

DIVISION “C” – TECHNICAL RULES

C 1. DEFINITIONS

The following terms, with their meanings, are used throughout Division C.

Automobile means a land vehicle propelled by its own means, running on at least four wheels not in a line, which must be normally in contact with the ground and of which at least two must effect the steering and at least two the propulsion.

~~**Ballast** it is permitted to complete the weight of the Car by one or several ballasts provided that they are strong unitary blocks, fixed by means of tools and capable of being sealed by the CTM~~

Bodyshell means the main ~~coachwork~~ structure of an automobile which constitutes the fundamental structure of the automobile. Components such as doors, bonnet, bootlid and mudguards, which are readily demountable, are not deemed to be part of the body shell.

Bodywork/Coachwork means:

externally: all the entirely suspended parts of the Car licked by the airstream; and

internally: all other parts of the bodyshell and the doors.

Car means a V8 Supercar, which are those motor racing automobiles conforming to the eligibility requirements in these Rules.

~~**Cylinder Block** means the crankcase and the cylinders.~~

Engine Capacity means the total volume swept by the upward and downward movement of the pistons in the cylinders of an engine. Engine Capacity will be expressed in cubic centimetres. For all calculations relating to the Engine Capacity of an engine, the symbol π will be regarded as having a value of 3.1416.

Engine Control Unit (ECU) means the electronic unit that controls the spark and fuel settings of an engine.

~~**Exhaust Manifold** means that part collecting together the exhaust gases from the cylinder head and extending to the first joint separating it from the rest of the exhaust system.~~

Family of a Vehicle means different series models belonging to one and the same production series of the same manufacturer. At least the number of automobiles specified in Rule C 2.1 for the category of Car with identical external general lines of the bodywork must have been produced in 12 consecutive months. The material of the bodywork and the wheelbase dimension must be identical.

All models must be available through the normal commercial channels of the manufacturer.

The general external lines of the bodywork may vary in the following details:-

shape and material of front and rear bumpers;

front body panels fitted to automobiles, of which 3500 are produced in twelve consecutive months by the accredited manufacturers of Ford's and Holden's "Special Vehicles";

removable aerodynamic devices (spoilers, wings, sill mouldings);

control and comfort equipment (sun roof, auxiliary lamps, door handles, exterior mirrors, etc); and

decorative strips and mouldings.

Ferrous Material means a material containing at least 80 % of pure iron by weight.

~~**Friction Surface of the Brakes** means surface swept by the pads on both sides of the disc, when the wheel achieves a complete revolution.~~

~~**Fuel Tank** means any container holding fuel likely to flow by any means whatsoever towards the main tank or the engine.~~

ID means inside diameter.

~~**Identical Cars** are those belonging to the same production series and which have the same bodywork (outside and inside), same mechanical components and same bodyshell.~~

~~**Injection System** means all parts collecting air and controlling fuel distribution, from the air intake to the ports of the cylinder head.~~

Intake Manifold means all of the parts collecting air from the air intake and extending to the ports of the cylinder head.

Main Structure means the fully sprung structure of the Car to which the suspension and/or spring loads are transmitted, extending longitudinally from the foremost front suspension on the chassis to the rearmost one and within the lateral protection structures.

Manufacturing Standards it is not permitted to modify components, even though the end result may fall within a permitted range, unless specifically authorised in these Rules.

Mechanical Components means all those components necessary for the propulsion, suspension, steering and braking as well as all accessories whether moving or not which are necessary for their normal working.

Mechanically Identical a component will be considered as being “mechanically identical” if it performs exclusively the original function/s foreseen by the manufacturer and it permits the attachment of any secondary components in the original manner and without modification of those components.

Minimum Weight means the real minimum weight of the empty Car (without persons or luggage aboard). All tanks containing liquids (lubrication, cooling, braking, and heating if necessary) must be filled to the level laid down by the manufacturer, with the exception of the windscreen washer container and that of the brake cooling system if the Car is fitted with one; the exception is the fuel tank/s, which must be empty of fuel.

OD means outside diameter.

Racing Weight means the weight of the Car during any practice, qualifying or race, not including the driver or the driver's racing apparel or helmet. No fuel may be added after the conclusion of any practice, qualifying or race before the Car is weighed.

Rocker Panels means the external body panel extending horizontally from front to rear mudguard panels, and from sill to the lower extremity of the coachwork, when the Car is viewed in side elevation.

Seat means the two surfaces making up the seat cushion and seatback or backrest;

Seatback and Backrest: Surface measured upwards from the bottom of a normally seated person's spine; and

Seat Cushion: Surface measured from the bottom of the same person's spine towards the front.

Sills means those components of the body shell, generally in a horizontal plane, which constitute the lower extent of the door openings.

Spoiler means an attachment to one surface for the purpose of interrupting or “spoiling” the airflow across the surface and thus affecting the lift (or downforce) otherwise achieved.

Vehicle Specification Document means the documents containing the relevant dimensions for a particular model of Car. These documents are detailed in the table below:

Make / Model	Document Title	Approved by
Holden VX & Ford AU	Homologation Papers	TEGA
Holden VY & Ford BA	Vehicle Specification Document	TEGA

Wing means a wing/aerofoil functions on what is termed the “velocity effect” and essentially involves airflow over both upper and lower surfaces of the section. Essentially, the function of a wing/aerofoil is to produce lift (or downforce in the configurations used in motor sport applications).

C 2. GENERAL

All Cars must remain identical in all respects to the specific model from the Family of a Vehicle on which they are based except for the freedoms allowed, and to the extent permitted, by these Rules. For clarification, in these rules, unless it says that you can, then you cannot.

C 2.1 Technical Definition and Class

- 2.1.1 The requirements of this Division C apply to V8 Supercars, which are defined as large-scale Production Touring Cars comprising a specialised class of 5 litre, Australian produced, right hand drive, four door Cars, fitted with pushrod two-valve normally-aspirated V8 engines.
- 2.1.2 There is only one class of Car – the V8 Supercar – with engines of up to 5000cc capacity fitted to Cars of which at least 25,000 examples, meeting the definition of Family of a Vehicle (Rule C 1), must have been produced.

C 2.2 Vehicle / Component Approval

- 2.2.1 To be considered eligible for a Meeting, Cars, cylinder blocks, cylinder heads and aero kits must be as approved by TEGA and detailed in the relevant Vehicle Specification Documents.
- 2.2.2 All Cars must comply with all aspects of the relevant Vehicle Specification Documents and the requirements of this Division C.
- ~~2.2.3 All Cars must be identical in all respects to the Family of a Vehicle on which they are based except for the freedoms allowed, and to the extent permitted, by these Rules.~~

C 2.3 Amendments to the Formula

During its life the V8 Supercar formula will be subject to amendment by the Board of AVESCO ~~in conjunction with CAMS~~ to maintain exciting and entertaining competition.

C 2.4 Jurisdiction for Interpretation

Unless otherwise provided in these Rules, jurisdiction for the interpretation of the requirements in Division C lies entirely with the Stewards who, in cases where a technically complex issue arises, will refer the technical issue to the Category Technical Panel who will determine the technical issue and any determination will be binding (Rule C 3.4); and any question to be determined judicially will be determined by the judicial system as provided by Rules B 2 and C 3.4.

C 2.5 Category Technical Panel

- 2.5.1 The members of the Category Technical Panel will be appointed annually by AVESCO.
- 2.5.2 The Category Technical Panel will comprise of not less than three (3) members, each of whom must be impartial in all their duties and must have no connection with any particular trader's or manufacturer's business which might benefit directly or indirectly from the result of any Meeting.

C 2.6 Repairs

- 2.6.1 Any repairs or replacements must take full account of engineering integrity and safety.
- 2.6.2 The CTMCTD has the right to consider the engineering integrity and safety of any modifications carried out and to require corrective action if appropriate.

C 2.7 Responsibility for Safety

Each Competitor is responsible for all safety aspects of that Competitor's Car/s at all times.

C 2.8 Car Models

While it is permitted to update a model of a Car to a later model of the same Car, it is forbidden to back-date a model of a Car to any previous model of the same Car at any time.

C 2.9 Model Eligibility

Only the following makes/models of Cars as detailed in the table below are eligible for competition in each series:

Eligible models of Cars		
Year / Series	Ford	Holden
2004		
VCS	AU, BA	VX, VY
KVS	AU	VX
2005		
VCS	BA	VY
KVS	AU, BA	VX, VY

C 3. COMPLIANCE

C 3.1 General

- 3.1.1 All Cars must comply with the relevant Vehicle Specification Documents and technical regulations of this Division C.
- 3.1.2 The Competitor is responsible for ensuring that their Cars comply with the conditions of eligibility contained in these Rules throughout each Meeting and all AVESCO authorised activities including all Rides and testing.
- 3.1.3 The presentation of a Car for scrutineering will be deemed to be an implicit statement by the Competitor of conformity with all the Rules in this Division C.

C 3.2 CAMS Log Book

- 3.2.1 All Cars must have a current CAMS Log Book, which will serve as the primary form of identification for a Car under these Rules. It must be delivered by each Competitor to the CTMCTD prior to scrutineering taking place, and the Log Book will be returned to the Competitor at the completion of the Meeting, save in cases where a question relating to a Car's eligibility has arisen.
- 3.2.2 All Cars must correspond with the ~~detailed~~ description contained in the ~~relevant Vehicle Specification Document and the~~ CAMS Log Book issued for that Car; and any variation may result in the Competitor being referred to the Stewards.
- 3.2.3 Should the relevant Log Book not be produced at a Meeting, the Car will not be permitted to participate except upon the explicit authority of the Stewards, subject to whatever conditions they may impose.
- 3.2.4 Requirements
 - 3.2.4.1 CAMS will issue all Log Books which must contain a description and specification of the Car to which it refers, together with such other information as may be required from time to time.
 - 3.2.4.2 Only one Log Book will be issued for each Car (other than by way of extension or replacement), and the possession of two logbooks for any Car at one time will be deemed an offence against these Rules.
 - 3.2.4.3 Each Log Book will always remain the property of CAMS, and must be returned to CAMS upon request.
 - 3.2.4.4 Any alteration to the specifications of a Car, or any change in its bona fide legal ownership, will necessarily involve the return of the Car's Log Book to CAMS for the recording of each alteration or change.
 - 3.2.4.5 Entries in logbooks may be made only by the CTMCTD, the Chief Scrutineer or his deputy, a Steward, ~~a CAMS Technical Commissioner~~, or a permanent employee of CAMS. Such endorsements may be cancelled or noted as having been complied with, only by any of the above persons.
 - 3.2.4.6 No Car for which a Log Book has been issued may compete in, or practice for, any Meeting until it has been inspected by the CTMCTD and subsequently approved.
 - 3.2.4.7 No Car may participate in any test in accordance with Rule D1 unless the AOM has been advised in writing of the Log Book number of the Cars that will participate in such a test.

C 3.3 Examination for Eligibility

- 3.3.1 Should the CTMCTD suspect at any time that a Car does not comply with these Rules, the Competitor, or nominated representative, must be so advised and given the opportunity to comment on the suspected or alleged ineligibility.

- 3.3.2 Any comment so made may be recorded by the CTMCTD, and subsequently may be presented at any Stewards' Inquiry and/or to the Category Technical Panel.
- 3.3.3 Should the CTMCTD fail to receive an adequate comment on the suspected or alleged ineligibility, which the CTMCTD alone has sole discretion to consider as adequate or satisfactory, the CTMCTD may require the Car to be impounded and examined, including such dismantling as may be necessary, to determine the points of eligibility in question.
- 3.3.4 At the direction of the Stewards, any components or parts of a Car may be sealed by the CTMCTD for examination by the Category Technical Panel or by the CTMCTD.

C 3.4 Disputes

In the case of a dispute about a Car's compliance with any of the provisions of Division C:

- 3.4.1 Any technical issue, including the eligibility, of Cars will be referred to the Stewards by the CTMCTD for determination
- 3.4.2 The Stewards will conduct an Inquiry into the issue and may make any decision thereon.
- 3.4.3 If, during any such Inquiry, the Stewards determine that the matter is of a technically complex nature the Stewards may:
 - 3.4.3.1 refer only the technical issue to the Category Technical Panel for a determination;
 - 3.4.3.2 adjourn the Inquiry until the determination of the Category Technical Panel is received; and
 - 3.4.3.3 subsequently resume and complete the Inquiry and make a decision taking into account the determination of the Category Technical Panel.
- 3.4.4 The determination of the Category Technical Panel will be unconditionally binding on any V8 Supercar National Court of Appeal hearing or Stewards' Inquiry in regard to that issue.
- 3.4.5 Any dispute regarding the compliance of a Car with this Division C will be assessed, where appropriate, by the inspection of random samples of the relevant Family of a Vehicle.

C 3.5 Minor Non-Compliance

- 3.5.1 The CTMCTD, having noted an area of minor non-compliance, may endorse the Car's CAMS Log Book with an entry regarding rectification of the non-compliance.
- 3.5.2 Having so endorsed the Car's CAMS Log Book, before the Car is permitted on to the race track, the CTMCTD must send to the Stewards the Log Book and a note in the following form:

"In my view, the minor non-compliance noted in the Log Book of this Car does not improve the performance to such an extent that the Car should be excluded from this Meeting, and thus it may compete in this condition for this Meeting only."
- 3.5.3 Upon receipt of the note referred to in Rule C 3.5.2, the Stewards may then permit the Car to participate in the Meeting subject to the endorsement being countersigned by the Stewards in the Car's Log Book.
- 3.5.4 If the Stewards have specifically approved the participation of a Car notwithstanding an endorsement in its CAMS Log Book pursuant to Rule C 3.5.1, then no protest or complaint on that ground by any other person will be accepted in respect of that Meeting.

C 4 SCRUTINEERING

C 4.1 Onus on Competitor

The onus is on each Competitor to present their Car for scrutineering at the appropriate times, in a complete and finished state, in 'ready to race' condition and with race numbers, advertising signs and the correct functioning of fully charged timing transmitters must be in position on the Car before the Car is presented for scrutineering.

C 4.2 Cars Must be Submitted

All Cars must be submitted to the CTMCTD before practice, and thereafter including post race scrutineering or otherwise as required.

C 4.3 Scrutineering a Precondition

No Car will be permitted to participate in any practice or qualifying session or in any race unless the Car has been checked and approved by the CTMCTD.

C 4.4 Location of Scrutineering

Scrutineering will be carried out at each Competitor's assigned paddock area.

C 4.5 Equipment to be Scrutineered In addition to presentation of the Car for scrutineering, the following equipment must also be presented to the CTMCTD for inspection and approval at all:

4.5.1 Meetings: all driver's equipment such as helmet, overalls, underwear, balaclava, gloves, shoes, etcetera; and 2 x 4.5Kg fire extinguishers.

and

4.5.2 Meetings requiring refuelling during a race: all pit crew apparel, 2 x 4.5 kg fire extinguishers and overhead-refuelling towers (including all components thereof).

C 4.6 Additional Scrutineering

4.6.1 The CTMCTD has unfettered discretion to carry out or require additional scrutineering.

4.6.2 The CTMCTD may authorise or carry out at any time:

4.6.2.1 check the conditions of eligibility of a Car;

4.6.2.2 require a Car to be dismantled by the competitor to make sure that the conditions of eligibility and/or safety are fully satisfied;

4.6.2.3 require a Competitor to supply to the CTMCTD or the Stewards such parts or samples as may be specified by the CTMCTD; and

4.6.2.4 require that any components or parts of a Car be sealed for examination by the Stewards or by the Category Technical Panel.

C 4.7 Post-Scrutineering Changes

If at any time after a Car has been examined and approved, it is dismantled or modified in any way which may affect the safety of the Car or which raises any question about its eligibility, or which is involved in an accident or on-track incident which has similar results, it must be re-presented to the CTMCTD for scrutineering approval prior to being permitted back on the race track.

C 4.8 Prohibition of Unsafe Cars

Any Car may be prohibited by the CTMCTD from any practice or qualifying session or any race for safety reasons.

C 4.9 On Track Incidents

The Clerk of Course, the Race Director or the CTMCTD may require any Car involved in an accident or an on-track incident to be stopped at the pits and further examined and checked.

C 4.10 No Replacement Cars

Unless otherwise specified in the Supplementary Regulations, replacement Cars are not permitted, and a Competitor must only use the one Car which had been originally approved by the CTMCTD at scrutineering for use on the race track.

C 4.11 Delegation by CTMCTD

4.11.1 References to the CTMCTD in Division C automatically includes all nominees appointed by the CTMCTD pursuant to Rule B 10.4.

4.11.2 Checks, examinations and scrutineering will be carried out by duly appointed nominees responsible to the CTMCTD, and such nominees will be responsible and authorised to give instructions to competitors for the operation of the Parc Ferme.

C 4.12 Accidents and Scrutineering

4.12.1 Any body damage incurred by a Car during practice or racing may render it liable to being black-flagged and consequently requiring an immediate return to the pits for examination by the CTMCTD.

4.12.2 Following any necessary rectification and subsequent to a satisfactory examination by the CTMCTD, the Car may rejoin the race track at the discretion of the Clerk of Course or the Race Director.

4.12.3 Any Car withdrawn from any practice or qualifying session or race due to accident damage must be inspected by the CTMCTD before it is permitted to continue to participate in the Meeting.

C 5 CONSTRUCTION AND MODIFICATION

C 5.1 Minimum Weight

- 5.1.1 The minimum weight of a Car is 13550kg excluding the driver and the driver's apparel.
- 5.1.2 The minimum weights stated in C 5.1.1 above must be achieved at all times throughout a Meeting with the exception that during any session or Race in which refuelling is permitted, the minimum weights must be achieved without fuel.
- 5.1.3 In addition to the requirements of C 5.1.1 & C 5.1.2 above, all Cars competing in the VCS must achieve a minimum weight of 1435 kg including the weight of the driver wearing his complete racing apparel as recorded by the CTD at the Driver's first race for the year, both during and immediately after all qualifying sessions and Races. This weight will include the driver and the driver's apparel.
- ~~5.1.2 Minimum weights must be achieved without the driver and any protective apparel.~~
- ~~5.1.2 For races of:~~
 - ~~5.1.2.1 up to 255 km in length, the minimum weight must be complied with at all times during the event; and~~
 - ~~5.1.2.2 more than 255 km in length, the minimum weight of the Car must be achieved without driver, fuel or driver's apparel.~~
- 5.1.4 The minimum front axle weight of a Car, measured at the front axle centreline, is 740kg. This minimum weight must be achieved at all times, without fuel, driver or driver's apparel on board.
- 5.1.5 TEGA~~AVESCO~~ reserves the right at all times to amend the weights of Cars in the interests of equitable competition.

C 5.2 Freedoms Permitted

- 5.2.1 Where in these Rules freedom is permitted to fit specific parts:
 - 5.2.1.1 Holes may be drilled / made to allow the passage or fixing of that part;
 - 5.2.1.2 The minimum local modifications for clearance or mounting purposes only, may be made in the surrounding area; and
 - 5.2.1.3 If the permitted part requires modifications to be made to "mating" parts, then those modifications are authorised.
- 5.2.2 Modifications permitted under these Rules are allowed only on condition that the weights and/or dimensions contained in these Rules and the relevant Vehicle Specification Documents are respected.
- 5.2.3 Unless specifically permitted by these Rules, the use of titanium or titanium alloy in any part of a Car is forbidden.
- 5.2.4 Throughout the Car, the use of any nut, bolt, screw, rivet, weld or adhesive may be replaced by the use of one of the other methods of attachment contained in this Rule.
- ~~5.2.5 Any damaged thread may be repaired by the fitment of an insert, with a similar internal diameter (eg, helicoil).~~

C 5.3 Damage Repairs

- 5.3.1 Restoration of body shape and chassis geometry following accidental damage is permitted by the addition of materials necessary to effect the repairs (eg, body filler, weld metal).
- 5.3.2 Other parts, which are worn or damaged, may not be repaired by the addition or attaching of material unless specifically allowed in these Rules.

C 5.4 Composite Material Permitted

5.4.1 “Composite Material” is defined as being a resin based blend of material reinforced with fibreglass, Kevlar, carbon fibre threads and/or a combination of any or all of these materials.

5.4.2 In addition to the approved components of the aero kit, as approved for use by TEGA, ~~appears in the relevant Vehicle Specification Documents and the driver's seat~~, the following items may be constructed from a composite material:

- Drivers / passengers seat
- Intake trumpets (however not the intake manifold)
- Engine air box and inlet air ducting
- Engine drive belt covers
- Engine component heat shields
- Cooling ducts
- Fuel tank outer skin
- Fuel tank outer skirts
- Door trims
- Instrument fascia, gear box boot cover panel
- Electrical isolation switch
- Steering wheel switch mounts
- Engine management system mounting plate
- Data acquisition mounting plate
- Dry break fuel receiver/vent covers
- False floor (driver comfort)
- Passenger floor (for Meeting Rides only)
- Foot rest
- Left hand mirror “filler” panel
- External fresh air duct
- Attachments to roll-over protection structure for anti side intrusion purposes
- Rocker covers
- Rain light mount
- Rear window brake light housing
- ~~Holden VY~~ Dashboard filler and airbag cover
- Air conditioner mounts and covers

Please note: The components listed in C5.4.2 above must only perform the function as stated in the description and must not be used to provide any secondary benefit.

C 5.5 Manufacturing and Measuring Tolerances

5.5.1 When a Car is being examined, all measurements and tolerances will be those stated in these Rules or the relevant Vehicle Specification Document.

5.5.2 Where a measurement is specified as a maximum or a minimum value, this represents the limit of the permitted variation and no further tolerance will be applied.

5.5.3 All measurements will be taken at ambient temperature.

5.5.4 Any dispute regarding the compliance of a Car with any measurements in this Division C or the relevant Vehicle Specification Document will be assessed, where appropriate, by the inspection of random samples of the relevant Family of a Vehicle.

C 5.6 Vehicle Datums

- 5.6.1 All dimensions relating to the construction and or modification of a Car will be expressed, where appropriate, in terms of a distance from a fixed datum as specified below.
- 5.6.2 For all items that are duplicated symmetrically about the vehicle centreline, the position of the item on the right hand side of the Car only has been stated.
- 5.6.3 **X or Longitudinal datum** – is located on a vertical plane, at right angles to the vehicle centreline, at a specified distance from tooling holes or fixed points in the production bodysell as determined by TEGA. This plane also passes through the specified upper and lower rear trailing arm pivot points. Forward is positive.
- 5.6.4 **Y or Lateral datum** – is the vertical plane which passes through, and is parallel to the longitudinal centreline of the production bodysell, with values on the right hand side of the Car, as viewed from the rear, being positive.
- 5.6.5 **Z or Vertical datum** – ~~follows the concept of “Sill Datum” and~~ is the horizontal plane located at a specified vertical distance from tooling holes or fixed points in the production bodysell as determined by TEGA. Up is positive.

C 5.7 Data Monitors

- 5.7.1 All Cars must be fitted with a functioning data monitor, of a type specified by the CTMCTD, and access to the data monitor must be provided to the CTMCTD at any time upon request.
- 5.7.2 The Competitor must supply ~~at~~ the wiring harness and sensors as specified by the CTMCTD, which will remain the property of the Competitor, this does not affect the operation of any part of this Rule C 5.7.
- 5.7.3 Each Competitor is responsible for ensuring that the wiring and sensors that provide input signals to the data monitor are adequately maintained and remain working at all times.
- 5.7.4 Any cost of rectifying damage (whether accidental or otherwise) to the monitor while in the possession of a Competitor, is the responsibility of the Competitor; and the cost of any damage will be assessed by AVESCO.
- 5.7.5 The CTMCTD will make all decisions in relation to all determinations regarding the installation and operation of the Data Monitor and any interpretation arising therefrom.
- 5.7.6 Competitors may request the CTMCTD to allow access to engine revolution data recorded by their Car to ensure compliance with Rule C 8.1.

C 5.8 Traction Control

- 5.8.1 Traction control is prohibited.
- 5.8.2 The CTMCTD in his sole discretion, which will not be subject to any protest or appeal, has the right to deem any form of program, device, system, component(s), mechanism(s) as traction control.
- 5.8.3 ~~In order to provide wheel speed information for the exclusive use of display and data acquisition instruments it is permitted to fit two (2) of the non-driven wheel hub assemblies with the necessary equipment.~~

C 6. SAFETY EQUIPMENT

6.1 Driver's Seat

- 6.1.1 The driver's seat must be replaced by another of a type homologated by the FIA to the ~~8855 or 8855/1999 standard, and which incorporates a head restraint and has no mechanical adjustment of the rake of the squab.~~

Note: The validity of these seats expires 5 years from the date of manufacture shown on the seat. An additional two year waiver may granted by the seat manufacturer provided the seat is returned to the manufacturer for inspection.

6.2 Safety Harness

- 6.2.1 All Cars must be fitted with a safety harness for each seat fitted in the Car, which safety harness/es complies in all respects with all parts of this Rule C 6.2.
- 6.2.2 The safety harness must comply ~~at least with the requirements of FIA Standard 8853 or 8854, 8853/1998 or 8854/1998~~ and must be fitted and worn as required by Car and Meeting regulations.
- ~~6.2.3 Harnesses for International events must comply with 8853/98 or 8854/98 only.~~
- Note: The validity of these harnesses expires 5 years from the date of manufacture shown on the harness. No extension can be granted.
- 6.2.3 The harness must be securely mounted in at least three points; the shoulder straps mounted behind the driver must be above a line drawn downward from the shoulder at an angle of 40° to the horizontal, and where the two shoulder straps join prior to a common mounting point, then that junction must be at least 150mm behind the driver's neck.
- 6.2.4 In all seat belt/harness mountings, the following must be observed:
- 6.2.4.1 Floor mounting points must be reinforced with a plate of at least 75mm x 50mm on the underside of the body.
- 6.2.4.2 Full harness rear mounting points must be to a substantial part the Car's structure, reinforced as may be appropriate.
- ~~6.2.5 On production based Cars, the original mounting points may be satisfactory.~~
- 6.2.6 The safety harness of any Car involved in any accident must be inspected by the CTMCTD at the relevant Meeting. If appropriate, the CAMS Log Book will be endorsed with a requirement by the CTMCTD that the safety harness be replaced. At the Car's next Meeting, the CTMCTD must be satisfied that the safety harness has been replaced.

C 6.3 Window Nets

All Cars are required to have fitted a driver's side window net, and where any Car is used to carry a passenger while on the race track, the Car must also be fitted with a passenger's side window net; all window nets must comply with ~~the following minimum~~ FIA specifications and specifications:

- 6.3.1 they must cover at least 70% of the area of the relevant window area;
- 6.3.2 they must be permanently attached to the Car Roll Over Protection Structure along the lower edge of the net;
- 6.3.3 they must be fitted to the relevant ~~door or~~ Roll Over Protection Structure above the relevant window;
- 6.3.4 they must be affixed by means of a rapid release system so that, even with the Car inverted it must be possible to detach the mechanism with one hand;
- 6.3.5 for the purposes of Rule C 6.3.4, the rapid release system handle or lever must have coloured markings;
- 6.3.6 the rapid release system may utilise a push button release provided that:
- 6.3.6.1 it respects the requirements of Rule C 6.3.4 and

- 6.3.6.2 the push button must be visible from the outside, be of a contrasting colour and be marked "press".
- 6.3.7 The window net must be installed so as to withstand a 50kg lateral load applied to the centre of the relevant window area, without failure or premature release of the net or attachments.
- 6.3.8 Teams must be aware if rescue officials are in any doubt as to the operation of the release of the safety net, the net will be cut to extract any occupants.
- ~~6.3.9 Any window net where the upper or lower attachment is connected to the door or door frame of a Car, will be acceptable.~~

C 6.4 Roll Over Protection

- 6.4.1 All Cars must be fitted with roll over protection.
- 6.4.2 Approval applications for roll over protection structures must be made to CAMS.
- 6.4.3 All roll over protection structures must comply with the requirements of Appendix J, Article 253 –Article 8: Rollover structures of the 2004 FIA Manual except as follows:
 - 6.4.3.1 No part of any roll over protection structure is to extend more than 100 mm past the top front or the top rear shock absorber mounting point on any Car with a CAMS Log Book first issued after 1 April 1999; and
 - 6.4.3.2 With the exception of a single diagonal member, extending from the top of the windscreen pillar on one side of a Car to the bottom of the windscreen pillar on the opposite side, All Cars are exempt from must comply with the requirements of FIA drawing No. 253-17E.

C 6.5 Fire Extinguisher Systems

All Cars must be fitted with a fire extinguisher system in full working order, which complies with the FIA Standard for Plumbed in Fire Extinguisher Systems in Competition Cars.

- 6.5.1 All fire extinguisher systems must be:
 - 6.5.1.1 minimum of 4.0 litres in capacity;
 - 6.5.1.2 either activated electrically or mechanically;
 - 6.5.1.3 fitted as per the manufacturer's instructions;
 - 6.5.1.4 capable of being activated by the driver in his normal driving position or by a trackside marshal operating a remote actuator located at the lower driver's side edge of the windscreen
 - 6.5.1.5 mounted on the left hand side of the car either inside the cockpit or under the rear passengers floor.

C 7 BODYWORK

The following Rules apply to the approved bodyshell, including bodywork:

C 7.1 Bodyworkshell - General

- 7.1.1 All bodywork and bodyshell panels/components must remain unmodified and must be of the same shape, material and thickness as the Family of a Vehicle on which the V8 Supercar is based.
- 7.1.2 Specific modifications to the bodyshell panels/components are allowed only to the extent permitted under these Rules.
- 7.1.3 Only the parts listed in the Delete Panel List contained in the Vehicle Specification Document for each Car may be removed from the production bodyshell.
- 7.1.4 Any repair work must conform to all requirements of all Rules in this Division C.
- 7.1.5 Strengthening of the fully sprung components of the chassis and bodywork is allowed provided that the material used follows the original shape and is in contact with it. Except as specifically permitted in these Rules, no body cavities may be filled with any substance that is deemed to increase the rigidity of the Car.
- 7.1.6 Weld flanges may be removed from the front chassis rails and the joint butt welded.
- 7.1.7 Any non-metallic insulating, and/or sound deadening or sealing material may be removed.
- 7.1.8 It is permitted to make the minimum modifications to the production bodyshell in and around the rear axle assembly only in order to provide sufficient clearance for the rear axle assembly to achieve maximum wheel travel.
- 7.1.9 It is permitted to reinforce each rear chassis rail with a single tube of a maximum size of 30mm OD x 1.5mm wall thickness, extending from the chassis rail to the roll cage, subject to no part of such reinforcement extending rearward of a plane located at X = -1450.0 mm.
- 7.1.10 Reinforcement of the front suspension pivot points to the body shell may be installed, subject to:
 - 7.1.10.1 No part of such reinforcement extending forward of a plane located at X = 2420.0 mm; and
 - 7.1.10.2 In the case of a MacPherson strut suspension, an upper bar may be fitted provided that the maximum distance between the anchorage point of the bar and the upper articulation point does not exceed 150mm.
- 7.1.11 It is permitted to ~~complete the weight of the Car by fit~~ one or several ballasts to a Car provided that they are strong unitary blocks, fixed by means of tools and capable of being sealed by the ~~CTMCTD~~.

C 7.2 Bodywork - External

- 7.2.1 All approved aerodynamic aids and exterior components, which may be of carbon fibre construction, must be identical to the samples submitted by each manufacturer to TEGA and be used exclusively and in their entirety.
- 7.2.2 For the purpose of providing clearance to front suspension components or the fuel tank, it is permissible to remove material from the front/rear undertray provided that the cut area is suitably reinforced.
- 7.2.3 For all makes/models other than the Ford Falcon BA and the Holden Commodore VY, the “wing” fitted to the rear of the Car must be contained within the perimeter of the original bodywork when viewed from above. Its lateral projection, including end plates etc., must be contained within a square of 260 mm, at any given point. Mountings may extend below that square but must not be of a design likely to act as an “aerodynamic aid” and must remain within the perimeter of the device in plan view. Holes in the approved rear wing mountings are permitted to be added on Cars without approved wing mounting holes, provided that they are less than 10 mm in

- diameter and the wing is contained entirely within the 260mm square, above. All other Cars must use only the approved holes. The upper edge of the 260 mm square is to lie in a plane parallel with the TEGA "Z" datum and 140 mm below the vertical extremity of the roof panel.
- 7.2.4 For the Ford Falcon BA and the Holden Commodore VY, the rear wing must be fitted so that it complies with all dimensions contained in the relevant Vehicle Specification Document.
With the exception of any modifications required, solely to achieve the dimensions contained in the relevant Vehicle Specification Document, the holes provided in the rear wing and the rear wing mounts to facilitate adjustment, must remain identical to those contained in the samples approved and retained by TEGA and must be used exclusively.
- 7.2.5 The sealing of holes in the mudguards is permitted.
- 7.2.6 Windscreen wiper motors, their position and the blades and mechanism are free subject to there being at least one windscreen wiper provided in the driver's line of vision. The windscreen washer device, the washer bottle and their location is free.
- 7.2.7 External decorative strips, the maximum vertical height of which is less than 25mm, may be removed.
- 7.2.8 The fitting and use of pneumatic jacks and the necessary modifications for their fitment is permitted, but no "compressed air" bottle can be carried on board.
- 7.2.9 All external air line fittings must be located in or near the "B" pillar and must be recessed so they are not likely to cause injury, and the air jacks must always be manually operated from the Pit Garage side of the Car during any pit stop.
- 7.2.10 Covering lights
- 7.2.10.1 All external lights with lenses made of glass must be covered by a transparent adhesive film applied to the glass which must effectively prevent any broken glass from being spread onto the race track.
- 7.2.10.2 Headlamp covers may be fitted solely to protect the headlamp glass, and must effect no improvement to the Car's aerodynamic efficiency.
- 7.2.11 The registration plate mountings may be removed.
- 7.2.12 In order to comply with the requirements of Rule C 12.3 or the relevant Vehicle Specification Document as appropriate, the mudguard sheetmetal may be "stretched" by the minimum amount necessary to give 10 mm clearance on the tyre whilst respecting the maximum bodywork width.
- 7.2.13 Any components which act as vibration insulators (eg. engine mounts, gearbox mounts, crossmember mounts) may be replaced with components of similar dimensions and free material.
- 7.2.14 All original closing mechanisms on the bonnet and boot lid must be rendered inoperative, and the fitting of at least two separate fasteners for the front bonnet and rear boot lid are compulsory, notwithstanding the hinging arrangements. The fasteners must be of adequate strength and limited extensibility which must simultaneously hold the bonnet and bootlid closed.
- 7.2.15 The windscreen must be of laminated glass.
- 7.2.16 All tools necessary for the removal of the front and rear bumper bars must be securely attached to the passenger side anti intrusion bar.
- 7.2.17 All Cars must be equipped with at least one front and one rear towing hook which:
- 7.2.17.1 must have an internal diameter of at least 40mm;
- 7.2.17.2 are fitted forward of the front axle and rearwards of the rear axle;
- 7.2.17.3 are clearly visible, the chosen colour must be in contrast to the colour of the bodywork immediately adjacent to the towing eyes;
- 7.2.17.4 the front towing eye must be inside the plan of the original bodywork when viewed from above and must be a "deformable" structure.

- 7.2.17.5 are constructed and fitted in such a way that when a load is applied to the towing eye, parallel to the ground and in a direction facing away from the Car, parallel to the longitudinal centre line of the Car, the towing eye must be capable of drawing the Car over two blocks of 100mm height. These blocks will be of a section 100mm x 200mm, not less than the width of the tyre and will be placed immediately in front of the tyres closest to the towing point being subject to the applied load.
- 7.2.17.6 In order to test the strength of the towing eye, any non-structural bodywork, which interferes with the test, may be removed.
- 7.2.18 If because of damage it is necessary to remove the front windscreen, the rear window must also be removed, and the driver then must wear either a full face helmet and visor or goggles.
- 7.2.19 Any window mounted "NACA" duct must only be used for cooling the driver and must therefore only have the effect of circulating air within the cockpit.

C 7.3 Bodywork - Internal

- 7.3.1 Where the standard seat mountings are not retained ~~or the Car does not comply with the Australian Design Rules for seat mountings~~, the seat must be mounted by not less than four 8mm bolts, and where they are affixed to the unreinforced section of the ~~floor pan~~ Bodyshell, these attachment points must be reinforced by the use of plates of not less than 75mm x 50mm x 3mm.
The minimum thickness of a seat support is 3mm for steel and 5mm for light alloy materials.
- 7.3.2 The mounting of the seat directly to the rollcage is highly recommended.
- 7.3.3 The replacement driver's seat must be located as specified in the relevant Vehicle Specification Document.
- 7.3.4 All Level One Teams must have at least one Car which can be fitted with a passenger seat, safety harness etcetera when required; and such seat must meet all the requirements of Rule C 6.1.1.
- 7.3.5 All other seats may be removed. ~~Any replacement seat may be manufactured in carbon fibre and/or carbon fibre/Kevlar combination.~~
- 7.3.6 All carpets, padding, insulation material and lining may be removed from the cockpit.
- 7.3.7 The original heater and/or air conditioning unit may be removed together with its associated equipment.
- 7.3.8 Pipes carrying fluid through the cockpit must be of adequate strength and quality and must have no connections other than those on the front and/or rear bulkhead. Pipes carrying fluids to authorised accessories, e.g. power steering, may have connections within the cabin.
- 7.3.9 The driver's compartment must be sealed from both the engine and luggage compartments to prevent the passage of flame and/or fluids into the driver's compartment in the event of any leakage. This sealing must include the Car's "C" pillars.
- 7.3.10 Components of the dashboard below a horizontal plane at the top of the glovebox lid may be removed. Fascia panels containing instruments, switches, and controls may be replaced by others of free design.
- 7.3.11 The centre console may be removed.
- 7.3.12 Only the minimum modifications necessary may be made to the dashboard to facilitate the fitting of any data display devices permitted.
- 7.3.13 For all Cars with a CAMS Log Book first issued after 1st January 2002, with the exception of clutch fluid reservoirs, windscreen washer bottles, drivers drink bottles and driver cool suit units, all fluid reservoirs must be mounted outside of the cockpit.

- 7.3.14 It is permitted to make the top of the radiator support panel removable solely to facilitate changing the engine.
- 7.3.15 It is permitted to fit a brace, extending from the lower edge to the upper edge of the front windscreen opening, the sole purpose of which is to support the windscreen in the event of its breakage.

C 7.4 Modification for Mufflers

- 7.4.1 It is permitted to modify the shape of the floor pan to accommodate mufflers, but any such modifications are limited to those surfaces of the floor pan which are located: (a) longitudinally, more than 100 mm behind the joint where the front bulkhead (which isolates the engine compartment from the cockpit) meets the floorpan; and (b) laterally, between the inner edges of the sills.
- 7.4.2 It is permitted to: (a) remove material from the approved side skirt/s to permit the protrusion of the exhaust through the skirt; and (b) fold or remove the seam of the rocker panel to assist with exhaust pipe placement, subject to only the barest work necessary to facilitate this modification being undertaken.
- 7.4.3 Particular attention should be paid to the retention of the original strength and rigidity of the floor.
- 7.4.4 For all makes/models except the Ford Falcon BA and the Holden Commodore VY, the modifications may not vary the height of the floor plan by more than 100 mm.
- 7.4.5 For the Ford Falcon BA and the Holden Commodore VY, the maximum height of the modifications permitted under C 7.4 is detailed in the relevant Vehicle Specification Document.
- 7.4.6 The modifications permitted under C 7.4 must not be used for any purpose other than to allow the fitment of mufflers and no other components may impinge on the surface defined by the original floor pan.

C 7.5 Doors

- 7.5.1 The side anti-intrusion bars may be removed from doors subject to the roll over protection structure providing lateral protection in the same general area.
- 7.5.2 The sliding window may be removed from the driver's door only if polyurethane foam is added to fill the resultant cavity of the driver's door.
- 7.5.3 The window winder mechanism may be removed from all doors.
- 7.5.4 The sliding windows in the rear doors may be removed only if they are replaced with a clear polycarbonate insert.
- 7.5.5 The inner door panels may be removed from all doors except for the driver's door.
- 7.5.6 The original interior door trim may be re-manufactured provided the external shape is similar. The interior door trim may be locally modified to permit the fitment of the rollover protection structure, a rollover bar.

C 7.6 Windows

Subject to freedoms permitted in these Rules, all windows must remain identical to those of the production automobile upon which the Car is based; windows must not be coloured or tinted. It is however permitted to fit transparent anti-fog protection film to the inside surface of the windows.

C 7.7 Rear Vision Mirrors

- 7.7.1 All Cars must be fitted with an internal rear vision mirror which has a reflecting surface of at least 5000 square mm, and the mirror must provide an unobstructed view to the rear of the Car.
- 7.7.2 All Cars must also be fitted with at least one external rear vision mirror on the driver's side of the Car.

All external mirrors fitted must remain as supplied on the production vehicle on which the V8 Supercar is based.

C 7.8 Tailshaft Loops

- 7.8.1 All Cars must be fitted with full circle tailshaft loops which must be constructed so that, in the event of tailshaft failure, the tailshaft, its components and mountings will be effectively prevented from contact with the ground.
- 7.8.2 The tailshaft loops must be made of steel strap of 30 x 5 mm minimum and be securely attached to a reinforced area of the bodyshell.

C 7.9 Additional Accessories

- 7.9.1 All accessories which have no influence on the Car's behaviour are allowed, for example equipment which improves the aesthetics or comfort of the Car interior (lighting, heating etc). In no case may these accessories increase the engine power or influence the steering, transmission, brakes or road holding even in an indirect fashion.
- 7.9.2 The horn may be removed or replaced.
- 7.9.3 Other than the Bodywork, and the approved aerodynamic aids, no part of a Car is permitted which, in the opinion of the CTMCTD, actually or potentially increases downforce; and no appeal or protest will lie against the written opinion of the CTMCTD in this regard.

C8 ENGINE

C8.1 Engine – General

- 8.1.1 Each make/model of Car must only be fitted with a cylinder block and cylinder heads as detailed in the relevant vehicle Specification Documents;
- 8.1.2 The maximum Engine Capacity permitted is 5000cc;
- 8.1.3 The compression ratio must not exceed 10.0:1.
- 8.1.4 The engine must not produce power above 7500 rpm.
- 8.1.5 All engines must have suitable provision for both the cylinder heads and the sump to be sealed to the cylinder block so that the cylinder heads and the sump are not able to be removed. Once an engine has been sealed by the CTD, the seals must remain intact and legible at all times. These seals must only be removed by the CTD or with the express prior approval of, and subject to the conditions of, the CTD.
- 8.1.6 The minimum engine component weights stated in Rules C8.4, C8.5 & C8.6 must be complied with at all times during any Meeting. It is permitted to use components which do not comply with these minimum weights during Rides and Testing.

C 8.2 Cylinder Block

The following conditions apply to the approved cylinder block:

- 8.2.1 the bore size must be 101.473mm or greater;
- 8.2.2 the fitment of sleeves to the cylinders is permitted;
- 8.2.3 the nominal section of each cylinder must be circular;
- 8.2.4 the location of the cylinder block within the body shell, as measured from the front edge of the oil pan mounting flange must be as stated in the relevant Vehicle Specification Document.
- 8.2.5 The axis of the crankshaft (the pitch angle of the engine) must be a minimum of 2 degrees and a maximum of 4 degrees downwards to the rear with respect to the TEGA “Z” datum;
- 8.2.6 the engine mounts are free but not their number nor position; and
- 8.2.7 the cylinder head face must remain at 90° to the cylinder bore centreline.
- 8.2.8 It is permitted to add or remove material to or from the cylinder block, subject to: the integrity of the original casting of the cylinder block being respected; and that no attempt is made to vary the basic design of the cylinder block beyond modifications permitted in these Rules; and
- 8.2.9 it must always be possible for the cylinder block to be identified as the approved cylinder block.

C 8.3 Cylinder Head

Subject to the Rules contained in Division C and the dimensions contained in the relevant Vehicle Specification Document,

- 8.3.1 modifications to the cylinder head are free, save for the following:
- 8.3.2 It is permitted to add material to the cylinder head provided that the integrity of the original casting is respected and that no attempt is made to vary the basic design of the approved component beyond the permitted modifications and that it must always be possible for the cylinder head to be identified as the approved part.
- 8.3.3 The original spark plug location must be retained in all respects.
- 8.3.4 It is permitted to use valves, valve spring retainers and collets manufactured from Titanium alloy.
- 8.3.5 Valves may only be opened by mechanical action and closed by means of coil springs.
- 8.3.6 For all Ford, and ~~“2003” specification~~ Holden Motor Sport (VY) engines, the maximum inlet valve diameter is 53.97mm (2.125 inches).

C 8.4 Pistons

- 8.4.1 No part of the piston may protrude beyond the cylinder head face of the cylinder block when the piston is at TDC.
- 8.4.2 The minimum weight of each piston including the piston pin, but not including the piston rings or retainers, is 500 grams.

C 8.5 Connecting Rods

- 8.5.1 Connecting rods must only be made of Ferrous Material.
- 8.5.2 The minimum weight of each connecting rod including the connecting rod bolts, nuts and washers but not including the 'big end' bearings is 500 grams.

C8.6 Crankshaft

- 8.6.1 The crankshaft must respect the approved crankpin phasing and throw angles as detailed in the relevant Vehicle Specification Document.
- 8.6.2 The stroke of the crankshaft must be a maximum of 77.2 mm and a minimum of 75.2mm.
- 8.6.3 The minimum crankshaft 'big end' journal diameter is 47.45 mm.
- 8.6.4 The minimum crankshaft 'main' journal diameter is 56.65 mm.
- 8.6.5 The minimum weight of any crankshaft is 16.5 Kg including the spigot bearing/bush, but not including any keys, bolts or other external drive components.

C 8.7 Other Engine Components

- 8.7.1 Subject to these Rules, all of the other components necessary for the functioning of the engine including exhaust systems, and the lubrication system are free.
- 8.7.2 Where a dry sump system is utilised, the engine oil pressure/scavenge pump assembly must be mounted at the front of the cylinder block (to either side) and be belt driven via an adaptor, off the nose of the crankshaft.
- 8.7.3 All Cars must be fitted with crankcase/oil tank breather/s discharging to the atmosphere and have fitted to such breather/s an oil-trap container (which must be empty at the start of competition) of at least 3 litres capacity.
- 8.7.4 Camshafts are free, but not their number and location, which must remain as approved, and any device which varies the valve timing whilst the engine is operating is prohibited.
- 8.7.7 The flywheel must be made of steel.
- 8.7.8 The flywheel ring-gear must either be an integral part of the flywheel itself or must be attached to the flywheel in the same manner as in the original automobile from which the Car has been derived.

C 8.8 Inlet System

The inlet/induction system is free, except that:

- 8.8.1 The engine must be normally aspirated;
- 8.8.2 Water injection is prohibited;
- 8.8.2 With the exception of ambient atmospheric air and the specified control fuel, approved for use in the category by TEGA, no other substance may be added to the intake charge of the engine.
- 8.8.3 Any device which alters the configuration of the inlet manifold, induction system (eg, moveable inlet rams) or exhaust while the engine is operating is prohibited;
- 8.8.4 Throttle actuation must be exclusively by "butterfly" for all Cars, ~~fitted with cylinder heads of material other than cast iron;~~
- 8.8.5 There must be a direct mechanical connection from the accelerator pedal to the throttle/s of the engine, so the energy used to activate the throttle/s must be

- exclusively generated and controlled by the driver's foot. This mechanical link must maintain a fixed relationship between the throttle pedal and the butterfly;
- 8.8.6 With the exception of the full throttle stop and idle adjuster, any device which allows the throttle to be artificially positioned by resisting the force of either the driver's foot or the throttle return mechanism is prohibited;
- 8.8.7 ~~Each~~The throttle linkages must be fitted with suitable return springs, which in the event of a failure in the throttle linkage, will return each throttle to the closed position.
- 8.8.8 The maximum fuel pressure permitted at any time is 5.5 bar.

C 8.9 Exhaust System

- 8.9.1 All Cars must be fitted with an exhaust system, the outlet pipe/s of which must be directed either rearwards or sideways.
- 8.9.2 If directed rearwards, outlet pipe orifices must be between 100mm and 450mm above the ground and they must not protrude by more than 50mm beyond the rearmost portion of the Car.
- 8.9.3 If directed sideways, outlet pipe orifices must be located aft of a vertical plane passing through the midpoint of the wheelbase.
- 8.9.4 In any case, outlet pipe orifices must neither project in any way beyond the maximum width of the ~~each~~Bodywork, nor terminate at a point more than 50mm outside the adjacent ~~each~~Bodywork.
- 8.9.5 All exhaust pipes must be adequately protected in order to prevent burns.
- 8.9.6 The exhaust system must be a complete and contiguous unit and exhaust gas may exit only at the end of the system.
- 8.9.7 No component of the chassis may be used to evacuate exhaust gases.
- 8.9.8 All Cars must be fitted with effective mufflers which diminish the sound of the engine exhaust so that the maximum exhaust noise does not exceed 95dB(A) measured at 30 metres from the side of the track by approved measuring equipment.

C 8.10 Cooling System

- 8.10.1 Subject to other parts of this Rule C 8.10, the cooling system, including the water pump, fans, screens and catch tanks are free.
- 8.10.2 The water pump must be driven directly by the crankshaft via a belt and must be mounted in the same position as in the production automobile from which the Car is derived.
- 8.10.3 The cooling system must be arranged so the general direction of flow of engine coolant is from the radiator to the cylinder block and then to the cylinder heads.
- 8.10.4 A replacement radiator may be fitted subject to:
- 8.10.4.1 there being no modification to the bodywork; and
 - 8.10.4.2 it being fitted in the same general location relative to the engine.
- 8.10.5 Ducting to the front face of the radiator is permitted within the perimeter of the bodywork but not lower than the lower edge of the front bumper.
- 8.10.6 Ducting of air from the rear of the radiator is prohibited.
- 8.10.7 Engine oil radiators are free and ducting to them is permitted, subject to the radiator/s and associated ducting being located within the perimeter of the bodywork and not lower than the lower edge of the front bumper.
- 8.10.8 No part of any ducting – whatever the purpose of such ducting – is permitted forward of a line drawn between the upper and lower edges of the rear opening in the approved front bumper.

C 8.11 Engine Control

- 8.11.1 All Cars must only be fitted with one (1) TEGA Control ECU at all times while participating in any Meeting or test day.

8.11.2 This TEGA Control ECU must, at all times;

8.11.2.1 not be disassembled or modified in any way and seals and markings must remain intact and legible, and

8.11.2.2 run only the approved version of software as loaded into the ECU when supplied by TEGA, and

8.11.2.3 exclusively control the spark and fuel settings of the engine, and

8.11.2.4 only receive inputs from sensors as specified in the approved ECU sensor list in addition to the gear change ignition cut and the pit lane limit switch, and

8.11.2.5 only provide output signals to the ignition module, ~~ignition coil~~ and injectors as specified in the ECU actuator list in addition to the Control ECU warning light and the fuel pump relay, and

8.11.2.6 only be connected to the ECU loom as specified in the requirements for the Control ECU loom.

8.11.3 The TEGA Control ECU always remains the property of TEGA and must be returned to TEGA upon the request of the CTMCTD.

8.11.4 Control ECU Sensors

Each Car must only be fitted with type and quantity of ECU sensors detailed in the table below which must be the only components that provide input signals to the Control ECU.

ECU Sensor	Qty	Manufacturer	Part number
Crankshaft position	1	Honeywell	IGT101DC
		Delco	10456555
Camshaft position	1	Honeywell	2AV54
		Honeywell	4AV series
		Siemens	HKZ101 / HKZ121
Throttle position	1	Nanjing Huamin Electronics Co Ltd	HME 101
		CTS	518-06500
		CTS	518-06502
		Bosch	0261 211 003
		Bosch	0280 122 001
		Novatechnic	SP2841S0002
		Gefran	PZ150
		Spectrol	971-0002
Engine air temperature	1	Keystone Thermometrics	25037334
		Delco	2503 7388
Manifold air pressure	1	Delphi	12219931
Engine coolant temperature	1	Bosch	028 013 0026
		Bosch	028 013 0023
Please note the following:			
- Siemens Part No. HKZ121 supersedes HKZ101			
- ECU sensors may be subjected to destructive testing			

8.11.5 All ECU sensors must remain identifiable and unmodified, except as required solely to facilitate mounting.

8.11.6 Control ECU Actuators

Each Car must only be fitted with type and quantity of ECU actuators detailed in the table below which must be the only components that receive signals from the Control ECU.

Actuators	Qty	Manufacturer	Part number
Ignition Module	1	M&W	CDI 010/M
Ignition Coil	1	Crane Cams	PS 92
Injectors	8	Bosch	0280 150 351 / 0280 150 363
		Bosch	0280 150 036
		Rochester	D 04917104 988
		Rochester / <u>Delphi</u>	D 04917104 989 / <u>3213 17113744</u>
Please note the following: - Bosch Part No. 0280 150 363 supersedes 0280 150 351 - <u>Delphi Part No. 3213 17113744 supersedes Rochester</u> - <u>Part No. D 04917104 989</u> - ECU actuators may be subjected to destructive testing			

8.11.7 All ECU actuators must remain identifiable and unmodified, except as required solely to facilitate mounting.

8.11.8 Control ECU loom

The wiring loom which connects the Control ECU to the ECU sensors, ECU actuators and the rest of the car through the body connector, must conform to the Control ECU loom schematic as contained in Schedule C4.

8.11.9 Except for connectors which are only connected “pin to pin”, the Control ECU loom must not contain any additional wiring, circuitry, connectors, break outs or components except as detailed in the Control ECU loom schematic.

8.11.10 The Control ECU loom must remain visible along its length, be separate from all other wiring and be easily removed from Car.

8.11.11 The ignition timing of any engine must not vary by more than six (6) degrees while the engine is above 4,000 rpm and above ten percent (10%) throttle opening.

C 8.12 Pit Lane Speed Limiter

At all Meetings Cars must be fitted with a functioning pit lane speed limiter (“Limiter”), which must only operate as follows:

8.12.1 The Limiter must only operate using a secondary engine speed limit (rpm limit) which must always be set below 3000 rpm and must only be activated by a switch operated by the driver.

8.12.2 The switch that is used to activate the Limiter must be connected directly to an engine management system input and must not be connected to any other device.

8.12.3 The Limiter must be activated at all times while a Car is moving in Pit Lane.

~~8.12.4 The Limiter must not operate above 4000 rpm.~~

8.12.5 The engine rev limiting function used for the Limiter must include a complete ignition cut of the engine.

~~8.12.6 Once the switch that is used to activate the Limiter has been turned off, the engine management system must return immediately to the 7500 rpm limit.~~

Note: Regardless of the Limiter, each Team always remains responsible for ensuring that the pit lane speed limit is respected; the Limiter does not use a road speed input for any part of its operation.

C8.12 Engine Speed Limit

~~8.12.7 Except for the operation of the Pit Lane Speed Limiter (Rule C 6.7), under no circumstances may any device provide any engine revolution limiting function under 7250 rpm.~~

C8.13 Engine Change - General

8.13.1 The engine fitted to a Car when it is presented for scrutineering at a Meeting will be marked and recorded by the CTD. It is the responsibility of each Competitor to ensure that this marking remains intact and legible at all times.

8.13.2 The engine fitted to a Car must not be changed without the prior express approval of the CTD. Save for C8.15.1, the approval to change an engine will only be given if it can be verified by the CTD that the engine has suffered a mechanical failure.

8.13.3 For the avoidance of doubt, an engine change is defined as:

- the removal and replacement of an engine; or
- the breaking of any seals attached to the engine so as to allow the removal of either the cylinder head/s or the sump.

8.13.4 If an engine change is approved by the CTD, the replacement engine must be marked and recorded by the CTD prior to its use. It is the responsibility of each Competitor to ensure that this marking remains intact and legible at all times. The CTD must advise the Stewards that the approval to change an engine has been given.

8.13.5 On a maximum of two (2) occasions only during the course of the Championship, at a Sprint Round, a Team will be permitted to conduct an engine change in a Car after the commencement of the first qualifying session without incurring a penalty as prescribed in rules 8.14.2 and 8.14.3.

C8.14 Engine Change - Sprint Rounds

8.14.1 Subject to C8.13.3, if an engine change is approved by the CTD prior to the start of the first Race, the relevant Car will have its qualifying times disallowed and will be placed at the back of the starting grid for Race 1.

8.14.2 If an engine change is approved by the CTD following any subsequent Race, the relevant Car will be placed at the back of the starting grid for the next Race of that Meeting.

C8.15 Engine Change – Endurance Rounds

8.15.1 If an engine change is approved by the CTD in addition to that permitted in C8.13.3, the relevant Car will have its qualifying times disallowed and will be placed at the back of the starting grid for the Race.

C8.16 Engine Eligibility

8.16.1 A Holden Commodore VY may only be fitted with a Holden 18 Degree engine until such time as it has been updated to a Holden Motor Sport engine where after it must commence every subsequent Meeting with a Holden Motor Sport engine fitted.

8.16.2 A Driver may only change the specification of the engine used in his Car (either from the Holden 18 Degree engine to the Holden Motor Sport engine or from the Holden Motor Sport engine to the Holden 18 Degree engine) once during the course of any season. Thereafter the Driver will be required to start each and every event in a Car with the engine specification to which he or she has changed.

C 9. TRANSMISSION / DRIVELINE

C9.1 General

- 9.1.1 With the exception of those matters contained in Schedule C 3, the final drive ratios listed in Rule C 9.5.6 and the following matters listed in this Rule, all other components of the drive train, including the axles are free.
- 9.1.2 Additional oil radiators and pumps for the gearbox and final drive assembly are allowed within the external perimeter of the bodywork, and air may be ducted to them but no aerodynamic benefit may be derived from such ducting and the external appearance of the Car must remain unchanged.

C 9.2 Clutch

All Cars must be fitted with a clutch which, subject to the requirements of this Rule, is free:

- 9.2.1 The clutch must only have 3 driven plates that transmit torque directly to the input shaft of the gearbox.
- 9.2.2 The clutch must be controlled exclusively by the driver's foot via a mechanical and/or hydraulic actuation system;
- 9.2.3 The clamping force which acts on the friction surfaces must be derived solely from a diaphragm spring;
- 9.2.4 With the exception of the fixed pedal stops, any device which allows the clutch to be artificially positioned, or its speed of engagement to be varied by resisting the force of either the driver's foot or the diaphragm spring, is prohibited;
- 9.2.5 The clutch driven plate/s must be of at least 180mm diameter;
- 9.2.6 The use of titanium and carbon fibre components is permitted;
- 9.2.7 Any device which allows or facilitates any aspect of clutch operation to be monitored in any way is forbidden; and
- 9.2.8 The force required to disengage the clutch must only be applied towards the flywheel.

C 9.3 Gearbox

The gearbox must comply with all of the requirements of the gearbox specification contained in Schedule C 3 of these Rules and:

- 9.3.1 there must be six (6) forward gears, the ratios of which must be those listed in the following table:

Gear	Ratio	Tooth Count
1 st	2.57:1	14/33
2 nd	1.99:1	17/31
3 rd	1.66:1	19/29
4 th	1.35:1	21/26
5 th	1.14:1	23/24
6 th	1.00:1	Constant Mesh 22/24

- 9.3.2 the gearbox having an operable reverse gear;
- 9.3.3 the input shaft being in line with the output shaft; only one other shaft is permitted;
- 9.3.4 the maximum dimension from the cylinder block/bell housing face to the rear of the gearbox casing(excluding the extension housing) being 745 mm.;
- 9.3.5 all gears being selected by the driver exclusively via a non-sequential mechanical linkage which permits "H" pattern gear change mechanisms only;
- 9.3.6 the use of any electronic, hydraulic or pneumatic gear selection device or assistance thereto is prohibited;
- 9.3.7 gearbox to chassis crossmembers and mountings are free;
- 9.3.8 dry sump gearboxes using pressurised lubrication systems are forbidden;

9.3.9 A gear lever mounted switch, which must only provide a gear shift cut signal to the ECU may be fitted. This gear shift cut must only operate above an engine speed of 7250 rpm.

C 9.4 Tailshaft

9.4.1 The tail shaft must be made of Ferrous Material.

C 9.5 Rear Axle Assembly

The rear axle assembly is free except for the following matters:

9.5.1 The minimum weight of the rear axle assembly is 110 kg, which is the unsprung weight of the unit as it would be used in practice, qualifying and racing, with the complete rear wheels removed and with all ancillary components disconnected (eg. shock absorbers, lateral suspension and anti-sway bar links, brake lines, electrical wiring lubrication hoses etcetera).

9.5.1.1 The components referred to in Rule C 9.5.1 must be disconnected at the joint nearest the rear axle housing; and

9.5.1.2 The longitudinal suspension trailing arms must be attached at both the body/chassis unit and the rear axle housing and all pivot arrangements must move freely; and

9.5.1.3 The tailshaft must remain connected at both ends.

9.5.2 The final drive must contain a spool made of Ferrous Material and must not incorporate any differential action.

9.5.3. The crown wheel and pinion must be of hypoid design and must conform to the requirements of the final drive specification contained in Schedule C 3.

9.5.4 The rear axles (drive shafts) must be co-axial to each other and be parallel to the ground for a distance of 600mm each side of the longitudinal centre line of the Car.

9.5.5 The use of drop gears are not permitted anywhere in the rear axle assembly.

9.5.6 Only the following listed final drive ratios will be permitted at the following circuits:

Circuit	Final Drive Ratio	Teeth
Adelaide Parklands	3.7:1	37/10
Albert Park	3.7:1	37/10
Barbagallo	3.5:1	35/10
Bathurst	3.25:1	39/12
<u>China</u>	<u>TBA</u>	<u>TBA</u>
Eastern Creek	3.5:1	35/10
Hidden Valley	3.5:1	35/10
Mallala	3.7:1	37/10
Oran Park	3.7:1	37/10
Philip Island	3.25:1	39/12
Pukekohe	3.5:1	35/10
Queensland Raceway	3.5:1	35/10
Sandown	3.5:1	35/10
Surfers Paradise	3.5:1	35/10
Wakefield Park	3.7:1	37/10
Winton	3.7:1	37/10

C 10 SUSPENSION

C 10.1 General

The suspension is free except that:

- 10.1.1 the type of suspension and springing medium must always be as stated in the relevant Vehicle Specification Document.
- 10.1.2 the number and position of the suspension pivot points, as detailed in the relevant Vehicle Specification Document, must be used in their entirety and exclusively.
- 10.1.3 The lateral location of the rear axle may be by Panhard rod or Watts link only, the mounting points for which are free.
- 10.1.4 The detachable front suspension cross-member is free, on condition that:
 - 10.1.4.1 it is possible to remove it from the Car (no attachment by welding), and
 - 10.1.4.2 the suspension pivot points are not altered from the approved location, save for those freedoms allowed in Rule C 10.2; and
 - 10.1.4.3 it utilises the two (2) rear mounting points as provided for this purpose in the automobile from which the Car was derived.

C 10.2 Suspension Pivot Points

- 10.2.1 For the Ford Falcon BA and the Holden Commodore VY only, the suspension pivot points on the body/chassis may only be relocated up to 20mm vertically from the approved point. This point must be used as the pivot point for the suspension (eg, no extension or relocation of this part of the suspension is permitted).
- 10.2.2 For all makes/models other than the Ford Falcon BA and the Holden Commodore VY, the suspension pivot points on the body/chassis may be relocated within a 20mm radius of the approved points and such points must be used as the pivot point for the suspension (eg, no extension or relocation of this part of the suspension is permitted).

C 10.3 Anti-Roll Bars

Anti roll bars must be of the same basic design as those fitted to the production automobile on which the Car is based, except for the following:

- 10.3.1 Adjustment of the stiffness of an anti roll bar from within the cockpit is permitted.
- 10.3.2 Anti roll bars may be mounted to the body shell or to the rear axle housing.
- 10.3.3 All links connecting the anti roll bar to the suspension or the bodyshell must be of a fixed length.
- 10.3.4 A rocker, which varies the motion ratio between the anti roll bar and bodyshell or suspension is permitted.

C 10.4 Shock Absorbers

Shock absorbers are free subject to:

- 10.4.1 Adjustment of any shock absorber from the cockpit is forbidden;
- 10.4.2 All damper units must function independently of each other, i.e. no connections are permitted between units;
- 10.4.3 Material may be removed from MacPherson strut towers solely in order to facilitate the use of adjustable shock absorbers;
- 10.4.4 The shock absorber mounts on the body/chassis may be relocated within a 20 mm radius of the approved point except where MacPherson strut suspension is specified;
- 10.4.5 Where Mac Pherson Strut suspension is specified, the shock absorber mounts must remain fixed as stated in the relevant Vehicle Specification Document;
- 10.4.6 The use of electronically adjustable shock absorbers is forbidden;
- 10.4.7 Only one (1) shock absorber per wheel is permitted; and

- 10.4.8 Only four (4) shock absorber characteristics that can be adjusted from the outside of each shock absorber is permitted, but this number does not include shock absorber gas pressure adjustment.
- 10.4.9 For the Ford Falcon BA and the Holden Commodore VY models only:
 - 10.4.9.1 the shock absorbers will be deemed to pivot and mount to the body/chassis at the same point. The location of this point must comply with all other parts of C 10.4, and
 - 10.4.9.2 the coil springs fitted to the front and rear suspension must only be mounted on the shock absorber in a “coil over” configuration, and
 - 10.4.9.3 the shock absorber / spring assembly fitted to the front suspension must be mounted to the body/chassis as detailed in C10.4 and must attach directly to the lower wishbone.

C 10.5 Suspension Adjustment

- 10.5.1 Where these Rules permit the adjustment of the suspension of a Car, the force required to make such an adjustment must only be generated and controlled as follows:
 - 10.5.1.1 By a member of the Team permitted to work on the Car, while the Car is stationary; or
 - 10.5.1.2 By the driver, seated normally in the Car with the safety harness correctly fastened, when these Rules permit such an adjustment by the driver or from within the cockpit.
- 10.5.2 Any device which allows the front or rear roll centre of a Car to be altered or adjusted from the cockpit is forbidden.
- 10.5.3 Any device or system which does, or has the capacity to do, adjust the ride height of a moving Car is forbidden.

C 11 BRAKES AND STEERING

C 11.1 Brakes

- 11.1.1 All Cars must be fitted with a dual circuit braking system operated by the same pedal. The pedal shall normally control all the wheels. In the case of leakage at any point of the brake system, its pipes or any kind of failure in the brake system, the pedal must still control at least two wheels.
- 11.1.2 Pedals and pedal boxes are free, and the firewall and/or floorpan may be locally modified only to the extent required to facilitate the fitment of master cylinders and/or pedal boxes.
- 11.1.3 The complete brake hydraulic system (including calipers, lines and hydraulic cylinders) is free except for the following restrictions:
 - 11.1.3.1 the maximum number of pistons in each caliper is restricted to six (6);
 - 11.1.3.2 only one (1) brake caliper and two (2) brake pads per wheel are permitted;
 - 11.1.3.3 No system will be permitted on a Car which can retract the caliper pistons for the purpose of a pad change.
- 11.1.4 Brake caliper bodies must only be made of aluminum materials with a modulus of elasticity no greater than 80 Gpa.
- 11.1.5 The brake caliper pistons may be made of titanium alloy.
- 11.1.6 Brake discs must be made of Ferrous Material metal and conform to the following specifications:
 - 11.1.6.1 the maximum brake disc diameter must not exceed 376 mm; and
 - 11.1.6.2 the maximum brake disc thickness must not exceed 35.56 mm.
- 11.1.7 In order to provide air for the cooling of the brakes of each wheel, it is permitted to fit a duct to each, the intake of which must be situated wholly within the perimeter of the bodywork and not below any point on the lower edge of the front bumper.
- 11.1.8 A system which sprays a mist of water into such air ducts is permitted.
- 11.1.9 Brake calipers incorporating liquid cooling/recirculating systems are prohibited.
- 11.1.10 The fitment of a handbrake/brake lock is optional.
- 11.1.11 Brake anti-lock systems are prohibited.
- 11.1.12 Maximum brake pad thickness must not exceed 30 mm.
- 11.1.13 The braking system pressure in both front calipers must remain equal at all times.

C 11.2 Steering

- 11.2.1 The steering is free including the steering wheel, column, tie rods, rack, etc., save that the original mechanical principal (eg, rack and pinion, recirculating ball) must be retained.
- 11.2.2 If the original steering column is utilised, the steering locking device must be removed.
- 11.2.3 Power steering may be added or deleted, but must only be hydraulic in its operation and control.
- 11.2.4 Four-wheel steering is prohibited.

C 12 WHEELS / WHEEL NUTS

C12.1 General

12.1.1 All Cars must use only wheels which conform to this Rule C 12.

12.1.2 ~~All Cars are~~ Each Car is required to have a minimum of twelve wheels ~~rims~~— four for permanently mounted wet control tyres and eight for dry control tyres.

C 12.2 Complete Wheel Dimensions

All the measurements for Rule C 12.2 must be made with at least 1.8 bar pressure in the tyre.

12.2.1 The complete wheels fitted to a Ford Falcon AU or a Holden Commodore VX must conform to the following dimensions:

12.2.1.1 Maximum width of the complete wheel: 305 mm

12.2.1.2 Maximum rim diameter: 17"

~~12.2.3 Maximum diameter of the complete wheel: 680 mm~~

12.2.1.3 The minimum weight of any bare wheel is: 9 kg.

12.2.2 The complete wheels fitted to a Ford Falcon BA or a Holden Commodore VY must conform to all of the requirements of the TEGA Complete Wheel Specification contained in Schedule C6.

C 12.3 Covered by Bodywork

For the Ford Falcon AU and the Holden Commodore VX only, subject to the provisions of Rule C12.2.1, the complete wheel is free provided that its upper part, located vertically over the wheel hub centre, is covered by the bodywork when measured vertically.

C 12.4 Brake Fans

Brake fans may be fitted to the wheels, but their lateral projection may not extend past that of the complete wheel.

C 12.5 Centre-lock spindles and wheel nuts

All Cars that are fitted with a centre-lock wheel retention system must conform to the following:

12.5.1 The centre-lock spindle thread must be M72 x 2.5 (left or right hand as appropriate); and

12.5.2 The angle of any taper where the wheel nut engages with the wheel must be 90° (included angle); and

12.5.3 All centre-lock spindles must be fitted with a safety clip/spring which must effectively prevent the wheel nut from coming loose at any time. This safety clip/spring must:

12.5.3.1 be in place on the wheel nut at all times while a Car is on the race track; and

12.5.3.2 be replaced/reset after each wheel change; and

12.5.3.3 the clip/mechanism must be coloured red or orange where appropriate.

12.5.4 All Cars that participate in any Race, which has a compulsory requirement to change wheels/tyres (CPS), must only be fitted with wheel nuts that conform to all of the requirements of the TEGA Wheel Nut Specification as contained in Schedule C5.

~~C12.6 Retention of centre-lock wheel nuts during a pit stop~~

~~12.6.1 It is permitted for the centre lock nut to be retained in the wheel during any wheel changing operation only if the centrelock nut complies with all of the requirements of the TEGA Wheel Nut Specification as contained in Schedule C5.~~

~~12.6.2 It is permitted for a centre-lock nut to be retained in the centrelock nut socket during wheel changing operations.~~

C 13 TYRES

C 13.1 General

- 13.1.1 Only the Dunlop control compound and construction tyre nominated by AVESCO (the “control tyre”) may be used to test, practice or qualify for, or compete in, any Meeting or Rides.
- 13.1.2 At all times the control tyres remain the property of AVESCO and title in the control tyres will not pass to any Team or other entity or person.
- 13.1.3 All control tyres must only be allocated to a Team for use on a Car or Cars identified by their log book number ~~Car, identified by its competition number,~~ and no control tyres may be transferred between ~~Cars or Teams, except as permitted under these Rules.~~ Control tyres allocated to a Car or Cars entered for competition under Category Level 3 Teams License Agreement/s are only permitted to be used on such Car or Cars.

C 13.2 Order & Payment for Supply

- 13.2.1 Order Forms for control tyres will be made available by AVESCO to Teams 45 days prior to each Meeting.
- 13.2.2 Level 2 and Level 3 Teams must ensure that the Order Form advises the AVESCO CFO of the allocated tyres intended to be used at the Meeting to which the Order Form relates.
- 13.2.3 Submission of the Order Forms by Teams to AVESCO will be deemed to be a firm commitment by that Team for its tyre requirements for the Meeting to which the order form relates.
- 13.2.4 Payment for the supply of dry control tyres:
 - 13.2.4.1 by Level 1 Teams must be received by AVESCO no later than 28 days prior to the commencement of each Meeting; and
 - 13.2.4.2 by Level 2 and 3 Teams must be made no later than the time at which such Teams take delivery of the tyres.
- 13.2.5 Any Team failing to meet the relevant deadline contained in Rule C 13.2.4 will not be supplied with any new control tyres for the relevant Meeting.
- 13.2.6 Level 2 and Level 3 Teams may obtain up to the nominated number of control tyres or may nominate, prior to the time that the control tyre selection takes place, a number of previously allocated control tyres. The Team must advise the CTMCTD in writing of the Serial Numbers of the previously allocated control tyres, as well as having advised the AVESCO CFO as required in Rule C 13.2.2.
- 13.2.7 Having just entered into a new Teams’ Licence Agreement, or having purchased a Teams Licence Agreement without purchasing a Car belonging to the Transferor, or having resumed the operational control of a Teams Licence Agreement following the conclusion of a period of a sub-licence of such Teams Licence Agreement, Teams may obtain up to six (6) new control tyres through AVESCO only for the purposes of testing that Car prior to their first Meeting, but only after such a Car has been registered with, and a Car number has been issued by, AVESCO, subsequent to which the allocation of new tyres will be made pursuant to this Rule C 13.2.

C 13.3 Selection

- 13.3.1 At each Round of a series, at a time stated in the Supplementary or Further Regulations, control tyres will be randomly selected, numbers will be recorded and the tyres allocated to Cars by the CTMCTD, and this allocation process will be open to scrutiny by any Team.
- 13.3.2 A list of numbers of tyres allocated to Cars will be available from the CTMCTD to Teams following the completion of the tyre allocation process.

- 13.3.3 At each Meeting, control tyres will be marked/coded by the CTMCTD to visually identify such tyres as authorised for use at that Meeting.

C 13.4 Fitment

- ~~13.4.1 Each Car is required to have a minimum of twelve rims — four for permanently mounted wet control tyres and eight for dry control tyres.~~
- 13.4.2 There will be a nominal charge for Teams who wish to “swap” control tyres from rim to rim and this will take place only after all competitors have been issued their allocated control tyres.
- 13.4.3 The fitting of control tyres for the top ten drivers in the VCS point score will be done first and any driver in this group may “claim” the tyres of any other driver in the top ten before they have been fitted to rims. Only three drivers may “claim” tyres at any one Meeting after being given permission by the CTMCTD. For the purposes of this rule as applied to the opening two Rounds in the VCS in 2004, the top ten will be the first ten points scorers in the 2003 VCS.

C 13.5 Replacement Tyres

- 13.5.1 There will be no new replacement control tyres, so it will be each Team’s responsibility to ensure that they have sufficient previously marked used control tyres to cover any emergencies.
- 13.5.2 Permission to use previously marked used control tyres will be at the CTMCTD’s discretion and they must be marked for use at the relevant Meeting; and compelling reasons/explanations will need to be put forward before permission is given by the CTMCTD to replace the tyres.
- 13.5.3 If any replacement control tyres are fitted, the Car to which the tyres are fitted must start from the rear of the grid.
- ~~13.5.3.1 At sprint rounds of a series, the Car to which the tyres are fitted must start from the rear of the grid; and~~
- ~~13.5.3.2 At endurance rounds a time penalty of 60 seconds per tyre will be imposed.~~

C 13.6 Wet Weather Tyres

- 13.6.1 A maximum number of wet weather control tyres are permitted for use at any Meeting, other than Endurance Rounds at which there is no restriction on wet weather control tyre numbers.
- 13.6.2 Wet weather tyres will be of moulded construction, no further cutting is permitted.
- 13.6.3 Wet weather tyres may be ordered through AVESCO by any Team, regardless of Team Level, at any time up to and including the days of a Meeting.
- 13.6.4 Wet weather tyres ordered at any time pursuant to Rule C 13.6.3 must be paid for by the Team no later than the time at which the Team takes delivery of the tyres.

C 13.7 Tyre Allocation

Unless otherwise provided in Supplementary/Further Regulations, the Tables in this Rule set out the maximum number of control tyres for:

- 13.7.1 TABLE 1 - Meetings other than the KVS:

Round	Dry	Wet
Melbourne F1 GP	8	8
Adelaide	16	N/A
Eastern Creek (May)	10	10
Pukekohe	12	12
Hidden Valley	10	10
Barbagallo	12	12

Queensland Raceway	10	10
Winton	10	10
Oran Park	10	10
Sandown	16	N/A
Bathurst	24	N/A
Surfers Paradise	10	10
<u>China</u>	<u>12</u>	<u>12</u>
Eastern Creek (November)	12	12

13.7.2 TABLE 2 - each Meeting of the KVS:

Round	Dry	Wet
Wakefield Park	8	8
Adelaide	8	8
Winton	8	8
Eastern Creek	8	8
Queensland Raceway	8	8
Mallala	8	8
Bathurst	6	6

C 13.8 Transfer and Disposal of Tyres

A “transfer” means to part with the possession of a Car by way of sale or lease, or the loan of a Car for more than one calendar month, to another person or entity whether or not the transferee has executed a Teams’ Licence Agreement with TEGA.

A “transferee” means that person or entity to whom a Car is transferred.

A “transferor” means that person or entity who transfers a Car.

13.8.1 Teams must not dispose of any control tyre other than as provided in this Rule and all control tyres, regardless of their condition, must be returned to Dunlop in accord with this Rule C 13.8.

13.8.2 If a transferor, at the time of transferring a Car, has any control tyres which have been allocated to that Car, the transferor may, where the transferee is a party to a current Teams’ Licence Agreement, transfer to the transferee such control tyres allocated to the Car as detailed in item 5 of the Transfer Form (Rule E 4.2.1);

13.8.3 All control tyres must be returned to Dunlop only at a Meeting.

13.8.4 Teams must not, under any circumstances, attempt to or sell, give, lend or otherwise dispose of any control tyre to any other person or entity.

13.8.5 Teams that sell their TLA or who undergo a change of control in their TLA to another team but who do not sell their car/s will be entitled to retain the tyres allocated to that team for such period as they maintain control over the car/s provided that within a period of 9 months from the date of sale or change of control in the TLA, if they have not executed a new TLA or become a party to a TLA, then the transferor will return all control tyres to Dunlop.

C 13.9 General

13.9.1 Only allocated new or nominated control tyres may be used for qualifying and racing at any Meeting.

13.9.2 Control Tyres are of three types:

13.9.2.1 Practice tyres – are limited to eight (8) and it is the responsibility of each Team to ensure that such tyres are:

(a) previously allocated to the ~~Car~~Team; and

(b) nominated for use on a specific Car by the Team to the ~~CTMCTD~~CTMCTD; and

- (c) marked as practice tyres for the Meeting by the CTMCTD.
- 13.9.2.2 Race tyres – which must:
- (a) be new or nominated control tyres; and
 - (b) have been obtained by the Team, and marked by the CTMCTD for use at, on a specific Car at a Meeting; and
 - (c) in the case of Level 2 and 3 Teams, may be the nominated previously allocated tyres as provided by Rule C 13.2.6.
- 13.9.2.3 Wet weather tyres – as defined and regulated in Rule C 13.6.

13.9.3 Control tyres must be used in accordance with the following table:

Session	Practice Tyres	Race Tyres	Wet Tyres
Meeting Rides	Yes	No	Yes
Practice Sessions	Yes	Yes	Yes
Qualifying	No	Yes	Yes
Shoot-Outs	No	Yes	Yes
Warm-Ups	Yes	Yes	Yes
Races	No	Yes	Yes

- 13.9.4 After allocation, the control tyres must remain in full view at all times until the finish of the last race of the day or unless directed otherwise by the CTMCTD.
- 13.9.5 Other than at a Meeting, the maximum number of control tyres that a Team may have in its possession at any time is a total of sixty (60) dry tyres and a total of sixteen (16) wet tyres per Teams' License Agreement controlled by that Team.~~Car.~~ These maximum numbers include any travel tyres.

C 13.10 Offences

- 13.10.1 At any Meeting, a Team must not use any tyre other than the control tyre specified in Rule C 13.1.1.
- 13.10.2 Teams must not use control tyres for any purpose other than at, or in testing for, a Meeting or Rides.
- 13.10.3 A Team must not exchange any control tyre with any other Team, competitor or person.
- 13.10.4 Teams must not dispose of any control tyre in any way other than that permitted by Rule 13.8.
- 13.10.5 Teams must not cut any wet weather control tyre.
- 13.10.6 Teams must not chemically treat or alter in any way any control tyre.
- 13.10.7 Removal of Build-Up
- 13.10.7.1 A section of “build-up” measuring a maximum of 50mm x 50mm may be removed from each tyre to allow the tyre tread depth to be measured to a maximum of 8 locations on any one tyre.
 - 13.10.7.2 The removal of additional “build-up” to allow closer inspection of a tyre must not be carried out without the prior express permission of the CTMCTD
 - 13.10.7.3 Other than as provided in this Rule, Teams must not remove tyre “build-up” from any control tyre by any means other than by driving.
- 13.10.8 Teams must not use any form of automatic Tyre Pressure Control device.
- 13.10.9 No team may seek or accept the direct supply of control tyres from Dunlop.
- 13.10.10 Teams must not use any artificial device which heats or warms – or retains heat or warmth in – tyres, whether the tyres are mounted on wheels or not, and regardless of whether the wheels are attached to a Car.
- 13.10.11 Teams must not cover control tyres at a Meeting; tyres must remain open to view at all times.

- ~~13.10.12 Tyres allocated to each Car must only be used on that Car at any time; and for the purposes of this Rule, each Car will be identified by its competition number.~~
- 13.10.13 Teams must not use any device or any process which artificially cools – or reduces the temperature of – tyres whether the tyres are mounted on wheels or not and regardless of whether the wheels are attached to a Car.

C 14 ELECTRICAL SYSTEM

C 14.1 Master Isolation Switch

- 14.1.1 A battery master isolation switch is mandatory and must:
 - 14.1.1.1 disconnect all electrical circuits, battery, alternator, lights, horns, ignition, electrical controls etcetera; and
 - 14.1.1.2 also stop the engine; and
 - 14.1.1.3 be spark proof and able to be triggered from inside and outside the Car.
- 14.1.2 The external trigger must be;
 - 14.1.2.1 situated near the lower part of the windscreen, on the driver's side; and
 - 14.1.2.2 marked by a red spark in a white edged blue triangle with a base of at least 120mm.

C 14.2 Circuits

With the exception of the requirements of the Control ECU, the electrical circuits including cables, fuses and relays are free.

C 14.3 Battery

The battery and its location are free save that it must not be placed in the passenger compartment.

C 14.4 Alternator

The alternator and its drive system are free.

C 14.5 Lights

- 14.5.1 All lighting and signalling devices must remain operational and as originally provided in the production automobile from which the Car is derived, save that it is permitted to disconnect and remove the rear number plate lights, side indicator lights, reversing lights and all interior lights.
- 14.5.2 The hazard function of the indicator lights may be removed.
- 14.5.3 Coloured or sign written headlights are permitted.
- 14.5.4 Coloured or sign written headlights must remain operational and are not permitted to be coloured any shade of the colour red.

C 14.6 Starter Motor

- 14.6.1 The starter motor is free except that it must:
 - 14.6.1.1 be exclusively electrically powered, and
 - 14.6.1.2 engage directly with the flywheel as in the original automobile from which the Car was derived; and
 - 14.6.1.3 be capable of starting the engine at all times.
- 14.6.2 The starter motor may be mounted in front of, or behind, the flywheel the ring-gear of which must comply with Rule C 8.7.8.
- 14.6.3 At all times the driver – when seated and secured in the Car as for competition – must be able to activate the starter motor without outside or external assistance.

C 14.7 Rain Light

- 14.7.1 A high intensity rain light (Motor Sport Electronics P/N - MSE-A04-02) must be fitted into the highest part of the rearward face of the boot lid.
- 14.7.2 The rain light must be mounted so its face is at 90 degrees to the road surface.
- 14.7.3 All Cars must be fitted with a rain light flasher unit (Motor Sport Electronic P/N – MSE-A05-02) which must ensure that the rain light flashes at all times when the Pit Lane Speed Limiter is activated.

C 14.8 Computers on the Grid

Unless the specific permission is first obtained from the CTMCTD computers of any description, other than computers which are an integral part of a Car, are forbidden to be taken onto the grid by any person at any time.

C 14.9 Electrically Heated Windscreen

It is permitted to replace a front windscreen with a front windscreen incorporating a heating element.

C 14.10 Fuel Pump Power Supply

All Cars must be fitted with a system that cuts off the power supply to all fuel pumps after a maximum of six (6) seconds absence of crankshaft revolution.

C 14.11 Electronic Data – Logging, Display & Telemetry

14.11.1 Each Car must only be fitted with one (1) data recording unit in addition to the data recording capacity of the Control ECU or any unit specifically required or approved by the CTMCTD.

14.11.2 In addition to the sensors permitted solely as inputs to the Control ECU, and unless otherwise specified, each Car must only be fitted with one (1) of each of the sensors listed in Rules C 14.11.5 and C14.11.6 which must only perform the function stated in each of the respective Rules; and no other sensors are permitted.

14.11.3 The sensors listed in Rule C 14.11.5 and C14.11.6 ~~sensors~~ are in addition to any switches, carrier detect signal for telemetry or any sensors specifically required or approved by the CTMCTD.

14.11.4 The data gathered from the sensors listed in Rule C 14.11.5 and C14.11.6 ~~sensors~~ may then be recorded, displayed or transmitted by any means permitted under these Rules.

14.11.5 Engine Sensors

*Crankshaft position	Oil temperature
*Throttle position	Fuel pressure
Air temperature	Fuel temperature
Coolant temperature	Fuel usage
Coolant level	Lambda (x2)
Coolant pressure	Manifold air pressure
Oil pressure	

*Note: Access to the crankshaft position and throttle position signals generated by the sensors which are a part of the “TEGA” data monitoring system will be made available on Cars fitted with such a system, subject to the approval of the CTMCTD. If these signals are used, then the relevant sensors listed in rule C14.11.5 are deleted.

14.11.6 General Sensors

Front wheel speed – x2(see note below)	Suspension position x4
Steering angle	Brake light
Power steering pressure	Brake disc temperature (front & rear)
Power steering temperature	Brake line pressure (front & rear)
Gearbox oil temperature	Cockpit temperature x2
Diff oil temperature	Battery voltage
G – Force – longitudinal	Beacon input
G – Force – lateral	Brake balance bar position
G – Force – vertical	<u>Anti roll bar position (front & rear)</u>

Note: In order to provide wheel speed information for the exclusive use of display and data acquisition instruments it is permitted to fit two (2) of the non-driven wheel hub assemblies with the necessary equipment.

C 14.12 Signals to/from Cars

At any time only the following signals may be sent to or from a Car:

Signal	Send to Car	Send from Car
Any signal exclusively for television	Yes	Yes
Telemetry (transmission of data)	No	Yes
Driver voice communication	Yes	Yes
Driver visual communication	Yes	Yes

C 15. IN CAR ITEMS

C 15.1 Radios

15.1.1 Frequencies

15.1.1.1 At the time of completing the Entry/Registration form for a Meeting, Competitors must provide details of the radio frequencies to be used by their Team in order that these can be checked against the frequencies used by the organisers' emergency services and the licensing authority.

15.1.1.2 In the case of conflicting frequencies, a Competitor may be required to make adjustments prior to being given approval to use radio equipment.

15.1.1.3 It is the responsibility of all Competitors to conform with Government legislation which requires that all two-way radios must be operated on frequencies that are registered with the Australian Communications Authority.

15.1.1.4 As part of compliance with Rule E 2.5, each Team transmitting/receiving on their permitted radio frequency must only do so in a clear and unobstructed manner to enable listening access only to their transmissions.

15.1.1.5 Any method or device which prevents listening access to Teams' radio transmissions is forbidden.

15.1.1.6 Any Competitor that has changed its radio frequencies from those nominated on its yearly Entry form, must notify McCall Communications before the conclusion of scrutineering at a Meeting

15.1.2 Monitoring Race Management Channel ("RMC")

15.1.2.1 In their own best interests it is strongly recommended that all Competitors monitor, on a strictly listening basis only, the RMC on their radios at all Meetings.

15.1.2.2 The RMC frequency will be advised in the Supplementary /Further Regulations.

15.1.2.3 Any and all information obtained from such monitoring of the RMC must be regarded as advisory in nature only and such information will have no regulatory basis or purpose.

C 15.2 Cameras

No in-Car cameras other than those fitted by personnel authorised by the Ten Network or those required by TEGA AVESCO, and fitted in accordance with Rule B 3.3, are permitted without prior written approval of the CTMCTD.

C 15.3 Tools

Teams must ensure that the necessary tools for the removal of the front bumper and rear bumper panel are securely fastened to the passenger's side anti-intrusion bar of each of their Cars.

C 15.4 Automatic Timing – Data 1 Transmitter

15.4.1 Meeting organisers utilise an automatic timing system which requires all Cars to be fitted with a Data 1 transmitter which is the responsibility of each Competitor to obtain and maintain in working order.

15.4.2 Data 1 transmitters are available from Dorian Industries, 53 Glenvale Road, MULGRAVE, Victoria, 3170; telephone (03) 9562 2199 / facsimile (03) 9561 5830.

15.4.3 At all times when a Car is on the race track at a Meeting, it must have the correct fully charged timing transmitter operating, and fitted in a position located 1800 mm from the leading point of the Car to the centre of the transmitter (plus/minus 5 mm), which distance will be measured parallel to the Car's longitudinal centreline from a vertical plane (at 90 degrees to this centreline) located at the leading point of the Car.

C 16 FUEL SYSTEM

C 16.1 Fuel Tank Requirements - General

- 16.1.1 All Cars must be fitted with a fuel tank conforming to the FIA specification FT3, FT3 - 1999 or FT5. **Note:** The validity of these tanks expires 5 years from the date of manufacture shown on the tank. An additional two year waiver may be granted provided the tank is returned to the fuel tank manufacturer for inspection.
- 16.1.2 Fuel tanks must be mounted inside, under or through the floor of the luggage compartment.
- 16.1.3 No part of the fuel tank may be situated forward of the rear axle centreline.
- 16.1.4 All openings in the fuel tank bladder must only be located in the top surface of the tank.
- 16.1.5 Cars with a CAMS Log Book first issued after 1 January 2002 must have a fuel tank which is rectangular in section in all planes with minimum inside corner radii and which must not exceed 115 litres capacity.
- 16.1.6 The total capacity of the entire fuel system must not exceed the marked volume of the TEGA fuel tank capacity checking vessel which is approximately 120 litres.

C 16.2 Fuel Tank Housing

- 16.2.1 For Cars with a CAMS Log Book first issued after 1 January 2001, the fuel tank must be mounted in a metal container of which each of the four sides and the base conforms to one of the following specifications; either
 - 16.1.7.1 if made of aluminium, a minimum thickness of 1.6 mm; or
 - 16.1.7.2 if made of steel, a minimum thickness of 1.2 mm.
- 16.2.2 Any gap between the fuel bladder and its housing must be filled with semi rigid energy absorbing material such as polyurethane foam.
- 16.2.3 It is permitted to fit a crushable structure to the rear of the fuel tank housing. The sole purpose of this crushable structure is to provide additional protection to the fuel tank in the event of a collision.

C 16.3 Filler/Vent Units

- 16.3.1 Refuelling must only be carried out using a single man, "siamese" filler/vent unit as detailed in Schedule C1.
- 16.3.2 The position of the filler/vent unit may be changed so long as the new installation does not protrude beyond the bodywork and ensures that no fuel will leak into any of the interior compartments of the Car.
- 16.3.3 All fillers/vents that extend to the exterior ~~each~~ Bodywork must be flexible in nature.

C 16.4 Fuel Collector Pot

A fuel collector pot of free design and material with a maximum capacity of eight (8) litres is permitted

C 16.5 Fuel Tank Vent

The fuel tank must be vented externally of the bodywork.

C 16.6 Fuel Lines

All Cars must be fitted with fuel lines made of suitable material which is of adequate strength and durability; e.g. metal tube or braided hose.

C 17 FUEL & REFUELLING

C 17.1 Health Warning

- 17.1.1 Participants are reminded that fuels, oils, lubricants and coolants are highly specialised substances.
- 17.1.2 Participants must be aware that these agents may contain substances that are extremely dangerous to health if misused, inhaled or allowed to contact human skin.
- 17.1.3 Some of the contents of these fuels, oils and lubricants are suspected of having the potential to cause cancer in some instances.
- 17.1.4 The use of petrol as a general cleaning and washing agent is a common misuse of a potentially dangerous substance.

C 17.2 Specified Fuel

For the duration of a Meeting:

- 17.2.1 Cars must use only the specified (but unbranded) control fuel approved by AVESCO;
- 17.2.2 no other substance of any type may be added to the specified fuel, and
- 17.2.3 the specified fuel will be available for purchase at all Meetings.

C 17.3 Sampling

- 17.3.1 At any time during any Meeting, officials may take fuel samples from Cars and/or containers that may be compared with a control sample lodged with a petroleum-testing laboratory approved by AVESCO.
- 17.3.2 Any discrepancy between the sample taken and the control sample will result in the matter being referred to the Stewards.
- 17.3.3 Series fuel, a specification analysis, and details of distribution, will be available on request from the GTMCTD.

C 17.4 Refuelling In Pit Lane – Schedule C 1

- 17.4.1 For any refuelling undertaken in pit lane at any Meeting, the procedures in Schedule C 1 must be adopted, unless Supplementary/Further Regulations provide otherwise.
- 17.4.2 Any refuelling in a pit garage or paddock area not utilising these procedures must be completed with the engine turned off and with a fire attendant present.
- 17.4.3 Under no circumstances will refuelling be permitted on the race track.
- 17.4.4 Refuelling Towers
 - 17.4.4.1 Are the only refuelling method permitted during any session or race.
 - 17.4.4.2 Are only permitted for use if specified in Supplementary/Further Regulations; and
 - 17.4.4.3 Must be of “siamese” configuration conforming with the requirements of Schedule C 1.

C 18 APPAREL REQUIREMENTS

C 18.1 Helmets

18.1.1 It is compulsory that at all times a Car is on the race track during Competition, all drivers must wear helmets which meet the requirements of one of the following standards:

- Snell Foundation SA 2000
- SFI Foundation Inc, SFI Spec 31.1A or 31.2A
- British Standard - BS 6658-85 Type A/FR

of a standard design, construction and fitting approved by CAMS.

~~18.1.2 Helmets not marked as complying with the approved standard may be approved by CAMS under certain conditions.~~

~~18.1.4 Helmets bearing any of the following marks are approved for use in racing where the Meeting is not entered on the FIA International Sporting Calendar:~~

- ~~• Australian standard - AS1698~~
- ~~• USA standard - SA90, M90, SA95~~
- ~~• USA standard - SFI Spec 31.1, SFI Spec. 31.2~~
- ~~• Swedish standard - SIS 88.24.11 (2)~~
- ~~• Danish standard - DS 2124.1~~
- ~~• Finnish standard - SFS 3653~~
- ~~• Germany standard - ONS/OMK~~
- ~~• French standard - NF S 72 305~~
- ~~• European Standard - E22 (with 02, 03 or 04 amendments)~~
- ~~• British Standard - BS 6658-85 Type A (incl. amendments) or Type A/FR~~

~~18.1.5 Events which are entered on the FIA International Sporting Calendar, or for events organised under the authority of an ASN other than CAMS, have restricted standards for allowable helmets which are confined to helmets bearing one of the following approvals:~~

- ~~• Snell Foundation SA 95, SA 2000 (USA)~~
- ~~• SFI Foundation Inc, SFI Spec 31.1 or 31.2 (USA)~~
- ~~• British Standards Institution BS 6658-85 type A/FR including all amendments (Great Britain).~~

~~Standards approved by the FIA for international competition are accepted by CAMS for domestic competition.~~

18.1.2 No helmet may be modified from its specification as manufactured, except in compliance with instructions approved by the manufacturer and one of the standards organisations listed above, which certified the model concerned. Any other modification will render the helmet unacceptable for the requirements of this regulation.

~~18.1.7 The FIA requires that communication systems in helmets must have been tested with that model of helmet for standard assessment. Any subsequent additions or modifications to facilitate communication or breathing devices may invalidate helmet certification.~~

18.1.3 Decoration of helmets is potentially dangerous to the integrity of the helmet, and competitors are warned that the use of any paint or solvent on an approved helmet is hazardous and may render the helmet non-compliant for the purposes of these regulations.

~~18.1.9 Competitors are cautioned against using helmets which have been damaged or involved in accidents.~~

C 18.2 Goggles/Visors

~~Goggles or visors must be worn by drivers if for any reason the windscreen is removed. Goggles or visors with glass lenses of any kind are not acceptable. Lenses or visors must be of a plastic material, with high-impact resistance, satisfactory optical qualities and complying with Australian Standard Specification AS 1609-1981.~~

C 18.2 Apparel – General Requirements For Drivers

18.2.1 At all Meetings while their Cars are on the race track during Competition, all drivers must wear overalls as well as long underwear, a balaclava, socks and shoes homologated to the FIA 1986 or FIA 8856-2000 Standard.
Gloves are not yet included in the FIA 8856-2000 standard and thus only the FIA 1986 standard applies to gloves.

Please note:- The FIA 1986 standard is only valid until the 31/12/2004.

~~as well as socks, shoes and gloves which respect the design parameters set out in that standard.~~

~~18.3.2 The wearing of underwear and balaclavas complying with the FIA 1986 or FIA 2000 Standard is mandatory in any Meeting on the International Calendar and is strongly recommended for all other Meetings.~~

C 18.3 Apparel – General Requirements for Pit Crew

18.3.1 All people working on Cars must wear shoes and socks, neck to ankle covering, and at least a short sleeved shirt.

18.3.2 Apparel made from synthetic materials should not be worn by people working on Cars.

18.3.3 In addition to complying with Rule C 18.3.1, on race days all pit crew must be neatly attired; promoters are authorised to refuse entry to the pit area of people unsuitably dressed.

18.3.4 Apparel while Refuelling

For the duration of all sessions and races when the use of ~~overhead~~ refuelling towers ~~rigs~~ is permitted, all Team members at all times while across the prescribed line, plus the deadman's handle attendant-operator for the duration of any pit stop, must be attired as per the requirements of Rule C 18.3.5.

~~18.4.5 Apparel while Refuelling – Churns~~

~~If a Car is refueled using churns, all Team members across the prescribed line must be attired as per the requirements of C 18.4.6 for the duration of refuelling process.~~

18.3.5 Specified Apparel

18.3.5.1 One-piece overalls of flame-resistant materials extending from neck to wrists to ankles; and where such overalls consist of a single layer of material, separate flame-resistant underwear extending from neck to wrists to ankles must also be worn.

18.3.5.2 A flame-resistant balaclava which covers the entire head and neck save for one or two eye openings.

18.3.5.3 Goggles which cover all exposed areas of skin not covered by the balaclava, or a full face helmet and visor.

18.3.5.4 Shoes of leather or other flame-resistant materials which completely cover the feet and which fit closely around the ankle to minimise the ingress of spilt fuel; and the soles of which must be resistant to fuel.

18.3.5.5 Socks and gloves which comply with the requirements of the FIA 1986 or FIA 2000 Standard except, all personnel involved in a brake pad change at any pit stop must wear fire resistant gloves, which need not comply with the requirements of the FIA 1986 or FIA 2000 Standard.

18.5 Compliance by Drivers

~~At all times their Car is on the race track and until a driver exits the Car, all drivers must:~~

- ~~18.5.1 wear a crash helmet, properly fastened and complying with all parts of Rule C 18.1 must be worn;~~
- ~~18.5.2 wear suitable flame-resisting outer clothing together with heat resistant underwear and socks, and suitable footwear, all of which must comply with all parts of Rule C 18.3 must be worn;~~
- ~~18.5.3 be restrained by a safety harness of a specification, and correctly fitted and worn, as required by Rule C 14.2; and~~
- ~~18.5.4 not wear apparel of flammable material such as nylon or similar synthetic materials.~~

C 18.4 Apparel – Enforcement

Where apparel, not complying with the requirements of this Rule C 18, is submitted for scrutineering or where a scrutineer has reason to believe that the use of such non-compliant apparel or equipment is intended, the ~~CTMCTD~~ may impound any such apparel or equipment for the duration of the Meeting and may also mark on such apparel or equipment any words, signs or symbols considered necessary to indicate non-compliance with these Rules.

C 19 MARKINGS ON CARS

Subject to this Rule, all Car markings must comply with the provisions of Schedule C 2.

C 19.1 Windscreen Numbers

19.1.1 On the windscreen of all Cars must be displayed their competition number which must be positioned on the upper area of the passenger's side of the windscreen.

19.1.2 The numerals must be:

19.1.2.1 150mm in height, and

19.1.2.2 printed in Helvetica Bold; and

19.1.2.3 'Dayglo yellow' in colour; and

19.1.2.4 placed 50 mm from the lower edge of the upper windscreen band and 50 mm from the side edge of the windscreen.

19.2 VCS Series Identification

19.2.1 Unless otherwise specified in Supplementary/Further Regulations, all Cars competing at any VCS Meeting must carry the series' identification decals mounted as indicated in Schedule C 2.

19.2.2 A space 500mm wide and 120mm high located immediately above the race number on each side of the Car is required for the event sponsor.

19.2.3 A space 200mm wide and 200mm high positioned forward of the competition number on the door or front guard on each side of the Car is required for the series sponsor.

19.3 KVS Series Identification

19.3.1 Unless otherwise specified in Supplementary/Further Regulations, all Cars competing in any Round of the KVS must carry the Series identification decals mounted as indicated in Schedule C 2.

19.3.2 A space 500mm wide and 120mm high located immediately above the race number on each side of the Car is required for the event sponsor.

19.3.3 Where KVS Competitors take part in VCS endurance rounds, the KVS series identification decals should be mounted on the rear quarter panel.

19.4 Series' Identification Decals

The AVESCO Assistant Operations Manager will supply Competitors with the relevant series' decals.

19.5 Competition Numbers

19.5.1 At all times while participating in any AVESCO approved activity:

19.5.1.1 Cars must have competition numbers affixed; and

19.5.1.2 no two or more Cars may have the same competition number displayed.

19.5.2 All competition numbers must conform to the requirements set out in Schedule C2 of these Rules

19.5.3 The figures of the competition numbers be black on a white rectangular background; and for light coloured cars, there must be a black line 50mm wide all around the white rectangular background.

19.5.4 Numbers must be of the typeface known as "Helvetica Bold".

19.6 Other signage

19.6.1 Signage on windows must conform to the requirements set out in Schedule C2 of these Rules.

19.6.2 Signage on the remaining parts of the bodywork is free save that written permission must be obtained from AVESCO prior to the use of any numerals.

19.6.3 The surname of each driver (and co-driver) must be displayed on the lower edge of each rear door window in 100mm Helvetica Bold as set out in Schedule C2.

19.7 Variation

Notwithstanding the requirements of this Division, AVESCO has discretion to approve any sign not in conformity with these Rules, provided that there are compelling commercial considerations and that the written request and artwork are submitted to AVESCO and after such approval, any variations must be noted in the Car's CAMS Log Book.

SCHEDULE C 1

REFUELLING PROCEDURES **(Rule C 17)**

1. GENERAL

1.1 Refuelling During Sessions and Races in Pit lane

- 1.1.1 All refuelling ~~in Pit Lane~~ during any session or Race must only be carried out using an overhead refuelling tower, ~~("towers")~~ or refuelling churns ~~("churns")~~.
- 1.1.2 ~~Refuelling Towers~~ must only be used when specifically permitted in the Supplementary and/or Further Regulations.
- ~~1.1.3 Churns are not permitted to be used during any race.~~
- 1.1.3 At all times ~~while~~ when refuelling ~~in Pit Lane~~ during any session or Race, all requirements and procedures described in these Rules must be complied with.

1.2 All Other Refuelling

All refuelling other than that carried out during a session or a Race in Pit Lane must be carried out in the Pit bay, Pit garage or the paddock area, always with the Car's engine switched off and with a Fire Attendant present.

2. SAFETY

2.1 Provision of Extinguishers

For all Meetings each Competitor must provide at least 2 x 4.5-kg dry chemical fire extinguishers, in working order, for each Pit Bay or Garage.

2.2 Fuel Storage - Areas

All areas in which fuel is being stored must be:

- 2.2.1 adequately ventilated and have unimpeded access; and
- 2.2.2 be clean and free of potentially flammable materials e.g., paper, rags, oily fabrics etc.

2.3 Fuel Storage - Quantities

The maximum quantity of fuel that can be stored in any location at any time is 250 litres, except that a maximum of 450 litres of fuel may be stored in any location only for a period of less than 12 hours.

2.4 Attendants

2.4.1 When using Refuelling Towers:

A minimum ~~maximum~~ number of three (3) Attendants must be present, and their tasks must be:

- Fire Attendant – whose sole task is to operate fire extinguisher; and
- Refueller/Vent Attendant – whose sole task is to operate the refuelling/vent hose.; and
- Deadman's Handle Attendant – whose sole task is to operate the fuel cut-off valve on the refuelling tower.

2.4.2 When using Churns:

~~A maximum number of three (3) Attendants must be present, and their tasks must be:~~

- ~~• Fire Attendant – whose sole task is to operate fire extinguisher; and~~
- ~~• Vent Bottle Attendant – whose sole task is to operate the vent bottle; and~~

● ~~Churn Attendant.~~

2.4.2 All Attendants must be attired as specified in Rule C 18.3.5.

2.4.3 For the duration of any pit stop in which refuelling is undertaken, the Fire Attendant must be ready to attend to any fire which may occur and must stand near the Car and the refuelling tower, poised with the extinguisher ready to operate.

2.5 Operation = Refuelling Towers

2.5.1 The refuelling tower must either remain behind the prescribed line or be wholly within the pit garage and must not be moved once filled.

2.5.2 The Fire Attendant must be “ready for action” during any refilling operations.

2.5.3 The fuel delivery hose may only be moved into Pit Lane from the Pit Garage a maximum of three (3) minutes prior to any pit stop.

2.5.4 While in Pit Lane, the fuel delivery hose must at all times be held by the relevant Attendant.

2.6 Approval of Installations and Equipment

All installations and equipment must be specifically approved by the CTMCTD prior to any Meeting during which refuelling is permitted in pit lane.

2.7 Earthing

2.7.1 Each Pit garage area is equipped with two grounding connections.

2.7.2 During any Meeting in which refuelling is permitted, the refuelling system (including the refuelling tower, tank, hoses, valves and dry break fittings) must all be electrically connected to one of the grounding connections for the duration of the on-track activities.

2.7.3 The Car must also be connected, at least momentarily, to one of these grounding connections before refuelling can commence.

2.7.4 It is strongly recommended that the Car should also be electrically connected to earth via one of the grounding connections during a pit stop in which refuelling takes place.

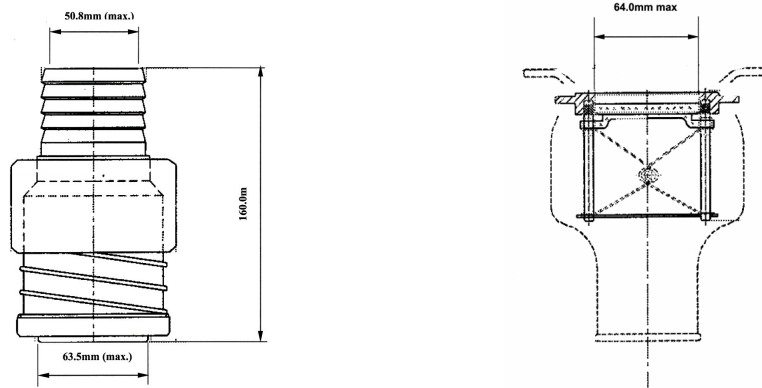
2.8 Vehicle Stationary

The Car must be stationary at all times during refuelling.

2.9 Dry Break Fittings

2.9.1 All refuelling and venting operations in Pit Lane must only be carried out using male and female dry-break fittings, which conform to all FIA requirements.

2.9.2 Diagram 1: General Design of Dry Break Fittings



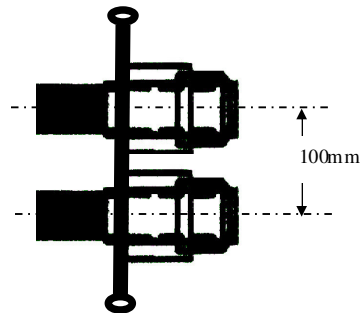
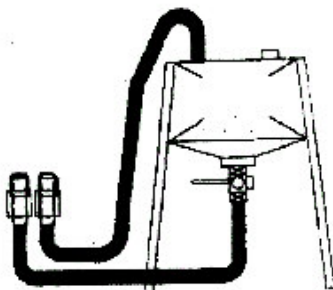
Standard dry break fittings (male and female)

2.9.3 Maintenance

It is extremely important to maintain all refuelling equipment in good working order:

- 2.9.3.1 O-rings must be regularly inspected and replaced if there are any signs of expansion or damage; and
- 2.9.3.2 Springs and tracks must also be regularly inspected and kept lubricated during those times the refuelling valves are not in operation.

3. OVERHEAD-REFUELLING TOWER



Requirements

All towers must conform to the following:

- 3.1 The maximum capacity of the tower, including the delivery hose, must not exceed 220 litres.

- 3.2 The maximum height of any part of the tower which contains fuel is two metres above the Pit Lane; only non-fuel holding connections and vents are permitted above this height.
- 3.3 All towers must be fitted with a ball cock or similar fast action cut-off valve, which must work on the “deadman handle” principle. The cut-off valve must be attached directly to the fuel reservoir and must close immediately, stopping the flow of fuel from the reservoir, when pressure on the handle of the cut-off valve is released. The closing principle of the cut-off valve must not rely on the action of gravity alone.
- 3.4 The emergency cut-off valve Attendant (“deadman’s handle Attendant”) must only hold the valve open for the duration of a refuelling operation.
- 3.5 Towers must only incorporate a “siamese” filler/vent configuration which is to be operated by a single refueller/vent Attendant and returns all displaced fumes from the Car’s fuel tank to the ullage space in the reservoir of the ~~overhead~~ refuelling tower.
- 3.6 A single fuel delivery hose, which must be of a flexible rubber or a fuel resistant reinforced plastic material, must be connected to the emergency cut-off valve. The flexible part of the hose must be at least 2.5m in length and of an ID no greater than 50mm (2 inch).
- 3.7 The maximum inside diameter of the vent hose is 50mm (2 inch).
- 3.6 The vent hose used to direct the expelled fumes from the Car to the refuelling tower must remain open at all times. No device may restrict the flow of these fumes for the duration of the refuelling operation.
- 3.8 The reservoir must be vented via an explosion safe shielded vent. This vent must be open at all times and only atmospheric pressure may be exerted on the fuel in the main reservoir. No artificial pressurisation of the reservoir is permitted.
- 3.9 A filling orifice (maximum inside diameter of 50mm) may be fitted to the main reservoir.
- 3.10 Any refilling operations to the main reservoir must be carried out bearing in mind State or Territory Occupational Health and Safety regulations.
- 3.11 Any device, which changes the ambient temperature of the fuel, is prohibited.
- 3.12 All refuelling towers manufactured after 1st January 2001 must include 10% ullage (air space) at all times within the reservoir.

4. FUEL FLOW RESTRICTOR

- 4.1 At all times while refuelling using an ~~overhead~~ refuelling tower, a fuel flow restrictor, as approved by TEGA, must be fitted inside the fuel delivery hose.
- 4.2 The fuel flow restrictor must:
- only be obtained from TEGA, and must
 - always remain unmodified, and must
 - be securely fixed within the fuel delivery hose so all fuel entering a Car during refuelling must pass through the restrictor, and must
 - be positioned within 150mm of the end of the fuel delivery hose, and
 - No device of any kind, other than the TEGA approved fuel flow restrictor, may be present within the refuelling hose at any time.

5. REFUELLING CHURNS

Diagram removed

5.1 Design Requirements

- 5.1.1 The maximum capacity of each churn must not exceed 40 litres.
- 5.1.2 Each churn must be designed to prevent fuel spillage regardless of the angle at which the churn is oriented.
- 5.1.3 There must be minimum flexibility between the probe and the churn.

6 VENT BOTTLE

A: Vent bottle with vent tube	B: Vent bottle with anti-splash foam vent cap	C: Vent bottle with anti-splash baffles and vent tube
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Diagram removed

6.1 Design Requirements

- 6.1.1 The maximum capacity of the vent bottle is 20 litres.
 - 6.1.2 It must be constructed of an unbreakable, fuel resistant material, to a design that allows the contents of the bottle to be clearly seen.
 - 6.1.3 The maximum internal diameter of the vent to the atmosphere, which is used during refuelling, is 30mm.
 - 6.1.4 The vent bottle must be fitted with a device, which allows any contents in the bottle to be drained; this device must be closed during refuelling.
 - 6.1.5 The bottle may be vented by one of three methods (see diagram above); it must not be possible for liquid to escape from the vent bottle during a refuelling operation.
 - 6.1.6 All vent bottles must be manufactured so the displaced air from the fuel tank is directed in an upward direction away from the Car.
 - 6.1.7 The vent bottle must be empty of liquid before each use.
-

SCHEDULE C 2

MARKINGS ON CARS

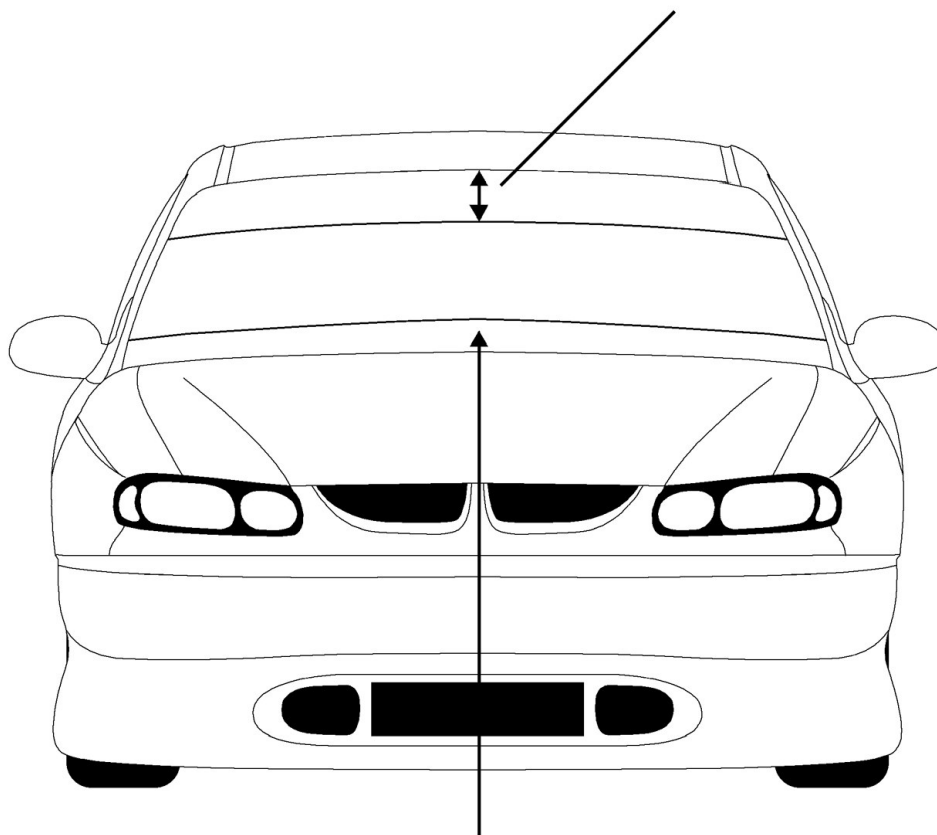
(Rule C 19)

Front

AVESCO

Non-Compulsory Windscreen Band

On the top of the windscreen and on a background free as to colour & depth, subject to the lettering and devices being placed within the upper 200mm of the windscreen surface provided that it does not interfere with the driver's visibility.



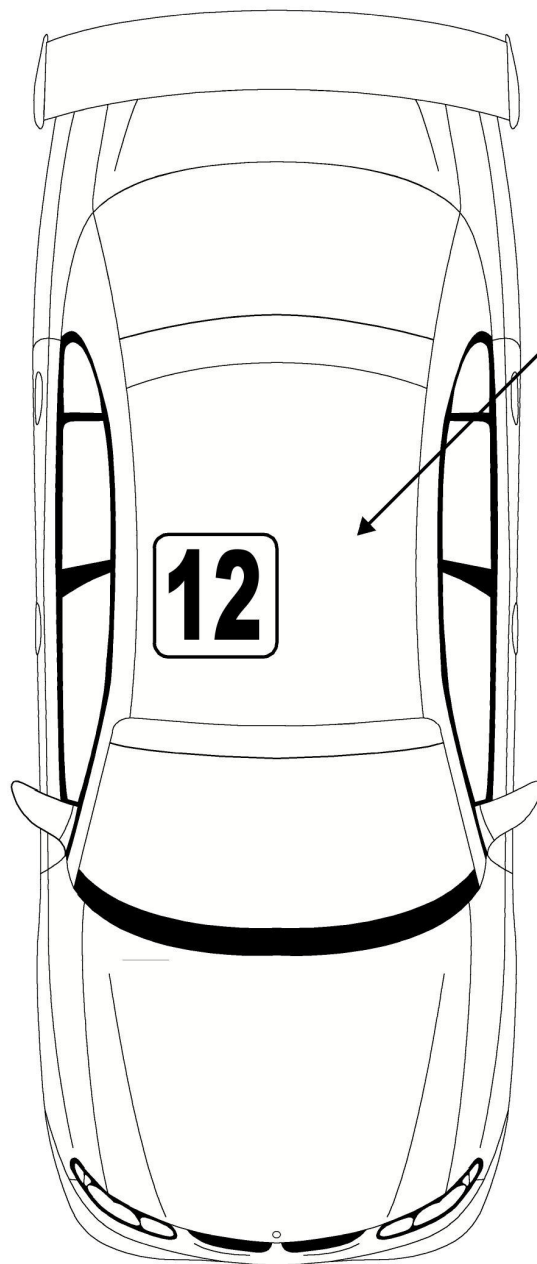
No Signage to go beyond a line across the lower portion of the windscreens parallel with the base of it.

- AU = 75 mm From Base Of Screen
- VX = 75 mm From Base Of Screen

- BA = 75 mm From Base Of Screen
- VY = 75 mm From Base Of Screen

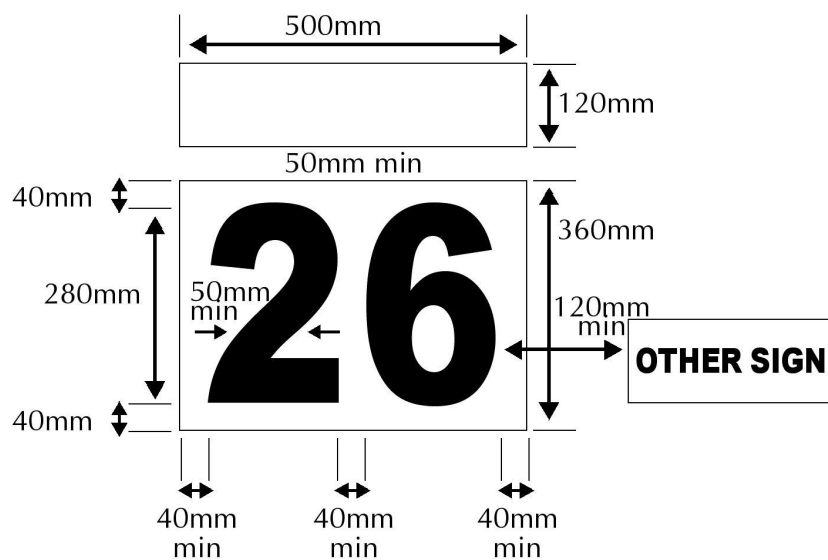
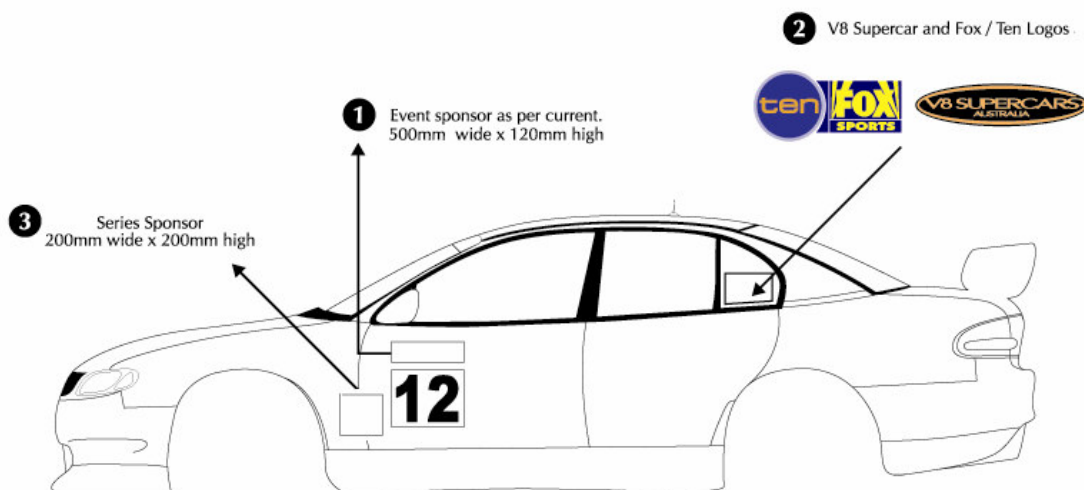
Top

AVESCO

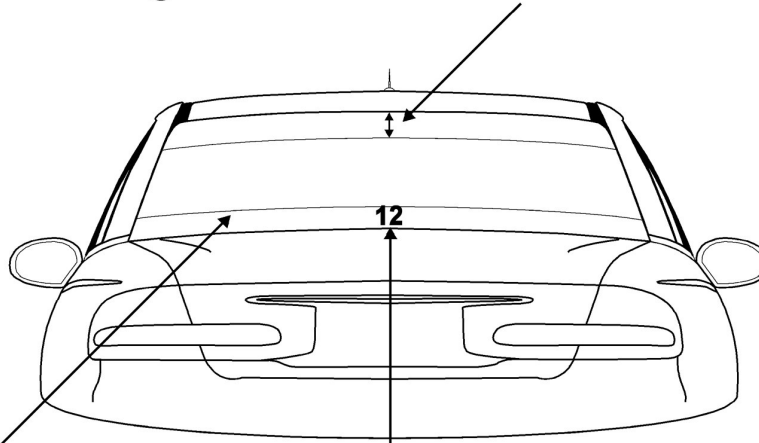


Roof number - Box Size:
320mm x 320mm

All Numerals to be 280mm tall



1 Non-Compulsory rear windscreen band 200mm deep



2 No signage to go above a line across the lower portion of the windscreen and parallel with the base of it.

- AU = 50 mm

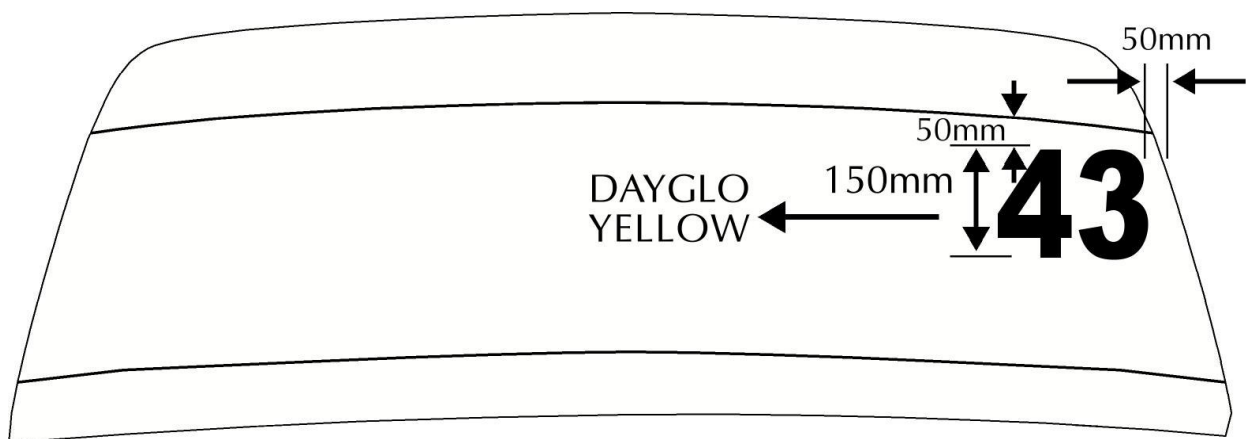
- VX = 100 mm

- BA = 50 mm

- VY = 100 mm

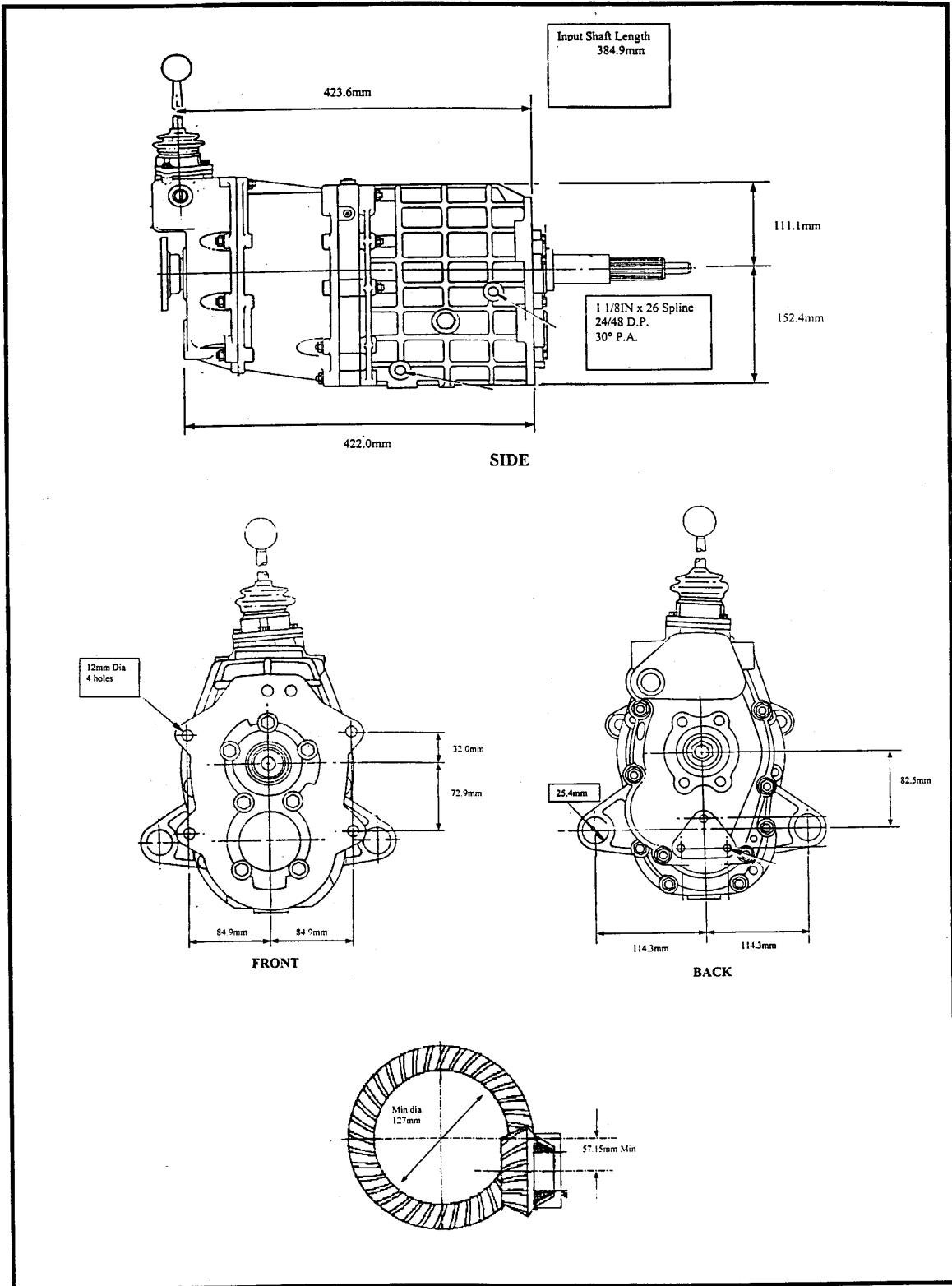
All measurements from the base of the screen.

3 A white car number at 100mm tall in the centre of the rear lower screen.

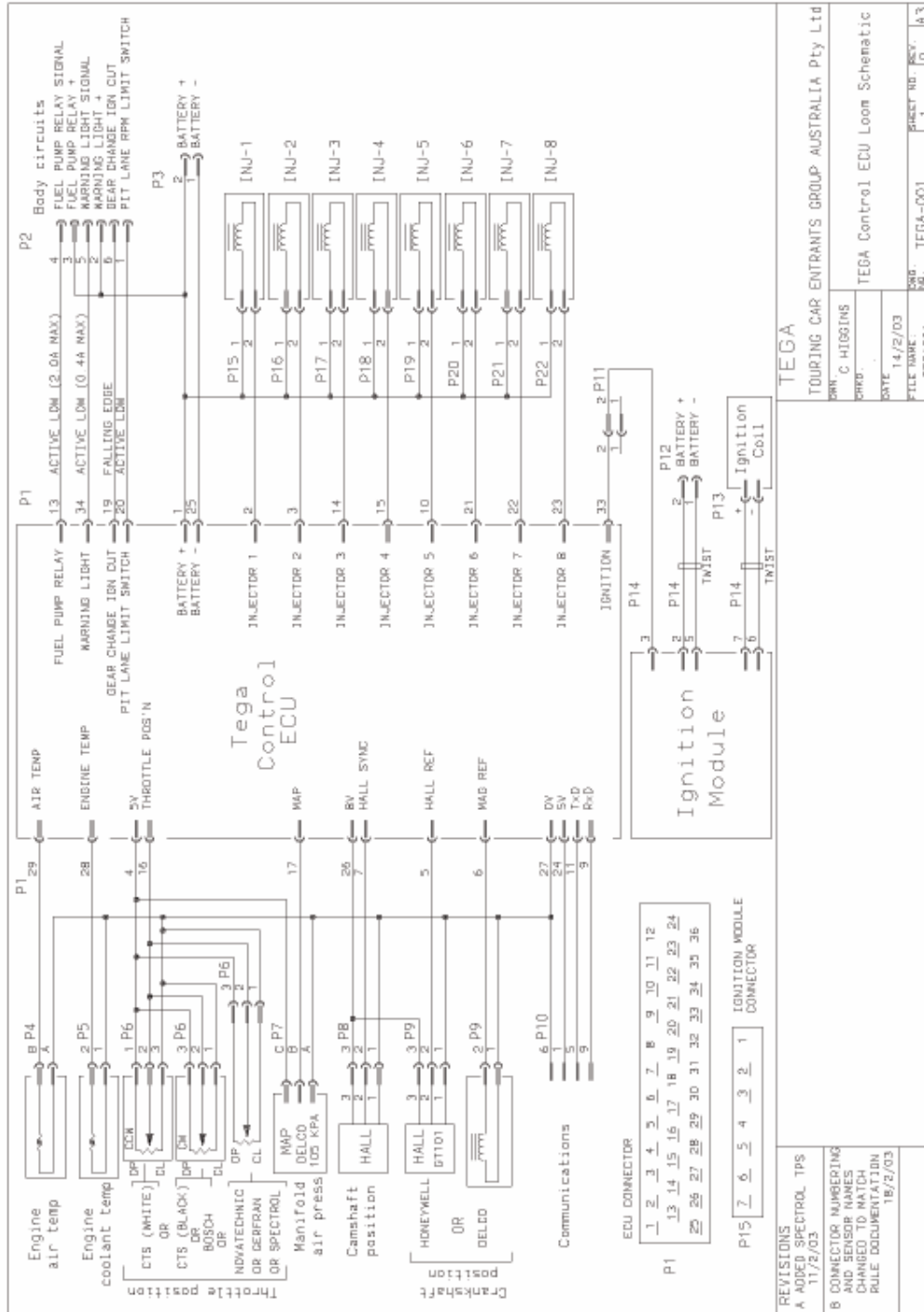


WINDSCREEN

SCHEDULE C 3
GEARBOX & FINAL DRIVE SPECIFICATIONS
(Rules C 9.3)



SCHEDULE C 4 **CONTROL ECU LOOM** **(Rule C 8.11.8)**



Schedule C4 – TEGA Control ECU Loom Schematic Material list

Connector	Description	Qty	Manufacturer/ Supplier	Part No.	
				Housing	Pins/Contacts
P1	ECU – 36 pin	1	AMP / AMG	0-344111-1	0-171662-5
P2	Body circuits	1	Deutsch	DTM04-6P	0460-202-2301
P3	Battery - ECU	1	Deutsch	DT04-2P	0460-202-1631
P4	Engine air temp	1	Delphi	12162197	12161184
P5	Engine coolant temp	1	AMP / AMG	0-827551-3	2-925590-2
P6	Throttle position	1	AMP / AMG	1-827578-1	0-925590-2
			-or-		
			Deutsch	DTM06-3S-E007	0462-201-2031
P7	Manifold air pressure	1	Carrol	1201-5793	
P8	Camschaft position	1	Deutsch	DTM06-3S-E007	0462-201-2031
P9	Crankshaft position	1	Deutsch	DTM06-3S-E007	0462-201-2031
			-or-		
			Delphi	12162193	12161184
P10	Communications	1	optional	9 pin D-sub male	
P11	Ignition signal	1	Deutsch (male)	DTM04-2P	0460-202-1631
			-and-		
			Deutsch (female)	DTM06-2SE007	0462-201-2031
P12	Battery – Ignition module	1	Deutsch	DT04-2P	0460-202-1631
P13	Ignition coil	1	Crane	Supplied with ignition coil	
P14	Ignition Module	1	AMP / AMG	0-827580-1	0-925590-2
P15 - 22	Injectors	8	AMP / AMG	0-827551-3	2-925590-2
			-or-		
			Bosch	9112-067-011	

(Rule C 12.5.4)



COMPLETE WHEEL SPECIFICATION **(Rule C 12.2.2)**

