

# TECHNICAL REGULATIONS - 2024

## **PUBLISHED COPY**

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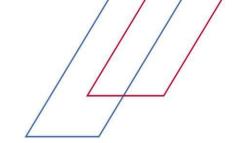
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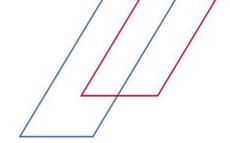
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## INTRODUCTION

All FIA F4 Cars within the 2024 ROKiT F4 British Championship Certified by FIA (Championship) must be FIA-homologated Tatuus chassis T-421 Cars fitted with the FIA-homologated NBE F4 British Championship specification Abarth 414-F4 Gen2 engine and must comply with current versions of:

- FIA Appendix | Article 274A 2024 Formula 4 2<sup>nd</sup> Gen Technical Regulations
- Tatuus T-421 Technical Info Manual (Technical Manual)
- Tatuus T-421 Spare Parts Catalogue (Parts Catalogue)
- Tatuus T-421 FIA F4 Gen2 Parts Classification (Parts Classification),
- Tatuus Bulletins
- Abarth 414-F4 Gen2 Engine Technical Manual (Technical Manual),
- Abarth 414-F4 Gen2 Spare Parts Catalogue (Parts Catalogue),
- Car, engine and transmission FIA homologation documents
- 2024 ROKiT F4 British Championship Certified by FIA Sporting Regulations (the Sporting Regulations)
- and these Regulations (the Technical Regulations) in their entirety at all times during an Event.

Specifications detailed in the relevant Technical Manual and/or Parts Catalogue take precedence unless otherwise specified herein.

This is a one-make controlled formula and the Cars must be operated in accordance with the relevant Technical Manuals, Parts Catalogues and Parts Classification unless otherwise specified herein. Unless a component is specified as adjustable or a component is specified as an alternative or option part then the component must remain as originally supplied by its manufacturer and or in accordance with the vehicle Homologation(s) (2.1.1).

Any dimensions values figures materials and/or designs mentioned and/or detailed in these Technical Regulations the Technical Manuals and Parts Catalogues are for the information of the user and nominal values are generally stated. This information may be subject to manufacturing tolerances and specifications however there is no generic manufacturing tolerance value capable of application to any component in the Car.

In the event of eligibility confirmation being required the original manufacturer of the part or component may be consulted for final verification of eligibility. Unless specifically permitted by the Regulations it must be assumed that unless it says you can then you must not.

Teams must ensure that all installed safety equipment meets all Motorsport UK or FIA safety standards as required by the country of the competition.

## ARTICLE 1: DEFINITIONS

Note: definitions from the Sporting Regulations also apply.

## 1.1 Formula 4 Car (F4 Car) (Car)

Four-wheel single-seater Tatuus T-421 racing Car as Homologated fitted with the British Championship specification performance equalised 1368cc 16 valve Abarth 414-F4 Gen2 petrol engine and designed solely for speed races on circuits or closed courses.

## 1.2 Bodywork

All entirely sprung parts of the Car in contact with the external air stream except the rollover structures and the parts definitively associated with the mechanical functioning of the engine transmission and running gear. Airboxes radiators intercoolers and engine exhausts for the purposes of these Regulations are part of the bodywork.

#### 1.3 Reference Plane

The reference plane is the plane passing through the **upper surface of the four** contact pads of the



scrutineering platform when the Car is sitting on all these **four** contact pads through the **four** corresponding holes in its underneath skid block.

#### 1.4 Date of Car Build

Cars built before 1st January xxxx (or 1.1.xx) is interpreted to indicate Cars built for the season indicated as shown by the year code ("xxxx" or "xx"). Consequently Cars built to the new or revised specification but finished before that date will still be defined as new season Cars.

#### 1.5 Sprung Suspension

The means whereby all complete wheels are suspended from the body/chassis unit by a Car springing medium.

#### 1.6 Wheel

Flange and rim.

## 1.7 Complete Wheel

Flange rim and tyre.

## 1.8 Induction system

All the elements between the inlet valves in the cylinder head and the external side of the air filter.

#### 1.9 Ceramic Materials

(e.g. AL2O3 SiC B4C Ti5Si3 SiO2 Si3N4) - These are inorganic non-metallic solids.

#### 1.10 Composite

Material formed from several distinct components, the manufactured combination of which provides the whole with properties which none of the components taken separately possesses. High strength composites include components made with Carbon and or aramid fibres.

#### 1,11 Mandatory Components

Those components specified by Abarth, Tatuus or Neil Brown Engineering Ltd (NBE) which must be used and remain unmodified.

## ARTICLE 2: REGULATIONS

## 2.1 FIA Regulations

## 2.1.1 FIA Appendix | Article 274A article 2.7 applies and states:

## 2.7 Changes to car design

#### **2.7.1.** General

The complete car is divided into three types of part.

**Type I**: These parts must be supplied by the manufacturer and used exactly as supplied. Repairs may be carried out only by the manufacturer.

**Type 2:** These parts are Type 1 parts with specific restrictions. Only the modifications indicated in the homologation may be carried out. Repairs are allowed only in the range described in the homologation.

**Type 3:** These parts are unrestricted provided that they are used as designed by the manufacturer and do not fulfil any additional function.

The above-mentioned parts classification and the user manual form part of the homologation both documents will be supplied by the respective manufacturer.

The adding of colour or thin adhesive film up to a thickness of 0.5mm is not considered as a modification provided that the colour or film fulfils only an optical function.

#### 2.7.2. Standard mounting parts

Standard mounting parts such as screws nuts bolts washers and lock washers are considered as Type 3 parts unless specifically mentioned in the homologation. They may be replaced with equivalent or superior standard parts.



The thread type size length and pitch must remain the same.

In case the connection remains intact and the standard mounting part doesn't fulfil any additional functionality, the thread type and pitch are free and the size and length may be increased.

The use of locking wire is permitted.

Any type of standard mounting part which has an influence on the car set-up is considered as a Type 1 part unless specifically mentioned in the homologation.

Only Type 3 washers may be removed.

Washers may be added only for facilitating and improving mechanical installation. They may influence the set-up of the car only when specifically mentioned in the homologation.

Note: For the Championship Type I, 2 and 3 parts may be amended by official notification.

## 2.2 Modifications to parts

2.2.1 Any Abarth or Tatuus standard part or mandatory F4 part must be fitted and must not be modified/polished/machined or have any alteration whatsoever unless expressly permitted by these Regulations.

## 2.3 Permanent compliance with Regulations

- 2.3.1 Cars must comply with these Regulations in their entirety at all times during an Event and Official Testing.
- 2.3.2 Changes made for safety or clarification reasons may come into force without notice. In this case the ASN acting through the Organisers may authorise and/or remove and/or modify specific technical Regulations at any time during the Championship for immediate effect where necessary.

## 2.4 Controlled Components

2.4.1 The Organisers reserve the right to replace any component with a controlled sealed alternative. The replacement must not be removed or replaced without prior written authorisation from the Championship Organisers' technical officials. Any item that has a seal fitted must not be replaced without written authorisation and the seal must remain intact at all times. Written authorisations have Regulatory value therefore the absence of a prior written authorisation as envisaged in these Regulations shall be a breach of these Regulations.

## 2.5 Repairs and replacements

- 2.5.1 Major repairs: Any repairs to the survival cell, driver safety systems, roll structure, nosebox, side intrusion panels or rear impact structure must be carried out in accordance with the manufacturer's specifications and in a repair facility approved by the manufacturer and registered with Motorsport UK (Championship Chassis Repairer). Competitors will be obliged to show to the Organisers via the Championship Technical Delegate the original certificate of any repair; these must be registered in the Car's Vehicle Passport during initial scrutineering at the next Event or test following the repair whichever occurs first.
- 2.5.2 Minor repairs: Repairs to non-structural Type I or 2 components such as side pods or main bodywork may be made by the competitor provided the damage does not affect an area greater than 10% of the total surface of the part or 150mm at its maximum dimension whichever is least. The original shape and dimensions and materials must be maintained. In all other cases damaged components must be replaced by new ones or submitted to the original supplier for repair.

## ARTICLE 3: CHASSIS

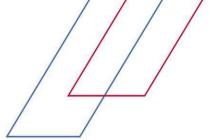
## 3.1 Registered chassis

3.1.1 The Championship Technical Delegate will maintain the list of British Championship T-421 F4 registered chassis that are permitted to compete in the Championship. No Team/Entrant may run more than four chassis in the Championship unless agreed in writing by the Organisers.

## 3.2 Vehicle Passport

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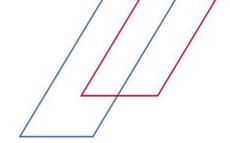


3.2.1 A Motorsport UK Vehicle Passport must be obtained for each chassis and must accompany that chassis at all times except when on track.

## ARTICLE 4: BODYWORK AND DIMENSIONS

- 4.1 Dimensions
- 4.1.1 Cars must conform to the dimensions laid out in the Tatuus Technical Manual at all times.
- 4.2 Wings
- 4.2.1 Front and Rear wing adjustment can only be made within the parameters stated in the Tatuus Technical Manual. Front wing gurneys must not be removed or added or altered from as supplied form.
- 4.2.2 For all sessions each Car must have its front and rear wings securely fitted. Should the entire front and/or rear wing element become fully or partially detached or become loose or unstable for any reason the driver must come into the pits for a repair/replacement at the earliest opportunity. With missing or damaged wing end plates a Car can continue providing it is not deemed unsafe by race officials.
- 4.2.3 Competitors are reminded that the car weight is determined by the car as it finishes the session or Race, therefore a missing wing may result in the car being underweight.
- 4.3 Permitted changes to the original specification
- 4.3.1 Stone guards if used must be fitted unmodified as per the Parts Catalogue. Side pod air ducts may be partially covered with adhesive tape only on the stone guards, if fitted, or on the forward face of the radiators for the sole purpose of optimising temperatures. Any such tape used must not be visible from outside of the side pod.
- 4.3.2 In addition to 4.3.1 tape or adhesive film may be applied to fasteners or any component surface. In all cases it must be clear that the tape has no function other than securing the fixings to provide colouring or to protect the parts to which it is attached and the part numbers and holograms must at all times remain visible to the Championship Technical Delegate. Apart from securing fasteners or unless expressly authorised in these Technical Regulations Technical Bulletins or Technical Manuals it is not permitted to apply tape to cover a junction or gap between abutments components holes or cavities.
- 4.3.3 Unless otherwise specified any component inside the bodywork can be fully or partially covered with thermal insulation material providing this insulation has no other function than protecting components against a direct source of heat. The thermal insulation material must be applied to the component it is protecting. Permitted maximum total uncompressed thickness of thermal insulation materials applied is 5mm. The following items are specifically prohibited from being fully or partially covered with thermal insulation material:
  - a) Turbocharger
  - b) Airbox top section
- 4.3.4 Unless otherwise specified, any component inside the bodywork can be covered with rubbing protection material and/or electromagnetic protection material providing this rubbing protection material and/or electromagnetic protection material has no other function than protecting components against chafing and/or electromagnetic perturbations.
- 4.3.5 Providing their sole purpose is the protection of the retaining wheel cables it is permitted to add covers to the leading edge or trailing edges of the front and rear wishbones. There must be no aerodynamic function.
- 4.4 Wooden floor and skid block
- 4.4.1 Wooden floor: The only wooden floor to be used is that supplied by the Championship Parts Supplier. The wooden floor must be used as supplied unmodified.
- 4.4.2 Skid block: The only skid block to be used is that supplied by the Championship Parts Supplier. The skid block must be used as supplied unmodified.





## ARTICLE 5: WEIGHT

## 5.1 Minimum Weight

- 5.1.1 The minimum weight of the Car plus driver with all required personal safety items at any time during all Events and Official Testing is 605kg.
- 5.1.2 The minimum weight must be taken with the Car in the condition in which it crosses the finishing line and enters Parc Fermé or at any time during the competition and/or Official Testing.
- 5.1.3 It is mandatory for all competitors to attend any pre-race driver weighing wearing their full race attire and carrying their helmet and Frontal Head Restraint at the time/venue defined in the Pre-Event Information Bulletin.

#### 5.2 Ballast

5.2.1 Ballast must be attached using the specific fixing points detailed in the Tatuus Technical Manual. It must also be possible to fix seals if deemed necessary by the Championship Technical Delegate.

## ARTICLE 6: ENGINE

## 6.1 Engine eligibility

6.1.1 The only permitted engine (which for the purposes of these Regulations includes all engine ancillaries) is the British Championship specification Abarth 1368cc 16 valve 414-F4 Gen2 engine with nominal bore 72.0mm and stroke 84.0mm homologated by the FIA and supply-managed and equalised by the Championship Engine Supplier - Neil Brown Engineering (NBE). All Teams/Entrants must enter a Technical and Support Services Agreement (TESA) with NBE for the purposes of maintenance of the engine(s) supplied by NBE to the Team/Entrant. Any breach of that Agreement by the Team/Entrant will be treated as a breach of the National Competition Rules.

## 6.2 Engine modifications

- 6.2.1 Any revision repair or change to the engine can only be carried out by or under the supervision of NBE.
- 6.2.2 Once supplied the engine and ancillaries supplied with it may not be modified in any way. No rework may be carried out on any component unless specifically authorised by the Regulations. The engine and associated parts must remain exactly as produced and supplied by Abarth and/or NBE unless expressly detailed in these Regulations or with the written permission of the Championship Technical Delegate after consultation with NBE.

## 6.3 Engine sealing

- 6.3.1 The engine must remain sealed as originally applied by NBE. Other seals may be affixed by the Championship Technical Delegate.
- 6.3.2 No engine may be used in any Event or Official Test if unsealed or if its origin is not recognised by the Championship Technical Delegate or Organisers.

#### 6.4 Turbocharger

6.4.1 NBE reserves the right to independently test and seal any and all turbocharger assemblies. The turbocharger may be exchanged at any time (including the time allocated for Official Testing) at the request of the Championship Technical Delegate.

#### 6.5 Clutch

- 6.5.1 The only clutch permitted is that supplied for the Championship by Abarth/Autotecnica/NBE. Service replacements must be sourced from NBE.
- 6.5.2 The minimum weight of the clutch cover shall be 900g (excluding clutch cover bolts and dowels).





6.5.3 The minimum weight of the complete clutch assembly shall be 2274g (excluding fixing and fasteners).

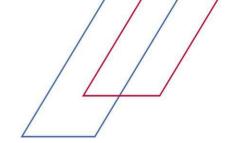
## ARTICLE 7: OIL SYSTEM

- 7.1 Engine oil
- 7.1.1 The only engine oil permitted for all Event and Official Testing is Motul 8100 X-Power 10W-60 which must be obtained from NBE.

## ARTICLE 8: ELECTRICAL SYSTEMS

- 8.1 Modifications
- 8.1.1 Modifications to the original electrical system are forbidden.
- 8.2 Battery
- 8.2.1 The battery must be capable of demonstrating at least 3 engine starts without external recharge or assistance at any time during Official Testing, Free Practice, Qualifying, Races or in Parc Fermé.
- 8.2.2 A supplementary external source of energy temporarily connected to the Car may be used to start the engine whilst in the pit area or on the grid prior to the formation lap but cannot be used whilst checking. See 8.2.1.
- 8.3 Alternator
- 8.3.1 The alternator must be driven at all times whilst the engine is running. The alternator must be connected to the vehicle electrical system and battery. The installation shall ensure that the charging output from the alternator is available at all times whilst the engine is running.
- 8.4 Engine Control Unit (ECU)
- 8.4.1 It is prohibited to modify the software contained in the ECU.
- 8.4.2 Unless officially requested by the Championship Technical Delegate the ECU must be set-up to record the standard logging parameters as supplied in the ECU or by NBE without deletions.
- 8.4.3 The ECU diagnostic connector must be positioned in an accessible position on the outside of the vehicle and mounted solidly without obstruction allowing Championship Technical Delegate free access to it at all times on demand. The free access location must allow for the condition of the driver seated in the Car and fully prepared to take part in the Competition.
- 8.4.4 The ECU may be exchanged or electronically interrogated and downloaded at any time (including the time allocated for Official Testing) upon the instruction of the Championship Technical Delegate. Penalties will be applied should this not be possible at the time of instruction for any reason.
- 8.5 Wiring harness
- 8.5.1 No rework or modification to any loom is permitted with the exception of replacing damaged connectors (like for like and with the prior written permission of the Championship Technical Delegate who may be present while such substitution is effected and thereafter interrogate the system for conformity).
- 8.6 Ignition system
- 8.6.1 The standard production spark plug (NGK IKR9F8) must be used with the electrode tip placed in the standard position in the combustion chamber.
- 8.6.2 The standard production coil-on-plug units must be used and must not be repositioned. It is prohibited to use any other method or component to trigger distribute or time the ignition or fuel injection.

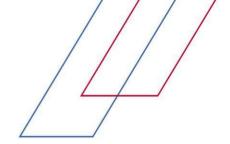




#### 8.7 Sensors

- 8.7.1 All standard production engine sensors which have any influence whatsoever on the operation of the engine must be retained and be located in the standard position and in working order. It is not permitted to reposition positional sensors. It is not permitted to change the strength or form of any of the sensor signals to or the outputs from the ECU. For the avoidance of doubt this means any/all additional sensors are prohibited as are any modifications to the standard production ones for this engine. The following standard sensors must be fitted and connected to the ECU to ensure a signal is transmitted and received as intended at all times:
  - Crankshaft Position Sensor (CPS)
  - Camshaft Position Sensor
  - Exhaust Camshaft Position Sensor
  - Throttle Position Sensor (TPS) part of the Electronic Throttle Body (ETB)
  - Knock Sensor (2 off)
  - Engine Coolant Temperature (ECT) Sensor
  - Air Charge Temperature Sensor (ACT) / Manifold Pressure (MAP) Sensor
  - Pre-Throttle Pressure Sensor
  - Universal Exhaust Gas Oxygen (UEGO) Sensor
  - Fuel Pressure Sensor
  - Oil Pressure Sensor
  - Engine Oil Temperature Sensor
  - Coolant Pressure Sensor
- 8.7.2 The Vehicle Speed Sensors must be fitted on the front wheels and connected to the ECU via the chassis wiring harness. The signal from both sensors must be 14 pulses per revolution.
- 8.7.3 The mandatory Gearbox Sensors must only be connected to the ECU via the chassis wiring harness.
- 8.7.4 The gear shift switches in the steering wheel paddles must only be fitted and connected to the ECU via the chassis wiring harness.
- 8.7.5 The mandatory lap marker/timing beacon receiver must be fitted and connected to the ECU via the engine wiring harness. The receiver unit must be positioned such that it can receive the signal from the transmitter at all times and can be moved to either side of the Car depending on the beacon placement at each circuit.
- 8.7.6 It is the Competitor's responsibility to ensure that the lap timing system is working at all times during all Qualifying and Races including fully functional beacon signal and no missing/incorrect lap times in the recorded ECU data.
- 8.7.7 A clutch pressure sensor is permitted. The sensor must be the Tatuus sensor part number 3326001 or permitted alternative.
- 8.8 Electronic dashboard
- 8.8.1 The specific dashboard/steering wheel must be fitted and connected to the ECU via the chassis wiring harness.
- 8.9 Data Logger
- 8.9.1 The Championship Organisers reserve the right to require a Competitor to carry a Championship supplied data logger on the Car at any time during the event.





- 8.9.2 The Championship has the right to record and retain any data gathered by the Championship Officials from each car's onboard data logger during each Event and Official Test session and retains the right to use this data howsoever it chooses.
- 8.9.3 During each Event and Official Testing it is prohibited to modify or delete any data from the car's onboard data logger, unless otherwise instructed by a Championship Official.
- 8.9.4 Competitors agree that the selected channels of data and video can be used by instructors appointed by the Championship at the service of drivers' tutoring.
- 8.9.5 The Organisers reserve the right to define the tyre circumference measurements for the cars' ECU/data logger by Official Championship Bulletin.

## 8.10 Pit lane speed limiter

8.10.1 The pit-lane speed limiter (ECU controlled) engaged by a steering wheel mounted button must be operable in all gears and must be set to the speed for the pit lane in use and must be used whenever the Car is in a speed-controlled area.

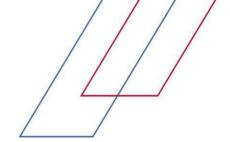
#### 8.11 Timing modules

- 8.11.1 All Competitors will be required to fit an Electronic Self Identification Module (Transponder) to their Car for the purposes of accurate timing. Transponders must be obtained from Timing Solutions Limited (tsl-timing.com). Holders for these and detailed fitting instructions will be issued with the Transponder and it will be the responsibility of the Competitor to fit these in the car in the position and manner specified.
- 8.11.2 The Transponder must be in place and functioning correctly for all Events and Official Testing. The setting and servicing of these items must only be carried out by properly authorised Motorsport UK licensed Timekeepers. Competitors will be charged by the timing company for replacement of the Modules due to misuse or loss at any time during the season.
- 8.11.3 Competitors may not place electronic timing equipment within five metres of the official Start/Finish or any other official timing lines at any Event or test session/day. Any such equipment placed within these zones will be removed.

#### 8.12 Onboard Judicial Camera

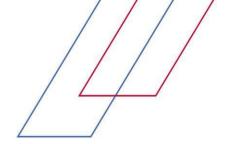
- 8.12.1 All Cars must carry the designated AiM SmartyCam 2.2 or AiM SmartyCam 3 Onboard Judicial Camera (Camera) during all Events and Official Testing. Operating instructions for the Camera will be made available to all Entrants. No other in car video still or motion picture cameras will be permitted without the written authority of the Championship Technical Delegate.
- 8.12.2 Nothing may obstruct the Camera picture and it is the responsibility of the Competitor to ensure the functionality of the Camera system at all times.
- **8.12.3** The onus is on the Competitor to ensure this Camera is switched on and recording for Qualifying and Races. This must not be done more than five minutes prior to the Car leaving the collecting area for Qualifying or the Race. The Camera must be switched-off using the Camera 'Off' button immediately after the Car has been released from parc fermé after Qualifying and each Race.
- 8.12.4 Should a Car retire to the Pits or Paddock during Qualifying or a Race the Camera must remain switched on until the Car is returned to its awning/garage and all footage retained.
- 8.12.5 Competitors will be issued with four (4) SD memory cards for each Car identified as follows: Memory cards will be marked "Car #Q", "Car #R1" etc. e.g. 1Q, 1R1, 1R2 1R3. All memory cards remain the property of the Organisers but may be retained by the Competitor for the season. It is their responsibility to ensure they are fitted correctly in the Camera and on the correct Car as detailed in these Regulations.
- 8.12.6 Any memory cards lost damaged or broken must be replaced like for like by the Competitor at their cost at the soonest opportunity.





- 8.12.7 All memory cards may be collected in parc fermé and only returned once released by the Clerk of the Course and/or Championship Stewards and/or Organisers.
- 8.12.8 If a memory card is required by the Clerk of the Course or Stewards then the next designated memory card should be inserted into the Camera.
- 8.12.9 Qualifying: For the Qualifying session memory card "#Q" must be installed in the Camera. It is then the responsibility of the Competitor to start their respective Camera prior to the start of the Qualifying session and to ensure it is recording. If there are any problems then immediately contact the Championship Technical Delegate. At the completion of Qualifying the memory card marked "#Q" must remain in the Camera until I hour prior to Race I.
- 8.12.10 Races: Prior to Race 1, memory card "#R1" must be installed in the Camera. At the end of Race 1 memory card "#R1" must remain in the Camera until 1 hour prior to Race 2. At this point card "#R2" must be installed. At the completion of Race 2 memory card "#R2" must remain in the Camera until 1 hour prior to Race 3. At this point card "#R3" must be installed in the Camera. Memory card "#R3" must remain in the Camera until 90 minutes after the completion of Race 3. If there are any problems then immediately contact the Championship Technical Delegate.
- 8.12.11 If a memory card is required by the Clerk of the Course or Stewards then a replacement memory card may be supplied by the Championship Technical Delegate.
- 8.12.12 The Championship Clerk of the Course may impose an appropriate penalty on the Competitor should:
  - a) the Camera not be switched on or not have a connection;
  - b) the memory card be tampered with, swapped or taken out;
  - c) the Camera or memory card be deliberately damaged;
  - d) no Camera data be made available on request for whatever reason.
- 8,12,13 Only footage from the Camera requested by the Clerk of the Course will be viewed.
- 8.12.14 Any footage obtained from the Camera must be made available to the nominated film production company before the conclusion of the Event.
- 8.12.15 The Organisers reserve the right to request any footage from the Camera at any time during the season and the desired footage must be made available promptly upon request.
- 8.12.16 Teams/Entrants are reminded that all footage obtained from the Championship races remains the property of the Organisers. For the avoidance of doubt the Competitor may not use any footage obtained for any commercial purposes including but not limited to any form of television broadcast (free to air internet pay per view subscription terrestrial satellite) any other form of internet use any advertising sponsorship promotion or for any type of public performance paying or otherwise without prior permission from the Organisers.
- 8.12.17 The Organisers reserve the right to retain the memory card and replace it with a new memory card.
- 8.13 Onboard marshalling
- 8.13.1 All Cars are required to carry the Championship designated **EM Motorsport Smart Marshalling Unit** onboard marshalling system during all Events and Official Testing. Operating instructions for the onboard marshalling system will be made available to all Teams/Entrants.
- 8.13.2 The onus is on the Competitor to ensure that the onboard marshalling system is fully and correctly operable at all times and is fitted in accordance with the supplied instructions.





## ARTICLE 9: TRANSMISSION TO THE WHEELS

#### 9.1 Gearbox

- 9.1.1 The only permitted gearbox is the SADEV SLR75-14 in accordance with the Tatuus Technical Manual and unmodified. All six forward gears and single reverse gear must be fitted at all times when a Car runs during any Event.
- 9.1.2 The only permitted gear ratios, solely supplied by the original manufacturer, are:

1<sup>st</sup>: 12/30 (2.50)

2<sup>nd</sup>: 16/30 (1.88)

3<sup>rd</sup>: 18/27 (1.50)

4<sup>th</sup>: 20/25 (1.25)

**5**<sup>th</sup>: 25/26 (1.04)

6<sup>th</sup>: 23/20 (0.87)

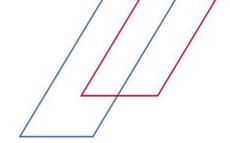
- 9.1.3 The Organisers reserve the right to nominate alternative ratios defined in the Tatuus Technical Manual.
- 9.1.4 All Cars must have a reverse gear in accordance with the Tatuus Technical Manual operable by the driver at all times during Event or test session when the engine is running.
- 9.2 Traction control
- 9.2.1 The use or fitment of any type of traction control device or mechanism is forbidden at all times.

## ARTICLE 10: SUSPENSION AND STEERING

## 10.1 Suspension

- 10.1.1 Suspension settings may be changed provided the adjustment provided by the standard components is maintained and/or the margins specified by the Tatuus Technical Manual are respected and all pick up points are as standard configuration and location as stated in the Tatuus Technical Manual. Gearbox pick up points must be as standard configuration as stated in the Tatuus Technical Manual
- 10.1.2 Mounting points and mounting brackets must not be modified or moved from the original locations provided, unless specified in the Tatuus Technical Manual.
- 10.1.3 Only springs specified in the Tatuus Technical Manual and supplied by Tatuus must be used. Once supplied no modification of any sort is permitted.
- 10.1.4 No modification of any sort to any damper body or damper sub-component is permitted.
- 10.1.5 No packers washers and bump rubbers may be fitted to damper shafts. Belleville washers or coil springs are not permitted on the damper shaft.
- 10.1.6 Anti-roll bars may be changed but only from the range specified in the Tatuus Technical Manual.
- 10.1.7 Anti-roll bar links may be disconnected. If disconnected the links may be removed.





#### ARTICLE 11: BRAKES

#### 11.1 Brake components

- 11.1.1 Except where specified otherwise below, all brake components including callipers lines and hoses must remain original as supplied by Tatuus or be the official options specified in the Tatuus Technical Manual and Parts Catalogue.
- 11.1.2 Brake cooling or brake cooling ducts are not permitted.
- 11.1.3 Brake pads: The only brake pads permitted for all Events and Official Testing are **PFC 11 Race Compound** Championship brake pads which must be obtained from the Championship Parts Supplier.
- 11.1.4 Brake discs: The only brake discs permitted for all Events and Official Testing are the **PFC** Championship brake discs which must be obtained from the Championship Parts Supplier.
- 11.1.5 The Organisers reserve the right to issue an Official Championship Bulletin which specifies a mandatory brake fluid brand and/or DOT rating which must be used as the sole brake fluid in the car.

#### ARTICLE 12: WHEELS & TYRES

- 12.1 Wheels
- 12.1.1 The mandatory front and rear wheels must be used as defined in the Tatuus Technical Manual.
- 12.1.2 The fixing will be via a single centre lock taper nut system.
- 12.1.3 A safety linchpin must be in place on the wheel nut throughout the event and must be refitted after each wheel change. These linchpins must be painted dayglow red or orange.
- 12.1.4 No pressure limiting device of any kind is allowed in the complete wheel/tyre assembly.
- 12.1.5 Valve caps must be correctly fitted to all four wheels at all times.
- 12.2 Tyres
- 12.2.1 The only tyres permitted for all Events and Official Testing are those detailed below which must be obtained from the Championship Tyre Supplier:

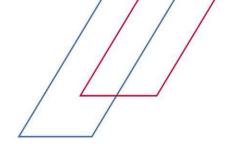
 Slick:
 Pirelli PZero
 DM
 Front:
 200/540-13
 Rear:
 250/575-13

 Wet:
 Pirelli
 WS
 Front:
 200/540-13
 Rear:
 250/575-13

The Organisers reserve the right to amend these specifications.

- 12.2.2 Only the slick tyres which have been supplied to the Competitor at that Event by the Championship Tyre Supplier may be used throughout the Event.
- 12.2.3 Competitors may transport wet tyres from one Event to another provided they were originally allocated to them by the Championship Tyre Supplier.
- 12.2.4 Each new tyre used must be to the specification as supplied by Pirelli. Any modification or treatment including cutting grooving application of water solvents or softeners the use of heat retaining (and/or cooling) devices or pre- heating/cooling is prohibited. This applies to both wet and slick tyres.
- 12.2.5 During the Event no artificial warming of the wheel tyre or other component of the inflated wheel assembly is permitted.
- 12.2.6 Any tyre protection cover used during transit of the car within the confines of the circuit must be a loose fit onto the tyre and must not be of a temporary construction and must be capable of being reused many times.
- 12.2.7 Covering of the tyres on the grid is not permissible.





- 12.2.8 Pre-heating and any modification or treatment or the application of solvents altering the tyres compound are strictly forbidden.
- 12.2.9 No cleaning or removal of rubber pick-up from the tread area of the tyres is permitted using any form of other mechanical aid.
- 12.2.10 The Organisers reserve the right to impound and/or replace Event nominated tyres at any time before between and after Qualifying and Races. Responsibility for the wheels and tyres remain with the Competitor throughout the period that they are held by the Organisers and/or Championship Tyre Supplier.
- 12.2.11 Slick tyres allotted to each Car for each Event's Qualifying and Races are: Four (4) front tyres new and Four (4) rear tyres new. These tyres must remain new for the Qualifying session. Allotted tyres may be used in any combination throughout the Event.
- 12.2.12 These eight slick tyres allocated for the Event must be new and supplied at that Event.
- 12.2.13 Wet tyres allotted to each Car for each Event's Qualifying and Races are: Four (4) front tyres new or used and Four (4) rear tyres new or used.
- 12.2.14 If wet tyres are used the rain light must be switched on.
- 12.2.15 If wet tyre wear during an Event is deemed to be excessive a meeting of Entrants may be convened in which a majority vote (using a system of one vote per Team/Entrant, not one vote per Car entered) may decide to allocate one additional set of wet tyres per Car for the remainder of that Event.
- 12.2.16 During each Event no allocated tyre may be turned or reversed on the rim after initial fitment. Used tyres can be turned on the rim in advance of arriving at the circuit for an Event.
- 12.2.17 Each Competitor must nominate via the official method provided by the Organisers the manufacturer's barcode number of each tyre for use at each Event. This nomination must be submitted to the Championship Technical Delegate prior to the start of the first Qualifying session.
- 12.2.18 It is the Competitor's responsibility to ensure that the tyre barcode numbers to be used during the Event are correctly recorded on the nomination form. The use of tyres without appropriate identification may result in a grid position penalty or exclusion from the Qualifying or Race. The Officials may, at any time, during the Event, conduct spot-checks.
- 12.2.19 The replacement of any tyre is subject to the prior mutual agreement of the Championship Technical Delegate and a representative of Pirelli/the Championship Tyre Supplier. Any damaged or punctured tyre will be replaced on a "like for like" basis and both tyres must be presented before any approval may be given.
- 12.2.20 Only tyres nominated for that Event are permitted in the pitlane during the Qualifying session and Races.
- 12.2.21 All tyres when under the control of a team must remain visible within the team's designated awning area at all times during circuit-open hours of a Event.
- 12.2.22 The Organisers reserve the right to establish a tyre parc fermé at any Event at any time. In this case the tyres will be made available to Competitors in the tyre parc fermé no later than 60 minutes before the Qualifying session and/or Races. Competitors will deliver the tyres back to the tyre parc fermé no later than 20 minutes after opening time of the tyre parc fermé established for the Qualifying session and each Race.
- 12.3 Tyre testing
- 12.3.1 Samples for tyre testing in accordance with Motorsport UK Regulations [D 36] may be taken at any time during the Event.
- 12.4 Free Practice tyres
- 124.1 A maximum of eight (8) new slick tyres per Car may be used in an Event's Free Practice. Free Practice tyres may be supplied prior to the Event provided they were allocated by the Championship Tyre Supplier. One (1) additional set (2 front and 2 rear tyres) may also be nominated provided that each



tyre was nominated as a new Free Practice or Qualifying/Race tyre at the previous Championship Event for which that Competitor was entered. Should a Competitor have not entered a previous Championship Event, this additional set of tyres must be previously used. Exceptionally for the first Event (Donington Rounds

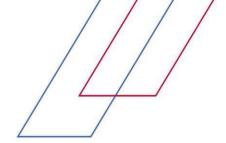
- 1-3), the additional set (2 front and 2 rear tyres) may be new or used.
- 12.4.2 The number of wet tyres (new or used) for Free Practice sessions will not be limited, Sporting Regulation 24.4 applies.
- 12.4.3 Parc Fermé conditions will apply in team awnings for 30 minutes after each Fee Practice session in order for tyre checking to take place unless authorisation to release is given by the Championship Technical Delegate.

#### ARTICLE 13: COCKPIT

- 13.1 Safety harness
- 13.1.1 Be fitted with a safety harness to be worn at all times by the driver during Official Testing, Free Practice, Qualifying and Races and while the driver is driving the car in the paddock. All harnesses must be compliant with FIA Standard 8853-2016.
- 13.1.2 The safety harness fixing system to the monocoque must be utilised in accordance with the Tatuus Technical Manual and must not be changed or modified.
- 13.1.3 It is not permitted to mix parts of safety harnesses. Only complete sets as supplied by manufacturers are to be used. The shoulder strap with the FIA hologram must be fitted in the driver's left-side position.
- 13.2 Headrests
- 13.2.1 All Cars must fit the mandatory headrest assembly.
- 13.3 Seat
- In order that an injured driver may be removed from the Car in their seat following an accident all Cars must be fitted with the supplied extractable seat and gap filler in accordance with the Tatuus Technical Manual, FIA Appendix | Article 274A and the FIA Specifications for Extractable Seats in Open Cockpit Cars document.
- 13.3.2 The seat must be extractable without the need to cut or remove any of the safety harness.
- 13.3.3 The seat shell positioning system is part of the Car and must only be modified in accordance with the Tatuus Technical Manual.
- 13.3.4 Non-flammable padding only and only minor modifications of the seat and/or gap filler in accordance with the Tatuus Technical Manual are allowed for driver's comfort providing all the functionality of the seat and its associated safety equipment is preserved.
- 13.3.5 The driver seated normally with their safety harness fastened and with the steering wheel removed must be able to raise both legs together so that their 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.
- 13.3.6 A cockpit evacuation test may be required at any time by the Championship Organisers, in accordance with FIA requirements and 13.3.7.
- 13.3.7 In accordance with FIA Appendix J Article 274A, the driver must be able to remove the steering wheel and get out of the car within 7 seconds and then replace the steering wheel in a total of 12 seconds. This must be demonstrated from the normal seating position, with all seat belts fastened and whilst wearing the usual driving equipment,

For the test, the position of the steered wheels will be determined by the Championship Technical Delegate and after the steering wheel has been replaced steering control must be maintained.





## ARTICLE 14: VEHICLE SAFETY EQUIPMENT

#### 14.1 General safety recommendation

14.1.1 Cars must comply with all articles relating to the current FIA Appendix J Article 274A and any requirements from within the country where the Event is being held.

All personal safety equipment: overalls underwear helmet boots etc. must comply with at least the minimum requirements of current Appendix J of FIA Appendix J Article 274A for the event being contested and must be in conformity with the Sporting Regulations.

## 14.2 Fire extinguishers

14.2.1 All Cars must be fitted with a fire extinguishing system as defined in the Tatuus Technical Manual which must discharge into the cockpit and into the engine compartment.

The driver must be able to trigger the extinguishing system manually when seated normally with their safety harness fastened and the steering wheel in place.

Furthermore a means of triggering from the outside must be located behind the rear roll hoop as defined in the Tatuus Technical Manual. It must be marked with a letter "E" in red inside a white circle of at least 100mm diameter with a red edge.

- 14.2.2 The system must work in any position even when the Car is inverted.
- 14.2.3 Extinguisher nozzles must be as homologated for the extinguisher and be installed in such a way that they are not directly pointed at the driver's face.

#### 14.3 Rear view mirrors

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

#### 14.4 Accident Data Recorder

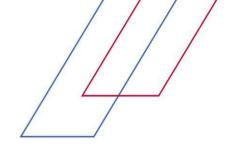
- 14.4.1 All Cars must be equipped with an FIA-homologated Accident Data Recorder (ADR) from the following list:
  - EM Motorsport ADR4 (FIA homologation ADR.001.20)
  - MoTec ADR2 (FIA homologation ADR.002.20)
- 14.4.2 The ADR must be installed as specified in the Tatuus Technical Manual and the manufacturer's instructions and it must remain operational at all times the Car is on track. The ADR must not be modified.
- 14.4.3 The data obtained must be surrendered upon request by the Championship Technical Delegate at any point in the Championship or at any moment during a given Event.

## ARTICLE 15: DRIVER'S SAFETY EQUIPMENT

## 15.1 Helmet

- 15.1.1 Drivers must wear a helmet compliant with Motorsport UK Regulations (section [K10]) and FIA Appendix L of the International Sporting Code to one of the following FIA Standards:
  - FIA Standard 8859-2015
  - FIA Standard 8860-2010
  - FIA Standard 8860-2018
  - FIA Standard 8860-2018-ABP





#### 15.2 Frontal Head Restraint

- 15.2.1 The use of a Frontal Head Restraint (FHR) device is mandatory in accordance with Motorsport UK Regulation [Q12.1.1(e)], compliant with one of the following FIA standards:
  - FIA Standard 8858-2002
  - FIA Standard 8858-2010

#### 15.3 Flame resistant clothing

- 15.3.1 Drivers must wear flame resistant clothing (including under-clothing) compliant with FIA Appendix L of the International Sporting Code and one of the following FIA Standards:
  - FIA Standard 8856-2000
  - FIA Standard 8856-2018
- 15.3.2 There is a minimum overlap required in the neck area (between the balaclava and the top underwear) of 3cm, except on the front central line where the overlap shall be at least of 8cm as shown in Figure 1.

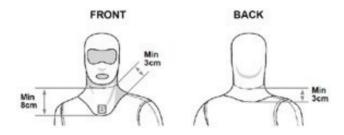


Figure I - minimum overlapping at the neck area.

#### 15.4 Biometric devices

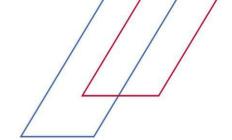
15.4.1 Any biometric or physiological monitoring device worn by a driver must comply with all current safety regulations and be declared to the Championship Technical Delegate, who in conjunction with the Organiser will make the final decision about its use. Any data recorded must be shared in full with the Championship Technical Delegate and Organiser upon request.

## ARTICLE 16: FUEL

#### 16.1 Fuel

- 16.1.1 The only fuel permitted for all Events and Official Testing is **Haltermann Carless Hiperflo R20** which must be obtained at the Event and from the Championship Fuel Supplier. The deadline for fuel orders is the Friday prior to the week of the Event.
- 16.1.2 The Organisers reserve the right to nominate an alternative fuel.
- 16.1.2 It is not permitted to inject or use any fuel or additive other than that specified in these Regulations.
- 16.1.3 It is the Entrant's responsibility to ensure that the entire fuel system has been purged of test fuel prior to the start of an official Event.
- 16.1.4 The use of any specific device whether on board or not to decrease the temperature of the fuel below the ambient temperature at the time of use of the Car is forbidden
- 16.1.5 A minimum of 3 litres of fuel must remain in the Car when it arrives in parc fermé at the end of each Qualifying session and/or Race.





## 16.2 Fuel testing

- 16.2.1 Fuel samples under the control of the Championship Technical Delegate for fuel testing may be requested at any time during the Event.
- 16.2.2 To facilitate the taking of fuel samples and to confirm the fuel volume remaining all Cars must be fitted with an FIA approved dry-break coupling and the Entrant must also make available an associated fitted pipe minimum length 300mm.

## 16.3 Refuelling and fuel handling

- 16.3.1 During all refuelling or fuel handling operations:
  - a) The relevant personnel must be wearing clothing which will provide adequate protection against fire
  - b) An assistant wearing clothing which will provide adequate protection against fire and who is equipped with a suitable fire extinguisher of appropriate capacity must be present
  - c) During refuelling all other team personnel must keep a safe distance from the Car
  - d) All Cars refuelling equipment and containers must be suitably grounded where necessary
  - e) Any powered pumping system used to transfer fuel must be operated by a non-latching switch or be turned off automatically if the operator leaves.

#### ARTICLE 17: MISCELLANEOUS

#### 17.1 Material treatment

17.1.1 The action of adding / applying a surface treatment (i.e. shot peening anodization any kind of plasma coating superfinishing ...) other than painting or adhesive film to a genuine component is a modification of the component itself and therefore prohibited.

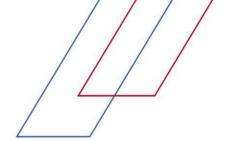
#### 17.2 Scrutineering

17.2.1 Any car which has passed initial scrutineering may not be removed from the confines of the venue during the remainder of the Event.

## 17.3 Vehicle and component examination

- 17.3.1 The Organiser (in addition to any other powers they may have under these Regulations) reserves the right before or after any Qualifying or Race in the Championship to designate any one or more of the competing Cars for special eligibility scrutineering. Upon such election being made the Competitor shall immediately place the car under the control of the Organiser and be deemed to have permitted all such scrutineering examination and testing as the Organiser may responsibly require to undertake. The Organiser has the right to:
  - a) Examine the Car at the circuit for such period as they may reasonably require and take fuel and/or lubricant samples
  - b) Retain the Car for detailed examination at premises chosen by the Organiser. If the Organiser elects to retain the Car they shall make it available for collection by the Competitor at least seven days prior to the Qualification session for the next race in the Championship unless the Car is found to be in breach of these Regulations
  - c) In the event of an engine being required by the Organiser in order to determine compliance with the Regulations during the course of a Event the relevant Competitor must surrender the engine to the Championship Technical Delegate as soon as such notification is given. Under these circumstances the Organiser may choose to deliver another Spare Engine to the Competitor concerned for that Car until the original is returned. The use of this Spare Engine will be at no cost to the Competitor provided it is returned with its official seals intact and its usage is bound by the same terms as the original NBE Technical Support Agreement.





- d) Re-inspect Cars at any time during the course of the season should there have been a Regulation infringement or circuit incident
- e) Seal the Car and its components in accordance with Motorsport UK Regulations in such a manner as they may choose and require the Competitor at their own expense to present the Car at any other premises chosen by the Organiser for detailed examination within a specified period and/or remove the Car by transporter at no expense to the Competitor to an appointed location. The Competitor will be advised in writing of the time date and location of the subsequent testing or eligibility examination. The Competitor or their agent will be invited to witness this inspection and will be required to provide all the labour required to perform the vehicle or component strip. The Organiser may nominate an agent to additionally observe and report to the Organisers
- f) Undertake any form of verification procedure necessary and may order the removal of parts fuel or oils from the Car for examination and verification and with all associated incurred costs to be borne by the Competitor on demand of the Organiser.
- 17.3.2 The Competitor will be personally and solely responsible for ensuring that their Car complies with their registration details and with these Regulations for each Event at which they are entered. Failure to comply in either respect will be a breach of these Regulations.
- 17.3.3 It is the Competitor's responsibility to present on demand any component requested by the Championship Technical Delegate for inspection.
- 17.3.4 Queries concerning eligibility should be referred in writing to the Championship Technical Delegate at least seven days prior to a Event entered to permit a ruling in advance of any Event at which it is intended to compete.
- 17.3.5 The decision of the Organisers as to the eligibility of any component in the Car is final subject only to manifest error.

## 17.4 Cooling devices

17.4.1 During all sessions it is permitted to cool the radiators and brakes of a Car when it is stationary using an integral battery powered hand carried (by one person) portable fan(s) with ducting. These may be used in Parc Fermé upon authority from the Championship Technical Delegate. It is permitted to temporarily mount these on the Car. It is not permitted to artificially cool the ambient air passing through this device by any means; in other words the portable fan is purely a device to direct ambient air onto the radiators. Neither is it permitted to use dry ice or any other substance to aid the cooling.

## 17.5 Silencing

17.5.1 The vehicle must comply with Motorsport UK Regulations [] 5.17] and [] 5.18] at all times.

#### 17.6 Numbers and decals

- 17.6.1 Competition numbers must be displayed on a white backing in accordance with Motorsport UK Regulation [J 4]. Cars competing in the Rookie Cup must display their competition numbers over a yellow backing panel in accordance with Motorsport UK Regulations [J4].
- 17.6.2 Branding supplied by the Organisers must be displayed in the areas as specified in the F4 Brand Guidelines appendix contained in the Championship Sporting Regulations. Failure to adhere to this Regulation will be deemed to be a breach of these Championship Regulations and may result in loss of Championship points.
- 17.6.3 No Car overalls or team branding may carry any form of sponsorship or advertising which conflicts in any way with FIA or Motorsport UK and Championship requirements. Any Car overalls or team which do so may not be permitted to take part in the Championship. The decision of the Organisers is final.





## **APPENDIX 1: CONTACTS**

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