



ASSOCIATION OF AUSTRALIAN RADIO CONTROLLED MODEL CAR CLUBS

1/8th SCALE I.C. OFF-ROAD SECTION

Construction and Race Format Rules

The following rules are supplementary rules to the most current IFMAR rules which shall be used to form the basis of the Australian Off-Road Construction and Race Format rules. The only time AARCMCC shall deviate from IFMAR rules are listed below.

Preamble

The purpose of these rules is to provide a clear understanding of the requirements to host an AARCMCC Affiliated Event from 1 January 2016. Unless stated below all other requirements to host a round of the Australian Championship or State title will follow IFMAR rules.

1 Technical

1.1 1/8th Scale Truggy

1.1.1 Definition

A Truggy is a 1/8th Buggy based Truck

1.1.2 General Dimensions

1.1.2.1 Overall length -730mm maximum.

1.1.2.2 Overall width -465mm maximum.

1.1.2.3 Wheelbase -345mm to 405mm.

1.1.2.4 Overall height -measured from the ground including roll bar, at full suspension compression is 250mm maximum.

1.1.2.5 The minimum weight limit shall be 4000 grams with a full tank of fuel.

1.1.2.6 The car shall be measured for width by placing it on a flat base material equipped with two side rails of 150mm in height. These shall be spaced 465mm apart, the Truggy must fit inside this box, in the straight forward position.

1.1.2.7 It is the responsibility of the drivers to ensure that his\her car complies with the rules at all times.

1.1.2.8 Drive train is to consist of three buggy style differentials.

1.1.2.9 Single speed gearbox only. No multiple speed gearboxes allowed.

1.1.2.10 With tyres removed from the vehicle, chassis placed under full compression the lowest part of the engine is not to exceed 40mm in height.

1.1.3 Engines

1.1.3.1 Internal combustion engines of not more than 4.67 cubic centimetres 0.28 cubic inches. No tolerance allowed.

1.1.3.2 Fuel tank capacity: 150ccm including all piping, tubes and filters up to the carburettor. The tank will be measured using an Australian approved measuring cylinder.

1.1.3.3 Bump start engines accepted.

1.1.3.4 All cars will be fitted with brakes and clutch in such manner as that the car can be held stationary whilst the engine is running.

1.1.4 Silencer

1.1.4.1 Only IFMAR homologated silencers are allowed.

1.1.4.2 The silencers used on the car have to bear their homologation number, as per homologation sheet issued by IFMAR.

1.1.5 Wheels/Tyres

1.1.5.1 Minimum wheel diameter is 80mm. (This does not include glue bead).

1.1.5.2 Minimum tyre diameter is 118mm.

1.1.5.3 1/8th Buggy wheels/tyres not accepted.

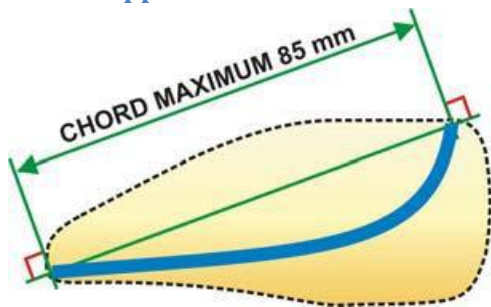
1.1.5.4 All tyres must be black with the exception of sidewall lettering.

1.1.5.5 No spikes, tubes or additional items intended to increase traction may be either glued to the outside of tyres or passed through tyres from the inside.

1.1.6 Wings

1.1.6.1 A wing of maximum overall size: 217mm in length and 85mm chord may be fitted.

1.1.7 Appearance



- 1.1.7.1 Must be a good representation of a Stadium/Arena style truck body.
- 1.1.7.2 No buggy or sedan bodies will be accepted.
- 1.1.7.3 Body mould lines will not be altered other than for the purpose of an exit hole for the silencer.
- 1.1.7.4 No greater than 50% of front window is to be removed.
- 1.1.7.5 Left and right hand side windows can be removed 100%.
- 1.1.7.6 Windows to remain transparent. Bodies with windows painted out will not be accepted.
- 1.1.7.7 Openings may be cut in the shell for the antenna and the pipe ends and allow access to fuel filler, radio switch and engine adjustments and a maximum of a half the wind screen to assist in cooling the engine if not already opened by the fuel filler access. Clearance around such items shall be kept to a minimum.
- 1.1.7.8 Pre-painted ready-to-run bodies the only exception to this rule.
- 1.1.7.9 Aerial hole size not to be greater than 10mm in diameter.
- 1.1.7.10 Engine head-cooling hole to be no greater than 10mm of cooling head in diameter. Only exceptions will be holes for tuning purposes.
- 1.1.7.11 Front and rear bumpers not to exceed 10mm past the body unless O.E.M (Original Equipment Manufacture/or factory).

1.1.8 Fuel

- 1.1.8.1 The following additives are strictly prohibited; Hydrazine, Hydrogen Peroxide, Toluene, and Propylene Oxide.
- 1.1.8.2 Random fuel tests may be made at any time during the event. Samples and counter samples will be collected for analysis and any competitor found to be using any of the above additives will be disqualified and any race result obtained will be null and void.

1.1.9 Driver Aids

- 1.1.9.1 The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/'G'-force sensors is strictly forbidden. Sensors are only allowed for the purpose of passive data recording and not for adjusting the performance of the car whilst in motion. It is the object of this rule to ensure that the event be a test of driver skill.

1.2 Fuel

1.2.1 For all AARCMCC events, irrespective of class, there will be no restriction on Nitro Methane percentage.

1.3 Tyre Additive

1.3.1 Irrespective of class, no traction additive will be permitted at any AARCMCC event. To start with this will be just monitored by the honour system until time AARCMCC can get the appropriate equipment to test with.

2 Organisation & Procedures

2.1 AARCMCC Requirements (National Round Only)

2.1.1 AARCMCC 1/8th Off-Road section will provide at the cost to the host club of \$20 per entry the following:

- Race Director
- Time Keeper
- All equipment required for scrutineering

2.1.2 A club must be affiliated with AARCMCC for a minimum of 2 consecutive years prior to the year holding the National round

2.1.3 All participants competing in an AARCMCC event (State or National Level) must be a member of an affiliated AARCMCC Club.

2.1.4 In order for a club to hold a state or national round the club must contact their state AARCMCC Delegate to discuss their nomination, the state AARCMCC delegate will then confirm the nomination to the AARCMCC section head in writing.

2.1.5 To ensure AARCMCC receives the money from the clubs

- AARCMCC will be responsible for booking flights and accommodation for the race referees 3 months prior to the event.
- Host club will pay the \$20 per entry when entries close 3 weeks prior to the event
- Any late entries taken will be paid upon completion of the event the host club will deposit the remainder of the monies owing into the AARCMCC bank account
- The host club will supply a copy of the results to the section head to be archived
- A statement will be released each quarter to the state delegates, this will be available to any AARCMCC member on request.

2.2 Trophies (National Round Only)

2.2.1 The club shall provide cup style trophies for 1st, 2nd and 3rd with a minimum size as stated below for the following classes. For 4-15 A main; Sportsman; 1st, 2nd and 3rd; Junior 1st, 2nd and 3rd and Over 40 1st, 2nd and 3rd acrylic plaques style trophies are acceptable*.

- 1/8th Scale Off-Road I.C. Buggy

1st to a minimum size of 400mm
2nd to a minimum size of 350mm
3rd to a minimum size of 300mm

- 1/8th Scale Off-Road I.C. Truggy
1st to a minimum size of 400mm
2nd to a minimum size of 350mm
3rd to a minimum size of 300mm

2.2.2 A podium style with steps must be provided with champagne bottles (3) for the top 3.

2.3 Entries (National Round Only)

- 2.3.1 Entries shall be accepted online only. An entry will not be accepted until monies are paid. There will be no cap limit for rounds of the Australian Championship.
- 2.3.2 Entries will close 3 weeks prior to the event start date. Any entrants after this date will be charged a \$30 late fee per entry.
- 2.3.3 Entry fee will be \$120 per class, \$20 of which will go to AARCMCC 1/8th Off Road.(this is to be evaluated each year to go with inflation and may be adjusted with the approval of the section head)
- 2.3.1 At the completion of the event the host club is responsible for ensuring that AARCMCC receives \$20 per entry. (this is to be evaluated each year to go with inflation and may be adjusted with the approval of the section head)

2.4 Costs Guide (National Round Only)

See Appendix 1 – Costs Guide for a guide to the costs associated with running a round of the Australian Championship.

3 Track Requirements

This section specifies the minimum facility requirements needed to be in place by the successful club, at their cost, prior to commencement of the Australian Championship.

3.1 Track

The race surface should be predominantly constructed from a natural non-made surface. The Race Track width shall be a minimum of FOUR (4) meters at any given point. The track shall be constructed in accordance with IFMAR Off Road Rules sections only;

- 4.1,4.2,4.3

The track must be changed by a minimum of 50% in layout and 50% jumps etc. A picture is required by AARCMCC Off Road prior to the change and the new layout and jumps will need to be approved by the AARCMCC Off Road executive prior (to ensure the changes are sufficient to meet the above requirements) to the host club commencing any changes.

3.1.1 Track minimum requirements

- 3.1.1.1 Repairs or improvements may be made, at any time, with the concurrence of the Race Director
- 3.1.1.2 The Drivers stand must be capable of holding 15 drivers with a minimum total length of 12m, 800mm per driver
- 3.1.1.3 Pit lane capable of holding 15 cars with a minimum of 800mm between cars. 12m total length
- 3.1.1.4 Suitable Race Track and Pit Lighting if the event is to be held at night
- 3.1.1.5 Undercover pit area with suitable and sufficient tables and chairs to accommodate all participants in one dedicated area.
- 3.1.1.6 Continuous compressed air and water wash down stations
- 3.1.1.7 Adequate and regularly serviced clean Male and Female toilets
- 3.1.1.8 Generously distributed 240VAC
- 3.1.1.9 Clean running water

3.1.2 Cut Throughs/Track Cutting

- 3.1.2.1 At any Australian Championship or state title event, a single cut through may be permitted but is not essential.

4 Race Format (National Round Only)

4.1 National Championship Series

A rotational approach is to be used for the three (3) rounds of the National Championship. Shown below is the rotational roster out to 2022 and can be repeated for years to come, the bold and first on the column is the Australian Titles (this consists of the existing Australian titles roster) the next 2 are what completes the 3 round series.

<i>ROTATION</i>						
2016	2017	2018	2019	2020	2021	2022
TAS	SA	NSW	ACT	VIC	QLD	WA
NSW	ACT	WA	TAS	NSW	TAS	VIC
QLD	VIC	QLD	SA	WA	SA	ACT

4.1.1 Points (National Round Only)

4.1.1.1 Drivers shall score point for each round of the National Championship Series according to their qualifying and final finishing position, as per the following tables:

Final Position		Qualifying Position	
Position	Points	Position	Points
1 st	100	1 st	10
2 nd	95	2 nd	9
3 rd	90	3 rd	8
4 th	85	4 th	7
5 th	80	5 th	6
6 th	75	6 th	5
7 th	70	7 th	4
8 th	65	8 th	3
9 th	60	9 th	2
10 th	55	10 th	1
11 th	50		
12 th	49		
13 th	48		
14 th	47		
15 th	46		
16 th	45		
...	...		
40 th	21		
41 st +	20		

Points drop by 1 down to 40th position, which is awarded 21 points. Positions 41st onwards are awarded 20 points.

4.2 Event Duration and Timetable – National Round Only

4.2.1 The event shall be of four (4) days duration, from Thursday to Sunday.

4.2.2 The event will run to the following timetable:

Thursday: 2 rounds of timed practice
The first and second round of qualifying

Friday: The third through fifth Full rounds of qualifying

Saturday: All Truggy finals, including Truggy Sportsman
Truggy Semi practice
Lower Buggy Finals

Sunday: Remaining Buggy Finals
Buggy Semi practice

4.2.3 **Appendix 2 – Schedule Options** provide a number of indicative schedule options.

4.3 Qualifying (National Round Only)

4.3.1 All races are to be fifteen (15) car heats maximum. Depending on final entries the number of drivers per heat may reduce under 15, however, the Race Director shall ensure that the number of drivers per heat is a minimum of ten (10) at all times.

4.3.2 The host club can run up to 6 qualifiers if entrant numbers permit.

4.3.3 A rotational system is to be used for qualifying at the Australian Championship Rounds. Shown below is the sequence for 15 car heats. Should there be less than 15 heats per round the time keeper shall alter the rotational schedule in line with number of heats per round:

ROUND 1: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15

ROUND 2: 4,5,6,7,8,9,10,11,12,13,14,15,1,2,3

ROUND 3: 7,8,9,10,11,12,13,14,15,1,2,3,4,5,6

ROUND 4: 10,11,12,13,14,15,1,2,3,4,5,6,7,8,9

ROUND 5: 13,14,15,1,2,3,4,5,6,7,8,9,10,11,12

ROUND 6: 15,14,13,12,11,10,9,8,7,6,5,4,3,2,1

4.3.4 Rounds to Count

Out of six (6) rounds, four (4) will be counted.

Out of five (5) rounds, three (3) will be counted.

Out of four (4) rounds, two (2) will be counted.

Out of three (3) rounds, two (2) will be counted.

Out of two (2) rounds, one (1) will be counted.

Out of one (1) round, one (1) will be counted.

4.3.5 Timing of Rounds

- 4.3.5.1 There shall be three (3) minutes in between every race in the round.
- 4.3.5.2 Each race shall be for a maximum of ten (10) minutes reducing to seven (7) minutes as dictated by the Race Schedule.
- 4.3.5.3 A driver shall have sixty (60) seconds to finish their heat after their race time is up
- 4.3.5.4 No breaks in between rounds are permitted unless repairs are required on the track or for safety reasons.

4.4 Finals (National Round Only)

- 4.4.1 All finals shall be fifteen (15) cars. In all finals (except the semi-finals) the top five (5) will bump to the next final. For Semi-Finals the top seven (7) will progress to the final from each semi-final. The last position will be filled by the next fastest finisher from either semi-final.
- 4.4.2 The only exception to this rule will be the 2 lowest finals, where there may be fewer than fifteen (15) cars.

4.4.3 Delayed Start

- 4.4.3.1 A delayed start may only be called for the semi-finals and finals.
- 4.4.3.2 A delay cannot be called once there is less than 30 seconds (30) of warmup remaining on the master clock. Every participant of the semi-finals and the final may request a delay of ten (10) minutes for repairs on their car.
- 4.4.3.3 The 10min delay may only be reduced if all (100%) drivers in that race agree.
- 4.4.3.4 The delay will be granted only once for each semi-final and the Main Final. The track shall be closed to all cars during the delay period. The driver requesting the delay, for whatever reason, must start from the back of the grid, six (6) metres behind the last official grid position.
- 4.4.3.5 If this is not possible due to the 6m rule placing the car behind the timing loop. The car must then be released from pit lane by the Race Director or nominated official after the last car on the grid has passed the exit of Pit Lane.

5 Rules

IFMAR rules are to be used as the major guidelines for the Australian Championship. The following overrides any IFMAR rules and are designed specifically for Australian requirements.

5.1 Seeding (National Round Only)

5.1.1 At a round of the National Series the top thirty (30) open drivers shall be seeded as per the current AARCMCC rankings. All other seeding shall be completed by the State delegate for their State.

5.2 Promotional Classes (National Round Only)

5.2.1 Open Class

5.2.1.1 The Open Class shall be open to any driver.

5.2.2 Sportsman Class

5.2.2.1 In determining whether a driver is deemed to be Open class or a Sportsman class, the AARCMCC executive and the relevant State delegate shall have the final decision on class positioning if such issue arises. The sportsman's class was designed to ensure the up and coming racers and social racers are recognised. The following drivers shall be prohibited from entering the sportsman class;

- Any driver who receives free equipment from a supplier.
- Any driver who has made a final of the Australian Championship previously
- Any driver who has made a final overseas.

- 5.2.2.2 The Sportsman Class final/s will be run separately for the duration of 15mins, the top 3 shall be determined from their finals
- 5.2.2.3 Over 40 Class
- 5.2.2.4 The driver will be required to prove they are over 40 prior to the start of the event. A driver's licence will be deemed suitable for such proof. The over 40's final/s will not be run separately, the top 3 shall be determined from their finals position or if the finals are not completed then from qualifying.
- 5.2.3 Junior Class
- 5.2.3.1 AARCMCC would like to promote junior racing, there will be a 15mins junior final for all entrants 16 years and under. (Buggy and Truggy mixed together)
- 5.2.3.2 If a junior racer has made an A main at Nationals before then they will not be permitted to race in this promotional race.
- 5.2.3.3 There will be a 15 minute junior race held, to promote the youth in our hobby, the drivers must be 16 year of age or under and not have made an A main at a national series before. There will be trophies awarded to the top 3.

5.3 Starting Position

- 5.3.1 For all finals the cars will be placed at a 45 degree angle to the track inside a clearly marked painted box. If a driver leaves the box prior to the start of the race they will be awarded a stop and go penalty by the Race Director – see **Stop and Go Penalty**.

5.4 Causes for Penalties

- 5.4.1 As stated below the following will not be tolerated at any Australian Championship event, if a driver is deemed to have broken any of these rules they will have their best qualifier taken from them and if a driver continues to act in this manner they can be disqualified from the event.
- 5.4.1.1 Bad language, abusive language to
- Race Director
 - Other drivers
 - Marshalls
 - Pit Crew
 - Official's
 - Spectators
- 5.4.1.2 Any type of physical violence will result in immediate disqualification from the event and be referred to the AARCMCC Executive for further action.
- 5.4.1.3 Not attending your marshalling position

5.5 Stop and Go Penalty

5.5.1 When awarded a Stop and Go Penalty the driver has three (3) laps to bring their car to a complete stop inside the designated penalty box. In cases where the driver does not stop, or cannot comply, a one (1) lap penalty will automatically be given. Not serving a Stop and Go penalty where it is possible to do so may result in disqualification from the race.

5.6 Re-entering a race

5.6.1 All drivers re-entering the race from the following areas shall be required to give way to all other cars;

- Pit Lane
- Re-entering after leaving the track
- Re-entering after leaving the penalty box
- After being marshalled

5.6.2 Any driver caught not giving way to the above shall be awarded a stop and go penalty by the Race Director, see [Stop and Go Penalty](#).

5.7 Marshalling

5.7.1 Drivers must marshal for their designated race/s and be in position by the two (2) minute call to race. Failure to be at your designated marshalling position by the two (2) minute call will result in the loss of your best qualifier for the first infringement. Should a second infringement occur the driver shall lose the next best qualifying time and a final warning from the race director.

5.7.2 Should a driver fail to arrive at their marshalling spot a third time they will be disqualified from the event.

5.7.3 Any substitute marshal must be approved by the Race Director unless the substitute is a paid entrant. It is the original driver's responsibility to find a substitute and they are responsible for the actions of that substitute.

5.7.4 Turn marshals are not permitted to repair vehicles. Marshals will take disabled vehicles to the closest outer edge of the racetrack as soon as possible.

6.1 State Title Requirements

6.1.1 In order to hold a State Title event the host club must;

- The host club is to supply a freshly rolled track (not new),
- 12 car heats and finals, 8 automatic qualifiers with 4 bump up positions
- The host club will be expected to supply undercover pit area for interstate drivers only.
- ABC finals format, 5 qualifiers (if over 100 entries 4 qualifiers and 15mins lower finals + 20 mins B mains
- Entry fee \$65 flat fee (\$5 of this entry fee will go to AARCMCC)

- Trophies /plaques for all A main finals
- Option to run 1/8th EP
- 2.5 day format (as stated below)

6.2 Schedule (State Titles Only)

<i>Schedule</i>			
Friday	12.00pm-5.00pm	Open practice/timed practice (pending on entries)	5 hours
Saturday	8.00am-6.00pm	5 x 7min Qualifiers 100 entries 2 hours per round.	10 hours
Sunday	8.30am- 5.00pm	All ABC finals	8.5
			Total 23.5 hours

7 Appendix 1 – Costs Guide (National Round Only)

<i>COST FOR NATIONAL ROUND</i>	
FRESH TRACK	\$2,500
LIGHTS	\$2,000
TOILETS	\$1,000
MARQUE	\$3500
TABLES / CHAIRS	\$750
Trophies	\$1500
TOTAL	\$11,250

8 Appendix 2 – Schedule Options

(National Round Only)

<i>Schedule</i>			
Thursday	8.00am – 8.30pm	12.5 hours	
Friday	8.00am – 8.30m	12.5 hours	
Saturday	8.00am – 5pm	8 hours	
Sunday	8.00am – 4pm	8 hours	Total 41 hours
National rounds only			

Entries 165 : 105 Buggy, 60 Truggy : 11 heats

2 practices	6 hours		
5 qualifiers	15 hours		
Finals	8.5 hours		
½ 30mins	½ 30mins	½ 30mins	½ 30mins
¼ 30mins	½ 30mins	¼ 30mins	¼ 30mins
1/8 20mins	1/8 20mins	1/8 20mins	1/8 20mins
1/16 20mins	1/16 20mins		
1/32 20mins	1/32 20mins		
Main 60mins		Main 60mins	
Buggy total	5 hours	Truggy total	3h 40mins
Total event time	30 hours		
National rounds only			

Entries 195 : Buggy 120, Truggy 75 : 13 heats

2 practices	6.5 hours		
5 qualifiers	16.5 hours		
Finals	9.5 hours		
½ 30mins	½ 30mins	½ 30mins	½ 30mins
¼ 30mins	½ 30mins	¼ 30mins	¼ 30mins
1/8 20mins	1/8 20mins	1/8 20mins	1/8 20mins
1/16 20mins	1/16 20mins	1/16 20mins	1/16 20mins
1/32 20mins	1/32 20mins		
1/64 20mins	1/64 20mins		
Main	60mins	Main	60mins
Buggy total	5h 40mins	Truggy total	4h 20mins

National rounds only			
Entries 225 : 135 buggy, 90 Truggy : 15 heats			
2 practices	7.5 hours		
4 qualifiers	15 hours		
Finals	11.5 hours		
½ 30mins	½ 30mins	½ 30mins	½ 30mins
¼ 30mins	½ 30mins	¼ 30mins	¼ 30mins
1/8 20mins	1/8 20mins	1/8 20mins	1/8 20mins
1/16 20mins	1/16 20mins	1/16 20mins	1/16 20mins
1/32 20mins	1/32 20mins	1/32 20mins	1/32 20mins
1/64 20mins	1/64 20mins		
1/128 20mins	1/128 20mins		
Main	60mins	Main	60mins
Total buggy	5.5hours	Total Truggy	5hours

Nationals rounds only

Format	120 Buggies	75 Truggies	
Thursday			
2 x practices	8.30am – 2.30pm		
1 x qualifier (full round)	2.30pm – 6.00pm		
1 x Truggy round	6.00pm – 7.30pm		
Friday			
1 x buggy round	8.30am – 10.30am		
3 x qualifiers (full rounds)	10.30am – 8.30pm		
Saturday			
Truggy 1/16	A – 8.00am (20min)	B – 8.30am (20min)	

Truggy 1/8th	A - 9.00am (20min)	B - 9.30am (20min)	
Truggy semi practice	A - 10.00am (10mins)	B - 10.15am (10mins)	
Buggy 1/32	A - 10.30am	B - 11.00pm	
Truggy 1/4	A - 11.30am (30mins)	B - 12.15pm (30mins)	
Buggy 1/64	A - 12.15pm (20mins)	B - 12.45pm (20mins)	
Truggy 1/2	A - 1.00pm (30mins)	B - 1.45pm (30mins)	
Truggy A main	A - 3.15pm (60mins)		
Sunday			
Buggy 1/32	A - 8.00am(20mins)	B - 8.30am(20mins)	
Buggy 1/16th	A - 9.00am (20mins)	B - 9.30am (20mins)	
Buggy 1/8 th	A - 10.00am (20mins)	B - 10.30am (20mins)	
Buggy semi practice	A - 10.30am (10mins)	B - 10.45am (10mins)	
Buggy 1/4	A - 11.00am (30mins)	B - 11.45am (30mins)	
Buggy 1/2	A - 12.30pm (30mins)	B - 1.15pm (30mins)	
Buggy Main	A - 3.15pm	(60mins)	