, 1.00, 0.68 | (F) 330 Vented Disc (R) 296 Vented Disc | *3250* | Max. Wheel Size: 17 x 9. 90.2mm (bore) and 90.0 mm (stroke); Compression ratio, 10.05:1 max; cam lift at valve, .40" (intake and exhaust). Camshaft lift tolerance .003 inches. *OEM-style ball joints with taller than stock stud lengths are permitted.* |

| AS | Wheel-base | Gear Ratios Std. (or Alt.) | Brakes (Max) (in/mm) | Weight (lbs.) (tire sizes are max) | Notes: |
|---|---|---|---|---|---|
| Ford Mustang Incl. Cobra (99-04) | 101.3 | 2.95, 1.94, 1.34, 1.00, 0.63 or 3.35, 1.99, 1.33, 1.00, 0.68 | 12.2 x 1.27 Disc | *3250* Over 313 CID *3550* | Cobra R bodywork and independent rear suspension not permitted. '94-'95 Mustang K-member may be used to facilitate installation of 302 engine. Under no circumstances is the '99-'00 K-member to be modified. Hydro boost braking system is not permitted. Engine built to A/S Build Sheet specifications with the following: Head Casting #s: F3ZE AA (GT40), F1ZE-AA (GT-40), F77E-AA (GT-40P), Port Volume (Max.): 143.00cc IN/54.00cc EX (GT-40 & GT-40P) with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 602579, 602479 are permitted. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang GT (99-04) Restricted Pep 4.6L V8 OHC engine (Iron Block, Aluminum heads), 2 valves per cylinder | 101.3 | 3.37, 1.99, 1.33, 1.00, 0.68 | (F) 276/330 Vented Disc (R) 266 Vented Disc | *3200* | Max. Wheel Size: 17 X 9. Cold Air Intake allowed. Replacement manifolds, or "headers," may be used. Cylinder head mounting flange(s) shall be no thicker than 0.375 inch, and tubing diameter shall be no greater than 1.625 O.D., measured at any tube location one (1) inch from the flange of the collector. 90.2 mm (bore) and 90.0 mm (stroke); Compression ratio, 9.57:1 max; cam lift at lobe, .28" (intake), .30" (exhaust); cam lift at valve, .51" (intake) and .54" (exhaust). Camshaft lift tolerance .003 inches. |
| Ford Mustang Mach 1 (03-04) Restricted Prep. 4.6L V8 dual OHC (Aluminum Block, Aluminum Heads), 4 valves per cylinder | 101.3 | 3.38, 2.00, 162, 1.27, 1.00, 0.79 | (F) 330 Vented Disc (R) 296 Vented Disc | *3200* | Max. Wheel Size: 17 x 9. 90.2mm (bore) and 90.0 mm (stroke); Compression ratio, 10.05:1 max; cam lift at valve, .40" (intake and exhaust). Camshaft lift tolerance .003 inches. *OEM-style ball joints with taller than stock stud lengths are permitted.* |
| Ford Mustang GT (05-14) | 107.1 | 3.38, 2.00, 1.32, 1.00, .675 or 2.95, 1.94, 1.34, 1.00, 0.63 | 12.2 x 1.27 Disc | *3250* Over 313 CID *3550* | Engine/transmission installation procedure as provided by SCCA Club Racing Technical Department shall be utilized. Engine built to A/S Build Sheet specifications with the following: Head Casting #s: F3ZE AA (GT40), F1ZE-AA (GT-40), F77E-AA (GT-40P), Port Volume (Max.): 143.00cc IN/54.00cc EX (GT-40 & GT-40P) with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 602579, 602479 are permitted. Alternate gear ratio sets 2.88, 1.91, 1.33, 1.00 or 3.27, 1.98, 1.34, 1.00, 0.68 are permitted. |
| Ford Mustang Coupe GT 4.6L OHC (05-10) Restricted Prep. (Aluminum Block, Aluminum Heads), 3 valves per cylinder | 107.1 | 3.38, 2.00, 1.32, 1.00, 0.68 | (F) 316/355 Vented Disc (R) 300 Vented Disc | *3200* | Max. Wheel Size: 18 X 9.5. Stock brakes or alternate Ford 14" Brembo Brake (Ford Racing Kit #M-2300-S) *may be used.* Cold Air Intake, Ford Racing Part M-9603-M463 is permitted. Replacement exhaust manifolds, or "headers," may be used. Cylinder head mounting flange(s) shall be no thicker than 0.375 inch, and tubing diameter shall be no greater than 1.625 inch O.D., measured at any tube location one (1) inch from the flange to the collector. 90.2mm (bore) and 90.0 mm (stroke); Compression ratio 10.0:1 max; cam lift at lobe .22" (intake and exhaust); .44" at valve (intake and exhaust). Camshaft lift tolerance .003 inches. |
| Ford Mustang Coupe GT 5.0L DOHC (11-14) Restricted Prep. (Aluminum Block, Aluminum Heads), 4 valves per cylinder | 107.1 | 3.66, 2.43, 1.69, 1.32, 1.00, 0.65 | (F) 335/355 Vented Disc (R) 300 Vented Disc | 275 Tire: *3450* 295 Tire: *3500* | Max. Wheel Size: 18 x 10. Stock brakes or alternate Ford 14" Brembo Brake (Ford Racing Kit #M-2300-S) may be used. 54mm flat plate restrictor required. 92.2 mm (bore) and 92.7 mm (stroke); Compression ratio, 11.2:1 max; cam lift at lobe, .24" (intake) and .22" (exhaust). Camshaft duration at .100 mm valve lift: intake, 260 degrees; exhaust, 263 degrees. Camshaft lift tolerance .003 inches. |
| Mercury Capri (79-86) | 100.4 | 3.07, 1.72, 1.00, 0.70 or 2.95, 1.94, 1.34, 1.00, 0.63 or 3.35, 1.99, 1.33, 1.00, 0.68 | 12.2 x 1.27 Disc | *3150* Over 313 CID *3450* | Engine built to A/S Build Sheet specifications with the following: Head Casting #s: F3ZE AA (GT40), F1ZE-AA (GT-40), F77E-AA (GT-40P), Port Volume (Max.): 143.00cc IN/54.00cc EX (GT-40 & GT-40P) with a 150 lb weight reduction. Edelbrock Cylinder Head Part #s 602579, 602479 are permitted. *OEM-style ball joints with taller than stock stud lengths are permitted.* |

| AS | Wheel-base | Gear Ratios Std. (or Alt.) | Brakes (Max) (in/mm) | Weight (lbs.) (tire sizes are max) | Notes: |
|---|---|---|---|---|---|
| Pontiac GTO (04-06) Restricted Prep.<br><br>2004, 5.7L V8(Aluminum Block, Aluminum heads), LS1, 2 valves per cylinder<br><br>05-06, 6.0L V8 (Aluminum Block, Aluminum heads), LS2, 2 valves per cylinder | 109.8 | 2.97, 2.07, 1.43, 1.00, 0.84, 0.57 | (F) 320 Vented Disc<br>(R) 286 Vented Disc | LS1: *3250*<br><br>LS2: *3300* | Max. Wheel Size: 17 x 9.5. Either engine listed permitted for any car classified in this specification line.<br><br>***2004:*** Compression Ratio, 10.3:1 max; Cylinder Bore, 99 mm; Stroke, 92 mm; Intake Valve Diameter, 50.8; Exhaust Valve Diameter, 39.4 mm; Camshaft Lift @ Lobe, Intake (6.96 mm), Exhaust (7.13 mm); Camshaft Duration at .05 inches valve lift, (Intake, 197 degrees), (Exhaust, 207 degrees); Throttle Body Bore, 75 mm; Rocker Arm Ratio, 1.7:1.<br><br>***05-06:*** Compression Ratio, 11.1:1 max; Cylinder Bore, 101.6 mm; Stroke, 92 mm; Intake Valve Diameter, 50.8; Exhaust Valve Diameter, 39.4 mm; Camshaft Lift @ Lobe, Intake (7.78 mm), Exhaust (7.77 mm); Camshaft Duration at .05 inches valve lift, (Intake, 204 degrees), (Exhaust, 211 degrees); Throttle Body Bore, 90 mm; Rocker Arm Ratio, 1.7:1. ARE dry sump kit consisting of pump #3021S, Pan 1005M and oil tank 7007-2 or Aviaid dry sump kit #008-10001 consisting of pump 13110-1187, pan 52504-10001 and oil tank 57525 are allowed. Pumps may be driven by a crank mounted, toothed style pulley and belt. Plumbing, hardware, brackets, hoses, and fittings to install above kits are free.<br><br>Either engine may be used in any car in this specification line. Camshaft lift tolerance is .076 mm. |

## 9.1.7. SPEC MIATA CLASS

These specifications are part of the SCCA GCR and all automobiles shall conform to GCR Section 9.

### A. PURPOSE AND INTENT

The Spec Miata (SM) class is intended to provide the membership with the opportunity to compete in low cost, production-based cars with limited modifications, suitable for racing competition.

The rules are intentionally designed to be more open than the Showroom Stock class but more restricted than the Improved Touring class.

The *original OEM* vehicle identification number (VIN) *stamped on the firewall* shall correspond with the model year automobile classified. VIN plates or stampings shall remain in place*, with the firewall VIN taking precedence*.

### B. CLASSIFIED CARS AND WEIGHTS

Classified cars and weights are listed on the Spec Miata Specification Table.

Cars are to be weighed with the driver and required ballast. See GCR Section 9.3 Ballast.

### C. AUTHORIZED MODIFICATIONS

The following items represent the only modifications and safety items permitted and/or required on Spec Miata automobiles other than safety items as required in Section 9. Permitted components or modifications must not perform a prohibited function. Updating or backdating is not allowed for any car, model, specification, or component, except as specifically authorized in these rules.

A Mazda factory shop manual for the specific make, model, and year of automobile is required to be in the possession of each entrant. The manual may be in the form of printed material, microfiche, CDs, DVDs, and/or Internet access to manufacturer sponsored web-based databases. The manual is intended to aid scrutineers in identifying parts and the configuration of the automobile.

All engines and internal components used in rebuilding or refurbishment must have been offered for sale by Mazda in the US for the correct year and VIN of car, except as otherwise provided for in these rules. This rule prevents use of aftermarket parts or Mazda parts of incorrect specification or application.

Assembly, rebuild, and refurbishment procedures, and all associated dimensions must adhere to the published factory service procedures, except as otherwise stated in these rules. No components may be added or omitted from those specified by the published factory service procedures. All components must be standard dimensions. It is permitted to use industry standard procedures to repair damaged non-engine components (e.g., welding a transmission or differential housing).

Any water pump, timing belt, or alternator of original equipment manufacturer design, dimensions, and specification may be used.

The use of any painting, coating, plating, or impregnating substance (e.g.,anti-friction, thermal barrier, oil shedding coatings, chrome, anodizing, REM, isotropic finishing, etc.) to any internal engine surface, internal transmission or differential surface, internal or external surfaces of the intake manifold, exhaust manifold or downtube is prohibited.

If the factory manual or these rules provide only a partial specification or no specification at all, the Mazda parts may not be modified beyond what is allowed in these rules. Compliance of such parts will be determined by comparison to new parts delivered by Mazda. Other approved parts with only a partial specification or no specification available in these rules may not be modified. Compliance of such parts will be determined by comparison to new parts from the supplier.

1. **Engine Modifications**
   - **a. General**
     1. No modifications to this engine are allowed, except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, as well as electrical, cooling, and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Mazda factory service manual.
     2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts. No balancing, blue printing, lightening, polishing, or other modification of moving parts of the engine is permitted. All parts in the engine must be stock Mazda OEM parts unless specified in this rule set. For all Mazda part numbers in these specifications, superseding part numbers are considered equivalent.
     3. Compression ratio for 1.8L engines shall be calculated using the official Spec Miata calculator. The calculator can be downloaded on scca.com: http://www.scca.com/pages/scrutineering-forms-procedures
   - **b. Block**
     1. The engine block may be decked/milled to achieve the factory specified compression ratio for the correct model year as listed. Honing of cylinders is permitted to a maximum standard diameter as shown in the SM spec lines.

2. Cast iron cylinder liners (sleeves) as previously permitted may be used in both Regional and National racing through 6/28/13. Regions may continue to allow sleeved blocks via supplemental regulations.

3. The cylinders may be bored .010" over to a maximum overbore ("alternate") diameter shown in the SM spec lines.

4. If one or more cylinders is overbored or exceeds the maximum standard diameter specified in paragraph 1, the vehicle shall meet the "minimum weight with overbored motor" specified in the vehicle specifications.

**c. Crankshaft**

1. The stock Mazda Miata crankshaft must be used with no modifications except for machining to allow the use of main and rod bearings as allowed in section 3 below. Shot peening to stress relieve the crankshaft after machining is permitted. Table 2 lists the permitted crankshaft for each model year and the minimum weight (not including pilot bearing or hardware).

| Table 3: Crankshaft Weight | | |
|---|---|---|
| **Model Year** | **Part Number** | **Minimum Weight (lbs.)** |
| 90-93 (short nose) | B617-11-300 | 26.5 |
| 90-93 (long nose) | B6S7-11-300A | 26.5 |
| 94-05 | BP06-11-300D | 35.6 |

2. Main and rod bearings must not be modified in any way. OEM and non-OEM bearings must be used from within the standard ranges as allowed in the Mazda factory service manual. The crank triggers must not be altered or modified in any way. The crank pulley/balancer must not be altered or modified in any way.

**d. Connecting Rods**

1. Mazda part number B6S7-11-210E must be used. Minimum connecting rod weight with cap and bolts is 537 grams.

**e. Pistons**

1. Mazda OEM pistons must be used. Minimum weights less wrist pin and hardware and minimum weights of wrist pins are shown in the following table:

| Table 4: Piston Weight *& Max. Diameter* | | | | |
|---|---|---|---|---|
| **Model Year** | **Part Number** | **Min. Weight w/o wrist pin and hardware (grams)** | **Min. Weight Wrist Pin (grams)** | *Max. Diameter* |
| 90-93 (STD.) | B6Z2-11-SA0C | 271.5 | 86.0 | *77.974 mm 3.0698 in* |
| 90-93 (.010" over) | B6Z2-11-SB0C | TBD | TBD | *78.217 mm 3.0794 in* |
| 94-97 (STD.) | BPY11-11-SA0A | 291.5 | 80.0 | *82.975 mm 3.2667 in* |
| 94-97 (.010" over) | BPY1-11-SB0A | TBD | TBD | *83.225 mm 3.2765 in* |
| 99-00 (STD.) | BPZ0-11-SA0 | 288.0 | 78.0 | *82.975 mm 3.2667 in* |
| 99-00 (.010" over) | BPZ0-11-SB0 | TBD | TBD | *83.225 mm 3.2765 in* |
| 01-05 (STD.) | BPZ3-11-SA0 | 288.0 | 78.0 | *82.975 mm 3.2667 in* |
| 01-05 (.010" over) | BPZ3-11-SB0 | TBD | TBD | *83.225 mm 3.2765 in* |

2. No modification of the piston is permitted. Modification of the piston ring end gap width is

allowed.

**f. Cylinder Head**

1. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded and the minimum height of the cylinder heads are maintained. The minimum heights of the cylinder heads as measured in the factory service manual allowed are shown in table 5.

| Table 5: Cylinder Head Height | |
|---|---|
| **Model Year** | **Minimum Height (inches)** |
| 90-93 (1.6L) | 5.235 |
| 94-05 (1.8L) | 5.235 |

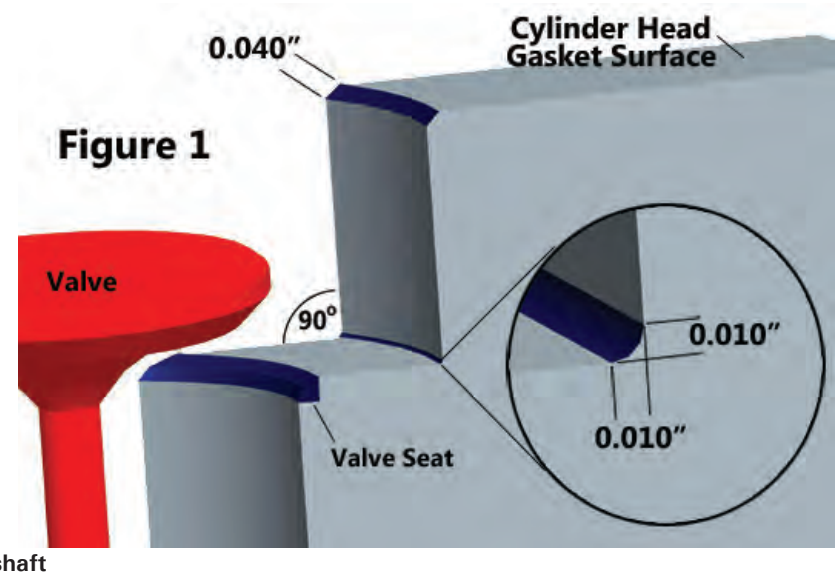
2. The cylinder head must not be ported, polished, or machined. The original casting must not be modified in any way or polished unless specified below.
3. The throat area of the port consists of the 90 degree angle at the very bottom of the cast steel valve seat as it transitions to the aluminum casting below. It is permitted to plunge cut the throats in order to correct for core shift that is commonly found in many cylinder heads. The cut must be cylindrical and concentric to the valve guide axial centerline, within a tolerance of .005", for the entire length of the cut. The radius tangent to the cylindrical and bottom surfaces shall not exceed 0.375". This cut cannot extend further than the specified number below from the bottom of the ferrous valve seat. There can be no tooling or machine marks in the head below this point (including OEM machine marks). The intersection of the machined surface of the plunge cut to the port casting shall not be altered, except that the area under the short turn radius may be de-burred, with the de-burring not to exceed 1.5 mm in width. The 90 degree bend at the bottom of the valve seat and the aluminum directly below it will be measured with a gauge and must conform to the maximum diameters and depths listed in Table 6.

| Table 6: Throat Dimensions | | | |
|---|---|---|---|
| **Engine** | **Maximum Intake Throat Diameter (inches)** | **Maximum Exhaust Throat Diameter (inches)** | **Maximum Throat Depth (from bottom of ferrous valve seat (millimeters)** |
| 1.6L | 1.095 | 0.948 | 12 |
| 1.8L | 1.178 | 1.020 | 12 |

4. No aluminum in the bowl area (other than that specified for the plunge cut) or the ports may be removed, added, or manipulated for any reason. It is understood that heads may look slightly different from bowl to bowl due to casting irregularities. No material may be removed *(except as permitted in section 9.1.7.C.1.f.3)* or added from the short turn radius in the port.
5. Unshrouding of valves is explicitly limited as follows: The wall of allowed relief cut must be a single cut parallel and concentric with the valve guide for the full depth of the cut. The cut must be cylindrical with no taper. The bottom of the cut must form a 90 degree angle with an allowance for a bevel or curve whose radius is not to exceed .010". There must be a sharp, non-modified and non-deburred edge where the valve relief cut first meets the chamber. No part of this cut (except where it intersects the head gasket surface, which may be deburred up to .040") is to be blended by hand, machined, or chemically processed to create a smooth transition. See figure 1 below. The maximum dimensions, measuring guide center line to chamber edge can be found in Table 7.

| Table 7: Relief Cut Radius | | |
|---|---|---|
| **Engine** | **Maximum Intake Valve Relief Cut radius (inches)** | **Maximum Exhaust Valve Relief Cut radius (inches)** |

| | | |
|---|---|---|
| 1.6L | 0.687 Radial | 0.600 Radial |
| 1.8L | 0.760 Radial | 0.675 Radial |




**g. Camshaft**

1. Camshafts must comply with the official camshaft specifications as supplied by the SCCA Club Racing Tech Department. The camshaft and crankshaft sprockets must be as supplied by Mazda. Cam timing must not be altered; the belt must be installed as specified in the Mazda factory service manual.

**h. Valves**

1. OEM valves must be as supplied by Mazda. Valve location or angle must not be moved. Reshaping of the valves is strictly prohibited. Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Mazda OEM parts. Valve stem installed height must be per the Mazda factory service manual: Valve stem seals must be Mazda OEM or equivalent. Valve seats may be cut provided the valve seat angles are stock Mazda three angle cut, as defined below.

2. A valve job will consist of only three flat angles; radius cuts are not allowed. A 45 degree seat angle must be used, which may vary in width from .030 inch to .050 inch. To narrow or correctly position the face angle, a bottom angle of 70 degrees must be used. To narrow or correctly position the face angle, a top cut of 30 degrees may be used. All angles must stay on the cast steel block portion of the seat. The angles must not extend off the seat into the aluminum casting at the top or bottom of the seat.

**i. Valve Springs**

1. Valve springs are Mazda OEM as specified in the Mazda factory service manual. Valve spring shims are not permitted except the one standard shim that is used under every valve spring. Only the Mazda shim may be used and the OEM dimensions must be maintained.

**j. Intake Manifold**

1. The intake manifold must be stock Mazda parts, without any material added or removed. No coating is permitted on the exterior or interior of the manifold. Injectors must be stock Mazda OEM parts, correct for the model year of the car. All air entering the intake tract shall pass through the fuel injection air inlet.

   a. 1.6L (1990-1993) cars may replace the stock air box with a cone style air filter assembly. The air filter element is unrestricted. No ducting or baffling of air to the air filter is permitted., however, the forward-facing driver's side turn signal indicator may be removed. The stock plastic air tubes between the AFM and the throttle body may be covered or wrapped.

   b. 1.6L cars may open and adjust, but not modify, the OEM airflow meter. For 1.6L cars, the position of the air flow meter may be moved provided it remains attached to the unmodified factory intake tube.

c. 1.8L cars must use the stock air box, but the air filter element is unrestricted. Mass air flow sensors may not be modified, adjusted or opened.

d. 1.8L cars must use an air restrictor plate. The restrictor plate must be placed between the throttle body and plenum. All intake air must pass through the restrictor plate. Restrictor plates must be the proper size as listed in the specification table, must be from Mazdaspeed Motorsports Development or from SCCA Enterprises, and must not be modified. An OE (or equivalent) gasket shall be used on both sides of the restrictor plate.

e. 2001-2005 cars may replace air intake tube (p/n BP6D-13-331) with the 1999 air intake tube (p/n BP4W-13-331B).

k. **Fuel system**

1. The fuel pump must be a Mazda or OEM equivalent part. Any adjustable mechanical fuel regulator may be used. It may not be mounted in the cockpit. It may not be adjusted electronically or from the cockpit. Cars equipped with a factory installed manifold vacuum reference for the fuel regulator may use it, but it must not be altered in any way. Refer to GCR Section 9.3.26 Fuel for permitted fuel specifications and for the required fuel sample acquisition port.

2. Fuel filler tube venting may be defeated (loop or block vent lines in trunk).

l. **Exhaust system**

1. 1.6L (1990-1993): The exhaust manifold internal factory welds may be ground from the interior of the OEM exhaust manifold up to 1" from the mounting surfaces of the cylinder head and the collector. A bead of weld or braze may be added to the outside of the exhaust manifold inlet and outlet mounting flanges for the purposes of repair only. No coatings are permitted on the exterior or interior of the manifold. Heat wraps may not be used.

1.8L (1994-1997): A bead of weld or braze may be added to the outside of the exhaust manifold inlet and outlet mounting flanges for the purposes of repair only. No material may be removed. No coatings are permitted on the exterior or interior of the manifold. Heat wraps may not be used.

All other years: The exhaust manifold must be Mazda OEM, without any material added or removed. No coatings are permitted on the exterior or interior of the manifold. Heat wraps may not be used.

2. The 1999-05 Miatas with California emissions equipment may substitute the Federal OEM exhaust manifold and ECU for the OEM CA exhaust manifold and catalytic converter.

3. The post catalytic converter oxygen sensor may be disabled, replaced, relocated, or removed; the resulting hole (if present) may be plugged. Original exhaust system heat shields may be removed.

4. The factory exhaust system beyond the OEM front down pipe may be replaced, provided the following are true:

a. The replacement system retains the original configuration (i.e., single tube design) and the tubing is an absolute maximum of 2.3 inches outside diameter as measured at least 6" from downpipe flange or muffler. The maximum length of tubing used for the system beyond the OEM down pipe shall not exceed 120 inches (includes catalytic converter replacement pipe if used).

b. The pipe may end anywhere after the rear subframe. Forward of the rear subframe, the pipe must follow the original path of the OEM exhaust system. The exhaust system shall not create any new openings in the rear bumper.

c. No expansion chambers. Up to two muffler(s) may be added. The muffler(s) shall not exceed a maximum length (parallel to the longitudinal centerline of the car) of 34 inches. The muffler(s) shall not exceed a maximum width of 24 inches (parallel to the lateral centerline of the car). In addition, the sum of the length and width of the muffler(s) shall not exceed 40 inches.

d. The system meets all event specific sound requirements.

e. A catalytic converter may be gutted, removed, or replaced with a catalytic converter replacement pipe. The replacement pipe must not exceed 17.5 inches in length and have an outside diameter no greater than 2.375 inches.

f. No portion of the exhaust may be wrapped with any type of insulating tape, nor shall any portion of the exhaust, internal or external, be coated with any thermal coatings.

m. **Lubrication System**

1. The oil pan must be as supplied by Mazda. No modifications are permitted. The windage tray must be used and must not be modified in any way.

n. **Cooling System**

1. The water pump must be a Mazda or an OEM equivalent part. The water pump pulley must be

the stock Mazda part. No modifications are permitted.

2. Any radiator (and mounting brackets) may be used, provided it is mounted in the original location, maintains the same plane as the original core, and requires no body or structure modifications to install. Any openings created by fitting an alternate radiator must be blocked to prevent air from entering the engine compartment. At least one functional stock OEM cooling fan must be maintained and mounted in the stock location. The fan shroud may be modified for installation.
3. Thermostats may be modified, removed, or replaced.
4. All cars may install the upper radiator seal, p/n NA75-50-OK7A.
5. A radiator screen of .125 inch minimum mesh may be added in front of the radiator. The screen must be a single layer and installed behind the front bumper cover and attached to the air guide. Tape may be applied to the mesh.
6. The factory air conditioning systems may be removed. Items that serve a dual purpose, such as the alternator/air conditioning compressor bracket, may not be substituted.
7. Engine coolant fluid, coolant/heater hoses and clamps may be substituted. Upper and lower radiator hoses may be replaced only with rubber or silicone hoses. Heater core may be bypassed but may not be modified or removed. Heater water control valve(s) may be added or substituted.

o. **Electrical Equipment**

1. The ECU and engine electrical harness must be as supplied by Mazda. No modifications are permitted. The ECU maps and inputs must not be modified. Chips may not be replaced. The OBDII diagnostic port must be operational in all 1996-2005 cars.
2. Ignition coils must be stock Mazda parts. No modifications are permitted.
3. All sensors related to engine operating parameters must be used and must be stock Mazda parts. These sensors and their locations and mounts, and their wiring harness leads may not be altered except as allowed in subsection 9 below. Any sensors required for analog type gauges must be in addition to the Mazda sensors. Data acquisition sensors may be added. Relocating the oil pressure sending in order to install an oil pressure gauge is permitted. On 96-05 cars a single fixed bracket may be installed to support and secure the crank position sensor (CPS) in its stock location. The bracket may only attach to the CPS, the CPS mounting bolt, and the closest oil pump threaded mounting hole and must serve no other purpose.
4. The alternator may be OEM equivalent. The alternator drive pulley must be stock. The alternator must not be disabled in any way. Spark plugs and spark plug wires may be substituted. Ignition timing is unrestricted within stock adjustment capability.
5. Batteries may be replaced with those of an alternate manufacturer, provided they are of similar amp-hour capacity, size, and are fitted in the standard location. *Batteries shall weigh 18.0-28.0 lbs.* Additional battery hold-down devices may be used and are strongly recommended.
6. For 1999-2005 model years only, it is permitted to alter the ignition timing either by elongating the mounting holes of the stock crankshaft position sensor trigger wheel or by replacing it with the Mazda adjustable trigger wheel, part number 0000-10-5100-AJ. Fasteners (including upsizing) are open for pulley/timing plate attachment.
7. It is permitted to remove all components of the cruise control system.
8. It is permitted to remove the horn.
9. An electrical pigtail ranging from 3" to 6" in length and terminated with any 3 pin electrical connector may be soldered and potted to the OEM cam sensor for the purpose of correcting a known issue with the factory connection. The factory harness connector may be removed and replaced with the appropriate mating connector.
10. Auxiliary control of the radiator cooling fan may be added to power the fan independent of the ECU. OEM control of the fan must remain functional.

p. **Flywheel**

1. The stock Mazda flywheel must be used. No modifications are permitted except for normal resurfacing for clutch wear. Table 8 provides minimum weights with pilot bearing:

| **Table 8: Flywheel Weight** | |
|---|---|
| **Model Years** | **Minimum Weight (lbs)** |

| | |
|---|---|
| 90-93 | 17.6 |
| 94-05 | 17.0 |

2. The 94 model year may use the flywheel from the 95-05 model years. If the 1994 flywheel is used, it must weigh a minimum of 18.5 lbs.

q. **Clutch**

1. All cars must use either the stock OEM pressure plate or the ACT pressure plate (Mazdaspeed p/n: 0000-0205401-SS – 1.6L cars or 0000-0205404-AC – 1.8L cars). The unmodified pressure plate must be bolted directly to the stock, unmodified flywheel. Any clutch disk may be used. Alternate clutch lines are permitted, must serve no other purpose.

r. **Miscellaneous**

1. The use of the following non-standard replacement parts are permitted provided the use does not result in any unauthorized modification of any other component.

a. Fasteners – nuts, bolts, screws, washers, studs, etc. (Head bolts, rod bolts, and flywheel bolts must be used as provided by Mazda.)

b. Gaskets and seals, except those specified in the above rules

c. Mechanical tachometer and analog gauges

d. Oil and lubricants

**2. Transmission/Final Drive**

a. Transmission and final drive ratios must remain stock for the year of car. All cars shall only use the 5 speed transmission and the 4.3 differential ratio. Transmission gear ratios must be stock. All cars may use the stock 4.3 unmodified OEM open differential or one of the approved alternates listed below.

b. 1990 to 1993 Miatas may use the stock, unmodified viscous limited slip differential or the MAZDASPEED Motorsports Development limited slip differential, part number #QN10-64-A00 (previously TOY1-27-200 & 0000-02- 5501). Alternate MAZDASPEED #0000-02-5500 limited slip differential is permitted.

c. 1994 and newer cars may use the stock limited slip (Torsen or Tochigi Fuji) differentials from 94-05 models. 4.3 gear ratio must be retained.

d. The 90-93 Miatas may convert to the 94-05 differential assembly and must retain the 4.3 differential gear ratio. This conversion includes the driveshaft and half-shafts. The original 90-93 model rear suspension uprights must be retained.

e. Lubricants may be substituted with any lubricant.

f. Updating or backdating of transmissions (inclusive of shifters) from 90-05 is permitted; OE shifters must be retained.

*g. Transmission countershaft spacer Mazda p/n M504-17-304 may be replaced with a splined spacer, Mazda part number 0000-02-5722-SP.*

**3. Chassis**

Suspension modifications are limited to the addition of the MAZDASPEED Motorsports Development "Spec Miata kit" and those modifications detailed in this area.

a. MAZDASPEED Motorsports Development Spec Miata kit

| | | |
|---|---|---|
| 1990-93 | 1.6 DOHC | K-SPEC-M5-SUSP |
| 1994-97 | 1.8 DOHC | K-SPEC-M5-SUS8 |
| 1999-up | 1.8 DOHC | K-SPEC-M5-SUS9 |

The following is a breakdown of components supplied within these kits. All parts numbers are MAZDASPEED Motorsports Development parts numbers. No substitution of parts is allowed. The kits must be used in their entirety, except as specified.

1. Shocks
Front MAZDASPEED part #: 0000-04-5225-BL
Bilstein part # stamped on front shock:
B46-1488 or 24-014885
Rear MAZDASPEED part #: 0000-04-5226-BL
Bilstein part # stamped on rear shock:
B46-1489 or 24-014892

2. Springs

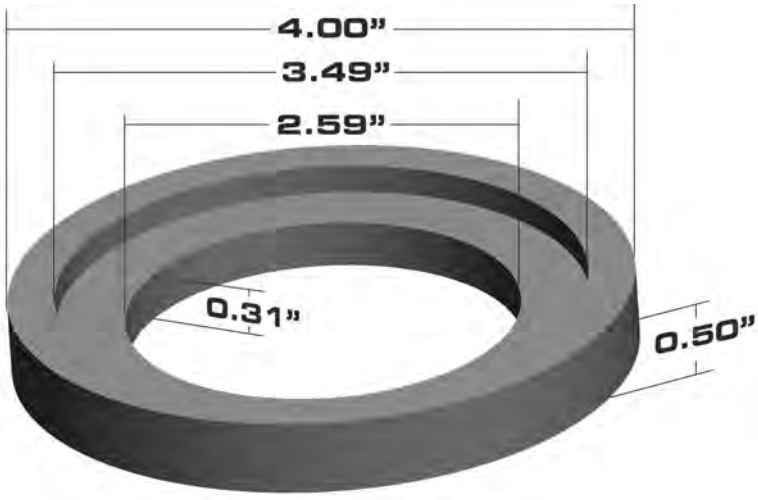
Front Eibach ERS 700 lbs/6" 0000-04-9700-06
Rear Eibach ERS 325 lbs/7" 0000-04-9325-07

3. Coil-Over kit
   Front/Rear 0000-04-5402AW: The sleeves and perches may be replaced with parts of the same material and dimensions.

4. Anti-Roll Bars
   K-SPEC-M5-SUSP
   Eibach kit - front / rear bars 0000-04-5302-EB
   Front 24mm Adjustable
   Rear 15mm Adjustable
   K-SPEC-M5-SUS8 or may use adjustable 24 mm front bar from Eibach kit 0000-04-5302-EB.
   Eibach kit - front / rear bars 0000-04-5303-EB
   Front 27mm non-Adjustable
   Rear 15mm Adjustable
   K-SPEC-M5-SUS9
   Eibach kit – front / rear bars 000-04-5304-EB
   Front 27mm non-Adjustable
   Rear 15mm Adjustable

b. All cars may use the Fat Cat Motorsports bump stop kit (p/n FCM-MT-KIT-SM) or the unmodified Mazdaspeed bump stop (p/n 0000-04-5993AW) in conjunction with the 1999-up stock upper mount assembly consisting of the upper mount (p/n: NC10-28-340C), the upper mount bushing (p/n: NC10-28-776) and the upper mount washer (p/n: NC10-28-774), and shock body spacer over the shock shaft (p/n 1234-56-789-AW). All other OEM upper mounting hardware shall be discarded. Non-OEM equivalents may be used in place of the upper mount, upper mount bushing, and upper mount washer only. No other modifications are allowed.

A metal or delrin plastic spacer as shown below may be added between the Mazdaspeed bump stop and the 1999 shock hat. The 0.31 inch measurement is +/- 0.01 in. All other measurements are non-critical and are shown for clarification purposes only. In addition, a 3/8 inch steel hardware washer may be installed between the shock shaft and the bump stop. The washer shall be a maximum of 1/8 inch thick.




+/- 0.05" TOLERANCE

c. Subframe braces may be updated to stock 1997 configuration utilizing the MAZDASPEED Motorsports Development Spec Miata kit. 2001-2005 (VVT) model years must remove the additional intermediate underbody/floorpan attached bracing (Mazda part number N067-56-G11A Base plate & part number N067-56-H10A cross member).

d. Anti-roll bar links may be replaced and may be adjustable, but the attachment points must remain stock. The control arms and specified anti-roll bar may not be modified. One end of the sway bar(s) may be disconnected as a suspension tuning aid. The bar must remain in place and be solidly attached to the suspension on one end. A locating ring for the rear anti-roll bar may be added; it must serve no other purpose. Metal shims of up to 1/8" total thickness may be added between each anti-roll bar mount shackle and its stock mounting point on the chassis.

e. Suspension alignments (camber, caster, toe) are unrestricted within the limits of the unmodified factory adjustments. Minimum ride height is unrestricted.

f. No relocation or reinforcement of any suspension component or mounting points is permitted.

g. Hardware items (nuts & bolts) may be replaced by similar items performing the same fastening function(s).

h. Manual or power steering racks may be used. Power steering racks may be converted to manual and the 2-piece pinion shaft may be welded. Removal of power steering components is allowed.

i. Towing eyes per GCR Section 9.3 Towing Eyes are required. Stock towing eyes may be modified, replaced, or removed but may serve no other purpose.

j. Hubcaps and wheel trim shall be removed.

k. All chassis/structural/electrical repairs, if performed, shall be in concurrence with factory procedures, specifications, and dimensions. Unless specifically authorized by the manufacturer for repair or allowed by these rules, no reinforcement, i.e., seam welding, material addition, etc., is permitted.

l. The front shock tower connector/brace is not permitted on the 1999 and newer cars.

m. The Mazdaspeed motor mount, part NAY1-39-040 is allowed.

n. All cars are permitted to use the "R" model tie rod ends part # N021-32-280A.

o. The rubber vibration damper may be removed from the pinion flange on 1994 and newer differentials.

p. For camber adjustment only - inner suspension bushings, on the front upper control arms, may be replaced with non-metallic offset bushings. The bushings may use metal (inner and/or outer) sleeve(s). Material and design must be the same in all four positions. The control arm may be modified to allow for pinning the bushing to prevent rotation. Spherical bearings are not allowed.

q. To facilitate frequent lifting of the vehicle without causing damage, one piece of steel angle iron or square steel tubing may be added under the rocker panel inboard of the factory pinch weld flange on each side of the car. Angle iron and/or square steel tubing dimensions shall not exceed 12" x 1" x 1" x .125 thick. The added support shall be securely fastened to the car and serve no other purpose.

*r. Effective 6/1/2017, Mazda competition front hub part number 0000045HUB-ST is permitted.*

*s. Front subframes may be reinforced by use of Mazda Part #0000-04-5989 (Subframe Reinforcement). If installed, the Subframe Reinforcement shall be welded around the perimeter only. No other modifications to subframes are permitted.*

**4. Brakes**

a. Backing plates and dirt shields may be ventilated or removed.

b. Brake lines may be replaced with steel lines or Teflon lined metal braided hose.

c. Cars with antilock braking systems must have the system disabled as specified in GCR 9.3 Brakes.

d. Parking brake mechanisms, and actuating components may be removed.

e. Brake pads and brake fluid are unrestricted

f. 2001 and newer cars must use the 255mm(F) and 252mm(R) brakes. The larger brakes 269.5mm(F) and 267.9mm(R) are not permitted.

**5. Wheels/Tires**

Any wheel/tire may be used within the following limitations:

a. Required rim diameter is fifteen (15) inches. Maximum rim width is seven (7) inches. Minimum weight of wheel shall be 13 lbs without spacers. All four wheels must be the same dimension including offset.

b. All wheels must be one-piece metal castings (not multi-piece wheels, bolted, riveted or welded together).

c. Tires:
   1. Regional and Majors Competition
      All cars shall use the P205/50ZR15 Hoosier "SM7" Spec Miata Dry or the P205/50R15 Hoosier "H2O" Spec Miata Wet tires.

d. The front track shall not exceed 1450 mm. The rear track shall not exceed 1475 mm. Aftermarket wheel studs, lug nuts, and wheel spacers are permitted. If spacers are used they shall be no greater than 13mm and equal per axle.

e. Tire tread (that portion of the tire that contacts the ground under static conditions) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground. To determine compliance, the vehicle should be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions.

**6. Body/Structure**

a. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Non metallic inner fender liners may be removed.

b. Body repair shall be performed using every reasonable effort to maintain stock body contours, lips, etc. Any body repair modification having as its purpose increased clearance is prohibited.

c. The "R" package Miata chin spoiler is allowed on 1990-1997 cars provided it is mounted in the OEM location. 1999-up cars may use the OEM chin spoiler for these cars (99-00 p/n: NC10-V4-900F or 01-05 p/n: NO67-V4-900G). Aftermarket chin spoilers may be used but must use the same mounting holes, must have the same dimensions and must perform only the same functions as the OEM chin spoiler. Any material may be used.

Rear spoilers and rocker panel moldings including OEM design are prohibited.

d. Windshield Clips/Rear Window Straps per GCR Section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.

e. Convertible tops and attaching hardware shall be completely removed. Cars may compete with the Mazda factory detachable hard top in place (latches shall be replaced with positive fasteners and rear pin attachment mechanisms must be used or replaced with positive fasteners), but it is not mandatory. When no top is used, driver shall wear arm restraints, and the cage will meet the helmet clearance rule. It is allowed to attach the hard top to the upper windshield bar of the roll cage.

f. Body side moldings and wheel opening trim pieces may be removed.

g. The plastic trim on the hood may be removed.

h. Hood and trunk clips are permitted. Stock hood and trunk latches may be disabled or removed.

i. Ducting may be added to provide fresh air to the driver compartment. This ducting shall be located in the driver and/or passenger vent window area by means of a transparent/alternate vent window material and duct with no modifications to the bodywork.

To improve driver exit through the window area, the driver vent window and vent window supporting frame may be removed as an assembly. If removed, ducting may be in the passenger side vent window only.

j. Radio antennas may be removed. Antennas for two-way radios may be added.

**7. Driver/Passenger Compartment - Trunk**

a. The driver's seat shall be replaced with a one-piece bucket-type race seat. All seat mountings shall be reinforced. Factory seat tracks/brackets may be modified, reinforced, and/or removed to facilitate replacement mountings provided they perform no other function. The passenger seat must be removed. The transmission tunnel may be modified for the purpose of installing a competition driver seat. The driver's side floor pan may be modified to accommodate larger/taller drivers. All modifications shall be contained between the transmission tunnel, driver's side rocker, rear bulkhead and no more than 24" forward of the rear bulkhead. The modification shall not extend below the factory floor stiffener/frame rail. The steel used in the modification shall be no thinner than .058". All modifications shall be welded in place. This modification shall serve no other purpose other than seating position.

b. Any steering wheel, except wood rimmed types, and its required mounting modifications may be used. Any shift knob may be used.

c. Gauges and instruments may be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s), or any other location using a secure method of attachment. Other than modifications made to mount instruments and provide for roll cage installation, the remainder of the dash "board" or panel shall remain intact.

d. OEM exterior mirrors shall be retained. Mirror mounting position may be changed, but must remain within 6" of the original location on the exterior of the door. The OEM interior mirrors may be removed, relocated or replaced by a mirror of any design. Additional mirrors may be added, both interior and exterior.

e. Carpets, center consoles, cargo bins, seat belts, floor mat, firewall insulation/blanket, sound deadener patches, undercoating, radio system, headliners, dome lights, grab handles, sun visors and their insulating and attaching materials may be removed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compart-

ment alterations or gutting are permitted.

f. Two way radios may be used.

g. Spare wheels and tires, jacks and tools shall be removed from the cargo/trunk area. Spare tire covers and trunk mats and/or trunk carpeting shall be removed. The trunk trim plate that is used to mount the factory jack handle may be removed.

h. Modifications may be made to the foot pedals to improve the comfort and accessibility to the driver. Dead pedal/foot rest and heel stop may be added.

i. If ballast is required to meet the required weight it shall be added as follows:

1. All ballast shall be securely mounted on the passenger floor.

2. Each segment of ballast shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5/Metric 8.8 or better and shall utilize large diameter, load distributing washers. Alternatively, ballast may be secured using all 4 Mazda factory passenger seat mounting bolt holes.

3. Holes may be drilled in the passenger floorpan for the purposes of mounting the ballast and the floorpan may be reinforced for that purpose only.

j. All cars shall run with both front door windows fully open (down).

**8. Safety**

a. An electrical master ("kill") switch is required. See GCR Section 9.3 Master Switch.

b. Installation of a fire extinguisher or fire system is required. See GCR 9.3 Fire System.

c. Air bag systems shall be disarmed and may be removed.

d. In any automobile where allowed removal of upholstery, seat belts, etc., creates an opening between the driver/passenger compartment and an exposed gas tank, or part thereof, including the filler tube, a metal bulkhead which completely fills such opening shall be installed. See GCR 9.3. Fuel Cell Specifications.

| SM | Bore x Stroke (mm) Displ. (cc) | Valves IN & EX (mm) | Restrictor Size (mm) | Comp. Ratio (without carbon) | Wheelbase (mm) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Mazda MX-5 / Miata (90-93) | 78.13 (3.076″) x 83.7<br><br>alternate 78.38 (3.086″) x 83.7<br><br>1597 | 31.1 (I) 26.3 (E) | N/A | 9.4 | 2266 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3 | (F) 235 Vented Disc (R) 232 Solid Disc | 2275 or 2290 with alternate bore | |
| Mazda MX-5 / Miata (94-97) | 83.13 (3.273″) x 85.1<br><br>alternate 83.39 (3.283″) x 85.1<br><br>1839 | 33.1 (I) 28.2 (E) | N/A | 9.0 | 2266 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3<br><br>See Notes | (F) 255 Vented Disc (R) 252 Solid Disc | 2400 or 2415 with alternate bore | Must update to the 4.30:1 rear axle ratio as found in the 99+ cars. |
| Mazda MX-5 / Miata (99-00) | 83.13 (3.273″) x 85.1<br><br>alternate 83.39 (3.283″) x 85.1<br><br>1839 | 33.1 (I) 28.2 (E) | 38mm | 9.5 | 2266 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3 | (F) 255 Vented Disc (R) 252 Solid Disc | 2400 or 2415 with alternate bore | Maximum L dimension of 1.815″ is permitted. |
| Mazda MX-5 / Miata (01-05) | 83.13 (3.273″) x 85.1<br><br>alternate 83.39 (3.283″) x 85.1<br><br>1839 | 33.1 (I) 28.2 (E) | 40mm | 10.0 | 2266 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3 | (F) 255 Vented Disc (R) 252 Solid Disc | 2425 or 2440 with alternate bore | |

| SCCA Enterprises Restrictor Table Sizes/Colors (Current and Past) | |
|---|---|
| Purple | 38mm |
| Silver | 40mm |
| Blue | 41mm |
| Green | 43mm |
| Red | 45mm |
| ? | 47mm |

## 9.1.8.A SPORTS RACING CATEGORY

These specifications are part of the SCCA GCR and all automobiles shall conform with GCR Section 9.

### 1. SCCA SPORTS RACING CATEGORY PREPARATION RULES

The SCCA Sports Racing Category shall be for automobiles which are designed and constructed for road racing competition, offering provisions for driver and a passenger, or driver alone (single-seater). They shall conform to the following requirements. Sports Racers Cars except SRF homologated prior to 1-1-2014 are eligible to compete as P1 or P2 as long as they meet applicable class rules, no re-homologation is required. During competition, cars are subject to the minimum speed/lap time required for that competition event. Cars built after 1-1-2014 must conform to Homologation requirements as specified in 9.2.2.

Effective 1/1/97, those cars formerly known as Sports Renault and/or Spec Racers or any variants of this chassis/drive train/bodywork combination will not be allowed to compete in ASR in any SCCA sanctioned event.

Single seat Formula car chassis (Ex.: FA, FC, FF, FV) fitted with enclosed bodies (as specified in these rules) may run in a Sports Racing/Prototype Class (ASR, P1, P2) provided they comply with the requirements of the Classification Specification and GCR Section 9. This means that all Formula Atlantic, Formula Continental, Formula F, and Formula Vees running in Sports Racing categories shall have bodywork which complies with the appropriate category Classification Specifications. The ex Formula car chassis need not have any former engine(s) fitted. Converted cars will maintain their former SCCA registration vehicle numbers. Each converted car shall meet the homologation requirements of section 9.2.2 and have a new Vehicle Logbook (with new pictures); however, the former Logbook will be securely attached to the new Logbook. This procedure will enable Race Officials and Scrutineers to identify a single seat Sports Racer as formerly having been a bona fide Formula car. New Single seat Sports Racers may be of new construction and must meet the homologation requirements of section 9.2.2.

Where Weber or other approved carburetors are specified and used, they shall retain their standard configurations of fuel distribution. This is to prohibit annular discharge carburetors.

It is the intention of the Club Racing Board to never classify a replica or derivative of a mass produced road car body in the sports racing classes. These classes are intended for open and/or closed sports racer/sports prototype bodywork

Sports racing cars shall be classified into classes as follows:

- A Sports Racing (ASR) - Regional Status Only (Former Can-Am and F-5000 allowed if registered prior to 01/01/2003)
- Prototype 1 (P1)
- Prototype 2 (P2)
- Spec Racer Ford (SRF)

2. Shock/Dampers

In an effort to control shock/damper technology and cost to a level reasonable for Club Racing, in ASR, P1, P2 any fluid dampers are allowed with the following restrictions:

1. Dampers must be manually adjustable only.

2. Mechatronic valves, G valves, hybrid inerters, inerters and mass dampers are prohibited.

3. Electro/Magnetic shock fluid is prohibited

4. Shocks may not be electronically interconnected, however data acquisition is permissible as long as it serves no other purpose.

## B. ASR CLASSIFICATION - (REGIONAL ONLY CLASS)

**a. Definition**

A class for purpose built (i.e., road racing prototype, Can-Am, SR2, etc.), highly modified single or two-seat, closed-wheel, open or closed cockpit racing cars which meet the general regulations of Section 9 of the GCR for Sports Racing Category cars, yet are unique in concept and liberal in specifications so as to provide innovative design latitude. Homologation may be required. Refer to section 9.2.2. for details.

Homologation is not required on the following cars running ASR:

1. Former Formula A (F-5000) cars registered as ASR cars before January 1, 2003.
2. Cars conforming to the 1978-1984 Can-Am specifications, with aerodynamic skirts removed, registered as ASR cars before January 1, 2003.
3. ASR cars registered prior to January 1, 2003 which meet the provisions of 9.1.8.A.1.n. These cars may be updated to Section A.1.b-m specifications but they then shall meet all requirements of Section A.1.b without exception, including homologation.

Exceptions:
Exceptions to the ASR specifications must be requested with the homologation application and will be listed on the homologation certificate.

**b. Chassis/Frame**

Chassis/frame construction is unrestricted within the following limitations:

1. Chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Single seat sports racers, up to 1300 lbs., shall meet the requirements listed in FIA article 258A or 275. All sports racers over 1300 lbs. shall meet the requirements of FIA article 258A only. There are no exceptions. Contact SCCA National Office for a list of the relevant FIA specifications/SCCA requirements.
2. Chassis of metallic tube and/or metallic monocoque construction shall be manufactured to be consistent with the safety requirements outlined within these rules and the GCR.

**c. Engines**

Any engine(s) may be used within the following limitations:

1. Piston or rotary internal combustion, gasoline-fueled engines only. No turbines. Turbo and/or super-charging is permitted.

**d. Fuel System**

Fuel system is unrestricted within the following limitations:

1. Fuel per GCR Section 9.3 Fuel.
2. Fuel Cell Vents: Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

**e. Electrical System**

Electrical system is unrestricted within the following limitations:

1. Self Starter: Cars shall be equipped with on-board self-starter and on-board power supply controlled by the driver while in a normal driving position.
2. Lights – Brake and Tail per GCR Section 9.3 Lights.

**f. Transmission / Final Drive**

Transmission / final drive system is unrestricted within the following limitations:

1. Power shall not be applied to more than two (2) wheels.

**g. Bodywork and Airfoils**

Bodywork and airfoils are unrestricted within the following limitations:

1. Firewall and floor per GCR Section 9.3 Firewall and Floor.
2. Bodywork shall provide comfort and safety for driver and a passenger or for a driver only. All elements of the bodywork shall be completely and neatly designed and finished, with no temporary or makeshift elements.
    a. The bodywork as viewed from the side and above shall cover all mechanical components except that the intake, exhaust, and radiators may be exposed. The bodywork shall extend over the full width of the tires for at least one third (1/3) of their circumference as viewed from the side. Ventilation slots are permitted. The tires shall not be seen as viewed from above, although the rear tires may be exposed as viewed from the rear. Cycle-type fenders (which only cover the tire and are not continuous with the rest of the body) are prohibited. Fenders

shall be firmly attached to the bodywork with no gap between body and fender.

b. Width – The maximum width shall not exceed 221cm (87 inches) including all aerodynamic devices. However, no portion shall extend more than 10cm (3.9 inches) beyond a plane tangent to the outer face of the front and rear wheels with tires. The minimum body width between the front and rear wheels shall not extend inwards beyond a vertical plane connecting the centerlines of the front and rear tires.

c. Visibility – Bodywork shall provide visibility for the driver forward and to both sides adequate for racing conditions.

d. Windscreens are optional.

3. Cockpit Opening
   a. Closed-cockpit cars – Two functional doors, one on each side, are required and shall be capable of being opened from inside and outside of the car. Doors shall be hinged on the leading or top edges only. The driver's seat shall be capable of being entered from either side without the removal or manipulation of any part or panel (except for doors, removable steering wheel and removable cockpit padding).

   b. Open-cockpit cars – The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel and removable cockpit padding).

   The cockpit opening of metallic chassis shall have the following minimal dimensions:
   Length: 60cm (23.622 inches)
   Width: 45cm (17.717 inches)

   This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.

   The cockpit opening of non-metallic chassis shall be designed to meet the FIA homologation requirements (article 258A or 275 for cars up to 1300 lbs; Article 258A, only, for cars above 1300 lbs.).

4. Aerodynamic Devices
   a. The mounting apparatus of any part having an aerodynamic influence (i.e. bodywork, floor, sidepods, wings, spoilers, etc.), shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times. This allows for actively adjusted aerodynamic elements (e.g., wings, diffusers, etc.).

   b. No Aerodynamic skirts per GCR Section 9.3 Aerodynamic Skirts. Within the preceding restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polyethylene, polypropylene, Teflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, brittle plastics (e.g., Plexiglas), and other materials which shatter or break-up causing hazardous track conditions are prohibited.

   c. Ground effects are permitted, but may not be attained by "sealing" or bridging the gap between the bodywork and the road surface. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.

   d. Leading Edges of Airfoils: The leading edge of any airfoil fixed to the front of the car shall not be sharp. Minimum radius: 0.5cm (0.2 inches).

5. Exposed glass headlight lenses and bulbs on the front of the car are prohibited.

**h. Suspension**

Suspension is unrestricted within the following limitations:

1. All cars shall be equipped with a full suspension system (e.g., springs, torsion bars, etc.) front and rear. Rigid mounted suspensions are prohibited. Monoshock/monospring systems are permitted.

**i. Steering**

Unrestricted provided that it is of a safe/secure design and acts upon at least two wheels at one end of the vehicle.

**j. Wheels and Tires**

Wheels and tires are unrestricted within the following limitations:

1. Tires shall have a minimum speed rating of 120 mph or better. Tires shall be the same size and design (e.g., radial, bias-ply, etc.) for the right and left sides of the front axle(s), and same size and design (e.g., radial, bias-ply, etc.) for the right and left sides of the rear axle(s).

2. Wheels – Minimum diameter 10", minimum width 6". Wheels shall be identical for the right and left sides of the front axle(s), and identical for the right and left sides of the rear axle(s). Wheel material shall be metal. Cars shall be equipped with a minimum of four (4) wheels. Wire wheels are prohibited.

**k. Brakes**

Brakes are unrestricted within the following limitations:

1. Cars shall have a braking system that acts upon all wheels of the vehicle. Chain/belt driven cars may have a single brake caliper that acts upon the differential, thereby applying braking force to the two (2) drive wheels.
2. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

**l. Weight (without driver)**

1. The minimum weight of the vehicle as raced, without driver, shall be 750 lbs. Cars of composite (e.g., fiberglass, carbon fiber, Kevlar, etc.) chassis construction shall not exceed a maximum weight, as raced without driver, of 1500 lbs. Cars of conventional tubular space-frame or metallic monocoque chassis construction that are in excess of 1800 lbs, as raced without driver, require specific approval by the Club Racing Board for homologation (if required, see section 9.2.2. for details) and competition eligibility.

**m. Safety Equipment**

Note: All ASR cars shall meet all applicable portions of GCR Section 9.

1. Mirrors per GCR Section 9.3 Mirrors. Additionally, there shall be at least two (2) mirrors, each with a minimum 100cm² (15.5 in²) of reflective surface.
2. Towing Eyes per GCR Section 9.3 Towing Eyes. Additionally, if the rollbar is faired-in, the fairing shall have rollbar access hole(s) to allow for quick retrieval.
3. Side Intrusion Protection
   For metallic chassis, the area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit.
   a. Panel(s), minimum of either .060" heat-treated aluminum (6061-T6 or equivalent) or eighteen (18) gauge steel, attached outside of the main frame tubes.
   b. Reinforced body – at minimum, consisting of a double layer, five (5) oz., bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame.
   c. For either method, the material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

   Non-metallic chassis are covered under the FIA chassis homologation.
4. Crushable Structure
   For metallic chassis, there shall be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 cm² (31 in²), 40cm (15.75") forward of the clutch and brake pedals (not depressed) constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminum.
   a. Radiators may be incorporated in this structure.

   Non-metallic chassis are covered under the FIA chassis homologation.
5. Driver's Feet Position
   For metallic chassis, the frame shall incorporate forward-facing braces to protect the driver's legs and feet. The braces shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of twenty-five (25) centimeters (9.84") apart (inside dimension) from the front bulkhead to the rear roll hoop.

   Non-metallic chassis are covered under the FIA chassis homologation.

**n. ASR Cars Registered Prior to January 1, 2003**

Turbocharging/supercharging is prohibited. Cars shall be classified according to engine displacement as follows:

| Engine Type | Displ. (cc) | Induction | Weight (lbs) |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Rotary Piston | 2292 max. | Unrestricted | 1326 |
| Racing | 1300-2000 | Unrestricted | 1200 |
| Racing | 2001-3000 | Unrestricted | 1250 |
| Stock block & cyl. head | 3001-4000 | Fuel injection or one Holley 4150 1-11/16 | 1602 |
| Stock block & cyl. head | 4001-5000 | Fuel injection or one Holley 4150 1-11/16 | 1811 |

1. Engine, Rotary Piston
   a. Changing the capacity of the working chamber(s) is prohibited.
   b. The eccentric shaft may be replaced with another of the same basic material, but no changes in eccentricity of journal dimensions are permitted.
   c. The rotor is unrestricted providing the number of lobes remains unchanged.
   d. Alternate rotor housing is allowed only when submitted by the manufacturer and recognized by the Club Racing Board. No changes are allowed in the epitrocoidal curve in alternate housing.
   e. Rotary engine cars shall be equipped with a suitable muffler.

## C. PROTOTYPE 1 (P1) CLASSIFICATION

P1 is a sports racing class that will be inclusive of existing race cars and new purpose designed cars that fit within these rules. Homologation may be required. Refer to section 9.2.2. for details. Cars homologated prior to 1/1/14 may be spec line cars or required to be fully compliant with all P1 rules. The class is intended to be the premier sports racing class promoting state of the art technology in car design and innovation while utilizing established cost effective engine technology.

It is not the intent of these rules to freeze the class in time but rather to encourage orderly and progressive change to keep the class current.

**A. SAFETY EQUIPMENT:**
Shall comply with GCR Section 9, Cars and Equipment, in addition:

1. Exposed glass headlight lenses and bulbs on the front of the car are prohibited.
2. Brake lights are not required

**B. CHASSIS**

1. Any form of chassis construction subject to restriction in GCR section 9, Cars and Equipment except as permitted in the P1 rules.
2. Anti-intrusion panels allowed anywhere on the sides of the chassis. Materials and attachment are unrestricted.
3. Cars may be either single seat or two seat cars subject to restrictions in the P1 rules.
4. Group CN two seat sports cars complying with FIA Appendix J, Article 259 are eligible to compete in the P1 class. The race car, exclusive of the engine must fully comply with the FIA regulations stated above, with the following allowances:
   a. Carbon fiber bodywork is allowed.
   b. Article 3.7.4 Flat bottom: FIA CN cars running in SCCA category P1 are not required to meet the flat bottom rule as written in Article 3.7.4, but instead may be constructed to comply with the following rule adopted by the FIA-sanctioned V de V series: Rearward of the vertical plane tangent to the rear of the front tires and up to the vertical plane tangent to the front of the rear tires, the bottom part of the car must be fitted with a solid, flat, hard, impervious, rigid and continuous surface (< >).
   c. Article 3.7.6 Rear wing. FIA CN cars running in SCCA category P1 are not required to meet the wing width rule as written in Article 3. 7.6, but instead may be constructed to comply with the following rule adopted by the FIA-sanctioned V de V series: Viewed from the side, the rear wing (main wing and end plates) must be contained within a parallelogram of 330mm vertically by 400 mm horizontally and must not have a width greater than 2000 mm.
   d. Article 6.1 Fuel Specification: FIA CN cars running in SCCA category P1 must run to SCCA approved fuel specifications-not to FIA Article 259
   e. Article 6.5 Refueling: FIA CN cars running in SCCA category P1 are not required to meet the refueling rules as written in Article 6.5, but may do so if desired. All fuel system components must still meet applicable SCCA rules. Any FIA CN car running in an SCCA endurance race must meet those applicable refueling and technical sporting regulations for that event
   f. Article 6.6 Fuel Capacity: FIA CN cars running in SCCA category P1 are not required to meet the maximum fuel capacity of 100 liters, for SCCA category P1 fuel capacity is free.
   g. Article 8.4 Lighting Equipment: Compliance to Rule 8.4.2 is not required. Compliance to Rule 8.4.3 is not required- however any FIA CN car running in an SCCA night race must meet all applicable SCCA lighting rules for night/endurance racing.
   h. Compliance to Rule 8.4.4 (Rain light) FIA CN cars running to SCCA category P1 can install a rain light to FIA Article 259 rules or to SCCA GCR rules.
   i. Engines must comply with line J or line L (Table L) from the P1 engine table. If an engine from Table L is used, the appropriate weight and restrictor must be used.

**C. BODYWORK**

1. Bodywork shall provide comfort and safety for driver and a passenger or for a driver only. All elements of the bodywork shall be completely and neatly designed and finished, with no temporary or makeshift elements.
2. The bodywork as viewed from the side and above shall cover all mechanical components except that the intake, exhaust, tow hooks, jack points and radiators may be exposed. As viewed from the side, the bodywork shall extend over the full width of the tires for at least one-third (1/3) of their circumference. Ventilation slots are permitted. The tires shall not be seen as viewed from above except through ventilation slots (louvers) provided that the fore/aft opening through which the tire may be seen does not exceed 3/16 inches when viewed from above, rear tires may be exposed as viewed from the rear. Cycle-type fenders (which only cover the tire and are not continuous with the rest of the body) are

prohibited. Fenders shall be firmly attached to the bodywork with no gap between body and fender.

3. Height: No part of the vehicle having special or significant aerodynamic function shall exceed a height of 115cm (45.25 in) above the ground with car in normal racing trim, driver aboard.
4. Width: The maximum width shall not exceed 221cm (87 inches) including all aerodynamic devices. However, no portion shall extend more than 10cm (3.9 inches) beyond a plane tangent to the outer face of the front and rear wheels with tires. The minimum body width between the front and rear wheels shall not extend inwards beyond a vertical plane connecting the centerlines of the front and rear tires.
5. Length: The maximum overall length shall be 485.3cm (191 inches).
6. Cockpit:
   a. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel except for a removable steering wheel and/or cockpit padding (except for those closed cockpit cars which are specifically allowed by the SCCA).
   b. The cockpit opening shall comply with the following minimum dimensions for both single and two seater sports racers: Cockpit length: 60cm (23.662 inches) Cockpit width for each seat: 45cm (17.717 inches) maintained over 30cm (11.811 inches). The minimum rectangular opening may be measured anywhere forward of the main roll hoop. Forward-facing roll bar and roll cage bracing and required padding are not considered part of the dimensions above.
   c. For two seat cars there shall be room for seats of equal dimension and comfort for the driver and a passenger equally disposed on each side of the longitudinal axis of the car. Seats shall be firmly attached in the car, but may provide adjustment for the size of the occupant. The body surrounding the driver and passenger compartment shall be symmetrical about the longitudinal axis of the car. The passenger's space and seat shall remain usable throughout the competition and shall not be encroached upon by an element of the car or equipment except as provided in these Rules. Allowed equipment would include batteries, ballast, fire bottles, data recording devices, and cool suit equipment, providing such equipment is securely attached to the car. Tonneau covers are allowed in order to meet minimum dimensions.
7. Visibility: Bodywork shall provide visibility for the driver forward and to both sides adequate for racing conditions. Rear view mirror(s) shall provide the driver with visibility to the rear of both sides of the car.
8. Windscreens are optional.
9. Louvers or exit ducts for extraction of the air from the top of the fenders are allowed. Brake ducts are allowed. Ducts allowing air into the engine compartment are allowed.
10. Engine air intake ducts, scoops and/or cold air boxes are allowed.
11. The outermost surface of body between the front and rear wheel openings must have a minimum height equal to the height of the front axle centerline.

**D. AERODYNAMICS**
It is the intent of these rules to control the use of "ground effects" to achieve aerodynamic downforce on the vehicle.

1. No aerodynamic devices (e.g. "skirts," body sides) may extend more than 1cm (0.394 inches) below a lower surface anywhere on the car to the rear of the front axle. Seat bucket or other protrusions shall not circumvent this rule. Aerodynamic devices shall be securely mounted on the entirely sprung part of the car and not be movable when the car is in motion. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car.
2. All ducted air that exits through the top of the bodywork behind the rear of the front tires, excluding the cockpit opening, fender louvers, or slots, louvers, grills and similar devices for allowing heat to escape the engine bay, shall pass through a heat exchanger.

**E. WHEELS AND TIRES**
There shall be no restriction on the size of wheels except for a minimum diameter of ten (10) inches, provided they are identical for the right and left front axles, and identical for the right and left rear axles. Left and right front tires will be the same size; left and right rear tires will be the same size.

**F. BRAKES**
Cars shall be equipped with a dual braking system operated by a single control. In case of leak or failure at any point in the system, effective braking power shall be maintained on at least two (2) wheels.

**G. BULKHEADS AND TANKS**
Fuel tanks shall be isolated by means of bulkheads and vented so that in case of spillage, leakage, or failure of a tank, fuel and fumes will not pass into the driver or engine compartment or around any part of the exhaust system. No part of any oil or water tanks shall be exposed to any part of the driver or passenger compartment. Safety fuel cells (per GCR Section 9.3 Fuel Cell Specifications) are required for all cars.

**H. TRANSMISSIONS**
All gear changes shall be initiated by the driver. Mechanical gear shifters, direct-acting electric solenoid shifters, air-shifters and similar devices are permitted. Electronically controlled differentials and devices that allow pre-selected gear changes are prohibited.

**I. DATA COLLECTION**
All P1 Sport Racing Cars competing in Majors Races and the Runoffs must have the AIM part #DNKTK-PFSOL5 data box mount installed on their vehicle to provide the necessary mounting of the AIM Solo Data box. The mounting surface is to be approximately oriented either horizontally or vertically either parallel or perpendicular to the longitudinal axis of the car and must be accessible from the exterior of the car with the driver on board -- it should have a view of the sky, and not be located under carbon fiber or metallic body-work. The purpose of this requirement is to allow the random placement of data boxes on cars on pre-grid by SCCA assigned personal and the collection of the box when the car exits the race track. Effective date March 1, 2014. Contact AIM and their distributors for direct purchase.

**J. ENGINE AND WEIGHT RESTRICTIONS**
For cars listed in spec lines, specifications that are more restrictive in those sections take precedence over the general specifications in section A.2.a.

Generally applicable information for P1 engines and automobile weights are given in the following paragraphs. The table (P1 Engine Table) that follows provides general specification of engine types, displacement limits, head designs, intake restrictions and automobile weights allowed. Specific engines approved for use (along with any applicable restrictions) are also given in the table. All specified minimum weights are with driver (GCR section 9.3 Weight).

1. Applicable minimum weights are specified in the P1 Engine Table, Table L, or Table 1 (Spec Line Cars).
2. Fuel injected engines shall use the same size venturi or restrictors as the specified carburetors.
3. Where a carburetor or fuel injection restriction is specified, a flat plate restrictor, venturi, SIR or TIR is required through which all intake air for each cylinder or the entire fuel-air mixture, if prepared before this point, shall pass.

   SIR and TIR installations are per the Technical Glossary requirements. Where intake restrictors (excluding SIR and TIR) are specified, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. Restrictors shall be a minimum of 0.060" thickness and of the specified diameter. SIR location is unrestricted so long as all SIR criteria are met..
4. Intake manifolds: individual runner, no plenum or balance pipes permitted unless using an SIR or otherwise noted on the engine spec line. Cars using an SIR may use any manifold type.
5. 4 cycle engine max 4 cylinders, 2 cycle engine max 6 cylinders.
6. Closed cockpit single seat cars are prohibited.
7. Other Engine Designs:

   Engines not specified in the tables above are not permitted in P1. SCCA does encourage members wishing to race engines or propulsion systems not listed above, including Diesel internal combustion engines, hybrid or electric drive solutions, to request consideration on a case by case basis via letter to the Club Racing Board at crbscca.com.
8. Electronic throttle control (ETC, Fly-by-wire, Drive-by-wire) . systems are permitted. Any ECU utilizing FBW DBW ETC throttles, must use dual output pedal position sensors(or other ECU required fail-safes) and be capable of detecting a fault and limiting throttle activation.
9. Starter - Cars shall be equipped with an automatic self starter and on-board power supply operated by the driver.
10. On motorcycle engines Flat Plate Intake Restrictors must be installed before the throttle body, within 4 inches of the throttle shaft; restrictors may be mounted in any manner that does not reduce the intended effectiveness.
11. On turbocharged and supercharged engines, only one turbocharger or supercharger unit shall be used, and all air shall pass through a single inlet restrictor.
12. All cars shall display their engine size from the applicable Spec Line and the size of their required restrictor, if any, in a manner that is clearly legible to the scrutineers at the scales.

**K. SPEC LINE CARS**
The intent of Table 1 (Spec Line Cars) is to accommodate existing cars previously homologated as DSR or CSR and not requiring expensive changes to make them compliant with the P1 rules.

For individual cars included in any of the spec lines in Table 1; any deviation from spec line requirements requires the car to be made compliant to all current P1 requirements with a notation in the front of the logbook noting the requirement to be compliant with all P1 rules.

| P1 Engine Table | | | | | | |
|---|---|---|---|---|---|---|
| **Spec Line** | **Engine Series** | **Max. Displ (cc)** | **Max. Valves / Cyl.** | **Req'd Restrictor** (Unless otherwise noted restrictors are Flat Plate Intake Restrictors) | **Min Weight (lbs)** | **Notes** |
| A | Turbocharged | 670 | NA | 32mm *TIR* | 1050 | |
| B | Supercharged | 670 | NA | 32mm *SIR* | 1050 | |
| C | 2 cycle | 1470 | NA | 43mm Restricted Venturi Size | 1300 | Balance tubes not allowed. One Carb per cylinder. Carburetor induction only. Restricted venturi size. |
| D | 4 cycle Motorcycle Based | 1005 | NA | None Required | 1000 | Staudacher cars homologated before 1-1-2014 utilizing 1005cc may run 38.5mm restrictor at 950 lbs. min. weight. |
| E | 4 cycle Motorcycle Based | 1355 | NA | None Required | 1075 | |
| F | 4 cycle Motorcycle Based | 1455 | NA | None Required | 1175 | May run 38mm restrictor at 1075 lbs. min. weight. |
| G | 4 cycle Motorcycle Based | 1615 | NA | *33mm* | *1125* | |
| H | 4 cycle | 1615 | 4 | *40mm chokes* | 1400 | |
| I | 4 cycle | 2135 SOHC | 2 | 34mm *SIR* | 1250 | |
| J | 4 cycle | 2000 | 4 | *Stock 64mm single throttle body; max 13:1 CR* | 1350 | This engine may only be used in 2 seat CN cars per 9.1.8.C.B.4 (FIA CN Chassis) |
| K | 4 cycle | 2500 | 2 | Less than 9:1 CR, 33mm SIR otherwise 31mm SIR | 1450 | |
| L | 4 cycle | 2500 | 4 | See Table L | See Notes | See Table L |
| M | Mazda 12A Rotary | NA | NA | None Required | 1300 | |
| N | Mazda 13B Rotary | NA | NA | 40mm SIR | 1300 | Peripheral Port or Bridge Port Allowed |
| O | Mazda Renesis Rotary | NA | NA | 70mm Throttle Body | 1300 | Street Port or Bridge Port allowed. Unmodified lower intake manifold required. Upper manifold unrestricted. Balance tube not permitted. Apex seals unrestricted. Fuel injection only. |

| Table L | | | |
|---|---|---|---|
| **Spec Line** | **Maximum Displacement (cc)** | **Maximum Compression Ratio** | **Max SIR (mm)/Min Weight (lbs)** |
| L1 | 1800 | 11:1 | 32/1375 |
| L2 | 1800 | Unrestricted | 30/1375 |
| L3 | 2000 | 10:1 | 32/1400 |
| L4 | 2000 | Unrestricted | 30/1400 |
| L5 | 2300 | 9:1 | 32/1425 |
| L6 | 2300 | Unrestricted | 30/1425 |
| L7 | 2500 | 9:1 | 32/1450 |
| L8 | 2500 | Unrestricted | 30/1450 |

| Table 1 (Spec Line Cars) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Spec Line** | **Marque** | **Wheelbase Max** | **Track Max** | **Weight Minimum** | **Wheels** | **GCR Section** | **Engine Restrictor** (Unless otherwise noted restrictors are Flat Plate Intake Restrictors) |
| A | AMAC, Aztec, Cheetah, Fox, LeGrand | 94.0″ | 54.0″ | 900lb max engine displacement 1005 cc otherwise weight per P1 engine table | | NA | |
| B | Shelby Can-AM | see 9.1.8.F | see 9.1.8.F | see 9.1.8.F | see 9.1.8.F | 9.1.8.F | see 9.1.8.F |
| C | Diasio D962R | 88.0″ | 72.0″ | Per line O of the P1 engine table. | | Note: Chassis and bodywork as delivered by Diasio Car Company. Engine per line O of the P1 engine table. | See line O of the P1 engine table. |
| *D* | *Elan DP02* | *See 9.1.8.I* | *See 9.1.8.I* | *See 9.1.8.I* | *See 9.1.8.I* | *9.1.8.I Except transmission gear ratios and tires are unrestricted.* | *See 9.1.8.I* |

## D. PROTOTYPE 2 (P2) CLASSIFICATION

P2 is a relatively low cost sports racing class that will be inclusive of existing race cars and new purpose designed cars that fit within these rules. Homologation may be required. Refer to section 9.2.2. for details. Spec line cars homologated prior to 1-1-16 must meet all spec line requirements, all cars homologated after 1-1-16 must meet all P2 requirements or be homologated on a new spec line, except ESR cars which must meet the ESR rules in GCR section 9.1.8. The rules are specifically designed to eliminate expensive solutions and provide equal competition between several different types of race cars. Some technologies are prohibited due to cost, availability, and complexity. As these prohibited technologies individual status changes they may be approved to aid in keeping the class current and attractive.

It is not the intent of these rules to freeze the class in time but rather to encourage orderly and progressive change to keep the class current.

**A. P2 RULES RESTRICTIONS**
The following technology/materials have been restricted due to the current economic viability, if these technologies should become mainstream and cost effective, then the P2 rules should be updated to remove the restriction.

1. Chassis fully composed of composite structural materials.
2. Alternate brake rotor materials (i.e. non ferrous).
3. Monoblock brake calipers.
4. Metal matrix calipers.
5. Traction control.
6. Forced induction.
7. Roller barrel throttle bodies.
8. Carbon Fiber Springs.
9. Titanium Springs.

**B. SAFETY EQUIPMENT**
Shall comply with GCR Section 9 in addition:

1. Exposed glass headlight lenses and bulbs on the front of the car are prohibited.
2. Brake lights are not required.

**C. CHASSIS**
Must meet all requirements of GCR section 9, Cars and Equipment, except as permitted in the P2 rules.

1. Allow for any form of chassis construction except fully composite chassis. Both tube frame and aluminum or steel monocoque chassis construction allowed.

2. Anti-intrusion panels allowed anywhere on the sides of the chassis. Materials and attachment are unrestricted.

3. Cars may be either single seat or two seat cars.

**D. BODYWORK**
Bodywork shall provide comfort and safety for driver and a passenger or for a driver only. All elements of the bodywork shall be completely and neatly designed and finished, with no temporary or makeshift elements. It is the intent of these rules to control the use of “ground effects” to achieve aerodynamic downforce on the vehicle.

1. The bodywork as viewed from the front, sides and above shall cover all mechanical components except that the intake, exhaust, tow hooks, jack points, radiators and mechanical components passing through ducts may be exposed. Wheels and tires may be exposed when viewed from the side. As viewed from the side, the bodywork shall extend over the full width of the tires for at least one third (1/3) of tire circumference. Rear tires may be exposed as viewed from the rear. Cycle-type fenders (which only cover the tire and are not continuous with the rest of the body) are prohibited. Fenders shall be firmly attached to the bodywork with no gap between body and fender.

    a. Ventilation slots, louvers or exit ducts for extraction of the air from the top of the fenders are allowed. The tires shall not be seen as viewed from above, except through ventilation slots, louvers or exit ducts provided that the fore/aft opening through which the tire may be seen does not exceed 3/16 inches when viewed from above.

    b. All forward facing openings must be connected to duct(s) connected to heat exchangers or brake cooling ducts. All air entering duct must pass through heat exchangers or be used to cool brakes and must not be used to generate aerodynamic downforce or any other purpose.

    c. Ducts allowing air into the engine compartment are allowed, may be forward facing and must not be used to generate aerodynamic downforce or any other purpose.

    d. Engine air intake ducts, scoops and/or cold air boxes are allowed, may be forward facing and must

not be used to generate aerodynamic downforce or any other purpose.

2. Height: No part of the vehicle having special or significant aerodynamic function shall exceed a height of 115cm (45.25 in) above the ground with the car in normal racing trim, driver aboard. Neither the safety roll bar nor the engine induction intake shall provide an aerodynamic downforce. Fairing of the safety roll bar is permitted.
3. Width: The maximum width shall not exceed 200cm (78.74 inches) including all aerodynamic devices. However, no portion shall extend more than 10cm (3.9 inches) beyond a plane tangent to the outer face of the front and rear wheels with tires. The minimum body width between the front and rear wheels shall not extend inwards beyond a vertical plane connecting the centerlines of the front and rear tires. All cars shall be at least 63 inches wide measured between planes parallel to a line tangent to the outer most face of the front and rear wheels or tires whichever is greater, unless otherwise specified. Cars equal to and exceeding 70 inches in width may use a larger restrictor diameter as listed in the P2 Engine table spec line and column for the installed engine.
4. Length: The maximum overall length shall be 485.3 cm (191 inches).
5. Overhangs: Front plus rear overhangs including wings, wing mounts, wing end plates, rear diffusers and splitters (tow hooks and jack plates are excluded provided they serve no other purpose) must not exceed 80% of the wheelbase. The difference between the front and rear overhangs must not exceed 15% of the wheelbase.
6. The outermost surface of side pods between the front and rear wheel openings must have a minimum height equal to the height of front axle centerline.
7. Cockpit:
    a. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel except for a removable steering wheel and/or cockpit padding (except for those closed cockpit cars which are specifically allowed by the SCCA).
    b. The cockpit opening shall comply with the following minimum dimensions for both single and two seat sports racers: Cockpit length: 60cm (23.662 inches) cockpit width for the driver's seat: 45cm (17.717 inches) maintained over 30cm (11.811 inches). The minimum rectangular opening may be measured anywhere forward of the main roll hoop. Forward-facing roll bar and roll cage bracing and padding, as well as lateral support and/or intrusion bars are not considered part of the dimensions above.
    c. For two seat cars there shall be room for seats of equal dimension and comfort for the driver and a passenger equally disposed on each side of the longitudinal axis of the car. Seats shall be firmly attached in the car, but may provide adjustment for the size of the occupant. The body surrounding the driver and passenger compartment shall be symmetrical about the longitudinal axis of the car. The passenger's space and seat shall remain usable throughout the competition and shall not be encroached upon by an element of the car or equipment except as provided in these Rules. Allowed equipment would include batteries, ballast, fire bottles, data recording devices, and cool suit equipment, providing such equipment is securely attached to the car. Tonneau covers are allowed in order to meet minimum dimensions.
8. Visibility: Bodywork shall provide visibility for the driver forward and to both sides adequate for racing conditions. Rear view mirror(s) shall provide the driver with visibility to the rear of both sides of the car.
9. Windscreens are optional.

**E. AERODYNAMICS:**

It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. For this purpose the "Control Area" is defined as the lower surfaces of the body and chassis that are licked by the airstream. This "Control Area" is located within the plan view rectangular area defined by the rear edge of the front tires and the front edge of the rear tires and the entire width of the body of the car.

The entrant shall designate a flat rectangular reference area with minimum dimensions of 30cm by 60 cm. This reference area is located on the underside of the car (the surface licked by the air stream) between the rear of the front tire and the front of the rear tire. The center of the reference area must be no more than 75mm from the longitudinal centerline of the vehicle. No point or surface on the "Control Area" (as defined above) shall be more than 25.4mm above or below the plane determined by the above defined reference area designated by the entrant and on a line perpendicular to that reference plane. The total distance between the lowest and the highest point on the defined underside of the car shall also not exceed a maximum of 25.4mm, except as specifically permitted herein. Compliance with these requirements shall be accomplished by placing a straight edge on the reference surface designated by the entrant and verifying that the requirements are met. Rub blocks of maximum dimension 75mm by 125mm are allowed anywhere on the lower surface of the chassis, and may extend below the reference plane. Fasteners such as bolt heads and rivets shall not be considered parts of the reference area or the "Control Area". Use of fasteners to circumvent this rule is not allowed. This rule is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission or final drive housing.

1. A rear diffuser is permitted beginning behind the front edge of the rear tires. The diffuser may be divided internally into multiple sections. The width of the diffuser, as measured inside the diffuser sides, shall not exceed the width between the rear tires in any lateral section of the diffuser. Strakes within the diffuser are allowed.
2. A rear wing is allowed. Wing of single or dual element of any shape or chord length to fit in a rectangle of 6 inch height by 12 inch length as viewed from the side; end plates must fit in a box 14 inches square as viewed from the side. The maximum width of any wing shall not be wider than the bodywork maximum width specified in d.3 above. Wing may be positioned anywhere behind the main roll hoop. An alternate wing specification is permitted to allow previously legal "1 meter" wings as used on Converted Formula cars. The wing is limited to 110cm in width, and must be single or dual element design of any shape or chord length to fit in a rectangle of 9 inches height by 18 inches length as viewed from the side; end plate height is restricted to a rectangle 14 inches height by 18 inches length. Wing and end plates to be measured as raced. Wing end plates may not be attached to the bodywork and anything attached to or through the end plate is considered part of the end plate and thus must meet applicable dimensions.
3. Aerodynamic devices shall be securely mounted on the entirely sprung part of the car and not be movable when the car is in motion.

**F. WHEELS AND TIRES**
Wheels shall have a minimum diameter of 10 inches and cars with wheels exceeding *10.5* inches and up to 11 inches in width shall carry a 25lb penalty, cars with wheels exceeding 11 inches in width shall carry a 50lb penalty, unless otherwise specified and provided they are identical for the right and left front axles and identical for the right and left rear axles. Left and right front tires will be the same size; left and right rear tires will be the same size.

**G. BRAKES**
1. Cars shall be equipped with a dual braking system operated by a single control. In case of leak or failure at any point in the system, effective braking power shall be maintained on at least two (2) wheels.
2. Brake calipers may be ferrous or aluminum alloy. A maximum of 4 pistons per caliper. Brake rotors must be ferrous materials, no other materials allowed.

**H. SUSPENSION**
All parts shall be of steel or ferrous material, with the exception of hubs, hub adapters, bell cranks, pivot blocks, and bushes. Front and rear hub carrier and chain carrier material shall be steel, or aluminum alloy or magnesium. Titanium is prohibited.

1. Shock component parts of aluminum are permitted.
2. Springs: Ferrous material only.
3. Steering unrestricted.
4. Anti-roll bar linkages unrestricted.

**I. BULKHEADS AND TANKS**
Fuel tanks shall be isolated by means of bulkheads and vented so that in case of spillage, leakage, or failure of a tank, fuel and fumes will not pass into the driver or engine compartment or around any part of the exhaust system. No part of any oil or water tanks or line(s) shall be exposed to any part of the driver or passenger compartment; exceptions would include steel-braided line(s). Safety fuel cells (per GCR Section 9.3 Fuel Cell Specifications) are required for all cars.

**J. TRANSMISSIONS:**
1. Cars using an automotive based engine may use any manual gearbox up to 6 speeds with reverse.
2. Cars using a motorcycle based engine must use the transmission supplied with the engine. CVT transmissions are allowed with 2 stroke engines.
3. A reverse gear is not required for motorcycle engine powered cars. A reverse gear is not required for 2 cycle engine powered cars.
4. Shift operation: all gear changes must be initiated and completed by the driver. Only mechanical gear shifting mechanisms are allowed except as allowed by Table 1 Spec Line Cars. This may include cables, rods, or other mechanical linkage systems. Assisted shifting of any kind is not allowed on any car except as allowed by Table 1 Spec Line Cars. Any other assisted shifting mechanisms are specifically not allowed. This prohibition is intended to eliminate the use of electric solenoid shifters, air-shifters and other devices not mechanically actuated and controlled completely by the driver. Devices that allow pre-selected gear changes are also prohibited.

   Devices that interact with the throttle, ignition or fuel system during a shift operation (for example: ignitions cuts, flat shifters, blippers) are permitted; and no such devices shall remove the driver's control of the gear change initiation, gear selection or completion.
5. The clutch assembly is unrestricted except that the clutch engagement system shall be operated solely

by driver input and may be mechanical or hydraulic in nature. The driver's hands or feet must manually operate the clutch and there shall be no operation of the clutch by any assisted method.

6. Differentials are free with the following exceptions: Electronically adjustable differentials are not allowed, and manual adjustments are not allowed while the car is in motion.

**K. DATA COLLECTION**

All P2 Sport Racing Cars competing in Majors Races and the Runoffs must have the AIM part #DNKTKPFSOL5 data box mount installed on their vehicle to provide the necessary mounting of the AIM Solo Data box. The mounting surface is to be approximately oriented either horizontally or vertically either parallel or perpendicular to the longitudinal axis of the car and must be accessible from the exterior of the car with the driver on board -- it should have a view of the sky, and not be located under carbon fiber or metallic bodywork. In addition the mount must not be on wings, and or wing end plates and where possible should be in the cockpit. The purpose of this requirement is to allow the random placement of data boxes on cars on pre-grid by SCCA assigned personal and the collection of the box when the car exits the race track. Contact AIM and their distributors for direct purchase.

**L. ENGINE**

All engines will be fitted with a specified type of inlet restrictor as determined by the SCCA. For engines not listed in the P2 Engine Table competitors seeking approval shall be responsible for submitting engine dyno and performance data to the SCCA; the SCCA may at its option gather/request additional data.

a. Stock Engine Preparation allowances. Any modifications or adjustments not specifically listed are not allowed on stock engines.

   1. Internal dimensions and materials of the engine shall be stock. (Fasteners such as rod bolts are free).

   2. Bolt-on covers and ports external to the engine may be modified or replaced.

   3. Camshaft timing may be adjusted but the camshafts must remain stock. Timing gears and cam drive tensioning mechanisms may be modified or substituted as long as they serve no other purpose.

   4. Oil systems are free.

   5. Cooling systems are free.

   6. Turbo charging and supercharging are prohibited.

   7. Exhaust system is free. EGR and/or air pumps may be removed or disabled.

   8. Inlet System: Any manifold(s) and single or individual throttle body(s) incorporating a butterfly throttle actuation may be used for fuel injected engines. Any manifold may be used with carburetors, which may incorporate any method of throttle actuation.

   9. Internal engine machining of any kind is not allowed, i.e. machining of the cylinder heads, pistons, rods, and other internal components is not allowed.

   10. Exterior machining for mounting of the engine or accessories is permitted, however the intake or exhaust port faces shall not be modified.

   11. Spark plugs, engine sensors and any associated brackets or covers are free.

   12. Crankcase ventilation is free as long as it serves no other purpose.

   13. Engine rebuilds such as regrinding the crankshaft and sleeving the block must meet specifications in the factory service manual; no overbore is permitted.

b. Automotive based

   1. SCCA approved production based 4 cylinder automotive engines of a maximum displacement of 2000cc are allowed. The approved engines are listed in the engine tables.

   2. Preparation limited to changes listed in the section above (Stock Engine Preparation allowances).

   3. Any one piece flywheel with a minimum weight of 5lbs is permitted.

c. Motorcycle (four stroke) based:

   1. SCCA approved production based motorcycle engines with a maximum of 4 cylinders and with a maximum displacement of 1500cc.

   2. Preparation limited to changes listed in the section above (Stock Engine Preparation allowances).

   3. Titanium valves may be substituted with stainless steel of the same diameter.

d. Two Stroke Engine: 2 stroke engines with a maximum displacement of 1200cc and a maximum of 4 cylinders. Each intake port for each cylinder must have a venturi type inlet restrictor that is placed such that all air inducted into each cylinder must pass through the defined restrictor. There are NO exceptions. The required inlet restrictor may be placed anywhere in the inlet tract as long as it meets the requirement that all air inducted into each cylinder must pass through the required restrictor, balance

tubes are not allowed.

e. ECU: Any ECU is allowed

f. Traction control is not allowed.

g. Electronic throttle control (ETC, Fly-by-wire, Drive-by-wire)- Engines utilizing stock ECUs with Drive-By-Wire systems are permitted as long as the throttle pedal activates the original throttle shaft activation mechanism of the production system. This activation mechanism may consist of the stock pedal assembly, twist-grip throttle or a potentiometer that is located on the engine and activated by cable or other linkage. No modifications are permitted that would disable any safety feature of the stock production system.

h. Engine and Weight Table

1. Automotive engine based cars minimum weight 1300 lbs.

2. Motorcycle engines based cars use a displacement-based minimum weight.

3. All 4 and 2 cycle restrictors are individual flat plate intake restrictors. On automotive engines it must be within 7 inches of the throttle shaft and may be on either side of the throttle shaft. On motorcycle engines in must be installed within 4 inches of the throttle shaft on the intake side. Restrictors may be mounted in any manner that does not reduce the intended effectiveness.

4. All cars shall display their engine size from the applicable Spec Line and the size of their required restrictor, if any, in a manner that is clearly legible to the scrutineers at the scales.

**M. SPEC LINE CARS**

The intent of Table 1 (Spec Line Cars) is to accommodate existing cars previously homologated as DSR or CSR, Radicals and similar series cars, and not require expensive changes to make them compliant with the P2 rules. A car prepared in excess of the P2 allowances, but raced prior to 2014 may continue to use non P2 compliant components listed in the spec lines (e.g. wings listed in the spec line).

For individual cars included in any of the spec lines in Table 1; any deviation from spec line and column requirements, (e.g. wheelbase/track) requires the car to be made compliant to all current P2 requirements with a notation in the front of the logbook noting the requirement for the car to be compliant with all P2 rules. For example, should the spec line allow a different minimum width, and the car were to be changed to meet the P2 minimum width, then the minimum weight would also have to be increased, along with any other non-compliant components to make the car fully P2 compliant.

# P2 Engine Table

| Spec Line | Engine Series | Max. Displ. (cc) | Max. Valves / Cyl. | Req'd Restrictor flat plate except as noted | up to 70in width / 70in-78.74in width | Min. Weight (Lbs) | Notes |
|---|---|---|---|---|---|---|---|
| A.1 | 2 cycle | 905 | NA | 40mm *(see notes)* | | *1000* | Maximum 4 cylinders. *Restrictor per 9.1.8.D.L.d* |
| A.2 | 2 cycle | 1205 | NA | 40mm *(see notes)* | | 1200 | Maximum 4 cylinders. *Restrictor per 9.1.8.D.L.d* |
| A.3 | 2 cycle | 905 | NA | Not required | | 1000 | Maximum 2 cylinders |
| A.4 | 2 cycle | 855 | NA | Not required | | 1000 | AMW opposed 4 cylinder engine, 68.0mm bore x 58.5mm stroke, Bendix single throttle body fuel injection. |
| B.1 | 4 cycle Motorcycle- based Kawasaki, Suzuki, Yamaha Honda | 1005 | | *36.5mm* | | Stock Engine 1000 | No modifications allowed on engines manufactured after year model 2008. |
| | | | | *37.5mm* | | Modified Engine 1100 | |
| B.2 | 4 cycle Motorcycle- based Yamaha 2002 and older w/carbs 2004 and older Suzuki GSXR | 1005 | | Not required | | Stock Engine 1000 | |
| | | | | | | Modified Engine 1100 | |
| B.3 | 4 cycle Motorcycle- based Kawasaki 2005 and older | 1005 | | 39.5mm | | Stock Engine: 1000 | |
| | | | | 40.5mm | | Modified Engine: 1100 | |
| B.4 | 4 cycle Motorcycle- based Kawasaki, Suzuki, Yamaha | 1105 | 4 | *37mm* | | 1100 | No modifications allowed. |
| B.5 | 4 cycle Motorcycle- based Kawasaki, Suzuki, Yamaha | 1345 | 4 | *37.5mm* | | 1160 | No modifications allowed. |
| B.6 | 4 cycle Motorcycle- based Kawasaki, Suzuki, Yamaha | 1505 | 4 | *38.5mm* | | 1300 | No modifications allowed. |

## P2 Engine Table

| Spec Line | Engine Series | Max. Displ. (cc) | Max. Valves / Cyl. | Req'd Restrictor flat plate except as noted | up to 70in width / 70in-78.74in width | Min. Weight (Lbs) | Notes |
|---|---|---|---|---|---|---|---|
| C | 4 cycle | 1835 | 2 | 36mm | | 1200 | VW Super V Note 1 |
| | | | | 38mm | | | |
| D | 4 cycle | 1615 | 4 | 41.5mm | | 1400 | Toyota WSR Specs only. Competitor must present WSR specifications on demand. |
| E | 4 cycle 4 cyl auto based | 2000 | 4 | 42mm | | 1350 | Approved engines list: MZR/Duratec*, Honda K20, Ford Zetec,* Pinto. For Pinto see line E, note 2 below. |
| F | Olds Quad 4 | 2300 | 4 | See Notes | | 1350 | Engine must conform to the specifications 9.1.8.E |
| G | YAC | 2000 | 4 | See Notes | | 1300 | 40mm Chokes on Weber 45DCOE Carbs. Engine specification per the 2009 GCR. Kent Cam# CW14 Lift: .430" duration, 316 degrees with mechanical tappets allowed with a 38mm venturi restrictor. Maximum bore size of 3.620 allowed. |
| H | Mazda 12A Rotary | NA | NA | 40.5mm Venturi | | 1350 | Non-peripheral, non-bridge port engines are allowed only one single 2 barrel Weber IDA or DCOE or equivalent dual throat 48 or 50mm carburetor. No fuel injection is allowed - period. |
| I | Mazda 12A Rotary | NA | NA | 40.5mm Venturi | | 1350 | Bridgeport Engines are allowed only one single 2 barrel Weber IDA or DCOE or equivalent dual throat 48 or 50 mm carburetor. No fuel injection is allowed |
| | | | | 40.5mm Venturi | | | |
| J | Mazda 13B Rotary | NA | NA | 41.5mm Venturi | | *1350* | Non-peripheral, non-bridge port Engines are allowed only one single 2 barrel Weber IDA or DCOE or equivalent dual throat 48 or 50mm carburetor. No fuel injection is allowed. |
| | | | | 41.5mm Venturi | | | |

## P2 Engine Table

| Spec Line | Engine Series | Max. Displ. (cc) | Max. Valves / Cyl. | Req'd Restrictor flat plate except as noted | up to 70in width / 70in-78.74in width | Min. Weight (Lbs) | Notes |
|---|---|---|---|---|---|---|---|
| *K* | *Mazda Renesis* | *NA* | *NA* | *41.5mm Venturi* | | *1350* | *6 port must block off top 2 ports and run as 4 port. Porting not permitted. Unmodified OEM lower intake manifold required, upper manifold unrestricted. Balance tube not permitted. Apex seals unrestricted. Fuel injection only.* |

Line C Note 1: 1835 VW – Super Vee engine for P2 specs:

1. Any VW/Audi 1.8L block and 1.8L 8v single cam non-crossflow head permitted. Stock VW/Audi crankshaft and rods required, with normal balancing permitted.
2. Rod bolts allowed to be upgraded as fasteners are free.
3. Forged piston allowed for reliability -- Max Compression Ratio - 11.0:1
4. Spec cam specifications: Max cam lift .475. Max duration 270 degrees @ .050" lift. Restricted to stock VW hydraulic or shim-on-bucket solid followers with max diameter 35mm. Max shim diameter 33mm.
5. Shim-under-bucket followers specifically prohibited.
6. Max Intake valve diameter is the stock VW 40.0 mm.
7. Max Exhaust valve diameter is the stock VW 33.0 mm.
8. Any steel valve springs permitted, but must have same O/D as stock valve spring
9. Hydraulic lifter heads may be converted to solid lifter.
10. Induction limited to dual 2 bbl carburetors with maximum body size 45mm.
11. Fuel injection specifically prohibited.
12. Required SR-2 restrictors will be Maximum 36mm chokes for cars under 70" wide; 38mm for cars at or over 70" width.
13. Dry sump Oiling system is free.
14. Ignition system is free.

Line E Note 2: Pinto engine 2000cc

1. Camshaft and valve train are open.
2. Intake system is free- fuel injection is allowed.
3. Cast iron or Fast Forward cylinder head allowed – porting is allowed and open.
4. Rods and pistons are open.
5. Valves are open.
6. Maximum bore size of 3.620 allowed for Pinto.
7. *Restrictor not required*

## Table 1 (Spec Line Cars)

| Marque | Wheelbase inches max/ Track Max inches | Weight Displacement | Engine | Restrictor | Notes |
|---|---|---|---|---|---|
| AMAC, Asteck, Cheetah, Decker, Fox, LeGrand, Converted F5 cars see notes | 94/54 | Stock Engine 950lb 1005cc max | P2 Engine Table B.1 | 37mm | Minimum width 55 inches. Must meet all P2 requirements except the following: Wings up to 16.5in cord single element only; unrestricted end plate on end mounted wings. Converted F5 cars must meet all P2 non-spec line requirements except Minimum width is 55 inches. |
| | | | P2 Engine Table B.2 | Not required | |
| | | | P2 Engine Table B.3 | 39mm | |
| | | Modified Engine 1025lb 1005cc max | P2 Engine Table B.1 | 38mm | |
| | | | P2 Engine Table B.2 | Not required | |
| | | | P2 Engine Table B.3 | 40mm | |
| AMAC-AM5, Fox-2 Seater, Zephyrus, Decker 1/2 | 94/54 | Stock Engine 900lb 1005cc max | P2 Engine Table B.1 | 36.5mm | Minimum width 55 inches. Must meet all P2 requirements except the following: Wings up to 16.5in cord single element only; unrestricted end plate on end mounted wings.<br><br>Decker 1/2: minimum width 52 inches. |
| | | | P2 Engine Table B.2 | Not required | |
| | | | P2 Engine Table B.3 | 38.5mm | |
| | | Modified Engine 950lb 1005cc max | P2 Engine Table B.1 | 37mm | |
| | | | P2 Engine Table B.2 | Not required | |
| | | | P2 Engine Table B.3 | 39mm | |
| Enterprise Sports Racer | | | | | See ESR rules in GCR section 9.1.8. for complete specifications. |
| Radical SR-3 SR-4 | | Stock Engine 1000 lbs. 1005cc max. | | 37.5mm | Radical wing or P2 class compliant wing and end plate. Radical rear diffuser permitted. Assisted shifting permitted. |
| | | Stock Engine 1300 lbs. 1005 < 1370 cc max. | | 40.5mm | |
| Radical SR-3 Radical Cup | | 1500lb | Sealed Radical Cup engine and transmission | Unrestricted | Radical wing or P2 class compliant wing and end plate. Radical rear diffuser permitted. Assisted shifting permitted. |
| Radical Club Sport, Pro-Sport, PR-6 | | Stock Engine 1000 lbs. 1005cc | | 37.5mm | Radical wing or P2 class compliant wing and end plate: 61 in width min. Radical rear diffuser permitted. Assisted shifting permitted. |
| | | Stock Engine 1160 lbs. 1370 cc max. | | 40.5mm | |

## Table 1 (Spec Line Cars)

| Marque | Wheelbase inches max/ Track Max inches | Weight Displacement | Engine | Restrictor | Notes |
|---|---|---|---|---|---|
| Bobsy | TBD | Stock Engine 950lb 1005cc max | P2 Engine Table B.1 | 37mm | Minimum width 55 inches. Must meet all P2 requirements except the following: Wings up to 16.5in cord single element only; unrestricted end plate on end mounted wings. |
| | | | P2 Engine Table B.2 | NA | |
| | | | P2 Engine Table B.3 | 39mm | |
| | | Modified Engine 1025lb 1005cc max | P2 Engine Table B.1 | 38mm | |
| | | | P2 Engine Table B.2 | NA | |
| | | | P2 Engine Table B.3 | 40mm | |
| Diaso D962 | | 1005cc max | Motorcycle only | | Body, front splitter and wing either original OEM or P2 compliant. |
| Jondal | 94/54 | Stock Engine 950lb | 2 cycle | | Minimum width 55 inches. Must meet engine/weight requirements per the latest 2 stroke engine table. Must meet all P2 requirements except the following: Wings up to 16.5in cord single element only; unrestricted end plate on end mounted wings. |
| | | Modified 1025lb | | | |

## E. SPEC RACER FORD

**A. Definition**

One design, fixed specifications, open cockpit, single seat sports racer with SCCA Enterprises Ford 1.9 L engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official Spec Racer Ford parts except where noted in C.3. Cars must be assembled per SCCA Enterprises' Assembly Manual and Roush Ford Spec Racer Installation Instructions (RFSRII). No modifications may be made to any part or system unless specifically permitted in these rules.

**B. Safety Requirements**

Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through Enterprises, except safety harnesses and on-board fire systems may be replaced by any other that conforms to GCR Section 9.

**C. Maintenance and Repairs**

It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official Spec Racer Ford parts. If any official Enterprises seal is broken, by accident or intent, the procedures outlined under C.20., shall be followed. Parts with an Enterprises part number having the prefix "10" are considered to be unrestricted, providing their dimensions are comparable. No other parts are to be considered "unrestricted" except where specified.

**D. Chassis**

NO MODIFICATIONS ALLOWED except as noted in these rules.

a. Chassis rub block. It is authorized to install up to eight (8) pads of any material to the underside of the frame to eliminate damage due to bottoming out. The pads shall be no larger than 1-1/2" wide x 2" long x 1" thick. If steel plates are used, they can be no larger than 1-1/2" wide x 8" long x 1/8" thick and fastened in at least two (2) places. They shall serve no other purpose. Carriage bolts may be used to fasten rub rails to the chassis.

   A steel plate of 1-1/2" wide x 1/8" thick x 14" long may be welded to the bottom of the frame below the rear shock mounting bracket.

b. Seat Mounts. It is required that a metal strap be installed on the right side of the fiberglass seat between the bolt heads and the fiberglass side panel; this strap shall be 1" wide x 14" long and 1/8" minimum thickness. A flat washer of at least one (1) inch diameter shall be used under any other seat attachment point. The aluminum side bracket, P/N 180927, is required.

c. Steering Shaft Bracket. It is authorized to cleanly and smoothly cut off the unused portions of the steering shaft bracket and/or pad the remaining portion to prevent injury as long as this serves no other purpose.

d. Painting/Plating. The chassis may be painted any color(s). Aluminum parts may be polished, anodized, coated or painted.

   Surface finishes such as plating or coating may be applied for corrosion protection. Any piece that is a closed assembly (i.e., upper control arm) shall have a 1/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids.

   Post plating bakeout of four (4) hours at a temperature of 375 degrees F is recommended to prevent hydrogen embrittlement. Any chassis part may be plated except for: Suspension springs, front and rear sway bars.

e. A 16 gauge steel plate measuring 10" x 28" may be stich welded under the fuel cell bladder above vehicle floor.

**E. Bodywork**

NO MODIFICATIONS ALLOWED (except as specified)

a. Bodywork crash-damage may be repaired, but exterior dimensions, shapes, thicknesses, and profiles shall remain unaltered. The addition of material to increase rigidity and/or the weight is prohibited. Use of the nose front center body pin is optional. Sections shall meet the following weight requirements:

| | Minimum | Maximum |
|---|---|---|
| Front | 35 lbs. | 65 lbs. |
| Center | 25 lbs. | N/A |
| Rear | 25 lbs. | 55 lbs. |

b. At-track repair of crash-damage may be completed, but the minimum and/or maximum weight requirements may not be exceeded.

c. One spring type fastener per side may be used to replace the 1/4 turn fastener.

d. The car may be painted any color(s), except primer.

e. The forward braces shall be padded per GCR Section 9.4., using any padding that conforms to the GCR, or Enterprises P/N 180033.

f. Ballast plates may be manufactured or purchased providing:

1. Ballast plates may be no more than 20 inches long, 10 inches wide and ½ inch thick.

2. Alternate location Ballast plate must be 27.650" +/- .150" total width, including 1.5" tall mounting tabs on each end no less .125" thick, 5" to 7" long and up to ½" thick. Must be bolted to the lower longitudinal chassis tubes. Shift linkage pivot bracket may be bolted on top of the ballast plate. Alternate location is forward or rearward of the "Sub Seat Belt" mount bar, under or in front of the seat.

3. All ballast must be securely fastened on both ends or sides with nuts and washers or no less than "4" 5/16" bolts, washers and nuts.

4. They shall be fastened securely with nuts on both ends.

g. Rub Rails - P/N 180557 LH; P/N 180558 RH, may be fabricated from .060" to .090" thick aluminum. Dimensions shall be 2-1/2" high x 3" wide x 72" long. Additional fasteners may be used.

h. Nose Pans - P/N 480448 may be fabricated from .040" - .060" thick aluminum. Such nose pans must be dimensionally and functionally the same as to the original nose pan furnished by Enterprises and shall perform no other function. Rolling of lip permitted.

i. Floor Pans - .060" thick aluminum only. Can be 1, 2 or 3 piece GCR - 812 9.1.8. Spec Racer Ford (SRF) Specifications configuration. Pieces shall be joined on main 1.5" frame tubes. Must be continuously riveted *similar to the Enterprises floor pan spacing*. Additional Bonding of floor to the chassis is allowed. Drain holes maximum size of .375 are allowed, Floor pan shall perform no other function.

j. Optional Bodywork Modification:

Viewing the tail section of the car from behind, draw a vertical line at the left and right ends of the outer vents from the bottom edge of the bodywork up to a point two (2) inches below the crease at the lower edge of the vented panel. Make a vertical cut at each line. The horizontal cut is to be one (1) inch below the crease at the base of the vented panel. Leave a one (1) inch radius at each corner. Air Scoop (P/N 190000) must be installed in conjunction with rear cutout per Enterprises installation instructions. *SRF3 tail sections are allowed on SRFs.*

An alternate dash panel has been approved for use in Spec Racer Fords. The dash will be furnished by Enterprises only. P/N 180100 or 180101

k. Required Bodywork Modification:

A 22.5" diameter wheel arch shall be cut in each side of the tail section. Viewing the tail section from the side, draw a vertical line at the drive axle centerline. Locate the top of the wheel arch at a point measured from the bottom edge of the tail section 9.25" vertically along the centerline. The 22.5" diameter circle intersects the bottom edge of the tail section 11.1" either side of the centerline. The tail section may be reinforced in the forward and aft portions of the wheel arch. Dimension tolerance is +/- 0.75".

**F. Engine and Drivetrain**

a. Engine

NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM/ RFSRII specifications. All fluids, except fuel, are unrestricted.

Ford recommends SAE 5W-30 or 10W-30 engine oils and Dexron II transmission fluid.

SCCA Enterprises, Inc., seals on the engine, gearbox, and other components shall remain in place at all times.

Engine maintenance which is permitted includes the replacement, but not modification of external engine and engine systems parts.

All hose and harness routing and attachment is per RFSRII.

All rubber oil lines may be replaced with braided metal-covered (Aeroquip type/size eight) lines that utilize Aeroquip type/size 8 AN fittings. Hose clamps may be installed on the rubber oil lines.

A one-fourth (1/4) inch pipe thread hole may be placed in the top of the thermostat housing for installation of an air relief valve to facilitate filling of the cooling system.

b. Transmission

THE TRANSMISSION IS A SEALED UNIT. NO MODIFICATIONS ARE ALLOWED.

Transaxle/drivetrain work which is permitted includes replacement, but not modification, of axles, CV

joints, clutch disc, pressure plate, flywheel, throw-out or pilot bearing, or transaxle assembly.

Any tampering or counterfeiting of the seals will render the transmission illegal for competition. Neither Enterprises, Inc., nor Roush Industries will be under any obligation to return the transmission to legal condition. No machining allowed.

**G. Suspension**

NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension components. (See specifications - Section J.) No modification to the components is allowed, with the exception that a Zirk fitting may be installed on the upper rocker arms to lubricate the pivots.

Left rear lower control arm must be P/N 296293B, and may also be used on right side.

**H. Brakes**

NO MODIFICATIONS ALLOWED. Front brake ducts are required, attached to the openings in the lower radiator baffles, any flexible 4" duct material allowed, installed length minimum 12" maximum 36" in length. Must be securely fastened, Bracket Part # 800368 can be used. Shall serve no other purpose. An extension may be welded to the side of the throttle pedal to improve heel-and-toe braking. Aeroquip style -3 braided stainless flex lines only, must attach to all brake components without modification. Brake pad "anti-rattle" clips must be removed.

**I. Shock Absorbers and Springs**

NO MODIFICATIONS ALLOWED. Bump stop shall remain on shock but may be slit vertically to ease removal for shock adjustment. The same brand of shock absorbers must be used in all shock absorber positions on the car.

All shock absorbers must be sealed by Enterprises. Prior to sealing, the shock absorbers will be rebuilt by Enterprises or its authorized rebuilder.

**J. Steering**

NO MODIFICATIONS ALLOWED. The steering rack may be shimmed with any combination of standard shims P/N 280286 .030" or P/N 280287 .060" to eliminate bump steer.

a. Steering wheel is unrestricted. A removable steering wheel is allowed. The steering wheel center web, flange, and rim shall be of a one piece construction. "Butterfly" steering wheels are not allowed.

b. Upper steering shaft may be modified to accept an alternate steering wheel and/or hub (if applicable).

**K. Wheels (Only wheels supplied by Enterprises)**

NO MODIFICATIONS or MACHINING ALLOWED except to mount valve stems. Wheels may be painted any color(s). Plating is allowed. No wheel spacers are allowed.

**L. Fuel System**

All changes from the Renault SR system are listed in the RFSRII and must be installed as directed therein, with no modifications.

a. All rubber fuel lines may be replaced with braided metal-covered (Aeroquip type/size six) lines that utilize Aeroquip type/size 6 AN fittings.

b. The fuel filter located in the fuel cell may be removed and replaced with an in-line filter.

c. A "tee" fitting may be installed in the Aeroquip line between the fuel cell and the fuel pump to facilitate draining of the fuel cell.

d. Enterprise P/N 591902 Regulator is permitted.

**M. Electrical System**

NO MODIFICATIONS ALLOWED.

Wiring harnesses routing and attachments as per RFSRII.

The electrical system and ignition system is subject to testing procedures and must conform to OEM Roush specifications.

The EEC module is a sealed part and any tampering with the part or tampering and/or counterfeiting of the seals will render the part illegal for competition. Tampering and/or counterfeiting will also subject the driver to penalties under headings C.21.1., C.21.2., C.21.3., and C.21.4..

At any time during an SCCA sanctioned event it is possible that technical or scrutineering personnel will randomly remove and replace EEC modules or other components with other competitor's components or components which the technical or scrutineering personnel will provide.

Jump plugs may be added; connected directly to the battery, master switch or starter. It is strongly recommended that the plug orientation is outboard and rear facing; to prevent dragging of jump battery if vehicle drives off while connected.

**N. Weight**

The car shall weigh 1670 lbs. minimum, including the driver.

**O. Battery**

May be replaced with any battery of group No. U1. It shall remain in the same location.

**P. Vehicle Configuration**

All Spec Racer Ford cars shall comply to GCR Section 9., with the following exceptions: Section 9.3 Accumulators.

**Q. Updates**

Provisions will be made for updates on all safety and mechanical improvements. When part updates are needed, because of reliability, supply or obsolescence, testing of parts from alternative, updated sources with direction and approval from SCCA Enterprises may be used in sanctioned events. Such updates will be effective when finalized by Enterprises, announced by the National Office, and published in Fastrack.

**R. Vehicle Logbook**

The Vehicle Logbook for each Spec Racer Ford remains the property of SCCA and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the right rear body mount plate. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc., 14550 E Easter Ave. Suite 400, Centennial, Colorado 80112. The logbook will be reissued to the new owner. When the logbook has been filled, a new one shall be requested from SCCA Enterprises, Inc., in Centennial.

A FEE OF $100 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All Spec Racer Fords are subject to normal safety inspection. Additionally, scrutineers may check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, or damaged, but the part may be considered suspect and will be treated as such and will be noted in the logbook by the Scrutineer. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine shall be removed and sent to Enterprises for testing and resealing at the competitor's cost prior to the next event.

**S. Seals**

SCCA Enterprises' seals on engine are required for all races. Any competitor who runs an event without all proper engine seals in the required locations shall have his engine removed and shipped to Enterprises for testing and sealing after that event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises' seals are required on all SPEC RACER FORD engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. SCCA Enterprises, Inc., will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: T.1., T.2., T.3., and T.4.

**T. Penalties (Specific to Spec Racer Fords)**

If a competitor refuses to give his components, engine and/or transaxle units for testing per a request of the Chief Steward (GCR 5.12.2.C.), the following penalties will automatically be imposed:

a. Vehicle logbook will be impounded.

b. Disqualification from a competition or the event.

c. Suspension of SCCA competition privileges for thirty (30) days.

d. The car and drivetrain are suspended from competition until the unit(s) specified by the Chief Steward are replaced.

   In a case where a competitor does comply with the Chief Steward's request to have an engine and/or transaxle tested and the impounded unit(s) are found legal, the SCCA will stand all the costs incurred for the testing, including shipping. Should the impounded unit(s) be found illegal, the following penalties will be imposed:

   1. Disqualification from a competition or the event.
   2. A fine of $250.00
   3. Competition privileges will be suspended immediately, and the suspension will continue for a minimum of thirty (30) days after the date when all fines and costs are paid in full and the license

is received by the Chairman SOM or the SCCA Topeka Office.

4. For a second illegal Drivetrain Violation, the competitor will be permanently disqualified from further Spec Racer Ford competition. Drivetrain Violation components will be identified within the class Specifications. Drivetrain Violations will be permanently tracked.

**U. Spec Racer Ford Drivetrain Protest**

a. Protests shall be filed per the GCR.

b. Protestor will specify the drivetrain item suspected (i.e., transmission or engine). The teardown bond to remove the motor and transmission is in three (3) parts:

1. Remove and replace motor and transmission - $600.00
2. Ship motor to Enterprises and test - $500.00
3. Protest Fee: Regional - $25.00, National - $50.00 Item 1 will be done by the CSR or other shop that is equipped for this type of work and will be paid directly.

c. Enterprises will inspect the motor, (item 2), and will notify the Chairman SOM as soon as possible as to the results.

d. Enterprises shall retain the evidence, and the SCCA shall retain the fee, (item 3), until the period for appeal has passed.

e. The Chairman SOM is required to inform Enterprises of the protest using the SR/SRF Protest Information Form.

If the protest proves to be valid and any appeal fails, the protest fee, (item 3), will be returned to the protestor. Also, the protestee will be required to reimburse the protestor the remaining fees ($1100). The protestee will not be allowed to compete again until all costs are paid. If found legal, protestor forfeits fee (items 1 and 2) above.

f. If found illegal, competition privileges will be suspended immediately, and the suspension will continue for thirty (30) days after all costs are paid in full.

g. For a second illegal Drivetrain Violation, the competitor will be permanently disqualified from competing in Spec Racer Ford competition. All components included in the sealed engine are automatically possible Drivetrain Violation components.

**V. Accessory Items**

a. Mirrors must be as delivered. The cars may be upgraded to the new mirrors, P/N 190003, 190004, and may use mirror extension, P/N 190023 or 190024. The original mirrors furnished with the kits may be used.

b. Seat modifications, including cutting, re-shaping and padding, are permitted to enhance the comfort and safety of the driver. Moving the location of the seat is not permitted. Foaming of the seat is permitted. Taller drivers are encouraged to use this option to gain greater roll bar clearance. Additionally, the seat may be cut or slit to allow the seat belt to cross the driver's body and remain in proper alignment per the GCR, Section 9. Any cuts in the seat should be reinforced to prevent splintering. The seat may be widened, but installation and location shall remain the same (See j. below).

c. Use of cool suits by drivers is authorized providing the water tank is securely mounted and approved through Tech. The car shall weigh 1670 lbs., with driver, but without the water tank.

d. Headrest pad may be reduced in thickness for driver's comfort to a minimum of one (1) inch. If either the Aluminum Racing Products (ARP) or the Butler P/N 180268 or 180268A seat is used, to aid with seat positioning, the head rest can be removed completely. It is recommended that the resulting hole in the firewall be covered with suitable aluminum sheet.

e. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

f. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Tape or vinyl may not close body seams or openings. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible.

g. Electronic memory tachometers from Auto Meter or Stack are allowed. NO MODIFICATION of the vehicle wiring harness is allowed. The power lead (+12V DC) shall be connected to the battery side of the ignition switch (not master switch).

h. A throttle return spring may be added at the foot pedal.

i. Aluminum Racing Products (ARP) seat may be installed. If installed the bracket kit furnished with the seat shall be utilized and unmodified. Butler seat P/N 180268 or 180268A may be installed.

j. Radiator - P/N 480466, may be replaced with Automotive P/N 1R698, CU698 or equivalent OEM manufacturer justified by one cross reference chart. The capacity, core thickness, etc., cannot be changed even if allowed under the above. The competitor is responsible for providing this documenta-

tion.

k. The center pedal divider may be removed in its entirety.

l. All gauges may be replaced with those of alternate manufacture. Replacement gauges shall fit in the existing dash and attach to the spec harness. Additional gauges may be added and shall fit in the existing dash, with all wiring inside the body, easily traceable, and separate from the existing harness. Gage fittings may be added.

m. Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. Replacement rod ends shall be capable of being installed with no modifications to any original components.

n. Original rubber clutch lines may be replaced with braided metal-covered (Aeroquip-type) size three (3) lines. Replacement lines shall be the same length as the originals as supplied by Enterprises.

o. Master cylinder caps are free.

p. The exhaust system may be thermal-coated and/or wrapped.

q. Spark plug wires may be fire sleeved.

r. Chassis/Engine data gathering systems may be installed. The data gathering system must have a separate wiring harness with visible wire tracing ability.

s. It is forbidden to regroove tires.

t. Anti-roll bars (swaybars) may be disconnected, but not removed.

u. *Cockpit Brake Bias Adjusters are optional. SCCA Enterprises Brake Bias Adjuster Kit, P/N 880914 or any commercially available mechanical cable (non-electric) Brake Bias Adjuster is allowed. Adjuster must be permanently installed, in a safe, easily accessible location to the driver and shall perform no other function.*

v. At the option of the owner, P/N 1190522 Enterprises Muffler Kit may be installed per instructions that accompany the kit.

w. It is permitted to insulate engine compartment fluid hoses using heat sleeve or wrap.

x. Spark Plug wire looms (wire separators) are allowed.

y. Exhaust gasket, Ford part number FOFZ 9448 A is allowed.

z. It is permitted to remove the gear from the end of the transmission speed sensor/dipstick or replace that part with an appropriate metal plug (on 1.9L only)

aa. It is permitted to remove wiring harness plugs which are not used in the Ford conversion.

bb. Alternate thermostat allowed is Stant P/N 13829 (original is 13828) or equivalent OEM manufacturer justified by one cross reference chart. Installation of this thermostat requires replacing the rubber sealing gasket and housing to head gasket, both available at Ford dealers or aftermarket suppliers.

cc. It is recommended to use a 5.5 to 6 foot length of hose to run between the cam cover and air box, routing the hose forward and up along the roll bar support from the cam cover, before looping the vent hose back down to the air box. This is to keep oil from running directly from the engine's cam cover vent to the air filter.

dd. Alternate (recommended) location of the water temp gauge sender: Add a "tee" to the "piccolo tube" P/N 691814.

ee. Butler Head Restraint, Enterprises P/N 180267, may be used.

ff. P/N 1150002 In Tank Fuel Pump Kit is allowed and recommended with parts as delivered. Installed per SCCA Enterprises "In Tank Fuel Pump Technical Bulletin".

gg. SRF3 Oil Cooler, P/N G480503 may be used as mounted per the GEN3 Assembly Manual. No fan permitted for SRF.

hh. For endurance events only, Quick Refueling Kit P/N 1150003 is allowed.

**W. Mandatory Items**

a. Radiator screen mesh with a one-fourth (1/4) inch minimum opening shall be fitted to serve the single function of protecting the radiator from rock and stone damage and shall be a minimum of one (1) inch from the radiator core.

b. Radiator baffle of aluminum, P/N 480893, to close the gap between the body and the radiator shall be installed.

c. Front brake ducts are required. Four (4) inch diameter clothes dryer or similar ducting, extending from the openings in the side baffles to the brake area shall be used. The material shall be securely fastened to the upper or lower pan area with adequate ties or safety wire sufficient to secure it.

d. Battery post covers are per GCR Section 9.

e. Body opening modifications are absolutely forbidden.

f. Tallman Hoop, P/N 180907(or A) and two P/N 180908 braces are required on all cars.

g. All engine mounts, brackets, hoses, harnesses, and systems (see RFSRII) must be installed as per the RFSRII.

h. The NACA duct must be installed in the location specified and perform no other function than its designed purpose.

i. The heat shield (P/N 1191610) must be the original, unmodified part and be installed per the RFSRII.

j. The shifter assembly and all linkages must be installed as per the RFSRII. It is permissible to alter the length of the shift lever handle above its upper pivot to tailor to driver preference. It is permissible to use the appropriate Torrington or Apex joint in place of the original Borgeson joint at the specified installation location in the shift linkage.

k. Upper control arms (rockers) must be P/N 1180083 (or A,B) and P/N 1180086 (or A,B) .

l. A rain / brake light comprised of a single standard trailer oval lamp, 2-1/4 inches x 6-1/2 inches, with incandescent or LED illumination is required in the original roll hoop mounting location. No changes may be made to the original 3-pin connector on the wiring harness. The secondary filament of the brake light assembly shall be connected to a switch enabling use as a rain light.

m. Enterprises P/N 1140001 Aluminum surge tank is required. Radiator cap: lever-operated 16 lb relief cap is required. Enterprises P/N 1180801 plastic cooling system overflow bottle kit is required. A bleed tube from the thermostat housing to the surge tank is required.

n. Alternator pulley (Enterprises P/N 902130) required.

o. It is required that all cars display the official sponsors of SCCA Enterprises decals and locations as specified by Enterprises.

p. The addition of a metal floor pan in the area of the foot pedals/ driver's feet, size shall be 27.87" x 21.56" x 1.25" made from 16 gauge metal. Must be securely fastened with rivets / bolts or 27.87 X 21.56 if stitch welded.

NO MODIFICATIONS to any component are allowed except as authorized above.

**X. SPEC RACER FORD SPECIFICATIONS CHASSIS**

a. Vehicle Weight: 1670 lbs., minimum with driver.

b. Front Springs: 262-279 lbs./in Enterprises P/N 280387 or previous Enterprises supplied part (ex. RO28037).

c. Rear Springs: 412-429 lbs./in Enterprises P/N 280390 or previous Enterprises supplied part (ex. RO280388 or RO280389).

d. Anti-roll bar diameter: .56 inches.

e. Wheels: Front: 5.5 x 13 inches; Rear: 7.0 x 13 inches.

f. Tires:

Dry:

Front – Hoosier P/N 46340 P185/60ZR13

Rear – Hoosier P/N 46350 P205/60ZR13 SRF

Wet:

Front – Hoosier P/N 46100 P185/60R13 H20

Rear – Hoosier P/N 46105 205/60R13 H20

g. Brakes: Hawk Blue 9012 pads P/N 801993 or 801994. Vented rotor minimum thickness 13.25mm (0.522 in.); shall be used as delivered no machining of any kind, P/N 800065. Rubber caliper bushings may be replaced with bronze bushings P/N 1196185 (or A or B). Original caliper pistons may be replaced with vented caliper piston P/N 1196184.

h. Shock Absorbers: Standard Koni shock, P/N 82X-2255-SPA1 with standard oil or Penske P/N 280396. The bump rubber provided with the shock shall be used in unmodified, stock condition. No Koni or alternate bump stop is permitted to be used with the Penske shock. Shortening the Penske shock bump rubber is allowed. All shock absorbers must be sealed by Enterprises. Prior to sealing, the shock absorbers will be rebuilt by Enterprises or its authorized rebuilder.

i. Ground Clearance: Minimum is 2.75 inches measured at the frame on the front and rear axle lines without driver.

j. Suspension linkage: No more than .570" exposed thread from first formed thread to a STD jam nut on any Spherical rod end. This is minimum mandatory requirement to ensure sufficient engagement of

thread in the adjustable linkages. It is not permissible to remove any jam nut on suspension links.

k. Negative camber shall not exceed 5 degrees front and rear.

l. Transponder must be located on the right rear frame post, see SCCA Enterprises Technical Bulletin 001.2-2015. (Mandatory 6/1/2015)

-The TB was updated to allow for a wider mounting angle +/- 5 deg. / instead of +/-1.5 deg.

m. Wheel bearings "ONLY" ferrous housing, balls or rollers are permitted, shall be run with grease (not oil), no special coating of the bearings. Grease seals shall be intact (unmodified).

**Y. ENGINES (A-F are Drivetrain Violation Items)**

a. SCCA Enterprises, Inc., seals shall be intact in all locations. Two (2) each on cam cover, two (2) on the oil pan.

b. Cam timing: Marks shall line up. Engines rebuilt after March 2011 have seals on the cam gear bolt. Seals must remain intact.

c. Cylinder Head and Intake Manifold Ports: No porting, polishing, etc.

d. EEC module is a Roush Spec Racer Ford specific part, sealed, P/N 992012

e. Flywheel: Ford part P/N FOCZ-6375-A or equivalent min. weight: 16lbs, 2oz Clutch disc: Ford part P/N FICZ-7550-A or equivalent min. weight 1 lbs. 14 oz

Pressure plate: Ford part P/N FOCZ-7563-A or equivalent min. weight: 8 lbs.

Pulley: Ford part P/N FOCZ-6316-A or equivalent. Checking Tool Available from SCCA Enterprises

f. Spark plugs: ONLY Motorcraft AGSF 24 C or AGSF 34 C or NGK TR6.

g. Oil filter: ONLY Motorcraft FL-400 Series.

h. Air Filter: ONLY Motorcraft P/N FA-1031 or Fram CA 3660.

i. PCV Valve: Motorcraft P/N EV-147 or as supplied by Enterprises.

**Z. TRANSMISSION (Drivetrain Violation items)**

a. Seals: Seals intact.

b. Gear Ratios:

| | STD |
|---|---|
| 1st | 3.42 : 1 |
| 2nd | 1.84 : 1 |
| 3rd | 1.29 : 1 |
| 4th | 0.97 : 1 |
| 5th | .73 or .77: 1 |

Final Drive Ratio: 3.62 : 1 No limited Slip

**AA. BODYWORK**

a. NOSE-ON CAR

1. Length at center: 62" +/- 1/2"
2. Width at front axle centerline: 64-1/2" +/- 1/2"

b. NOSE-OFF CAR

1. Height at axle centerline: Minimum 21-1/4" (measured with rigid straightedge across tops of fenders)

c. CENTER-ON CAR

1. Height from side pod floor to top of leading edge behind center of front tire: 19" +/- 1/4"

2. Cockpit opening length from firewall center behind seat to center top of opening lip: 37-3/4" +/- 1/4"

d. TAIL-ON CAR

1. Width at rear axle center: 66" +/- 1/2"

2. Length at center: 43-1/4" +/- 1/4"

e. TAIL-OFF CAR

1. Height to top of rear lip: 16 1/8" +/- 1/2"

2. Openings on rear panel:

3. Outer: 9-7/8" Maximum x 1" Maximum
4. Inner: 18-1/2" x 1" Maximum

**2. SPEC RACER FORD 3 (Parallel Class with SRF for 2015-2017)**

**A. SRF3 DEFINITION**
It is the intent of the GEN3 conversion to update the current 1.9L SRF drivetrain for class longevity. SRF and SRF3 shall compete side by side, for respective points and championships. *At some point, the* SRF (1.9 powered cars) *may* become a regional only GCR class.

During the 2015-2017 transition the top Divisional finishers earning Runoffs invitations shall be as follows:

- Top 5 SRF/Top 3 SRF3 for 2015
- Top 5 SRF/Top 5 SRF3 for 2016
- Top 3 SRF/Top 5 SRF3 for 2017.

There is no expectation of separate run groups for SRF/SRF3 at Majors or 2015, 2016, 2017 Runoffs

Cars must be converted per "SCCA Enterprises Conversion Manual" and it shall be used a reference standard for converted cars. **SRF3 cars must comply with all current SRF rules and regulations in 9.1.8.C.1. except as follows.**

**B. BODY**

Current SRF body rules with the exception as noted:

Tail: can be used in any legal SRF configuration until the start of the 2018 competition season. Final SRF3 configuration: For muffler clearance, a minimum 4" cut and a maximum of 8" X 62.5 +/- .500" with a 1" radius in the upper corners. Measured from the bottom up and centered left to right. No Roush Exhaust Scoop. Min weight 25 lbs. Max 55 lbs.

Center section: Oil Cooler NACA Duct is optional for SRF3, if installed must be unmodified and functional. Trimming of the left engine duct or the airbox snorkel is permitted for fitment, no sealing of the joint.

Mandatory identification: "SRF3" near the side car numbers, Approved (2) "Ford *Performance*" *on each side of the engine cover plus a Ford Blue Oval on the center of the Nose* & (2) "Performance Electronics" on each side of the tail. "Hoosier" logo (4) on both sides front lower outer corners of the nose, each side of the tail.

All SRF3 cars must have minimum 10" wide "Day Glow Orange" visible front and rear on the horizontal portion of the tall man kit. *Not Applicable after 12/31/2017.*

**C. ENGINE MANAGEMENT**

Recorded ECU data remains the property of SCCA Enterprises and must be surrendered when requested. ECU Data collection by the competitor is allowed by "CAN DATA STREAM ONLY" ECU tune file is "spec" may be checked or updated by SCCA Enterprises or CSR personnel at any time is not at the discretion of the competitor. An update is official when released by SCCA Enterprises. No competitor device at any time may be active with the Engine management system. All engine management sensors must be connected and functioning. It is the responsibility of the competitor to maintain sensors in working condition.

**D. COOLING SYSTEM**

No modification of routing or line sizes without SCCA Enterprises approval or update.

1. Thermostat: P/N G300997A Stant

**E. WEIGHT**

1560 lbs minimum with driver as raced. Cool suit tanks are to be removed upon weighing of car. Ballast in approved locations only.

**F. FIRE SYSTEM**

Fire bottle and lines with approved bottle mount P/N 180512A. This mount can be moved to driver's right in the same fore aft location as before and maintain 1 driver and 1 engine bay nozzle.

**G. OIL FILTER LOCATION**

As delivered, alternate location by approval only.

H. **ENGINE**

No performance Modifications of any kind.

SCCA Enterprises' seals shall be intact.

(2) on cam cover, (2) on the oil pan, (1) on the each cam shaft. Automatic Drivetrain Violation if removed.

**Modification to any of the following parts will result in an automatic Drivetrain Violation:**

1. Cam Timing: SCCA Enterprises Specs
2. Cylinder Head Ports: As Cast
3. PE3 ECU: P/N G992012 "Spec tuning"
4. EFI Harness: P/N G90500A
5. Wideband Controller: P/N G990503
6. Wideband Sensor: P/N G990504
7. T-Map Sensor: P/N G301023
8. Coolant Temp Sensor: P/N G991815
9. Intake Manifold: P/N G301036C As delivered, no deburring or port matching
10. Fuel Injector: P/N G591900
11. Coil: P/N G12029
12. Timing Belt Safety Device: P/N G113910
13. Crank Sensor Mount: P/N G980901A
14. Flywheel: P/N G390001 7lb 3oz minimum weight
15. Clutch Disc: P/N G720003B 1lb 1oz minimum weight
16. Pressure Plate: P/N G1172002A 3lb 15oz minimum weight
17. Alternator Pulley: P/N G902130 12oz minimum weight
18. Spark Plugs: P/N G301041 ONLY NGK LTR7IX-11
19. Spark Plug Wire Set: P/N WR6126 ONLY Motorcraft
20. Header P/N G391600 As delivered, no port matching
21. Tail Pipe P/N G391605
22. Oil Filter: P/N FL910-S ONLY Motorcraft
23. Air Filter: P/N WM301020
24. Air Box: P/N G592230 Mandatory unmodified, except as noted under body work, Air Box floor vent must remain open and un-obstructed.

**J. EXHAUST**

Exhaust may be plated or coated. Repairs may not alter the configuration or tuned length of the header or tail pipe.

Standard Muffler Kit G1190523 (including Standard Muffler P/N 390523) is required for all events. For tracks with stricter sound requirements Quiet Muffler Kit P.N G1190524 is available as a replacement for that event. *Muffler packing of any kind is not permitted. Tail pipe may be tack welded to the muffler.*

**K. TRANSMISSION: (Drivetrain Violation Items)**

No performance Modifications of any kind

SCCA Enterprises, seals shall be intact for all SCCA competition

Gear Ratios:

1st 3.42: 1

2nd 1.84: 1

3rd 1.29: 1

4th .97: 1

5th .77: 1

Final Drive Ratio:

3.62 or 3.85; 3.85 only 1/1/2018.

For 3.62 Speedo drive gear must remain, for 3.85 Speedo drive gear must be installed. Previously sealed

transmissions, as documented by seal numbers, are exempt until next rebuild or 1/1/2018.

**NOTES:**

## F. SHELBY CAN-AM RACER CLASSED IN P1 AND ASR

**1. Definition**
One design, fixed specifications, open cockpit, single seat sports racer.

**2. Safety Requirements**
Per GCR and SRCS minimums

**3. Maintenance and Repairs**
It is permitted to perform routine maintenance and repairs.

**4. Chassis**
NO MODIFICATIONS ALLOWED except as noted herein.

Painting/Plating. The chassis may be painted any color(s). Aluminum parts may be polished or anodized. Surface finishes such as plating may be applied for corrosion protection. Any chassis piece that is a closed assembly shall have a l/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids. Post plating bakeout of four (4) hours at a temperature of 375 degrees F., is recommended to prevent hydrogen embrittlement. A flat sheet metal panel may be stitch-welded to the frame beneath the seat and feet area. The maximum thickness allowed is eighteen (18) gauge (.049"). The width of the panel may not exceed the width of the frame. Each panel must have three (3) 1/4" inspection holes.

**5. Bodywork**
NO MODIFICATIONS ALLOWED

a. Bodywork crash-damage may be repaired, but exterior dimensions, shapes, thicknesses, and profiles shall remain unaltered. The addition of material to increase rigidity and/or the weight is prohibited. Body sections (complete) shall meet the following weight requirements.

| Section | Minimum | Maximum |
|---|---|---|
| Front | 33 lbs. | 50 lbs. |
| Center | 55 lbs. | 96 lbs. |
| Rear | 45 lbs. | 64 lbs. |

b. At-track repair of crash-damage that does not conform to the above specifications will be allowed if replacement parts are not immediately available. This waiver will be noted in the vehicle logbook and will be good for that ONE EVENT ONLY.

c. The car may be painted any color(s).

d. It will be required that all cars display the following:
   1. The SCCA field logo on the front and each side of the car.
   2. Class designation, CSR, per GCR Section 9.3 Identification Markings.
   3. Additional seven (7) inch high numbers are required on the outside of the wing end plates.

e. The forward roll bar braces shall be padded per GCR Section 9.4.

f. The rear lower corners of the fiberglass tail section may be cut off on an angle. The maximum that may be removed is four (4) inches high by sixteen (16) inches forward, measured from the rear corner. A reinforcing lip shall be installed on the inside of the panel.

**6. Engine and Drivetrain**

**a. Engine**

NO MODIFICATIONS ALLOWED except as noted herein.

This includes the fuel injection, induction, exhaust, cooling, electrical, and lubrication systems. All fluids are unrestricted. Engine maintenance which is permitted includes the replacement, but not modification, of external engine parts such as: spark plugs, oil filter, ignition parts, fuel pump, water pump, dry sump system, alternator/ water pump belt, hoses, valve cover, and oil pan gaskets. Exhaust system may be painted or plated. Oil filters may be replaced with an OEM equivalent. An alternate push-pull throttle cable, and necessary brackets are allowed.

**b. Cooling**

All coolers may be blocked off a maximum of fifty (50) percent to reach operating temperature.

**c. Transmission**

NO MODIFICATIONS ARE ALLOWED

Maintenance involving machine work of any type is not allowed, with the exception that welding repairs to broken cases are approved as long as the welding serves no other purpose. Internal transaxle work is strictly prohibited. This includes, but is not limited to, the replacement, modification, assembly, or disassembly, of internal transmission parts such as bearings, synchronizers, shifter mechanisms, etc.

Transaxle/drivetrain work which is permitted includes replacement, but not modification, of axles, CV joints, clutch disc, pressure plate, flywheel, throwout or pilot bearing, gear sets, or transaxle assembly.

**7. Suspension**

NO MODIFICATIONS ALLOWED except as noted herein.

a. Adjustments are permitted within the limits of the suspension components. (See Specifications)

b. Painting/Plating. Suspension parts may be painted any color(s). Aluminum parts may be polished or anodized. Surface finishes such as plating may be applied for corrosion protection. Any suspension piece that is a closed assembly shall have a l/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids. Post plating bakeout of four (4) hours at a temperature of 375 degrees F is recommended to prevent hydrogen embrittlement.

c. The uprights may be sleeved with a bushing in the ball post area for repair.

d. Anti-roll bar (swaybar) may be disconnected, but not removed.

e. Rod ends on lower rear control arms may be upgraded to a half (1/2) inch shanked rod end (P/N CS 1691). The rod end attaching bolt hole diameter must remain 7/16".

**8. Brakes**
NO MODIFICATIONS ALLOWED except as noted herein.

**9. Springs**
NO MODIFICATIONS ALLOWED

Factory authorized parts only. (See specifications) Helper springs beneath the normal springs are allowed, but must compress completely when the car sits on its wheels without driver.

**10. Steering**
NO MODIFICATIONS ALLOWED

Steering arms may be reinforced and made out of steel or aluminum, providing the geometry remains the same as original.

**11. Wheels**
NO MODIFICATIONS ALLOWED

**12. Fuel System**
NO MODIFICATIONS ALLOWED except as noted herein.

A returnless fuel system may be used as an alternate. The following modifications must be made when using returnless system:

a. Fuel return line must be removed.

b. Fuel rail regulator must be removed and plugged.

c. Vacuum line to fuel rail regulator must be removed, and plugged at source.

d. Electrical connectors may be changed.

**13. Electrical System**
NO MODIFICATIONS ALLOWED

Battery shall remain in the same location. A battery of any size may be used.

**14. Weight**
The car shall weigh 1980 lbs., minimum, including the driver.

**15. Vehicle Configuration**
All Shelby CAN AM cars shall comply to GCR Section 9., with the following exceptions: 9.3 Accumulators.

**16. Updates**
Provisions will be made for updates on all safety and mechanical improvements. Such updates will be effective when announced by the SCCA National Office and published in FasTrack.

**17. Vehicle Logbook**
Per Section 9.2 of the GCR (Can-Am Logbooks are no longer valid and shall be replaced with SCCA Club Racing Logbooks)

**18. Accessory Items**

a. Use of cool suits by drivers is authorized providing the water tank is securely mounted and approved by Tech. The car shall meet minimum weight with driver, but without the water tank.

b. Two-way radios and video cameras may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. The seam between the splitter and the nose bodywork may be taped completely using duct tape. Duct tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible.

d. Recording tachometers are allowed.

e. Anti-skid material may be added to pedal surfaces and floor of car.

f. Alternate diameter steering wheel and/or quick disconnect steering wheel system is allowed as long as no other changes are made to facilitate installation.

g. Chassis run blocks: Size = 5" x 1-1/2" x 1/4", material unrestricted, quantity eight (8) maximum.

h. Mirrors and their attachment/mounting position are unrestricted.

i. Seat modifications (for comfort and/or size) are allowed.

j. Fasteners (including body) are unrestricted except for size.

k. An oil pressure warning light may be installed.

l. Additional oil filter(s) are allowed, any brand, any location, except that only a screen type filter may be installed in the suction lines.

m. Additional body supports, such as a pad underneath the front corner on top of the crush box or a bracket on the side of the crush box is allowed.

n. A stone shield behind the front wheels may be added, and must be mounted vertically against the bodywork, behind the wheel. A stone shield may be added behind the radiator tank and on the bottom of the radiator at the fiberglass duct. (May not serve any other purposes.)

o. An extension on the floor pan of 6" x 40" as a stone guard/ belt protector may be added.

p. The dead pedal and throttle pedal brackets may be modified for driver comfort.

q. Additional gauges may be added.

r. The use of data acquisition systems is permitted.

s. A bleed fitting may be added to the thermostat housing.

t. Additional belt guards may be added. Additional fences on the pulleys are allowed. The only machining allowed to the pulley is for mounting the fences. Alternate pulley diameters, bearings, or other modifications are not allowed.

u. The plexiglass windscreen may be removed, but not modified.

v. A transmission filter may be added.

w. Liquid lines (oil, fuel, water) may be changed to metal braided lines.

x. Bosch fuel pump P/N GFP216 may be used in addition to or in place of the original fuel pump.

**Shelby CAN AM Specifications**

**CHASSIS**

A. Vehicle Weight: 1980 lbs., minimum with driver.

B. Springs: I.D.: 2.55, Free Length: 8.00

| EIBACH P/N | WIRE DIA. |
|---|---|
| 800-250-0400 | 11.50mm |
| 800-250-0450 | 12.00mm |
| 800-250-0500 | 12.25mm |
| 800-250-0550 | 12.75mm |
| 800-250-0600 | 13.00mm |
| 800-250-0650 | 13.25mm |
| 800-250-0700 | 13.50mm |
| 800-250-0800 | 14.00mm |
| 800-250-0900 | 14.50mm |
| 800-250-1000 | 15.00mm |

C. Anti-roll bar diameter: 1-1/4 x 0.065, 1-1/4 x 0.083, 1-1/4 x 0.095, 1-1/4 x 0.120

D. Wheels: Front: 11 x 16, Rear: 12 x 16

E. Tires: Shelby Can-Am cars may run any suitable tire that fits the specified wheels.

F. Brakes:
   1. Brake Pads: Unrestricted
   2. Rotors: 12.18 x 1.25 vented
   3. Calipers: 1.75 x 4 piston (JFZ or Wilwood)

G. Shock Absorbers: Unrestricted

H. Suspension Linkage Adjustments: No more than 9/16 inches of the threads showing on any spherical rod ends and all suspension fasteners. This is a mandatory requirement to ensure sufficient engagement of the threads in the adjustable linkages.

I. Master Cylinders: Brakes: 7/8" or 1"
Clutch: 5/8"

**ENGINES**

A. Cam Specs: Checking Lift - .006"
Maximum Valve Lift - .500"
Lobe centerline - 104°
Duration - 284°
Int open - 38° BTDC
Int close - 66° ABDC
Exhaust open - 66° BBDC
Exhaust closed - 38° ATDC

B. Cam Sprocket: Sprocket keyway and key in original configuration.

C. Ports: Intake manifold and/or cylinder head - shall meet templates and volume.

D. Flywheel: Minimum weight: 18 lbs, including ring gear, no machining.

E. Pressure Plate: Minimum weight is 10 lbs., no machining. Manufactured by LUK.

F. Clutch Disc: Minimum weight is 2.50 lbs. Manufactured by LUK.

G. Spark Plugs: Unrestricted

H. Fuel Pressure: (Idle)
Return System: Minimum 42 PSI, Maximum 51 PSI
(with vacuum disconnected)
Returnless System: Minimum 45 PSI, Maximum 50 PSI

**TRANSMISSION**

A. Gear Ratios: 2.38:1, 2.08:1, 1.57:1, 1.29:1, 1.22:1, 1.15:1, 1.00:1
Final Drive Ratio: 3.22:1, 3.05:1
Bevel Gear Ratio : 1.16:1

## G. OLDSMOBILE QUAD 4 CLASSED IN P2

The only permitted engine is the Oldsmobile 2.3 liter Quad 4. The modifications or additions covered by these specifications establish limitations on engine preparation. Engine components not covered or addressed in these specifications may be freely modified or replaced.

1. A cast iron Oldsmobile Quad 4 2.3 liter production cylinder block shall be used.
2. The maximum piston diameter is 3.631" (.010" over standard).
3. Camshafts and direct acting lifter assemblies shall not be modified. Re-drilling of the dowel hole in the camshaft sprockets to attain the required camshaft timing is allowed. It is also allowed to add an offset bushing to this re-drilled hole to attain desired camshaft timing. Camshafts shall be one of the following:

   a. As manufactured and ground by Oldsmobile or by an after market cam manufacturer to Oldsmobile factory specifications for Vin.A (W41) or Mantapart #OP 1149.

| | |
|---|---|
| Duration: | 219 degrees @.050" |
| Intake Center Line: | 101° to 104° ATDC |
| Exhaust Center Line: | 112° to 115° BTDC |
| Max Intake Cam Lift: | .410" |
| Max Exhaust Cam Lift: | .410" |
| Intake and Exhaust Base Circle: | 1.420" |

   b. As manufactured and ground by Oldsmobile or by an after market cam manufacturer to Oldsmobile factory profile Vin. D or Mantapart #OP 1148.

| | |
|---|---|
| Intake Center Line: | 101° to 104° ATDC |
| Exhaust Center Line: | 112° to 115° BTDC |
| Intake Cam Lift: | .375" |
| Exhaust Cam Lift: | .375" |
| Intake and Exhaust Base Circle: | 1.420" |

4. A standard, unmodified Oldsmobile Quad 4 2.3 liter crankshaft shall be used. Only machining necessary for balancing is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight is 41.0 lbs. (18.57 kg). An unmodified LGO crankshaft damper, Oldsmobile P/N 22545438, shall be used. The damper retaining bolt may be modified or replaced for an oil pump drive.
5. No carbon clutches are allowed. Clutches are otherwise unrestricted.
6. The maximum allowed compression ratio is 10.0:1.
7. Light machining of the head for purposes of clean up and casting flash removal is permitted. Reshaping of inlet or exhaust ports is prohibited. Addition of material in any form is prohibited. The maximum intake port volume is 128.0 cc. The maximum exhaust port volume is 83.5 cc. The distance between the valve centers and the angles of the valves shall not be altered.
8. Piston, pin and retainer assemblies shall weigh a minimum of 500 grams each.
9. Valves shall be of the following specifications:

| | |
|---|---|
| Intake Valve Face Diameter: | 36.37 - 36.63 mm |
| Exhaust Valve Face Diameter: | 31.37 - 31.63 mm |
| Intake Valve Stem Diameter: | 6.972 - 6.990 mm |
| Exhaust Valve Stem Diameter: | 6.959 - 6.977 mm |
| Intake Valve Minimum Weight: | 68 grams |
| Exhaust Valve Minimum Weight: | 56 grams |

10. Connecting rod assemblies shall weigh a minimum of 680 grams each (including caps, nuts and bolts).
11. The only allowable intake manifold is the Oldsmobile Rocket manifold, part number 22551677. No modifications are permitted internally or externally. All unused vacuum ports shall be plugged with pipe plugs and a suitable sealer.
12. The throttle body may be bored to 60mm. The throttle body shall have vacuum ports plugged by removing pipes and installing pressed fit plugs with a suitable sealer. No un-metered air or fuel to the engine is allowed.
13. Balancing of reciprocating and rotating parts is permitted only by removal of metal.

## H. ENTERPRISES SPORTS RACER PREPARATION RULES IN P2

**1. Definition**
One design, fixed specifications, open cockpit, single seat Sports Racer with Mazda 2.3 engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official Enterprises Sports Racer parts except where noted in G.4.

**2. Safety Requirements**
Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through Enterprises, except safety harnesses may be replaced by any other that conforms to GCR Section 9.

**3. Vehicle Configuration**
All Enterprises Sports Racers shall comply to GCR section 9 with the following exceptions: Section 9.3 Accumulators.

**4. Maintenance and Repairs**
It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official Enterprises Sports Racer parts. If any official Enterprises' seal is broken, lost by accident or intent, the procedures outlined under G.18., shall be followed. Parts and materials with an Enterprises part number having the prefix "WM10" are considered to be unrestricted, providing their dimensions and materials are comparable. No other parts are to be considered "unrestricted" except where specified.

**5. Chassis**
NO MODIFICATIONS ALLOWED except as noted in these rules.

a. *Floor must meet P2 rules in GCR section 9.1.8.D.E.*

b. Seats are free. Panels inside the cockpit may be attached to the frame as long as the points of attachment are no closer than 6 inches apart. No welding or gluing of the seat to the structure of the car is allowed.

   Definition of cockpit is: area between the front roll hoop and rear roll hoop.

c. Painting or powder coating of the chassis is allowed.

d. Enterprises foot drop box part # WM180020 may be installed.

e. Transponder must be used per SCCA Enterprises Technical Bulletin 002-2016.

**6. Bodywork**
**Modifications to bodywork as supplied by Enterprises only allowed as noted herein.**

a. Bodywork shape shall remain unmodified with the exception of holes for a slave or jumper battery plug, trackside beacon receiver, and tow hooks. All repair work must match original body dimensions and contours.

b. Bodywork fasteners are free.

c. The car may be painted any color(s), except primer.

d. It is required that all cars display the official sponsors of Enterprises decals and locations as specified by Enterprises.

e. Radiator screens are allowed and recommended.

f. The rear wing *is open but must meet P2 rules in GCR section 9.1.8.D.E.2.*

g. The stock headrest may be modified or replaced with any headrest meeting GCR section 9.4. The stock lateral bolsters may be modified or removed.

h. Enterprises windscreen P/N: WM137000 is allowed.

i. The front splitter overhang may be increased a maximum of 4 inches and this piece may be manufactured by the car owner. Any front splitter end plates may be added with a maximum forward length equal to the front splitter length and a maximum rearward length to the front of the front tire fender opening. Splitter and attached diffuser panel may be trimmed for tire clearance. Front splitter end plates (fences) may not have a height of more than 5 inches above the splitter top surface and may not extend below the splitter bottom surface. *Dive planes may be added as long as they do not extend past the side profile of the bodywork.*

j. The front bodywork air inlet may be partially or fully covered but must follow the contour of the existing body shape.

k. *Any rear wing end plate is allowed but must meet P2 rules in GCR section 9.1.8.D.E.2.*

l. Side pod air evacuation openings behind the front wheel on the outboard side of the body may be partially or totally covered by any flat panel that follows the contour of the body. The side pod inlet opening for this air evacuation cavity behind the trailing edge of the front tire may be partially of totally blocked by any panel.

m. *Car and engine bay floor must meet P2 rules in GCR section 9.1.8.D.E.*

n. Rear bodywork section (engine bay cover including rear fenders) may be modified so that it may be removed in no more than 3 pieces. No modifications may be made to the external surface licked by the airstream other than fasteners and must maintain the original shape of the bodywork as supplied by Enterprises. Additional underbody support brackets are open.

**7. Engine and Drivetrain**

a. Engine

1. NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated and supplied by Enterprises. All fluids, except fuel, are unrestricted.
2. Enterprises, Inc., seals on the engine, and other components shall remain in place at all times. All engines shall be rebuilt, checked on an engine dynamometer, and sealed through Enterprises.
3. Engine maintenance, which is permitted, includes the replacement, but not modification of external engine and engine systems parts.
4. There are six (6) seals on the engine. Two (2) on the timing cover, two (2) on the top of the valve cover, and two (2) on the oil sump. They may not be removed or tampered with.
5. All rubber oil lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.
6. Intake manifold: No modifications are allowed. Absolutely no porting or the addition of material is allowed. No coating is allowed on the exterior or interior of the manifold.
7. Engine Control Unit (ECU): *Supplied* and sealed by Enterprises. Tampering of the ECU, ECU program, seal, wiring or sensors is prohibited.
8. The flywheel weight is a minimum of 2.6 lbs for the Enterprises supplied flywheel. No modifications to the flywheel with the exception of normal resurfacing for clutch wear are allowed.
9. No modification to the crankshaft dampener is allowed.

The following parts must be used:

10. Clutch: Enterprises supplied clutch and flywheel contained in kit #WM701000A, Piston # WM701004A, Throw out bearing # WM701006A, Small O-ring # WM1010405, Large o-ring #WM1010406, Flexplate and Ring Gear # WM1101053.
11. Spark Plugs *are open*.
12. Fuel Injectors: Part # WM591929
13. Throttle Body: Part # WM591930
14. Fuel Filter: Any fuel filter may be used as long as it performs no other purpose than to filter fuel.
15. Air Filter: Part # WM301020
16. Exhaust systems may be thermal coated or wrapped.
17. A heat shield between the engine block and the exhaust system is recommended for the purpose of protecting hoses, shifter cable, and wiring from the heat of the exhaust.
18. *Where needed to meet sound limits,* Enterprises muffler kit part # WM301046 is required. The muffler may not extend beyond the back of the transmission. An additional muffler may be added to accompany the stock muffler as needed to meet sound requirements.
19. An optional air to oil cooler is allowed. No water to oil heat exchanger is allowed.
20. An optional Enterprises alternator kit is allowed, Part # WM1100101.

b. Transmission

1. The transaxle *as* supplied by Enterprises is the only permitted gearbox. The casting has to remain original. No internal or external modification (including lightening) other than normal racing repair.
2. The servicing, replacement and modification of internal components is permitted by the competitor. With the following exceptions:
    a. All components must be ferrous metal, except for bearing retainers and bearing cages.
    b. Components manufactured by alternate manufacturers are permitted. Replacement components must be direct replacements to the original components. Absolute minimum weights are listed below.
3. The rear cover plate may *be* manufactured or remanufactured using aluminum.

4. Differential – Only final drive ratio allowed is 2.75. The differential must remain an open differential. No limited slip mechanism is allowed. Differential must *function* as supplied. Must be able to use existing components.

5. Polishing, shot peening, REM© Isotropic treatment, heat and cold treatments are allowed. No coatings or plating is allowed.

6. Shift cable is free, but shifting must remain cable operated.

7. Throttle cable is free, but must remain cable operated.

8. The shift actuator assembly must operate as supplied by Enterprises. It can be polished, shot peened, or have REM treatment, heat and cold treatments.

**8. Suspension**

a. NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension and steering components. All rod ends shall be engaged at least 1.5 times the diameter of the end.

b. Front and rear springs are open.

c. Competitors may use the entire travel of all suspension adjusted components as delivered. Alternate parts, *unless specifically authorized* are not allowed.

d. All suspension parts shall have the SCCA code embedded (a label/or an Enterprises stamp) in the part. If they do not it is required to return part to Enterprises for proper labeling.

e. Anti-roll bars (sway bars) may be disconnected, but not removed.
Anti roll bar sizes:
Front .875" OD ±.005"
Top Tee .750" x .135" wall, ±.005"
Top Tee Length: 7.5" maximum end to end
Rear lower stalk .615" Dia. ±.005"
Upper stalk .765" ±.005"
Arm length 5.470" shoulder to shoulder

Optional Front Sway Bar: Rotating blade style with or without cockpit adjustment. Minimum blade thickness 0.155" ±.005" Main Shaft diameter 0.590" ±.005", Length 6.006" ±.010". Cockpit adjustable full bar kit PN: WM1121008. Bar kit only (with set screw lock) PN: WM1121007

**9. Shocks**

*Shocks are open.*

**10. Steering**

NO MODIFICATIONS ALLOWED, except as described within these rules

a. An alternate steering wheel may be used. "Butterfly" style steering wheels are not allowed.

b. Upper steering shaft may be modified to accept an alternate steering wheel and/or hub (if applicable). It may also be modified to accommodate a larger driver.

**11. Brakes**

NO MODIFICATIONS ALLOWED, except as described within these rules. Only the AP 4 PISTON CALIPER BRAKE SYSTEM AS SUPPLIED WITH VENTED ROTORS as supplied by Enterprises shall be used

a. Brake pads *are open.*

b. Brake rotors are used as delivered, no drilling or lightening is allowed. Minimum Diameter is 10.450". Part # WM801002x Left, Part # WM801003x Right. Min width is .600"

c. Master cylinders must be the Girling type.

Front master cylinder is.700" piston diameter, Part # WM802005

Rear master cylinder is .750" piston diameter, Part # WM802006

d. Calipers must be AP 4 piston. Part numbers are:
LF # WM802004 RF #WM802003
LR # WM802002 RR # WM802001

e. Brake lines are free (no plastic allowed).

f. An optional brake duct kit Part # WMxxxxxx is allowed.

**12. Wheels (Only wheels supplied by Enterprises)**

NO MODIFICATIONS or MACHINING ALLOWED Aluminum racing wheel supplied from Enterprises with SCCA logo. If logo is worn off, or wheels that have been painted or powder coated, wheels must be inspected by Enterprises or one of their designated Customer Service Representatives and logos replaced.

Front: 8 in. x 13 in. Part # WM 205001- *OZ Black*

*Front: 8 in. x 13 in. Part # WM 205001B- OZ Silver*
Rear: *10 in.* x 13 in. Part # WM 205002*- OZ Black*
*Rear: 10 in. x 13 in. Part # WM 205001B- OZ Silver*

a. All wheel bearings shall be run with grease (not oil), no special coatings are allowed, and the bearing grease seal shall be intact. No ceramic wheel bearings are permitted.

b. Wheel spacers are not allowed.

13. Tires
Tires must run in sets of 4 as stated below:

Dry: Any commercially available "Dry Slick Racing Tire"

Wet: Any commercially available "Wet Racing Tire"

Left and right front tires will be the same size; left and right rear tires will be the same size.

14. **Electrical System**
NO MODIFICATIONS ALLOWED, except as described within these rules.

a. Wiring harnesses must remain as delivered.

b. Battery may be replaced with a larger one as long it remains in the same location.

c. Battery wiring is free. Car must shut off when master switch is turned off.

d. Any instrumentation is allowed.

e. Data acquisition is allowed, no telemetry is allowed.

f. Any rain light and tail lights are allowed.

15. **Weight**
The car shall weigh 1350 lbs. minimum, including the driver.

16. **Updates**
Provisions will be made for updates on all safety and mechanical improvements. When part updates are needed, because of reliability, supply or obsolescence, testing of parts from alternative, updated sources with direction and approval from SCCA Enterprises may be used in sanctioned events. Such updates will be effective when finalized by Enterprises, announced by the National Office, and published in Fastrack.

17. **Vehicle Logbook**
The Vehicle Logbook for each Enterprises Sports Racer remains the property of Enterprises and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the name plate mounted on the fuel cell behind the driver's shoulders. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc.,. 14550 E. Easter Ave Suite 400 Centennial, Co. 80112. The logbook will them be reissued to the new owner. When the logbook has been filled, a new one shall be requested from SCCA Enterprises, Inc.

A FEE OF $200 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All Enterprises Sports Racers are subject to normal safety inspection. Additionally, scrutineers will check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, damaged, lost or part not properly labeled but the part may be considered suspect and will be treated as such and will be required to be sent back to Enterprises for inspection. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine shall be removed and sent to Enterprises for testing and resealing. The competitor will bear all expenses at the competitor's cost prior to the next event.

18. **Seals**
Enterprises engine seals are required for all races. Any competitor who runs an event without all proper engine seals in the required locations *may* have his engine removed and shipped to Enterprises for testing and sealing after that event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises, Inc., seals are required on all Sports Racer Engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. SCCA Enterprises, Inc., will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: 19.1., 19.2., 19.3., and 19.4.

*18.* **Accessory Items**
a. Mirrors are free.

b. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible. Taping of body joints is not allowed

d. The spark plug wires may be fire sleeved and may be loomed, but must be original Mazda wire as supplied by Enterprises.

e. Engine compartment fluid hoses may be insulated using heat shield or wrap.

f. Front and rear tow hooks are required see GCR section 9.3 Towing Eyes.

**NOTES:**

## I. ELAN VAN DIEMEN DP02 SPORTS RACER CLASSED IN P1

**1. Definition**
A one design, fixed specification, open cockpit, single seat sports racer assupplied by Elan Motorsports Technologies (EMT).

**2. No Modifications**
No modifications are allowed to any part of the car as delivered by EMT except as permitted in these specifications. Adjustments of suspensioncomponents and air foils within the delivered range of adjustment is allowed. Maintenance, repair and painting are allowed. Instrumentation is free. Bodywork may be modified within the CSR rules (9.1.8.A.2.d).

**3. Engines**
The only engines permitted are the Ford 2.3 liter Duratec or Mazda 2.0 liter MZR as supplied by Elan Power Products (EPP). No modifications are permitted. The engine must have the four (4) EPP numbered seals (cam cover, oil pan, front cover, crank angle sensor) present in their location and condition as installed by EPP.

**4. Transmission**
Any transmission and rear end gear ratios are permitted within the supplied transmission.

**5. Wheels and Tires**
Thirteen (13) inch diameter wheels with a maximum rim width of 9 inches front and twelve (12) inches rear are the only wheel sizes permitted. Material is unrestricted providing it is metal. Tire brand and compound is unrestricted.

**6. Minimum weight**
Minimum weight is 1350 lbs. The CRB may adjust the minimum weight at any time.

**NOTES:**

## 9.1.9.1. TOURING (T1) CATEGORY

These Specifications are part of the SCCA General Competition Rules (GCR), and all classified automobiles shall conform with the requirements of GCR Section 9 unless this Category is specifically exempted from said requirements. OEM specifications are as delivered from the manufacturer. In no way are any category rule modifications, swaps, updating or backdating to be performed to any component of the complete engine including intake and throttle body unless specifically allowed in the spec line. Specifically, any spec lines that contain the phrase or acronym OEM in the maximum displacement or engine notes section of the spec line, MUST adhere to OEM specs, EXCEPT engine bore. These engines may be bored out to a maximum of .040" over standard bore size.

Limited T1:

See Limited T1 specification lines for the list of cars permitted to run in T1 in a limited preparation level configuration. These cars shall be prepared to the T2 level of preparation found in 9.1.9.2. *Aftermarket headers allowed. Limited prep cars running stock OEM manifold/headers as delivered may subtract 50lbs. from the specified weight.*

Full Preparation T1:

**A. Bodywork**

1. OEM non-metallic composite body panels (i.e., plastic fascias, fiberglass hoods, etc.) may be replaced with panels of any type composite, provided that the panel maintains the OEM profiles. All cars may replace the hood, hatch, and/or trunk/deck lid with nonmetallic composite parts provided that the panel maintains the OEM profiles. Wheel arches may be flared up to 3" and must maintain the OEM profile. The hood may have heat exhaust vents installed in it. Hood inlets (scoops) are not allowed. The vents shall not expose the mechanical components of the car when looking down from above. The permitted transmission and differential coolers may vent through rear license plate frame. There shall be a screen, painted the same color as the surrounding bodywork, covering the vent opening. Any OEM non-functional, decorative vents/ducts may be made to be functional provided the exterior body appearance is not modified.
2. Standard body appearance must be strictly maintained. Standard body appearance includes the OEM grille and badge. A photographic replica is not sufficient.
3. Body and frame seams and joints may be welded. The OEM radiator supports may be replaced or reinforced to make repairs easier. The radiator supports shall not reinforce the rest of the chassis or diminish the OEM crush zones.
4. Bumper brackets may be modified, but bumpers must remain in OEM locations.
5. Non-essential body items and trim may be removed including attaching brackets and supporting structure. Any holes in bodywork exposed by the removal of these items shall be covered or filled.
6. All of the vehicle's doors must be able to be opened from both inside and outside the vehicle. Latches and hinges for the doors may be modified, but must remain in working order. *Electric door latches may be removed and replaced with mechanical linkage. Mechanical door latch location must be marked to be visible to workers.* Aftermarket latches and hinges may be used but shall not protrude beyond outer surface of bodywork. The stock side impact beams may be removed when NASCAR style door bars are installed.
7. Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches and hinges may be disabled or removed; if so, a positive action external fastening method shall be used. Engine compartment insulation may be removed.
8. Openings in the bodywork may be temporarily covered, wholly or partially, with tape for the purpose of regulating airflow. Bodywork openings may be closed off using close-out panels mounted behind body openings. Bodywork seams may not be taped except to temporarily secure it after contact.
9. All bodywork and windows shall be sufficiently rigid, adequately supported and properly secured such that it does not noticeably flutter, move, or deform while vehicle is in motion.
10. Aftermarket OEM style hardtops are allowed. Aftermarket carbon fiber hardtops are not allowed.
11. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed.

**B. Aerodynamic Devices**

1. Front Splitter
    a. A front splitter that is a flat, single-plane may be added. The splitter shall have no vertical deviations. The permitted splitter may close out the underbody from the leading edge of the approved bodywork, back to the centerline of the front axle. The splitter may be mounted to the front fascia via a vertical intermediate mounting surface. If the vertical mounting surface overlaps the front

fascia, it may not overlap more than 2.0 inches. Additionally, a maximum of 4 rods, or cables, may be used to support the front, and/or sides, of the splitter. No other material(s) may be used external to the body to support the splitter. A single-plane vertical close-out panel(s) may be used to bridge the gap between the front fascia and the splitter. Splitter designs may incorporate openings for brake ducts provided it does not affect the standard body appearance.

b. The minimum ride height of front splitters and air dams is 3.0 inches.

c. The front splitter must not extend more than 2.0 inches past the original or approved bodywork as viewed from above for the entire profile of the splitter.

d. The splitter shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead. The splitter may not extend more than 2.0 inches beyond the bodywork, regardless of where the outside edges of the front tires are.

e. The splitter may have vertical deviations, fences, etc., only if they are part of the production bodywork for street use.

2. Rear Wing

a. The wing shall be mounted to the trunk/deck lid with 2 mounting brackets. Each mounting bracket shall attach to the wing at a point that is at least 2.0 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow the two parts of each bracket to be fastened together.

b. Factory wings and spoilers are permitted, but must be removed if an approved wing is installed.

c. Wings shall be a single element and single plane with a maximum chord length of 12.00 inches, including any wicker. (except as allowed in 9.1.9.1.B.2.h).

d. The entire wing assembly may be no wider than the widest part of the car, not including fender flares/lips and mirrors, or a maximum width of 72.0 inches, whichever is the lesser.

e. The entire rear wing assembly, including the end plates and any wicker , shall be mounted level with, or below, the peak of the roof.

f. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part of the approved bodywork.

g. Wing end plates must not exceed 144.0 square inches.

h. APR performance wing GTC-500 part #AS-1070xx, variable cord length 12.75" Inner/9" Outer), is permitted.

3. A close-out panel may be mounted behind the grille.

4. OEM side skirts may be used if they were available on the car from the dealer provided they meet the minimum ride height rule.

5. Aftermarket side skirts may be used provided they meet the minimum ride height rule, have no openings/ducts in them other than for jacking insert(s), are no wider than the approved fascias, do not extend any higher than the bottom of the door and do not reinforce the chassis.

6. Canards or dive planes are not permitted unless part of the OEM bodywork

**C. Interior**

1. The following items may be removed: tool kit, spare tire, supplemental restraint systems (SRS) and passive restraint systems.

2. The following items may also be removed:

Headliner, sun visor, carpeting, carpet pad and/or insulation, sound- proofing, OEM seats, all trim except the dashboard, heating and air conditioning systems, window winding mechanisms, front door windows, central locking systems, audio system, and any other systems fitted to the original car solely for the comfort of the driver and/or passengers.

3. The following items may be installed:

Safety equipment/structures, seat, controls necessary for driving, instrumentation, electronic equipment, radio, camera, battery, driver cooling system, driver ventilation system, replacement door panels/ interior trim, anti-sway bar controls (not within reach of driver). None of the above items may hinder driver exit from the car.

4. The driver's seat shall be located in the same lateral location as the OEM seat, unless otherwise

allowed on a car's spec line. The transmission tunnel may be modified for the purpose of installing a competition driver seat. The floor pan must remain in its original position. The floor pan must remain in its original position. The driver's seat shall be located longitudinally.

5. Stock dash/instrument panel cover (dash pad) must be used. Original instruments/gauges may be replaced, or supplemented, with additional engine monitoring gauges. Accessories, lights and switches may be added or removed. Box-type extensions from the dash pad may be used to mount switches and controls, in the areas where the OEM insert panels were mounted, so that they more easily accessible to the driver. Audio and video systems may be removed.
6. Vertical bulkheads, and enclosures, within the cockpit shall not be any higher than the bottom of the side windows, and shall not extend more than 18.0 inches above the floor pan. No bulkheads shall cover the rear foot wells.
    a. Sedan Body (4-door) and Hatchback Body (3-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back shall not extend laterally from one side of the chassis to the other, but rather shall only be large enough to cover the individual components necessary.
    b. Coupe Body (2-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back, if applicable, may extend laterally from one side of the chassis to the other.
7. Dash pad modification – It is permitted to modify the dash pad in order to run the roll cage tubes through the dash area as long as the dash pad is modified only enough for roll cage fitment. If necessary, the dash pad may be parted to ease installation around roll cage. Any such parting shall be done in such a way as to minimize the appearance that they have been separated once pieces of dash pad are installed.

**D. Chassis**

1. All cars shall have the OEM rear package shelf and/or rear seat back support structure installed if applicable. As an alternative, a metallic close out panel may be installed that simulates the rear package shelf and/or the rear seat back support structure if applicable. If a close out panel is used to clean up the appearance of the rear package shelf and/or rear material is free.
2. Cables, wiring and fluid lines in the engine compartment and cabin interior may be replaced, rerouted, and/or protected.
3. Cars that have drive shafts shall have 2 steel, 360-degree loops of sufficient strength located as close as possible to the front and rear universal joints to prevent the driveshaft from dropping in case of failure of either universal joint. Floor materials, torque tubes and cross members may also be utilized to provide this protection.
4. It is permitted to attach one or more plates, or pads, under the car to provide for jacking of the car, provided they serve no other purpose. It is prohibited to install any kind of device, which protrudes from the rocker panel or side of the car. However, tubes may be attached to the roll cage or chassis and extend to the inner surface of the rocker panel or bodywork to act as a receptacle for a jacking fixture. Air jacks are permitted, but no air source may be carried on board.
5. Ride height will be measured at the lowest point of the rocker panel, not including the pinch weld. Minimum ride height is 3.5 inches.
6. The OEM firewall between the cockpit and engine compartment shall be intact to prevent the passage of flames from the engine compartment to the cockpit. Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed.
7. Both front windows, driver and passenger, shall be down (preferably removed) whenever the vehicle is on track. The OEM window opening on the front doors shall not be filled in with any material, other than the material required to mount a NACA-duct for driver cooling. If used, the NACA-duct shall be mounted in the front, lower, corner of the window opening. The area closed off to mount the NACA-duct shall not exceed 50 square-inches. In rain conditions, a quarter window larger than 50 square-inches may be used in the area normally used to mount the permitted NACA-duct, in an attempt to minimize the amount of water entering the cockpit. Enough open area for the driver to exit in an emergency shall remain open at all times.
8. All vehicles must use a stock, OEM equivalent, safety glass windshield, or 6 mm minimum thickness Lexan replacement, mounted in the stock location, at the stock angle and maintaining the stock profile.
9. Windshield clips, per GCR section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.
10. Side windows, not including the front door windows, and rear windows may be replaced by clear Lexan-type plastic material having a minimum thickness of 0.125 inch, but must retain the same shape, size, and location as the original glass. NACA-ducts may be mounted in the side windows. The rear window must be secured by 2 additional straps 1.0 inch wide by 0.0625 inch thick minimum, bolted or riveted to the body at both the top and bottom of the rear window. If a Lexan rear window is mounted

with multiple, evenly spaced screws around each side of its perimeter, safety straps are not required. If a DOT spec glass rear window is used in conjunction with the OEM method of mounting, safety straps are recommended, but not required.

11. Windows may be mounted and sealed with silicone. Any silicone used to bridge the gap between the perimeter of the window and the chassis shall be neat in appearance and uniform in thickness. Tape may only be used to seal the windows during wet track sessions for the purpose of reducing the amount of water entering the cockpit.
12. OEM side window framework shall be intact.
13. Acrylic or glass removable/moveable roof panels may be replaced with the same material as the surrounding roof. All brackets, mounts, and moldings must be removed. Fabric tops are not permitted and shall be removed along with all associated hardware. It may be replaced with an OEM hardtop if one is available.
14. Unused mounting tabs and brackets that are non-structural, excluding the rear seat back support and package tray, may be removed.
15. The OEM "rain gutter/tray" at the base of the windshield shall be intact and in the OEM location.
16. The floor pan may be modified to provide clearance for the exhaust system and allowed alternate transmission/transaxle.
17. Inner fender panels may be modified or replaced.
18. Convertible model cars may compete with a hardtop or as an open car.
19. Fasteners are free. Fasteners may be replaced with adhesives.
20. Rounded coverings may be used at the rear of the front window openings to bridge gap between the leading edge of b-pillar and inner edge of main roll hoop. The material and design of these coverings is free, but shall be neat in appearance and securely fastened.
21. A third (3rd) tube on each side may extend through the firewall to the chassis in the engine compartment. These tubes shall not extend forward of the shock towers.
22. An underbody close-out panel(s) may be used in the area behind the rear axle. These panels shall not alter the external appearance of the car when looking from the rear and sides of the car (i.e. we want to have to lay on the ground to see them). If the production car uses underbody trim pieces, the OEM trim pieces may be removed or replaced, but any close-out panel(s) used may not visually hide any more of the mechanical components, when looking from the rear and sides of the car, than the OEM trim pieces do. The close-out panels shall not completely bridge the gap between the rear floor pan area and the rear axle centerline. On rear engine cars, any close-out panels shall not extend any further forward than the rear axle centerline. Cars with a fuel cell, engine, etc. that extend down into external visual range shall fit the close-out panel(s) around the component in such a way that it does not alter the external appearance of the car.

**E. Engine**

1. Alternate engines may be used, if the manufacturer of the vehicleand engine are the same (e.g., an Acura engine installed into a Honda car) and was available in a car delivered in North America. Vehicles delivered with engines from other manufacturers (e.g. Morgan, Panoz, etc) may only use the originally installed engine, or another engine manufactured by the chassis manufacturer (e.g. Lotus Elise may use the Toyota ZZ engine, or any other Lotus manufactured engine that complies with the class rules, however a Lotus Esprit may not install a Toyota ZZ engine).

   The chosen engine must retain its original cylinder head and intake manifold. Competitors must have in their possession a copy of the factory shop manual for both the drivetrain and chassis for use by scrutineers. If an engine from a front wheel drive vehicle is installed in a rear wheel drive vehicle, alternate OEM intake manifolds may be considered. The long block assembly of the alternate engine must remain within the engine compartment with no modifications, however the firewall may be modified to provide clearance for intake manifolds and/or engine accessories. It is permitted to use the OEM intake and throttle body for either the chassis or the installed engine. If needed to allow the intake manifold fit on the engine, an adapter plate between the engine and manifold is permitted. This adapter plate must be no more than 1.0 inch thick and must be made of the same material as either the head or intake manifold.

   Engines from vehicles not available in a car delivered in North America will be considered and approved on a case-by-case basis for use in T1. For an engine to be considered, a member must submit to the CRB a Vehicle Technical Specifications (VTS) sheet with all engine parameters filled out. Copies of the appropriate factory shop manual are also useful for this consideration. Any deviations from the TCS that will be required for installation (e.g., trans adapter plate, alternate intake manifold, etc) must be noted in the "Requested Non-Stock Allowances" section, otherwise they will not be allowed. Once this information is received and considered, any approved engines will be noted in a separate table within the TCS.

2. The crankshaft shall be a stock OEM part or an aftermarket part as long as it is of identical dimensions and material as the OEM part for the specific engine. The crankshaft may be balanced. The maximum weight reduction allowance for balancing of the crankshaft is 0.5 lbs. The maximum weight reduction allowance for the balancing of the reciprocating assembly is 15 grams. Alternate connecting rods are permitted, but must be ferrous unless OEM supplied.
3. Blocks may be sleeved to repair cylinder walls. Engines may be bored to a maximum of .040 inch over standard bore size.
4. Rocker arm, lifter, follower, pushrod, valve spring, keeper, retainer, guide, seat, and valve materials are free; Titanium is not permitted, except for retainers or OEM parts. The head may be machined to fit valve train components.
5. Alternate camshafts are allowed. Camshaft timing is free.
6. Cars produced with an electronic throttle body may use the OEM electronic throttle body. The OEM electronic throttle body may be converted to manual actuation and the actuation cam on a manual throttle body may be changed to alter the opening/closing rate of the butterfly. Alternately actuated throttle bodies may be considered on a case-by-case basis.
7. The ignition system is unrestricted.
8. A programmable ECU is permitted. Engine calibration (spark and fuel) is free.
9. Fuel injectors and fuel rails must maintain the original number and mounting locations, but are otherwise free. Fuel pumps and fuel filters are free in type, size and number.
10. The location and type of the fuel pressure regulators are free provided they are mounted within the engine compartment or the OEM location.
11. The oil pan and oil pickup may be baffled, modified, or replaced. The OEM oil pump may be modified, or replaced with an OEM-style oil pump. Cars using a wet-sump oil system shall safety wire or in some other way secure the oil drain plug.
12. Vents, breathers, and oil filters may be added, or substituted. All emission control devices may be removed and the resulting holes plugged. It is recommended that cars using a wet-sump oil system safety wire or in some other way secure the oil drain plug.
13. Replacement gaskets and seals are free, including head gaskets. Replacement gaskets and seals must be made out of material(s) designed to seal the parts of an engine. Replacement gaskets and seals may not perform any other functions. Head gaskets may be used to adjust compression ratio.
14. The intake manifold on piston engines may be port matched to the head(s), provided no material is removed further than one inch in from the manifold to head mounting surface(s).
15. Variable cam timing (VTEC, VANOS, etc.) and variable length intake manifolds may be partially, or wholly, disabled. Variable cam timing systems that use multiple cam lobes for each valve(s) may remove lobes from the camshaft(s) that are not being used. For 13B Rotary Engines the 5th and 6th intake port actuators and valves may be removed or disabled.
16. To increase the compression ratio, the bottom of the head may be machined. Alternate pistons are permitted and/or the pistons may be machined.
17. Cars utilizing forced induction may not have a boost controller within reach of the driver. A car must enter pit lane to have the boost level changed by the crew if necessary. Competitors must be prepared to demonstrate the boost adjustment process to officials.
18. Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered
19. All cars shall use the installed engine's stock air throttling devices (e.g., throttle body, carburetor) and intake manifold, unless noted otherwise. Components upstream of the throttling devices are free.
20. Unless otherwise noted, the follow restrictions apply to turbochargers. The inlet restrictor (if required) shall be positioned in the compressor inlet housing. Turbochargers may be added to engines that did not originally come equipped with one on a case by case basis. Swapping of turbochargers between engine makes and models is prohibited. Supercharged cars may be approved on a case-by-case basis. Contact the Club Racing Technical Office for details.
21. Alternate water pump, alternator, crankshaft dampers, and/or power steering pulleys are unrestricted. Crankshaft pulley is unrestricted for all non-supercharged engines; supercharged engines must use OEM crankshaft and supercharger pulleys.
22. Intake Requirements: All cars shall use the stock or approved air throttling device (e.g., carburetor, throttle body) and intake manifold for the installed engine, unless noted otherwise.
23. All cars may fit the approved carburetor and manifold. The approved manifold may be ported and

polished, but its design and configuration shall not be altered in any other way. The lowering of or boring of holes in the center divider is prohibited. Removal or obliteration of the manifold part number is prohibited.

a. The approved carburetor shall be a maximum of 650 cfm and 4 barrels. The approved optional insulator (Holley #108- 12), and manifold (Edlebrock Performer RPM #7101-General Motors / #7121-Ford/Mercury) shall be fitted to cars.

b. Except as permitted in these rules, the carburetor shall not be modified in any way. Any carburetor jets, accelerator pump, pump cam, and accelerator pump nozzles may be used. Power valves, metering blocks, and floats may be altered or replaced. No venturi (including secondary or auxiliary) shall be modified in any way, but they may be aligned. Idle holes may be drilled in the throttle plates (butterflies). Carburetors may be modified to allow "four corner" idle adjustment.

c. The external throttle linkage to the carburetor may be modified or changed. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. No removal or alteration of the carburetor air horn is permitted.

d. All air entering the intake tract shall pass through the carburetor air inlet.

24. Cars may modify, or replace, motor and gearbox mounts provided that the engine is located in the specified location. This includes the use of "torque plates". All engines will be mounted in the stock position unless otherwise specified. Where an engine setback is allowed, the OEM firewall may be modified only enough to accommodate the engine set back.

    a. The following cars may set the engine rearward a maximum of 4.0 inches and may lower the engine a maximum of 1.5 inches:

        1. Cadillac CTS-V (04-07)
        2. Pontiac GTO (04-08)
        3. Ford Mustang (85-06)
        4. GM F-Body (93-02)

25. The intake and exhaust ports on piston engines may be ported at a 3% weight penalty. The valve guide may be machined as part of this porting.

26. Compression ratio is limited to 12.0:1. For OEM engines the compression ratio is as specified.

27. Valve lift is limited to .600 inches. OEM engines must retain OEM valve lift and duration.

28. Dry sump systems are allowed. The dry-sump system is limited to 5 stages. It shall consist of 1 pressure stage and a maximum of 4 scavenge stages. If the OEM style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of 2 two-port scavenge stages, or a maximum of 4 single-port scavenge stages, or any combination such that oil is not being scavenged from more than a maximum of 4 locations.

29. OEM engine configured full prep T1 cars may use a dry sump system with a +20lbs penalty. They many use an alternate oil pan and pickup with no penalty.

**H. Cooling Systems**

1. Water Cooling

   Provided that the stock method of cooling is retained, the cooling system is free, including cooling fans, but the water radiator must remain in the approximate OEM location. The mounting angle may be changed.

2. Engine Oil Cooling- Coolers for the engine oil are free in number, type and location.

3. Intake Air Cooling- Cars utilizing forced induction may install intercoolers. The number, type, and location of intercoolers are free.

4. Water Spray Systems- Water may not be sprayed on any intercoolers, radiators, etc. Water spray systems may only be used to inject water into the brake ducts.

**I. Fluid Piping & Fuel Tank**

1. Fuel Cells/Tanks- The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (i.e., frame rails, etc.). All fuel cells must comply with GCR 9.3. Proper bracing to protect the fuel cell in the event of a rear-end crash is required. If a fuel cell is installed in the rear hatch/rear trunk area, the OEM floor pan in that area may be replaced with metal in order to make it easier to mount the fuel cell and close out the area around the fuel cell.

2. There must be a metal bulkhead completely separating the cockpit from the compartment containing the fuel cell. This does not negate the requirement that the fuel cell bladder be contained in a metal container.

3. No line containing engine coolant may pass through the cockpit. No hydraulic fluid lines may have removable connectors inside the cockpit.
4. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver, shall be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. Waterproof flexible wraps may also be used to prevent fluid from spraying on the driver. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.
5. No fuel cooling devices are permitted in the car.

**J. Oil System**

1. If the oil tank is located in the cockpit area, or a trunk area that is open to the driver, it must be separated from the driver by a metal enclosure made up of .036 inch steel, or .059 inch aluminum. This is in addition to the 10mm thick crushable structure that is required in section 9.1.4.I.2. The floor of the enclosure must be designed to prevent accumulation of fluids.
2. Accusump-type systems may be used.

**K. Exhaust System**

1. The exhaust system may be modified, or replaced.
2. Outlets must be located rearward of the midpoint of the wheelbase.
3. The exhaust pipe may not protrude more than 3.0 inches at the point where it exits the bodywork. If the exhaust pipe(s) exit the bodywork at the widest part of the body such that any extension of the exhaust pipe(s) beyond the body would make pipe(s) the widest point, the exhaust pipe(s) must be trimmed flush (+/- 0.5 inch) with the bodywork at the point that they exit the body. Minor body modifications are permitted to accommodate exhaust systems. Modifications shall serve no other purpose. The underbody rocker panels may be modified for the installation of the exhaust system, but these modifications may only serve to provide clearance for the exhaust system. The exhaust system must be adequately isolated from the driver's compartment.
4. If the exhaust system is routed in such a way that damage to it could cause hot exhaust to contact any part of the fuel system, there shall be a metallic heat shield protecting the fuel system components. This heat shield shall be located at least 3.0 inches away from the exhaust system, and there shall be at least 3.0 inches between the heat shield and the fuel system components.

**L. Electrical System**

The electrical system is free provided that:

1. Batteries are free, subject to GCR section 9.3. Batteries.
2. Standard headlights, headlight operating ancillaries, and parking light assemblies may be removed and replaced with a plate of identical shape and size of the lens. Standard headlight assemblies may be replaced with aftermarket units of equal dimension. Vehicles with pop-up and/or hidden headlights may modify and/or remove the headlight assemblies as long as the headlight cover and any other external hardware are properly secured in the stock closed location.
3. Fog/driving lights, parking lights and associated attaching hardware may be removed. The resulting openings may be used to duct air, or may be filled/covered. No ducting may extend beyond the outer surface of the bodywork.
4. Each car must be fitted with at least one effective windshield wiper assembly, which must be in working order throughout the event. Wiper blades, arms and associated hardware may be substituted freely. Other windshield wiper assemblies may be removed.
5. Each car must have an effective defogging/demisting system that is capable of keeping the windshield clear during wet sessions. Anti-fog films meet this requirement.

**M. Drivetrain**

1. Alternate differential housings are permitted from the same model of vehicle. Differential may be open, locked, or of a limited-slip type. The internals of limited-slip type differentials may be modified to change the amount of slip limiting. Differentials with external, or electric, adjustability are prohibited. Driveshaft and half-shafts may be aftermarket, but shall be the OEM-type and use the same types of materials as stock. Drive shafts may be replaced by one piece drive shafts, and conversely.
2. Vent and/or breather lines may be added to the transmission and/or differential. One transmission cooler and one differential cooler are permitted.
3. Alternate flywheels and clutches are permitted. Flywheel material shall be ferrous or aluminum and the ring gear diameter must be the same as the OEM flywheel. Clutch and pressure plate design is free. Carbon clutches are permitted.

4. Transmissions and ratios are free. Forward gears are limited to six speeds. Cars with aftermarket sequential shift transmissions shall increase the required minimum weight by 100 lbs.
5. Traction Control/Launch Control is permitted, but must operate solely through the engine managements system (i.e., spark and fuel control) and may not interface with, or affect, the braking system or throttle control.

**N. Suspension and Steering**

1. All suspension members must be made from ferrous and/or aluminum materials. Chromium plating of suspension members is prohibited.
2. Suspension springs are free. Coil-over units may be added to supplement or replace OEM springs. Attaching points may be reinforced. It is permitted to use threaded spring seats for adjustability.
3. Shock absorbers and struts are free. Driver adjustable systems and electronically controlled shocks are not permitted. If a reservoir/adjustment canister is used, only one may be used per shock. The shocks at each individual wheel may not be connected in any way.
4. Stabilizer bars are free, and may be added, removed, or substituted. Driver adjustable stabilizer bars are not permitted. Adjustment controls for stabilizer bars may be located within the cockpit, but must be out of the reach from the driver's seat. Adjustments to stabilizer bars during practice, qualifying and race must be done in pit lane.
5. Suspension components shall be the stock OEM parts, but they may be reinforced. Spherical bearings are permitted on suspension components. Standard suspension bushings may be replaced with solid or spherical bushings.
6. Any anti-roll bar(s) and rear axle traction bar(s), rear axle panhard rod and watts linkage can be added or substituted, provided their installation serves no other purpose. The mounts for these devices can be welded or bolted to the car. These devices and their mounts cannot be located in the trunk or driver/passenger compartment unless fitted as stock. Rear axle traction bar(s) used to control axle housing rotation must be solid bar or tube.
7. When a car's anti-roll bar also acts as a suspension locating device, the bar's attachment points and pivot points on the chassis and suspension control arms must remain in their stock locations.
8. Slotted plates may be added over original shock mounts on front and rear shock towers for camber/caster adjustment. One bolt-in brace may connect the front strut towers, and one bolt-in brace may connect the rear strut towers. Camber, track, toe and caster is unrestricted.
9. All steering components, with the exception of the steering wheel, column and tie-rods/toe-links, must be original equipment supplied by the manufacturer. These parts may be strengthened provided the original part can still be identified. Steering column locks may be removed or disabled. Steering column locks may be removed or disabled.
10. The steering wheel may be replaced with an aftermarket, or racing steering wheel. Wood-rimmed steering wheels are not permitted. An all-metal quick release coupling on the steering wheel may be added.
11. A collapsible steering column shall be used. Most recent OEM steering columns have at least 2 universal joints in them that allow the steering column to collapse on impact. This type of design (with at least 1 universal joint) must also be used in any steering column extension(s) that may be used to reach the driver's competition seating position.
12. Power steering may be modified in any of the following ways:
    a. disconnected
    b. an OEM manual steering rack for that model may be fitted
    c. an electric power steering pump may be fitted
    d. an OEM electric-assisted steering rack may be used.
13. Cars that come with a solid rear axle or trailing arm suspension are permitted an aftermarket or fabricated rear suspension. Cars with an altered rear suspension must add 50 lbs. Cars with live axle rear wheel drive may reduce the minimum weight by 50 lbs
14. Original suspension pick-up points below the upper line of the wheel rim must be used within a tolerance of 1.0 inch; however, if the lower suspension pickup point is changed from the OEM location, 50 lbs. must be added to the car. The body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 1.0 inch tolerance applies to pick-up points on the chassis only.
15. Suspension mounting points above the upper line of the wheel rim must be retained within a tolerance of 3.0 inches, however, the body/frame around the pick-up points may be reinforced; this reinforcement shall be limited to a radius of 6.0 inches. The 3.0 inch tolerance applies to pick-up points on

chassis only.

16. The spindle and/or outer joint on the a-arm and/or strut may be moved to correct bump steer caused by changing the vehicle ride height. These components are not limited to the 1.0 inch of movement that applies to the suspension pick-up points located on the chassis.
17. Alternate control arms permitted.

**O. Brakes**

1. Brake lines may be relocated, and rubber lines may be replaced with stainless steel braided brake lines. Hand brake assemblies may be removed. Brake proportioning valves may be used provided that they are of the in line, pressure limiting type. Non-pressurized brake fluid lines and master cylinders need not be metal, metal shielded, or bulkheaded. Pressurized brake fluid lines must be metal, metal shielded, or bulkheaded.
2. Brake proportioning valves may be used provided that they are of the in line, pressure limiting type. Brake pad friction material is free.
3. Hand brake assemblies may be removed. Backing plates and dust shields may be modified, ventilated, or removed.
4. Brake duct inlets incorporated in the front spoiler as standard, or in light openings, other than headlights, may be used to duct air to the front brakes. Additionally, brake ducts may be fitted into the intermediate mounting surface of a permitted splitter.
5. Water spray cooling systems are permitted. The amount of water carried for injection into the brake duct is free. Water-cooled calipers are forbidden.
6. Wheel fans are not permitted.
7. When any allowed alternate calipers are used, calipers must be mounted in the same location and orientation as the OEM calipers. OE caliper mounting tabs may be modified or removed to facilitate installation.
8. Titanium piston inserts are permitted.
9. Anti-Lock Braking Systems (ABS) are permitted on cars that use the OEM ABS brake components as supplied. *Aftermarket ABS systems or controllers (e.g. Bosch, Tevis) are permitted with +100lb weight penalty.*
10. See individual class regulations for further restrictions/allowances.
11. Rotors- 1 or 2 piece ferrous rotors that do not exceed 355mm in diameter or 33mm in thickness are permitted. Maximum brake rotor diameter of 380mm is permitted at a 100 pound penalty.
12. Calipers- The standard production calipers or any caliper with 6 or less pistons may be used. 4-piston calipers may use a maximum of 4 pads per caliper. 6-piston calipers are limited to 2 pads per caliper.
13. Original equipment master cylinders and pedals may be replaced.
14. Power assisted braking systems are permitted.
15. The balance of braking forces between the two wheels on an axle shall be equal and non-adjustable.
16. The balance of braking forces between the front and rear axles may only be adjusted by the driver through:
    a. Direct intervention on the position of the center of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.
    b. Direct intervention on a proportioning valve in which the intake pressure is adjusted through a pre-loaded spring.

**P. Tires & Wheels**

1. Tires must conform to GCR section 9.3. Tires.
2. Wheels / Hubs- The standard wheels may be replaced with direct, bolt-on racing/aftermarket wheels under the following provisions:
    a. Loose wheel spacers of any type are not recommended.
    b. All cars must run the same size wheel on the same axle.
    c. As viewed from above at the centerline of the wheel; the fender shall completely cover the “tread” portion of the tire. Only the tire sidewalls may be visible.
    d. The wheel material is free, but they must be constructed of metallic material(s). No modifications (including grinding) are permitted on a vendor-supplied wheel.

e. Valve stems and caps are free.

3. Wheel Attachment

   a. Center-locking type hubs and wheels may be used if vehicle is supplied with them from the manufacturer. If vehicle is not supplied with center-locking type wheels they may be used in conjunction with an adapter that bolts onto the OEM, or approved, hub.

   b. If a single wheel nut is used, a safety spring must be in place on the nut whenever the car is running and must be replaced after each wheel change. These springs must be painted Day-Glo red or orange. Alternatively, another method of retaining the wheels may be used provided it has been approved by FIA.

4. Rear wheels may not exceed 19.0 inches in diameter and 13.0 inches in width. Front wheels may not exceed 19.0 inches in diameter and 11.0 inches in width.

**Q. Approved Cars and Engines**

1. The following car and engine combinations are approved in T1. Send a request to the Club Racing Board http://www.clubracingboard.com/ to add additional cars.

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Acura CL | 3500 | 3000 | | | |
| Acura NSX | 3000 | 3000 | | Supercharger permitted. Zero Force Body Kit by Kawagen Route permitted. | |
| Acura NSX Turbo | 3500 | 3100 | 45mm | | |
| Acura NSX Turbo World Challenge | 3500 | 3000 | 45mm | Driving ambitions turbo kit- Part #DA-1000. Comp turbo #ct-4372. | |
| Aston Martin DB9 | 6000 | 3300 | | | |
| Aston Martin GT 4 | 4700 | 3300 | | | |
| Aston Martin Vantage N24 (07-08) | 4280 | 3400 | | | |
| Aston Martin Vantage | 6000 | 3300 | | | |
| Audi R8 | 5200 | *3500* | 35mm | Must meet February 2012 Grand Am Specs. Must meet 9.1.4.P.1 for tire requirements. | |
| Audi S4 (97-02) | 2700 | 3200 | (2) 32mm TIR | Twin K04 turbos permitted. | |
| BMW E46 M3 & E36 / BMW Z3 | 3200 | 2600 | | The 3.4L (87.0 bore x 93.0 stroke) engine is permitted at 2650 lbs. The M5 5.0L V8 is permitted at 3500 lbs. 4.0L V8 permitted at 3200 lbs. | Pennon Fender flares allowed. Flossman body kit is permitted *with 300lb weight penalty*. The headlights can be modified to allow air to pass into the engine induction system. |
| BMW E46 M3 | 3200 | 2850 | | Dinan supercharger kit part #D860-3101C / With R865-3120 pulley required. | The headlights can be modified to allow air to pass into the engine induction system. Carbon roof allowed. |
| | 4000 | 3200 | | | |
| | 5000 (V8 only) | 3500 | | | |
| BMW 335ci/135i | 2679 | 3000 | | Must use stock turbochargers. | |
| BMW M3 E92 (08-13) | 3999 | *3300* | | | Factory DCT transmission allowed. |
| *BMW M235i R* | *2979* | *3275* | | | |
| Chevrolet Cobalt<br>Pontiac Fiero<br>Pontiac Solstice<br>Saturn Sky | 1998 | 2800 | 44mm TIR | GM Ecotec LNF. Alternate Turbo permitted. | May use hardtop GM PCS-0664 or equivalent aftermarket. May compete with stock fuel tank. OEM unmodified turbo permitted with no restrictor. |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Cadillac CTS/CTS-V<br>Chevrolet Camaro<br>Pontiac Firebird<br>Pontiac GTO | 4999 | 2900 | | GM V-8 engines with OEM specs 3.735" bore x 3.4803" stroke. | Aftermarket K members are permitted. |
| | 5733 | 3200 | | GM V-8 engines with OEM specs 4.00" bore x 3.75" stroke; e.g., LT1, LT4, L98, etc | Aftermarket K members are permitted. |
| | 5778 | 3400 | | GM LT1/LT4/L98 (only), with alternate 3.75" stroke crankshaft. Max stroke 3.75", max bore 4.04". | Aftermarket K members are permitted. |
| | 5665 | 3450 | | GM LS1, LS6 | Aftermarket K members are permitted. |
| | 5967 | 3450 | | GM LS2. May use the LSX cast iron block with OEM LS2 bore and stroke. | Aftermarket K members are permitted. |
| | 5967 OEM | 3450 | | Stock OEM LS2. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. | Aftermarket K members are permitted. |
| | 6162 OEM | 3500 | | Stock OEM LS3. Maximum camshaft lift: intake 8.24 mm, exhaust 7.77mm; rocker arm ratio 1.70:1; maximum compression ratio 10.7:1; cylinder heads must be as delivered from the factory. | Aftermarket K members are permitted. |
| | 6162 | 3550 | 67mm Flat Plate | GM LS3 | Aftermarket K members are permitted. |
| | 6162 OEM | 3400 | 65mm flate plate | Stock OEM LT1 | |
| | 7011 OEM | 3550 | 65mm flat plate or 45mm SIR | Stock OEM LS7. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. | Aftermarket K members are permitted. |
| | 7011 | 3550 | 60mm flat plate | GM LS7 | Aftermarket K members are permitted. |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Chevrolet Corvette<br>Cadillac XLR (04-09) | 4999 | 3200 | | GM V-8 engines with OEM specs 3.735" bore x 3.4803" stroke. | *The top 12 inches of the firewall must be covered with metal or reflective heat shielding material. The OE firewall may also be replaced with a metal panel running between the A-pillars. For Chevrolet Corvette Z06, carbon fiber lip, APR performance part number FA-208026 is permitted. World Challenge body work kit for C5 or C6 Corvette Advanced Composite Products permitted: rear fender (LH)(p/n:C6/A0009), rear fender (RH)(p/n:C6/A0010), front fender (LH)(p/n:C6/A00-L), front fender (RH)(p/n:C6/ A00-R), hood (p/n:C6/A0021) rear fender (LH)(p/n:C5/A0009), rear fender (RH)(p/n:C5/ A0010), front fender (LH) (p/n:C5/A0048-L), front fender (RH)(p/n:C5/A0048-R), hood (p/n:C5/A0029). Non-OEM rear wing/splitter reduce restrictor by 5 mm. Any combination of these additional parts permitted with 200lbs weight penalty: Deck lid (p/n:C6/A0028), door (RH) (p/n:C6/A0030), door (LH) (p/n:C6/ A0031), front fascia (p/n:C6/A0001), rear fascia (p/n:C6/A0011), left front mounting rail (p/n:C5A0015-L), right front mounting rail (p/n:C5A0015-R), headlight mounting panel (LH)(p/n:C6/A0018-L), headlight mounting panel (RH)(p/n:C6/A0018-R), headlight cover (RH)(p/n:C6/ A0040-WC), headlight cover (LH)(p/n:C6/A0041-WC), , instrument panel (p/n:C6/A0032), roof (p/n:C6/A0027), rocker (LH)(p/n:C6/A0005), rocker (RH)(p/n:C6/A0006), rear spoiler (C6/A00013), front under tray (p/n:C6/A0022), rear wing (p/n:C6R-1272; 72.25 inches wide) may be used. Deck lid (p/n:C5/ A0028), door (RH) (p/n:C5/A0030), door (LH) (p/n:C5/ A0031), front fascia (p/n:C5/A0001 or C5A/0002), rear fascia (p/n:C5/ A0011), left front mounting rail (p/n:C5A0015LT), right front mounting rail (p/n: C5A0015RT), headlight mounting panel (LH) (p/n:C5A0018-L), headlight mounting panel (RH)(p/n:C5/A0018-R), instrument panel (p/n:C5/A0032), roof (p/n:C5/A0027), rocker (LH) (p/n:C5/A0005), rocker (RH)(p/n:C5/A0006), rear spoiler (C5/ A00013), front under tray (p/n:C5/A0022), rear wing (p/n:C5/ A0012-CF-72").* |
| | 5733 | 3300 | | GM V-8 engines with OEM specs 4.00" bore x 3.75" stroke; e.g., LT1, LT4, L98, etc | |
| | 5778 | 3335 | | GM LT1/LT4/L98 (only), with alternate 3.75" stroke crankshaft. Max stroke 3.75", max bore 4.04". | |
| | 5665 OEM | 3225 | 78mm Flat Plate | OEM LS6. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. *75mm OEM throttle body required.* | |
| | 5665 | 3250 | 65mm Flat Plate | GM LS1, LS6 | |
| | 5967 | 3400 | 65mm Flat Plate | GM LS2. May use the LSX cast iron block with OEM LS2 bore and stroke. | |
| | 5967 OEM | 3300 | 78mm Flat Plate | Stock OEM LS2. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. | |
| | 6162 OEM | 3350 | 67 mm flat plate | Stock OEM LS3. Maximum camshaft lift: intake 8.24 mm, exhaust 7.77mm; rocker arm ratio 1.70:1; maximum compression ratio 10.7:1; cylinder heads must be as delivered from the factory. | |
| | 6162 | 3400 | 61mm Flat Plate | GM LS3 | |
| | 6162 OEM | 3400 | *60mm* flate plate | Stock OEM LT1 | |
| | 7011 OEM | 3450 | 60mm flat plate or 40mm SIR | Stock OEM LS7. OEM valve lift and compression. Cylinder heads must be as delivered from the factory. | |
| | 7011 | 3450 | 53mm flat plate | GM LS7 | |
| Dodge Neon SRT-4 | 2400 | 2800 | 44mm TIR | Alternate Turbo Allowed | |
| Dodge Viper<br>ACR/ACR-X | 7990 | 3400 | 50mm flat plate | | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. |
| Dodge Viper<br>ACR/ACR-X | 8000 | 3500 | 46 mm flat plate | | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. |
| Dodge Viper<br>ACR/ACR-X | 8300 | 3400 | (2) 35mm flat plates | | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. Hybrid update including Mopar Performance Part # P5156137 and 8.4L mechanical throttle body allowed. |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Dodge Viper ACR/ACR-X | 8300 OEM | *3500* | (2) *47mm* flat plates | OEM valve lift and compression. Cylinder heads must be as delivered from factory. | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. Stock OEM engine, valve train, and intake system must meet stock, shop manual specifications. Hybrid update including Mopar Performance Part # P5156137 and 8.4L mechanical throttle body allowed. |
| Dodge Viper ACR/ACR-X | 8400 | 3650 | (2) 33mm flat plates | | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. Intake and Throttle Body from Mopar Performance Part # P5156137 allowed using (2) 33mm flat plate restrictors. |
| Dodge Viper ACR/ACR-X | 8400 OEM | 3550 | (2) 40mm flat plates | OEM valve lift and compression. Cylinder heads must be as delivered from factory. | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. Stock OEM engine, valve train, and intake system must meet stock, shop manual specifications. Intake and Throttle Body from Mopar Performance Part # P5156137 allowed using 2 40mm flat plate restrictors. |
| Dodge Viper ACR-X | 8400 OEM | 3600 | (2) 60mm flat plate | OEM valve lift and compression. Cylinder heads must be as delivered from factory. | OEM fuel tank may be used. A throttle body spacer, maximum of 1.50 inches thick, to accommodate the restrictor that meets the flat plate restrictor definition is allowed. Stock ACRx 8.4 engine, engine controller; valve train, and intake system must meet ACRx stock shop manual specifications. |
| Ferrari 355 | 3500 | 2900 | | | |
| Ferrari 360 | 3600 | 3000 | 65 mm flat plate | | |
| Ferrari 430 | 4310 | 3400 | 52 mm flat plate | | Kessel 430 GT3 front fenders, hood and bumper permitted; if installed, single radiator is permitted. Must conform to 9.1.4.F.7. Non-OEM rear wing / splitter reduce restrictor by 5 mm. |
| Ferrari 430 Challenge | 4310 | 3450 | 52 mm flat plate | Must be prepared to the 2006 Ferrari Challenge engine and transmission specifications; | DOT tires per 9.1.4.P.1; weight as specified; side windows must be removed; OEM carbon brakes or the Ferrari steel brakes from the 360 Challenge car (F 355 x 32 vented disc, R 330 x 18 vented disc) are permitted; If 18 inch "360" brakes are used, 18 inch wheels are permitted; 19 inch Ferrari Challenge wheels as delivered from factory permitted. Non-OEM rear wing / splitter reduce restrictor by 5 mm. |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Ford Mustang/ Thunderbird | 2260 | 3000 | 44mm TIR | 2.3 GTDI (2015 EcoBoost) Any aftermarket turbo allowed | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 3700 | 3200 | Rotrex 38-81 Permitted | | Aftermarket K members are permitted. |
| | 4000 | 3000 | | Rotrex C38-81 supercharger permitted. | Aftermarket K members are permitted. |
| | 4600 | 2800 | | | Aftermarket K members are permitted. |
| | 5000 (pushrod) | 2850 | | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 5000 Coyote "CobraJet" | 3525 | (2) 50mm flat plate | 12.5:1 compression allowed. T1 engine prep allowed at T1 rule limits. | Aftermarket K members are permitted. Must use one of these approved throttle bodies: Ford Racing Part #M-9926-CJ65 or 07 - 14 FORD RACING MUSTANG GT500 SVT 60MM THROTTLE BODY ASSEMBLY M-9926-MSVT, Cobra Jet manifold permitted M-9424-M50CJ. |
| | 5000 "Cammer" | 3350 | | | Aftermarket K members are permitted. |
| | 5000 Coyote | 3475 | 70mm flat plate | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 5000 Coyote Boss 302 | 3525 | 70mm flat plate | Allow Laguna Seca intake manifold and throttle body. | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 5000 Coyote Boss 302 OEM | 3425 | | Allow Laguna Seca intake manifold and throttle body. | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 5000 Coyote OEM (15-16) | 3450 | | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. OEM 392mm (F) 380mm (R) brakes are permitted only in the S550 chassis with +100lbs. |
| | *5200 Shelby FP350S sealed engine, M-6007-M52R* | *3525* | *65mm flat plate* | | |
| | 5400 | 3000 | | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| | 5800 | 3120 | | | Aftermarket K members are permitted. OEM independent rear suspension is permitted. |
| Honda S2000 | 2400 | 2600 | 40 mm TIR required with turbo configuration<br><br>Supercharger pulley: 4.75"<br>Supercharger crank pulley: 6.75" | CT Engineering supercharger kit #350-042 w/ Paxton Novi 1500 blower permitted. Precision Turbo 505-5858b/505-5558b or Garrett Turbo 803713-1/803712-1 permitted, SST racing exhaust manifold #s2kman-rr, SST racing intercooler pipe kit #s2kicp-rr, SST racing down pipe #s2kdp-rr permitted. *Rotrex 38-81 supercharger permitted.* | ASM fiberglass fenders, ASM-AP100005 and ASM-AP100006 permitted. ASM fiberglass rear bumper ASM-AP100167 permitted. |
| | 2200 | 2550 | | | |
| | 2000 | 2450 | | | |
| *Lotus Exige 360 Cup R* | *3500* | *2700* | | *Must run Exige 360 Cup spec supercharger pulleys.* | |
| Lotus Evora GT4 | 4000 | 2900 | | | |
| Lotus 211/Exige/Elise | 3500 | 2250 | | | |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Lotus 2-Eleven GT4 Supersport | 1800 | 2300 | | | |
| Maserati Trofeo Light | 4244 | 2900 | | | |
| Mazda RX-7 | | 2750 | | OEM Twin Turbo Charger with no restrictor or any turbo charger with 44mm Turbo Inlet Restrictor permitted. | |
| Mazda RX-8 | 2750 | | | May run Renesis, or 13B REW (93-96 RX-7) with OEM Twin Turbo Charger with no restrictor or any turbo charger with 44mm Turbo Inlet Restrictors permitted. | |
| Mazda MX-5 Miata MazdaSpeed | 2300 | 2400 | 37mm TIR | Garrett GT3076 and GT2554 turbo allowed. | Carbon composite OEM style hardtop allowed. Mazda #0000-06-5999 throttle body allowed. |
| | 2000 | 2400 | 38mm TIR | | |
| | 1800 | *2250* | 39mm TIR | | |
| Mazda MX-5 (06-15) | 2300 | 2400 | 37mm TIR | Garrett GT3076 and GT2554 turbo allowed. | RX8 Differential and Subframe assembly allowed. Carbon composite OEM style hardtop allowed. |
| | 2000 | 2400 | 38mm TIR | | |
| | 1800 | 2400 | 39mm TIR | | |
| Mazda RX-7 20B | | 2700 | | Engine may be Street Ported; contact SCCA Technical Services for details. | 20B peripheral port allowed at 2850lbs. Turbo chargers are not allowed. |
| Mistubishi/ DSM | 2000 | 3000 | | Alternate Turbo permitted. 4G63 block with MD346026 crank allowed resulting in 2324cc displacement allowed. | |
| Mitsubishi/ DSM | 2400 | 3000 | | Alternate Turbo permitted. | |
| Mitsubishi Evo/DSM | 3000 | 2900 | | OEM Twin Turbo Charged required. | |
| Nissan GTR | 3800 | 3520 | (2) ~~35~~ 28mm TIR | Must use OEM GTR twin turbochargers. | |
| Nissan 350/370Z | 3800 | 3520 | (2) ~~35~~ 28mm TIR | Must use OEM GTR twin turbochargers. | |
| *Nissan 370Z Supercharged* | *3700* | *3400* | | | *Stillen supercharger kit 407770T allowed. Supercharger Pulley diameter: 80mm +/- 3mm OEM Crank Pulley Diameter: 146mm +/- 3mm* |
| Nissan 300ZX | 3000 | 3000 | | OEM Twin Turbo Charged required. | |
| Nissan 350Z | 3500 | 2450 | | | |
| Nissan 350Z/370Z | 3700 | 2600 | | 12.5:1 maximum compression allowed. | |
| Nissan 350Z/370Z | 5600 | 3135 | | | |
| Panoz Esperante GTS | 5800 | 3000 | | | |
| Porsche Cayman (05-13) | 3600 | 2800 | | | |
| | 3800 | 2900 | | Must meet OEM specifications. | |
| Porsche 944 | 2500 | 2700 | | May use Jayco super 50 Turbo. | |

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.

| T1 | Maximum Displ. | Min. Weight | Required Restrictor | Engine Notes | Chassis Notes |
|---|---|---|---|---|---|
| Porsche 996 | 3600 | 3200 | | | |
| *Porsche 996 TT OEM* | *3600* | *3300* | *(2) 31mm TIR* | *Alternate turbo Evolution Motorsports permitted, part #TBD* | |
| Porsche 996 GT3 Cup (02-05) | 3600 | 3150 | | | Cars must be prepared in accordance with the appropriate model/year Porsche factory 911 GT3 Cup parts catalog/service manual. Cars may not be altered in any way except as authorized below. Drivers must have the correct year manuals as they apply to their specific car in their possession. Safety, drivers comfort, driver control and instrumentation items may be modified per the GCR. Original factory installed Matter/IMV roll cages are allowed. The stock unmodified fuel tank is allowed. Side door windows must be removed. All other SCCA safety standards apply. The following additional modifications are authorized: Alternate hood provided it is a facsimile of the stock part. Any wheel, including 5 bolt (and the required 5 bolt modification to the hubs) provided they do not exceed 18x9 F and 18x11 R. DOT Tires must be used. Battery size and location is unrestricted. Shocks are unrestricted but they shall be installed in the stock locations with the stock, unmodified pick up points. Springs are free. Any suspension settings are allowed provided they are achieved without modifica¬tions. Machining of suspension components and pick up points to achieve caster/camber/toe is not allowed. Lubricants, consumable fluids (brake fluid, coolant etc.) and oil filters are open free. Modifications listed in Grand Am, IMSA Cup, World Challenge or any other rules, except those listed above, are specifically not allowed. No updating or backdating permitted between 996 and 997 cars. 996 required gear ratios: Crown wheel and pinion 8/32; 1st gear 13/41, 2nd gear 20/40, 3rd gear 25/39, 4th gear 29/36 or 26/34, 5th gear 32/33 or 32/35, 6th gear 35/30 or 34/31 |
| Porsche 997 | 3600 | 3150 | | GT3 Cup, GT3 RSR, GT3 RS, GT America not allowed | |
| Saleen SR | 5800 | 3190 | | | |
| Scion FR-S | 2500 | 2750 | 41mm TIR required | Precision Turbo PTB205-5558B allowed. | |
| Toyota Celica All-Trac | 2000 | 2900 | 46 mm TIR | Alternate Turbo permitted. | |
| | *2300* | *2900* | *46 mm TIR* | *Alternate Turbo permitted.* | |
| Toyota Supra | 2997 | 3000 | | Unrestricted OEM twin turbo chargers permitted or any single turbo permitted with a 43mm turbo inlet restrictor. | Shine Auto Project: Front bumper (p/n: JZA80-FB-R), Front splitter (p/n: JZA80-FD-R), Sideskirts (p/n: JZA80-SS-R), Front Fenders (p/n: JZA80-FFND-R), Rear fenders (p/n: JZA80-RFND-R) are permitted. |

| T1-LP | Bore x Stroke / Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| *BMW M4 (2015-)* | *89.6 x 84.0 2979* | *2812* | *20 x 11* | *315* | *4.11, 2.32, 1.54, 1.18, 1.0, 0.85* | *3.46* | *(F) 381 Vented Disc (R) 371 Solid Disc* | *3400* | *(2) 32mm turbo inlet restrictors required.* |
| Chevrolet Corvette C-5 Incl. Fxd Cpe (98-04) Z06 (hardtop) (01-04) | 99.0 x 92.0 5666 | 2655 | 18x10 (F) 18x11 (R) OEM 10.5 REAR Z06 wheels may be used on the front or rear axle. | 315 Max. Rear tires may pro-trude up to 1.0" with GM T1 Perf. Susp. pkg. Max. camber: (F) -3.5 (R) -2.5 with GM suspen-sion pkg. | (C5): 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 (Z06): 2.97, 2.07, 1.43, 1.00, 0.84, 0.56 | 3.42 | (F) 325 Vented Disc (R) 305 Vented Disc May use two-piece steel rotors with alu-minum hats up to 5% larger than 340/330; Any four piston cali-pers and brackets are permitted. Any brake caliper pistons are allowed; may use the Wilwood SL6R brake caliper. | 3200 | GM Motorsports T1 suspension pkg. (Part # 12480062) is permitted. Parts for Z06 upgrade: LS6 Engine Assy.: P/N 88894057, Engine components if using LS1 block: LS6 cylinder head: P/N 12560801, LS6 intake manifold: P/N 88890524 or 12480075, LS6 camshaft: P/N 12560950, LS6 valve springs: P/N 12565117, LS6 valve shims: P/N 12565118, Lifter valley cover: P/N 12568002, PCM: P/N 12200411, LH Exh manifold: P/N 12561255, RH Exh manifold: P/N 12561256. C-5 exhaust system may be modi-fied to mate to Z06 exhaust manifolds. Cage attachments points may be on the frame. Floor may be modified to facilitate installation of cage mounting plates. Wrapping of tie-rod ends to shield heat is permitted. This max. tire supersedes TCS 9.1.10.D.7.b. C6 calipers permitted. Alternate wheel bearings SKF Part # BAR 5049C permitted. OEM or equivalent carbon fiber hood is allowed. The A.I.R air pump system may be removed. |
| Chevrolet Corvette C6 Coupe (05-10) / Grand Sport (10-12) | 101.68 x 92.0 5967 (LS2) 103.26 x 92.0 6162 (LS3) | 2685 | 18 x 10 (F) 19 x 11 (R) or 18 x 11 (F) 19 x 13 (R) | 345/35 max. (F&R) Rear tires may pro-trude up to 1.0" with GM T1 Per-formance Suspension package. Max. cam-ber: (F) -3.5 (R) -2.5 with GM T1 Per-formance Suspension package. | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50, or 2.97, 2.07, 1.43, 1.00, 0.71, 0.57 | 3.42 | (F) 325 / 340 Vented Disc (R) 305 / 330 Vented Disc or (F) 355 x 32 Vented Disc (R) 340 x 26 Vented Disc or May use 2-pc steel rotors with alum. hats up to 5% larger than Z51 rotor. ---------- May use any four piston brake caliper and brackets. | LS2: 3200 LS3: 3300 | C6 T1 Suspension kit and Z51 option allowed. Floor may be modified to facilitate in-stallation of cage mounting plates Removable roof panel shall be installed. The follow-ing parts are allowed: GM oil pan #12630477; GM radiator baffle # 25953429 (LS3 only); fan shroud, Phoenix part # 1005422; Canton Accusump part # CA24006 or # CA24024, along with Electric solenoid W/ epc # CA24273, Accusump Check Valve # CA2428, and Wheel to Wheel Adapter block # 0760-50001, and related hoses and mounting brackets; 180 degree thermostat Hypertech # 1015; Lingenfelter Performance Engineering #L310055204 thermostat (LS2 only); HD oil pressure shim Phoenix part # 1005421. Wrapping of tie-rod ends to shield heat is permitted. Trimming of the lower edge of the center of the air dam is allowed up to a depth of 3.9 cm. ARE dry sump system part #3021 S permitted; the following parts are included: mount w/tensioner and spacer #3020YM, serpentine belt #4032S, pulley #4SERP, oil tank #7030, tank bracket #7000, breather catch can # 7100, filter adapter #4010, damper assembly #8005. Aviaid Dry Sump System part number 008-10001 is permitted; the following parts are included: 3-stage pump 13111-1182, mounting hardware 40082 and 40018-83-1, HTD pump pulley 11649, HTD belt 46476, ATI damper assembly 917289, pan assembly 152-52504-10001, and tank assembly 110-50020-10001. The oil tank for either sys-tem shall be installed in the current battery location and the battery must be relocated to the same location as the 08 Corvette Z06; GM battery mounting bracket and hardware must be used. Alternate wheel bearings SKF Part # BAR 5049C permitted. *LS3 engine, 75 mm Flat Plate Restrictor required.* |

| T1-LP | Bore x Stroke / Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Corvette Z06 (06-12) | *104.8 X 101.6 7008* | 2685 | 18 x 10 (F) 19 x 11 (R) or 18 x 11 (F) 19 x 13 (R) | 345/35 max. (F&R) Rear tires may protrude up to 1.0" with GM T1 Performance Suspension package. Max. camber: (F) -3.5 (R) -2.5 with GM T1 Performance Suspension package. | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 or 2.97, 2.07, 1.43, 1.00, 0.71, 0.57 | 3.42 | (F) 325 / 340 Vented Disc (R) 305 / 330 Vented Disc or (F) 355 x 32 Vented Disc (R) 340 x 26 Vented Disc or May use 2-pc steel rotors with alum. hats up to 5% larger than Z51 rotor. ---------- May use any four piston brake caliper and brackets. | 3450 | C6 T1 Suspension kit and Z51 option allowed. Floor may be modified to facilitate installation of cage mounting plates. The max. tire sizes supersede TCS 9.1.10.D.7.b. Removable roof panel shall be installed. The following parts are allowed: GM oil pan #12630477; GM radiator baffle # 25953429); fan shroud, Phoenix part # 1005422; Canton Accusump part # CA24006 or # CA24024, along with Electric solenoid W/ epc # CA24273, Accusump Check Valve # CA2428, and Wheel to Wheel Adapter block # 0760-50001, and related hoses and mounting brackets; 180 degree thermostat Hypertech # 1015; HD oil pressure shim Phoenix part # 1005421. Wrapping of tie-rod ends to shield heat is permitted. Trimming of the lower edge of the center of the air dam is allowed up to a depth of 3.9 cm. ARE dry sump system part #3021 S permitted; the following parts are included: mount w/tensioner and spacer #3020YM, serpentine belt #4032S, pulley #4SERP, oil tank #7030, tank bracket #7000, breather catch can # 7100, filter adapter #4010, damper assembly #8005. Aviaid Dry Sump System part number 008-10001 is permitted; the following parts are included: 3-stage pump 13111-1182, mounting hardware 40082 and 40018-83-1, HTD pump pulley 11649, HTD belt 46476, ATI damper assembly 917289, pan assembly 152-52504-10001, and tank assembly 110-50020-10001. The oil tank for either system shall be installed in the current battery location and the battery must be relocated to the same location as the 08 Corvette Z06; GM battery mounting bracket and hardware must be used. Alternate wheel bearings SKF Part # BAR 5049C permitted. *70 mm Flat Plate Restrictor required.* |
| Chevrolet Corvette C7 | 4.06 x 3.62 / 103.25 x 92.00 (LT1) 376ci | 2710 | 18 x 10 (F) 19 x 11 (R) or 18 x 11 (F) 19 x 13 (R) | 345/35 max. (F&R) 345 max. (F&R). Rear tires may protrude up to 1.0" | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50, .42 | 3.42 | (F) 320/345 (R)338/345 (F) 355 X 32 Vented Disc, (R) 340 X 26 Vented Disc or may use 2 piece steel rotors with aluminum hats up to 5% larger than the Z51 rotor. | 3400 | May use any four piston brake caliper and brackets front and rear. GM Fan (Part #23231319) permitted. GM suspension kit, Part number TBD GM Transmission Cooler kit, Part # TBD. *70 mm Flat Plate Restrictor required. Z06 fenders allowed.* |
| Chevrolet Camaro Z28 (2014-) | 104.8 x 101.6 7008 | 2852 | 19 x 11 (F) 19 x 11.5 (R) | 315/35 max F&R | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.91 | IF) 394 (R) 390 | 3550 | |
| Dodge Viper RT-10/ RT-10 ACR & GT-S / GT-S ACR (96-02) | 101.6 x 98.5 7990 | 2444 | 18x10 (F) 18x13 (R) | (F) 275/40 (F) 315/35 (max) (R) 335/35 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.07 | (F&R) 330 Disc | 3500 | Alternate Oil Pan (Part # P5007009), Throttle restrictor between each throttle body and plenum is mandatory: 0.060" flat steel plate with one 50 mm hole. This max. tire supersedes TCS 9.1.10.D.7.b.. May update to 03-06 Viper brakes. |

| T1-LP | Bore x Stroke / Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Dodge Viper SRT-10 Incl. Coupe (03-06) | 102.4 x 100.6 8300 | 2510.2 | 18x10 (F) 19x13 (R) | (F) 275/35 (F) 315/35 (max) (R) 345/30 Maximum camber: (F) -3.0 w/ Dodge Motors-ports T1 suspension package | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.07 | (F&R) 355 Disc | 3550 | Detachable Autoform hardtop shall be installed on convertible model (latches shall be replaced with positive fasteners), convertible top shall be removed. Throttle restrictor between each throttle body and plenum is mandatory: .060" flat steel plate with one *52mm* hole (one for each throttle body). A .250" thick (max) steel or aluminum spacer is permitted between the throttle body and the restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.) Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be radiused in any way. Throttle restrictor may include idle air control and/or PCV orifice. The following parts are allowed:, Mopar performance fan delete kit #P5153260, Phoenix SRT10 electric fan kit #PPI123321, Mopar swing oil pickup kit # 4510174, Trans. mount # P4510179, Dodge Motorsports T1 suspension kit part # P5153251 Hypercoil springs #188A0750 (F) and 188A0800 (R) are allowed. B&M Shifter (PN45055) is permitted. Oil pan part #5037735AC, oil pick up part #5038022AB, oil pick up tube part #5037312AE are allowed. |
| Dodge Viper SRT-10 Incl. Coupe (08-10) | 4.055 x 3.96 (103 x 100.6) 8400 | 2510 | 18x10 (F) 19x13 (R) | (F) 275/35 (F) 315/35 (max) (R) 345/30 Maximum camber: (F) -3.0 w/ Dodge Motors-ports T1 suspension package | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.07 | (F&R) 355 Disc | 3600 | Detachable Autoform hardtop shall be installed on convertible model (latches shall be replaced with positive fasteners), convertible top shall be removed. Throttle restrictor between each throttle body and plenum is mandatory: .060" flat steel plate with one *45mm* hole (one for each throttle body). A .250" thick (max) steel or aluminum spacer is permitted between the throttle body and the restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.) Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be radiused in any way. Throttle restrictor may include idle air control and/or PCV orifice. The following parts are allowed:, Mopar performance fan delete kit #P5153260, Phoenix SRT10 electric fan kit #PPI123321, Mopar swing oil pickup kit # 4510174, Trans. mount # P4510179, Dodge Motorsports T1 suspension kit part # P5153251 Hypercoil springs #188A0750 (F) and 188A0800 (R) are allowed. B&M Shifter (PN45055) is permitted. Oil pan part #5037735AC, oil pick up part #5038022AB, oil pick up tube part #5037312AE are allowed. |
| Ferrari 550 (96-01) | 88.0 x 75.0 5474 | 2499 | 18x10F 18x11R | 315 max | 3.15:1 2.18:1 1.57:1 1.19:1 .94:1 .76:1 | 3.91 | F: 330 R: 310 | 3700 | |
| Porsche 997 GT3 (06-11) | 76.4 x 102.7 3795 | 2355 | (F)18 x 8.5 (R)18 x 11 | 315 | 3.16 2.13 1.72 1.32 1.12 .096 | 4.0 | (F) 318 (R) 299 | 3100 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Ducting of air to ro¬tors is allowed Removal of rotor dust shields is allowed. Tender springs 60-60-25, and spring holders ZT-1-X002A01 allowed. Springs up to 900#/in front and 1100 #/in rear allowed. Sway bar size and configuration is free. Spoilers & bumper/airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Cam¬ber adjustment slots may be elongated. Porsche Motorsport front and rear control arms allowed. |

NOTES:

## 9.1.9.2 TOURING (T2-T4) CATEGORY

These specifications are presented as an adjunct to your Factory Shop Manual. They are not meant to supersede the information that is in your manual that legitimately applies to your make, model, and year of car, with the exception of the following items. TIRE SIZES, RIM WIDTHS, SPRINGS, SWAY BAR(S), AND PERFORMANCE EQUIPMENT. In the case of the foregoing exceptions, the TCS will have priority. Voids or mistakes that may occur in the TCS do not allow you to change your vehicle to conform to the TCS.

These specifications reflect the best information available at the time of publication. Any error found in this edition will be updated when reliable specifications are available from the factory/factory distributor or other sources recognized by SCCA, Inc.

A model is defined as a unique car configuration which can be identified by means of decoding the Vehicle Identification Number.

These Specifications are part of the SCCA General Competition Rules (GCR), and all classified automobiles shall conform with the requirements of GCR Section 9 unless this Category is specifically exempted from said requirements.

*Touring car eligibility: Cars are eligible for the class they are listed with a specification line and with the specific allowances permitted. In addition T2-T4 cars may race one class up in touring classes above their specification line class as long as they are a legal T2-T4 car and conform to their specification line allowances as classified.*

**A. Purpose**

Touring Category Classes are intended to provide the Membership with the opportunity to compete in commonly-available, recently-produced automobiles in as near the legal, street-driven form of those automobiles as is practically and safely possible under racing circumstances.

**B. Intent**

Touring Category automobiles shall, at all times, be in compliance with the specifications contained within their factory Shop/Service Manual(s) except as modified by these rules. Factory Shop/Service Manuals may come in the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases. It is the responsibility of the competitor to provide the electronic device capable of accessing the data for compliance verification.

1. The competitiveness of any car in any Class shall not be guaranteed, nor shall the continued recognition of any car in any Class. Eligibility of cars may be discontinued at any time and for any reason, other than that of competitive stature.

**C. Specifications**

The SCCA shall publish Touring Category Specifications (TCS), containing the basic officially recognized specifications for each car eligible to compete in the Category during the calendar year.

1. To supplement those Specifications, competitors in the Touring Category shall be required to have in their possession a factory Shop/Service manual or its equivalent (See TCS section 9.1.10.B) for the specific make, model and year of the automobile entered. This manual or its equivalent will assist in determining the originality and configuration of the automobile, and shall be presented at Technical Inspection for every event and when otherwise so officially requested. If the factory Shop/Service manual is not available, then the competitor shall have a copy of the official SCCA Vehicle Technical Sheet (VTS) with them at every event and shall present it for reference when officially requested.
2. The proof of legality or illegality shall rest upon the protestor and/or protestee.
3. The Club Racing Board may classify any particular model of a car, and may permit specific factory options for that car. Cars classified shall have been approved by the ARB, EPA, and DOT for sale in the United States, and shall be models intended to be available to the general public for purchase. Such options shall be listed on the Specification Line for that vehicle. No unlisted models or factory options are eligible. If no specific model or options are listed on said line, the classified car shall be the base model with no options. Converting a car delivered with an automatic transmission to a manual transmission is allowed as long as all components which differ, including, but not limited to, radiator, springs, engine management systems, final drive ratio, etc., are converted to manual transmission specification.
    a. Only those cars listed each year are eligible to compete. Additions and/or deletions of automobiles shall be at the discretion of the SCCA. Cars more than 5 model years old will not be classified. Competitiveness of cars is not guaranteed.
    b. “Special Performance” specifications from the manufacturer which go beyond those listed in the Touring Specifications book will not be considered valid. Any manufacturer determined to be supplying false specifications to competitors or to the SCCA may be advised that said specifications may be withdrawn or the eligibility of the car(s) involved shall be terminated. The Club Racing Board is authorized to implement these terminations on an immediate basis without the approval of the Board of Directors.
    c. In the case of service circulars, recalls, etc., the burden of proof of validity shall be upon the

competitor.

4. To maintain the stock basis of Touring, updating and/or backdating of components is only permitted within cars of the same make and model as listed on a single Touring Specification Line. Interchanging of parts between engines of varying displacements is prohibited.

   a. The Club may permit substitution/replacement of certain components or modification of some assemblies on Touring Category automobiles. To assist in equating competition potential, not all automobiles may be permitted some or all of these allowed substitutions and/or modifications. Any such permissions shall be listed on the Specification line for each vehicle Where a kit or option is permitted on a specification line, all of the listed parts must be used.

5. In order to equate competition potential, the Club may specify a competition weight for the vehicle. Additionally, and to this same end, it may direct that a specific amount of ballast be mounted in the vehicle in a specific location. Refer to Section E.2. of these Rules for additional details.

6. When alternate parts are approved for competitor use, the requesting party must first provide proof that sufficient quantities of the parts are readily available through commercial channels. The kit must be submitted to SCCA Club Racing Technical Services for inspection, and the kit may be returned to the sender.

**D. Modifications (Configuration)**

The following items represent the only modifications and safety items permitted and/or required on Touring Category automobiles. No permitted component or authorized modification shall additionally perform a prohibited function.

**1. Engine**

**a. Component Modification**

1. Overhaul procedures which in the slightest way could increase performance beyond factory specifications shall not be utilized, e.g. porting/polishing, etc.
2. Blueprinting and balancing is allowed.
3. No engine component(s) shall be modified in any manner that is not specifically permitted or authorized by the Factory Service Manual or legitimate Factory Technical Bulletins.
4. "Special Performance" specifications from the manufacturer which go beyond those listed in the TCS book shall not be considered valid.
5. *Overbore permitted T2-T4, .010" maximum overbore with +20lb. weight penalty. This allowance does not apply to any car adhering to spec rules.*

**b. Induction System**

1. Air filter(s) elements (only) may be substituted. Unless listed on individual spec line.

**c. Fuel System**

1. All fuel system components, settings, and specifications shall be as specified by the manufacturer. Fuel filters may be substituted with other fuel filters of equivalent OEM specifications.
2. Only the fuel type specified by the Owner's and/or Factory Service Manual may be used. Refer to GCR Section 9.3 Fuel, for permitted fuel specifications.
3. The stock fuel tank may be replaced with a fuel cell that is designed to mount in the OEM fuel tank location or is specifically designed to mount in the spare tire well provided that it is not necessary to modify any bodywork to accomplish the installation other than for the purposes of fastening the cell securely in place.
4. *For cars that have OEM saddle bag fuel tanks, a single auxiliary aftermarket fuel transfer pump is permitted if the only function this transfer pump performs is to transfer fuel to the OEM pump.*

**d. Camshaft and Valve Gear**

1. All valve sizes, seat dimensions, and angles, etc., shall be in conformance with those specifications and procedures outlined in the Factory Service manual.

**e. Block**

1. Cylinder bore dimensions shall remain as originally specified by the Factory Service Manual. No "oversize" bores shall be permitted.

**f. Oiling System**

1. Engine oil may be substituted with other oil of equivalent OEM specifications. Oil additives are unrestricted.
2. Engine oil filter may be substituted with any unit meeting OEM specifications.
3. An oil catch can is permitted.

4. Any oil cooler(s) is permitted.

5. Accusump systems and related hoses and brackets are permitted in all Touring category cars.

**g. Ignition/Starter/Electrical System**

1. Spark plugs may be substituted.

2. The use of resistor or non-resistor-type plugs is permitted.

3. Batteries may be replaced with those of an alternate manu¬facturer, provided they are of similar amp-hour capacity, size and within 10% of OEM weight.

**h. Exhaust System**

1. All cars classified in Touring may replace the catalytic converter(s) with a pipe that has the same diameter inlet and outlet as the converter it is replacing. If the catalytic converter is part of the stock exhaust header, it is permitted to modify the stock header only to replace the catalytic converter with a pipe of the same diameter inlet and outlet. The post catalytic converter oxygen sensor maybe disabled, replaced, or removed; the resulting hole (if present) may be plugged. All Touring cars may replace any part of the exhaust system beyond the factory downpipe/header/exhaust manifold, or allowed header on spec line, provided:

   a. Said replacement system retains the original configuration, e.g., single or dual, etc.

   b. The system exits from beneath the body in the same approximate location(s) as the original system. When a factory (OEM) single exhaust system is cosmetically split into dual outlets, it is permitted to continue as a single system provided it exits in approximately the same location as one of the originals.

   c. The system meets all appropriate event-specific sound level requirements.

**i. Other Engine Components**

1. Fluid hoses, their appropriate clamps, and belts (fan, alternator, etc.) may be substituted. Related clamps and hardware are unrestricted.

2. The engine management computer or ECU may be altered, but not replaced. All modifications shall be done within the original housing. The car may meet federal emission standards, but shall provide OBD II compliant data to the data link connector.

3. Cosmetic engine covers made of plastic may be removed.

4. Any power steering cooler(s) is permitted.

5. T2-T3 only: Any clutch disc and pressure plate of OEM diameter may be used, provided that they shall be bolted directly to an unmodified stock flywheel and is no lighter than 5% of the factory OEM clutch disc and pressure plate.

6. T2-T3 only: Any car with a dual mass flywheel may change to a single mass flywheel that is no lighter than 5% of factory OEM weight.

**2. Engine, Rotary Piston**

a. All permissions and restrictions in Sections D.1. apply.

**3. Cooling System**

**a. Radiator(s)**

1. A radiator screen of one-fourth (¼) inch minimum mesh may be added in front of the radiator. If added, it shall be contained entirely within the bodywork of the vehicle.

2. Any radiator is permitted, provided it mounts in the original location, maintains the same plane as the original core, and requires no body or structural modifications to install. No new openings created by fitting an alternate radiator may be used to duct air to the engine.

**b. Air Conditioners:**

1. The factory and/or aftermarket air conditioning system may be removed, provided that at least the following items associated with the system are also removed: compressor, condenser, H.D. springs/sway bars, H.D. shocks, larger tires, engine and transmission coolers and cooling fans. All duct work, wiring, Freon lines, valves, evaporators, dryers, and dash controls may remain. If the air conditioning compressor is an integral part of the drive system, the compressor may be retained and disabled or replaced with an idler pulley that serves no other purpose.

2. Items that serve a dual purpose, such as an alternator/air conditioning compressor bracket, etc., may not be substituted.

3. The gaps around the radiator that are created by the removal of the air conditioning condenser and related items may be sealed with foam.

**4. Transmission/Final Drive**

**a. Transmission**

1. Transmission lubricant may be substituted. Transmission lubricant additives are unrestricted.
2. An oil catch can is permitted.
3. Any transmission cooler(s) is permitted.

**b. Final Drive**

1. Unless otherwise so noted on the Vehicle's Specification Line, the differential ratio shall be as delivered as standard equipment by the manufacturer.
2. All legitimately classified cars in Touring Class are permitted a limited-slip differential (Quaiffe, Torsen, etc.). Locked differentials are not allowed.
3. Final Drive lubricant may be substituted. Final Drive lubricant additives are unrestricted.
4. An oil catch can is permitted.
5. Any differential cooler(s) is permitted.

**5. Suspension**

**a. Suspension Adjustments**

1. **T2**-T4: A maximum of 3.0 degrees of negative chamber is allowed on front and rear suspensions. Strut suspensions may de-camber wheels by the use of eccentric bushings, eccentric bolts (crash bolts) at the strut-to-spindle, and/or by use of slotted adjusters at the top of the strut mounting plate. If upper strut slotted plates are used, they shall be located on existing chassis structure, utilizing the manufacturer's original bolt holes and may not serve as reinforcement for that structure. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings. Slotted ball joints on A-arms on double wishbone cars may be used for camber adjustment only.

**b. Springs, Anti-Roll bar(s), and Shock Absorbers**

1. Springs and anti-roll bar(s), shall remain as manufactured unless an alternate is listed on the vehicle specification line. Cars where air conditioning units have been removed shall refer additionally to Section D.3.b.1., above, for additional spring requirements. If alternate sway bar(s) are listed on the specification line, adjustable end links are allowed. The length of the link must be within 1" +/- length of stock. No modifications are allowed to the mounting point(s) other than to accomplish attachment of link. There may only be (1) rated spring per suspension corner. In addition to the main rated spring, there may be a "helper" spring on cars allowed a maximum spring rate on their spec line. Helper springs keep the main spring snug and feature a very soft rate, on the order of 10 lbs./in.
2. The make of shock absorber may be changed. Their number, perch location(s), system of attachment, and attachment points shall not be altered. Their type (tube vs. lever, etc.) shall not be altered. The interchange of gas and hydraulic shock absorbers is permitted.

   T4 only: *Unless a specification line allows adjustable shocks, adjustable shocks are prohibited. Any non-adjustable shock absorber is allowed. Adjustable shocks that are retrofitted into non-adjustable appearance are prohibited. Removing adjusters or knobs from adjustable shocks is prohibited. Commercial part numbers for shocks must be visible and unaltered. Shocks* must be installed in the original mounting locations. Remote *reservoirs* are not permitted. Threaded shock bodies or adjusters may be used. *Shocks can serve no purpose other than to damp motion.*

   a. The mounting hardware utilized shall be of the original type.
   b. The use of any shock absorber bushing material is permitted. Note: the bushing attaching the end of the strut to the body or frame on a strut-type suspension system is considered a suspension bushing, not a shock absorber bushing.
   c. T2 only: minimum ride height is 3.75" inches.
      T3 and T4 only: minimum ride height is 4.5" inches.

      Ride height to be measured without driver at the lowest point of the rocker panel, but not to include welded seams or fasteners.
   d. T2-T4 only: Cars with alternate spring allowance in spec line, may use adaptors, and adjustable perches to allow fitment of springs.

**c. Alternate Bushings**

1. All T2 cars are allowed to replace OEM upper and lower control arm bushings with polyurethane or delrin bushings.

**6. Brakes**

**a. Components**

1. The make and material of brake pads and linings may be changed.

2. Brake fluid may be substituted with any brake fluid.
3. Brake rotor dust shields may be removed.
4. Flexible rubber brake lines may be replaced with Teflon lined, metal braided hoses.
5. Any brake ducts are permitted, but they must serve no other purpose. Fender liners may be modified solely for routing and attachment of brake ducts. Duct intake openings may be created by the opening of 2 sections up to 14.5 square inches each in the front fascia. The stock headlamp location is not permitted for brake ducting. Two alternative duct openings may be created by the removal of the fog lights or 2 sections up to 14.5 square inches each of stock false grills originally located in the front fascia.
6. Stock replacement brake rotors may be obtained from sources other than the manufacturer provided they are the exact equivalent of the stock rotors.
7. Parking brakes, mechanisms, and actuating components may be removed.

**7. Wheels and Tires**

**a. Wheels**

1. Any type wheel suitable for competition may be used, provided:
   a. Any wheel not exceeding the specified diameter and rim width on the vehicle's specification line may be used.
   b. Wheels are permitted any offset provided the tire tread (that portion of the tire that contacts the ground) does not protrude beyond the fender opening when viewed from the top perpendicular to the ground, unless specified differently on the individual spec line for that car. To determine compliance the vehicle should be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions. When a maximum tire size is listed on a vehicle's specification line, aspect ratio is open and any tire may be used that does not exceed the stated maximum section width.
   c. Cars equipped with lug bolts may convert to wheel studs and lug nuts.
   d. Wheel studs may be replaced with longer studs as necessary to fit optional wheels. Wheel spacers may be used for purposes of adjusting track.
   e. T4 only: (unless specified on spec line) Any aftermarket wheel with a minimum weight of 15 lbs allowed.
2. Hub caps and wheel trim rings shall be removed from all wheels.

**b. Tires**

Unless otherwise so noted on a vehicle's TCS line, all cars shall run the tire size as listed for the vehicle in the TCS or an authorized replacement size. When authorized replacement tires are used, the same size tire shall be used on each axle (front tires need not be the same size as rear tires).

Tires must conform to GCR section 9.3. Tires. All tires shall be offered for sale over the counter through the manufacturer's tire dealer network. The brand of tire and tire pressures are unrestricted.

All cars shall run tires with a minimum of a "U" speed rating. For size determination, the molded section shall be used.

**8. Body/Structure**

**a. Configuration/Modifications**

1. Component Alignment: All body components shall maintain their original relationships. Gaps or openings shall not be increased, decreased, or eliminated through realignment of components. Normally occurring gaps or seams shall not be taped over.
2. Door Glass
   a. All cars shall run with both front door windows fully open (down).
3. Spoilers (Wings)
   a. Only original equipment front spoilers, dams, and rear spoilers and wings shall be permitted unless specified on the vehicle specification line.
4. Other Body Components
   a. Sunroofs, Targa tops, and T-tops are only permitted if installed by the manufacturer of the vehicle. If installed they must be retained on the vehicle, run in the closed position, and securely bolted in place unless the operating rails adequately secure the panel. Glass panels are permitted. The glass sunroof may be replaced with a metal panel *or a panel made of the same material as the roof of the car* and all its associated mechanical components may be removed; the panel must be the same thickness as the roof material; the panel must retain the shape of the glass sunroof.

Hardtops: Shall be the original equipment hardtop from the vehicle manufacturer unless an alternate part number or manufacturer is listed on the vehicle spec line. If a hardtop is used, latches shall be replaced with positive fasteners and convertible top shall be removed.

Convertible or roadster top: Convertible or roadster top vehicles are allowed. The convertible top shall be removed.

b. Hatchback "privacy covers" shall be completely removed.

*c. All of the vehicle's doors must be able to be opened from both inside and outside the vehicle. Electric door latches may be removed and replaced with mechanical linkage. Mechanical door latch location must be marked to be visible to workers.*

5. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed.

6. Air jacks are permitted, but no air source may be carried on board. Installation of such may not reinforce the chassis, or add another attachment point to the roll cage structure.

**b. Appearance**

1. Cars may be painted any color(s). Markings and numbers may be painted.

2. Vehicles shall be neat and clean, and shall not be dirty externally or in the engine or passenger compartments. They shall not show bodywork damage, and shall not be presented for competition totally or partially in primer. Cars that do not bear the prescribed identification marks, Club Racing logos, and numbers in conformance with GCR Section 9.3 Identification Markings, shall not be approved for competition.

**9. Driver (Passenger) Compartment (Trunk)**

**a. Seating**

1. All seats and seat brackets may be removed.

2. Rear heating/air conditioning ducts which are located under the seats may be removed or modified to facilitate seat installation.

**b. Steering Wheel**

1. Aftermarket steering wheels, and their required mounting modifications, are permitted.

**c. Gauges and Accessories**

1. Water temperature, oil temperature, oil pressure, and boost/vacuum gauges are permitted and shall be securely mounted, and shall perform no other function other than their primary use.

2. Interior mirror(s) may be replaced, but no such mirror shall extend beyond the confines of the interior of the vehicle.

3. Two-way radios may be used.

4. Hand controls are permitted in those instances where the driver can demonstrate the physical need for them.

5. Data Acquisition Systems
Stand alone data acquisition systems are allowed to be in use in the car during practice, qualifying and race events. These devices may be connected to the data link connector in the car to extract available data. This must be a one-way out connection and no calibrating or alteration of the PCM is to be done while the car is in motion and the system in place.

6. It is permitted to add an aftermarket tachometer to any car that is not equipped with a factory tachometer.

**d. Interior Modifications**

1. Front passenger seat, rear seat back, rear seat bottom cushion(s), all seat-related wiring, sun visors, seat belts and their attaching hardware and bracketry may be removed. In any automobile where allowed removal of rear seats, upholstery, etc., creates an opening between the driver/passenger compartment and an exposed gas tank, fuel cell, or part thereof, a metal bulkhead which completely fills such opening shall be installed (See GCR 9.3 Fuel Cell Specifications).

2. Carpets, carpet padding, center consoles, floor mats, headliners, sun roof liner and frame, dome lights, grab handles, and their insulating, attaching or operating mechanisms and front door windows may be removed. Sound deadening (melt sheets) and undercoating may be removed on the interior only.

3. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry.

4. Removal of radio and speaker components is permitted.
5. All other interior trim panels, except the dashboard, may be removed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compartment alterations or gutting are permitted.
6. Modifications may be made to the foot pedals to improve the comfort and accessibility to the driver. Dead pedal/foot rest and heel stop may be added.

**10. Safety**

**a. Steering Column (Locks)**

1. Steering column locks may be removed or disabled.

**b. Safety Harness**

1. All cars shall be equipped with a driver's restraint system meeting the specifications of GCR Section 9.3 Driver's Restraint System.
2. All cars shall have a driver's side window safety net complying with GCR Section 9.3 Window Safety Nets shall be mounted in such a manner as to provide protection in the event the driver's door opens.
3. In those cars where a window safety net cannot be installed, arm restraints shall be used. Arm restraints are not an acceptable substitute for window nets in any other type of car.

**c. Fire Systems (Extinguishers)**

All cars shall have, as a minimum, a fire extinguisher meeting the specifications of GCR Section 9.3 Fire System. Touring Category automobiles may be equipped with a fire system meeting the specifications of GCR Section 9.3 Fire System.

**d. Passive Restraint Systems**

Passive restraint systems shall be deactivated. Air bag systems shall be deactivated and may be removed. If the car is to be used on public roads, we recommend that these items be reactivated/rearmed/replaced when not in competition.

If so equipped, the rolling door lock mechanism may be deactivated by unplugging the components.

**e. Towing Eyes**

Towing eyes per GCR Section 9.3 Towing Eyes, shall be fitted.

**f. Electrical Master Switch**

An electrical master switch may be installed.

**g. It is permitted to either:**

- disconnect the stock hood release cable and replace it with a release cable easily accessible from the front of the car, or
- disconnect the stock hood release cable and remove the stock hood latch and use hood pins to retain the hood in place.

**E. Car Classification**

These classifications shall be reviewed on an annual basis, and shall be effective as of January 1. Once these classifications have been officially published, no changes or additions shall be made after March 1 of the calendar year.

Touring Category Classes are as follows: T2, T3 and T4.

1. Weight
   a. The weight, as listed on an automobile's Specification Line, shall be with driver and required ballast. Refer to GCR Section 9.3 Weight. If a cool suit system is utilized, it shall be weighed with the car as it came off the track.
2. Ballast
   a. Some vehicles may be required to carry specific amounts of ballast. If such ballast is specified for an automobile, in addition to the requirements of GCR Section 9.3 Ballast, the following requirements shall also be met:
      1. All specified ballast shall be securely mounted in the passenger footwell of the vehicle, aft of the firewall and any footwell angle, and forward of the passenger seat unless otherwise so permitted on the vehicle's TC Specification Line.
      2. It shall be in segments no lighter than ten (10) pounds and no heavier than fifty (50) pounds, and shall be capable of being weighed apart from the vehicle.
      3. Each segment shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5/Metric 8.8 or better, and shall utilize large-diameter, load-distributing washers.

4. Holes may be drilled in the passenger footwell floorpan for purposes of mounting the ballast (only), and said floorpan may be reinforced as required for the same purpose.

**NOTES:**

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura TL SHAWD (10-13) | 90.065 x 96.1 3664 | 2776 | 19 X 9 | 275 | 3.63, 2.12, 1.53, 1.13, 0.85, 0.69 | 3.84 | (F) 320 x 28 Vented (R) 334 x 11 Solid | 3400 | 1000 lb/in springs maximum permitted (F&R), part numbers H&R R25081000 or RF200180 or Eibach 0800.225.1000. 24mm rear anti-sway bar permitted, part number Progress 62.0111. The glass sunroof must be replaced with a metal panel; the panel must be the same thickness as the roof material; the panel must retain the shape of the glass sunroof and must be painted in body color. Brake package may include the following StopTech part numbers: 36.061.7419, 39R.061.7413, 39R.061.7414, 31.737.1101.87, 31.737.1102.87, 379.438.8131, 379.438.8132. |
| Audi S4 (12-14) | 84.5 X 89.0 2995 | 2809 | 19 x 10 | 295 | 3.68 2.16 1.52 1.13 0.92 0.78 | 2.85 | (F) 345 Vented (R) 330 Vented | 3600 | S tronic transmission permitted at 3650 lbs. Ratios: 3.88, 2.24, 1.56, 1.18, 0.92, 0.75, 0.62. Max spring rate 1100#/in. front and rear. F sway bar 30mm, rear sway bar 24mm SPC front upper arms 81360. Brembo brake Kit PN: 3K2.8032A permitted. Separate coolant reservoir for the water to air intercooler permitted. 60mm flat plate restrictor required. |
| Audi S5 (13-14) | 84.5 X 89.0 2995 | 2809 | 19 x 10 | 295 | 3.68 2.16 1.52 1.13 0.92 0.78 | 2.85 | (F) 345 Vented (R) 330 Vented | 3600 | S tronic transmission permitted at 3650 lbs. Ratios: 3.88, 2.24, 1.56, 1.18, 0.92, 0.75, 0.62. Max spring rate 1100#/in. front and rear. F sway bar 30mm, rear sway bar 24mm SPC front upper arms 81360. Brembo brake Kit PN: 3K2.8032A permitted. Separate coolant reservoir for the water to air intercooler permitted. 60mm flat plate restrictor required. |
| BMW E92 M3 (08-14) | 92.0 x 75.2 3999 | 2761 | 18 x 10 | 275 | 4.06, 2.37, 1.58, 1.19, 1.000, .87 | 3.85 or 3.15 | (F) 360 x 30 (R) 350 x 24 | 3500 | StopTech Brake Kit permitted: 380x35mm 6-piston caliper Part# 83.160.6D00.XX (F) and 355x35mm 4-piston caliper Part# 83.160.0047.XX (R). Brembo Front brake kit #1N2.8505A and Rear brake kit #2P2.8033A allowed. Alcon Brake Kit permitted: (F) part # BKF9751ZG70L 6-piston caliper and (R) 4-piston caliper (R) part # BKR9856B20L. Springs up to 800#/in front and rear allowed. Rear spring may be located on shock. Any front sway bar front 32.2mm and 25.4 rear allowed. RD Sport F & R sway bar kit part # 1968190110. 80 mm flat plate restrictor required. Restrictor must be placed in the front of the factory engine air intake manifold opening. The plate must seal the opening so that all air entering passes through the restrictor. DCT transmission allowed. 3600 lbs. if aftermarket brake system is used. Rear upright may be reinforced so that the lateral arm is mounted in a double shear mount. |
| *BMW M235i (-2016)* | *84.0 x 89.6 2979* | *2691* | *18 x 10* | *275* | *4.71, 3.14, 2.11, 1.67, 1.29, 1.00, 0.90, 0.67* | *3.08* | *(F) 370 (R) 324* | *3400* | *1030 lb/in springs allowed. 2016 BMW M235i R Cup Spec Wing allowed. 40mm Turbo Inlet Restrictor required.* |
| *BMW M235iR (-2016)* | *84.0 x 89.6 2979* | *2691* | *18 x 10* | *275* | *4.71, 3.14, 2.11, 1.67, 1.29, 1.00, 0.90, 0.67* | *3.08* | *(F) 355 (R) 324* | *3475* | *39mm TIR required.* |
| BMW M3 (01-06) | 87.0 x 91.0 3246 | 2731 | 18 x 9 | 275 | 4.23, 2.53, 1.67, 1.23, 1.00, 0.83 | 3.62 | (F) 365 (R) 350 | 3100 | Factory paddle shifter is permitted. Sway bars permitted. FLMSE46M3T2KIT. Headers allowed. Spring rates up to 1000 lb. max. May locate rear spring on shock. Dinan D763-1600A, Brembo 3K2.8006A F, 2P2.8002A R, OR Alcon 802161106 F, R98B03-01F7DZ R permitted. |
| BMW Z4M (06-08) | 87.0 x 91.0 3246 | 2497 | 18 x 9 | 275 | 4.23, 2.53, 1.67, 1.23, 1.00, 0.83 | 3.62 | (F) 365 (R) 350 | 3100 | Factory paddle shifter is permitted. Sway bars permitted. FLMSE46M3T2KIT. Headers allowed. Spring rates up to 1000 lb max. May locate rear spring on shock. AFE 54-115821, Brembo 3K2.8006A F, 2P2.8002A R, OR Alcon 802161106 F, R98B03-01F7DZ R permitted. BMW cold air intake part #8299520 and #8299525 with ducting are permitted. |
| *Cadillac ATS-V (16-17)* | *94.0 x 85.6 3564* | *2775* | *18 x 10 (F) 18 x 11 (R)* | *275* | *3.01/4.56, 2.07/2.97, 1.43/2.08, 1.00/1.69, .84/1.27, .57/1.00* | *2.85* | *(F) 370 (R) 339* | *3600* | *(2) 33mm turbo inlet restrictors required.* |
| Cadillac CTS-V (06-07) | 101.7 x 92.0 5967 | 2880 | 18 x 10 | 315 | 2.97, 2.07, 1.43, 1.00, 0.84, 0.56 | 3.73 | (F) 355 Vented Disc (R) 365 Vented Disc | 3500 | Brake duct extension (through fog light) PN 25534464, Fuel tank sender kit PN 25534466. Springs up to 800#/in front and rear allowed., Front Roll Bar (36mm) # 25534469,-Front Isolator #25534470, Rear Roll Bar (24mm) #25534471, Rear Isolator #25534472, F&R Links #25534473. |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Camaro SS/1LE (10-14) | 103.3 x 92.0 6162 | 2853 | 20 x 11 | 315 | 3.01, 2.07, 1.43, 1.0, 0.84, 0.57 or 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.45 or 3.91 | (F)355 x 32 Vented (R)365 x 28 Vented | 3700 | 1LE-SS Track Pack permitted. Tower Brace 22756880, oil-air separator 12653074, 75mm flat plate restrictor required. Springs up to 800#/in front and rear permitted. Hotchkis swaybars # 22109, TPR rear upper shock mount # 22122, Pfadt lower control arm reinforcement # 1410135, ARE Dry Sump # LS3-3Y, Petersen # 8009W, Aviad # 009-92200, ATI # 917239, DSS # GNCA10-A, Turn One #T40RBZ28P, ZL1 front brake kit #22959672. GM Suspension Part # 23464729 and GM Aero Part #'s 23489551 & 23200132 are allowed. ANZE Suspension Rear Shock Mount #:MT-Camaro-5-R-Race1 allowed. ACS 2010-13 Z28 Spoiler #33-4-155 permitted on the 2010-13. *Allow Ground Control rear shock mounting bracket (red bracket P/N SP133C5).* |
| Chevrolet Camaro SS (V8) (10-13) Restricted Prep. 6.2L V8 (Aluminum Blcok, Aluminum Heads), 2 valves per cylinder | | | | | | | | | Must conform to the AS rules. |
| Chevrolet Camaro SS (98-02) | 99.0 x 92.0 5666 | 2568 | 18 x 10 | 295 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.42 | (F) 355 Vented Disc (R) 340 Vented Disc | 3250 | Power steering cooler (option code V12) is permitted. Severn Canton Accusump part #CA24024 or CA24006, along with Electric solenoid W/ epc #CA24273, Accusump check valve #CA2428, and wheel to wheel Adapter block #0760-50001, and related hoses and mounting brackets are permitted. Z28 can use original hood. Part #SP-8316. Front Sway Bar (1-3/8" or 35mm); Part #SP-8327, Rear Sway Bar (7/8" or 22mm); Part #UMI-2006, strut tower brace, 2 pt, 1.25" OD) permitted. Springs up to 800#/in front and rear allowed. Cold air intake allowed. Torque arm, panhard bar, and panhard bar relocation brackets from Unbalanced Engineering allowed. 4 Piston front and rear brake calipers allowed. *ATI Super Damper part #918844 permitted.* |
| Chevrolet Camaro*, 1LE* (2016-) | 103.25 x 92.0 6162 | 2811 | 18x10 (F) 18x11 (R) | 295 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.73 | (F) 345 x 32 vented (R) 338 x 28 vented | 3600 | Brake kit part numbers: 84004136, 23301611, 19352519, 19180514, 23245471 allowed at +100 lbs. 60mm flat plate restrictor required. Springs up to 800#/in front and rear permitted. swaybar kit (part number tbd) permitted. |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| *Chevrolet Corvette C-5 Incl. Fxd Cpe (98-04) Z06 (hardtop) (01-04)* | *99.0 x 92.0 5666* | *2655* | *18x10 (F) 18x11 (R) or 18 x 11 (F) 19 x 13 (R)*<br><br>*OEM 10.5 REAR Z06 wheels may be used on the front or rear axle.*<br><br>*F & R OEM only 17 x 9.5 (F) 18 x 10.5 (R)* | *295 Rear tires may protrude up to 1.0" with GM T1 Perf. Susp. pkg.*<br><br>*Max. camber: (R) -2.5 with GM T1 Performance Suspension package.* | *C5: 2.66, 1.78, 1.30, 1.00, 0.74, 0.50*<br><br>*Z06: 2.97, 2.07, 1.43, 1.00, 0.84, 0.56*<br><br>*Auto trans only: 4.03, 2.36, 1.53, 1.15, 0.85, 0.67* | *3.42*<br><br>*Auto trans only: 2.56 or 2.73* | *(F) 325 Vented Disc (R) 305 Vented Disc*<br><br>*May use two-piece steel rotors with aluminum hats up to 5% larger than 340/330; Any four piston calipers and brackets are permitted. Any brake caliper pistons are allowed; may use the Wilwood SL6R brake caliper.*<br><br>*Stock calipers and rotors only (F) 325 (R) 305* | *3525 (w/55mm flat plate restrictor)*<br><br>*3225 (w/45mm flat plate restrictor)*<br><br>*3400 (w 55mm flat plate restric-tor, only permitted when using OEM Wheels and Stock Brakes)* | *GM Motorsports T1 suspension pkg. (Part # 12480062) is permitted. Parts for Z06 upgrade: LS6 Engine Assy.: P/N 88894057, Engine components if using LS1 block: LS6 cylinder head: P/N 12560801, LS6 intake manifold: P/N 88890524 or 12480075, LS6 camshaft: P/N 12560950, LS6 valve springs: P/N 12565117, LS6 valve shims: P/N 12565118, Lifter valley cover: P/N 12568002, PCM: P/N 12200411, LH Exh manifold: P/N 12561255, RH Exh manifold: P/N 12561256. C-5 exhaust system may be modified to mate to Z06 ex-haust manifolds. Cage attachments points may be on the frame. Floor may be modified to facilitate installation of cage mounting plates. Wrapping of tie-rod ends to shield heat is permitted. This max. tire supersedes TCS 9.1.10.D.7.b. C6 calipers permitted. Alternate wheel bearings*<br><br>*SKF Part # BAR 5049C permitted. OEM or equivalent carbon fiber hood is allowed. ARE dry sump kit #3021S, or Aviad dry sump kit #008-10001 allowed. ATI non-underdrive damper #917303, balancer bolt #951503, optional crank pin kit #918993 and Katech's non-spring loaded belt tensioner KAT-A4425 permitted.* |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Corvette C6 Coupe / Grand Sport *(05-13)* | 101.68 x 92.0 5967 (LS2)<br><br>103.26 x 92.0 6162 (LS3) | 2685 | 18 x 10 (F)<br>19 x 11 (R)<br>or<br>18 x 11 (F)<br>19 x 13 (R) | 295<br>Rear tires may protrude up to 1.0" with GM T1 Performance Suspension package.<br><br>Max. camber: (R) -2.5 with GM T1 Performance Suspension package. | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50, or 2.97, 2.07, 1.43, 1.00, 0.71, 0.57<br><br>*Auto trans only: 4.03, 2.36, 1.53, 1.15, 0.85, 0.67* | 3.42<br><br>*Auto trans only: 2.56 or 2.73* | (F) 325 / 340 Vented Disc<br>(R) 305 / 330 Vented Disc<br>or<br>(F) 355 x 32 Vented Disc<br>(R) 340 x 26 Vented Disc<br>or<br>May use 2-pc steel rotors with alum. hats up to 5% larger than Z51 rotor.<br>----------<br>LS2 may use Grand Sport brake package.<br>Any brake caliper pistons allowed.<br>May use any four piston brake caliper and brackets. Z06 brake calipers allowed. | 3450<br><br>Add 50 lbs. for larger wheels | C6 T1 Suspension kit and Z51 option allowed. Floor may be modified to facilitate installation of cage mounting plates Removable roof panel shall be installed. The following parts are allowed: GM oil pan #12630477; GM radiator baffle # 25953429 (LS3 only); fan shroud, Phoenix part # 1005422; Canton Accusump part # CA24006 or # CA24024, along with Electric solenoid W/ epc # CA24273, Accusump Check Valve # CA2428, and Wheel to Wheel Adapter block # 0760-50001, and related hoses and mounting brackets; 180 degree thermostat Hypertech # 1015; Lingenfelter Performance Engineering #L310055204 thermostat (LS2 only); HD oil pressure shim Phoenix part # 1005421. Wrapping of tie-rod ends to shield heat is permitted. Trimming of the lower edge of the center of the air dam is allowed up to a depth of 3.9 cm. ARE dry sump system part #3021 S permitted; the following parts are included: mount w/tensioner and spacer #3020YM, serpentine belt #4032S, pulley #4SERP, oil tank #7030, tank bracket #7000, breather catch can # 7100, filter adapter #4010, damper assembly #8005. Aviaid Dry Sump System part number 008-10001 is permitted; the following parts are included: 3-stage pump 13111-1182, mounting hardware 40082 and 40018-83-1, HTD pump pulley 11649, HTD belt 46476, ATI damper assembly 917289, pan assembly 152-52504-10001, and tank assembly 110-50020-10001. The oil tank for either system shall be installed in the current battery location and the battery must be relocated to the same location as the 08 Corvette Z06; GM battery mounting bracket and hardware must be used. Alternate wheel bearings SKF Part # BAR 5049C permitted. LS2: 57mm flat plate restrictor is required. LS3: 51mm flat plate restrictor is required and must be placed in the front of the factory throttle body manifold opening. The plate must seal the opening so that all air entering passes through the restrictor. 3.0 degrees MAX front camber. |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Chevrolet Corvette Z06 (06-12) | 103.26 x 92.0 6162 | 2685 | 18 x 10 (F) 19 x 11 (R) or 18 x 11 (F) 19 x 13 (R) | 295 Rear tires may protrude up to 1.0" with GM T1 Performance Suspension package.<br><br>Max. camber: (R) -2.5 with GM T1 Performance Suspension package. | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 or 2.97, 2.07, 1.43,.1.00, 0.71, 0.57 | 3.42 | (F) 325 / 340 Vented Disc (R) 305 / 330 Vented Disc or (F) 355 x 32 Vented Disc (R) 340 x 26 Vented Disc or May use 2-pc steel rotors with alum. hats up to 5% larger than Z51 rotor. ----------. Any brake caliper pistons allowed. May use any four piston brake caliper and brackets. Z06 brake calipers allowed. | 3525 | C6 T1 Suspension kit and Z51 option allowed. Floor may be modified to facilitate installation of cage mounting plates. The max. tire sizes supersede TCS 9.1.10.D.7.b. Removable roof panel shall be installed. The following parts are allowed: GM oil pan #12630477; GM radiator baffle # 25953429); fan shroud, Phoenix part # 1005422; Canton Accusump part # CA24006 or # CA24024, along with Electric solenoid W/ epc # CA24273, Accusump Check Valve # CA2428, and Wheel to Wheel Adapter block # 0760-50001, and related hoses and mounting brackets; 180 degree thermostat Hypertech # 1015; HD oil pressure shim Phoenix part # 1005421. Wrapping of tie-rod ends to shield heat is permitted. Trimming of the lower edge of the center of the air dam is allowed up to a depth of 3.9 cm. ARE dry sump system part #3021 S permitted; the following parts are included: mount w/ tensioner and spacer #3020YM, serpentine belt #4032S, pulley #4SERP, oil tank #7030, tank bracket #7000, breather catch can # 7100, filter adapter #4010, damper assembly #8005. Aviaid Dry Sump System part number 008-10001 is permitted; the following parts are included: 3-stage pump 13111-1182, mounting hardware 40082 and 40018-83-1, HTD pump pulley 11649, HTD belt 46476, ATI damper assembly 917289, pan assembly 152-52504-10001, and tank assembly 110-50020-10001. The oil tank for either system shall be installed in the current battery location and the battery must be relocated to the same location as the 08 Corvette Z06; GM battery mounting bracket and hardware must be used. Alternate wheel bearings SKF Part # BAR 5049C permitted.<br>LS2: 56 mm flat plate restrictor is required. LS3: 48 mm flat plate restrictor is required. 3.0 degrees MAX front camber. *ATI non-underdrive damper #917303, balancer bolt #951503, optional crank pin kit #918993 and Katech's non-spring loaded belt tensioner KAT-A4425 permitted.* |
| Dodge Viper SRT-10 incl. coupe (03-06) | 102.4 x 100.6 8300 | | 18x10 (F) 19x13 (R) | (F) 315/35 (R) 345/30 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.07 | (F) 355 Disc (R) 355 Disc | 3600 | If a hardtop is used, it shall be the detachable Autoform hardtop (latches shall be replaced with positive fasteners), convertible top shall be removed. Throttle restrictor between each throttle body and plenum is mandatory: .060" flat steel plate with one 36 mm hole. A .250" thick (max) steel or aluminum spacer is permitted between the throttle body and the restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.) Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be radiused in any way. Throttle restrictor may include idle air control and/or PCV orifice. The following parts are allowed:, Mopar performance fan delete kit #P5153260, Phoenix SRT10 electric fan kit #PPI123321, Mopar swing oil pickup kit # 4510174, Trans. mount # P4510179, Dodge Motorsports T1 suspension kit part # P5153251 Hypercoil springs #188A0750 (F) and 188A0800 (R) are allowed. B&M Shifter (PN45055) is permitted. Oil pan part #5037735AC, oil pick up part #5038022AB, oil pick up tube part #5037312AE are allowed. Maximum front camber of -3.0 w/ Dodge Motorsports T1 suspension package allowed. |
| Ford Mustang V6 (11-14) | (95.490) x (86.70) / 226 CID | 107.1 | 18 x 11 | 315 | 4.24, 2.54, 1.67, 1.24, 1.00, .70 | 3.31 or 3.55 | (F) (316) x (30.0) Vented (R) (300) x (19.2) Vented | 3300 | The following parts are allowed: Ford Accessories Spoiler #AR3Z-6344210-CA Rear Axle Cover#M- 4033-K, max spring rate of 500 lbs/in front, 300 lbs/in rear (rear spring relocation to shock permit¬ted), Strut Tower Brace #M-20201-F, Sway bar Kit #M-5490, Jounce Bumper Kit # M-5570-A, Pan¬hard Bar #M-4264-A,Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A. Boss 302R Steering EPAS Steering rack #M- 3200-EPAS, Boss 302R/SABS Module #M2353-C. 14" Brembo Brake Kit#M-2300-S permitted. Drive¬shaft from Alternate metallic driveshaft is allowed. Prothane front control arm bushings 6-220 and 6-218 and differential bushing 6-315 allowed. Cold air kit #JLT CAIFMV6-11 permitted. GT/CS Front Fascia #BR3Z-17626-AA, or CR3Z-17626-AB, GT/CS front bumper cover #AR3Z-17D957-BA, al-lowed if used with front fascia, GT/CS Rear Fascia #AR3Z-17F828-AA is permitted. Bushing kit M-5638-C, BBK Full Length header #1642 permitted. Griggs Torque Arm #MTA6000 |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Mustang Boss 302 (12-13) | 92.220 x 92.7 4957 | 2720 | 18 X 11 (F) 18 x 11 (R) | 275<br><br>First two/three Majors in 2016 (see TB 16-01): 295 | 3.66, 2.43, 1.69, 1.32, 1.00, 0.65 | 3.73 | (F) 355 x 32.1 Vented (R) 300 x 19.2 Vented | 3550 | The following parts are allowed: GT/CS Front Fascia #BR3Z-17626-AA, GT/CS Rear Fascia #AR3Z-17F828-AA, Ford Accessories Spoiler #AR3Z-6344210-CA, 14" Brembo Brake Kit #M-2300-S, Rear Axle Cover #M-4033-K, Spring Kit #M-5300-A (M-5310-A front, M-5560-A rear. Rear spring relocation to shock permitted with use of this kit), Strut Tower Brace #M-20201-S197, Swaybar Kit #M-5490-A, Jounce Bumper Kit # M-5570-A, Panhard Bar #M-4264-A, Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A. Ford Racing oil pan #M-6675-M50BR permitted. Alternate metallic driveshaft is allowed. Front bushing kit M-5638-C permitted. 54mm flat plate restrictor required. Maximum spring rate 500 lbs (front), 300 lbs (rear). |
| Ford Mustang GT 5.0L (11-14) | (92.220) x (92.7) / (4957) | 107.1 | 18 x 11 | 275 | 3.66, 2.43, 1.69, 1.32, 1.00, .65 | 3.31<br>3.73 | (F) (355) x (32.1) Vented (R) (300) x (19.2) Vented | 3550 | The following parts are allowed: GT/CS Front Fascia #BR3Z-17626-AA, GT/CS Rear Fascia #AR3Z-17F828-AA, Ford Accessories Spoiler #AR3Z-6344210-CA, 14" Brembo Brake Kit #M-2300-S, Rear Axle Cover #M-4033-K, Spring Kit #M-5300-A (M-5310-A front, M-5560-A rear. Rear spring relocation to shock permitted with use of this kit), Strut Tower Brace #M-20201-S197, Swaybar Kit #M-5490-A, Jounce Bumper Kit # M-5570-A, Panhard Bar #M-4264-A, Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A. Ford Racing oil pan #M-6675-M50BR permitted. Alternate metallic driveshaft permitted. Front bushing kit M-5638-C permitted. 56mm flat plate restrictor required. Maximum spring rate 500 lbs (front), 300 lbs (rear). |
| Ford Mustang GT 5.0L (2015-) | 92.220 x 92.7 (4957) | 107.0 | 18 x 11 | *until 12/31/17:* 295<br><br>*effective 1/1/18: 275* | 3.66, 2.43, 1.69, 1.32, 1.00, .65 | 3.31<br>3.73 | (F) *355*<br>(R) 330 | 3600 | Ford Performance Handling Kit part #M-FR3A-M8, Sway Bars in M-FR3A-M8 kit part #M-5490-E, Rear Toe Bearing part #M-5A460-M, Ford Performance Radiator part #M-8005-M8, Strut Tower Brace part# M-20201-M, Camber Bolts M-3B236-A, Solid Differential Bushings part#M-4425-M, Short Shift Kit part#M- 7210-M8, Solid Subframe Bushings part#M- 5872-M, Dampers in Handling Pack part #M-18000-F, Performance Package Brembo front BBK 380mm permitted at +100lbs. 53mm flat plate restrictor required. 2014 Mustang GT exhaust manifolds permitted. Springs up to 800#/in front and rear permitted. *Alternate metallic driveshaft permitted. Rear spring relocation to shock permitted with kit TBD. Ford Racing oil pan #M-6675-M50BR permitted.* |
| Ford Mustang Coupe GT 5.0L DOHC (11-14) Restricted Prep. (Aluminum Block, Aluminum Heads), 4 valves per cylinder | | | | | | | | | Must conform to the AS rules. |
| Ford Mustang Coupe GT & Shelby GT 4.6L (05-10) | 90.2 x 90.0 4601 | 2720 | 18 x 9 | 275 | 3.38, 2.00, 1.32, 1.00, 0.68 | 3.55<br>3.73 | (F) 316 / 355 Vented Disc (R) 300 Vented Disc | 3400 | The following parts are allowed: Strut tower brace part #M20201-S197, Radiator #M-8005-S197, Ford Spring kit M-5300-K, sway barsM-5490-A,damper kit M-18000-A. Rear Lower Control Arm Kit # M-5649-R1, Rear Shock Mount Kit # M-18197-A, Jounce Bumper Kit # M-5570-A, Front Strut Mount # M-18183-C allowed. An Aluminum driveshaft is allowed. Rear Axle Cover #M-4033-K, Spring Kit #M-5300A (M-5310-A- Front, M5560-A Rear), Strut Tower Brace #M- 20201-S197, Swaybar Kit #M-5490, Jounce Bumper Kit # M-5570-A, Panhard Bar #M-4264-A, Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A (Rear spring relocation to shock permitted with use of this kit). Alternate metallic driveshaft is allowed. Prothane front control arm bushings 6-220 and 6-218 and differential bushing 6-315 allowed. |
| Ford Mustang Coupe GT & Shelby GT 5.0L (05-10) | (92.220) x (92.7) (4957) | 2720 | 18 x 10 | 295 | 3.38, 2.00, 1.32, 1.00, 0.68 | 3.55<br>3.73 | (F) 316 / 355 Vented Disc (R) 300 Vented Disc | 3480 | The following parts are allowed: Strut tower brace part #M20201-S197, Radiator #M-8005-S197, Ford Spring kit M- 5300-K, sway bars M-5490-A, damper kit M-18000-A. 05-10 Mustang GT 4.6L may be converted to 11-14 5.0 liter specifications. If converting to the 11-14 5.0 engine, car must use the 11-14 spec line in its entirety (notes, weight, restrictor, etc.) no mixing and matching. VIN number will be disregarded for this conversion. Maximum spring rate 500 lbs (front), 300 lbs (rear). |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mitsubishi Lancer Evo 8/9 / RS / GSR / MR (03-06) | 85.0 x 88.0 1997 | 2624 | 18 x 10 | 295 | 2.93, 1.95, 1.41, 1.03, 0.72 or 2.91, 1.94, 1.43, 1.10, 0.87, 0.69 | 4.53 | (F) 320 / 350 Vented Disc (R) 300 / 330 Vented Disc | *3350* | AMS front and rear springs #AMS-SCCA01 or #AMS-SCCA02 including GenesisTechnologies 2'' spacer allowed. Max spring rate (F) 800lbs./in, (R) 900 lbs./in. Alternate AMS front sway bar permitted #AMS-SCCA-SBF02, alternate rear sway bar permitted #AMS-SCCA-SBR02. Evo X brakes allowed. AMS Mitsubishi Lancer Evo VII/VIII/IX Front Mount Intercooler allowed. *Turbocharger part number FPEV0971CHRA allowed. Moroso PN 20967 MITSUBISHI EVO 7 8 9, Road Race Baffled allowed.* |
| Mitsubishi Lancer Evo X / GSR / MR (08-11) | 86.0 x 86.0 1998 | 2650 | 18 x 10 | 295 | 2.86, 1.95, 1.44, 1.10, .76 or 3.66, 2.37, 1.75, 1.32, 1.01, .78, | 4.69 4.06 | (F) 350 Vented Disc (R) 330 Vented Disc | 3500 with/ or/without paddle shifter | AMS front and rear springs SCCA01-EVO X – AMS. 2" Genesis Technologies spacers allowed. Alternate AMS front sway bar permitted #SCCA-SBF02 EVO X, alternate rear sway bar permitted #SCCA-SBR02 EVO X. Max spring rate (F) 800 lbs/in, (R) 900 lbs/in. AMS 2008+ Evo X FMIC Kit W/Logo/A0044A-2B Allowed. AMS 2008+ Evo X FMIC Kit w/Logo/ A0044A-2B allowed. |
| Nissan 350Z Track/ Touring/ Standard/ Nismo Spec Z (03-08) | 95.5 x 81.4 3498 | 2649 | 18 x 10.5 | 295 | 3.79, 2.32, 1.62, 1.27, 1.00, 0.79 | 3.54 | (F) 296/324 Vented Disc (R) 292/323 Vented Disc | DE Motor: 3100<br>HR Motor: 3100 | Nissan Motorsports: Shock Front left P/N E6110-SZ350 & Front right E6111-SZ350 & rear E6210-SZ350, Springs front P/N 54010-SZ350 & rear 55020-SZ350, F&R 5600S-SZ350, Front roll bar #54611-SZ350, Rear roll bar #562300-SZ350, Bushings P/N (54541, 54560, 55045, 55148, 55149, 55152, 55153, 55158, 56218) - RRZ30 allowed. Nismo flywheel permitted. SPC Control Arms 72125 allowed. Aftermarket flywheel permitted at minimum *14lbs*. Aftermarket headers permitted, cold air intake permitted. Aftermarket big brake kit 4 piston front permitted up to 355x32 SPL pro V3 front upper camber caster control arms for the 350z part# SPLFUAZ33 permitted. SPL rear toe links part# SPL RTA Z33 permitted. *Stillen part #400338 permitted.* |
| Nissan 370Z (09-*17*) / 370Z NISMO Edition (09-*17*) | 95.5 x 86.0 3696 | 2550 | 19 x 10 | 295 | 3.79, 2.32, 1.62, 1.27, 1.00, .79 | 3.69 | (F)320 x 28 Vented (R)320 x 16 Vented | 3100 | 5300S-SS370 T-2 spring kit allowed; 54600-SS370 T-2 front and rear sway bar kit allowed. Sports Package is allowed. Springs up to *1000* lbs/in front and rear allowed. 54010-SZ350 (F) and 55020-SZ350 (R) allowed. Cold Air Intake allowed. Header permitted - Part # 14002-SS370. Rear spring relocation permitted to allow coil over shocks. *SPL suspension kit permitted that includes: rear camber arms #SPL RLL Z34, SPL rear toe arms #SPL RTA Z34, SPL rear traction arms #SPL RTR Z34, SPL front camber arms #SPL FUA Z34, SPL rear mid link #SPL RML Z34.* |
| Pontiac Firebird (98-02) | 99.0 x 92.0 5666 | 2568 | 18 x 10 | 295 | 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 | 3.42 | (F) 355 Vented Disc (R) 340 Vented Disc | 3250 | Power steering cooler (option code V12) is permitted. Severn Canton accusump part #CA24024 or CA24006, along with Electric solenoid W/ epc #CA24273, Ac¬cusump Check Valve #CA2428, and Wheel to Wheel Adapter block # 0760-50001, and related hoses and mounting brackets are permitted. Z28 can use original hood. Strano Performance Camaro Track Package (Part #SP- 141, Spring Set (550# Front/150#Rear); Part #SP-8316. Front Sway Bar (1-3/8" or 35mm); Part #SP-8327, Rear Sway Bar (7/8" or 22mm); Part #UMI-2006,Strut Tower brace, 2 pt, 1.25" OD) permitted. Springs up to 800#/in front and rear allowed. Cold Air Intake allowed. 4 piston front and rear brake calipers allowed. WS6 or Firehawk hood allowed. Torque arm, panhard bar, and panhard bar relocation brackets from Unbalanced Engineering allowed. 4 Piston front and rear brake calipers allowed. |
| Pontiac Solstice GXP Coupe / Convertible (07-09) | 85.3 x 86.1 1998 | 2415 | 18 x 9.5 | 295 | 3.75, 2.26, 1.51, 1.00, .73 | 3.73 | (F) 296 Vented Disc (R) 278 Solid Disc | 2950 | Detachable hardtop GM part #PCS-0664 may be installed (If a hardtop is used, latches shall be replaced with positive fasteners and convertible top shall be removed). Suspension option ZOK and Rear Spoiler (D52) allowed. Brake calipers and rotors from Chevrolet Cobalt SS (08-09) permitted. Any aftermarket top allowed, if material, size, shape and weight are the same as the factory top. Hahn HIC-1150 or Dejon FIC-SSA Intercooler allowed. Maximum spring rate 800 lb/inch for coil over type spring permitted. |
| Porsche 911/ 997 (06-08) | 3.78 in. (96 mm) x 3.26 in. (82.8 mm) 3600 | 2355 | 18 x 8.5 (F) 18 x 11 (R) | 255 (F) 315 (R) | 3.82, 2.15, 1.56, 1.21, 1.00, 0.85 | 3.44 | (F) 318 Vented Disc (R) 299 Vented Disc | 3200 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Ducting of air to rotors is allowed Removal of rotor dust shields is allowed. Tender springs 60-60-25, and spring holders ZT-1-X002A01 allowed. Springs up to 800#/in front and 1000 #/in rear allowed. Sway bar size and configuration is free. Spoilers & bumper/ airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport front and rear control arms allowed. |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Porsche 911 / 996 (98-05) | 96.0 x 78.0 3400<br><br>3.78 in. (96 mm) x 3.26 in. (82.8 mm) 3600 | 2454 | 18 x 8.5 (F) 18 x 11 (R) | 255 (F) 315 (R) | 3.82, 2.20, 1.52, 1.22, 1.02, 0.84 | 3.44 | (F) 318 Disc (R) 299 Disc | 3100 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Springs up to 800#/in front and 1000 #/in rear allowed. Ducting of air to rotors is allowed. Tender springs 60-60-25, and spring holders ZT-1-X002A01 allowed. Removal of rotor dust shields is allowed. Sway bar size and configuration is free Spoilers & bumper/ airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport front and rear control arms allowed. Cold air intake allowed. |
| Porsche Carrera S (06-08) | 99 x 82.8 3824 | 2355 | 18 X 8.5 (F) 18 x 11 (R) | 255 (F) 315 (R) | 3.82, 2.20, 1.52, 1.22, 1.02, .84 | 3.44 | (F) 330 x 34 Vented (R) 330 x 28 Vented | 3275 | 65mm flat plate restrictor required. Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Ducting of air to rotors is allowed Removal of rotor dust shields is allowed. Tender springs 60-60-25, and spring holders ZT-1-X002A01 allowed. Springs up to 800#/in front and 1000 #/in rear allowed. Sway bar size and configuration is free. Spoilers & bumper/air dams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport front and rear control arms allowed. |
| Porsche Cayman S (06-08) | 96.0 x 78.0 3387 | 2416 | 18 x 9 (F) 18 x 10 (R) | 255 (F) 315 (R) | 3.31, 1.95, 1.41, 1.13, 0.97, 0.82 | 3.88 | (F) 318 Vented and Cross-drilled (R) 299 Vented and Cross-drilled | 3000 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Springs up to 800#/in front and 1000 #/in rear allowed . Ducting of air to rotors is allowed. Removal of rotor dust shields is allowed. Sway bar size and configuration is free Spoilers & bumper/airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport rear control arms allowed. |
| Porsche Cayman S, *Spyder* (10-12) | 96.0 x 78.0 3387 | 2416 | 18 x 9 (F) 18 x 10 (R) | 255 (F) 315 (R) | 3.31, 1.95, 1.41, 1.13, 0.97, 0.82 | 3.88 | (F) 318 Vented and Cross-drilled (R) 299 Vented and Cross-drilled | 3100 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Springs up to 800#/in front and 1000 #/in rear allowed . Ducting of air to rotors is allowed. Removal of rotor dust shields is allowed. Spoilers & bumper/airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Sway bar size and configuration is free Camber adjustment slots may be elongated. Porsche Motorsport rear and front control arms allowed. PDK allowed. |
| Porsche Cayman S (13-14) | 97 x 77.5 3400 | 2474 | 18 X 9 (F) 18 x 11 (R) | 255 (F) 315 (R) | 3.31, 1.95, 1.41, 1.13,.95, .81 | 3.89 | (F) 330 x 28 Vented (R)299 x 20 Vented | 3150 | Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Springs up to 800#/ in front and 1000 #/in rear allowed . Ducting of air to rotors is allowed. Removal of rotor dust shields is allowed. Spoilers & bumper/air dams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Sway bar size and configuration is free Camber adjustment slots may be elongated. Porsche Motorsport rear and front control arms allowed. PDK allowed |
| Saturn Sky / Convertible (07-09) | 85.3 x 86.1 1998 | 2415 | 18 x 9.5 | 295 | 3.75, 2.26, 1.51, 1.00, .73 | 3.73 | (F)296 Vented (R)278 Solid | 3000 | Detachable hardtop GM part #PCS-0664 may be installed (if a hardtop is used, latches shall be replaced with positive fasteners and convertible top shall be removed). Suspension option ZOK and Rear Spoiler (D52) allowed. Brake calipers and rotors from Chevrolet Cobalt SS (08-09) permitted. Any aftermarket top allowed, if material, size, shape and weight are the same as the factory top. Hahn HIC-1150 or Dejon FIC-SSA Intercooler allowed. |
| Spec Mustang | | | | | | | | 3400 | Must meet all requirements of Spec Mustang rules located in the Appendices. Cars must Comply with all SCCA T2 graphics and marking rules, including the posting of minimum weight. It is the responsibility of the driver to declare if its running under T2 rules or SMG rules. |
| Subaru Impreza WRX STi (03-07) | 99.5 x 79.0 2457 | 2540 | 18 x 10 | 295 | 3.64, 2.38, 1.76, 1.35, 0.97, 0.76 | 3.9 | (F) 323 Vented Disc (R) 313 Vented Disc | 3300 | The following parts are allowed: Phoenix Performance brake duct kit # IPBK01. AMS front and rear springs #AMS-SCCA-STiST1 allowed. Front Sway bar Whiteline PN #BSF36XXZ and Rear Sway bar Whiteline PN #BSF37XZ allowed. Racecomp Brake duct kit part #RCE-CFKBK is allowed. Baldwin Motors spring package part BMI-T2SP1, permitted. Max spring rate (F) 800 lbs/in, (R) 900 lbs/in. Aftermarket Intercooler allowed. |

| T2 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Subaru Impreza WRX STi (08-11) | 99.6 x 79.0 2457 | 2624 | 18 x 10 | 295 | 3.64, 2.24, 1.52, 1.14, 0.97, 0.76 | 3.90 Front 3.55 Rear | (F)326 Vented (R)316 Vented | 3300 | 800 lbs/in front springs, 900 lbs/in rear springs, 25mm front sway bar, 22mm rear sway bar permitted. Cold air intake allowed. Aftermarket Intercooler allowed. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura TL SH-AWD (09-13) | 90.065 x 96.1 3664 | 2776 | 19 X 9 | 275 | 3.63, 2.12, 1.53, 1.13, 0.85, 0.69 | 3.84 | (F) 320 x 28 Vented (R) 334 x 11 Solid | 3600 | 1000 lb/in springs maximum permitted (F&R), part numbers H&R R25081000 or RF200180 or Eibach 0800.225.1000. 24mm rear anti-sway bar permitted, part number Progress 62.0111. The glass sunroof must be replaced with a metal panel; the panel must be the same thickness as the roof material; the panel must retain the shape of the glass sunroof and must be painted in body color.. Brake package may include the following StopTech part numbers: 36.061.7419, 39R.061.7413, 39R.061.7414, 31.737.1101.87, 31.737.1102.87, 379.438.8131, 379.438.8132. 50mm flat plate restrictor required. |
| Audi S4 (10-11) | 84.5 x 89.0 2995 | 2809 | 18 X 9 | 275 | 3.68, 2.16, 1.52, 1.13, 0.92, 0.78 | 3.88 | (F) 345 Vented (R) 330 Vented | 3725 | 40mm flat plate restrictor required. S tronic transmission permitted at 3480 lbs. Ratios: 3.88, 2.24 ,1.56, 1.18, 0.92, 0.75, 0.62. Max spring rate 800#/in. front and rear. F sway bar 30mm, rear sway bar 24mm SPC front upper arms 81360. |
| Audi S4 (12-14) | 84.5 X 89.0 2995 | 2809 | 19 x 9 | 275 | 3.68, 2.16, 1.52, 1.13, 0.92, 0.78 | 3.88 | (F) 345 Vented (R) 330 Vented | 3725 | 40mm flat plate restrictor required. S tronic transmission permitted at 3725 lbs. Ratios: 3.88, 2.24, 1.56, 1.18, 0.92, 0.75, 0.62. Max spring rate 800#/in. front and rear. F sway bar 30mm, rear sway bar 24mm SPC front upper arms 81360. Brembo brake Kit PN: 3K2.8032A permitted. 19x10 wheels allowed + 100 lbs. |
| Audi S5 (13-14) | 84.5 x 89.0 2995 | 2751 | 19 x 9 | 275 | 3.68, 2.16, 1.52, 1.13, 0.92, 0.78 | 3.68 | (F) 345 Vented (R) 330 Vented | 3725 | 40mm flat plate restrictor, 800 max F&R spring rate. F sway bar 30mm, rear sway bar 24mm SPC front upper arms 81360 S tronic transmission permitted at 3725 lbs. Ratios: 3.88, 2.24 ,1.56, 1.18, 0.92, 0.75, 0.62. Brembo brake Kit PN: 3K2.8032A permitted. 19x10 wheels allowed + 100 lbs. |
| Audi TTS Coupe (10-11) | 82.5 x 92.8 1984 | 2468 | 18 X 9 | 255 | 2.92, 1.96, 1.40, 1.03, 1.08, 0.87 | 4.77 (1-4) 3.44 (5-6) | (F) 340 Vented (R) 310 Vented | 3200 | 28mm turbo inlet restrictor required. Max spring rate 600#/in front and rear. |
| *BMW E36 M3 (96-00)* | *86.4 X 89.6 3152* | *2700* | *18 x 8.5* | *245* | *4.20, 2.49, 1.66, 1.25, 1.00* | *3.64* | *(F) 315 (R) 312* | *3100* | *Up to 850 lb. springs.* |
| BMW M3 (01-06) | 87.0 x 91.0 3246 | 2731 | 18 x 9 | 275 | 4.23, 2.53, 1.67, 1.23, 1.00, 0.83 | 3.62 | (F) 325 x 28 Vented Disc (R) 328 x 20 Vented Disc | 3400 | Factory paddle shifter is permitted. Front sway bar #TMSF23.235, rear sway bar #TMSR23.327. Euro Header part #11 62 7 833 500 and 62 7 833 501 allowed. 45mm flat plate restrictor required. Restrictor must be placed in the front of the factory engine air intake manifold opening. The plate must seal the opening so that all air entering passes through the restrictor. Allow 600 lb max front and 650 lb max rear springs. Alternate rear lower control arm part #TSU9940B77 allowed. |
| BMW 135i (08-13) | 84.0 x 89.6 2679 | 2761 | 18 x 9 | (F) 245 (R) 275 | 4.00, 2.40, 1.58, 1.19, 1.00, 0.87 | 3.08 | (F) 348 Vented Disc (R) 336 Vented Disc | 3400 | ZSP suspension package allowed. Sport seat package allowed. (2) 25mm Turbo Inlet Restrictor required. Max spring rate 600#/in front and rear. |
| *BMW 228i (14-17)* | *82.0 x 94.6 1998* | *2960* | *18 x 8.5* | *245* | *4.71, 3.14, 2.11, 1.67, 1.29, 1.00, 0.84, 0.67* | *3.08* | *(F) 340 (R) 345* | *3200* | *32mm TIR required.* |
| *BMW 323Ci/Is (98-00)* | *84.1 x 75.0 2494* | *2700* | *18 x 8.5* | *245* | *4.23, 2.52, 1.66, 1.22, 1.00* | *2.93* | *(F) 286 (R) 276* | *3100* | *Up to 850lb. springs F/R permitted, 27MM front sway bar, 24mm rear sway bar permitted. Header permitted.* |
| BMW 335i (08-13) | 84.0 x 89.6 2679 | 2761 | 18 x 9 | (F) 245 (R) 275 | 4.00, 2.40, 1.58, 1.19, 1.00, 0.87 | 3.08 | (F) 348 Vented Disc (R) 336 Vented Disc | 3400 | ZSP suspension package allowed. Sport seat package allowed. (2) 25mm Turbo Inlet Restrictor required. Max spring rate 600#/in front and rear. |
| BMW 330i/Ci (01-06) | 84.0 x 89.6 2979 | 2726 | 17 x 9 | 275 | 4.21, 2.45, 1.66, 1.24, 1.00 | 2.93 | (F) 325 x 28 Vented Disc (R) 325 x 20 Vented Disc | 3235 | Max spring rate 600#/in front and rear. 27mm F max, 24mm R max sway bars are permitted. |
| BMW SpecE46 | | | | 225 | | | | *3025* | Must conform to all SpecE46 rules in Appendix N. SpecE46 spec tire permitted per SpecE46 appendix rules. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| BMW Z4 3.0L (03-04) | 84.1 x 89.7 2986 | 2494 | 17 x 8 | 245 | 4.35, 2.50, 1.66, 1.24, 1.00, 0.85 | 3.07 | (F) 300 Vented Disc (R) 294 Vented Disc | 3000 | |
| BMW Z4 M Coupe (2007) | 87.0 x 91.0 3246 | 2497 | 18 x 9 | 275 | 4.35, 2.50, 1.67, 1.23, 1.00, 0.85 | 3.62 | (F) 345 Vented Disc (R) 328 Vented Disc | 3400 | Euro manifold part #11 62 7 833 500 and 62 7 833 501 allowed. Ground control # MZ4Swaybar set permitted. 45mm flat plate restrictor required. Restrictor must be placed in the front of the factory engine air intake manifold opening. The plate must seal the opening so that all air entering passes through the restrictor. Allowance of 600 lb max front, 650 lb max rear. M3 front lower control arms 31122229453 left, 31122229454 right. E46 M3 front lower control arms allowed: 31122229453 left, 31122229454 right. May ream upright for installation of larger joint. Alternate rear lower control arm part #TSU9940B77 allowed. |
| BMW Z4 3.0si Coupe (07-08) | 85.1 x 87.9 2996 | 2495 | 18 x 9 | 245 | 4.35, 2.50, 1.66, 1.23, 1.00, 0.85 | roadster: 3.23 coupe: 3.46. | (F) 325 x 12.8 Vented Disc (R) 294 x 11.6 Solid Disc | 3200 | Rear spring height adjusters: Turner #HR92-K-X-011A01; H&R sway bar kits: front 70276 27mm, rear 71276 21mm. Max spring rate F: 600lbs, R: 650lbs. |
| Cadillac ATS (2015) | 86.0 x 86.0 1998 | 2775 | 18 x 9 | 275 | 4.12, 2.62, 1.81, 1.30, 1.00, .080 | 3.27 | (F) 321 (R) 315 | 3300 | 32mm TIR required. GM 23497689 package springs allowed. 23315239 sway bars allowed. Lower front bumper running lights/ decorative bars removal allowed. |
| *Chevrolet Camaro (2016)* | *95.1 x 85.8 3649* | *2811* | *20 x 10* | *275* | *4.40, 2.59, 1.80, 1.34, 1.00, 0.75* | *3.27* | *(F) 321 (R) 315* | *3550* | *2016 Camaro Lowering kit - GM part# 84004131 Brembo Performance front brake package, GM part# 23245470 Lower control arm brake deflector kit, GM part# 23508024 Fuel Tank retrofit kit, GM part #s: 23421808, 23377983, 23483014, 11547629 Track cooling package, GM part# RPO Y4Q Accessory grille, GM part# 84010106 Front fascia extension, GM part# 23301618 55mm restrictor required.* |
| Chevrolet Camaro V6 (10-15) | 94.0 x 85.6 3564 | 2853 | 18 x 9 | 275 | 4.48, 2.58, 1.63, 1.19, 1.00, 0.75 | 3.27 | (F)337 x 30 Vented Disc (R) 315 x 23 Vented Disc | 3450 | 800lb max spring F&R. SS front fascia, spoiler allowed. 1LE-SS Track Pack permitted part #23123398 . Tower Brace 22756880, red. TPR rear upper shock mount #22122, Pfadt lower control arm reinforcement # 1410135, # 009-92200, Brake Kit SS (p/n 23120542) For 2011 cars adaptor kit p/n (23484878). |
| Chevrolet Camaro V6 (2016-) | 95.1 x 85.8 3649 | 2811 | 18 x 10 | 275 | 4.40, 2.60, 1.80, 1.34, 1.00, 0.75 | 3.27 | (F) 321 x 30 Vented Disc (R) 315 x 23 Vented Disc | 3550 | 54mm flat plate restrictor required. |
| *Chevrolet Camaro V6 1LE (2016-)* | *95.1 x 85.8 3649* | *2811* | *18 x 10* | *275* | *4.40, 2.60, 1.80, 1.34, 1.00, 0.75* | *3.27* | *(F) 321 x 30 Vented Disc (R) 315 x 23 Vented Disc* | *3550* | *50mm restrictor required.* |
| Chevrolet Cobalt (05-07) | 86.0 x 86.1 1998 | 2629 | 18 X 8 | 245 | 3.38, 1.76, 1.18, 0.89, 0.71 | 4.05 | (F) 296 Vented Disc (R) 270 Solid Disc | 3100 | The following GM parts are allowed: front springs part # CCS635, rear springs # CCS639, front control arms # CCS636 and CCS637, shrouding kit # CCS644. Griffin radiator # 9D-18194-01 allowed. Stage Three Supercharger kit, part #88958719 permitted. Optional rear sway bar max 42 mm (body and suspension mounting same as OEM). AEM cold-air intake (part# 21-532C) is permitted. Any spring up to a maximum spring rate of 800 pounds may be used Brake calipers and rotors from Chevrolet Cobalt SS (08-10) permitted. |
| Chevrolet Cobalt SS (08-10) | 85.3 x 86.1 1998 | 2631 | 18 x 8 | 245 | 3.38, 1.76, 1.18, 0.89, 0.70 | 3.82 | (F) 315 Vented Disc (R) 292 Solid Disc | 3100 | Rear sway bar max 42 mm (body and suspension mounting same as OEM), GM Part #55206797 sensor allowed, Any spring up to a maximum spring rate of 800 pounds may be used. Front control arms # CCS636 and CCS637. Turbo Inlet Restrictor 35mm. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Dodge SRT-4 (03-05) | 88.0 x 101.1 2458 | 2667 | 17 x 8 (F&R) | 245 | 3.47, 2.05, 1.37, 0.97, 0.76 | 3.53 | (F) 280 Vented Disc (R) 220 Solid Disc | 3000 | C & R Heavy Duty Radiator a/ Spal fan, part # 4051110300-DP allowed. 35mm turbo inlet restrictor required. Any spring up to a maximum spring rate of 800 pounds may be used. Rear sway bar max 42 mm (body and suspension mounting same as OEM), 328mm Max front rotor with 4 piston caliper allowed. |
| Ford Focus ST (2013-) | 87.5 x 83.1 2000 | 2649 | 18 x 8 (F&R) | 245 | 3.38, 2.00, 1.32, 1.00, 0.675 | 3.xx | (F) 315 Vented Disc (R) 292 Solid Disc | 3100 | 35mm turbo inlet restrictor required. Any spring up to a maximum spring rate of 800 pounds may be used. Optional rear sway bar max 42 mm (body and suspension mounting same as OEM) |
| *Ford Focus RS (2016-)* | *87.5 × 94.0 2261* | *2647* | *19 x 8* | *245* | *3.23 1.95 1.32 1.13 1.03 0.94* | *4.06* | *(F) 350 (R) 303* | *3300* | *35mm TIR required.* |
| *Ford Mustang EcoBoost (2015-)* | *87.0 x 94.0 2300* | *2720* | *(F) 20 x10 (R) 20 x10* | *275* | *4.24, 2.54, 1.67, 1.24, 1.00, 0.70 or 4.17, 2.34, 1.52, 1.14, 0.87, 0.69* | *3.31 or 3.55 w/ auto* | *(F) 320 (R) 320* | *3475* | *36mm TIR required. Rear spring relocated to shock allowed. 800lbs springs (F/R) allowed. Track package allowed. Optional: 6 speed automatic transmission (with paddle shifters).* |
| Ford Mustang Coupe GT & Shelby GT 4.6L *& Cal. Special* (05-10) | 90.2 x 90.0 4601 | 2720 | 18 x 9 | 275 | 3.38, 2.00, 1.32, 1.00, 0.675 | 3.55 or 3.73 | (F) 316 / 355 Vented Disc (R) 300 Vented Disc | 3450 | The following parts are allowed: Strut tower brace part #M20201-S197, Radiator #M-8005-S197, Ford Spring kit M-5300-K, sway bars M-5490-A, damper kit M-18000-A. A flat plate restrictor with two 40 mm holes required directly behind throttle body. Rear Lower Control Arm Kit # M-5649-R1, Rear Shock Mount Kit # M-18197-A, Jounce Bumper Kit # M-5570-A, Front Strut Mount # M-18183-C allowed. An Aluminum driveshaft is allowed. Rear Axle Cover #M-4033-K, Spring Kit #M-5300A (M-5310-A- Front, M5560-A Rear), Strut Tower Brace #M- 20201-S197, Swaybar Kit #M-5490, Jounce Bumper Kit # M-5570-A, Panhard Bar #M-4264-A, Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A (Rear spring relocation to shock permitted with use of this kit). Alternate metallic driveshaft is allowed. Prothane front control arm bushings 6-220 and 6-218 and differential bushing 6-315 allowed. Ford Racing part # M-2300-S permitted. |
| Ford Mustang GT (01-04) incl. Bullitt (2001) | 90.2 x 90.0 4601 | 2573 | 17 x 9 | 275 | 3.37, 1.99, 1.33, 1.00, 0.67 | 3.27 | (F) 330 x 28 Vented Disc (R) 295 x 18 Vented Disc | 3350 | Steeda 555-2002 rear control arms are allowed. Max spring rate of 900 lbs/in allowed front and rear. Springs may be mounted as a "coil over" configuration. Steeda front sway bar 555-1094 allowed. Energy suspension 4.3140G control arm bushings permitted. |
| Ford Mustang Mach I (03-04) | 90.2 x 90.0 4601 | 2720 | 18 x 9 | 275 | 3.38, 2.00, 1.32, 1.00, 0.62 | 3.55 | (F) 316 / 355 Vented Disc (R) 300 Vented Disc | 3500 | Bullitt springs allowed p/n 1R3Z-5310-CA (F), 1R3Z-5560-AA ®. Steeda springs (F) 223-121-1000, (R) 223-SAM350RSR, rear sway bar 006-470, front sway bar bushings 122-4-5135-G, strut brace 555-5714, clutch cable 555-7041 and 555-7025, Cobra R brakes permitted. A flat plate restrictor with two 40 mm holes required directly behind throttle body. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Ford Mustang V6 (11-14) | (95.490) x (86.70) / 226 CID | 107.1 | 18 x 10 | 275 | 4.24, 2.54, 1.67, 1.24, 1.00, .70 | 3.31 or 3.55 | (F) (316) x (30.0) Vented (R) (300) x (19.2) Vented | *3525* | The following parts are allowed: Ford Accessories Spoiler #AR3Z-6344210-CA Rear Axle Cover#M-4033-K, max spring rate of 500 lbs/in front, 300 lbs/in rear (rear spring relocation to shock permitted), Strut Tower Brace #M-20201-F, Sway bar Kit #M-5490, Jounce Bumper Kit # M-5570-A, Panhard Bar #M-4264-A,Rear Lower Control Arms #M-5649-R1, Rear Upper Shock Mount #M-18197-A. Boss 302R Steering EPAS Steering rack #M-3200-EPAS, Boss 302R/SABS Module #M2353-C. 14" Brembo Brake Kit#M-2300-S permitted. Driveshaft from Alternate metallic driveshaft is allowed. Prothane front control arm bushings 6-220 and 6-218 and differential bushing 6-315 allowed. GT/CS Front Fascia #BR3Z-17626-AA, or CR3Z-17626-AB, GT/CS front bumper cover #AR3Z-17D957-BA, allowed if used with front fascia, GT/CS Rear Fascia #AR3Z-17F828-AA is permitted. 55mm flat plate restrictor required. |
| *Ford Mustang V6 (2015-)* | *95.5 x 86.6 3727* | *2720* | *20 x 10* | *275* | *4.24, 2.54, 1.67, 1.24, 1.00, 0.70 or 4.17, 2.34, 1.52, 1.14, 0.87, 0.69* | *3.31 or 3.55 w/ auto* | *(F) 320 (R) 320* | *3525* | *55mm flat plate restrictor required. Rear spring relocated to shock allowed. 800lbs springs (F/R) allowed. Track package allowed. Optional: 6 speed automatic transmission (with paddle shifters).* |
| *Honda Civic Si (06-11)* | *86.1 x 86.0 1998* | *2649* | *17 x 7* | *235* | *3.27, 2.13, 1.52, 1.15, 0.92, 0.66* | *4.77* | *(F) 300 Vented Disc (R) 260 Solid Disc* | *2650* | *Aftermarket cold air intake allowed. Aftermarket exhaust header allowed.* |
| Honda S2000 (all) (00-09) | 87.0 x 90.7 2157 | 2400 | 17 x 8.5 | 245 | 3.13, 2.05, 1.48, 1.16, 0.97, 0.81 or 3.13, 2.05, 1.48, 1.16, 0.94, 0.76 | 4.1 | (F) 300 Disc (R) 282 Disc | 2.0L @ 2825 2.2L @ 2925 | Factory bolt-in roll bar may be removed to facilitate the installation of the req'd roll cage. Comptech differential housing part #550-040 allowed. Springs and sway bars from 2008 S2000 CR allowed. CR front fascia, rear deck lid, and wing are permitted. Spring rate 600 lbs/in maximum allowed. Updating and backdating of flywheels between engine types is prohibited. 2.2L engine 54mm flat plate restrictor required. |
| Hyundai Genesis Coupe (2010-) | 86.0 x 86.0 1998 | 2819.4 | 19 x 8 | 245 | 4.23, 2.47, 1.67, 1.23, 1.00, 0.79 | 3.91 | 340.4 (F) 330.2 (R) | 3200 | 32mm Turbo Inlet Restrictor required; Track Pack allowed |
| *Infiniti G35 / Sport (03-08)* | *95.5 x 81.4 3498* | *2649* | *18 x 9 (F) 18 x10 (R)* | *245* | *3.79, 2.32, 1.62, 1.27, 1.00, 0.79* | *3.54* | *(F) 296/324 Vented Disc (R) 292/323 Vented Disc* | *DE Engine: 3300 HR Engine: 3300* | *Springs up to 700 lb/in allowed (F/R). HR Engine: Two 40mm flat plate restrictors required.* |
| Lotus Elise (05-10) | 82.0 x 85.0 1796 | 2301 | 16 x 8 (F) 17 x 8 (R) | 215 (F) 245 (R) | 3.12, 2.05, 1.48, 1.17, 0.96, 0.82 | 4.53 | (F) 288 Vented Disc (R) 288 Vented Disc | 2300 | The floor may be modified to facilitate the rollcage mounting points. The factory roll hoop shall be replaced with a single continuous hoop. Lotus Elise oil accumulator system part # ALS3E0022J (accusump part #24026 and electric valve part #24270) is allowed. Lotus Track use chassis brace kit #lotac05377 allowed. Sway bar #A120L0020F, spring front #A120C0019H, spring rear A120D0047H allowed. Moroso Oil Pan part # 20970 is allowed. G-PAN Baffled Oil Pan is allowed. Rear cage braces may pass through rear window. Front spring, Eibach part # 600.225.0475 and rear spring, Eibach part # 800.225.0650 allowed. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Lotus Exige (2006) | 82.0 x 85.0 1796 | | 16x6.5 (F) 17x7.5 (R) | 215 (F) 245 (R) | 3.12, 2.05, 1.48, 1.17, 0.96, 0.82 | 4.53 | (F) 288 Vented Disc (R) 288 Vented Disc | 2300 | The floor may be modified to facilitate the rollcage mounting points. The factory roll hoop shall be replaced with a single continuous hoop. Lotus Elise oil accumulator system part #ALS3E0022J (accusump part #24026 and electric valve part #24270) is allowed. Lotus Track use chassis brace kit #lotac05377 allowed. Sway bar #A120L0020F, spring front #A120C0019H, spring rear A120D0047H allowed. Moroso Oil Pan part # 20970 is allowed. G-PAN Baffled Oil Pan is allowed. Rear cage braces may pass through rear window. Front spring, Eibach part # 600.225.0475 and rear spring, Eibach part # 800.225.0650 allowed. Sector 111 Eliminator V3 permitted to replace rear panel. |
| Mazda Mazdaspeed3 (07-09) | 87.5 x 94.0 2260 | 2639 | 18 x 8 (F & R) | 245 | 3.54, 2.24, 1.54, 1.17, 1.09, 0.85 | 1-4: 3.94 5-6: 3.35 | (F) 300 Vented Disc (R) 280 Solid Disc | 3100 | 35mm Turbo Inlet restrictor required. Rear sway bar max 42 mm (body and suspension mounting same as OEM . Any spring up to a maximum spring rate of 800 pounds may be used |
| Mazda Mazdaspeed3 (10-13) | 87.5 x 94.0 2260 | 2309 | 18 x 8 (F & R) | 245 | 3.21, 1.91, 1.37, 1.03, 0.95, 0.79 | 1-4: 4.19 5-6: 3.53 | (F) 320 Vented Disc (R) 300 Solid Disc | 3100 | 35mm Turbo Inlet restrictor required. Rear sway bar max 42 mm (body and suspension mounting same as OEM) . Any spring up to a maximum spring rate of 800 pounds may be used. |
| Mazda MazdaSpeed Miata (04-05) | 83.0 x 85.0 1839 | 2266 | 18 x 8 (F) 18 x 8 (R) | 245 | 3.76, 2.27, 1.65, 1.26, 1.00, 0.84 | 4.10 | (F) 269 Vented Disc (R) 277 Solid Disc | 2600 | Mazdaspeed radiator part # 0000-01-5503 and suspension kit #K-SPEC-M5-SUS9 allowed. Canton Accusump #24-026, Flex-a-lite install sandwich #3965, and related hoses, valve, and bracket allowed. Bell Engineering (BEGi) intercooler kit permitted #67022. Complete kit includes throttle inlet tube, cool air box and Forge Motorsports diverter valve. Kit must be used as a whole, including all hardware. |
| Mazda MX-5 Cup | 87.4 x 83.1 2000 | 2330 | 17 x 7 | 225 | 3.82, 2.26, 1.64, 1.18, 1.00, 0.83 or 3.82, 2.26, 1.64, 1.18, 1.00, 0.79 | 4.10 | (F) 290 (R) 280 | 2600 | Must comply with 2014 SCCA Pro Racing MX-5 Cup Regulations. Competitor must have the rules in their possession and present them upon request. *Any OEM or aftermarket hardtop permitted that retains the OEM roof silhouette , including part #0000-07-5901, the discontinued DG Motorsports top (if a hardtop is used, latches shall be replaced with positive fasteners)* |
| Mazda MX-5 Global Cup Miata (2016) | 2000 | 2309 | 17 x 7.5 | 225 | 5.09, 2.99, 2.04, 1.59, 1.29, 1.00 | 2.87 | (F) 280 Vented (R) 280 Solid | 2370 | Shoulder harness installation must conform to FIA mounting specifications that are approved for this vehicle per section 6.2 FIA article 253, safety equipment. Must meet all MX-5 Global Cup rules in Appendix. Tires must conform to the Touring rules. *Mazda hardtop, part #0000-07-5902-ND permitted. If a hardtop is used, latches shall be replaced with positive fasteners. OBD2 requirement does not apply.* |
| Mazda MX-5 Miata (2016-) | 2000 | 2309 | 17 x 7 | 245 | 5.09, 2.99, 2.04, 1.59, 1.29, 1.00 | 2.87 | (F) 280 Vented (R) 280 Solid | 2520 | Factory bolt-in roll bar/ cross member may be removed to facilitate roll cage installation. Header permitted. Cold air intake permitted. Front strut brace permitted. Front and rear sway bars permitted up to 35mm, Springs 800 front and 800 Rear max permitted. *Any OEM or aftermarket hardtop permitted that retains the OEM roof silhouette (if a hardtop is used, latches shall be replaced with positive fasteners). Retractable hardtop option permitted but must be disabled from moving action and positively fastened.* |
| *THIS CLASSIFICATION NOT EFFECTIVE UNTIL 11/1/17*<br><br>*Mazda MX-5 NC (06-15)* | *87.4 x 83.1 2000* | *2330* | *17 x 7* | *245* | *3.82, 2.26, 1.64, 1.18, 1.00, 0.83 or 3.82, 2.26, 1.64, 1.18, 1.00, 0.79* | *4.10* | *(F) 290 (R) 280* | *2400* | *Any OEM or aftermarket hardtop permitted that retains the OEM roof silhouette (if a hardtop is used, latches shall be replaced with positive fasteners). Max spring rate: 700lbs. Max sway bar diameter 35mm. Cold air intake permitted.* |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda RX-8 Base/R3 (04-12) | 2600 | 2703 | *18 x 9* | 255 | 3.76, 2.27, 1.65, 1.19, 1.0, .084 or 3.82, 2.26, 1.54, 1.18, 1.00, 0.79 | 4.44 Alt: 4.78 | (F) 323 Vented Disc (R) 303 Vented Disc | *2800* | Use of 2009 R3 transmission is permitted with alternate gear ratios as listed. R3 transmission must be paired with the listed alternate final drive. Front sway bar permitted 32mm MAX rear sway bar 19 MAX, Front springs max 750, 500 rear. Cold air intake permitted. Header permitted. *Aftermarket flywheel and single disc clutch permitted with no weight penalty.* |
| Mazda Spec MX-5 | | | | | | | | | Car must comply with the SCCA Mazda Spec MX-5 rules found in GCR section 9.1.11 |
| *Mini Cooper S (2016-)* | *82.0 x 94.6 1998* | *2429* | *17 x 8* | *225* | *3.92, 2.14, 1.39, 1.09, 0.89, 0.76* | *3.59* | *(F) 316 x 22 (R) 280 x 10* | *2900* | *32mm TIR required.* |
| Nissan 350Z Track/ Touring/ Standard/ Nismo (03-08) | 95.5 x 81.4 3498 | 2649 | 18 x 9 (F) 18 x 10 (R) | 245 | 3.79, 2.32, 1.62, 1.27, 1.00, 0.79 | 3.54 | (F) 296/324 Vented Disc (R) 292/323 Vented Disc | DE Motor: *3350* HR Motor: *3350* | The following are allowed: Track option Aero package, Rear diff cover Nismo part #99996-35TDK *or, alternatively parts #383510C021, OEM Breather 38356-EV00A, OEM Stud 38354-0C00A*, Nissan Mtspts. Nissan heavy duty spring kit part #99996-65Z30US, Nismo sway bar kit #99996-RSZ30US. SPC Control Arms 72125 allowed. Springs up to 700 lbs./in. allowed front and rear. HR Engine: Two 40mm flat plate restrictors required. |
| Nissan 350Z Track/ Touring/ Standard/ Nismo (03-08) Spec Z | 95.5 x 81.4 3498 | 2649 | 18 x 9 (F) 18 x 10 (R) | 245 | 3.79, 2.32, 1.62, 1.27, 1.00, 0.79 | 3.54 | (F) 296/324 Vented Disc (R) 292/323 Vented Disc | DE Motor: *3400* HR Motor: *3400* | Nissan Motorsports: Shock Front left P/N E6110-SZ350 & Front right E6111-SZ350 & rear E6210-SZ350, Springs front P/N 54010-SZ350 & rear 55020-SZ350, F&R 5600S-SZ350, Front roll bar #54611-SZ350, Rear roll bar #562300-SZ350, Bushings P/N (54541, 54560, 55045, 55148, 55149, 55152, 55153, 55158, 56218) - RRZ30 allowed. Nismo flywheel permitted. SPC Control Arms 72125 allowed. HR Engine: Two 40mm flat plate restrictors required. |
| Nissan 370Z (09-*16*) / 370Z NISMO Edition (09-*13*) | 95.5 x 86.0 3696 | 2550 | 19 x 9 (F) 19 x 10 (R) | 245 | 3.79, 2.32, 1.62, 1.27, 1.00, .79 | 3.69 | (F)320 x 28 Vented (R)320 x 16 Vented | *3350* | 5300S-SS370 T-2 spring kit allowed; 54600-SS370 T-2 front and rear sway bar kit allowed. Sports Package is allowed. 2 - 40mm flat plate restrictors required. SPC Control Arms 72125 allowed. *Max spring rate of 700 lbs/in front and rear.* |
| Pontiac Solstice GXP Coupe / Convertible (07-09) | 85.3 x 86.1 1998 | 2415 | 18 x 8 | 245 | 3.75, 2.26, 1.51, 1.00, .73 | 3.73 | (F) 296 Vented (R) 278 Solid | 3250 | Detachable hardtop GM part #PCS-0664 may be installed (if a hardtop is used, latches shall be replaced with positive fasteners and convertible top shall be removed). Suspension option ZOK and Rear Spoiler (D52) allowed. Brake calipers and rotors from Chevrolet Cobalt SS (08-09) permitted. Any aftermarket top allowed, if material, size, shape and weight are the same as the factory top. 32mm TIR required. |
| Porsche *Boxster/* Boxster S (00-04) | 92.9 x 77.9 3179 *85.8 x 78 2687* | 2415 | 18 X 8 (F) 18 x 8 (R) | 245 | 3.82, 2.20, 1.52, 1.22, 1.02, .84 | 3.44 | (F) 318 x 28 Vented (R) 299 x 24 Vented | *3.2L:* 3250 *2.7l: 3000* | Alternate exhaust manifold permitted, 966-111-102-05 (left) and 996-111-101-05 (right). |
| *Porsche* Spec Boxster | 85.5 x 72.0 2480 | 2418 | 17 x 8.5 | See Notes | See Rules | 3.56 or 3.89 | 298 (F) 292 (R) | 2650 | Must conform to all SPB rules in the PCA rulebook. Each competitor shall have available definitive current documentation of the PCA rules. Tires must meet 2016 SPB rules or any 225 DOT tire permitted. *Effective 1/1/18:* Tires must meet 2016 SPB rules or any *255* DOT tire permitted. |
| Saturn Ion Redline (04-07) | 86.0 x 86.1 1998 | 2629 | 18 x 8 | 245 | 3.38, 1.76, 1.18, 0.89, 0.71 | 4.05 | (F) 296 Vented Disc (R) 270 Solid Disc | 3050 | The following GM parts are allowed: front springs part # CCS635, rear springs # CCS639, front control arms # CCS636 and CCS637, shrouding kit # CCS644. Griffin radiator # 9D-18194-01 allowed. Stage Three Supercharger kit, part #88958719 permitted. Optional rear sway bar max 42 mm (body and suspension mounting same as OEM). AEM cold-air intake (part# 21-532C) is permitted. Any spring up to a maximum spring rate of 800 pounds may be used Brake calipers and rotors from Chevrolet Cobalt SS (08-10) permitted. |

| T3 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Max Wheel Size (inch) | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Saturn Sky / Convertible (07-09) | 85.3 x 86.1 1998 | 2415 | 18 x 8 | 245 | 3.75, 2.26, 1.51, 1.00, .73 | 3.73 | (F) 296 Vented (R) 278 Solid | 3250 | Detachable hardtop GM part #PCS-0664 may be installed (if a hardtop is used, latches shall be replaced with positive fasteners and convertible top shall be removed). Suspension option ZOK and Rear Spoiler (D52) allowed. Brake calipers and rotors from Chevrolet Cobalt SS (08-09) permitted. Any aftermarket top allowed, if material, size, shape and weight are the same as the factory top. 32mm TIR required. |
| Subaru WRX TR (06-07) | 99.5 x 79.0 2457 | 2525 | 17 x 8 | 245 | 3.17 1.88 1.30 0.97 0.74 | 4.11 | (F) 292 vented disc (R) 287 vented disc | 3360 | 35mm Turbo Inlet Restrictor is required. Any spring up to 800 lbs may be used. Nukabe non-adjustable swaybars (F) 667311a22 and (R) 666311bj22 allowed. |
| Subaru WRX (11-14) | 99.5 x 79.0 2457 | 2624 | 17x8 | 245 | 3.17 1.88 1.30 0.97 0.74 | 3.90 | (F) 326 (R) 316 | 3250 | Whiteline 24mm front and 22mm rear sway bars allowed. STI Brembo brake package allowed. Max F/R spring rate 500 lb/in. 35mm Turbo inlet restrictor required. |
| Subaru WRX STI (03-07) | 99.5 x 79.0 2457 | 2540 | 18 X 9 | 275 | 3.64 2.38 1.76 1.35 0.97 0.76 | 3.90 | (F) 323 vented disc (R) 313 vented disc | 3400 | The following parts are allowed: Phoenix Performance brake duct kit # IPBK01. Front Sway bar Whiteline PN #BSF36XXZ and Rear Sway bar Whiteline PN #BSF37XZ allowed. Racecomp Brake duct kit part #RCE-CFKBK is allowed. Max spring rate (F) 800 lbs/in, (R) 900 lbs/in. Aftermarket Intercooler allowed. 35mm TIR required. 18x10 wheels allowed +100 lbs. |
| Toyota Camry (11-15) | 3.70" x 3.27" 211.0 | 109.3" | 18 x 9 | 275 | 3.30, 1.90, 1.42, 1.00, 0.71, 0.61 | 3.46 | (F) 11.65 vented (R) 11.0 solid | 3350 | |
| Volkswagen Golf R (15-16) | 82.5 x 92.8 1984 | 2630 | 18 x 8 | 245 | 3.36, 2.09, 1.48, 1.09, 1.10, 0.91 | 4.24 (1-4) 3.27 (5-6) | (F) 340 x 30.5 (R) 310 x 29 | 3150 | Max spring rate 800 F&R, Max swaybar 38mm F, 42mm R. 35mm TIR required. |
| Volkswagen GTI, Jetta GLI (06-10) | 82.5 x 92.8 1984 | 2578 | 18 x 8 | 245 | DSG: 3.46, 2.15, 1.46, 1.08, 1.10, 0.92 STD: 3.36, 2.09, 1.47, 1.10, 1.11, 0.93 | DSG: 4.10 / 3.14 STD: 4.00, 3.09 | (F) 312 Vented Disc (R) 286 Solid Disc | DSG @ 3130 STD @ 3100 | Rear sway bar max 42 mm (body and suspension mounting same as OEM), Any spring up to a maximum spring rate of 800 pounds may be used. Turbo Inlet Restrictor 35 mm. R32 model brake package allowed. |
| Volkswagen GTI (2013) | 82.5 x 92.8 1984 | | 18 x 8.5 | 245 | DSG: 3.46, 2.15, 1.46, 1.08, 1.10, 0.92 STD: 3.36, 2.09, 1.47, 1.10, 1.11, 0.93 | DSG: 4.10 / 3.14 STD: 4.00, 3.09 | (F) 312 Vented Disc (R) 288 Solid Disc | DSG @ 3130 STD @ 3100 | Rear sway bar max 42 mm (body and suspension mounting same as OEM), Any spring up to a maximum spring rate of 800 pounds may be used. Turbo Inlet Restrictor 35 mm. R32 model brake package allowed. |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Acura Integra GS-R VTEC (3 or 4 door) (94-01) | 81.0 x 87.2 1797 | 2571 | 15 x 7 | 235 | 3.23, 1.90, 1.36, 1.03, 0.79 | 4.4 | (F) 262 x 21 Vented disc (R) 239 x 10 Solid Disc | 2525 | Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Acura RSX/ RSX Type-S (02-06) | 86.0 x 86.0 1998 | 2570 | 17 x 7 | 235 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.74 | 4.4 4.765 | (F) 300 Vented Disc (R) 260 Solid Disc | 2750 Type-S: 3000 | The following items must remain stock: original wheels. Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used. Header allowed,. Front strut tower brace allowed. Alternate 27mm (max) front sway bar allowed, 32mm OEM style and configuration rear sway bar allowed. OBD2 requirement for ECU does not apply. 55mm flat plate restrictor required. |
| Audi A3 (2015) | 82.5 x 92.8 1984 | 2637 | 17 x 7.5 | 245 | 3.46, 2.05, 1.30, .90, .91, .76 | 3.99 | (F) 313mm (F) 272mm | 3100 | 30mm TIR required. Aftermarket wheels at a min. weight of 15 lbs. each. Sway bars up to 30mm.H&R 28860-4. |
| Audi A4 V-6 (96-01) / Volkswagen Passat 2.8 V6 (96-05) | 82.5 x 86.4 2771 | 2606 | 16 x 7 Alum | 225 | 3.67, 1.99, 1.41, 1.00, 0.74 | 3.2 | (F) 277 x 25 Vented Disc (R) 244 x 15 Solid Disc | 3055 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. |
| BMW Z4 2.5L (03-05) | 84.0 x 75.0 2494 | 2495 | 17 x 8 Alum | 245 | 4.23, 2.52, 1.66, 1.22, 1.00 | 3.46 | (F) 286 Vented Disc (R) 280 Solid Disc | 3145 | The following items must remain stock: shock/struts (including mounts)- unless specified below. Alternate wheel BMW #36-11-1-095-058 16 x 7 is permitted. 50mm flat plate restrictor required. |
| BMW 320i (14-15) | 83.8 x 88.9 1997 | 2819 | 18 x 8 | (F) 245 (R) 275 | 3.50, 2.01, 1.31, 1.00, 0.81, 0.70 | 3.08 | (F) 313 (R) 300 | 3150 | 30mm TIR required. H&R 28878-2, or Eibach 20121.140. Sway bars up to 32mm. Sport Package (except wheels) allowed. |
| Chevrolet Camaro V-6 (96-02) | 96.5 x 86.36 3790 | 2568 | 16 x 8 | 275 | 3.75, 2.19, 1.41, 1.00, 0.72 | 3.42 Effective 1/1/16: 3.23 | (F) 302 x 32 Disc (R) 305 x 25 Disc | 3250 | The following items must remain stock: shock/struts (including mounts), and transmission differential - unless specified below. Performance option permitted, consisting of limited slip differential, up level steering rack, dual exhaust. GM PS cooler #10417037 allowed. Z-28 front sway bar (30mm) and rear sway bar (19mm) allowed. GM 1LE front (#26032907 32mm) and rear (#10021221 21 mm) sway bar allowed. Front spring rate shall be 280-320 lbs. per inch and the minimum free length is 13 ¾ inches. Koni Shocks, 8241-1139 (F) and 8241-1140 (R) permitted. SP-141 front and rear springs permitted; SP-8316 front sway bar and SP- 8327 rear sway bar permitted; BMR suspension strut tower brace # STB-002 is permitted. K&N Cold Air Intake Kit FIPK (57-3041) allowed. |
| Chevrolet Cobalt SS, Sport Coupe (06-10) | 88.0 x 98.0 2384 | 2628 | 17 x 7 Alum | 235 | 3.58, 2.02, 1.35, 0.98, 0.69 | 3.94 | (F) 296 Vented Disc (R) 270 Solid Disc | 2725 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Chrysler/Dodge Neon ACR SOHC (4 door) (01-02) | 87.5 x 83.0 1995 | 2667 | 15 x 7 Alum | 235 | 3.50, 1.96, 1.36, 0.97, 0.81 | 3.94 | (F) 257 x 22 Vented Disc (R) 270 x 9 Solid Disc | 2400 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used - Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Dodge Dart (14-15) | 88.0 x 97.0 2360 | 2692 | 17 x 7.5 18 x 7.5 | 245 | 3.90, 2.11, 1.36, 0.97, 0.75, 0.62 | 4.12 | TBD | 3000 | The following parts are allowed: Cold Air Intake. Eibach 28113.880 suspension. Eibach camber kit, part #226302. Mopar rear diffuser, part # 226709. Mopar front chin spoiler. Mopar rear decklid spoiler. Front strut bar. Spectrum plug and play tuner. |
| Dodge/Plymouth Neon ACR SOHC/DOHC (2/4 door) (95-99) | 87.5 x 83.0 1995 | 2667 | 16 x 7 Alum | 235 | 3.50, 1.96, 1.36, 0.97, 0.81 | 3.94 | (F) 257 x 22 Vented Disc (R) 270 x 9 Solid Disc | SOHC: 2350 DOHC: 2400 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used - Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. Front and rear springs up to 800 lbs./inch are permitted. |
| *Fiat 124* | *72.13 x 84.1 1368* | *2309* | *17 x 7* | *225* | *4.30, 2.30, 1.60, 1.20, 1.00, .84* | *3.45* | *280 (F) 280 (R)* | *2650* | *The following items must remain stock: shock/ struts (including mounts), original wheels, and transmission differential - unless specified below. Factory bolt-in roll bar/ cross member may be removed to facilitate roll cage installation. 29mm flat plate restrictor required.* |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Fiat 500 Abarth (12-14) | 72.0 x84.0 1368 | 2300 | 17 x 7 | 225 | 3.91, 2.24, 1.52, 1.16, .87 | 3.35 | 282 F 240 R | 2450 | 27mm Turbo Inlet Restrictor required. Front sway bar up to 25mm allowed. |
| Ford Fiesta ST (12-15) | 1596 | 2490 | 17 x 7.5 | 225 | 3.72, 2.05 1.36, 1.03, 0.82, 0.69 | 3.82 | (F) 280 (R) 254 | 2800 | 28mm TIR required. Eibach 35143.880, or Ford racing suspension kit (part # TBA). Spool tuning part #FFISTWBM or Cobb Tuning rear motor mount part # 892001.Whiteline # KCA412. Front strut brace. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. |
| Ford Focus SVT (02.5-04) | 84.0 x 88.0 2000 | 2616 | 17 x 7 Alum | 235 | (overall) 12.7, 7.7, 5.7, 4.6, 3.8, 3.1 | 2.88 & 4.25 | (F) 300 Vented Disc (R) 280 Solid Disc | 2630 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Ford Focus ZX4 ST (05-06) | 87.38 X 93.98 2300 | 2614 | 16 x 7 | 235 | 3.42, 2.14, 1.45, 1.03, 0.77 | 3.82 | (F) 278 Vented Disc (R) 251 Solid Disc | 2450 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Ford Focus (08-11) | 85 x 88 1997 | 2614 | 16 x 7 | 235 | 3.67, 2.14, 1.45, 1.03, 0.77 | 3.56 | (F) 274 Vented Disc (R) 272 Solid Disc | 2550 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used - Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Ford Mustang V6 (05-10) | 100.4 x 84.4 4000 | 2724 | F: 16 x 7 R: 17 x 8 | 245 | 3.75, 2.19, 1.41, 1.00, 0.72 | 3.31 | (F) 292.1 Vented Disc (R) 299.8 Vented Disc | 3375 | The following items must remain stock: shock/struts (including mounts), and transmission differential - unless specified below. ABS (option code 552) allowed. FR3 Handling Pack # M-2007-FR3V6 allowed. The kit includes: Dampers M-18000-A, Lowering Springs M-5300-N, Sway Bars M-5490-C, Strut Tower Brace M-20201-F. Ford Positraction LSD part #M-4204-C75 is allowed. Panhard bar, part # BAR-M-4264-A permitted; must be set at same length as a stock bar, center mounting hole to center mounting hole +/- 0.25 inch. An alternative steel drive shaft is permitted; this drive shaft is otherwise unrestricted, but no modifications to other components are permitted to facilitate its installation. An Aluminum driveshaft is allowed. Auburn 542023 or Detroit 912A316 limited slip allowed. 50mm flat plate restrictor required. Aftermarket wheels permitted at 25 pounds. |
| Ford Mustang V-6 (01-04) | 96.8 x 86.0 3797 | 2573 | 16 x 7.5 Alum | 245 | 3.37, 1.99, 1.33, 1.00, 0.67 | 3.27 | | 3290 | Ford Positrac LSD, part # M-4204-C75, premium trim package 012A allowed (ABS, traction control, 16 x 7.5 forged or cast aluminum wheels). |
| Honda Accord LX & EX (03-07) | 87.0 x 99.0 2354 | 2670 | 16 x 6.5 | 235 | 3.27, 1.77, 1.15, 0.87, 0.66 | 4.39 | (F)282 Vented Disc (R)259 Solid Disc | 2700 | Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Honda Accord LX-S/EX/EX-L (08-*12*) | 87.0 x 99.0 2354 | 2741 | 17 x 7.5 | 235 | 3.27, 1.78, 1.15, 0.87, 0.65 | 4.39 | (F) 282 Vented Disc (R) 282 Solid Disc | 3000 | Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Honda Civic Coupe Si (99-00) | 81 x 77.4 1595 | 2621 | 15 x 7 | 235 | 3.23, 2.11, 1.46, 1.11, 0.85 | 4.4 | (F) 262 x 20 Disc (R) 239 x 8 Disc | 2430 | Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| *THIS CLASSIFICATION NOT EFFECTIVE UNTIL 11/1/17*<br><br>*Honda Civic EX-T (16-17)* | *1496* | *2700* | *17 x 7* | *235* | *3.64, 2.08, 1.36, 1.02, 0.83, 0.69* | *4.11* | *(F) 280mm (R) 260mm* | *3050* | *HPD differential assembly, part # 41100-F23S-A610-M1, HPD Damper collar, part # 51602-F23S-A610-M1, HPD SPRING, FR 2.5" 550LB part # 51401-FC4Y-A610-M1, HPD ASSY, FR CAMBER ADJ part # 51920-F23S-A610, HPD OE DAMPER ADAPTER KIT part #51980-F23S-A600, HPD ASSY, SPRING ADJ RR part #52691-F23S-A610, 28MM TIR required.* |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Honda Civic SI (02-03) | 86.0 x 86.0 1998 | 2570 | 15 x 7 Alum | 235 | 3.06, 1.77, 1.21, 0.92, 0.74 | 4.50 | (F) 262 (R) 260 | 2400 | Any spring up to a maximum spring rate of 800 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Honda Civic Si (06-11) | 86.1 x 86.0 1998 | 2649 | 17 x 7 Alum | 235 | 3.27, 2.13, 1.52, 1.15, 0.92, 0.66 | 4.77 | (F) 300 Vented Disc (R) 260 Solid Disc | 3000 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Honda Factory Performance Suspension Kit #08W60-SVB-100 allowed. 55mm flat plate restrictor required. *Tokico HP shocks allowed (P/N- HE2986, HB2252, HB2251). Eibach springs allowed (P/N 4031.140).* |
| Honda Civic Si (12-13) | 87.0 x 99.0 2354 | 2620 (2 dr) / 2670 (4 dr) | 17 x 7 Alloy | 235 | 3.27, 2.04, 1.43, 1.07, 0.83, 0.65 | 4.76 | (F)300 x 25 Vented (R) 260 x 9 Solid | 3025 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Honda Sport Suspension Kit, part number 08W60-TS9-100 permitted. H&R Sport Springs P/N 51891 and HPD part number (P/N 51410F23SA00) allowed. 47mm flat plate restrictor required. |
| Honda Civic Si (14-15) | 87.0 x 99.0 2354 | 2 door: 2620<br>4 door: 2670 | 18 x 7.5 | 235 | 3.27,2.04, 1.43, 1.07, .83, .65 | 4.75 | (F) 300 x 25 Vented<br>(R) 260 x 9 Vented | 3025 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Honda Sport Suspension Kit, part number 08W60-TS9-100 permitted. H&R Sport Springs P/N 51891 and HPD part number (P/N51410F23SA00) allowed. 47mm flat plate restrictor required. |
| Hyundai Elantra GLS (11-12) | 81.0 x 87.2 1797 | 2649 | 15 x 7 | 235 | 3.62, 1.96, 1.29, 1.02, 0.87, 0.76 | 4.33 | (F) 280x23 Vented (R) 262x10 Solid | 2300 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Hyundai Tiburon V-6 (03-08) | 86.7 x 75.0 2657 | 2530 | 17 x 7 Alum | 235 | 3.15, 1.94, 1.33, 1.06, 0.86, 0.70 | 4.43 | (F) 280 x26.2 Vented Disc (R) 257x10.0 Solid | 3150 | Accusump permitted. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. |
| Hyundai Veloster Turbo/ R-Spec (14-15) | 77.0 x 85.4 1591 | 2650 | 18 x 7.5 | 235 | 3.31, 1.96, 1.29, 0.98, 0.78, 0.63 | 4.47 | (F) 300 (R) 262 | 2800 | 28mm TIR required. Eibach 4247.140, or H&R 28902-2. Sway bars up to 32mm. Front strut brace. Karbonkoncepts Veloster standard Carbon fiber front splitter (2x2") Front camber bolts. Pierce motorsport pmut-rcamkit. |
| Kia Forte Koup and Sedan LX/ EX (2010-) | 86.0 x 86.0 1998 | 2649 | 17 x 6 Alloy | 235 | 3.31, 1.97, 1.19, 0.90, 0.70 | 4.19 | (F) 280 Vented (R) 262 Solid | 2490 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Kia Forte Koup and Sedan SX (2010-) | 88.0 x 97.0 2359 | 2649 | 17 x 7 Alloy | 235 | 3.27,1.93, 1.64, 1.22, 1.03, 0.83 | 4.06 (1, 2) 2.96 (3, 4, 5, 6) | (F) 300 Vented (R) 262 Solid | 2870 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Kia Forte Koup (14-15) | 85.4 x 77.0 1591 | 2693 | 18 x 7.5 | 245 | 3.31, 1.96, 1.26, .98, .78, .63 | 4.47 | (F) 300mm (R) 262mm | 2850 | 29mm TIR required. Eibach 4617.140. Front strut tower brace. Sway bars up to 30mm. |
| Mazda MX-5 / Miata Sport (99-00) | 83.0 x 85.0 1839 | 2266 | 15 X 7 | 225 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3 | (F) 255 Vented Disc (R) 252 Solid Disc | 2450 | The following items must remain stock unless permitted below: shock/struts (including mounts), original wheels, and transmission differential. Rear interior brace may be removed for cage installation. As delivered w/ no performance kits or parts deletions. Spec Miata front and rear sway bar permitted. Allow Spec Miata suspension kit. Cold Air Intake allowed. 32mm OEM style and configuration rear sway bar allowed. De-powered steering rack permitted. Wheels meeting the Spec Miata requirements are allowed. |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda MX-5 / Miata (01-05) | 83.0 x 85.0 1839 | 2266 | 16 x 7 Alum 15 x 7 | 15": 215 16": 225 | 3.14, 1.89, 1.33, 1.00, 0.81 | 4.3 | (F) 254 Vented Disc (R) 252 Solid Disc Suspension Package: (F) 269.5 Vented Disc (R) 267.9 Solid Disc | 2450 | The following items must remain stock unless permitted below: shock/struts (including mounts), original wheels, and transmission differential. Factory "Sports" pkg. allowed. Optional Torsen limited slip differential allowed. Power steering delete option allowed. Spec Miata front and rear sway bar permitted. Allow Spec Miata suspension kit. Cold Air Intake allowed. 32mm OEM style and configuration rear sway bar allowed. De-powered steering rack permitted. Wheels meeting the Spec Miata requirements are allowed. |
| Mazda MX-5 / Club Model (06-*15*) | 87.4 x 83.1 2000 | 2330 | 17x7 Alum | 225 | 3.82, 2.26, 1.64, 1.18, 1.00, 0.83/0.79 or 3.14, 1.89, 1.33, 1.00, 0.81 (5 spd) | 4.10 | (F)290 Vented Disc (R)280 Solid Disc | 2650 | The following items must remain stock OEM unmodified, unless alternate part numbers are permitted below: original wheels (06-14 factory wheels are allowed), and transmission, differential, and LSD. Factory bolt-in roll bar/cross member may be removed to facilitate roll cage installation. MSR option permitted. Suspension package permitted with a 100 lbs. weight increase that includes the following parts: front springs #0000-04-9700-08, rear springs #0000-04-9400-07, helper springs #0000-04-HLPR-EB, F/R sway bar kit #GRM5-8MD16, front end links #0000-04-5499, rear end links #0000-04-5498. Mazda Motorsports Cold Air intake Part #0000-06-5150-KT allowed 2009-2012 Mazda RX8 front hubs allowed. Mazdaspeed MX-5 Roof permitted *#0000-07-5901-CC or* #0000-07-5901 *(discontinued DG Motorsports)* with +20lb increase to base weight. Effective 01/01/2017: The SM5 suspension (only) is allowed with a 100 lbs. weight increase. Non-OEM limited slip differential allowed with +50 lbs. weight penalty. |
| Mazda MX-5 Miata/Club (2016-) | 2000 | 2309 | 17 x 7 | 225 | 5.09, 2.99, 2.04, 1.59, 1.29, 1.00 | 2.87 | 280mm | 2650 | Factory bolt-in roll bar/ cross member may be removed to facilitate roll cage installation. The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. *Mazdaspeed MX-5 Roof permitted #0000-07-5901-CC or #0000-07-5901 (discontinued DG Motorsports) with +20lb increase to base weight. Retractable hardtop option permitted but must be disabled from moving action and positively fastened.* |
| Mazda Protégé ES (2000) | 83.0 x 85.0 / 1839 | 2611 | 15 x 7 Alum | 235 | 3.42, 1.84, 1.29, 1.03, 0.78 | 4.11 | (F) 2690 Vented Disc (R) 201 Drum | 2430 | May update to MP3 specs. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used cold air intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed, Front strut tower brace allowed, OBD2 requirement for ECU does not apply. |
| Mazda Protégé LX, ES (01-03) | 83.0 x 92.0 1991 | 2610 | 15 x 7 Alum | 225 | 3.31, 1.84, 1.31, 0.97, 0.76 | 4.11 | (F) 259 x 23 Vented Disc (R) 201 x 36 Drum | 2430 | May update to MP3 specs. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Mazda Protégé 5 (02-03) | 83.0 x 92.0 1991 | 2610 | 16 x 7 Alum | 235 | 3.31, 1.84, 1.31, 0.97, 0.76 | 4.11 | (F) 10.2 x .9 Vented Disc (R) 10.3 x .4 Solid Disc | 2445 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Mazda RX-8 Base/R3 (04-12) | 2600 | 2703 | 18 X 8 | 225 | 3.76, 2.27, 1.65, 1.19, 1.0, 0.84 Alt: 3.82, 2.26, 1.54, 1.18, 1.00, 0.79 | 4.44 Alt: 4.78 | (F) 323 Vented Disc (R) 303 Vented Disc | *3175* | Mazdaspeed radiator #0000-01-8501 allowed. Use of 2009 R3 transmission is permitted with alternate gear ratios as listed. R3 transmission must be paired with the listed alternate final drive. Only Mazdaspeed front sway bar kit #0000-04-8302-AD and Mazdaspeed coil spring kit #QSEA-34-01Z allowed. 60mm flat plate restrictor required. Alternate sway bar permitted, Progressive Technologies Part Number: 61-0543. |
| Mazda3 s (04-09) | 87.5 x 94.0 2260 | 2639 | 16 x 7 or 17 x 7 | 235 | 3.31, 1.84, 1.31, 0.97, 0.76 | 4.1 | (F) 300 Vented DIsc (R) 280 Solid Disc | 2550 | ABS option allowed. Miata speedometer gear #M527-17-400A permitted. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Mazda3 s (10-13) | 89.0 x 100.0 2489 | 2640 | 17 x 7 | 235 | 3.45, 2.06, 1.39, 1.03, 0.84, 0.72 | 4.11 | (F)300 Vented Disc (R)280 Solid Disc | 2815 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Mazda3 (14-16) | 89.0 x 100.0 2488 | 2700 | 18 x 7 | 235 | 3.36, 1.95, 1.30, 1.03, 0.84, 0.68 | 3.85 | (F) 296mm (R) 265mm | 2800 | Any spring up to 500lb front and 800lb rear springs may be used. Aftermarket wheels at a min. weight of 15 lbs. each. Cold air intake. Front camber plates. 25mm max rear swaybar allowed. Any year OEM Mazda 3 mirrors allowed. |
| Mazda6 s (03-07) | 89.0 x 79.5 2967 | 2675 | 16 x 7 17 x 7 18 x 7 | 235 | 3.80, 2.13, 1.36, 0.94, 0.69 | 3.71 | (F) 282 Vented Disc (R) 280 Solid Disc | 3200 | The following items must remain stock: original wheels, and transmission differential - unless specified below. Rear sway bar: Mazdaspeed #GRMS-8M-L06-R and front sway bar #GRMS-8M-L06-F permitted. 500lb max front spring rate, 800 lb max rear spring rate. Any non-adjustable shock allowed. |
| Mini Cooper S (02-04) | 77.0 x 85.8 1598 | 2467 | 16 x 7 | 225 | 4.17, 2.62, 1.97, 1.61, 1.33, 1.09 | 2.74 | (F) 277 Vented DIsc (R) 259 Solid Disc | 2750 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. JCW struts (F)31 31 6 768 410 (R)33 52 6 768 412, springs (F)31 33 6 768 415 (R)33 53 6 768 418, and Mini Mania strut tower plate NMS7300 permitted. Factory limited slip from 05-06 Cooper S permitted. May de-camber wheels by the use of slotted adjusters at the top of the strut mounting plates. They shall be located on the existing chassis structure, utilizing the manufacturers original bolt holes and may not serve as reinforcement for that structure. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used |
| Mini Cooper S (05-06) | 77.0 x 85.8 1598 | 2467 | 16 x 7. | 225 | overall: 12.79, 7.79, 5.65, 4.62, 3.83, 3.13 | N/A | (F) 277 Vented DIsc (R) 259 Solid Disc | 2750 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Convertible model not allowed. Factory optional limited slip differential allowed. JCW struts (F)31 31 6 768 410 (R)33 52 6 768 412, springs (F)31 33 6 768 415 (R)33 53 6 768 418 . May de-camber wheels by the use of slotted adjusters at the top of the strut mounting plates. They shall be located on the existing chassis structure, utilizing the manufacturers original bolt holes and may not serve as reinforcement for that structure. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used |
| Mini Cooper S (07-09) | 77.0 x 85.8 1598 | 2467 | 17 x 7 | 225 | overall: 12.79, 7.79, 5.65, 4.62, 3.83, 3.13 | N/A | (F) 277 Vented Disc (R) 259 Solid Disc | 2750 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Convertible model not allowed. Factory optional limited slip differential allowed. JCW struts (F) 31 31 6 768 410 (R)33 52 6 768 412, springs (F)31 33 6 768 415 (R)33 53 6 768 418. May de-camber wheels by the use of slotted adjusters at the top of the strut mounting plates. They shall be located on the existing chassis structure, utilizing the manufacturers original bolt holes and may not serve as reinforcement for that structure. Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. 28mm TIR required. |
| *Mini Cooper S (2016-)* | *82.0 x 94.6 1998* | *2429* | *17 X 8* | *225* | *3.92, 2.14, 1.39, 1.09, 0.89, 0.76* | *3.59* | *(F) 316 x 22 (R) 280 x 10* | *2900* | *28mm TIR required.* |
| Mitsubishi Eclipse GT (00-05) | 91.2 x 75.9 2972 | 2561 | 17 x 6.5 | 235 | 3.33, 2.10, 1.41, 1.03, 0.76 | 3.74 | (F) 277 x 23 Vented Disc (R) 262 x 11 Solid Disc | 3100 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. |
| Nissan Sentra SER (02-03) | 89.0 x 100.0 2488 | 2535 | 16 x 7 | 235 | 3.15, 1.84, 1.26, 0.95, 0.77 | 4.133 | (F) 280 x 22 Vented Disc (R) 258 x 9 Solid Disc | 2725 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. |
| Nissan Sentra SER Spec-V (02-06) | 89.0 x 100.0 2488 | 2535 | 17 x 7 Alum | 235 | 3.15, 1.94, 1.39, 1.06, 0.81, 0.63 | 4.13 | (F) 280 x 22 Vented Disc (R) 232 x 7 Solid Disc | 2750 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Nissan Sentra Spec-V (07-08) | 89.0 x 100.0 2488 | 2535 | 17 x 7 Alum | 235 | 3.15, 1.94, 1.39, 1.06, 0.81, 0.63 | 4.13 | (F) 305 Vented Disc (R) 278 Solid Disc | 3100 | Factory Brembo brakes allowed. OEM optional limited slip differential permitted. |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Pontiac Firebird V-6 (96-02) | 96.5 x 86.36 3790 | 2568 | 16 x 8 | 275 | 3.75, 2.19, 1.41, 1.00, 0.72 | 3.42<br>alt. 3.23 | (F) 302 x 32 Disc (R) 305 x 25 Disc | 3250 | The following items must remain stock: shock/struts (including mounts), and transmission differential - unless specified below. Performance option permitted, consisting of limited slip differential, uplevel steering rack, dual exhaust. GM PS cooler #10417037 allowed. Z-28 front sway bar (30mm) and rear sway bar (19mm) allowed. GM 1LE front (#26032907 32mm) and rear (#10021221 21 mm) sway bar allowed. Front spring rate shall be 280-320 lbs. per inch and the minimum free length is 13 ¾ inches. Koni Shocks, 8241- 1139 (F) and 8241-1140 (R) permitted. SP-141 front and rear springs permitted; SP-8316 front sway bar and SP- 8327 rear sway bar permitted; BMR suspension strut tower brace # STB-002 is permitted. K&N Cold Air Intake Kit FIPK (57-3041) allowed. |
| Pontiac Solstice / Saturn Sky (06-09) | 88.0 x 98.0 2384 | 2415 | 18 x 8 Alum | 245 | 3.75, 2.26, 1.37, 1.00, 0.73 or 3.75, 2.26, 1.51, 1.00, 0.73 | 3.91 | (F) 296 Vented Disc (R) 278 Solid Disc | 2850 | The following items must remain stock: transmission differential - unless specified below. Detachable hardtop GM part # PCS-0664 may be installed (if a hardtop is used, latches shall be replaced w/ positive fasteners and convertible top shall be removed). Limited slip differential (G80), factory ABS (JL), and suspension option (ZOK) allowed. Cold Air intake permitted. *Eibach springs permitted (part # 4.11138), ST sway bar kit allowed (part # 52246). Any non-adjustable shock permitted and adjustable spring perch to meet ride height requirement.* |
| Scion tC (03-07) | 88.5 x 96.0 2326 | 2700 | 17 x 7 Alum | 235 | 3.54, 2.05, 1.33, 0.97, 0.78 | 4.24 | (F) 275 Vented Disc (R) 269 Solid Disc | 2600 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Scion FR-S (*13-16*) | 86 x 86.0 1998 | 2570 | 17 x 7 | 245 | 3.63, 2.19, 1.54, 1.21, 1.00, .77 | 4.10 | (F) 295 Vented Disc (R) 290 Solid Disc | *2975* | Eibach *4.10582.880* and SPC 67660 allowed. Front strut tower brace allowed. Raceseng, part # raceseng-ft86-r-shock-top permitted. Non-OEM limited slip differential allowed with +50 lbs. weight penalty. |
| Scion TC (14-15) | 90.0 x 98.0 2494 | 2693 | 17 x 7.5 | 245 | 3.54, 2.05, 1.38, 1.02, 0.88, 0.73 | 4.06 | | 2950 | Eibach 4.10182.880, or Scion suspension kit (Part # TBA) Sway bars up to 30mm. Cold air intake. Aftermarket header. Front strut tower brace. |
| Subaru BRZ (*13-16*) | 86 x 86.0 1998 | 2570 | 17 x 7 | 245 | 3.63, 2.19, 1.54, 1.21, 1.00, 0.77 | 4.10 | (F) 295 Vented Disc (R) 290 Solid Disc | *2975* | Eibach 4.10582.880 and SPC 67660 allowed. Front strut tower brace allowed. Raceseng, part # raceseng-ft86-r-shock-top permitted. Non-OEM limited slip differential allowed with +50 lbs. weight penalty. |
| *Subaru BRZ (2017-)* | *86.0 x 86.0 1998* | *2570* | *17 x 7* | *245* | *3.63, 2.19, 1.54, 1.21, 1.00, 0.77* | *4.30* | *(F) 295 Vented Disc (R) 290 Solid Disc* | *3025* | *Eibach 4.10582.880 and SPC 67660 allowed. Front strut tower brace allowed. Raceseng, part # raceseng-ft86-r-shock-top permitted. Non-OEM limited slip differential allowed with +50 lbs. weight penalty.* |
| Subaru Impreza (non-turbo) (04-06) | 99.5 x 79.0 2457 | 2524.8 | 16 x 7 (F&R) | 235 | 3.45, 2.06, 1.45, 1.09, 0.78 | 4.11 | (F) 274.3 Vented Disc (R) 261.6 Solid Disc | 2835 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Subaru Impreza (08-11) | 99.5 x 79.0 2457 | 2620 | 16 x 7 | 235 | 3.45, 2.06, 1.45,1.09, 0.78 | 3.90 | (F) 255 x24 Vented (R) 280 x10 Solid | 2850 | Any spring up to a maximum spring rate of 500 pounds front and 800 pound rear may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Toyota Celica GT (00-05) | 79.0 x 91.5 1794 | | 15 Alum | 215 | | | (F) 254 Vented Disc (R) 192 Drum | 2400 | Any spring up to a maximum spring rate of 800 pounds may be used. 32mm OEM style and configuration rear sway bar allowed. Moroso oil pan 20970 allowed. Header allowed. Front strut tower brace allowed, OBD2 requirement for ECU does not apply. |
| Toyota Celica GTS/GT (00-05) | 82.0 x 85.0 1796 | 2598 | 16 x 7 | 225 | 3.17, 2.05, 1.48, 1.17, 0.92, 0.73 | 4.53 | (F) 280 Vented (R) 262 Solid | 2775 | TRD Sway Bars Part #PTR06-20002-01 permitted. ABS option allowed. Canton Accusump #24-026, install sandwich #24-700, valve #24-260, and related hoses and brackets allowed. Any spring up to a maximum spring rate of 800 pounds may be used. 32mm OEM style and configuration rear sway bar allowed. Moroso oil pan 20970 allowed. Hotchkis Sport Front Sway Bar Part: SKU:22400 is allowed. If GT car is used, all specs must meet GTS spec line. |
| Toyota Corolla XRS (05-06) | 82.0 x 85.0 1796 | 2598 | 16 x 7 | 225 | 3.17, 2.05, 1.48, 1.17, 0.92, 0.73 | 4.53 | (F) 280 Vented (R) 262 Solid | 2625 | Canton Accusump #24-026, install sandwich #24-700, valve #24- 260, and related hoses and brackets allowed. Any spring up to a maximum spring rate of 800 pounds may be used. OEM optional limited slip differential permitted. Up to 32mm OEM style and configuration rear sway bar permitted. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. Moroso oil pan 20970 allowed. *Cold Air Intake permitted.* |

| T4 | Bore x Stroke(mm)/ Displ. (cc) | Wheel-base (mm) | Wheel Size(in.)/ Mat'l. | Tire Size (max) | Gear Ratios | Final Drive | Brakes (mm) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|---|---|
| Toyota MR-2 Spyder 16V DOHC (01-05) | 2001: 79.0 x 91.5 1794 02-03: 81.0 x 77.0 1587 | 2450 | 01-02: (F) 15 x 6 (R) 15x6.5 03-05: (F) 15 x 6 (R) 16 x 7 | 235 | 3.17, 1.90, 1.39, 1.03, 0.82 | 3.25 | | 2270 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| *Toyota 86 (2017-)* | *86.0 x 86.0 1998* | *2570* | *17 x 7* | *245* | *3.63, 2.19, 1.54, 1.21, 1.00, 0.77* | *4.30* | *(F) 295 Vented Disc (R) 290 Solid Disc* | *3025* | *Eibach 4.10582.880 and SPC 67660 allowed. Front strut tower brace allowed. Raceseng, part # raceseng-ft86-r-shock-top permitted. Non-OEM limited slip differential allowed with +50 lbs. weight penalty.* |
| Volkswagen Golf TDI (2010) | 81 x 95.5 2000 | 2575 | 18 X 8 | 245 | STD- 3.77, 1.96, 1.26, 0.87, 0.86, 0.72 or DSG- 3.46, 2.05, 1.30, 0.90, 0.91, 0.76 | STD- 3.68, 2.92 DSG- 4.12, 3.04 | (F) 288 (R) 253 | STD: 3300 DSG: 3350 | 30 TIR required, any spring rate up 800 Max F/R permitted, Max F/R sway bars to 32mm |
| Volkswagen Passat (12-14) | 82.55 X 92.71 2481 | 2804 | 16 X 7 17 X 7 Alum | 235 | 3.78 2.12 1.27 0.86 0.66 | 3.65 | (F) 312 Vented Disc (R) 271 Solid Disc | 3000 | Any spring up to a maximum spring rate of 800 pounds may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. |
| VW Passat TDI (12-14) | 81.0 x 95.5 1966 | 2804 | 17 x 7 or 18 x 8 | 245 | STD- 3.77, 1.96, 1.26, 0.87, 0.86, 0.72 DSG- 3.46, 2.05, 1.30, 0.90, 0.91, 0.76 | STD- 3.68, 2.92 DSG- 4.12, 3.04 | (F) 312 Vented disc (R) 272 Solid disc | 3300 DSG: 3350 | 30mm TIR required. |
| Volkswagen Passat 1.8T (2014-) | 82.6 x 84.1 1802 | 2804 | 18 x 8 Alum | 235 | 3.78 2.12 1.27 0.86 0.66 | 3.65 | (F) 312 Vented Disc (R) 272 Solid Disc | 3300 | The following items must remain stock: shock/struts (including mounts), original wheels, and transmission differential - unless specified below. 30 mm turbo inlet restrictor required. Any spring up to a maximum spring rate of 500 pounds may be used with the stock attachment perches. |
| Volkswagen Rabbit 2.5 (06-07) | 82.55 x 92.71 2481 | 2578.1 | 17 x 7 | 235 | 3.78, 2.12, 1.36, 1.03, 0.77 | 3.65 | (F) 228 Vented Disc (R) 260 Solid Disc | 2675 | Any spring up to a maximum spring rate of 800 pounds may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |
| Volkswagen Rabbit 2.5 (08-09) | 82.55 x 92.71 2481 | 2578.1 | 17 x 7 | 235 | 3.78, 2.12, 1.36, 1.03, 0.77 | 3.65 | (F) 228 Vented Disc (R) 260 Solid Disc | 2850 | Any spring up to a maximum spring rate of 800 pounds may be used. Cold Air Intake system allowed. OEM optional limited slip differential permitted. 32mm OEM style and configuration rear sway bar allowed. Header allowed. Front strut tower brace allowed. OBD2 requirement for ECU does not apply. |

## 9.1.10. B-SPEC CATEGORY

These specifications are presented as an adjunct to the Manufacturer's Service Manual. They are not meant to supersede the information that is in the manual that legitimately applies to the make, model, and year of car with the exception of the following items: TIRE SIZES, RIM WIDTHS, SPRINGS, ANTI-ROLL BAR(S), and PERFORMANCE EQUIPMENT. In the case of the foregoing exceptions, the B-Spec Competition Rules will have priority.

These specifications reflect the best information available at the time of publication. Any error found in this edition will be updated when reliable specifications are available from the manufacturer/manufacturer distributor or other sources recognized by SCCA®, Inc.

**A. Definition**

The B-Spec Category shall be considered primarily as a form for the membership to race street stock automobiles. Eligibility of cars may be discontinued at any time, for any reason other than competitive stature. The proof of legality or illegality shall rest upon the protester and/or protestee.

**NOTE:** B-Spec category cars shall be in compliance with Federal Standards, specifically EPA certifications, and as specified for each automobile listed on its B-Spec Specification line and as permitted by these rules. A Shop/Service Manual or its equivalent for the specific make, model, and year of automobile is required to be in the possession of each entrant. Manufacturer Shop/Service Manuals may come in the form of printed material, microfiche, CD, DVD, and/or Internet access to manufacturer website databases. It is the responsibility of the competitor to provide the electronic device capable of accessing the data for compliance verification. If Manufacturer Shop/Service Manuals are not available, then the competitor shall have a copy of the official SCCA® Vehicle Technical Sheet (VTS) with them at every event and shall present it for reference when officially requested. The manual is intended to aid SCCA® Technical Scrutineers in identifying parts and the configuration of the automobile. Overhaul procedures that in the slightest way would increase performance are not to be utilized (e.g., milled heads/blocks, porting, etc.). Blueprinting and balancing are inconsistent with the philosophy of this class and are not permitted.

**B. Automobile Eligibility**

Only those cars listed each year are eligible to compete. Cars classified will be approved by EPA and DOT for sale in the United States. They shall be models available to the general public for purchase. Cars will be eligible for competition from the time they are classified until the end of the twelfth calendar year of competition of the latest model year listed on the specification line. Additions and deletions of automobiles shall be at the discretion of the SCCA®. The vehicle identification number (VIN) shall correspond with the model automobile classified. At least one VIN plate or stamping shall remain in place on the dashboard or chassis that corresponds with the model automobile classified.

**C. Classification**

Classifications of automobiles eligible for competition will be reviewed on an annual basis and will be effective as of January 1st.

**D. Technical and Safety Items**

The following represent the only safety items and modifications permitted and required on automobiles involved in B Spec competition. Cars must meet comply with the GCR. The addition of safety items not specifically listed is not permitted. No permitted component/modification shall additionally perform a prohibited function.

1. Roll cages shall be contained entirely within the driver/passenger compartment and must comply with GCR Section 9.4, Roll Cages for GT and Production Based Cars.
2. Installation of a fire extinguisher or fire system as specified in GCR Section 9.3, Fire System.
3. Installation of a safety harness system as specified in GCR Section 9.3, Driver's Restraint System.
4. Cars with sunroofs must be retained on the vehicle and securely bolted in place unless operating rails adequately secure the panel.
5. All cars shall run with both front door windows fully open (down) if equipped, and shall have a driver's side window safety net per GCR Section 9.3, Window Safety Nets. Any cars where a window safety net cannot be installed, arm restraints shall be used. Arm restraints are not an acceptable substitute for window nets in other cars. Window safety nets shall be mounted in such a manner to provide protection in the event the driver's door opens. Rear windows shall be run in the closed (up) position.
6. Passive restraint systems shall be deactivated.*
7. Air bag systems shall be disarmed and may be removed.* If so equipped, the rolling door lock mechanism may be deactivated by unplugging the components.
8. The driver's seat (only) shall be replaced with a one-piece, bucket-type race seat. Standard seat tracks/brackets may be modified, reinforced, and/or removed to facilitate replacement mountings provided they perform no other function.
9. Steering lock mechanisms may be removed or disabled.
10. An electrical master switch may be installed.

*If car is used on public roads, these items should be replaced, reactivated, rearmed, etc. when not in competition.

**E. Vehicle Preparation**

The following represents the only items authorized in the preparation of a vehicle for B-Spec competition other than safety items as required in Section 9.1.7.D, Technical and Safety Items. Modifications shall not be made unless specifically authorized herein. No permitted component/modification shall additionally perform a prohibited function.

1. Appearance shall be neat and clean. Automobiles that are dirty either externally or in the engine or passenger compartments, or that show bodywork damage or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition. Vehicles may be painted any color(s).
2. Towing eyes per GCR Section 9.3, Towing Eyes, shall be fitted.
3. Hubcaps, wheel trim rings, jack, and tools shall be removed.
4. All mud flaps shall be removed.
5. Spare wheels and tires may be removed. Spare tire covers and trunk mats and/or trunk carpeting shall be removed if they present a hazard as a loose flying or flapping object.
6. All adjustments shall be at the manufacturer's specification and/or within the manufacturer's specified tolerances.
7. Tires: Maximum tire size shall be 205/50/15. Tires must conform to GCR section 9.3. Tires. All tires shall be offered for sale over the counter through the tire manufacturer's dealer network. The brand of tire and tire pressures are unrestricted.
8. Wheels: Required minimum wheel/rim diameter is fifteen inches (15"). Maximum wheel/rim width is seven inches (7"). Minimum Wheel/rim weight shall be 13 lbs. All wheels shall be one-piece metal castings or metal two piece welded. All four wheels must be the same dimensional offset. Aftermarket wheel studs and/or wheel bolts are allowed. Wheel bolts may be replaced with studs and nuts. Wheel spacers are allowed, the same thickness spacer must be used on all four corners.

   Wheels are permitted any offset provided the tire tread (that portion of the tire that contacts the ground) does not protrude beyond the fender opening when viewed from the top perpendicular to the ground.
9. Radio/stereo audio equipment and air conditioning refrigerant systems are the only options permitted and may be non-manufacturer, standard equipment. Two way radios may be used. Hand controls are allowed in those instances where the driver can demonstrate the physical need for them.
10. Fuel, coolant, oil fluid hoses and clamps, oil filters, fuel filters, and belts (fan, alternator, etc.) may be substituted with others of equivalent manufacturer's specifications.
11. Brake fluid: May be substituted with other equivalent manufacturer's specification.
12. Lubricants: Lubricants may be substituted with any lubricant. Additives are unrestricted.
13. Spark Plugs: Authorized spark plugs listed in spark plug manufacturer's application charts, owner's manual, manufacturer's shop/service manual, or equivalent justified by one cross reference chart. Use of resistor- or non resistor spark plug allowed.
14. "Special performance" specifications from the manufacturer that go beyond those listed on a specification line for a car will not be considered valid.

    Any manufacturer determined to be supplying false specifications to competitors or to SCCA will be advised that the specifications shall be withdrawn and/or the eligibility of the car(s) involved will be terminated. The SCCA® Club Racing Board (CRB) is authorized to implement these terminations on an immediate basis without Board of Directors (BoD) approval.

    In the case of service circulars, recalls, etc., the burden of proof of validity will be upon the competitor.
15. Ride height: Minimum ride height is six (6) inches, to be measured without driver at the lowest point of the rocker panels, but not to include welded seams or fasteners. A vehicle may have a ride height listed it the spec line, the competitor must conform to the spec line.
16. Batteries may be replaced with those of alternate manufacture provided they are of similar amp hour (Ah) capacity and weight. Battery must remain in stock location. Additional hold-down brackets are allowed.
17. Weight: The minimum weight as listed on the B Spec line is with driver and ballast *may be added to meet the listed minimum weight. Refer to section 9.3. Ballast, for placement of the ballast.* If a cool suit system is utilized, the cool suit system shall be weighed with the car as it came off the track.

    *A. The ballast shall be in segments no lighter than ten (10) pounds and no heavier than fifty (50)*

*pounds.*

*B. Each segment shall be fastened with a minimum of two (2) one-half inch (1/2") bolts and positive lock nuts of SAE Grade 5/Metric 8.8 or better, and shall utilize large diameter, load distributing washers.*

18. Fuel: Only the fuel type specified by the owner's or manufacturer's shop/service manual may be used. Refer to GCR Section 9.3, Fuel, for permitted fuel specifications.

19. Removal of Air Conditioning System: The manufacturer's or aftermarket air conditioning system may be removed. Items that serve a dual purpose, such as the alternator/air conditioning compressor bracket, may not be substituted. Idler pulleys and belts may be substituted as needed when compressor is removed.

20. Removal of radio and speaker components is permitted. Removal of horn and cruise control system is permitted.

21. A radiator screen of minimum one-fourth inch (1/4") mesh may be added in front of the radiator and contained within the bodywork.

22. Air filter elements may be substituted with other air filters of equivalent specifications and fit in the standard location with no modifications. The filter element must be substantiated by a minimum of one (1) manufacturer cross-reference for specific vehicle application.

23. Any brake pad or lining may be used.

24. Standard replacement brake rotors/drums may be obtained from sources other than the original manufacturer provided they are the exact equivalent.

25. The Club Racing Board may approve the use of automatic transmissions and/or hand controls on a case-by-case basis.

26. Interior mirror(s) may be replaced with a multi-panel type mirror, but shall not extend beyond the confines of the interior.

27. Any part of the exhaust system beyond the catalytic converter(s) may be replaced provided:

    A. Said replacement system retains the same original configuration, e.g., routing, single, dual, etc.

    B. The system exits from the body in the same approximate location(s) as the original. When an original equipment single exhaust system is cosmetically split into dual outlets, it is permitted to continue as a single system provided it exits in approximately the same location as one of the originals.

    C. The system meets all appropriate event-specific sound level requirements.

28. Aftermarket steering wheels, and their required mounting modifications, are permitted. Removable steering wheels are permitted.

29. Lap Timing and Data Acquisition Devices that perform no function other than to relay lap times to the driver (Longacre Hot Lap, Intercomp Lap Timer, etc.) are permitted, along with the required mounting hardware and connections. Stand-alone data acquisition systems (GPS or accelerometer-based) are allowed. One connection from the OBD2 port to the stand-alone data acquisition system is permitted. No additional sensors may be added and the data acquisition system must not tie into the vehicle electronics in any other manner beyond this allowance. The SCCA may install a standalone data box in a competitor's car at any time. Refusal of the installation of the data box will result in disqualification.

    Analog (needle type) gauges for oil pressure, oil temp and water temp may be added as long as they are not tied into the vehicles ECU in any way. Stand alone shift lights may be added.

30. Sunroofs, Targa tops, and T-tops are only permitted if installed by the manufacturer of the vehicle. If installed they must be retained in the closed position and securely bolted in place unless the operating rails adequately secure the panel. Glass panels are permitted. Glass panels may be replaced with a ferrous metal panel. Components (motors, cables, rails) may be removed provided the panel is securely retained.

31. Hatchback "privacy covers" must be completely removed.

32. Cosmetic plastic engine covers may be removed.

33. Original brake and clutch hoses may be replaced by braided stainless steel brake lines and clutch lines.

34. Interiors may be removed including seats, seat brackets, carpet, carpet padding, rear door panels, OEM seat belts, interior trim, and headliners. Front door window glass, front window operating mechanism, inner door trim panel, armrest, map pockets, wiring harnesses for front door locks, power mirrors, seat wiring, etc., and inside front door latch/lock operating mechanism may be removed. Original radio/stereo audio equipment and air conditioner refrigerant systems may be removed. Heater cores, hoses, and all duct work must remain except duct work under seats.

35. Maximum *3.0* degrees negative chamber is allowed on front and rear suspensions. Strut suspensions may adjust camber by the use of eccentric bolts (crash bolts) at the strut-to-spindle, *slotted strut mounting holes at the spindle*, and/or by use of slotted *camber only* adjusters at the top of the strut mounting plate. If upper strut slotted plates are used, they shall be located on existing chassis structure, utilizing the manufacturer's original bolt holes and may not serve as reinforcement for that structure. *Modifications to the strut tower may be made to allow for camber adjustment only.* On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bolts (crash bolts).

36. Suspension: competitors must use the OEM suspension or the upgraded manufactures suspension kit with no modifications. *Any spring up to a maximum spring rate of 500 pounds may be used with the upgraded manufactures suspension kit.* Competitors must use the OEM bump stops or the bump stops provided in the manufactures kit. Adjustable sway bar end links may be used on all cars. *Front sway bars may be disconnected.*

    If a manufacture does not offer an upgrade, a competitor may submit a shock and spring package for approval by the CRB. At the time of approval, that kit will become the standard for that make and model until the manufacture submits a factory supported kit.

    The competitor supplied kits needs to be comprised of the following:

    - Any non-adjustable shock absorber intended for the specific make model and year car is allowed. The shock absorber must be installed in the original mounting locations. Remote shocks are not permitted. Threaded shock bodies or adjusters may be used.
    - Any spring up to a maximum spring rate of 500 pounds may be used.

37. ECU/PCM: OEM ECU/PCMs is required. Alternate engine calibrations are allowed. The car may meet federal emission standards, but shall provide OBD II compliant data to the data link connector. Manufacturers may provide a stability control override procedure or module.

38. B Spec front and rear toe settings are free. Rear toe adjustments may be achieved by the use of shims.

39. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non metallic inner fender liners may be removed.

*40. An oil catch can is permitted.*

**NOTES:**

| B-SPEC | Bore x Stroke (mm) Displacement (cc) | Wheelbase (mm) | Gear Ratios | Final Drive | Brakes (inches) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|
| Chevrolet Sonic (12-*16*) | 80.5 x 88.2 1796 | 99.4 | *3.72, 1.96, 1.32, .094, 0.75* | 3.94 | (F)10.8 (R) 9.0 drum | 2650 | *36mm* flat plate restrictor required. GM suspension kit #23123679 permitted. *Allow rear sway bar ZZ Performance #ZZ-SNCRSB.* |
| Fiat 500 (2012) | 72.0 x 84.0 1368 | 90.6 | 3.91, 2.16, 1.35, 0.98, 0.77 | 3.73 | (F) 10.1 x 0.9 (R) 9.4 x 0.4 | 2230 | Fiat suspension kit P5154820, Front main spring P5154821, Front damper assy with top mount P5154822, Rear main spring P5154823, Rear damper assy P5154824, Rear coil spring adapt kit P5154825, Header kit (cat delete) P5154829 allowed. Cold air intake allowed. |
| Ford Fiesta *5dr Hatchback* (11-*16*) | 79.0 x 81.4 1596 | 98.0 | 3.86, 2.04, 1.28, 0.95, 0.74 | 4.07 | (F) 10.2 (R) 7.9 drum | *2495* | Suspension kit #M-FR3-FAEB allowed. Rear axle bushing #000-04-2203-RR allowed. *Allow rear torque bar Corksport #Mz2-3-070. Cold air intake K&N 69-3530TS is allowed.* |
| Honda Fit (09-12) | 73.0 x 89.55 1499 | 98.4 | 3.31, 1.87, 1.30, 0.95, 0.73 | 4.62 | (F) 10.3 (R) 7.9 drum | *2550* | Damper and spring set 51600F23SA100, Damper FR LH 51605F23SA100, Damper FR RH 51606F23SA100, Damper RR 52610F23SA100, Spring FR (325) 51401F23SA100, Spring RR (350) 52441F23SA300, Helper spring 52442FC4YA000, Spring spacer 52443FC4YA000, Spring adjust asy RR 52691F23SA010. Seat upper FR spring 51688F23SA200, 51402FC4YA00 front helper spring and 51403FC4YA00 front spacer permitted. Front Damper Mount P/N 51920-F23S-A30 is allowed. *Allow rear sway bar Progress # 62.1061.* |
| Honda Fit (2015-) | 73.0 x 89.55 1499 | 2530 | 3.46, 1.87, 1.235, 0.95, 0.81, 0.73 | 4.63 | (F) 10.3 (R) 7.9 drum | *2600* | *34mm* flat plate restrictor required. Damper FR LH 51605F23SA81, Damper FR RH FR RH 51606F23SA81, Damper RR 52610F23SA80, Spring FR 51401F23SA20, Spring RR 52441F23SA80, Helper spring FR 51402FC4YA00, Spring spacer FR 51403FC4YA00, Spring adjust assy RR 52691F23SA80, Bushing Comp, Damper RR TBD, Camber Adjuster Comp, Damper 51920F23SA82, Damper wrench kit 89211F23SA80, Hose Set, FR & RR Brake 01464F23SA810, Pad Set, XR2 D948 54022F27SA81, Disk, FR Brake 45250F23SA80, Air cleaner element assy 17220FC4YA80, Exhaust pipe assy 18300F23SA81, ACG belt (6PK858) 31110FC4YA80. *Allow rear sway bar Progress 62.1063.* |
| Kia Rio 5-door/LX (12-14) | 77.0 x 85.44 1591 | 101.2 | 3.76, 2.04, 1.28, 1.03, 0.89, 0.77 | 3.83 | (F) 10.1 x 0.9 (R) 10.3 x 0.4 | 2525 | *40mm* flat plate restrictor required. AKSJ03-10-001 Damper Frt Assembly; KSJ03-10-002 Spring _Eibach 0600.0225.500; KSJ03-10-003 Spring Spacer ; AKSJ03-20-001 Damper-AST-Rear; KSJ03-20-002 Rear Spring Eibach 0600.0250.500; KSJ03-20-003 Rear Upper Spring Perch Delrin; KSJ03-20-004 Rear Spring Spacers-Aluminum; KSJ03-20-005 Rear Spring Spacer Intermediate; AKSJ03-60-001 Sump Pan Extension. *Allow rear torque bar Evilla Motorsports #KR-B1.* |
| Mazda2 (*10*-14) | 78.0 x 83.0 1499 | 98.0 | 3.42, 1.84, 1.29, 0.97, 0.78 | 3.85 | (F) 10.1 (R) 8.0 drum | *2330* | Coil over shock kit (Bilstein) 0000-04-2201-BL, Front springs (ERS) 0000-04-9350-07, Rear springs (ERS) 0000-04-9250-07, Helper springs F&R 0000-04-9926, Spring spacer F&R 0000-04-9925, Front sway bar end links adjstbl 0000-04-2202, Rear sway bar 0000-04-2203-RR, Modified strut bearing plate 0000-04-2204, Crash bolt set 0000-04-2205, Mazda reflash part #0000-10-2001 allowed. *Allow rear torque bar Corksport #Mz2-3-070. Cold air intake Corksport Mz2-6-117-31100 or Mz2-6-117-33100 is allowed. Exhaust Header Kit (cat delete) HP-M2/15 is allowed.* |
| Mini Cooper (07-10) | 77.0 x 85.8 1598 | 97.1 | 3.21, 1.79, 1.19, 0.91, 0.78, 0.68 | 4.35 | (F) 11.0 (R) 10.2 | *2545* | L/F Strut-spring assembly 31 31 1 126, R/F Strut-spring assembly 31 31 1 125, Rear Shock-spring assembly 33 50 1 125. Ride height measured from the bottom of the plastic door rocker molding shall be no less than 5 inches. Front adjustable sway bar links part number 31 35 6 771 is allowed. Rear adjustable sway bar links part number 35 50 6 772 is allowed. Adjustable front camber plate part number 31 30 1 507 is allowed. *Allow rear sway bar Progress #62.0210.* |

| B-SPEC | Bore x Stroke (mm) Displacement (cc) | Wheelbase (mm) | Gear Ratios | Final Drive | Brakes (inches) | Weight (lbs) | Notes: |
|---|---|---|---|---|---|---|---|
| Mini Cooper (2011-) | 77.0 x 85.8 1598 | 97.1 | 3.21, 1.79, 1.19, 0.91, 0.78, 0.68 | 4.35 | (F) 11.0 (R) 10.2 | *2575* | L/F Strut-spring assembly 31 31 1 126, R/F Strut-spring assembly 31 31 1 125, Rear Shock-spring assembly 33 50 1 125. Ride height measured from the bottom of the plastic door rocker molding shall be no less than 5 inches. Front adjustable sway bar links part number 31 35 6 771 is allowed. Rear adjustable sway bar links part number 35 50 6 772 is allowed. Adjustable front camber plate part number 31 30 1 507 is allowed. *Allow rear sway bar Progress #62.0210.* |
| Nissan Versa (07-11) | 80.4 x 81.1 1797 | 102.4 | 3.73, 2.11, 1.45, 1.17, 0.97, 0.81 | 3.93 | (F) 11.02 x 0.95 (R) 9.0 drum | 2750 | 35mm flat plate restrictor required. |
| Nissan Versa (09-11) | 78.0 x 83.6 1598 | 102.4 | 3.73, 2.05, 1.39, 1.03, 0.89 | 4.07 | (F) 10.2 x 0.87 (R) 8.0 drum | 2500 | |
| Nissan Versa (2012) | 78.0 x 83.6 1598 | 102.4 | 3.73, 2.05, 1.39, 1.03, .089 | 4.07 | (F) 10.2 x 0.87 (R) 8.0 drum | 2490 | |
| Nissan Versa (2013-) | 78.0 x 83.6 1598 | 102.4 | 3.73, 2.05, 1.39, 1.03, .089 | 4.07 | (F) 10.2 x 0.87 (R) 8.0 drum | 2550 | |
| Nissan Versa Note (2013-) | 78.0 x 83.6 1598 | 102.4 | 3.73, 2.05, 1.39, 1.03, .089 | 4.07 | (F) 10.2 x 0.87 (R) 8.0 drum | 2550 | Nissan shock kit part number: TBD, Nissan spring kit part number TBD. |
| Toyota Yaris (07-12) | 74.9 x 84.6 1491 | 96.9 | 3.55, 1.90, 1.31, 0.97, 0.82 | 3.72 | (F) 10.0 (R) 7.9 drum | *2400* | PTR04-52061 TRD Sport shocks permitted. PTR11-52070 TRD spring kit permitted. Speed sensor may be disconnected. *Cold air intake K&N 69-8612TFK is allowed. Allow Bilstein kit 47-237834. Rear Swaybar PTR11-52071 is allowed.* |

## 9.1.11. SPEC MX-5 CLASS (REGIONAL ONLY)

These specifications are part of the SCCA GCR and all automobiles shall conform to GCR Section 9.

**A. Purpose and Intent**
The purpose of Spec MX-5 is to provide an opportunity to compete in similarly prepared low cost cars with limited modifications. The cars are a Club Racing version of SCCA Pro MX-5 Cup Car.

Only the US version of the 2006-2011 Mazda MX-5 is eligible to compete in Spec MX-5. Unless a particular modification or part is approved in these specifications, the vehicle and all of its parts and assemblies shall be stock including the sport package and suspension kit.

It is intended that the cars competing in Spec MX-5 be very similar in appearance and performance. Therefore, if an alternate part or modification is specified, it shall be used by all cars unless the OEM part is specifically allowed.

No modifications or alterations from the original "as delivered" vehicle configuration are permitted except those required in these specifications and in section 9.

No permitted component or modification shall additionally perform a non-permitted function. Replacement parts required to meet stock OEM specifications may be purchased from alternate standard outlets such as parts stores provided they are the exact equivalent of the stock OEM part.

**B. Authorized Modifications**

**1. Chassis**

a. The outer edges of the dashboard, outside of the dash vents, may be trimmed the minimum amount required to install the roll cage A-pillar down tubes.

b. The only allowable tow device for the front and rear of the car is a flexible tow strap. The preferred method of attaching each strap is looping it through the tow eye hole and the bumper brace in a choker hitch.

c. There shall be an arrow that contrasts strongly with the vehicle paint scheme pointing to each tow eye/strap.

d. The 3-piece front strut tower brace (p/ns: NE57-56-48X, NE57-56-48ZA, and NE57-56-49X) that comes with the sport package shall be used. The strut brace mounts may have a hole drilled in them to allow easier access to adjusters for the front shocks.

e. The driver's side inner door structural panel may be removed to fit the cage, but the stock side impact beam and the outside door latch/lock operating mechanism shall not be removed or modified.

f. Any steering wheel except wood rimmed types may be used. Any shift knob may be used.

g. A dead pedal/foot rest and heel stop may be added. Foot pedals may be modified to improve driver comfort.

h. The heater system and air conditioning equipment located in the engine compartment may be removed, but the equipment located in the cockpit shall remain intact.

**2. Cockpit**

a. A bulkhead panel shall be installed in the trunk to cover the flexible portions of the fuel lines, particularly at the point where they may be rubbed by the cockpit/trunk close-out panel. The material may be metal or composite, but must be rigid.

b. All interior trim components shall be removed, including the front passenger seat, carpet, sun visors, seat belts, etc., but not the dashboard and its attaching hardware and brackets. The lower portion of the door panels shall be removed. The top portion of the door panels containing the door latch release handle shall remain intact. The door window glass and window operating mechanisms shall be removed.

c. Electronic items, such as the radio equipment and air bags, shall be removed. The radio face may be left in place or a replacement trim piece may be used if the radio face is removed. If the radio face plate is left installed, it must be unplugged from the vehicle wiring harness.

d. Any removable equipment, such as spare tires, tools and bins, shall be removed along with any attaching hardware, brackets and covers.

e. MAZDASPEED interior trim kit (p/n: 0000-07-5500-KT) shall be used in its entirety. The trunk close-out panel must be mounted up under the edge of the body to avoid having the trunk close-out panel rub on fuel hoses in the trunk.

**3. Body**

a. Interior and exterior door handles are required to remain operable.

b. Door locks must be disabled.

c. All three of the brake lights shall be in working order.

d. The headlights and tail lights shall remain in working order.

e. The 2 OE external mirrors for the correct vehicle make and model (left and right) are required. They must be mounted in stock location and must be positioned so that the driver can see objects along both sides of the vehicle. The OE interior rearview mirror or an aftermarket rearview mirror shall be used.

f. 2006-2008 SPEC MX-5 cars may be fitted with 2009-2010 bodywork.

g. MAZDASPEED trunk lip spoiler (p/n: NF51-V4-920G-xx) shall be used.

h. Windshield clips are permitted and recommended. The MAZDASPEED Lexan windshield (P/N 0000-07-5101-LX) may be used in place of the stock windshield. The front quarter-windows on the doors may be removed.

i. The inner hood insulation liner may be removed.

j. Hood pins are permitted. If hood pins are fitted, the OE latch may be removed.

k. Auxiliary screen material may be used behind the OE grille piece.

l. Left and right inner fender liners must remain intact. Inner fender liners may be riveted in place and a small portion of the liners may be trimmed away where the tire makes contact with the inner fender liners. Left and right front fender liners may be removed only if the large excess holes are closed off using .040" - .060" aluminum and securely fastened into place using rivets.

m. Front and rear fender lips may be rolled to prevent tire damage.

n. The OE driving lights may be removed. The resultant openings may be used to direct air to the front brakes.

o. Side marker lenses may be substituted with a more durable material as long as they retain their original shape and color.

p. SPEC MX-5 cars may run the factory optional removable hardtop or the Roadstersport fiberglass hardtop (Roadstersport p/n 21-1006F). The factory latches must be removed and replaced with positive fasteners.

**4. Tires**

a. Dry tires must be any DOT P225/45ZR17.

b. Wet tires must be any DOT 225/45ZR17.

**5. Weight**

a. Minimum weight is 2600 lbs.

b. Ballast is permitted to be used to achieve the minimum weight for a vehicle. Ballast may be mounted anywhere in/on the car provided that it does not perform a non-approved function. All ballast shall be mounted in such a way that tools are required to remove it. Holes may be drilled in the chassis and the chassis may be reinforced in order to safely secure ballast provided that the reinforcement does not perform a non-approved function. Grade 5/Metric 8.8 bolts, or better, and load-spreading washers shall be used to mount ballast when necessary.

**6. Engine**

a. Engines must be ordered through MAZDASPEED. Competitor rebuilt engines are prohibited. Sealed engines may be returned to Comptech for service and resealing. Engines returned to Comptech unsealed will be refused.

b. The crankshaft position sensor and crankshaft pulley relationship must be as specified in the 2006-2011 MX-5 Factory service manual, CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [LF] Pg. 01-40-34.

c. MAZDASPEED cold air intake system (p/n: 0000-06-5203-KT) is required.

d. MAZDASPEED exhaust system (p/n: 0000-06-5450-KT) is required.

e. A fuel test port must be installed between the rigid fuel supply line and the fuel rail per 9.3.

f. A turn at the end of the exhaust pipe may be used to help disperse/direct noise in order to meet specified decibel limit in all condtions.

g. OEM exhaust system heat shields may be removed. Exhaust headers and exhaust systems may be wrapped, coated or both.

h. The oxygen sensor may be reinstalled in the competition exhaust system. The sensor shall be placed in the exhaust system within reach of the OE electrical connection for the oxygen sensor.

i. An engine to fender brace may be used if mounted in such a way that it does not foul brake lines,

fuel lines, or other systems that would interfere with the safe operation of the vehicle under race conditions.

j. Spark plugs are unrestricted.

**7. Engine Control Unit (ECU)**

a. The stock ECU with either the stock flash or the SCCA Pro (Playboy) flash shall be used. [Note: possibility of a sealed unit from SCCA Pro.]

b. Instrument clusters shall be unmodified OE parts.

**8. Drivetrain**

a. The stock 2006-2011 6-speed gearbox, internal parts and ratios shall be used by all cars. MAZDASPEED 3-4 shift fork (P/N 0000-02-5701) is permitted.

Gear Ratios: 1st - 3.82; 2nd - 2.26; 3rd - 1.64; 4th - 1.18; 5th - 1.00; 6th - 0.83

b. The OE open differential or OE limited slip differential may be used. Final Drive Ratio: 4.10:1

c. No treating, polishing or coating of transmission, differential or axle components is permitted.

d. The clutch disc and pressure plate must be bolted directly to an unmodified stock flywheel. Permitted clutch components are as follows:

| Part | Applicable Part Numbers |
|---|---|
| Clutch Disc | Mazda LF04-16-460B<br>MAZDASPEED 0000-02-5415-AC<br>MAZDASPEED 0000-02-5416-AC |
| Pressure Plate | Mazda LF04-16-410A<br>MAZDASPEED 0000-02-5405-AC |

| Part | Diameter (in.) | Minimum Weight (lbs.) |
|---|---|---|
| Clutch disc | 8.5 | 1.7 |
| Pressure Plate | 9.875 | 9.4 |
| Flywheel | 11.0<br>9.375 (machined surface) | 16.0 |

**9. Suspension and Steering**

a. Steering lock mechanisms shall be removed.

b. All cars must use the SPEC MX-5 coil over kit, Mazdaspeed part number 0000-04-5250-B and the Anti-Roll Bar Kit, Mazdaspeed part number 5536.320. Kits must be used in their entirety with no parts substituted or omitted. The following is a breakdown of components supplied in the kits:

| SPEC MX-5 Kit | | | |
|---|---|---|---|
| Part | Location | Part Number | Notes |
| Shocks | Front | F4-BE5-D180-HO | Bilstein Sealed Shock |
| | Rear | F4-BE5-D179-HO | Bilstein Sealed Shock |
| Springs | Front | E4-FD1-Y805-A00 | Bilstein Spring |
| | Rear | E4-FD1-Y412-A00 | Bilstein Spring |
| Anti-Roll Bars | Front/Rear | KIT 5536.320 | Rear bar is adjustable.<br>F: 25mm<br>R: 16mm |

c. Bump stops may not be modified as supplied in the kit

d. The anti-roll bar end links shall be used as provided. However, the anti-roll bar end links may be connected or disconnected as the driver sees fit.

e. Suspension alignments (camber, caster, toe) are unrestricted within the limits of the unmodified factory adjustments.

f. There is no minimum ride height.

g. The rear shock towers supplied with the MAZDASPEED suspension kit may be reinforced through the addition of material to it, and welding of, the shock towers. Any reinforcement shall not connect the shock tower to more area of the chassis than the unreinforced shock tower contacts.

h. Hardware items (e.g. nuts, bolts) may be replaced by similar items performing the same fastening function(s).

i. RX8 front hubs may be substituted in place of the O.E. hubs. To complete the conversion, the following parts may be purchased from MAZDASPEED: Front Hub #F151-33-04X or #F189-33-04X, ABS Adaptor #0000-03-5901, special installation tool# 0000-03-5902. An "L" shaped retainer is allowed for the ABS adaptor housing provided it serves no other purpose.

**10. Brakes**

a. Stock Brake Rotor Specification

| Location | Diameter | Thickness | Notes |
|---|---|---|---|
| Front | 290mm (11.4 in.) | 23mm (0.9 in.) | Vented |
| Rear | 280mm (11.0 in.) | 11mm (0.4 in.) | Solid |

b. Backing plates and dirt shields may be ventilated or removed.

c. Brake lines may be replaced with steel lines or Teflon lined metal braided hose.

d. Any brake pad that fits the stock, unmodified caliper may be used. Brake pad friction material is free but must retain stock size and shape.

e. MAZDASPEED brake duct kit (p/n: 0000-03-5301) is permitted. The inner fender panels may be modified to fit the brake kit to the driving light openings.

**11. Wheels**

a. All wheels shall be one of the three OE Mazda MX-5 17"x7" wheels.

| |
|---|
| Style 1: (p/n: 9965-38-7070) |
| Style 2: (p/n: 9965-36-7070) |
| Style 3: (p/n: 9965-45-7070) |

b. Aftermarket wheel studs and lug nuts are permitted. Wheel spacers are not permitted.

**12. Cooling System**

a. The alternate radiator (p/n: 0000-01-5550) from MAZDASPEED is permitted.

b. Thermostats may be modified, removed or replaced.

c. A bleeder screw may be added to heater hose tube.

d. MAZDASPEED oil cooler (p/n: 0000-01-5100-KT) may be installed.

e. The gap between the top and sides of the radiator and the core support may be sealed with tape, silicon, foam, etc.

**13. Data Acquisition**

a. Vehicles may be equipped with additional data acquisition systems consisting of a data logger, sensors and required wiring. The data acquisition system may perform no other function.

**14. Electrical**

a. Batteries may be replaced with those of an alternate manufacturer provided they are of similar amp-hour capacity, size and weight and are fitted in the standard location. Additional battery hold-down devices may be used and are recommended. The positive battery terminal shall be insulated to prevent sparking.

b. With the exception of the wiring needed to install the safety equipment, to operate any data system, to preserve power to the PCM or to repair accident damage, there shall be no additional non-OE wiring, connections, etc. to any wiring harness or component of the car.

# SCCA
# CLUB RACING

An electronic copy of the 2017 General Competition Rules is available on the SCCA website:
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