



# New Zealand V8 UTE Racing Championship TECHNICAL REGULATIONS 2017-2018

## PREAMBLE

The New Zealand V8 Ute Racing Championship is a regional development of the Australian Race Series that commenced in New Zealand in 2008. Over the past seasons, the series has grown to become a very popular and highly successful race class. The success can be attributed to the race Utes being production based vehicles with minimal modifications, competing in a tightly controlled class to maintain costs and parity.

These technical regulations have been formulated to enable NZ V8 Ute Racing to prosper in New Zealand and to enable consistent performance parity across all makes and models during the Championship.

The Technical Regulations contained in the following articles apply to all Ford and Holden production V8 utilities contesting the current NZ V8 UTE Racing Championship. Modification of the production vehicles are limited to those expressly detailed hereinafter.

## COMPETITOR RECORD OF AMENDMENTS ISSUED TO THIS SCHEDULE

Use this table to keep a record of all official 'Manual Amendments' issued during the season relative to this Schedule;

Amendment Number	Issue/Effective date	Regulation reference	Subject / Notes

## 1.0 GENERAL INFORMATION RELATIVE TO THIS SCHEDULE

- 1.1 **This Schedule shall be read in conjunction with the safety schedule as detailed in Appendix Two, Schedule A of the current MotorSport Manual**
- 1.2 Unless detailed otherwise within this Schedule, the standards required for the preparation of race vehicles shall be referenced from Appendix Two Schedule A - Driver and Vehicle Safety as contained in the current MotorSport Manual.
- 1.3 All vehicles competing in Events to which these regulations apply shall have a valid MotorSport NZ Logbook.
- 1.4 Each vehicle must remain identical in all respects to the specific production model on which it is based, as supplied by the Manufacturer, unless otherwise detailed in this Schedule or its appendices. These regulations in conjunction with Schedule A define the only permissible changes authorised to the Vehicle, which differ it from the Manufacturers catalogued model, hence **all parts shall remain Standard unless detailed otherwise.**
- 1.5 Any modification to the Production Vehicle, not specifically detailed within this Schedule, or subsequent amendments to this Schedule as issued by NZ V8 Ute Racing Ltd, or the relevant CAMS documents namely; CAMS Homologation Documents (CHD), CAMS Sporting Variants (CSV) and/or CAMS Variant Options (CVO) is expressly forbidden. **All current homologation documents relevant to the Championship may be referenced on the NZ V8 Ute Racing Ltd Website – [www.v8utes.co.nz](http://www.v8utes.co.nz).**
- 1.6 The only work that may be carried out on the vehicle is that necessary for its normal servicing, or for the replacement of parts worn through use or accident, solely using parts allowed for under these regulations.
- 1.7 The manufacturers' general parts catalogue, in which all spare parts are listed, may be referenced for eligibility compliance purposes as well as direct comparison with genuine parts obtained from the manufacturers appointed dealer.
- 1.8 The following replacement parts may be freely sourced; fan belts, radiator hoses, fuel filters, light globes, HT leads, gaskets and window glass. These parts must be replacement parts that respect the configuration and functional dimensions of the parts they replace and be of similar material.
- 1.9 Fasteners are free, provided their material type is not changed.
- 1.10 The use of non-standard parts must not result in the unauthorised modification to any other component.
- 1.11 Where a control repairer (refer Appendix Three) is listed, they are the sole repairer authorised to repair the control parts unless otherwise directed by the Category Technical Director.
- 1.12 All enquiries regarding interpretation of these regulations shall be submitted in writing to the Category Technical Director detailing the article in question and the specific subject matter. It is the Competitors obligation to enquire as to the correct interpretation.
- 1.13 On matters of technical eligibility or safety compliance, a verbal statement or agreement will have no validity. A written reply will always be given to a written enquiry.
- 1.14 NZV8UR reserves the right to make changes to these technical regulations at any time, in the interests of safety, fairness, cost containment and to maintain parity between each of the makes / models competing.

- 1.15 The Championship Coordinator, Category Technical Director / Control Engine Coordinator (CEC) for the current Championship is:  
**Paul Isaac**  
Isaac Performance Vehicles (IPV),  
Taupo.  
**Ph:** 07 377 2081  
**Email:** paul@v8utes.co.nz

## 2.0 DEFINITIONS

- 2.1 Definition of terms used within this Schedule are as set out below:

**Aftermarket:** means a catalogued, off the shelf component sourced from another manufacturer to that of the original vehicle, which may be fitted without making modification to the original vehicle.

**CAMS Documents:** means the 'Homologation Forms', the 'Sporting Variants' and 'Variant Options' all relating to the Ford and Holden vehicles as specified in these regulations and as posted from time to time on the NZ V8 Ute Racing website.

**Category Technical Director or CTD:** means the NZ V8 Ute Racing appointed Championship Coordinator.

**Control Engine Coordinator or CEC:** means the NZ V8 Ute Racing appointed coordinator for the control engine program.

**Category Scrutineer or CS:** means the NZ V8 Ute Racing appointed Championship Scrutineer.

**Cockpit:** means the structural inner volume which accommodates the driver and passenger.

**Control Parts,** means parts that are fully controlled in respect of their specification and application; these parts can only be sourced from the listed suppliers unless no specific supplier is stated in which case the supplier is free but not the stated specification of the part.

**Control Part Security Seal:** means a seal applied to a component or system by a service provider or the Category Technical Director or their nominated assistant.

**Data logger:** means a GPS based multi-purpose data analyser / recorder with telemetry capability for lap times only.

**Fasteners:** means nuts, bolts, studs, washers, screws and pop-rivets.

**Free (part):** means that the original part as well as its function may be removed or replaced with a new part on condition that the new part has no additional function relative to the original part.

**Modification:** means any change authorised within these technical regulations.

**NZV8UR:** means New Zealand V8 Ute Racing Limited.

**OE:** means the vehicle manufacturers 'original equipment' as supplied by the manufacturer through their dealer network or a control supplier.

**Original:** means as fitted by the vehicle manufacturer and includes all devices, equipment, accessories and/or components as fitted to the production model represented.

**Standard:** means the component parts as originally fitted to the make / model represented, by the original manufacturer at the time of the initial sale.

### 3.0 ELIGIBLE VEHICLES

- 3.1 The Ford BF & FG XR8 model as built and supplied by AVD P/L or any other NZV8UR nominated supplier, is eligible for competition in the current Championship as defined by these regulations.
- 3.2 The Holden VE SS model as built and supplied by BRE P/L or any other NZV8UR nominated supplier, is eligible for competition in the current Championship as defined by these regulations.
- 3.3 Left-hand drive vehicles and / or parts are forbidden, unless specifically authorised hereinafter.
- 3.4 Each vehicle shall remain identical in all respects to the specific production model on which it is based, excepting;
- (1) Where specifically detailed otherwise in these regulations, and/or
  - (2) Where the NZ Control Parts are authorised and fitted, and/or
  - (3) As specified in any of the following CAMS Documents; CAMS Homologation Document (CHD), CAMS Sporting Variants (CSV) and/or CAMS Variant Options (CVO).
- 3.5 Any aspect relating to the construction, modification and / or preparation of a vehicle that is not specifically authorised in these regulations and/or the relevant CAMS Documents is prohibited.

### 4.0 CONTROL PARTS / REPLACEMENT PARTS

- 4.1 These regulations categorise and regulate CONTROL PARTS as follows:
- 4.1.1 Where specified, control parts shall be fitted.
- 4.1.2 Any modification or repair of a control part is prohibited unless specifically authorised in these regulations. Control parts shall not be modified, altered, reclaimed, painted, coated or changed in any way. Additionally, any form of abrasive cleaning is prohibited.
- 4.1.3 A list of the control parts and mandatory suppliers is contained in Appendix Four to these regulations.
- 4.1.4 Where control parts are identified left or right and/or the part number denotes a left or right hand part then the control part shall be fitted to the correct side of the vehicle.
- 4.2 All replacement parts shall be either, genuine parts obtained from the manufacturers appointed dealer, or a control supplier, except as detailed otherwise in this Schedule.

### 5.0 TELEMETRY / DATA LOGGING

- 5.1 Two-way voice communication between the driver and the pit-based team is mandatory.  
**Note:** *race radio refer to schedule CH for conditions.*
- 5.2 The use of any data collection or storage devices other than the approved data logger is not permitted. The Category Technical Director may authorise the use of an alternative brand data-logger and that may have enhanced capability for the sole purpose of collecting data to evaluate for future implementation to the Championship and to maintain parity.

- 5.3** The use of any form of telemetry, or storage of data for the purpose of downloading, or the transmission of any data to or from the vehicle, excluding two-way voice communication between the driver and the pit-based team and data transmission to the Championship TV provider, as detailed below, by any means is prohibited. Impulse generators for lap timing are authorised, provided they are separate parts that have no connection with the operation of the vehicle.
- 5.4** Data transmission is permitted from a competing vehicle to acquire data for the Championship TV Provider for the purposes of event promotion and race commentary. The fitting of such equipment is to be authorised/approved by the Category Technical Director.
- 5.5** Additional instruments and alarms may be fitted but only to monitor rpm, oil pressure and temperature, water temperature and level, fuel pressure, volts, a shift light, and lap times. This can include an AiM, or Motec, or Stack dash as fitted to the Holden for engine recording only.

## **6.0 OFFICIAL SEALS / SEALING REQUIREMENTS**

**6.1 Under this Schedule Control Part Security seals shall be fitted as follows;**

**6.1.1 Control Part Security seals fitted by the control (part) service providers;** shall be applied to the following components / assemblies of components prior to despatch. All such seals shall be recorded in the Championship master list retained by the Category Technical Director:

- **Holden Engine Assembly (6.0L):**
  - Timing-chain cover - by two adjoining bolts, or
  - Timing-chain cover and Sump pan – by two adjoining bolts
  - Inlet manifold and/or rocker cover - by two adjoining bolts
  - Sump pan - by one retaining bolt to sump pan or cylinder block (optional).
- **Ford Engine Assembly (5.4L & 5.0 Coyote):**
  - Cylinder heads - by two retaining centre rocker cover bolts on both sides
  - Timing cover and inlet manifold - by two retaining bolts on each side
  - Sump pan - by one retaining bolt to sump pan or cylinder block.
- **Transmission Assembly:**
  - Gearbox casing – either;
  - by two holes, one drilled through the main gearbox casing and the other through the tail-shaft housing, or
  - by two adjoining bolts in the tail-shaft housing or by two adjoining factory pre drilled holes in the main gearbox casing and the tail-shaft housing.
- **Differential Assembly:**
  - Rear axle differential cover - by two adjoining bolts.
- **Ford Front and Rear Shock Absorbers:**
  - By wire seal if Bilstein units are fitted, or by manufacturer serial numbers if any other approved control shock absorber are fitted.

**Note:** *Provided these seals remain intact the components and/or assembly of components they are controlling will be assumed to be compliant with these regulations.*

**6.1.2 Control Part Security Seals** may be fitted by the Category Technical Director or his nominated assistant to maintain control over the following components and/or assemblies of components. All such seals shall be recorded in the Championship master list retained by the Category Technical Director:

Compliance of these (sealed) components remains the responsibility of the Competitor:

- **Holden: ECU / PCM vehicle computer** – by seals fitted through one or two ECU / PCM holes and mounting bracket and by separate seal fitted through one ECU / PCM hole and mounting bracket and wiring harness plug locking lever.

- **Ford BF: ECU / PCM vehicle computer** – by seal fitted through two holes, one drilled through one ECU / PCM retaining bolt and one hole drilled through ECU / PCM mounting bracket.
  - **Ford FG: ECU / PCM vehicle computer** – by seal fitted through ECU / PCM wiring harness connector plug & locking Lever to one hole drilled through ECU / PCM or Mounting bracket.
- 6.2** It is the Competitor's responsibility to ensure that the above detailed assemblies are pre-drilled with 3 mm holes, to enable wire seals to be affixed as and when required.
- 6.3** A Control Part Security seal is to remain valid from the application date / time fitted until replaced by the Category Technical Director or his nominated assistant.

## **7.0 SAFETY EQUIPMENT REQUIREMENTS**

- 7.1** The following safety equipment **shall** be fitted to the competing car:
- 7.2** A safety cage shall be installed by a NZV8UR nominated constructor and homologated by MotorSport NZ under Schedule A.
- 7.3** **Safety harness;** A safety harness compliant to FIA Standard 8853/98 or FIA Standard 8853-2016 shall be installed for the driver and for the passenger seating position.
- 7.4** A competition seat compliant to FIA Standard 8855-1999 shall be installed for the driver. A competition seat respecting the same requirements as the drivers' seat shall be installed to replace the standard passenger seat. Seat mounts may be fabricated and attached to the bodyshell floorpan and/or homologated with the safety cage with all installation respecting Schedule A.
- 7.5** A fire extinguisher shall be installed compliant to extinguisher requirements as detailed in Schedule A. Additionally, an operational plumbed-in fire extinguisher system may be fitted in compliance with FIA Appendix J.
- 7.6** Protective padding shall be in compliance with Schedule A. Additionally, where the occupant's crash helmet could come into contact with the safety cage, the padding shall comply with FIA standard 8857-2001.
- 7.7** A window net shall be installed on both drivers' and passengers' side in compliance with Schedule A.
- 7.8** Brake, fuel, oil and coolant lines may be upgraded to aftermarket lines of a higher specification in compliance with Schedule A.
- 7.9** The following safety equipment shall be worn by the driver:
- 7.10** A protective helmet compatible for use with a frontal head restraint shall be worn and comply with one of the following standards; FIA 8859-2015, SA2015, SA2010, SAH2010, SA2005, SA2000 or BS6658-85 Type A/FR in full compliance with Appendix Two Schedule A.
- 7.11** A frontal head restraint compliant with an FIA or SFI Standard shall be worn.
- 7.12** Protective clothing shall be worn in compliance with Schedule A, although it is highly recommended that all protective clothing is compliant with FIA standard 8856-2000.
- 7.13** **Side impact device;** The installation of a side impact device and/or foam filling the door cavity is permitted. The inner door panel of the door may be modified, and the window and regulator mechanism may be removed only if a side impact device is installed.

## 8.0 RACE WEIGHT

- 8.1 Vehicles must comply with the minimum racing weight as specified below. The racing weight is the current weight of the vehicle at the time of weighing, and shall include the driver and his personal race equipment.

Ford	1825
Holden	1825

- 8.2 Ballast may be added in compliance with Schedule A and may be sealed at any time by the Category Technical Director or his assistant.
- 8.3 The racing weight may be measured at any time during the qualifying sessions and/or races, on the official scales of the meeting.
- 8.4 The official scales of the meeting will be those provided by the meeting organisers.

## 9.0 BODYSHELL and VEHICLE EXTERIOR

- 9.1 **All bodywork**; including any subsequent race day damage shall be presented to a tradesman standard at the start of each round of the Championship.
- 9.2 It is permitted to reshape the wheel arch beading against the inside of the mudguard, and remove the plastic inner liner of the mudguard. It is permitted to modify the plastic inner guard liner for the sole purpose of fitting brake ducting and to obtain clearance of the wheel and tyre.  
*Note: It is recommended to retain the plastic inner guard liners on the Holden's to reduce engine bay heat*
- 9.3 A maximum of three jacking points per side may be inserted into the sills by way of a simple tube secured by fixing plates either bolted or welded to either or both inner and outer surfaces of the sills. The modification may only be for the purpose of jacking the car and shall not directly connect to the safety cage or increase the structural integrity of the car. The sill covers may be locally shaped to accommodate the jacking sockets. The reinforcement of jacking points is permitted by the addition of metal plate/s. This reinforcing must not exceed a surface area of more than 150mm x 150mm and must follow the contours of the original structure.
- 9.4 Where a side impact device has been fitted in a door, the door window may be substituted with a polycarbonate or acrylic window of a minimum thickness of 3.0mm, clear and free of scratching, provided they fit within the Original frame. Holes may be introduced into the polycarbonate or acrylic window and/or a ventilation duct fitted and must also have a hand-hole to allow the window insert to be easily removed by a track marshal.
- 9.5 Headlamp covers may be fitted that solely cover and follow the headlamp's external profile.
- 9.6 Protection mesh may be fitted to the front bumper apertures.
- 9.7 A minimum of two exposed steel locking pins shall be fitted near the front corners of the bonnet. A minimum of two exposed steel locking pins shall be fitted near the rear corners of the rear deck-lid & and must be secured with internal tie downs
- 9.8 The original door intrusion bars may be removed.
- 9.9 The removal of the door locking mechanisms is permitted.
- 9.10 All plastic shrouding located in the engine bay, the sole purpose of which is aesthetic, may be removed.
- 9.11 A protective screen may be mounted in front of the radiator subject to the express approval of the Category Technical Director or his assistant.
- 9.12 The control rear deck-lid shall be fitted

- 9.13 **Ford:** The control rear wing may be fitted.
- 9.14 **Holden:** The control tailgate insert may be fitted.
- 9.15 **Holden:** The control front and/or rear bash plates may be fitted.
- 9.16 The windscreen shall be laminated and may be a heated windscreen.
- 9.17 An access hole may be cut through the rear deck and liner for the sole purpose of accessing the fuel pump.
- 9.18 **Ford:** An engine alloy sump bash plate may be fitted.

## 10.0 VEHICLE INTERIOR

- 10.1 Headlining, carpet and sound deadening materials on the floor and firewall may be removed.
- 10.2 The steering lock assembly shall be removed or disabled.
- 10.3 A replacement steering wheel is authorised. The upper end of the steering column may be modified solely to enable fitment of a quick release mechanism for the steering wheel.
- 10.4 Anti-slip pads may be fitted over each pedal and a heel plate added beneath the pedals. It is permitted to increase the size of the pedal pads. A foot rest may be fitted to the left of the clutch pedal.
- 10.5 An additional stop for the clutch and throttle may be fitted under the pedals.
- 10.6 Interior trim may be modified for the sole purpose of installing the safety cage.
- 10.7 Air bag SRS systems shall be removed including all sensors and activators.
- 10.8 Control foot-well plates shall be fitted on both left and right hand sides.
- 10.9 Interior door trim panels may be replaced with the control panels.
- 10.10 Switch panels may be replaced with the control part.

## 11.0 ENGINE

- 11.1 All competing vehicles shall be fitted with a standard Series Production Engine or a Series Control Engine. All engines shall have the mandatory control parts fitted. Detail of the Control Engine Program is detailed in Appendix One to this schedule.
- 11.2 All engines and component parts thereof shall remain standard in all respects unless specified otherwise in this schedule. The specifications of the Control Engine are detailed in Appendix Two to this schedule.
- 11.3 Each individual engine shall have an identification tag / Control Part Security seal fitted as per Article 6.0 of this schedule. The fitment of the seals will be managed by the Category Technical Director.
- 11.4 Competitors shall inform the Category Technical Director prior to changing, rebuilding or repairing an engine during the Championship.
- 11.5 **Holden engine specific requirements:**
  - 11.5.1 The control front crankshaft pulley/balancer shall be fitted together with the control ARP bolt and washer. *Note it is recommended to have a crankshaft key way machined & key fitted.*



- 11.5.2 The control timing pointer shall be fitted when the engine is rebuilt by the control engine builder.
- 11.5.3 The engine mounts may be replaced by solid mounts or polyurethane mounts but the standard height and position of the engine must be retained, unless specified further in this schedule, if polyurethane engine mounts are used these may be wrapped with heat proof material to eliminate melting or distortion of the mounts.
- 11.5.4 The control engine cooler kit may be fitted.
- 11.6 **Ford 5.4 engine specific requirements;**
- 11.6.1 The control front crankshaft pulley/balancer shall be fitted together with the control ARP bolt and washer.
- 11.6.2 The control water pump pulley shall be fitted.
- 11.6.3 The control engine cooler kit may be fitted.
- 11.6.4 The engine shall be relocated 20mm rearward from the standard position, the control height polyurethane mounts shall be used, hi-tensile bolts may be fitted to secure the engine through the mounts and securing nuts may be modified to lock the nuts in place to enable bolting or tighten of the mounting bolts through the alloy cross-member. The engine mounts may be wrapped with heat proof material to eliminate melting or distortion of the mounts.
- 11.6.5 The control alloy cross-member that locates the engine may have 2 holes drilled to allow access to tighten the engine mount through bolts.

## 12.0 ENGINE MANAGEMENT SYSTEM / IGNITION SYSTEM / INDUCTION SYSTEM

- 12.1 With the exception of any software or firmware installed by the Category Technical Director, the ECU shall remain unmodified.
- 12.2 The ownership of all software and firmware (engine maps and other programs) contained in the ECU remains at all times with NZV8UR and shall only be accessed or modified by the Category Technical Director. Access by the use of scan or diagnostics tools is also prohibited unless authorised by the Category Technical Director.
- 12.3 The control ECU tune program shall be installed by the Category Technical Director.
- 12.4 All sensors shall remain connected unless detailed otherwise in this schedule.
- 12.5 The air filter shall be replaced with the control part.
- 12.6 The Ford BF factory air box and snorkels shall be fitted.
- 12.6.1 The Ford FG shall have the control SS induction growler cold air kit and control alloy intake tube and MAF fitted.
- 12.7 **Holden:** shall have the control Walkinshaw OTR cold air kit and OE MAF fitted.

## 13.0 FUEL and FUEL SYSTEMS / OILS, LUBRICANTS and COOLANT FLUID

- 13.1 **Control Fuel:** The only fuels authorised for use in competing vehicles at any Round of this Championship is BP Ultimate 98 Unleaded Fuel or as approved by the Technical Director.
- 13.2 **Fuel Purchase;** All competitors are required to provide & bring your own control fuel to each Round, there will be no control fuel available at any of the Rounds.

- 13.3** Additives of any kind, specification, chemical description or composition shall not be added to the fuel, nor may a blend of two or more fuels be used. With the exception of ambient atmospheric air and the specified control fuel, no other substance may be added to the intake charge of the engine.
- 13.4** Holdens shall be fitted with a control fuel sampling coupling in the fuel feed line to the fuel rail as specified by the Category Technical Director. All Competitors upon entering the Championship agree to fuel samples being taken for compliance purposes.
- 13.5** Cooling of fuels before filling the vehicle and the use of fuel coolers is prohibited.
- 13.6** **Oils, Lubricants and Coolant Fluid:** The control oils, lubricants and coolant fluid shall be used when there is a Championship sponsor who is providing control fluids, excepting Brake and Clutch fluids are free.

## **14.0 EXHAUST SYSTEM**

- 14.1** The complete control exhaust system shall be fitted. The only permitted modifications are detailed in this article.
- 14.2** Brackets may be added for the sole purpose of mounting the system or heat protection shields may be fitted to the exhaust system or to the vehicle or its components.
- 14.3** The manifold (to cylinder head) flange mounting holes may be elongated to facilitate alignment. Spot facing of the flange is permitted within a radius of 15mm from the centre of the elongated hole.

## **15.0 COOLING SYSTEM**

- 15.1** **Ford:** The thermostat shall be replaced by a MotoRad or equivalent 71°C / 160°F replacement thermostat. The bleed float may be removed and one additional 3mm hole drilled for bleeding purpose only.
- 15.2** **Holden:** The thermostat may only be replaced by a genuine AC Delco 86°C thermostat as originally fitted. The bleed float may be removed and one additional 3mm hole drilled for bleeding purpose only.
- 15.3** Radiator ducting is free only for the purpose of directing cooling air to the radiator, provided that it remains within the perimeter of the coachwork when viewed from the front and above and that no bodywork alterations are required. Such ducting shall not be used to direct or cool air for the induction system.
- 15.4** Removal of heater hoses is permitted.
- 15.5** The standard coolant expansion tank may be moved or replaced with another tank that provides the same function.
- 15.6** The OE, or aftermarket radiator may be fitted.
- 15.7** **Ford:** The control steam reliefs may be fitted.
- 15.8** It is permitted to rewire the standard radiator fans so that the operation of the fans is manually controlled, **or** automatically controlled by the ECU.
- Note:** *it is recommended to have the fan operation controlled by the ECU and the use of a separate switch only as an override.*
- 15.9** A radiator overflow catch tank shall be fitted.

## 16.0 TRANSMISSION / DRIVELINE

- 16.1** The transmission and driveline must remain unmodified, unless specified otherwise in this Schedule.
- 16.2** The control flywheel and clutch kit shall be fitted.
- 16.3** The control clutch alloy concentric slave cylinder, spacer kit, braided master cylinder and bleed lines may be fitted.
- 16.4** All competing Ford vehicles shall be fitted with either an OE T56 transmission or the control ATC 6060 transmission assembly as supplied by the Category Control Service Provider – All Holden's shall be fitted with the control common ratio ATC 6060 transmission - refer Appendix Three to this schedule.
- 16.4.1** All control transmissions shall have Control Part Security seals fitted as per Article 6.0 of this Schedule. The fitment of these seals will be managed by the Category Technical Director.
- 16.4.2** Competitors shall inform the Category Technical Director prior to changing or repairing the transmission during the Championship.
- 16.5** **Gearbox ratios:** Only the following control ratios are authorised:

	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	Rev
Ford	2.97:1	1.78:1	1.30:1	1:1	0.80:1	0.63:1	2.90:1
Holden	2.97:1	1.78:1	1.30:1	1:1	0.80:1	0.63:1	2.90:1

- 16.6** **Selector forks:** may be repaired to the original specification. In addition a wear pad may be added to the centre of the fork arch to provide extra support.
- 16.7** The control gear shifter shall be fitted. The shifter knob is free providing the only modification to the shifter is for the sole purpose of attaching the knob.
- 16.8** **Ford:** The driveshaft shall be shortened by 20mm from the factory length or the optional heavy duty control driveshaft may be fitted.
- 16.9** All competing vehicles shall be fitted with the control rear axle assembly (for Ford) or control final-drive (for Holden) as supplied by the Category Control Service Provider - refer Appendix Three to this schedule.
- 16.9.1** All control rear axle assembly / final-drive shall have Control Part Security seals fitted as per Article 6.0 of this schedule. The fitment of these seals will be managed by the Category Technical Director.
- 16.9.2** Competitors shall inform the Category Technical Director prior to changing or repairing a rear axle assembly or crown-wheel / pinion parts during the Championship.
- Note:** *The control rear axle assembly / final-drive assemblies incorporate a spool to lock the differential action and an optional solid pinion spacer may be fitted for reliability.*
- 16.9.3** **Ford BF:** Reference CSV Homologation No. 6-05-015, Extension No. 08/08. The following amendments/additions are introduced:
- (i) the rear axle assembly flange to flange width at axle centre-line is 1623mm +/- 10mm.
  - (ii) the rear brake calliper steel mounting bracket location reference is measured from the flat of the underneath of the spring pad vertical to the centre of the front calliper mounting hole – the height is 100mm +/- 10mm and 50° +/- 5° measured across the top edge front to rear of the calliper bracket. Refer Category Technical Director for drawings / photos.

**Note:** *Refer to the Category Technical Director for Ford FG rear axle assembly specifications.*

**16.9.4 Ford BF:** Repairs may be carried out by a competent engineer to the following;

- (i) Brake calliper steel mounting brackets: A mild steel triangular gusset of flat 40mm x 40mm x 10mm may be located and welded to the top centre of the axle tube and to each steel brake calliper mounting bracket for additional strength and safety to eliminate the brake bracket twisting forward or breaking off the axle tube.
- (ii) Spring Pads: A mild steel insert of flat 66mm x 35mm x 10mm maybe welded into the front & rear of each spring pad and to the axle tube to prevent the spring pads bending up and allowing the diff head to roll forward or back causing drive-line damage.
- (iii) Stub axles: 3 additional ½ inch or 12.7mm plug weld holes spread evenly around the axle tube maybe drilled through axle tubes into each stub axle and plug mig welded for additional strength & safety eliminating the stub axles parting company with the axle tubes.
- (iv) Axle tubes: If any cracking is detected in the axle tube tig welding to diff head, grinding out of the tig welding and mig welding the tubes to the diff head is permitted to stop the diff head rolling on the diff tubes eliminating driveline damage.

**Note:** *Caution must be exercised: When welding the rear axle assembly components to ensure no pulling of the brake brackets or axle tubes takes place and minimize the heat transfer with the mig welding process.*

**16.10** Final-drive ratios: Only the following final-drive ratios are authorised;

	Ratio	Tooth Count
Ford	3.46:1	13 / 45
Holden	3.45:1	11 / 38

**16.11** An extension hose and breather filter or a catch tank and breather filter may be fitted to the original breather outlet for both the transmission & differential.

**16.12 Holden:** Differential Mounting Rubber Bushes may be substituted with aftermarket replacement nolathane bushes.

## 17.0 SUSPENSION

**17.1 General:** the following control suspension parts shall be fitted to both Ford and Holden models;

**17.1.1** The control front spring platform, control front springs, control front tender springs and control front spring dividers.

**17.1.2** The control front spring platforms, may be modified solely to accommodate the installation of the suspension springs.

**17.1.3** The control front shock absorber units.

**17.1.4** The control front caster arm bush.

**17.1.5** Rear control spring platforms, which may be modified solely to accommodate the installation of the suspension springs or the control alloy spring platforms may be fitted.

**17.1.6** The control rear shock absorber units.

**17.2 Ford model specific:** the following control parts shall be fitted;

**17.2.1** The control rear leaf springs and front bush. It is permitted to grease the control rear springs.

**17.2.2** The control Front Upper Control Arm Inner Bushes.

- 17.2.3 The control upper front caster and camber mounting brackets.
- 17.2.4 The control front sway bar mounts.
- 17.2.5 The control front & rear wheel studs.
- 17.2.6 The OE or aftermarket front lower control arm & ball joints may be fitted.
- 17.2.7 The control optional rear axle tramp rod kit may be fitted.
- 17.3 **Holden model specific:** the following control parts shall be fitted;
- 17.3.1 The control front strut leg assembly, including camber bolts.
- 17.3.2 The control front control-arm bushes.
- 17.3.3 The control front wheel studs.
- 17.3.4 The control rear springs.
- 17.3.5 The optional control rear sway bar kit and toe links may be fitted.
- 17.4 The maximum negative camber permitted is as follows;

	Front camber	Rear camber	Rear toe
Ford	5.5°	1.0° degrees +/- 0.1°	N/A
Holden	5.5°	N/A	N/A

- 17.5 The minimum rear ride height permitted is as follows;

	Front ride height	Rear ride height
Ford BF	N/A	340 mm
Ford FG	80mm	152 mm
Holden VE	N/A	335 mm

**Note:** Refer also to current NZV8UR parity sheet for all measurement points.

- 17.6 The wheelbase shall at all times remain as follows;

	Wheelbase
Ford BF	3095 mm +/- 10 mm
Ford FG	3104 mm +/- 10 mm
Holden	3009 mm +/- 10 mm

- 17.7 Bump stops may be removed, modified and/or replaced.
- 17.8 Rubber bushes may be substituted with aftermarket bushes of different elastic material of maximum hardness Shore-90 with the exception of any bushes that are control parts.
- 17.9 The anti-roll bar(s) may be disconnected but not removed.

## 18.0 BRAKES

- 18.1 The control front brake rotors and callipers shall be fitted. Where 32mm front rotors are installed, the control front caliper spacer kit shall be fitted.
- 18.2 The control front brake calliper mounting brackets shall be fitted. The hub/stub axle may require material to be relieved solely to enable fitment of the bracket. The control mounting bracket may be modified solely for the purpose of brake duct attachment.

- 18.3 The control front brake rotor mounting hat shall be fitted. Mounting hat to hub flange attachment screws may be fitted.
- 18.4 The control rear brake rotors and callipers shall be fitted.
- 18.5 The control rear brake calliper mounting brackets shall be fitted.
- 18.6 The control rear brake rotor mounting hat shall be fitted. Mounting hat to hub flange attachment screws may be fitted.
- 18.7 **Brake Pads:** The control front and rear brake pads shall be fitted. A combination of the control rear brake pads is authorised on Holden only.
- 18.8 **Ford:** The control brake master cylinder shall be fitted and the control brake booster may be fitted
- 18.9 **Holden:** The control brake master cylinder, booster and ABS bypass block kit shall be fitted including the four(4) ABS wheel sensors with all the wiring harness plugs connected. The ABS fuse and relay shall be fitted to enable the OE speedometer to operate for the purpose of setting the parity engine rpm if required within the control tune program.
- 18.10 **Brake cooling:** A single brake cooling duct may be installed for each front wheel. The control brake cooling duct shall be installed into the air duct aperture in the front bumper. Brake ducting is free from the exit of the control front bumper cooling duct providing only air is ducted to the brakes through the brake ducts. Brake ducts may be blanked off.
- 18.11 No reinforcement of the chassis rail or subframe as part of the cooling duct or cooling duct attachment is permitted.
- 18.12 **Front and rear brake backing / protection plates:** may be removed/replaced or modified for the sole purpose of brake cooling/venting.
- 18.13 **Brake lines and hoses:** may be changed in compliance with Schedule A.
- 18.13.1 The control front and rear stainless steel braided brake lines shall be fitted.
- 18.14 **ABS:** shall be removed or disabled as follows;
- **Ford:** the entire system shall be removed including all sensors.
  - One sensor that is not connected to the PCM may be retained for the aim dash speedo function only.
  - **Holden:** by fitting the control ABS bypass block.
- 18.15 The master cylinder reservoir may be remotely mounted, within the engine compartment.
- 18.16 Brake components may be shimmed or spaced for alignment purposes only.

## 19.0 STEERING

- 19.1 The steering rack mount bushes (rubber bush) may be substituted.
- 19.2 A power steering cooler may be fitted, the cooler and its fitment is free.
- 19.3 Steering lock stops may be fitted.
- 19.4 **Ford:** Aftermarket inner tie-rods only are authorised.
- 19.5 **Holden:** Heat shields may be fitted to the outer tie rod ends to protect the rubber boots.
- 19.6 **Holden:** Aftermarket inner and outer tie-rods are authorised.

## 20.0 TYRES / WHEELS

**20.1 Tyre type:** Only the 'Control Tyre' shall be fitted to the vehicle at all times during a meeting.

**20.2** The control tyre for the current Championship is as follows:

Manufacturer: Yokohama  
Model: ADVAN A048  
Size: 235/40 R18 (All Models)  
Specification: MH Compound Article No: K8862

**20.3** The control tyres shall not be modified in any way.

**20.4** The eligible control PDW road wheels shall be fitted. It is permitted to paint the control road wheels.

**20.5** The vehicle's competition number shall be indelibly marked on the outer wheel rim face.

**20.6** The outer circumference of the wheel centre may be machined for the sole purpose of clearance over the front and rear wheel hubs or spacers.

**20.7** All wheels fitted to the vehicle shall be the eligible control PDW road wheel for qualifying and all races as specified in the control parts list.

**Notes:**

*1. The list of control wheels date of manufacture will be published by the Category Technical Director.*

*2. The PDW wheel with the year of manufacture of 12-13 (cast into the rear of the wheel spoke) is specifically prohibited.*

**20.8** The control front wheel spacers shall be fitted.

## 21.0 ELECTRICAL SYSTEM

**21.1** All competing vehicles shall be fitted with a rearward facing control red rain light. This light must be switched on whenever the vehicle is being driven on a wet race track or as otherwise directed by the Race Director. The Category Technical Director will be the final arbiter in regard to the suitability of the light.

**21.2.** All the original production brake lights shall be fully operational at all times. They must operate within 13mm of pedal travel.

**21.3** The battery shall be relocated behind the passenger seat in compliance with Schedule A. An aftermarket battery is authorised and the connections may be upgraded.

**21.3.1 Ford:** the control battery enclosure shall be fitted.

**21.4 Ford:** The front wiring looms may be relocated around the front wheel arches.

**21.5** The rear wiring loom may be relocated away from the exhaust.

**21.6 Holden:** Rain-light; the original high-stop brake light shall be wired as the rain light.

**21.7 Ford BF:** Rain-light; the control rain-light shall be fitted to the rear of the cab roof.

**21.8 Battery Isolation Switch:** All competing vehicles shall be fitted with a fully operational external emergency Engine Ignition Source & Fuel Pump disconnecting function.

END

## APPENDIX ONE – CONTROL ENGINE PROGRAM

- A.1.0 General:** The control engine program regulations shall be read in conjunction with the current NZV8UR - Control Engine Program Document. Refer CEC for a copy of this document.
- A.1.1** The NZV8UR Control Engine Coordinator (CEC) is Paul Isaac who shall be responsible to manage the organisation of all engine rebuilding and/or repairs – for contact details refer Article 1.16 of this schedule.
- A.1.2** All engine rebuilds and/or repairs shall require prior approval from the CEC in accordance with the NZV8UR control engine program.
- A.1.3** All competitors shall advise the CEC of the need for an engine rebuild / repair before organising delivery to the category engine builder. The CEC will schedule and coordinate the engine rebuild / repair process with the category engine builder.
- A.1.4** All engine rebuilds / repairs shall be performed by the category engine builder, except in the following scenarios;
- (1)** The CEC may authorise a nominated party to perform an engine repair during or between Rounds of the Championship. This allowance will only apply if there is no spare shareholder (sealed) control engine.
  - (2)** The CEC may authorise a new or used replacement engine. If approval is given then all control parts that are bolt-on must be fitted to this engine, including the clutch and flywheel. This engine must have fasteners changed or drilled to allow the fitment of category seals.
- A.1.5** At the expense of the Competitor, all engines, either standard production engines or NZV8UR control engines shall be parity dyno checked (on the approved category dyno) by the CEC prior to becoming eligible to use in the Championship, except as detailed in A.1.6.
- A.1.6** An allowance may be granted by the CEC to use an engine prior to it being dyno checked (as per article A.1.5) if such engine is authorised by the CEC for use during or between Rounds of the Championship. This allowance will be managed by the CEC and the engine will be subject to a dyno check as soon as possible after its introduction.

**Note:** *The category control engine builder for the current Championship is Henson and Murray (Taupo). All communication relative to the control engine shall be solely directed to the CEC Paul Isaac and not directly with the category engine builder.*



## APPENDIX TWO – CONTROL ENGINE SPECIFICATIONS

- A.2.0** The following changes to the Series Production Engine may be made by the Category Control Engine builder when an engine is submitted for rebuilding/repair as coordinated by the CEC as per Appendix Two of this Schedule;
- A.2.1 Holden:** The control sump assembly shall be fitted.
- A.2.2 Holden:** The control (heavy duty) timing chain and gear sets shall be fitted, and the crankshaft will be machined for timing chain clearance. Additionally, the oil pump housing and timing cover may have material removed to provide timing chain clearance.
- A.2.3 Holden:** The control crank pulley/balancer and ARP bolt shall be fitted and the crankshaft keyway shall be machined to enable fitment.
- A.2.4 Holden:** The control timing chain guide block kit may be fitted.
- A.2.5 Holden:** The control forged pistons & con-rod assemblies may be fitted.
- A.2.6 Holden:** The control replacement con-rod bushes maybe fitted.
- A.2.7 Holden:** The control piston rings may be fitted.
- A.2.8 Holden:** The control engine bearings may be fitted.
- A.2.9 Holden:** The control oil pump may be fitted
- A.2.10 Holden:** The control hydraulic cam lifters may be fitted.
- A.2.11 Holden:** The control engine gaskets maybe fitted
- A.2.12 Ford BF:** The control sump, oil pump pick up, windage tray / crank scraper kit shall be fitted.
- A.2.13 Ford FG:** The control sump, oil pump pick up, and windage tray shall be fitted.
- A.2.14 Ford BF:** The control crank pulley/balancer, ARP bolt, and water pump pulley shall be fitted.
- A.2.15 Ford BF:** The control oil pump & billet gears shall be fitted.
- A.2.16 Ford BF:** The control forged pistons & con-rod assemblies may be fitted.
- A.2.17 Ford BF:** The control replacement con-rod bushes maybe fitted.
- A.2.18 Ford BF:** The control piston rings may be fitted.
- A.2.19 Ford BF:** The control engine bearings may be fitted.
- A.2.20 Ford BF:** The control engine gaskets maybe fitted.
- A.2.21 Engine bolts;** are authorised and fitted as per the control parts in Appendix Four of this Schedule.

## APPENDIX THREE – CONTROL SERVICE PROVIDERS

### PARITY DYNO AND DYNO TUNING:

#### Isaac Performance Vehicles (IPV) – Taupo

Contact Paul Isaac  
Phone: 07 377 2081  
Email: [paul@v8utes.co.nz](mailto:paul@v8utes.co.nz)

### CATEGORY CONTROL ENGINE BUILDER / REPAIRER:

#### Henson & Murray – Taupo

Contact Paul Isaac – Engine Coordinator  
Phone: 07 377 2081  
Email: [paul@v8utes.co.nz](mailto:paul@v8utes.co.nz)

### CATEGORY TRANSMISSION / PARTS SUPPLIER / BUILDER / REPAIRER:

#### ATC Australia / Performance Transmissions

Contact:  
Derek Price  
Performance Transmissions  
154 Manukau Rd  
Pukekohe  
Phone: 09 238 3832  
Email: [perfranz@ihug.co.nz](mailto:perfranz@ihug.co.nz)

### CATEGORY FINAL DRIVE / AXLE ASSEMBLY / PARTS SUPPLIER / BUILDER / REPAIRER:

#### Diff Specs – Auckland

Contact: Dennis Running  
Phone: 09 250 1540  
Email: [difspec@xtra.co.nz](mailto:difspec@xtra.co.nz)

Note; this excludes the Ford rear axle assembly control parts which are available from IPV.

### CATEGORY SHOCK ABSORBER / SPRINGS SUPPLIER / BUILDER / REPAIRER: (For front and rear Bilstein shock absorber and spring assembly)

#### Racelign - Auckland

Contact: Iain Wilson  
Phone: 09 574 2294  
Email: [iainw@autolign.co.nz](mailto:iainw@autolign.co.nz)

Note; this excludes the DMS Holden & Ford front & rear suspension:  
Contact the DMS Service agent or Paul Isaac  
Note; this excludes the Ford rear leaf springs which are available from IPV.

**APPENDIX FOUR – CONTROL PARTS and MANDATORY SUPPLIERS**

<ul style="list-style-type: none"> <li>▪ All Ford Control Parts:</li> <li>▪ <b>Plus</b> All Other Ford &amp; Holden Control Parts:</li> <li>▪ Engine Parts:</li> <li>▪ Exhausts:</li> <li>▪ Alloy Wheels:</li> <li>▪ Brake Master Cylinders and Boosters:</li> <li>▪ Braided Brake Lines:</li> <li>▪ Gear Shifters:</li> </ul>	<p><b>Isaac Performance Vehicles (IPV) - Taupo</b>                  Phone: 07 377 2081                  Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a>                  Contact: Paul Isaac</p>
Holden; <ul style="list-style-type: none"> <li>▪ Control ABS bypass kit.</li> </ul>	
Ford & Holden; <ul style="list-style-type: none"> <li>▪ OE Engine Parts:</li> </ul>	<p><b>Any authorised Ford / Holden dealer or Isaac Performance Vehicles (IPV) - Taupo</b>                  Phone: 07 377 2081                  Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a>                  Contact: Paul Isaac</p>
Holden; <ul style="list-style-type: none"> <li>▪ Control Parts:</li> </ul> Excluding Control Parts Supplied Via IPV as listed above	<p><b>Wildcard Racing</b>                  Papakura                  Phone: 021 795 691                  Email: <a href="mailto:james@jda.net.nz">james@jda.net.nz</a>                  Contact: James Urquhart</p>
<ul style="list-style-type: none"> <li>▪ Tyres (Yokohama):</li> </ul>	<p><b>Radial Imports NZ Ltd - Auckland</b>                  Phone: 09 274 0079                  Emails: <a href="mailto:jonathan@yokohama.co.nz">jonathan@yokohama.co.nz</a>,  <a href="mailto:ian@yokohama.co.nz">ian@yokohama.co.nz</a>,  <a href="mailto:peter@yokohama.co.nz">peter@yokohama.co.nz</a>                  Contact: Jonathan Cocker or Ian Payne                  or Peter Breen</p>
<ul style="list-style-type: none"> <li>▪ Brake Rotors and Hats (DBA):</li> <li>▪ NAS bolts and nuts:</li> </ul>	<p><b>Isaac Performance Vehicles (IPV) - Taupo</b>                  Phone: 07 377 2081                  Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a>                  Contact: Paul Isaac</p>
<ul style="list-style-type: none"> <li>▪ Brake Pads (Ferodo):</li> </ul>	<p><b>Neil Allport Motorsports Ltd</b>                  Phone 09 579 0113                  Email: <a href="mailto:neil@namsport.co.nz">neil@namsport.co.nz</a>                  Contact: Neil or Richard</p>
<ul style="list-style-type: none"> <li>▪ Flywheels (ACS):</li> <li>▪ Clutch Kits (ACS):</li> <li>▪ ARP Flywheel &amp; Clutch Bolts:</li> <li>▪ Alloy Concentric Slave Cylinders:</li> <li>▪ Stainless Steel Braided Clutch Lines:</li> </ul>	<p><b>Isaac Performance Vehicles (IPV) - Taupo</b>                  Phone: 07 377 2081                  Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a>                  Contact: Paul Isaac</p>
Note; ARP Clutch & Flywheel Bolts are available from IPV.	
<ul style="list-style-type: none"> <li>▪ AP Brake Callipers &amp; Replacement Parts:</li> </ul>	<p><b>Isaac Performance Vehicles (IPV) - Taupo</b>                  Phone: 07 377 2081                  Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a>                  Contact: Paul Isaac</p>

<ul style="list-style-type: none"> <li>Oil &amp; Fluids: <b>Shell</b></li> </ul>	<p><b>Tyreline</b> via series allocation</p>
<ul style="list-style-type: none"> <li>Castrol SRF brake &amp; clutch fluid</li> </ul>	<p><b>Isaac Performance Vehicles (IPV) - Taupo</b> Phone: 07 377 2081 Email: <a href="mailto:paul@v8utes.co.nz">paul@v8utes.co.nz</a> Contact: Paul Isaac</p>
<ul style="list-style-type: none"> <li>K &amp; N Oil &amp; Air Filters, Champion Spark Plugs:</li> </ul>	<p><b>Motospecs Pioneer Autoparts</b> Phone: 09 634 9965 Email: sales@pap.co.nz Contact Customer Services</p>
<ul style="list-style-type: none"> <li>Radiators Aluminium - PWR:</li> <li>or</li> <li>OE or Aftermarket Radiators</li> </ul>	<p><b>Eastern Automotive - Auckland</b> Phone: 09 274 2941 Email: <a href="mailto:paul@eapc.co.nz">paul@eapc.co.nz</a> Contact Paul Manuell or <b>From any authorised agent or supplier</b></p>
<ul style="list-style-type: none"> <li>Walkinshaw OTR Cold Air kit:</li> </ul>	<p><b>Eastern Automotive - Auckland</b> Phone: 09 274 2941 Email: <a href="mailto:paul@eapc.co.nz">paul@eapc.co.nz</a> Contact Paul Manuell</p>
<ul style="list-style-type: none"> <li>Windscreens:</li> <li>Or</li> <li>OE, or Aftermarket Laminated, or Laminated heated Screen</li> </ul>	<p><b>From any authorised agent or supplier</b></p>

## NZ V8 UTE RACING LTD – CONTROL PARTS AND MANDATORY SUPPLIERS

Part Description	Manufacturer or Part No.	Mandatory Supplier
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### FORD:

Drift box Data Logger	Race logic	Racer Industries Australia
Deck-lid	Ford	Ford Or Aftermarket Supplier
Rear Deck-lid Wing	Ford	Ford Or Any Aftermarket Supplier
Heated Front Windscreen	Variable	Free
Crank Balancer & Pulley Kit	Powerbond	IPV
Engine Sump and Windage Tray Kit	IPV and Canton	IPV
Pistons Forged	Manley	IPV
Piston Rings	Manley	IPV
Connecting Rods Forged	Manley	IPV
Connecting Rod Bushes	Manley	IPV
Engine Main & Rod Bearings	Clevite H	IPV
Bronze Valve Guide Inserts	K Line	IPV
Engine Gaskets	OE or Aftermarket	IPV
Oil Pump & Billet Gears	Melling Or Equivalent Make	IPV
Engine Oil Cooler	Fluid Power	IPV

<b>Part Description</b>	<b>Manufacturer or Part No.</b>	<b>Mandatory Supplier</b>
Flywheel Billet Steel	ACS	IPV
Clutch Cover & Centre Sprung Disc	ACS	IPV
Clutch Alloy Concentric Slave Cylinder Kit & Braided Lines	ACS	IPV
Spigot Bearing - Heavy duty	SKF or Equivalent	IPV
Engine Fasteners (ARP)	ARP	IPV
Thermostat 71°C / 160°F	MotoRad	IPV
ECU Tune Program	NZV8URLtd	CTD
Spark Plugs	Champion	Motospecs Pioneer
Air Filter	K & N	Motospecs Pioneer
Engine Oil Filter	K & N	Motospecs Pioneer
Engine Oil	Shell	Tyeline
Gearbox Oil	Shell	Tyeline
Differential Oil	Shell	Tyeline
Power steering Oil	Shell	Tyeline
Coolant	Shell	Tyeline
Brake Fluid	Variable or Castrol SRF	Free or IPV
Fuel Test Coupling	Variable	IPV
Exhaust Headers	Pacemaker	IPV
Exhaust System	Pacemaker	IPV
Radiator	OE or Aftermarket	Free
Steam Reliefs	Impact Motorsport	IPV
Differential Spool	Quick Turn	IPV
Rear Axle Assembly and Parts	Ford & Quick Turn	IPV
Rear Axle Assembly and Parts (FG only)	Ford & Bosnjak	IPV
Front (BF/FG) & Rear (BF) Wheel Studs	Quickturn	IPV
Rear Wheel Studs (FG only)	Bosnjak	IPV
Front Wheel Alloy Spacers	Quickturn	IPV
Gear Shifter	Variable	IPV
Gear Stick	Variable	IPV
Driveshaft - Heavy Duty Option	Driveline	IPV
DMS Suspension Front & Rear (excluding rear leaf springs)	DMS / King	DMS NZ
Adjustable Spring Platform Front	Circleline Engineering	Racelign
Front Springs & Keeper Springs	King	Racelign
Shocks Front & Rear	Bilstein	Racelign
Shocks Front & Rear (FG only)	Supashock	IPV
Springs Rear (Leaf)	King (Race Ute Specific)	IPV
Rear Leaf Spring Front Bush	Quick Turn	IPV
Front Sway Bar Mounts (Modified)	Ford / IPV	IPV
Front Upper Control Arm Inner Bush	Nolathane	Racelign
Front Lower Control Arm Castor Offset Bush	Whiteline	IPV
Front Castor Camber Bracket Kits	Whiteline	IPV
Front Lower Control Arms	OE Ford or Roadsafe	IPV
FG Front Lower Inner Control Arm Bush Kit	K-MAC	IPV
Front Caster Arm Bush Kit	K-MAC	IPV
Front Ball Joints STD & Oversize	Roadsafe	IPV
Inner rack ends	Roadsafe	IPV
Front Alloy Cross Member (Modified)	Ford / IPV	IPV
Rear Axle Tramp Rod Kit	Mal Wood Automotive	IPV
Brake Calipers Front	AP	IPV
Brake Front Caliper 32mm Spacer	Peters Motorsport	IPV

Part Description	Manufacturer or Part No.	Mandatory Supplier
Kit		
Brake Calipers Rear	AP	IPV
Brake Caliper Alloy Mounts Front & Rear	AP	IPV
Braided Brake Hoses Front & Rear	ACS	IPV
Brake Rotors and Hats Front & Rear	DBA	IPV
Brake Pads Front	Ferodo FRP3003UTEW	Neil Allport Motorsports Ltd
Brake Pads Rear (both compounds)	Ferodo FRP3085UTEW or R	Neil Allport Motorsports Ltd
Front Bumper Fibre Glass Brake Ducts	IPV	IPV
Front Headlight Fibre Glass Replacement Covers	IPV	IPV
Front Brake rotor ducting Alloy Mounts	IPV	IPV
Control Brake Booster	Variable	IPV
Optional Control Ratio Brake Booster	Variable	IPV
Control Brake Master Cylinder	Variable	IPV
Tyres 18"	ADVAN A048 235/40R18	Radial Imports NZ
Wheels 18" (refer also Art 20.7)	PDW VEGA V8 Racing	IPV
Wheel Spacers Front	Quick Turn	IPV
Rear Roof Rain Light Kit	Narva / IPV	IPV
BF Engine Alloy Sump Plate Kit	IPV	IPV

**HOLDEN:**

Drift box Data Logger	Race logic	Racer Industries Australia
Deck-lid	Holden #GM92190407	Holden
Heated Front Windscreen	Variable	Free
Crank Balancer & Pulley	Powerbond	IPV
Front Timing Pointer	Henson & Murray	Henson & Murray
Sump and Windage Tray	Holden / IPV	IPV
Pistons Forged	Manley	IPV
Piston Rings	Manley	IPV
Connecting Rods Forged	Manley	IPV
Connecting Rod Bushes	Manley	IPV
Engine Main & Rod Bearings	OE or aftermarket	IPV
Cam Bearings	OE or aftermarket	IPV
Hydraulic Cam lifters	OE or aftermarket	IPV
Bronze Valve Guide Inserts	K Line	Henson & Murray
Engine Gaskets	OE or Aftermarket	IPV
Timing Chain and Gear Set	Rollmaster	IPV
Timing Chain Block	Cragsted	IPV
Oil Pump	OE or Melling	IPV
Flywheel Billet Steel	ACS	IPV
Clutch Cover & Centre Sprung Disc	ACS	IPV
Clutch Alloy Concentric Slave Cylinder Kit & Braided Lines	ACS	IPV
Spigot Bearing	OE or Aftermarket	Holden or IPV
Engine Oil Cooler	Fluid Power	IPV
Engine Fasteners (ARP)	ARP	IPV
Thermostat OE	AC Delco	Holden or IPV
ECU Tune Program	NZV8URLtd.	CTD
Spark Plugs	Champion	Motospecs Pioneer
Air Filter	K & N	Motospecs Pioneer

<b>Part Description</b>	<b>Manufacturer or Part No.</b>	<b>Mandatory Supplier</b>
Engine Oil Filter	K & N	Motospecs Pioneer
Engine Oil	Shell	Tyreline
Gearbox Oil	Shell	Tyreline
Differential Oil	Shell	Tyreline
Power steering Oil	Shell	Tyreline
Coolant	Shell	Tyreline
Brake Fluid	Variable or Castrol SRF	Free or IPV
Fuel Test Coupling Kits	Variable	IPV
Exhaust Headers	Pacemaker	IPV
Exhaust System	Pacemaker	IPV
Radiator	OE or aftermarket	Free
Differential Spool	Variable	IPV
Gear Shifter	Variable	IPV
DMS Suspension Front & Rear	DMS	DMS NZ
Rear Suspension Adjustable Toe Links	Fulcrum	IPV
Rear Suspension Adjustable Toe Links Washers	Nolathane	IPV
Rear 16mm Sway Bar & Bushes	HSV	IPV
Front Lower Control Arm Bush	K-MAC	WildCard Racing or IPV
Front Lower Control Arm Insert	K-MAC	WildCard Racing or IPV
Front Caster Arm Bush	K-MAC	WildCard Racing or IPV
Brake Callipers Front	AP	IPV
Brake Front Caliper 32mm Spacer Kit	Peters Motorsport	IPV
Brake Calliper Mounts Front & Rear	AP / Gill Engineering	IPV / Wildcard Racing
Brake Callipers Rear	AP	IPV
Braided Brake Hoses Front & Rear	ACS	IPV
Brake Rotors and Hats Front & Rear	DBA	IPV
Brake Pads Front	Ferodo FRP3003UTEW	Neil Allport Motorsports Ltd
Brake Pads Rear (Both Compounds)	Ferodo FRP3085UTEW or R	Neil Allport Motorsports Ltd
Control Brake Booster (New Ratio)	Variable	IPV
Control Brake Master Cylinder	Variable	IPV
ABS Bypass Block Kit	Impact Motorsport	IPV
Brake Duct Scoops Left & Right	Wildcard Racing	Wildcard
Tyres 18"	ADVAN A048 235/40R18	Radial Imports NZ
Wheels 18" ( <i>refer also Art 20.7</i> )	PDW VEGA V8 Racing	IPV
Wheel Spacers Front	Wildcard Racing	Wildcard Racing
Wheel Studs Front	Gill Engineering	Wildcard Racing
Power Steering Cooler Replacement Alloy Pipe	Wildcard Racing	Wildcard Racing
Bash Plate Engine	Wildcard Racing	Wildcard Racing
Bash Plates Fuel Tank Left & Right	Wildcard Racing	Wildcard Racing
Bash Plate Washers M8 & M10	Wildcard Racing	Wildcard Racing
Tail Gate Insert	Wildcard Racing	Wildcard Racing
Foot-well Plates	Wildcard Racing	Wildcard Racing
Interior Door Trim	Wildcard Racing	Wildcard Racing
Interior Trim – Safety cage	Wildcard Racing	Wildcard Racing
Switch Panel	Wildcard Racing	Wildcard Racing