



2010

Australian Touring Car Masters Series

Sporting Regulations



Version 1	Bulletin B10/027
Version 2	Bulletin B10/033
Version 3	Bulletin B10/062

2010 Australian Touring Car Masters Series Sporting Regulations

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2010 Australian Touring Car Masters Series

Sporting Regulations

S1 TITLE and JURISDICTION

S1.1 Title

This Series shall only be known as and referred to as the "Touring Car Masters".

S1.2 Authority / Jurisdiction

- (a) All events in the 2010 Australian Touring Car Masters Series will be conducted under the provisions of the International Sporting Code of the Federation Internationale de l'Automobile (FIA); the National Competition Rules (NCR) and Race Meeting Standing Regulations (RMSR) of the Confederation of Australian Motor Sport Ltd (CAMS); the Sporting and Technical Regulations issued for this Series by CAMS (as posted on the CAMS website); Supplementary and Further Regulations issued by the Organiser at each round; Bulletins issued by the Stewards of the Meeting and any Driver Briefing Notes issued by the Clerk of the Course at a meeting.
- (b) This Series has been sanctioned by CAMS as a National Series.
- (c) Australian Classic Touring Cars (ACT3) has been appointed as the Category Manager (CM) by CAMS for this Series.

Contact Details:

Australian Classic Touring Cars (ACT3)
PO Box 5030, Studfield Vic 3152
Phone: 03 8711 4686
Fax: 03 8711 4696
Email: rowan@motoringevents.com.au

S2 ADMINISTRATION

S2.1 Personnel

The following personnel have been appointed to the Series by CAMS and/or the CM and have the authority to administer the various aspects of these regulations as detailed in the RMSR.

- (a) Technical Commissioner (TC) Luigi De Luca
- (b) Category Administrator (CA) Rowan Harman
- (c) Driving Standards Advisor (DSA) Steve Hoinville

S3 COMPETITOR ELIGIBILITY

To be eligible to compete in the Series, each Competitor must hold a current CAMS Competitor's Licence and be a party to a current agreement with the CM.

S4 AUTOMOBILE ELIGIBILITY

Only automobiles that comply with the provisions of the 2010 Australian Touring Car Masters Series Technical Regulations, and which are detailed and comply with the provisions of the 2010 Touring Car Masters - Performance Adjustment Sheet (contained in Appendix B of these regulations), are eligible to compete in the Series.

The CM, with the prior approval of CAMS, may impose a restriction on the total number of any make/model which is eligible to compete in the Series.

S4.1 Automobiles Groups

Each automobile shall be allocated into one of the following Groups and shall compete throughout the Series with each of the automobiles within the same Group.

Group – 1

Group – 2

A full list of automobile makes/models that are eligible to compete in the Series, detailing which Group that each of the makes/model has been allocated into, is contained in Appendix B of these regulations.

S4.2 Replacement Automobiles

Following the commencement of the first practice session of each round of the Series, any automobile that has been entered to compete at that round may not be replaced with another automobile.

S5 DRIVER ELIGIBILITY

To be eligible to compete in the Series, a Driver must hold a current CAMS Provisional Circuit Licence or higher and be registered for the Series with the CM. A CAMS National Circuit Licence is required for certain events (e.g. Mt Panorama – Bathurst) and this requirement shall be advised in Event Supplementary Regulations.

S5.1 Substitute Drivers

Prior to the commencement of the first ~~practice~~ **qualifying** session at each round of the Series, a Competitor may nominate a substitute driver who may be permitted to compete in the remainder of the meeting subject to the approval of the Stewards of the Meeting and the CM.

S6 SERIES ROUNDS

The Series will be conducted over seven (7) rounds as detailed in the Series Calendar below. Only the first three (3) races conducted at each round of the Series will count in determining the final results of the round and the Series unless specified otherwise in the Supplementary or Further Supplementary Regulations for any round of the Series.

S7 SERIES CALENDAR

The Series will be conducted over the following rounds:

Round	Date	Venue
1	11-14 March	Adelaide
2	14-16 May	Winton
3	18-20 June	Darwin
4	TBC	TBC
5	7-10 October	Bathurst
6	5-7 November	Symmons Plains
7	19-21 November	Sandown
8	3-5 December	Sydney

S8 ROUND FORMAT

The number, length and format of track sessions will ultimately be negotiated between the CM and the event organiser prior to a round of the Series and will be advised in the relevant Supplementary / Further Supplementary Regulations issued for a meeting.

Generally, the format for each race meeting will be as follows:

S8.1 Round Format

- (a) Practice - A minimum of one (1) practice session.
- (b) Qualifying - A minimum of one (1) x 20 minute qualifying session.
- (c) Races - A minimum of three (3) races (expressed as a number of laps).

S8.2 Variations to Timetable

The timetable may be varied at any time due to exceptional circumstances only with the prior approval of the Stewards of the Meeting.

S9 GRID DETERMINATION

Race 1: The grid for race 1 will be determined as detailed in the RMSR – Progressive Grid.

Race 2: The grid for race 2 will be determined as detailed in the RMSR – Progressive Grid except that the top eight (8) finishing positions from race 1 will be reversed (i.e. the winner from race 1 will start from grid position 8, and so on).

Race 3: The grid for race 3 will be determined by the aggregate Series points scored by each driver in races 1 & 2. Should more than one driver be on the same number of points such drivers will be placed in order of qualifying times.

Race 4: The grid for race 4, if conducted, will be determined as detailed in the RMSR – Progressive Grid based on the results of race 3.

S10 START PROCEDURE

The start procedure for each race will be as detailed in the RMSR – Non-Championship Start (1 Minute) – Standing Start.

S11 AWARDS and POINTSCORE

S11.1 Prizes and Trophies

Prizes, trophies and awards will be as determined by the CM and will be advised to all Competitors.

S11.2 Series Pointscore

- (a) Points shall be awarded to each driver, based on their finishing position relative to the other drivers within their Group of the Series, for each race as follows:

Finishing position in Group	Points	Finishing position in Group	Points	Finishing position in Group	Points
1 st	60	11 th	27	21 st	11
2 nd	56	12 th	24	22 nd	10
3 rd	52	13 th	21	23 rd	9
4 th	48	14 th	18	24 th	8
5 th	45	15 th	17	25 th	7
6 th	42	16 th	16	26 th	6
7 th	39	17 th	15	27 th	5
8 th	36	18 th	14	28 th	4
9 th	33	19 th	13	29 th	3
10 th	30	20 th	12	30 th	2

- (b) Points will only be awarded to the drivers classified as finishers in the final results of each of the first three (3) races conducted at each round of the Series unless specified otherwise in the Supplementary or Further Supplementary Regulations at any round of the Series.
- (c) The driver gaining the highest points total from their best six (6) round results in each Group shall be declared the winner of that Group.
- (d) In the event of a tie at the end of the Series, the final positions will be determined by comparing the race results achieved by each tied driver, with the driver with the highest number of first places being awarded the higher Series position. If at this stage a tie still exists, it will be resolved by comparing the number of second, third or fourth places (and so on) achieved by each tied driver until all positions have been determined.
- (e) Any points scored by a driver within a Group will not be transferred if that driver changes Groups.

S12 Event Operations

S12.1 Series Registration and Entry

The Series will operate under the CAMS Series Registration and Entry Process. Series Registration and Entry Forms will be available from the CM with document checking being conducted by the CM prior to the first official track session at each round of the Series.

S12.2 Driver Briefings

Each Driver must attend the compulsory Drivers' briefing. The time and location of this briefing will be detailed in the Supplementary or Further Regulations for the meeting. The attendance sheet must be signed by the Driver to confirm attendance. Other compulsory briefings may be convened as required and will be advised to all Competitors accordingly.

S12.3 Impound/Parc Ferme

- (a) Each automobile, including those remaining in pit lane, must proceed directly to the designated impound/Parc Ferme area via the most direct route (or as directed by Race Officials) at the conclusion of qualifying, without returning to pit or paddock areas and without interference from any third party (other than an Official of the Meeting).
- (b) Each automobile completing each race must proceed directly to the designated impound/Parc Ferme area (or as directed by Race Officials) at the conclusion of the race, without returning to pit or paddock areas and without interference from any third party (other than an Official of the Meeting).
- (c) Automobiles may not be removed from impound/Parc Ferme except with the express permission of the TC or the Chief Scrutineer.
- (d) The time that Parc Ferme will be maintained and the time limit for lodging any protest regarding an alleged ineligibility of an automobile at the conclusion of the first race at a race meeting will be 15

minutes. The TC retains the authority to conduct further eligibility checks on specific automobiles after this time.

S12.4 Qualifying

- (a) The order in which automobiles pre-grid for a qualifying session will be determined by the times achieved in the combined practice sessions at the meeting.
- (b) During qualifying, automobiles may not return to the paddock/garage area without the express permission of the TC. If an automobile exits pit lane to the paddock/garage during qualifying it will not be permitted to re-join that session.

S12.5 Pit Lane

All Pit Crew members are required to sign a Pit Lane Indemnity Form prior to the first track session and to display identification as and if required by the meeting organiser.

S12.6 Removal of Automobiles from the Circuit

Following the commencement of the first practice session, it is not permitted to remove any automobile from the circuit (prior to the release of all automobiles from the impound/Parc Ferme established following the final race of that round of the Series) without the prior express written approval of the TC.

S12.7 Practice Starts

Practice starts are only permitted at the pit lane exit or at the start of any formation (green flag) lap.

S12.8 Radio Communication to/from Automobile

Two way radio communications between the driver and a member of the pit crew are permitted at all times whilst the automobile is on the race track.

S13 TYRES

S13.1 Tyre Regulations

- (a) Each automobile must only be fitted with *Hoosier D.O.T. Radial* (dry) tyres, or *Hoosier Sports Car Radial Wet* (wet) tyres (in compliance with the maximum tyre sizes stated in Appendix B of these regulations and as detailed on the following list:

Dry Tyres

205/60-13	D.O.T. Radial	13"
225/45-13	D.O.T. Radial	13"
225/50-13	D.O.T. Radial	13"
205/50-15	D.O.T. Radial	15"
215/60-15	D.O.T. Radial	15"
225/45-15	D.O.T. Radial	15"
225/50-15	D.O.T. Radial	15"
245/50-15	D.O.T. Radial	15"
275/50-15	D.O.T. Radial	15"
245/50-15	D.O.T. Radial (HC)	15"
275/50-15	D.O.T. Radial (HC)	15"

Wet Tyres

205/60R-13	Sports Car Radial Wet	13"
205/50R-15	Sports Car Radial Wet	15"
225/55R-15	Sports Car Radial Wet	15"

The tyres detailed on the list above must only be supplied by the *TCM Series tyre supplier and/or their approved agent* :

Hoosier Racing Tire Australia (Max Dumesny Motorsport)

17 Blind Road,

Nelson NSW 2765.

Phone: 02 9679 1990

Fax: 02 9679 1187

Mobile: 0407 108 946

With the exception of wear resulting from normal usage, all tyres must remain unmodified.

- (b) A maximum of six (6), eight (8) or ten (10) tyres will be marked for each automobile by the TC at each round of the Series. The tyres marked shall be comprised of a combination of new tyres and tyres which have been used in practice, qualifying &/or racing at a previous round of the 2009 or 2010 TCM series

which shall also have been previously marked, as detailed in the table below. These marked tyres are the only tyres permitted to be used on that automobile during any qualifying session or race at that round.

Total No. of Tyres	No. of New Tyres	No. of Used/Previously Marked Tyres
6	4	2
8	2	6
10	0	10

- (c) Within one (1) hour from the completion of the final practice session at each round of the series, each competitor must present all tyres for marking at the front of their respective garage/paddock bay.
- (d) Competitors are responsible for ensuring that all tyres are marked or re-marked as appropriate. If the tyres are not marked for any reason or the markings become illegible, the Competitor must notify the TC or his nominee immediately.
- (e) Each competitor is permitted to purchase an additional two (2) new tyres at the first round of the Series in which they compete. These tyres will be deemed to be previously marked and must be used during the qualifying session.
- (f) Competitors are permitted to replace one marked tyre per automobile, if the TC is satisfied that due to exceptional circumstances, the tyre in question can no longer be used. The TC shall ensure that the tyre to be replaced has been rendered unusable and that the replacement tyre is of the same specification and of similar wear to the tyre being replaced.
- (g) The use of any tyre heating, heat retention devices or chemical treatments are prohibited.
- (h) If qualifying and/or racing is scheduled on more than one (1) day at any round of the Championship, the TC may impound any tyres overnight at his sole discretion.

Please note: The TC will be sole arbiter with regard to the interpretation and application of these tyre regulations and any decision made by the TC in this regard will not be the subject of any protest or appeal.

S14 FUEL

For the duration of a meeting, competitors must use only 98 octane Premium Unleaded fuel as supplied by the official fuel supplier as detailed below:

Fuel Control

John Thompson

BH: (03) 9583-5906

Email: fuelcontrol@bigpond.com

Please note: With the exception of ambient atmospheric air and the specified control fuel, no other substance may be added to the intake charge of the engine.

S15 AUTOMOBILE MARKINGS

S15.1 General

In addition to the requirements detailed in Appendix A of these regulations, all automobiles must comply with Appendix K of the 2010 CAMS Manual of Motor Sport.

S15.2 Competition Numbers

The allocation of a competition number for each automobile is solely the responsibility of the CM, which will maintain a register of all competition numbers allocated to, or reserved for, any automobile.

S15.3 Class Identification

The Group that each automobile is competing within must be displayed by placing a "1" or "2" adjacent to the side competition number on each side of the automobile. These numbers shall be 100mm high and shall not overlap onto the competition number background panel.

S15.4 Other Signage

Personal or other signage is subject to the written approval of the CM and must be of period style as defined in the schedule of the licence holders agreement.

S16 PERFORMANCE PARITY

S16.1 Performance Adjustment Sheet (PAS) – See Appendix B

- (a) A PAS will be maintained for all automobiles competing in the Series.
- (b) The PAS details the current value of the parameter/s that may be adjusted on the basis of maintaining parity.
- (c) Any updates of the PAS will be advised to all Competitors by the CM and will take effect as detailed on the PAS.
- (d) Each automobile must comply with all provisions of the current PAS at all times during a meeting.

S16.2 Performance Adjustments

The CM, subject to the prior approval of CAMS, reserves the right to adjust the PAS at any time during the Series to maintain parity between the makes/models competing in the Series.

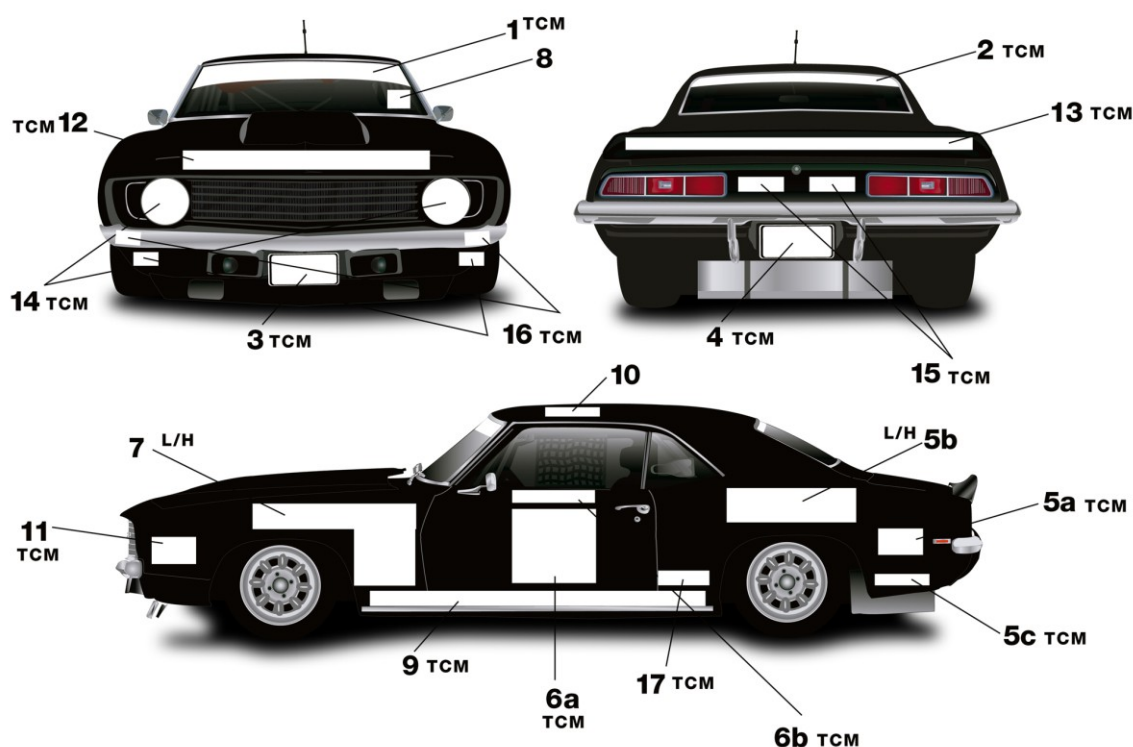
S17 IN-CAR CAMERAS

In-car cameras are permitted at the discretion of the CM, subject to their installation being approved by the Chief scrutineer.

Appendix A

Signage Locations for Touring Car Masters

The signage for Touring Car Masters should be at a level consistent with that experienced in the early 1970s period. Modern graphics or colour schemes will not be permitted. The areas referenced below are a guide only. Predominately, signage will be allocated to individual competitor sponsorship on the rear and front quarter panels with provision for major and minor series sponsors.



- Area 1:** This area of 140mm height across the front windscreen is reserved for the primary series sponsor.
- Area 2:** This area of 85mm height for the primary series sponsor across the rear windscreen.
- Area 3 & 4:** Reserved for a secondary series sponsor and limited to a 'number plate' (150mm high x 380mm wide) that may be located front and rear.
- Area 5a:** Rear Quarter (rear). Reserved for secondary series sponsor (2400cm²).
- Area 5b:** Rear Quarter (upper forward). Competitor (note: formerly Entrant) signage, with a size in area no larger than 3000cm² on each side of the rear quarter panel. This signage must not impinge on 5a.
- Area 5c:** Rear Quarter (lower back). Reserved for secondary series sponsor (350cm²)
- Area 6a:** The side car number panel (maximum 310mm high x 450mm wide including Black border) has the primary series sponsor, above (140mm high x 450mm wide).
- Area 6b:** This area of 450 cm² (top of door) is reserved for the series sponsor.
- Area 7:** Competitor or Sponsor name / logo (optional, max size in area 2400cm² i.e. 1200mm x 200mm, or 800mm x 300mm)
- Area 8:** Front Windscreen car number in 'Dayglo' Yellow (150mm high, refer Schedule K) non driver side.
- Area 9:** Reserved for supplementary series and technical partnership sponsors and limited to the area of the sill between the wheel arches below the door line. (each approx. 200mm x 60mm) Initially, CAMS at most rear of sill.
- Area 10:** Driver name (mandatory, max. 80mm x 600mm, above) 60mm for Capitals and 30mm for non Capitals. Text to be Arial font.
- Area 11:** Reserved for the Competitor (optional, max size in area 600cm² ie. 300mm x 200mm,). **Due to the position of signage on certain vehicles being impractical, the location may be varied at the discretion of the CM.**

- Area 12:** Reserved for a secondary series sponsor or at the discretion of the CM, with a size in area no larger than 3800cm² (ie. 1200mm x 300mm) on front section of the bonnet. Height & width may change subject to ACT3 sponsor requirements.
- Area 13:** Reserved for a secondary series sponsor or at the discretion of the CM, with a size in area no larger than 1500cm² (ie. 1000mm x 150mm) on rear section of the vehicle. Height & width may change subject to ACT3 sponsor requirements.
- Area 14:** Reserved for secondary series sponsor or as prescribed by ACT 3.
- Area 15:** Reserved for a secondary series sponsor or at the discretion of the CM, with a size in area no larger than 200cm². Height & width may change subject to ACT3 sponsor requirements.
- Area 16:** Reserved for a secondary series sponsor or at the discretion of the CM, with a size in area no larger than 200cm². Height & width may change subject to ACT3 sponsor requirements.
- Area 17:** Reserved for a secondary series sponsor or at the discretion of the CM, with a size in area no larger than 450cm². Height & width may change subject to ACT3 sponsor requirements.

APPENDIX B – PERFORMANCE ADJUSTMENT SHEET (PAS)

2010 Touring Car Masters

EVENT PARITY SHEET – Issue 1 (This sheet shall remain valid until superseded)

Group	Make	Model	Year / Series	Engine	Min Racing Weight*	Max Revs*	Max Tyre Size Front	Max Tyre Size Rear
1	Ford	Galaxie Fastback	63 – 64	427 (6997cc)	1680kg	7200	245	275
1	Ford	Mustang Fastback	71 – 73	351 C (5752cc)	1600kg	7200	245	275
1	Ford	Mustang Fastback	69 - 70	302 B (4949cc)	1500kg	7800	245	275
1	Ford	Mustang Fastback	69 - 70	351 W (5752cc)	1630kg	7200	245	275
1	Ford	Mustang Coupe	67 - 68	302 W (4949cc)	1450kg	7800	245	275
1	Ford	Falcon	XW	351 W (5752cc)	1600kg	7200	245	275
1	Ford	Falcon	XY	351 C (5752cc)	1600kg	7200	245	275
1	Ford	Falcon GT 2-door/4 Door	XA	351C (5752cc)	1600kg	7200	245	275
1	Holden	Monaro	HT/HG	350 (5735cc)	1600kg	7200	245	275
1	Holden	Monaro	HQ	350 (5735cc)	1600kg	7200	245	275
1	Holden	Monaro	HQ	308 (5047cc)	1450kg	7800	245	275
1	Holden	Torana SL/R 5000	1974	308 (5047cc)	1450kg	7800	245	275
1	Chevrolet	Camaro RS	1970	350 (5735cc)	1600kg	7200	245	275
1	Chevrolet	Camaro	67 - 69	350 (5735cc)	1600kg	7200	245	275
1	Chevrolet	Camaro	1968	396 (6489cc)	1630kg	7200	245	275
1	Chevrolet	Nova 2-door	65 - 67	327 (5359cc)	1520kg	7200	245	275
1	AMC	Javelin	71 – 73	360 (5896cc)	1630kg	7200	245	275
1	Chevrolet	Nova 2-door	65 - 67	350 (5735cc)	1600kg	7200	245	275
1	Valiant	Charger	VH/VJ	340 (5572cc)	1560kg	7200	245	275
1	Ford	Falcon Sprint	64 - 65	289 W (4736cc)	1400kg	7800	245	275
2	Porsche	911 SC	68 – 73	3200cc	1120kg	8000	245	245
2	Porsche	SC	68 - 73	2200cc	1000kg	8000	225	225
2	Ford	Mustang Coupe	65 - 67	289W (4736cc)	1450kg	7500	245	275

APPENDIX B – PERFORMANCE ADJUSTMENT SHEET (PAS)

2010 Touring Car Masters

EVENT PARITY SHEET – Issue 1 (This sheet shall remain valid until superseded)

Group	Make	Model	Year / Series	Engine	Min Racing Weight*	Max Revs*	Max Tyre Size Front	Max Tyre Size Rear
2	Ford	Mustang Coupe	67 - 68	302 W (4949cc)	1470kg	7500	245	275
2	Porsche	SC	68 - 73	2800cc	1000kg	8000	245	245
2	Holden	Monaro	HK	327 (5359cc)	1570kg	7500	245	275
2	Holden	Monaro	HQ	308 (5047cc)	1500kg	7500	245	275
2	Holden	Torana SL/R 5000	1974	308 (5047cc)	1500kg	7800	245	245
2	Holden	Torana SL/R	1974	253 (4200cc)	1360kg	7800	245	245
2	Valiant	Charger	VH	265 4390cc	1360kg	7500	245	245
2	Valiant	Pacer 4-door	VF 69 – 70	245 (4015cc)	1360kg	7500	245	245
2	Valiant	Pacer 2-door	1971	245 (4015cc)	1360kg	7500	245	245
2	Torana	GTR / XU1	LJ	3300cc	1120kg	8000	225	225
2	BMW	3.0 CSL	71 – 73	3500cc	1260kg	8000	225	225
2	Ford	Capri V6	69 - 71	2994cc	1120kg	8000	225	225
3	Ford	Escort Mk 1	Mk 1	4-cyl up to 2000cc	850kg	9000	225	225
3	Alfa Romeo	GTV / GTAM	1971	2000cc	850kg	9000	225	225
3	Datsun	510 (1600)	68 - 73	4-cyl up to 2000cc	850kg	9000	225	225

* - This indicates the only parameter/s that may be adjusted by the CM on the basis of maintaining parity.

APPROVED BY

Manager, Motor Sport Technical & Safety



2010

Australian Touring Car Masters Series

Technical Regulations



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2010 Australian Touring Car Masters Series

Technical Regulations

T1 PREAMBLE

The Australian Touring Car Masters Series will be a Series for Touring Cars manufactured between 01 January 1963 and 31 December 1973 and specific makes/models of Touring Cars manufactured between 01 January 1974 and 31 December 1976, as approved by CAMS, which have been modified in accordance with the CAMS Touring Car Masters Technical Regulations. Allowable modifications specific to an individual model will be documented in the relevant CAMS homologation document. Performance parity measures shall be used to cap ultimate performance levels and/or balance performance levels between cars. A representative selection of touring cars from the defined period is required and limitations on the total number of individual makes and models will be determined by the Category Manager and CAMS.

T2 GENERAL

T2.1

Any aspect relating to the construction, modification and/or preparation of the automobile that is not specifically authorised in the present regulations and the associated CAMS Vehicle Homologation Document, CAMS Sporting Variants or CAMS Option Variants is prohibited.

T2.2 Eligible Models

Eligible models of automobiles are listed in the current Australian Touring Car Masters Series Sporting Regulations, Appendix B: Performance Adjustment Sheet (PAS). Additional models of automobile may be added to the list of Eligible Automobiles upon recommendation by ACT3 and subsequent approval by CAMS. Each automobile shall be the subject of a completed CAMS Homologation Document.

T2.3 Homologation Requirements

(a) In all cases, when interpreting the present regulations, components on automobiles eligible to compete must be original equipment supplied by the manufacturer unless otherwise specified in the relevant CAMS Vehicle Homologation Document, CAMS Sporting Variants (SV) or CAMS Option Variants (VO).

(b) Components shown in Option Variants (VO) may be used at the discretion of the competitor. Components shown in Sporting Variants (SV) must be used of necessity in their entirety.

(c) Nuts and bolts: Throughout the automobile, any nut, bolt, screw may be replaced by any other nut, any other bolt, any other screw and have any kind of locking device (washer, lock nut etc).

T2.4 Materials

Unless specifically authorised within the present regulations, the use of carbon fibre or carbon Kevlar[®] composite materials, or titanium alloys is prohibited.

T3 WEIGHTS AND DIMENSIONS

T3.1 Racing Weight

The racing weight at any time including the driver with helmet and wearing all apparel shall be the weights as listed in the Touring Car Masters Sporting Regulations APPENDIX B: Performance Adjustment Sheet (PAS).

T3.2 Ballast

Ballast may be used to achieve the racing weight requirement, and if used shall comply with CAMS requirements.

T4 BODYWORK

(a) Except where freedom is provided in these regulations, or where detailed in the homologation form, bodywork shall be of the original material, design and appearance. ~~Manufacturers option/s detailed in the homologation form may be utilised.~~

(b) Body work including any subsequent repair of race day damage shall be to a tradesman-like standard and must permit the automobile to be presented in as near to original condition as possible.

(c) It is permitted to remove the following components:

- External body trim or decoration may be removed if shown in VO.

- Unused brackets and supports for items not required to be retained. (eg, battery tray, exhaust mounting brackets etc).

(d) Where the edges of mudguard panels protrude inside the wheel housing, they may be folded back against the outer panel. The external shape of the coachwork around the wheel arch opening may be reformed provided that the ~~overall maximum width of the automobile is not increased by more than 50mm~~ **specified in the relevant Homologation Document is respected**. Such reformation shall be done in such a way as to retain the general original external appearance and profile of the automobile. Flares are specifically prohibited unless recognised in a VO.

(e) The outer panel of the wheel arch may be modified or replaced to provide clearance for the complete wheel assembly. Should the wheel arch be a single pressing, the area permitted to be modified shall be shown in a VO.

(f) It is permitted to modify the bonnet by removing the additional strengthening from its underside, provided that no strengthening is removed from any point less than 125mm from the outer perimeter along the sides of the bonnet, 250mm from the outer perimeter along the front of the bonnet, 180mm from the outer perimeter along the rear of the bonnet, and that the outer skin is not modified.

It is permitted to replace the bonnet with the original specification bonnet available as a manufacturer option for the model.

(g) Save for the fitment of bonnet restraints/pins in accordance with Schedule B & C, and as permitted in (g), where applicable, the original hole/opening dimensions and location shall remain unmodified.

(h) The bodysell, subframes and sub-chassis may be reinforced by the addition of metal, provided that the additional metal follows the contour of the original material and is in contact with it. Each subframe isolation bush may be replaced by a bush of rigid material provided that the subframe remains in the same location and is removable.

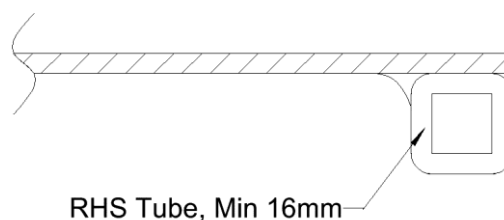
(i) Chassis reinforcement: It is permitted to add chassis reinforcement tubes as follows provided that they are attached only at each end by means of bolts:

- A single bar per side between the front firewall and front suspension tower, or alternatively to the chassis rails.
- Between the front suspension towers (a strut brace) or between the rear suspension towers.
- Other gussets as permitted in VO.

(j) The radiator support panel may be modified by the removal of metal to allow the passage of air ducting and fluid lines.

(k) Holes may be drilled for the passage of fuel, oil or brake lines, or electric cables.

(l) The floor of the boot/trunk may be modified by the removal of metal to facilitate the fitment of a replacement fuel tank. Any cut edge must be reinforced by an RHS tube of minimum dimension 16mm stitch welded to the edge as per Drawing 1.



Drawing 1

(m) The transmission tunnel may be locally modified to facilitate the fitment of replacement drivetrain components and gear shift systems.

(n) Each automobile must be fitted with a full safety cage in compliance with Schedule J (refer "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport). No part of the safety cage may extend forward of the front firewall, save for mounting bolts.

(o) Each automobile issued with any form of CAMS Log Book prior to 1 January 2000 may utilise a full safety cage in compliance with the regulations in force at the time of Log Book issue, as provided for in Article 8 of Schedule J. This does not obviate the need for compliance with Article (m) above. Where such

automobile was originally fitted with a half safety cage, this must be replaced by one in compliance with Schedule J in the current CAMS Manual.

(p) Unused supports (eg, spare wheel bracket) situated on the chassis/bodywork can be removed, unless they are supports for mechanical parts which cannot be moved or removed. Other panels or panel sections may be removed if specified in a VO.

(q) Where the automobile was not homologated with a front air dam, it is permitted to fit a front air dam similar to the dimensions of (Part No.) 69C. The depth of the front air dam is not to exceed 120mm. Minimum ground clearance of the front air dam is 120mm. The front air dams must be of plastic/glass fibre material. No metal air dam is permitted save for mounting brackets.

T5 INTERIOR

(a) The carpets, centre console, underfelt and body deadening material may be removed.

(b) The driver's seat may be replaced by another in compliance with Schedule C (refer "General Requirements for Cars and Drivers"). Replacement front seats may be made from carbon/Kevlar® composite. It is strongly recommended that the seat be in compliance with the FIA 8855/98 standard. The front passenger's seat may be replaced by one similar to the driver's seat. The position of the driver's seat shall be in the same general location as per the original specifications. This may be further restricted in homologation SV. The type and location of the mounting brackets are free

(c) The rear seat may be re-trimmed in a similar material, or replaced by another seat of similar appearance and material.

(d) The steering wheel may be replaced with one of a minimum 330mm diameter. The steering column may be relocated in a vertical plane. It is permitted to add a steering wheel boss, possibly incorporating a quick release mechanism to enable the fitment of a permissible steering wheel. The steering column length and mounting face for the steering wheel must remain within 80mm of the manufacturer specification. The original style of steering column housing must be retained. Where an automobile is changed from left to right-hand drive, the steering column location must be mirrored about the automobile centreline.

(e) The dashboard crash-pad may be distorted or cut to facilitate the passage of the safety cage tubes.

(f) The headlining and rear door/rear side trim panels may be replaced by others of similar appearance and material.

(f) The window regulators and associated mechanisms may be removed from the rear doors, opening quarter panel windows and front quarter windows, and the windows fixed into place. The fitting of ventilation ducting including additional plastic type window inserts above the standard window glass for the mounting of such is permitted.

(g) A dead pedal or footrest may be fitted to the left of the clutch pedal. A floor covering of anti-slip style (eg, checker plate) may be bolted to the driver's side floor of the passenger compartment. The accelerator, clutch and brake pedal pads are free.

(h) The passenger compartment shall be effectively sealed against fire, fluid and fumes at the firewall, floorpan and rear parcel shelf/bulkhead. The rear parcel shelf may be replaced by one made from metal.

(i) The heater assembly, including controls, may be removed provided that demisting is assured. The addition of heating elements to the front screens is permitted. Any resultant opening in the firewall must be closed by a metal panel. Any resultant control panel opening must be closed.

(j) The original instrument cluster may be replaced by a panel incorporating analogue gauges. Where analogue gauges are not available (e.g.: Lambda Gauge), alternative gauges may be fitted. Additional analogue instruments may be added to a separate panel or panels, preferably integrated into the existing dashboard structure. Where the original instrument cluster is retained, a tachometer, possibly incorporating a shift light, may be added to the steering column.

(k) Data logging instruments/equipment is prohibited in an automobile.

T6 SUSPENSION AND STEERING

(a) Unless otherwise specified in these regulations, all suspension and steering components and mounting bolts shall be as originally fitted by the manufacturer, or as homologated in VO.

(b) Where an automobile utilises a double wishbone front suspension, the upright may be replaced. Each such replacement upright shall be of single piece forged or cast construction **of ferrous material**.

(c) Where an automobile utilises a McPherson Strut front suspension, the strut may be replaced.

- (d) The stub axle may be replaced/reinforced.
- (e) The inner suspension pivot points attached to the bodyshell/chassis may be relocated within a 50mm radius of the original. Metal may be added for this purpose.
- (f) Suspension joints that attach to ~~on~~ unsprung components may be replaced provided the same type of joint is maintained (ie, ball joint may not be replaced by spherical joint). **The original or replacement joint may be relocated on the suspension control arm to which it is mounted.** Suspension control arms and uprights may be locally modified to facilitate such replacement. The pivot point of the joint any replacement joint must remain **within 15mm of the original pivot position on the suspension control arm** in the same location as the original component. **Suspension control arms and uprights may be locally modified to facilitate such replacement/relocation.**
- (g) Demountable steering arms and outer tie rod ends are free
- (h) Elastomeric suspension bushes may be replaced by spherical bearings or other elastomeric bushes. Only minor local modification of the suspension arm is permitted to facilitate the fitment of an alternate diameter cylindrical housing, into which the replacement bushing/spherical bearing must be fitted. The effective length of the suspension arm may be altered, however the effective length of the arm must not be adjustable following modification (ie, the use of threaded rod ends is not permitted). This applies only to the body/chassis/sub-frame attachment end for the front suspension arms and to both ends for rear suspension arms for automobiles with a live rear axle. For automobiles with independent rear suspension, the suspension arm modification is limited to the sprung end of the suspension arm; ie, only to the body/chassis/sub-frame attachment end.
- (i) Each coil spring, leaf spring and torsion bar may be replaced provided the replacement spring is of the same type. **Original** Each coil spring seats may be **replaced and/or** made adjustable **to suit the original or replacement coil spring, provided the spring** but must remain concentric to with the original, **and the seat remains** and attached to the same component(s). **Where an automobile utilises double wishbone front suspension, freedom is given in the mounting of the adjustable spring seat providing the spring acts through the suspension arm on which the spring originally acted.** It is permitted to use a keeper spring in series with each coil spring. Rear hangers for leaf springs are free as to length and material. Leaf springs must be rigidly fixed to the rear axle assembly. Torsion bar housings may be made adjustable to permit ride height adjustment. **Local modification to the component(s) that the spring/spring seat attaches is permitted to facilitate the mounting of the adjustable spring platforms and replacement springs.**
- (j) Suspension damper mounting points may be repositioned within a 50mm radius of the original. Metal may be added for this purpose.
- (k) The steering box or rack may be replaced by another if permitted in VO. Steering shafts and couplings are free. Automobiles may be converted from left- to right-hand drive.
- (l) The automobile may be fitted with power steering provided that the system utilises solely hydraulic assistance from a pump driven from the front of the engine crankshaft.
- (m) Front sway bars and their mountings may be added or replaced freely. They must be solid, and no adjustment from the cockpit is permitted. Linkages from the suspension to the sway bar are free. Such sway bars must be of a conventional type; ie, of a one piece solid steel bar bent to shape. Rear sway bars and mountings are free, save that no adjustment from the cockpit is permitted.
- (n) Additional locating arms may be added to the front or rear suspension. Mounting brackets for these may be added to the bodyshell but these must not pass into the interior of the automobile, save as specified in VO. Bushings for these arms are free. Original upper rear suspension link arms may be removed/replaced.
- (o) Rear suspension/leaf spring bushes may be replaced by others of free design. Replacement bushes may be welded into the arms.
- (p) Suspension bump stops are free, and devices to limit suspension droop are permitted.
- (q) Shock absorbers/Dampers are free save that they have a maximum of one external adjustment for "bump" and a maximum of one external adjustment for "rebound". No facility for electronic control or external "gas canister" is permitted.

T7 BRAKES

- (a) Front brakes must be disc brakes of ferrous material with maximum dimensions according to Table 2. Disc rotors may be grooved, but not drilled.

Table 2

Wheel Rim	Diameter	Thickness
15"	305mm	35mm
13"	270mm	35mm

- (b) Disc mounting bells are free. Wheel hubs are free but they must be made from ferrous material. Bearings and wheel studs are free.
- (c) Each brake calliper can have a maximum of four pistons and be of a type that were manufactured as a four piston calliper. No calliper originally manufactured with more than four pistons is permitted. Brake calliper mounting brackets are free. Only one (1) calliper per rotor is permitted. Only two (2) brake pads per calliper are permitted.
- (d) Rear drum brakes may be either original, or be replaced by other drum brakes or disc brakes. If disc brakes are used, they must respect the maximum dimensions shown in Table 2.
- (e) Rear slave cylinders are free.
- (f) Brake master cylinders and power boosters may be removed or replaced. It is permitted to fit a brake proportioning system including the possibility of adjustment from the cockpit.
- (g) Brake pedal boxes are free, as is their location. The firewall, floor and dash may be locally modified to facilitate the fitment of replacement brake pedal boxes.
- (h) The brake system must be dual circuit with separate systems for the front and rear brakes.
- (i) It is permitted to add flexible pipes to carry air to the brakes of each front wheel. Brake protection shields/ducting on unsprung suspension components may be added, removed or replaced. Front brake scoops are permitted provided they do not each exceed 300mm in combined width per side and 100mm in combined height per side. Where practical, front brake scoops should be either:
- incorporated in the front air dam/spoiler; or
 - through the radiator support panel into the area behind the grill; and
 - Where possible, replace park lights/driving lights.
- (j) Flexible brake hoses and rigid lines may be replaced with others of suitable material.
- (k) The hand brake and all associated components, linkages, brackets and cables may be disconnected or removed.

T8 WHEELS AND TYRES

- (a) Each automobile with a swept engine volume of greater than 3500cc must use a wheel of 15" diameter. Each automobile with a swept engine volume between 2501cc up to 3500cc may use a wheel of 13" diameter or 15" diameter. The maximum rim width for all automobiles is 8". Each automobile with a swept engine volume up to 2500cc must use a wheel of 13" diameter unless otherwise specified in the VO.
- (b) Wheels must be a single homogenous casting of aluminium alloy. Wheels of an appearance similar to those produced prior to 31 December, 1973, are encouraged.
- (c) Each tyre shall be in compliance with the current Touring Car Masters Sporting Regulations.

T9 ENGINE

- (a) The cylinder block and heads shall either be those supplied as standard for the model, or as otherwise shown in VO. These components, having undergone the normal machining operations laid down by the manufacturer for series production, may be subjected to all tuning operations through finishing, scraping but not replacement. In other words provided that the origin of the series production part may always be established, its shape may be ground, balanced, adjusted, reduced or modified through machining.

Chemical and heat treatment are allowed, in addition to the above.

Engine blocks may be modified to accept main bearing caps of an alternate design, including the possibility of additional fastenings.

The use of thin wall sleeves to repair cylinder damage is permitted.

(b) The cylinder bore may be increased by 1.5mm (0.060") over that specified in the Homologation Form. Stroke shall remain standard unless permitted in VO.

(c) Subject to any restrictions imposed in the present regulations, all reciprocating and rotating components within the engine are free.

(d) Replacement cylinder heads of alloy material are permitted for all engines providing the replacement cylinder head is of the same specification (valve angle) as the original, mechanically interchangeable with the original and subject to engine specifications listed in the VO.

(e) Machining of the cylinder head to vary the angle between the valve and cylinder head seating face is not permitted. The distance between the centreline of the inlet and exhaust valves in each cylinder may not be altered from the original.

(f) Valves may be made from titanium alloy. The insertion or replacement of valve seat inserts is permitted provided the diameter of the insert does not exceed 110% of the valve diameter.

(g) Internal camshaft timing chains may be replaced by external belt drives

(h) Bearings, seals and gaskets are free.

(i) Rocker, camshaft and timing covers are free provided they are mechanically interchangeable with the original components.

(h) The oil system, including the sump and pump, is free. The use of external oil lines, oil pressure accumulators and dry sump systems is permitted. Dry sump tanks must not be mounted within the cockpit.

(l) The crankcase must be ventilated to a catch can, and must remain at atmospheric pressure.

(m) Engines must be mounted utilising the original mounting points on both the engine block and crossmember/bodyshell. Engine mounts, being those assemblies between the cylinder block and crossmember/bodyshell are free in construction. The location of the engine, as defined by the centreline of the crankshaft and the centreline of the number one cylinder bore, must remain unchanged.

(n) The crankshaft 'phasing' shall remain the same as the original engine.

T10 TRANSMISSION AND DRIVETRAIN

(a) The gearbox is free subject to the restrictions in (b) and (c) below.

(b) Operation of the gearbox shall be exclusively manual, with gear selection effected only by the driver to the exclusion of all automatic and semi-automatic mechanisms.

(c) The maximum number of forward ratios is four, unless shown otherwise in the homologation document or VO. The gearbox must provide a reverse gear.

(d) The shifter mechanism, including the location of the lever is free, provided that the shift remains non-sequential "H-pattern". Redundant standard shift components may be removed.

(e) The rear crossmember may be modified or replaced to accommodate a replacement gearbox, where permitted. The powertrain rear mount is free.

(f) The tailshaft assembly is free. A central bearing may be incorporated, whereupon a mounting system may be added to the floorpan/tunnel.

(g) Final Drive assemblies are free provided that the gearset remains hypoid. For an automobile with Independent suspension the final drive assembly must be mounted to the standard mounting positions. For an automobile with a live rear axle, the complete axle assembly may be replaced however the banjo housing must remain ferrous.

The maximum number of axles for a live axle final drive assembly is two, one per side of the differential centre. Camber/toe adjustment for the live axle assembly may only be achieved by the setting/shimming the hub assembly. The live axle assembly must not contain CV/Tripod/universal type joints.

(h) The differential is free, provided that it is passive.

Where the differential has a removable centre, the centre is free providing it is of ferrous or alloy material.

(i) The clutch and its method of actuation is free save that it is not electronically controlled/actuated and

that only sintered/cerametalic/organic type clutch material is permitted. Carbon/carbon is not permitted.

(j) Pressure plate assembly is free save that the “friction faces” are of ferrous metal.

(k) Flywheel is free save that it is made completely of ferrous metal.

T11 INDUCTION SYSTEM

(a) Carburettors may be replaced by one or more carburettors of free design. Carburettors must be entirely mechanical in operation, save for an electric choke. The inlet manifold on carburettored engines is free provided it is mechanically interchangeable with the original component.

(b) With the exception of those cars which have utilised more than one carburettor while competing in the Touring Car Masters series prior to 1 January 2010, the following requirements shall apply to each Group 1 car of 5199cc or above capacity:

- Each car shall be limited to one carburettor with up to four venturis;
- The carburettor shall be fitted in a manner that the horizontal surface to which the air cleaner assembly is fitted, which shall remain unmodified from the carburettor manufacturer's specification, shall not be within 40mm of the original bonnet skin when the bonnet is in its closed position (the upper surface of the bonnet shall be flush with the adjoining guards).

Where a bonnet has an opening for the induction system or is fitted with a bonnet scoop with an opening underneath, the measurement shall be taken from an imaginary line that the bonnet skin would take if the opening did not exist.

NOTE: The exemption for Group 1 cars (which qualify) to run multiple carburettors shall expire on the 31st of December 2010.

(c) A fuel injection system, where fitted as standard, may be retained in unmodified form save for adjustment to fuel delivery quantity, or alternatively may be replaced by a carburettor system.

(d) Air cleaners and air boxes contained within the engine bay are free. Ducting may be added to direct air to the induction system.

(e) Any bonnet scoop (including 'shakers') shall be of the original size and design specified by the manufacturer for that model.

T12 IGNITION SYSTEM

(a) The distributor may be replaced by another provided that it is interchangeable with the original. The ignition timing in relation to crankshaft position may only be varied by a mechanical system based on engine rotational speed and/or manifold vacuum.

(b) Each automobile must have fitted a MSD 6AL CDI unit and rev limiter which is sealed. The maximum allowable engine rotational speed limits shall be as listed in the current Touring Car Masters Sporting Regulations APPENDIX B: Performance Adjustment Sheet (PAS).

(c) Spark plugs and spark plug leads are free.

(d) Other than the rev limiter required by article 12.3 above, the fitment of any device, the effect of which is to interrupt the ignition system, is prohibited.

T13 ELECTRICAL SYSTEM

(a) The alternator is free.

(b) The battery and its location are free.

(c) All fuses, wiring, relays and switches are free.

(d) All electrically operated systems may be removed save for the following:

- either high or low headlight beam
- tail lights
- stop lights
- engine starting system
- windscreen wipers

(e) A high-intensity rain light is strongly recommended.

T14 FUEL AND FUEL SYSTEM

(a) Fuel shall be Unleaded Fuel as specified in the current Touring Car Masters Sporting Regulations.

(b) Fuel pumps are free. Electrically-operated pumps may replace mechanical ones and their location is free. Fuel lines and filters are free. Fuel lines may pass through the cockpit but there must be no joins save at the firewalls.

(f) The fuel tank may be replaced. The replacement fuel tank may be mounted in the same general location, or within the boot/trunk (refer to Article 4.10). The fuel filler may be located in the original location, or within the boot/trunk; if the latter it must be fitted with a splash tray draining outside of the automobile. Each new car issued with a Log Book after 1 January 2010 shall be fitted with a fuel tank to the FIA FT3 standard.

T15 POWERTRAIN COOLING

(a) The water pump is free provided that it is driven in the same manner as the original pump. Additional cooling lines may be added to the engine. Holes may be drilled and tapped in the block and heads for this purpose.

(b) The radiator is free provided that it is mounted in the same general location.

(c) Engine oil coolers may be added freely.

(d) Cooling systems, possibly incorporating pumps, may be added for the purpose of cooling the oil within the transmission and final drive assemblies. The radiators/heat exchangers must be mounted outside of the cockpit.