



2016

**TECHNICAL & SAFETY
REGULATIONS**



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GENERAL – ALL VEHICLES & CREW REQUIREMENTS

Article 1 – Numbers and signage

- 1.1. All vehicles must keep the left and right front doors available for door panels and numbers, which will be supplied by the organisers. A space of 200 mm x 200 mm must also be left for smaller numbers without background panels to be fitted to the side screens of the vehicle. Refer to Event Supplementary regs
- 1.2. A space 200mm high across the top of the windscreen for official purposes. Refer to Event Supplementary regs
- 1.3. Signs from sponsors or supporters of individual cars may be displayed on the vehicle, provided they do not interfere with the door or windscreen panels mentioned in 1.1 & 1.2 above and are printed and applied in a professional and tasteful manner and are not in conflict with any sponsors of The Event. The organisers reserve the right to have any advertising they consider distasteful or inappropriate removed from a competing vehicle before it is permitted to start. The Penalty for infraction; NO START.
- 1.4. The organisers reserve the right to provide additional event sponsors decals and require them to be displayed prominently on all vehicles.
- 1.5. Driver and co-driver names may be displayed on both sides of the vehicle, on the rear side glass, except that vehicles without rear side glass may display them on the upper part of the front mudguards. Refer to Event Supplementary regs
- 1.6. No responsibility for any damage to vehicle paintwork during removal of event signage will be accepted by the Organisers.

Article 2 – Scrutiny

- 2.1. All vehicles must be scrutineered prior to starting in 'The Event'. A safety check of all vehicles is to take place prior to each day's competition.
- 2.2. Each vehicle entered in the Competition must be subject of an AASA Passport, which is to be presented to the scrutineer at both the time of Scrutiny and Documentation.
- 2.3. Scrutiny forms will contain a statement to be signed by the competitor verifying that the vehicle remains unaltered from its form as presented and approved at Scrutiny to that at the commencement of 'The Event' in respect of safety equipment and eligibility. Penalty for alterations not re-scrutinised – Exclusion.
- 2.4. A vehicle may be re-scrutinised at any time during 'The Event' to ensure that the vehicle is in an acceptable condition to continue, that all safety equipment is present, serviceable and correctly positioned, and that the eligibility of the vehicle remains unchanged.
- 2.5. If during the event the Chief Scrutineer considers a vehicle to be non-compliant, he may direct it to be repaired before recommending that the Clerk of Course approve its continuation in 'The Event'. No time allowance will be made for such repairs, however a new Start Time may be allocated at the discretion of the Clerk of Course.

Article 3 – Further Vehicle Eligibility

- 3.1. A vehicle which does not comply with the eligibility requirements may be entered in Category L. All safety requirements set down in these regulations must be complied with, and modifications permitted will be specified by the organisers. The crew of the vehicle will be eligible for class awards only.
- 3.2. The organisers reserve the right not to accept a driver/vehicle combination. Acceptance of a vehicle in one year does not necessarily mean that vehicle will be accepted in a following year/s.

- 3.3. Only vehicles with a production run of at least twenty identical units will be eligible for outright classification. Vehicles with a smaller production run will be eligible for Category L awards.

GENERAL – ALL VEHICLES TECHNICAL & COMPULSORY

Article 4 – All Vehicles - Technical

- 4.1. The spirit of the regulations;
- 4.1.1. To ensure that all vehicles compete in a condition mechanically and visually compatible with the period being portrayed. Where any doubt exists between these Regulations and the original period specification, the latter will take precedence.
- 4.1.2. The Technical Regulations are based on the principle that modifications to the vehicle or its components other than those specified below are forbidden and all competing vehicles must comply with the AASA Regulations, these regulations and any further bulletins.
- 4.2. Vehicle Eligibility
- 4.2.1. At all times the onus of proof of eligibility of the vehicle and/or components whether options or not will be the responsibility of the competitor by way of homologation papers, parts manuals, workshop manuals, etc.
- 4.2.2. These regulations do not supersede any civil requirements/regulations, and compliance with any such provisions is the responsibility of the competitor.
- 4.2.3. In cases where production of a model commenced before the cut-off date and continued after that date, vehicles actually manufactured after this date are considered to be eligible provided they were produced to exactly the same specification as the vehicles built prior to the date.
- 4.2.4. This provision known as; “model run-on” terminates upon a change in vehicle specification having been implemented by the manufacturer. In all cases, the onus of proof in relation to eligibility matters lies with the competitor.
- 4.3. Roadworthiness and Eligibility of Vehicle
- 4.3.1. All vehicles must be registered for use on public roads. Temporary Rally permits validating the use of vehicles on public roads will be allowed, however, the onus is on the competitor to ensure all statutory requirements relating to the use of such permits/registration have been met.
- 4.3.2. Left hand drive vehicles; if a right hand version of a particular model is not made by the factory, the Right Hand Drive conversion must be engineered to Australian standards..
- 4.4. Authority to enter vehicle
- The vehicle must be entered by the bona-fide owner of the vehicle, or in the case of a company, a person having the written authority of the bona-fide owner.
- 4.5. Competition Categories
- All Vehicles will be divided into one of 2 groups; those manufactured prior to 1982, or be a model/specification which matches that of a vehicle manufactured prior to 1982; “Group 1 Classic Competition Vehicles”, and those manufactured after 1982; “Group 2 Modern Competition Vehicles”.
- 4.6. Technical Specification
- To aid in the classification of the vehicle, the entrant must fully complete the ‘Vehicle Identification Form’ along with the application form. Should any detail be altered, such alteration must be notified in writing to the organisers who reserve the right to reclassify the vehicle.

The organisers reserve the right to amalgamate classes if there are fewer than three vehicles in a class.

4.7. Unregistered Vehicles

Unregistered vehicles which are invited to compete in the event, may obtain an unregistered vehicle permit by applying to AASA. Ph 03 57664235

4.8. Vehicle Passport

The production of a properly entered vehicle passport issued by AASA is required for all vehicles entered in the event. The Passport number must be recorded on the Vehicle Identity Form. Failure to present such passport when the relevant vehicle is presented for documentation and scrutiny may cause it to be denied permission to start the event.

4.9. Eligible Vehicles

Each vehicle must have at least two seats, have been capable of achieving road registration when first released.

(Organisers may place restrictions on eligible vehicles subject to these being defined in the supplementary regulations for the event)

4.10. Options

4.10.1. General Requirements

- a) The onus is at all times on the competitor to provide proof that each component is in fact a genuine option, and if this cannot be provided the Technical Advisor may either request that the component be removed (prior to the start of the event) or recommend a penalty.
- b) Options/accessories/parts (henceforth described as the 'option') may be permitted in certain areas, subject to the following:
- c) To be acceptable in competition, each option shall comply with at least one of the following requirements:
 - i. It shall be listed by the manufacturer as a "production option", i.e, an optional item or specification listed on the vehicle build sheet and fitted at the time of the build. (For some vehicles, the options with which it was built are listed on the vehicle ID plate.)
 - ii. It shall be an option listed and authorised by the manufacturer in official sales literature and to which a manufacturer's warranty applies and which may be fitted at an authorised dealership.
 - iii. The option shall have been proven to have been supplied by the Manufacturer in more than the minimum production quantities for eligibility, in vehicles registered for road use.
 - iv. In addition to the above, an option shall comply with ALL of the following requirements:
 - v. Each option must comply with the regulations of the relevant road authority and be ADR compliant.
 - vi. Each option included on the vehicle must have been available during the model run of the vehicle.
 - vii. Where a recognition document has been issued for a particular vehicle, each option shall be specified in the recognition document.
 - viii. Each option must be permitted under the provisions outlined under each Specification.

4.11. Specific Requirements

Options will only be permitted in the following areas and then only when in compliance with the requirements set out under each specification:

- a) All areas where these Technical Regulations provide freedom of modification.
- b) Engine Radiator and oil cooler.
- c) Gearbox Case, gear set and selector. (Classic only)
- d) Suspension
 - i. Elastomeric bushes and Sway bars.

- e) Power Steering Cooler
- f) Aerodynamic Options
 - i. Each aerodynamic 'add on' device may be considered as an option, provided it complies with the following requirements:
 - ii. The rear aerodynamic device of a vehicle which is of sedan type (ie, three volumes) configuration shall comply with the dimensions outlined in the diagram below. The rear aerodynamic device of a vehicle which is of hatchback type (ie, two volumes) configuration shall be not more than 25mm above the roof.
 - iii. At its lateral extremities, the rear aerodynamic device must join the bodywork, and it must be entirely contained within the frontal projection of the vehicle without its rear-view mirrors.
 - iv. The material of construction for the rear aerodynamic device is free.
- g) Other Body Options
 - i. 'Side skirts' fitted between the front and rear wheel arch. The side profile shall be no more than 100mm high, and which are entirely contained within the frontal projection of the standard bodywork without its rear-view mirrors.
- h) Interior
 - i. Additional gauges, gauge pods, consoles.
- i) Wheels
 - i. Wheel size and offset

4.12. Engine Changes

Engines may be changed during the Event, upon application to the Clerk of Course and his acceptance of the change. The replacement engine must have the same type of block and head as the original engine, be of similar or lesser specification, and must comply with the requirements of the class within which it is entered.

4.13. Oil leaks/spillage

- 4.13.1. If an official requests repairs to a vehicle to prevent or eliminate oil leaks or spillage, such repairs must be carried out to the satisfaction of the Chief Scrutineer. If a vehicle continues to leak or spill oil the vehicle may be refused permission to continue in the event, or such other position as is determined by the Clerk of Course. The Stage Commander is empowered to prevent, under the above circumstances, a vehicle from starting a stage until a decision is made by the Clerk of Course.
- 4.13.2. If the vehicle is fitted with crankcase breather/s discharging to the atmosphere, there must be fitted to such breather/s an oil-trap container (which must be empty at the start of each Section) of at least two litres (for vehicles of under 2000cc) or three litres (for vehicles of over 2000cc).
- 4.13.3. On vehicles with a closed crankcase ventilation system, it is permitted to disconnect or disable the breather system, provided that any open breather outlets on the engine are connected to an oil-trap container, as specified in regulation 4.13.2 (as above). If there is no discharging to the atmosphere (i.e.: the engine is totally closed) a catch tank is not required to be fitted.

4.14. Damaged motor resulting in a Oil Leak

- 4.14.1. If a competitor damages a motor which results in an oil leak they must immediately pull off the driving line and stop as soon as safe to do so.
- 4.14.2. Caution triangles are then to be shown 50m before the oil spillage. They are then to spread the oil absorbent material where the bulk of the leaked oil has been deposited. Crews are to do this in a safe manner with one member warning the other of on coming cars and showing the OK board.

4.15. Wheels & Tyres

Tyre fitment shall be in accordance with the Tyre and Rim Association Manual or with the organiser's approval. Tread wear indicators as provided by the tyre manufacturer shall be the definitive indicator of tread depth.

4.16. Tyre Pressure Control Valves

Tyre pressure control valves on the wheels are forbidden.

4.17. Valve Caps

Each tyre valve shall be fitted with a cap which effectively prevents leakage in use.

4.18. Wheel Spacers

A maximum of one metallic spacer may be used behind each wheel.

4.19. Rim Profile/Inner Tubes

Any tyre fitted to a rim without safety profiles must be fitted with an inner tube.

4.20. Tyres

Tyres that have been grooved after manufacture, or have been re-grooved, are not permitted to be used. It is permitted to have tyres siped in accordance with manufacturer guidelines.

4.21. Manufacturers' Marking

Tyres must be marked with numbers and lettering providing information about aspect ratio, speed rating and load carrying capacity.

4.22. Prohibited

4.22.1. The organisers reserve the right to prohibit the use of specific tyres at any time up to the start of the event should such tyres not meet the spirit of these regulations. Studded, slick and soft compound tyres are prohibited (Soft compound as per list supplied by the organisers).

4.22.2. Tyres must be marked legal for road use as indicated by the presence of either DOT (Department of Transport) markings. Any tyres marked "not for highway use", "for racing use only" or similar are not permitted.

4.23. Prohibited Tyres

The organisers reserve the right to prohibit tyres at any time up to the start of the event should such tyres not meet with the spirit of these regulations.

4.24. Rim Material

Wheels may be manufactured only from aluminium alloy, steel or magnesium.

4.25. Tyre Warmers

The use of tyre warmers or any artificial method of pre-warming tyres is not permitted.

4.26. Tyre Rules for all Categories

4.26.1. Aspect Ratio's

The minimum tyre aspect ratio percentages are:

Up to 1946	65
1947 to 1971	45
post 1971	35

Lower aspect ratios are not permitted unless specified by the manufacturer as standard (or by application to the organisers), in which case that profile is the minimum permitted. Tyres that are not marked with a percentage aspect ratio by the manufacturer during the manufacturing process are not permitted, except where the tyre has an aspect ratio greater than 70.

4.27. Tyres

- 4.27.1. Tyres must be fitted in accordance with the tyre manufacturer's published specification. The fitment of tyres to rims which are either too narrow or too wide for the tyre in question shall result in exclusion from the event at minimum.
- 4.27.2. All tyres must have a minimum tread depth of 1.5mm at any point on the tread normally in contact with the road other than at tread depth indicators.
- 4.27.3. It is the responsibility of the competitor to ensure that tyres remain in conformance with any civil regulations during touring stages.
- 4.27.4. In all cases, the correctly inflated tyre shall not foul the body, suspension or steering at any point in full movement of these components.

4.28. Rim Size and Track

- 4.28.1. Unless otherwise specified for all Classic. Wheels may be replaced by others of period style. Wheel diameters may be varied by a maximum of ± 3 " and the width by up to 3" from the standard (not optional) dimensions.
- 4.28.2. Notwithstanding, the maximum wheel diameter is 19" unless larger is specified by the manufacturer as standard fitment, in which case that diameter is the maximum permitted.
- 4.28.3. Except where varied by the following specific regulations, the track shall conform to the following requirement:
- 4.28.4. The upper part of the tyre, down to the wheel rim flange over the wheel hub centre must be within the perimeter of the vehicle when viewed vertically from above.

4.29. Recognition Papers

- 4.29.1. The organisers may produce recognition papers which will define the specification of a given model, and if such papers have been produced they must be presented at scrutiny by the competitor. If the organisers issue a recognition paper for a recognised model, this will be considered the definitive document.
- 4.29.2. Irrespective of the parts for which the present article lays down freedom of modification, the original mechanical parts necessary for the propulsion as well as all accessories necessary for their normal functioning, 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; 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.
- 4.29.3. However, the modifications permitted by the above paragraph are allowed on condition that the weights and dimensions mentioned on the homologation form, recognition documents, manufacturers manual &/or published specifications and workshop manuals are respected.

4.30. Fasteners

Throughout the vehicle, any nut, bolt, clamp or screw may be replaced by any other nut, any other bolt, clamp or any other screw and have any kind of locking device (washer, lock nut etc.) and clamp.

4.31. Addition of material and parts

- 4.31.1. Any addition of material or parts is forbidden unless it is specified or required by an article in these regulations.
- 4.31.2. Any material removed is not to be reused.
- 4.31.3. Restoration of body shape and chassis geometry, following accidental damage, is permissible by the addition of the materials necessary to effect the repairs (body filler, weld metal etc); other parts which are worn or damaged are not to be repaired by the addition or attaching of material unless an article in these regulations allows appropriate freedom.

4.32. Chassis, Sub-Frame, Monocoque and Interior

General modifications to the Chassis, Sub-Frame, Monocoque and interior trim to facilitate the fitment of mandatory equipment and for the fitment of any other items permitted under specified freedoms within these regulations, are permitted.

4.33. Pumps

On any vehicle with electric fuel pump/s, the power supply to all such fuel pump/s must be cut off after a maximum of a six second absence of crankshaft revolution.

4.34. Tinted Windows

Tinted windows are permitted in accordance with State Vehicle Regulations.

4.35. Rear view

At least one rear vision mirror, with a reflecting surface of at least 50 square centimetres (or 8 centimetres diameter if round), must be fitted to the vehicle and must provide an unobstructed view to the rear of the vehicle in order to permit the driver to become aware of any overtaking vehicle.

4.36. Battery

4.36.1. With the exception of Showroom Vehicles, the battery may be relocated to any position, but if mounted in the cockpit, it must be behind the front seats and mounted within an acid-proof sealed container with a vent outside the vehicle, or preferably be of dry cell in construction.

4.36.2. A blue triangle of sides 150mm indicating the location of the battery must be placed on the vehicle.

4.36.3. All vehicles must be equipped with a battery isolation (master) switch, which effectively isolates all electrical circuits from the battery and stops the engine. It must be capable of being operated by the seated driver. There must also be a second switch, or a remote means of operating the main switch which can be operated from outside the vehicle. This shall be in the vicinity of the A pillar on the driver's side. For vehicles without an A pillar the switch shall nevertheless be in a comparable position. This external switch, or remote activation, must be clearly marked by a symbol showing a red spark in a white edged blue triangle.

4.37. Fuel & Tanks

4.37.1. A maximum of 102RON fuel is permitted to be used during the event. No additives will be allowed that will increase the octane rating.

4.37.2. Commercially available E85 (up to 105 RON) and E10 fuels are also permitted.

4.37.3. Vintage, Early Classic, Late Classic may apply for an exemption to this rule.

4.37.4. Penalties will apply for exceeding the octane rating.

- i. First offence: 10 minute penalty
- ii. Second offence: Exclusion

4.37.5. The carriage of fuel in containers that are not part of the piped fuel system is prohibited, regardless of the vehicle construction.

4.37.6. All fuel lines passing through the cockpit area must be protected (eg: covered by a metal shield or enclosed in a metal tube) and must not have any joins inside the cabin.

4.37.7. Fuel tanks are free but must be of safe design.

4.37.8. FT3 standard fuel tanks are recommended. If an FT3 fuel tank is being utilised, the minimum amount of local modification of the bodywork to fit the fuel tank is permitted. An auxiliary fuel pump, to enable transfer of fuel to a swirl pot if required, is permitted.

4.38. Extensible Straps

Extensible straps (eg: 'Octopus' straps) should not be used to hold down objects of more than 2kg mass inside the vehicle.

4.39. Cameras

4.39.1. Cameras and video recorders may be fitted to vehicles.

4.39.2. Where the camera and recorder are combined into a unit (Camcorder) the unit must be fitted only to the rollover protection structure or other substantial part of the body shell of the vehicle behind the crew. It must be mounted inside a safety cradle which fits closely around the body of the unit, which shall be from aluminium plate at least 5mm thick. The camcorder shall be held in place by a strap of at least 3mm x 25mm aluminium alloy held tight by means of self locking fasteners. The strap and cradle may be lightly padded. The cradle shall be constructed as shown in Diagram 1 below and held to the rollover protection by means of a metal clamp and at least two 6mm diameter class 8.8 bolts. Rollover protection type padding is to be placed on the outside of the cradle.

4.39.3. Where the camera is a small separate unit (eg, 'lip stick' lens), it need not be fitted inside the cradle described above, but the recorder shall be mounted in the luggage compartment, or where this is impractical (eg, hatchback vehicles), it shall be mounted inside a box made from aluminium of a minimum thickness of 5mm, held down by at least three 6mm diameter class 8.8 bolts.

4.39.4. The mounting of any on-board camera shall be approved by the Chief Scrutineer.

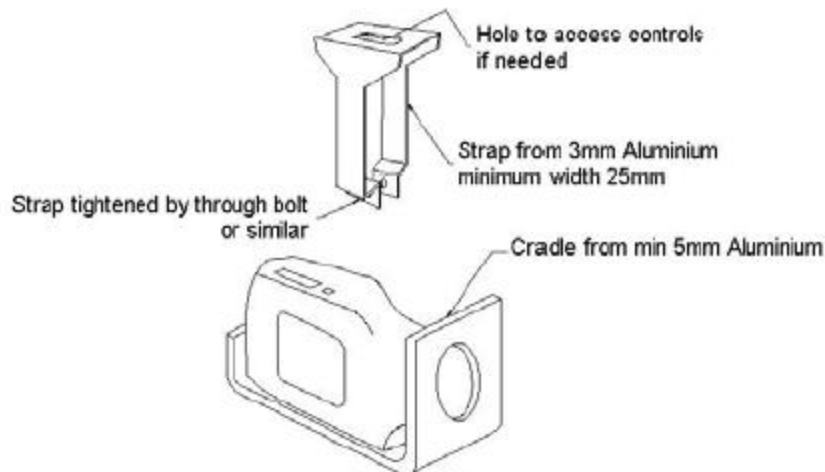


Diagram 1

4.39.5. Alternative cradle designs may be permitted subject to approval by the organisers on the advice of the Chief Scrutineer. No camera may be fitted in such a way that it relies solely on the camera's original tripod mounting. Cameras or remote lens with a weight of less than 100g are not required to be fitted within a metal cradle.

4.40. Towing Eyes

4.40.1. To facilitate the ease of recovery of a vehicle, towing eyes shall be fitted complying with the following:

- a. Have an internal diameter of at least 40mm;
- b. Are fitted forward of the front axle and rearwards of the rear axle;
- c. Are clearly visible in yellow, orange or red, the chosen colour being in contrast to the colour of the body work immediately adjacent the towing point;

- d. Are constructed and fitted in such a way that when a load is applied to the towing point, parallel to the ground and in a direction facing away from the vehicle, parallel to the longitudinal centre line of the vehicle, the vehicle shall be capable of drawing the car over two blocks of 100mm height. These blocks shall be of a section 100mm x 200mm, not less than the width of the tyre and shall be placed immediately 'in front' of the tyres closest to the towing point being subject to the applied load. In order to test the strength of the towing point, any non-structural body work which interferes with the test may be removed.

Or

- b) As an alternative to the above, tow hooks provided by the manufacturer of the car as a standard fitment may be utilised, provided they are easily accessible and clearly visible, in yellow, orange or red, contrasting with the colour of the bodywork immediately adjacent to the towing point, and pass the same test as outlined above.

4.41. Air Bags

Vehicles fitted with SRS (Supplementary Restraint Systems – airbags) must have these disconnected, deactivated or removed where mounted in front of a terratrip or similar, and must carry a sticker to be provided by the organisers at pre-start scrutiny advising of this.

4.42. Anti-lock brakes

Vehicles fitted with ABS (anti-lock brake systems) may have these disconnected or deactivated.

4.43. Steering

4.44. The steering wheel may be replaced by another, providing that

4.44.1. It is not made of wood

4.44.2. Complies with all relevant civil regulations.

4.44.3. The addition of a power steering system fluid cooling system is permitted.

4.45. Pedals

Removable 'pads' on brake, clutch and accelerator pedals are free.

4.46. Navigation Instruments

Electronic or Mechanically driven Navigation instruments may be fitted

Article 5 – All Vehicles - Compulsory Equipment

5.1. Headlamps

5.1.1. Effective headlamps must be fitted to the vehicle.

5.1.2. Vehicles with standard retractable headlamps may be fitted with at least two auxiliary lights, which must be fitted securely and to a standard approved by the organisers. When illuminated these lights must be visible to at least the same extent as the vehicle's standard headlamps on low beam in daylight.

5.1.3. All lamps must comply with the Government regulations for the State of Victoria. Existing lamps may be removed or replaced by other units provided their position remains unchanged. The maximum number of forward-facing headlamps is:

Low beam headlamps	Two
High beam headlamps	Six
Fog lamps	Two

5.1.4. Only low beam headlamps and fog lamps may remain alight when low beam is selected. Any additional headlamps must be wired through the high beam circuit so that they extinguish once low beam is selected. Forward-facing lamps must be rigidly mounted in pairs and be equidistant from the ground and from the centre-line of the car. Up to two reversing lamps are permitted provided that they are not more than 1m above the ground. If these are actuated manually, a warning lamp, energised together with the lamps, must be fitted within the sight of the driver. Any guards fitted to headlamps must permit manual cleaning of the lens.

5.2. Fire Extinguishers

5.2.1. Each vehicle is required to carry a fire extinguisher or fire extinguishers as below.

5.2.2. Hand-held extinguishers:

- a) All cars must be fitted with one or two fire extinguishers, which must meet the following criteria:
 - i. The extinguisher must be: AFFF, Dry Powder or an extinguisher of a standard recognised by Mountain Motorsports.
 - ii. The minimum capacity of the total of the two extinguishers must not be less than:
 - iii. 2.4 litres pressure 12.0 bar
 - iv. 2.0kg AS1841.5
 - v. Each AFFF extinguisher must be equipped with a means of checking the pressure of its contents.

5.2.3. The following information must be visible on each extinguisher:

- a) Capacity
- b) Type of extinguishant
- c) Weight or volume of the extinguishant
- d) Date on which the extinguishant must next be checked, which must be no more than two years after the date of the last filling or the date of the last check.

5.2.4. Fire extinguishers must be maintained according to the following prescriptions:

- a) An inspection, to be carried out by scrutineers at least once every six months, or otherwise prior to competition. This involves visually checking the unit and its mountings for damage, checking the pressure of the contents, and shaking the container to check for settling of the extinguishant. Where practical the extinguisher should be weighed
- b) a six-yearly hydrostatic test of the pressure vessel

5.2.5. Note: It is the competitor's responsibility to provide evidence that the required six yearly services have been undertaken.

5.3. Oil Absorbent Material

Competitors are required to carry in the vehicle a 1kg bag of environmentally friendly, 100% organic, non-leaching, non-toxic, biodegradable oil absorbent material (This may be Kitty Litter) or 500g of specialist absorbent material.

5.4. First Aid Kits

5.4.1. All vehicles are required to carry on board a weatherproof emergency first aid kit, which can be easily accessed, containing at least the following: 2 x extra large universal accident dressings

5.4.2. 2 x large open weave bandages

5.4.3. 2 x medium open weave bandages

5.4.4. 1 x pair dressing scissors

5.4.5. 1 x roll adhesive tape

5.4.6. 6 x safety pins

- 5.4.7. 1 x large burn dressing with a non-adhesive surface
 - 5.4.8. 1 x thermo accident blanket
 - 5.4.9. 2 x medium combination pads
 - 5.4.10. 6 x adhesive plaster strips
 - 5.4.11. 1 x triangular bandage
 - 5.4.12. 2 x sterile eye pads
 - 5.4.13. 1 x first aid manual
 - 5.4.14. Note; This kit is not a substitute for first aid training. It is recommended that all competitors should undertake a first aid training course.
- 5.5. OK/SOS Signs
- Each vehicle is required to carry an OK/SOS sign on board at all times (supplied by Mountain Motorsports).
- 5.6. Reflective Warning Triangles
- At least two red reflective triangles, with sides at least 300mm in length, must be carried in the vehicle at all times while competing. One triangle must be placed approximately 100m and the second triangle approximately 50m prior to the vehicle - immediately after the vehicle has stopped in the competitive stage for any reason (including a minor breakdown). Failure to place triangles as described will result in a penalty being applied by the Clerk of Course.
- 5.7. Seatbelts/Harnesses
- 5.7.1. All vehicles must be fitted with a five or six point harnesses with minimum 3" wide webbing and must include a crutch strap. Harnesses will meet 8853/98, 8853-1985 or SFI161 or of a standard recognised by Mountain Motorsports meeting the requirements of AASA Regulations. Harnesses must be worn at all times when the vehicle is moving. International crew vehicles must be fitted with harnesses as per above. There is no age limit on harnesses. Five and six point harnesses must be securely mounted. If the two shoulder straps join prior to a common mounting point then that junction shall be at least 150mm behind the wearer's neck. In all cases of mounting the following must be observed:
 - 5.7.2. On series production cars, some or all of the original seat belt mounting points may be satisfactory. Where the original seat belts are affixed to the seat, such mounting points may be used only where the original unmodified mounting points on the seat are retained. Where the original mounting points are not used, additional floor mounting points must be reinforced with a 3mm steel plate of at least 75mm x 50mm on the underside of the body.
 - 5.7.3. Harnesses rear mounting points must be to a substantial part of the vehicle's structure, reinforced as for floor mounts above, or to the Roll Over Protection System (ROPS).
 - 5.7.4. Under no circumstances may a safety harness mounting bolt be used to affix a ROPS to the bodyshell.
 - 5.7.5. Harnesses or seat belts of cars involved in any accident must be inspected by a scrutineer. If appropriate, the vehicle passport shall be endorsed with a requirement that the belts be replaced. The scrutineer at the car's next meeting must satisfy himself that the replacement has been made.
 - 5.7.6. **An approved (FIA,SFI or similar) head and neck restraint system (HANS device) is compulsory for both Driver and co-driver of competition vehicles.**
- 5.8. Seats
- 5.8.1. The material from which seats are manufactured is free, including carbon fibre and Kevlar.

- 5.8.2. It is the responsibility of the competitor to ensure seat mountings are engineered with adequate strength to withstand the forces that may be experienced during a sudden stop.
- 5.8.3. The front seats may be moved rearwards, but not beyond the vertical plane defined by the front edge of the original rear seat (where originally fitted). The limit relating to the front seat is formed by the seatback at its rearmost point where the seat does not incorporate the headrest, and if the headrest is incorporated into the seat, by the rearmost point of the driver's shoulders.
- 5.9. Throttle Return Spring
- On each throttle, whether butterfly, slide or other type, there must be fitted a return mechanism which, in the event of the throttle linkage becoming detached, will in all cases return each throttle to the closed position.
- 5.10. Cables, Lines and Electrical Equipment
- Fuel and oil lines and brake cables must be protected externally against any risk of deterioration (stones, corrosion, mechanical breakages, etc). Such protection shall not add to the structural strength of the vehicle and if the series production fitting is retained, no additional protection is necessary.
- 5.11. Windscreen
- A laminated glass windscreen must be fitted to the vehicle. The use of silvered or tinted films is authorised on the side and rear windows and must comply with the vehicle regulations in the relevant state.
- 5.12. Rollover Protection
- All vehicles must be fitted with Roll Over Protection that complies with an Australian standard or of a standard recognised by Mountain Motorsports meeting the requirements of AASA Regulations. The mounting of Roll Over Protection will be closely scrutinised to ensure strict compliance with the regulations. Additionally, all rollover protection must be wrapped in non-flammable protective padding where the driver and co-driver's bodies or crash helmet could come into contact with it.
- 5.13. Bonnet Restraints
- Each vehicle must have at least two independent fastening systems, of adequate strength and limited extensibility, which simultaneously hold the bonnet closed.
- 5.14. Helmets
- Drivers and Co-Drivers must wear helmets that comply with the current Australian Standard and the AASA Regulations.
- 5.15. Crew Apparel
- During all special stages, crew members are required to wear flame retardant driving suits, a separate balaclava, and flame retardant boots and socks. These shall be worn as their manufacturer intended during all special stages and are the minimum requirements for both crew members. Under garments of cotton, wool or other non flammable material may be worn. Failure to comply with this requirement will result in a penalty up to and/or inclusive of exclusion, at the discretion of the Clerk of Course
- 5.16. Compulsory Requirements Interpretation
- Control Officials and Scrutineers shall be considered Judges of Fact in relation to all compulsory requirements.
- 5.17. Whilst every attempt has been made to ensure these regulations reflect the provisions that will be in place at the time of the event, the timing of the event and publication of the supplementary regulations can make that difficult. Any changes made by AASA to the relevant provisions of the AASA Regulations shall supersede these requirements and in addition, the organisers reserve the right to amend the safety equipment to reflect such requirements.

Article 6 – Group 1 Classic - Technical

6.1. Application

The Technical Regulations are based on the principle that modifications to the vehicle or its components other than those specified below are forbidden.

6.2. General Requirements

6.2.1. Each vehicle will have been manufactured prior to 1982, or be a model/specification which matches that of a vehicle manufactured prior to 1982.

- a) All vehicles with V8 engines will be divided into one of 2 “age” categories, all other vehicles will be classified in separate ‘age’ categories determined by the date of manufacture (except in the case of ‘run on’ models) which is as follows:
- b) Category 1 Early Classic; up to 1971
- c) Category 2 Late Classic; 1972 to 1981
- d) For the purposes of awards, the organisers may combine categories/classes when there are insufficient entries in a given Category/Class.

6.2.2. Group 1 (Classic) Capacity Classes

- a) Each category will be further divided into the following classes based on engine capacity. If at the time of pre-start scrutiny a vehicle does not correspond in its presentation to the class in which it was entered, the vehicle may be transferred to another class by the organizers.

Category 1 Classic (up to 1971)

1A 0 to 2600cc

1B over 2600cc

Category 2 Classic (1971-1982)

2A 0 to 2600cc

2B over 2600cc

6.3. Weight

6.3.1. General

- a) The minimum weight must be in accordance with the organisers imposed minimum or manufacturer’s original specifications, homologation papers, workshop manuals, or sales specifications (in that order of priority). This weight will be deemed to include all liquid tanks to be at the normal operating levels as foreseen by the vehicle manufacturer, except the fuel tank which shall be empty.
- b) For the purposes of confirming weight during the competition, the organisers may refer to the minimum competition weight of the vehicle.
- c) If the organisers intend to use competition weight as the reference, this intention will be stated in the supplementary regulations for the event.
- d) It is recommended that fuel not be used for ballast as there could be miscalculation by the crew which could result in the vehicle being underweight when measured.

6.3.2. Minimum competition weight

The minimum weight, shall be not more than 15% below the manufacturers original specifications.

Article 7 – Group 1 Classic – Modifications Permitted

7.1. General

- 7.1.1. Vehicles can be modified. The modification level of such vehicles is controlled to a level deemed compatible within the parameters set out in these regulations.
- 7.1.2. Vehicles modified beyond the limits specified, will be required to run in Modern category or category L subject to the limitations of this regulation.
- 7.1.3. Vehicles homologated prior to 1 January 1982 (including Errata) can be presented in their entirety.
- 7.1.4. The minimum production number is twenty vehicles. It is the obligation of the Competitor to prove that the minimum quantity has been produced.

7.2. Engine

- 7.2.1. Other than turbo/supercharged vehicles where replacement is not permitted, the cylinder block shall be standard, or a replacement cylinder block is permitted subject to the following requirements:
 - a) The replacement must be: a production cylinder block of the same configuration, with more than 2500 units sold for road use, which upon application may be approved for tarmac rallies by the organisers as a suitable replacement engine; or
 - b) Be a documented recognised replacement or substitute for use in this period with approval of the organisers, in which case the approved item shall be utilised in its entirety.
- 7.2.2. The guidelines for approval of replacement cylinder blocks are that the block shall:
 - a) be produced prior to 1982
 - b) be produced by the same manufacturer as the original
 - c) have the same number of cylinders
 - d) be made of the same material as original
 - e) be able to be located in the same general location as the original. No body modification is permitted to allow the fitment of the replacement cylinder block.

7.3. Capacity

- 7.3.1. The maximum capacity is free. The vehicle will be classified according to its actual capacity inclusive of any bore or stroke increases (or decreases) and any relevant supercharging and rotary equivalence factors.
- 7.3.2. Rotary-engine vehicles are permitted to be fitted with engines with one size larger housing available from the original manufacturer, (eg, for Mazda engines, from 10A to 12A, or from 12A to 13B) over what was standard in the vehicle. The same number of rotors as standard shall be retained.

7.4. Crankshaft

The crankshaft and connecting rods are free.

7.5. Pistons & Rings

Pistons and piston rings are free or, where applicable, the rotors and seals of rotary engines are free.

7.6. Cylinder Heads

Cylinder heads are free

7.7. Camshafts

Camshafts are free, providing the original number and location are retained.

7.8. Rotary Engines

- 7.8.1. Modifications to rotary engines rotors, housings and end plates may be effected only by the removal of metal.
- 7.8.2. Rotary engines may be modified by the utilisation of the porting technique/s extend, bridge and peripheral.

7.9. Ignition

The ignition system is free.

7.10. Turbo's & Superchargers

- 7.10.1. Where fitted as original equipment, the turbo and waste gate or supercharger may remain standard or be replaced by another from the same period, and the turbo mounting flange is fitted in the same position as the original part.
- 7.10.2. Turbo boost level is free, provided that it remains fixed, and cannot be adjusted externally.
- 7.10.3. If external boost adjustment is fitted as standard, the original control must be retained, and no other means of adjustment may be used. The remainder of the induction system is free including intercoolers, but these must be fitted without any modifications to the external bodywork.

7.11. Induction

- 7.11.1. For naturally aspirated vehicles the complete induction system is free save that fuel injection shall not replace carburettors, unless it was an option on another model of the same family of vehicle from the same period.
- 7.11.2. Where fuel injection replaces carburettors, all replacement items must be from the same period as the original items replaced.
- 7.11.3. Additional air ducting is permitted.
- 7.11.4. The radiator support panel may be modified to allow fitment of induction system ducting but external body panels may not be modified.

7.12. Fuel Pumps

Fuel pumps are free.

7.13. Exhaust

The exhaust system is free.

7.14. Liquid Cooling

The engine liquid cooling systems are free, however, save for the radiator support panel which may be modified to accommodate the liquid cooling systems, the bodywork must not be modified to allow fitment, nor are additional air scoops permitted.

7.15. Air Cooled

Air cooled engine cooling systems are free.

7.16. Ancillary

Bolt on ancillary items are free.

7.17. Clutch

Clutches and flywheels are free, carbon components are permitted in the clutch assembly.

7.18. Sump

The sump is free and / or dry sump oil systems are permitted. Oil filters are free.

7.19. Engine Mounts

Engine mounts are free.

7.20. Internal Modifications

All other internal engine modifications, other than those specifically addressed &/or limited in this Article, are free.

7.21. Gearbox/Transmission/Final Drive

- 7.21.1. Gearboxes or transaxles may be replaced by another of free design, provided they have no more than six (6) forward gears and one (1) reverse gear, unless the vehicle had more than six forward gears as original in which case the original number of gears shall be the maximum.
- 7.21.2. Automatic transmissions provided optionally by the manufacturer for that model are permitted instead of a manual gearbox.
- 7.21.3. Transmission tunnel modifications necessary to allow the fitment of a transmission are permitted.
- 7.21.4. It is permitted to modify the body for revised gearbox mounts and for the entry of the gear lever mechanism into the cabin.
- 7.21.5. The bell housing is free.
- 7.21.6. Column gearshift mechanisms may be transferred to floor shift mechanisms. The original method of actuating the gear change, (eg 'H' pattern, pre-selector) must be retained. Shortened or 'quick' shifters are permitted. Sequential change mechanisms are not permitted unless originally fitted.
- 7.21.7. The configuration of the rear axle or final drive assembly must be as originally fitted to the vehicle (eg, a live rear axle must remain in a vehicle so equipped as original), but otherwise the rear axle or final drive assembly is free.
- 7.21.8. Full floating hubs are permitted and recommended.
- 7.21.9. Limited slip differentials or other differentials which act to limit the differential action are permitted.
- 7.21.10. Only mechanical differentials are permitted. 'Mechanical limited slip differential' means any system which works purely mechanically, ie, without the use of hydraulic or electric actuators. A viscous clutch is not considered to be a mechanical system.
- 7.21.11. All transmission drive shafts are free.
- 7.21.12. Gearbox and differential oil coolers are permitted provided these are mounted without any modifications to the outside bodywork.

7.22. Chassis/Sub-Frame/Monocoque

The chassis, sub-frames and any monocoque structure may be prepared to Group N specification (AASA regulations) and must be otherwise standard except for any modifications to the body shell in the immediate area which may be necessary to permit the fitment of a replacement seat or specified safety equipment. No part of the modified bodywork may extend any lower than the surrounding bodywork.

7.23. Suspension

- 7.23.1. The suspension type/configuration as fitted front and rear must remain original (eg, McPherson strut, dual wishbone, live rear axle, de Dion rear axle etc.), but may be modified only in accordance with the following regulations:
- 7.23.2. All sprung and semi-sprung suspension components may be replaced, and/or modified. Suspensions sub-frames are free, providing they are attached exclusively at the original mounting points.
- 7.23.3. The material used in suspension bushes is free. Rose joints, spherical bearings or heim joints may replace elastomeric bushings.
- 7.23.4. Springs, torsion bars, McPherson struts and dampers and their mountings are free.
- 7.23.5. Anti-roll (sway) bars, mountings and links are free, save that they may not be

adjustable from the cockpit. Vehicles fitted with existing cockpit adjustable sway bars shall have either the adjustment system sealed or the actuating rods removed.

7.23.6. Rear suspension is free, subject to the following:

- a) For live rear axles:
 - i. The body shell may be modified to allow the fitment of brackets to mount locating arms. To that end, the minimum required amount of metal may be removed from the standard body shell to allow the construction of a forward mount for the suspension arms inside the cockpit space.
 - ii. It is permitted to make the appropriate modifications (such as removal of metal and welding in replacement panels of the necessary shape) in order to construct a "turret" in the rear wheel arch, inner guard and/or boot area, the purpose of which is to accommodate and mount the top of a damper or combined spring/damper unit.
 - iii. The cockpit space must be effectively sealed from the outside of the vehicle in the area where such modifications are made.

7.23.7. Suspension pivot points are free.

7.23.8. Adjustable strut tops which may have the effect of altering the camber and/or caster are permitted (where applicable, i.e. on McPherson strut equipped vehicles). Modifications are permitted to the bodywork at the point where the strut top is mounted to allow clearance for the strut top.

7.23.9. The addition of braces for strut/damper towers is permitted.

7.24. Steering

7.24.1. Steering is free.

7.24.2. All changes to the original steering layout/system must be accompanied by a certification document signed by an Australian road Authorities' accredited Engineer. Collapsible steering columns are highly recommended.

7.25. Brakes

7.25.1. The brakes are free providing they do not incorporate ceramic materials.

7.25.2. Modifications to fit pedal boxes and/or dual master cylinders are permitted.

7.25.3. Cooling ducts may be added but these must remain within the perimeter of the bodywork when viewed from above.

7.26. Coachwork/Bodywork

7.26.1. The bodywork and body fittings in their entirety must be as supplied by the manufacturer, including materials, save that:

7.26.2. Front mudguards, bonnet, nose panel, boot lid or rear hatch of alternative material are permitted, provided they are of the same external shape as the original panel. The following minimum specifications of alternative materials shall be respected:

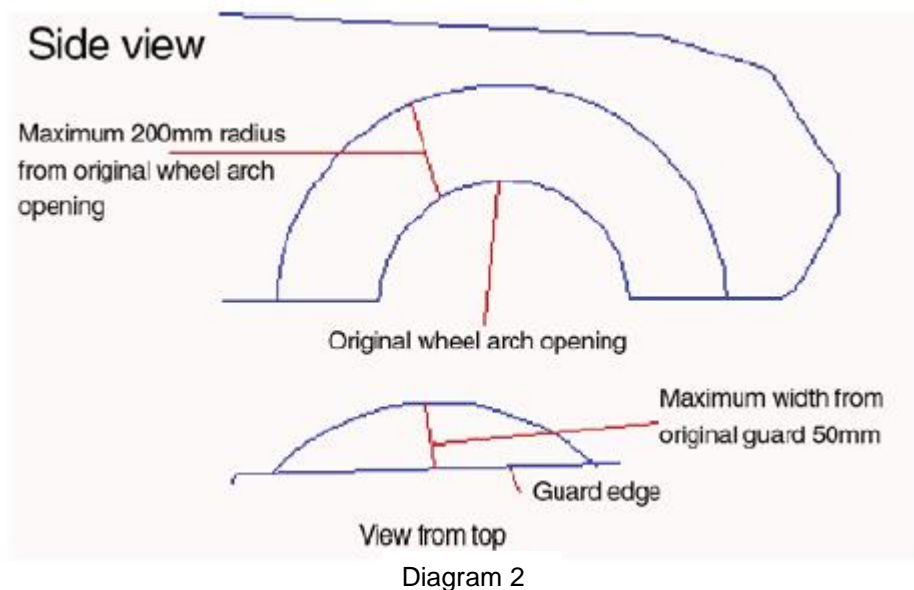
- a) aluminium – 1.25mm thick
- b) glass fibre/glass fibre reinforced plastic – 3mm thick.

7.26.3. The use of any under trays, fairings, scoops, louvres, air intakes or exits is not permitted (except as provided for in 7.25.3 above) unless supplied by the vehicle manufacturer as standard equipment in original production or the competitor can prove their legitimate use on the particular make and model in national or international level rally & circuit racing competition during the period in which the vehicle was manufactured.

7.26.4. Notwithstanding the above, the addition of period style bonnet louvres and engine cooling ducts within the bonnet and/or front valance panel is permitted.

7.26.5. Easily demountable windscreens may be replaced by another screen of a period type.

- 7.26.6. Other glass in all windows except for the windscreen may be replaced by any transparent material of adequate strength (eg, polycarbonate), which must be fixed and operate in the same manner as the glass replaced. Such material shall be not less than 3mm thickness. Safety straps or clips on front and rear windows are permitted.
- 7.26.7. The addition of front and rear aerodynamic aids, side skirts and mudguard/wheel arch flares is permitted provided these are identical with the components originally fitted to a production model of the same body shape and the items are fitted in accordance with the total original package configuration.
- 7.26.8. Where a vehicle does not have access to such components, wheel arch flares may be added by bolt on means only, provided that the increase in the total width of the bodywork is less than 100mm and that the flare may not exceed the radius of the original wheel arch opening by more than 200mm. (Refer to diagram 7 below.) In this case, the maximum track increase allowed is 100mm and for the purpose of wheel and tyre clearance, it is permitted to remove up to 75mm of original bodywork measured radially from the edge of the wheel arch outwards. Any cavity exposed in a door or wheel arch through the removal of metal must be covered by the addition of a metal closing panel. Any body joint protrusions must be rendered safe. The operation of any door must not be affected.
- 7.26.9. Bumper bars and over riders may be removed, or replaced by others of the same shape, but of alternate material.
- 7.26.10. Roof vents may be added provided they are of a style evident in competition prior to 1982.



7.27. Interior

- 7.27.1. Except for the door trim (which shall comply with the Article 7.27.2 below) and dashboard and instrument binnacle, interior and fitments are free. Any remaining trim should be of period style.

7.27.2. Doors - Side trim:

- a) It is permitted to remove the soundproofing material from the doors, provided that this does not modify the shape of the doors. It is permitted to remove the trim from the doors and replace this with a panel made from some form of rigid material (eg. carbon fibre or kevlar, aluminium, fibreglass, masonite), covered in fabric. Alternatively it is permitted to remove the trim from the doors together with their side protection bars in order to install a side protection panel which is made from composite materials.
- b) If the original structure of the doors has not been modified (removal, even partially, of the tubes or reinforcements), the door panels may be made from metal sheeting at least 0.5mm thick, from carbon fibre at least 1mm thick or from another solid and non-combustible material at least 2mm thick and covered in fabric. The rules mentioned above also apply to the trim situated beneath the rear side windows of two-door vehicles. The minimum height of the door's side protection panel must extend from the base of the door to the maximum height of the door strut.

7.27.3. The material from which additional interior brackets, switch panels and other similar fittings are made is free, including the use of carbon fibre or Kevlar.

7.27.4. The removal of heating and air conditioning systems is permitted, providing adequate provision is made for windscreen demisting.

7.28. Electrical

7.28.1. The wiring harness is free. Original instruments may be replaced, provided that they are replaced by items compatible in face, style and size with the other instruments.

7.28.2. A panel incorporating additional/replacement switches and/or circuit breakers may be added. The battery may be replaced by one of free type and may be relocated provided that it is located within an appropriate battery box and securely mounted.

Article 8 – Group 2 Modern - Technical

8.1. Intent

The Technical Regulations are based on the principle that modifications to the vehicle or its components other than those specified below are forbidden.

8.2. General

8.2.1. Each vehicle will have been manufactured after 1981, or be a model/specification which matches that of a vehicle manufactured after to 1981.

8.2.2. Due to the ever increasing levels of performance of modern vehicles, the philosophy of these modern regulations is to allow greater freedoms for vehicles which are noticeably not as fast as others in their production form. Due to the availability of data, 0-60mph times have been chosen as the defining performance criteria.

8.2.3. Only those vehicles which have the level of performance regarded appropriate will be placed in an appropriate class.

Category 3	Early Modern;	1982 to 1990
Category 4	Modern;	1991 to 2003
Category 5	Late Modern;	2004 onwards
Category 6	Showroom;	2000 onwards
Category 7	Modern Diesel;	2000 onwards
Category 8	Category L	ALL

8.2.4. For the purposes of awards, the organisers may combine Periods when there are insufficient entries in a given Category.

8.3. Group 2 (Modern) Capacity Classes

- 8.3.1. All vehicles with V8 engines will be divided into one of two 'age' categories for 'Modern Muscle Cars', all other vehicles will be classified in separate 'age' categories determined by the date of manufacture (except in the case of 'run on' models) which is as follows:

Category 3 Early Modern (1982 to 1990)

8A 0 to 2600cc

8B over 2600cc

Category 4 Modern (1991 to 2003)

9A 0 to 2600cc

9B over 2600cc

Category 5 Late Modern (2004 onwards)

10A 0 to 2600cc

10B over 2600cc

Category 6 Modern Showroom (2000 onwards)

11A 0 to 2600cc

11B over 2600cc

Category 7 Modern Diesel (1997 onwards)

13A All capacities

Category 8 L

Any vehicle that is based on a production model but does not comply with the technical regs. Note: entry will be at the discretion of the Event Director.

8.4. Weight

8.4.1. General

- a) The minimum weight must be in accordance with the organisers imposed minimum or manufacturers original specifications, provided either by details obtained from recognition papers, workshop manuals or sales specifications (in that order of priority).
- b) This weight will be deemed to include all liquid tanks to be at the normal operating levels as foreseen by the vehicle manufacturer.
- c) Minimum competition weight for standard will be established by taking the minimum weight as established in 8.4.1a) above. For Modified, the minimum competition weight shall be established by taking the minimum weight as established in 8.4.1a) above, less 15%.
- d) For the purposes of confirming weight during the competition, the organisers may refer to the minimum competition weight of the vehicle.
- e) If the organisers intend to use competition weight as the reference this intention will be stated in the supplementary regulations for the event.
- f) It is recommended that fuel not be used for ballast as there could be miscalculation by the crew which could result in the vehicle being underweight when measured.

Article 9 – Group 2 Modern – Modifications Permitted

9.1. General

9.1.1. Engine

- a) Cables
 - i. Accelerator cable may be replaced or doubled by another.
 - ii. Drive by wire throttle system may be replaced by a cable operated system.
- b) Ignition
 - i. The make and type of spark plugs and high-tension leads are free.
 - ii. The distributor is free, subject to fitting the standard location.
- c) Cooling System
 - i. The radiator is free, subject to not requiring modifications to the bodywork to fit.
 - ii. The thermostat is free as is the control system and the temperature at which the fan cuts in.
 - iii. The water pump is free.
- d) Induction
 - i. Carburettors: For vehicles fitted with carburettors, the intake manifold is free, and the carburettor/s may be replaced and/or modified providing the number of venturis does not exceed one per cylinder. The air filters and housing are free. The fuel pump and fuel pressure regulator is free.
 - ii. Injection: For naturally-aspirated vehicles fitted with fuel injection, a maximum of one throttle opening per cylinder (eg, butterflies) is permitted, the size of which is free. The inlet manifold, fuel injectors, fuel pressure regulators, air filters and housings are free.
 - iii. For turbo/supercharged vehicles, the injection system other is free. The pipes between the supercharging device and the intercooler and the manifold are free, but their only function must be to channel air.
- e) Engine Management
 - i. The electronic control unit is free.
 - ii. For all vehicles, sensors and actuators on the input side must be standard, as must their function. The rev-limiter is free and a device having only this function may be added.
 - iii. The lubrication system is free. Oil tanks may not be located in the cockpit. There may be no joins in oil lines in the cockpit.
- f) Engine Mounts

The material of the elastic part of the engine mountings is free. The number of the engine mountings must remain standard.

- g) Exhaust
 - i. For naturally-aspirated and mechanically-supercharged vehicles the exhaust is free from the cylinder head, save that it must incorporate a muffler, and exit beyond the 'B' pillar
 - ii. For turbocharged vehicles, the exhaust system is free from the point of exit of the turbo, save that it must incorporate a muffler, and exit beyond the 'B' pillar.
- h) Cylinder head gasket

The material is free, but the thickness must remain standard

- i) Cruising/maximum speed controller

This controller may be disconnected.

- j) Supercharger or turbocharger

- i. Hoses in the turbo system, the purpose of which is to carry air, are free. Boost pressure is free.
- ii. The remainder of the induction system is free including intercoolers, but these must be fitted without any modifications to the external bodywork.

- k) Pulleys

Ancillary pulleys and drive belts are free.

Article 10 Other Modifications Permitted on Naturally Aspirated (NA) Models only:

10.1 Valve train components, including camshaft/s, are free provided the number of valves and their method of actuation (ie, OHV, OHC, DOHC) is retained.

10.2 Engine Internals

- a) Additional mechanical treatments, different from those carried out on the series production part, are allowed to be made to the crankshaft and connecting rods. Eg, shot peening, chemical/heat treatment
- b) Pistons are free
- c) 1mm overbore is permitted

10.3 Cylinder Head

Cylinder head inlet and exhaust ports may be modified only by the removal of metal.

10.4 Flywheel

Free

10.5 Rotary Vehicles:

Modifications to rotary engines rotors, housings and end plates may be affected only by the removal of metal. Rotary engines may be modified by the utilisation of the porting technique/s other than 'Peripheral' porting.

10.6 Gearbox/Transmission/Final Drive

- a) The clutch is free.
- b) The casings and housings must be the same as originally fitted to the vehicle.
- c) The number of forward gears must be standard; otherwise the internal components are free.
- d) The gear change mechanisms must be as originally specified for the vehicle, other than that shortened or 'quick' shifters which do not result in modification to the casings or housings are permitted. Sequential shift mechanisms are permitted.
- e) The internal components of the differential, axles and drive shafts, are free.
- f) Live rear axle equipped vehicles may be modified to incorporate floating rear hubs.

10.7 Chassis / Subframe/ Monocoque

- a) The chassis, sub-frames and any monocoque structure may be prepared to Group N specification and must be otherwise standard except for any modifications to the body shell in the immediate area which may be necessary to permit the fitment of a replacement seat or specified safety equipment.
- b) No part of the modified bodywork may extend any lower than the surrounding bodywork

10.8 Suspension

- a) Strengthening by the addition of metal is permitted, provided it follows the original shape, or contour, and is in contact with it.
- b) Original suspension mounting points may be altered in design, but not in location.
- c) Adjustable strut tops are permitted, providing that there is no modification to the bodywork in order to fit them.
- d) Suspension bushings are free, provided that the design of the bushes is original and be of an elastomeric material. The bush offset of the hole within the bush is free.
- e) Springs and their mountings, dampers and torsion bars are free.
- f) Anti-roll bars and attachments are free; save that they may not be adjustable from the crew compartment. Vehicles fitted with existing cockpit adjustable sway bars shall have either the adjustment system sealed or the actuating rods

removed.

- g) The addition of braces for strut/damper towers is permitted, provided they are only connected to each tower, and are not connected at any other point of the chassis or bodywork. Attachment of such a brace must be by bolts. The design of the brace is otherwise free.

10.9 Steering

- a) Reversal of the driving side is permitted, on the condition that the modified vehicle utilises parts used are foreseen by the manufacturer for such conversion for the model in question or conversions retain the original steering type (rack and pinion etc), must retain the original steering configuration and is accompanied by an engineers certificate signed by an accredited engineer.
- b) Steering ratio is free.

10.10 Brakes

- a) The complete braking system is free. Cooling ducts may be added, but these must be visually acceptable and not require modification of the coachwork.
- b) Modifications to allow fitment of brake pedal boxes and dual master cylinders are permitted.

10.11 Coachwork, Bodywork

- a) The coachwork/bodywork must be original save for Article 11.2.11 b).
- b) Notwithstanding Article 11.2.11 a) above:
 - i. The bodywork and body fittings in its entirety must be as supplied by the manufacturer, including materials, save that:
 - ii. Front mudguards, bonnet, nose panel, boot lid or rear hatch of alternative material are permitted, provided they are of the same external shape as the original panel. The following minimum specifications of alternative materials shall be respected: aluminium – 1.25mm thick; glass fibre/glass fibre reinforced plastic – 3mm thick.
 - iii. Additional air intakes for oil or brake cooling (apart from those fitted outside the bodywork) may only be fitted using original apertures in the bodywork. It is permitted to remove auxiliary lights or blanking plates and use these apertures for cooling ducts.
 - iv. Aerodynamic aids must be as originally fitted to the vehicle series in production. Front and rear spoilers may be made from alternative materials but must retain the original shape and dimensions.

10.12 Interior

- a) The dashboard shall remain as standard apart from additional instruments and switches that may be fitted.
- b) The material from which additional interior brackets, switch panels and other similar fitments are made is free, including the use of carbon fibre or Kevlar.
- c) The rear seat and the luggage compartment cover in hatchback design vehicles may be removed.
- d) The seats occupied by the crew must be replaced with seats complying with these regulations.
- e) All carpets may be removed.
- f) Interior roof lining may be removed and or modified.
- g) Doors - Side trim:
 - i. It is permitted to remove the soundproofing material from the doors, provided that this does not modify the shape of the doors.
 - ii. It is permitted to remove the trim from the doors and replace this with a panel made from some form of rigid material (eg, carbon fibre or Kevlar, aluminium, fibreglass, Masonite), covered in fabric. Alternatively it is permitted to remove the trim from the doors together with their side protection bars in order to install a side protection panel which is made from composite materials.
 - iii. If the original structure of the doors has not been modified (removal, even

partially, of the tubes or reinforcements), the door panels may be made from metal sheeting at least 0.5mm thick, from carbon fibre at least 1mm thick or from another solid and non-combustible material at least 2mm thick. The rules mentioned above also apply to the trim situated beneath the rear side windows of two-door vehicles.

- iv. The minimum height of the door's side protection panel must extend from the base of the door to the maximum height of the door strut.

10.13 Electrical System

- a) The wiring and electrical systems are free.
- b) A panel incorporating additional/replacement switches and/or circuit breakers may be added.
- c) The battery may be replaced by one of free type and may be relocated provided that it is located within an appropriate battery box and securely mounted.

10.14 Wheels & Tyres

- a) Wheels and tyres are free subject to the following:
 - i. The diameter and width of the wheels shall be no greater than the following dimensions, unless fitted as original with larger, in which case the standard wheel dimension is able to be utilised:

Up to 2600cc corrected engine capacity	17" diameter x 9" width
over 2600cc corrected engine capacity	20" diameter x 11" width
 - ii. Tyres must be in accordance with the provisions outlined elsewhere in these regulations.
 - iii. Wheels and tyres must be covered by the mudguards.

Article 11 – Group 2 Showroom/Diesel – Modifications Permitted**11.1. General**

- 11.1.1. This competition is reserved for modern production sports, touring, utility and SUV's of a model manufactured after 1 January 2003 (including run on) as supplied by the vehicle manufacturer.
- 11.1.2. Only modifications to the vehicle specified within these regulations are permitted, all other modifications are forbidden.
- 11.1.3. Factory options and homologated components are not permitted except where these regulations provide specific tolerance.
- 11.1.4. Consumable service parts may only be replaced with genuine parts, or non-genuine parts that are mechanically identical. If a suitable part is not available, application maybe made to the organisers for substitution of that part.
- 11.1.5. Upon request the entrant must present the organisers with a workshop manual in hardcopy or electronic form within a reasonable amount of time.

11.2. Engine

- 11.2.1. The electronic engine control unit (ECU) maybe replaced, re-flashed or intercepted (piggybacked).
- 11.2.2. The wiring loom to the ECU may be modified within the last 100 mm of the plug for the sole purpose of modifying/replacing the ECU. Provision must be made to remove any interceptor or replacement unit and reinstall the original ECU without rewiring.
- 11.2.3. All sensors including fuel injection and ignition system components must otherwise remain as standard. Outputs from the ECU must retain the original functions in accordance with the manufacturers' specifications.
- 11.2.4. All mufflers in the exhaust system are free, but must respect the OEM inlet and outlet pipe dimensions with a maximum size variation of 6%
- 11.2.5. Catalytic converters for diesel powered vehicles maybe replaced with another respecting the OEM inlet and outlet pipe dimensions with a maximum size variation of 3%.
- 11.2.6. Catalytic converters for petrol powered vehicles must remain standard
- 11.2.7. The air conditioning core and all parts on the engine side of the firewall may be removed however no other part of the unit may be removed.

11.3. Gearbox/Trans/Diff

As per the requirements.

11.4. Chassis

As per the requirements.

11.5. Suspension

- 11.5.1. Springs may be replaced by others of the same type, eg, one coil spring may replace another. The spring rate and height is free.
- 11.5.2. Dampers are free, but must retain and standard style spring seat that is not adjustable.
- 11.5.3. Remote canisters are not permitted unless fitted as standard.

11.6. Interior

The interior shall remain as standard apart from:.

- 11.6.1. The seats occupied by the crew must be replaced with seats complying with these regulations.

- 11.6.2. The dashboard shall remain as standard apart from additional instruments and switches that may be fitted.

11.7. Bodywork

- 11.7.1. The bodywork and body fittings in its entirety must be as supplied by the manufacturer
- 11.7.2. Aerodynamic aids must be as originally fitted to the vehicle series in production.
- 11.7.3. Additional air intakes for oil or brake cooling (apart from those fitted outside the bodywork) may only be fitted using original apertures in the bodywork.

11.8. Brakes

- 11.8.1. The brand and compound of brake pad is free.
- 11.8.2. It is permitted to groove standard brake rotors.
- 11.8.3. Rotor dust shields may be removed or adjusted.
- 11.8.4. Cooling ducts may be added, but these must be visually acceptable to the organisers and not require modification to the exterior bodywork, except for removal of fog or secondary driving lights.
- 11.8.5. The pipe used for ducted brake cooling may not exceed a total inside diameter of 100mm per wheel for a minimum 300mm.
- 11.8.6. Hydraulic handrail systems may be fitted with localised trim and modifications permitted.
- 11.8.7. Hydraulic brakes hoses maybe replaced with braided hydraulic brakes hoses.
- 11.8.8. Alternate hose couplings are also permitted.

11.9. Weight

- 11.9.1. The minimum weight must be in accordance with the manufacturers original specifications, provided either by details obtained from the following, manufacturer confirmation, or sales specifications.
- 11.9.2. This weight will be deemed to include all liquid tanks to be at the normal operating levels as foreseen by the vehicle manufacturer.
- 11.9.3. Minimum competition weight will be established by taking the minimum weight as established above.

11.10. Fuel

- 11.10.1. Fuel tanks may be modified or replaced, but must be of safe design. A replacement tank may be fitted and located in the same, or immediately above the standard tanks location.
- 11.10.2. If an FT3 fuel tank is being utilised, a minimum amount of local modification may be made to the boot space bodywork to ensure an appropriate fit, an additional fuel pump may be installed and fuel lines may be modified to suit.
- 11.10.3. Where a replacement tank has been fitted in the cabin space, the tank must be fully sealed from the cabin space occupied by the crew.