



# 2020 EP ON-ROAD RULES

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## ELECTRIC GENERAL RULES

### A1 GENERAL

- A1.1 All cars must be electrically powered.
- A1.2 It is the driver's responsibility to ensure that their car complies with the rules contained within this rulebook irrespective of initial scrutineering at a meeting.
- A1.3 All rules must be strictly adhered to. Violation of the technical rules in a particular Class will result in disqualification from that race. Deliberate violation of NZRCA technical rules will result in disqualification from the meeting.
- A1.4 Body shells must be neatly finished and painted when initially entered in a meeting.
- A1.5 No car can be raced without a body shell being securely fitted at all times.
- A1.6 For those classes where a "straight axle" is specified, the following definition applies: In a straight axle design, there must be a fixed relationship between the axle and the motor. No relative movement is allowed between the rear axle bearings and the motor case, and all suspension action must be applied to the motor, transmission and both rear wheels as a unit.
- A1.7 The running of one car in different classes is allowed providing it meets those classes Technical Specifications and does not hinder the running of the meeting in any way.
- A1.8 In the event of breakage to a car during a meeting, that car may be substituted with another car of the exact same Manufacturers Technical Specifications. The driver must first apply to the Race Director (or his designate) of the meeting.
- A1.9 A driver may enter any and as many classes as they wish at a sanctioned meeting.
- A1.10 Only one drive motor may be used.
- A1.11 Front wheel drive touring cars must race in the touring car class.
- A1.12 Batteries may not be changed during a race.
- A1.13 The use of traction additives is strictly prohibited for all outdoor On-Road racing in all classes.
- A1.14 Clubs hosting Outdoor Sanctioned Meetings must make their outdoor tracks available for 2 days immediately before the meeting.
- A1.15 At all sanctioned meetings a certified test weight should be available to ensure that the scrutineering scales are accurate. This weight should be no less than 1000 grams or more than 1700 grams.
- A1.16 That decisions made by the Electric On-Road Technical Officer about On-Road Technical issues be considered final and when conveyed to the meeting organisers, either orally or in writing, they shall override decisions made by either meeting organisers, Scrutineers or Race Directors.
- A1.17 No tyre additives or tyre conditioners are allowed.

### A2 DRIVING

- A2.1 No car will have the ability to reverse
- A2.2 No car will be driven in the reverse direction of the track.
- A2.3 If a car is removed from the track for any reason it must be returned at the same position as it left. The car must be removed and replaced - only by a marshal.

- A2.4 Drivers may leave the stand during a race but if they leave the stand they may not be permitted to re-take the stand and will only have those laps counted before they stepped off the stand.
- A2.5 The car must be on the grid and the driver on the stand at least 10 seconds prior to the start of the race, otherwise the driver is deemed to be a late starter and must start from the pit lane or other area designated by the Race Organisers. The late starting car must not gain any advantage from starting out of pit lane, with this in mind it must not exit the until all remaining running cars (i.e. not stalled, broken or off the track) have passed the pit exit for their first time. If there is more than one car starting from pit lane at the same time then they must exit the pits in the order they qualified.
- A2.6 A heat or race that has to be re-run will be rescheduled to be re-run at the earliest possible time, with sufficient time allowed for the charging of batteries.

### **A3 RACE PROCEDURES**

- A3.1 An audible signal or warning is to be given at 30 seconds before start, 10 seconds before the start, then an audible countdown for the last 10 seconds before the starting horn which is to be of a different tone to previous warning signals. During staggered start qualifying races, individual drivers are to be called to start after the starting horn is sounded. At the completion of the race time another audible signal is to be given signifying that drivers are to complete the lap they are on. The last audible signal is to be given once all drivers have finished the race. This is to be the standard at Sanctioned events.
- A3.2 The race result is to be calculated by the amount of laps completed in the race stated time plus 1 lap, with the number of seconds taken to complete the lap after the race stated time, to a maximum of 45 seconds.
- A3.3 Failure to complete the last lap after the heat or final time is completed shall mean the result will be the number of laps and time at which the car completed the previous lap (e.g. in a 5 min race the previous completed lap might have been at 4:43)
- A3.4 Qualifying will be done via a staggered start system. Each driver will have a staggered start and be on an individual clock for the race period. The race director or computer lap scoring programme will determine the starting order and timing between staggering of drivers. The starting order will be shuffled for each heat.
- A3.5 Finals Procedures for Sanctioned events will be a grid start, where all cars will start simultaneously.
- A3.6 Finals starting positions are on grid positions, based on qualifying - fastest in front.
- A3.7 Grids must be a minimum of 1.5 metres from front each car to the front the next car. Arrangement of the grid is up to the event organiser's discretion.
- A3.8 Heats and finals will consist of a maximum of 12 cars.
- A3.9 There will be a minimum of 3 qualifying heats for each class.
- A3.10 The final positions will be decided by a point system based on one (1) point for the winner of each final on down to ten (10) points for the tenth placed finisher in each separate final.  
The best two (2) out of three (3) finishes will count (the best out of two (2) if lower finals are run only two (2) times).  
In the event of a tied position, the driver with the single best finishing position in either of the best two (2) finals that counted will be awarded the tie, in the event

of a continuing tie, and then the laps and times from the best finishing position will be compared and the one with the fastest laps and time total will be awarded the tie. If still continuing, then times from the second best position will be compared.

A3.11 Points system to be used for finals is as follows:

1st place:	1
2nd place:	2
3rd place:	3
4th place:	4
5th place:	5
6th place:	6
7th place:	7
8th place:	8
9th place:	9
10th place:	10

A3.12 Sanctioned meetings may be run under "Reedy/Points" Format, at host clubs discretion. Format is to be a minimum of 2x5min practice runs. followed by a minimum of 6 rounds from which points are accrued from race finishing positions, dropping the single worst round. Grids are to be generated using an approved fair spread random calculator (As approved by NZRCA).

#### **A4 RAIN AFFECTED MEETINGS**

A4.1 For Sanctioned meetings and Regional/National Championships, in the event of badweather clubs should take all necessary steps to be able to move the event indoors. If there is no indoor venue available it must be started on the entry form. The decision to move to the indoor venue or abandon the meeting if none is available is to be made by the Race Director and his/her decision is to be final.

A4.2 Any decision made to move the meeting to an indoor venue or abandon the meeting at Sanctioned events or Regional Championships must only be made after the Race Director has consulted with a panel of drivers made up of one representative of each NZRCA member club present.

A4.3 Any decision made to move the meeting to an indoor venue or to abandon the meeting at National Championships must only be made after the Race Director in conjunction with those members of the NZRCA Executive present has consulted with a panel of drivers made up of one representative of each NZRCA member club present.

A4.4 If the meeting is abandoned the following shall apply:

i) If the racing is abandoned on qualifying day, qualifying position for each driver is to be determined as follows:

a. If no full rounds of qualifying have been completed, then qualifying is to be moved to finals day.

b. If only one full round of qualifying has been completed, then the result of the completed round is to be used.

c. If at two full rounds of qualifying have been completed, the best single time is to be used.

ii) If the meeting is abandoned on finals day, before all rounds of finals are complete, the final positions for each driver are to be determined as follows:

a. If no qualifying rounds have been completed, then the meeting is to be abandoned and no result can be declared.

- b. If no full rounds of finals have been completed, then qualifying positions are to be used.
  - c. If one full round of finals has been completed, then the points from that completed round are to be used.
  - d. If two full rounds of finals have been completed, then the best single points from the two completed rounds is to be used.
- A4.5 If weather conditions dictate that the primary venue is abandoned in favour of completing the meeting indoors then a minimum of 1 hour controlled practice time shall be provided at the indoor venue immediately prior to the continuation of the meeting.
- A4.6 Heats to be run on a “drying track” up to the discretion of the Race Director.
- A4.7 Finals to be started on a “dry track”, up to the discretion of the Race Director.
- A4.8 In the event of rain during a final, the track must return to 100% dry conditions before racing can recommence. The 100% dry conditions will be determined by the Race Director.

## **A5 TRACK RULES**

- A5.1 Corner cutting is to be discouraged by placing markers and barriers.
- A5.2 Start, Stop/Go areas and Finish Lines must be clearly marked.
- A5.3 All tracks MUST be a minimum of 2.5 meters wide, with the Start straight a minimum of 3 meters wide.
- A5.4 The track should be laid out so there are no hidden areas when viewed from the driver’s stand.
- A5.5 Adequate protection must be provided for spectators.
- A5.6 Guideline: - Before granting a National event, the NZRCA should ensure that the proposed track has adequate drainage and appropriate surface so that it can be used within two hours of rain stopping.

## **ON ROAD GENERAL TECHNICAL RULES**

### **A6 RACE DURATION**

- A6.1 All heats and finals will be of the time duration specified for each class as listed below, plus the time to finish the last lap:
- a. Touring Stock - Five minutes.
  - b. Brushless Touring Stock - Five minutes.
  - c. Super Stock - Five minutes.
  - d. Touring Modified - Five minutes.
  - e. M-Chassis - Five minutes.
  - f. Formula One - Five minutes.
  - g. Pro 10 - Five minutes.
  - h. Pro 12 - Eight minutes.

### **A7 STOCK CLASS MOTOR SPECIFICATIONS**

- A7.1 BRUSHED MOTORS: Only permitted motors are unopened, unmodified Johnson 540s or Mabuchi 540s closed can, sealed end bell, bushed, with non-replaceable brushes and bushes. Motors to be supplied from Trevor Brignans Ltd.:
- a. Part No. Mabuchi RS540 standard motor or
  - b. Part No. 53689 Johnson RS540 motor.

- c. Part No. Mabuchi RS540SH
- A7.1.1 Tamiya, Mabuchi "Sport Tuned" motors are not allowed, nor any 540 variants such as 540ST, or 4 hole variants etc. A stock motor run at 8 volts unloaded must draw no more than 1.7 amps.
- A7.1.2 Motor testing is to be carried out using the NZRCA motor testing equipment and the instructions associated with it. Any motor which draws close to the maximum allowable current (1.7amps) be subjected to a second test. The second test is a current test run in the reverse direction. There should not be a major difference in the result of both tests.
- A7.1.3 The "zapping" of a stock motor is classed as a modification and thus illegal.
- A7.2 **BRUSHLESS MOTORS:**
  - A7.2.1 Motors for Stock Touring class to be ROAR/EFRA/IFMAR approved brushless motors with a minimum of 21.5 turns.
  - A7.2.2 Motors for Formula One class to be ROAR/EFRA/IFMAR approved brushless motors with a minimum of 21.5 turns.
- A7.3 It is the responsibility of the competitor to prove that their motor has the correct number of winds to comply with this rule.
- A7.4 Type and brand of ESC used is open, but must be either 'Stock Spec' (have no boost/turbo or timing advance programming) or be running in 'blinky' mode.

## **A8 LIMITED BRUSHLESS CLASSES MOTOR SPECIFICATIONS**

- A8.1 Motors for Super Stock class to be ROAR approved brushless motors with a minimum of 13.5 turns.
  - A8.1.1 Type and brand of ESC used is open, but must be either 'Stock Spec' (have no boost/turbo or timing advance programming) or be running in 'blinky' mode.
- A8.2 Motors for Pro10 class to be any commercially available brushless motors with a minimum of 13.5 turns
- A8.3 Formula One: 540 size 21.5 turn brushless motors as per NZRCA approved list only.
  - A8.3.1 Type and brand of ESC used is open, but must be either 'Stock Spec' (have no boost/turbo or timing advance programming) or be running in 'blinky' mode.

## **A9 MODIFIED CLASS MOTOR SPECIFICATIONS**

- A9.1 Brushed or brushless 540 size motors may be used as described below.
- A9.2 **BRUSHLESS MOTORS:**
  - A9.2.1 Sensored or sensorless motors are allowed.
  - A9.2.2 The motor has to be rebuildable. Ball bearings are allowed.
  - A9.2.3 The power connector has to be clearly marked A, B, C. A for phase A, B for phase B, C for phase C.
  - A9.2.4 `05` size specifications
  - A9.2.4.1 Can:
    - a. Overall maximum diameter is 36.02mm measured at whatever point yields the maximum dimension, excluding solder tabs or lead wires.
    - b. Overall minimum diameter is 34.00mm measured at whatever point yields the minimum dimension, excluding solder tabs or lead wires.
    - c. Maximum length is 53.00mm measured from the mounting face of the

motor to the furthest most point of the end bell, not including solder tabs, lead wires or original manufacturer's logo or name.  
d. Minimum length is 50.00mm measured from the mounting face of the motor to the furthest most point of the end bell, not including solder tabs, lead wires or original manufacturer's logo or name. Motor mounting holes must be on 1.00- inch (25.40mm) centres.

A9.2.4.2

Stack/Stator:

- a. The Stack or Backiron must be continuous. The laminations have to be one after the other without anything in between.
- b. Stack/Backiron minimum length 19.30mm, maximum 21.00mm.
- c. The thickness of the Stack/Backiron laminations is 0.35+/-0.05 mm.
- d. All laminations must be of the same material. Inside diameter of Stack or Windings equals the central space between the laminations or assembly of windings and must accept 'plug' gauges of 12.5 mm minimum, 16.0 mm maximum. These dimensions to be measured with the centre of the 'plug' gauge in-line with the centre of the motor Can. (i.e. Concentric to can).

A9.2.4.3

Winding:

- a. Delta and Y wound stators are permitted. Only circular (round) pure copper wire permitted. No turn limit.

A9.2.4.4

Rotor:

- a. Shaft diameter must be 0.125 inches (3.175mm).
- b. Only one piece, two pole Neodymium or Ferrite magnetic rotors are permitted.
- c. Magnet minimum length 23.00mm, maximum 27.00mm.
- d. Magnet minimum diameter 12.00mm, maximum 15.50mm.

A9.2.4.5

Any commercially available brushless motor that conforms to specific size measurements may be used. No hybrid (mixing of parts from approved brushless motors) allowed.

### A9.3 BRUSHED MOTORS:

A9.3.1

Overall maximum diameter is 36.02mm measured at whatever point yields the maximum dimension. Maximum length is 53mm measured from the mounting face of the motor to the furthest most point of the end bell, not including solder tabs or lead wires. Shaft diameter must be .125". Motor mounting holes must be on 1.00"centres.

A9.3.2

Only ceramic magnets are permitted, cobalt and rare earth magnets are specifically prohibited.

A9.3.3

Motors must have replaceable brushes.

A9.3.4

Maximum stack length is 22.6mm. Maximum stack diameter 23.2mm. Only three pole armatures are permitted. All motors must have manufacturer's logo or name on the end bell.

A9.3.5

The end-bell may be advanced no more than 24 degrees.

## A10 BATTERIES

A10.1

Batteries for all classes are to be as follows:

- a. Sub-C sized NiCad / NiMH batteries, or;
- b. Lithium polymer (Lipo) or LiFe batteries.

There is no capacity limit in any class.

A10.2

For Nicad/NiMH, cars will be driven by a maximum of the following:

- a. 1/10th scale classes: 6 cells with a nominal voltage of 1.2 volts per cell – 7.2- volt total.
- b. 1/12th scale class: 4 cells with a nominal voltage of 1.2 volts per cell – 4.8 volt total.

A10.3 The use of Lipo/LiFe batteries is to be as per NZRCA General Rules G17

## 1/10th TOURING CAR CLASS RULES

### A11 GENERAL

- A11.1 Any commercially available, narrow scale type touring cars are eligible for these classes.
- A11.2 Any commercially available option parts manufactured specifically for, or as an option part for narrow scale touring cars may be used. Minor chassis components i.e.: shock towers, nerf bars, transponder mounts etc may be custom made however the main lower and/or upper chassis plates and gearbox cases must have their origins in the original manufacturers product. Material may be removed but not added.
- A11.3 After market accessory components may be used to replace the original lower and/or upper chassis components. Such replacement parts must be produced by a recognized manufacturer and such parts must be included in that manufacturers published catalogue as part of their generally offered product line. Such parts may be further modified as long as the part retains its origins in the manufacturer's original product. Material may be removed but not added.
- A11.4 Any type of speed controller may be used, but it must be contained within the car and not protrude through the body shell.

### A12 BODYSHELLS

- A12.1 Any commercially available Four-Door or Internationally approved body may be used.
- A12.2 Bodies may not be cut above the lower door line or above the lower rear bumper line.
- A12.3 No cut outs are allowed from the body except for body posts, lap scoring transponder, and aerial tube or for clearance of the wheels from the wheel arches.
- A12.4 Cars are to be neatly finished and painted except for the windows, which must be either translucent, defined by a separate single colour (solid) or authentically decorated.
- A12.5 No GT, Wing or Wedge bodies are eligible.
- A12.6 The body entered for Concourse judging must be the body shell used for at least one race during the meeting.

### A13 WINGS

- A13.1 The height of the wing may be adjusted but the wing, including endplates must not extend higher than the roofline to be measured with a 10mm block under the chassis. Wings excluding endplates) are to be of single moulded construction (no flat- packs/bend your own). Gurney strip (if allowed) may not exceed the width of the wing and have an edge not more than 5.00mm high.

Total cord of wing, plus the strip is 55.00mm

- A13.2 'Hatch' type bodies are exempt from rule 13.1 as long as the wing used is a representation of a production unit.
- A13.3 No under-body aerodynamic devices may be used.
- A13.4 Only commercial available wings are to be used. No homemade wings are permitted.

#### **A14 BUMPERS**

- A14.1 Foam bumpers may be fitted. When viewed from any direction, no part of the bumper may extend outside the body shell.

#### **A15 CHASSIS AND DRIVETRAIN**

- A15.1 Flat plan 1/10th and 1/12th scale chassis are not allowed. Chassis must have independent suspension to all four wheels. Each driven wheel must have flexible joint, eg universal joint.
- A15.2 No part of the electronics may protrude outside the body shell.
- A15.3 No rigid aerials or roll-over masts shall be allowed, eg graphite or steel.

#### **A16 DRIVER AIDS**

- A16.1 Traction control, including slipper clutches and fluid clutches, active suspension and steering with the use of gyroscopes are not allowed.
- A16.2 Only two channels of the radio control unit may be used.
- A16.3 No two speed gearboxes or transmissions are permitted.
- A16.4 2WD cars may run the slipper which was supplied in the kit set.
- A16.5 Adjustable one way bearings (adjustable brake bias) are allowed.
- A16.6 The use of 2-way intercom is allowed.

#### **A17 TYRES**

- A17.1 Only rubber tyres may be used (No foam tyres), except for on carpeted surfaces where foam tyres may be used.
- A17.2 Foam or moulded rubber inserts may be fitted inside the tyre.
- A17.3 A hosting club of an NZRCA on-road event is allowed to nominate a specified tyre for the event in question.

#### **A18 DIMENSIONS**

- A18.1 Dimensional requirements for all touring car classes:

<b>Overall Dimensions &amp; Weight</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Wheelbase</i>	250mm	270mm
<i>Width (without body shell)</i>	170mm	190mm
<i>Width (with body shell)</i>	175mm	195mm
<i>Weight (including transponder)</i>	1350g	1700g

## **OTHER ON-ROAD CLASS RULES**

#### **A19 TAMIYA M-CHASSIS**

- A19.1 Any Tamiya M-Chassis car including models: M02, M03, M04, M05, M06, M07, M08.  
This includes kits with “R”, Ra” and “PRO” in their title.
- A19.2 Cars must be assembled as per instruction manual and no chassis modifications or chassis lightening is allowed, except for minor grinding on the M07 for clearance of the brushless motor wire tabs.
- A19.3 No power train / diff modifications are allowed.
- A19.4 A minimum weight limit of 1230g (with battery & transponder) will apply.
- A19.5 The ride height of all cars will be minimum of 6mm. This will be measured by rolling the car over an NZRCA Approved Gauge after the scrutineer has compressed the car’s suspension.
- A19.6 Only genuine Tamiya replacement parts designed for that particular chassis can be used with the exception of the following hop ups:
- a. Standard ball bearing kit (no ceramic bearings)
  - b. Sway Bar kit
  - c. Tamiya High Torque Servo Saver and any aftermarket alloy servo horn specifically made to fit the Tamiya High Torque Servo Saver.
  - d. M-Chassis reinforced gear set Tamiya part number 54277
  - e. Any aftermarket Touring Car shocks and spring set
  - f. Alloy wheel hexes, with a maximum thickness of 5mm
  - g. Universal Swing Shaft, including Double-Carden type driveshafts.
  - h. Hardened motor pinion - 16, 17, 18, 19 & 20 tooth only.
  - i. Any brand of motor heatsink is permitted as long as they attach to the motor in such a manner as to not be considered a structural component of the car.
  - j. 3Racing 7075 Aluminium Side Stiffener 2 pcs for Tamiya M07 – these are required to provide the necessary clearance of the brushless motor wire tabs.
- A19.7 No other hop-up part including (but not limited to) the following are allowed:
- a. Any optional high-speed gear sets, gear adaptors or ball diffs.
  - b. Alloy or aftermarket steering rack
  - c. FRP / Graphite or alloy shock towers
- Basically - if it’s not on the “allowed” list - it’s not allowed.
- A19.8 Only 16, 17, 18, 19 or 20 tooth pinions to be used.
- A19.9 Body Shells  
Only Body shells (from any manufacturer) specifically designed for M-Chassis with wheelbase of 210 / 225 / 239mm can be used
- A19.10 Spec Tyre & Wheel combo  
Only RIDE 60mm SC36m Pre-Glued Rubber Tire 2 pcs w/ White Rim for 1/10 M-Chassis Part #26300 are allowed.
- A19.11 Drilling extra vent holes in the wheels is illegal.
- A19.12 Spec Motor and ESC  
Hobbywing Stock ESC / 17.5 Motor COMBO. #XR10-JS5-G2. The ESC and motor to be retendered on a 2 year basis
- a. Only permitted motors are unmodified Hobbywing17.5 (PN 30408006). Motors to be from the Combo Kit #XR10-JS5-G2.
  - b. A stock motor run at 8 volts unloaded must draw no more than 1.7 amps. Any motor which draws close to the maximum allowable current (1.7amps) be subjected to a timing test to ensure it has no more than 35Deg timing.

- c. The battery plug may be changed, however no other component/s relating to the speed controller maybe altered.
  - d. The motor wire bullet plugs must be used without modification.
- A19.14 Only batteries as per Rule A10 may be used. Modifying the chassis to fit batteries is not permitted.

## A20 FORMULA ONE

- A20.1 Any commercially available 1/10th Formula One or Indy car type car may be used.
- A20.2 Cars must be 2wd flat pan on road design. The rear suspension must use a straight axle; no independent rear may be used.
- A20.3 Any available option part manufactured specifically for, or as an option part, for Formula One / Indy Cars may be used.
- A20.4 No rigid aerials or roll over masts shall be allowed, eg graphite or steel.
- A20.5 Only stock motors as per Rule A7 may be used.
- A20.6 Only 1/10th Formula One/Indy body is eligible for use in this class.
- A20.7 Only speed controllers as per Rule A7.4 may be used.
- A20.8 Dimensional Requirements For Formula One Class:

Overall Dimensions & Weight	Minimum	Maximum
<i>Width</i>		205mm
<i>Weight (Including Transponder)</i>	1000g	

*Rear wing width no wider than the body width of the car, front and rear wings must be scale in appearance. No alterations / removal of front or rear wing material is allowed unless the wings are designed with removable planes. Trimming of vertical posts on front wing to allow body fitment is allowed, as long as airfoil surfaces are not altered.*

- A20.9 Tyres are open.

## A21 PRO 10

- A21.1 Cars must be 2WD flat pan on road design. The rear suspension must use a straight axle; no independent rear may be used.
- A21.2 Bodies must be 1/10th scale pro 10 design. This may include saloon, group C or GTP style bodies.
- A21.3 Bodies may not be cut above the lower door line or above the rear bumper line.
- A21.4 Openings in the body or cockpit floor other than for bodyposts, aerial and transponder mount must be appropriate to full size cars (scoops, vents, etc) and contained within the bodyshell manufacturers scribe-lines. Openings for wing mounts and battery on/off switch shall provide no more than 10mm clearance around such components. No other openings are allowed, aside from those allowing roll over clearance of the wheels from the wheel arches.
- A21.5 No rigid aerials or masts shall be allowed, eg graphite or steel.
- A21.6 Only motors as per Rule A8 may be used.
- A21.7 Dimensional Requirements For Pro 10 Class:

Overall Dimensions & Weight	Minimum	Maximum
<i>Wheelbase</i>	230mm	280mm
<i>Length</i>		500mm
<i>Weight (Including Transponder)</i>	1115g	
<b><i>Wheels and Tyres</i></b>		

<i>Diameter</i>	41mm	51mm
<i>Width</i>	19mm	51mm

A21.8 Tyres are open.

## A22 PRO 12

- A22.1 Cars must be 2WD flat pan on road design. The rear suspension must use a straight axle; no independent rear may be used.
- A22.2 Bodies must be 1/12th scale pro 12 design, group c or can am style.
- A22.3 On carpet tracks the minimum ground clearance of 3mm is mandatory at the start of each heat and final.
- A22.4 No proportion of the chassis, wheels and tyres, or electronic equipment may extend beyond the body shell.
- A22.5 Openings in the body or cockpit floor other than for bodyposts, aerial and transponder mount must be appropriate to full size cars (scoops, vents, etc) and contained within the bodyshell manufacturers scribe-lines. Openings for wing mounts and battery on/off switch shall provide no more than 10mm clearance around such components. No other openings are allowed, aside from those allowing roll over clearance of the wheels from the wheel arches.
- A22.6 No rigid aerials or roll over masts shall be allowed, eg graphite or steel.
- A22.7 The use of tyre additive shall be at the organiser's discretion.
- A22.8 Only motors as per Rule A9 may be used.
- A22.9 Dimensional Requirements For Pro 12 Class:

<b>Overall Dimensions &amp; Weight</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Width (including Body, Bumpers &amp; Wings)</i>		172mm
<i>Weight (Including Transponder)</i>	730g	