



CLUB SPEC MX-5 BUYERS AND BUILDERS GUIDE

This guide is intended to help you find the right Mazda MX-5 and understand the build process. It's also intended to be a living document, where you – and others – can submit tips and tricks to finding and preparing a car. It should be noted, however, that this Buyers and Builders Guide is *not* a rulebook. It is highly recommended that all Club Spec owners review the [Rules](#) before starting their buy or build. If you have any questions, or would like to share your recommendations, contact us at ClubSpec@SCCA.com.

See bottom of the page for a complete parts list.

ABOUT THE MAZDA MX-5

The MX-5 for Club Spec is the third generation, known best by the chassis code NC. These cars were sold in the US from 2006 until 2015. The production run splits into two sub models, the NC1 (2006-2008) and the NC2 (2009-2015) with an update to the NC2 in 2012. There are a variety of trim levels, packages, and options, all of which can be studied in detail on the [Mazda MX-5 \(NC\) Wikipedia](#) page.

SELECTING AN MX-5

If you're not already an MX-5 owner there are definitely some things to look for when shopping. First, you want to find the right engine and transmission, both of which will point you toward an NC2.

The class requires either the 6-speed manual transmission or an automatic for those so inclined. Most will opt for the manual, so it is best to find a car already equipped with a 6-speed (hint: look for a Club or Grand Touring model). The NC2 also received an engine update which gave the car a forged crank. This allows for a higher redline, making it better suited for performance driving.

Another feature to look for is a limited slip differential (LSD). In general, LSDs came on cars with the suspension package found on Touring and Grand Touring model. For any of these features or items, it's always a good idea to do a VIN check to see what the vehicle was equipped with at original sale. However, In the case of the suspension package, you can look at the shocks on the car – if they are the yellow Billstein shocks, there is a good chance it has the suspension package and the desired LSD.

Finally, you'll want to pay attention to the top. The power retractable hardtop adds about 75lbs to the car and can make safety features a challenge. The removeable hardtop weighs about 45lbs and, obviously, can be removed. There's also an aftermarket removeable hard top that can be purchased from [Mazda Motorsports](#), which is lighter and often more affordable than the factory option. The third – and most common – option is the soft top. This option is generally preferred for autocross and can be removed if/when you want to add safety equipment to the car, should you prefer to transition to a hard top.

If already have a car that is not an NC2 with a LSD, or you can't find the NC2 you are looking for, the rules do allow you to update a car. Transmission swaps are reasonably common with the NC and loaded rear carriers (everything you need to swap in the LSD) are readily available through used part distributors and on Ebay, typically for under \$500. If you're mechanically inclined, these swaps are reasonably easy to do with the right tools and a little help. If you're more comfortable taking your vehicle to a shop, we recommend letting your shop know your intentions before sourcing any parts.

Whichever car you land on keep in mind that the minimum weight, as weighed with Driver, will be 2,630 pounds for everyone. The purpose is to keep things equal while allowing owners the freedom to build their car as they see fit. This is particularly important as some safety options require the removal of the factory soft top and others do not. Most cars will be at or over 2630 lbs without any issues, while others may need to run a little extra fuel to meet the minimum.

REQUIRED PERFORMANCE KIT

The Club Spec MX-5 Performance Kit is required to participate in the class. It consists of suspension, wheels and tires.

SUSPENSION

The easiest path to the suspension kit is to call [Mazda Motorsports](#) and place an order. They'll send you Penske Shocks, Eibach Springs and Sway Bars, and all the bits and pieces you need for setup and installation. The full kit retails around \$4,300 and takes about a week to get to you when all items are in stock. It's good to remember that many of these are specialty parts, so ordering well in advance of when you need them is recommended.

WHEELS AND TIRES

We highly recommend going to our friends at [Tire Rack](#). The rules require a 17x8 inch wheel with an offset greater than 45 and a minimum weight of 15 pounds. While there are a lot of options, many enthusiasts will point you to the [Enkei RPF1](#). There are other options, but at 15.6 pounds and \$275 each, the RPF1 is a great choice. As for the tire, no decision to be made there – just tell Tire Rack to wrap whatever wheel you choose in 225/45R17 Bridgestone Potenza RE-71RZ tires and get ready to have fun no matter where you drive.

ALIGNMENT

Alignment decisions will come down to how you want the car to feel, and how you plan to most use the car. If it's primarily a daily driver, you may want to choose more conservatively than you might on a dedicated track and/or autocross car. That said, to get optimal performance, most will go for as much negative camber as possible in the front – generally around 3°. There are some tricks that most performance alignment shops will know that can help you get there – like lowering the caster to get a little more camber – but those are concepts best discussed with the shop you choose.

In the rear, you may want a half a degree or so less than the front to help the car put power down effectively. As for toe settings, toe in generally makes the car a little more stable, while toe out in the front will give you a bit quicker turn in.

Once you have the suspension kit, wheels and tires installed, you have a Club Spec car and you're ready to go!

OPTIONAL MODIFICATIONS

INTAKE/EXHAUST

Though not required, intake and exhaust upgrades are allowed. There is not a lot of power to be gained here, but it does give the car more of a performance feel. For the intake, you'll need the NC Intake System from Mazda Motorsports. For exhaust, any replacement muffler that mounts in the stock location and is at least six (6) inches in diameter or 4x6 oval, is allowed. Our recommendation? Try [Good-Win Racing's RoadsterSport Street Single muffler](#) - super light weight at 12 pounds, it meets the requirements and features full stainless steel construction. You may not replace the B-pipe. Refer to diagram in the [Rules](#) if you have questions.

REMOVAL OF ITEMS

You may also – and you should – remove any loose items in the vehicle. This includes floor mats, but you can also remove the spare tire, jack and tools, and any other items that are intended to be removed such as an emergency kit.

OTHER MODIFICATIONS

In addition to the above, you can also add basic, non-performance items to make the car feel like yours. This includes things like gauges, data systems or cameras, an alternate shift knob and upgrades to audio equipment. Especially for track use, it is highly recommended that you add a sturdy tow hook to each end of the car, just in case. If you plan to drive your car to and from events and need to take more gear than it will haul, you can also add a trailer hitch.

DURABILITY KIT

If you plan to put your Club Spec MX-5 on track, you may want to invest in some modifications to make it more track ready. None of these modifications will make it faster, but they will all help you and your car get more laps per session and more life out of key components.

BRAKES

The stock brakes on the NC are very capable, but you can bring some improvement by swapping the rubber lines out with a stainless steel [Goodridge G-Stop Brake Line kit](#). To keep things cool, you can also add Mazda Motorsport's 2.5-inch brake duct kit. You may also select any brake pad you like for your car, but we do recommend products from our partners at [Hawk Performance](#).

HUBS

You may also upgrade the hubs and bearings, front and rear. The allowed front upgrade swaps the MX-5 parts for the RX-8 version. The rears are competition parts, all of which come from [Mazda Motorsports](#). Another good upgrade is to swap out the lug studs. You can use any one you like, but most prefer ARP.

OIL COOLER

Especially if you plan to run longer track sessions, you may want to add an oil cooler. Like many of the allowable modifications in Club Spec, [Mazda Motorsports](#) has a great solution here, but you can add any cooler you like, provided it serves no other purpose. It is highly recommended to use the Mazda Motorsports option, as a traditional sandwich plate adapter installed to the factory oil filter housing is known to cause the housing to fail.

RADIATOR

The radiator is another area you may want to upgrade as you prepare for the track. The radiator can be replaced with alternate parts, provided the core dimensions are not smaller than the standard part and the OE radiator mounts are used. The radiator overflow tank can also be substituted, as long as the original capacity, function, and mounting location is maintained.

SAFETY UPGRADES

Those who are interested in putting their Club Spec MX-5 on track should spend some time reviewing the [SCCA Time Trials Safety Levels](#). The NC does meet Level 1 requirements with the factory safety equipment installed, however, Level 2 is highly recommended, and Level 3 is also allowed.

LEVEL 2 SAFETY

Level 2 includes a compliant roll bar, fixed back seats and racing harness(es). For Club Spec, you must add the roll bar in order to substitute seats and belts and, in doing so, you may also substitute the steering wheel or remove the airbag from the factory one.

If you are looking to install additional safety equipment, interior modification and/or soft top removal is allowed in order to facilitate installation per the manufacturer's instructions. However, modifications should be kept to the minimum required for installation and factory restraints must be retained.

ROLL BAR

There are several reputable roll bar manufacturers out there. In choosing yours you'll want to make sure that you not only buy from a brand you're comfortable with, but also ensure that what you buy will work with the top you plan to use. We recommend reaching out to a MX-5 safety expert such as [Good-Win Racing](#) or [Flyin' Miata](#) to help guide your purchase. Ensuring that your roll bar has the proper roll bar padding is also a must.

RACING SEATS

Seats not only improve the fit and feel of your car, they're also an important safety decision and there are lots of great options on the market. For Safety Level 2 compliance, they need to be one piece, fixed back seats with routing for belts through the seat. You may replace both seats or just the driver's seat. The key to seat selection is fit, so it's always a good idea to do some test fitting if you can. Good news – lots of common and popular seat models are generally found at an autocross or Track Night near you, and it's a great way to meet people. We recommend starting your safety gear shopping with our partners at [Summit Racing Equipment](#).

With awareness that some may wish to build their car in phases, you do have the option to keep the stock seat with a roll bar, but it is not recommended. If using the stock seat, you must also use the stock seat belts.

HARNESS

The harness you select will depend on several factors including whether you use a head and neck device such as a HANS, preferences in fastening mechanisms, and even color. Again, [Summit Racing Equipment](#) is a great place to learn about options and pick the right one for you.

STEERING WHEEL

The steering wheel allowance is both a practical modification – you may not want an airbag deployment in the event of an on-track incident – and a bit of a perk of adding all the safety gear to your car. Steering wheels almost exclusively come down to preference, and there are lots of great options to check out on [Summit's site](#).

INSURANCE

Don't forget!! Whether you're planning to track it or not, protect the car that you've put time, money and love into with the great insurance products from our partners at [Hagerty](#). They can protect it on track, at home and everywhere in between.

PARTS LIST

Part Number	Quantity	Description
0000-04-5291-SA	2	Penske Front Shock
0000-04-5359	1	Mazda Motorsport Front Mount Kit
0000-04-5407-NC	1	Mazda Motorsport Front Offset Bushing Kit
0000-04-9700-08	2	Eibach Front Spring
0000-04-5292-SA	2	Penske Rear Shock
0000-04-5358	1	Mazda Motorsport Rear Mount Kit
0000-04-5294	1	Mazda Motorsport Rear Shock Alignment Spacer
0000-04-9400-07	2	Eibach Rear Spring
0000-04-9926	4	Eibach Helper Springs
0000-04-5306-EB	1	Eibach Front and Rear Sway Bar Kit
0000-04-5597-KT	4	Mazda Motorsport Sway Bar End Links
0000-04-5293	1	Penske Adjustment Knob (Recommended)
0000-03-5212	1	Goodridge G-Stop Brake Line Kit (Optional)
0000-03-5301-NC	1	Mazda Motorsports 2.5" Brake Duct Kit (Optional)
0000-04-5530	2	Mazda Motorsports Competition Rear Hub
0000-04-5531	2	Rear Hub Bearing
F189-33-04X	2	Mazda RX-8 Front Hub
0000-06-5150-KT	1	Mazda Motorsport Intake System
0000-01-5511-KT	1	Mazda Motorsports Oil Cooler Adaptor with Lines