

**Rules applying from 1<sup>st</sup> of March 2008**

**1. RACE FORMAT**

- 1 There will be one annual event called Australian Championships to determine the Australian Champion in 1:5 Scale Touring Cars and one annual event in each State called State Championships to determine State Champions.
- 2 The number of drivers in one race meeting is limited to 120.
- 3 There is one series to recognise in accordance to the 1:1 scale series namely the Touring Car Championship Series, following FIA class 1 ITC up to December 31st, 1999 , class 2 Super Touring Car (4-door cars) and Australian V8 Supercar or Super Touring Car series.
- 4 The results of the Australian Championships combined with that of the State Championships will give the AARCMCC driver-ranking list. Points are scored in accordance to the AARCMCC Rules.
- 5 Participants must have an AARCMCC Drivers Licence to participate at the Australian or State Championships. The relevant FEMCA licence is required outside of their own country.
- 6 No refuelling allowed during racing for 1:5 Touring Cars.
- 7 Practise in heats during the event may be conducted, preceding the day's events if requested by any competitor. The format of this practise session is at the discretion of the Race Director; however, it is limited to a maximum of 10mins per heat. This is to facilitate testing of overnight equipment changes.

**2. RACE PROCEDURE**

**2.1 Duration of the races:**

- 1 Free practice max.8 minutes
- 2 Heats: 10 minutes (plus the last lap and time of the last lap)
- 3 Sub-finals: max. 20 minutes up from the 1/32 final (plus the last lap and time of the last lap). The semi-finals are to be of 20 minutes duration (plus the last lap and time of the last lap).
- 4 Final: 30 minutes (plus the last lap and time of the last lap)

**2.2 Final & Sub-Finals**

- 1 The AARCMCC Christmas Tree system will be used.
- 2 The 6 highest placed drivers from the heats will qualify directly into the final.
- 3 All other drivers are allowed to race a sub-final.
- 4 Sub-finals: The first 3 drivers from each sub-final progress up to the next final.
- 5 Semi-finals: The first 2 drivers from each semi-final and the next fastest 2 from both semi-finals combined, will progress to the final.
- 6 In the event of different weather conditions existing during the semi-finals (one dry, one wet, or both wet) then the first 3 drivers from each semi-final will progress to the final.
- 7 It is not allowed to drive a model car on any other place than the track and the marked track pit lane.

### **2.3 Number of Drivers**

- 1 Heats: 10 to 15 drivers, track and facilities permitting.
- 2 Sub-finals and semi-finals: Maximum 10 drivers.
- 3 Final: Maximum of 12 drivers.
- 4 The race format will be notified in the event information and invitation material.

### **2.4 Starts**

- 1 The arrangements of the heats and the numbering are left to the discretion of the organiser.
- 2 The drivers must stand adjacent to their numbers on the rostrum; the mechanics must remain in their boxes along the pit lane. For all finals, drivers with the lowest starting numbers may choose their position on the rostrum and the mechanics must stand under the driver where this is possible.
- 3 An audible warning will be given at 1 minute and again at 30 seconds prior to the official start, in English and other languages as appropriate.
- 4 From 30 seconds till 3 seconds the cars must be held at the starting boxes. If a car is not at the starting box at 3 seconds due to unforeseen problems the car may start from the pit lane after other cars have officially started. The race director and referees will monitor for the abuse of this facility. From 10 seconds until 3 seconds prior to the start a second by second countdown will be made in English.
- 5 During Grid Starts at 5 seconds prior to the start, the Starter will lower the starting flag and at 3 seconds the flag will be fully down. The cars must remain in the boxes, no part of the car touching the starting line. For sub-finals and final the 'Formula 1' grid start must be used.
- 6 When using the "Formula 1" grid start procedure, a one lap trial start must be made (to check all transponders). Following this trial lap, the start will be within 5 seconds after the last car is stationary on his correct grid position. No mechanics are allowed on the track. Any car missing from the starting grid must start from out of the pit lane after the last car on the grid has passed.
- 7 From 3 seconds the verbal count down stops and the actual start-signal will be given by the Starter after a period of between 0 and 5 seconds has elapsed. If the grid is not to the satisfaction of the Starter, he may require a re-start, re-commencing the count down from 30 seconds.
- 8 The official start signal will be audible by means of a hooter or siren, operated by the Starter. This signal will also start the Timing Systems.
- 9 Early starts (ie. any part of the car touching the starting line), will be penalised. (10 sec. up to 1 lap) This penalty is issued by the Starting Official or the Time-keeping official and must be announced immediately after the start. The penalty will be marked on the results sheet.
- 10 Under no circumstances will the race be stopped due to a jump-start.
- 11 The Starter may only interrupt the race and make a re-start in the event that he considers the starting procedure or the start was not carried out correctly.
- 12 Delayed starts. As long as the starter has not called the cars to the start line, any participant of the semi-finals and final may request a delay of 10 minutes to carry out repairs on his car. This delay can be granted only once for each semi final and final. - the track is closed if the delay is requested as a result of frequency or radio problems - the track is open, if the delay is requested for mechanical repairs or problems. The driver who called the delay shall start from pit lane.
- 13 When the starter calls the main final to the start line, the mechanics are not allowed to refuel the cars.

## **2.5 Starting Procedure of Heats**

-1 There must be a minimum 5 minute gap between the end of one heat and the start of the next heat. Also a minimum of 3 minutes must be allowed between the issuance of the transmitters and the start of the heat.

-2 An audible warning will be given in English, at two minutes, one minute and at 30 seconds during the warm-up period. At the starting time an audible signal will be given for a rolling start and the timing system started.

-3 Starting for Sub-finals and Final will be on a Formula 1 grid depending on the track layout, with the faster Qualifier starting in front of the slower.

## **2.6 Completion of Heats & Finals**

-1 When the time is over, an audible signal is given. A car finishes when it passes the finish line after the finish-signal is given. The car must immediately return to the pits and may not hinder other cars still racing

-2 In case of doubt (on the finish-line when time is over), a car may race one more lap and finish. Whether he finishes or not when time was completed, is up to the Time-keepers and cannot be disputed.

-3 After returning to the pits, the engine must be stopped immediately and the transmitter turned off and impounded.

## **2.7 Qualification Order & Finals**

-1 After all series have been completed the Qualification order is established, by taking the best result of each driver.

-3 In the case of more than one driver recording identical results in a final, the driver starting with the higher start number is classified as the faster, eg. If number 5 and 2 have equal times, 5 is deemed to have higher final placing.

-4 The sub-finals and final are run according to the schedule printed in the official race program, which may only be changed by State Delegate's majority vote.

## **2.8 Wet Track Situation**

-1 Racing will take place on a damp track with no standing water. There will be no racing if rain is falling. The decision on whether a track is wet or rain affected will rest with the Race Director and referees.

-2 The programmed rain day at sanctioned meetings is for the deferment of sub-finals and finals. Provided all drivers have had one heat in the same conditions (all wet or all dry) sub-finals and finals should proceed as per program. Heats will only run in time programmed for sub-finals and finals if rule 2.10-3 and 2.10-5 cannot be satisfied.

-3 In case of different weather conditions during sub-finals the final classification will be as follows: Place 6 of sub-final A and Place 6 of sub-final B will both be awarded place 11th equal in the general classification. Place 7 of sub-final A and place 7 of sub-final B will both be awarded place 13th equal in the general classification and so on.

## **2.9 Race Interruptions**

-1 In the case of a race, which is interrupted for more than 60 minutes for reasons beyond the control of the organisers, the jury will decide whether to cancel or continue the meeting.

-2 In the case of an interruption of a heat the entire heat will be re-run.

-3 In the case of an interruption of sub-final or a final the following procedure will be used:

a). If less than 10 minutes of a final has been run, the results will be cancelled and a new start given for the total time of the final. Vehicles may be repaired before the new start.

b). If more than 10 minutes of the final have been run, the results at the moment of the interruption will be kept. The new start will be given for the time which remains to complete the final. The two results will be added to give the final and definitive placing. If the second start can not be made for any reason, the results from the first part will be used as the final and definitive placing.

c). When the interruption takes place after 75% or more of the race is past, the results as at the time of the interruption becomes the final result.

d). At the moment of the interruption of the race, the drivers will leave their vehicles on the start-line under the control of the Race Director. They may switch off the radio and stop the engine. There will be no repairs carried out to the vehicle or changing of tyres. Any driver who does not observe this rule will be immediately disqualified.

### **2.10 Rain Procedure During Qualifying**

-1 The Race Director and the Referees are jointly responsible for the decision to stop a race in the event of rain.

-2 On the result sheets the Race Director or the appointed official must mark a heat "WET" when the heat was raced under wet conditions. On the corresponding record sheets, this must also be marked. The Race Director together with the Referees will decide in case of doubt. Heats are generally considered to be "WET" when average lap times are approximately 20% slower than before, due to rain or moisture on the track.

-3 When all drivers have had at least one dry heat, all results will be counted.

-4 When weather and time permits, the Race Director may decide to offer an extra heat to those drivers who did not have a chance to drive a dry heat.

-5 When not all drivers have had a chance to run a dry heat, only the wet results will be counted.

-6 When continuation is judged to be senseless, or when other drivers should be offered a fair chance to drive under dry conditions, the Race Director together with the Referees may decide to end a heat or cancel a complete heat (2.9-1)

### **3. TECHNICAL INSPECTION**

-1 Before the start of official racing the Technical Inspector has to examine the mechanical state of the car, homologation of bodies, scale dimensions of the type of car, minimum weight, radio equipment etc. before the driver is allowed to participate in the race. Under all circumstances it is the responsibility of the driver, that his car is within the AARCMCC rules during a race meeting. If a car is found illegal during heats, semifinals or final, its result will be made void and the car has to stay in technical inspection until the result is published and the protest time is over.

**4. MARSHALS** – Drivers will act as marshals as organisers direct.

### **5. TRACKS**

-1 Tracks for 1:5 I.C. racing will be inspected by AARCMCC Officials with regard to safety provisions for drivers, mechanics, marshals and spectators. AARCMCC Officials have the authority to ask for improvements to be carried out before racing starts.

-2 A monitor must be placed in the pit area or under the rostrum during all State and National Championship races.

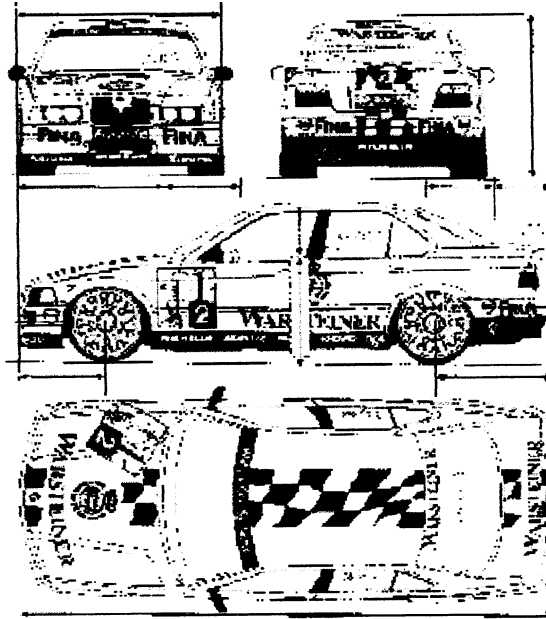
### **6. TECHNICAL SPECIFICATIONS**

**6.1 -1** All 1:5 cars have to be genuine scale in all details and proportions and be a fully detailed model of an existing 1:1 touring racecar. If the allowed tolerances are used, then all parts of the model in that particular view have to be within the same sign (wheelbase -, length- / wheelbase + , length +). Mixtures of car designs are not allowed.

-2 The minimum length of a Super Touring Car is 4.200 m that gives a minimum length of 795 mm in scale including max. -tolerance.

-3 Only bodyshells that are approved by AARCMCC will be allowed to race in AARCMCC sanctioned events. A list of approved bodies will be updated regularly and provided as an addendum to these rules.

## 6.2 General Specifications



-1 The car body has to comply with the calculated scale dimensions 1:5 with the allowance of using the following tolerances.

- a) Length: within scale  $\pm 5\%$
- b) Width: within scale *And must be a max. 395mm*
- c) Height: within scale  $\pm 5\%$

-2 Tank capacity: 700 cc

-3 Minimum weight, without fuel: 10,000 g

## 6.3 Car

-1 The car has to have a functioning brake which has to be capable of keeping the car stationary whilst the engine is running.

-2 A mechanical failsafe has to be fitted to the carburettor, which returns the throttle to a closed position in case of breaking of the throttle linkage.

-3 Variable ratio transmission is not allowed.

-4 Only 2WD (rear-wheel drive) cars are allowed.

-5 No other function than steering and throttle/brake are allowed to operate with radio control by the driver. Any other electronic or hydraulic systems are not allowed in the car, with the acceptance of electronic failsafe to stop the car in case of radio failure.

-6 The position of the ignition cut-out switch must be marked on the body shell with a white circular decal, 30mm in diameter, outlined in red with a red E in the centre. The switch must remain in the manufacturers original position and not be modified. (No additional cut-out switches will be allowed).

## 6.4 Body (BODY-Homologation List 1:5 scale)

-1 Bodies have to follow the description in point 6:1. They have to be properly fixed to the chassis and must cover the outer edge of the wheels at the centre of the axle when viewed from the top.

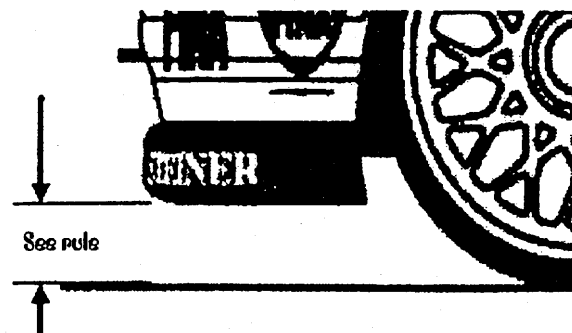
-2 It is not permitted to cut the windscreen out. The side and rear windows may be cut out for cooling. It is not allowed to open them by cutting out only some holes. Also it is not allowed to mould air channels into the side windows to guide air into the interior.

-3 The body shells have to be painted and all windows to remain clear. All parts of the car have to be covered by the body. Only the radio antenna is allowed to come outside. All openings in the body have also to be in the existing 1:1 racecar. It is not allowed to modify the car-body by cutting it over the marked trim lines or to widen it by heating it or parts of it.

-4 **Only allowed for manufactures:** Aerodynamic modifications at the front, the sides and the rear below the wheel hub centre are free subject to the requirements for ground clearance, overall length and overall width. The modifications have to correspond to the original. The materials have to be the same as that of the bodyshell. The homologation number has to be engraved. A photo of the modification 1:1/1:5 have to be sent to the responsible Homologation Officer.

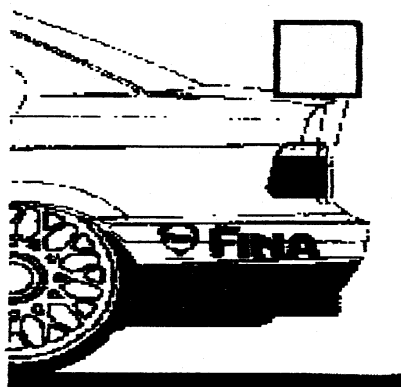
#### 6.4.1 Ground Clearance

-1 The measurement of the bodyshell height and the rear cutout height will be made with 6mm ground clearance.



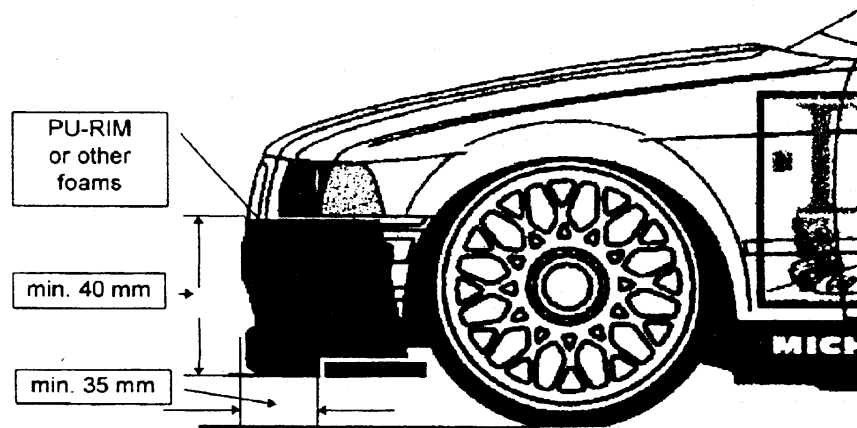
#### 6.4.2 Wing/Spoiler

-1 Rear wings are permitted as long as they do not exceed the front view profile and the length of the car. They have to fit in a side "profile box" measuring 60 mm x 60 mm per side and should not overhang the end of the car.



#### 6.5 Bumper

-1 A bumper has to be fitted to the chassis. Bumpers have to be designed in a way that they fill the front of a car body completely and be a minimum height of 40mm. The material used has to be flexible like PU-RIM or other foams that are used in 1:1 car construction to absorb impact energy. At no point may any part of inflexible material for bodyshell mounting protrude from the body more than 10mm.

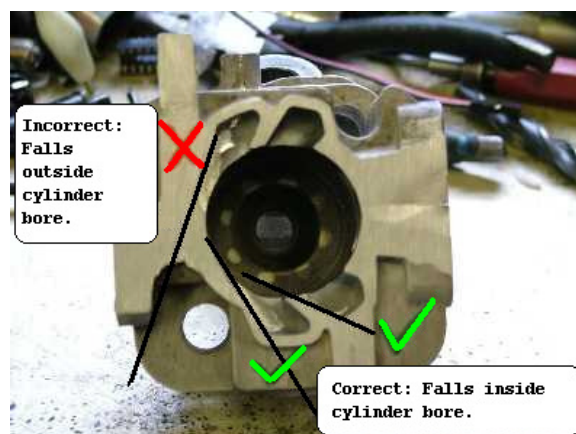


## 6.6 Wheels & Tyres

- 1 Rim Diameter max. 107 mm
- 2 Rim and fitted tyre Diameter: max.: 136 mm
- 3 Rim and fitted tyre width - front max.: 75 mm
- 4 Rim and fitted tyre width - rear max.: 80 mm
- 5 Tyres have to be black and only semi pneumatic rubber.
- 6 The design of the tyre profile is free.
- 7 Foam tyres are not allowed.
- 8 The chemical treatment of tyres by adding any tyre traction moisture or other chemicals/additives is not allowed. Tyre cleaners are not allowed.

## 6.7 Engine

- 1 The engine to be a single cylinder, 2 or 4 stroke, maximum 23 cm<sup>3</sup>, pull start.
- 2 No Turbo charging, Fuel injection, Supercharging, Wankel or rotary valve/distribution engines are allowed.
- 3 All ignition timing must be mechanically fixed, only manual static adjustment is allowed.
- 4 No Battery operated ignition allowed. Only a passive ignition system using R.P.M. as the single input parameter is allowed.
- 5 Only open deck admission ports are allowed. The removal of material is free as long as the modified shape of the transfer/admission port walls are in the direction of the cylinder bore at all times.



- 6 The Cylinder block must be of a single casting. No independent liners or slipping liners are allowed.
- 7 The maximum number of admission/transfer ports is limited to four (4).

-8 Engine must be air-cooled, the air being driven directly by the flywheel.

-9 The crankshaft must be of split shaft configuration, with enclosed big end. No half crankshafts allowed.

-10 An air filter must be fitted to the carburettor. The maximum venturi diameter of the carburettor is limited to 13mm/.51 in.

-11 Each driver is only allowed to use a maximum of one (1) engine per event. The crankcase of the engine will be sealed with an AARCMCC numbered seal and recorded at technical inspection. Technical inspection must be informed when the competitor has an engine failure and present the sealed engine to technical inspection and dismantle the engine in front of the scrutineers. Any repairs will be decided by the scrutineers but in the event of a catastrophic engine failure (deemed by the scrutineers) the competitor will be allowed to run a second sealed engine and the new number recorded on the scrutineer's sheets.

### **6.8 Fuel**

-1 Only fuel admitted will be petrol normally available at automobile service stations. Special fuel like avgas, race fuel etc. is strictly forbidden. The only additive allowed is oil. Fuel tests may be made at random during the race. If a fuel is found illegal by the official analyser, the driver will be disqualified from that particular race, he may lose his right to participate in IFMAR (AARCMCC) races up to ten (10) years.

### **6.9 Exhaust**

-1 Maximum noise level is 81dB (A) measured at 10 metres, 1 metre above the track. If a car produces a noise level much in excess of the other cars, it is the Race Director's decision on whether this car is allowed to race. Exhausts have to be of minimum dual chamber type. No open exhausts or pipes are allowed.

-2 The total exhaust has to be inside the body, with the exception of the tailend of the pipe, which may protrude the body not more than 10 mm. The body may be cut out at that point max. 20 mm more than the tailend diameter.

-3 Max. inside diameter tail end 13 mm.

### **6.10 Noise Reduction Systems**

*The application of this rule is at the discretion of the organising club through the Race Director and should be applied as a last resort to meet special circumstances.*

-1 All cars to be equipped with an air-box to reduce the intake noise of the carburettor and a second muffler or third chamber to reduce the noise level of the exhaust.

-2 The design of that additional silencer is free, but with both Systems together, the max. noise level must not be over 81 dB (A).