

# 12<sup>TH</sup> SCALE OVAL

## 2022 HANDBOOK





**BRITISH RADIO CAR ASSOCIATION**

To keep up to date with what's going on in the world of Radio Control Cars visit the BRCA main website at [www.brca.org](http://www.brca.org)

The screenshot shows the BRCA website interface. At the top, there is a navigation bar with links for HOME, CLUBS, EVENTS, AGM, JOIN, CONTACT, and BRCA COVID-19 INFORMATION. A LOGIN button is in the top right corner. Below the navigation bar is the BRCA logo and the date 17 THUR. FEB. A secondary navigation bar contains HOME, SECTIONS (highlighted in red), RESULTS, RULES & DOCUMENTS, SMART SEARCH, and MORE. The main content area features a sub-header for '1/12th Stockcars' and 'F2 Stockcars' with a small image of a radio-controlled car. The main heading is 'Stock Cars'. The text describes 1/12th Stock Car racing, noting that these cars are a reasonable representation of full-size Brisca F1 and F2 stock cars. It mentions that unlike other classes, there is no shop ready kit available for F2 Stockcars, and advises users to contact their local club for advice. It also describes the 'Type of Track' as carpeted Oval Tracks. A sidebar on the right contains a '1/12TH STOCKCARS MENU' with links to Home, Events, History, Results, and Documents. Below that is a '1/12TH STOCKCARS EVENTS' section featuring the 'F2 stockcars Golden Helmet rd2 SORC ADULT' event on 07-05-2020 at 12:00 am.

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17  
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F1 Stockcars F2 Stockcars

**BRCA**  
OVAL

## Stock Cars

1/12th Stock Car racing

Cars

All the cars are a reasonable representation of the full size Brisca F1 and F2 stock cars being raced on Ovals around the country.

Unlike other classes, with the F1 Stockcars there is no shop ready kit available, F2 Stockcars however have kits available from several manufacturers. If in doubt always head to your local club for advice.

Type of Track

These cars are raced indoors on a carpeted Oval Track. There are numerous Oval clubs up and down the country, most of which can be found in the back of this booklet, and/or on the BRCA web site.

There is no standard size of track, some are quite small, while others are quite large in comparison, this adds to fun of adjusting your driving skill to match the track conditions, just as in full size racing.

**1/12TH STOCKCARS MENU**

- 1/12th Stockcars Home
- 1/12th F1 Stockcars Events
- 1/12th F2 Stockcars Events
- 1/12th Stockcars History
- 1/12th Stockcars Results
- 1/12th Stockcars Documents

**1/12TH STOCKCARS EVENTS**

**F2 stockcars Golden Helmet rd2 SORC ADULT**

07-05-2020 12:00 am

12th F2 Stockcars

F2 stockcars Golden Helmet rd2

## Welcome to the 1/12th Oval Section.



My name is Emma Parker. I was voted in as 1/12th section chairlady on 21st September 2019.

I have been a part of the 1/12th F2 Stockcar class since 2017 when my son started racing. My first roll within the class was Public Relations Officer. I did press reports and magazine write ups as well as videos and general promotion of our sport.

We are one of the cheapest forms of radio controlled car racing there is, which still offers great racing and great fun at the same time. Bangers and stockcar racing is a full contact RC sport. So having to smash and bash your way through 5 minutes of fast and furious racing to get to the finish line is great.

1/12th stock cars have been around since the late 1970s where they used to race on wooden floors. Now a days we race on more modern tracks made from fitted carpets. Which gives much better grip for faster more controlled racing. All the tracks are fitted with a timing system and each car has its own transponder to count laps and record those race positions. Races usually last 5 mins, with the exception of championship finals and they are 6 minutes.

There's lots of clubs around the UK and Scotland who race 1/12th Oval. Bangers are very popular with a lot of people. They even make bangers from metal, so they crash like proper cars. Awesome fun.

We welcome everyone, no matter your age or gender. You're all welcome to come and have a go. To find your local track/club, take a look through the book or pop on to the BRCA website..

### Emma Parker

Chairlady, BRCA 1/12th Oval Section  
12o.chair@brca.org



## How To Use This Handbook

This booklet is aimed at competitors, officials and families of the Stock car class and Oval racing. Enabling them to have the information required for the class at all times. However it should prove useful to all club racers too as we hope it will give the reader more information about our national series.

The information contained herein should be read in conjunction with the Association Handbook as the General Rules contained in the handbook apply to us all, at all events, and in any circumstances take precedent over sectional rules. It is every member's responsibility to ensure they have read and understand - ask an executive official as appropriate for clarification if you don't understand the general rules.

### The application of the rules works thus:-

The Association General Rules apply at all events we go to, including most club racing as we are all members of the association at all times, Sectional Rules (as in this book) apply at Nationals plus other events, e.g. regionals, as sanctioned by the section committee. Sectional rules do not apply at clubs, unless the clubs wish them too and it is entirely the clubs choice either way.

### Changing a rule

Every rule in this booklet and the Association Handbook was proposed and voted in by one of your fellow racers - none of the committees can simply 'make up' a rule. If you don't like a rule you can easily try and have it changed (though the first thought should be to find out the rationale of why one of your fellow racers proposed it in the first place perhaps?) If you're happy a rule needs changing get somebody else to agree with you - a seconder - and then write/email to one of the following people:-

Section Rule to be changed - Section Secretary - who will liaise with you to ensure it's then voted on at their section conference.

Association General Rule including the Constitution - Association Secretary - who will liaise with you to ensure it's voted upon at the Association annual general meeting.

You should endeavour to be at any meeting where a rule change, you have proposed, is taking place as it will be discussed, possibly amended, plus you'll almost certainly be asked to elaborate on it.

### Summary

'The Rules' should be the easy bit of our sport, but they're not as we're all passionate about our sport and should want to have an input into how it's run, make sure you have your say, the Association works because people get involved and make a difference.

If you don't like how something is being done, you should offer to do it yourself, every Association official is a volunteer and they are doing a role because it needs doing. However it as much your responsibility to do that task as it is theirs - just that they volunteered to do it before you had the opportunity to offer to do it better..

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## BRCA 12th Oval Saloons, Minis and Hotrods.

Based on full scale oval racing the section is a great place to get into RC car racing, great starter classes where contact is allowed and going home with scratches and bashed body work is just part of the racing. Progression up to the faster classes is easy and only a few upgrades to the car it's cheap fun racing for all. We race indoors on a carpet track oval in shape and these cars run clockwise. The tracks vary in size from club to club but its generally 4-6 metres wide 8-12 metres long

With clubs up and down the country you won't be far away from a 12th oval club, with racers as young as 5 years old we pride ourselves on being open to all and once you get the bug it's not long before you have two cars to race

The races will normally be 5 minutes long and its 3 heats and then a final the club will have a timing system but they are not all the same so check with your local club what type they run as you will need a transponder for your car. Some clubs run a hire car so you can try before you commit to buying a car, again make contact with you local club as they will be a wealth of information in getting you started and helping you sort out any issues you may come across

This coming year we are running a national series with rounds across the country, this is not something that has happened for a few years now and it's going to be great to get these up and running again, while most clubs run for an evening or a weekend morning there are also lots of one day events held at clubs and it's worth looking out for these as a day away with friends is what this is all about.

## 1300 Stock Cars

This class is a great place to start racing 12th oval. The cars have grid bumpers front and rear so damage is kept to a minimum the chassis and running gear is the almost the same as the other cars in this section, simple to build from a kit even for a novice and even if a breakage occurs they are cheap and easy to fix, they are run widely across the country and have a great following of drivers both beginners and experienced racers.

They run a four cell battery with a brushed motor ( although brushless is being tried by one club ) grid bumpers front and rear and an abs body shell. Don't be fooled into thinking they are a beginners only class, the racing is hard and fast and with normally full grids contact is almost guaranteed, this is a contact racing class so pushing and shoving is normal.

## 2lt Saloons

This is a class up from 1300 stock cars the same chassis can be used but an upgrade to the battery and motor is required. This class is harder and faster than 1300s the cars are heavier at 1100 grams minimum and running either a six cell battery and brushed motor or a brushless motor 10.5 turn or 13.5 turn and a 1s LiPo battery they are faster as well.

This class is hard and fast racing again a contact class so pushing your competitors out of the way is always an option !!!! Affectionately known as sledgehammers by some this should give you an idea of what to expect.





**#1 for RC Racing**  
**tel: 01243 842233**



**Championship Winning F2!**



**KAMTEC  
RACING**



**Kamtec is the No 1 supplier for  
all your 1/12th oval racing supplies  
Including:**

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- \* ESC's
- \* Batteries
- \* Wheels / Tires
- \* Body shells
- \* Tools / Accessories



**www.kamtec.co.uk**

**Or Contact Keith and The Team On : 01243 842233**

## Hotrods

This is seen as the premier class of the section the fastest cars but unlike the others it is non contact so normally this class is for those with some experience and able to face cleanly but crashes still happen. Running the same wheelbase as the 1300s and 2lt cars the same chassis can be used but the bumpers are removed and a Lexan body shell is used

Running a 13.5 1s brushless system but with a minimum weight of 950 grams they are lighter and faster than the other classes the brightly decorated bodywork also makes this class stand out.



## Mini Stocks

As in real life minis are slightly smaller than the other classes they run a different chassis with a shorter wheelbase, not as common as the 1300s and 2lt saloons but still run by a few clubs across the country. They share many of the same components as the other classes but don't have any suspension on the wheels but it's done with the flex of the chassis.

They can run with either a four cell brushed set up or a 17.5 turn 1s brushless system, they too are a contact racing class and pushing and shoving into the corners is common.



## 1/12th Oval Section Committee

### Chairman

Emma Parker

### Drivers rep

Robert Jacklin

### Ministocks, 2lt saloons, National hotrods Rep

Richard Harris

### Secretary

Michael Wood

### 1300 rep

Chris Goldsmith

## About me

My name is Richard, I've been racing 12th oval section for about 12 years. I started off as something to do with my two sons, a few years into it I joined the committee at my local club and have now been chairman for the last few years. I'm very much looking forward to getting the BRCA oval nationals back up and running in 2022 and meeting friends old and new for some days of fun and friendly racing..

To find more details of the nationals and booking information please visit the BRCA website in the 1/12th oval section.

*Richard Harris*

## HATHERN RACEWAY

Coalville Labour Club  
Bridge Road  
Coalville  
LE67 3PW

**F1 & F2 STOCKCARS**

## LEVEN MODEL RADIO CAR CLUB VICTORIA HALL

Coaltown Of Balgonie  
Fife  
Scotland

**ALL OVAL**

## H.O.T RACERS

St Wilfreds School Hall  
Eastern Road  
Haywards Heath  
West Sussex  
RH16 3NL

**F2 STOCKCARS,  
SALOONS, HOTRODS**

## TTT RACEWAY

Stanton Village Hall  
Woodland Rd  
Burton On Trent  
DE15 9TJ

**F2 STOCKCARS  
1/8TH ELECTRIC  
STOCKCARS**

## SMF RACEWAY

The Scout Hut  
Oldfield Lane  
Wisbech  
PE15 2RJ

**ALL OVAL**

## MARCH RACEWAY

Longhill Road Social  
Club  
Longhill Road  
March  
PE15 OPR

**BANGERS**

## ESSEX RACEWAY

Hatfield Peveral Village  
Hall  
Hatfield Peveral  
Essex  
CM3 2HP

**F2, BANGERS, HOTRODS**

## DENTONA RC SPEEDWAY

St Georges Church  
Windmill Lane  
Denton  
Manchester  
M34 2EY

**F1 & F2 STOCKCARS,  
BANGERS, SALOONS**

## WALSALL BANGER CLUB

Green River Community  
Centre, Green Rock  
Lane, Bloxwich  
Walsall, West Midlands  
WS3 1NQ

**F2 & 1300 STOCKCARS,  
BANGERS, HOTRODS**

## URCC

St Clements Branch  
Church, Humprey Lane  
Urmston  
Manchester  
M41 9PE

**F1 & F2 STOCKCARS,  
BANGERS**

## BURTON BANGER CLUB

The Scout Hut  
Park Road Church,  
Gresley, Swadlincote  
Derbyshire, DE11 9QF

**F1, F2 & 1300 STOCK-  
CARS, CLASSICS,  
BANGERS, HOTRODS**

## NEWPORT RACEWAY

The Scout Hut  
Waterstone Crook  
Kirk Road  
Newport On Tay  
Fife  
DD6 8HY

**F1 STOCKCARS**

## SMRCC

Club Race Venue  
Otterbourne Village Hall  
Cranbourne Drive  
Otterbourne  
Winchester  
SO21 2EU

## RUGBY STOCKCAR CLUB

Rogers Hall  
Hillmorton  
Deerings Road  
Rugby  
CV21 4EN

**F1 STOCKCARS**

## BOGNOR REGIS MODEL CAR CLUB

Aldingbourne  
Community Hall  
Oliver's Meadow  
Westergate  
Chichester  
PO20 3YA



# F1 & F2 STOCK CARS ALL CLASSES GENERAL RULES



**BRCA**  
BRITISH RADIO CAR ASSOCIATION

**1300 STOCK CAR CONSTRUCTION RULES 2022**

- 1) Body to be ABS and a reasonable representation of a full size 1300/1400 stockcar. Spoilers are not permitted. Shells to be of a 'hot hatch/' 'cc' style no estates or saloon styled shells. Windows Must be fully cut out.
- 2) The chassis component will consist of one continuous sheet of aluminium or glass fibre-reinforced plastic only. Chassis must extend from a minimum 10mm ahead of the front axle line and runs continuously along the car to end a minimum of 25mm behind the rear axle line. winged style chassis is permitted provided it is available in a kit from. i.e.Kamtec/mardave/tic/large
- 3) Mardave/ Kamtec type rear pod base plate, pivot ball and standard V12 spring location, or equivalent parts in shape and construction and mounting locations. 2 rear springs only.
- 3a) standard Mardave/Kamtec A-arm style front wishbones Only. To be made of plastic only no alloy. NO zen, Schumacher, Rsgt, Rxgt, Atom, venom style parts are to be used. (GT12 parts not eligible)
- 4) External plastic bumpers to be fitted to the chassis front and rear. Front to be grid and representative of a full size stock car. Min height of 25mm and max height of 35mm from chassis to top of the bumper. If a single rail rear bumper is used, it may be spaced up from the chassis. Spacers to be a max length of 8mm. If a grid bumper is used on the rear it must follow all rules of the front bumper. Fixings are not included in height measurements.
- 5) Overall maximum width of the rolling chassis to be 160mm (178mm including body and bumpers)
- 5a) Wheelbase of 205mm +/-5mm only.
- 6) Materials used in the rolling chassis may only be steel, brass or aluminium. Special materials (such as titanium or carbon) are not allowed. Brass and lead only may be used as identifiable weights
- 6a) chassis must not have any extra holes drilled or added to allow extra 'flex' in the chassis component and that the chassis must be a solid design not slotted to achieve extra movement.
- 7) Damper tubes are not allowed. Oil filled shocks and dampers are not allowed.
- 8) Front suspension may be independent provided that the suspension design does not have any pivot, rod or other mechanism that alters the wheel camber or castor in roll relative to the chassis during its full travel. and must use the standard two bolt fixing, and not modified/elongated
- 8b) Ride height/castor can be adjusted with shims/washers. Shims and washers must be made from a solid substance to be a consistent thickness start to finish and rigid. No wedge-shaped spacers or 'o'-rings are to be used on any chassis mounting points.
- 9) Rolling element (ball) bearings are allowed on the front and rear axles.
- 10) Min 25mm, max 26mm width of tyres and Max 60mm diameter no Min diameter of tyres, but the tyre must cover the entire wheel edge to edge.  
Tyre additives are NOT allowed
- 11) Diffs are not permitted
- 12) Gearing is limited to a 32dp pitch for pinion and Spur gear.
- 13) Z drives and alloy pods are permitted. height adjustable rear pods are not permitted
- 14) Any 12th scale single bolt wheel to be used, mounted onto a steel axle only.
- 15) Powered by 4cell brushed setup. cell layout is free and open for driver's choice. Motors permitted to follow the BRCA F2 motor spec and list. Currently HPI Saturn 20, Kamtec K21 and Schumacher Core21.
- 15a) Speed controller maximum RRP of £35. Electronic speed controller or mechanical Resistor type speedo controller permitted.
- 16) Steering servo to be of a maximum of £35 RRP low profile servos are permitted providing they do not exceed the RRP
- 17) No GT12 hybrid style cars to be used.
- 18) Additional holes may be drilled for the re-mounting of the body post and aerial mast locations only.
- 19) Parts from other manufacturers may be used as long as they serve the same purpose as the part they are replacing
- 20) Minimum ride height of 3mm
- 21) All cars must be commercially available to buy, any one wishing to manufacture a car must go through the process of test and development at their regular club with the clubs agreement, if they wish to then race the car they must be able to make units available to purchase by other racers, it must comply to the current construction regulations if being sold to race, it must be of a comparable price to those being sold by other manufacturers and not overly priced to limit availability. Anyone wishing to develop or modify a car that does not comply with current construction regulations has to do that test and development at their local club with their agreement, any changes to the construction rules that allow new designs to race would need to be approved at the brca agm following the correct procedure.

**NATIONAL HOT ROD CONSTRUCTION RULES 2022**

- 1) Cars to be representative of full size hot rods, body to be Lexan, spoilers are allowed.
- 2) Any Oval designed rolling chassis can be used provided it falls within the rules listed below.
- 3) The chassis component will consist of one continuous sheet of aluminium or glass fibre reinforced plastic (composite) or Carbon Composite chassis that extends from a minimum 10mm ahead of the front axle line and runs continuously along the car to end a minimum of 25mm behind the rear axle line.
- 4) Overall maximum width of the rolling chassis to be 165mm (178mm including bodyshell), wheel base should be 205mm +/-5mm

- 5) Metal materials used in the rolling chassis may only be steel, brass or aluminium. Special metals (such as titanium) are not allowed. Brass and lead only may be used as identifiable weights to meet the weight limit and when removed do not have any effect on the car's function as a rolling chassis.
- 6) Separate dampers are only allowed on the rear suspension. Dampers requiring seals to prevent the egress of oil are not allowed
- 7) Front suspension may be independent provided that the suspension design does not have any pivot, rod or other mechanism that alters the wheel camber in roll relative to the chassis during its full travel.
- 8) Rolling element (ball) bearings are allowed on the front and rear axles.
- 9) Minimum weight is 950g
- 10) Internal front and rear bumpers are allowed and must be foam and fitted inside the body shell only.
- 11) Min 25mm, max 26mm width of tyres and max 60mm diameter no min diameter of tyres, but the tyre must cover the wheel.
- 12) Diffs are not permitted
- 13) Powered by a 13.5t brushless motor, and a 1s lipo battery, esc must be in BLINKY mode. Both must be from the BRCA EB list
- 14) ALL Lipo batteries are subject to a voltage test max of 4.2 volts, prior to any race at committees wishes anyone who fails the test will be not permitted to race that heat, and anybody who refuses to partake in a voltage test may also be removed from the heat/final.
- 15) Rear pod may be of ally or plastic construction it should have a single pivot point at the front and two springs to the rear with a rear guide pin, ride height adjustable rear pods are allowed
- 16) Single bolt rear axle only, gearing is open both 32dp and 48dp are allowed z drive hubs are allowed.
- 17) Only single bolt 12th scale wheels allowed
- 18) Tyre additives are NOT allowed
- 19) Parts from other manufacturers may be used as long as they serve the same purpose as the part they are replacing
- 20) Minimum ride height of 3mm
- 21) All cars must be commercially available to buy, any one wishing to manufacture a car must go through the process of test and development at their regular club with the clubs agreement, if they wish to then race the car they must be able to make units available to purchase by other racers, it must comply to the current construction regulations if being sold to race, it must be of a comparable price to those being sold by other manufacturers and not overly priced to limit availability. Anyone wishing to develop or modify a car that does not comply with current construction regulations has to do that test and development at their local club with their agreement, any changes to the construction rules that allow new designs to race would need to be approved at the brca agm following the correct procedure.

## MINI STOCK CONSTRUCTION RULES 2022

- 1) Body shells to be a representation of a full size Mini type car, body to be ABS.
- 2) Chassis Must be Made from GRP (No Carbon Mix or Special Mix GRP) and have: -  
Maximum length including bumpers to be 292mm. - Overall maximum width of the rolling chassis to be 163mm. - wheel base to be 175mm +/-2mm - Chassis to be single piece & constructed in GRP only, measuring no more than 230mm in length and 100mm in width. -  
No suspension whatsoever, including dampers, springs, shocks, "O" rings or notching the chassis. Any holes drilled or cut must be used or filled.
- 3) External plastic bumpers to be fitted front and rear, front to be grid and representative of a full-size mini stock car.
- 4) Metal materials used in the rolling chassis may only be steel, brass or aluminium. Special metals (such as titanium) are not allowed.
- 5) Rolling element (ball) bearings are allowed on the front and rear axles.
- 6) Min 25mm. Max 26mm width of tyres and Max 60mm diameter no Min diameter of tyres, but the tyre must cover the wheel.
- 7) Standard slot drive rear wheels with the single wheel nut only. GT12/LMP style wheels are not allowed.
- 8) Diffs are not permitted
- 9) Z drives and alloy pods are allowed
- 10) Powered by a 17.5t brushless motor and a 1s lipo battery, esc must be in BLINKY mode, (Both must be from the BRCA EB list) or a 4 cell brushed esc and either a Kamtec K21 Core 21 or Saturn 21 motor.
- 11) ALL lipo batteries are subject to a voltage test max of 4.2 volts, prior to any race at committees wishes anyone who fails the test will be not permitted to race that heat, and anybody who refuses to partake in a voltage test may also be removed from the heat/final
- 16) single bolt rear axle only, gearing is open both 32dp and 48dp are allowed z drive hubs are allowed
- 17) tyre additives are NOT allowed
- 18) parts from other manufacturers may be used as long as they serve the same purpose as the part they are replacing
- 19) minimum ride height of 3mm
- 20) all cars must be commercially available to buy, any one wishing to manufacture a car must go through the process of test and development at their regular club with the clubs agreement, if they wish to then race the car they must be able to make units available to purchase by other racers, it must comply to the current construction regulations if being sold to race, it must be of a comparable price to

those being sold by other manufacturers and not overly priced to limit availability. Anyone wishing to develop or modify a car that does not comply with current construction regulations has to do that test and development at their local club with their agreement, any changes to the construction rules that allow new designs to race would need to be approved at the BRCA AGM following the correct procedure.

## **2LT SALOON CONSTRUCTION RULES 2022**

- 1) Body to be ABS and representative of full size 2 litre stock car and no spoilers allowed
- 2) Any oval based chassis will consist of one continuous sheet of aluminium or glass-fibre reinforced plastic (composite) or Carbon Composite chassis that extends from a minimum 10mm ahead of the front axle line and runs continuously along the car to end a minimum of 25mm behind the rear axle line.
- 3) Rear pod may be made of alloy or plastic construction it should have a single pivot point at the front and two springs to the rear with a rear guide pin, ride height adjustable rear pods are allowed
- 4) External plastic bumpers to be fitted to the chassis front and rear, front to be grid and representative of a full-size stock car.
- 5) Overall maximum width of the rolling chassis to be 160mm (178mm including body and bumpers) wheel base should be 205mm +/-5mm
- 6) Metal materials used in the rolling chassis may only be steel, brass or aluminium. Special metals (such as titanium) are not allowed. Brass and lead only may be used as identifiable weights to meet the weight limit and when removed do not have any effect on the car's function as a rolling chassis.
- 7) Separate dampers are only allowed on the rear suspension.
- 8) Front suspension may be independent provided that the suspension design does not have any pivot, rod or other mechanism that alters the wheel camber in roll relative to the chassis during its full travel.
- 9) Rolling element (ball) bearings are allowed on the front and rear axles.
- 10) Minimum weight is 1100g for both Brushed and Brushless.
- 11) Min 25mm. Max 26mm width of tyres and Max 60mm diameter no Min diameter of tyres, but the tyre must cover the wheel.
- 12) 3 bolt GT12/LMP style wheels are not allowed.
- 13) Diffs are not permitted
- 14) Z drives and alloy pods are allowed
- 15) Powered by either a 13.5t/10.5t brushless motor, with a 1s lipo battery esc must be in BLINKY mode (Both must be from the BRCA EB list). or a 6 cell brushed setup with a Kamtec k21, Core21 or a Saturn 21 motor
- 16) ALL lipo batteries are subject to a voltage test max of 4.2 volts, prior to any race at committees wishes anyone who fails the test will be not permitted to race that heat, and anybody who refuses to partake in a voltage test may also be removed from the heat/final
- 17) gearing is open both 32dp and 48dp are allowed z drive hubs are allowed.
- 18) only single bolt 12th scale wheels allowed
- 19) tyre additives are NOT allowed
- 20) parts from other manufacturers may be used as long as they serve the same purpose as the part they are replacing
- 21) minimum ride height of 3mm
- 22) all cars must be commercially available to buy, any one wishing to manufacture a car must go through the process of test and development at their regular club with the clubs agreement, if they wish to then race the car they must be able to make units available to purchase by other racers, it must comply to the current construction regulations if being sold to race, it must be of a comparable price to those being sold by other manufacturers and not overly priced to limit availability. Anyone wishing to develop or modify a car that does not comply with current construction regulations has to do that test and development at their local club with their agreement, any changes to the construction rules that allow new designs to race would need to be approved at the brca agm following the correct procedure.

## **GENERAL RACE AND PROCEDURE RULES 2022**

1. Heats and finals, Races to run in 5 Minute heats and 5 Minute finals. These may be changed at club discretion
2. Cars to race on a standard stock car oval
3. All meetings shall be run on carpet. No tyre additives allowed.
4. Heats to be formatted as per the race director's decision.
5. Maximum number of cars in all heats and finals will be down to club discretion.
6. Cars must line up two abreast in graded order at designated places around the track. In finals cars must line up in grid order.
7. Qualifying format to be done at club discretion.
8. Lap scoring at all meetings to be carried out by a reliable efficient system provided by the club.
9. Queries concerning lap times and scores posted should be addressed to the race controller.
10. The driver shall be responsible for obtaining and fitting the correct transponder in his/her car for the race
11. Only the driver involved may question his/hers lap scores. Any junior member can be represented by a parent or guardian

12. Scrutineering will be carried out at the club's discretion
  - (a) Failure to present your car to scrutineering when requested or to comply with construction rules will result in loss of FTQ/Final position.
  - (b) No decision of the Club's own scrutineer can be overturned without a fully notarised committee meeting by any other member of the committee.
13. Any motor changed at a meeting to be approved by the scrutineer.
14. Radio Control Equipment:
  - a. It is the driver's responsibility to ensure that their equipment does not cause interference to others, and that his/her receiver is not faulty.
  - b. Only legally approved frequencies are to be used.
  - c. Drivers must be able to provide alternative frequencies if 27 meg or 40 meg is used.
  - d. All frequency changes MUST be reported and approved by race control.
15. External battery packs for radio transmitters are not allowed.
16. Open practise and frequency management will be at the club's discretion
17. Any driver claiming interference must switch off and see the race director while the race is still in progress.
18. At the discretion of the race controller/club chairman any competitor found with equipment causing interference will be disqualified
19. Any bodies entered into Concourse events must be run for the duration of the meeting, as scrutineered. The judging to take place by a person nominated by the committee, and judged before racing.
20. If the bodyshell becomes loose or falls off during a race, the car MUST be removed from the track until the bodyshell is securely re-attached, except Bangers.
21. Any car losing a wheel or tyre during a race must be removed from the track and have that wheel or tyre refitted to be eligible to re-join the race.
22. Any repairs to vehicles MUST be affected OFF the track.
23. Any car receiving assistance of an unfair nature (i.e., being pushed along the track or over the Finish line) will be disqualified.
24. Meeting to comply fully with the as above race procedures, unless exceptions are specifically agreed by the committee.
25. The driver's roof grade to cover a majority of the roof.
26. Roof Grading, Cars to have the roof grade they race with at club level
27. All cars must have the correct roof grade at all times. Failure to comply will result in a points deduction from the meeting that the roof grade was incorrect. Final decision will be at the race director's discretion.
28. No protest shall be accepted after any prize-giving ceremony.
29. Marshalling:
  - a. Divers to marshal the following heat to which they have raced.
  - b. Any driver not fulfilling his/her marshalling obligations will be penalised by loss of FTQ/Final Result
  - c. Drivers must arrange a competent substitute if they are unable to for any reason.
  - d. Marshals must remain at their marshalling point at all times for the duration of the following race.
  - e. Any driver leaving the meeting before his/her marshalling duties are fulfilled, will be disqualified with the loss of all points from the meeting.
30. Non-racing personnel must not block the vision of, or walk in front of the drivers/marshals whilst the race is in progress. Failure to comply will result in loss of lap scores, or to be expelled from the meeting.
31. Code of Conduct: - Any Committee member can bring to a drivers attention any misconduct by him/herself or his/her pit crew and may penalise the offending driver at the discretion of the committee.
32. Drivers or pit crew members who do not observe rule (31) will be disqualified from the meeting.
33. All drivers should be standing in the club's designated rostrum area.
34. Drivers to allow room at the central position of the rostrum area so wheelchairs and/or walking aided members are able to see. Club's may have additional or alternative practises in place
35. Finals must be started from the grid, once the final has started cars are not permitted to join the race. If they started the race from the grid they are allowed to rejoin the race after repair.
36. Race fees: - fees are the same for all classes £12 for adults and £10 for juniors (aged under 16 at the start of the first round of the national series and will stay as a junior for that season) . each additional class will be £2 per car adult and junior.

## **CONSTRUCTION RULES FOR MINISTOCKS, 2LTR SALOONS, NATIONAL HOTRODS, 1300 STOCKCARS**

1. No car shall be constructed so as to be dangerous to persons or cause damage to competitor's cars or to the track surface. No sharp or protruding objects are allowed on the cars.
2. Body and chassis must be securely joined at the start of the race and must remain on the car during the race. When initially entered at a meeting the body shell must be neatly finished and complete.
3. Steel whip aerials and rollover masts are not allowed.
4. Tyres must be foam, you can change them from, Tyre additives are not allowed.

5. The use of multiple speed transmissions (gearboxes) Are not allowed
6. There is a minimum ground clearance of 3mm ;this includes any protruding screws, 1mm clearance for spur gear. Screws must also match the hole in the chassis. Countersunk screws have to be fully sunk into the chassis.
7. Limited slip devices and differentials of any kind are not allowed, solid rear axle only.
8. All cars must have reverse fitted and working at the start of every race.
9. Cars are to be powered by either a brushed motor with batteries of nominal voltage 4.8/7.2v according to class or a brushless motor and batteries with a maximum voltage of 4.2v which are defined below.

Batteries and motor combinations allowed

#### Brushless system

Ministox = 17.5t brushless motor

Hotrods = 13.5t brushless motor

Saloonstox = 10.5t or 13.5t brushless motor

#### Definition of a brushless motor

17.5, 13.5 and 10.5 brushless motors – Must be listed on the BRCA EB list

#### Definition of a zero-timing speed controller

Speed controllers may not be equipped with any form of automatic or programmable timing advance. If this feature is available on the particular speed controller it must be disabled and placed in an approved mode - i.e. the "ROAR blinking LEDs mode." Brushless Speed Controllers built without automatic or programmable timing advance will be allowed. The BRCA 12th Electric Oval Committee will provide a list of eligible speed controllers.

Details of the requirement for the approved mode are contained in Appendix 1 – Zero-Timing Brushless Speed Controllers – and this requirement must be met for a speed controller to be eligible for racing. When using a sensorless speed controller/brushless motor combination the rule above does not apply.

All cells used in any competitions MUST be hard - cased. Soft cases or no cases are NOT allowed. Cars with Brushless Motors will be powered by cell/s with a maximum nominal voltage of 3.8v with a max charge voltage of 4.2V and a max charge rate of 10A

#### Definition of a brushed motor

Motors allowed– Core21, Saturn 20 and Kamtec k21 motors. These must remain unopened, and unmodified - External motor bearings are NOT allowed. Motor cleaning fluids / additives are allowed.

#### Brushed system:

Cars with Kamtec k21 Core21 Saturn 20T Brushed motors will be powered by sub C size batteries with 1.2v nominal voltage per cell, in either 4 cell 4.8v or 6 cell 7.2v format

Using either mechanical or electronic speed controller

Saloon Stox = 6cell 7.2v Nominal.

Mini Stox,= 4 cell 4.8v Nominal

1300 Stock Cars = 4 cell, 4.8v Nominal.

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Supplier of quality parts  
to the RC industry and  
specialist customers

# F1 STOCK CARS INTRODUCTION, CONSTRUCTION & PROCEDURAL RULES



**BRCA**  
BRITISH RADIO CAR ASSOCIATION

# SIGNS BY CHINGY RC Signwriting



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& PERSONALISED STICKER SETS**

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ebay



# Welcome to the F1 Stock Cars section.



Hi, I'm Sam Jacklin. I got into the world of RC racing as an off season hobby from the full size version back in 2019. I was elected in as chairman in October 2021 and it is something I feel very passionate about. With my time in full scale, I believe it can add a fresh new look to the fast and furious world of 12th scale.

F1 Stockcar's are known for being the fastest and most brutal of all oval motorsport. 12th scale is no different, with cars running 6 cell Nimh or 1s lipo batteries with a 10.5t motor, they sure do fly around the small oval tracks. With cars armoured up with 9mm plastic bumpers to knock the opponent's out of the way, it makes for some exciting racing!

After such a long COVID period where not a lot has happened it's exciting to start getting things in place for the 2022 season.

F1 Stockcar's are run nationwide but with the majority of the drivers coming from the Midlands and Manchester.

After some promotion work at the recent BSCDA driver's presentation there is a high interest in getting 12th F1 Stockcar's at the full size race meetings so now really is the time to get involved. Do you want to race with your full size superstar? 12th Stockcar's is very much a sport for anyone at any time.

Do you want to be crowned champion of the world? Or just control the uncontrollable? Either way with a new set of team members and new tracks emerging it really is an exciting time to get involved in the greatest show on carpet.

## Sam Jacklin

Chairman, BRCA 1/12th F1 Stock Cars Section

### Chairman

Sam Jacklin  
07867417166

### P R O

Adam Gilbertson  
07515470760

### Treasurer

John Durham  
07896711678

### Scrutineer

Chris Taylor  
07745738642

### JANUARY

22nd - 23rd    European Championship    Dentona RC Speedway



### FEBRUARY

19th    Rugby Stockcar club



## MORE DATES TO BE CONFIRMED

Please visit

[www.brca.org/1-12th-f1-stockcars-events](http://www.brca.org/1-12th-f1-stockcars-events)

for updates

## F1 CONSTRUCTION RULES 2022

- 1) Models to be a reasonable representation of a full size open wheel Brisca F1 only
- 2) No car shall be constructed so as to be dangerous to persons or cause damage to competitor's cars or to the track surface. No sharp or protruding objects are allowed on the cars.
- 3) Overall chassis length to be between 285mm and 310mm. Overall chassis width to be a maximum of 160mm.
- 4) Front and rear bumpers must be fitted, and have a contact surface between 9mm and 16mm. The distance between the bumper centreline and the ground must be between 32mm and 41mm. All bumpers must be plugged and have no sharp edges and must be constructed from a non-metallic material.
- 5) Over riders must be bolted to front and rear bumpers. The height from the top of the bumper to the top of the overrides must be between 19mm and 32mm at the front and must have a maximum of 19mm at the rear.
- 6) Nerf bars must be fitted on the same level as the bumpers and attached to the chassis rails with a maximum contact surface of 12mm.
- 7) Body and chassis must be securely joined at the start of race and must remain on car during the race. When initially entered at a meeting the body shell must be neatly finished and complete.
- 8) Bodies and aerofoils must be made from ABS or polycarbonate, metal bodies or aerofoils are not allowed. All windows must be cut out on both Lexan and ABS Shells. The height of the body roof from the floor to be between 88mm and 126mm. Aerofoils if fitted must have no sharp edges and be mounted in a safe manner. The maximum size of the centre panel to be no more than 126mm-126mm, and the side panels 126mm-70mm. The roofs must be painted down to the waistline of the body with the driver's classification colour, if an aerofoil is fitted, this alone may be painted with the driver's classification colour, if the driver wishes. A driver must run their current highest club roof grade. Failure to do so will incur a 25 lap penalty.
- 9) Driver's national race number must be displayed on the exterior of the car, with a minimum height of 10mm. Any colour may be used but it must be legible. Only one racing number allowed per membership. The drivers name must be on the outside of the body.
- 10) The cost of the complete car in kit form excluding all electrics must not exceed £185.00. In the case of scratch built cars the entrant must be prepared to produce exact replicas of the car in kit form if so required for a price of £185.00 or less. Including wheels, tyres, wing and shell.
- 11) Aerial tubes to be a maximum height of 200mm from track surface. Steel whip aerials and rollover masts are not allowed.
- 12) Tyres must be foam or rubber, you can change them from kit supplied and use sleeves, Tyre additives are not allowed.
- 13) Tyres must have a minimum 12mm and maximum 26mm width, and maximum 60mm diameter.
- 14) Rear tyres to be used by the F1 section must be Contact tyres only, 32sh, 35sh, 37sh, and 40sh all with coloured bands in them
- 15) Ball races are allowed on the front and rear axle. Limited slip devices and differentials of any kind are not allowed, solid rear axle only. Single nut fixing at either end of the axle are allowed only. No carbon axles allowed, Steel rear axle only to be used.
- 16) All cars must have a maximum baseplate thickness of 2mm, with motor blocks bolted directly to the baseplate. Maximum 2 cut slots to provide flex/suspension. Maximum 2 oil filled shocks only. No damper tubes or floating pods.
- 17) Radio control receivers carried in the car can have either two devices connected, (normally the steering servo and the speed controller) or 3 channel (can be used for flashing lights for club level or superstars for national level). Receiver battery packs are allowed.
- 18) The use of multiple speed transmissions (gearboxes) is not allowed, any 32dp pitch gears and holders are allowed. Pinion gears; size (number of teeth) is free.
- 19) There is a minimum ground clearance of 3mm, this includes any protruding screws, 1mm clearance for spur gear.
- 20) Servo savers, track rods and track rod ends can all be up-rated from kit supplied.
- 21) All cars must have reverse fitted and working at the start of the race.
- 22) Cars are to be powered by either a brushed or a brushless system as defined below.

**Brushed System:** G2 2010 Brushed motors (only) These must remain unopened, and unmodified – External motor bearings are NOT allowed. Motor cleaning fluids / additives are allowed.

Cars will be powered by a maximum of 6 sub C sized batteries with 1.2v nominal voltage, conforming to the current Electric Board battery list. Brushed Speed controllers are without restriction providing that they include an operating reverse function and are commercially available with a recommended retail price not exceeding £65

**Brushless system:** 10.5 brushless - . Speed Passion v3 10.5t or 13.5t motor only with standard 10 degree sensor plate and factory pink/purple rotor. All motor parts must be factory standard as originally issued. All Lipos used in any competitions MUST be hard-cased. Soft cases or no cases are not allowed. Cars to be powered by a 1S LiPo conforming to the current BRCA Electric Board homologation 1S stick LiPo list and safety considerations. Brushless speed controllers the Pace 45R or Pace 60R speed control must be used. ESC must run in Blinky Mode i.e. the "ROAR

blinking LEDs mode."

- 23) For drivers wishing to develop or modify cars, this should be done and tested at club level. The next stage maybe to test at National level, with the consent of the committee. Any testing at Nationals, will lead to the driver going to the last position after qualifying ie if there are 20 drivers competing, after qualifying the testing driver will be deemed to be 20th. No testing driver will pick up any points for the series or receive any trophies.
- 24) If you intend to alter your car in any way that is not covered by the rules, you must check with the class scrutineer, for approval. We expect all drivers to use common sense when modifying cars and to enter into the spirit of the sport.
- 25) Front suspension can be used with no damping allowed

The Section reserves the right to retain a speed controller and motor after the conclusion of a meeting to measure its performance against the above criteria in a controlled environment. The equipment, or identical new replacements, will be returned to the competitor within 5 working days. Sanctions may be taken against a competitor and/or manufacturer if a controller is found to be non-compliant.

## PROCEDURAL RULES 2022

### General Rules and Regulations

These General Rules cover all Classes & BRCA National & Open Meetings within the 1:12th Stock cars, except where indicated. They should also be read in conjunction with specific class rules.

#### General Rules

- 1) The Chairman and Secretary positions elected at the section's AGM shall be held for two years. These positions should be elected on alternate years.
- 2) Any competitor found to be in contravention of the rules and procedures will be disqualified from that meeting, be it at club or nationals events etc and will serve a suspension period deemed appropriate by the committee.
- 3) A Junior must be under the age of 16 at the start of the season and shall remain a junior for the entire season. The start of the season is defined by the date of the first 12th Stock car National
- 4) The 1/12th Stock car National Season to run from February to November with a Minimum break between each national round of 4 weeks. Excluding the Worlds, Euros, Dutch/British Open and Scottish National Weekends.
- 5) All national meetings and BRCA title meetings to be run to BRCA rules without exception.

#### General National & Open Race Meeting Rules

- 1) All National meetings will be arranged by the event organiser, bookings can be by form,email or text.Entry fee is payable by cheque, PayPal or cash on the day. Entry fee to be £7 per junior and £10 per adult. £2 of the entry fee will go to the BRCA 1/12th F1 Section. BRCA cards must be shown at meeting sign on. All BRCA sanctioned events must have a agenda published at least one month before, Any driver who books for a National event and fails to attend without valid reason will be required to pay the host club the full entry fee before they can compete in any further national meetings.This agenda to cover such items as
  - a) Venue, Date and approximate times of practice, heats and finals
  - b) Contact names, phone numbers and addresses
  - c) Closing date for entries
  - d) Any special requirments of the venue, power points, lead acid batteries etc
  - e) Details of available refreshments
  - f) Notify if concourse evnet will be run
  - g) Drivers must book in with full name, BRCA number and official race number
- 2) Entries to be compiled via the club promoter or nominated club representative.
- 3) Drivers must supply 3 frequencies for each class entered , not 3 split between classes.
- 4) Lap scoring at all national meetings to be carried out by an approved automated lap counting program, on a reliable computer system approved by the committee.
- 5) A suitable audible signal will start each race.
- 6) The following officials must be present at each sanctioned event: Race Director, who must be present throughout the meeting. Chief Scrutineer, who will ensure that all cars meet the requirements of the rules. BRCA Steward, who has absolute authority at race meetings and is responsible for interpretations of the rules.
- 7) Health and Safety. These rules are mandatory and the meeting may not proceed until the BRCA steward is satisfied that these have been observed:
  - a) A first aid kit is to be made available for self-administration. This is to be held in an easily accessible area (at club official's discretion).
  - b) Fire extinguishers should be available at all venues.
  - c) Junior members aged 10 or 11 years of age will only be permitted to marshal if :
    - They wish to do so.
    - They use a marshalling stick.
    - They do not walk on the racing area whilst the race is in progress.

- d) If drivers are to stand on a rostrum over 2 foot in height e.g. stage or platform then a suitable fixed front barrier is required and must meet the satisfaction of the safety officer or BRCA steward in attendance.
- 8) All open and national meetings shall be run on carpet. Minimum track width is 1 metre. Start lines must be clearly visible.
  - 9) National venues to have minimum six power points available for competitor's use.
  - 10) Lap scores may only be questioned by the driver involved. A parent or guardian can represent a junior member.
  - 11) Drivers to marshal races as instructed, failure to comply will result in a 25 lap penalty from their total qualifying score.
  - 12) Code of conduct Any misconduct by a driver or their pit crew may be penalized at any committee member's discretion. Drivers or pit crew who fail to observe the code of conduct will be disqualified from the meeting.
  - 13) Drivers shall be responsible for the collection and fitting of the correct transponder in their car.
  - 14) All competitors will drive from the designated position. Failure to comply will result in the loss of that race's score.
  - 15) Any car losing a wheel or tyre during a race must be removed from the track and have it replaced. Failure to comply will result in immediate disqualification from that race.
  - 16) Any repairs to vehicles must be affected off the track.
  - 17) Once a race has started, the changing of cells is strictly forbidden.
  - 18) Transmitters must be switched off whilst not racing. External battery packs for radio transmitters are not allowed. Voltage supply to the transmitter may not exceed the manufacturer's recommendations.
  - 19) Protests must be in writing and must include a £10.00 fee. This fee is refunded if the protest is upheld. If a standard motor is protested and found to be legal then the value of the motor is reimbursed to its owner.
  - 20) Only legal transmitter frequencies may be used and all equipment must conform to the current regulations.
  - 21) All National meetings count towards the national Championship. A driver can drop their lowest national points scoring meeting. If a driver is to miss a national round that would count as their lowest national points scoring meeting.
  - 22) There shall be a minimum of 10 minutes practice for each class being raced at the meeting. Practice shall be allocated either by Peg Board or by structured practice heats. The minimum time allowed between heats will be 3 minutes.
  - 23) Trophies to be given out as soon as possible to allow people who have travelled a long way to start their journeys earlier.
  - 24) Trophies will be awarded to 1st, 2nd & 3rd in the A final. At all meetings there shall be trophies for best blue, yellow & white roof grades and there will also be trophies for the top 3 juniors at every National, Open, Euros and Worlds meeting. Race promoters may award trophies for Concourse and any other awards as they see fit. Trophies must be of reasonable quality.
  - 25) At all national meetings the cars will be scrutineered by the BRCA official scrutineer or deputy or official club scrutineer before each heat and before & after finals. A scrutineering box and gauge to be made available for all BRCA meetings.
  - 26) If a motor is changed, the scrutineer must approve it. Failure to get the motor approved will result in loss of any results whilst using the new motor.
  - 27) Any body-shells entered in the concourse event must be run for the duration of the event
  - 28) At the end of the meeting, all score sheets to be given to the BRCA points compiler who will check all results and be responsible for the distribution of the points tables.
  - 29) The World Champion will have a gold roof, and may not be graded lower than Superstar for a four-year period after the title win. The National Senior Points Champion will have a silver roof, and cannot be graded lower than red for five years. The European Champion will have a red/yellow chequered roof and cannot be graded lower than red for two years. The British Open Champion will have a black/white chequered roof and cannot be graded lower than red for two years. The Ladies National Champion will have two 10mm pink stripes. The Junior World Champion will have a 10mm gold stripe. The Junior National Points Champion will have a 10mm silver stripe. The European Junior Champion will have a 10mm red/yellow stripe. The English Open winner shall have the flag of St. George on the roof. The Scottish Open winner will have the flag of St. Andrew on the roof. The Welsh Open winner shall have the flag of St. David on the roof. All open roof colours will only last for a twelve month period after the title win. All club champions or points champions shall have flashing lights or two gold stars and be recognised at national level. National grading will apply to all racers except those who have never raced at a national meeting before who will be allowed to start at their club grade. Only novices new to radio controlled racing may be graded as a white top roof. If a driver is a member of multiple clubs then their highest grade will apply at national level. A driver may not drop more than one grade through lack of attendance. A driver may not drop below yellow through lack of attendance. For a maximum of 12 months or until the event is run again.

- 30) There will be one Race Number list for 1/12th Stock cars. Drivers racing in the previous years' series shall be able to keep their previous Race Number, provided they have registered with the Number Secretary by 28th February of the following year. If not registered by this date, previously used numbers can be applied for. All unused numbers to be issued on a first come basis.
- 31) National dates are to be finalised by 1st March.
- 32) The world champion has the option to display the number 1 on their car for however long they hold the championship title.

## **Stockcar Racing Rules**

- 1) Heats and finals to be of 5 minute duration, except in the case of a large entry when races may be reduced to 4 minutes duration. Heats must be shuffled each round and a reasonable cross-section of roof grades must be present in each heat.
- 2) National meeting format, 5 minute races. 4 rounds with your best 3 rounds to count, commencing with white grades on the back straight opposite the start/finish line, then yellow a quarter lap down, blue grades a further quarter behind and so on, Top 7 go straight to the final, The next 9 cars go through to the consultation. The Top 2 from consultation race are promoted to make a 9 car final. Finals and consolations will start in qualifying order Minimum five, maximum nine cars in any one race. This applies at organizational stage only. A tie at any national meeting will be decided by the highest lap score of any round followed by the next highest etc., then if still a tie, it will be decided on split times of the highest lap
- 3) Stockcars will race anticlockwise on an oval track.
- 4) The 1/12th Stockcar Worlds will be run annually in the month of November and the European Championships will be run annually in the month of February.
- 5) National points format 10 points for a heat win, 9 points for 2nd, 8 points for 3rd, etc....  
Final winner will score 30 points, 2nd 28points, 3rd 26points, 4th 25points, 5th 24 points, 6th 23 points, 7th 22 points, 8th 21 points and 9th 20 points. The Remaining 7 Drivers from the consultation will be scored with additional heat points, 10, 9, 8 etc....

## **British Open Meeting Rules**

1. Dates for the British Open need to be in by the end of March. The committee will decide on which club will hold the British Open if multiple entries are received.
2. Entry fee at the discretion of committee
3. Entries to be compiled via the club promoter or nominated club representative
4. British Open meeting format, 5 minute races. 4 rounds with your best 3 rounds to count, Top Qualifier straight to the final, The next 16 cars get split into 2 Semi's, top 4 cars from each Semi are promoted to the Final.
5. All Junior entries will be entered into the British Junior Final which will be ran after the Semi's.

## **European Championship Meeting Rules**

- 1) The 1/12th Stock car European will be run annually, A club will be drawn at AGM to see who hosts the Euros.
- 2) The European Championships will be run over 1 or 2 days at promoters discretion
- 3) Dates/location for the European Championships need to be in by the end of March.
- 4) Entry fee at the discretion of the promoter.
- 5) Entries to be compiled via the promoter or nominated representative.
- 6) Meeting format, 5 minute races. Timed practise on first day. Between 4 and 6 rounds at promoters discretion, best 3 rounds to count. The Top 16 cars get split into 2 Semi's, top 4 cars from each Semi are promoted to the Final.
- 7) The loosing cars from each semi have a Last Chance Consolation Race, where the winner is promoted to the back of the grid in the final to make it a 9 car final.
- 8) All Junior entries will be entered into the European Championship Junior Final which will be ran after the Semi's.

## **World Championship Meeting Rules**

- 1) The 1/12th Stock car Worlds will be run annually. A club will be drawn at AGM to see who hosts the Worlds
- 2) The World Championships will be run over 1 or 2 days at promoters discretion
- 3) Dates/location for the World Championships need to be in by the end of March.
- 4) Entry fee to at the discretion of the promoter.
- 5) Entries to be compiled via the promoter or nominated representative.
- 6) Meeting format, 5 minute races. Timed practise on first day. Between 4 and 6 rounds at promoters discretion, best 3 rounds to count. The Top 32 cars get split into 4 quarters, The top 4 cars from each quarter are promoted to make 2, 8 car Semi's, top 4 cars from each Semi are promoted to the Final.
- 7) The loosing cars from each semi have a Last Chance Consolation Race, where the winner is promoted to the back of the grid in the final to make it a 9 car final.
- 8) All Junior entries will be entered into the World Championship Junior Final which will be ran after the Semi's

# *Avenger Racing* F2 Stock car

World Championship winning F2 Stock car  
Points champion winner at both  
Hathern Raceway and TTT Raceway.

BRCA legal F2 stock car, built to a simple design for speed, durability and ease of maintenance, with many parts available from Mardave stockists.

These are ideal cars for people who are novices to RC stock car racing, or who already race bangers or V12 hotrods as the majority of parts are interchangeable.

Cars and spares available from

Allan Inness 07967 455613

or

Phil Chadbourne 07888 789989

Race with the champions

*Avenger Racing*

# F2 STOCK CARS INTRODUCTION, CONSTRUCTION & PROCEDURAL RULES



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BRITISH RADIO CAR ASSOCIATION

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JANUARY		
22nd - 23rd	European Championship	Dentona RC Speedway
FEBRUARY		
19th	Golden Helmet Round 1	TTT Raceway
20th	National Round 1	TTT Raceway
MARCH		
20th	National Round 2	Hathern Raceway
APRIL		
23rd	East Anglian Championship	SMF
24th	National Round 3	SMF
MAY		
7th	Golden Helmet Round 2	Skegness Raceway
8th	National Round 4	Skegness Raceway
JUNE		
5th	National Round 5	Hot Racers
JULY		
23rd	Golden Helmet Round 3	Walsall Banger Club
24th	National Round 6	Walsall Banger Club
AUGUST		
27th	Scottish Open	Coaltown Levan RC Raceway
28th	National Round 7	Coaltown Levan RC Raceway



## Welcome to the F2 Stock Cars section.



You will find F2 stockcar clubs all across the UK, from Scotland right down south to Cornwall. Each club offers their own championships but the BRCA 1/12th F2 stock car class also organise a national series of championships, including the English champion, National points champion, European champion and the world champion.

We also like to encourage our juniors, we also run the junior championships along side the big ones. Our current junior world champion is just 13 years old.

The F2 stock cars have many different manufacturers. Our cars are all widely available. Either in kit form from an online store such as Kamtec or track side from a builder/racer at your local track. F2 stock cars use a brushed motor, electronic speed controller and a 4 cell 4.8v NIMH battery. Plenty of power output making for some fast and close racing on track all year round.

If you need any further information, help or advise on our F2 stock car section, please do not hesitate to get in touch. The cars themselves are 1/12th scale and are a version of the full size Brisca f2 stockcars. Powered by 4 cell NIMH batteries and a brushed 21 turn motor with an electronic speed controller. Racing over 5 minute heats. Racing is very close and competitive with great banter and atmosphere in the pit area.

The 2019 world championship final was won by Morgan Williams. The national points championship was won by Rob Whalley. Noah Bailey won the Junior National Points and Junior World Championship. Making that two years in a row for the young man who is also my son. Yes, I am a very proud mum. He first won the junior world championship at the age of 10 years and 16 days old. So never think your too young. We accept anyone of any age, as long as your thumbs work then come and join in. Timothy Bailey won the English championship with George Taylor winning the junior English Championship.

As 2020 was such a strange year, and we could not do much indoor racing, we decided as a collective that all 2019 champions retain their titles for 2020.

The 2020 European champion is Morgan Williams and the junior European is Noah Bailey. In 2021 due to Covid restrictions we couldn't run a full national calendar, so we decided to just concentrate on getting back on track and the 2019 champions kept their trophies for another year.

In 2022 we'll be taking the f2s on tour all over the UK again. We've had some new oval clubs open up over the last 18 months so well be giving those their first taste of how National f2s run.

Schumacher will be sponsoring the Golden Helmet championship for 2022.

We welcome everyone, no matter your age or gender. You're all welcome to come and have a go. To find your local track/club, take a look through the book or pop on to the BRCA website.

### *Emma Parker*

Chairlady, BRCA 1/12th Oval Section  
12o.chair@brca.org



## F2 CONSTRUCTION RULES 2022

- 1) Models to be a reasonable representation of a full size open wheel F2 Brisca stock car. F2 Stock car Body for all Championship meeting.
- 2) No car shall be constructed so as to be dangerous to persons or cause damage to competitor's cars, or to the track surface. No sharp or protruding objects are allowed on the cars.
- 3) Overall chassis length to be between 285mm and 310mm. Overall chassis width to be a maximum of 163mm. Overall Chassis thickness (contact surface) between 9mm and 16mm and be consistent thickness throughout all parts. Chassis **MUST** be made from one continuous piece of plastic (this **MUST** include the front and rear bumpers and nerf rails.), with one gap permitted for the location of the spur gear. (postponed until 2022 AGM, with no voting until 2023 AGM)
- 4) The maximum bumper height must not exceed 46mm (measured at the top of the bumper) and have a minimum height of 27mm (measured from the bottom of the bumper) ALL bumpers, Top chassis and nerf rails must be plugged and have no sharp edges.
- 5) Over riders must be fixed with a Bolt or nut to front and rear bumpers. The height from the top of the bumper to the top of the overrides must be between 19mm and 32mm at the front and must have a maximum of 19mm at the rear.
- 6) The baseplate can be constructed from alloy, glass fibre or carbon sheet, and must not have splits or cuts for suspension.
- 7) Rear suspension to be of the pod type, with a single pivot at the front and simple spring arrangement. No oil filled shock absorbers.
- 8) Independent front suspension can be used (a simple Spring arrangement) with no damping allowed. No oil filled shock absorbers. No beam axle and no alloy wishbones.
- 9) Ball raced Axles are allowed front and rear.
- 10) There is a minimum ground clearance of 3mm, this includes any protruding screws, 1mm clearance for spur gear. 12) Tyres must be foam or rubber, Tyre additives are not allowed.
- 11) Tyres must have a minimum 20mm and maximum 26mm width, and a maximum 60mm diameter.
- 12) The use of multiple speed transmissions (gearboxes) is not allowed, only 32dp pitch gears will be allowed. Limited slip devices and differentials of any kind are not allowed, solid rear axles only. Single nut fixing at either end are allowed only. No carbon axles allowed.
- 13) The cost of the rolling car (excluding all radio, batteries, Esc, and motor) must not exceed £150.00. In the case of scratch built cars the entrant must be prepared to produce replicas of the car if so required for a price of £150.00 or less.
- 14) **MOTORS.** Only one drive motor per car. Only motors that meet the following specification to be used. (see scrutineer if unsure) See appendix A
- 15) **BATTERIES.** Cells to be sub-C sized, 4 cell, 4.8v Nominal. Any capacity is allowed.
- 16) Mechanical or Electronic Speed Controllers may be used. Maximum RRP of £85.
- 17) All cars must have reverse fitted and working at the start of the race.
- 18) Body and chassis must be securely joined at the start of a race and must remain on car during the race. When initially entered at a meeting the bodyshell must be neatly finished and complete.
- 19) Bodies and aerofoils must be made from ABS or polycarbonate, (LEXAN). Metal bodies or aerofoils are not allowed.
- 20) ABS Bodies must have all four windows cut out, LEXAN bodies can have their windows uncut but must be left clear. The height of the body roof from the floor to be between 88mm and 126mm. Aerofoils if fitted must have no sharp edges and be mounted in a safe manner. The maximum size of the centre panel to be no more than 126mm-126mm, and the side panels 126mm-70mm.
- 21) The roof must be painted down to the waistline of the body with the driver's grading colour if an aerofoil is not fitted. If an aerofoil (roof fin) is fitted, this alone may be painted with the driver's grading colour.
- 22) Driver's national race number must be displayed on the exterior of the car. The drivers name must also be on the outside of the body.
- 23) Steel whip aerials and rollover masts are not allowed.
- 24) If you intend to alter your car in any way that is not covered by the rules, you must check with the class scrutineer for approval. We expect all drivers to use common sense when modifying cars and to enter into the spirit of the sport.
- 25) Racing is in an anti-clockwise direction only.
- 26) Contact is allowed, though no follow ins, striking stranded cars or roof shots. Anyone seen to be deliberately doing any of the above will be asked to remove their car from the track.
- 27) Wheels only dog drive wheels with notches (standard) to be used, with a maximum width of 26mm only . No LMP or GT12 style bolt wheels allowed. Only single bolt wheel and axle fittings allowed.
- 28) There must be a minimum distance of 23mm between the baseplate and the Top chassis, this distance must be maintained between the wheelbase of the car.
- 29) Race ready cars to race on track must have a minimum weight of 1200g, this will be measured before every race.

FEATURE		REQUIREMENT (Dimensions in mm.)
1	Can Length from mounting face	53.00 max.
2	Can Diameter	36.02 max.
3	Manufacturers Logo/Motor type	Plain silver Can with:- Manufacturers label including Motor type and Part #, or plain silver Can engraved with manufacturers name, motor type and Part #.
4	Bushings	No bearings/aces allowed, only Bushings
5	Timing - Brush to Can zero, mechanical	Fixed timing. Brush spring plates to have mounting pin centre between magnets.
6	Magnet Position to Can zero	+/- 3 deg.
7	Stack Length with Hystoi removed	21.00/22.80. Measured across metal faces of end laminates
8	Stack Laminate thickness	0.50 +/- .05
9	Number of Turns	21 Turn minimum on each pole
10	Wire diameter without lacquer coating	0.710 mm maximum
11	Balancing	Armature balancing allowed
12	Fan	Armature fan allowed

Paul Worsley. 16.07.19

## PROCEDURAL RULES 2022

### General Rules and Regulations

These General Rules cover all F2 Meetings. They should also be read in conjunction with specific construction rules.

#### General Rules

- 1) The Chairman and Secretary positions elected at the section's AGM shall be held for two years. These positions should be elected on alternate years.
- 2) Any competitor found to be in contravention of the rules and procedures will be disqualified from that meeting, be it at club or national events etc. and will serve a suspension period deemed appropriate by the committee.
- 3) A Junior must be under the age of 16 at the start of the season and shall remain a junior for the entire season. The start of the season is defined by the date of the first 12th Stock car National.
- 4) Racing is in an anti-clockwise direction only.
- 5) Contact is allowed, though no follow ins, striking stranded cars or roof shots. Anyone seen to be deliberately doing any of the above will be asked to remove their car from the track.

#### GENERAL NATIONAL & OPEN RACE MEETING RULES

- 1) BRCA membership cards must be shown during booking in procedure. It is advised that any club holding a BRCA sanctioned event should include an agenda of the meeting with the entry form. This agenda to cover such items as: a) Venue, date, and approximate times of practice, heats and finish time. b) Contact names, addresses and phone numbers. c) Closing date for entries. d) Any special requirements of the venue ; power points, lead acid batteries etc. e) Details of available refreshments. f) Entry forms must include a space for the driver's BRCA membership number & official BRCA race number.
- 2) Lap scoring at all national championship meetings to use an automated system with amb/mylaps/ mrt transponders, on a reliable computer system approved by the committee.
- 3) A suitable audible signal will start each race.
- 4) The following officials must be present at each sanctioned event: Race Director, who must be present throughout the meeting. Chief Scrutineer, who will ensure that all cars meet the requirements of the rules. BRCA Steward, who has absolute authority at race meetings and is responsible for interpretations of the rules.
- 5) Health and Safety. These rules are mandatory and the meeting may not proceed until the BRCA steward is satisfied that these have been observed: a) A first aid kit is to be made available for self administration. This is to be held in an easily accessible area (at club official's discretion). b) Fire extinguishers should be available at all venues. c) Marshalling sticks must be provided. d) If drivers are to stand on a rostrum over 2 foot in height e.g. stage or platform then a suitable fixed front barrier is required and must meet the satisfaction of the safety officer or BRCA steward in attendance.
- 6) All open and national meetings shall be run on carpet. Minimum track width is 1 metre. Start lines must be clearly visible.
- 7) National venues to have minimum six power points available for competitor's use.
- 8) Lap scores may only be questioned by the driver involved. A parent or guardian can represent a junior member.
- 9) Drivers to marshal races as instructed, failure to comply will result in a 25 lap penalty from their total qualifying score. Junior drivers do not have to marshal so long as a substitute marshal can replace them. Once cars have raced , they need to be placed into a park ferme (as designated by race control) until marshalling duties are finished.
- 10) Code of conduct Any misconduct by a driver or their pit crew may be penalized at any committee member's discretion. Drivers or pit crew who fail to observe the code of conduct will be disqualified from the meeting.
- 11) Drivers shall be responsible for the collection and fitting of the correct transponder in their car.
- 12) All competitors will drive from the designated position. Failure to comply will result in the loss of

that race's score.

- 13) Any car losing a wheel or tyre during a race must be removed from the track and have it replaced. Failure to comply will result in immediate disqualification from that race.
- 14) Any repairs to vehicles must be affected off the track.
- 15) Once a race has started, the changing of cells is strictly forbidden.
- 16) Transmitters must be switched off whilst not racing. External battery packs for radio transmitters are not allowed. Voltage supply to the transmitter may not exceed the manufacturer's recommendations.
- 17) Protests must be in writing and must include a £10.00 fee. This fee is refunded if the protest is upheld. If a standard motor is protested and found to be legal then the value of the motor is reimbursed to its owner.
- 18) Only legal transmitter frequencies may be used and all equipment must conform to the current regulations.
- 19) Trophies to be given out as soon as possible to allow people who have travelled a long way to start their journeys earlier.
- 20) At all national meetings the cars will be scrutineered by the BRCA official scrutineer or deputy or official club scrutineer before each heat and before & after finals. A scrutineering box and gauge to be made available for all BRCA meetings. Once cars are scrutineered they must stop on the scrutineers table (park-ferme) until 30 seconds before the race starts.
- 21) If a motor is changed, the scrutineer must approve it. Failure to get the motor approved will result in loss of any results whilst using the new motor.
- 22) At the end of the meeting, all score sheets to be given to the BRCA points compiler who will check all results and be responsible for the distribution of the points tables.
- 23) In the event of an issue with lap counting (for more than one car) the race affected will be run again.

## **F2 STOCKCAR RACING RULES**

- 1) Meeting format, 5 minutes races, 4 rounds with your best 3 rounds to count, commencing with white grades on the back straight, opposite the start/finish line, then yellow a quarter lap down, blue grades a further quarter behind and so on. Top 2 go straight to the final, the next 16 cars go through to the two consolation races, the top 3 from each consolation race are promoted to make an 8 car final. Finals and consolations will start in qualifying order and will be of a 6 minute duration Awarding of points from the event. 1st 100, 2nd 99 etc.... down to 8th place in the final. Then 9th place will be the person who finished 3rd in there semi (with the highest laps) 92, then 3rd in the other semi 91, then 4th in there semi (with the highest laps) 90, then 4th in there other semi 89 etc.... down to the lowest lap score in the semi, then 80 for the first none semi qualifier... down to the last racer, One extra point for top qualifier.
- 2) A Minimum five, maximum nine cars in any one race This applies at qualifying stage only. A tie at any meeting will be decided by the highest lap score of any round followed by the next highest etc., then if still a tie, it will be decided on split times of the highest lap.
- 3) Stock cars will race anticlockwise on an oval track.
- 4) Points for the meeting will be awarded as follows: - 100 points for winner of final, dropping by one point for each driver down to last place, with one extra point for top Qualifier.
- 5) Worse round score to be dropped when qualifying for the World Final with the Top 32 drivers from qualifying going into 4 quarter finals, top four from each quarter go through, leaving 16 finalists going into 2 semi-finals, top four from each semi-final leaving an 8 car final, if the existing world champion fails to make the top 32, they can start at the back of the grid in the final.
- 6) Closed grids in all nationals, semis, grand national's consolation and world series Not staggering like gtl2s Grand National championship has 12 qualifiers.
- 7) Overseas race- top 4 from race get a place in each of the 4 quarters for world final.
- 8) Minimum of 3 rounds of qualifying to be done before a place can be gained in the world finals.
- 9) Any part of the car may be substituted at a meeting except the bottom chassis without having it stamped by scrutineer. Old one to be left in scrutineering until the end of the meeting.
- 10) If a car is found to be illegal after the final, the car/driver is automatically disqualified.

# RACE NUMBERS

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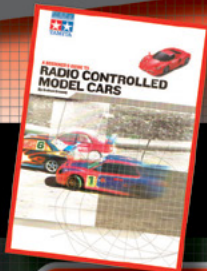
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