

# Technical Regulations MSF Super-Limited Categories 2022

Version 1.0  
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Malaysia Speed Festival



## **TECHNICAL REGULATIONS – SUPER LIMITED CATEGORIES**

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

### **1. GENERAL**

#### **1.1. Eligible cars**

- Any 4-wheeled production-based car or limited production sports car.
- Saloon-based, minimum production 2500 units per calendar year. No supercars.

#### **1.2. Categories**

Street sportscars will be classified in Super Street category.

a) **Super Production 1500 NA:** naturally-aspirated maximum 1500cc, high volume unibody monocoque chassis only.

b) **Super 1600 NA:** naturally-aspirated maximum 1600cc, high volume unibody monocoque chassis only. No rotary engines.

#### **c) Tuner Production:**

- Forced Induction.

- Petrol Engine up to 1600cc.
- Diesel up to 2000cc.
- Turbocharger must meet either of the below specifications:
  - o Original OEM Turbocharger that is specific to the engine used in the car;
  - o TD05 Turbocharger with original TD05 housing;
  - o T28 Turbocharger with original T28 housing, GT turbochargers not permitted;
  - o Any other Turbo with similar dimensions to the TD05 / T28 is permitted; to be declared to and certified by the Organisers prior to the race meeting.

- Normally Aspirated

- 4-valve and 5-valve per cylinder engines up to 1900cc.
- 2-valve and 3-valve per cylinder engines up to 2500cc.
- Mazda rotary-engine up to 1308cc (maximum 2 rotors only) peripheral port not permitted.
- Honda B-series engines up to 1700cc.
- Other Variable Valve Timing ie MIVEC, VVTI, VANOS, engines up to 1900cc.

- Hybrid powertrains

- Maximum engine capacity of up to 1900cc.

#### **d) SuperStreet Limited:**

- Forced Induction.

- 4-cylinder engines 1750cc to 2000cc non-VTEC; 6-cylinder engines up to 2500cc; rotary 1308cc (maximum 2 rotors only) with peripheral port modifications not permitted
- Honda VTEC systems with forced induction limited up to 1800cc only: applicable to B-series and D-series engines. Honda B-series engines with non-VTEC limited up to 1800cc only.

- Naturally Aspirated

- Honda VTEC engines limited to 2200cc maximum engine capacities: this includes ALL Honda VTEC engines such as B-series, K-series, H-series, and F-series.
- Naturally-aspirated non-VTEC engine capacity open; other forms of variable valve timing permitted.

e) **Street 2000 NA:** naturally-aspirated minimum 1900cc and maximum 2000cc; 3-box saloon car body only, 2-door and 4-door permitted (includes Coupes and Fastbacks); 2-box hatchbacks not permitted.

- VTEC not permitted
- other forms of variable lift and timing are permitted



- No rotary engines
- forced induction not permitted.

Approval for entry is at the discretion of the Promoters.

## 2. DEFINITION OF SUPER LIMITED CATEGORY

2.1. Defining what is a 'Super Limited' category vehicle:

2.1.1 *Super Limited cars:*

- The interior of the vehicle includes the minimum items which would define it visually to a casual observer as a car which may be driven on the street with daily amenities, such as:
  - o Air-conditioning and blower switches;
  - o Original full length dashboard with all listed panels including steering column cover and indicator stalks, switches, and centre console with gear shift cover;
  - o Original Front door trim panels on both driver's and passenger's side;
  - o Windscreen to be glass
  - o complete list of interior items refer to paragraph 4 'Interior'.
- Safety cages required, minimum 4-points to the floor; refer to 5.1 for details.
- Subframes may be modified as required but must be based on the original structure and engineering concept of the original subframe.
- Organiser's decision to accept or decline a car's categorisation shall be final.

## 3. GENERAL MODIFICATIONS

3.1. Modifications made to the vehicle cannot compromise the safety or structural integrity of the vehicle.

3.2. Outline for modifications to Super Limited category vehicles:

- Original fuel tank is required, in the original location with original refuelling hose and orifice.
- An inboard FIA specification fuel surge tank is allowed:
  - limited to one 5-litre surge tank only.
  - Petrol lines inside the vehicle, if any, must be certified safety fuel lines.
  - A fire-proof bulkhead and/or protective cover and/or compartment must enclose the fuel pump.
  - A pre-event inspection and approval is necessary and if they meet the organisers safety standards, will be registered and approved. An appointment minimum 1-week prior to the event is required.
- Spare wheel well may be cut and covered. Cover must be metal and must be welded to the body. No plastic or ABS or composite material permitted.

3.3. Brakes

- Brake callipers & disc rotors may be replaced with aftermarket items.
- Brake Pads & Brake Hoses may be replaced with aftermarket items.

3.4. Suspension

- Adjustable suspension top-mounts are permitted.
- Original rubber suspension bushes may be replaced with hard rubber, polyurethane, and nylon material bushes. Rose-joint / spherical bearing suspension components to replace the rubber bushes is also permitted. Mounting points must remain at the original OEM locations.
- OEM suspension types, mounting points and location must be used. Aftermarket coilover types may be used, adjustable top mounts to allow for camber adjustments is allowed.

3.5. Exhaust System

3.5.1 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 automobile.  
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.

3.5.2 Minimum one (1) muffler / silencer must be fitted, which are subject to particular examination by scrutineers.

#### 4. INTERIOR

4.1. Interior of participating cars to be as such:

4.1.1. Fitted with original equipment as listed below:

- Air-conditioning switches and blower switches may be removed. Compressor, condenser blower, and evaporator may be removed.
- Original dashboard required. To be presentable.
- Original Front door trim panels on both driver's and passenger's side.
- Front windscreen is to be glass.
- Passenger side front seat is not required

4.1.2 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.

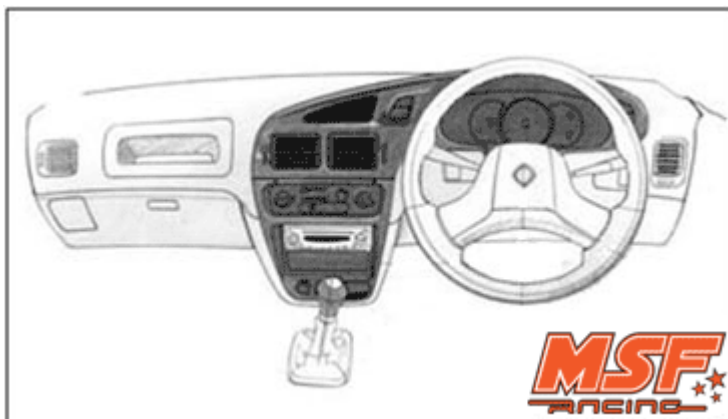


Figure 2016a

4.1.3 The following items may be removed or replaced with non-OEM material/items for safety or to accommodate safety equipment:

- A, B, and C pillar trim
- interior trim from the rear of B-pillar and Front seats
- headlining
- carpet

#### 5. SAFETY EQUIPMENT

5.1. Minimum requirement 4-point Safety cage must be installed.

- It must be secured at minimum four (4) points on the floor with secure bolts or welded plates. Mounting points for the main hoop is the base of the B Pillar



5.2. Safety cage specifications.

Safety Cage Specifications. Only steel circular tubes are allowed for use.

5.2.1. Specifications are

Dimensions (mm)		Use
*Recommended	45 x 2.5 (1¾" x 0.095") or 50 x 2.0 (2.0" x 0.083")	<ul style="list-style-type: none"> <li>Main rollbar (A in Diagram 5-1)</li> </ul>
*Minimum requirement	38 x 2.5 (1 ½" x 0.095") <b>[CDS only]</b> or 40 x 2.0 (1.6" x 0.083") <b>[Mild Steel]</b>	<ul style="list-style-type: none"> <li>Main rollbar (A in Diagram 5-1)</li> </ul>

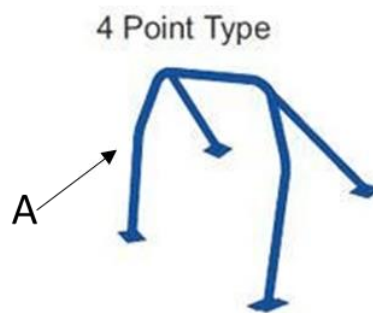


Diagram 5-1

5.2.2. Mount plates

Mount plate size: 80mm x 90mm

Mount plate thickness: 3mm

Reinforce plate thickness: 3mm

5.2.3. Welding: full welding around the diameter of the tubing. It is not permitted to grind or plate the welding.

5.3. Certain parts of the interior can be stripped of certain trim to facilitate installation of Roll Cage Items that may be removed are:

- Rear Seat Back and Rear Seat Cushion.
- Rear parcel shelf or speaker shelf board.
- Floor carpets and headlining

5.4. Only the following listed items may be replaced for safety equipment installation:

- Audio head unit may be removed and replaced with plastic panel to accommodate safety electric cut-off switch and other safety switches.



## 5.5 Compulsory general safety items

5.5.1. Cut-off switches for electrical and fuel systems are compulsory for all categories with an external switch/lever. A sticker identifying the electrical cut off switch must be affixed near the switch.

5.5.2. Competition safety harness & Competition bucket seat is recommended.

5.5.3. A Fire Extinguisher must be fitted. Minimum is 1kg CO2 or Powder unit

## 5.6. Items in passenger compartment

5.6.1. Any battery placed within the passenger compartment must be of sealed Dry cell type. It must be installed securely within a secure box with lid cover.

5.6.2. Oil Catch tank within Engine bay must be of non-flammable material ie alloy or steel material

- must be securely mounted
- must be enclosed with no leaks or gaps
- must have hoses that are securely attached
- plastic bottles are not permitted.

## 5.7. General safety

5.7.1. No fluid leaks of any kind.

5.7.2. No loose items within engine bay.

5.7.3. Poorly engineered and poorly attached bars inside the cabin are not allowed.

5.7.4. Cache tanks, items, pumps, etc that involve lubricant and/or oil are not permitted in the passenger cabin of the cars, excluding items mentioned in 3.2 and 5.6.1.

## 6. BODYWORK

6.1. Composite material for certain bodyparts are allowed. Parts replaceable are

- Front Bonnet
- Rear Bootlid
- Front wings / fenders
- Front bumper
- Rear bumper.

Floorboard and any other part of the fundamental steel monocoque chassis body may not be cut and replaced with anything other than metal for the purposes of lightening.

6.2. Headlights and tail lights are recommended to be taped up.

6.3. Tail/Rear lights to be functional.

6.4. Front and rear Tow Hooks must be attached and Arrow Stickers in fluorescent Red must be affixed.

6.5. Tyres must not protrude beyond OE bodywork. However, if the wheel protrudes beyond bodywork additional wheel arches MUST be installed.

## 7. DRIVER ATTIRE

7.1. Drivers are required to wear proper auto/motor Helmets. Minimum requirement is SIRIM Approved. No Bicycle Helmets allowed. It is highly recommended to use helmet which use double-D type strap fasteners.

7.2. Drivers are required to wear proper racing attire: Flame Retardant suit complying minimum SFI 3.2A/1 and/or EN533. Similar Flame Retardant shoes and gloves required.

7.3. Use of Hand And Neck Restraint (HANS) device is recommended.

7.4. Prohibited to wear non-flame retardant suit or open-toe shoes.



## 8. POWERTRAIN

8.1. The maximum engine capacity permitted is the allowed capacity as stated below for each Category +0.5% for tolerance.

- Super Production 1500 category is 1500cc + 7.5cc.
- Super 1600 category is 1600cc + 8cc.
- Street 2000 category is 2000cc + 10cc.
- Tuner Production and Super Street to be calculated at 0.5% accordingly.

### 8.2. General information

- Nitrous Oxide system is not allowed in any category
- The numbers of attachment points to the bodyshell must remain as standard production
- Oil sump may be modified. Dry sump systems not permitted.

### 8.3. *Super Production 1500 NA*

- Engine capacity up to 1500cc.
- Rotary engines are not permitted.
- Strictly naturally-aspirated engines only.
- Engines with variable valve timing and / or lift permitted.

### 8.4. *Super 1600 NA*

- Maximum capacity 1600cc.
- Rotary engines are not permitted.
- Strictly naturally-aspirated engines only.
- All forms of Variable valve lift and timing permitted.

### 8.5. *Tuner Production*

#### 8.5.1. Forced Induction.

- Petrol Engine up to 1600cc.
- Diesel up to 2000cc.
- Turbocharger must meet either of the below specifications:
  - o Original OEM Turbocharger that is specific to the engine used in the car;
  - o TD05 Turbocharger with original TD05 housing;
  - o T28 Turbocharger with original T28 housing;
  - o Any other Turbo with similar dimensions to the TD05 / T28 is permitted; to be declared to and certified by the Organisers prior to the race meeting.

#### 8.5.2. Normally Aspirated

- 4-valve and 5-valve per cylinder engines up to 1900cc.
- 2-valve and 3-valve per cylinder engines up to 2500cc.
- Mazda rotary-engine up to 1308cc (maximum 2 rotors only) peripheral port not permitted.
- Honda B-series engines up to 1700cc.
- Other Variable Valve Timing ie MIVEC, VVTI, VANOS, engines up to 1900cc.

#### 8.5.3. Hybrid powertrains

- Maximum engine capacity of up to 1900cc

### 8.6. *SuperStreet Limited*

#### 8.6.1. Forced Induction.

- 4-cylinder engines 1750cc to 2000cc non-VTEC; 6-cylinder engines up to 2500cc; rotary 1308cc (maximum 2 rotors only) with peripheral port modifications not permitted
- Honda VTEC systems with forced induction limited up to 1800cc only: applicable to B-series and D-series engines. Honda B-series engines with non-VTEC limited up to 1800cc only.
- Turbocharger is open



#### 8.6.2. Normally Aspirated

- Honda VTEC engines limited to 2200cc maximum engine capacities: this includes ALL Honda VTEC engines such as B-series, K-series, H-series, and F-series.
- Naturally-aspirated non-VTEC engine capacity is open; other forms of variable valve timing permitted.

#### 8.7. Street 2000 NA

- naturally-aspirated minimum 1900cc and maximum 2000cc;
- Honda VTEC engines not permitted; however non-VTEC Honda engines are allowed. Honda VTEC engines with the VTEC disconnected / non-functional are not permitted
- other forms of variable lift and timing are permitted
- No rotary engines
- forced induction not permitted.

#### 8.8. Engine & Transmission mounting and location

- Fundamentals of the engine installation must not change. Original engine mounting points on the body / subframe must remain, even if the engine has been changed. Additional brackets, if required to mount different powertrain, is permitted.
- Rubber Engine mountings may be replaced

#### 8.9. Gear box

- The gearbox must be derived from the manufacturer's range of production car gearbox transmission for the engine and body type. Original mounting points required but may be modified if required. The number and attachment points to the bodyshell must remain as standard production.
- Gear ratios may be modified. Final Drive ratio may be modified. Dog Engagement gears are not allowed.
- Limited-Slip Differentials (LSD) are permitted.

#### 8.10. Fuel information

- Fuel blends that contain oxidisers and oxygenates in any alcohol forms (methanol, nitro-methanol, ethanol, butanol, etc) are allowed.  
Ethanol blends are allowed.  
100% methanol is not permitted.
- Nitrous Oxide system is not allowed in any category.
- Water-methanol injection into the intake manifold is not a fuel, and is permitted

### 9. TYRES

9.1. 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](http://www.msfracing.com)

9.2. *Super Production 1500 NA* and *Super 1600 NA* categories to use size 15-inch sizes

9.3. *Tuner Production* to use either 15-inch or 17-inch sizes

9.4. *Street 2000 NA* and *Super Street* to use either 17-inch or 18-inch sizes

### 10. AERODYNAMIC DEVICES

Aerodynamic devices and equipment refers to:

- Rear Spoilers and Front spoilers





- Frontal Canard fins
- Front Splitter
- Rear Diffuser
- Wing End Plate
- Rear Wing
- Side Skirt
- Gurney Flap
- Vortex Generator fins

Aerodynamic devices are open and not limited.

#### 11. COMPETITION NUMBER & VEHICLE PRESENTATION

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

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

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

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

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

11.6. 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. Ideal dimensions for each number digit to be A3 Size (11" Wide x 16" High) but A4 size minimum is acceptable. 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.

11.7. 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.

11.8. 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.

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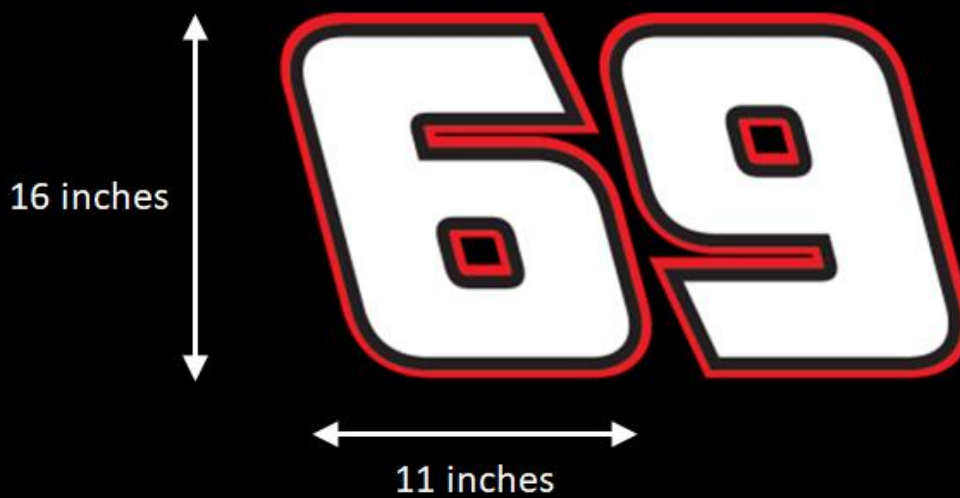
***MSF Racing Series***



# MSF Mandatory Decals Area



## MSF SUPERTURISMO Competition Number Specifications



Sticker Placement for MSF Cars 2022.