

Technical Regulations MSF Road Car Categories 2022

Version 1.0
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Malaysia Speed Festival



TECHNICAL REGULATIONS – ROAD CARS CATEGORIES

(The regulations are subject to change, which will be published via Additional Supplementary Regulations – ASR)

DEFINITIONS

Where used in these Technical Regulations, the words and phrases set out in this Definitions section shall have the following meanings.

Aftermarket means non-factory parts, accessories and upgrades to a motor vehicle to assist in performance and, for the purposes of these Technical Regulations, includes Factory Extras

EMS means such a device as is variously known as the Engine Management System, the Engine Control Unit and/or the Engine Control Module and is the electronic device that controls various aspects of the operation of the vehicle's engine including but not limited to, the control of:

- (i) the engine ignition system,
- (ii) the engine fuel supply and fuel injection, and
- (iii) if the vehicle is turbocharged the air pressure, above atmosphere, produced by the turbocharger.

EMS Modification means the modification of the EMS in any manner whatsoever and includes but is not limited to:

- (iv) a modification (including reprogramming) of the software program incorporated in and forming part of the EMS; and/or
- (v) the replacement of the EMS or any part of it; and/or
- (vi) the fitting of any additional component to the EMS; and/or
- (vii) the "flashing", "chip tuning" and/or "remapping" of the EMS.

Exotic means any vehicle that is a Supercar or Sportscar – enquire with organisers for legality.

Factory Extra means any optional extra available for purchase at the time of the sale of the original vehicle but only if such optional extra was manufactured by or on behalf of the manufacturer of the vehicle and offered for sale by the seller of the new vehicle.

Four Wheel Drive Turbo means a Production Car with a forced induction engine where all four wheels are or can be driven and where such forced induction is achieved by the use of a turbocharger.

Free means that the original part, as well as its function(s), may be removed or replaced with a new part, on condition that the new part has no additional function relative to the original part.

Kit Car means an vehicle produced by the assembly of a kit or set of components supplied by a supplier, which supplier may or may not be the manufacturer of some or all of the components supplied, where the assembly of the components is carried out by a party other than the supplier of the components.

Production Car means a vehicle of which the production of a certain number of identical examples within a specified period of time has been verified and which are destined for normal sale to the public. In regard to these Technical Regulations the following shall also apply to the definition of a production car:

- (i) Either manufactured in Malaysia and/or overseas, the model of which is or has been commercially available to the general public in Malaysia and/or overseas as a new car through a manufacturer's dealer network;
- (ii) At least 200 examples of such model must have been registered for normal road use in Malaysia and/or in the country of manufacture; and
- (iii) at least 200 examples of such a model must have been produced in a 12 consecutive month period.



Registration Documents, in respect of an vehicle, means the documentation identifying the vehicle issued by the appropriate body administering the registration system of vehicles used for normal road use in Malaysia, which identifies the registered operator of the vehicle and the fact that it is valid and considered to be Road Registered.

Replica means a vehicle that is not mass produced but is generally available to the public and which is intended to resemble an vehicle manufactured by others either in performance or appearance.

Replacement component where these regulations permit the replacement of a component that replacement component is free, unless the replacement component is otherwise restricted by these regulations.

Road Registered means registered for normal road use in Malaysia by the Road Transport Department.

Two Wheel Drive means a vehicle where only two wheels of the vehicle are or can be driven and includes both rear wheel drive and front wheel drive vehicles.

LIMITED MODIFIED ROAD CAR CATEGORY

1. ELIGIBLE VEHICLES

1.1 General

(a) 2 classes:

(i) Road 1600: up to 1600cc naturally-aspirated or 1000cc forced induction

(ii) Road 2000: 1601cc – 2000cc naturally-aspirated or 1600cc forced induction

(b) The class is for Road Registered production cars with limited modifications to the original manufacturer's specifications. Four Wheel Drive Turbo, Clubman, Kit Car, Exotics, and Replica are **not permitted** to be entered in the Limited Modified Road Car Class. A Limited Modified Road Car may not be eligible for another class.

(c) Vehicles must have minimum 4 seats.

(d) Each vehicle must be as originally specified by the manufacturer except for the specific freedoms allowed herein.

(e) Each vehicle must be Road Registered and, apart from any freedom specifically mentioned in these regulations, no change is permitted to be made to the vehicle during competition that would render it ineligible for such registration.

(f) Where freedom is permitted to fit nominated or recognised parts, such freedom is strictly limited to such components themselves and it is not permitted to modify other components, save by the drilling of holes for mounting purposes.

(g) It is permitted to remove or conceal a registration number plate. Valid Registration document/s must be available for inspection by the Organisers and when the vehicle is presented for scrutineering to verify both the ownership of the vehicle and that the vehicle is Road Registered.

(h) Components considered a Factory Extra are permitted.

2. BODYWORK

2.1 General

(a) The spare wheel and associated tools may be removed.

(b) Bracing may be fitted between front MacPherson strut towers.



(c) Batteries, catch tanks, etc must remain in their original location.

2.2 Internally

(a) Fitted with original equipment as listed below:

- Air-conditioning switches and blower switches.
- Original dashboard required. To be presentable.
- Original Front and Rear door trim panels on both driver's and passenger's side.
- Original glass all around. Front windscreen is to be 2-layer glass.
- All seats required.
- Fitted with original full length dashboard with all listed panels. Refer to diagram 2016a:
- Instrument Panel and cowling
- Steering Column cover and indicator stalks
- Centre console and switches
- Gear console and gear shift cover
- A, B, and C pillar trim
- headlining
- carpet

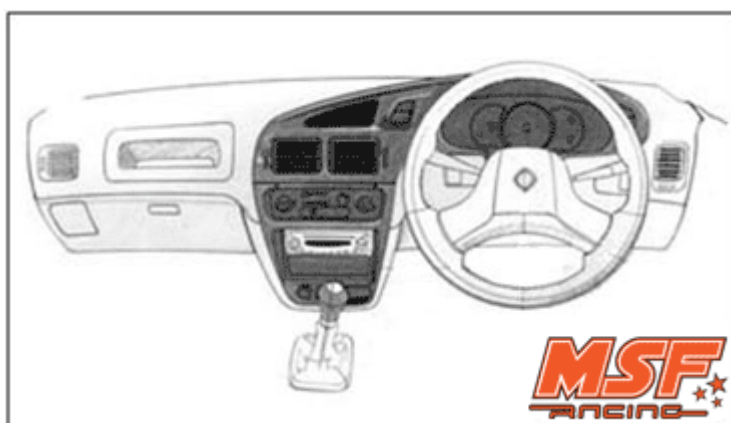


Figure 2016a

(b) Safety equipment and cosmetic or comfort accessories may be added, provided they do not improve the performance of the vehicle.

(c) Additional instruments and switches are permitted and may be fitted to a separate panel.

(d) The steering wheel may be replaced.

(e) All controls and their functions must remain as provided by the manufacturer, but it is permissible to arrange them in such a way as to make them more accessible and easier to use (e.g. fitting additional padding to pedals, extensions to switches, etc.).

(f) The driver's seat may be replaced with a non-standard seat that is commercially available and permitted in a Road Registered vehicle. The front passenger's seat may also be replaced provided that the replacement seat is equivalent to or better than the seat replacing the driver's seat. Seat supports may be modified to enable fitment of an allowable replacement seat. Any rear seat or seats may be removed.

2.3 Externally

(a) Reforming of the wheel-arch beading against the inside of the mudguard is permitted, and any body joint protrusion may be rendered safe.

(b) Additional headlights (e.g. fog lights and driving lights are permitted).



3. ENGINE

3.1 Applicable to each vehicle except for Four Wheel Drive Turbo:

(a) General

- (i) Each condenser, ignition coil, filter element, spark plug, lead, fan belt, radiator hose and gasket is free.
- (ii) Air conditioning systems are free.
- (iii) The engine may be reconditioned in accordance with the manufacturer's repair manual and specifications.
- (iv) It is permitted to add baffle plate/s to the removable section of the engine oil pan or sump.

(b) Fuel System

- (i) Carburettors may be replaced, provided the replacement(s) are of the same configuration (i.e. downdraught or side draught) and have the same number of inlet venturis as the originals.
- (ii) A sandwich-type adaptor plate to enable installation of a replacement carburettor is permitted.
- (iii) Fuel injectors are free but not their number or position.
- (iv) Fuel injection cannot replace carburettor(s) and vice versa.
- (v) EMS Modifications are permitted on non-turbo cars.

(c) Engine Ancillaries

- (i) Pistons and piston rings are free.
- (ii) Material may be removed from, but not added to, piston crowns and cylinder heads for the purpose of volumetric balancing of the combustion chambers only.
- (iii) Material may be removed from a conrod, crankshaft and/or flywheel for the purpose of balancing and surface polishing.
- (iv) Material may be removed from a cylinder bore for reconditioning purposes to the limit of manufacturer's specifications.
- (v) The camshaft/s is free but not the number of its bearings.
- (vi) Inlet and exhaust manifolds and ports may be internally polished and reshaped.

(d) Exhaust

- (i) The exhaust system is free on a naturally aspirated vehicle.
- (ii) On turbocharged vehicle the exhaust is free from the exit of the turbocharger only.
- (iii) Exhaust system must exit with sideways or rearward-facing exhaust outlets.
If rearwards, the outlet/s shall be between 100mm and 450mm above the ground and shall not protrude more than 100mm beyond the rearmost portion of the vehicle.
If directed sideways, the outlet/s must be located rearward of the midpoint of the wheelbase. In any case, they shall not project beyond the maximum width of coachwork /body when seen from above.
- (iv) Minimum one (1) muffler / silencer must be fitted, which are subject to particular examination by scrutineers.

NOTE: Noise restriction requirements of an event must be adhered to.

(f) Turbocharged Vehicle



- (i) No modifications are permitted to the turbocharger and / or induction system or any components associated with its functioning, other than replacement air filter. Turbocharger must remain standard.
- (ii) Maximum engine inlet pressure must remain in accordance with the original manufacturer's specifications for the vehicle.
- (iii) No EMS Modifications are permitted on a turbocharged vehicle.

4. TRANSMISSION

- (a) Clutch linings are free, as is their method of attachment.
- (b) Limited slip differentials are permitted only when available as an option for the vehicle model concerned from the original manufacturer, or its authorised supplier. Modifications to the differential cover or the fitting of a high capacity differential cover to increase the oil capacity of the differential are permitted.
- (c) Non-standard gear and differential ratios are permitted only when available as an option for the vehicle model concerned from the original manufacturer, or its original supplier.

5. BRAKES

- (a) Brake linings and rotors are free provided that the diameters of the rotors are not increased.

6. SUSPENSION

- (a) The type of shock absorber is free but not their number or mounting points.
- (b) The rate and length of springs is free and adjustable spring platforms are permitted.
- (c) Sway bars may be added, replaced or deleted.
- (d) It is permitted to adjust the wheel alignment in accordance with the original manufacturer's recommendations and/or normal wheel alignment principles, except that the original dimensions must be respected as to wheelbase and a maximum increase in track of 25mm (1") is permitted.
- (e) Camber adjustment kits are permitted.
- (f) It is permitted to replace each elastomer suspension pivot point bush and subframe mounting bush by a dimensionally identical bush made from another elastomer material.

7. FUEL

Only Commercial Fuel is permitted.

8. WHEELS AND TYRES

8.1 Wheels

It is permitted to increase the original manufacturers specification for each wheel, provided that the tyre fitted does not extend beyond the outer edge of the bodywork (including wheel arch flares) when viewed vertically from above.

8.2 Tyres

All categories - with no exceptions - are to use the tyre sizes described below. All tyres are to be non-semi slick. For list of semi-slick tyres in MSF, please refer to the list of semi-slick tyres at the series website at www.msfracing.com

8.3 Tyre Tread

At no time prior to the commencement of a competition may any tyre tread wear indicator as provided by the tyre manufacturer be exposed. In all areas where there is no indicator the original



tread pattern must be clearly visible except on the shoulder of the tyre where localised wear may occur.

9. STEERING

Aftermarket power steering cooling units are permitted.

10. COMPULSORY GENERAL SAFETY ITEMS

- (a) A Fire Extinguisher must be fitted. Minimum is 1kg CO2 or Powder unit
- (b) A blue triangle of sides 150mm indicating the location of the battery
- (c) A yellow battery earth cable (may be wrapped in yellow tape). Objective: quick visibility recognition
- (d) Front and rear Tow Hooks must be attached and Arrow Stickers in fluorescent Red must be affixed.

APPENDIX: COMPETITION NUMBER & VEHICLE PRESENTATION

A.1. Competitors are obliged to carry the MSF partners' logos in the mandatory sticker areas.

A.2. Official MSF Sticker Board of MSF Series Sponsors must be located in the area below the front windows behind the front wheel.

A.3. Official MSF Tyre Partner sticker must be placed on the wheel arches, either front or rear arches on both sides.

A.4. Official MSF Title Sponsor sticker must be placed on the front windscreen area.

A.5. Other official MSF Partner stickers must be placed at the front or rear wings on both sides.

A.6. Competition numbers are to be placed in 2 locations:

- Door Numbers: Must be placed on doors on the side of the vehicle, to be clear and of contrasting colour to the body colour. General dimensions for each number digit to be A3 Size (11" Wide x 16" High). Competition numbers must be of a contrasting colour to the car and reflective stickers are recommended.

Objectives are for the numbers to be clearly visible to the Time Keepers, Marshals, and Race Control.

- Windscreen Numbers: Must be placed on the left front of windscreen, below Category Partner sticker. Must be 6" high in Arial Narrow font using White or fluorescent Yellow sticker.

A.7. Competitors & team own sponsors may be located at all other locations such as:

- Front Bonnet.
- Roof.
- Rear Door/fender.
- Rear Bootlid or Tailgate.
- Front & Rear bumpers.

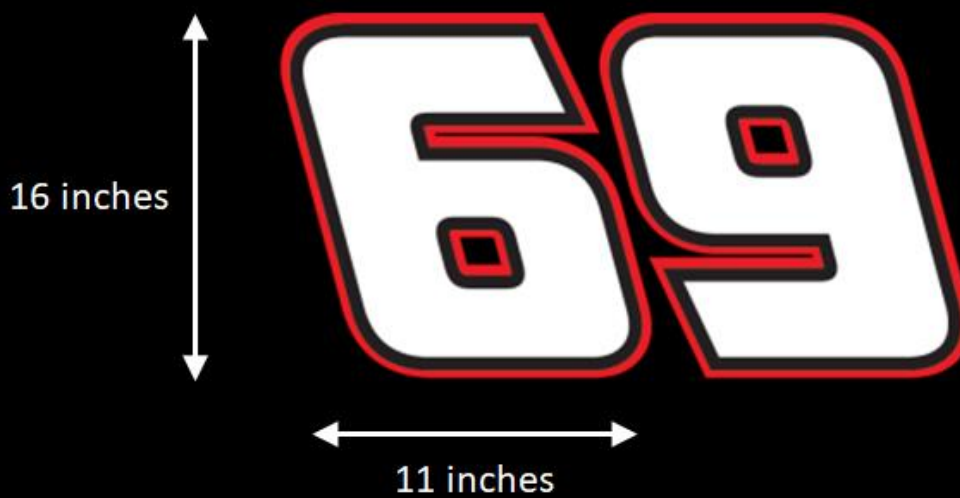
A.8. A rejection fee of RM 2,000.00, for every deleted Partner /Sponsor sticker, is required of any Competitor that does not apply any MSF Partner /Sponsor stickers.



MSF Mandatory Decals Area



MSF SUPERTURISMO Competition Number Specifications



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