



# Alfa Romeo Championship

## Sporting & Technical Regulations 2023

**PUBLISHED VERSION:** Page 1 of 1 – issued 22/02/2023

### 1: SPORTING REGULATIONS - GENERAL

#### 1.1: TITLE & JURISDICTION:

The **ALFA ROMEO CHAMPIONSHIP** is organised and administered by the 750 Motor Club Ltd in accordance with the General Regulations of Motorsport UK (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

- i. **MOTORSPORT UK Championship Permit No:** CH2023/R034
- ii. **MOTORSPORT UK Championship Grade:** C.
- iii. **Race Status:** Inter-Club.

#### 1.2: OFFICIALS:

i. **Coordinator:** A. Robinson, 103 Hillwood Road, Madeley Heath, Crewe CW3 9JZ

☎ 07980 949325; arobinson813@btinternet.com

ii. **Eligibility Scrutineer:** ~~K. Lewis, Deputy:~~ B. Blackmore

iii. **Championship Stewards:** I. Sowman, T. Gregory, C. Emmerson

#### 1.3: COMPETITOR ELIGIBILITY:

- i. Entrants must be:
  - (a) fully paid up valid members of the 750 Motor Club and
  - (b) registered for the Championship and
  - (c) in possession of a valid MOTORSPORT UK Entrants Licence.
- ii. Drivers and Entrant/Drivers must:
  - (a) be current Members of the 750 Motor Club and
  - (b) be Registered for the Championship and
  - (c) be in possession of valid Competition (Racing) Club Licence, as a minimum
  - (d) Or be in possession of the highest grade of national Race licence or valid FIA International Licence, together with their ASN's written consent ((H)26.2. and FIA ISC Article 2.3.7.b applies)
  - (e) If participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.
- iii. All necessary documentation must be presented for checking at all rounds when signing-on.

#### 1.4: REGISTRATION:

- i. All competitors must register for the Championship by returning the Registration Form with the Registration Fee to ARCA via the alfaracer.com website prior to the final closing date for the first round being entered.
- ii. The Registration Fee for the season is £100 payable upon registration.
- iii. Registration numbers will be the permanent Competition number for the Championship for the ~~2022~~ 2023 season.

#### 1.5: CHAMPIONSHIP ROUNDS:

The **ALFA ROMEO CHAMPIONSHIP** will be contested over the following rounds:

Date	Circuit	Rounds
30 April	Silverstone	2
3 June	Oulton Park	2
8/9 July	Cadwell Park	2
13 August	Brands Hatch	2
23/24 September	Donington Park	2
29 October	Silverstone GP	2

#### 1.6: SCORING:

i. Points will be awarded to Competitors listed in the Final Results in each class as follows:-20; 18; 16; 14; 12; 10; 8; 6; 4; 2. all other starters-1. Fastest lap in qualifying in each class – 1 point subject to a minimum of 3 starters in class, Fastest lap in each race per class - 1 point, subject to a minimum of 3 starters in class. If there are less than 4 starters in any class, points will be as follows: 3 starters 18; 16; 14; 2 starters: 16; 14. If there is only one starter in a class, 14 points will be awarded to this starter if he/she finishes.

ii The totals from all qualifying rounds of the championship held, less two scores the driver chooses to drop, will determine the final championship points and positions. Competitors disqualified from results for sporting or technical infringements may not use that (those) round(s) as discarded rounds for the purposes of championship placings. Dropped scores must also include any points for fastest qualifying and/or race lap accrued in respect of the dropped rounds.

iii If the race distance has been reduced it shall count as a full points scoring round subject to iii below.

iv Where a race is stopped and not restarted and less than 75% of the scheduled race distance determined by the Clerk of the Course has not been completed, where this equates to less than 50% of the normal race distance of 20 minutes then half points will be awarded. These will be calculated from the point at which the winner is declared.

v. The totals from all qualifying rounds (excluding any races which are abandoned and which are not replaced) less 2 will determine the final championship points positions.

vi. Ties for end-of-season award winning places shall be resolved, where more than one competitor have equal totals, by taking into account the highest number of 1<sup>st</sup> places, 2<sup>nd</sup> places, 3<sup>rd</sup> places etc. until a differential is found.

vii. Any penalty points incurred during the season will be deducted after the final total points score has been calculated.

#### 1.7: AWARDS:

i. All awards are to be provided by the Organising Club or by ARCA as agreed between them.

ii. Per Round: Awards of 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class will be given, subject to the number of starters as follows:- up to 3 starters -1<sup>st</sup> in Class only; 4 to 5 starters -1<sup>st</sup> & 2<sup>nd</sup> in class only; 6 or more starters - 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class. Driver of the Day/Weekend.

iii. Championship: Trophies to:

- 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> overall.
- 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class subject to a minimum of ~~5~~ 4 race starts.

• Driver of the Day/Weekend

iv. Bonuses:

- Per Round: Not applicable.
- Championship: Not applicable

v. Presentations: Garlands and Trophies are to be provided for presentation at the end of each race.

vi. Entertainment Tax Liability: Not applicable.

vii. Title to all Trophies: In the event of any Provisional Results or Championship Tables being revised after any provisional presentations and such revisions affecting the distribution of any awards the Competitors concerned must return such awards to the 750 Motor Club Competitions Secretary in good condition within 7 days.

### 2: CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

#### 2.1. ENTRIES:

- i. Competitors are responsible for sending in correct and complete entries with the correct entry fee prior to the closing date for entries before each event.



- ii. Incorrect or incomplete entries (Including Driver to be Nominated Entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Meeting Organiser receives the missing or corrected information or fee.
- iii. Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing.
- iv. The Entry Fee for each event shall be specified in the SRs and on the entry form.
- v. Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

**2.2. BRIEFINGS:** Organisers will notify Competitors of the times and locations for all briefings in the Final Instructions for the meetings. All competitors must attend briefings as required.

### 2.3. QUALIFICATION OR PRACTICE SESSIONS

- i. Should any Practice or Qualification session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session; the decision of the Clerk of the Course shall be final.
- ii. Each driver shall complete a minimum of 3 laps in the car to be raced in order to qualify (MOTORSPORT UK Regulations Q12.4).

**2.4. RACES:** Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race (Q12.15).

### 2.5. STARTS:

- i. All cars will be released to form up on the grid prior to the start as the formation specified on the grid sheet.
- ii. The start will be via standing start. The minimum Countdown procedures/audible warnings sequence shall be:
  - (a) 1 minute to start of Green Flag Lap - Start Engines/Clear Grid.
  - (b) 30 seconds - Visible and audible warning for start of Green Flag/Pace Lap.
  - (c) A five second board will be used to indicate that the grid is complete.
  - (d) The red lights will be switched on five seconds after the board is withdrawn. Cars in the Modified, Power Trophy and Invitation classes will start on the lights. There will be a 3-row gap on the starting grid between these cars and the cars in the Twin Spark Cup class. The Twin Spark Cup cars will start on the Union Jack flag a minimum of 10 seconds after the red lights go out. Should there be less than 4 Modified/Power Trophy/V6 class cars taking the start the 3-row gap will be maintained but all cars will start simultaneously on the lights.
- iii. Any car removed from the grid after the 1 minute stage or driven into the pits on the Green Flag lap shall be held in the pit lane and may start the race after the last car has passed the start line or pit lane exit, whichever is the later to take the start from the grid.
- iv. Any driver unable to start the Green Flag/Pace lap or start is required to indicate their situation as per MOTORSPORT UK Regulation Q12.11.2. In addition any driver unable to maintain grid positions on the Green Flag Lap, to the extent that ALL other cars are ahead of them, may complete the Green Flag lap but MUST remain at the rear of the last row of the grid
- v. In the event of any starting lights failure the Starter will revert to use of the Union flag.
- vi. Any competitor who is on the track at the time of showing the one-minute board, or who is allowed to join the race with the permission of the Clerk of the Course is defined as coming under starter's orders, and is therefore deemed to be a starter.

**2.6. SESSION RED FLAG:** Should the need arise to stop any race or practice, RED LIGHTS will be switched on at the Start line and RED FLAGS will be displayed at the Start line and at all Marshals Signalling Points around the Circuit. This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the pit lane, during practice, and to the starting grid area,

during a race, unless otherwise directed by officials. Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when a race is stopped.

### 2.7. PITS, PADDOCK & PITLANE SAFETY:

- i Pits & Paddock: Competitors must ensure that the MOTORSPORT UK Circuit Management and Organising Club Safety Regulations are complied with at all times.
- ii. Pitlane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all Drivers to take all due care and respect the pit lane speed limits.
- iii. Refuelling: May only be carried out in accordance with the MOTORSPORT UK General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.
- iv. Speed Limit: Pit Lane Speed Limit will be 60 km/h.

**2.8. RACE FINISHES:** After taking the Chequered Flag drivers are required to:

- i. progressively and safely slow down
- ii. remain behind any competitors ahead of them
- iii. return to the Pit Lane Entrance/Paddock Entrance as instructed,
- iv. comply with any directions given by Marshals or Officials
- v. keep their helmets on and harnesses done up while on the circuit or in the pitlane.

**2.9. RESULTS:** All Practice Timesheets, Grids, Race Results are to be deemed Provisional until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures. (MOTORSPORT UK regulation D26.3.)

**2.10. TIMING MODULES:** The 750 Motor Club utilises transponder-based timing and competitors must have a compatible transponder fitted and working and advise the race organisers of its number prior to the event. Compatible transponders include the AMB TRANX 260 and MyLaps X2 & TR2 models.

**2.11. QUALIFICATION RACES:** If any event is oversubscribed the Organising Club may at their discretion run Qualification Races.

**2.12. OPERATION OF SAFETY CAR:** The Safety Car will be brought into operation and run in accordance with Section Q, Appendix 3 of the MOTORSPORT UK General Regulations.

## 3. SPECIFIC CHAMPIONSHIP REGULATIONS

**3.1** By registering for the Championship all competitors and their associates commit to positively promote and demonstrate the Motorsport UK's Respect Code which is appended to these regulations (Appendix 3).

Where any reports of disrespectful conduct are judged to be well founded the Championship organisers may issue warnings or require remedial actions and/or report the matter to the Championship Stewards who may impose appropriate penalties which can include loss of Championship points and/or race bans through to Championship Expulsion and referral to Motorsport UK.

It is imperative that we promote the safety and wellbeing of young people and adults at risk. In addition to this all participants must be aware of their behaviour and conduct at all times and abusive language and harmful behaviour will not be tolerated. Any such incidents must be reported to the Championship Coordinator and/or Safeguarding Officer who will also relay the report Motorsport UK. Details of the Motorsport UK Policies and Guidelines are available at [www.motorsportuk.org/resource-centre](http://www.motorsportuk.org/resource-centre) by selecting Policies and Guidelines.

**3.2** In the event of any rounds being oversubscribed the Organising



Club may, in liaison with the Championship Coordinator, at their discretion run Qualification races as per 2.11 of these regulations. Alternatively should there be sufficient space within the timetable, the Organising Club may divide the grid after qualifying into 3 separate Groups. The Groups will then form 3 races whereby each competitor participates in two races. All 3 races will be eligible for full championship points.

**3.3** At each Round of the championship Race 1 grid positions will be determined by each competitor's fastest lap time in Qualifying. The grid positions for Race 2 will be determined by the finishing order in Race 1.

#### 4: SPECIFIC CHAMPIONSHIP PENALTIES:

In accordance with Section C of the current MOTORSPORT UK Yearbook

##### 4.1: INFRINGEMENT OF TECHNICAL REGULATIONS:

1. Arising from post practice Scrutineering or Judicial Action: Minimum Penalty: The provisions of MOTORSPORT UK Regulations: C3.3.
2. Arising from post race Scrutineering or Judicial Action: Minimum Penalty: The provisions of MOTORSPORT UK Regulations: C3.5.1 (a) and (b).

For infringements deemed to be of a more serious nature the Clerk of the Course will invoke the provisions of Regulation C3.5.1 (c).

##### 4.2: ADDITIONAL SPECIFIC CHAMPIONSHIP PENALTIES:

- i. In the case of a driver being disqualified from a race, the Clerk of Course will impose the penalties set out in MOTORSPORT UK Regulation C3.5.1 a & b and may impose the penalty set out in MOTORSPORT UK Regulation C3.5.1 c.
- ii. In order to maintain standards of conduct, the Championship Organisers will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual is included on two such reports during one racing season the Championship Organisers will request the Clerk of Course at future race meetings to consider specific observation of that driver's conduct.
- iii. The Clerk of Course may impose a "Stop-Go" or "Drive through" penalty during a race in accordance with MOTORSPORT UK Regulation Q.12.26.
- iv. Any Competitor who is penalized under the Championship Sporting Regulations at any stage of a Championship event and receives an allocation of penalty points on their race licence in accordance with MOTORSPORT UK Regulations, will receive a Championship points deduction equal to the number of penalty points which were allocated. Should the same competitor receive penalty points at another round of the Championship then the number of Championship points deducted will be double the number of penalty points applied. If penalty points are applied at a third round, then the Championship points deducted will be triple this number, and quadrupled at the fourth occurrence of such a penalty etc. This may result in a driver receiving a negative score.
- v. Championship Stewards are also empowered to consider any request from the Championship Coordinator to penalize any Competitor for any breach of Championship regulations and, after holding a formal hearing if they deem it necessary, to impose a penalty in accordance with MOTORSPORT UK Regulation C.2.1.1 (subject to the rights of appeal provided for in Section C.)
- vi. One or more of the following may be imposed by the Championship Stewards as appropriate:
  - a) Reprimand
  - b) Fine. This may also be applied in the case of a driver receiving three reprimands from the Championship Stewards in one season.

- c) Time or Grid Penalties
- d) Suspension from all or part of the Championship. This may also be applied in the case of a driver receiving two fines from the Championship Stewards in one season.

#### 5: TECHNICAL REGULATIONS (ALL CLASSES)

##### 5.1: INTRODUCTION:

The following Technical Regulations are set out in accordance with the Motorsport UK specified format and it should be clearly understood that if the following texts do not specify you can do it, you should work on the principle that you cannot. The Technical Regulations for Modified, V6, Power Trophy and Twin Spark Cup classes have been separated to enable Competitors to identify more easily which provisions are permitted or prohibited in each group.

##### 5.2: GENERAL DESCRIPTION:

The **750 Motor Club Alfa Romeo Championship** is for competitors participating in any Production or Production based ALFA ROMEO (or Fiat/Lancia/Abarth in the Modified and Power Trophy classes).

Vehicles must comply with Motorsport UK General Technical Regulations contained within Sections C, H, J, K, L & Section Q of the current Motorsport UK Yearbook.

The Championship will be run in three-four classes as follows:

**Modified (M):** Modified Alfa Romeo, Fiat/Abarth or Lancia cars with no capacity limit (including turbocharged, supercharged and diesel engine cars).

**V6 (V):** Standard Production Alfa Romeos using the Busso or GM-derived V6 engine.

**Power Trophy (P):** Alfa Romeos, Fiats/Abarths and Lancias running to Power to Weight ratio of 175 bhp per 1000 kg at the wheels/hub for non-turbo petrol engine models and 155 bhp per 1000kg for diesels and turbo engine petrol models.

**Twin Spark Cup (TS):** Standard Production Alfa Romeos using the 4 cylinder 16v Twin Spark engine.

NB: Superturismo, DTM/ITCC and other Alfa Romeo & Fiat/Lancia/Abarth cars that do not comply with these Technical Regulations may race on an 'invitation' basis at the organisers' discretion but will not be eligible for Championship points.

These Regulations must be read in conjunction with the relevant sections of the current Motorsport UK Yearbook. In these Regulations, the word "Standard" is deemed to mean "as originally produced or supplied by the vehicle manufacturer or importer for the model registered by the Competitor".

Except where these Regulations specifically permit otherwise all engine and gearbox components must be externally identifiable as being of Alfa Romeo/Fiat/Abarth/Lancia manufacture or fitted as original Alfa Romeo equipment to Alfa Romeo badged vehicles.

The Championship organisers reserve the right to classify low volume production models or new models introduced during the year, as appropriate.

##### 5.3: SAFETY REQUIREMENTS:

The following Articles of Motorsport UK Appendix Section K Safety Criteria Regulations will apply: [K 1.2], [K 1.3], [K 1.4], [K 1.5], [K 1.6], [K 1.6.5], [K 1.6.6], [K 2], [K 3.1], [K 5], [K 10], [K 12], [K 13] and [K 14]

[K 1.2.1] refer to drawing 5 or 6 (it is recommended that cars running in the Modified and Power Trophy classes refer to roll cage example 9

in the current Motorsport UK Yearbook and that cages should have double door bars and extend forward to the suspension turrets). A FULL ROLL CAGE IS COMPULSORY ON ALL VEHICLES. THE FITTING OF SIDE INTRUSION BARS ON BOTH SIDES OF THE CAR IS ALSO MANDATORY.

[K 3.1] Fire Extinguisher [K 6] Tank fillers, vents and caps. [K 8] External circuit breaker. [K 9] Overalls. [K 10] Crash Helmets. [K 11] Visors. These requirements may be exceeded.

Roll cages may be welded to the body shell. In cars running in the Twin Spark Cup all parts of the roll cage must remain within the habitacle (WHICH IS DEFINED AS THE AREA OF THE CAR OCCUPIED BY THE DRIVER AND PASSENGERS and excludes the boot area on all models including hatchback and estate cars) except where specifically permitted as in Twin Spark Cup regulation 8.3. Two windscreen wipers must be fitted in the Power Trophy and Twin Spark Cup where fitted as Standard on the model to be raced.

A currently FIA homologated harness is mandatory. Racing seat installations must comply fully with Sections (K) 2.2 and 2.3 of the Motorsport UK Regulations.

There must be towing eyes with minimum internal diameter of 60mm securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved in accordance with Motorsport UK Regulation [Q13.1.3]. In respect of the front towing eye, this may not protrude beyond the vertical plane of the front bumper by more than 10mm. For the avoidance of doubt this precludes the use of the standard towing eye in its standard location, competitors must find an alternative.

It is strongly recommended that all Race Cars **must** should, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

The towing eyes must be made of at least 6mm diameter steel wire rope with a 6x19 wire core, each which must have a breaking-strain of at least 2 tons. Each towing eye must allow the passage of a cylinder with a diameter of 60 mm, situated 25mm forward of the adjacent bodywork - 100 mm above and below this hole must retain clearance to enable the recovery crews to attach straps and shackles.

The towing eyes must be fixed to a structural part of the chassis with a minimum of M12 fixings, the inner part must be flexible in order for the towing eyes to be retracted inside the bodywork profile. A "pull-cord" must be attached to the towing eye to enable the marshals to access the wire loop. The end attached to the chassis may be either 'thimble' or 'open-loop' style. Each complete towing eye must be certified as meeting this load requirement. Webbing towing eyes are not permitted. The intention is to allow an angled pull away in the event in the event of a crumpled or obscured vehicle corner e.g. +/- 45 degrees from straight ahead. Examples of steel wire towing eyes that can be bolted to the chassis:



#### 5.4: COMPETITION NUMBERS/ DECALS

Positions – White number panels with black numbers as specified by the Motorsport UK (reg J4.1, J4.1.2, J4.1.8 & Chart 4 – page 152 of



the Blue Book) must be positioned on each front door. At scrutineering they must appear undamaged and without tyre scuff marks. The competitor must supply these number panels. A class logo must appear on the bonnet and class identification letters (maximum height 10cm) on the rear side windows (as in 5.2.2.). All cars must carry 750MC and Alfa Romeo Championship decals on both sides of the car. Sponsors' Windscreen and rear screen strips (where appropriate) and the decals of other Championship sponsors, as defined by the Championship organisers, must appear in positions to be specified in a bulletin before the start of the season or as appropriate during the season. Failure to do so may incur loss of Championship points. All cars in the Twin Spark Cup class and any car in other classes using Yokohama tyres must display Yokohama tyres decals that must be prominently positioned on the front and rear wings of the car.

The windscreen of all cars must display the competition number positioned on the upper side area of the passenger's side of the windscreen (Motorsport UK reg Q.11.4) as follows:

- the numerals must-
  - be at least 150mm high with a stroke of at least 20mm
  - be coloured reflective yellow
  - be placed no closer than 50mm from the lower edge of the windscreen "sun strip" and 50mm from the side edge of the windscreen.

The driver's name must appear in block capitals on each rear side window or, where there is no rear side window (e.g. Alfa Romeo 4C, Abarth 124), on an equivalent area of the bodywork.

New cars will be supplied with a full set of the required decals by the Alfa Romeo Championship Association free of charge at the time of the driver's registration or at some other point prior to the car's first race. Replacements must be purchased at cost via the "shop" page on the alfaracer.com website. Where decals not previously required are deemed to be required by ARCA they will be provided free of charge.

#### 6: MODIFIED CLASS

##### 6.1 GENERAL

The Modified class is open to any production based Alfa Romeo, Fiat, Abarth or Lancia models modified in accordance with these Regulations but excluding Superturismo models or those built to DTM/ITCC rules. Excluded models may race at the discretion of the organisers ~~and~~ but are ineligible for the award of championship points.

The organising clubs, 750MC and ARCA, reserve the right prior to or during the season to re-categorise an Invitation car as a Modified class car at their reasonable discretion in situations where the form of construction does not fully meet the requirements for the class as set out below, provided that:

- (a) It is visibly and recognisably an Alfa Romeo (or Fiat/Abarth/Lancia) from the bodywork, lights and grille
- (b) Its performance is reasonably consistent with that of other Modified class cars
- (c) It meets in full the technical and safety regulations in the Motorsport UK yearbook
- (d) It is fitted with an engine that was originally fitted as standard to an Alfa Romeo, Fiat, Lancia or Abarth production model

The organisers reserve the right to impose a weight penalty for such cars where appropriate.

##### 6.2 CHASSIS



The floor pan, chassis rails, sills, door surrounds, bulkheads, roof and inner wings must remain as standard in construction, dimension and material except where modifications are required to comply Motorsport UK Safety requirements. However, the floor-pan or transmission tunnel may be modified to allow increased clearance for exhaust systems or, in the case of cars with a rear mounted gearbox, for safety reasons. The Championship Eligibility Scrutineer must clear any modifications made under this heading in writing.

In the case of sills, no modification is permitted.

Exhaust systems may not pass through the bodywork. Competitors are reminded that under Motorsport UK regulations, exhausts must have outlets terminating within 150 mm of the outside of the bodywork periphery in plain view, rearwards of a line bisecting the wheelbase. If exhausts protrude beyond the bodywork, then a protecting shield to prevent burning must cover them.

The rear floor-pan may be modified locally to permit internal mounting of rear suspension components provided that any such components are adequately enclosed to comply with Motorsport UK Regulations [J 5.2.1].

The front or rear panel may be replaced with a suitable removable structure to facilitate quicker engine changes.

The boot floor may be replaced by a suitable rigid fireproof material.

### 6.3: BODYWORK:

#### Modifications Permitted:

##### General

Bodywork and interior are free.

##### Interior

Roll cages may be welded to the body shell.

##### Exterior

Wing extensions must cover the wheels/tyres as specified by Motorsport UK. As a minimum the wheel/tyre must be covered if a line was drawn across the centre of the axle.

An identifiable Alfa Romeo grille must be fitted except for Fiat, Abarth or Lancia entries, which must be fitted with the identifiable Fiat, Abarth or Lancia grille. Two external mirrors (one on either side) must be in place and usable throughout both qualifying and racing.

##### Silhouette

Only those spoilers or aerodynamic devices fitted as standard or deemed by the Championship Panel and Eligibility Scrutineer to be within "the spirit of the regulations" are permitted. The bonnet may be raised at the rear to a maximum of 1.5cm to facilitate additional cooling.

##### Ground Clearance

Cars must retain a minimum ground clearance of 4cm with the driver (In full racing kit) seated normally in the car. No part of the car may touch the ground with one tyre deflated.

#### Modifications Prohibited:

Front splitters are at the discretion of the Championship Panel in consultation with the Eligibility Scrutineer.

### 6.4 ENGINE

#### Permitted Modifications:

Engine modifications are unrestricted provided that any engine used must have been factory fitted in a production model Alfa Romeo, Fiat, Abarth or Lancia at some point in time. The cross-fitting of engines between these marques is permitted. Dry sump lubrication is

permitted. Turbocharging or supercharging is permitted.

#### Prohibited Modifications:

##### Location

Changing the location of the engine or position in the engine bay is not permitted.

##### Oil/Water Cooling System

Free

##### Induction System

Free

##### Exhaust System

Free within Motorsport UK Technical Regulations (Note Current Noise Regulations).

##### Ignition System

Free

##### Fuel Delivery System

Free

### 6.5 SUSPENSION

#### Modifications Permitted:

Suspension modifications are unrestricted provided that the original suspension method is retained e.g. 156 - Independent front with double wishbones & coil springs and Macpherson Strut & coil springs rear.

#### Modifications Prohibited:

##### Wheelbase/Track

Wheelbase dimensions must remain standard. Track is free provided wing extensions cover the wheels and tyres as specified by Motorsport UK Regulations.

### 6.6 TRANSMISSION

#### Modifications Permitted:

Transmissions may be subject to any modification that does not alter the location or type of transmission for that model (for example, an Alfetta, 75 or GTV6 may not be modified to front gearbox layout).

Fitting a sequential gearbox from a recognised manufacturer is permitted. Any alteration to the bulkheads(s) between the engine compartment and the habitacle or alterations of any kind to the floorpan must comply fully with Section (K) of the Motorsport UK Yearbook.

#### Modifications Prohibited:

Four-wheel drive systems are not permitted in the Modified Class unless fitted as standard to that particular model.

#### Transmission & Drive Ratios

Gearbox and final drive ratios are free. Limited slip differentials may be fitted where not already Standard. All cars must have a fully functioning reverse gear.

### 6.7 ELECTRICS

#### Exterior Lighting

At least one road legal type headlamp (or replacement spotlight) on each side and in the original position for the model, with an area and similar level of light to the standard headlight, must be in working order and must be capable of giving slower drivers adequate warning of the car's approach when being lapped. Headlights must be turned on throughout the race. Covering of light lenses with coloured material which reduces the effectiveness of the lighting is not permitted. Brake lights and rear lights must be fitted and be in



working order.

### Rear Rain or Poor Visibility Warning Light

A rear rain or poor visibility warning light must be fitted and in working order for use in accordance with Motorsport UK Technical Regulation [K 5.2] Models not fitted with two rear fog lights as standard, equally located each side of the vehicle centre line, must fit a central rear fog light in accordance with Motorsport UK Technical Regulation [K 5.1].

### Battery

Location and type are free provided that they comply with Motorsport UK Technical Regulation [J 5.14.1]

### Alternator

Alternators may not be removed.

## 6.8 BRAKES

### Modifications Permitted

Braking systems are free within the requirements of Motorsport UK Technical Regulations.

### Modifications Prohibited

Carbon Fibre discs, pads or calipers are prohibited.

## 6.9 WHEELS, TYRES & STEERING

### Permitted Options

Wheels are unrestricted. Steering modifications are unrestricted within Motorsport UK Technical Regulations.

### Prohibited Options

N/A

### Construction and Materials

Unrestricted. Competitors MUST ENSURE that wheels are suitable for racing purposes and should be inspected regularly for cracks, rim damage etc.

### Dimensions

Unrestricted

### Tyres:

Specifications - Unrestricted.

The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

## 6.10 MINIMUM WEIGHT LIMIT

There is no minimum weight limit in the Modified class. However, the organisers reserve the right to introduce minimum weight limits during the season should they be deemed necessary. Motorsport UK Regulation [D 11.2] applies.

## 6.11 FUEL AND FUEL TANK

### Type of Fuel Tank

A replacement fuel tank may be fitted.

### Location of the Fuel Tank

Installation must comply with Motorsport UK Technical Regulations. The Championship Eligibility Scrutineer must approve the position and installation of a replacement tank in writing.

### Fuel Petrol

Must comply with relevant Motorsport UK Technical Regulations [Motorsport UK Regulations Section B, Nomenclature & Definitions (see Pump Fuel)]. Fuel samples will be taken during the season.

### Diesel

Only white diesel pump fuel as defined by the Motorsport UK may be used. Any commercially available smoke-reducing additive is permitted for environmental considerations only. No other additives are permitted

## 6.12 SILENCING

Specification - Silencing systems are free, provided that they comply with Motorsport UK Technical Regulation [J 5.17] & [J 5.18]

## 7. ALFA ROMEO V6 CLASS

### 7.1 GENERAL

The purpose of the regulations for this class is to allow some modification to the standard Alfa Romeo V6 production models to increase performance and allow all V6 powered models to compete on a level playing field whilst restricting the benefits of "cheque book racing" associated with a Modified Class. As such the Championship Panel reserves the right to make amendments to these regulations during the season if any model being raced is considered by the Panel to have an unreasonable advantage.

For example but not limited to:

- Adjustment of the minimum weight of particular model(s)
- Adjustment of the weight associated with aftermarket and /or straight cut gears on rear drive models

If any competitor is considering modifications not specifically permitted in these regulations consultation with the Championship Coordinator is advised.

The only cars eligible for this class are normally aspirated V6 models fitted with Busso or GM derived V6 engines-Alfa Romeo Alfa 6, 90, GTV6, 75, SZ, 155, 156, 164, 166, 147, GT, 916 GTV (and Spider) & 159, Brera (and Spider) but not V6 turbo cars. Cars must be UK specification as supplied by Alfa Romeo (UK). If the car being raced is of non UK specification with the exception of LHD/RHD steering related items it must be converted so that all parts are of UK specification.

Providing the model to be raced was supplied to UK with a V6 engine the engine type can be swapped with another Busso or GM V6 (e.g. Alfa Romeo 116 transaxle model range can be fitted with 24v engine) providing all other regulations are complied with.

Alfa Romeo models in the V6 model ranges are defined as:-  
Front Wheel Drive Model Range: 155, 164, 166, 916GTV & Spider, 156, 147, and GT, Brera and 159  
Rear Wheel Drive Model Range: Alfa 6, 90, GTV6, 75 and SZ  
Four Wheel Drive Model range: Brera & Spider, 159

### Examination of Vehicles

The organisers reserve the right for the Championship Eligibility or Chief Scrutineer to examine any car that is thought not to comply with these regulations. This examination may include but is not limited to, the sealing of engine, gearbox, differential and or transaxles to allow future technical investigation of components in accordance with these regulations and Motorsports UK regulations.

### 7.2 CHASSIS

Chassis specification must remain Standard. However, seam welding of the bodyshell is permitted.

### 7.3 BODYWORK

**General:** Bodywork specification must remain standard (including glass). Throughout these regulations for the V6 Class "bodywork" refers to the bodyshell and all panels including (but not exclusively) to

doors, bonnets, boot/ tailgate front and rear bumpers, inner and outer, front and rear wings, floorpan, sills, infill panels and roof panel. Roll cages are free (within UK/FIA Regulations).

Only those spoilers or aerodynamic devices fitted as standard or deemed by the Championship Panel & Eligibility Scrutineer to be within "the spirit of the regulations" are permitted. The bonnet may be raised at the rear 1.5cm to facilitate additional cooling. All doors, bonnet, boot, hatchback must maintain the ability to open as standard. Front bonnet and boot lid retaining pins may be used in place of the standard internal catch.

Two standard external mirrors (one either side) must be in place and usable throughout qualifying and racing. Cars must maintain a minimum ground clearance of 4cm with the driver (in full racing kit) seated normally in the car. No part of the car may touch the ground if any one tyre is deflated.

#### Modifications Permitted:

Where Standard panels, glass, spoilers or aerodynamic devices compliant with these regulations are not readily available, aftermarket copies are permissible on an exceptional basis with the Championship Coordinators specific approval having consulted with the other registered class competitors and providing the panel/glass weighs the same as the panel it replaces (additional weight being added in same location as panel or glass being replaced) and minimum weights for the class are complied with.

### 7.4 ENGINE

#### Permitted Modifications:

Engine type is defined as:  
2.5Ltr 12v, 2.5Ltr 24v, 3.0Ltr 12v, 3.0Ltr 24v, 3.2Ltr 24v  
For all engine types only standard Alfa Romeo (UK) specification components for Busso or GM derived V6 engines can be used.  
Cylinder Block: The cylinder block and heads must be used to the original, standard UK specification as supplied by Alfa Romeo (UK) for engine type being raced.

The standard engine capacity may not be exceeded through re-bore or replacement liners.

Pistons must be of the standard type and of the same manufacturing process and material of the original.

Oil pump must be of standard specification. The engine sump must remain standard for front and four wheel drive model range cars. For the rear drive model range the sump may be modified to accommodate fitment of 24v engines. Oil cooler(s) may be fitted. Dry sumping is not permitted.

The standard alternator must be fitted and working at all times.  
Cylinder Head: Camshafts and profile, valves, valve springs and hydraulic cam followers must be of standard specification and unmodified for the engine capacity being raced. Camshaft pulleys must be of standard specification and be unchanged in any way.

#### Prohibited Modifications:

The Alfa Romeo V6 turbo engine cannot be used in the class. Other than that required for engine balancing (within Standard Alfa Romeo UK specifications) no machining or any removal of metal is permitted to any of the following:

- Cylinder Block and liners
- Pistons
- Valves seats (other than the minimum to cut the valve seats)
- Valve Springs
- Connecting rods
- Crankshaft

- Camshafts
- Cam followers
- The only machining of the cylinder head (other than minimum to cut the valve seats) allowed is that the cylinder head mating surface can be skimmed. In this case the maximum compression ratio is 11 to 1 with no further tolerance.

#### Location

Any Alfa Romeo V6 engine type can be fitted to any V6 model using standard engine mounting points. The engine must be in the standard location.

#### Cooling System

Free

#### Induction System

All engines will remain naturally aspirated, no turbocharging, supercharging or "ram air" of induction. A single plenum chamber will be used. A single throttle body will be used. The maximum internal diameter of the throttle body will be 80mm.  
The throttle activation can be changed from 'drive by wire' to cable.

#### Exhaust System

Free within Motorsport UK Technical Requirements

#### Ignition Systems

Free

#### Fuel Delivery System

Free

### 7.5 SUSPENSION

#### Modifications Permitted:

Suspension modifications are unrestricted provided that the original suspension type and method is retained and original pick up points are used. e.g. - 156 Independent front with double wishbones & coil springs and Macpherson Strut & coil springs rear .  
Rear wheel drive cars can replace front torsion bar arrangement with "coil over damper" arrangement  
Dampers can have one adjustment only.

#### Modifications Prohibited:

- The use of non-standard wishbones.
- The use of remote reservoir dampers.
- Driver adjustable anti-roll bars.

#### Wheelbase and Track

Wheelbase dimensions must remain standard. Track is free within Motorsports UK regulations.

### 7.6 TRANSMISSION

#### Modifications Permitted

The use of Standard (C630 Busso, F40 Brera/159) gearbox and differentials from the model range is permitted. The casings, gears and all components must remain standard and be located in original position except where permitted below.

Limited Slip Differentials may be fitted where not standard.  
Rear wheel drive models must use standard transaxle gearbox from the model range and may use aftermarket gear ratios, non syncro/dog engagement in place of original equipment but will carry an additional weight penalty over and above the minimum weight for the model of 10kgs.

All cars may have gearbox oil cooling arrangements installed. All cars must have a fully functioning reverse gear.





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Only standard clutch from the model range can be used.

### Modifications Prohibited

Other than those modifications specifically permitted any other modification to standard gearbox including non-standard gearbox casings, straight cut gears or “dog” engagement or sequential gearboxes is not permitted

Four wheel drive systems are not permitted unless standard on the model being raced and in any case may only be used in their entirety. Sequential change mechanisms are not permitted.

### 7.7 ELECTRICS

#### Exterior Lighting:

All standard specification lights to be fitted and functioning. A rear rain or poor visibility light must be fitted and in working order for use in accordance with Motorsport UK Technical Regulations. Models not fitted with two rear fog lights as standard, equally located each side of the vehicle centre line, must fit a central rear light in accordance with Motorsport UK regulations.

**Battery:** Location and type are free provided they comply with Motorsport UK regulations.

**Alternators:** Alternators must be fitted and working.

### 7.7 BRAKES

#### Modifications Permitted

The use of standard brake discs and calipers from the model range is permitted. The brake discs and calipers must remain standard and be located in original position except where permitted below.

The standard ABS system may be removed. A brake bias system and/or balance bar pedal box may be fitted. Brake pad material is free so long as the pads fit a standard, unmodified caliper.

Rear wheel drive cars may fit aftermarket brake discs and callipers to the front axle. Maximum disc diameter 330mm and maximum four pot calliper (rear brakes remain standard from the model range).

#### Modifications Prohibited

Apart from those freedoms above the braking system must remain standard both as regards components and location for the model to be raced.

### 7.8 WHEELS, TYRES AND STEERING

#### Permitted Modifications:

An alternative steering wheel may be fitted

#### Prohibited Modifications:-

Steering must not be altered for standard specification as regards method and position / mounting of components. The bending of steering arms is not permitted in any circumstances.

The steering ratio must remain standard for the model range.

On models fitted with power steering as standard it must be in full working order at all times. However, the oil cooler may be removed and /or replaced with an aftermarket oil cooler.

#### Construction and Materials

Competitors must ensure that wheels are suitable for racing purposes and should be inspected regularly for cracks, rim damage etc. Air bag systems must be removed.

#### Dimensions

All cars must use up to 17” diameter wheels. Maximum rim width up to 9”.

#### Tyres

Free

### 7.9 MINIMUM WEIGHT LIMIT

The minimum weight for the engine type and drive configuration including driver and full race kit is as follows:

	Minimum Weight Kilogram				
	2500 12v	2500 24v	3000 12v	3000 24	3200 24v
<b>Model Category</b>					
<b>Front Wheel Drive</b>	1130	1150	1150	1185	1220
<b>Rear Wheel Drive</b>	1150	1170	1170	1205	1240
<b>Four Wheel Drive</b>	NA	NA	NA	NA	1250

The minimum weight of the car will be displayed on the rear side windows.

### 7.9 FUEL AND FUEL TANK

A replacement fuel tank may be fitted. Installation must comply with Motorsports UK Technical Regulations.

#### Fuel

Petrol must comply with Motorsport UK Technical Regs Section B Nomenclature & Definitions (see Pump Fuel). Fuel samples will be taken during the season.

## 8: POWER TROPHY CLASS

### 8.1 GENERAL

This class is open to any ~~4-cylinder~~ Production Alfa Romeo, Fiat/Abarth or Lancia based on a Power to Weight ratio of 175 bhp at the wheels per 1000kg for petrol engined models other than turbocharged models and 155 bhp per 1000kg for diesels and petrol turbocharged models, both inclusive of driver (in full racing kit) seated normally in the car.

Where an Alfa Romeo MiTO or Giulietta (Type 940) is being entered in this class, if it is being prepared for a future Giulietta/MiTO class it must use the 1.4 turbo engine and be equipped with a roll cage and exhaust system supplied by DPMD Ltd, 20 Woodgate Way, Glenrothes, Fife KY7 4PF and a Quaife differential supplied by Bianco Auto Developments/LMA, The Green Barn, Antlands Lane East, Shipley Bridge RH6 9TE. Wheel size must be 8 x 17. If the car is being prepared for the Power Trophy regulations as they currently stand, e.g. using a diesel or 750 TBI engine these restrictions do not apply but preparers should be aware that these regulations may be time limited. ~~Further information on the mandatory specification of these cars may be issued by the Championship Panel during the season. Please contact the Championship Coordinator for further information. The regulations for the 1.4 Turbo (Type 940) cars are set out as a subset of these Power Trophy class regulations at 8.13 below.~~

### 8.2 CHASSIS

As 6.2

### 8.3: BODYWORK:

Only those spoilers or aerodynamic devices fitted as standard or deemed by the Championship Panel & Eligibility Scrutineer to be within “the spirit of the regulations” are permitted. Rear spoilers may not in either case extend in height beyond a line drawn horizontally from a point three quarters up the rear screen or extend outwards beyond the periphery of the bodywork. The bonnet may be raised at the rear to a maximum of 1.5cm to facilitate additional cooling. The 147 may use a roof mounted spoiler fitted as standard to the 147 GTA Cup cars.





### 8.4 ENGINE

The 4-cylinder engine must be as originally fitted to the model to be raced. Where the model was originally fitted with a particular type of engine a later version of that same type of engine may be used.

The organisers reserve the right to examine any car that is thought not to comply with the regulations under Technical Regulations "Examination of Vehicles" 4.2.2. If a rolling road test is required, the car's ECU may be removed, placed in a sealed box by the Eligibility Scrutineer or his designated representative and only be returned at the designated rolling road. Alternatively, the 750 Motor Club's rolling road and/or the ARCA calibrated scales may be utilised at a circuit during a race meeting to check compliance. Switchable ECUs are not permitted under any circumstances and, if discovered, would immediately result in the car being moved into the Modified class for the rest of the season. Cars with an ECU that has the capability to run switchable maps must have this physical function removed from the car and no wires left in the relevant holes on the ECU connector. There must be no way of altering the map on the car by any form of a switching device. All competitors must provide details of the ECU make, model and number to the Championship Coordinator and to the Eligibility Scrutineer.

All power readings will be taken at the wheels. For cars running with a standard ecu and wiring with DNA facility, the power test will be completed in all available modes. A copy of the map being used will be taken when the rolling road test is done and used for comparison purposes if at any time during the season the car is weighed and/or power tested to ascertain if it is compliant with the Regulations. All such testing must be carried out at 750 Motor Club approved rolling roads.

#### Permitted Modifications:

Engine modifications are allowed as for Modified provided that the power output does not exceed that permitted for the weight of the car as stated at the time of registration (See Appendix 2 to these regulations). The organisers reserve the right to check the power output and weight of the car at any time.

Turbocharging is permitted only where a turbocharger was fitted as standard to the production model being raced.

#### Prohibited Modifications:

Supercharging is not permitted.

#### Location

Changing the location of the engine or position in the engine bay is not permitted.

#### Cooling System

Free

#### Induction System

Fuel injection systems, carburettors and manifolds are free. Turbochargers may be fitted only where fitted as standard to the production model of the car concerned.

#### Exhaust System

Free within Motorsport UK Technical Regulations

#### Ignition System

Free

#### Fuel Delivery System

Free

### 8.5 SUSPENSION

#### Modifications Permitted

As 6.5

#### Modifications Prohibited

As 6.5

#### Wheelbase and Track

Wheelbase dimensions must remain standard. Track is free provided 6.5 is respected.

### 8.6 TRANSMISSION

#### Modifications Permitted

Transmissions may be subject to any modification which does not alter the location or type of transmission for that model. The number of forward and reverse gear ratios must remain as standard.

In the case of cars fitted with the Boxer engine (33 etc.) standard gearbox casings may be strengthened.

#### Modifications Prohibited

Non-standard gearbox casings or sequential gearboxes that are permitted in Modified are not permitted in the Power Trophy. For the purposes of clarity the Alfa Romeo TCT gearbox is not deemed to be a sequential gearbox.

Four wheel drive systems are not permitted unless standard on the model in question and in that case may only be used in their entirety. Sequential gearchange mechanisms are not permitted.

#### Transmission and Drive Ratios

Gearbox and final drive ratios are free. Limited slip differentials may be fitted where not standard. All cars must have a fully functioning reverse gear.

### 8.7 ELECTRICS

#### Exterior Lighting

At least one road legal type headlamp (or replacement spotlight) on each side and in the original position for the model, with an area and similar level of light to the standard headlight, must be in working order and must be capable of giving slower drivers adequate warning of the car's approach when being lapped. Headlights must be turned on throughout the race. Covering of light lenses with coloured material which reduces the effectiveness of the lighting is not permitted. Brake lights and rear lights must be fitted and be in working order.

#### Rear Rain or Poor Visibility Warning Light

A rear rain or poor visibility warning light must be fitted and in working order for use in accordance with Motorsport UK Technical Regulation [K 5.2] Models not fitted with two rear fog lights as standard, equally located each side of the vehicle centre line, must fit a central rear fog light in accordance with Motorsport UK Technical Regulation [K 5.1].

#### Battery

Location and type are free provided that they comply with Motorsport UK Technical Regulation [J 5.14.1]

#### Alternator

Alternators may not be removed.

### 8.8 BRAKES

#### Modifications Permitted

Braking systems are free within the requirements of Motorsport UK Technical Regulations



### Modifications Prohibited

Ceramic and Carbon fibre discs, pads or calipers are prohibited.

## 8.9 WHEELS, TYRES & STEERING

### Permitted Options

Wheel type is free. Steering modifications are unrestricted within Motorsport UK Technical Regulations.

### Prohibited Options

N/A

### Construction and Materials

Unrestricted. Competitors MUST ENSURE that wheels are suitable for racing purposes and should be regularly inspected for cracks, rim damage etc.

### Dimensions

Free

### Tyres

Competitors may either use slick tyres and wet tyres of their own choice or the Yokohama 052 control tyre. The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

## 8.10 MINIMUM WEIGHT LIMIT

Minimum weight is based on a power output of 175 bhp at the wheels per 1000kg including driver (in full racing kit) seated normally in the car for all petrol engine cars other than turbocharged cars and 155 bhp per 1000kg for diesel engine models and turbocharged petrol engined. Vehicle & Driver weight must be declared at the time of registration. The minimum vehicle weight for individual cars will be calculated from the declared or tested power of the vehicle. This figure must be displayed as a graphic on the side window of each car.

The declared weight and the declared power output of the car must be displayed on the rear side windows.

## 8.11 FUEL AND FUEL TANK

### Type of Fuel Tank

A replacement fuel tank may be fitted.

### Location of the Fuel Tank

Installation must comply with Motorsport UK Technical Regulations. The Championship Eligibility Scrutineer must approve the position and installation of a replacement tank in writing.

### Fuel

#### Petrol

Must comply with relevant Motorsport UK Technical Regulations [Motorsport UK Regulations Section B, Nomenclature & Definitions (see Pump Fuel)]. Fuel samples will be taken during the season

#### Diesel

Only white diesel pump fuel as defined by the Motorsport UK may be used. Any commercially available smoke-reducing additive is permitted for environmental considerations only. No other additives are permitted

## 8.12 SILENCING

Specification - Silencing systems are free, provided that they comply with Motorsport UK Technical Regulation [J 5.17] & [J 5.18].

## 8.13 Alfa Romeo MiTO/Giulietta 1.4 Turbo MultiAir (Type 940) Regulations

### 8.13.1 INTRODUCTION

a) The following Technical Regulations are set out in accordance with the MOTORSPORT UK specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it, you must work on the principle that you cannot. By registering for the Championship, you agree to abide to regulations and random checks in paddock by ARCA officials and by scrutineers. The fact that some modifications are mentioned as prohibited does not imply that others are allowed.

b) **STANDARD:** The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MOTORSPORT UK Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

c) **STANDARD PATTERN:** The phrase 'standard pattern' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MOTORSPORT UK Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

### 8.13.2 GENERAL DESCRIPTION:

The MultiAir trophy is for Competitors participating with the Alfa Romeo Giulietta or Alfa Romeo Mito 1.4 Turbo with 170bhp produced from 2010 to 2019. Only European Specification cars are permitted. There are no restrictions on the trailing of cars to/from the circuit. All vehicles must be of sound construction and mechanical condition and be well maintained. The MultiAir Trophy technical regulations are intended to allow competitors to produce race cars that are safe, affordable and of a near identical level of performance, with the emphasis placed firmly on driver ability. Competitors are therefore asked to keep this in mind when building or modifying race cars and are encouraged to seek guidance from the organisers where appropriate. A modification that gives a performance advantage at a high financial cost will almost certainly be illegal and outlawed in future regulations. IF IT IS NOT IN THESE REGULATIONS IT IS NOT PERMITTED.

### 8.13.3 SAFETY REQUIREMENTS

Roll cages: All cars must use the ARCA-DPM1 bolt in roll cage as supplied by ARCA here <https://alfaracer.com/shop/>

Fire extinguishers must comply with MOTORSPORT UK regulation K3.1 Seat belts must be FIA homologated and as per K2.1.2 , 2.1.3. or 2.1.4.

### 8.13.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS

All cars must comply with the requirements of sections J and Q of the current MOTORSPORT UK Yearbook. All cars must be of sound construction and mechanical condition and be well maintained. MOT Certificate, Road Tax or Insurance are not required.

#### 8.13.4.1 CHASSIS

No chassis stiffening is permitted except that derived from the fitting of the roll cage. Seam welding is strictly forbidden. Cutting, grinding, drilling, or acid dipping to remove components or material from the chassis is forbidden. Towing eyes must be fitted on each corner and must be of the wire rope type with an internal diameter of 60mm minimum bolted to the chassis. 1 single hole per tow wire is permitted in the front/rear bumpers. Seam sealer may only be removed up to a maximum of 50mm from the periphery of roll cage mounting feet. It is forbidden to remove seam sealer from anywhere else on the interior or exterior of the shell.



#### **8.13.4.2 BODYWORK**

##### **(a) Modifications Permitted:**

i. General: Mandatory fitment of laminated windscreen. All other windows must remain OEM glass. The addition of safety film to the glass is permitted.

ii. Interior: Driver's seat must be replaced with a competition seat fitted to the original 4 mounting points. Passenger seats front and rear, floor coverings, roof lining, radio/stereo units' speakers, sound deadening may be removed. Redundant interior metal brackets such as rear seat mountings may be removed, however competitors should bear in mind that if the removal of any material results in weakening the structural integrity of any panel, then the Clerk of the Course (at their own discretion) will be fully authorised to exclude the vehicle from competing. Tools must be removed. Spare wheels must be removed. The original dashboard must be retained in full, localised trimming of the dashboard to fit the roll cage is permitted. Additional and/or replacement instruments are not permitted with the exception of an aftermarket oil pressure and temperature gauge and a lap timer. Glove box lid must remain fitted. Steering wheel may be changed. Electric winding mechanisms must remain in the front doors but may be removed from the rear doors, all weather strips/channels must be retained. It is permitted to remove the air conditioning system, but the heater system must be retained and working. An interior rear-view mirror must be fitted. Driver's door interior door panel must remain and be fitted with standard window switch operating both front windows and both front windows must operate at all times. Remaining interior door panels may be removed and replaced with a strong aluminium or composite material. Central locking and manual interior door lock switches must be disabled. Rear doors may be stripped of redundant bracketry and wiring. Boot lid may be stripped of redundant bracketry, wiring and trims.

iii. Fitting of a ballast mounting plate is compulsory.

iv. Exterior: Wing mirrors must be original and both fitted. The standard bonnet locking mechanism must be disabled; only bonnet pins may be used to secure the bonnet in the closed position. Replacement body panels must be of original material and shape. Other than for fitment of bonnet/boot pins, external kill switches and fire extinguisher triggers, additional holes must not be added in any bumpers or panels. Bonnet, wings front bumper, rear bumper, doors and tailgate must all remain standard. Sportiva/Cloverleaf side skirts may be fitted. Engine undertray may be removed. If retained must be original specification in plastic. Front fog lamps may be removed for brake ducting. Two front wiper arms with blades must be fitted and able to work at all times.

v. Silhouette: No alterations to standard are allowed apart from the fitting of a front splitter and rear spoilers, which may not protrude from the front bumper by more than 50 mm. Additional aerodynamic devices, are not permitted.

vi. Ground Clearance: It is permitted to alter the ride height. Under no circumstance can any part of the bodywork, or of the suspended part of the car excluding the exhaust system, be below a horizontal plane passing 70mm above the ground, the car being in normal racing trim with the driver aboard. A gauge of 70mm may be used by Scrutineers before or after races or practice to check the ground clearance; the vehicle may be stationary or moving during any testing.

##### **(b) Modifications Prohibited**

i. General: The exterior of the car must be standard apart from the front lip splitter and rear spoiler.

ii. Interior: A full width dashboard must be used.

iii. Exterior: It is not permitted to increase the width of the wheel arch by the addition of material to, or the deformation of, the outside of the wheel arch. Bonnet must remain in the normal position and, when closed, must not have any nonstandard gaps at any of their edges.

Fitment of tape, sealant or addition of any material of any type to close body gaps (e.g. bonnet to wing) is prohibited.

iv. Silhouette: Any in contravention of 8.13.4.2.v.

v. Ground Clearance: Any in contravention of 8.13.4.2.vi.

#### **8.13.4.3 ENGINE**

All internal engine parts must be standard or standard pattern parts; it is the competitor's responsibility to ensure that no prohibited modifications have been carried out if they are using an engine not assembled by them. No other modifications or alterations are permitted. The cylinder bores must remain standard and the original size, no over boring is permitted even to allow the reclaiming of engines. Drivers may be requested to take their vehicle (at their own expense) to one of the Series designated rolling roads either prior to participation or after competing (including the 750 Motor Club mobile MAHA dyno) where the car will be power tested in order to assess whether it is compliant. Failure to comply will result in disqualification. The designated rolling road centres for the Series (including the 750 Motor Club mobile MAHA dyno) will all use MAHA LPS 3000 or FPS 2700 equipment. The maximum permitted power must be within the stated with a power to weight ratio of TBC. Drivers are advised to check the power of their cars prior to using one of the designated MAHA rolling road centres listed in Appendix 2.

**i. Modifications Permitted:** No modifications are permitted. Replacement of valves, valve guides and valve seats must be with parts of standard pattern and material. Flywheels must be original. With no machining or drilling beyond how its supplied by Alfa Romeo. The replacement of the inlet cam shaft with part number ARCA-TSR1 is allowed.

**ii. Modifications Prohibited:** Any other than those permitted in 1.6.1. It is specifically prohibited to modify inlet ports, exhaust ports and combustion chambers in any way, and all must remain as cast. Camshaft profiles and cam timing must remain as standard or as per part number ARCA-TSR1. Removal of metal by grinding or modification of the engine loom is prohibited.

**iii. Location:** Position and mounting method must be standard.

**iv. Oil/Water cooling:** Water radiators are Standard. The standard oil cooler should remain fitted and operational; no other oil coolers are permitted.

**v. Induction Systems:** The turbo must be the standard turbo for the model raced which must not be changed, altered or modified in any way. The induction system up to and including, the throttle body must be standard. The air filter is free but an air filter in full must be fitted. The intercooler can be replaced with ARCA-IC1 or must remain standard. No other modifications are permitted. The crankcase breather may vent directly to a catch tank and any holes in the air filter housing associated with the breather system may be blanked off.

**vi. Exhaust systems:** Exhaust system must be either standard or exhaust system ARCA-CYB1 fitted in its entirety from the Turbo back. The Catalytic converter must be retained at all times. It is strictly forbidden to fit any type of exhaust restrictor in the system or to cover or coat any part of it. All exhaust gasses must pass through the catalytic converters, emissions testing may be carried out to ensure compliance.

**vii. Ignition systems:** Cars must use a standard ECU; the ECU must remain standard or fitted with the supplied map ARCA-BIA1. Spark plugs are free. ECU readings can be taken or logged at any time.

**viii. Fuel delivery systems:** Fuel pumps, fuel rail, injectors and pressure regulator must be original and unmodified. Fuel pressure must be standard and may be tested. Fuel tank must be standard in the standard location. All filling items must be standard.

#### **8.13.4.4 SUSPENSION**



**i. Permitted modifications:** The original suspension must be retained with the exception of fitting the following aftermarket parts. Rear anti-roll bar may be replaced with an ARCA-RBAR1 Giulietta ARCA-RBAR2 Mito 24mm roll bar (see Appendix 1.) Front lower wishbones may be replaced with ARCA-WB1 Giulietta ARCA-WB2 Mito kit listed in Appendix 1. Dampers and suspension top mounts must be standard or replaced with ARCA-SUS1 Giulietta ARCA-SUS2 Mito as listed in Appendix 1 which must not be modified in any way. Alternative top mounts are not permitted. Springs rates are fixed. All other components must be standard.

**ii. Prohibited modifications:** Modifications to the suspension pick-up points is prohibited; this includes the 'slotting' of suspension strut and damper mounting points. Anything in contravention of 8.13.4.4.i.

**iii. Wheelbase:** The wheelbase must be standard for the model being raced; wheels must fit into original wings front and rear without any rolling of the arches, brackets/tabs on the wing for holding the original plastic under arch trims may be folded out of the way or removed. Track must be unaltered other than the fitment of nominated wheels. Wheel spacers are prohibited.

#### **8.13.4.5 TRANSMISSION**

**i. Permitted modifications:** The standard differential may be replaced with ARCA-QUA1 as listed in Appendix 1. All: The Gearbox must be standard for the model being raced and UK / EU specification only. The only permitted ratios are as follows: TBC FD TBC Flywheel must be genuine Alfa Romeo dual mass and cannot be modified in any way. The minimum flywheel weight is TBC. Clutch kits must be Alfa Romeo OEM or a standard pattern item.

**ii. Transmissions & Drive ratios:** The use of any electronic traction control device is prohibited. Superfinishing is not allowed.

#### **8.13.4.6 ELECTRICS**

**i. Exterior Lighting:** Must be as per standard fitment and be fully operational.

**ii. Rear Warning Light:** A rear fog light to MOTORSPORT UK regulation K5.1 may be fitted be fitted.

**iii. Battery:** Battery is free as long as it is a standard type with a minimum size of 063. No motorsport batteries are allowed but any battery must be mounted in OE position. A battery and the standard starter motor must be fitted and be capable of repetitive starts. No external (slave) batteries may be used.

**iv. Alternators:** A fully working standard alternator and standard pulley must be fitted and electrically connected so that the standard battery charging function is providing a charge to the on board battery.

**v. No cutting out of the wiring from the engine loom or services loom is permitted.**

#### **8.13.4.7 BRAKES**

**i. Permitted Modifications:** Deformation or removal of back plates is permitted. The standard ABS must be retained and be fully functional. Discs may be replaced by with standard pattern parts, grooved discs are not permitted. Brake pads are free. Replacement of all brake lines in braided material as per kit ARCA-Bhos1 is permitted. The fitment of brake bias valves is permitted but must be fitted in the rear of the habitacle out of reach of the driver.

**ii. Prohibited Modifications** Front Brake callipers must be standard Brembo 4 pot with 330mm discs or sliding callipers with 281mm discs. For the Giulietta: standard Brembo 4 pot with 305mm discs Rear discs

and callipers must be of standard type for the model being raced and in original location. No alternatives must be used. Hydraulic handbrakes are not permitted.

#### **8.13.4.8 WHEELS / STEERING**

**i. Permitted Options:** Wheels must be either standard OEM Alfa Romeo 17" x 7J or replaced with ARCA- REV1 Giulietta ARCA-Rev2 Mito. The use of wheel spacers is not permitted. Hubs may be fitted with conversion studs to accept wheel nuts.

**ii.** Wheel bearings must be standard or pattern parts.

**iii.** Track rods must be standard. Track rod ends must original or standard pattern parts.

**iv.** Steering rack raisers are strictly prohibited.

**v.** If fitted with a steering lock, this should be rendered inoperative, unless the vehicle is driven to the circuit on the highway.

#### **8.13.4.9 TYRES**

**Specifications:** The control tyre is the 225/45/17 size. The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited. No alteration to the tyre from the manufacturer's specification is permitted. Re-cutting, re-grooving or in any other way modifying the tread pattern is not permitted. All the manufacturer's data must be clearly visible. Buffing of sidewalls to remove data is prohibited. Tyres will be branded with a yellow identification sticker by the manufacturer for use in the Multiair Trophy; tyres without this branding will not be permitted.

#### **8.13.4.10 VEHICLE WEIGHT**

TBC kgs including driver Giulietta TBC kgs including driver; random checks will be carried out during the season and no car/driver combination shall be below this minimum weight. All minimum weights are including driver and race overalls, helmet etc.

#### **8.13.4.11 FUEL TANK / FUEL**

**i. Types:** Standard tank must be fitted. A non-return valve must be incorporated in the vent system.

**ii. Locations:** Tank must be in standard position.

**iii. Fuel:** Only petrol as defined in Section B Nomenclature & Definitions, Pump Fuel a) section of the MOTORSPORT UK Yearbook for the current year and complying with BS4040, BSEN228 or BS7800 may be used; fuel which exceeds the stated RON (max) levels in Appendix 1 of Section B Nomenclature & Definitions is prohibited even if it is sold/promoted as being legal for UK Competition and/or obtainable from 'roadside' pumps. The use of additives by competitors which boost the octane rating (RON) in any petrol is prohibited. At the end of practice and the race at least 3 litres of petrol from the tank of the competing car must be available to the scrutineers for analysis. Compliance with minimum weight for the car will be taken before the petrol is removed. It is recommended that competitors fit an MOTORSPORT UK approved dry break fuel sampling system. The maximum RON fuel allowed is 99.

#### **8.13.4.12 SILENCING**

All vehicles must comply with the relevant maximum noise limits set out in MOTORSPORT UK Blue Book regulation J. Chart 5.18.

### **9: TWIN SPARK CUP CLASS**

#### **9.1 GENERAL**

The only cars eligible are 16 valve Twin Spark models from the 75, 145, 146, 147, 155, 164, 156, 166, GTV and Spider ranges up to 2000cc. JTS models are not eligible. Cars must be to UK specification as supplied by Alfa Romeo (UK). If the car being raced is of non UK market origin it must be converted so that ALL parts (other than exceptions under 5.12.E) are of UK specification. There is no parts interchangeability with other model ranges, with other models within the same range or with models that are or were not available from Alfa Romeo (UK) apart from the GT 1.8TS, which may be fitted with the 2.0 Twin Spark engine.

The organisers reserve the right, prior to or during the season, to identify specific parts and/ or suppliers of those parts to be used by twin spark cup cars.

### 9.2 CHASSIS

Chassis specification must remain Standard. However, seam welding of the bodyshell is permitted.

### 9.3: BODYWORK:

#### Modifications Permitted:

#### General

Bodywork specification must remain Standard (including glass). Throughout these regulations for the Twin Spark Cup "bodywork" (apart from references to seam welding under "chassis") refers to the bodyshell and all panels including (but not exclusively) doors, bonnet, boot/tailgate, front & rear bumpers, front and rear wings, floorpan and roof panel. Commercially available (as opposed to custom built) FIA approved rollcages (OMP and Sparco etc) may be fitted to cars in the 145 and 146 ranges even though their backward facing rear bars extend beyond the habitacle. At no point must these rear bars attach to any suspension mounting point. No additional bars may be added to the rear section of any commercially available FIA approved rollcages that extend beyond the habitacle.

There may be no removal of any metal from the bodyshell except where set out below.

#### Interior

Trim, headlining and passenger seats may be removed. The fascia must remain standard except for modifications essential for the fitment of a full roll Cage. Original instruments must remain in the standard location. Standard instrument stalks must be fitted and working. Heaters may be removed. Central rear view mirror must be in place and useable throughout qualifying and racing. Heated screens are permitted.

Roll cages are free (within Motorsport UK/FIA Regulations) but no part of the roll cage may pass through the front bulkhead or the exhaust/transmission tunnel. No part of the roll cage may attach directly to any points where the suspension attaches to the body shell.

Replacement internal door coverings may be fitted (e.g. carbon fibre/ plastic/aluminium) but these should be easily removable (i.e. must not be riveted to the doors) to show that no metal has been removed from the doors etc. In three door models this also applies to internal rear quarter panel coverings.

It is permitted to remove the standard seat runners on the front driver's side only to enable the fitting of the driver's seat in a lower position for safety reasons. Modified seat mountings must be substantial and should not result in a net weight loss. The seat/mounts cannot be mounted directly to the floor.

#### Exterior

All doors, bonnet, boot and hatchback openings must maintain the ability to open as standard and must fully close as originally intended

(e.g. bonnets must fully close). Front bonnet and boot lid retaining pins may be used in place of the standard internal catch. Front doors and front side windows must maintain the ability to be opened from inside the car.

Two external mirrors (one on either side) must be in place and usable throughout both qualifying and racing.

#### Silhouette

Must remain Standard. However where "face-lift" models were produced during the life cycle of any model, front panels and grille may be used as replacements on earlier cars. The 147 may use the roof mounted rear wing as fitted to the 147 GTA but no other after-market version.

#### Ground Clearance

Cars must retain a minimum ground clearance of 4cm with the driver (In full racing kit) seated normally in the car.

#### Modifications Prohibited:

#### Interior

N/A

#### Exterior

Bumpers may not be removed or altered in any way.

#### Silhouette

N/A

#### Ground Clearance

No part of the car may touch the ground if any one tyre is deflated.

### 9.4 ENGINE

#### Permitted Modifications:

**Cylinder Block:** The cylinder block and cylinder head must be to the Specification of the model being raced. This can be an engine of the type 67204 (145/146/155), 16201 (GTV & Spider) etc (versions CF1, CF2 or CF3) – 1970cc Bore 83mm Stroke 91mm. The engine may be re-bored to allow fitting of a +0.4mm oversize standard specification piston only.

Pistons must be of the standard type and of the same manufacturing process and material as the original.

All belts, pulleys and tensioners, excluding balancer belt/tensioner & air conditioning system must be as standard, fitted and working. Balance shafts must be fitted but the belt and tensioner can be removed. The air conditioning system may be removed. Cambelt covers are optional.

The oil pump must be of standard specification. The engine sump must remain as standard. An engine oil cooler may be fitted. The standard alternator must be fitted and be working at all times.

**Cylinder Head:** Camshafts and cam profile must be standard for the model. Valves, valve springs and cam followers must be of standard specification and unmodified. The shimming of valve springs is not permitted. All gaskets, including the cylinder head gasket must be of standard specification for the engine type.

Both camshaft pulleys must be of standard specification and be unchanged in any way. The variator must be working and cannot be modified or altered in any way. Cam timing must remain as standard.

#### Prohibited Modifications:

No machining or any removal of metal is permitted to any of the following:





- Cylinder block (other than that required to rebore to +0.4mm)
- Pistons
- Valves (other than minimum required to cut the valve seats)
- Valve springs
- Connecting rods
- Crankshaft
- Flywheel
- Clutch assembly
- Camshafts
- Cam followers

The only machining allowed to the cylinder head (other than the minimum required to cut the valve seats) is that the cylinder head mating surface can be skimmed. The maximum compression ratio is 10.5 to 1 with no tolerance.

No engine parts may be lightened. No lighter alternatives may be fitted. Engines cannot be balanced as this involves the removal of metal.

#### **Location**

The engine must be in the standard location and must use only the standard engine mounts.

#### **Cooling System**

A radiator cooling fan must be fitted and working. The standard engine oil cooler and standard radiator may be replaced with an aftermarket version.

#### **Induction System**

Fuel injection system parts must remain standard. On CF2/CF3 engine types the plastic plenum chamber vane adjustment must be connected and working. The standard air box can be replaced with an aftermarket air filter. This should remain located under the bonnet and within the engine bay. No additional air ducting under the bonnet is permitted. No holes in the bodywork may be made to allow extra air flow under the bonnet.

The following components must all be unmodified, fitted and working as standard:

- Knock sensor
- TDC sensor
- Camshaft position sensor
- Throttle position sensor
- Air flow sensor
- Water temperature sensor
- Air temperature sensor
- Lambda probe

#### **Exhaust System**

A standard exhaust manifold must be fitted. A CF3 type engine can use a manifold from a CF1 / CF2 engine type. The exhaust is free beyond the manifold but must exit at the standard location for the model. Catalytic converters can be removed.

#### **Ignition System**

Other than the changes permitted within these regulations to increase the rev limit the ignition system must remain as standard. The engines must remain as "twin spark" – i.e. all 8 spark plugs must work as standard.

The ECU (and all its component parts) must remain standard but it may be re-programmed. In order to permit re-programming, the chip fitted to ECUs on early 145 & 146, 155 and early GTV and Spider models may be replaced with a re-programmed chip that fits the original location within the ECU.

No alternative or additional ECUs may be fitted.

The make of Air Mass Meter (also known as the Air Flow Meter) is free subject to the following – An Air Mass Meter must be fitted in the standard location. The pipe between the Air Mass Meter and the throttle body must be the standard pipe for the model being raced and must be unmodified. The sensor may not be modified.

The engine block, cylinder head and gearbox will be sealed by ARCA/Motorsport UK at the car's first race. If at any time it is necessary to break any seal permission must be sought from the Championship Eligibility Scrutineer and arrangements made for it to be replaced before the car's next race.

ECUs may be removed at the circuit by the Championship Eligibility Scrutineer or his designated representative, placed in a sealed box, and returned at a subsequent rolling road test. The organisers reserve the right to make a random selection of a car and/or cars to attend a rolling road test prior to their next race. Cars will be required (at the driver's expense) to attend the designated rolling road named below. All cars will be expected to attend the rolling road at least once during the season.

Points scored by any competitor who fails to arrange for a broken seal to be replaced before a race, or who fails to attend a rolling road test when required to do so, will remain provisional. These points will be lost if the car is not re-sealed and/or tested before its next race unless there are mitigating circumstances which are acceptable to the championship organisers, in which case points will continue to remain provisional until the car is re-sealed or tested.

All power readings will be taken at the wheels.

Any car whose rolling road check does not meet the agreed parameters will be subject to further technical inspection.

#### **Fuel Delivery System**

Must remain as standard for the model to be raced. The fuel pump and pressure regulator must be standard and unmodified. Fuel lines may run within the car. The fuel cut off/inertia switch MUST be removed.

## **9.5 SUSPENSION**

#### **Modifications Permitted**

Suspension must remain as standard subject to the following:

Road springs are free provided that the number remains the same, they are of the same overall diameter and are fitted in the same position as standard. Suspension retaining straps are permitted where coiled springs have been shortened. These straps should not be capable of imparting any load on the springs during normal use and must not themselves be under any load at any time, other than when the car is lifted off the ground.

Suspension anti-vibration dampers may be removed.

Dampers / Shock absorbers may be replaced with a steel replacement damper that is commercially available but may not have remote reservoirs and may have a maximum of one method of adjustment on each damper. Dampers may be race valved/shortened for race use. Only shock absorbers from the following manufacturers are permitted – Koni, Bilstein, AVO, GAZ.

All other suspension components including wishbones, lower arms, subframes, suspension location points, top mounts and spring seats must be standard and unmodified. All bushes must be standard Alfa Romeo rubber parts – there may be no additional washers, spacers etc. No rubber parts may be replaced with nylon or powerflex type bushes. However where some standard bushes are no longer available (as on 145/146 for example) these may be replaced with an alternative which will be stipulated in a Technical Bulletin.



All other suspension components including wishbones, lower arms, subframes, suspension rubbers, top mounts and spring seats must be standard and unmodified.

Camber angles may not exceed 3 degrees negative with NO tolerance.

**Modifications Prohibited:**

The standard mounting points and position of the suspension components to the chassis/bodyshell must be used and must not be altered from standard.

Anti-roll bars must be of standard specification and be unmodified. Anti-roll Bars, links and rubber bushes must be fitted and be working to production specification. No alterations may be made to increase / decrease the effect of anti-roll bars (other than the effect on the anti-roll bars of fitting race springs to the vehicle)

The location, type and number of dampers must remain standard. They must fit the standard mounting points without modification (The shock absorber will be considered as the complete part that bolts between the suspension and the chassis).

Remote reservoirs for shock absorber fluid are prohibited.

Coil spring damper units or adjustable spring seats are not permitted.

Strut braces are prohibited.

Spherical bearings of any kind ("Rose" type joints) are not permitted in any Part of the suspension including shock absorbers and retaining straps.

**Wheelbase and Track**

Wheelbase must remain as standard – 145/146155/GTV/Spider: 2540mm. 156: 2595mm. 147: 2546mm. Track is free.

**9.6 TRANSMISSION**

**Modifications Permitted**

The transmission components must all be as standard for the 2 litre versions of the model to be raced. These include gearbox casing and internals, gear ratios, differential, final drive, driveshafts and gear selector mechanism. However, driveshaft anti-vibration dampers may be removed.

**Modifications Prohibited**

Clutch: Pressure plate, driven plate and release bearing must remain standard or be of a recognised Alfa Romeo pattern. Paddle plates, sintered Materials and racing clutches of all types are prohibited. The method of clutch actuation must not be altered in any way.

**Transmission and Drive Ratios**

Gear and final drive ratios will remain standard for the model as sold by Alfa Romeo (UK) on the UK market. Gear ratios will be checked during the rolling road testing of the engine. The gearbox will be sealed by ARCA/Eligibility Scrutineer. Competitors must drill holes in gearbox casing bolt heads (in accordance with a drawing to be supplied by the Championship Co-ordinator or Eligibility Scrutineer) to permit the application of Motorsport UK numbered wire seals.

Limited Slip Differentials are not permitted. Automatic transmissions and the use of Q2 Torsen type differentials are not permitted. Championship organisers may request that half shafts are removed for eligibility checks.

Selespeed gearchange systems are permitted on models sold to this specification on the UK market.

All cars must have a fully functioning reverse gear.

**9.7 ELECTRICS**

**Exterior Lighting**

At least one road legal type headlamp (or replacement spotlight) on each side and in the original position for the model, with an area and similar level of light to the standard headlight, must be in working order and must be capable of giving slower drivers adequate warning of the car's approach when being lapped. Headlights must be turned on throughout the race. Covering of light lenses with coloured material which reduces the effectiveness of the lighting is not permitted. Brake lights and rear lights must be fitted and be in working order.

**Rear Rain or Poor Visibility Warning Light**

A rear rain or poor visibility warning light must be fitted and in working order for use in accordance with Motorsport UK Technical Regulation [K 5.2] Models not fitted with two rear fog lights as standard, equally located each side of the vehicle centre line, must fit a central rear fog light in accordance with Motorsport UK Technical Regulation [K 5.1].

**Battery**

Location and type are free provided that they comply with Motorsport UK Technical Regulation [J 5.14.1]

**Alternator**

Alternators may not be removed.

**9.8 BRAKES**

**Modifications Permitted:**

Brake discs, calipers and master cylinder must be of standard specification. However, the fitting of an alternative option brake disc may be permitted by the championship panel during the season. Competitors will be informed by a bulletin. The standard ABS system must be fitted but its use is optional. A brake bias system may be fitted but must not be able to be operated by the driver whilst sitting in the vehicle.

Brake pad material and backings are free so long as the pads fit a standard, unmodified caliper.

Rubber flexible brake hoses may be replaced with braided metal hoses.

Brake fluid type is free.

Any brake ducting must use existing "holes" in the front panel/bumper (e.g. fog light holes).

On models with the CF1 type of engine it is strongly recommended that checks are made to make sure that the inlet manifold cannot make contact with any part of the brake master cylinder, particularly during acceleration.

This is a known problem and can be resolved by moving one of the brake pipes on the master cylinder. For further advice on this matter please refer to ARCA.

**Modifications Prohibited**

Apart from those freedoms in 8.6.1 the braking system must remain standard both as regards components and location for the model to be raced.

**9.9 WHEELS, TYRES & STEERING**

**Permitted Options:.**



An alternative steering wheel may be fitted.

#### Prohibited Options:

Steering must not be altered from standard specification as regards method and position/mounting points of components. The bending of steering arms is not permitted under any circumstances. The steering ratio must remain as standard for the model. On models fitted with power steering as standard it must be in full working order at all times. However, the standard oil cooler may be removed and/or replaced by an aftermarket oil cooler.

#### Construction and Materials

Competitors MUST ENSURE that wheels are suitable for racing purposes and should be inspected regularly for cracks, rim damage etc. Airbag systems must be removed

#### Dimensions

All cars must use 15" diameter wheels. Maximum rim width 7"

#### Tyres

Specification: YOKOHAMA Advan A048M 190/580 R15 (Compound N2960) is the mandatory control tyre for 2023. Tyres must be ordered through ~~Yokohama's designated agent - Black 'n' Rounds, Unit 6, Silverstone Park West, Buckingham Road, Silverstone, NN12 8TJ. Tel: 01327 858044~~ Yokohama UK, Dawson Rd, Bletchley, Milton Keynes MK1 1QY

#### Nominated Manufacturer

YOKOHAMA HPT Ltd

A minimum tread depth of 1.6mm must remain at the start of qualifying and the race. Re-grooving of tyres is not permitted.

The use of any heating/heat retention devices, tyre treatments and compounds is prohibited.

A competitor may fit a maximum of 14 Yokohama control tyres in the season. This equates to 4 new tyres at their first meeting and 2 additional new tyres at each subsequent race meeting in which the car is classified as a starter. Tyres will be bar coded by Black 'n' Rounds to ensure that drivers do not exceed this limit.

A competitor may use up to 4 new or used tyres from the previous season and these will count as part of their maximum tyre allowance. In addition, two used tyres can be utilised as spares by any competitor at the first race meeting that they enter for use only in the event that tyre damage occurs. At subsequent meetings all tyres used for qualifying and races must be from the season's allowance.

As an example, at the second race meeting of the year, competitors will have available to them the four tyres that they used at and completed the races on at the first meeting plus the two additional tyres allowed at the second meeting, a total of six. At the third race meeting, competitors will have the same six tyres that they had available at the second race meeting plus a further two tyres, a total of eight; and so on.

#### 9.10 MINIMUM WEIGHT LIMIT

The following MINIMUM WEIGHT LIMITS inclusive of fully kitted driver will apply -

147/155/156/166/GTV/Spider	1180 kg
145/146	1160 kg

Competitors must ensure that holes are drilled in any ballast to allow a scrutineering seal to be affixed.

The organisers reserve the right to change the minimum weights per

model during the season and to set a minimum weight for any new model entering the series for which a weight does not appear in the regulations. Motorsport UK Regulation [D 11.1] applies

#### 9.11 FUEL AND FUEL TANK

##### Type of Fuel Tank

~~A replacement fuel tank may be fitted.~~

##### Location of the Fuel Tank

~~Installation must comply with Motorsport UK Technical Regulations. The Championship Eligibility Scrutineer must approve the position and installation of a replacement tank in writing.~~

##### Type of Fuel Tank

The standard fuel tank must be used.

##### Location of the Fuel Tank

The fuel tank must be in its original location.

##### Fuel

##### Petrol

Must comply with relevant Motorsport UK Technical Regulations [Motorsport UK Regulations Section B, Nomenclature & Definitions (see Pump Fuel)]. Fuel samples will be taken during the season.

##### Diesel

~~Only white diesel pump fuel as defined by the Motorsport UK may be used. Any commercially available smoke-reducing additive is permitted for environmental considerations only. No other additives are permitted~~

#### 9.12 SILENCING

Specification - Silencing systems are free, provided that they comply with Motorsport UK Technical Regulation [J 5.17] & [J 5.18]

#### Appendix 1: Nominated MAHA Rolling Roads:

Marlin Motor Engineers  
(Milton Keynes)  
Unit 4-5 Wellington Place  
Bletchley  
Milton Keynes  
Buckinghamshire  
MK3 5NA  
Tel: 01908 366256

Revivals  
(Duxford)  
Revivals Garage  
Lodge Road  
Thriplow, Royston  
Herts  
SG8 7RN  
Tel: 01763 208043

750 Motor Club (Mobile Dyno)  
Donington Park  
Castle Donington  
Derbyshire  
DE74 2RP

TI Motorsport  
(Stoke)





TI Motorsport LTD  
 Tegiwa House  
 Sutherland Road  
 ST3 1HZ  
 Tel: 01782 950315

Alive Tuning  
 (Louth)  
 Unit 1 & 2  
 Meridien Centre  
 Belvoir Way  
 Fairfield Industrial Estate  
 Louth  
 Lincolnshire  
 LN11 0LQ  
 Tel: 01472 812900

Star Performance (Kirkcaldy)  
 Unit 1D Frances Industrial Park  
 Wemyss Road  
 Dysart  
 Kirkcaldy  
 Fife  
 KY1 2XZ  
 Tel: 01592 655595

**Appendix 2: Power to Weight Ratio Tables**

Power to Weight Ratio calculations are to be read in conjunction with Regulations 5.7(P) and 5.14(P). Minimum weight shown in right hand columns includes fully kitted driver. Power figures are taken at the wheels.

Non turbo Petrol Engines  
 175 bhp per 1000kg

145 bhp	829 kg
155 bhp	886 kg
165 bhp	943 kg
175 bhp	1000 kg
185 bhp	1057 kg
195 bhp	1114 kg
205 bhp	1171 kg
215 bhp	1229 kg
225 bhp	1286 kg
235 bhp	1343 kg
245 bhp	1400 kg
255 bhp	1457 kg
265 bhp	1514 kg

Base Ratio – 1:5.714

Diesel and Petrol Turbo Engines  
 155 bhp per 1000kg

125 bhp	806 kg
135 bhp	871 kg
145 bhp	935 kg
155 bhp	1000 kg
165bhp	1065 kg
175 bhp	1129 kg
185 bhp	1194 kg
195 bhp	1258 kg
205 bhp	1322 kg
215 bhp	1387 kg
225 bhp	1452 kg
235 bhp	1516 kg
245 bhp	1581 kg

Base Ratio: 1:6.452

For the purposes of eligibility scrutineering, measurements will be taken in 5 bhp increments.