2024 EP ON-ROAD RULES

CONTENTS

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 national meeting.

A1.10 Only one drive motor may be used.

A1.11 Batteries may not be changed during a race.

A1.12 Tyre additives are prohibited in all racing classes as per rule G10.2

A1.13 Clubs hosting Outdoor national meetings must make their outdoor tracks available for 2 days immediately before the meeting.

A1.14 At all national 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.

A1.15 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.

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 national 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 timing between staggering of drivers. During the first round of qualifying, heat starting positions will be determined either by seeded practice result, or randomly called. Subsequent qualifying rounds will be called by the overall fastest time of the driver from any previous qualifying rounds.

A3.5 Finals Procedures for national 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, measured in a parallel line to the track centre line. Arrangement of the grid is up to the Race Director in consultation with event organiser's.

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 a maximum of twelve (12) points for the twelfth 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
11th place:	11
12th place:	12

A3.12 National 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).

A3.13 National meetings may run under “progressive finals” at host clubs discretion. This must be announced in the info pack at time of entry. Progressive finals allow all competitors an equal chance to win the top prize without being stuck in a lower final.

a. Qualifying will be 3x 5-minute rounds of staggered start grouped heats as per Rule A3.4. with round 1 being a random call start order. Fastest single time counts
b. Top Ten Shootout – Host club may wish to run top 10 shootout for the fastest 10 per class, run over 5 laps fastest 3 laps, set the top 10 starting grid. – should a car fail to finish they will start from the back of the “A” group. This would be run after qualifying is completed. The host club can nominate a single class or all classes to run a Top 10 ShootOut.
c. Finals – a minimum of 6 Rounds of Finals will be run. Dependent on numbers will consist of A B and C etc groupings. Round one is set via qualifying results (A group maybe set by Top 10 ShootOut for round 1) each class can be either a time vlaps or a set number of laps per class, this must be consistent for all rounds. Subsequent rounds are based on the classes overall results, and are re-seed, based on the individual results for that class.
d. All finals starts are as A3.5
e. Results are cumulative Laps V Time, with a single drop round. Tie Break is fastest Laps V Race Time, then next Laps V Time.

A4 RAIN AFFECTED MEETINGS

A4.1 For national meetings, in the event of bad weather 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 national events 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: / or a defined number of laps per class, that must not take longer than the standard race time per class, plus the time to finish the last lap.

a. 21.5t Spec Touring - Five minutes
b. TCR FWD – 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 21.5T SPEC TOURING CLASS

A7.1a Drivers can only use the specified 21.5t Brushless Motor as selected by the NZRCA for that year.

A7.1b The specified motor, to be chosen by the NZRCA executive will be updated in a regular two yearly cycle using a tender process.

A7.1c The motor selected will be specified for a two “calendar” year window. The third year would act as a “crossover” when the newly specified motor would take effect, but the current motor could still be used.

Example:
2022 – 2023 = Tendered specified motor only to be allowed.
End of 2023 – NZRCA executive to re-tender specified motor for 2024.
2024 = crossover year (2023 and 2024 motors allowed)
2025 – 2026 = Tendered specified motor only to be allowed

A7.2 Motors for 21.5t Spec Touring class to be NZRCA21.5TSPEC Fixed Timing Motor only.

A7.3 It is the responsibility of the competitor to prove that their motor has the correct factory supplied rotor (C77125), timing ring, screw set and stator wind 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, with no softening or smoothing functions activated.

A8 LIMITED BRUSHLESS CLASSES MOTOR SPECIFICATIONS

A8.1 Motors for Super Stock class and Pro 12 class to be ROAR/EFRA/IFMAR approved brushless motors with a minimum of 13.5 turns.

A8.2 Motors for TCR FWD will be a spec motor – HobbyWing Justock 17.5 FTM G2.1 #30408011 (older versions may be used)

A8.2.1 Newer versions of the Justock 17.5 FTM will be eligible from Jan 1 the following year.

A8.3 Motors for Pro10 class to be any commercially available brushless motors with a minimum of 13.5 turns

A8.4 Formula One: ROAR/EFRA/IFMAR approved brushless motors with a minimum of 21.5 turns.

A8.5 Type and brand of ESC for classes listed in A8.1, A8.2,and A8.4 is open, but must be either 'Stock Spec' (have no boost/turbo or timing advance programming) or be running in 'blinky' mode, with no softening or smoothing functions activated.

A8.6 Type and brand of ESC for class A8.3 is open.

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.

A11.1.1 Any commercially available 1/10th narrow scale Front Wheel Drive Kit or commercially available conversion kit may be used for TCR FWD.

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 shell may be used.

A12.1.1 For TCR FWD any commercially available or BRCA / FEMCA / EFRA / ROAR / IFMAR approved 1/10th scale Front Wheel Drive, or TCR type body shell 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 Concours 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.

A13.5 Wing for TCR FWD to be the wing supplied with the body

A14 BUMPERS

A14.1 Foam or 3D printed 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.

A15.1.1 For TCR FWD only the front wheels are allowed to be driven.

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.
A17.4 TCR FWD Control / Spec tyres are to be mounted on a spoked rim

A18 DIMENSIONS

A18.1 Dimensional requirements for all touring car classes:

Overall Dimensions & Weight	**Minimum**	**Maximum**
Wheelbase	250mm	270mm
Width (without body shell)	170mm	190mm
Width (with body shell)	175mm	195mm
Weight (including transponder)	1320g	1700g
Weight (including transponder) TCR FWD	1250g	1600g

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, with the following exceptions:
A19.2.1 minor grinding on the M07 for clearance of the brushless motor wire tabs is allowed
A19.2.2 Rotating the servo by 180 Degrees and direct connection from the steering linkage to the Servo Horn is allowed on the M08. K1, K2 and K8 may be disregarded
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 MT36R Hi-Mid Temp High Grip Tyres (2 pcs) Pre-Glued Rubber Tyre 2 pcs w/ White or Black Rim for 1/10 M Chassis Part #26300/W or Part #26300/B are allowed.

A19.11 Drilling extra vent holes in the wheels is illegal.

A19.12 Spec Motor for Mini will be a HobbyWing Justock 17.5 FTM (older versions maybe used)

A19.12.1 Newer versions of the Justock 17.5 FTM will be eligible from Jan 1 of the following year

A19.12.2 Spec ESC will be the Hobbywing XERUN XR10 Justock (older versions may be used)

A19.12.3 Newer versions of the Hobbywing XERUN XR10 Juststock will be eligible from Jan 1 of the following year.

A19.13 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 A8.3 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
Width		205mm
Weight (Including Transponder)	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. Wings must be retained in factory kit positions to keep scale appearance.

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
Wheelbase	230mm	280mm
Length		500mm
Weight (Including Transponder)	1115g	
Wheels and Tyres		
Diameter	41mm	51mm
Width	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 and speed controllers as per Rule A8.1 & A8.5 may be used.

A22.9 Dimensional Requirements For Pro 12 Class:

Overall Dimensions & Weight	**Minimum**	**Maximum**
Width (including Body, Bumpers & Wings)		172mm
Weight (Including Transponder)	730g	