


MRF CHALLENGE 2013




TECHNICAL REGULATIONS

Organised by

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Approved by

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National Sports Federation recognized by the Government of India and the National Sporting Authority (ASN) of the FIA & the National Motorcycling Federation (FMN) of the FIM in India



	
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ARTICLE 1: DEFINITIONS

1.1 MRF Limited :

M/s MRF LIMITED, a company incorporated under the Companies Act, 1956, having its registered office at 114 Greams Road, Chennai-600006, (hereinafter referred to as "PROMOTER", which expression shall unless it be repugnant to the context be deemed to mean and include its affiliates, successors and assigns)

1.2 J A Motorsport:

J A MOTORSPORT, a company incorporated under the Companies Act, 1956, having its registered office at 69 A, Aerodrome Road, Singanallur, Coimbatore-641005 (hereinafter referred to as "CO-ORDINATOR", which expression shall unless it be repugnant to the context be deemed to mean and include its affiliates, successors and assigns)

1.3 Sporting Regulations :

The MRF CHALLENGE 2013 Sporting Regulations

1.4 Event :

Any event entered into the MRF Challenge 2013 Calendar for any year commencing at the scheduled time for scrutineering and sporting checks and including all practice and the races themselves and ending at the later of the time for the lodging of a protest under the terms of the International Sporting Code and the time when a technical or sporting verification has been carried out under the terms of the Code.

1.5 Set-up Sheet :

The set-up sheet produced by the Co-ordinator specifying the set-up of the car for any Event, including the adjustments that may be made to the car at that Event.

1.6 MRF Formula 2000 Technical Manual :

The operating manual published by the Co-ordinator in conjunction with the car's designers containing technical data on the MRF Formula 2000 car and methods, techniques and regimes for adjusting and operating the car.

ARTICLE 2: GENERAL PRINCIPLES

2.1 These Technical Regulations will be valid for a period of 6 months, beginning on the first of September 2013.

2.2 Changes to the Technical Regulations will be published by the Co-ordinator and communicated to the competitors by means of technical bulletins. Changes will become applicable on the dates indicated by the Co-ordinator according to the Code.

2.3 All cars must comply with these regulations in their entirety at all times during an Event or Test.

- 2.4 All cars must be built and operated in accordance with the relevant sections of the MRF Formula 2000 Technical Manual and the set-up sheet.
- 2.5 It is the duty of each competitor to satisfy the FMSCI technical delegate and the stewards of the meeting that his car complies with these regulations in their entirety at all times during an Event.
- 2.6 All modifications which are not expressly authorised in these Technical Regulations or subsequent technical directives are forbidden.
- 2.7 All measurements must be made while the car is stationary on a flat horizontal surface.
- 2.8 Should any dispute arise as to the eligibility and/or compliance of any entered car, the Co-ordinator will supply any element or knowledge deemed necessary for the purpose of scrutineering in order that comparative checking may be undertaken in order to prove conformity with the original design.
- 2.9 In event of doubt concerning any element of these Technical Regulations, competitors are entitled to seek written clarification from the Co-ordinator. All such questions and their responses will be circulated to all the competitors. All such responses will be ratified by a bulletin and considered as the official understanding of the relevant regulation and therefore used by the FMSCI technical delegate as a complement to the regulation itself.

ARTICLE 3: ELIGIBLE CARS

- 3.1 The only rolling chassis permitted are those manufactured and supplied by J A Motorsport, the MRF Formula 2000 Car. Once supplied, no parts may be modified in any way whatsoever except by the Co-ordinator after consultation with the FMSCI or, if necessary, the designers. Any such modifications will only be permitted if they are deemed absolutely necessary after a problem has been clearly identified.
- 3.2 Unless authorisation is specifically given or a modification is imposed within these Technical Regulations no element may be added to nor removed from the original car specification. The original design and construction of the car must be preserved at all time.
- 3.3 Any components supplied as part of the rolling chassis or gearbox which need to be replaced can only be replaced by parts supplied by the Co-ordinator and these parts can only be fitted by authorised J A Motorsport personnel.

ARTICLE 4: ENGINE

- 4.1 The only engines permitted are the engines supplied by the designated engine supplier (Renault Sport) and sealed by them. Once supplied, the engine and ancillaries supplied with it may not be modified in any way whatsoever.

- 4.2 The engine will be delivered with security seals in place and these must remain intact from delivery until the engine is returned to the engine supplier for any revision or repair. It is the responsibility of the competitor to ensure the integrity of these seals. The details and location of engine seals will be recorded in the cars Technical Passport
- 4.3 ECU control :
- The ECU will be supplied by the Co-ordinator with the original security seals in place, these seals must remain intact.
 - In accordance with the general timetable for the Event, and as required at other times, the Co-ordinator or engine supplier will communicate with the ECU in order to allow the data download and the upload of the appropriate software parameters. These parameters will be the same for all engines at all times.
 - If a malfunction of an ECU is suspected by either the Co-ordinator or the engine supplier, either may communicate with or exchange the ECU at any time.
 - ECU's will be balloted prior to the beginning of each Event.

ARTICLE 5: BODYWORK AND DIMENSIONS

- 5.1 Permitted changes to the original specification:
- 5.1.1 The front wing flap orientation may be changed, but only from the range of adjustments provided in the original specification.
- 5.1.2 The rear upper wing angle may be changed, but only from the range of adjustments provided in the original specification.
- 5.1.3 Tape may be applied to fasteners or any vulnerable leading edges. In all cases it must be clear that the tape has no function other than securing the fixings or protecting the parts to which it is attached.

ARTICLE 6: WEIGHT

- 6.1 At all times during an Event the weight of the car with the driver aboard wearing his complete racing apparel must not be less than the minimum weight stipulated on the Set-up Sheet issued by the Co-ordinator prior to each Event.
- 6.2 Ballast required to achieve the minimum weight may only be attached using the specific fixing points provided on the car. It must also be possible to fix tamper-proof seals if deemed necessary by the stewards of the meeting or FMSCI technical delegate.
- 6.3 With the exception of compressed air, no substance may be added to the car during the race.

ARTICLE 7: REPAIRS

- 7.1 Minor repairs to non structural components such as side pods and main bodywork may be made by the Co-ordinator for the competitor provided the damage does not affect an area greater than 75mm at its maximum

dimension and does not affect a fixing or fixing area. In all other cases damaged components must be replaced.

- 7.2 Any repairs to the survival cell, nosebox or rear impact structure must be carried out in a repair facility approved by the manufacturer, Dallara.

ARTICLE 8: DATA ACQUISITION

- 8.1 The data acquisition system must only be operated by the Co-ordinator.
- 8.2 The data acquisition system specification can only be altered by the Co-ordinator.
- 8.3 The only sensors and wiring permitted for data are those provided by the Co-ordinator as part of the original car.
- 8.4 Disconnecting or removing any sensor fitted to the car as part of the original data acquisition system and listed in the MRF Formula 2000 Technical Manual is forbidden except where it is carried out by authorised personnel of the Co-ordinator.

ARTICLE 9: ELECTRICAL SYSTEM

- 9.1 Modifications to the original electrical system are forbidden.

ARTICLE 10: GEARBOX AND TRANSMISSION TO THE WHEELS

- 10.1 All cars will have the same ratio sets fitted at any given Event. The ratios for any Event will be stipulated in the Set-up Sheet.
- 10.2 No other gearbox, differential or transmission modifications are permitted.
- 10.3 All cars must have a reverse gear operable any time during an Event by the driver when the engine is running.

ARTICLE 11: SUSPENSION AND STEERING

11.1 Suspension settings :

The following suspension settings may be changed provided the adjustments are within the range specified on the Set-up Sheet, the adjustment method is as specified by the Co-ordinator and that measurements of the settings are taken at the locations specified by the Co-ordinator:

- Camber angles may be adjusted at the front and rear of the car. However, the camber settings for the front should not exceed 4 degrees negative and the rear not to exceed 2.75 degrees negative.
- Adjustment of bump and rebound of dampers is allowed using only the range available on the original part, without any modification to the damper valving.
- Adjustment of front anti-roll bar is allowed using the range available on the original part.

- Adjustment of rear anti-roll bar is allowed using the range available on the original part.
- Any other permitted adjustments to the suspension will be specified on the Set-up Sheet

11.2 Springs:

The only springs available will be notified on the notice board by the Co-ordinator at each event.

11.3 Anti-Roll Bars

The only anti-roll bars available will be notified on the notice board by the Co-ordinator at each event.

ARTICLE 12: OIL AND WATER SYSTEMS

12.1 No modifications to the oil and water systems are permitted.

ARTICLE 13: BRAKES

13.1 No modifications to the braking system are permitted.

ARTICLE 14: WHEELS AND TYRES

14.1 No modifications to the wheels are permitted.

14.2 Only tyres provided by the official tyre supplier may be used during Events. This applies to both wet and dry-weather tyres.

14.3 All tyres which are to be used at an Event will be marked with a unique identification by the technical delegate and the official manufacturer. The use of tyres without the appropriate identification is strictly forbidden.

14.4 The allocation of the tyres to each car will be determined by the FMSCI technical delegate.

ARTICLE 15: COCKPIT

15.1 Permitted changes to the original specification:

- Pedal position, pedal pads, master cylinder pushrod length and the relative working angles may be changed for driver comfort. The original pedal arms as supplied by the car manufacturer must not be modified.
- The type and position of the driver's heel or foot rest are free.

ARTICLE 16: FUEL AND LUBRICANTS

16.1 Fuel and lubricants will all be supplied to all competitors by the Co-ordinator to a uniform specification.

16.2 No fuel or oil additives may be used unless specified by the Co-ordinator.

16.3 The use of any device on board or off the car to decrease the temperature of the fuel is forbidden.

ARTICLE 17: SAFETY EQUIPMENT AND DRIVER INSTALLATION

- 17.1 The safety belts supplied with the car may not be changed for another type.
- 17.2 The safety belt fixing system to the monocoque may not be changed or modified.
- 17.3 The seat shell positioning system must not be modified.
- 17.4 Padding and minor modifications of the seat shell are allowed for driver's comfort providing all the functionality of the seat and its safety equipment is preserved.
- 17.5 When seated normally with his seat belts fastened, the driver's helmet must be at least at 70mm below a line drawn between the highest points of the front and rear roll structures.
- 17.6 In order to ensure that the driver's head is not unduly exposed and for him to maintain good lateral visibility he must, when seated normally and looking straight ahead with his head as far back as possible, have his eye visible when viewed from the side.
- 17.7 The driver, seated normally with his seat belts fastened and with the steering wheel removed must be able to raise both legs together so that his knees are past the plane of the steering wheel in the rearward direction. This action must not be prevented by any part of the car.
- 17.8 From his normal seating position, with all seat belts fastened and whilst wearing his usual driving equipment the driver must be able to remove the steering wheel and get out of the car within five seconds and then replace the steering wheel in a total of ten seconds.
- 17.9 No less than 85 % of the rain light LEDs must be in order to work at the beginning of every session or race.

ARTICLE 18: ON-BOARD TELEVISION CAMERAS

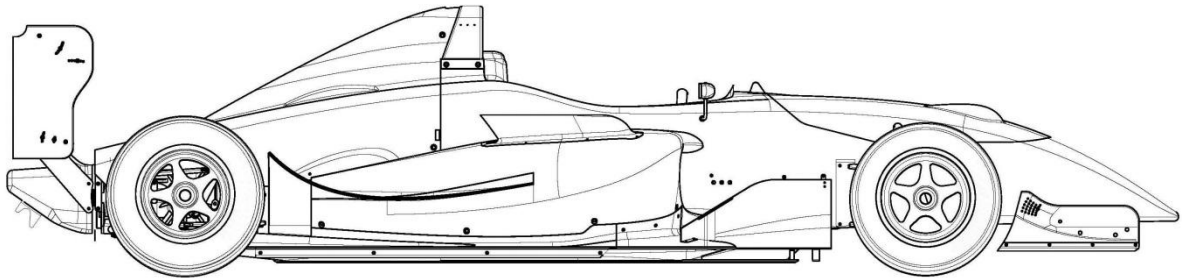
- 18.1 All cars will be fitted with on-board camera(s) and / or camera related electronic equipment.
- 18.2 The position of the on-board camera(s) and / or camera related electronic equipment will be determined by the Co-ordinator and cannot be changed.
- 18.3 The position of the on-board camera(s) and / or camera related electronic equipment will be approved by the scrutineers.

ARTICLE 19: TIMING TRANSPONDERS

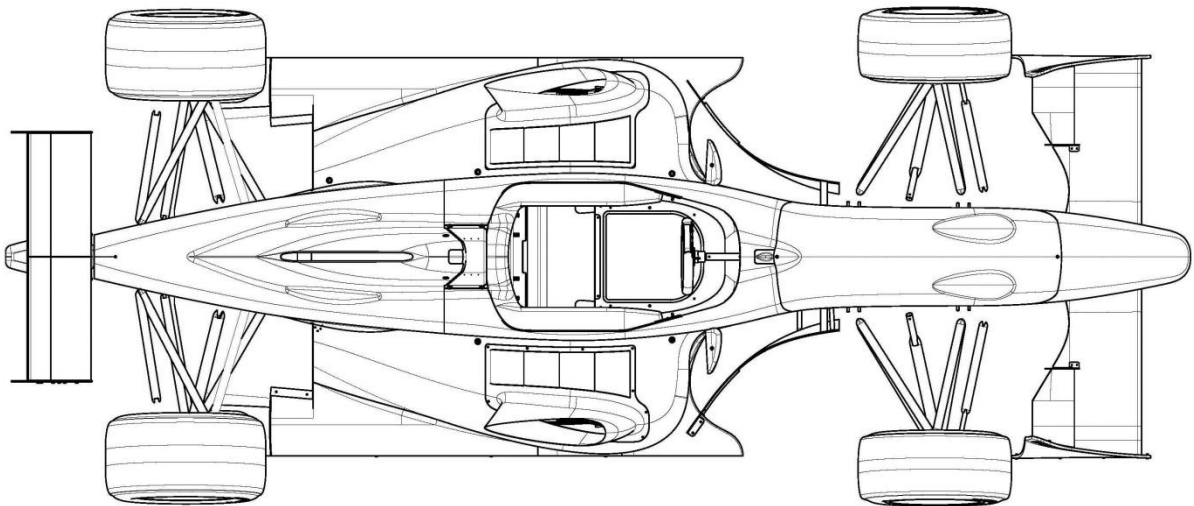
- 19.1 All cars must be fitted with a timing transponder supplied by the officially appointed timekeepers. This transponder must be fitted in strict accordance with the instructions of the timekeepers.

APPENDIX 1 - CAR DRAWINGS

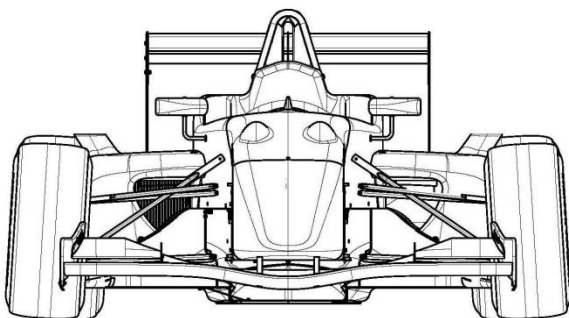
SIDE VIEW



TOP VIEW



FRONT VIEW



REAR VIEW

