

Sports Car Club of America (SCCA)

Washington DC Region (WDCR)

Mid Atlantic Road Racing Series (MARRS)

SPEC-RX7 RULES, EFFECTIVE JAN 1, 2017

Make of car - Mazda RX-7 1981-1985 12A Engine

Preparation Rules

Only the following optional or specific modifications are allowed: SRX7 race cars must use either stock or "OEM" replacement parts except where specified and all cars must comply with Section 9 of the current General Competition Rules. The only modifications allowed are those listed below. The following items may not be modified, detailed or massaged in any way: carburetor, intake manifold, spark plugs, drive pulleys, distributor, transmission, exhaust manifold, engine block, intake and exhaust ports, rotors, or moving parts.

Required Equipment / Preparation

ROLL-CAGE - Autopower bolt-in roll-cage, Part# 83591. Floor plates and sleeves may be welded to the bars and two additional uprights may be added between the driver's door bars. These bars must meet GCR specs. Plates no larger than 100 square inches and no thicker than 1/4" may be welded to the floor under the base plates of the cage. The cage base plates may be welded to the added floor plates. An additional bar of the same size as the main hoop may be added between the rear driver's side vertical bar and the diagonal support bar that runs from the top of the rear hoop to the bottom of the passenger side rear vertical bar. This is in addition to the required horizontal bar as per the GCR. The purpose of this bar is for mounting of safety harness shoulder straps.

TIRES Toyo Proxes RA-1, size 205/60R13 86V is the only tire allowed. Tire treatments of any kind may not be used.

IGNITION KILL SWITCH - Must be added as per GCR 9.3.33.

SEATS - The driver's seat shall be replaced with a one-piece bucket-type race seat. The driver's seat mounting shall be reinforced per GCR section 9.3.40. Factory seat tracks/brackets may be modified, reinforced, or removed to facilitate replacement mountings, provided the replacements perform no other function. The driver's seat and installation must comply with the current GCR. The passenger seat, seat tracks/brackets, and seat belts/belt mechanisms may be removed in their entirety or replaced with a race-type seat and safety harness.

Optional Equipment / Preparation

WHEELS - Stock or after market wheels up to 13"x7".

SHOCKS - Tokico High Performance Gas, non-adjustable. Front Part# HZ1069 Rear Part# HE2317.

SWAY BARS - TMC Front 1 1/8", Part# CSM4018, or Racing Beat Front, Part# 14100. In the rear, the car may be fitted with the TMC 3/4" bar Part# 4112, the stock bar, or no bar at all.

SPRINGS Front & Rear - TMC "Street/Race" springs. Part# CSM400 or Racing Beat Part#, 14018 (front) and 14019 (rear).

AIR FILTER AND HOUSING - K&N Part # E-2700 air cleaner element may be substituted for the stock type. The plastic flapper valve assembly within the air filter snorkel and the plastic snorkel may be removed. The openings created by the removal of the flapper valve assembly must be sealed from the exterior of the housing.

FRONT CONTROL ARM BUSHING - Suspension Techniques part# 11-3101.

FRONT STRUT ROD BUSHING - Suspension Techniques part# 11-7101.

STEERING WHEEL – Steering wheel locks must be disabled per GCR 9.3.41. Any GCR-compliant steering wheel and quick release kit may be used.

INSTRUMENTATION - The stock instrumentation must be retained but any instrumentation may be added.

MOTOR AND TRANSMISSION MOUNTS – Motor and transmission mounts must be stock or OE replacement. MAZDASPEED Motorsports Motor Mounts (part# 4352-39-040) and MAZDASPEED Motorsports Transmission Mount (part# 4352-39-340) may be used in place of stock or OE.

HEATER CORE - Heater core may be bypassed by plugging heater hose lines or fittings.

WINDSHIELD WASHER RESERVOIR: The windshield washer reservoir can be removed.

GENERAL SPECIFICATIONS:

MINIMUM GROUND CLEARANCE - 5 inches, to be measured at the lowest point of the rocker panel, but not to include welded seams.

MINIMUM WEIGHT - 2530 pounds with driver. Ballast may be added but it must be securely fastened to the floor in the passenger seat compartment or in the passenger foot well.

MAXIMUM FRONT CAMBER – Maximum negative camber of one and one-quarter (1-1/4) degrees.

MAXIMUM TIRE TRACK - Tire tread cannot protrude beyond the fender opening when viewed from the top perpendicular to the ground.

ADDITIONAL RULES FOR SPEC RX-7 RACE CARS

1. INTERIOR - No gutting is permitted. The radio/stereo, speakers, carpeting, padding over the rear wheels, the rear storage boxes, and storage box frames may be removed. Center console may be removed. Headliner may be removed. All other interior items must remain in place. Door panels may be modified for roll cage clearance, but not removed. Air vents in the dashboard may be modified or removed for roll bar clearance. The dashboard may be modified to permit mounting of a right side head net to the firewall. Interior rear view mirror may be removed and replaced with an after market mirror of any type. Shifter handles only may be replaced with an after market handle. Brake, clutch, and gas pedal non-slip covers may be added, stock rubber pads only may be removed.

2. EXTERIOR - Any paint scheme or markings meeting GCR section 9 specifications are permitted. Mirrors are free but must use the stock location. 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. Emblems and side moldings may be removed. Hood pins and windshield clips may be added. The radio antenna may be removed.

3. ENGINE - Any spark plug wire, engine and drive train lubricants may be used. Only Mazda recommended spark plugs may be used. Spark plugs must be listed in an official 1981 - 1985 Mazda workshop manual to be approved. Standard factory or OEM crush washer must be used with all spark plugs. Ignition coils may be replaced with any coil that will fit in the stock location. Any radiator may be used, provided it can be mounted in the original location and requires no body or structure modifications. The stock fan and fan clutch may be removed or modified. A single electric fan may be used for radiator cooling if the stock fan is removed. The electric fan assembly (including fan and shroud) must not exceed the dimensions of the radiator.

The stock fan shroud may be removed. 1983 and later RX-7s may use the earlier oil coolers. Any oil cooler of the same dimensions as the stock cooler or smaller may be used. Screens of one-fourth (1/4) inch minimum mesh may be mounted in front of the radiator and/or oil cooler and contained within the bodywork.

The air inlet to the radiator may be sealed with caulk or tape. Stainless steel lines may be used for oil and fuel lines. Engine timing is free. Air conditioning and cruise control components may be removed. The cold start system may be removed. The factory hot start system must remain in place and functional. Any automotive-type 12-Volt battery that fits in the stock location may be used. The minimum weight of the battery when wet and fully functional is 23 lbs, not including cables and connectors. The minimum dimensions for the battery are 6.5 inches height X 5 inches width X 7 inches length. The factory battery perch must remain unmodified except for the addition of bracket attachment points. Any bracket may be used to secure the battery.

4. EXHAUST - The stock exhaust manifold must be used and must remain unmodified. Exhaust after the manifold is free but must exit behind driver and meet sound requirements. Stock pre-converters may be removed or hollowed out or removed. The catalytic converter may be removed. Exhaust heat shields may be removed.

5. DRIVETRAIN - Clutches are free provided they bolt onto the stock flywheel. Standard models with rear drum brakes may replace the rear end assembly with a GSL rear end with disc brakes and limited slip. The rear end ratio must be the stock 3.90. A locked or welded rear is not permitted. The stock wheel lug bolts may be replaced with studs and nuts.

6. BRAKES - Any brake pad is allowed as long as it fits the stock caliper. Braided steel lines may be used. Adjustable brake bias valves may be used. Front brake dust shields may be modified 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.

The plastic panel in front of the wheel may be removed or modified for brake cooling. A single duct of 3" maximum diameter may be routed on each side.

7. SUSPENSION - Upper strut mounting holes may be slotted for increased camber. Urethane front control arm and strut rod bushings may be used. The front and rear bump stops may be modified or removed. Front and rear sway-bar bushings including end-links may be replaced with urethane bushings. Spacers may be added to the coil springs for weight balancing. Springs may be cut to adjust ride height. Springs may be attached to the spring perches to prevent

movement. A strut brace may be added only between the two front strut towers. Watts link mounts on rear suspension can be replaced with MazdaTrix part number MZ-1-WATT.

8. UPDATING & BACKDATING - Any 1981 - 1985 part or assembly may be interchanged except where the part or assembly is specific to the 13B model. Engines are considered to be an assembly and must be exchanged as complete units. No interchange of internal components within an assembly is permitted.

9. FUEL SYSTEM – The stock fuel tank may be replaced with a fuel cell that is no more than 16 gallons and no less than 15 gallons. The fuel cell shall be mounted in the stock location. Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not attach to the roll cage. The floor pan may be modified for installation. See GCR Section 9.3.26 for requirements. If a fuel cell is installed in place of the stock fuel tank, the stock fuel filler neck may be removed. OEM rubber fuel lines may be replaced with stainless steel lines. Fuel lines may not be insulated. Fuel lines must remain as configured by the factory; one supply line and one return line. The return line must have the factory check valve in the stock location and direction. Fuel pump and pressure regulator are free. Replacement fuel pump must be mounted within 12” of the original. Fuel filters are free. Fuel pressure for both stock and non-stock fuel systems must be regulated for a supply pressure of 2.0-3.0 PSI as measured at the carburetor. All cars must be equipped with a fuel sampling port that meets GCR fuel sampling requirements and that can also be used to accurately measure fuel pressure at the carburetor. The competitor will supply a hose when requested by tech inspectors that connects to the fuel sampling port and terminates in a 5/16” diameter fuel line for adapting to a 5/16” barbed fitting.

10. EMISSIONS SYSTEM – Anything performing an exclusively emissions related function may be removed. The stock phenolic carburetor to intake manifold spacer shall not be removed or modified. The charcoal canister shall remain and be unmodified. Removal of the shutter valve from the intake manifold is permitted. Any resulting holes must be sealed. A block off plate may be used in place of the air control valve. If not removed, emissions control devices shall not be modified. If the air pump is removed an alternate double sheave alternator pulley is allowed (Racing Beat part #11479 recommended). If the air pump is removed an alternate double sheave alternator pulley with a diameter not to exceed 2-7/8 inches is allowed; Racing Beat part #11479 is recommended.