# 2024 Technical Regulations for LGB F4

All modifications are forbidden unless expressly authorized by the regulations specific to the group as mentioned below.

## Art.1 – Eligible Vehicles & Classes

LGB F4 cars Only, following the Homologation #418002

Other than the modification permitted in this regulations rest should follow the LGB F4 Homologation #418002

## Art.2 – Dimensions & Minimum Weight

Minimum weight of the car 535 Kgs

Location for fixing the ballast must be as per Homologation

The minimum weight of the car measured will be as raced with water, oil, fuel and the driver with complete safety gear (Helmet, inners, suit, gloves, shoes, balaclava etc.)

It is permitted to complete the weight of the car by one or more ballast weights provided that they are unitary blocks, fixed rigidly by means of tools to the specific fixing points provided on the car, with the provision for sealing if deemed necessary by the scrutineers.

The ballast should not have any sharp edges.

Ballast must only be made of lead**(no other materials)**.

In order to balance performance, the FMSCI reserves the right to change the minimum weights at any point of time as deemed fit.

Any movable ballast system is forbidden.

These minimum weights must be respected at all times during the event.

Failing to meet the required weight regulations will result in disqualification or exclusion of the car for the relevant session.

## Art.3 – Engine

Cylinder Capacity(Art 307)

Unitary – 325cc

Total Corrected – 1300cc

Total minimum volume of a combustion chamber(Art 308) will not be applicable.

### 3.1-Engine & Gearbox Mounting

As supplied by manufacturer, as per Homologation/TDF

### 3.2-Compression Ratio

Not applicable

### 3.3-Cylinder Block

As supplied by manufacturer, as per Homologation/TDF

### 3.4-Maximum Bore Allowed

Maximum bore allowed is 74.18mm

### 3.5-Piston

Minimum weight of the Piston is 292g.

Minimum weight of the Piston measured with Rings, Clips & Piston Pin.

Thickness of Rings - 1st Ring – 1.2mm ±0.1mm, 2nd Ring – 1.2mm ±0.1mm, 3rd Ring – 2.4mm ±0.1mm

### 3.6-Connecting Rod

Minimum weight of the Connecting Rod is 382g.
Minimum weight of the Piston measured with Cap, Bolts & Shell Bearing.
As supplied by manufacturer, as per Homologation/TDF

### 3.7-Crank Shaft

As supplied by manufacturer, as per Homologation/TDF

### 3.8-Flywheel

Minimum weight of the Flywheel is 4915g.
Minimum weight of the Flywheel measured with Fixing Bolts, Center Bearing & Starter Ring.

### 3.9-Cylinder Head

Minimum height of the Cylinder Head is 119.80mm.
As supplied by manufacturer, as per Homologation/TDF

### 3.10-Fuel Injection System & Throttle body

As supplied by manufacturer, as per Homologation/TDF

### 3.11-Sensors & Actuators

As supplied by manufacturer, as per Homologation/TDF
Additional Sensors and Actuators not permitted.

### 3.12-CAM Shaft

As supplied by manufacturer, as per Homologation/TDF

### 3.13-Intake & Exhaust Valves

As supplied by manufacturer, as per Homologation/TDF

### 3.14-Intake Manifold

As supplied by manufacturer.
Air filter FREE, air filter may be fitted or removed.
Intake Plumbing before throttle body is free, but must be within rear body cover of the car.

### 3.15-Exhaust System

Exhaust Manifold Dimensions:

Primary Pipe:
C1-Length 547mm ±5mm, Diameter(inner) 38mm ±1mm, Thickness 1.6mm ±0.10mm
C2-Length 500mm ±5mm, Diameter(inner) 38mm ±1mm, Thickness 1.6mm ±0.10mm
C3-Length 510mm ±5mm, Diameter(inner) 38mm ±1mm, Thickness 1.6mm ±0.10mm
C4-Length 485mm ±5mm, Diameter(inner) 38mm ±1mm, Thickness 1.6mm ±0.10mm

Cone length:
140mm ±5mm

Secondary Pipe:
Length 843mm ±5mm, Diameter(inner) 41.25mm ±0.50mm, Thickness 1.6mm ±0.10mm

Provision for fixing $O_2$ sensor is allowed only in the cone part in between primary and secondary pipes.

Exhaust QR code location(four into one cone):


### 3.16-Ignition System

As supplied by manufacturer, as per Homologation/TDF

### 3.17-Cooling System

No other medium other than water is allowed.

### 3.18-Lubrication System

Oil catch can/tank is mandatory

## Art.4 – Fuel Circuit

Fuel FREE

### 4.1-Fuel Tank

As supplied by manufacturer, as per Homologation/TDF

### 4.2-Fuel Pump

Fuel Pump free.
Number of fuel pump and Location respected to Homologation.
Fuel Pressure Regulator, Fuel Rail, Injector and their mountings must be OE.

## Art.5 – ECU, Wiring Harness & Electrical Equipment

### 5.1-ECU & Wiring Harness

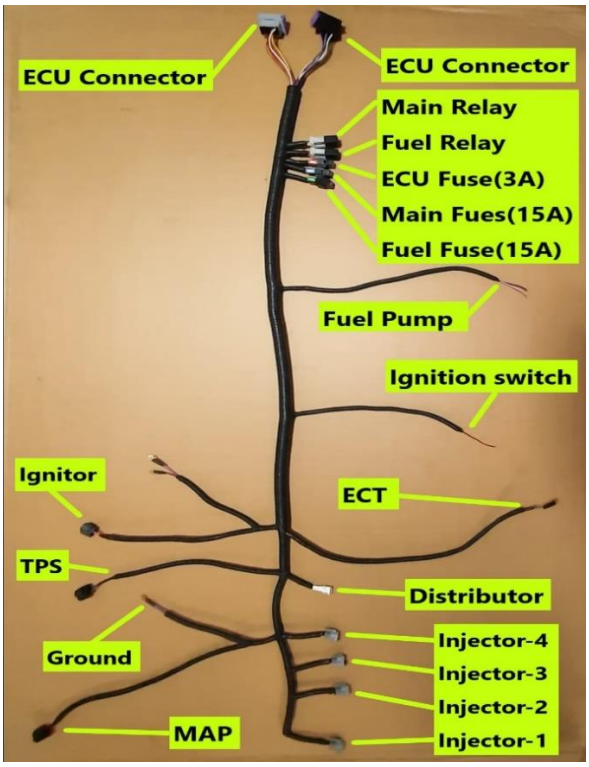
Make: ECU Master
Model: EMU Classic
ECU will be controlled by FMSCI, Common ECU MAP will be feed by the appointed FMSCI official to the ECU and a passcode will be set. After all official sessions ECU MAP & passcode will be checked by the FMSCI appointed official, any breach of the above said points will result in disqualification.

ECU - ECU Master - EMU Classic



ECU - ECU Master - EMU Classic






Wiring Harness

### 5.2-Electrical Equipment

### 5.1-Battery

FREE
Must be fixed rigidly using bolts.

### 5.2-Alternator

Alternator make – Denso / Lucas TVS / Bosch
Amps free

## Art.6 – Power Train

### 6.1-Driven Wheels

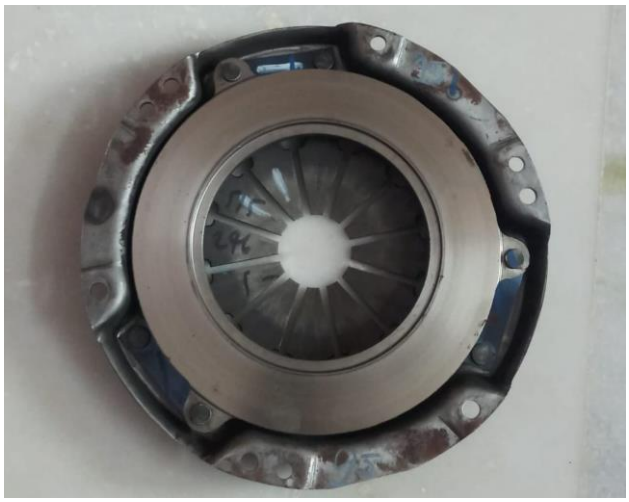
Rear wheels

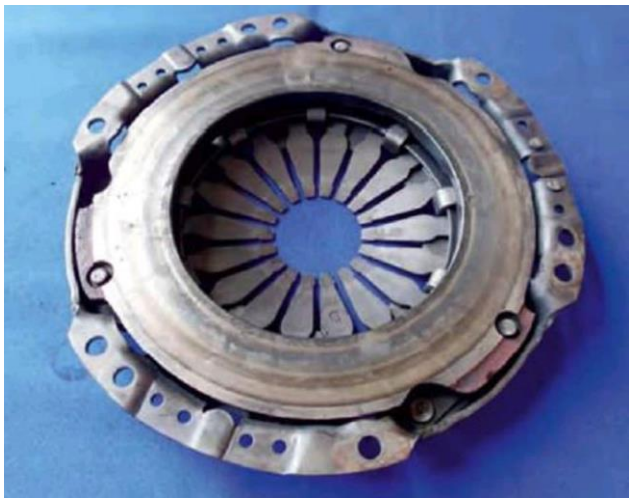
### 6.2-Clutch

Both four spring and six spring OE clutch plates are allowed.
Diameter of the clutch plate must respect to Homologation data.

Six spring clutch plate

Four spring clutch plate





### 6.3-Gearbox

As supplied by manufacturer, as per Homologation/TDF

### 6.4-Differential

As supplied by manufacturer, as per Homologation/TDF

### 6.5-Transmission Shafts

As supplied by manufacturer, as per Homologation/TDF

## Art.7 – Suspension

### 7.1-Suspension System

Spring:
Length and rating FREE
Material must be steel
Coil Spring type only

Shock absorbers:
Length FREE
Nonadjustable hydraulic/gas telescopic type only
Body can be alloy or steel

Mounting:
Suspension mounting points must remain as OE

## Art.8 – Running Gear

### 8.1-Wheels(Rims & Tyres)

Diameter respected to Homologation.
Width of the rim, offset, are free to the extent it complies with the track width given in the homologation.

### 8.2-Wheel Assembly(Hub & Knuckle)

As supplied by manufacturer, as per Homologation/TDF
Front upright center bolt is “Free”
Any Bolts available in Indian market/modified/Specially made may be used.

### 8.3-Brake System

As supplied by manufacturer, as per Homologation/TDF
Any OE/after market brake rotors are allowed, as long as it respect the Homologation data, drilling holes for PCD compliance on the rotors to accommodate in the OE hubs are allowed.
Brake pads free, as long as it respect the Homologation article 803 – g8.
Brake caliper must be of Esteem, Tata Indica & Tata Ace, as long as it respect the Homologation article numbers 803 - e, g1, g2 & g3, must also fix in the OE mountings without alteration.

### 8.4-Steering System

As supplied by manufacturer, as per Homologation/TDF

## Art.9 – Body Work

Material of body work must be Fiber reinforced plastic(FRP)
The body works used must be supplied my the manufacture or fabricated, If fabricated must respect the dimensions of the manufacturer drawing(will be provided on request)
Weights mentioned in each body work drawing must be considered as minimum weight of the body part, respected body part must weigh more than the weight mentioned in the drawing all time during the event.
Unspecified tolerance in the drawing must follow the tolerance as mentioned below:

Upto 50mm - ±3mm
51mm to 100mm - ±5mm
101mm to 200mm - ±10mm
201mm to 500mm - ±15mm

501mm to 1000mm - ±20mm
1001mm to 1500mm - ±25mm
1501mm to 2000mm - ±30mm
2001mm to 3000mm - ±35mm
3000mm and above - ±50mm

## Art.10 – Safety Requirements

As per 2024 FMSCI Racing Regulations Appendix-J Art 253 Safety Equipment (Group N, A) and As per FMSCI 2024 Safety Requirements for 4Wheeler.

### 10.1-Driver Safety Equipment

As per FMSCI 2024 Safety Requirements for 4Wheeler.

### 10.2-Seat Belt

As per FMSCI 2024 Safety Requirements for 4Wheeler.

### 10.5-Rear Brake Light

Rear brake light is free

The minimum luminous area of the rear brake light is 22 sq cm.

Rear brake light must be in order to work at the beginning of every official session and during pre-event scrutiny.

Scrutineer decision is final on the position, fixing and visibility of the brake light.

### 10.6-Master Switch

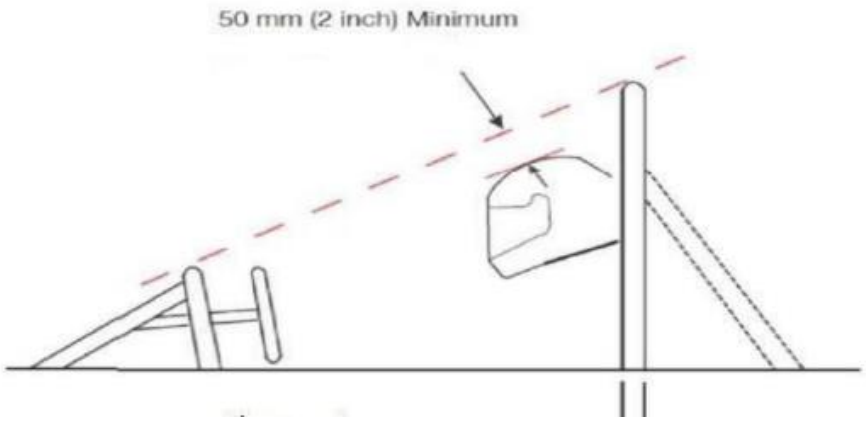
The driver, when seated normally with safety belts fastened and steering wheel in place, must be able to cut off all electrical circuits to the ignition, all fuel pumps and the rear lights by means of a circuit breaker switch.

This switch must be located on the dashboard and must be clearly marked by a symbol showing a red spark in a white-edged blue triangle.

There must also be an exterior switch, with a horizontal handle. This switch must be situated at the main rollover structure on the righthand side. It must be clearly marked by a symbol showing a red spark in a white-edged, blue equilateral triangle, each side of this triangle must be at least 50mm long.

### 10.7-Helmet 50mm clearance

When seated normally with his seat belts fastened, the driver's helmet must be at least at 50mm below a line drawn between the highest points of the front and rear roll structures.



### 10.8-Rear view mirror

All car must have at least two mirrors mounted so that the driver has visibility to the rear and along both sides of the car.

Shape of the mirror is FREE

The reflective surface of each mirror must be at least 60 sq cm.

## Art.11 – Data Acquisition

No communication of any sort between the driver and the pits or other drivers. Whether by radio, cellphone or by any other communication signals between car and pit once the car is on the track(other than pit boards).

The drivers are not allowed to carry cell phones while on the track during the sessions.

Violation of the above regulations will entail disqualification.

Note: If any ambiguity or missing data from the Homologation / TDF form, the FMSCI may source any component from the OE manufacturers to compare dimensions.

***NOTE: Changes for the 2024 Technical Regulations are highlighted in Yellow***

****END****