

2017 1/10th IC Circuit Rules

1. CONSTRUCTION RULES

- 1.1 All cars must have a de-clutching device and have an operating brake capable of stopping the car and holding the car motionless with the engine running.
 - 1.2 The front bumper must be fitted to the car to the same shape of the body shell and material as supplied in any standard kit car. The bumper must not protrude outside the body nor shall it be cut down beyond the shape of the body. It should be constructed as to minimise injury that may result from being hit by a car.
 - 1.3 Any part of a car may be substituted during a race meeting except the chassis. The chassis may be changed with the approval of the Race Steward. The essence of this is that a car cannot be replaced or substituted once entered into a day's racing. If you are found to be changing chassis without permission, you will be disqualified from the meeting.
 - 1.4 Gearboxes up to two-speed only shall be used in all classes.
 - 1.5 Fully independent suspension will be allowed in all classes.
 - 1.6 The engine must be fitted with an unmodified exhaust system from the BRCA approved list.
 - 1.7 Fuel tank, fuel tube, and any external fuel filters are not to exceed a total capacity of 75CL, and no loose inserts in the tank are allowed. It is up to the driver to check that they do not infringe this rule prior to racing. If the car's total capacity is found to be above this figure the driver will be disqualified from that heat or final.
 - 1.8 All wheels/tyres are not to protrude outside of the body shell.
 - 1.9 All types of tyre additives are prohibited from use in all classes anybody wilfully found using additives will be disqualified from the day's racing.
 - 1.10 An air intake silencer (e.g. approved INS box) must be fitted to the carburettor airintake of all engines, with no internal modifications except for a 3mm hole at the base of the unit to allow water to drain.
 - 1.11 All entrants in 1/10th IC National events must use a personal transponder compatible with the electronic race control equipment.
 - 1.12 The engines for both classes may be of any configuration and construction with front rotary valve two-stroke air-cooled induction type, with standard 1\4 UNF or conical (turbo) glow plugs permitted.
 - 1.13 No form of forced induction or any form of variable port timing is allowed. One additional gap or slit in the bottom (or skirt) of the piston is allowed. Additional slits or holes in the liner are allowed as long as they do not extend beyond the top of the piston when it is at the lowest point of the stroke. For the purposes of this rule, a hole is defined as being an aperture completely surrounded by material. Engine internal modifications are allowed as long as they are within the parameters of rule.
 - 1.14 Fuel may only contain Methanol, Oil/Lubricant and Nitro-Methane with maximum 16% nitro methane content. Verifying this fuel will be done using a floater called Nitromax 16, which is commercially available.
- Any driver using fuel found to be illegal will be disqualified from the race in question.

The British Radio Car Association (BRCA):

- (a) To promote the construction and racing of radio-controlled cars.
- (b) To facilitate the exchange of information and ideas relating to the sport.
- (c) To set rules and standards for construction and racing.
- (d) To encourage National and International competition within a co-ordinated calendar.

If a driver is found to use illegal fuel on a second time at the same meeting he or she will be disqualified from the meeting.

1.15 All measurements referred to in these sections are minimum or maximum values. All measurements for the motor dimensions are to be considered with 2 digits behind the decimal point, all other measurements 1 digit behind the decimal point. Measurements must be within their maximum or minimum values under all circumstances.

1.16 Minimum weight limits in both classes shall include a personal transponder and the tank be empty of fuel. If the weight is found to be under the minimum weight, the driver will be disqualified from the heat of final.

2. 220MM CLASS TECHNICAL RULES

2.1 Maximum engine capacity of 0.15 cu in (2.5cc) allowed.

2.2 Cars must weigh a minimum of 1700 grams.

2.3 Wheelbase - 280mm maximum

Overall length (incl. Wing) - 490mm maximum

Overall width (with body) - 250mm maximum

2.4 Body shells are to be 1/10th scale type GT. The body will have a closed cockpit with front windscreen and side windows. All windows must remain transparent. No open cockpit bodies are allowed, shells must be commercially available. No performance aids or additional spoilers are to be fitted to the bodies apart from one rear wing or as supplied as part of the body. If the meeting is declared 'wet' the body shell may have additional water proofing aids made of a flexible material added/fixed inside the shell only.

2.5 Rear wing maximum dimensions: Chord 55mm, Width 233mm, End plate 55mm X 25mm

2.6 Maximum tyre dimensions:

	Diameter	Width
Front Rims	51mm	33mm
Rear Rims	51mm	51mm
Front Tyres	75mm	33mm
Rear Tyres	80mm	51mm

NB. A tolerance of a further 1.0mm is allowed for tyre and wheel width.

3. 200MM TECHNICAL RULES

3.1 Maximum engine capacity of 0.12 cu in (2.11cc) is allowed with maximum of four (4) ports including the exhaust port. The carburettor shall have a maximum throat diameter of 5.50 mm.

3.2 Cars must weigh a minimum of 1650grams.

3.3 General car dimensions:

	Minimum	Maximum
Wheelbase	230mm	270mm
Width without bodyshell	170mm	200mm
Length inc. bodyshell with wing	360mm	460mm
Roof height (measured with chassis sat on a 10mm spacer)	120mm	175mm
Wing chord inc. gurney strip (if fitted)	N/A	55mm

Wing end plates	N/A	50mm X 35mm (Width X Height)
Wing overhang	N/A	10mm

3.4 Any commercially available body shell intended for 200mm

'Touring cars' is allowed, provided the engine is contained within the body shell, and it satisfies the dimensions in rule 3.3. The rear of the body may not be cut higher than 50.00mm measured with a 10.0mm spacer under the chassis plate on a level. The body must be made from a flexible material and be painted properly including the wing. All windows must remain clear or be semi-transparent.

Details of all front and rear lights, grills, air intakes and windows must be clearly contrasted from the surrounding paintwork.

No parts of the car except the muffler outlet may protrude outside of the body shell when viewed from above.

No parts of the car except the antenna, body posts and transponder may protrude outside of the body shell when viewed from the side.

If the meeting is declared 'wet' the body shell may have additional water proofing aids made of a flexible material added/fixed inside the shell only.

3.5 One cooling hole in the front windscreen, max 50.0mm diameter.

A hole is allowed directly above the engine cooling head for glow plug access with a max diameter of 35.0mm.

A refuelling hole may be cut in the roof, max diameter 50.0mm; the centre of this hole must be the centre of the fuel filler cap viewed from above. Note cooling hole in front windscreen and re-fuelling hole may not be combined. Minimum distance between holes of 5.0mm.

Both front side windows and the rear window can be removed for ventilation. The rear side windows must remain intact.

Small holes can be made for the body posts, transponder, carburettor adjustment and radio antenna, max 10.0mm.

The hole for the exhaust pipe must be of reasonable size. No other holes are permitted.

3.6 One wing and one spoiler may be mounted to any car (if the original full size car had more it is allowed to do the same). Wings and spoiler must be made from a flexible material. Wing and spoiler may not be fixed to the body with piano wire. It must be mounted to the body directly. Wing and spoiler must not protrude outside the maximum height and width of the body (including side dams). The height of the wing may be adjusted but the wing including side dams must not extend higher than the roofline.

Rear wings must be mounted in the same place as was intended by the body manufacturer. The overhang must not exceed 10mm at the furthest point to be measured from the most rear point of the body. Side dams may be fitted but must be a reasonable representation of those fitted to the original car. They must fit in a rectangle with the measurements defined above in 3.3 and must not project above the height of the roofline. Wings (excluding side dams) are to be of single moulded construction (no flat packs/bend your own).

Any Gurney strip (if fitted) must not exceed the width of the wing. The Gurney strip must not have an edge more than 5mm high.

3.7 The front bumper must follow the body contour and must be constructed so as to minimise injury that may result from being hit by a car. The bumper must be made from foam rubber or a flexible plastic material.

3.8 The aerial must be flexible. Carbon, metal etc. aerials are not allowed.

3.9 Tyres must be black except for writing on the sidewalls. Foam and/or rubber tyres can be used. Treatment of the tyres with additives is prohibited. Anyone found to be using additives will be disqualified from the meeting and have a one year ban from the section. Wheels must be fixed by a screw or nut.

Quick – change wheel systems are not allowed. No automatic systems to change the wheels allowed (just manpower).

3.10 4wd and 2wd cars can be used without any technical restriction. The use of separate front wheel brakes except through the transmission is not allowed. Locking of one way bearing is allowed.

3.11 Roll bars (roll-over bars) on Touring Car classes must be kept under the body.

3.12 It is not allowed to use any electronic device for traction and/or braking control.

4. GT8 CONSTRUCTION RULES

STOCK GT8 CLASS

- A class aimed at people trying to race on a budget. As proven in the serpent GT cup, this class is very competitive with all cars being of a similar speed.
- All cars must be a reasonable likeness to a full-size GT car.
- All cars must have a de-clutching device and must have brakes capable of holding the car motionless with the engine running.
- Any part of the car may be changed during the race except the chassis, which may only be changed by permission of the committee.

4.1: Engine must be as supplied with the chassis and unmodified. If the chassis is not supplied with an engine, the Novarossi Loco/PS engine must be used. The engine must be fitted with a functional pull start or rotor start.

4.2: Engines must be fitted with an approved INS box type air filter, modifications to INS boxes will only be allowed for wet weather use (a maximum 3mm hole drainage hole in the base).

4.3: Engines must be fitted with a suitable silencer/muffler, preferably one made by the same manufacturer as the engine being used, all exhaust outlets must point horizontally or below, and must be able to meet EFRA approved noise levels for racing purposes.

4.4: Fuel tank capacity (including tank and any or all fuel pipes/filters) shall not exceed 150cc.

4.5: Fuel used shall have a maximum of 16% by volume of nitro methane, and all fuels shall only contain Methanol/nitro methane and lubricating oil.

4.6: Control Tyre: Dragon RC 1/8 GT Tyre mounted on white rim Part No. 215016.

4.7: All cars must be of shaft drive construction (no belt drive systems to be used) and must be 4WD.

4.8: Minimum weight of the car with everything included (except fuel) shall be no less than 3500 grams.

4.9: All bodies used must be of reasonable likeness of a full-size GT racing car, must not be modified by adding aerodynamic aids or parts not originally supplied by the manufacturer, unless for specific strengthening with materials of a similar type (no metal to be used).

4.10: A rear wing may be used on the car, were possible the one supplied with the body, if this is not suitable another one may be used, but maximum width shall be no greater than 300mm, chord shall be a maximum (including a gurney flap if used) of be no more than 65mm, and height shall be no more than 200mm measured with a 30mm

spacer placed under the chassis.

- 4.11: Holes in the body shell shall be limited to fuel tank and needle valve access, a hole of maximum 60mm (6sq.cms.) may be cut into the front windscreen for cooling purposes, also the side windows maybe cut or removed to aid cooling or refuelling.
- 4.12: An original plastic or foam bumper must be used at all times, it must be fitted on the front of the cars chassis.

MOD GT8 CLASS

- A class aimed at pro racers with higher budgets. Cars can go much faster.
 - All cars must be a reasonable likeness to a full-size GT car.
 - All cars must have a de-clutching device and must have brakes capable of holding the car motionless with the engine running.
 - Any part of the car may be changed during the race except the chassis, which may only be changed by permission of the committee.
- 4.13: Engine capacity shall not exceed .21 and engines may not have more than 5 ports.
- 4.14: Engines must be fitted with an approved INS box type air filter, modifications to INS boxes will only be allowed for wet weather use (a maximum 3mm hole drainage hole in the base).
- 4.15: Engines must be fitted with a suitable silencer/muffler, preferably one made by the same manufacturer as the engine being used, all exhaust outlets must point horizontally or below, and must be able to meet EFRA approved noise levels for racing purposes.
- 4.16: Maximum price of the motor and ESC (Electronic Speed Controller) combined must not exceed £325 RRP and must be commercially available.
- 4.17: Drive batteries to be any commercially available hard cased Lithium Polymer up to maximum of 4s (15.2V).
- 4.18: Fuel tank capacity (including tank and any or all fuel pipes/filters) shall not exceed 150cc.
- 4.19: Fuel used shall have a maximum of 16% by volume of nitro methane, and all fuels shall only contain Methanol/nitro methane and lubricating oil.
- 4.20: Tyres and wheels used must only be of commercially available types, made for GT8 type cars, and must be of rubber slick or treaded type (foam type tyres must not be used).
- 4.21: All cars must be of shaft drive construction (no belt drive systems to be used) and must be 4WD.
- 4.22: Minimum weight of the car with everything included (except fuel) shall be no less than 3500 grams.
- 4.23: All bodies used must be of reasonable likeness of a full-size GT racing car, must not be modified by adding aerodynamic aids or parts not originally supplied by the manufacturer, unless for specific strengthening with materials of a similar type (no metal to be used).
- 4.24: A rear wing may be used on the car, were possible the one supplied with the body, if this is not suitable another one may be used, but maximum width shall be no greater than 300mm, chord shall be a maximum (including a gurney flap if used) of be no more than 65mm, and height shall be no more than 200mm measured with a 30mm spacer placed under the chassis.
- 4.25: Holes in the body shell shall be limited to fuel tank and needle valve access, a hole of maximum 60mm (6sq.cms.) may be cut into the front windscreen for cooling purposes, also the side windows maybe cut or removed to aid cooling or refuelling.
- 4.26: An original plastic or foam bumper must be used at all times, it must be fitted on the

front of the cars chassis.

CARS FROM BOTH GT8 CLASSES RACE ALONGSIDE EACH OTHER BUT ARE SCORED IN DIFFERENT CHAMPIONSHIPS

1/10th IC Circuit Procedural Rules

1 PROCEDURES

- 1.1 Races will be called BRCA 1/10th I.C. Circuit
- 1.2 A ten minute practice run for all competitors before the start of qualification in heat order at Race Director's discretion.
- 1.3 Where possible four rounds of heats will be run. This will be at the Race Director's discretion. Heats will be of five minutes duration.
- 1.4 Heats will be started using a rolling, staggered start.
- 1.5 Cars are assumed to be running before the start in the 'warm-up' period between heats. The drivers will be warned of the start of the race 1 minute and again 30 seconds before the start.
- 1.6 A car's race time will start the first time that car crosses the timing loop after the start has been signaled. The car's race time must only be started by the car's transponder unless it has not completed a full lap when the race time clock is at 30 seconds, at which point all un-started clocks will start.
- 1.7 After failure to make the start or on any re-starts during a heat the car must enter the track from the pit lane exit.
- 1.8 Heats in qualifying will comprise 10 cars where possible. If this produces a 'first heat' with so few cars that marshal provision for the next race is impractical, all heats will be adjusted in size so as to produce an even number of cars in all heats.
- 1.9 Support class will run alongside the main 2 Nationals series this will be called 1/8th GT

2. SERIES POINTS

- 2.1 Finals: The winner of the A Final will receive 100 points, 2nd place in the A Final will receive 99 points and so on down to 10th place in the J final who will receive 1 point. All further drivers will receive 1 point. Only drivers who complete at least one lap will be awarded their points for the Final.
- 2.2 The driver who achieves the fastest time in qualifying (FTD) will be awarded one extra point.
- 2.3 In the event of a points tie, the winner will be decided on count back. The competitor with the most event wins will be victorious, if this leaves them still tied, the competitors' highest points scores will be compared, then the next highest, then the next etc. until one competitor emerges with a better result. If all results are identical a tie will be declared.
- 2.4 If finals cannot be run due to extreme weather, points will be awarded on qualifying positions.

3. FINALS

- 3.1. Echelon or Grid starts will be used for all finals in BRCA 1/10th IC Circuit events.
- 3.2. Finals in all classes will be A-Z type format with qualifying by FTQ.
- 3.3. The A final will be of 45 minutes duration, at the Section Committee's discretion..

- 3.4. The B final would be of 25-minute duration and all other finals will be 20-minute duration.
- 3.5. Cars must cross the finishing line under their own power to be counted.
- 3.6. Note. The duration of the finals may be subject to variation on the day as decided by the committee members in attendance.
- 3.7. In addition to Drivers and Marshals, all Mechanics must have a current BRCA License.
- 3.8. In wet weather conditions the meeting will continue as normal and will not be cancelled unless extreme problems arise.
- 3.9. All cars are to join the circuit from the Pit Lane at all times, except for the start of the final, which will be from the designated starting grid. If a car fails to start from its designated grid position, then a stop and go penalty will be applied unless car has started from pit lane. Should a car leave the circuit for any reason, and rejoin the track in such a way as to gain an advantage, the competitor will receive a 'stop and go' penalty at the Race Official's discretion.
- 3.10. All cars must be re-fuelled behind the Pit Lane Board during Qualifying and Finals at all circuits.

4. SAFETY

- 4.1 All Motor Sport, even Model Car Racing, is potentially dangerous. Competitors MUST consider the safety of Marshals, Spectators, and other drivers at all times. Pay particular attention to the presence of Marshals and pitmen within the track area, particularly during warm-up before the start of a qualifying heat or final.
- 4.2 Marshals must consider their own safety above the need to retrieve a stranded car. Do not step out into the track without checking it is clear. Take great care when moving to or from your Marshal point between heats. Stay behind any protective shields/fencing provided at your Marshal point unless you need to marshal a car.
- 4.3. Competitors must take note of safety announcements from the Race Director during the drivers briefing and at other times. Race Control will attempt to warn you if marshals are on the track, but be alert at all times to the possible presence of marshals on the racing line.
- 4.4. The Race Director or the Safety Officer will stop all racing if lightning is seen in the area. Racing will be suspended until such time that the Safety Officer gives clearance to continue. Any part completed races will be re-run at the discretion of the Race Director.
- 4.5. Under no circumstances will anyone under the age of 16 years old be allowed into the track area, with the exception of the Pit Lane. Any driver under 16, who has entered the race meeting, MUST provide a substitute marshal. If a driver cannot provide a substitute marshal, then they must report it to the race organiser/Steward.
- 4.6. All drivers and pit persons must supply and wear a yellow high visibility vests at all times within the track area.

5. GENERAL

- 5.1. All interference claims and any protests must be referred to the Steward. The Race Director, in consultation with the Steward will agree any subsequent action. All direct approaches to the Race Director or Timekeeper will be ignored.
- 5.2. Any driver claiming interference must switch off and see the Steward WHILE THE RACE IS STILL IN PROGRESS.
The Steward will use the following guidelines.

To ensure continuity no qualifying heat will be stopped unless the Steward is satisfied that two or more drivers have detectable interference.

The Steward will aim to provide each competitor with TWO heats free from extraneous interference.

The Steward will check interference possibilities with all drivers before the start of Finals and these races will not be stopped unless the Steward and the Race Director are satisfied that on site interference is occurring. A driver claiming interference must switch off and report to the Steward immediately.

- 5.3. At the discretion of the Race Director, any competitor found with equipment causing on site interference will be disqualified.
- 5.4. The Steward and Race Director will also monitor driving standards and competitors behavior. They have the following penalties for use at their discretion; 1 A Verbal warning which will be announced over the PA. 2 Stop and go penalty (in the stop go box), 3 A 5 second Stop and go (in the stop go box), 4 A one lap penalty and or disqualification. A fifth offence the Steward or Race Director will disqualify the driver from the days racing. The Steward or Race Director may disqualify without warning where they considers the infringement or misbehavior to warrant such a penalty. As a guide line to the drivers the following driving standards are expected: Slower cars are to give way to the faster cars and drivers of the slower cars should call his attention while moving off line. Any deliberate collisions from behind with an on line car at a corner (T-BONING) will be regarded as unacceptable practice.
- 5.5 Any driver not fulfilling their marshalling obligations during qualifying will be penalised by a 10 second penalty at the race director's discretion. Drivers, who fail to marshal their final without notifying the Race Director, will lose their highest score for the series for the current year. Drivers must arrange for a BRCA licensed member who is a competent person as a substitute if they are unable to marshal for any reason.
- 5.6 Unless Race Director considers special needs apply.
- 5.7 Drivers to marshal the heat following the one in which they raced, except for the last heat drivers who will marshal heat one.
- 5.8 Drivers of the last final will marshal for the first final.
- 5.9 All other finalists will marshal the final following the one in which they have raced.
- 5.10. Marshals are to retrieve inoperative cars from the track and leave them for collection by the mechanics only. Where a car stops on the infield then the marshal is to retrieve the car and place it on the outside of the track at the nearest point without crossing the track as appropriate.
- 5.11. Mechanics are only allowed to retrieve their cars from the track by walking around the track to the appropriate marshal point. They are not allowed to cross over the track when the race is in progress or during warm up. If a car stops inside the track the marshals will be the only people allowed to retrieve the car and place it on the nearest point on the external part of the track. Any mechanics found crossing the track will have their driver appropriately penalized as felt fit by the Race Director.
- 5.12. Only one mechanic per car, plus the driver, is allowed to attend the car in the pit lane at any time. More than one mechanic will cause the driver to lose their fastest time of the day, or receive last place points in their final. Repeated offences will cause the driver to be disqualified from the day's meeting. The only other people allowed in the pits will be officials and BRCA 1/10 IC committee members.
- 5.13. Where a driver wishes to appeal against a decision made against them, they alone must appeal to the Race Steward within 10 minutes of the end of the last final. An adult may represent any driver under the age of 16. The committee's decision on the day will be final.
- 5.14. At the completion of each race, a random selection of cars may be scrutineered to

check their compliance with the construction rules.

- 5.15. A BRCA Section Officer or the Race Steward may inspect any entrant's car at any appropriate time to cover any or all, applicable specifications. It is the driver's responsibility to make sure his/her car is within the specifications at all times.
- 5.16. Rules must be applied as they are printed in the BRCA Handbook. Where a Section Rule conflicts with BRCA General Rules, the section rule will be removed from the regulations.
- 5.17. Up to two drivers per heat to do scrutineering and not marshal the next heat after their race. No driver under sixteen to do this task. These Drivers cannot fail a car but must call the Chief Scrutineer or a BRCA Official to make sure the car has failed.
- 5.18. A liquid of a sugary kind will be sprayed on to the track at the start of the weekend

6. RACE ENTRIES

- 6.1 Post-dated cheques are not considered to be 'payment in advance'.
- 6.2 Entries will only be accepted when made via BRCA website up to 21.00hrs on the Tuesday preceding each event. No postal/email/telephone entries will be accepted.
- 6.3 Any entries received after 21:00 on the Thursday preceding each event will be considered 'on the day' entries and will only be accepted if space is available. 'On the day' entries will incur a £5 surcharge. No entries will be accepted after 'Drivers Briefing' has been called.
- 6.4 The Committee has the authority to amend any rule during the season if circumstances indicate that the rule is detrimental to the section, with the agreement of the majority of the drivers.

7. INTERNATIONAL TEAM SELECTION

- 7.1. The British team for future European or World Championships is to be selected by the committee. Preference will be given to drivers who have competed in the national series from the previous year.

8. RADIO CONTROL EQUIPMENT

- 8.1 It is the responsibility of ALL drivers to ensure that their equipment does not cause interference to others.
- 8.2 Drivers must be able to provide a total of at least four alternative frequencies and they must be legal as specified in the BRCA handbook.
- 8.3 Under no circumstances shall a transmitter be taken on to the track.
- 8.4 The Race Director must approve all frequency changes.
- 8.5 Where frequencies conflict in the finals, the fastest qualifier shall choose providing it is possible for the slower qualifiers to change to the available frequency.