# APPENDIX 5 (c) 2024 SCOTTISH CITROEN C1 CUP TECHNICAL REGULATIONS

### 5.1 INTRODUCTION

- 5.1.1 The following Technical Regulations are set out in accordance with the ASN 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.
- Anything that is not explicitly authorised in writing by the Championship Organiser and anything that is not specified either in these Regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised in accordance with NCR Chapter 2, App.8.
- Any modification, defined as, any change in the design, material, shape, dimension and / or surface finish of any component is not permitted. Modification, addition, variation, tuning or removal other than specifically permitted in these Regulations is not permitted.

### 5.2 GENERAL DESCRIPTION

5.2.1 The following Regulations are for Competitors participating in standard production pre 30 April 2014 Citroen C1 998cc 3 or 5 door saloon Cars.

#### 5.2.2 Examination of Vehicles

- 5.2.2.1 The Organiser reserves the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any Car Registered in the Championship either personally or through a nominated representative. The costs of such checking shall be borne by the Championship Organiser, but the Championship Organiser shall not be liable for the costs of stripping or reassembly of <a href="Cars">Cars</a> after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the current <a href="NCR">NCR</a>.
- 5.2.2.2 Any breach of the Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the <u>Stewards</u>.
- Any component sealed by an ASN Licensed Scrutineer must remain sealed and may not be tampered with in any way for the duration of the Championship. In the event of a seal needing to be broken for repair or replacement, the Entrant must submit a request in writing to the Organiser who shall, where deemed necessary, approve the seal being broken. All instances of broken seals will be logged and reported to the Championship Stewards via the Championship Coordinator.



If a <a href="Car">Car</a>/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer or deputy will inform the Competitor that they will examine the vehicle/component on a stated date and time and at a specified location and that the sealed items must be made available for their inspection. These arrangements are not negotiable. If a <a href="Car">Car</a>/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer or their deputy, it will be considered as ineligible by default and will be reported as such to the <a href="Championship Stewards via the Championship Coordinator">Championship Stewards via the Championship Coordinator</a> for the application of penalties laid down under the NCR and these Championship Regulations.

# 5.3 SAFETY REQUIREMENTS

- 5.3.1 NCR Safety Criteria will apply as relevant, in particular Chapters 7 & 9.
- 5.3.2 A plumbed in fire extinguisher that complies with NCR Chapter 7 App.6 is mandatory (4 litre minimum recommended). The Driver's activation pull cable or button shall be mounted on the centre console. Fire extinguishers must be an FIA homologated standard Fire Extinguisher Systems in Competition Cars (1999) or FIA Standard 8865-2015 and be serviced by the manufacturer or their agent within the preceding 24 months.
- 5.3.3 For Cars which can be proven to th Organiser to have Raced before January 1st 2017 a steel roll cage complying with NCR Chapter 7 App.3 must be installed. The roll cage must be fitted with door bars to both sides of the car at hip level. For cars first raced after January 1st 2017 the roll cage must be a Safety Devices standard bolt in cage in one of the following 2 configurations:

Configuration 2	
SD Part Number	Description
RBC052 3SXU	Front roll cage with windscreen reinforcement bar for unique single door bars, with roof cross diagonals.
RBC052 5XSU	Rear roll cage, single fixed diagonal for single door bars and roof cross.
RBC052 DSUN	Unique single door bar, near side (left hand side).
RBC052 DSUO	Unique single door bar, off side (right hand side).
RBC052 SB	Rear strut brace/harness mount.
Configuration 3	
Configuration 3	Description
SD Part Number	Description
_	Description Front roll cage with windscreen reinforcement bar for cross door bars and roof cross.
SD Part Number	Front roll cage with windscreen reinforcement bar for cross
SD Part Number RBC052 3SXX	Front roll cage with windscreen reinforcement bar for cross door bars and roof cross.  Rear roll cage, cross diagonal, lower backstays, for roof cross and cross door bars.
SD Part Number RBC052 3SXX RBC052 5SXX	Front roll cage with windscreen reinforcement bar for cross door bars and roof cross.  Rear roll cage, cross diagonal, lower backstays, for roof cross

(Padding with <u>ASN</u> compliant padding is recommended in order to prevent injury).



- 5.3.4 Rear harness straps are to be mounted on a roll cage harness bar to conform to ASN and seat harness manufacturers regulations.
- 5.3.5 FIA homologated seat belts are mandatory (NCR Chapter 12 App.13 Art.40).

  Particular attention should be given to seat belt angles and anchorage. See FIA 253-42. All harness straps must be adjusted so that in use the harness buckle is located on the Driver's body only in the area between the top of the thigh and the top of the pelvic girdle and must not be located any higher on the abdomen.
- 5.3.6 It is mandatory to use a harness with a minimum of 5 fixing points, where at least one fixing point is designed to prevent the Driver from sliding forward and under the lap straps. Harnesses must be suitable for use with a Frontal Head Restraint (FHR) device and be properly installed in the Car in accordance with the manufacturer's installation instructions. Installation guidance can also be found in the FIA publication 'Guide for the use of HANS® in international motor sport'.

### 5.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS

The following Technical Regulations are set out in accordance with the ASN specified format and it should be clearly understood that if the following texts do not clearly specify that a modification can be made to the Car, then that modification is not permitted. The fact that some modifications are mentioned as prohibited does not imply that others are allowed. If any doubt exists about the legality or acceptability of any modification, then please request clarification from the Eligibility Scrutineer or the Championship Organiser **prior** to any work being undertaken.

#### 5.4.1 **Definition of terms:**

5.4.1.1 **STANDARD**: The word 'standard' used within these Technical Regulations as a description of components is to be interpreted as per 'Standard Part' defined below. Checking will be by comparison to spare parts supplied by the manufacturer's official agent, comparison to standard parts or by any other means necessary to ensure compliance.

**Standard Part**: Is a part, the specification, features, location and method of operation of a part are as provided when new by the motor manufacturer for the model and date of car as shown on the entry form

- STANDARD PATTERN: The phrase 'standard pattern' used within these Technical Regulations as a description of components is to be interpreted as per 'Standard Pattern Part' defined below. Checking will be by comparison to standard pattern part or any other means necessary to ensure compliance.

  Standard Pattern Part: A replacement part that has a similar form shape and features as the standard part and is made using similar materials and manufacturing.
  - features as the standard part and is made using similar materials and manufacturing processes e.g. a standard part manufactured by a non-original equipment supplier that is fully interchangeable with the standard part.
- 5.4.1.3 **COMPONENTS:** The phrase 'component' used within these Technical Regulations shall be considered to be ANY individual part or assembly of parts used in the construction of the <u>Car</u>.



- 5.4.2 The Car must be of sound construction, in good mechanical condition and well maintained in accordance with <a href="NCR Chapters 7 & 12">NCR Chapters 7 & 12</a> as appropriate. All inspection areas e.g. engine, gearbox, suspension components, etc. must be in a clean condition.
- 5.4.3 The Championship Organiser reserves the right to require any Competitor to remove any part, or assembly of parts, from the Car to be compared and checked against a standard or pattern part or assembly of parts. Any non-compliance will be dealt with under <a href="the provisions of NCR Chapter 2">the provisions of NCR Chapter 2</a>, App. 8. The Competitor will be liable for all costs relating to the exchange parts.
- 5.4.4 The Championship Organiser reserves the right to exchange any part or assembly of parts on the Car for standard ones at any time during an Event on any competing Car.
- Scrutineering in this Scottish C1 Cup the Car must undergo a Safety Scrutineering inspection which will be undertaken by the Organiser's Chief Scrutineer, Championship Eligibility Scrutineer or their appointed deputies, unless the Car competed in the same condition in the preceding year Championship.

  Additionally all Cars must undergo a Safety Scrutineering inspection at least every 4 events. Any Car involved in a contact Incident, or having been modified in any way, must be represented to the Scrutineers for further examination (NCR Chapter 7 App.12 Art.5) unless notified to the contrary by a Championship or Event Official. A record of inspections will be maintained by the Championship Organiser. The Event Organiser may select Cars for pre-Event safety inspections, the method of selection and times/locations for inspection will be notified in the Event Official Documents.

#### 5.5 CHASSIS:

- 5.5.1 A pre-April 2014 standard Citroen C1 or Peugeot 107 3 or 5 door Car produced by the manufacturer for the home (GB) or European market must be used. LHD or RHD is permitted. The Car must be 'panelled' as a Citroen C1 and must be of the 2005-April 2014 generation model bodyshell.
- 5.5.2 No part of the monocoque shell shall be removed, modified or added to. This includes any welding to stiffen or otherwise modify the shell or any brackets or parts of brackets attached to the monocoque shell or bodywork panels except as specified in <a href="Art.">Art.</a> 5.5.3 and 5.6.2.2 of these Technical Regulations. Removal of sound deadening or removal of seam sealer is not permitted.
- 5.5.3 The tabs at the left and right ends of the steering column support bar that provide an M6 threaded fixing for the dash panel may be shortened to facilitate the fitting of the cage front legs.

#### 5.6 BODYWORK:

#### 5.6.1 **General**

5.6.1.1 Other than graphics, at all times, a standard external appearance to the Car must be maintained.



- 5.6.1.2 It is permitted to apply paint, decals, stickers or wraps to the Car with the exception that the areas reserved for sponsorship are not covered.
- 5.6.1.3 All doors must be fitted with original lock fittings and operating mechanisms, and must be kept unlocked during any Practice, Qualifying or Racing.
- 5.6.1.4 If the <u>Car</u> is fitted with central locking, the central locking fuse (Fuse F2 second one down on RHS of instrument housing) must be removed. The rear hatch key operated release mechanism on a non-central locking car may be replaced by the push button mechanism from a central locking car.

# 5.6.2 Interior

- 5.6.2.1 No part of the interior which is an integral part of the monocoque shell may be removed, modified or added to except the drilling of 12 x 25mm holes in the sills to accommodate the welded roll cage feet.
- 5.6.2.2 The cups spot welded to the top of the suspension towers must be removed to accommodate the roll cage backstay feet.
- 5.6.2.3 The front bulkhead must comply with the requirements of <a href="NCR Chapter 7 App.2">NCR Chapter 7 App.2</a>
  Art.10. Two holes may be drilled to allow the cable pulls to pass through. Two holes may be drilled to allow the battery to master switch cables to pass through. These 4 holes must be fitted with grommets and ensure the fire protection integrity of the bulkhead. A further hole may be drilled to accommodate the fire extinguisher pipe. (An optional single multi-hole-bulkhead fitting is permitted).
- 5.6.2.4 Interior trim, fittings, courtesy light and passenger seats may be removed except as specified below. The dashboard must remain fitted including all lower trims (i.e. glove box etc.) with the non-Bluetooth OEM radio, all heater controls, lights and switches must remain fully operational as intended by the manufacturer. A close-fitting slot cut-out in the dashboard is permitted to facilitate the fitting of the roll cage. The centre console and handbrake surround must also be fitted.
- 5.6.2.5 The internal door trims may be replaced by panels supplied by the C1 Racing Club. If these are not used, the standard internal door trims must be fitted but may be modified to facilitate clearance around the roll cage door bars.
- 5.6.2.6 The standard driver's seat must be replaced with a racing seat <u>complying with the</u> requirements of NCR Chapter 7, App. 7 and approved to FIA 8855-1999 as a minimum and must be fitted in the manufacturers intended position using the OEM seat fixing points.
- 5.6.2.7 Adjustable seat rails may be fitted. They must comply with NCR Chapter 7 App.7 Art.9-24.
- 5.6.2.8 It must be possible to refit the passenger seat without moving or removing anything other than the ballast tray.



- The original pedal box with original pedals must be fitted in its original position, using the standard mountings. It is permissible to add extension plates to the pedals. The maximum size of the pedal extensions is 120mm high x 80mm wide x 4mm thick. These must be attached directly to the pedals. The use of spacers between the pedals and plates is prohibited.
- 5.6.2.10 An aluminium floor plate of maximum dimensions 650mm x 500mm x 3mm may be installed to the driver's side foot well. A foot rest may be fitted to this plate on the left-hand side.
- 5.6.2.11 A standard Citroen C1, Peugeot 107 or Toyota Aygo rev counter may be fitted. For right hand drive Cars the rev counter must be fitted on the right hand side of the main instrument binnacle, for left hand drive Cars the rev counter must be fitted to the left hand side of the main instrument binnacle.
- 5.6.2.12 An electronic lap timer may be fitted. If fitted this shall get its power from either the cigarette lighter socket or from the master switch, no other power source is permitted. Any system fitted must not interface with or be connected in any way to the OEM car or CANBus systems of the Car.
- 5.6.2.13 Ducts, no longer than 300mm and 75mm or less in diameter, may be fitted to the Driver and passenger dashboard air vents to aid driver ventilation.

### 5.6.3 Exterior

- 5.6.3.1 No panel may be cut, drilled or in any other way modified other than those detailed in these Regulations or in Art. 5.6.6 of these Technical Regulations.
- 5.6.3.1.1 Driver/passenger door windows may be converted from manual to electric operation by the use of OEM parts only. Additional electrical wiring is permitted to enable the operation of the windows as appropriate.
- 5.6.3.2 A minimum of 3 rear view mirrors must be fitted (1 (one) interior and 2 (two) exterior). (A wide-angle interior mirror is recommended). External mirrors must all be standard unmodified C1 mirror assemblies fitted in the manufacturers production position. It is however permitted (and recommended) to fit supplementary blind spot mirrors.
- 5.6.3.3 All mirrors must provide a view to the rear of the Car and must not be adjusted to provide an aerodynamic advantage to the Car. Both door mirrors must provide a rear view at all times.
- 5.6.3.4 Transparent coloured film may be fitted to rear view mirrors to reduce glare. This must not reduce the effectiveness of the rear-view mirrors in daylight.
- 5.6.3.5 All elements of the standard front and rear bumper assemblies (including the crash bar(s)) must be fitted. The front bumper may have a slot cut into it on each side to facilitate the fitting of the optional spot lights detailed below in <a href="Art.">Art.</a> 5.10.2.3 of these Technical Regulations. It may also have a slot cut into it on each side to facilitate fitting wire tow straps (NCR Chapter 12 App.13 Art.4).



- 5.6.3.6 The bonnet must be secured by one of the following mechanisms:
  - The standard bonnet secondary catch with the primary latch disabled and two
     (2) locking pins or straps conforming to <u>NCR Chapter 12 App.13 Art.16</u>.
  - Two (2) locking pins or straps conforming to <a href="NCR Chapter 12 App.13 Art.16">NCR Chapter 12 App.13 Art.16</a>. It is <a href="permitted">permitted</a> to drill 2 holes through the bonnet and engine bay front cross member to install bonnet pins. It is <a href="permitted">permitted</a> to drill a maximum of 4 holes of maximum diameter 6mm in the bonnet outer skin and 4 holes of maximum diameter 6mm in the bumper to install bonnet straps
- 5.6.3.7 It must be possible to open the rear <u>tailgate</u> without the use of a key from the outside of the <u>Car by either of the following methods</u>:
  - A. By fitting the tailgate catch from a central locking car
  - B. Bby fitting a pull cable to the original key operated internal tailgate catch.
- 5.6.3.7.1 Opening method(s) must be indicated by an adjacent 'OPEN' decal or similar.
- 5.6.3.8 The windscreen must be of HPR laminated glass.
- 5.6.3.9 The standard toughened glass side and rear tailgate windows must be retained.
- 5.6.3.10 <u>It is permitted to fit clear window film to the inside of all side and rear tailgate glass.</u>

  Tinted window film is not permitted.
- 5.6.3.11 The standard window winding mechanism (electric or manual) must be retained and must be fully operational on both Driver and passenger windows.
- 5.6.3.12 All body panels must be standard or standard pattern parts.
- 5.6.3.13 The mandatory lap timing transponder must be fitted to the front inner (right side) flitch panel in the position shown:

See Art. 5.10.1.2 of these Technical Regulations for wiring regulations.





# 5.6.3.14 Additional front/rear bumper fasteners may be fitted:

Option 1: Extra fasteners and strengthening plates (maximum size 1mm thick x 30mm x 80mm) may be fitted, one plate to each side front and/or rear, to the outside of the junction between the front wings and the front bumper and/or the outside of the junction between the rear quarter and the rear bumper.

Option 2: Front/rear bumper to wing/rear quarter fastener attachment may be fitted using a washer/bobbin and fastener and elasticated coupler.

In both cases, only one additional fastener may be fitted to each corner of the Car.

Recommended and preferred method is shown below;



- 5.6.3.15 A mandatory guard supplied by the C1 Racing Club must be fitted to the underside of the floor pan to protect the brake and fuel pipes as they exit the engine bay.
- 5.6.3.16 The lower (metal) and upper (plastic) scuttle trays below the windscreen may be modified in the following ways:
  - A hole (maximum diameter 32mm) may be drilled in the lower scuttle tray immediately above each front strut to allow an allen key to be inserted into the top of the strut shaft. The holes must have closed grommets fitted to maintain the fire protection of the scuttle tray.
  - Up to 3 holes may be drilled in the lower scuttle tray to allow pull cables to pass through. Sealing grommets must be fitted to these holes to maintain the fire protection of the scuttle tray.
  - Up to 2 holes may be made in the upper scuttle tray to allow pull cable handle fittings to be mounted. A reinforcing plate may be used on the underside of the scuttle tray to strengthen it. One pull cable must operate the bonnet catch, one to operate the fire extinguisher and one to operate the master cut-out switch. All handles must be marked with stickers on the bonnet.
  - Extra fasteners and a plastic plate (maximum dimensions 2.5mm x 30mm x 125mm) may be fitted over the joint between the left and right halves of the plastic scuttle tray.
- 5.6.3.17 Sound deadening materials may be removed from the engine bay and underside of the bonnet.
- 5.6.3.18 Front wheel arch liners may be removed, but it is recommended that they remain in place to protect the auxiliary belt from stones.



- 5.6.3.19 Rear spoilers are not permitted.
- 5.6.3.20 Towing eyes must be fitted front & rear and must comply with NCR Chapter 12

  App.13 Art.3.

#### 5.6.4 **Silhouette**

5.6.4.1 The original silhouette (including below a line drawn through the front and rear hubs) of the Car must be maintained except the variation caused by the fitment of the C1 Racing Club approved front driving lights (see Art. 5.10.2.3 of these Technical Regulations) and/or the fitting of wire towing straps in accordance NCR Chapter 12 App.13 Art.4.

## 5.6.5 **Ground Clearance**

- 5.6.5.1 Ground clearance must comply with the requirements of the NCR. For the purposes of this regulation bottom front strut brace and exhaust are considered to be part of the car and are subject to the same ground clearance rules.
- The minimum height of the Car will be measured without Driver from the ground to the highest part of the front and rear wheel arches and must conform to the minimum measurements listed below:

  Front height: 550mm
  Rear height: 580mm

# 5.6.6 **In-Race Repairs**

- 5.6.6.1 During an Event panels may be cut, drilled or modified to effect a temporary repair having incurred damage during the course of the Event. Prior to the next Event the repaired panel(s) must be brought back to conformity of these regulations.
- 5.6.6.2 The use of 'repair tape' is permitted in the execution of Art. 5.6.6.1.
- 5.6.6.3 It is not permitted to use any 'repair tape' or any other type of tape for the purpose of 'taping' panel gaps. 'Taping' panel gaps is not permitted.

### 5.7 ENGINE

## 5.7.1 **General Engine Regulations**

The engine must be a standard 3 cylinder Citroen, Peugeot or Toyota unit, engine type code 1KR-FE as produced on the 1KR-FE engine production line and to the unaltered specification as new and available to the home (GB) or European market between 2005 and April 2014. No engine modifications are permitted.

### 5.7.2 **Engine Inspection Seal**

To allow an ASN licenced Scrutineer the option for an engine to be sealed prior to inspection, two bolts at the front of the valve cover must be cross drilled or replaced by Competitor supplied drilled bolts. These two valve cover bolts may be wired together and sealed by the Championship Eligibility Scrutineer or their deputy. (See also Art. 5.2.2.3 and 5.2.2.4 of these Championship Regulations).





# 5.7.3 **Air Conditioning**

If fitted as standard the air conditioning compressor and associated pipework may be removed.

### 5.7.4 Location

The engine must be located in the original position by the use of OEM/pattern fittings and mounts (which must be used and installed in the OEM intended way). The lower OEM engine mount large bush may be rotated 90 degrees to help minimise engine movement.

# 5.7.5 **Cooling Systems**

- 5.7.5.1 No modifications to the standard cooling system are allowed. (An OEM radiator is highly recommended).
- 5.7.5.2 The water pump must be the standard/standard pattern part and must not be modified in any way and the impellor must be present and working as the manufacturer produced.
- 5.7.5.3 The auxiliary belt must be the standard/standard pattern part and must not be modified in any way and must have all 6 ribs present.

# 5.7.6 **Induction Systems**

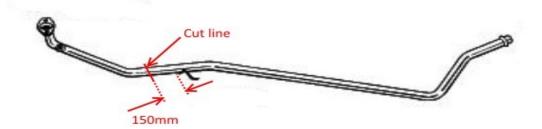
No modifications to the standard induction system are permitted. The use of a standard or standard pattern air filter element is mandatory. The use of 'free flow' type filter element is not permitted. Other than Cars adapted for disabled Drivers using the OEM Automatic actuation system, 'Fly by Wire' throttle bodies are not permitted.

# 5.7.7 Exhaust Systems

5.7.7.1 No modifications to the standard exhaust system are allowed except as specified in <a href="Art."><u>Art.</u></a> 5.7.7. Removal, repositioning or modification of the Catalytic converter is not permitted.



5.7.7.2 A slip joint may be fitted to the horizontal section of the front exhaust pipe to enable the engine to be removed without needing to remove the whole exhaust pipe and Fuel Tank guard. The exhaust pipe must be cut 150mm forwards from the exhaust hanger bracket as shown below;



The overall length of the exhaust centre pipe must not be altered. You may either use a Universal Exhaust Pipe Sleeve Clamp as shown below or make a slip joint.



Universal Exhaust Pipe Sleeve Clamp

If using a Sleeve Clamp it must be no more than 100mm long and the correct diameter for the exhaust pipe to ensure a complete seal.

If using a slip joint, the outer tube of the slip joint must be no longer than 100mm. The internal diameter must be a snug fit over the exhaust pipe and it must be welded completely around its circumference to the rear section of the exhaust pipe. The sliding portion of the joint must be 50mm long.

5.7.7.3 The hanger bar on the rear silencer box may be repaired.

5.7.7.4 Only the following part numbers from the specified suppliers may be used:

Part	Citroen	EuroCarParts	GSF	Andrew Page
Catalytic	0342 L5 or 0342			
Converter	K8	724540520	215PC1489	BM91263H
Centre pipe	1717 CY	706540181	220PC0050	CN548K
	1730 JF or 1730			
Rear silencer	НО	705730271	252PC0099	CN549J



- 5.7.7.5 The Organiser reserves the right to introduce and permit the use of a C1 Racing Club specific Catalytic Converter kit.
- 5.7.8 **Ignition Systems**
- 5.7.8.1 No modifications or additions to the standard ignition system are allowed.
- 5.7.8.2 The Engine Control Unit (ECU) must be <u>installed with</u> the C1 Racing Club 'Map'. The Championship Organiser reserves the right to download data from a Competitors ECU and to upload C1 Racing Club data to the ECU. The Championship Organiser reserves the right to require Competitors to submit the <u>Car</u> ECU for compliance checking at any time.
- 5.7.8.3 It is mandatory to use spark plugs in matching sets of three. Only the following part no's/descriptions are permitted; Denso K20HR-U11, NGK LFR6C-11, Bosch FR8 SC+ or Bosch FR7 SE.
- 5.7.8.4 It is permitted to disconnect the Variable Valve Timing Solenoid.
- 5.7.9 Fuel Delivery Systems
- 5.7.9.1 The manufacturer's entire Fuel delivery system must be retained unmodified except for fitting of an FIA approved dry-break Fuel sampling coupling required in accordance with NCR Chapter 7 App.4 Art.24. It is permitted to modify the Fuel pump wiring to allow for fuel drainage. Any modifications must be visible for inspection at any time. No other modifications are permitted.
- 5.7.9.2 Fuel drainage may only be carried out via the FIA approved dry-break Fuel sampling coupling.
- 5.7.9.3 The use of alternative Fuel pumps or pressure regulation equipment is prohibited.

#### 5.8 SUSPENSIONS

### 5.8.1 **Permitted Modifications**

5.8.1.1 Only the following damper part numbers from the specified suppliers may be used.

Part	Citroen	KYB
Front left strut	5202 SA	332808
Front right strut	5202 SC	332807
Rear damper	5206 EG	343808

5.8.1.2 Modifications to dampers are not permitted. Bump stop rubbers must be standard OEM type. The use of more than one bump stop per damper is not permitted. Only bump stops intended by the manufacturer for fitment to the front of the Car may be fitted to the front of the Car. Only bump stops intended by the manufacturer for fitment to the rear of the Car may be fitted to the rear of the Car.



- 5.8.1.3 The only spring allowed is the Apex 70-4200. Rear springs must be fitted in the correct orientation (closed coils to the bodyshell) and fitted with standard OEM rubber seats.
- 5.8.1.4 Upper and/or lower front strut braces are permitted, provided that they are bolt-in items that require no modifications to the bodyshell for fitment and that they are firmly attached to the bodyshell at both ends.
- 5.8.1.5 The C1 Racing Club supplied lower front wishbones may be used together with the C1 Racing Club extended driveshafts and track rod extenders. The standard front wishbone rear bush may be replaced with Powerflex Polybush part no. PFF12-702. It is permitted to 'tack' weld the outer casing of the Polybush to the wishbone.
- 5.8.1.6 The standard rear beam bushes may be replaced with Powerflex Polybush part no: PFR12-710.
- 5.8.1.7 Rear wheel geometry may be adjusted by the use of shims fitted between the rear suspension cross member and the wheel bearing hub assembly. Standard bolts must be used and one bolt position must have no shims. The maximum camber allowed is -3.5°.
- 5.8.1.8 Front wheel camber must not exceed -4.0°.
- 5.8.1.9 Anti-roll bar drop links may be replaced by Honda Civic drop link rods with part number 90112SE0000.
- 5.8.1.10 No other modifications are allowed.

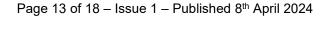
# 5.8.2 **Prohibited Modifications**

5.8.2.1 No modifications to the suspension, mounting points, rubber bushes, shock absorbers, springs or wheel alignment geometry are allowed other than from the consequences of changes by those specified in <a href="Art.">Art.</a> 5.8.1. For the avoidance of doubt, all suspension components including the axels must be from the MK1 2005-2014 C1 model only.

### 5.9 TRANSMISSIONS

5.9.1 Either of the following standard Citroen C1 gearboxes must be used without modification

	C550 (2005 - Sept2010)	C553 (Sept2010 - May2014)
First	3.545	3.545
Second	1.913	1.913
Third	1.310	1.161
Fourth	1.027	0.973
Fifth	0.850	0.804
Diff	3.550	3.550





- 5.9.1.1 The 3.550 final drive must be used, no other final drivel is permitted.
- 5.9.1.2 The use of any Limited Slip Differential or any device which provides similar influence upon the front wheels is not permitted.

### 5.9.2 **Permitted Modifications**

- 5.9.2.1 The C1 Racing Club supplied extended drive shafts and track rod end extenders must be used when the C1 Racing Club supplied wishbones are fitted.
- 5.9.2.2 It is permitted to use any of the permitted gearboxes in any of the permitted Cars.
- 5.9.2.3 Cars fitted/adapted with the standard unmodified OEM Automated Gearbox actuation system is permitted with no modifications.

#### 5.10 ELECTRICS

#### 5.10.1 **General**

The standard C1 electrical system must be retained. It is not permitted to modify the wiring loom or its ancillaries except for the following and/or as described in Art. 5.10.1.1, 5.10.1.2:

- Air bag firing mechanism must be removed.
- Wires for the additional optional front spot lights as defined in <u>Art.</u> 5.10.2.3.
- Wires for optional identification lights as defined in <u>Art.</u> 5.10.2.4.
- Modification to reverse light wiring to convert to rain light as defined in <u>Art.</u>
   5.10.3.
- The fitment of a Master Switch circuit breaker as defined in <u>Art.</u> 5.10.7.
- Modification to ignition switch as defined in Art. 5.10.8
- The air bag ecu may be removed
- 5.10.1.1 Power for cameras must be taken from the power feed to the cigarette lighter socket or from the power feed described in <a href="Art.">Art.</a> 5.10.1.2. It is permissible to fit a cigarette lighter socket multi way adaptor.
- 5.10.1.2 The positive feed to the transponder should be taken from the blue wire on the back of the ignition switch multi cable connector
- 5.10.1.3 Nothing may be plugged into the OBD port unless directed by the Championship Organiser. The OBD port must be permanently connected to the Car's electronic systems as manufactured. No modifications are allowed to the OBD connector or the wiring to it.

# 5.10.2 Exterior Lighting

- 5.10.2.1 All standard lights (front and rear side lights, 3 (three) brake lights, front and rear indicators, dip and main beam headlights, rain lights) must all be present and working.
- 5.10.2.2 Standard or standard pattern light units must be used. HID, LED and upgraded H4 bulbs are permitted.

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- 5.10.2.3 One pair of C1 Racing Club supplied LED spot lights may be fitted directly to the unmodified fitting bracket supplied by The C1 Racing Club. The spot lights must be fed from a fused relay that is operated by an input from the main beam light wires behind the left-hand side headlight unit. The spot lights must activate at the same time as the standard main beam bulbs and no additional or independent operation is permitted. Additional internal switches are not allowed.
- 5.10.2.4 Identification lights are permitted. These lights must be non-flashing or phasing and must emit a mono colour only. Power must be supplied by the side light circuit. The identification lights will activate at the same time as the standard side lights and no additional or independent operation is permitted. Additional internal switches are not permitted.
- 5.10.2.5 All lights detailed in Art. 5.10.2.1 must be in working order throughout the entire Event.

# 5.10.3 Rain Light

- 5.10.3.1 The reversing light must be converted to a red bulb and illuminate simultaneously with the rear fog light to act as <u>ASN</u> compliant rain lights as defined in <u>NCR Chapter</u> <u>7 App.5 Art.19-21</u>. No additional rain lights are permitted.
- 5.10.3.2 Additional wiring may be fitted to link the rear fog light to the reversing light or the links in the reversing light fitting may be altered so the reversing light is illuminated when the rear fog light circuit is active.

#### 5.10.4 Batteries

5.10.4.1 The 12 volt battery must be equivalent in size, weight and amp hours as the manufacturer's original fitment in the standard position and must be firmly secured.

# 5.10.5 Alternator / Charging Circuit

- 5.10.5.1 A functioning standard OEM specification alternator must be fitted. No modifications are allowed to the alternator, its drive mechanism or electrical circuits.
- 5.10.5.2 The auxiliary belt must have sufficient tension to make the alternator function as intended by the manufacturer.
- 5.10.5.3 The Charging Circuit must be connected and operational (as designed) all times whilst the Engine is running.

## 5.10.6 Windscreen Wipers

5.10.6.1 Standard or standard pattern front and rear windscreen wipers and washers must be fitted and fully operational. The front wiper blade must be at least 650mm long. No modifications are allowed to the windscreen wiper blade, windscreen wiper mechanism or windscreen washer system.



#### 5.10.7 Master Switch

- 5.10.7.1 Should a solid-state master switch battery isolator not be fitted; a cable operated master switch battery isolator shall be mounted on the centre console within the confines of 2 vertical planes which are defined by the external faces of the centre console and a horizontal plane at the level of the bottom of the heater controls. A rearward extension to the mounting position is permitted to enable operation of the master switch with the Driver seated in the full racing position with seat belts firmly secured.
- 5.10.7.2 One side of the secondary switch labelled Z or 2 on the back of the master cut-out switch must be introduced into the blue wire from the ignition switch multi cable connector.
- 5.10.7.3 Should a solid-state master switch battery isolator is installed, the internal operating button shall be mounted on the centre console within the confines of 2 vertical planes which are defined by the external faces of the centre console and a horizontal plane at the level of the bottom of the heater controls. A rearward extension to the mounting position is permitted to enable operation of the master switch with the Driver seated in the full racing position with seat belts firmly secured.

## 5.10.8 **Ignition Switch**

5.10.8.1 It is permitted to modify the ignition switch so that the steering lock is disabled.

#### 5.11 BRAKES

- 5.11.1 Mintex MDB2743-1144 or MDB2743-F4R brake pads must be used, supplied by Wheels Around.
- 5.11.2 The ABS system must be operational at all times.
- 5.11.4 It is not <u>permitted</u> to modify the brake pipes. Standard rubber brake hoses may be replaced by braided hoses.
- 5.11.5 The standard handbrake (and system) must remain in the manufacturers production position and be fully operational, and lock the rear wheels as intended.

#### 5.12 WHEELS/STEERING

- 5.12.1 Other than the extended track rod kit available from The C1 Racing Club no modifications of any kind are allowed to the steering system.
- 5.12.2 The standard steering wheel may be used. An ASN approved alternative steering wheel and either quick release or fixed boss is permitted.



- 5.12.3 If an alternative steering wheel is fitted it is permitted to relocate the horn operating switch.
- 5.12.4 The passenger airbag must be completely removed.
- 5.12.5 Wheel spacers are not permitted.
- 5.12.6 OEM or OEM pattern alloy wheel bolts must be used. The original steel wheel bolts are not permitted. Wheel studs are not permitted.
- 5.12.7 C1 Racing Club specific Team Dynamics Pro Race LT C1 Edition alloy wheels, or Citroen alloy wheels part number 9607W4, must be used. The original Citroen 4.5J x 14ET39 steel wheels are not permitted.

### **5.13 TYRES**

# 5.13.1 **Specifications**

- 5.13.1.1 The permitted size is 155-55 X 14.
- 5.13.1.2 The use of tyre heating/heat retention devices, tyre treatments and compounds are prohibited.
- 5.13.1.3 Tyre planning / shaving is permitted.
- 5.13.1.4 Tyres must have not less than 1.6mm of tread remaining at the start of <u>each session</u> (Practice, Qualifying and/or Races).
- 5.13.2 **Nominated Manufacturer**
- 5.13.2.1 All tyres used during an Event must be Nankang AS1.

#### 5.14 WEIGHT

- 5.14.1 Cars must have a minimum weight of 910kg at all times during Competition, to include the Driver in full racing kit seated in the normal driving position.
- 5.14.2 Any ballast fitted must comply with NCR Chapter 7 App.2 Art.64-66 and must not exceed 50kg, and a maximum of 25kg in any one location.

#### 5.15 FUEL TANK/FUEL

#### 5 15 1 Fuel Tank

- 5.15.1.1 The Fuel Tank must be a Citroen C1 standard production item fitted in the manufacturer's original position.
- 5.15.1.2 Modifications to the Fuel Tank, sender unit, Fuel pump, pipe work (other than to install a dry-break system see Art. 5.7.9.1 of these Technical Regulations) and pressure regulator are not permitted.



5.15.1.3 The Fuel pump cover panel must allow access to the Fuel pump and pressure regulator. The cover panel may be modified and have additional mechanical fasteners fitted to enable access to the Fuel pump and pressure regulator.

# 5.15.2 Filler Cap

5.15.2.1 A filler cap must be fitted that complies with NCR Chapter 7 App.4 Art.10. The standard lockable filler cap may be replaced by a non-lockable one.

#### **5.15.3 Tank Guard**

5.15.3.1 A Fuel tank guard supplied by The C1 Racing Club must be fitted in the location specified.

### 5.15.4 **Fuel**

- 5.15.4.1 Only petrol as defined in <a href="NCR Chapter 8 App.1 Art.7a">NCR Chapter 8 App.1 Art.7a</a>) and complying with BSEN228 may be used; Fuel which exceeds the stated RON (max) levels in <a href="NCR Chapter 8 App.1 Art.8 Specifications Table">NCR Chapter 8 App.1 Art.8 Specifications Table</a> is prohibited even if it is sold/promoted as being legal for UK Competition and/or obtainable from 'roadside' pumps.
- 5.15.4.2 The modification of Fuel including the use of additives and removal of the ethanol content from the Fuel are not permitted.
- 5.15.4.3 Other than the OEM introduction of air and Fuel into the engine, the introduction of any other media into the engine is prohibited.
- 5.15.4.4 Aan audit trail for all Fuel purchased must be demonstrable.

#### 5.16 SILENCING

Cars must be silenced in accordance with NCR Chapter 7 App.8 Art.9-27.

#### 5.17 NUMBERS and CHAMPIONSHIP DECALS:

- 5.17.1 All Cars must be identified by ASN specification numbers to NCR Chapter 12 App.4

  Art.40-45. In addition the competition number must be displayed in the upper right of the rear window to the same specification as detailed in NCR Chapter 12 App.4

  Art.45c-f.
- 5.17.2 Sponsors' decals must be carried on each Car if requested by the Championship Organiser. Specific locations on the Car are reserved for Championship sponsors; locations are as stipulated in the diagrams, which will be supplied. One set of decals will be supplied free of charge by the Organiser. The Championship Organiser reserves the right to charge for replacement decals.
- 5.17.3 <u>Drivers Names:- Competitors will be responsible for providing Driver's Name decals;</u> these must be applied to the rear side windows in a position to be advised in an Official Document.

