

BRCA MICRO SCALE OFF-ROAD OFFICIAL 2009/10 RULES

1. Racing Classes.

a) 2wd

1.1. All cars running in the 2WD (Two Wheel Drive) class must be RWD (Rear Wheel Drive). Only the rear wheels may be connected to the cars transmission; the front wheels must rotate freely in both directions. All cars running in the 2WD class must be fitted with micro size wheels, excluding tyres with they must have a maximum diameter of 46mm. 1:10 Scale Touring Car size wheels are not permitted. Wheels to be measured, if required, from the centre of the cars axle to the edge of the wheels rim when fitted to the car.

1.2. Any brushed micro motor, no larger than 400 size or any brushless micro motor. Motors must comply with the following dimensions: Can Width 29mm. also see rule 16 (technical diagrams)

1.3. Any commercially available stadium truck or buggy micro shell.

1.4. Any micro scale chassis with any chassis modifications.

1.5. A maximum of six 2/3A NI-MH cells or any Li-PO cells allowed to a maximum nominal voltage of 7.4V. The brca micro scale section recommends the use of a fire proof bag for li-po charging.

1.6. Lithium cells must have a voltage cut-off device set to 6V. This device can be integrated into the ESC or fitted as an external component.

1.7. Any commercially available rubber tyre may be used (no Foams) as long as the vehicle conforms to the construction dimensions in section 2.2.

b) 4wd

1.8. Any brushed micro motor, no larger than 400 size or any brushless micro motor. Motors must comply with the following dimensions: Can Width 29mm. also see rule 16 (technical diagrams)

1.9. Any commercially available stadium truck or buggy micro shell.

1.10. Any micro scale chassis with any chassis modifications.

1.11. A maximum of six 2/3A NI-MH cells or any Li-PO cells allowed to a maximum nominal voltage of 7.4V. The brca micro scale section recommends the use of a fire proof bag for li-po charging.

1.12. Lithium cells must have a voltage cut-off device set to 6V. This device can be integrated into the ESC or fitted as an external component.

1.13. Any commercially available foam or rubber tyre may be used as long as the vehicle conforms to the constructional dimensions in section 2.2.

2. Construction Rules.

2.1. All cars must comply with dimensional requirements. Also see Rule 16, (Technical Diagrams).

2.2. Dimensions in mm:	Max	Min
Overall width (Ready to race) -	205	N/A
Wheelbase (Ready to race) -	185	N/A
Ride height -	N/A	5

2.3. The car shall be measured for width by placing it on a baseboard equipped with two side rails of 20mm height spaced 205mm apart constructed in such a way that the car can roll freely between them. The measurement of the wheel base may be made by simple measurement of axle centre distances with the suspension in the resting position. Race Directors should be prepared to make more exact checks in case of doubt or protest. It is suggested that the wheels are removed and the spindles placed on blocks whilst accurate measurements are made.

2.4. Tyre treatments are not permitted. The BRCA has not yet found a substance which it can recommend for the treatment/cleaning of tyres.

2.5. Bumpers may be fitted but must be designed to minimise injury that could result from being hit by a car, also to reduce the risk of damage to other cars.

2.6. No roll-over masts/antennas to be used

2.7. All cars must have Clearly defined windows.

2.8. All cars to have clearly visible identifying numbers to the Race Directors satisfaction.

2.9. Numbers must be at least 25mm high with minimum stroke of 4mm. They must be black numerals on a white background at least 5 mm wide, and must be clearly visible on the front facing

surface of the body shell.

2.10. When initially entered in a meeting the body shell must be neatly finished, complete and painted at least one colour.

2.11. Speed controllers equipped with a reverse function should have it disabled, as Cars must not reverse during competition.

3. General Standards for BRCA sanctioned events.

3.1. Sanctions will be granted, on application, by the BRCA micro scale committee. All Applications must be received for consideration by the closing date defined by the section. The Venues will be selected by the committee and the Calendar will be announced 1 month after the section conference. Dates are subject to 'Force Majeure' and will normally comprise of one meeting per month on the first Sunday.

3.2. Enough pit tables for 80 drivers (90 linear metres of tables) and enough suitable chairs. Failing this, enough room for 80 drivers to erect their own tables.

3.3. Adequate power is required in the Pits, access to mains circuit protection (RCD's, MCB's and main fuses) is useful.

3.4. Rostrum safety certificates (if required) should be made available to the BRCA on the day of the event.

3.5. Clubs must provide a hotel list with this application to be posted on the BRCA Micro website and used in the entry confirmation.

3.6. The track should be positioned to minimise any unfenced (over and above the track edging) track edges accessible to the public or racers.

3.7. Race control PA to be available to all drivers.

3.8. The main straight and any associated sweeping corners must be fenced or located so they are adjacent to the building walls.

3.9. Clubs must ensure that adequate fire extinguishers are available to use in an emergency. The BRCA will make available its own first aid kit for the event.

3.10. The club is responsible for purchasing a suitable range of trophies for 1st, 2nd and 3rd places in each final and FTD in each class.

3.11. Track designs shall be adhered to, resulting in consistence between venues.

4. Administrations

4.1. There will be a Maximum Entry of 80 Drivers and 100 cars per national meeting

4.2. All entrants must have a current BRCA licence; your membership card may be required when booking in.

4.3. To enter a national Competitors must complete an entry form and either post or e-mail the form to the section secretary

Post: Cheques and postal orders payable to BRCA micro section (no Cash).

E-mail: Full entry form must be filled in and the payment type ticked on the form. Payment can be forwarded by cheque or postal order through the post or alternatively the payment can be made via Paypal, if paying by Paypal the Paypal address must be included on the entry form. The entry will only be confirmed once the Paypal payment has cleared or once the cheque or postal order has been received.

4.4. National entry fee to be £11 per driver and per class. A Competitor may race a second class at a national event for an extra fee of £5

4.5. If the entry is not full by the closing date, then drivers may enter on the day. On the day entrants must pay an extra fee of £5 on top of the applicable entry fee. Late entrants and the heat that they are entered into will be placed at the race director's discretion to fill remaining vacant places left in the current heats.

4.6. Competitors that officially enter a National event and fail to attend without prior notice of cancellation being given the closing date of entries for that event, will lose their entry fee.

4.7. Competitors who do not attend and fail to advise the section secretary prior to the weekend of the meeting will be given a 0 handicap rating for that meeting.

4.8. All entries cancelled prior to 6pm on the closing date of entries will be eligible for a full refund minus any administration fees.

4.9. The payment to the host club is 75% of the taken entry fee's.

4.10. Entries will close 10 days before the event is due to take place.

4.11. The BRCA Micro Section will provide a computer which will run the meeting, however the use of the clubs timing equipment including handout transponders will still be required.

5. Officers of the meeting

5.1. A sanctioned event must have the following officials provided by the club:

5.1.1. Race Director, must be present at race control throughout the day or replaced by a deputy.

5.1.2. Chief Scrutineer, who will ensure that all cars meet the requirements of the rules. Each official must be a separate person; no one person

5.2. The committee will provide support to the Race director and the chief Scrutineer should they need it.

5.3. Also Present at the event will be a track Liaison officer, who will work with the Host club and the health and safety officer and the other drivers to make any necessary adjustments to the track should they be needed. Any alterations must be completed before each qualifying round and not during, and be for one or more of the following reasons :-

5.3.1. The track is unsafe for spectators and/or marshals

5.3.2. The track is Un-drivable i.e. the obstacles are in an inappropriate position on the track or they are not suitable

5.3.3. The track area, including Rostrum, does not meet the requirements of the rules and regulations at any point.

5.3.4. If Visibility from the rostrum to any part of the track is/will be impaired

6. Track and Venue specifications

6.1. Clubs must have a minimum of 200 sq.m of track area.

6.2. Have adequate carpet and track markings.

6.3. Minimum track width is 1.75m and the track must consist of at least one change of surface.

6.4. Clubs must provide a range of Jumps/Obstacles including a feature jump and at least two jumps (causing the car to jump 500mm in height) including landing ramps All jumps designed for a car to jump more than 500mm in height must have a landing ramp. All jumps and obstacles must be full track width.

6.5. All tracks must contain a 'Stop and Go' penalty area, which can be used as a pull off area.

6.6. The rostrum must be positioned to minimise the risk of people obstructing the drivers view. The distance from the rostrum to the edge of the track is to be 2m. The minimum length of the rostrum must be 7.3 (24ft) metres between 0.75m (min) and 2.1m (max) high, and of a suitable width.

6.7. The main straight to be a maximum length of 20m & must include a flat section of at least 15m, as to enable a grid layout. The main straight must be 2m or wider for its entire length.

6.8. Provision must be made for the 'official shop'. Only the 'official' shop will be able to trade at each round.

7. Racing Procedures

7.1. At the first round of the championship the top 10 drivers will be Seeded by lottery and split 5 and 5 across the top 2 heats, For Subsequent rounds the current top 8 drivers (calculated by drivers best scores from half plus 1 of the rounds completed with halves rounded down) will be place across the top 2 heats in the same manner, all other drivers to be placed using the handicap system into the remaining places. In the event that a class entry does not exceed 16, all drivers will be placed using handicap ratings.

7.2. Everybody at the meeting must attend the Drivers briefing. Any driver (or their nominated marshal) who fails to attend drivers briefing will be excluded from the meeting.

- 7.3.** Heats and finals shall be of 5 minutes duration plus the time to complete the last lap, to a maximum of 40 seconds.
- 7.4.** Qualifying will consist of 4 rounds of qualifying heats. Points will be awarded for each round. Tied positions within a round will receive equal points. The points for subsequent positions will be displaced by the number of tied drivers involved. A driver's best 2 scores will be added together to give a qualifying position. Ties will be eliminated firstly by using discard points and secondly, by use of the fastest overall time.
- 7.5.** All Finals to consist of 10 cars where possible.
- 7.6.** Drivers rostrum position for A and all other finals to be decided by qualifying positions and all drivers must enter the rostrum in qualifying order, one at a time (pole first choice to 10th last choice).
- 7.7.** Competitors may only drive during their race and then only from the rostrum. Competitors not in the race must not interfere with the progress of any driver within a race. No Driver to leave the rostrum until the race is declared over or unless instructed to do so by the Race Director.
- 7.8.** Heats will start with cars in one line across the track and will use a 1 second (minimum) staggered start system.
- 7.9.** The Race Director has the choice of starting the pole position on the left or right hand side of the straight. The 10th Place car will be placed at the start of the straight; the remaining cars will be placed on a grid in front with at least 1.5m intervals.
- 7.10.** In the event of interference being evident before the start of a race a 2 minute delay may be applied, or longer at the Race Directors discretion. All cars must remain on the track or under the Race Directors control.
- 7.11.** At 30 seconds prior to the start, all cars must be in position behind the start line, after this time any car not at the start line must wait behind the other cars.
- 7.12.** Only the Race Director, deputy or BRCA steward may abandon a race. If deterioration of the track stops the progress of any car then the race must be abandoned. If the race is stopped after one lap has been completed then time must be allowed for recharging.
- 7.13.** Drivers must Marshall 1 Heat after their own race or practice (drivers in the last heat Marshall practice round 1), unless asked to referee. All Marshalls must be BRCA members and have attended the drivers briefing. And must be in position by the 30 second call.
- 7.14.** Marshals must be watching their section of the track at all times and should make every effort to keep their area section of the track clear from non moving cars.
- 7.15.** Should a car not be able to continue for any reason then it is the marshal's responsibility to remove the vehicle from the track and switch it off, not to repair the car, thus drawing their attention away from the track. Cars in need of repair may be passed to a mechanic for repair and may be returned to the track at a safe place not impeding any other drivers in any way, and not gaining any advantage i.e cutting the track.
- 7.16.** Prior to the rack being open all transmitters must be removed from the pit area and placed in designated transmitter compound. Except when racing, transmitters must remain in within the compound until the track is declared closed for the day. Transmitters may be removed by individual competitors at the race directors discretion to allow for new electrical items to be checked and set up. – provision for charging transmitters will also be made in this area
- 7.17.** At all Sanctioned events it is the driver's responsibility to securely fit the lap recording equipment to their car before the start of any race. Providing this is done in accordance with the race director's instructions, any malfunction of the equipment provided by the organiser or its separation from the car will oblige the organisers to count that car's lap manually. Competitors using a personal transponder that malfunctions, may have their laps manually recorded provided that the transponder starts and finishes the race clock for the heat or final This Procedure will only be adopted once for each competitor per race meeting.

8. Protests

- 8.1.** Protests – must be in writing and include a £20 fee. This fee is refunded if the protest is upheld. Protest decision to be made by the Race Director, race directors' decision is final. No protest to be made after the prize giving

9. Championship Meetings

- 9.1.** The number of rounds to count towards the overall championship shall be half the total number of rounds plus 1, with halves rounded down.
- 9.2.** All meetings to be held indoors on a mixed surface.
- 9.3.** Meetings will consist of 1 round of practise, 4 rounds of qualifying and 1 round of finals.
- 9.4.** Points for the championship will be awarded as follows (per class):
- | | |
|---------------------|-----------------------------|
| Qualifying overall: | Final: |
| 1st ~ 100 points | 1st in the 'A' ~ 100 points |
| 2nd ~ 99 | 2nd 'A' ~ 99 |
| 3rd ~ 98 | 3rd 'A' ~ 98 etc. |
| 4th ~ 97 | 1st 'B' ~ 90 etc. |
| 5th ~ 96 etc. | 1st 'C' ~ 80 etc. |
- 9.5.** A concourse competition will be held at all rounds. Cars will be judged at a line up prior to drivers briefing . Competition to be judged by a host club committee member.
- 9.6.** Only the 'official' shop will be able to trade at each round.
- 9.7.** An F2 Championship Will be run in addition to the overall championship. Drivers will be placed into a formula at the start of the season based on their handicap prior to the first round of the championship. The threshold for f1 or f2 will be 39.0. Any driver who's handicap falls within +/- 2.0 of the threshold can choose weather to compete in F1 or F2. if a driver does not have a full handicap at the start of the season, they will be placed into an appropriate formula after they have obtained a full handicap rating.
- 9.8.** Team award: At each meeting drivers may enter a team made up of 4 drivers. Points will be scored in relation to your finishing position in finals. 1st = 1pt, 2nd = 2pts e.t.c with the best 3 scores to count the team with the least amount of points at the end of the meeting is the winner. In the event of a tie the team who scores their points in higher finals (the A final being more valuable than the B final e.t.c) will win the team award. Team entries will be £2 per event with the funds going directly to the club running the meeting. Team should be entered before the start of qualifying at any given meeting.

10. Referees

- 10.1.** Provision shall be made for a referee in all heats and finals, Any BRCA Member present can be asked to referee, and this person will referee instead of marshalling, failure to referee will bring the same penalty as failure to Marshall.
- 10.2.** The nominated referees will be announced at drivers briefing and prior to the finals commencing.
- 10.3.** The referee should have an unobstructed view of the track and a timing screen.
- 10.4.** A microphone will be provided for the referee, to allow clear communication to the drivers rostrum.
- 10.5.** The Race referee has the authority to issue appropriate warnings and penalties as set out in section 11 and 12, they may also request drivers to allow a faster car to overtake.
- 10.6.** The length of the stop go penalty is at the discretion of the referee and is dependant on the severity of the incident.
- 10.7.** A head referee will also be appointed to provide advice to referees and to oversee any protests against decisions made by the race referees – decisions made by the head referee are final.

11. Referee's Guidelines.

At least one referee must be present in the designated referee's area watching each Heat and Final and should be watching for :-

- 11.1.** Cars in a dangerous condition, i.e Body not secured to chassis, Any part of the car causing damage to the race surface, and anything which causes a hazard to marshals or spectators.
- 11.2.** Jump Starts
- 11.3.** Corner cutting
- 11.4.** Proper execution of penalty awarded by a referee
- 11.5.** Bad/wreckless Driving. i.e causing an avoidable incident, this applies to cars which are lapping also, they should be giving the slower car time to move out of the way
- 11.6.** Poor marshalling or infringement by marshall of rule 7.

11.7. Any infringement of rules set out in section 12.

11.8. Any drivers or marshals not in position prior to the 30 second call.

In addition to this the race referee should keep an eye on the race order and keep the drivers informed of who the faster cars are and advise them when a car is approaching to lap them.

If the race referee sees any other infringement of the rules during a race eg, use of reverse or leaving the rostrum prior to race over being called the race director should be informed so as the correct penalty can be applied.

Penalties can be issued by the race referee as follows

11.9. Cars in a dangerous condition – The referee should order the driver to remove the car from the circuit – the procedure set out in rule 8.o should be adhered to.

11.10. Jump starts – Stop and go penalty in qualifying for starting out of order 5 seconds, unless the driver has pulled over and not impeded the progress of another driver. In finals for moving after 30 second call but before the start signal stop go penalty.

11.11. Corner cutting – 1 lap penalty, referees may allow the Drivers to wait and then tell the driver to continue when safe to do so, in this case the 1 lap penalty should not apply. – lap to be taken off at the end of the race by the race director.

11.12. Improper execution of a penalty – repeat of the penalty until it is correctly carried out to the referees satisfaction,

11.13. Ignoring a penalty – 1 lap penalty to be applied to the drivers time at the end of the race by the race director.

11.14. Bad/Wreckless Driving – Stop go penalty

11.15. If 3 penalties are issued in the same race to the same driver – loss of FTD. – If persistent infringements continue the driver may be excluded from the meeting.

12. Penalties

Scrutineering

12.1. Failure to comply with the rules set out in sections 1 or 2 is punishable by loss of the time for that race. The Driver should be informed when he collects his car and the chief Scrutineer should advise the race director of the failure at the earliest opportunity after the car has been collected.

Marshalling

12.2.1. Heats

All marshals are required to be at their marshalling position by the '30 second' call. (1st fail = loss of time for that round) (2nd fail = loss of FTD)

12.2.2. Finals

Any marshal who has completed their final and is not at their marshalling position by the '30 second' call will be penalised. (Fail = loss of time and championship points for their final)

12.2.3. Poor Marshalling

This will be punishable by warning only from the referee unless poor marshalling is persistent in which case a time penalty will be applied on the advice of the race referee (min 10 seconds, max 1 lap)

12.2.4. Infringement of Rule 12. - repairing a car, drawing attention away from marshalling).

1st offence = Warning, 2nd Offence = 10 second penalty, 3rd offence = 1 lap penalty

General

12.3.1. The use of reverse is banned in all practise, qualifying and finals

1st fail in practise or qualifying = loss of FTD

Fail in a final = loss of time and championship points for that final

- 12.3.2.** Drivers must stay on the rostrum until 'Race Over' has been called. Any driver leaving the rostrum, or stepping forwards off the rostrum at any point during practise, qualifying or finals will be penalised.
 Fail in practise or qualifying = loss of FTD
 Fail in a final = loss of time and championship points for that final
- 12.3.3.** All drivers must be on the rostrum by the "30 second" call for their qualifying round or final. Drivers will not be allowed to enter the rostrum, and therefore race, after the "30 second" call.
- 12.3.4.** All cars must be either on the starting line, or on their grid position at the "30 second" call.
 Fail in qualifying = driver may start qualifying after the "30 second" call but will have to start at least 1 second after the last car has left the starting line.
 Fail in final = car must start from the back of the grid behind all other drivers

13. Handicap Ratings

13.1. Handicaps are calculated as follows, based on heat times not finals,

a) The best qualifying times of the top 10 drivers are taken and an average of the times gives us the norm (N) which is taken to be 50%

b) Each competitor's best qualifying time (T) is then compared against the norm (N) in the following formula, $((N - T) / T) \times 100 = \% \text{ Difference to the norm}$. The Handicap can then be calculated by $50\% + \text{Difference from the norm}$.

Example:

Norm = 26.7 seconds

Drivers best time = 27.6 seconds

Handicap = $50 + (((26.7 - 27.6) / 27.6) \times 100)$
 = 46.74%

c) This figure is then compared with the driver's three previous results, which are held on computer. The lowest of the four is deleted and the remaining three are then averaged, this final figure is then rounded to 0.01% before publishing.

Example: (a) 32.60% (b) 18.69% (c) 45.21% (d) 46.74%

(b) is then deleted being the lowest and therefore the drivers handicap is 41.52%

Example 2: New driver (a) 00.00% (b) 00.00% (c) 00.00% (d) 46.74%

(a), (b) or (c) is then deleted and the new driver's handicap is 15.58%

A competitor's handicap will be deleted if they have not raced within the section for two seasons.

14. Radio Equipment.

14.1. All UK radio equipment must conform to the current BRCA and UK regulations for 40MHz, 27MHz and 2.4GHz. Competitors are advised to have at least three changes of frequency crystals'.

15 Force Majeure.

15.1. In the event of Force Majeure, the committee reserve the right to amend these rules without prior notice.

16. Technical Diagrams.

