

15.0 1:8th RALLYX Off-Road Rules

AIM

To provide a uniform format for 1/8th scale off-road racing cars to compete with one another on an open National basis. The intention is to encompass all commercially available 1/8th scale cars, yet still encourage invention and innovation with the aim of developing the hobby by allowing one-off home constructed cars, and modifications of kit products.

15.0 1/8th NITRO BUGGY, E-BUGGY & TRUGGY

15.1 TECHNICAL SPECIFICATION

- 15.1.1 Max overall length as per Efra 550mm
- 15.1.2 Overall width 310mm maximum.
- 15.1.3 Wheelbase 270-330mm.
- 15.1.4 Minimum overall weight 4WD - 3.2 kilos. (The overall weight includes personal transponder and receiver pack, but not fuel).
- 15.1.5 Overall height measured from the ground including roll bar at full suspension compression 250mm maximum. [This measurement does not include the receiver aerial.]
- 15.1.6 A suitable measuring system should be in place and the same measuring equipment will be used at all National events.
- 15.1.7 The car shall be measured for length and height in a similarly constructed box of internal dimensions 730 x 310mm, which includes provision for checking maximum height.
- 15.1.8 The measurement of the wheel base may be made by simple measurement of axle centre distances with the suspension in any 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.
- 15.1.9 It is the responsibility of the driver to ensure that his car complies with the regulations at all times that it is on the track. Race Organisers may check any car for compliance with the regulations at any time during a race meeting.
- 15.1.10 At the end of each qualification heat, all cars (together with fuel bottle) are to be taken to scrutineering immediately. This applies to all cars that have participated at any time during the race. Cars need to be taken before the one minute to start signal for the next heat or in the case of the final heat of qualifying and for any finals, this needs to be one minute from being requested by the Race Organiser/Committee Official. See Rule 15. Cars should be available for collection at the end of the following race.
- 15.1.11 If a car is found to exceed the dimension limits on checking immediately after a race, positive proof of race damage may prevent penalty.

15.2 ENGINES

- 15.2.1 Only internal combustion engines with a maximum capacity of 3.5 cubic centimeters are allowed.
- 15.2.2 A fuel tank capacity of 125cc maximum including all piping tubes and filter up to the carburetor is allowed.
- 15.2.3 Exhaust noise levels should not exceed those set out by EFRA.
- 15.2.4 All silencers are to point downwards, i.e. anywhere below the horizontal and must meet EFRA approved regulations and appear on the most up to date EFRA homologation list plus the previous year's list (available on request).
- 15.2.5 Factory fitted pull start engines to a maximum capacity of 4.6cc will be allowed.

15.3 TYRES

- 15.3.1 All tyres must be black, with the exception of side wall lettering.
- 15.3.2 Tyres must be commercially available.
- 15.3.3 It is not permitted to reduce the diameter or width of a tyre by cutting material out. Trimming of spikes is allowed.

15.4 WINGS

- 15.4.1 WING SHOULD BE AS PER EFRA 217MM X 85MM CHORD 70MM HEIGHT

15.5 APPEARANCE

- 15.5.1 Cars shall be a reasonable representation of the style of car used for off-road, desert or trial racing.
- 15.5.2 Full body shells of saloon style are permitted, but they may only be trimmed to expose 50% of the tyres at full suspension depression.
- 15.5.2 Openings may be cut in the shell to allow access to fuel filler, switch and engine adjustments. Clearance around such items shall be kept to a minimum.
- 15.5.3 Body shells as described in 3.2 need not conform to scale but should conform to the provisions of EFRA rules. Acceptance of a saloon body shell by another EFRA section shall be deemed to imply approval by the Rallycross Section for racing purposes.

15.6 RADIO CONTROL EQUIPMENT

- 15.6.1 It is the responsibility of all drivers to ensure that their equipment does not cause interference to others, and that their receiver is not faulty.
- 15.6.2 Only approved frequencies are to be used. Any driver using a 2.4 GHz system cannot call for a frequency check at any time.
- 15.6.3 It is not permitted to add any additional batteries to a transmitter either internally or externally to raise the designed supply voltage above the original manufacturer's design specification, i.e. a six cell transmitter may not be fitted with more than 6 cells, either NiCad or dry cell, also any 8 cell transmitter may not be fitted with more than 8

cells, etc. No additional aerial or extension should be added to the driver's radio equipment.

- 15.6.4 No other function than steering and throttle/brake are allowed to be operated by the transmitter. No electronic device can operate within the car other than the two channels back to the transmitter, a failsafe, a switch and a personal transponder.
- 15.6.5 Only commercially available 2.4Ghz Radios and Receivers can be used at a national eve

15.7 OFFICIALS

The meeting organiser will appoint the following officials familiar with all aspects of the Association Rules:

- 15.7.1 Race Director who controls all racing and is responsible for the smooth running of the meeting. Specifically the Race Director controls (and appointed assistants as is required), the maintenance of the circuit, safety, marshal positioning, manning and substitution and start procedures and delivers the Driver's Briefing.
- 15.7.2 A Scrutineer who will inspect cars at random throughout the meeting and will authorise any change of chassis or side rails.
- 15.7.3 If, in the event of a decision being required which is not met by the existing rules as stated in the Sectional Rules, a representative from each club present at the meeting and the race director on the day (who shall have the casting vote if required) shall be able to make a decision and that decision shall stand.

15.8 DRIVERS-BRIEFING

- 15.8.1 A Drivers' Briefing will be held prior to the race starting The Race Officials should be introduced to all competitors; The Race Director will give drivers' briefing as pointing out all race procedures and marshalling requirements for the specific track, as per 1. 14, the example in the general rules.

15.9 TRANSPONDERS AND LAP COUNTING

- 15.9.1 All competitors taking part in a National event are to have a Personal Transponder fitted to their car. No Club transponders should be allowed to be used at any National round. Each individual is required to ensure the correct individual transponder number is recorded on the race computer during the booking in process and are responsible for their equipment to be fully functional.
- 15.9.2 All clubs must provide a written booking in sheet which the driver must fill in for his days racing. The sheet must contain his name, pt number, frequencies, car type, engine, tyres. It is the driver's responsibility to make sure all the information is correct as no heat will be rerun due to wrong pt number being given by the driver.

15.10 RACE FORMAT & WARM-UP EVENTS

15.10.1 EBuggy & Nitro Truggy Race Format

The EBuggy & Nitro Truggy Classes will run on Saturday

Driver's briefing 7.45am

3 x 7 min practice starts 8am

3 x 7 min qualification with combined two best scores to count.

30 minute lunch

3 Leg Finals of 10 minutes each – no bump ups

Best 2 of 3 final scored to count

Point for finals only.

15.10.2 Nitro Buggy Race Format (Based on 50 drivers)

The Nitro Buggy Class will run on Sunday

Driver's briefing 7.45am

2 x 7 min practice starts 8am

3 x 7 min qualification with combined two best scores to count.

30 minute lunch

Double sided Xmas tree finals (Max 6 finals plus main final)

Finals to be 20 minutes long each side

Main final 45 minutes

MAIN			Main final		
1/2		A20		B20	
1/4		A20			B20
1/8	A20				B20

1/8 finals have 10 cars in each with 2 bump up to 1/4

1/4 finals have 8 cars directly qualified and 2 bump up from the 1/8

1/2 finals have 8 cars directly qualified and 2 bump up from the 1/4

Main finals are made up of the top 5 cars from A side & B side ½

15.10.3 Track closure and warmup events

All 1/8 tracks hosting a national round will remain closed 7 days prior to a national round with the exception of a open to all club round taking place the weekend before . This allows the club to continue to receive its normal revenue but stops the national competitor from using the track in an unfair advantage situation. It also allows the club the time to prepare the track for the upcoming event.

15.10.4 QUALIFICATION

Qualifying heats for all classes shall be of 7 minute duration with a maximum of 5 heats taking place, with a maximum of 10 cars in a heat.

Where a tie occurs in the overall qualifying results, no discarded rounds of qualifying will be used to settle the tie. Fastest time will be used instead.

Qualification will be run using a “rolling start”. All cars will be released from the pit-lane by the Race Director after Race Control has signaled that the warmup period can commence. The warmup period will last for 2 minutes. Drivers will be notified that there are 2 minutes, 1 minute, 30 seconds and 10 seconds to the start of the qualification period. They will be notified when the qualification period has started. The qualifying period commences when each car crosses the timing line after the expiration of the warmup period. A car not starting its individual clock prior to 1 minute after the first car has completed its first lap will, at this time, have its clock started and be deemed a late starter.

When all cars on the track have completed the lap following the expiry of their individual qualifying period, Race Control will request that all cars return to the pits. Any car not on the track will be given a split time of the last lap completed.

Drivers and mechanics should wait until the rostrum and pit lane have been vacated before taking up their positions. Radio equipment may be turned on during the prior heat and engines started, as frequency clearance on the prior and following heats should exist.

On completion of their heat, drivers should go immediately to the marshal point of their car number and relieve the existing marshal. Marshals need to be at their posts prior to one minute to the start of the following race.

Marshals should wear the distinguishing tabards provided. No marshal shall leave their point whilst fulfilling their marshalling duties [e.g. should not return cars to the pit lane/mechanic] or at the end of a race should not leave until the race has fully finished and has been announced over by race control

The highest heat number will marshal heat one and marshals must be in place for Practice. Drivers will marshal the appropriate race themselves, unless agreed by the Race Director.

At the end of each round, qualifying times and positions will be published, as will the points scores.

A maximum of two mechanics per driver will be allowed in the pit lane to assist with repairs, re fuelling, etc. All mechanics in the pit lane will be required to wear luminous jackets/bibs so that they are equally visible on the track as marshals (see Rule 5). All mechanics are required to stand away from the pit lane while not retrieving or re fuelling cars.

No Track cutting is allowed during the out laps or in laps during the race itself, penalty to be applied.

15.10.5 FINALS

Each **Nitro Buggy** fractional final will run for 20 minutes and only the A final will be 45 minutes duration. **Each EBuggy & Nitro Truggy final will consist of 3 x 10 minute legs with a driver's best two scores from three to count.** A minimum of 3 cars are required to constitute a final. Each final starting from the A will have a minimum of 8 drivers and cannot be split for the purposes of marshals. The number can only be increased to 10.

The interval between finals will be a minimum of 10 minutes. If the track or previous final run is wet (as defined in general rule 6.10) then at least an extra 10 minutes (making 20 minutes minimum in total) will be made available to allow those bumping up from lower finals to prepare their cars, if so desired. The time will start when the last bump up cars have passed scrutineering. During this period the track is to remain closed to all finalists. As in qualifying, the next group may not utilize the rostrum or pit area until it has been vacated by the previous finalists. Unlike qualifying, radio equipment must remain off until the prior final is complete.

Le Mans type starts will be used for finals. Numbers will be placed along the main straight at intervals of at least 3 metres - Where the track does not allow for this spacing, the whole of the main straight must be used.

Race Control will call 1 minute before the start for 1 mechanic per driver to go to their car's start position on the straight. No starting equipment may be taken to the start grid by the mechanic.

Race Control and not the Start Marshal has ultimate say over the start times of each race. When called to the start line by Race Control, the cars must return immediately to their start line mechanic.

When appropriate, Race Control will commence a count down from 10 and the Starter will indicate with a flag each increment. At 3 the starter's flag will be on the ground and Race Control will call 'cars down' The mechanics must then place the cars on the track, release them and step back when placing down the cars back wheel must be touching the piping of the straight, no throwing of the cars into the centre of the track will be allowed. Penalty to be applied after first lap. The count continues to zero when Race Control will start the race by an audible sound [e.g. horn] and the Starter will raise his flag. The race is started by the signal from Race Control, not the Starter's flag. All racers and mechanics must be able to hear clearly the starting horn from race control on the starting of the race.

All tracks must have a PA system capable to provide the Racers and Mechanics clear audible sound during the race meeting. This sound should also be clearly audible in the pitting area of the track.

Clarification of the starting procedure is clear, and should be made clear to the racers at the start of the finals.

Once the countdown has commenced, no mechanic/car may cross between the start grid and pit lane in either direction until the start is underway and all cars have passed. A car starting from the pit lane may only join the race when all other competitors have passed the pit exit.

The race director may call a restart if they deem it necessary.

The race will be considered complete when all the cars on the track next cross the timing line after the allotted race time has elapsed. The car must actually cross the timing line between the track markings to have been deemed to finish the race. No car may be pushed over the line. Any car that is manually aided over the timing line at ANY time during the race will lose that lap counted. Other penalties may apply.

Drivers moving up may have to make a frequency change.

On completion of their final, drivers not progressing to the next final should go immediately to a marshal point to relieve the existing marshal. No marshal shall leave their point whilst fulfilling their marshalling duties [e.g. to return cars to the pit lane] or at the end of a race until a replacement arrives.

Marshals should wear the distinguishing tabards provided. The A Finalists will marshal the first final that runs. For the following finals, drivers will marshal at the numbered point relating to their starting position in the final they have just completed Substitute marshals must be competent to carry out duties and be agreed with the Race Director.

A maximum of two mechanics per driver will be allowed in the pit lane to assist with repairs, refueling, etc.

A delay may be called at the start of the A final. Only 1 delay may be called in total for a duration of 10 minutes, the driver that calls the delay will lose their grid placement and rejoins at the rear of the grid

15.11 RACE INTERRUPTION

- 15.11.1 If in agreement, the Race Director, Section Chairman, may decide to interrupt a Final due to adverse weather conditions. In the absence of one of these Committee Members, the opinion of another Committee Member should be sought.
- 15.11.2 If more than half a final has been run and the race has to be stopped, the position at the time of interruption will be the result. Otherwise points will be allocated from the latest qualifying positions.

15.12 PROTESTS

- 15.12.1 All protests must be made verbally within 15min of the posting of Results and in writing by close of Meeting together with a deposit of i30 to the Race Director. If the protest is upheld, this money will be reimbursed.
- 15.12.2 Protests must be made within 15 minutes of the publication of the results in question. The protest period of 15 minutes commences when the results are published on the Results Board and announced as such.
- 15.12.3 Protests regarding the legality of cars must be made in writing, together with the fee, to the Race Director.
- 15.12.4 A copy of the National Rules and Section Rules in printed format, must be available and in the care of any race control hosting a National Round, for the clarification of rules and answering of questions.

15.13 PENALTIES

- 15.13.1 Penalties will be handed out in the following order, the race director has the right to ignore any or all of the stages of penalties and move straight to disqualification if he/she deems the offence requires such action to be taken. A second opinion will be sought from the section Rep and both parties must agree to the disqualification Failure of scrutiny for the car not meeting the correct specification will result in loss of that rounds time, whereas blatant cheating i.e. incorrectly sized fuel tanks or engines may result in disqualification

1. Warning

2. 10 second penalty applied to the race time that the penalty was incurred.
3. Loss of FTD, the driver will lose his best qualifying time for the day.
4. Disqualification from the entire event.

Each of these penalties may be applied by the race director for any infringements relating to sportsmanship, driving or marshalling. Examples of infringements, failure to marshal, late marshalling (arriving at the track to marshal after the race has started), corner cutting, deliberate collision with another car on the track, use of bad or inappropriate language whilst on the rostrum, please note it is also possible for a drivers mechanics or substitute marshal to incur penalties on their behalf.

- 15.13.2 Driver conduct while on the rostrum or in the eye of the general public while representing the RCCAOI must and should be of a standard that is acceptable in today's society. Poor behavior, for example foul language, temper tantrums etc. can be investigated up to 7 days after the event and can carry any or all of the penalties set out in rule 13.

15.14 TRACK AND SAFETY GUIDELINES

Please note that due to the lack of track options the following comments are simply guidelines that clubs should aspire to achieve when constructing a track for use at RCCAOI national level. The final decision as to whether a track is suitable for use or not will be made by the section chairman.

- 15.14.1 Tracks must be a minimum of 4 metres wide and at least 250m long when walking the shortest route. (Guidance to organisers: should aim for a lap time of minimum 35 seconds). There may, however, be a single point of the track layout where the width may be reduced by 1 metre [i.e. to 3 metres] for a maximum length of up to 10 metres.
- 15.14.2 No public access to the track Area allowed. Spectators and marshals are to be protected from the risk of being hit by cars. A suitable safety fence is to be constructed to protect marshals in dangerous areas such as the end of the straight, or points where traffic on another part of the track is travelling towards the marshal from behind.
- 15.14.3 Track markers and design should reduce the ability of cars to cross lanes or cut corners, be such that they minimise the risks of cars becoming airborne and to minimise the risk of damage to cars.

- 15.14.4 The rostrum must be a minimum of 10 metres in length, 1.83 metres high and able to accommodate 10 persons safely (i.e. with good margin). The front must have a safety rail and a kickboard and the floor should be constructed of solid material and be all at one level. All steel-constructed rostrums must be fully earthed in at least two places. The rostrum should be marked into equal sections so that 10 spaces are marked out, enabling drivers to see which space is available to use. Where possible the raised pit area to be located safely below the raised podium.
- 15.14.5 Any person inside the safety fencing must be directly involved with the racing, i.e. marshals and mechanics. At the start of a heat or final, mechanics, on the release of the cars, must return to the pits as soon as possible and marshals must be standing at their designated points.
- 15.14.6 Track features will be 'vetted' by the section chairman before the commencement of a meeting and, with the agreement of the majority of Committee Members present, removed if deemed necessary.
- 15.14.7 No car shall be used outside of the track vicinity at any time of a race week-end (including periods when the race event is not taking place). See Rule 15. A small controlled area can be set up for use, to be completely fenced in by double fencing, at the Race Organiser's discretion. This is not compulsory on the Race Organiser.
- 15.14.8 No motorised bike/bicycle/scooter is allowed to be used within or outside of the track vicinity at any time of a race week-end (including periods when race event is not taking place). See Rule 15. This does not include motorised vehicles required for disabled members of the public.
- 15.14.9 There should be no "blind spots" on the track at no point should it be possible for driver to lose sight of their car (including the pit lane) regardless of what point on the rostrum they stand. A significant amount of the car should be visible at all times (not just a portion of the wing or aerial).
- 15.14.10 Timing loops should be clearly marked with either lines or chequers . Loops must be placed away from the pits due to the fact cars can be carried across them being recovered to pit lane . Suggested loop placement should be at the very start of the main straight and nowhere near pit entry or exit. This would be mandatory for all National tracks wishing to host.
- 15.14.11 All tracks wishing to host a 1/8th Offroad national round must have a covered rostrum. A solid structure or a permanent roof is ideal, but a tarpaulin securely strapped to poles or beams will suffice.

- 15.14.12 All national tracks should have a pit lane suitable for all 3 classes - nitro buggy, ebuggy & truggy. The pitlane should be the full length of the rostrum and have sufficient width as not to cause a blindspot.
- 15.14.13 Jumps faces shall have consistent profile and structural integrity across its full width. Their construction should be solid and resistant to flex which could cause unexpected car behaviour.

15.15 NITRO TRUGGY RULES

150ccm fuel tank and monster truck wheels.

Exhaust pipes: All silencers are to point downwards, i.e. anywhere below the horizontal and must meet EFRA approved regulations and appear on the most up to date EFRA homologation list plus the previous year's list (available on request).

16. APPROVED FREQUENCIES

16.1 2.4 GHz (however, see rule 4.2)

17. NATIONAL POINTS ALLOCATION

Winner 100pts, Second place 99pts, and third place 98pts etc

For example: If to be scored 4 from 6 with 4 rounds counting, only the 4 counting scores can be used.

If tied, the result will go from number of points from 4 scored rounds, then number of 1st, 2nd and 3rd etc. If still tied go to qualifying positions of only scored rounds of 1st, 2nd and 3rd etc.

In the event of still tied the championships would be split.

Qualifying points will not be used to calculate final classification points in any class.

18. MANDATORY TRACK FEATURES

18.1 All tracks must feature a raised pit area suitable for refueling of cars, including provision for cars to be lifted out of the driving lane through the pit area.

19. RALLYCROSS COMMITTEE

The formation of a rallyx committee, formed from the clubs that take part in the series to give and help the running of the series in a recognised position by the association by the people involved at the grass roots level. All the clubs involved in the series provide 2 elected members from their committees to help run the series. For example 3 clubs = 6 officials plus the section rep =7. The section rep will become the driver's representative. Any decision involving 1/8 rallyx would then be taken by the rallyx committee and therefore would avoid any confusion and save time in future events. An end of year section report would then be given at the RCCAOI AGM.

20. FEES

Entry fee to be standardised flat rate £20 for track use for week end . A second class fee would be reduced to £15

21. NATIONAL RACE MEETINGS FOR NON RESIDENTS NORTH OR SOUTH OF IRELAND.

For nonresident if you plan to do the whole series, the minimum number of counting rounds must be prepaid.

If you plan to not do the whole series then you are in the bottom heat and bottom final with no bump up so you cannot interfere with anyone's points scoring in the overall championship.

Into general rule section in conjunction with current general rule.(See 1.14 in General Rules)

22. 1/8 EBUGGY

1/8 EBUGGY should follow Efra rule format with the exclusion of the words "Only homologated batteries shown on the EFRA Approved Lists on the official EFRA website will be legal for use at EFRA sanctioned events. All Lithium Batteries must comply with the published data shown on the EFRA Approved Battery Lists Batteries that are not compliant with the dimensional rules or published weights will not be allowed." Efra rule is page 96 5.8

23. Mandatory Venue Facilities

All 1/8 off road national venues must provide access to a fully working maintained toilet within the track facility