

## 1/12 Mardave Circuit Rules

### General Rules and Regulations 2010

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

## General Rules

- 1) At the Sections AGM the Committee once elected shall hold the position for one year.
- 2) The committee reserves the right to amend the rules as required, after consultation with promoters.
- 3) A junior must be under the age of 16 at the start of the season and shall remain a junior for that year. The start of the season is dictated by the date of the first Circuit National.

### General National & Open Race Meeting Rules

1) All National meetings will be arranged by the event organiser with pre entry forms and/or central booking in. Entry forms to be generally available at least one calendar month (earlier is better) prior to the meeting. Money will be paid with return of entry form. Entry fee to be £10.00 for non handout motor class and £15.00 for handout class. BRCA membership cards must be shown during booking in procedure. Individual club committee should try and supply a list on the race day of their members in the event of a card being lost. It is advised that any club holding a BRCA sanctioned event should provide an agenda of the meeting included with the entry form.

This agenda to cover such items as:

- a) Venue, dates, and approximate times of practice, heats and finish time.
- b) Contact names, addresses and phone numbers.
- c) Classes and costs.
- d) Closing date for entries.
- e) Any special requirements of the venue, power points, lead acid batteries etc.
- f) Details of any refreshments available.
- g) Entry forms must include a space for the drivers BRCA membership number.
- h) Notify if concourse event will be run.

2) Entries to be done via the club promoter or nominated club representative.

3) Drivers must supply minimum of 2 frequencies (if using 27MHz or 40MHz) per class entered. Not 2 only split between classes.

4) Lap scoring at all national meetings to be carried out by an AMBrc (to fully allow the use of PT's by competitors) system, on a reliable computer system approved by the BRCA 1/12th Mardave Circuit Committee

5) A suitable audible signal will start and finish each race.

6) A sanctioned event must have the following officials: - Race Director, who must be present throughout the meeting. Chief Scrutineer, who will ensure that all cars meet the requirements of the rules. If a BRCA Steward is available, they would have 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 or Race Director (whoever is more senior in position) 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, (club official's discretion).

b) Fire extinguishers should be available at all venues.

c) Junior members aged 10 or 11 years of age or younger will only be permitted to marshal if :-  
They wish to do so.

They do not walk on the racing area while the race is in progress.

If they do not wish to marshal a parent/guardian who is a BRCA member must complete their duties instead.

d) If drivers are to stand on a rostrum over 2 foot in height i.e. stage or platform then a suitable fixed front barrier is required to the satisfaction of the safety officer or BRCA steward in attendance.

e) All marshals must wear hi-viz vests as supplied by host club, failure to wear a hi-viz vest will be deemed as not marshalling.

8) Minimum track width is 1.5metre. Start and finish lines must be clearly visible.

9) National venues to have minimum six power points available for competitors use.

10) Only the driver involved may be allowed to question their lap scores. A parent or guardian can represent any junior member.

11) Drivers to marshal races as instructed, failure to comply will result in loss of last race time. Failure to marshal a final will result in loss of result for that race.

a) Marshals must be a BRCA member, and have attended the drivers briefing (or at least been invited)

- b) Marshals shall place broken cars at a safe position off the track, and should not attempt repairs. Mechanics can repair cars if they do not distract marshals/drivers or stand within the outside track perimeter.
- 12) Code of conduct- any committee member can bring to the driver's attention, any misconduct by them or their pit crew and may penalize the offending driver at the discretion of the committee. 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. Failure to fit or use the correct transponder will result in no laps being counted.
- 14) All competitors will drive from the designated position. Failure to comply will result in the loss of that score.
- 15) Any car losing a wheel or tyre during a race must be removed from the track. Failure to comply will result in immediate disqualification from that race.
- 16) Any repairs to vehicles must be affected off the track by mechanics only, not marshals.
- 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. No protests will be accepted after the start of prize giving.
- 20) Only legal frequencies may be used and all equipment must conform to the current regulations.
- 21) The number of events to count towards the National Championship's will be half plus one.
- 22) At all BRCA 1:12th Mardave Circuit Meetings there shall be a minimum of 15 minutes practice for each class being raced on the day. Practice shall either be by Peg Board or by structured practice heats.
- 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) At all national meetings the cars will be checked by the BRCA official scrutineer or deputy or official club scrutineer, prior to racing, randomly before each heat and randomly before & after finals.
- 25) If a handout motor is changed, the scrutineer must approve it. Failure to get the motor approved will result in loss of any results taken using the changed motor.
- 26) Any body-shells entered in the concourse event must be run for the duration of a minimum of 1 qualifying heat as scrutineered prior to first race.
- 27) 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 point's tables.
- 28) National dates are to be finalised by 1st March.

## Meeting Format

- 1) There will be 3 rounds of qualifying (5 minute heats) to FTQ format, followed by 2 finals for all.
- 2) At all BRCA 1:12th Mardave Circuit sanctioned race meetings, Trophies will be awarded to 1st, 2nd & 3rd in all finals..
- 3) Race promoters may if they so wish award trophies for Concourse and any others as they see fit. Trophies must be of a reasonable quality.
- 4) All open and national meetings will have A to Z finals.
- 5) Races to start in staggered starts, with the start order determined by the best overall time. Cars not on the track will be automatically started when the first cars crosses the line.
- 6) Cars should start in heats in a single line, any car not at the start line with 10 seconds to go should start behind the grid line.
- 7) Heats should have a minimum of 6 confirmed drivers when initially started, and a maximum of 10.
- 8) Tracks can be run either clockwise or anti clockwise.
- 9) Heat results should be situated where possible in an area large enough to not cause access problems.
- 10) Only Drivers/mechanics and marshals who must be BRCA members are allowed within the track boundary.
- 11) Any penalties should be given as soon as possible to the incident. All penalties must be done and announced via the race control software so that they can be removed if when reviewed they are found to be wrong.
- 12) A pull off area should be clearly marked at a suitable point on the track.
- 13) No uncontrolled warm up laps are allowed.
- 14) Heats will be created from driver's ability, in the event of a tie the higher championship position will be selected for the higher heat.
- 15) Practice, Heats and Finals shall be non contact.
- 16) During qualifying slower cars should allow faster cars through as soon as feasible.
- 17) Drivers gaining a position during a Final due to a contact manoeuvre should allow the innocent party back in front for a minimum of 1 corner before attempting to pass again.

## **Championship Format**

- 1) Competitors will be awarded 100 points for qualifying first, then 99,98,97....etc. Points will also be awarded for final positions, overall 1<sup>st</sup> will get 100 points, then 99,98,97.... etc.
- 2) The National series Champions shall be calculated from half plus 1 meeting to count. At each meeting the qualifying points plus final 1 points will count as one score. The same qualifying points plus final 2 will count as a further round. This would mean with 5 clubs hosting rounds, there would be ten rounds of points, with 6 rounds counting towards the overall Championship.
- 3) All open or National meetings should be run on carpet.
- 4) Finals will consist of 10 cars.
  
- 5) In the event that a meeting has to be curtailed/cancelled, points can be allocated only if a minimum of 3 rounds have been completed for all classes. Final points will be allocated from qualifying position.
- 6) Ability will be calculated/amended by using the BBK software (latest version available) only. This will be updated after each meeting from the final round overall scores. Each driver score will be adjusted relative to the FTQ in each class, and their Championship ranking updated from the main series class i.e. non junior.
- 7) At the first round of the series, heats will be created from ability/championship standing of the previous series.

## **General Construction Rules**

- 1) No vehicle 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 race and must remain on 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) Radio control receivers carried in the car can have either two devices connected, (normally the steering servo and the speed controller) , or the 3<sup>rd</sup> channel/Batt can be used to power an onboard transponder.
- 5) No tyre additives are allowed.
- 6) The use of multiple speed transmissions (gearboxes) is not allowed, only 32dp pitch gears will be allowed unless where stipulated.
- 7) Only one drive motor is allowed per car.
- 8) ONLY previously BRCA approved rechargeable cells may be used.
- 9) For drivers wishing to develop or modify cars, this should be done in the "SupaDave" class.
  
- 10) Minimum ride height will be 3mm (1mm at spur gear).
- 11) Cars should a minimum of 1Kg when using sub C cells, or 840gms if using LiPo.
- 12) Only foam tyres allowed.
- 13) It is the driver's responsibility to prove their car is legal.

# V12/Caterham Circuit Construction Rules

## CHASSIS AND COMPONENTS

- 1) Cars to be standard 1/12th scale Mardave V12/Caterham (dependant on race class) chassis and suspension. No composite chassis allowed.
- 2) Ball races allowed on all wheel axles. Rear axle and spur gear (46,48 or 50tooth) must remain as kit. Diffs allowed in brushless class only 32dp only using original Mardave parts.
- 3) Car suspension and wheel carriers shall remain as kit.
- 4) Chassis top mounting may be changed, altered or removed.
- 5) The motor may be fitted to either side of the chassis, providing that there is no modification or alteration to the chassis or mounting blocks.
- 6) No external bumpers are permitted, although internal foam bumpers are recommended on the front.
- 7) Any non ballraced/ballraced V12 wheel can be used i.e. Mardave, Minilite or Revolution.
- 8) Any commercially available V12 part can be used i.e. Kamtec front strut brace.

## BODYSHELL

- 1) Any commercially available Mardave or Kamtec, ABS, Lexan & Carbon effect bodyshells may be used. The shell must remain securely fixed to the car throughout the race. Windows may be cut out on ABS and carbon effect shells.
- 2) No supplementary aerofoil or fins shall be fitted to the body with the exception of a rear wing if desirable. This wing must be non metallic, commercially available and securely fixed.
- 3) The bodyshell can be decorated to suit the individuals taste providing all coatings are of a permanent nature.

## ELECTRICS

- 4) Any make of servo, servo saver or track rod ends may be used on the cars steering system.
- 5) Any type, make and capacity of brushed speed controller may be used providing it includes reverse (max rrp of £69).
- 6) Only the Mardave brushless G2 speed controller (not G2GT) and 400 size motor allowed in brushless class as supplied by Mardave. Any setting allowed via programme card, but must include reverse.
- 7) Cars to use four cells only, cells to be sub-C sized cells only, with a nominal voltage of 1.2 volts per cell, cells to be Nicad and Ni mah's and should have been listed on the previous BRCA electric board approved battery list. Battery mountings may be changed from the original.
- 8) Brushed Motors will be a controlled motor (the Mardave G2 brushed motor), Brushless motors allowed will only be the Mardave 400 size motor as supplied via Mardave. No other motors are allowed for the National Series. Under no circumstances are fan motors, re-build able motors, fitting of external bearings or skimming of motor armatures allowed.
- 9) Plastic whip aerials are allowed.

## TYRES

- 1) The tyres may be changed from the original kit tyres
- 2) Tyres to be Min 20mm Max 26mm width and have a Max 60mm diameter. No minimum diameter for tyres, but the tyre must cover the wheel. Any foam tyre compound allowed.
- 3) No additives allowed.

# V12 "SupaDave" Circuit Construction Rules

## CHASSIS AND COMPONENTS

- 1) Cars to use standard 1/12th scale Mardave V12 chassis and suspension dimensions. Composite chassis allowed as well as cut outs to chassis as required.
- 2) Ball races allowed on all axles.
- 3) Rear axle and spur gear (either 32dp or 48dp) can use any holder. Diffs allowed in either 48dp or 32dp.
- 4) Car suspension and wheel carriers shall remain as kit.
- 5) Chassis top mounting may be changed, altered or removed.
- 6) The motor may be fitted to either side of the chassis, providing that there is no modification or alteration to the dimensions of the mounting blocks holes i.e. material can be changed..
- 7) No external bumpers are permitted, although internal foam bumpers are recommended on the front.
- 8) Any ball raced V12 wheel can be used i.e. Mardave, Minilite or Revolution
- 9) The use of additional bearings to support the motor shaft is allowed.

## BODYSHELL

- 1) Any commercially available body shells may be used. The shell must remain securely fixed to the car throughout the race. Windows may be cut out on ABS and carbon effect shells.
- 2) No supplementary aerofoil or fins shall be fitted to the body with the exception of a rear wing if desirable. This wing must be non metallic, commercially available and securely fixed.
- 3) The body shell can be decorated to suit the individuals taste providing all coatings are of a permanent nature.

## ELECTRICS

- 1) Any make of servo, servo saver or track rod ends may be used on the cars steering system.
- 2) Any type, make and capacity of brushed speed controller may be used.
- 3) Any brushless system may be used based on a 540 size motor or smaller, with a maximum power of 10.5 turns.
- 4) Cars to use four cells only, cells to be sub-C sized cells only, with a nominal voltage of 1.2 volts per cell, cells to be Nicad and Ni mah's and be listed on the current BRCA electric board approved battery list. Battery mountings may be changed from the original.
- 5) LiPo batteries are allowed as long as they are 1S with a maximum nominal voltage of 3.7V.
- 6) Plastic whip aerials are allowed.
- 7) LiPo charging penalty:  
Over 4.20 - don't start that heat  
Over 4.30 – Disqualified from meeting  
Over 4.50 - Disqualified from Series

## TYRES

- 1) The tyres may be changed from the original kit tyres
- 2) Tyres to be Min 20mm Max 26mm width and have a Max 60mm diameter. No minimum diameter for tyres, but the tyre must cover the wheel. Any foam tyre compound allowed.
- 3) No additives allowed.

# FIM Sidecar Rules

## CHASSIS AND COMPONENTS

- 1) Bikes to be standard 1/12th scale Mardave FIM chassis and suspension. No composite chassis allowed.
- 2) Ball races allowed on rear axle only. Rear axle and spur gear (46,48 or 50tooth) must remain as kit.
- 3) Bike suspension and wheel carriers shall remain as kit.
- 4) Maximum of 3 wheels allowed.
- 5) The motor may be fitted to either side of the chassis, providing that there is no modification or alteration to the chassis or mounting blocks.
- 6) No external bumpers are permitted, although internal foam bumpers are allowed on the front.
- 7) Any non ball raced V12 wheel can be used i.e. Mardave, Minilite or Revolution

## BODYSHELL

- 1) Any commercially available Mardave or Kamtec, ABS, Lexan & Carbon effect body shells may be used. The shell must remain securely fixed to the bike throughout the race.
- 2) No supplementary aerofoil or fins shall be fitted to the body.
- 3) The body shell can be decorated to suit the individuals taste providing all coatings are of a permanent nature.

## ELECTRICS

- 1) Any make of servo, servo saver or track rod ends may be used on the cars steering system.
- 2) Any type, make and capacity of brushed speed controller may be used providing it includes reverse (max rrp of £65).
- 3) Bikes to use four cells only, cells to be sub-C sized cells only, with a nominal voltage of 1.2 volts per cell, cells to be Nicad and Ni mah's and be listed on the current BRCA electric board approved battery list. Battery mountings may be changed from the original.
- 4) Brushed Motors will be a controlled motor (the Mardave G2 brushed motor), Brushless motors allowed will only be the Mardave 400 size motor as supplied via Mardave. No other motors are allowed for the National Series. Under no circumstances are fan motors, re-build able motors, fitting of external bearings or skimming of motor armatures allowed.
- 5) Plastic whip aerials are allowed.

## TYRES

- 1) The tyres may be changed from the original kit tyres
- 2) Tyres to be Min 20mm Max 26mm width and have a Max 60mm diameter. No minimum diameter for tyres, but the tyre must cover the wheel. Any foam tyre compound allowed.
- 3) No additives allowed.