



MotoIQ Pacific Tuner Car Championship Rules - 2014

The MotoIQ Pacific Tuner Car Championship (MPTCC) is a production car based wheel to wheel racing series with a rule set designed to allow many of the common modifications found in the aftermarket tuner aftermarket. The basis of the classes and costs will be managed by power to weight ratios rather than a restrictive set of rules. This will allow a fan pleasing diversity of competitive cars much like those found in popular time attack competitions.

The MPTCC is sanctioned by NASA. All vehicles must pass an annual NASA Tech Inspection to compete in the MPTCC. Refer to the NASA CCR for more information. The rules in this section apply only to the MPTCC classes.

1 Classes and Class Codes

- 1.1 All weights are with driver as the vehicle comes off the race track after any official session (qualifying or race).
- 1.2 Tuner Under (TU) division: 12 lbs per wheel horsepower. 1,900 pounds minimum weight.
- 1.3 Tuner Over (TO) division: 8 lbs per wheel horsepower. 2,100 pounds minimum weight.
- 1.4 Any vehicle that receives a weight penalty will add the penalty weight after the power to weight ratio is calculated.

2 Engine and Drive Train

- 2.1 Engine performance upgrades are unrestricted.
- 2.2 Engine swaps are allowed.
- 2.3 Engine must be located within the OEM engine compartment.
- 2.4 If an engine and or transmission swap is performed the new engine and or transmission must be installed as close as possible to the OEM location. Engine mounting cannot violate section 5.1 below. Minor clearancing for engine manifolds and/or accessories is allowed at the discretion of MPTCC officials.
- 2.5 Nitrous Oxide is NOT allowed.
- 2.6 Any OEM or aftermarket transmission or gear conversion may be used.
- 2.7 The use of alternate gear ratios from the OE standard equipment ratios for the transmission is permitted with a 3% weight penalty.
- 2.8 The use of sequential or paddle shifting is permitted with a 3% weight penalty.
- 2.9 Clutches and flywheels are unrestricted. Multi disc clutches must be minimum 7.25" diameter.
- 2.10 Differential and final drive ratios are unrestricted.

3 Body

- 3.1 All cars must maintain a neat and clean appearance. All panels must fit properly and be free of sharp edges. All panels must be painted or wrapped, except carbon fiber panels. No vehicle will be allowed to compete in more than one event with obvious body damage or unfinished body panels.
- 3.2 Any commercially available body panels or upgraded body panels may be used.
- 3.3 Polycarbonate replacement windows are allowed - .236" minimum front windshield, .177" minimum rear window, .118" minimum side windows.
- 3.4 Front door windows must be in the full down position or removed while the vehicle is on the racing surface.

4 Aerodynamics

- 4.1 Any commercially available rear wing/spoiler is allowed. No part of the rear wing/spoiler may extend rearward beyond the rear most point of the OE bumper. No part of rear wing/spoiler may extend above the upper most point of the OE bodywork. No part of the rear wing/spoiler may be extended beyond the overall width of the OE body work. Hatch back or station wagon body styled vehicles may mount the rear wing/spoiler above the roof but no part of the rear wing/spoiler may extend above 12" above the OE bodywork. Wing/spoiler mounts may be fabricated but must meet all above criteria. Dynamic control of any aero devices is not allowed.
- 4.2 A commercially available front splitter with an aerodynamic working surface of no more than 6" is permitted. If no suitable splitter is commercially available an alternate may be fabricated. All non-commercial splitters must be approved by MPTCC officials.
- 4.3 Full under tray/flat bottoms are permitted. The area between the axle centerlines must be flat and within 1" of parallel to the ground surface.
- 4.4 Canards, dive planes, curved aerodynamic surfaces are allowed. Exotic aerodynamic additions will be disallowed at the discretion of MPTCC officials.
- 4.5 Side skirts are allowed and may not extend beyond the overall width of the OE bodywork. The aerodynamic working surface of the side skirts cannot exceed 2".
- 4.6 Rear diffusers are permitted but not to infringe on Rule 4.3.

5 Frame and Chassis

- 5.1 The entire tub, floor pan, firewall, and sub frame assemblies must remain in the OE positions and may only be modified as specifically allowed by these rules.
- 5.2 Vehicles must have OEM front and rear shock towers in the OEM stock location. Vehicles must utilize the OEM shock towers for shock/strut attachment. Attachment of camber and/or castor adjusting devices is unrestricted. The OEM shock towers must be intact and the shock mount must pass through the original tower. The tower may be modified to install shock mounts, reinforcement or spacers but the OEM structure must remain in place.
- 5.3 Suspension pick up points may be moved a maximum of 1".
- 5.4 Modifications to the frame and chassis to allow for proper suspension travel are permitted but are restricted to those modifications necessary to accomplish the above.
- 5.5 Modifications in front of the front shock tower and behind the rear shock towers are permitted.
- 5.6 Modifications to allow for the installation of an approved fuel cell and or exhaust routing are permitted.
- 5.7 Non-structural parts of the unibody may be removed such as unused brackets, parcel shelf, and superfluous parts that are no longer required.
- 5.8 Seam welding is permitted.
- 5.9 Modifications to provide additional headroom by lowering the seat pan area is permitted.

6 Interior

- 6.1 All interior parts or panels within the passenger compartment and trunk may be removed. Non-structural sheet metal may also be removed.
- 6.2 Doors may be fully gutted.
- 6.3 All holes in floors and firewalls must be sealed.

7 Suspension

- 7.1 Modifications to the OEM control arms are permitted.
- 7.2 Suspension arms and links may be replaced with aftermarket parts if available for purchase by any competitor.

- 7.3 The suspension configuration must remain as OE manufactured. Beam axles may not be converted to IRS. Strut type may not be converted to multilink or A arm.
- 7.4 The factory suspension pick up points must be retained and used. The pick-up points may be reinforced.
- 7.5 Suspension pick up points may be moved a maximum of 1”.
- 7.6 Sway bars are unrestricted.
- 7.7 Shock absorbers and springs are open. Shock absorbers must stay in their stock locations. Converting divorced spring and shock assemblies to coilovers is permitted. Active suspensions are not allowed.
- 7.8 Stock spindles and uprights must be retained. Hubs and bearings may be modified.
- 7.9 Driver adjustment of the suspension other than the sway bars is not permitted when on the racing surface.

8 Roll Cage

- 8.1 A minimum six point roll cage with side impact protection is required. Refer to Section 2 of the NASA CCR for roll cage design details.
- 8.2 The roll cage may penetrate the firewall. The firewall must be sealed.

9 Safety

- 9.1 The driver must use the following safety gear:
 - A. Fire suit with a minimum rating of SFI 3.2A/1.
 - B. Gloves with a minimum rating of SFI 3.3/1
 - C. Shoes/boots with a minimum rating of SFI 3.3A/5
 - D. Head and neck restraint system or device with SFI 38.1 certification. Hans brand device with FIA 8858-2002 is acceptable in lieu of SFI 38.1. Older Hans devices must be updated to “post type” anchors.
- 9.2 All cars equipped with air bags must remove or disable the air bag system.
- 9.3 An electrical master switch must be installed within reach of the driver when seated and belted in normal position. The switch must also be readily accessible from the outside of the vehicle and must be clearly marked.
- 9.4 Vehicles equipped with a dry sump or accusump system must be equipped with an onboard fire suppression system. Dry sump tanks must be separated from the driver by a firewall or sealed metal container. Any oil lines in the driver area must be steel braided or of solid metal construction.

10 Tires and Wheels

- 10.1 TU Tires – Any size wheel may be used. Tire width will be limited by the vehicle’s race weight (with lightest driver) as follows:
 - 275 max = 3,000lbs or more
 - 245 max = 2,500lbs - 2,999lbs
 - 225 max = 2,000lbs - 2,499lbs
 - 205 max = 1,999lbs or less
- 10.2 TO Tires – Any size wheel may be used. Tires may not exceed a 275 section width. Vehicles OEM equipped with tires exceeding the above section width may use the exact section width tire as OEM delivered on the positions only as delivered.
- 10.3 Tires must be DOT certified.
- 10.4 The same set of tires must be used for both qualifying and racing for the entire event weekend (two race days). Tires will be marked by MPTCC officials on the first day of the event weekend prior to qualifying.
- 10.6 For safety reasons tires may be replaced. All tire replacements must be approved by MPTCC officials.

10.7 Rain tires must be DOT approved. Rain tires will not be part of a competitor's marked sets. Rain tires are allowed only when rain conditions warrant the use of rain tires at the discretion of MPTCC officials.

11 Power and Weight Certification

11.1 All weight measurements will be performed on the official NASA scales. The NASA scales are the only official scales.

11.2 All vehicles must be certified on an official series dyno prior to competing in any event. The official dynos are the MotIQ Superflow and Road Race Engineering Dyna Pack.

11.3 The dyno test procedures are as follows:

11.3a Dyno to be set to 2000 RPM start RPM with a 4 second hold. 8 seconds to end of pull. MPTCC officials may modify these settings to best test a particular vehicle.

11.3b Competitors will be required to provide all gear ratios including final drive to MPTCC. A gear will be selected to test vehicle as close to 4.80:1 overall ratio as possible.

11.4 All dyno readings will be corrected to SAE J1349 (2004).

11.5 MPTCC may place equipment on any car at any time to monitor engine boost or any other parameter.

11.6 Forced induction cars found to have exceeded the certified boost levels by 10% will be disqualified and will forfeit all awards and points from the event.

12 Brakes

12.1 Brake systems and brake system upgrades are unrestricted unless stated otherwise by these rules.

12.2 All brake components must be commercially available to all competitors.

12.3 Brake rotors may not be carbon-carbon, ceramic, or MMC.

13 Convertibles, T-Tops and Sunroof/Moonroofs

13.1 Sunroof, moonroof, t-top equipped vehicles must replace all glass top components with metal, or composite components properly affixed to the vehicle.

13.2 Convertible vehicles may install metal or composite roofs properly affixed to the vehicle.

13.3 Convertible, t-top, sunroof/moonroof equipped vehicles may run in an open top configuration. If run as an open top an additional cross bar must be installed in the roll cage roof halo and the driver must wear approved arm restraints.

14 Miscellaneous

14.1 The driver's seat must be properly and securely mounted.

14.2 All vehicles must be equipped with right, left and rear view mirrors.

14.3 Ballast may be added to meet class rules. Ballast may be placed in any location and must be securely fastened to the vehicle with proper mounting bolts (min. grade five). Any piece of ballast that becomes dislodged from its mounting position will result in disqualification from the event. Ballast and mounting method must be in accordance with section 15.20 of the NASA CCR.

14.4 Adequate catch tanks and/or absorbent blankets must be used to prevent liquids from leaking onto the racing surface.

14.5 Any battery may be used and the battery may be relocated. The battery must be securely mounted and the positive battery post must be insulated. If the battery is a wet cell or spillable type it must be mounted in a properly ventilated spill proof container.