



ACTMCRC

MODEL CAR RACING CLUB

ACTMCRC Rules and General Information

1.0 CLASSES

Novice
540 Touring Car
Stock Touring Car
Modified Touring Car
Formula 1
Tamiya M Chassis
1/12th Scale
Nitro Sports
Nitro Pro
1/8 Nitro

2.0 RACING FEES

2.1 Members

On Line Entry - \$ 15.00
Entry in first class - \$15.00
Racers under 16 years old - \$5.00
Second or more classes – add \$ 5.00
Families will be treated at multiple entries.

2.2 Non – Members

Entry in first class (incl. On-line)- \$20.00
Second or more classes – add \$ 5.00
New drivers will not be charged at their first race meeting
Families will be treated at multiple entries.

2.3 Membership Fees – Annual

Memberships are paid annually in June. New members joining after January will only pay one-half the annual fee, up to the next June. The Membership year runs from 1 July to 30 June.

- Standard Membership - \$45.00 per year
- Family Membership - \$60.00 per year
- Concession Membership - \$25.00 per year

To be eligible for a concession membership, the person must be either under 16 years of age or be a holder of concession/seniors/unemployment/full time student or similar card. A family is defined as a group of people who share the same surname, are closely related or are in a de-facto relationship as determined by the Treasurer.

3.0 EVENT SCHEDULE/LOCATION

3.1 Indoor Racing

Indoor racing is held every 2nd Tuesday evening at Exhibition Park in Canberra (EPIC). Competitors are advised to confirm the details of a meeting via the [calendar](#) hosted on the ACTMCRC website. From 1800 the track will be open for practice, provided setup as been completed; entries will also be accepted during this time. At 1900 the track will be closed and a drivers briefing held, racing will start shortly after the conclusion of the drivers briefing.

3.2 Outdoor Racing

Out door racing is held every 2nd Sunday, weather permitting, at the Kambah on road RC track located at Kett St Kambah. Race day rescheduling of race meetings need to be removed and replaced with: rain day effected race rounds will moved to the next scheduled race day. Competitors are advised to confirm the details of a meeting via the [calendar](#) hosted on the ACTMCRC website. If there are concerns regarding weather the Outdoor committee can be contacted via 0415 606 346 or after 0800 on the day of the race meeting. Track opening will be from 0900 for practice and warm up for nitro's with the track closing at 0930 for drives meeting and racing to star.

3.3 Entries

Online entries will be accepted via ALYCAT software provided from the clubs website. For full details on the program visit: <http://www.actmcrc.org.au/alycatentries.htm>. Entries must be received by 1700 on the Sunday before an indoor race meeting and 1700 on the Friday before an out door race meeting.

When entering on line, entry fee payment via EFT or in person will be accepted. Eft payments need to reach the clubs account by 1700 on Friday and Monday prior to each scheduled race meet. Failure will incur a cash payment and a credit given when money is received. At the race director's discretion a class that has less than 4 entries may be combined with another class. The race director has the right to ask competitors to enter a different class, cancel secondary entries or cancel a round of qualifying or finals.

3.4 Contact Details

- E-mail: info@actmcrc.org.au
- Website: www.actmcrc.org.au
- Forum: <http://www.rctech.net/forum/australian-racing/557867-act-model-car-racing-club.html>
- Facebook: <http://www.facebook.com/home.php?#!/group.php?gid=7164877321&ref=ts>
- Mail: PO Box 151, Dickson, ACT 2602

4.0 RACE FORMAT AND DURATION

Drivers compete in a multiple round Drivers Championship; one round consists of a race meeting, the committee will determine the number of rounds per championship. The Classes to be included in each Driver's Championship Season will be determined by the Committee at the start of each Championship. The Race Director, based on registrations for the day, will determine the number of qualifying and finals races per class at each race meeting. If necessary, the number of races will be adjusted to ensure racing is completed at a reasonable time.

4.1 Points

Drivers will score points towards a championship point's score. Points received are added together for each meeting and then totalled for a championship season, and the lowest two scoring rounds are 'dropped' from this total. In this way, a driver who misses one or two rounds could still get enough points to win a Season Championship. Points are awarded for both Final positions.

*First place will be awarded 100 points.
Second place will be awarded 96 points.
Third place will be awarded 93 points.
Forth place will be awarded 91 points.
Fifth place will be awarded 90 points.
Sixth place will be awarded 89 points.
Seventh place will be awarded 88 points.
Eighth place will be awarded 87 points.
...and so forth until all competitors in the class have been awarded points.*

On completion of the Qualifying races, cars in each class will be re-graded for the Finals; the top 8 qualifiers will be placed into the A Final with the next 8 being placed into the B Final, and so forth.

NOTE: Tamiya M-Chassis will run 10 car finals. If the track is large enough the race director may allow 10 cars to run in all finals.

Should a B Final not have the minimum number of entries after it has been regraded, the drivers in that class may run their Final in with another class at the Race Directors discretion. The Race Director will first consult with drivers to ensure there are no objections from the group that would host the B final. If there are objections, and another host group can't be found the Race Director may decide that the B group be dropped from the finals round and Final results declared based on the qualifying order.

The car completing the most laps in the allotted time will be declared the winner.

Normally a race meeting will have two rounds of Finals. Both finals will count towards the overall results with points being awarded for positions achieved in both finals.

5.0 DRIVER RESPONSIBILITIES

5.1 Marshalling

Drivers must marshal the race immediately after theirs, failure to do so will result in the loss of their points for the night, a driver may appoint a substitute marshal, but they must inform the race director. Drivers are required to place the cars in a designated area (*parc ferme*) near race control (unless otherwise directed), for scrutineering, after their race.

Guideline for Marshals:

Marshals are to assist with the smooth operation of the race. They must constantly watch cars in their sector of the racetrack. Marshals should:

- **Stand** – do not sit, unless you are temporarily on the track;
- **Look** - before stepping onto the track ensure that you will not obstruct any oncoming race cars. Check the track for any obstructions – e.g. parts from damaged cars and remove them without disrupting the race
- **Care** – use care in handling all race cars. Be careful of hot motors, keep hands away from wheels, and do not pick up cars by the spoiler.
- **Remove a stalled car** – where a car is damaged or otherwise inoperable, remove it from the track and TURN OFF its electronics. Look to the car's driver to indicate that you are doing this, as the driver will then turn off their transmitter. At the end of the race return the car to the driver.
- **Distractions** – do not use mobile phones, take any food or drink nor talk with others so as to impair you from marshalling effectively during the race.

5.2 Transmitters

Drivers must not use their transmitters during heats other than in their own heat, without the permission of the Race Director. A driver found using their transmitter within the immediate area of the race meeting would be given one official warning. A second offence will result in that driver being excluded from racing for the rest of the meeting.

Drivers are not permitted to remove their transmitter from the driver's stand during their race. If their car has problems, a Marshall will remove it from the track and turn off the electronics. The driver should also turn off their transmitter, but remain on the Drivers' stand. Only 27mhz, 29mhz, 40mhz and 2.4Ghz Transmitters are to be used.

5.3 Transponders

It is the driver's responsibility to ensure that their transponder is attached securely to their car. In the absence of an internal transponder mount, it is recommended that the transponder be mounted in the lower half of the cars windshield. If using a Club Transponder the driver must return the transponder to race control as soon as their race has concluded.

Personal transponders are acceptable and MUST be registered onto the timing system. This can be done by informing the Race Director when a driver registers for racing at the beginning of the race meeting.

5.4 Behaviour

Un-sportsman like behaviour will not be tolerated. This may take the form of deliberate barging and blocking of lapping cars to swearing and abusive language, a driver will be given one official warning before being asked by the Race Director to leave for the remainder of the Race Meeting, there will be no refund of race fees. Bullying and other threatening behaviour is not acceptable in any form. Behaviour of this nature will attract sanction from the clubs committee; the penalty could take any form including a lifetime ban from racing. No alcohol is to be consumed at any club events or activities.

5.5 Scrutineering

Scrutineering is a check of each racing car and is aimed at ensuring that all cars meet the technical specifications for the class in which they are raced. Scrutineers will provide guidance to drivers, where appropriate. The Scrutineers decision to disqualify a car that does not meet specifications for its class is final.

All cars are to be placed in 'parc ferme' – a designated area - immediately following completion of each race to allow the Scrutineer (a Track Committee member) to check each car. On completion of checking, the car will be cleared for the driver to collect it immediately on completion of marshalling duty. Scrutineering will be conducted on a Ad Hoc, or as requested, basis at club meetings.

At major race meetings, such as the ACT Titles or Challenge Cup, cars will be checked randomly.

5.6 Dress - Footwear

All competitors must have closed shoes, no thongs, bare feet or sandals. This is to ensure their safety while attending the race meeting and during marshalling.

5.7 Reverse

Using Reverse is forbidden in racing conditions, driving in the opposing direction to the flow of traffic is also forbidden. It is dangerous to other race cars and to Marshals. Any car contravening this rule will be removed from a race. Once a driver is warned about using reverse, the Race Director may disqualify them from further racing.

5.8 Drivers' stands

Drivers may only operate their car on the Track while standing on the Drivers' stand. This enables the driver to clearly see the Track and to let others know who is driving cars.

Don't leave the drivers' stands during your race, even if your car breaks. Marshals will remove from the Track a car experiencing problems and turn off the car's electronics. The driver should then also turn off the transmitter. Drivers leaving the stand will lose their fastest Qualifying time, or if during finals their fastest final time.

5.9 Frequency Board

During free practice session, e.g. prior to racing, ALL drivers using the track must ensure that there is no interference between transmitters using the same frequency. A "frequency board" contains clips for each permitted frequency. Drivers should collect the correct frequency clip from the board, attach it to their transmitter and stand on the drivers' stand while using the track for practice. At the completion of their practice they should *immediately* return the frequency clip to the board.

Use of the frequency board is not required by drivers with a 2.4ghz radio system.

5.10 Car Operation

During a race meeting, as directed by race control, RC cars can only be run with in the confines of the track. Cars must not be operated within the pit area, table top testing is permitted.

5.11 Disclaimer

**EXCLUSION OF LIABILITY, RELEASE AND ASSUMPTION OF RISK
MOTOR SPORT IS DANGEROUS (Even RC Racing)**

In exchange for being able to attend or participate in the event, you agree to release Australian Capital Territory Model Car Racing Club ("ACTMCRC") and Association of Australian Radio Controlled Model Car Clubs, promoters, sponsor organisations, land owners and lessees, organisers of the event, their respective servants, officials, representatives and agents (collectively, the "Associated Entities") from all liability for your death, personal injury (including burns), psychological trauma, loss or damage (including property damage) ("harm") howsoever arising from your participation in or attendance at the event, except to the extent prohibited by law that ACTMCRC and the Associated Entities do not make any warranty, implied or express, that the event services will be provided with due care and skill or that any materials provided in connection with the services will be fit for the purpose for which they are supplied; and to attend or participate in the event at your own risk.

You acknowledge that:

- *the risks associated with attending or participating in the event include the risk that you may suffer harm as a result of:*
- *radio controlled vehicles (or parts of them) colliding with other radio control vehicles, persons or property;*
- *acts of violence and other harmful acts (whether intentional or inadvertent) committed by persons attending or participating in the event; and;*
- *the failure or unsuitability of facilities (including drivers-stands, grand stands, track barriers, pit areas, fences and guard rails) to ensure the safety of persons or property at the event.*

Motor sport is dangerous and that accidents causing harm can and do happen and may happen to you. You accept the conditions of, and acknowledge the risks arising from, attending or participating in the event and being provided with the event services by ACTMCRC and the Associated Entities.

6.0 TECHNICAL SPECIFICATIONS

6.1 General 4WD Touring Car Chassis Specs

(M-Chassis and Formula 1 excepted)

Electric Touring Car Chassis must have independent suspension to all four wheels. Each driven wheel must have a flexible joint such as a dog-bone or universal joint in its drive shaft. Drive train and suspension design is free from restriction. No part of the chassis, including the wheels may protrude outside the body shell when viewed from above. No part of the motor, battery or electronic equipment (except receiver antenna) may protrude outside the body shell. Rollover masts may not be fitted.

Nitro Touring Car Chassis must have independent suspension to all four wheels. Each driven wheel must have a flexible joint such as a dog-bone or universal joint in its drive shaft. Drive train and suspension design is free from restriction. No part of the chassis, including the wheels may protrude outside the body shell when viewed from above. No part of the motor, battery or electronic equipment (except receiver antenna) may protrude outside the body shell. Rollover masts may not be fitted. Single breaking mechanism only. 2 speed gear box allowed.

6.2 Dimensions 4WD Touring Cars

6.2.1 Electric

Max Width (with body shell): 190mm
Max Length (with body shell): 460mm
Max Height: (from bottom of tyre to highest part of the car) 195mm

6.2.1 Nitro

Max Width (with body shell): 205mm
Max Length (with body shell): 460mm
Max Height: (from bottom of tyre to highest part of the car) 195mm

6.3 Driver Aids

Mechanical traction control, including slipper clutches and fluid clutches (with the exception of the Off Road classes), active suspension and steering with the use of gyroscopes are **NOT** allowed. Sensors fitted to the car for the purpose of measuring suspension movement, wheel or tire slip are **NOT** allowed. Only two channels may be used in the receiver. Two speed gearboxes or transmission may **NOT** be used on EP Cars.

Traction additives must **NOT** be used on carpet tracks.

Tyre warmers are permitted.

Any other driving aids should be discussed with the Race Director **prior to racing** to ensure there is no confusion regarding their use at ACTMCRC races.

6.4 Batteries

6.4.1 Nickel Metal Hydride

Each battery pack to contain a maximum of six, 1.2 volt, sub C cells (refers to factory label) with a maximum capacity of 5000 milliamp hour.

6.4.2 Nickel Cadmium

Each battery pack to contain a maximum of six, 1.2 volt, sub C cells (refers to factory label) with a maximum capacity of 2400 milliamp hour.

6.4.3 Lithium Polymer

For a battery to be permitted it must meet one of the following criteria:

The battery should appear on the approved battery list for one of the following governing body's; ROAR, EFRA, BRCA or AARCMCRC. If a battery is not listed, it may still be permitted by the club's committee. Batteries must be equipped with a fully sealed 'hard case'. Damage to the hard case that exposes the internal structure of the battery will deem the LiPo battery to be ineligible for use.

Whilst charging and/or discharging in the pit area, batteries must be contained in a LiPo sack or other device (fire mitigation device able to withstand and contain a destructive failure without showing a flame).

Electronic speed controls are to have either an inbuilt or an external cut-off electronic device installed that will indicate if the battery is discharged below 6 volts (+/- 0.3v) minimum. It is up to the driver to prove that the cut-off is operational. The car must stop when 6 volts (+/- 0.3v).

LiPo capable chargers are only to be used. It is recommended that LiPo batteries are charged at a maximum charge rate of 1C.

Overcharging is not allowed (voltage higher than 8.4v).

Failure to follow the above safety precautions may result in immediate exclusion from the event.

6.5 Body Shells

All touring car classes must use a sedan or sports car shell. Group C (GTP/Le Mans) shells are not permitted. M Chassis must use body Shells designed for the M chassis. F1 must use body shells designed for F1 cars

6.6 Heat Sinks and cooling devices

Motor Heat sinks for all motor classes are to be made of a non-ferrous material. A cooling fan is permitted as long as it uses either the main battery or a receiver pack for power. No liquid cooling systems.

6.7 Motor Specifications

All motors must comply with IFMAR rules and be listed on either ROAR or BRCA approved motor lists. Motors must be commercially available through Australian retail outlets.

6.7.1 Novice, 540 Touring Car and Formula 1

6.7.1.1 Brushed

Motor is either the Johnson 683 540 motor (grey end bell) or the Tamiya standard kit motor. No tampering with the motor allowed.

6.7.1.2 Brushless

21.5 Brushless Motors as defined by the AARCMCC ([AARCMCC Rules](#)).

6.7.2 Stock Touring Car

6.7.2.1 Brushed

Re-buildable motors only, 27 Turn single armature .05 can motors with the non-adjustable timing factory set at 24degrees. A factory 24-degree can and end bell must be used. The motor must remain brushed.

6.7.2.2 Brushless

13.5 Brushless Motors as defined by the AARCMCC ([AARCMCC Rules](#)).

6.7.3 Modified Touring Car

6.7.3.1 Brushed

Any .05 can, with standard ferrite type magnets as defined by the AARCMCC.

6.7.3.2 Brushless

Open - Brushless Motors as defined by the AARCMCC ([AARCMCC Rules](#)).

6.7.4 Mini Motors

6.7.4.1 Brushed

See sections 6.7.1.1

6.7.4.2 Brushless

EZRUN-35A-SL Combo - 35A EZRUN ESC + 13T-3650S-3000KV motor + Program Card or
EZRUN-25A-SL Combo - 25A EZRUN ESC + 13T-3650S-3000KV motor + Program Card or
VEN-1307B/G Venom Mini Brushless System (Blue/Breen).

6.7.5 Nitro Engines

6.7.5.1 Bump Start

Engine Capacity must not exceed 2.11cc (.12cu.in.)

Air Cooled, Rotary Valve, two stroke induction, maximum of 4 ports only.

No forced induction, No variable timing.

Conical glow plug ignition only.

Double Chamber (minimum) exhaust must be used

Exhaust Outlet must project horizontally or downward.

6.7.5.2 Pull Start

RTR Engine may be up to 3cc (.18cu.in.) in capacity, if replaced with an after market engine capacity must be no larger then 2.11cc (.12cu.in.).

External starting mechanism must remain installed and operations however a 'bump' starter may be used. (NOTE: Pull start refers to any electro mechanical mechanism used to start the engine.)

6.8 Chassis Specifications

6.8.1 Novice and 540 Touring Car

Description

Novice - This class is intended for drivers who are new to racing

540 Touring Car – Competitive class for with lower speeds and less reliance on expensive high-end equipment to be competitive.

Car Type

Any 1/10th scale 4WD Electric Touring Car

Speed Control Config

Brushless: Any ESC that does not have dynamic timing ie; boost or turbo timing options, or any ESC that has a Blinky mode ie; a flashing light denotes that no dynamic timing is enabled, is allowed.

Brushed ESC for silver can: Any.

Motor

Refer to section 6.7.1.

Min. Weight

1380g including timing equipment

Gearing

Novice – Maximum 30mm rollout
540 – Unrestricted

Tyres

Foam tyres are to be used on carpet tracks – No traction compound permitted.
Rubber tyres are to be used on asphalt, bitumen or concrete tracks.

6.8.2 Stock Touring Car

Description

Stock provides a highly competitive environment for drivers wishing to compete in a control motor class with an even level of power

Car Type

Any 1/10th scale 4WD Electric Touring Car

Speed Control Config

Brushless: Any ESC that does not have dynamic timing ie; boost or turbo timing options, or any ESC that has a Blinky mode ie; a flashing light denotes that no dynamic timing is enabled, is allowed.

Brushed ESC: Any.

Motor

Refer to section 6.7.2

Min. Weight

1380g including timing equipment

Gearing

Unrestricted

Tyres

Foam tyres are to be used on carpet tracks – No traction compound permitted.
Rubber tyres are to be used on asphalt, bitumen or concrete tracks.

6.8.3 Modified Touring Cars

Description

The ultimate in racing. This is the fastest class requiring high levels of driver experience.

Car Type

Any 1/10th scale 4WD Electric Touring Car

Speed Control Config

Brushless: Timing and Boost open.

Brushed ESC: Any.

Motor

Refer to section 6.7.3

Min. Weight

1380g including timing equipment

Gearing

Unrestricted

Tyres

Foam tyres are to be used on carpet tracks – No traction compound permitted.
Rubber tyres are to be used on asphalt, bitumen or concrete tracks.

6.8.4 Tamiya M Chassis

Description

This class is designed specifically for Tamiya's front wheel drive M- series of cars, e.g. mini

Car Type

Tamiya M-01, M-02, M-03, M-04 and M-05

Motor and Speed Control

Refer to section 6.7.4

Min. Weight

1325g (2WD) including timing equipment

Gearing

The largest pinion to be run is 20 teeth.

Tyres

Rubber Mini Tyres only. Tyres must be a reasonable representation of an on road tyre. Rally block/spiked tyres are not permitted.

6.8.5 Nitro

Description

The ultimate in realism bringing driving and tuning skills to the fore.

Car Type

Any 4WD Nitro Powered Touring Cars

Motor

Refer to section 6.7.5

Min. Weight

1725g (4WD) including timing equipment

Gearing

Unrestricted, two speed.

Tyres

Rubber or Foam tyres must be designed for Touring cars, no spiked tyres

6.8.6 Formula 1

Description

Rear wheel drive RC based on the real thing.

Car Type

1/10th Scale Electric Formula 1 or Indy Car chassis. (Rear wheel drive only)

Motor

Refer to section 6.7.1

Min. Weight

1000g (RWD) including timing equipment

Gearing

Unrestricted.

Tyres

Foam tyres are to be used on carpet tracks – No traction compound permitted.
Rubber tyres are to be used on asphalt, bitumen or concrete tracks.

Batteries

7.4v (2S) Lipo or 6 NiMah Cells

Full Rules for F1

[RC Formula 1 Rules](#)

6.8.7 1/12th Scale

Description

Hi speed racing on a budget.

Car Type

Any 1/12th scale EP

Motor

Refer to sections 6.7.3, 6.7.2 and 6.7.1

Min. Weight

750g (2WD) including timing equipment

Gearing

Unrestricted.

Tyres

Foam tyres must be designed for 1/12th scale cars

Batteries

3.7v (1S) Lipo or 4 NiMah Cells