

Large Scale On Road Rules 2018

The 2018 National series will consist of 7 rounds with the 4 best rounds to count at the moment we have 3 classes Touring Cars, GTS Saloons & FG 4wd Mini with the possibility of Formula One. Two double round meetings will be held, one in Craigavon (Northern Ireland) and the second at one of the venues in mainland Britain.



Points will be scored on a basis of 100 points for a win reducing by 1 point for each dropped i.e. 99 for second 98 for third etc. Any driver achieving fastest qualifying time in their class will be awarded ONE extra point on top of that meetings score.

Tied championship positions shall be resolved by firstly comparing the number of 1st, 2nd 3rd places etc., then by qualification from counted meetings. If there is still no resolution, then the championship position will be deemed a tie.

Drivers failing to complete a lap in their final will be awarded last place in that final. If this applies to more than one driver then qualifying positions will be used to determine the order, i.e. the higher qualifier will be placed before the lower.

If there's an EFRA British GP, it does not count towards championship points.

(1) RACING CLASSES

- i). Super National Touring Cars.
- ii). National Touring Cars. (GTS)
- iii). FG 4wd Sportsline Mini

All classes will run separately in their own heats, which will be seeded firstly from the current championship positions, secondly from known ability. Saloon and GTS classes maybe run together at the Race Directors discretion. Due of the nature of the 4x4 cars and the Formula 1 cars, these will not be able to be mixed in with any other type of cars.

(1a) Super National Touring Cars

This class is aimed at the more advanced driver; however it is open to any driver regardless of ability.

The rules for this class:

- Saloon Body shells
- Maximum engine size 23cc (Rule 3)
- Foam type front bumper must be fitted (Rule 9)

(1b) National Touring Cars (GTS)

This class is aimed more at the club driver.

The rules for this class:

- Any bodyshell providing it covers the four wheels and is based on a touring car
- Maximum engine size 29cc
- Foam type front bumper must be fitted (Rule 9).

In National Touring Cars it is important to remember that the emphasis will be on the spirit rather than the letter of these rules.

(1c) Formula One (F1)

- Open (any modifications allowed), but vehicles must conform to all the safety regulations.
- Maximum engine size 29cc

(1d) Trucks

- Open (any modifications allowed), but vehicles must conform to all the safety regulations.
- Maximum engine size 29cc

(1e) 4x4 On Road Cars

- Any bodyshell providing it covers the four wheels and is based on any full size car
- Maximum engine size 29cc
- Foam type front bumper must be fitted.

(1f) Open Class,

This class caters for any random vehicles not conforming to any of the above mentioned classes

(1g) Any Other Class

Any class except Super National or National GTS, with less than 4 drivers will be run in a mixed class.

Race Directors judgment will be final

(1h) FG 4 Wheel Drive Sportsline Mini Class

This class is for 4WD Sports Line FG Mini's, The aim of this class is to keep the car's fairly standard and virtually as they come out of the box. The only performance modifications allowed are below:

- The engines are to be standard Zenoah or CY 26cc Engines as supplied by the manufacturer, either 2 bolt or 4 bolt cylinders. No modifications allowed, and any replacement parts used during servicing must be genuine manufacturer's standard original parts for the engine.

- Spark plugs to be NGK CMR7H
- Any Commercial Pump Fuel
- Any 2 Stroke Oil
- A foam bumper must be fitted to the front & as long as there is an overhang of foam from the plastic base this is accepted.
- No modifications to external or internal shock parts are allowed
- Only GRP "S" Dry and "E" wet Compound tyres are allowed to be used. No other compound is permitted. Option of black or white wheels
- In the event of a wet race Air filter & servo covers are permitted.
- Due to Fuel leakage from Fuel Caps we are allowing any modification to the cap, but the breather must remain standard (Vent pipe from cap to back of the car with no devices in-between).
- Car Weight to be a minimum of 10KG & Maximum of 12KG with empty fuel tank, 4 tyres, battery & Body shell fitted.
- The car must be a maximum width of 410mm
- Only FG Mini Body shells are allowed, you must have cut outs in front side windows for marshal pick up & rear side window engine kill switch side, E sticker to be fitted near kill switch on body shell. Only a 10mm hole allowed in front screen. Other window cut outs are optional.

The only optional exceptions to the above rules are as follows:

- 1) Front Dog bones can be replaced with the FG CV upgraded shaft kit. Part Number: 68415
- 2) Rear Lay shaft brake can have the lined brake pad upgrade kit. Part Number: 08449 or 06039/10
- 3) Plastic gear holder can be replaced with the Alloy upgrade. Part Number: 07439
- 4) Side Guards are allowed in any material
- 5) Any servos can be fitted as long as the original mounts & layout are used.
- 6) Any shock oil is allowed to be used to suit car set up.
- 7) Any FG Shock Springs are allowed,
- 8) Any receiver battery can be used, which must comply to BRCA General rules.
- 9) Front Body mount Kit FG or Similar. Part Number: 07154/02
- 10) Any FG gear ratios can be used but NO Over driven front or rear diff gears.
- 11) 9.5mm Steel Wheel squares can be fitted to front drive train Part Number: 08407
- 12) Air Filter Covers are permitted

These simple rules, which mean that the car must be standard with no performance modifications to differentials, chassis, engines, exhausts, Air intakes etc.

There will be scrutineering on all cars & at least one car per meeting may have the cylinder head removed to check for compliance to rules.

Top Tip: If you have purchased your car on the secondhand market, please ask the scrutineer to check your car for legality prior to racing.

(2) TYRE RULES

- (2a) Tyres are to be of moulded rubber.
- (2b) Permitted maximum 1/5th Scale tread widths are: front - 75mm, rear - 80mm.
- (2c) Tyre additives are allowed (circuit rules apply). Drivers do so at their own risk and the onus of safe use lies with the driver. Tyres that have been treated must not be put on the track when they are visibly wet.
- (2d) Preheating the tyres with electric tyre warmers is permitted.
- (2e) These tyres must be commercially available for retail sale at the time of use.
- (2f) No 'one offs' will be allowed.
- (2g) There is a maximum price limit on 1/5th tyres for Touring Car and Sports/GT classes of £40 per pair complete.
- (2h) No price limit on Truck/F1 tyres.

(3) ENGINE RULES

- (3a) The engine must be a single cylinder 2 or 4 stroke piston engine,
- (3b) Only petrol commercially available from uk petrol stations may be used
- (3c) No Avgas or specialist racing fuels allowed.
- (3d) The only additive allowed is 2 stroke oil.
- (3e) Driver's fuel may be randomly tested by the scrutineer and readings attained must fall within +/- 10% of the average taken on the day. Any fuel tested that falls outside of the tolerance window will be deemed illegal unless the driver can prove it to be legitimate.
Drivers found using additives will automatically face a 12 month ban.
- (3f) The following are not allowed: performance enhancing gases such as Nitrous Oxide, Fuel Injection, Turbo or Super Chargers, Electronic Ignition systems which run off separate battery packs.
- (3g) Engines may be modified internally to any degree except that separate liners are illegal. Heat sink heads may be used together with long reach plugs. Alternative ignition systems may be used providing they are not battery fed.
- (3h) All engines must be fitted with either a suppresser type plug or suppressed plug cap.
- (3j) Motor cut-out switches cannot be moved and the relevant side window must be cut out for easy access. It is up to the driver/owner to make sure that the cut-out switch is operative and is in a position that can be easily reached by a marshal/mechanic etc (see 3k). In addition, a mechanical fail-safe must be fitted to the carburetor which returns the throttle to a closed position in case of a broken throttle linkage. (The return spring fitted as standard on most carburetors should suffice).
- (3k) Engine Cut out Switches for all Classes must be located in the original position on the engine, and the relevant side window cut out for easy access. This position must be marked on the body with an "E" of no less than 20mm in diameter and outlined in Red.
- (3l) A "one engine rule" applies to the saloon class. Only when the race director declares a meeting "wet" may you change the engine. If any problems occur with the engine, you must report to the scrutineer and then you may repair it, or replace if necessary. The engine capacity is limited to 23cc.
- (3m) All other classes' Apply Rule 3 with the exception of maximum engine size 29cc
- (3n) Any new motors that appear for general sale must be checked for compliance with the BRCA before use.

(4) TRANSMISSION

The transmission is a free area with the following exceptions:

- (4a) Only two wheel drive is allowed (exception of 4x4 class) which must be to the rear axle only.
- (4b) Electronic traction control systems fitted to the car itself are not allowed in any class. Radio control transmitters with traction control programs can be used.
- (4c) Two Speed gearboxes are not allowed in any class

(5) BRAKES

Brakes are a free area for all classes; cars must be fitted with a braking system that is capable of both stopping the car and holding it stationary whilst the engine is running. Active antilock braking systems using wheel speed sensors are illegal. Radio control transmitters with antilock braking programs can be used.

(6) GENERAL REQUIREMENTS

(6a) 1/5th Scale (Super National)

Fuel Tank: Max 700cc

Weight: Min 10 Kg. Max 12 Kg

Maximum width 395mm

One chassis rule applies.

(6b) National (GTS), 4x4 and Trucks

These will be regarded as open classes. E.g. tuned motors, brakes etc, but all other 1/5 safety rules to apply.

(6c) Formula One and Outlaws will be regarded as an open class but manufacturers specifications will apply.

(The Bumper rules need not be strictly adhered to on these vehicles, but the onus will be on the driver to read and understand the ruling and to make his/her vehicle as safe as possible with regards to this area. The scrutineer's decision will be final.)

(7) BODYSHELLS

(7a) Saloon Class Body Shells

(7b) GTS bodies must be based on any full size cars and must be within +/- 10% scale of the full size car.

(7c) Formula One bodies to be as supplied by kit manufacturer.

(7d) Truck bodies to be as supplied by kit manufacturer.

(7e) Windscreen Cut Outs:

1. Drivers may only drill one 10mm hole in the windscreen for the aerial.
2. Side and rear windows may be cut out and additional holes may be cut in the body work provided that they correspond to holes cut in the full size car for either the intake or output of air.

(7f) Please note safety and common sense applies to all bodyshells.

(7g) Holes for Transponders must be drilled in such positions that at no time can the transponder or their mounts come into contact with the ground or the wheels of the car. (It must also be at least 50mm from any part of the exhaust system.) The best position is usually on the bonnet lid at the base of the windscreen on Touring cars and GTS. It is the driver's responsibility to make sure that these expensive devices are not damaged. This rule applies to all classes unless the driver is using

a personal transponder (which is highly recommended).

- (7h) All edges on the body especially window cut-outs must be sanded smooth. Repairs or extra reinforcing applied to the body shall be of such a nature as not to cause a hazard. i.e. no sharp metal edges or carbon fibre splinters etc.
- (7i) The body must be a good secure fit on the chassis and, when viewed from above, must cover the top of the wheels (/Tyres) at the centre of the axle. (except F1). If a major part of the body is lost during a race, the damage must be repaired immediately in the pit area if ordered by the Race Director.
- (7j) At least one window on either side must be cut out of the body. This is to allow easy pick up of car when marshalling and better access to engine kill switch. Without the side windows cut out marshals have to place hands under the car to lift, where there is hot exhaust and rotating gears. All edges need to be smooth.

(8) WINGS

- (8a) Saloon Touring Cars - When viewed from either end, the rear wing (including side plates) must fit in the standard 60mm square box. Where the wing mounts are at the end of the wing these will be counted as being side plates. Wings must be mounted in the same position as the full size car.

The wing maximum width will be 275mm. Wings must be of the 'single element' type.

- (8b) GTS & F1 Realistic size and shape wings for the body shell being used.

(9) BUMPERS

- (9a) Saloon cars must be equipped with a foam bumper (Purim material or similar). These bumpers must be fitted in such a way as to fill the front part of the car body completely. The rigid/semi rigid Plastic Bumper/Skid plate fitted to the car as standard must be at least 35mm back from the foam. The foam must be at least 40mm tall.

This set-up will afford the body (both human & polycarbonate) very much more protection in a crash.

(It has been noted that an additional plate (plastic or otherwise) has been fitted (on some cars) on top of the foam to sandwich the foam to the main bumper and form a very RIGID assembly. This is illegal. The basic concept of the foam is to protect human limbs, making this bumper rigid, defeats the object and is classified as dangerous)

- (9b) All other classes must have a foam bumper with exception of F1 cars must have a foam bumper fitted with as much foam as possible.

(10) CARS PER CLASS

- (10a) Only one car (engine & rolling chassis) per class per driver will be accepted. The main chassis plate (i.e. the main structural member to which the other components are mounted) may only be changed with the consent of the Race Director. The essence of this is that a car cannot be replaced or substituted once entered into a days racing. This applies to saloon cars only.

(11) SAFETY

- (11a) No refuelling is permitted during racing or practice except in the pits/pit lane. Under no circumstances is refuelling to be carried out with the engine running. Anyone refuelling on the track will be disqualified. There will be no refuelling allowed during any qualifying race or final including warm-up time. Drivers are advised to have a

small dry powder fire extinguisher to hand in their pits.

(11b) Smoking will only be allowed in a designated area announced at the drivers briefing.

(11c) Nobody under the age of 14 will be allowed to marshal at meetings.

(12) EXHAUST/INDUCTION & NOISE

ALL CLASSES

(12a) In technical terms the maximum permitted sound level is 81 dB, measured at 1 metre above the track and no less than 10 metres from the car. In practical terms no driver will be allowed to run with a car making enough noise so as to cause problems for the club on whose circuit the event is being run. Kit Standard exhausts are usually sufficient. Open exhausts or pipes are not allowed. The scrutineer will check for excessive noise.

(12b) The complete exhaust system must be kept within the body work of the car and should (where possible) exit downwards.

(12c) It must be understood by all drivers that any failure of the exhaust during a race or practice will require the car being removed immediately from the circuit until the fault is repaired.

(13) DRIVERS BRIEFING

See general regulations

(14) DRIVING STANDARDS

(14a) The Race Controllers will generally act as referees and may confer where necessary with the Race Director. If possible two referees will be stationed on the rostrum at all times.

Referees will be educated in their role and the penalties that they can award.

Penalties to be as follows:

- First Warning: No penalty
- Second Warning: Stop and go penalty
- Third Warning: Ten second stop and go

(All penalties to be taken in the heat/race when offences occur and all stop and go penalties to be taken in an area designated by the race director.)

Jump Start in final: Car to start from the back of the grid if race is restarted.

(14b) Race Director will nominate a referee for each heat and final. The nominated referee will be chosen from the previous heat/final. The referee will carry out the referee duty instead of marshalling.

(14c) Failure to line up properly or stay stationary on the grid will incur a 10 second penalty. Drivers with this penalty must not complete the lap but must drive into the pit lane (or designated area) and wait for the allotted time until flagged away by the official.

(14d) If a driver puts in an extra lap after being called to the line he/she will be made to start from the back of the grid.

(14e) Excessive use of bad language on the rostrum or in race control will incur a warning.

(14f) Driving or otherwise behaving in a manner likely to cause injury to other drivers or spectators may result in disqualification from meeting.

(14g) If a driver is being lapped he/she must not intentionally block the overtaking car, neither must the overtaking driver use heavy tactics to enable him/her to pass the slower driver.

(14g) Drivers missing parts of the track out during the warm-up in order to spread

themselves out for a good qualifying run will receive a 10 second penalty if they hit a car that is circulating normally around the track being used for that meeting.

(14h) Deliberate track cutting will result in a 1 lap penalty being awarded

(15) CONDUCT

(15a) See General regulations

(15a) Any competitor or pit crew member causing a nuisance or using abusive language to another competitor or pit crew member will face the committee on the day. Appropriate action may then be taken.

(16) RACE MEETING FORMAT & STARTING PROCEDURE

(16a) On tracks where the layout can differ, the layout will be decided upon prior to the Meeting/Saturday practice and approved by the safety officer/committee. Once chosen, this layout can only be changed in exceptional circumstances such as water logging etc.

(16b) A Heat list will be posted at the beginning of each meeting. The onus is on the driver to check this list.

(16c) Frequencies will NOT be posted with the heats. It is the driver's responsibility to confirm with the race director that their frequency is correct.

(16d) Qualifying will consist of three ten minute rounds with the best result to count. The race director may decide to have extra practice rounds where possible. If the meeting is oversubscribed heat times may be reduced to 7 minutes. Finals may be reduced in length if necessary.

(16e) If there are 5 qualifying heats or less, the heat duration will be 10 minutes. In exceptional circumstances, the committee present at the meeting can decide to reduce/increase the heats and final duration times.

(16f) The drivers will be arranged in the heats will be seeded firstly from the championship positions, secondly from known ability.

(16g) Rolling Starts will be used for all Heats

(16h) Saloon, GTS and Mini Finals will be run to 'single sided Christmas Tree' format with 7 direct qualifiers into each final. The fastest 3 from the lower finals will be promoted to the next final

(16i) The main "A final" for the Saloon class will be of 30 minutes duration.

(16j) The main "A final" for the GTS class will be of 30 minutes duration.

(16k) The main "A final" for the Mini class will be of 30 minutes duration

(16l) Lower finals will be a maximum of 15 minutes duration; Race Director may over rule this on the day due to timescales and entries.

(16m) Finals will be started from an echelon type grid.

(16n) There must be at least a 5 meter gap between cars at the start of the final. (Most circuits now have start boxes painted on the circuit at about 5 meter intervals, in which case these will be used).

(16p) Mechanics must move back away from the cars at the beginning of a Final when instructed by race control/start marshal.

(16q) No last minute warming of tyres will be allowed.

(17) WET WEATHER DURING QUALIFYING

(17a) The Race Director is responsible for the decision to stop a race in the event of rain.

(17b) On the result sheets the Race Director must mark a heat WET when the heat was raced under wet conditions. Heats are generally considered to be "WET" when average lap times are approximately 20% slower than before due to rain or moisture on

the track. When all drivers have had at least one dry heat, all results will be counted.

(17c) When weather and time permits, the Race Director may decide to offer an extra heat to those drivers who did not have a chance to drive a dry heat.

(17d) When not all drivers have had a chance to run a dry heat, only the wet results will be counted.

(17e) When continuation is judged to be senseless, or when the other drivers should be offered a fair chance to drive under dry conditions, the Race Director may decide to end a heat or cancel a complete heat.

(18) OTHER REGULATIONS

(18a) Only permanent circuits or semi-permanent ones meeting agreed criteria and approved by the committee may be used for championship events. These would normally be ones marked out in a proper manner and most likely intended for longer-term use. Other tracks can be used for demonstration type events provide adequate measures have been taken to protect drivers, marshals and spectators.

(18b) Circuits should ideally conform to specific requirements, i.e.:

Minimum width 4m.

Minimum length 250m.

Drivers rostrum: minimum 10 persons & covered.

Safety requirements: Pit lane, Perimeter fence, high visibility vests.

Covered pits with tables/benches.

Adequate track marking/car delineation.

Toilets.

Camping.

Food Van/on-site catering.

(18c) Drivers who applied for a place to race at the previous year's European Championship, and didn't pay their entry fee (and didn't attend) thus leaving the BRCA large scale section out of pocket are not eligible to apply for a place the following year.

(18d) If any issues arise on the day, these issues may be dealt with by means of a committee meeting on the day

(19) QUALIFYING FOR EUROPEAN AND WORLD CHAMPIONSHIPS

(19a) Qualifying selection for the European and World Championships will be based on the previous years overall combined championship results. To reserve a place payment must be made to the section's EFRA Representative.

(19b) Drivers wanting to compete in a European or world championship must apply via email to the section chairman and the EFRA representative. Fees must be paid before 20th December in full, any cancellations after 31st December will be non refundable.

(20) ENTRY REQUIREMENTS & PROCEDURES

(20a) Entries will be accepted through the Brca on line entry system

(20b) Refund is available if you cancel before the cut of date

(20c) Drivers who decide not to race on the day will NOT be entitled to any form of

refund. Entries must be in no later than the Thursday before the meeting unless otherwise stated.

(20d) Entries will usually be accepted on the day if early enough, but may incur a surcharge of £10.

(20e) All race entry fee's to be paid to race control prior to any practice or racing on the track after Saturday lunch time. Race entry fees are-

- Full meeting (includes Saturday afternoon practice and the meeting on Sunday) is £30 per car per driver.
- £5 discount is available to all if you pre-book your entry on the BRCA website
- Saturday afternoon practice only is £15 per car per driver.

(20f) All competitors must have their own personal transponders

(20g) It is the responsibility of the racer to ensure that their transponder is working and not for the race controller or race director to adjudicate after the race is finished, we are relying solely on the computer equipment.

(20h) Any drivers still using 40mhz radio equipment must liaise with the race controller to ensure there's no frequency clashes. No changes to be made without the consent of the race controller.

(20i) Scrutineering for all classes will be on the onus of the driver. ie fuel tanks, weight, width, wings etc. Cars will be randomly checked and penalties may be incurred.

1) Failing technical inspection during qualifying, results in the loss of that drivers best qualifying run.

2) Failing technical inspection following any final, results in the loss of that drivers laps/time for that final and they will be placed in last position in that final.

All cars must conform to the safety aspects and any committee member may carry out these checks. Final decisions will lie with the chief scrutineer.

(20j) All cars to be held in 'Parc Ferme' for the duration of the following heat, if possible including a transmitter pound.

(20k) The top 10 saloon cars from previous years championship to complete compulsory scrutineering on race day morning, voluntary and random scrutineering will still apply.

(20l) The top 3 in National GTS must move up into Super National in the following season

(20M) The Lowest five in Super National can return to National in the following season

(21) AGM PROPOSALS

(21a) AGM proposals for the section are to be submitted in-line with the BRCA General Rules

(22) PROTESTS AT A RACE MEETING

(22a) All protests must be made in writing to the race director, together with a £10.00 deposit.

If the protest is upheld, this money will be reimbursed.

The protest period of 30 minutes shall commence when the results of the contested heat is published on the results board. Protests regarding the legality of cars must be made in writing, together with the fee, to the race director.

(23) RADIO SYSTEMS

(23a) All radio frequencies must be either 40 or 27 MHz, Am or Fm, or 2.4 GHz. If a driver

books in on 2.4 GHz and has a problem then it is on the onus of the driver to arrange with Race Control to change to a 40 or 27 Mhz crystal. Under these circumstances a driver cannot request a delay in order to change crystal. The driver must ensure that they have sufficient crystals so as not to clash with any other driver placed either above or below them.

(24) TELEMETRY

(24a) It is not allowed to use any electronic parts for "Traction Control & Breaking Control (ABS)" which can control the power of the transmission by means of a feedback system.

(24b) It is not allowed to use any form of telemetry with active transmission. Sensors are only allowed for the purpose of passive data recording and not for adjusting the performance of the car whilst in motion. The reading of the data must be done with equipment, inside or mounted on the driver's radio. No external devices (i.e. in the pit/handheld by the mechanics) are allowed. The systems are not allowed to log the data.

(25) TROPHIES

(25a) An award will be given to the top 3 in each final at all rounds.

(25b) Championship trophies will be awarded to the top 5 drivers from each class that have scored in a minimum of 4 rounds. This may be altered if higher entries.