



General Competition Rules

2012

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1.0 General Rules

- 1.1 **Annual Calendar:** The DMCC Committee are required to convene a meeting as soon as possible after the club AGM to identify, set, and publish key calendar dates for the indoor season ahead. Another meeting should be scheduled for shortly before the outdoor season to do the same. The calendar should include dates for the start of the indoor season, start of the outdoor season, bank holidays, relevant EFRA and IFMAR events, relevant RCCAOI events, special events (Petit, oOple, Jag & Daimler etc.). Once supplementary regulations have been published, dates for the club championships can also be added. A pdf formatted calendar with a revision number (REV00, REV01, REV02... etc.) should be made available on the club website throughout the year with club members being advised every time a new revision is released.
- 1.2 **Appointment of officials:** It is the responsibility of the race director to appoint race officials. For a race meeting to commence, a minimum of one race controller must be appointed before the start of the meeting. The Race Director may appoint an additional referee and a scrutineer, when available. In all circumstances, race officials and committee members are deemed to be judges of fact.
- 1.3 **Membership and subscriptions:** All drivers are obliged to pay their DMCC membership fees at the start of the year. Once a full membership fee is paid, the participant is deemed to be a “**Full Member**”, and eligible to enter all DMCC events and is the only membership type that is able to vote in matters relating to the club or at the AGM. An “**Associated Membership**” fee is applicable to mechanics, guests, family etc who are not drivers, but will be within the confines of the race venue and need to be covered by the club’s insurance. A “**Single Event Temporary Membership**” fee will be added to a driver’s race fee for the benefit of visiting drivers, new drivers, guest drivers etc for the same reason. Membership shall be as defined in the constitution and membership fees as decided by the AGM. A membership form template is given in Appendix C.
- 1.4 **Race fees:** Race fees are set by the committee and should only be reviewed once a before the start of either season. i.e. a maximum of twice a year. Different race fees for indoor and outdoor season may be required to cover the extra costs associated with the indoor season.
- 1.5 **Entries:** Participating drivers may only submit one entry per class at all meetings.
- 1.6 **Amendments to Rules:** The committee has the power to remove, alter or change any existing rule(s) or add any new rule(s) to the Rules Book, to accommodate any changes on legal or fiscal requirements, or changes in recognised or legally required safety procedures. This action can take place at any time within the club’s year without the need for an EGM or AGM. Any action of this nature will be made known to the membership as soon as possible on the club website. Any decision taken must be ratified at the following AGM with a 2/3rds majority.
- 1.7 **Championships:** The DMCC committee is required to publish a set of supplementary championship regulations, as per Appendix C, specifying championship dates, eligibility, points system, awards, etc. a minimum of 2 weeks before the championship commences.

- 1.8 **Seeding System:** For the purposes of seeding heats and making awards the DMCC uses a seeding system. Details are in Appendix D. Modification to the system may be made once a year, before the start of the outdoor season to ensure that driver's grading are sympathetic to an international scale. Changes to F4 and F5 motor restrictions may also be made, however the lowest wind motor permissible is 10.5 brushless/19T brushed. A list of drivers and formula gradings should be made available on the club website.

2.0 Definition of Rolls

- 2.1 **Race Controller:** Person responsible for operation of timing equipment and general running of the event with regards to timing, lap counting etc. The race controller should also ensure that all marshals are in their correct positions and are performing their duties correctly.
- 2.2 **Race Director:** Person elected by the AGM responsible for the overall organization and control of the event, regarding any timing interruptions, issuing of penalties etc. The race director's decision on penalties is final. The race director is the only person whom may issue a warning/penalty to a driver.
- 2.3 **Judge of Fact:** At all events, race officials and DMCC committee members are deemed to be judges of fact and may assist the Race Director in their duties. Judges of Fact are also responsible for the interpretation of rules.
- 2.4 **Scrutineer:** Person responsible for the technical inspection of cars at all meetings. The scrutineer can be instructed by the race director/referee on the race day regarding when, if at all, to conduct scrutiny.

3.0 The running of a DMCC event.

- 3.1 **Entering an event:** All drivers wishing to take part in an event should enter/book-in on the morning of the race meeting. On a special event or championship round where booking-in prior to the event is mandatory, the organisers will advise all members that this is applicable a minimum of two weeks before entries are closed. Entry details will also be detailed on the event supplementary regulations.
- 3.2 **Scrutiny:** If instructed to do so by a race official, all drivers in all or any individual race should present their cars and transmitters to the scrutineer for inspection **before and/or after** their relevant race commences. All equipment must comply with the technical regulations for the class.
- 3.3 **Marshalling:** Drivers entering a race meeting are deemed to agree to marshal the race following their race unless instructed otherwise by the race officials. Marshals must be in their marshalling position before the 30 second to start alert is given to the heat/final. Failure to do so may result in that marshal receiving a penalty. Drivers who are unable to marshal must nominate a capable substitute to marshal for them, but the race controller must be notified of this prior to the 30 second warning. Where a

driver is entered in consecutive heats, but in different classes it will be the driver's responsibility to provide a suitable substitute marshal to cover marshaling duties. Failure to marshal or to provide a suitable substitute marshal will be deemed to be a withdrawal from the previous race and class. Where there is a lack of marshals due to a small entry in the previous race volunteer marshals can be called for by the race controller to replace the missing marshals. Please see the marshaling guide in Appendix A. Bad marshaling by substitute marshals shall result in penalization of the nominating driver.

- 3.4 **Practice:** Practice is only permitted between the time that the track is ready to be used and before the start of the drivers briefing. Practice on the track between rounds or between rounds and finals is not permitted. At the discretion of the race director a driver may use the main straight to test radio or motor problems, any such testing should be restricted so as not to allow the driver to gain practice on the track. The race director will have the option of waiving this rule on a day to day basis.
- 3.5 **Race Duration:** Heats and Finals have a 300 second plus last lap duration.
- 3.6 **Seeding of heats:** Drivers should be assigned to heats in order based on their formula grading (F1 – F5) with F1 drivers being assigned to the first heat in the class and F5 drivers being assigned to the last sequential heat in the class. If there are not enough driver of any particular formula to fill a heat, drivers of the next grade may be added to the heat to fill it. See Appendix D.
- 3.7 **Qualifying system:** Where it is not specified in the event supplementary regulations; The default qualifying system is Round-by-Round where the drivers best 2 from 4 overall qualifying positions will determine their final and grid position. Where ties exist, the driver with the fastest qualifying time will be positioned ahead of the driver with the slower time. If more than 4 rounds of qualifying are run, then the drivers best 50% (rounded up if required) rounds to be used to determine overall qualifying. (IE 5 rounds best 3 to count 6 rounds best 3 to count.) FTQ only to be used in exceptional circumstances, with the majority vote of the drivers at the begin of the race day. Round-by-Round is used at all if nearly all international events. This produces fair and even racing over a day. Good for the club to follow best international practice.
- 3.8 **Posting of results:** At the end of each qualifying round the race controller should post the end of round positions for all drivers. Where possible the timing of each qualifying heat should also be posted. If a printer is not available the race controller should make this available on a computer screen.
- 3.9 **Abandonment of an event:** It is the responsibility of the race officials and judges of fact to make the final decision about whether an event is to be abandoned. Abandonment of a race meeting may be influenced by adverse weather, or any other exceptional circumstance. Adverse weather conditions can be defined as any weather that may reduce the safety of any participant, and/or that may cause an unacceptable risk of damage to RC equipment by the majority of drivers. Where an event is abandoned before or during round 3 of qualifying; the event will be deemed null and void. Where an event is abandoned after round 3 of qualifying has been completed; Final positions will be awarded based on the qualifying positions after the last fully completed round of qualifying. Where an event is abandoned during the finals, the results of the completed finals will stand, whilst the results of the abandoned finals will be based on qualifying positions.

- 3.10 **Publication of final results:** Event results will be posted on the club website as soon as possible after the end of the meeting.
- 3.11 **Race numbers:** It is the driver's responsibility to ensure that his / her car has the correct numbers properly displayed. No delays will be allowed because of incorrect numbers and a car with incorrect or no numbers displayed will not be permitted to start.
- 3.12 **Track layout:**
- 3.12.1 The track must be laid out so that there are no hidden areas when viewed from the rostrum.
- 3.12.2 Corner cutting must be discouraged by the placing of barriers of a suitable material which will not cause damage to the cars coming in contact with them. Corner markers are also to be of such construction that they will not trap the car.
- 3.12.3 The minimum track width is to be 2m, the straight will be minimum of 3m wide. The straight will be a minimum of 20m in length.
- 3.12.4 Marshalling points 1 to 6 will be clearly marked around the track. Where possible all heats and finals should have 6 marshals.
- 3.12.5 The start line for the heats shall have a further line marked 1m in front of it for the use in the adjudication if jump-starts.
- 3.12.6 For the finals, a grid shall be laid out in two lanes which are 2m apart, the gap between each car should be 2m, if the straight accommodates (the full length of the straight should be used for the grid with at least a 1m gap from the back of car 1 to front of car 2 etc.). An option will be given to the pole position driver as to which side of the start lane they want and cars will be alternated down the grid.
- 3.12.7 **Multi-leg finals:** Where supplementary regulations specify that multi-leg A finals should be applicable, the following procedure must be applied. All other finals apart from the A final remain as single leg finals. Ties will be rectified as per;
- 3.12.8 **2 legs** are specified: Points are awarded for qualifying positions – 1st (100), 2nd (99), 3rd (98) etc. Points are also awarded for final positions in each leg – 1st (100), 2nd (99), 3rd (98) etc. The overall final standings are determined by adding each competitors best two scores from the three together and placing them in descending sequence.
- 3.12.9 **3 legs** are specified: Points are awarded for the final positions in each leg of the finals – 1st (100), 2nd (99), 3rd (98) etc. The overall final standings are determined by adding each competitors best two scores from the three together and placing them in descending sequence.
- 3.12.10 **Ties:** When two or more competitors are tied with equal points at the end of the event, the first competitor to satisfy one of the following criteria will be deemed to be the winner of the tie.

- a. Driver with most overall victories from counting scores
- b. If still tied, driver with most 2nd places, then 3rd etc. from counting rounds.
- c. If still tied, the driver whom qualified highest from the qualifying rounds.

4.0 Penalties

- 4.1 **Failure of scrutiny:** this is deemed to be use of any equipment contrary to the technical regulations for the given class or failure to comply with any request of the scrutineer regarding the technical inspection of the car. Penalty: The driver will not be permitted to start their race.
- 4.2 **Leaving the rostrum:** Any driver leaving the rostrum whilst the race is still in progress. Penalty: First offence, warning. Second offence – 1 lap deducted from the drivers fastest time of the day. Third offence – disqualification from the meeting.
- 4.3 **Corner Cutting:** Corner cutting will be deemed when all 4 wheels of the car leave the track area. It is expected that drivers will return to retake the corner. If this is not done and an unfair advantage is gained then penalties will be applied. See article 4.12.
- 4.4 **Obstruction:** Deliberately impeding faster cars (during qualifying), and failure to allow lapping cars to overtake.
- 4.5 **Reckless/careless driving:**
Reckless is defined as a deliberate action with lack of regard to the consequences. Careless is defined as a lack of action which might have prevented a collision, i.e. impeding other cars as you re-enter the race after a crash. Collisions; a car making contact with the car in front.
- 4.6 **Jump Start:** A jump start will be deemed to have taken place if the front wheels cross the start line before the car should start. In the event of a jump-start occurring, a 10-second penalty will apply. If in the event that the car crosses the 1m line during a jump-start, 1 lap will be deducted from that cars time for the race.
- 4.7 **Failure to start:** Not leaving the start line when instructed. If a car fails to leave the start line in sequence in accordance with the stagger start system 1 lap will be deducted from that cars time for the race.
- 4.8 **Bad marshalling:** Unfair, lazy or careless marshalling may be penalised. See article 4.12.
- 4.9 **Issuing of penalties:** All penalties should be issued via the race controller and after the race has finished, with the exception of jump start penalties which should be issued immediately.
- 4.10 **Appeals:** Any complaints or appeals should be made to the race controller by the driver only. These complaints will then be passed on and dealt with accordingly. Complaints must be made on the day of the race. Any complaints from mechanics or other persons on their behalf may result in penalties issued against that driver.
- 4.11 **Driver behavior:** Drivers will be held responsible the behavior of their representatives and may be penalised accordingly. See section 8.0.
- 4.12 **Definition of Penalties:** For all above offences, unless otherwise stated the following penalties will apply:

1 st offence	Warning - Official warning given by race directors of unsatisfactory behavior.
2 nd offence	10 Second penalty - 10 Seconds added to the first lap time of your race and recalculated from that point.
3 rd offence	Loss of FTD - Loss of your fastest qualifying time of the day for that class.
4 th offence	Disqualification - disqualification from that class for the remaining duration of the event, no points shall be awarded

PLEASE NOTE THAT THESE PENALTIES WILL NOT ONLY APPLY TO REPEAT OFFENCES THE SAME INFRINGEMENT I.E. BEING PENALISED ON ANY FOUR SEPARATE OCCASIONS WILL GET YOU DISQUALIFIED. THE RACE DIRECTORS HAVE THE RIGHT TO IGNORE ANY OR ALL ABOVE STAGES OF PENALTIES AND MOVE STRAIGHT TO DISQUALIFICATION IF THEY DEEM THE SEVERITY OF THE OFFENCE REQUIRES THIS ACTION.

- 4.13 **Extreme circumstances:** Under extreme and exceptional circumstances a driver's behavior may be referred to the committee by race officials. This will involve the DMCC making a judgment on an appropriate sanction if required.

5.0 Radio Equipment

- 5.1 **Authorised Equipment:** Only commercially available radio equipment may be used. In competition, all drivers must have a minimum of three frequencies available or use 2.4GHz equipment.
- 5.2 **Reversed crystals:** Reversed crystals are prohibited.
- 5.3 **Frequency changes:** No change may be made to the allocated frequency, without the approval of race control. Only changes notified by race control will be official.
- 5.4 **Transmitter Voltage:** Power supply for the transmitter must not exceed the designed voltage for the transmitter.
- 5.5 **Frequency clashes:** For finals and in the event of crystals clashes, it is the responsibility of the lower qualifier to change crystals as is required.
- 5.6 **Unauthorised use of a frequency:** The responsibility is on the driver to ensure that they have the correct crystal installed. Races will not be delayed to rectify crystal clashes caused by the unauthorized use of a frequency. Non-conforming drivers, using the incorrect crystal, will not be permitted to start the race. Drivers wishing to use a frequency in the pit area should check that the frequency is not allocated for use by an on-track driver during the same period. Causing deliberate radio interference/clashes will entail the highest level of penalties.

6.0 Race Procedure & Scoring

- 6.1 **Cars per heat/final:** As a default, all heats and finals shall consist of no more than 6 cars. Where a meeting has 24 or more drivers in any particular class, this may be expanded to 8 cars per race. Where a meeting has 40 or more drivers per class, this may be expanded to 10 cars per race. Track size and layout may also limit the number of cars in each heat – this is at the race director's discretion.
- 6.2 **Scrutiny:** Cars should be scrutinised at the scrutineer's discretion at the start of each race. Cars may be also scrutinised at the end of the race.
- 6.3 **Start sequence:** For all qualifying heats a stagger start system will be used, cars leaving the start at a minimum of one second intervals as directed by race control. The race program determines the start sequence.
- 6.4 **Meeting format:** All meetings follow a default format of four qualifying heats followed by one leg of finals, unless otherwise advised in the event supplementary regulations. Where adverse weather is expected or lack of light, the race officials may shorten the event to three rounds of qualifying and one leg of finals.
- 6.5 **Championship Points Scoring:** Championship scoring is detailed in the championship supplementary regulations.
- 6.6 **Championship ties:** The procedure for dealing with championship ties is detailed in the championship supplementary regulations.

7.0 Championships

- 7.1 **Event Eligibility:** Only DMCC committee approved events may be used as part of any DMCC championship. Where a multi club championship is proposed, only one set of rules must be adopted. i.e. the DMCC rules, the RCCAOI rules or one of the other club's rules. A minimum of 8 individual drivers must participate in a meeting for it to qualify as a championship round.
- 7.2 **Driver Eligibility:** All DMCC members are eligible to enter DMCC championships.
- 7.3 **Championship Regulations:** A set of supplementary championship regulations based on the template in Appendix C, should be approved and issued to all members at least 2 weeks before the first round. A copy of these regulations should be made available by the club at each counting round.
- 7.4 **Calendar Regulations:** Once the supplementary regulations are published, none of the championship dates may be changed. In exceptional circumstances, date changes may only be sanctioned by a unanimous vote by the DMCC committee at least 1 month before the proposed change. Dates of reruns or abandoned events must be announced at least 1 month before scheduled.

8.0 Conduct of Competitors & Race Officials

- 8.1 **Principle directive:** Drivers shall at all times practice good manners and sportsmanship. Bringing the club and sport into poor public opinion and/or disrepute will not be tolerated and will in most cases command that the maximum penalties be applied.

- 8.2 **On the Rostrum:** It is the responsibility of each driver to uphold the highest personal standards of behavior and sportsmanship. Shouting or threatening/abusive behavior to other drivers, marshals, race officials or any other attendee at the track will be dealt with swiftly and heavily.
- 8.3 **Whilst Marshaling:** see Appendix A
- 8.4 **Conduct of Officials:** If a race official's conduct is brought into question, a report must be submitted within 24 hours by the subject driver/group to the committee with signatures of two witnesses and signatures from at least 50% of the racers in attendance on the day.
- 8.5 **Instruction from Officials:** Any driver who ignores instructions or directions from any of the race official's can be asked to leave the event.

9.0 Race Classes

- 9.1 **Principle Directive:** The DMCC is primarily a club for 1/10th Offroad Electric Racing.

9.2 Outdoor season classes:

2wd 2 wheel drive (rear) using an unrestricted, currently approved motor as defined in Appendix B.

2wd (clubman) 2 wheel drive (rear) using a brushless motor of 10.5 turns or greater or a 19 turn brushed, currently approved motor or greater as defined in Appendix B.

2wd and 2wd (clubman) classes will be amalgamated for the purposes of running heats and finals.

4wd 4 wheel drive using an unrestricted, currently approved motor as per Appendix B.

4wd (clubman) 4 wheel drive using a brushless motor of 10.5 turns or greater or a 19 turn brushed currently approved motor or greater as per Appendix B.

4wd and 4wd (clubman) classes will be amalgamated for the purposes of running heats and finals.

9.3 Indoor season classes:

2wd 2 wheel drive (rear) using an unrestricted, currently approved motor.

2wd (clubman) 2 wheel drive (rear) using a brushless motor of 10.5 turns or greater or a 19 turn brushed, currently approved motor or greater.

2wd and 2wd clubman classes will be amalgamated for the purposes of running heats and finals.

4wd 4 wheel drive using an unrestricted, currently approved motor.

4wd (clubman)	4 wheel drive using a brushless motor of 10.5 turns or greater or a 19 turn brushed currently approved motor or greater.
	4wd and 4wd clubman classes will be amalgamated for the purposes of running heats and finals.
TC	1/10 th Scale saloons using a brushless motor of 10.5 turns or greater or a 19 turn brushed, currently approved motor or greater.
Other	Mardave Mini, 1/12 th scale, Tamiya Mini, 2 wheel drive (front) in standard kit form.

10.0 Technical Regulations (Buggy)

10.1 Appearance

- 10.1.1 Cars entered for racing should be reasonable representations of the style of full-sized cars generally accepted as being suitable for rally cross, rallying, touring cars, trail or desert racing.
- 10.1.2 Any commercially available 1/10th scale body shell may be used.
- 10.1.3 All cars must make suitable arrangements for racing numbers to be displayed facing to the front.
- 10.1.4 No car may be driven without a body shell being securely fitted at all times.
- 10.1.5 When initially entered in a meeting the body must be neatly finished and painted.

10.2 General Construction

- 10.2.1 No car shall be constructed so as to be dangerous or capable of causing damage to other cars, marshals, officials or spectators.
- 10.2.2 The overall width of the front bumper (if fitted) must not exceed the overall width of the front track width of the car including wheels. The bumper must be constructed of resilient material such as plastic or rubber, minimum thickness 2.5mm and edges to be rounded.
- 10.2.3 Gear covers must be securely fixed to the car at all times.
- 10.2.4 Only one drive motor may be used.
- 10.2.5 The use of electronic sensors or devices fitted to wheels/drive or suspension units to enhance performance is strictly prohibited. (Factory fitted sensor as part of a sensed brushless motor is permitted.) Gyroscopes and electronic gimbles are also prohibited.
- 10.2.6 Max. Length 460mm (including bumper)
- 10.2.7 Max. Width 250mm
- 10.2.8 Max. Wing Width 220mm

- 10.2.9 Max. Wing Length 80mm
- 10.2.10 Minimum Weight 2WD: 1474g
- 10.2.11 Minimum Weight 4WD: 1588g
- 10.2.12 Weight applies to cars complete and ready to race, excluding any lap counting equipment.
- 10.2.13 To be eligible to compete in the 4WD class, 2WD cars must race at 1588 grams minimum weight.

10.3 Tyres

- 10.3.1 Wheels and tyres must conform to the following, no form of metal or plastic spike, tubes or anything similar shall be attached to the tyres. Max. Outside diameter 90mm, any combination of commercially available tyres and wheels may be used. No tyre additive may be used.
- 10.3.2 Control tyres may be used in all classes. If control tyres are to be used they will be nominated in the championship supplementary regulations.
- 10.3.3 Tyre additive may not be used.

10.4 Motors

- 10.4.1 Any EFRA approved brushless or brushed motor may be used. The latest list of approved motors is available in Appendix B. There is no limit on the turns for modified motors.
- 10.4.2 Motors not on list may be used at Race director discretion.
- 10.4.3 To be eligible for the Clubman category, competitors must use 10.5 brushless/ 19T brushed motors or greater only.

10.5 Batteries

- 10.5.1 NiCad / NiMh
Drive batteries must conform to the following; the cars will be driven by a maximum of six rechargeable batteries. Only Sub C sized cells are approved. The size of the individual cell is 23mm in diameter and 43mm in length. The nominal voltage rated as 1.2 volts. All cells must have their manufacturers heat-shrink substantially intact. Batteries may not be changed during a race. Only rechargeable cells approved by EFRA are allowed – see Appendix B.
- 10.5.2 LiPo
Lithium based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for the exit of wires. Individual cells used in the construction of the battery pack shall be rated at (LiPo 3.7v/LiFe 3.3v) nominal. Individual cells may be wired in parallel. The maximum connection 'In Series' is two, to give a Final pack voltage of (LiPo 7.4v/LiFe 6.6v) nominal. **LiPo battery packs must not exceed a total pack voltage of 8.40v** – drivers found to have exceeded this charge voltage as part of pre-

race scrutiny will not be permitted to race. Any Lithium batteries EFRA approved can be used – see Appendix B.

10.5.3 Batteries not approved by EFRA may be used at the Race director's discretion

11. Technical Regulations (Touring Car)

11.1 Appearance

11.1.1 Commercially available 1/10th scale body shells as touring car racing as specified in APPENDIX C. Other body shells may be used at race director's discretion.

No GT/ Nascar or Sports car shells allowed (i.e. Group C, Lola etc.).

11.2 General Construction

11.2.1 No car shall be constructed so as to be dangerous or capable of causing damage to other cars, marshals, officials or spectators.

11.2.2 Only one drive motor may be used.

11.2.3 The use of electronic sensors or devices fitted to wheels/drive or suspension units to enhance performance is strictly prohibited. (Factory fitted sensor as part of a sensed brushless motor is permitted.) Gyroscopes and electronic gimbles are also prohibited.

11.2.4 Width (including body shell) Max. 200mm, Min. 175mm

11.2.5 Length (including body and wing) Max. 460mm, Min. 360mm

11.2.6 Wheel base Max. 270mm, Min. 250mm

11.2.7 Wing cord Max. 40mm

11.2.8 Width of rear wing (inc. Endplates) Max. 185mm, Min. 125mm

11.2.9 Height of rear wing Max. 25mm

11.2.10 Height Max. 175mm, Min. 120mm

11.2.11 Wing overhang (at rear) Max. 10mm

11.2.12 Wheel Diameter (excl. tyre bead) Max. 50mm , Min. 46mm.

11.2.13 Wheel width inc. bead Max. 26mm , Min. 18mm.

11.2.14 Tyre Diameter (when mounted on wheels) Max. 67mm, Min. 52mm.

11.2.15 Tyre width (across sidewalls)-rubber Max. 27mm.

11.2.16 Minimum weight for electric touring cars is 1500g (ready to race and excluding lap counting equipment).

11.3 Tyres

- 11.3.1 If control tyres are to be nominated by the committee and announced on the club website 2 weeks prior to the commencement of a competition or event. Where time does not allow for this 2 week announcement, the committee/organisers will make provision for an adequate number of control tyres to be available trackside on the day. All championship supplementary regulations for this class should include the nominated control tyre.
- 11.3.2 Tyre additives are not permitted.
- 11.3.3 The use of any type of tyre warmers is not permitted.
- 11.3.4 "Cut and shut" tyres are not permitted

11.4 Motors

- 11.4.1 Any EFRA approved brushless or brushed motor may be used. A link to a list of approved motors is available on the club website. There is no limit on the turns for modified motors. See Appendix B.
- 11.4.2 Motors not on list may be used at Race director discretion.
- 11.4.3 To be eligible for the Clubman category, competitors must use 10.5 brushless/ 19T brushed motors or greater only.

11.5 Batteries

- 11.5.1 NiCad / NiMh
Drive batteries must conform to the following; the cars will be driven by a maximum of six rechargeable batteries. Only Sub C sized cells are approved. The size of the individual cell is 23mm in diameter and 43mm in length. The nominal voltage rated as 1.2 volts. All cells must have their manufacturers heat-shrink substantially intact. Batteries may not be changed during a race. Only rechargeable cells approved by EFRA are allowed. See Appendix B.
- 11.5.2 LiPo
Lithium based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for the exit of wires. Individual cells used in the construction of the battery pack shall be rated at (LiPo3.7v/LiFe 3.3v) nominal. Individual cells may be wired in parallel. The maximum connection 'In Series' is two, to give a Final pack voltage of (LiPo 7.4v/LiFe 6.6v) nominal. **LiPo battery packs must not exceed a total pack voltage of 8.40v** – drivers found to have exceeded this charge voltage as part of pre-race scrutiny will not be permitted to race. Any Lithium batteries EFRA approved can be used. See Appendix B.
- 11.5.3 Batteries not approved by EFRA may be used at the Race director's discretion.

APPENDICES
TO GENERAL COMPETITION RULES
2012

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D