

KIRKISTOWN MAZDA MODI-5-CUP 2025

Technical Regulations

5.1 INTRODUCTION

The following Technical Regulations are set out in accordance with the Motorsport UK specified format and it should be clearly understood that if the following textx do not clearly specify that you can do it, then you should work on the principle that you cannot. Where nothing is listed for a reference number and heading the subject is 'free' within Motorsport UK NCR.

5.2 GENERAL DESCRIPTION

The Mazda Modi-5-Cup is for competitors participating in MX5 cars. Eligible models are Mazda MX5/Eunos/Miata origin 1989-2005.providing they comply with these Techniucal Regulations,

5.3 SAFETY REQUIREMENTS

All cars must comply with the Technical Regulations listed in the Motorsport UK National Competition Rules (NCR Chapter 7, Chapter 9)

5.3.1. The wearing of FIA flame resistant racewear is mandatoey for this series. i.e. gloves, balaclava, socks and shoes. The wearing of flame-resistant underwear is recommended,

5.3.2, Mobile phone or tablet devices are prohibited from being carried or used in the competing vehicle while on the circuit.

5.3.3. Re=Scrutiny. All vehicles reported to have been in contact incidents must be re=presented to the Scrutineers before continuing in the races or practice.

5.4 GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS

5.5 CHASSIS

5.5.1. All vehicles must be of sound construction and mechanical condition and be well-maintained.

5.5.2 The word 'standard' is used within these Technical Regulations as a description of components is to be interpreted as – the specified component from the manufacters parts list for the model/engine shown on the entry form or registration form., It is permitted to use components from the early model on the late model or vice versa, This includes engines. Checking will be by comparison with spare parts supplied by the manufacturers official agent or by any other means

Parts/engines etc may be interchangeable between early and late model cars,

5.6 BODYWORK

5.6.1 Boot and bonnet catches should be removed and bomnmet pins and boot pins/springs added. Door glass may be replaced with 4mm Lexan/polycarbonate. Or the original glass may have clear colourless safety film fitted,

5.6.2. Doors are to remain but the internal panel may be removed if a door bar is fitted to the rollover cage. Removal of headcloth, carpets and rear interior trim is allowed.

5.6.3. A plumbed in fire extinguisher should be fitted in the passenger footwell,

5.6.4. Airbag to be removed. Steering wheel may be changed. The steering lock must be disabled. The steering lock housing must be fitted to the column by headed bolts (no shear bolts permitted) to allow ease of replacement for eligibility purposes.

5.6.5 Drivers seat should be correctly located amd securely anchored to allow no movement in squab or backrest, As the standard seat can be moved, it is not permitted, Front passenger seat to be removed.

5.6.6. The use of lightweight materials or fibreglass in permitted for all other exterior panels (front guards, quarter panels, front and rear bumpers, bonnet and boot lid, but must be accurate reproductions of the original bodywork as per original factory finish,

5.6.7. Use of spoilers. Chin spoilers and alternative nosecones are permitted, as are side skirts and rear spoilers, but these must not be higher than 18cm above the OEM factory boot lid,

- 5.6.8. Windscreen frame must be present and unmodified other than gusseting to the roll cage. A standard OEM unmodified laminated glass windscreen must be used.
- 5.6.9 It is not permitted to change the silhouette of the car by the fitting of a coupe/fastback style hard top,
- 5.6.10. The fitting of a flat undertray and rear diffuser – to aid aerodynamics – are permitted but the original floor and chassis rails must remain complete and intact.
- 5.6.11 Bonnet vents and louvres for the extrusion of hot air from the engine bay are permitted. Vents are also permitted on the front wing/wheel arches but the original arch radius and overall factory profile must remain. Exterior door panel skins and quarter panel skins must not be cut or vented or modified in any way from original.
- 5.6.12. The ground clearance, measured as the distance between the ground and the bottom of the cars lowest point must be no less than 40mm.
- 5.6.13 A hardtop of the OEM type or a lightweight copy may be used, and a Lexan/polycarbonate rear window fitted.. ALL hardtops must be securely fitted.
- 5.6.14. Wheels must remain inside the body and not protrude beyond the arches.
- 5.6.15. It is permitted to fit extensions, and/or non-slip material to the pedals,
- 5.6.16 No wide wheel arch extensions ! The body may be no wider than the standard OEM factory unit.
- 5.6.17. Chassis from the front of the front subframe forward is open to modification, but the standard production bonnet slam panel must remain. Front shock absorber mountings must remain standard and unmodified. The use of a strut brace is permitted,
- 5.6.18. Chassis from the rear of the rear subframe mounting point to the rear light panel is open to modification, Rear shock absorber mountings must remain standard and unmodified. The use of a rear strut brace is permitted. Rear light panel must remain and rear lights must also remain and have working brake lights as per OEM.
- Rear bumper must be present but may be trimmed to suit diffuser if used,

5.7 ENGINE

- 5.7.1 Engines permissible: Anything from 1989 – 2005/ 1.6 litre B6ZE (RS); 1.8 BP5; 1.8 BP4V; 1.8 BPZ3(SVT)
- 5.7.2. Power Plant Frame. Standard OEM and unmodified.
- 5.7.3. Standard OEM single throttle body
- 5.7.4. Standard OEM inlet manifold.
- 5.7.5. Standard OEM inlet and exhaust valves
- 5.7.6. Camshafts must be standard and unmodified. Camshaft wheels must be visible for inspection at all times. (This can be achieved simply by removing the top plastic timing belt cover.
- 5.7.7. Heads and manifolds open to port matching. (Heads may be skimmed (see 5.7.22)
- 5.7.8. The fuel injection system must be standard and unmodified. No modifications permitted. No additives allowed to pump fuel,
- 5.7.9. Crankshaft, connecting rods, pistons, oil pump, crankshaft pulley, water pump and alternator must remain OEM Mazda parts or pattern parts and unmodified in any way.
- 5.7.10. Alternator and water pump must be driven from the crankshaft pulley with the standard sized belt which is 4pk884 or 12.5X900 Vee belt on the appropriate pulley,
- 5.7.11. Engine Management: Standard and unmodified OEM ECU and wiring loom appropriate for engine being used. Competitors must remount the ECU in such a way in which to allow easy access for the scrutineers to inspect,
- 5.7.12. Standard OEM unmodified airflow/mass meter.
- 5.7.13. Air feed pipe joining airflow Meter to Throttle body and air filter are free from restrictions.
- 5.7.14. Standard OEM unmodified throttle position sensor.
- 5.7.15. Standard OEM unmodified cam angle sensor.
- 5.7.16. Standard OEM unmodified crankshaft sensor in original position on block.

- 5.7.17. Standard OEM unmodified temperature sensor..
- 5.7.18. Standard OEM fuel pressure regulator
- 5.7.19 Standard OEM unmodified fuel injectors.
- 5.7.20. Standard OEM fuel pump in original position.
- 5.7.21. Standard OEM unmodified fuel tank in original position.
- 5.7.22. Cylinder heads must be a minimum of 133.4mm high from machined face to machined face. This allows for reclamation by skimming to a typical maximum of .4mm or 0.014 inch. Skimming (decking) of the engine block is not permitted and piston protrusion must be as standard.
- The only permitted gasket is a standard OEM Mazda BT6d-10-271 or standard pattern replacement. It is the competitor's responsibility to ensure that any pattern parts have the same compressed height as an OEM Mazda head gasket. The standard Mazda throttle body circuit may be bypassed. All inlet and exhaust valves, valve seats and valve guides must be of standard pattern and material. Valve seat profiles/angles may not be modified.
- 5.7.23. Items open to modification:
- 5.7.24. Heads (see 5.7.22)
- 5.7.25 Inlet manifold
- 5.7.26. Exhaust manifold.
- 5.7.29 Flywheel,
- 5.7.30. Clutch.
- 5,7,31, Oil coolers, coolant radiator and fans .
- 5.7.32. The eligibility scrutineer may require the engine to be removed and/or stripped for inspection and the components compared to standard Mazda production parts. The cost of this and any subsequent rebuild will be borne by the competitor.
- 5.7.33, ALL INSTANCES OF BROKEN SEALS WILL BE LOGGED AND REPORTED TO THE CoC AND CHAMPIONSHIP ORGANISERS,

5.8 SUSPENSION AND SUBFRAMES

5.8.1 Front subframe assembly.

- 5.8.1A. Standard OEM unmodified chassis mounting points must be used.
- 5.8.1B Standard OEM unmodified front subframe.
- 5.8.1C Standard OEM unmodified upper and lower wishbones.
- 5.8.1D. Standard OEM unmodified upper and lower ball joints.
- 5.8.1E. Standard OEM unmodified front upright and hubs
- 5.8.1F. Standard OEM unmodified camber bolts.
- 5.8.1G Standard OEM unmodified steering rack
- 5.8.1H Standard OEM unmodified steering column,
- 5.8.1J Standard OEM unmodified inner and outer track rod ends should be used.
- 5.8.1K Steering column top mounting may be fitted to roll cage cross bar, but must remain OEM in length and angle.
- 5.8.1L Wishbones may be fitted with FLOFLEX polyurethane bushes.
- 5.8.1M Spherical bearings. Rose joints or other metal bearings of any kind are not permitted.
- 5.8.1N Permitted coilovers – TA Technix part number for Mk1 is EVOGWMA01. For Mk2 the number is EVOGWMA02.
- 5.8.1P Springs Free

5.8.2. Rear Subframe Assembly

- 5.8.2A, Standard OEM unmodified chassis mounting points must be used,
- 5.8.2B Standard OEM unmodified rear subframe.
- 5.8.2C Standard OEM unmodified upper and lower wishbones,
- 5.8.2D Standard OEM unmodified rear uprights and hubs
- 5.8.2E Wishbones and uprights may be fitted with FLOFLEX polyurethane bushes.
- 5.8.2F Spherical bearings, Rose joints or other metal bearings of any kind are not permitted.

5.9 TRANSMISSIONS

5.9.1 Gearbox & prop shaft. The standard OEM five speed gearbox in the only unit to be used, along with standard issue gear ratios. All gears from 1st through to 5th and reverse. to be present. No modification or alteration is permitted,

5.9.2 Differentials, half shafts, rear uprights, wheel hubs and CV joints must remain original and unmodified. Permissible differential (final drive) ratio is 4.1:1. **Note:** The 4.1:1 is the most widely available as it was a standard fitting on the majority of 5-speed cars

5.9.3 Differential Mounting. This must remain in the original OEM position. The use of FLOFLEX polyurethane bushes is permitted. Also, the aluminium arms of the casing may be boxed in order to strengthen or repair.

5.9.4 Standard mechanical MX5 LSDs are allowed. The use of aftermarket plated LSD's is prohibited.

5.10 ELECTRICS

5.10.1 Headlights may be removed but the aperture must be covered. Brake lights must remain as standard and be operational.

5.10.2. A 21W rear fog/rain light must be fitted and operational.

5.10.3 It is permitted to replace the standard battery with a competition type, and to move the battery inside the vehicle and locate it in the passenger area. Where a battery is located in this area it must be of sealed construction.

5.10.4 The standard alternator must be fitted, connected and providing a charge when the engine is running.

5.11 BRAKES

5.11.1 No drilled or grooved discs are permitted

5.11.1A Standard OEM unmodified calipers are mandatory.

5.11.1B Standard OEM unmodified discs are mandatory

5.11.1C Disc diameter available (front) 234, 256 and 275

5.11.1D Disc diameter available (rear) 230, 255 and 274

5.11.1E Handbrakes are not required

5.11.1F Hydraulic handbrakes are permitted.

5.11.1G Pad material is free

5.11.1H It is permitted to replace the standard brake fluid with a higher temperature fluid.

5.11.1J Diagonal front/rear split braking must be retained

5.11.1K It is permitted to replace the standard brake hoses with Aeroquip braided replacement pipes.

5.12. WHEELS/STEERING

5.12.1 No modifications are permitted to the steering system/mechanism'

5.12.2 Maximum 15 inch diameter alloy wheels are allowed.

5.13 TYRES

5.13.1 Toyo Proxes R888R (control tyres) Competitors are permitted 7 tyres per season.

5.14 WEIGHTS

5.14.1 Minimum weight of car and driver: 1,000kg

5.15 FUEL AND FUEL DELIVERY

5.15.1 The car must be run on standard permitted fuel. No fuel additives are permitted.

5.15.2 The fuel tank and location must remain as standard

5.15.3 The fuel supply system (pump and pressure regulator) must remain as standard and unmodified.

5.16 SILENCING

5.16.1 Exhaust system is free, but must meet motorsport noise regulations, or those imposed by venue operators.

5.17 CAMERAS

All competitors are required to fit an on board camera which records on an SD or Micro SD card and must be capable of recording HD footage capable of being played back on a standard laptop. Recordings from cameras may be used in the event of an incident which is subsequently brought before the Clerk of the Course for investigation.

It is the competitor's sole responsibility to ensure safe installation and effective operation of the camera equipment. At all times cameras must be fitted in accordance with Motorsport UK regulations and be approved by the Chief Scrutineer.

Cameras must be mounted in such a position that the steering wheel and the track when the car is being driven on track during any free practice, qualification or race.

The onus is on the competitor to ensure that the camera unit battery is charged, the camera is switched on to record, and that the SD card has enough capacity to record the above mentioned sessions. The SD card must only contain the files from the event in question.

In the event that no recording is available when requested by the Organisers or Clerk of the Course for judicial purposes, then the following penalties shall be applied by the Clerk of the Course:

First offence	Championship reprimand
Second offence	Points deduction – equivalent of 6 th place finish
Third offence	Disqualification

5.18 NUMBERS AND RACE SERIES DECALS

5.18.1 Numbers as detailed in Motorsport UK NCR Ch 7. App8. Arts 2-3.

5.19 APPENDICES

5.19.1 Organisers: 500 Motor Racing Club of Ireland Ltd, Kirkistown Circuit, 130 Rubane Road, Kircubbin, Co.Down, BT22 1AU. E-mail: info@kirkistown.com

Page 10 of 10 - Issue No 1, December 31, 2024

Published by the 500 MRCI Kirkistown Mazda Modi-5-Cup