

### 9.1.11. (FORMER) 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 Road 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.

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- 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 conditions.
- 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 MAZDASPEED 0000-02-5415-AC MAZDASPEED 0000-02-5416-AC
Pressure Plate	Mazda LF04-16-410A 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 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. F: 25mm 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

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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.