PRODUCTION RACING CARS PRC

2008

Sporting and Technical Rules

Administered by
Production Racing Cars

PRODUCTION RACING CARS PRC

0412 785 486
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A category of the
Independent Race Series

INDEPENDENT RACE SERIES

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Introduction

The Production Racing Cars Championship upholds the finest traditions of Australian Motorsport - the cars that compete are required to be street legal to the point where the car could be driven to the circuit, raced, and driven home again. Some competitors in the past have even done that exact thing.

The Production Racing Cars Championship pits showroom-based cars, with minimal modifications (most are purely for safety) against each other, in the kind of on-track battle that just about everyone can easily relate to - the cars could be the same model as the family car. The racing is affordable, exciting, and with a multi-tier class system, fair and close.

The PRC is the ideal place for manufacturers to showcase their vehicles, and prove just how well they stack up against the opposition. Manufacturers represented in the championship include:

Ford - Holden - Mitsubishi - BMW - Hyundai - Volkswagen - Peugeot - Renault - Nissan - Toyota - Proton - Alfa Romeo - Citroen - and more!

1. Sporting Rules - General

1.1 Title

1.1.1 The 2008 Production Racing Cars Championship is a National Championship. The Championship will be run as part of the 2008 Independent Race Series (iRace).

1.2 Officials

1.2.1 Category Director	:	Mr Rod Dale
1.2.2 Competitor Liaison	:	Mr Rod Dale
1.2.3 Category Administrator	:	Mr Rod Dale
1.2.4 Technical Commissioner	:	TBA
1.2.3 Series Public Relations	:	Mr Sam Dale

1.3 Other Relevant Documents

1.3.1 The Production Racing Cars Championship will be run as part of the 2008 Independent Race Series. Meeting Rules, and Further Rules, promulgated for each round of the Championship will contain information relevant to PRC competitors and personnel.

1.3.2 The Production Racing Cars Championship will be run as part of the Independent Race Series. The 2008 iRace Competition Rules will be in force at all events.

1.3.3 Race meeting, and race procedures will be in accordance with the procedures and regulations outlined here, as modified by the documents listed at paragraphs 1.3.1 and 1.3.2

1.3.4 It is the responsibility of the competitor to obtain and be familiar with all relevant documents as described here, and promulgated from time to time.

1.3.5 Special bulletins may be issued throughout the year. Bulletins will either be delivered to competitors at race meetings, or promulgated via the official iRace website: www.iRace.net.au

1.4 Registration

1.4.1 There is no stand-alone registration fee. To be considered registered for Production Racing Cars and eligible for points, competitor giveaways available from time to time, and trophies and other awards, competitors must complete a 2008 iRace Driver form, available from the Admin section of the iRace.

1.4.2 Competitors must be registered to accumulate points in the Production Racing Cars Championship. Provided the competitor holds a suitable circuit racing licence, vehicle logbook and has registered with the Category, membership of any other group, association or club is not compulsory.

1.4.3 The Category Director reserves the right to refuse entry to any competitor and/or vehicle without explanation.

1.5 Calendar

1.5.1 The 2008 Production Racing Cars Championship Calendar is as follows:

ROUND 1	Oran Park, NSW	11 October 2008
ROUND 2	Morgan Park, QLD	15-16 November 2008

1.6 Pointscore

1.6.1 Outright Points will be awarded for each race as follows:

1.6.1.1 TABLE A - Points awarded for outright placing:

1st place	: 20 points
2nd place	: 18 points
3rd place	: 16 points
4th place	: 14 points
5th place	: 12 points
6th place	: 11 points
7th place	: 10 points
8th place	: 9 points
9th place	: 8 points
10th place	: 7 points
11th place	: 6 points
12th place	: 5 points
13th place	: 4 points
14th place	: 3 points
15th place	: 2 points
16th to final place	: 1 point

1.6.1.2 TABLE B - Points awarded for placing within Class:

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

The outright round points for each competitor will then be the total of their points from Table A for each race, added to their points from Table B for each race.

1.6.2 Class placings and pointscores will be awarded in accordance with para 1.6.1.1 (Table A), but based upon position in class, and awarded for each race.

1.7 Awards

1.7.1 Awards will be at the discretion of the Category Director.

1.7.2 Unless otherwise determined by the Category Director, awards will be given for the top three outright placings. Where the number of competitors in a particular Class is three or greater, a separate award for the round winner of that Class will be presented. Where the number of competitors in a Class is six or greater, awards will be presented for first, second and third placings for the round for that Class.

1.7.3 Awards for the season Outright and Class pointscores will be given to the championship placegetters in accordance with paragraph 1.7.2.

1.8 Championship

1.8.1 The pointscore for the Production Racing Cars Championship will be determined by adding the points for each round. The competitor with the highest number of points will be awarded first place in the Championship. In the event of a tie, the higher position will be awarded to the competitor with the greater number of wins (or if number of wins is the same, to the competitor with the greater number of second places, or third places and so on). If the positions are still tied, the higher position will be awarded to the competitor with the better finishing position in the last event.

1.8.2 Sub-category pointscores will be determined in accordance with the procedure outlined at para 1.8.1

1.9 Financial

1.9.1 Manufacturers entering the category in an official capacity will be required to make a financial contribution to television production costs. The exact details will be available from the Category Director.

2. Sporting Rules – Race meetings and Race procedures

2.1 Scrutineering

2.1.1 Scrutineering paperwork must be completed before the vehicle is scrutineered. An approved circuit racing licence and iRace Vehicle Logbook must be provided for inspection.

2.1.2 Scrutineering of vehicles will take place on Saturday and Sunday mornings. The exact timing and location of vehicle scrutineering will be advised in meeting rules.

2.1.3 All vehicles must be fitted with a functioning Dorian transmitter for all on track activities.

2.2 Driver's Briefing

2.2.1 The Clerk of Course will conduct a driver's briefing at each round of the Championship. Attendance at the briefing is compulsory, and non-attendance may attract a fine or other penalty.

2.3 Practice Starts

2.3.1 Practice starts may only be conducted at the exit of pit lane.

2.4 Unofficial Practice

2.4.1 On the Friday immediately preceding each round of the Championship, the circuit will normally be available for unofficial practice (or in the case of a three day meeting, official practice – refer section 2.5.). A minimum of 2 x 20 minute unofficial practice sessions will normally be scheduled.

2.5 Official Practice

2.5.1 Official practice will normally be scheduled during Saturday morning of each round of the Championship. Official practice will normally consist of a minimum of 1 x 15 minute (or greater) session.

2.6 Official Qualifying

2.6.1 Official qualifying will normally be scheduled during Saturday afternoon of each round of the Championship. Official qualifying will normally consist of a minimum of 1 x 15 minute (or greater) session.

2.6.2 Tyres will be marked before the commencement of official qualifying, and these tyres must then be used throughout the qualifying session and during all races. Cars must comply with, and may be randomly checked for, minimum weight limits at all times during official qualifying.

2.7 Grid Allocation

2.7.1 Grid positions for the first race will be determined by times set during the official qualifying session. The driver with the fastest qualifying time will start from grid position one, next fastest from position two and so on.

2.7.2 Grid positions for subsequent races will be determined by the laptimes from the preceding race. In the case of a normal race weekend, race two grid will be determined by the fastest laptime for each competitor in race one but in reverse order. The grid for race three will then be determined by the fastest laptimes for each competitor in race two. Alternate format race weekends will have the grid for race one determined by qualifying times, and race two by fastest laptime in race one.

2.7.3 Any competitor failing to either set a time in the official qualifying session, or record a finishing position in the preceding race, must obtain permission from the Clerk of Course to start from the rear of the grid.

2.8 Safety Car

2.8.1 A safety car may be used during all races in accordance with the 2008 iRace rules. Where possible and safe to do so, the safety car will maintain not less than 60km/h on the straights.

2.9 Race Format

2.9.1 A normal race weekend will consist of the following:

2.9.1.1 Race One – Standing start, 5 lap race.
2.9.1.2 Race Two – Standing start, 12 minute duration race, reverse grid.
2.9.1.3 Race Three – Standing start, 15 minute duration race.

2.9.2 An alternate race format may be used at up to 2 selected rounds at the discretion of the Category Director. The alternate race weekend will consist of the following:

2.9.2.1 Endurance Format:
a. Race One – Standing start, 35 – 40 minute duration race.

2.9.2.2 Double feature Format:
a. Race One – Standing start, 15 minute duration race.
b. Race Two – Standing start, 22 minute duration race.

2.10 Start Procedures

2.10.1 Standing starts will be conducted as follows:

2.10.1.1 2 minute, 1 minute and 30 second boards displayed in the marshalling area or pitlane.
2.10.1.2 Vehicles proceed onto circuit and conduct one warmup lap. On completion of the lap, vehicles stop on their designated grid spots.
2.10.1.3 Once the grid is set the starter will give the 5 seconds signal. The red starting light will illuminate shortly afterwards, and when the light extinguishes racing is to commence.

2.11 Oversubscribed Grid

2.11.1 In the event of entries exceeding approved track density, registered competitors will receive priority. Order of preference will then be determined by qualifying positions, with excess cars held as reserves.

2.12 Parc Ferme

2.12.1 At the completion of any official qualifying session or race, at the direction of the Chief Scrutineer and/or Technical Commissioner, vehicles may be required to attend Parc Ferme. When directed, all vehicles must attend the Parc Ferme area, and not be accessed by any pitcrew, and must not be removed from the area unless authorised by the Chief Scrutineer. Failure to comply with Parc Ferme procedures may result in exclusion from the event or other penalty.

3. Technical Rules

3.1 Introduction

3.1.1 Any modification or change not expressly permitted by these rules should not be carried out before consulting the Category Director.

3.1.2 Eligibility of vehicles not specifically mentioned in the following rules will be determined by, and is at the sole discretion of, the Category Director. Due regard will be given to the history of the car and it's compatibility with other competing cars.

3.2 General Description

3.2.1 The Production Racing Cars Championship is for competitors driving production-based cars in a road registerable configuration, and with a minimum of modifications. The car shall be a model available for sale to the general public in the year 2000 or later, and a minimum of 2,500 examples must have been produced.

3.2.2 Where the actual vehicle entered has a build date (taken from the vehicle compliance plate) before the year 2000, provided the same model (the same in all respects) was produced and available for sale after 1 January 2000, the car shall be eligible.

3.2.3 **Division Determination.** The division determination for each vehicle will be in accordance with the following table.

Division	Weight (kg) to	Power (kW)
X	Less than 7	1
A	Less than 8 to minimum of 7	1
B	Less than 10 to minimum of 8	1
C	Greater than or equal to 10	1

3.2.4 **Original Vehicle Cost.** For Divisions A, B and C, the original vehicle recommended retail price shall be no greater than $65,000. For Division X, the original vehicle recommended retail price shall be no greater than $80,000.

3.3 Safety Requirements

3.3.1 All cars must comply with the safety requirements of the iRace National Competition Rules. Particular items of note are:

3.3.1.1 **Seat.** A racing seat that complies with the iRace NCRs and relevant FIA standard may be used to replace the original driver's seat. A compliant seat may also be used to replace the front passenger seat.

3.3.1.2 **Harness.** A harness must be fitted for the driver's position in compliance with the iRace NCRs and relevant FIA standard.

3.3.1.3 **Fire Extinguisher.** A fire extinguisher must be installed in accordance with the iRace NCRs.

3.3.1.4 **Window Net.** A window net that complies with the requirements of the iRace NCRs must be fitted to the driver's window.
3.3.1.5 **Rollover Protection.** Rollover protection must be incorporated in accordance with the requirements of the iRace NCRs. The rollover protection must not pass through the engine bay firewall or the rear bulkhead, and may not attach to the suspension mounting areas of the chassis.
3.3.1.6 **Headlamps.** Headlamps must have an adhesive film applied to minimise fragments in the event of breakage.

3.4 Chassis and Bodywork

3.4.1 General modifications to the chassis and bodywork are prohibited.

3.4.2 Bodywork and chassis repairs following accident damage are permitted, but must not result in any strengthening of the chassis from original specification, they must also not alter the profile of the bodywork from original specification. Material may be added to effect repairs.

3.4.3 A factory option front spoiler and/or rear wing may be fitted.

3.4.4 The bodywork and/or chassis may not be modified for the purpose of strengthening.

3.4.5 No chassis mounting point is permitted to be modified.

3.4.6 Interior trim removal is free, provided original door handles and window operating systems are retained and operable.

3.4.7 Total vehicle weight must be no more than 2% less than the original specification as per DOTARS / RTA Vehicle Description.

3.5 Suspension

3.5.1 The suspension configuration and type must remain as original.

3.5.2 **Springs.**

3.5.2.1 The spring type must be as original.

3.5.2.2 **Coil Springs.** The construction (rate, diameter) of replacement coil springs is free, and additional (keeper) springs may be added provided they act solely in series with the main spring.

3.5.2.3 **Leaf Springs.** Leaves may be added or removed, and the springs can be 'rebeaten' or replaced to adjust dimensions or curvature.

3.5.2.4 **Torsion Bars.** Torsion bars are free, but must not be replaced (or supplemented) by a different springing method.

3.5.2.5 **Spring Seats.** Coil spring seats at the 'sprung' end of the assembly are free. Any replacement seat must remain concentric with the original seat, and may allow for ride height adjustment.

3.5.3 **Shock Absorbers.**

3.5.3.1 Existing shock absorbers may be replaced with an aftermarket unit, provided the new item is the same type and design principle as the original, and that it mounts to the same points as the original.

3.5.4 **Adjustments.**

3.5.4.1 **Camber.** An aftermarket camber kit may be used to facilitate the adjustment of wheel camber.

3.5.4.2 **Toe.** Tie rods may be modified or replaced with a materially similar item in order to facilitate toe adjustments.

3.5.4.3 **Ride Height.** Ride height may be reduced from original to not lower than 100mm. The ride height is defined as the vertical distance between the ground plane and the lowest 'sprung part' of the vehicle.

3.5.4.4 **Bushings.** Rubber or elastomeric bushings within the suspension may be replaced by a bushing of the same dimensions as the original, constructed of an alternative elastomeric material.

3.6 Engine

3.6.1 The engine must be as originally supplied by the manufacturer.

3.6.2 Aesthetic engine shields may be removed provided they serve no other purpose. Under bonnet soundproofing may be removed.

3.6.3 **Induction.**

3.6.3.1 The air filter element is free, but must reside in the original air intake assembly. A "cold air" intake scoop may be added provided it does not require removal of material (internal or external) of bodywork.

3.6.3.2 The original system of mixing air and fuel must be retained. It is strictly forbidden to modify any parts in the inlet tract (between the rear face of the air filter and the inlet valves) that come in contact with the intake air. It is also strictly forbidden to make any modification to allow air into the inlet tract other than via the air filter.

3.6.3.3 In the case of a carburettor-fitted engine, it is permitted to modify the fuel metering parts (jets, needles and/or floats) of the carburettor.

3.6.3.4 In the case of a fuel-injected engine, the injectors, sensors, actuators and other ancillary components must be retained unmodified. The Engine Control Unit (ECU) is

free, but any replacement unit must be interchangeable with the original ECU. The ECU must use the original sensors, and be connected via the original wiring harness.

3.6.4 **Ignition.**

3.6.4.1 The ignition system must retain the original sensors. The ignition system may be controlled by the replacement ECU in accordance with the requirements of para 3.6.3.4.

3.6.4.2 Spark plugs, high tension leads and addition of a rev limiter are free.

3.6.5 **Lubrication and Cooling.**

3.6.5.1 The system of lubrication and method of its operation must be as originally specified. Baffles may be added to the sump, and the oil pickup design and location within the sump may be modified.

3.6.5.2 An oil separator tank may be fitted to the crankcase breather plumbing.

3.6.5.3 The cooling radiator(s) may be replaced provided the replacement item is dimensionally identical, and requires no modifications to allow its fitment.

3.6.5.4 The cooling system thermostat is free.

3.6.5.5 The water pump is free, provided the location, method of operation and mounting is identical to the original unit.

3.6.5.6 The radiator cap is free.

3.6.5.7 Oil coolers may be fitted to the engine, transmission and power steering systems provided the cooler is mounted wholly within the external bodywork.

3.6.6 **Cylinder Head.**

3.6.6.1 The cylinder head must not be modified, except for the following allowed exceptions:

3.6.6.1.1 Cylinder head face may be machined up to 0.3mm, provided the compression ratio remains within original manufacturer tolerances.

3.6.6.1.2 Valve seats may be re-ground provided that none of the cylinder head casting is removed in the process.

3.6.6.1.3 The cylinder head gasket may be replaced with an item with a thickness not less than the original item.

3.6.7 **Short Block Assembly.**

3.6.7.1 The cylinder block must not be modified, except for the following allowed exceptions:

3.6.7.1.1 Machining of the cylinder bores is permitted up to a maximum increase in bore size of 0.6mm over the original specification.

3.6.7.1.2 Cylinder bores may be resleeved provided the sleeve material is either cast iron or the same material as the original sleeve.
3.6.7.1.3 The cylinder block deck (cylinder head face) may be machined up to 0.3mm, provided the compression ratio remains within the original manufacturer tolerances.

3.6.7.2 The crankshaft bearing journals may be machined up to 0.3mm. The crankshaft may be balanced by the removal or addition of material.

3.6.7.3 The following internal components, if replaced, must be replaced with an item weighing no more than 2% less than the original component. Additionally, the replacement item must be dimensionally equivalent, and manufactured from the same material as the original item:
3.6.7.3.1 Connecting rods.
3.6.7.3.2 Pistons.

3.6.8 **Exhaust.**

3.6.8.1 The original exhaust manifold(s) must be retained.

3.6.8.2 The remainder of the exhaust system (downstream of the manifold, or downstream of the turbocharger turbine outlet) is free, subject to maximum noise regulations stipulated by iRace National Competition Rules.

3.6.9 **Special Items.**

3.6.9.1 Where the throttle is controlled by an electronic actuator, otherwise known as a 'fly-by-wire' system, this may be replaced by a conventional mechanical system, provided the throttle butterfly or other internal components remain dimensionally identical to the original item.

3.6.9.2 All items purely associated with a cruise control system may be removed.

3.6.10 **Forced Induction.** In the case of a supercharged or turbocharged vehicle, the system must remain wholly unmodified, and the boost pressure must be no greater than the maximum specified by the manufacturer.

3.6.11 **Ancillaries.** All ancillaries must remain as original, but may be fitted with a different diameter pulley.

3.7 Brakes

3.7.1 **Brake Discs.** Brake discs may be substituted with an aftermarket replacement provided it matches the original specification in the dimension of all friction surfaces (ie; diameter, thickness). The disc must be made of a ferrous material. The following dimensional upgrades are permitted, based on vehicle weight:
3.7.1.1 Vehicle weight **up to 1449kg** – nil increase.
3.7.1.2 Vehicle weight **1450kg to 1549kg** – 345mm diameter rotor front, 320mm diameter rotor rear.

3.7.1.3 Vehicle weight **1550kg to 1649kg** – 356mm diameter rotor front, 330mm diameter rotor rear.
3.7.1.4 Vehicle weight **1650kg and over** – 366mm diameter rotor front, 345mm diameter rotor rear.

3.7.2 **Brake Calipers.** Front brake calipers may be substituted with a caliper with not greater than four (4) pistons. In the case where the original caliper uses greater than four (4) pistons, this caliper may be retained or replaced with a caliper with the same number of pistons. Rear brake calipers may be substituted with a caliper with not greater than two (2) pistons, or in the case where the original caliper uses more than two (2) pistons, may retain the original caliper or replace it with a caliper with the same number of pistons. Where substitute calipers are used, only one caliper per wheel is permitted, and it must mount to the original mounting point either directly or via an adaptor plate.

3.7.3 **Brake Pads.** Brake pads are free.

3.7.4 **Anti Lock Brakes (ABS).** Where originally fitted, ABS may be retained or disabled. If disabled, a non-driver-adjustable proportioning valve may be incorporated in the rear brake line to reset the brake bias. Where ABS is not an original option, it may not be added.

3.7.5 **Brake Pedal.** The original brake pedal must be retained. Where a vacuum assistance unit is fitted, it may be disabled or bypassed by the incorporation of a solid pushrod between the pedal and the brake master cylinder. A custom pedal box with bias adjustment is not permitted.

3.7.6 **Brake Lines.** Brake lines are free provided their function and routing remains as original.

3.8 Transmission

3.8.1 **Ratios.** Original gear ratios must be retained. Original final drive ratio must be retained.

3.8.2 **Gear selection.** The original method of selecting and changing must be retained. Selector forks and bushes may be modified to improve reliability, provided the modification does not require modifications to the other areas of the transmission, and provided the weight of the modification causes no more than 2% reduction in weight of the item.

3.8.3 **Flywheel.** The flywheel may be replaced with an item of the same overall diameter, and no greater than 2% lighter than the original.

3.8.4 **Clutch.** The clutch discs/plates are free, but the original number of plates must be retained.

3.8.5 **Differential.** The action of the differential(s) is free.

3.9 Wheels and Tyres

3.9.1 **Wheels.** The wheels may be replaced subject to the following restrictions:
3.9.1.1 Rim width no greater than 25mm wider than standard.

3.9.1.2 Wheel diameter may be increased. Overall rolling diameter (including tyre) must not exceed the original overall rolling diameter.
3.9.1.3 With the steering wheel in the straight ahead position, the section of the wheel-tyre assembly above the axle line must be wholly contained within the bodywork. The wheel-tyre assembly must not make contact with any part of the body or suspension through the full range of steering actuation.
3.9.1.4 Tyre pressure regulation devices are not permitted.

3.9.2 **Tyres.** Tyres must be road legal, and commercially available.

3.9.2.1 **Marking.** Each competitor may have a maximum of six (6) tyres marked before qualifying, and only these tyres may be used during qualifying and the races.

3.9.2.2 **Damage.** In the event a tyre is damaged, an application may be made to the Category Director to substitute a tyre of equivalent wear and condition (sans damage), and for this replacement tyre to be marked. The Category Director or his delegate will be the final authority on assessment of the damage and the replacement tyre.

3.10 Data Logging / Data Acquisition

3.10.1 Data logging or data acquisition is permitted. A maximum of 10 channels may be logged. The allowable channels are:
3.10.1.1 Wheelspeed – one wheel only.
3.10.1.2 Engine rpm.
3.10.1.3 Throttle position.
3.10.1.4 Steering angle OR GPS position.
3.10.1.5 Engine coolant temperature OR Engine oil temperature.
3.10.1.6 Engine oil pressure.
3.10.1.7 Brake light.
3.10.1.8 Laptime beacon.
3.10.1.9 Lateral acceleration (G).
3.10.1.10 Longitudinal acceleration (G).

3.10.2 The intention of allowing data logging is to allow access to the improved driver development and assessment possible through data analysis, and also allow logging of limited engine parameters to assist with troubleshooting. The intention is not to create a spiralling expense where the most expensive data logging systems abound. To that end, the maximum TOTAL recommended retail price of the data logging system (including ALL sensors used) is $3,000 AUS. Example systems that comply with this requirement include: MyChron 3 XG Log, available from Aim Sport Systems, Drift Box GPS Laptimer and Data Logger. Competitors intending to acquire an alternative data logging system are free to do so subject to the requirements listed, and the competitor should supply a copy of the supplier's quote to the Category Director or Technical Commissioner. This copy shall be annotated by the Category Director or Technical Commissioner and kept with the vehicle passport.

3.11 Fuel Tank/Fuel

3.11.1 Fuel tank type and location - as original. A safety cell may be substituted provided it does not exceed the original dimensions or internal capacity. In accordance with iRace National Competition Rules.

3.11.2 FUEL: Commercially available Unleaded Pump Fuel (Gasoline), or ET102 fuel may be used. In the event the Category receives support from a fuel supplier, there may be a requirement for this to be used by all competitors and may be a control premium unleaded fuel.

3.12 Numbers, Series Decals and Promotional Material:

3.12.1 Competition Numbers will be allocated by the Category Director.

3.12.2 To be eligible to compete in a Championship Race and to obtain Championship points and / or prize and bonus money, competitors must comply with the following:

a) **All race numbers must be of the correct size, on a clearly contrasting background.**

b) **Tobacco advertising is completely prohibited on all cars, transporters and clothing**.

c) Each car will be required to carry series stickers as supplied by the Series Director. Positioning of series stickers will be promulgated via bulletin.

3.13 In Car Cameras

3.13.1 In car camera installations must be approved by the Scrutineer of the meeting.