

Electrical Library



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INTRODUCTION

This Reference Library is designed to be used in conjunction with the Circuit Diagrams as an aid to the diagnosis of electrical faults. When diagnosing faults using TestBook, the circuits and library will prove a useful source of additional information, enabling you to study the operation of the circuit, isolate the suspect sub-circuit and quickly locate connectors, without unnecessary removal of trim. The library has 2 sections; Circuit Operation and Connector Detail.

1. Circuit Operation

This section contains a description of operation for every circuit diagram, with the exception of Power and Ground Distribution. Each description attempts to detail current flow in the circuit under all operating conditions. Wires are identified by their color, and where appropriate, their corresponding connector and pin numbers. Where circuits contain microprocessor control units, the descriptions concentrate on the system inputs and outputs.

2. Connector Detail

This section is effectively an index of every electrical connector on the vehicle, including header joints and eyelets. A page is dedicated to each connector, with the information presented in a standard format. The connector number is displayed on each page header to ease reference. Connector Detail information comprises:

- Connector Number The assigned number, prefixed "C".
- **Connector Name** Usually derived from the component to which the connection is made.
- [number] Way Number of pins if applicable. This is a statement of the pin locations in the connector housing (receptacle) and should not be confused with the number of wires actually populating these locations, which is usually less.
- Male/Female If applicable, shows whether the connector pins (NOT the housing) are of a Male or Female gender. Generally, connectors mating directly to a component have Female pins.
- **Color** If applicable, the color of the connector housing is shown. NATURAL is used to describe connectors with a clear/translucent plastic finish.
- **Location Statement** Used in conjunction with the photograph to determine the exact location of the connector.

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- **Photograph** Shows the location of the subject connector. In most cases, the photograph will indicate the amount of trim removal necessary to reveal the connector.
- Face View An outline of the connector housing, drawn from the front, showing pin numbers (if applicable).
- **Pin-out Table** A three column table, detailing the color and position of each wire in the connector:
 - **Cav** The connector pin (cavity) number.
 - **Color** The color of wire populating the connector pin.
 - **Cct** Shows the derivatives of vehicle using the wire. ALL means applicable to all vehicles in the range.

INTRODUCTION

The following tables give details of power supply through the engine and passenger compartment fuse boxes.

Note: Some fuse numbers may be followed by a letter, either an 'E' or a 'P'. 'E' denotes a fuse located in the engine compartment fuse box, and 'P' a fuse located in the passenger compartment fuse box.

Engine Compartment Fuse Box

Link	Rating	Function
1	100 Amp	Link 3, Link 4, Link 5, Link 6, Fuse 1 (E), Fuse 2 (E), &
		Fuse 3 (E).
2	60 Amp	Fuse 13 (P), Fuse 14 (P), Fuse 15 (P), & Fuse 16 (P).
3	60 Amp	Lighting switch.
4	30 Amp	Lighting switch.
5	60 Amp	Fuse 2 (P), Fuse 3 (P), Ignition switch, & Starter relay.
6	30 Amp	Heater rear screen relay.

Fuse	Rating	Function
1	30 Amp	Interior Lamp Unit.
2	20 Amp	Column switch, Multi-function ECU, Interior lamp -
		front, Analogue clock, Key-in sensor.
3	30 Amp	Engine immobilisation ECU.
4	10 Amp	Not used.
5	30 Amp	Hazard warning switch.
6	15 Amp	Engine management relay module.
7	20 Amp	Engine management relay module.

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Passenger Compartment Fuse Box

Fuse	Rating	Function
1	15 Amp	Instrument pack, Multi-function ECU, Headlamp relay,
		Interior lamp - rear, & Warning light check unit.
2	10 Amp	Radio cassette player.
3	5 Amp	Diagnostic socket.
4	15 Amp	Blower motor - front.
5	7.5 Amp	Radio cassette player.
6	15 Amp	Radio cassette player.
7	7.5 Amp	Headlamp - RH.
8	7.5 Amp	Headlamp - LH.
9	7.5 Amp	Headlamp - RH.
10	7.5 Amp	Headlamp - LH.
11	5 Amp	In-line resistor, Front side lamp - LH, Front side
		repeater - LH, Trailer pick-up, Rear number plate lamp -
		LH, Tail lamp - LH, Rear side marker lamp - LH,
		Illumination relay, Instrument illumination dimmer, &
		Radio cassette player.
12	5 Amp	Front side lamp - RH, Front side marker lamp - RH,
		Rear side marker lamp - RH, Tail lamp - RH, Trailer
		pick-up, & Instrument pack.
13	20 Amp	Not used.
14	20 Amp	Not used.
15	30 Amp.	Blower relay.
16	20 Amp.	Air conditioning compressor clutch relay, & Condenser
		fan relay.
17	15 Amp	Engine immobilisation ECU, Blower relay, Air
		conditioning compressor clutch relay, Rear wiper relay,
		Rear wiper switch, Rear screen wiper motor, Rear
		washer switch, Brake pedal switch, Hazard warning
		switch, & Illumination relay.
18	15 Amp	Rough road detection ECU, Front wiper relay,
		Windscreen wiper motor, Wash wipe switch - front
		screen, Auto transmission inhibitor/reverse light switch,
		Brake pedal switch, & Interlock relay.
19	20 Amp	Cigar lighter - front.
20	20 Amp	Engine management relay module, HO2S sensors, &
		Ignition coils.

ENGINE IMMOBILIZATION (CODING)

DESCRIPTION

The vehicle engine immobilization (coding) is not detectable to the customer under normal operating circumstances. If the code of the engine immobilization unit does not match the code of the ECM, when power is supplied to both units, the engine will be immobilized. In practice this should only happen if the ECM or engine immobilization unit are renewed without reprogramming the ECM using TestBook.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows through the switch (C94-1) to fuse 17 of the passenger compartment fuse box (C581-13). Fuse 17 (C581-14) is connected to the engine immobilization unit (C61-10) by the green wire.

With a 12 volt feed applied to the engine immobilization unit (C61-10), a coded signal is sent from the immobilization unit (C61-15) to the ECM (C636-26) on the black wire. If the coded signal from the immobilization unit does not match the signal expected by the ECM, the ECM immobilizes the engine and does not supply a ground signal (C634-22) to the immobilization control unit (C61-11), or the Malfunction Indicator Lamp (MIL) (C233-10) on the red/slate wire. The MIL lamp will not operate if the ECM is immobilized. The immobilization unit inhibits the starter relay and the engine will not crank unless the key is held in the crank position for more than 5 seconds. The engine will then crank, but will not start as the fuelling will still be inhibited by the ECM.

Fuse 3 of the engine compartment fuse box (C571-1) provides the engine immobilization unit (C61-25) with a permanent 12 volt supply on the purple wire.

The engine immobilization unit (C57-10) is connected to the starter inhibit/reverse light switch (C69-4) by the black/orange wire.

The engine immobilization unit (C61-17) is connected to the diagnostic socket (C40-8) by the orange/light green wire.

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STARTING AND CHARGING

CHARGING - DESCRIPTION

The charging system consists of a generator containing a rectifier pack and regulator to maintain a constant direct current (d.c.) voltage in the system. The generator is belt driven from the crankshaft and cooled by a fan mounted behind the pulley. The generator has a fixed coil wound stator in which a field coil rotor rotates. Slip rings conduct current to and from the field coils via 2 carbon brushes. The regulator senses output voltage and controls this to 14 volts.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', a current flows from the ignition switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 feeds the instrument pack ignition/no charge warning light (C230-4) on the white/green wire. The warning light (C230-5) is grounded via the diode (C116-1) on the yellow/brown wire and through the generator field windings (C185-1) on the brown/yellow wire. The flow of current through the warning light and field windings partially magnetizes the rotor. A resistor (C37 & C38) is wired in parallel with the warning light to ensure continued exciter voltage in the event of bulb failure. When the engine starts, the magnetized rotor rotates within the stator windings, generating a 3 phase alternating current (a.c.) and voltage which rises rapidly with rotor speed. The field diodes convert the alternating current to direct current and the generated voltage is fed back to the field windings. As the feed back voltage increases, the magnetic influence of the rotor also increases, resulting in self-excitation of the rotor. Generated current and voltage increases with rotor speed until the generator is fully excited.

When the generator outputs a voltage equal to that supplied by the battery, the ignition/no charge warning light is extinguished as the potential difference across the light is 0 volts. The diode between the generator and warning light prevents reverse flow through the light. The regulator functions as an electronic control switch on the ground side of the field coils. The regulator rapidly switches the ground circuit off and on to control the generated voltage and current to safe limits.

If the battery is in a low state of charge or current draw from the electrical system is high and causes a voltage drop, the generator charges at its maximum rate until 14 volts is generated. As battery voltage rises, the generator current output reduces.

STARTING - OPERATION

When the ignition switch is in position 'II', power flows across the switch to fuse 20 of the passenger compartment fuse box (C581-13) on the white wire. Fuse 20 (C581-20) is connected to the fuel pump relay winding in the ECM relay module (C154-2) by the white/green wire. The fuel pump relay winding (C154-1) is grounded through the ECM (C634-24) on the blue/purple wire. The ECM grounds the fuel pump relay winding for a short time when the ignition is switched to position 'II', and continuously during cranking and while the engine in running. With the fuel pump relay winding energized, the fuel pump relay closes and power from fuse 6 (C575-2) of the engine compartment fuse box flows through the fuel pump relay (C157-7) on the purple/white wire. The fuel pump relay (C157-4) is connected to the inertia switch (C123-3) by the white/purple wire. Assuming the inertia switch is closed, power flows across the switch (C123-1) to the fuel pump (C113-4) on the white/purple wire. The fuel pump is grounded on a black wire.

Turning the ignition switch to the crank position 'III', allows power to flow across the switch (C90-1) to the starter relay winding (C151-85) on the white/red wire. The starter relay winding is grounded on the black/yellow wire to the starter inhibitor/reverse switch (C69-5). With the gear selector lever in park or neutral, the route to ground is from the inhibitor switch (C69-4) to the immobilization unit (C57-10) on the black/orange wire. Assuming the engine has been mobilized, the immobilization unit is grounded on a black wire. With the starter relay energized, power from fusible link 5 of the engine compartment fuse box (C570-2) flows across the relay (C151-87) on the brown wire. The starter relay is connected to the starter motor solenoid (C179-1) by the brown/red wire. The starter motor solenoid is grounded through the starter motor fixing. With the starter motor solenoid energized, feed from the battery is connected to the starter motor (C178-1) through the starter solenoid on a red wire.

GENERIC ENGINE MANAGEMENT SYSTEM (GEMS)

DESCRIPTION

GEMS is the engine management system utilized by the vehicle to control both electronic ignition and fuel injection systems. It is able to alter ignition and fuelling settings to ensure that the engine is operating at its optimum performance for the prevailing conditions. The ECM receives signals from sensors located around the engine and uses the data to control the fuel quantity, fuel injection timing and ignition timing in order to achieve optimum combustion of the fuel mixture in each cylinder.

The main features of the system are as follows:

- A single engine control module (ECM) controls the fuel injection system and ignition system. The ECM incorporates short circuit protection and can store intermittent faults on certain inputs. TestBook can be used to interrogate the ECM for the stored fault codes.
- Fuel is injected sequentially. That is, when the relevant piston is on the intake stroke and the intake valve is open.
- The ECM is electronically coded and prevents the engine being started unless it receives the correct code from the engine immobilization ECU.
- Detection and correction of engine knock on individual cylinders. The ignition timing of each cylinder can be varied independently to the other cylinders and ensures that knock on one cylinder is eliminated without a detrimental effect on the ignition timing of the other cylinders.
- A diagnostic connector, located below the passenger compartment fuse box, allows engine tuning or fault diagnosis to be carried out using TestBook.
- If certain inputs to the ECM fail, a back-up facility enables the engine to continue running, although at a reduced level of performance.

IGNITION SYSTEM

The ignition system utilizes a direct ignition system (DIS) negating the need for a distributor. The system comprises 4 double ended coils operating the wasted spark principle. The circuit to each coil is controlled by the ECM. When a coil fires, a spark is produced in two cylinders, however, as the resistance is higher in the cylinder on the compression stroke, more spark energy is dissipated in this cylinder.

The ECM determines the optimum ignition timing based on signals from the following sensors:

- Crankshaft position (CKP) sensor engine speed and crankshaft position
- Camshaft position (CMP) sensor camshaft position
- Intake air temperature (IAT) sensor inlet air temperature
- Knock sensors engine vibration, detonation

The engine management system uses no centrifugal or vacuum advance, timing is controlled entirely by the ECM.

Crankshaft position (CKP) sensor

The CKP sensor signal is used as the basis for ignition timing. It informs the ECM that the engine is turning, the speed the engine is turning and position of the engine in its cycle.

The sensor uses the principle of magnetic induction to generate the signal. A reluctor ring, attached to the engine flywheel, has a series of teeth spaced at 10° intervals, with one tooth missing at 20° after TDC. The reluctor ring rotates with the engine, in close proximity to the CKP sensor. As each tooth of the reluctor ring passes the sensor, it disturbs the magnetic field of the sensor and a voltage is induced in the sensor coil. The ECM calculates engine speed by counting pulses per second from the CKP sensor. Engine position is calculated by counting pulses after missing pulse.

In the event of a sensor failure, the engine will not run.

Camshaft position (CMP) sensor

The CMP sensor is used in conjunction with the CKP sensor to inform the ECM of the position of the engine in the 4 stroke cycle. Using the CKP sensor alone, the ECM is unable to determine whether a cylinder is on its compression stroke or exhaust stroke.

The sensor uses the principle of magnetic induction to generate the signal. The cam wheel has four lobes which pass in close proximity to the CMP sensor as the camshaft rotates. The lobes disturb the magnetic field of the sensor and induce a voltage in the sensor coil.

In the event of a sensor failure, the ECM will continue to operate normal ignition timing using the CKP sensor signal. Engine knock detection and correction will be disabled.

Inlet air temperature (IAT) sensor

The basis of the IAT sensor is a temperature dependent resistive metal strip. The resistance of the metal strip varies considerably with temperature. When an inlet temperature of 55 $^{\circ}$ C or higher is detected, the ECM retards the ignition timing . If the sensor fails, the ECM assumes an inlet temperature of 50 $^{\circ}$ C.

Knock sensor

The knock sensor is a piezo-electronic accelerometer, which produces an electronic signal related to the vibration of the engine. A knock sensor is located in each bank of cylinders. The signal from each knock sensor is transmitted to the ECM. The ECM is able to filter out normal engine vibrations and detect vibrations induced by engine knock.

Using the signal from the knock sensor in conjunction with the CKP and CMP signals enables the ECM to identify which cylinder is producing the knock and hence retard the ignition timing of that cylinder only. The ignition timing of the cylinder producing the knock is retarded until the knock disappears. The ECM then advances the ignition timing to find the optimum advance angle for that cylinder. The ECM is able to perform a similar function for each of the 8 cylinders simultaneously. It is therefore possible for all 8 cylinders to have different advance angles at any one time.

FUELLING SYSTEM

Engine fuelling is by a fully sequential, electronic fuel injection system, controlled by the ECM. The ECM determines the timing and quantity of fuel to be injected based on information received from the following sensors.

- Crankshaft position (CKP) sensor engine speed and crankshaft position
- Camshaft position (CMP) sensor camshaft position
- Mass air flow (MAF) sensor quantity of air entering the engine
- Intake air temperature (IAT) sensor temperature and hence density of air entering the engine
- Throttle position (TP) sensor position of throttle and rate of change of throttle
- Engine coolant temperature (ECT) sensor coolant temperature
- Engine fuel temperature (EFT) sensor temperature of fuel rail
- Heated oxygen sensor (HO2S) oxygen content of exhaust

Crankshaft position (CKP) sensor

The CKP sensor signal is used as the basis for fuel injection timing. It informs the GEMS that the engine is turning, the speed at which it is turning and its position in the 4 stroke cycle.

The sensor uses the principle of magnetic induction to generate the signal. A reluctor ring, attached to the engine flywheel, has a series of teeth spaced at 10 ° intervals, with one tooth missing at 20 ° after TDC. The reluctor ring rotates with the engine, in close proximity to the CKP sensor. As each tooth of the reluctor ring passes the sensor, it disturbs the magnetic field of the sensor and a voltage is induced in the sensor coil. The ECM calculates engine speed by counting pulses per second from the CKP sensor. Engine position is calculated by counting pulses after missing pulse.

Camshaft position (CMP) sensor

The CMP sensor is used in conjunction with the CKP sensor to inform the ECM of the position of the engine in the 4 stroke cycle. Using the CKP sensor alone, the ECM is unable to determine whether a cylinder is on compression stroke or exhaust stroke.

The sensor uses the principle of magnetic induction to generate the signal. The cam wheel has four lobes which pass in close proximity to the CMP sensor as the camshaft rotates. The lobes disturb the magnetic field of the sensor and induce a voltage in the sensor coil.

In the event of a sensor failure, the ECM will continue to operate sequential fuel injection using the CKP sensor signal. It is possible that the injection timing will be one engine revolution out of sequence.

Mass air flow (MAF) sensor

The MAF sensor is used to measure the quantity of air being drawn into the engine and hence give an indication of the quantity of fuel to be injected to provide a stoichiometric (chemically correct ratio) mixture strength.

The MAF sensor is an anemometer located in the inlet air flow, upstream of the throttle body, which uses the Hot Wire principle to determine air flow. A single metering wire is maintained at a constant temperature. As air flows over the wire, current is applied to the wire to maintain the temperature at its reference temperature, the faster the air flow, the greater the cooling effect and the greater the current required to maintain the temperature. The current supplied to the hot wire is converted to a voltage signal and sent to the ECM. The ECM uses the voltage signal to calculate the quantity of air being drawn into the engine. If the sensor fails, the ECM calculates a value dependent on throttle position, engine speed and air temperature.

Intake air temperature (IAT) sensor

The IAT sensor, by measuring the temperature of induction air, enables the ECM to determine the density, and hence, the oxygen content of the air being burned in the engine. As air temperature increases, it expands, and its density (Mass/Unit of Volume) decreases. The basis of the IAT sensor is a temperature dependent resistive metal strip. The resistance of the metal strip varies considerably with temperature. When an inlet temperature of 55 °C or higher is detected, the ECM retards the ignition timing . If the sensor fails, the ECM assumes an inlet temperature of 50 °C.

Throttle position (TP) sensor

The TP sensor measures the angle of throttle opening and the rate of change of throttle position. The angle of throttle opening gives an indication of the quantity of air being drawn into the engine. The rate of change of throttle angle gives an indication of rate of acceleration demanded.

The sensor is a rotary variable resistor mounted to the throttle butterfly spindle giving an output of 0 to 5 volts.

Engine coolant temperature (ECT) sensor

The coolant temperature sensor measures the temperature of the engine coolant fluid. The signal from the coolant sensor is used by the ECM to adjust the fuelling mixture. The engine requires a richer mixture at lower temperatures.

The sensor relies on a temperature dependent resistive metal strip. The resistance of the metal strip varies considerably with temperature and is immersed in the engine coolant fluid.

If the sensor fails, the ECM assumes and engine coolant figure of 80°C. The fault could be noticeable during the engine warm up period.

Engine Fuel Temperature (EFT) sensor

The fuel temperature sensor measures the temperature of the fuel rail. The signal from the sensor gives the ECM a warning of fuel vaporization and the possibility of bubbles forming in the injectors, which may cause poor hot starting. If the ECM receives a high fuel temperature signal during starting, the fuel injector opening period is increased to clear any vaporization bubbles from the injectors and correct the fuelling. When the engine is running, fuel circulation from the fuel tank keeps the fuel rail cool.

Heated oxygen sensor (HO2S)

4 HO2S's are fitted to the vehicle, one before and one after each catalyst. The HO2S comprises a titanium metal sensor surrounded by a gas permeable ceramic coating. Oxygen permeating the ceramic coating reacts with the titanium wire, altering its resistance. The resistance of the sensor is directly related to the quantity of oxygen around the sensor. The HO2S does not function correctly until it reaches a temperature of approximately 300°C and so a heating element is incorporated into the sensor to provide rapid warm up after a cold start.

The signals from the HO2S's are used by the ECM to correct the fuelling to each bank of cylinders independently. The 2 sensors upstream of the catalysts measure the oxygen content of the gasses exhausted from the engine, indicating a rich or weak mixture strength. The ECM alters the pulse width of the injectors to correct the mixture strength and achieve a stoichiometric air/fuel ratio. The 2 HO2S's downstream of the catalysts measure the efficiency of the catalysts by comparing the sensor's voltage switching frequency to that of the upstream catalysts. If the catalyst is operating efficiently, the switching frequency of the downstream sensor will be lower than that of the upstream sensor.

Injectors

The fuel injection system has 8 fuel injectors, 1 for each cylinder. Each injector comprises a solenoid with a needle valve held in position by a spring. The route to ground for the solenoid is controlled by the ECM. When energized, the solenoid lifts the needle valve from its seat and pressurized fuel from the fuel rail flows through the injector. The ECM controls the amount of fuel delivered by opening the injector for varying periods. The injector orifice is shaped to produce a fine spray of fuel which aids combustion.

Fuel pressure regulator

The fuel pressure regulator is a mechanical device mounted to the fuel rail. Its purpose is to control the fuel rail pressure at a fixed level above inlet manifold depression, thus ensuring that the correct amount of fuel is injected for given injector opening times.

The fuel pressure regulator contains a spring loaded diaphragm valve with pressurized fuel on one side of the diaphragm and manifold depression acting on the other. When fuel rail pressure, assisted by manifold depression, overcomes the diaphragm spring load, fuel flows past the diaphragm valve to the fuel tank, reducing fuel rail pressure. With manifold depression low, during hard acceleration, the fuel rail pressure must be high to overcome the diaphragm spring load. With manifold depression low, during coast down, the vacuum acting on the diaphragm valve acts against the spring load and a lower fuel rail pressure lifts the valve from its seat.

Idle air control valve (IACV)

Engine idle speed is maintained by the IACV, controlled by the ECM. With the throttle butterfly fully closed, a small quantity of air is able to by-pass the throttle butterfly via the base idle passage. The ECM monitors engine speed and load via sensors around the engine. Should extra air be required to maintain a steady idle speed, the ECM signals the IACV to operate a number of steps and open the throttle by-pass. The stepper motor, integral to the IACV, operates over a range of 200 steps with the valve fully open at 200 steps and fully closed at 0 steps.

Canister purge valve (CANPV)

The vehicle is equipped with an evaporative emission control system designed to prevent vapor loss from the fuel tank. Fuel tank vapor is passed through a charcoal canister which traps fuel vapor. The vapor trapped by the charcoal canister is drawn in to the engine through the purge valve and burnt in the combustion chamber.

The ECM pulses the valve open for short periods when the engine has reached normal operating temperature and is turning at a speed over 1700 rpm. This is done to ensure that the fuelling of the engine is not adversely affected during warm up or at idle. During purge valve operation, the ECM monitors HO2S signals. If opening the purge valve causes the HO2S signal to indicate a leaner mixture, the ECM assumes that the charcoal canister is empty. When the ECM senses that the charcoal canister is empty, the purge valve is opened to prevent a build up of fuel vapor in the canister. With the purge valve open, unmetered air is drawn into the engine through the charcoal canister. The ECM uses the signal from the HO2S's to correct the fuelling.

OTHER FEATURES

Rough road detection ECU

When running on rough roads, it is possible for a false indication of engine misfire to be detected by the ECM. To prevent false fault codes being stored in the ECM, a rough road detection ECU is fitted to the vehicle. When the rough road detection ECU signals rough road conditions, the ECM temporarily ignores engine misfire signals.

The rough road detection ECU monitors and compares the speed of all 4 wheels. When the vehicle is traveling on rough roads, the wheels will rotate at varying speeds as obstacles are negotiated and wheel slippage occurs. The variance in wheel speeds is detected by the ECU which signals rough road conditions to the ECM.

Inertia switch

Power to the fuel pump is supplied via the inertia switch. In the event of extreme deceleration, as would be experienced in a collision, the inertia switch trips, isolating electrical supply from the fuel pump. The switch is reset by pressing the rubber button on top of the switch.

SEAT BELT WARNING

DESCRIPTION

If the ignition is switched on without the seat belt being fastened, a warning light will be illuminated on the instrument pack and an audible warning will sound.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows through the ignition switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 (C580-2) supplies the multi-function ECU sounder (C16-5) and instrument pack seat belt warning light (C230-4) on white/green wires. The ECU (62-7) and warning light (C230-1) are connected to the seat belt buckle switch (C100-2) by white/black wires. With the seat belt unfastened, the switch is closed and provides a route to ground (C100-1) for the sounder and warning light on the black wire. Fastening the seat belt opens the switch and breaks the circuit, extinguishing the warning light and silencing the sounder.

AIR CONDITIONING

BLOWER OPERATION

With the ignition in position 2, a battery feed passes from the ignition switch (C94-1) to Fuse 17 (C581-13) on a white wire. Fuse 17 (C581-14) provides a feed to the Blower Relay coil (C55-4) on a green wire. The coil is grounded on a black wire and the relay is energized whenever the ignition switch is at position II.

With the relay energized, a battery feed from Fuse 15 (C581-10) on a purple and slate wire passes through the closed relay contacts (C55-1 & 3) to the blower switch (C102-5) on a brown wire.

When the Blower Motor Switch is turned to position 1 (C102-1), the blower motor (C52-1) is fed on a blue wire. Current passes through both blower motor resistors and the blower operates at slow speed.

When the Blower Motor Switch is turned to position 2 (C102-2), the blower motor (C64-1) is fed on a green wire. Current now passes through only one resistor, so the motor operates at intermediate speed.

With the Blower Motor Switch in position 3 (C102-3), the blower motor (C65-1) is fed on a red wire. Current flows directly to the motor winding and the motor operates at fast speed.

The Blower Motor is grounded on a black wire in all switch positions.

AIR CONDITIONING REQUEST

Operation of the air conditioning system is controlled by the Generic Engine Management System (GEMS) Engine Control Module (ECM). The ECM will decide whether to operate the Air Conditioning Compressor Clutch on receipt of an air conditioning request signal. The request signal takes the form of a ground signal applied to pin 28 of ECM connector C636. The signal is dependent on the following:

- A pressure of not greater than 30 Bar (435 psi) and not less than 2.4 Bar (35 psi) must exist at the high pressure and low pressure switch contacts within the Trinary Switch (C51-1 & C51-2).
- The Air Conditioning Thermostat Switch must be closed. The switch will be closed whenever its probe, positioned in the vanes of the evaporator, senses a warmer temperature than that set at the switch.
- The logic relay must be energized. The relay is energized with a feed on the blue and yellow wire from the blower switch (C102-4) whenever the Blower Motor is operating. The relay coil is grounded on a black wire.

When all of the above conditions are met, the ground path for the air conditioning request signal is completed. The ECM then registers receipt of the request signal and will issue an Air Conditioning Grant Signal when the necessary changes have been made to idle speed. Similarly, when the Air Conditioning Request signal is removed, the ECM will delay disengagement of the compressor clutch until the correct conditions are met. The purpose of this Request/Grant process is to ensure that idle speed remains as near constant as possible during engagement & disengagement of the compressor clutch.

AIR CONDITIONING GRANT

When the GEMS ECM decides that the necessary conditions have been met to allow engagement of the Air Conditioning (A/C) Compressor Clutch, and hence, grant operation of the air conditioning system, it applies a ground (C634-1) on the black and slate wire. At the A/C harness connector (C47-4), the wire color changes to blue and black, where it continues to the Air Conditioning Compressor Clutch Relay (C60-2). The relay coil (C60-4) is fed from fuse 17 (C581-14) on a green wire when the Ignition Switch is at position II.

With the clutch relay energized, a battery feed from Fuse 16 (C581-12) passes to the compressor clutch relay (C60-1) on a brown and white wire. The feed passes to the compressor clutch (C49-1) through the closed relay contacts (C60-3) on a brown and pink wire. The compressor clutch is grounded on a black wire.

High Temperature Disable

The ECM can disable compressor clutch operation to reduce engine load during high engine temperatures. The purpose of this system is to prevent engine overheat.

When the ECM senses a high coolant temperature (above 112 deg C - 234 deg F) via the Engine Coolant Temperature (ECT) sensor (C636-14), Air Conditioning Grant is overridden by removing the ground signal from C634-1. The Air Conditioning Compressor Clutch Relay is then de-energized, disabling the Air Conditioning Compressor Clutch. This condition will remain until coolant temperature drops to acceptable levels.

CONDENSER FAN REQUEST

Operation of the condenser fan is controlled by the GEMS ECM using a Request/Grant process, similar to that used in Air Conditioning Compressor Clutch circuit. The request signal is received as a ground applied to the ECM (C636-29) through the medium pressure switch contacts in the Trinary Switch (C51-3 & C51-4). The Trinary Switch medium pressure contacts close at pressures greater than 21 Bar (305 psi) and reopen when pressure falls below 17 Bar (247 psi).

CONDENSER FAN GRANT

On receipt of the Condenser Fan Request signal, the GEMS ECM applies a ground (C634-3) for the Condenser Fan Relay coil (C59-4). Provided that a battery feed is available at the relay coil (C59-2) from the Main Relay within the Engine Management Relay Module (C157-3), the Condenser Fan Relay will energize.

With the Condenser Fan Relay energized, a feed from Fuse 16 (C581-12) passes to the relay (C59-1) on a brown and white wire, through the closed relay contacts (C59-3) to the Condenser Fan (C48-1) on a blue and purple wire. The Condenser Fan is grounded on a black wire.

Condenser Fan - High Engine Temperature Grant

The ECM can override the Condenser Fan Request routine and operate the fan during high engine temperatures to assist engine cooling, regardless of whether the air-conditioning system is operating.

When the ECM senses a high coolant temperature (above 107 deg C - 225 deg F) via the Engine Coolant Temperature (ECT) sensor (C636-14), the ECM will provide the grant signal at C634-3, energizing the Condenser Fan Relay.

Condenser Fan - Hot Restart Grant

The ECM monitors engine coolant temperature when the engine is first switched off. If a high temperature is sensed, the ECM will continue to run the fan until temperature drops, or a pre-set time has elapsed.

HEATER BLOWER

DESCRIPTION

The heater is operated from three sliding controls attached to the instrument binnacle. Two of the controls regulate the temperature and air flow distribution. The third control operates the two speed heater blower. The heater blower operates with the ignition switch in position 'II'.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by a brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'I', power flows through the ignition switch (C99-1) to fuse 4 (C580-7) of the passenger compartment fuse box on the white/orange wire. Fuse 4 (C580-8) of the passenger compartment fuse box is connected to the blower fan motor (C56-3) by the purple/green wire. When the blower control is in the off position, the blower motor has no route to ground and does not run.

Moving the blower control to position 1 connects the blower motor (C56-2) to the blower switch (C58-2) on the green/slate wire. Power flows through the blower motor and resistor to the blower switch (C58-2) on the green/slate wire and to ground on the black wire. The blower fan operates at low speed.

Moving the blower control to position 2 connects the blower motor (C65-1) directly to the blower switch (C58-1) on the green/slate wire and to ground on the black wire. The blower fan operates at high speed.

HEATED REAR WINDOW

DESCRIPTION

The heated rear window (HRW) draws a high current from the electrical system and to prevent battery discharge, the HRW will only operate when the engine is running. The functionality of the HRW is controlled by the multi-function ECU. The HRW is operated by depressing the non latching heated rear window switch, mounted on the dash panel. The instrument panel warning light will illuminate to indicate that the HRW is operating. The ECU will power the HRW for approximately 15 minutes from the first press of the HRW switch or until the ignition is switched off or the HRW switch is pressed for a second time. If the engine stops running while the HRW is powered, the ECU will switch off power to the HRW. The switch is illuminated when the sidelights are switched on.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows across the ignition switch (C94-1) and supplies fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 is connected to the ECU (C16-5), via a header joint (C287), by the white/green wire. The ECU (C16-4) is connected to the oil pressure switch (C187-1), via a header joint (C228), by the white/brown wire and receives a ground signal if the engine is not running. The ECU (C16-2) is connected to the HRW switch (C947-5) by the white/red wire. The ECU (C16-6) is grounded by the black wire.

With the engine running, depressing the HRW switch momentarily provides an route to ground for the ECU on the white/red wire, via the HRW switch (C947-2) and to ground on the black wire. On sensing the ground signal, the ECU switches a feed from fuse 1 of the engine compartment fuse box to the HRW relay winding. Fuse 2 of the engine compartment fuse box (C574-3) is connected to the ECU (C16-1) by the purple wire. The ECU (C62-2) is connected to the HRW relay winding (C44-87) by the white/pink wire. The HRW relay winding (C44-86) is grounded by the black wire. When the HRW relay is energized, the HRW relay switches power supply from fusible link 6 of the engine compartment fuse box to the HRW element and instrument pack warning light. Fusible link 6 (C573-3) of the engine compartment fuse box is connected to the HRW relay (C44-8) by the brown/slate wire. The HRW relay (C44-30) is connected to the HRW element (C702-2) and instrument pack warning light (C929-1) by the white/black wires. The HRW element is grounded to the rear door frame. The instrument pack warning light is grounded by the black wire.

Illumination

The HRW switch has illumination which operates with the sidelights. Power from fusible link 1 of the engine compartment fuse box passes through fusible link 4 of the engine compartment fuse box (C573-2) and feeds the lighting switch (C41-1) on a brown wire. The lighting switch (C41-2) is connected to fuse 11 of the passenger compartment fuse box (C581-1) by a red wire. When the lighting switch is turned on, power is supplied through fuse 11 (C581-2) to the dimmer circuit header joint (C285-7) on the red/black wire - (See interior illumination). Power flows through the switch (C201-2) to the HRW switch illumination is grounded on a black wire.

WIPERS AND WASHERS

DESCRIPTION

The front windscreen wipers are controlled from the column switch and operate when the ignition switch is in position 'II'. The wipers have 2 speed settings, along with 2 flick wipe speeds and a single wipe facility. An intermittent wipe function and programmed wash wipe facility is controlled by the multi-function ECU.

Moving the wiper switch down from the off position initiates the intermittent wipe function. Moving the wiper switch up one position from the off position, operates the wipers at slow speed. Moving the wiper switch up 2 positions from the off position, operates the wipers at fast speed. Pushing the wiper switch up from the off position, against spring pressure, and releasing the switch causes the wipers to perform a single wipe cycle at slow speed. Pressing the end of the wiper switch initiates the programmed wash wipe sequence, windscreen washers operate while the switch is pressed and the wipers continue to operate for a number of cycles after the switch is released.

The rear windscreen wiper and rear wash facilities are controlled from two switches mounted to the dash panel.

Pressing the wiper switch causes the rear wiper to operate until the switch is turned off. Pressing the washer switch causes the rear washer to operate until the switch is released, the rear wiper also performs a number of cycles.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire. With the ignition switch in position 'II' power flows across the switch (C94-1) to fuse 1 (C580-1), fuse 17 and fuse 18 (C581-13) of the passenger compartment fuse box on white wires. Fuse 17 supplies the rear wash/wiper circuit, fuse 1 and fuse 18 supply the front wash/wiper circuit.

Front wipers and washers

Fuse 2 of the engine compartment fuse box (C574-3) provides a permanent 12 volt feed to the ECU (C16-1) on the purple wire. Fuse 1 of the passenger compartment fuse box (C580-2) supplies the ECU (C16-2) with a 12 volt feed on the white/green wire when the ignition switch is in position 'II'.

Slow and fast speeds

Fuse 18 of the passenger compartment fuse box (C581-16) is connected to the wash/wipe switch (C278-6) via a header joint (C289) by the green wire. Moving the switch to the slow speed position allows power to flow across the switch (C278-1) to the wiper motor (C30-3) on the blue/light green wire. The wiper motor is grounded (C30-1) on the black wire and the wipers operate at slow speed. Moving the wiper switch to the fast position allows power to flow through the switch (C278-5) to the wiper motor (C30-5) on the red/light green wire. The wiper motor is grounded (C30-1) on the black wire and the wipers operate at fast speed.

Park circuit

Positioning the wiper switch to the off position cuts power to the wiper motor on the blue/light green or red/light green wire. The park circuit operates to return the wipers to their park position. The park switch (C30-4), integral to the wiper motor unit, receives a 12 volt supply from fuse 18 of the passenger compartment fuse box (C581-16) via a header joint (C289) on the green wire. The park switch is closed with the wipers in any position other than their park position. With the park switch closed, power flows through the switch (C30-2) to the front wiper relay (C39-5) on the brown/light green wire. The front wiper relay (C39-2) is connected to the wiper switch (C278-4) by the yellow/light green wire. Power flows through the wiper switch (C278-1) to the wiper motor (C30-3) on the blue/light green wire. The wiper motor is grounded on the black wire. The wipers operate until their park position is reached and the park switch opens, cutting power supply to the wiper motor.

Intermittent wiper function

Moving the wiper switch to the intermittent wipe position allows power to flow across the switch (C278-3) to the ECU (C62-9) on the light green/green wire. With a 12 volt signal applied to the ECU from the wiper switch, the ECU switches the route to ground (C62-22) for the front wiper relay winding (C39-4) on and off approximately every 6 seconds, on the brown/slate wire. The front wiper relay (C39-8) and winding (C39-6) are powered from fuse 18 of the passenger compartment fuse box (C581-16) via a header joint (C289) on green wires.

With the front wiper relay energized, power flows across the relay (C39-2) to the wiper switch (C278-4) on the yellow/light green wire. Power flows through the wiper switch (C278-1) to the wiper motor (C30-3) on the blue/light green wire. The wiper motor is grounded (C30-1) on the black wire and operates at slow speed. After approximately 1 second, the ECU de-energizes the front wiper relay and the wipers continue operating

through the park circuit until their park position is reached. Approximately 5 seconds later, the ECU energizes the front wiper relay for 1 second. The process repeats until power to the ECU from the wiper switch is broken by positioning the wiper switch to the off position or slow speed wipe position.

Programmed wash/wipe function

Depressing the end of the wiper switch operates the programmed wash/wipe function. The washer switch (C278-6) is supplied from fuse 18 of the passenger compartment fuse box (C581-16), via a header joint (C289), on the green wire. When the switch is closed, power flows through the switch (C278-2) to the windscreen washer pump (C8-2) and ECU (C62-13), via a header joint (C288), on light green/black wires. The washer pump (C8-1) is grounded on the black wire and operates until the washer switch is released. With a 12 volt supply applied to the ECU from the washer switch, the ECU energizes the front wiper relay by grounding the relay winding (C39-4) on the brown/slate wire. With the front wiper relay energized, power flows across the relay (C39-2) to the wiper switch (C278-4) on the yellow/light green wire. Power flows through the wiper switch (C278-1) to the wiper motor (C30-3) on the blue/light green wire. The wiper motor is grounded (C30-1) on the black wire and operates at slow speed. When power to the ECU (C62-13) is cut, by releasing the washer switch, the ECU continues to energize the front wiper relay for a time to allow approximately 2 further cycles of the front wipers. After the front wiper relay has been de-energized, the park circuit returns the wipers to their park position.

Rear wiper

Fuse 17 of the passenger compartment fuse box (C581-14) feeds the rear wiper switch (C79-5) on the green wire. Closing the rear wiper switch allows power to flow through the switch (C79-2) to the ECU (C62-15) on the red/light green wire. With a 12 volt feed from the switch to the ECU, the ECU (C62-23) switches the route to ground from the rear wiper relay winding (C124-86) on the brown/purple wire. The rear wiper relay (C124-87) and winding (C124-85) are supplied from fuse 17 of the passenger compartment fuse box (C581-14) on green wires. With the rear wiper relay energized, power flows through the relay (C124-30) to the rear wiper motor (C835-1) on the brown/light green wire. The rear wiper motor is grounded (C388-1) on the black wire. When power from the rear wiper switch to the ECU is cut, the rear wipe park circuit operates to return the wiper to the park position. When the rear wiper is in any position other than the park position, the park switch (C835-2), integral to the motor, receives a 12 volt supply from fuse 17 of the passenger compartment fuse box on the green wire. Power flows through the park switch and wiper motor to ground on the black wire. When the wiper reaches its park position, the park switch opens and power to the wiper motor is cut.

Rear wash

The rear wash switch (C73-5) is supplied from fuse 17 of the passenger compartment fuse box (C581-14) on the green wire. Depressing the wash switch allows power to flow through the switch (C73-2) to the rear washer pump (C21-2) and ECU (C62-16) on black/light green wires. The washer pump (C21-1) is grounded on the black wire and operates until the switch is released. When the ECU receives a 12 volt signal from the washer switch, the ECU energizes the rear wiper relay by grounding the relay winding (C124-86) on the brown/purple wire. The rear wiper relay (C124-87) and winding (C124-85) are supplied from fuse 17 of the passenger compartment fuse box (C581-14) on green wires. With the rear wiper relay energized, power flows through the relay (C124-30) to the rear wiper motor (C835-1) on the brown/light green wire. The rear wiper motor is grounded (C388-1) on the black wire. Releasing the rear washer switch cuts the power supply to the ECU, however the ECU continues to provide a route to ground for the rear wiper relay for a time to allow the rear wiper to complete approximately 3 further wipe cycles. When the ECU de-energizes the rear wiper relay, the rear wiper park circuit operates to return the rear wiper to the park position.

EXTERIOR LAMPS - Brake and Reverse Lamps

DESCRIPTION

The brake lights on the rear of the vehicle illuminate with the ignition switched on and the brake pedal depressed.

The reverse lights on the rear of the vehicle illuminate with the ignition switched on and the gear selector lever in reverse position.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 of the engine compartment fuse box (C570-2) is connected to the ignition switch (C028-1) by the brown wire.

When the ignition switch is in position 'II', power flows across the ignition switch (C94-1) to fuses 17 and 18 of the passenger compartment fuse box (C581-13) on the white wire. Fuse 17 of the passenger compartment fuse box feeds the brake light circuit. Fuse 18 of the passenger compartment fuse box feeds the reverse light circuit.

Brake lights

Fuse 17 (C581-14) of the passenger compartment fuse box is connected to the brake pedal switch (C75-1) by the green wire. When the brake pedal is depressed, the brake pedal switch closes and power flows through the switch. The brake pedal switch (C029-1) is connected to the LH tail light (C404-2), RH tail light (C401-2), trailer connector (C029-1) and high mounted brake light harness (C406-1) by green/purple wires. The high mounted brake light (C972-1) is supplied a feed via a separate harness on a red wire. All brake lights are grounded on black wires.

Reverse light

Fuse 18 (C581-16) is connected to starter inhibitor/reverse light switch (C69-2) by the green wire. When the gear selector is in the reverse position, the reverse light switch is closed. Current from fuse 18 flows across the reverse light switch (C69-3) to the reverse light (C167-1) and trailer connector (C699-1) by green/brown wires. Both reverse light and trailer connector are grounded by black wires.

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EXTERIOR LAMPS - Head, Side and Number Plate Lamps

DESCRIPTION

The lights are operated from the lighting switch located on the steering column. The lighting switch has 2 positions. Position 1 switches on the tail lights and front sidelights, position 2 additionally switches on the front headlights. When the headlights are on, the column switch can be used to switch between main beam and dipped beam.

The headlights can be flashed with the lights on or off, by pulling the column switch towards the driver.

OPERATION

Side lights

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 4 of the engine compartment fuse box which are connected in series. Power from fusible link 4 of the engine compartment fuse box (C573-2) feeds the lighting switch (C41-1) on a brown wire. With the lighting switch in the side lights position, power flows through the light switch (C41-2) to passenger compartment fuse box (C581-1) fuses 11 and 12 on a red wire. Fuse 11 feeds the trailer connector (C499-7), number plate illumination light (C139-1), LH tail light (C404-3), LH rear side marker light (C405-1), LH front side marker light (C13-1) and LH front side light (C538-1). All lights are grounded on black wires. Fuse 12 feeds the trailer connector (C499-1), RH tail light (C401-3), RH rear side marker light (C400-1), RH front side marker light (C12-1) and RH front side light (C537-1). All lights are grounded on black wires.

Headlights

Fusible link 5 of the engine compartment fuse box (C570-2) is connected to the ignition switch (C28-1) by the brown wire. With the ignition switch in position 'II', power flows across the ignition switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 is connected to the headlight solenoid winding (C282-85) by the white/green wire. The headlight solenoid winding is grounded (C282-86) on a black wire. With the headlight solenoid energized, the relay switches to allows power to flow across the relay.

When the lighting switch is in the headlight position, power from fusible link 4 of the engine compartment fuse box flows through the lighting switch (C41-4) to the headlight relay (C282-87) on a blue/yellow wire. Provided the solenoid is energized, by the ignition being switched on, power flows through the headlight relay (C282-30) to the column switch (C36-1) on a blue wire.

With the column switch in the dip position, power from the column switch (C36-6) is fed to fuses 7 and 8 of the passenger compartment fuse box (C580-13) on a blue/red wire. With the column switch in the main beam position, power from the column switch (C36-5) is fed to fuses 9 and 10 of the passenger compartment fuse box (C580-17) on a blue/white wire via a header joint (C289). A feed is also supplied through the header joint (C289) to the instrument pack main beam warning light (C233-5) on a blue/white wire and grounded on a black wire.

Fuse 7 supplies the RH front dipped headlight (C11-2) on a blue/black wire. Fuse 8 supplies the LH front dipped headlight (C9-2) on a blue/pink wire. Fuse 9 supplies the RH front main beam headlight (C11-1) on a blue/orange wire. Fuse 10 supplies LH front main beam headlight (C9-1) on a blue/slate wire. All lights are grounded on black wires.

Headlight flash

A continuous feed from fusible link 1 through fuse 2 of the engine compartment fuse box (C574-3) is supplied to the column switch (C36-7) on a purple wire. When the headlight flash switch is operated, power flows through the switch (C36-5) to fuse 9 and 10 of the passenger compartment fuse box (C580-17) on a blue/white wire. Power is also supplied from the switch to the instrument pack main beam warning light (C233-5) on a blue/white wire via a header joint (C289). All lights are grounded on black wires.

EXTERIOR LAMPS - Lights On Alarm

DESCRIPTION

If the side lights are switched on when the ignition is in the off position, opening either the driver's door or passenger's door will cause the lights on alarm to sound.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by a brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by a brown wire.

With the ignition switch in position 'II', power flows through the ignition switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 (C580-2) supplies the multi-function ECU (C16-2) on the white/green wire. If the ECU receives a signal from the ignition switch, the lights on alarm will not sound.

Fusible link 4 of the engine compartment fuse box (C573-2) is connected to the lighting switch (C41-1) by the brown wire. With the lighting switch on, power flows through the switch (C41-2) to fuse 11 of the passenger compartment fuse box (C581-1) on the red wire. Fuse 11 (C581-2) is connected to the dimmer circuit (C285-7) on the red/black wire and from the dimmer circuit (C285-15) to the lights on sounder, located in the ECU (C16-4), on the red/white wire.

Fuse 2 of the engine compartment fuse box (C574-3) supplies the ECU with a permanent feed on the purple wire. The ECU is connected to the driver's door switch (C266-1) by the purple/green wire. The ECU is connected to the passenger's door switch (C265-1) by the purple/white wire. Opening either door closes a door switch, connecting the ECU to ground. Provided the ECU is receiving a lights on signal (C16-4) but no ignition signal (C16-2), the lights on alarm ground is switched to a black wire (C16-6) and the alarm sounds.

INDICATORS / HAZARD WARNING LIGHTS

DESCRIPTION

The indicators are controlled from the steering column switch and operate when the ignition switch is in position 'II'. Moving the column switch for a left turn causes the left hand indicator lights to flash. Moving the column switch for a right turn causes the right hand indicators to flash.

The hazard light switch is located towards the center of the dash panel. Hazard operation is not dependent on the position of the ignition switch. When the hazard switch is depressed, both left hand and right hand indicator lights flash.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Power flows through fuse 5 of the engine compartment fuse box (C575-3) and feeds the hazard warning switch (C96-2) on the purple wire. The battery is also connected to fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

Indicators

With the ignition switch in position 'II', power flows across the ignition switch (C94-1) to fuse 17 of the passenger compartment fuse box (C581-13) on the white wire. Fuse 17 of the passenger compartment fuse box (C581-14) is connected to the hazard warning switch (C96-4) by the green wire. With the hazard warning switch in the off position, power flows through the hazard warning switch (C96-1) to the flasher unit (C547-85) on the light green wire. The flasher unit (C547-87) is connected to the column switch (C36-3) by the light green/brown wire and grounded by a black wire.

Left turn

Moving the column switch to the left turn position allows power to flow through the switch (C36-4) to the trailer connector (C499-4), the LH rear direction indicator light (C403-2), LH front direction indicator light (C1-1) and instrument pack LH indicator warning light (C230-10) on green/red wires. The flasher unit (C547-30) is connected to the instrument pack trailer warning light (C233-1) by the light green purple wire. All lights are grounded on black wires. With the circuit complete, the flasher unit commences opening and closing the circuit, causing the LH indicator lights to flash. The flasher unit connects power to the instrument pack trailer warning light during the first flash cycle only, unless a trailer is connected.

Right turn

Moving the column switch to the right turn position allows power to flow through the switch (C36-2) to the trailer connector (C499-3), the RH rear direction indicator light (C402-2), RH front direction indicator light (C2-1) and instrument pack RH indicator warning light (C230-9) on green/white wires. The flasher unit (C547-30) is connected to the instrument pack trailer warning light (C233-1) by the light green purple wire. All lights are grounded on black wires. With the circuit complete, the flasher unit commences opening and closing the circuit, causing the RH indicator lights to flash. The flasher unit connects power to the instrument pack trailer warning light during the first flash cycle only, unless a trailer is connected.

Hazards

The hazard warning switch (C96-2) is supplied with a permanent feed from fuse 5 (C575-3) of the engine compartment fuse box on the purple wire. Pressing the switch to the on position allows power to flow through the switch (C96-1) to the flasher unit (C547-85) on the light green wire. The flasher unit (C547-87) is connected to the following via the hazard warning switch (C96-5);

- Hazard warning switch tell tale, (C96-7) by brown/red wire.
- RH front direction indicator light (C2-1) by green/white wire.
- RH rear direction indicator light (C402-2) by green/white wire.
- Instrument pack RH indicator warning light (C230-9) by green/white wire.
- Trailer connector (C499-3) by green/white wire.
- LH front direction indicator light (C1-1) by green/red wire.
- LH rear direction indicator light (C403-2) by green/red wire.
- Instrument pack LH indicator warning light (C230-10) by green/red wire.
- Trailer connector (C499-4) by green/red wire. All lights are grounded on black wires.

With the flasher unit energized, the circuit is repeatedly open and closed, causing all indicator lights to flash. If no trailer is connected to the vehicle, the flasher unit supplies power to the instrument pack trailer warning light on the light green/purple wire, during the first flash cycle only, causing it to flash once.

INTERIOR LAMPS

DESCRIPTION

Two interior lamps are provided, one in the front and one in the rear of the vehicle. The front interior light can be switched on manually using its integral switch. If either front door is or tail door is opened, both lights are illuminated. The lights are controlled by the multi-function ECU. The ECU contains a time out feature which switches off the interior lights after a specified time period if either of the doors is left open, thus preventing unnecessary battery drain.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows across the switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) on the white wire. Fuse 1 is connected to the ECU (C16-2) by the white/green wire.

Fuse 1 of the engine compartment fuse box (C574-4) is connected to the rear interior light (C358-3) by the purple wire. The rear interior light is grounded through the ECU (C62-1) on the purple/blue wire.

Fuse 2 of the engine compartment fuse box (C574-3) provides a permanent feed to the ECU (C16-1) on the purple wire and feeds the front interior light (C356-1) on the purple wire. The front interior light is grounded through the ECU (C62-1) on the purple/blue wire.

The ECU (C62-5) is connected to the driver's door switch (C266-1) by the purple/green wire, the passenger's door switch (C265-1) and rear door switch (C615-1) by purple/white wires. When any door is opened, the door switch closes and a ground signal is detected by the ECU. The ECU switches the route to ground for the interior lights (C62-1 to C62-6), illuminating the interior lights. After a time period has elapsed with the door switch ground route detected, the ECU switches off the ground route for the interior lights.

Switching the front interior light switch to the on position provides a route to ground (C357-1) on the black wire and the bulb illuminates. In this condition, the time out feature is overridden.

INTERIOR ILLUMINATION

DESCRIPTION

The automatic gearbox selector is illuminated when the ignition switch is in position 'II'. When the side lights are switched on, the interior controls and gauges are illuminated so that they can be easily located during night driving, the gearbox selector illumination is dimmed to prevent dazzling. Two levels of illumination, high and low, can be selected using the dimmer switch.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows through the ignition switch (C94-1) to fuse 17 of the passenger compartment fuse box (C581-13) on the white wire. Fuse 17 (C581-14) supplies the main relay (C951-87A) on the green wire. When the relay is not energized, power flows through the relay (C951-30) to the automatic gearbox selector indicator light (C245-1) on the red/pink wire. The gearbox selector indicator light is grounded on a black wire.

The lighting switch (C41-1) is supplied from fusible link 4 of the engine compartment fuse box (C573-2) on the brown wire. Moving the lighting switch to the sidelight position allows power to flow through the switch (C41-2) to fuse 11 of the passenger compartment fuse box (C581-1) on the red wire. Fuse 11 (C581-2) supplies the following components;

- Dimmer circuit on the red/black wire. With the dimmer switch in the 'high' position, power flows through the header joint (C285-10) and dimmer switch (C201-3) on the red/black wire. The dimmer switch (C201-2) is connected to the header joint (C285-20) by the red/white wire. With the dimmer switch in the 'low' position, power flows through the header joint (C285-9) to the in-line resistor (C425-1) on the red/black wire. The in-line resistor (C425-2) is connected to the header joint (C285-19) by the red/white wire.
- Illumination relay solenoid (C951-86) on the red/black wire. The solenoid (C951-85) is grounded on a black wire. With the lighting relay energized, power from fuse 17 of the passenger compartment fuse box is diverted through the dimmer circuit before flowing through the gearbox selector indicator light.

CIRCUIT OPERATION

Power from the dimmer circuit flows through the following on red/white wires;

- Left hand heater control illumination (C942-1).
- Tachometer illumination (C936-1).
- Speedometer illumination (C932-1).
- Fuel gauge illumination (C935-1).
- Right hand heater control illumination (C941-1).
- Coolant temperature gauge illumination (C943-1).
- Cigar lighter illumination (C74-1).
- HRW switch illumination (C947-7).
- Rear wiper switch illumination (C79-7).
- Rear washer switch illumination (C73-8).
- Clock illumination (C948-1).
- Hazard warning switch illumination (C96-11).
 All illumination lamps are grounded on black wires.

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INSTRUMENTS

DESCRIPTION

The vehicle relays information to the driver via the instrument pack. The instrument pack contains lights and analogue gauges. The color of the light denotes the severity of the information, warning lights are red, caution lights are orange, green and blue lights indicate that a system is operating.

The analogue gauges relay information to the driver such as engine speed and engine temperature.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

With the ignition switch in position 'II', power flows through the switch (C94-1) to fuse 1 of the passenger compartment fuse box (C580-1) and to the in-line resistor (C38-1) on white wires. The in-line resistor (C37-2) is connected to the ground side of the instrument pack ignition/no charge warning light (C230-5) by the yellow/brown wire.

Fuse 1 of the passenger compartment fuse box is connected to the instrument pack (C230-4) by the white/green wire via a header joint (C287) and feeds the following warning lights;

- Seat belt warning light grounded (C230-1) on the white/black wire via the seat belt buckle switch (C100-2). Illuminates with the ignition in position 'II' and seat belt not fastened.
- Differential warning light grounded (C233-8) on the black/blue wire through the differential lock unit (C306-1). Illuminates with the ignition in position 'II' and differential lock engaged.
- Oil pressure warning light grounded (C230-3) on the white/brown wire via a header joint (C288) through the oil pressure switch (C187-1). Illuminates with the ignition in position 'II' and engine oil pressure below minimum.

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CIRCUIT OPERATION

- Brake/system warning light grounded (C230-6) on the white/yellow wire, via a header joint (C285), through the handbrake switch (C91-1) or brake fluid level switch (C26-1). Illuminates with the ignition in position 'II' and the handbrake applied or when the brake fluid level drops below minimum. As a bulb check, in the event of the handbrake not being applied, the lamp will illuminate for 3 seconds after the ignition is first turned on. This function is served by the Warning Lamp Check Unit which provides an alternative ground path for the lamp during the timed period.
- Ignition/no charge warning light grounded (C230-5) on the yellow/brown wire via the diode (C116-1) and generator (C185-1) on the brown/yellow wire. The ignition/no charge warning light illuminates if the generator produces no output voltage. See charging and starting. Fuse 1 of the passenger compartment fuse box feeds the following:
- Instrument pack engine immobilization warning light (C233-3) on the white/green wire. The light is grounded (C233-10) on the red/slate wire through the engine immobilization unit (C306-1). Illuminates with the ignition in position 'II' and engine immobilized.
- Instrument pack speedometer (C932-2) on the white/green wire. The speedometer is grounded (C932-3) on a black wire and receives a road speed signal (C932-1) from the speed sensor (C195-3) on the black/red wire.
- Instrument pack tachometer (C938-1) on the white/green wire. The tachometer is grounded (C937-1) on a black wire and receives the engine speed signal (C937-1) from the generator (C183-1) on the white/slate wire.
- Instrument pack fuel gauge (C860-2) on the white/green wire. The fuel gauge is grounded (C860-1) on a black wire and receives the fuel level signal (C860-3) from the fuel tank unit (C113-1) on the green/black wire.
- Instrument pack coolant temperature gauge (C940-2) on the white/green wire. The coolant temperature gauge is grounded (C940-3) on a black wire and receives the coolant temperature signal (C940-1) from the coolant temperature sensor (C113-1) on the green/black wire.

The instrument pack sidelights warning light is illuminated when the lighting switch is in the sidelights or headlights position. Fusible link 4 of the engine compartment fuse box (C573-2) is connected to the lighting switch (C41-1) by the brown wire.

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With the lighting switch in the on position, power flows across the switch (C41-2) to fuse 12 of the passenger compartment fuse box (C581-1) on the red wire. Fuse 12 of the passenger compartment fuse box supplies the instrument pack sidelights warning light (C233-3) on the red/orange wire. The warning light is grounded (C233-2) on a black wire.

The instrument pack LH indicator warning light operates when the hazard warning switch is operated or when the column switch is positioned for a left turn with the ignition switch in position 'II'. With the hazard switch on, power is supplied from the hazard switch (C96-6) to the LH indicator warning light (C230-10) via a header joint (C286) on the green/red wire. The warning light is grounded (C233-2) on a black wire. With the ignition switch in position 'II' and the column switch positioned for a left turn, power is supplied to the warning light (C230-10) from the column switch (C36-4) via a header joint (C286) on the green/red wire.

The instrument pack RH indicator warning light operates when the hazard warning switch is operated or when the column switch is positioned for a right turn with the ignition switch in position 'II'. With the hazard switch on, power is supplied from the hazard switch (C96-3) to the RH indicator warning light (C230-9) via a header joint (C286) on the green/white wire. The warning light is grounded (C233-2) on a black wire. With the ignition switch in position 'II' and the column switch positioned for a right turn, power is supplied to the warning light (C230-9) from the column switch (C36-2) via a header joint (C286) on the green/white wire.

The instrument pack trailer warning light flashes once when the hazard warning switch is operated or when the column switch is positioned for a left or right turn with the ignition switch in position 'II'. Power is supplied to the trailer warning light (C233-1) from the flasher unit (C547-30) on the red/slate wire. The trailer warning light is grounded (C233-2) on a black wire.

The instrument pack main beam warning light illuminates when headlight main beam is selected from the column switch or headlight flash is operated. With headlight main beam selected or headlight flash operated, power from the column switch (C36-5) supplies the main beam warning light (C233-5) on the blue/white wire. The main beam warning light is grounded (C233-2) on a black wire.

The instrument pack heated rear window warning light illuminates when the engine is running and the HRW switch is depressed momentarily to signal the multi-function ECU to switch the heating element on (see Heated Rear Window). Power from the HRW relay (C44-30) is supplied to the HRW warning light (C929-1) on the white/black wire. The warning light is grounded (C928-1) on a black wire.

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CIRCUIT OPERATION

CLOCK

DESCRIPTION

The analogue clock is located towards the center of the dash panel. The clock is illuminated when the sidelights are switched on.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 2 of the engine compartment fuse box which are connected in series. Fusible link 2 of the engine compartment fuse box (C574-3) provides a permanent power supply to the analogue clock (C949-1) on the purple wire. The clock is grounded (C950-1) on a black wire.

Illumination

The analogue clock has illumination which operates with the sidelights. Power from fusible link 1 of the engine compartment fuse box passes through fusible link 4 of the engine compartment fuse box (C573-2) and feeds the lighting switch (C41-1) on the brown wire. The lighting switch (C41-2) is connected to fuse 11 of the passenger compartment fuse box (C581-1) by the red wire. When the lighting switch is turned on, power is supplied through fuse 11 (C581-2) to the dimmer circuit header joint (C285-7) on the red/black wire - (See interior illumination). Power flows through the dimmer circuit (C285-16) to the clock illumination (C948-1) on the red/white wire. The clock illumination is grounded on a black wire.

CIGAR LIGHTER

DESCRIPTION

The cigar lighter is located towards the center of the dash panel. Pressing the center of the cigar lighter latches the heater element in to the holder. With the ignition switched on, power flows through the heating element of the cigar lighter, causing it to heat up. When the heating element reaches a sufficient temperature, the holder automatically releases the cigar lighter which can then be removed for use.

The location of the cigar lighter holder is illuminated when the sidelights are switched on.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 of the engine compartment fuse box (C570-2) is connected to the ignition switch (C026-1) by the brown wire.

When the ignition switch is in position 'II', current flows from the ignition switch (C94-1) to fuse 19 of the passenger compartment fuse box (C581-13) on the white wire. Fuse 19 (C581-18) is connected to the cigar lighter (C86-1) by the green/orange wire. The cigar lighter is grounded (C89-1) on a black wire.

When the cigar lighter is pressed into its holder, locking clips secure it in position and also connect the power supply to the heating element. As the temperature of the heating element rises, heat is transmitted to the holder, causing the locking clips to expand and release the cigar lighter at a predetermined temperature.

Illumination

The cigar lighter has an illuminated ring which operates with the sidelights. Power from fusible link 1 of the engine compartment fuse box passes through fusible link 4 of the engine compartment fuse box (C573-2) and feeds the lighting switch (C41-1) on the brown wire. The lighting switch (C41-2) is connected to fuse 11 of the passenger compartment fuse box (C581-1) by the red wire. When the lighting switch is turned on, power is supplied through fuse 11 (C581-2) to the dimmer circuit header joint (C285-7) on the red/black wire - (See interior illumination). Power flows through the dimmer circuit (C285-16) to the cigar lighter illumination (C74-1) on the red/white wire. The cigar lighter illumination is grounded on a black wire.

IN-CAR ENTERTAINMENT

DESCRIPTION

The radio/cassette player operates when the ignition switch is in position I or II. Signal output from the radio/cassette player is relayed to four loud speakers via a power amplifier. The radio/cassette player controls are illuminated when the unit is switched on. The illumination dims when the sidelights are switched on.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by a brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) and fuse 2 of the passenger compartment fuse box (C580-3) by brown wires. Fuse 2 (C580-4) of the passenger compartment fuse box supplies the radio/cassette player (C98-4) with a permanent feed on the purple wire. The permanent feed maintains the radio code and pre-set radio channels.

With the ignition switch in position I or II, power flows through the ignition switch (C99-1) to fuse 5 and fuse 6 (C580-7) of the passenger compartment fuse box on the white/orange wire. Fuse 6 (C580-12) supplies power to the power amplifier (C491/1&2) on white/light green wires. Fuse 5 (C580-10) supplies power to the radio/cassette player (C98-7) on the white/pink wire. The radio/cassette player and power amplifier are grounded on black wires.

9 wires connect the radio/cassette player to the power amplifier. These wires transmit the audio signals from the radio/cassette player to the power amplifier. The power amplifier is connected to the 4 speakers as follows;

RH front speaker by black/red (C491-14) and black/pink (C491-7) wires, LH front speaker by black/orange (C491-13) and black/yellow (C491-6) wires, LH rear speaker by black/blue (C491-11) and black/green (C491-4) wires, RH rear speaker by black/brown (C491-12) and black white (C491-5) wires.

CIRCUIT OPERATION

Illumination

Fusible link 4 of the engine compartment fuse box (C573-2) is connected to the lighting switch (C41-1) on the brown wire. With the lighting switch in the on position, power flows across the switch to fuse 11 of the passenger compartment fuse box (C581-1) on the brown wire. Fuse 11 (C581-2) supplies the radio/cassette unit illumination (C98-6) on the red/black wire.

IGNITION AND SHIFT INTERLOCK

DESCRIPTION

Ignition interlock

The ignition interlock prevents the following actions unless the gear selector lever is in the Park position and the transfer box is in either High or Low range:

- Key cannot be turned from position 'I' to position '0'.
- Key can be turned to crank position 'III' but starter motor will not operate.

Shift interlock

The shift interlock prevents the gear selector lever being moved from the Park position unless the ignition key is in position 'II' and the foot brake is applied.

Transfer gearbox interlock

The transfer gearbox interlock prevents the transfer box selector lever being moved unless the ignition switch is in position 'II' and the gear selector lever is in the Park or Neutral position.

OPERATION

Feed from the positive battery terminal is connected to the engine compartment fuse box (C632-1) by the brown wire. Current passes through fusible link 1 and fusible link 5 of the engine compartment fuse box which are connected in series. Fusible link 5 (C570-2) is connected to the ignition switch (C28-1) by the brown wire.

Ignition interlock

Fuse 2 of the engine compartment fuse box is connected in series with fusible link 1 of the engine compartment fuse box. Fuse 2 (C574-3) is connected to the key in sensor (C672-1) by the purple wire. Inserting the key in to the ignition switch closes the key in sensor and allows power to flow from the key in sensor (C672-2) to the key interlock solenoid (C671-1) and diode (C924-2) on the brown/red wire. The diode prevents back feeding as the solenoid energizes and de-energizes.

With the transfer gearbox in neutral, the transfer gearbox neutral switch will be closed. With the neutral switch closed, current flows through the winding of the key interlock solenoid (C671-2) on the brown/yellow wire, through the diode (C802-2 & 3), through the switch (C684-3) to ground on the black wire and the solenoid remains energized, preventing the key being turned to position '0' and, hence removed from the ignition.

CIRCUIT OPERATION

Similarly, if the automatic transmission selector lever is not in park, the PARK 1 switch will be closed and a ground path is provided for key interlock solenoid on the brown/yellow wire, through the closed switch contacts, on the black wire (C668-4) & (C550-6). Again, the key interlock solenoid will be energized an the key cannot be removed.

Either, or both, of the above conditions will cause the key interlock solenoid to be energized. Only with the transfer gearbox neutral switch open (in the HI or LO positions) **AND** the automatic transmission selector lever in park, is the key interlock de-energized, enabling the key to be moved to position '0' and removed from the ignition.

Shift interlock

The ignition switch (C94-1) is connected to fuse 18 of the passenger compartment fuse box (C581-13) by the white wire. With the ignition switch in position 'II', power flows across fuse 18 (C581-14) to the brake pedal switch (C75-1) on the green/purple wire. When the brake pedal is depressed, the switch closes and power flows across the switch (C29-1) to the automatic transmission selector (C668-2) on the green/purple wire. An internal link connection takes the feed out of the selector (C668-5) on a pink/slate wire, and back to the PARK 2 switch (C668-6). If the gear selector is in the Park position, the route to ground for the gear shift interlock solenoid (C668-3) is provided on the black wire. With the gear shift interlock solenoid energized, the gear shift lever is released, allowing the lever to be moved from the Park position. If the gear shift lever is not in the Park position, the shift interlock solenoid has no continuity to ground and is not energized. With the shift interlock solenoid de-energized, the gear selector lever cannot be moved from the Park position. Similarly, if the brake pedal switch is not closed by depressing the brake pedal, power is not supplied to the gear shift interlock solenoid, regardless of the gear selector lever position.

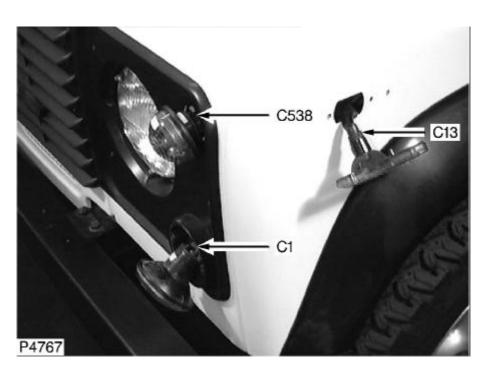
Transfer gearbox interlock

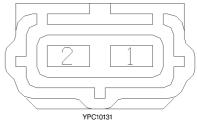
Fuse 2 of the engine compartment fuse box is connected in series with fusible link 1 of the engine compartment fuse box. Fuse 2 (C574-3) is connected to the key in sensor (C672-1) by the purple wire. Inserting the key in to the ignition switch closes the key in sensor and allows power to flow from the key in switch (C672-2) to the interlock relay winding (C95-85) on the brown/red wire via a header joint (C289). If the automatic transmission inhibitor switch is not in the neutral or park position, there is no ground path for the interlock relay winding and the relay remains de-energized. In this condition, the transfer gearbox selector lever cannot be moved.

CIRCUIT OPERATION

With the automatic transmission inhibitor switch in either Park or Neutral, a ground path is provided for the interlock relay winding (956-86), on the black/yellow wire, through the diode (C801-1 & 2), through the closed switch contacts (C069- 5 & 4), to the immobilization ECU on a black/orange wire (C057-10) and from the immobilization ECU (C057-11) to ground on a black wire. With the relay energized, current flows from fuse 18 of the passenger compartment fuse box (C581-14) to the interlock relay (C956-87) on a green wire. Current passes through the closed relay contacts (C956-30) to the transfer gearbox interlock unit (C683-1) on the slate/black wire and to ground through the unit's solenoid winding on the black wire. In this condition, the unit is energized and the transfer gearbox selector lever is free to move.

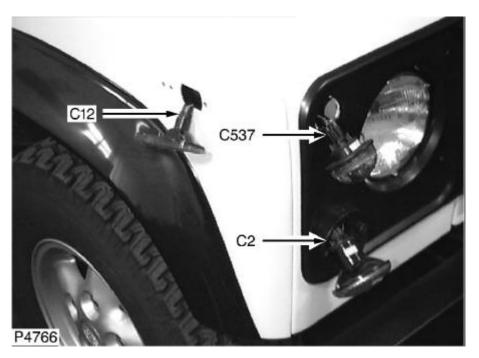
C1
DIRECTION
INDICATOR - LH
2 Way
Female
RED
Behind LH front indicator
lamp

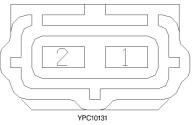




Cav	Color	Cct
1	В	ALL
2	GR	ALL

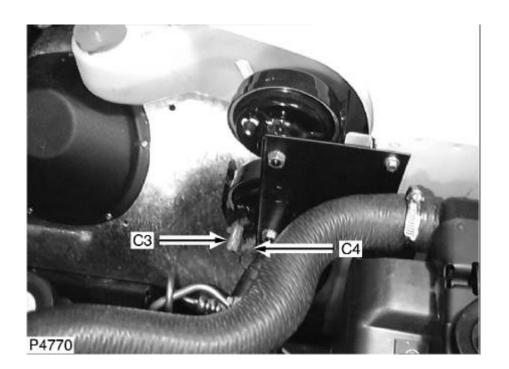
C2
DIRECTION
INDICATOR - RH
2 Way
Female
RED
Behind RH front indicator
lamp





Cav	Color	Cct
1	В	ALL
2	GW	ALL

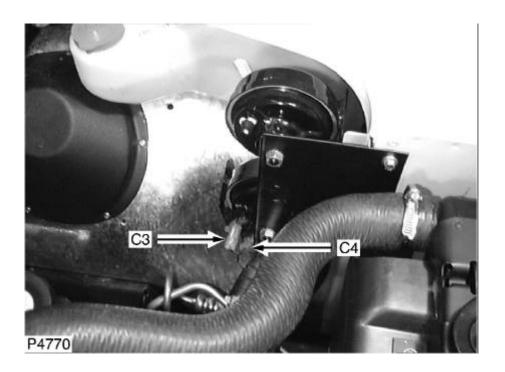
C3
HORN
1 Way
Female
NATURAL
Under bonnet, LH inner
fender





Cav	Color	Cct
1	PB	ALL

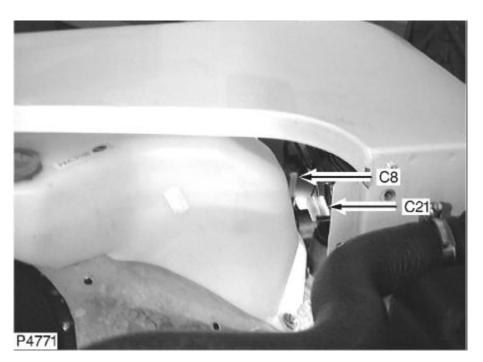
C4
HORN
1 Way
Female
NATURAL
Under bonnet, LH inner
fender

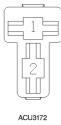




Cav	Color	Cct
1	В	ALL

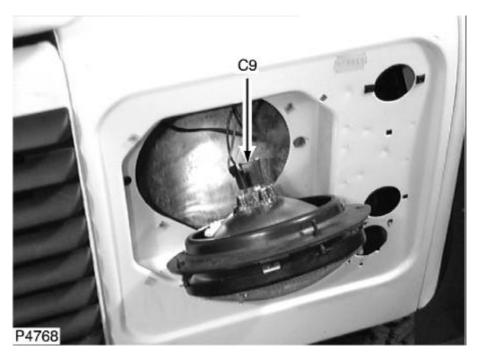
C8
WASHER PUMP FRONT
2 Way
Female
BLACK
Under bonnet, LH inner
fender

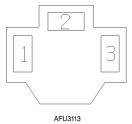




Cav	Color	Cct
1	В	ALL
2	LGB	ALL

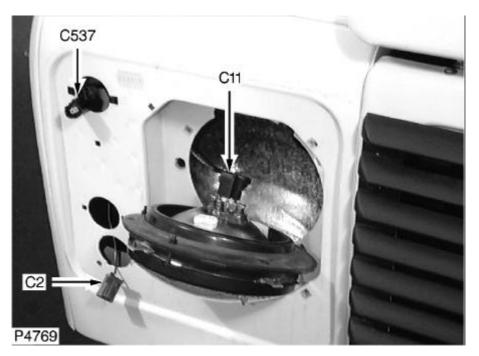
C9
HEADLAMP LH
3 Way
Female
BLACK
Behind LH headlamp

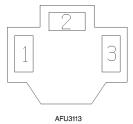




Cav	Color	Cct
1	US	ALL
2	UK	ALL
3	В	ALL

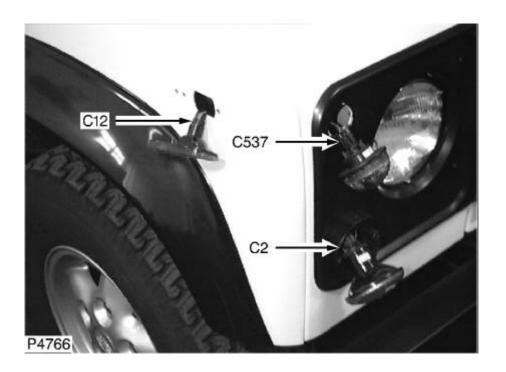
C11
HEADLAMP RH
3 Way
Female
BLACK
Behind RH headlamp

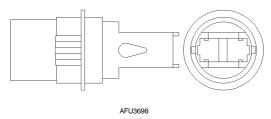




Cav	Color	Cct
1	UO	ALL
2	UB	ALL
3	В	ALL

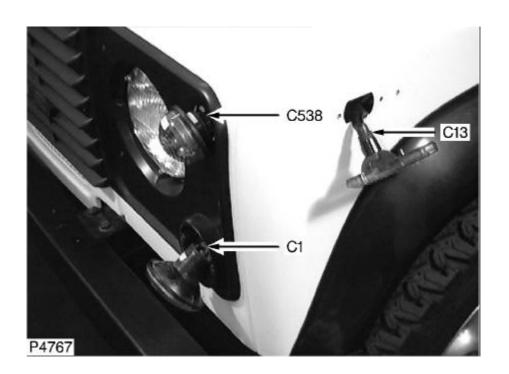
C12
SIDE REPEATER RH
2 Way
Female
BLACK
On the side of the front
fender

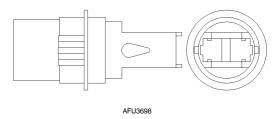




Cav	Color	Cct
1	RO	ALL
2	В	ALL

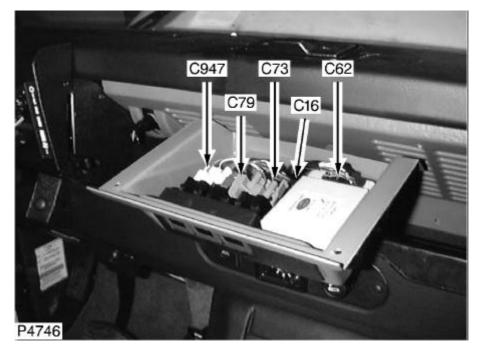
C13
SIDE REPEATER LH
2 Way
Female
BLACK
On the side of the front
fender

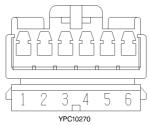




Cav	Color	Cct
1	RB	ALL
2	В	ALL

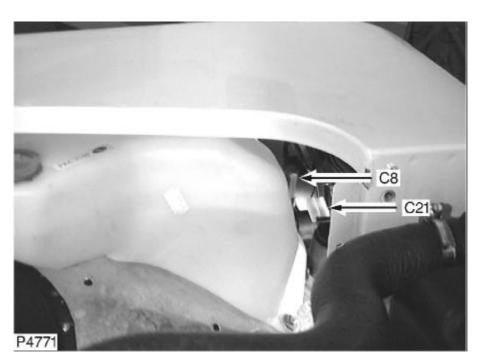
C16
MFU
6 Way
Female
WHITE
Behind dash trim panel





Cav	Color	Cct
1	Ρ	ALL
2	W	ALL
3	WN	ALL
4	RW	ALL
5	WR	ALL
6	В	ALL

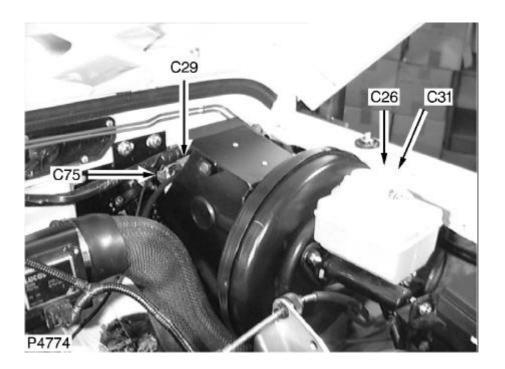
C21
WASHER PUMP REAR
2 Way
Female
NATURAL
Under bonnet, LH inner
fender





Cav	Color	Cct
1	В	ALL
2	BLG	ALL

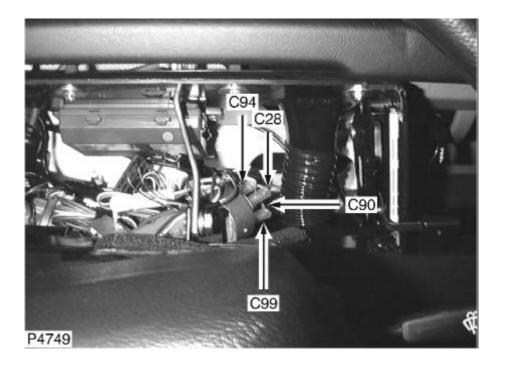
C26
BRAKE FLUID LEVEL
1 Way
Female
NATURAL
Rear LH side of engine
compartment





Cav	Color	Cct
1	WY	ALL

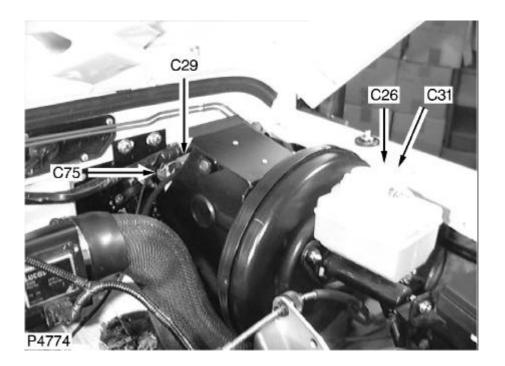
C28
IGNITION SWITCH
1 Way
Female
NATURAL
Behind instrument pack





Cav	Color	Cct
1	Ν	ALL

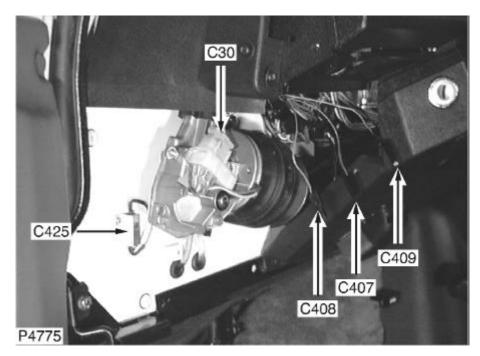
C29
STOP LAMP SWITCH
1 Way
Female
NATURAL
LH side of fire wall

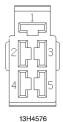




Cav	Color	Cct
1	GP	ALL

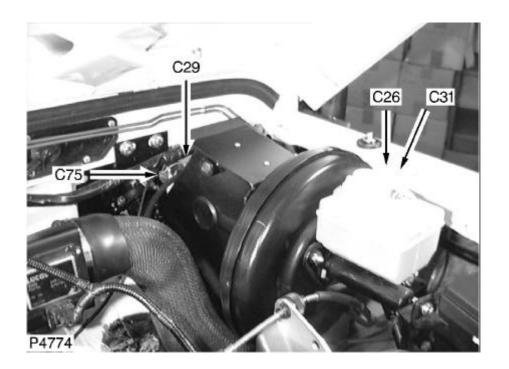
C30
WIPER MOTOR FRONT
5 Way
Female
GREY
Under LH side of dash





Cav	Color	Cct
1	В	ALL
2	NLG	ALL
3	ULG	ALL
4	G	ALL
5	RLG	ALL

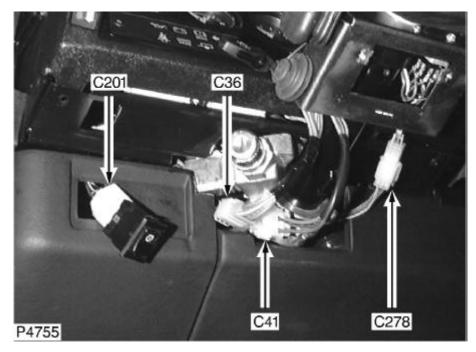
C31
BRAKE FLUID LEVEL
1 Way
Female
NATURAL
Behind center console

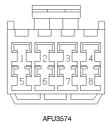




Cav	Color	Cct
1	В	ALL

C36
MULTI-PURPOSE
SWITCH
8 Way
Female
NATURAL
Behind steering column
cowl LH side

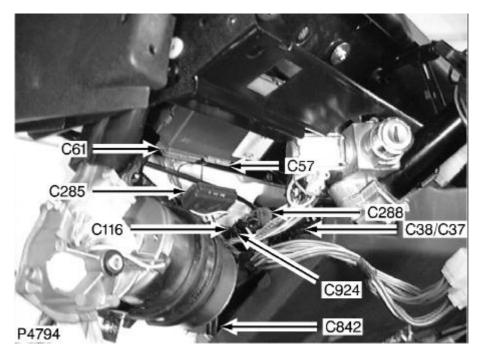




Cav	Color	Cct
1	U	ALL
2	GW	ALL
3	LGN	ALL
4	GR	ALL
5	UW	ALL
6	UR	ALL
7	Р	ALL
8	PB	ALL

C37 RESISTOR

Female BRASS,ANTI-RUST TREATMENT Behind dash trim panel

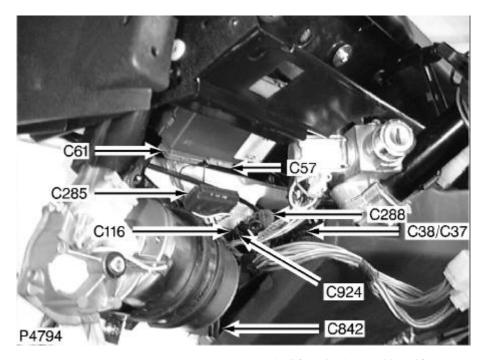


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Cav	Color	Cct
2	ΥN	ALL

C38 RESISTOR

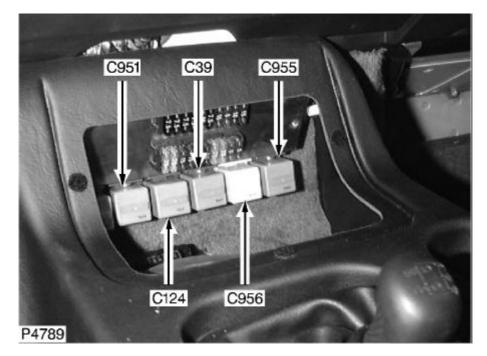
Female BRASS,ANTI-RUST TREATMENT Behind dash trim panel



 $t:\\ \verb|compuset|| faceview| YRE10019.tif$

Cav	Color	Cct
1	W	ALL

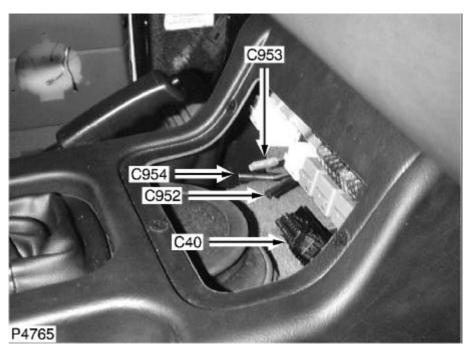
C39
RELAY - FRONT
WIPERS
5 Way
Female
GREEN
Behind front of center
console

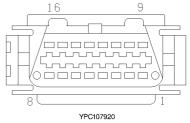




Cav Color Cct 30 YLG ALL 85 NS **ALL** G 86 ALL 87A NLG ALL 87 G **ALL**

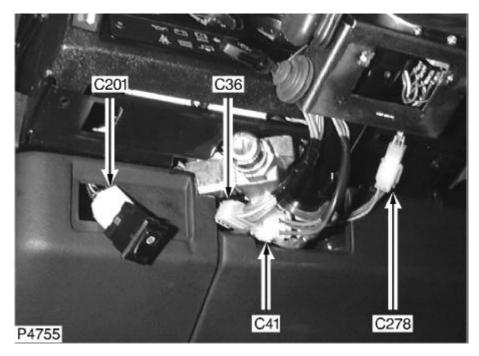
C40
DIAGNOSTIC
CONNECTOR
16 Way
Female
BLACK
Behind front of center
console

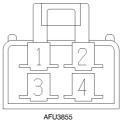




Cav	Color	Cct
4	В	ALL
5	В	ALL
7	WLG	ALL
8	OLG	ALL
15	WK	ALL
16	Р	ALL

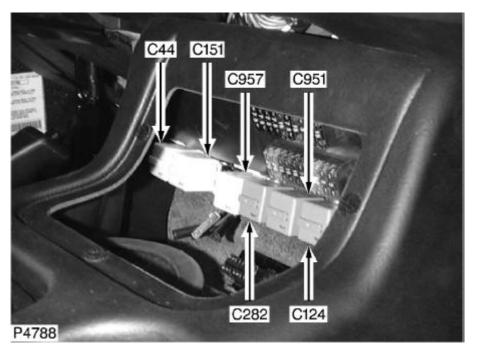
C41
LIGHTING SWITCH
4 Way
Female
NATURAL
Behind steering column
cowl LH side

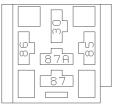




Cav	Color	Cct
1	N	ALL
2	R	ALL
4	UY	ALL

C44
HEATED REAR
WINDOW RELAY
5 Way
Female
YELLOW
Behind front of center
console





YPP100090

Cav	Color	Cct
30	WB	ALL
85	WK	ALL
86	В	ALL
87	NS	ALL

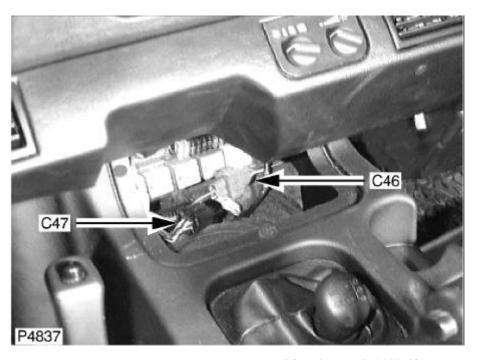
C45
A/C DASH HARNESS
TO A/C ENGINE BAY
HARNESS
8 Way
Female
BLACK
Passenger's footwell





Cav	Color	Cct
1	G	ALL
2	U	ALL
3	R	ALL
4	Ν	ALL
5	UR	ALL
6	В	ALL

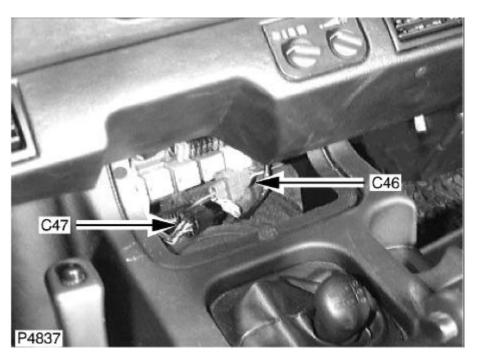
C46
AIR CONDITIONING
HARNESS TO MAIN
HARNESS
2 Way
Male
RED
Beneath front console

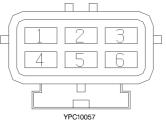


 $t:\\ \verb|compuset|| faceview|\\ YPC10133.tif$

Cav	Color	Cct
1	NW	ALL
2	PS	ALL

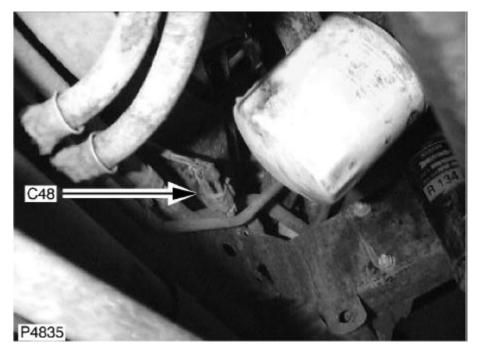
C47
AIR CONDITIONING
HARNESS TO MAIN
HARNESS
6 Way
Male
BLACK
Beneath front console

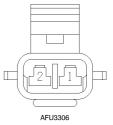




Cav	Color	Cct
1	G	ALL
2	SB	ALL
3	YW	ALL
4	UB	ALL
5	UW	ALL
6	SU	ALL

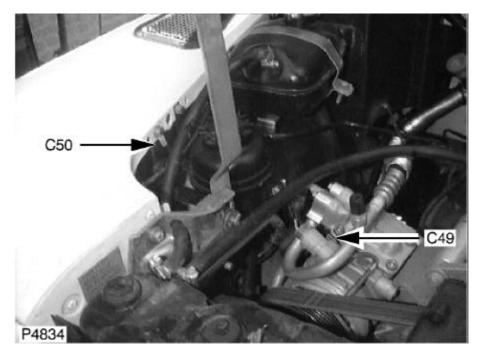
C48
CONDENSER FAN
2 Way
Female
BLACK
Behind radiator





Cav	Color	Cct
1	UP	ALL
2	В	ALL

C49
COMPRESSOR
CLUTCH
2 Way
Female
NATURAL
Front RH side of engine

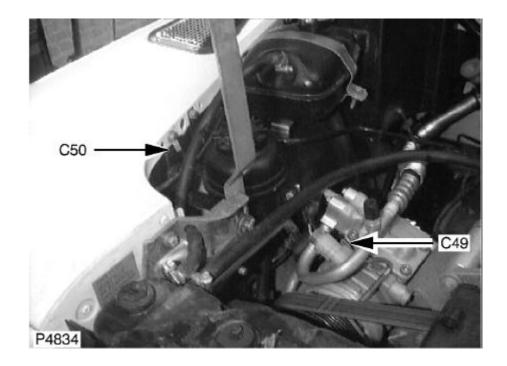


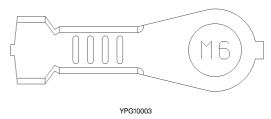
t:\compuset\erl\faceview\AFU3692.tif

Cav	Color	Cct
1	NK	ALL
2	В	ALL

C50 GROUND EYELET 1 Way

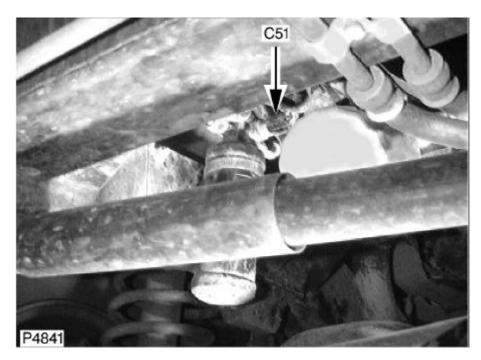
TIN-PLATE Front of engine compartment RH side

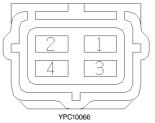




Cav	Color	Cct
1	В	ALL

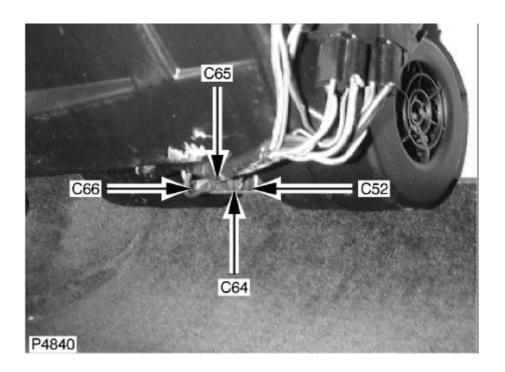
C51
TRINARY SWITCH
4 Way
Female
BLACK
Lower RH front of engine
compartment

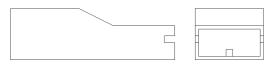




Cav	Color	Cct
1	YW	ALL
2	UR	ALL
3	В	ALL
4	UW	ALL

C52 BLOWER SPEED 1 1 Way Female BLACK Passenger's footwell

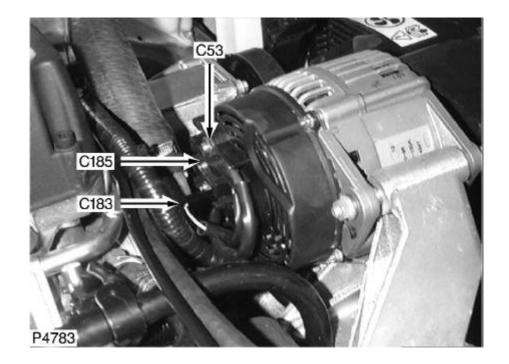


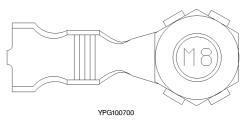


Cav	Color	Cct
1	U	ALL

C53 GENERATOR -CONTROL 1 Way

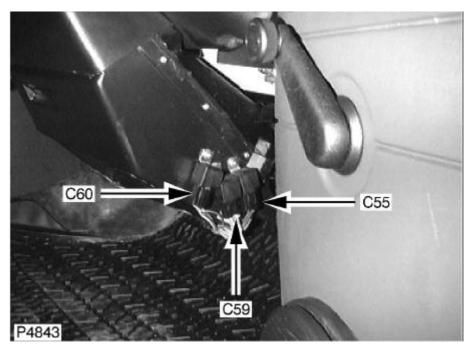
BRASS Front of engine - center





Cav	Color	Cct
1	N	ALL

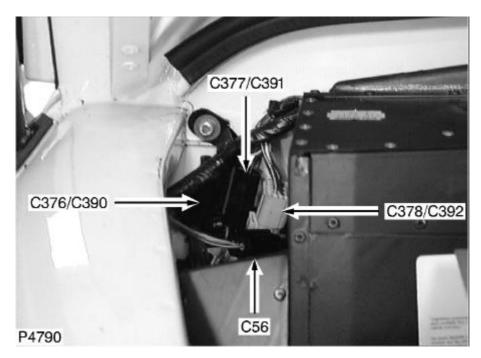
C55
BLOWER RELAY
5 Way
Female
BLACK
Passenger's footwell

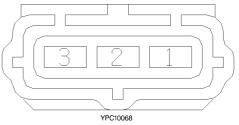




Cav	Color	Cct
1	PS	ALL
2	В	ALL
3	N	ALL
4	G	ALL

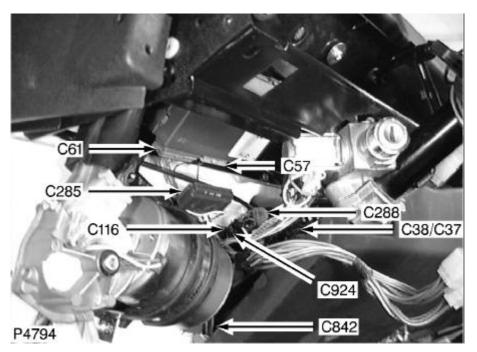
C56
BLOWER MOTOR
3 Way
Female
BLACK
Under bonnet, RH inner
fender

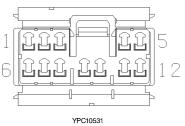




Cav	Color	Cct
1	GS	ALL
2	GY	ALL
3	PG	ALL

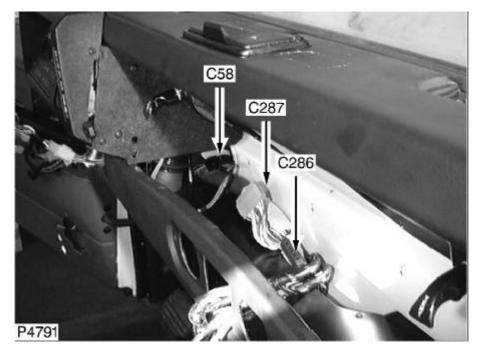
C57
IMMOBILIZATION
ECU
12 Way
Female
GREEN
Behind instrument pack

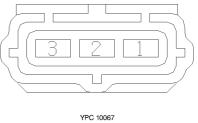




Cav	Color	Cct
10	ВО	ALL
11	В	ALL

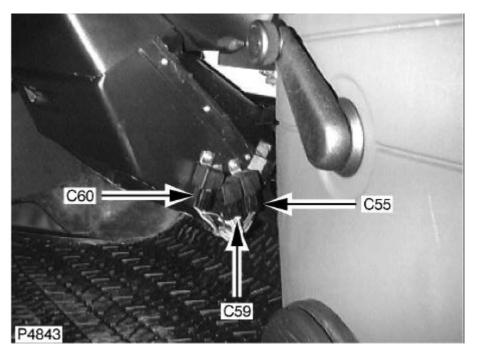
C58
BLOWER SWITCH
3 Way
Female
BLACK
Behind dash trim panel





Cav	Color	Cct
1	GS	ALL
2	GY	ALL
3	В	ALL

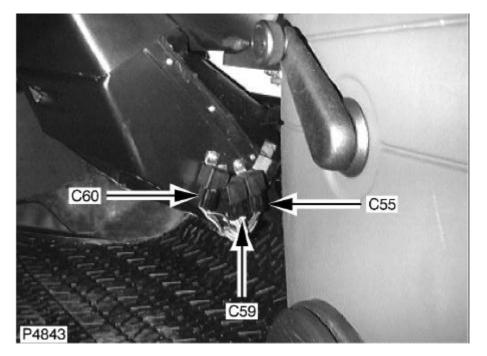
C59
CONDENSER FAN
RELAY
5 Way
Female
BLACK
Passenger's footwell





Cav	Color	Cct
1	NW	ALL
2	SU	ALL
3	UP	ALL
4	SB	ALL

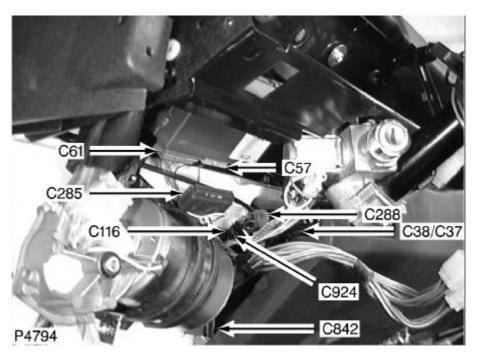
C60
COMPRESSOR RELAY
5 Way
Female
BLACK
Passenger's footwell

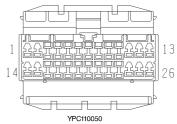




Cav	Color	Cct
1	NW	ALL
2	UB	ALL
3	NK	ALL
4	G	ALL

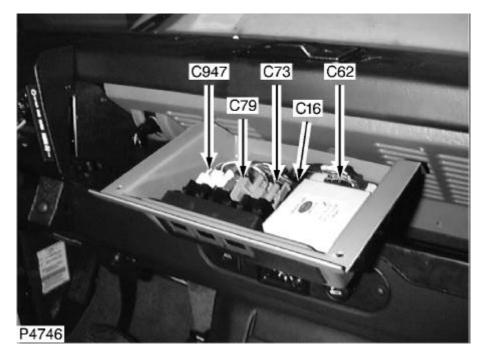
C61
IMMOBILIZATION
ECU
26 Way
Female
GREY
Behind instrument pack

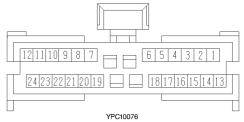




Cav	Color	Cct
10	G	ALL
11	RS	ALL
15	В	ALL
17	OLG	ALL
25	Р	ALL

C62 MFU 24 Way Female BLACK Behind dash trim panel

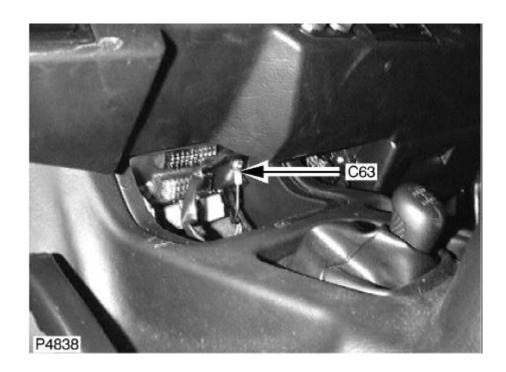


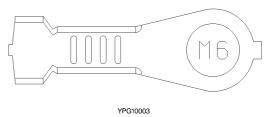


Cav	Color	Cct	Cav	Color	Cct
1	PU	ALL	13	LGB	ALL
2	WK	ALL	15	RLG	ALL
3	BK	ALL	16	BLG	ALL
5	PW	ALL	18	PG	ALL
7	WB	ALL	21	BR	ALL
8	В	ALL	22	NS	ALL
9	LGG	ALL	23	NP	ALL

C63 GROUND EYELET 1 Way

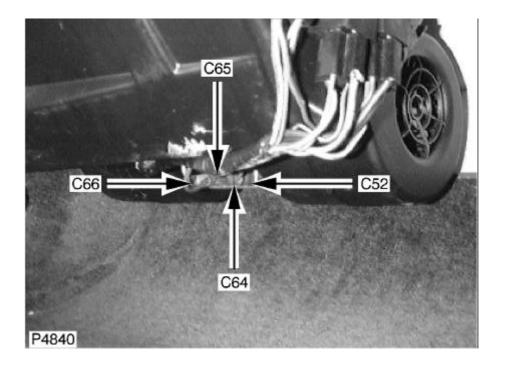
TIN-PLATE
Behind front of center console

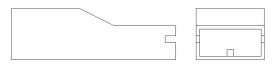




Cav	Color	Cct
1	В	ALL

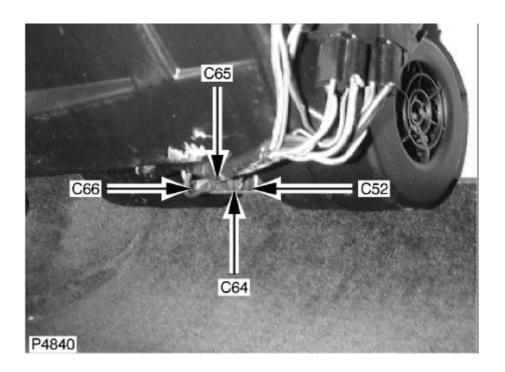
C64
BLOWER SPEED 2
1 Way
Female
BLACK
Passenger's footwell

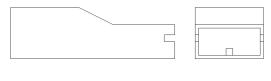




Cav	Color	Cct
1	G	ALL

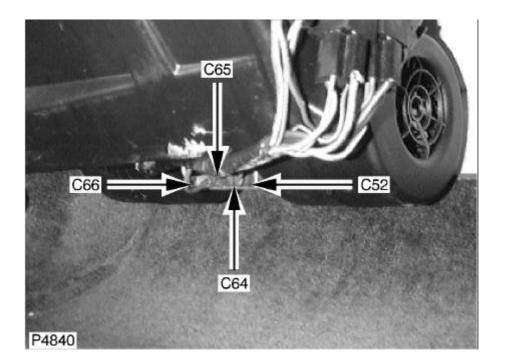
C65
BLOWER SPEED 3
1 Way
Female
BLACK
Passenger's footwell

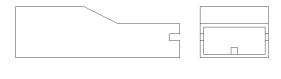




Cav	Color	Cct
1	R	ALL

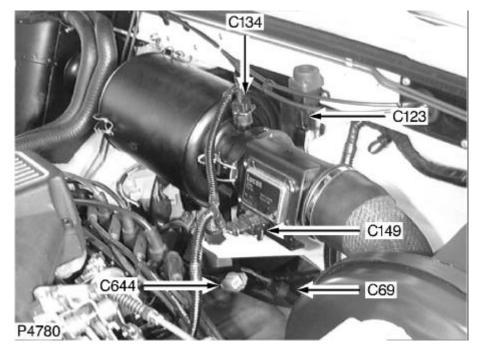
C66
BLOWER GROUND
1 Way
Female
BLACK
Passenger's footwell





Cav	Color	Cct
1	В	ALL

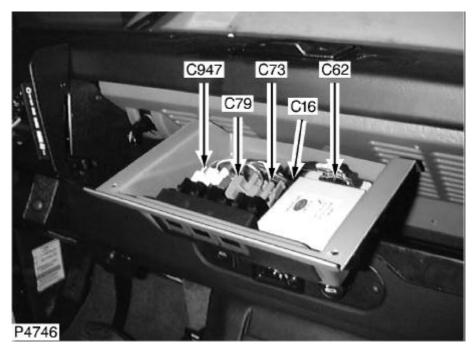
C69
INHIBIT SWITCH
5 Way
Female
BLACK
Above gearbox

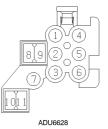




Cav	Color	Cct
2	G	ALL
3	GN	ALL
4	ВО	ALL
5	BY	ALL

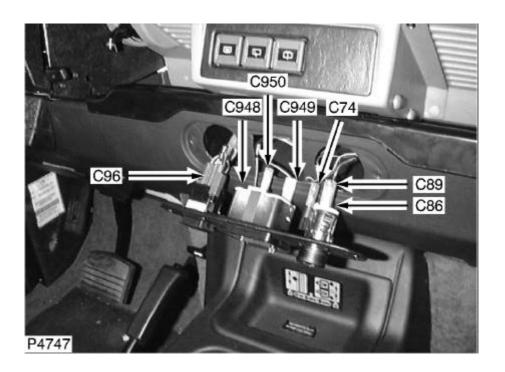
C73
WASHER SWITCH REAR
9 Way
Female
BLUE
Behind dash trim panel





Cav	Color	Cct
2	BLG	ALL
5	G	ALL
8	RW	ALL
9	В	ALL

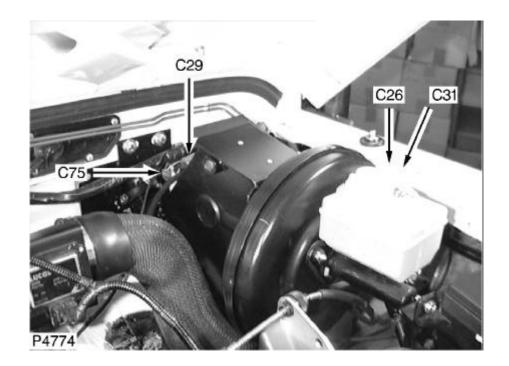
C74
CIGAR
ILLUMINATION
1 Way
Female
NATURAL
Behind dash trim panel





Cav	Color	Cct
1	RW	ALL

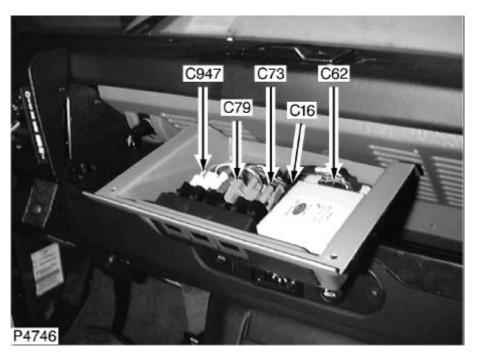
C75
STOP LAMP SWITCH
1 Way
Female
NATURAL
LH side of fire wall

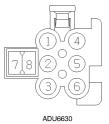




Cav	Color	Cct
1	G	ALL

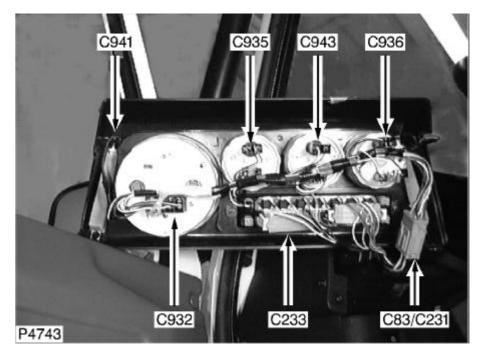
C79
WIPER SWITCH REAR
7 Way
Female
BROWN
Behind dash trim panel

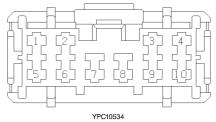




Cav	Color	Cct
2	RLG	ALL
5	G	ALL
7	RW	ALL
8	В	ALL

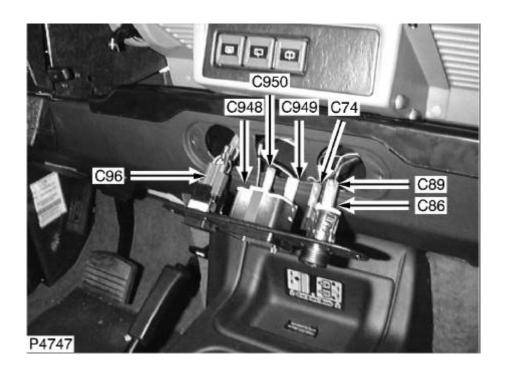
C83
MAIN HARNESS TO
INSTRUMENT
HARNESS
10 Way
Female
LIGHT GREY
Behind instrument pack





Cav	Color	Cct	Cav	Color	Cct
1	WG	ALL	6	WS	ALL
2	В	ALL	7	GB	ALL
3	YK	ALL	8	GU	ALL
4	RW	ALL	9	WB	ALL
5	SR	ALL	10	BR	ALL

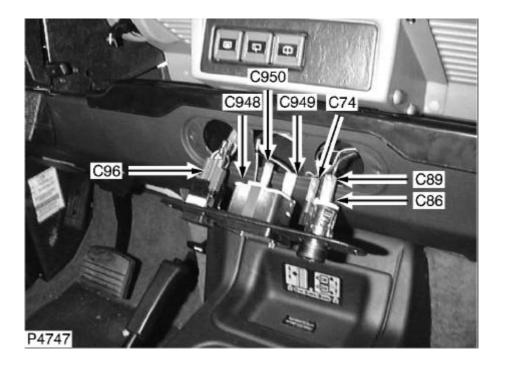
C86
CIGAR LIGHTER
1 Way
Female
NATURAL
Behind dash trim panel





Cav	Color	Cct
1	GO	ALL

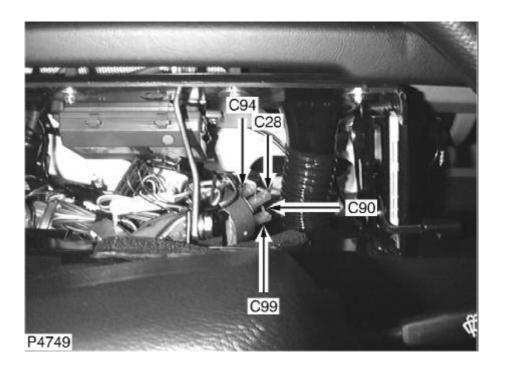
C89
CIGAR LIGHTER
1 Way
Female
NATURAL
Behind dash trim panel





Cav	Color	Cct
1	В	ALL

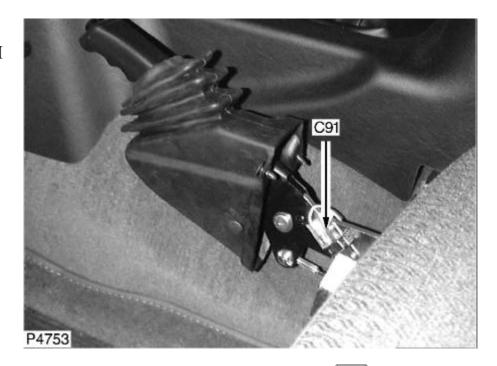
C90
IGNITION SWITCH
1 Way
Female
NATURAL
Behind instrument pack





Cav	Color	Cct
1	WR	ALL

C91
HANDBRAKE SWITCH
1 Way
Female
BLACK
Base of handbrake lever

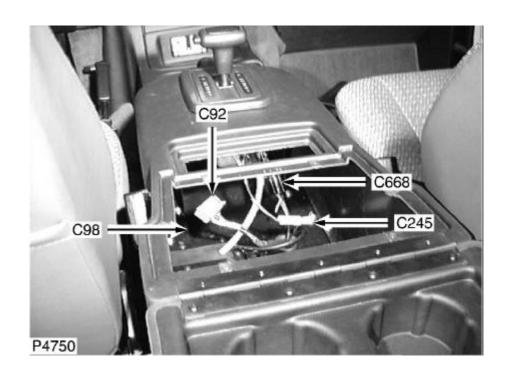


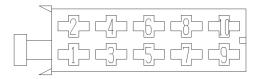


13H5155

Cav	Color	Cct
1	WY	ALL

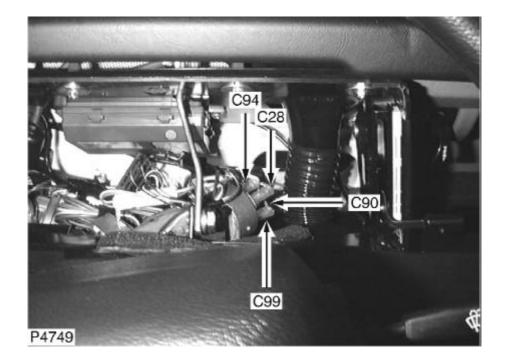
C92
RADIO SPEAKERS
10 Way
Female
RED
Behind center console





Cav	Color	Cct
1	BW	ALL
2	BN	ALL
3	BK	ALL
4	BR	ALL
5	BY	ALL
6	ВО	ALL
7	BG	ALL
8	BU	ALL

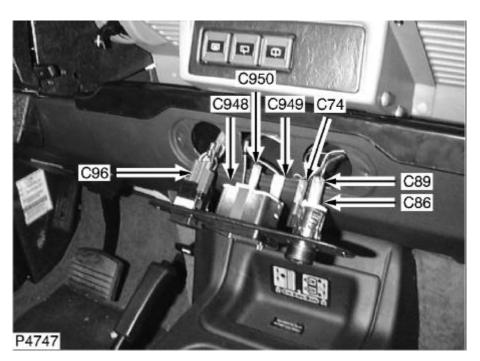
C94
IGNITION SWITCH
1 Way
Female
NATURAL
Behind instrument pack

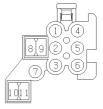




Cav	Color	Cct
1	W	ALL

C96
HAZARD WARNING
SWITCH
9 Way
Female
RED
Behind dash trim panel

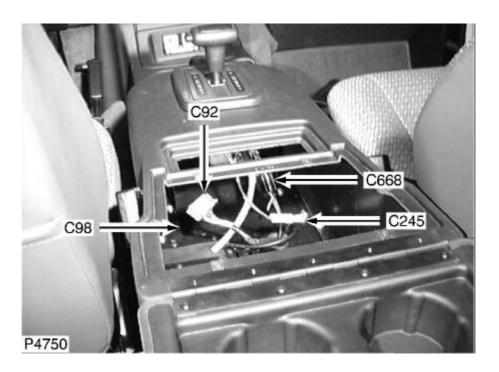


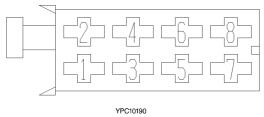


ADU6631

Cav	Color	Cct	Cav	Color	Cct
1	LG	ALL	7	BR	ALL
2	Р	ALL	8	BR	ALL
3	GW	ALL	9	В	ALL
4	G	ALL	10	В	ALL
5	LGN	ALL	11	RW	ALL
6	GR	ALL			

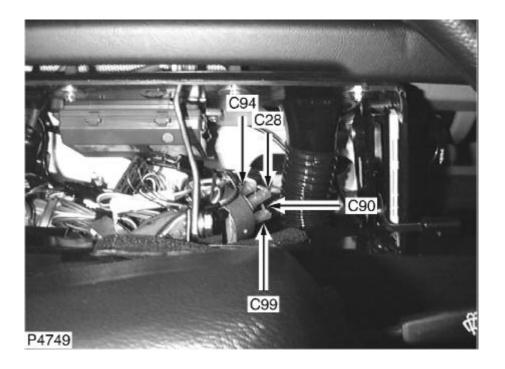
C98
RADIO POWER
8 Way
Female
GREY
Behind center console





Cav	Color	Cct
2	YP	ALL
4	Р	ALL
6	RB	ALL
7	WK	ALL
8	В	ALL

C99
IGNITION SWITCH
1 Way
Female
NATURAL
Behind instrument pack

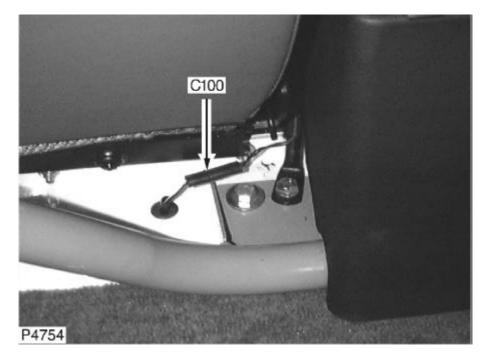




Cav	Color	Cct
1	WO	ALL

C100 SEAT BELT BUCKLE 2 Way

BLACK Underside of driver's seat





Cav	Color	Cct
1	В	ALL
2	WB	ALL

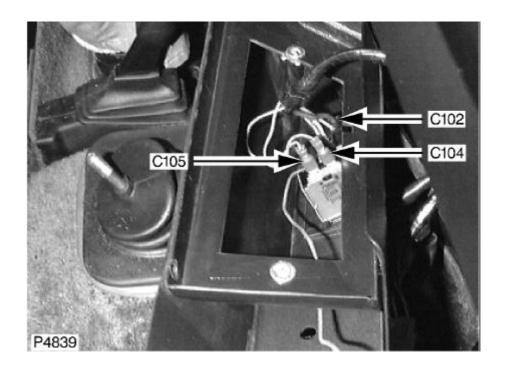
C101
A/C DASH HARNESS
TO A/C ENGINE BAY
HARNESS
8 Way
Male
BLACK
Passenger's footwell

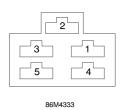


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Cav	Color	Cct
1	G	ALL
2	J	ALL
3	R	ALL
4	Ν	ALL
5	UR	ALL
6	В	ALL

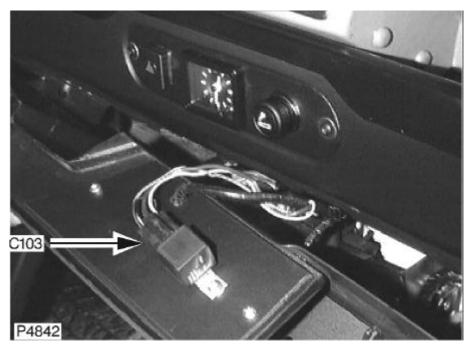
C102
BLOWER MOTOR
SWITCH
5 Way
Female
BLACK
Behind center of dash

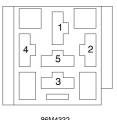




Cav	Color	Cct
1	U	ALL
2	G	ALL
3	R	ALL
4	UY	ALL
5	N	ALL

C103 LOGIC RELAY 5 Way Female **BLACK** Behind center of dash

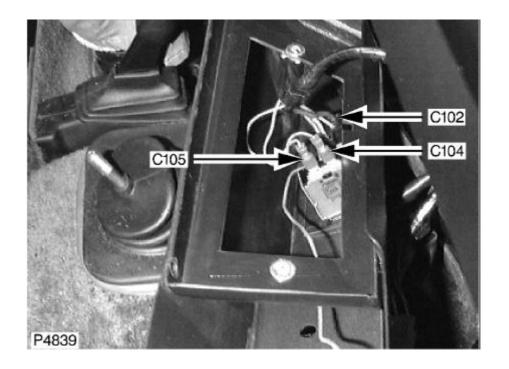




86M4332

Cav	Color	Cct
1	UR	ALL
2	В	ALL
3	В	ALL
4	UY	ALL

C104
AIR CONDITIONING
THERMOSTAT
1 Way
Female
BLUE
Behind center of dash

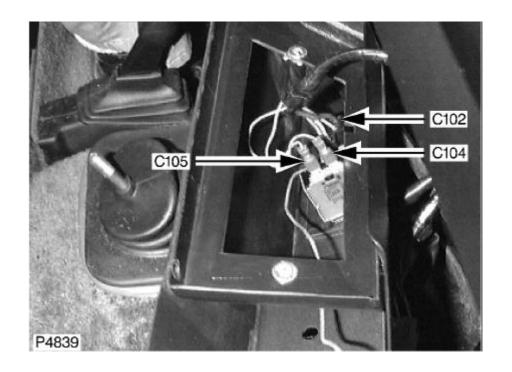




AAU1010

Cav	Color	Cct
1	UR	ALL

C105
AIR CONDITIONING
THERMOSTAT
1 Way
Female
BLUE
Behind center of dash

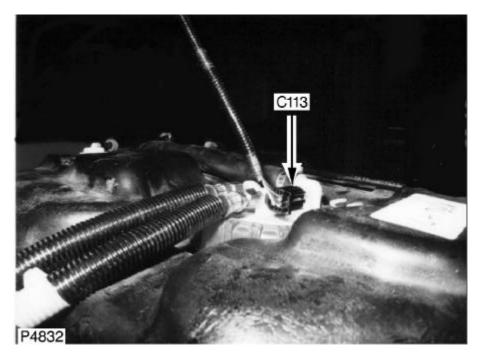




AAU1010

Cav	Color	Cct
1	UR	ALL

C113
FUEL TANK
4 Way
Female
BLACK
Above fuel tank

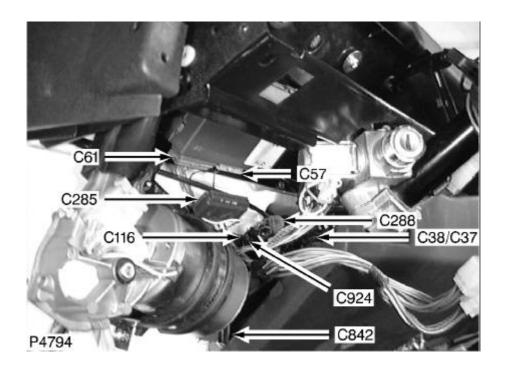




Cav	Color	Cct
1	GB	ALL
2	В	ALL
3	В	ALL
4	WP	ALL

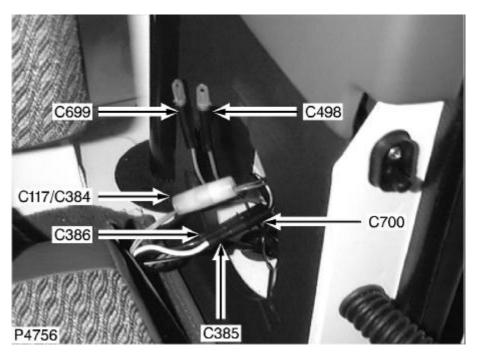
C116 DIODE

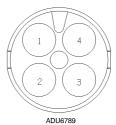
BLACK Behind dash trim panel



Cav	Color	Cct
1	YN	ALL
2	NY	ALL

C117
CHASSIS HARNESS TO
TAILGATE HARNESS
4 Way
Female
WHITE
Behind RH rear speaker

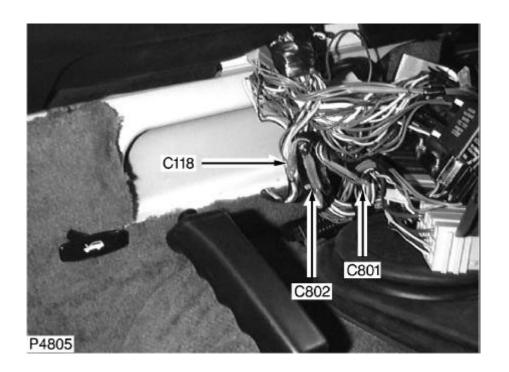




Cav	Color	Cct
1	G	ALL
2	NLG	ALL

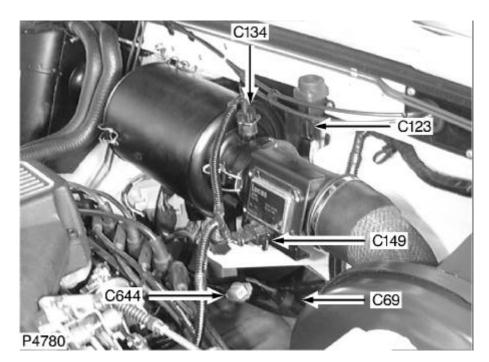
C118 DIODE

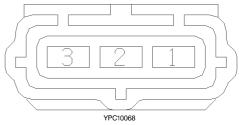
BLACK Behind passenger compartment fusebox



Cav	Color	Cct
1	ОВ	ALL
2	BY	ALL

C123
INERTIA FUEL SHUTOFF SWITCH
3 Way
Female
BLACK
Top of fire wall - center

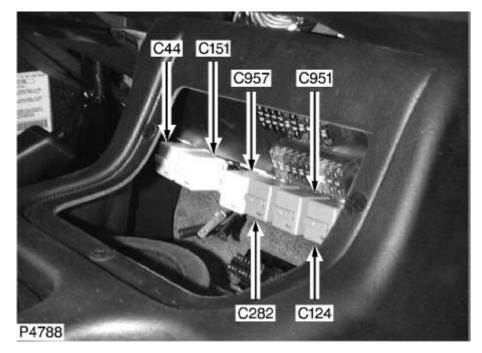


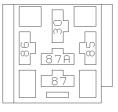


Cav	Color	Cct
1	WP	ALL
3	WP	ALL

C124 WIPER RELAY - REAR 5 Way

GREEN
Behind front of center console

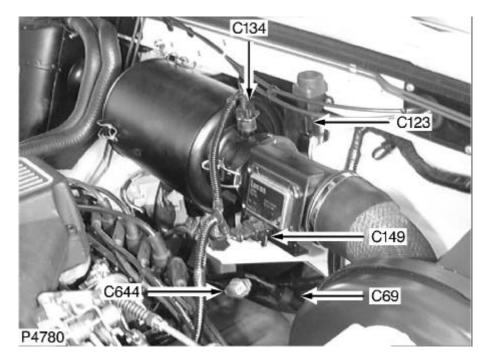


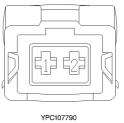


YPP100130

Cav	Color	Cct
30	NLG	ALL
85	G	ALL
86	NP	ALL
87	G	ALL
87A	В	ALL

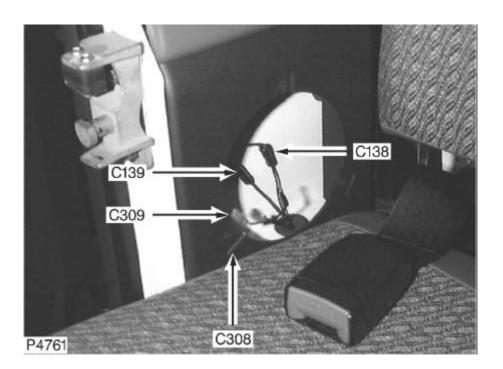
C134
IAT SENSOR
2 Way
Female
BLACK
Rear of engine
compartment - center





Cav	Color	Cct
1	RB	ALL
2	SLG	ALL

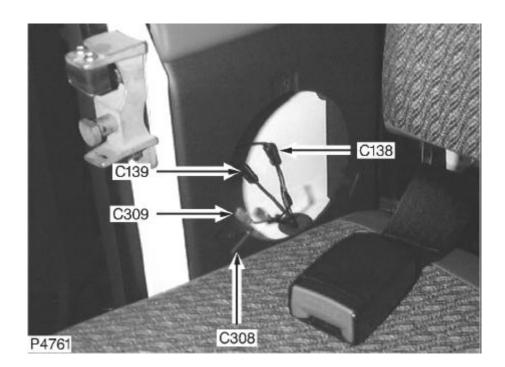
C138
NUMBER PLATE
ILLUMINATION
1 Way
Female
BLACK
Behind LH rear speaker



13H5155

Cav	Color	Cct
1	В	ALL

C139
NUMBER PLATE
ILLUMINATION
1 Way
Female
BLACK
Behind LH rear speaker

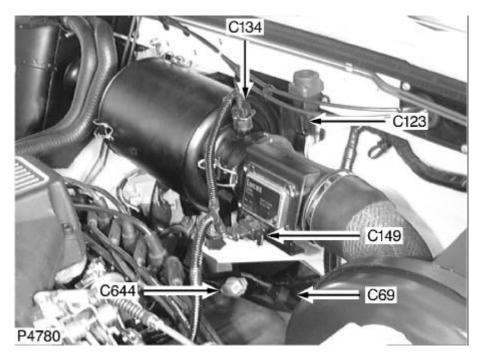


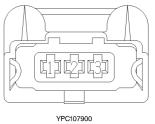


13H5155

Cav	Color	Cct
1	RB	ALL

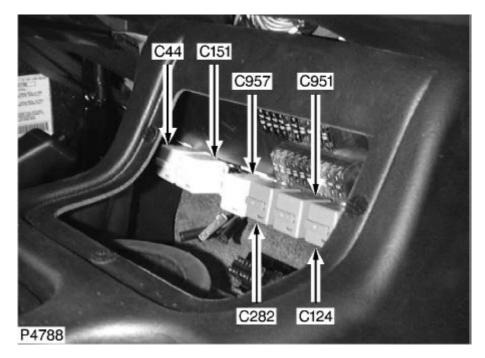
C149
MAF SENSOR
3 Way
Female
BLACK
Rear of engine
compartment - center

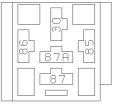




Cav	Color	Cct
1	NO	ALL
2	UG	ALL
3	RB	ALL

C151
STARTER RELAY
5 Way
Female
YELLOW
Behind front of center
console

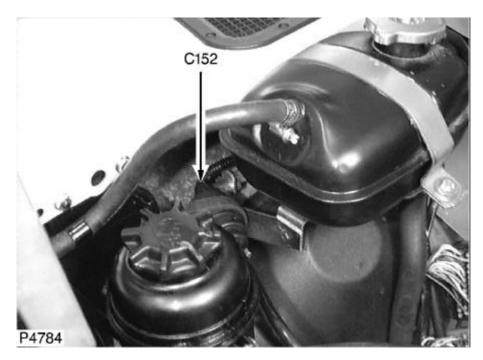


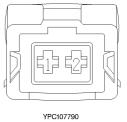


YPP100090

Cav	Color	Cct
30	NR	ALL
85	WR	ALL
86	BY	ALL
87	N	ALL

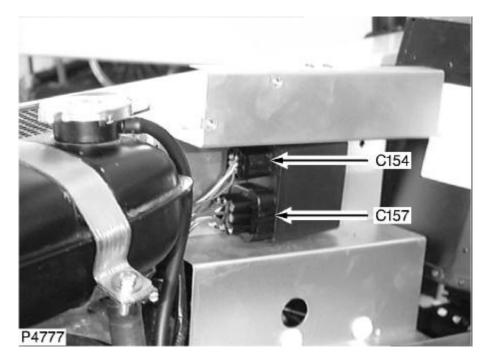
C152
CANISTER PURGE
VALVE
2 Way
Female
BLACK
Under bonnet, RH inner
fender

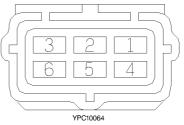




Cav	Color	Cct
1	SY	ALL
2	NO	ALL

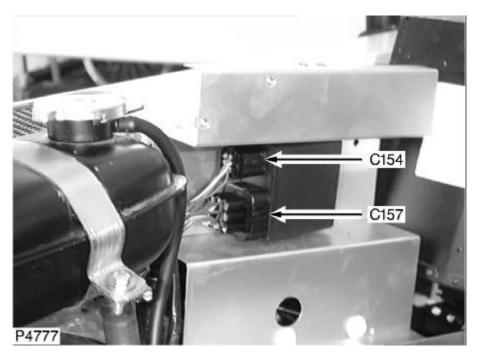
C154
RELAY MODULE
6 Way
Female
BLACK
Rear RH side of engine
compartment





Cav	Color	Cct
1	UP	ALL
2	WG	ALL
3	UR	ALL

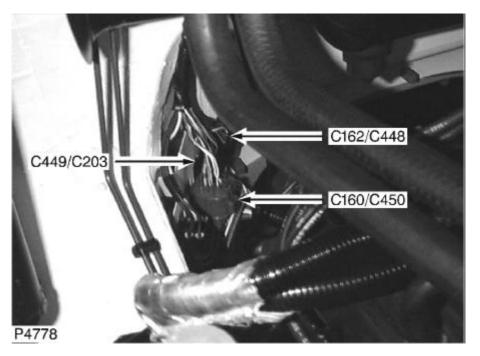
C157
RELAY MODULE
8 Way
Female
BLACK
Rear RH side of engine
compartment

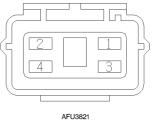




Cav	Color	Cct
3	NO	ALL
4	WP	ALL
6	NLG	ALL
7	PW	ALL
8	NO	ALL

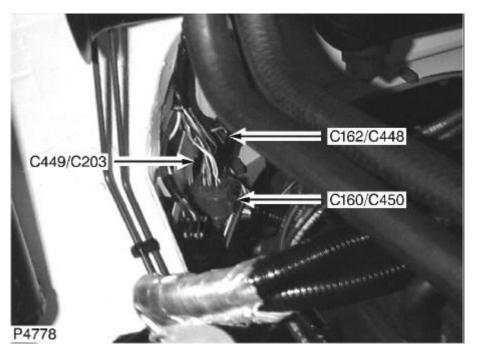
C160
ENGINE HARNESS TO
MAIN HARNESS
4 Way
Female
BLACK
RH side of fire wall

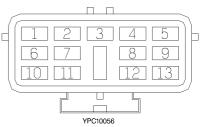




Cav	Color	Cct
1	PW	ALL
2	WP	ALL
3	NLG	ALL
4	NR	ALL

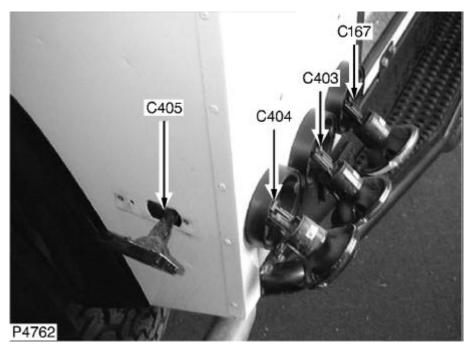
C162
ENGINE HARNESS TO
MAIN HARNESS
13 Way
Male
BLACK
RH side of fire wall

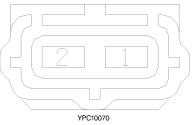




Cav	Color	Cct	Cav	Color	Cct
1	GU	ALL	8	ВО	ALL
2	WS	ALL	9	BS	ALL
3	WN	ALL	10	BY	ALL
4	GN	ALL	11	RS	ALL
5	YK	ALL	12	NY	ALL
6	ОВ	ALL	13	G	ALL
7	YB	ALL			

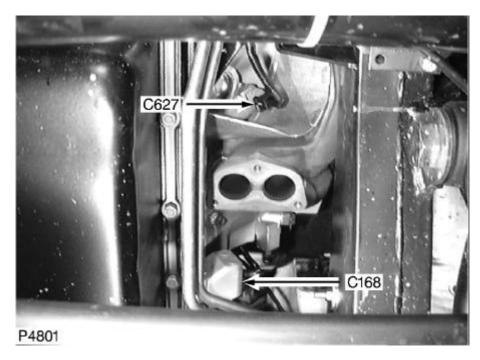
C167
REVERSE LAMP
2 Way
Female
BLACK
Behind lamp

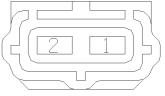




Cav	Color	Cct
1	В	ALL
2	GN	ALL

C168 CKP SENSOR 2 Way Female NATURAL LH side of engine

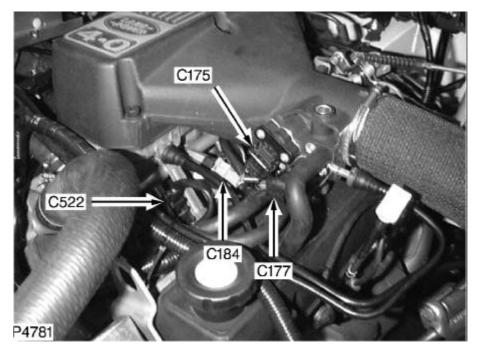


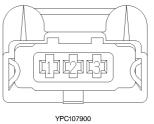


YPC109340

Cav	Color	Cct
SCR	SCR	ALL
1	G	ALL
2	Ν	ALL

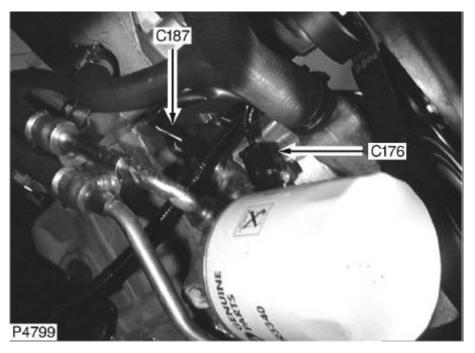
C175
TP SENSOR
3 Way
Female
BLACK
Top of engine - LH side

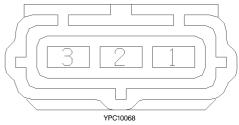




Cav	Color	Cct
1	R	ALL
2	YLG	ALL
3	RB	ALL

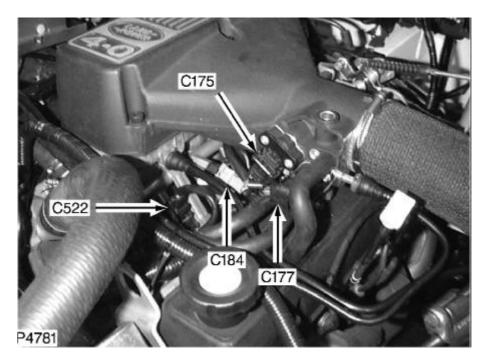
C176
CMP SENSOR
3 Way
Female
BLACK
Bottom of engine - RH
side





Cav	Color	Cct
1	RB	ALL
2	SU	ALL
3	NO	ALL

C177
IAC VALVE
4 Way
Female
BLACK
Top of engine - LH side

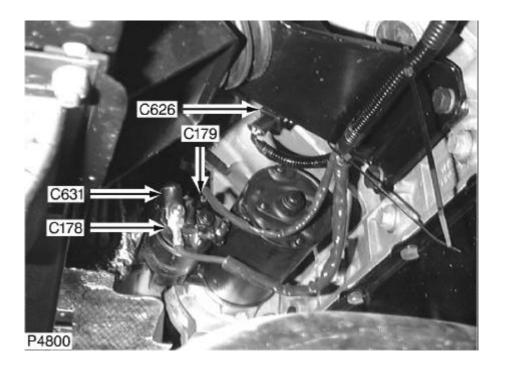


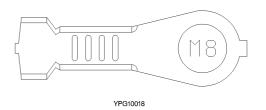


Cav	Color	Cct
Α	OR	ALL
В	RG	ALL
С	GW	ALL
D	US	ALL

C178 STARTER MOTOR 1 Way

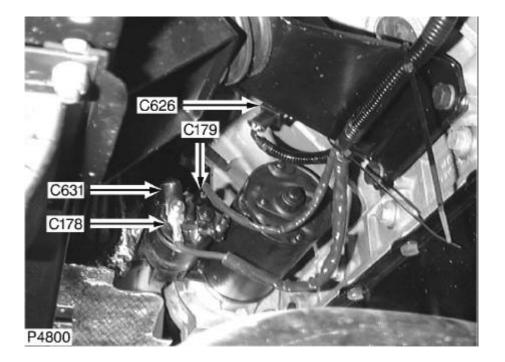
TIN-PLATE RH side of engine





Cav	Color	Cct
1	Ν	ALL

C179
STARTER SOLENOID
1 Way
Female
BLACK
RH side of engine

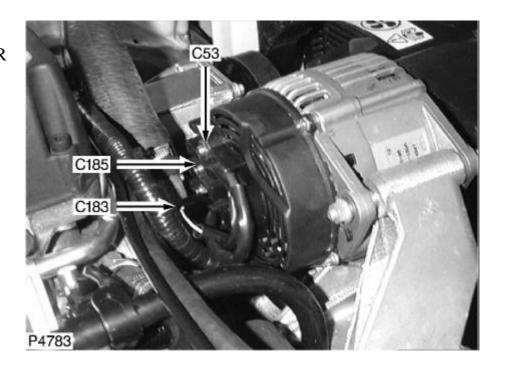




AAU1010

Cav	Color	Cct
1	NR	ALL

C183
GENERATOR - POWER
1 Way
Female
BLACK
Front of engine - center

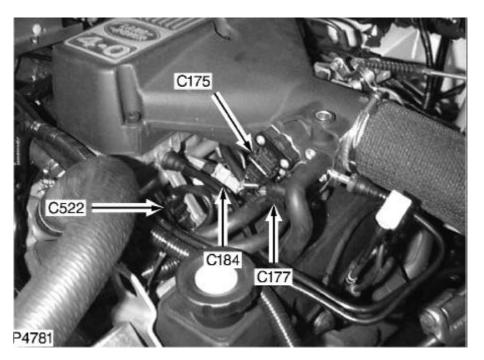




AAU1010

Cav	Color	Cct
1	WS	ALL

C184
FUEL TEMPERATURE
SENSOR
2 Way
Female
GREY
Top of engine - LH side

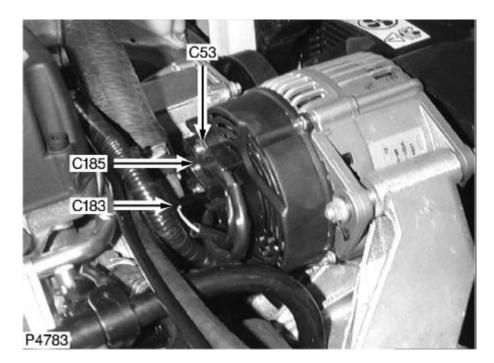


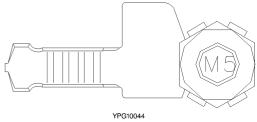


Cav	Color	Cct
1	RB	ALL
2	SW	ALL

C185 GENERATOR WARNNG LIGHT 1 Way

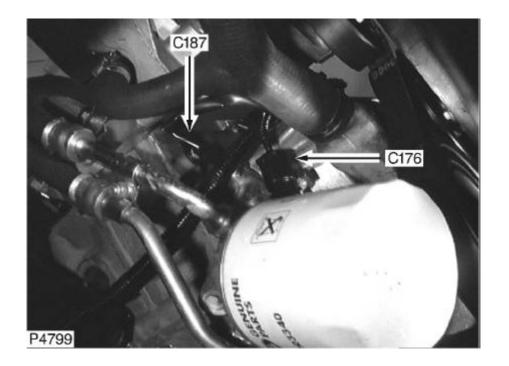
BRASS Front of engine - center





Cav	Color	Cct
1	NY	ALL

C187
OIL PRESSURE
SWITCH
1 Way
Female
BLACK
Bottom of engine - RH
side

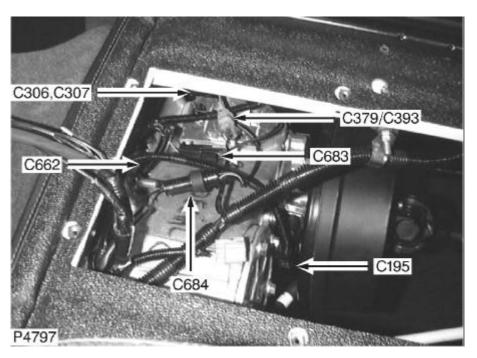


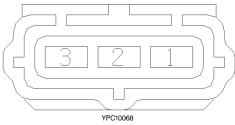


AAU1010

Cav	Color	Cct
1	WN	ALL

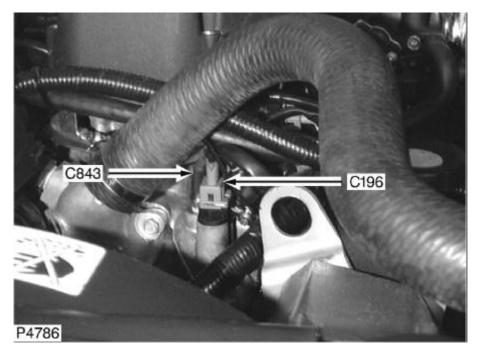
C195
SPEED TRANSDUCER
3 Way
Female
BLACK
Above gearbox

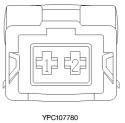




Cav	Color	Cct
1	G	ALL
3	BR	ALL

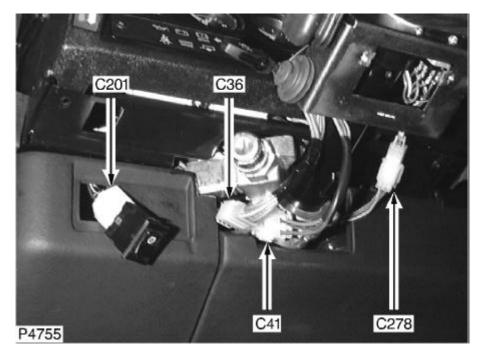
C196
ENGINE COOLANT
TEMPERATURE
SENSOR
2 Way
Female
BROWN
Front RH side of engine

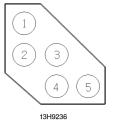




Cav	Color	Cct
1	RB	ALL
2	G	ALL

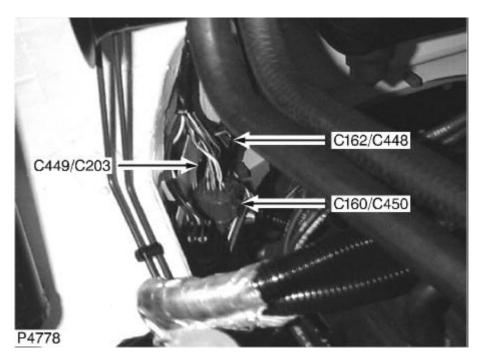
C201
INSTRUMENT
DIMMER SWITCH
5 Way
Female
NATURAL
Behind dash trim panel

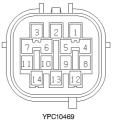




Cav	Color	Cct
2	RW	ALL
3	RB	ALL

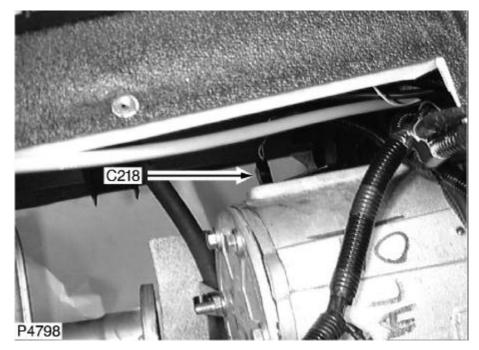
C203
ENGINE HARNESS TO
MAIN HARNESS
14 Way
Male
GREY
RH side of fire wall

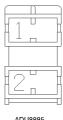




Cav	Color	Cct	Cav	Color	Cct
1	WLG	ALL	8	YR	ALL
2	WK	ALL	9	SB	ALL
3	В	ALL	10	BK	ALL
4	WG	ALL	11	GW	ALL
5	BR	ALL	12	SR	ALL
6	BU	ALL	13	GB	ALL
7	NO	ALL	14	PB	ALL

C218 NOT USED 2 Way Female **BLACK** Above gearbox



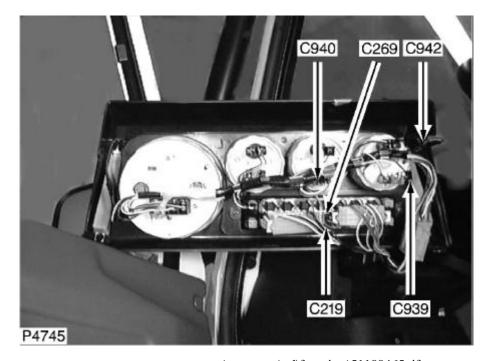


ADU8885

Cav	Color	Cct
1	SR	ALL
2	В	ALL

C219 NOT USED

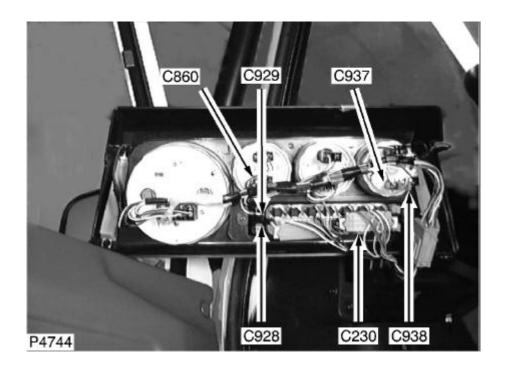
Behind instrument pack

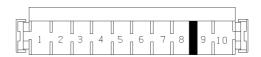


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Cav	Color	Cct
1	SR	ALL

C230
INSTRUMENT PACK
10 Way
Female
NATURAL
Behind instrument pack

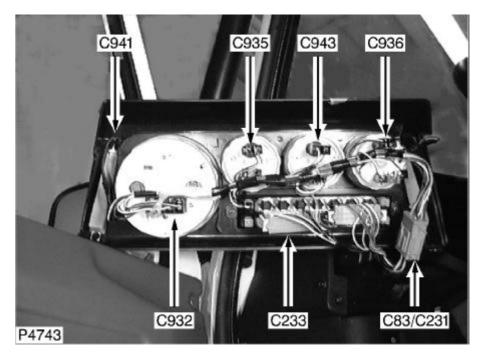


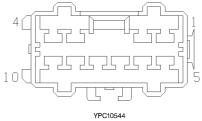


AAU8172

Cav	Color	Cct	Cav	Color	Cct
1	WB	ALL	6	WY	ALL
3	WN	ALL	8	PY	ALL
4	WG	ALL	9	GW	ALL
5	YN	ALL	10	GR	ALL

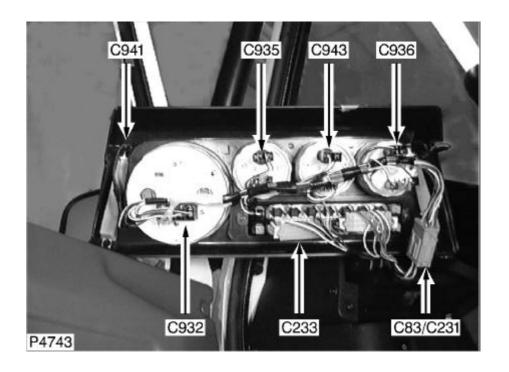
C231
INSTRUMENT
HARNESS TO MAIN
HARNESS
10 Way
Male
LIGHT GREY
Behind instrument pack

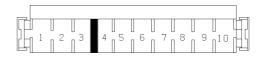




Cav	Color	Cct	Cav	Color	Cct
1	WG	ALL	6	WS	ALL
2	В	ALL	7	GB	ALL
3	YK	ALL	8	IJ	ALL
4	RW	ALL	9	WB	ALL
5	SR	ALL	10	BR	ALL

C233
INSTRUMENT PACK
10 Way
Female
NATURAL
Behind instrument pack

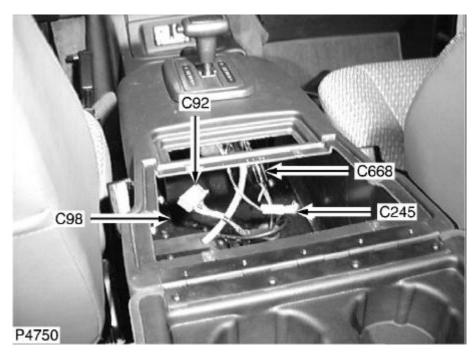


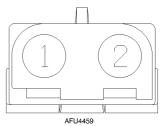


AAU8171

Cav	Color	Cct
1	LGP	ALL
2	В	ALL
3	RO	ALL
5	UW	ALL
8	BU	ALL
9	WG	ALL
10	RS	ALL

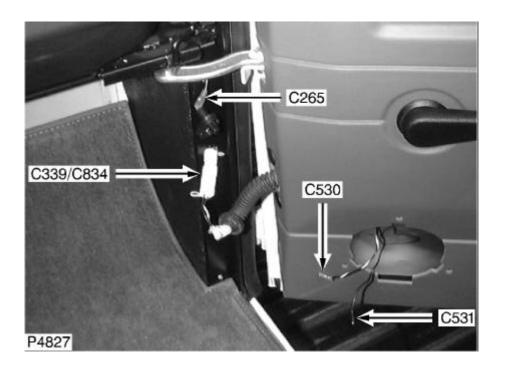
C245
ILLUMINATION TRANSMISSION
SELECTOR
2 Way
Female
BLUE
Behind center console





Cav	Color	Cct
1	RK	ALL
2	В	ALL

C265
DOOR SWITCH - RH
1 Way
Female
NATURAL
In front of passenger's
door

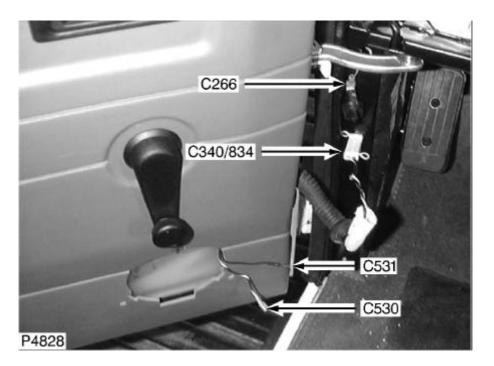




ADU1790

Cav	Color	Cct
1	PW	ALL

C266
DOOR SWITCH - LH
1 Way
Female
NATURAL
In front of driver's door

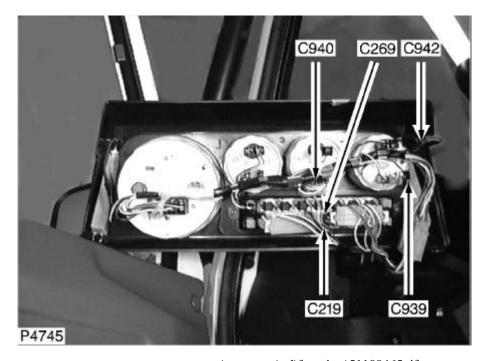




Cav	Color	Cct
1	PG	ALL

C269 NOT USED

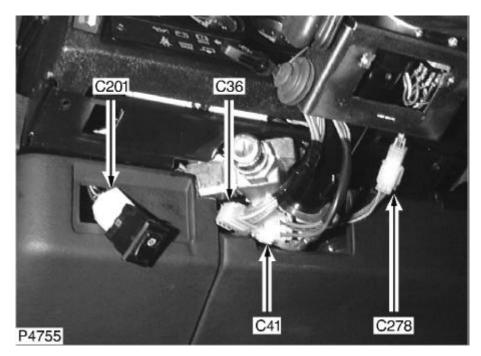
Behind instrument pack

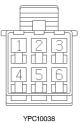


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Cav	Color	Cct
1	WG	ALL

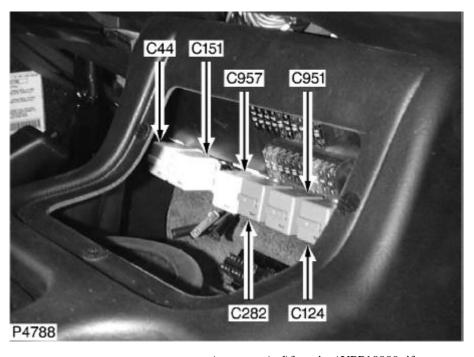
C278
WASHER/WIPER
SWITCH
6 Way
Female
NATURAL
Behind steering column
cowl - RH side





Cav	Color	Cct
1	ULG	ALL
2	LGB	ALL
3	LGG	ALL
4	YLG	ALL
5	RLG	ALL
6	G	ALL

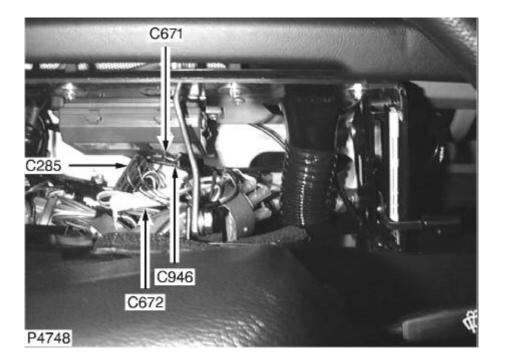
C282
HEADLAMP RELAY
5 Way
Female
YELLOW
Behind front of center
console

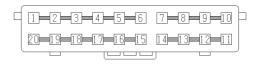


 $t:\\ \verb|compuset|| face view|| YPP 10009.tif$

Cav	Color	Cct
30	J	ALL
85	WG	ALL
86	В	ALL
87	UY	ALL

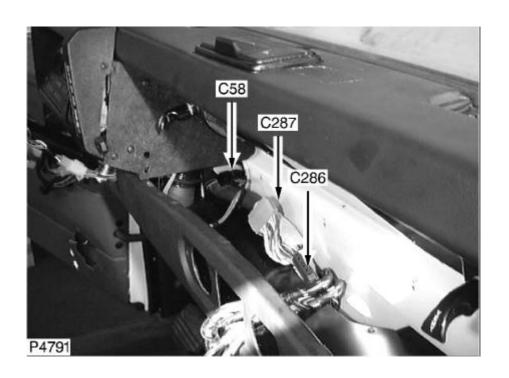
C285
HEADER 1
20 Way
Female
BLUE
Behind instrument pack





Cav	Color	Cct	Cav	Color	Cct	Cav	Color	Cct
1	В	ALL	8	RB	ALL	15	RW	ALL
2	В	ALL	9	RB	ALL	16	RW	ALL
3	В	ALL	10	RB	ALL	17	RW	ALL
4	В	ALL	11	WY	ALL	18	RW	ALL
5	В	ALL	12	WY	ALL	19	RW	ALL
6	В	ALL	13	WY	ALL	20	RW	ALL
7	RB	ALL	14	WY	ALL			

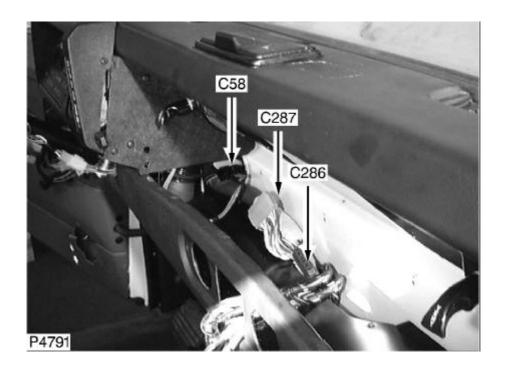
C286
HEADER 2
20 Way
Female
BLUE
Behind dash trim panel

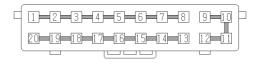




Cav	Color	Cct	Cav	Color	Cct
1	В	ALL	11	GW	ALL
2	В	ALL	12	GW	ALL
4	В	ALL	13	GW	ALL
5	В	ALL	14	GW	ALL
6	В	ALL	15	BY	ALL
7	GR	ALL	16	BY	ALL
8	GR	ALL	17	BY	ALL
9	GR	ALL	18	BY	ALL
10	GR	ALL			

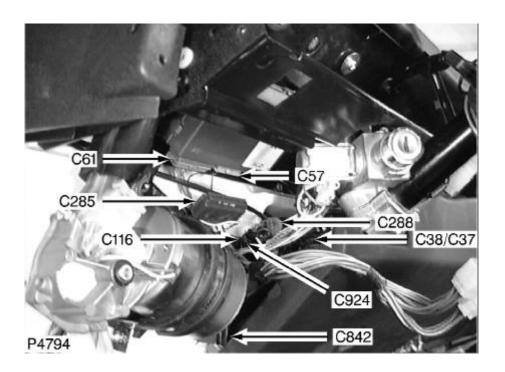
C287
HEADER 3
20 Way
Female
GREY
Behind dash trim panel

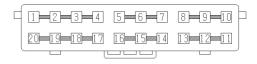




Cav	Color	Cct	Cav	Color	Cct
1	WG	ALL	10	BY	ALL
2	WG	ALL	11	BY	ALL
3	WG	ALL	13	G	ALL
4	WG	ALL	14	G	ALL
5	WG	ALL	16	G	ALL
6	WG	ALL	17	G	ALL
7	WG	ALL	18	G	ALL
8	WG	ALL	19	G	ALL
9	BY	ALL	20	G	ALL

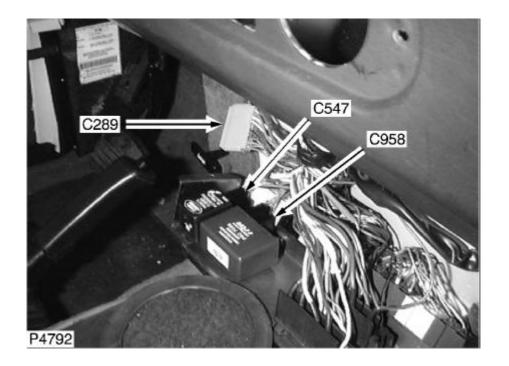
C288
HEADER 4
20 Way
Female
ORANGE
Behind instrument pack

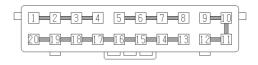




Cav	Color	Cct	Cav	Color	Cct
1	LGB	ALL	11	PU	ALL
2	LGB	ALL	12	PU	ALL
3	LGB	ALL	13	PU	ALL
5	RS	ALL	14	WN	ALL
6	RS	ALL	15	WN	ALL
7	RS	ALL	16	WN	ALL
8	BLG	ALL	17	YK	ALL
9	BLG	ALL	18	YK	ALL
10	BLG	ALL	20	YK	ALL

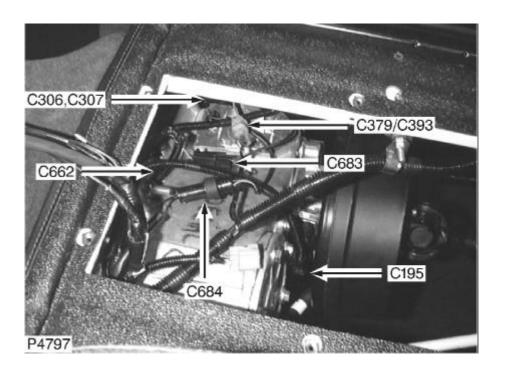
C289
HEADER 5
20 Way
Female
GREEN
Behind front of center console





Cav	Color	Cct	Cav	Color	Cct
1	UW	ALL	11	Р	ALL
2	UW	ALL	13	G	ALL
3	UW	ALL	14	G	ALL
4	UW	ALL	15	G	ALL
6	BR	ALL	16	G	ALL
7	BR	ALL	17	G	ALL
8	BR	ALL	18	G	ALL
9	Р	ALL	19	G	ALL
10	Р	ALL	20	G	ALL

C306
DIFFERENTIAL LOCK
1 Way
Female
BLACK
Above gearbox

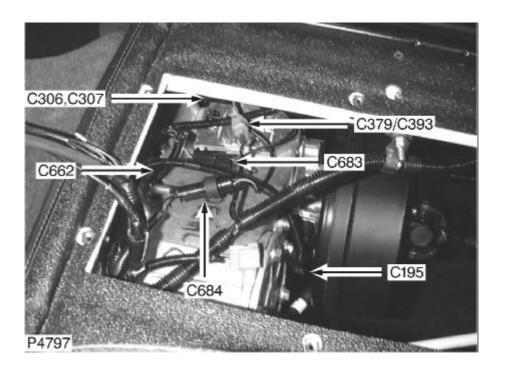




AAU1010

Cav	Color	Cct
1	BU	ALL

C307
DIFFERENTIAL LOCK
1 Way
Female
BLACK
Above gearbox



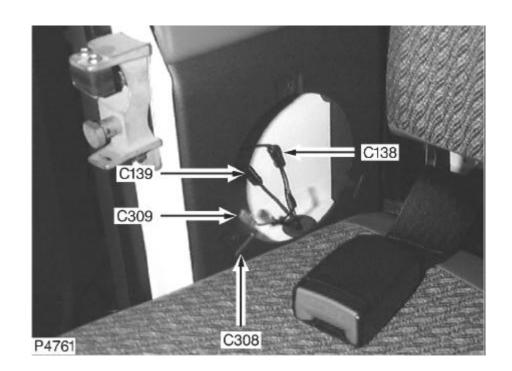


AAU1010

Cav	Color	Cct
1	В	ALL

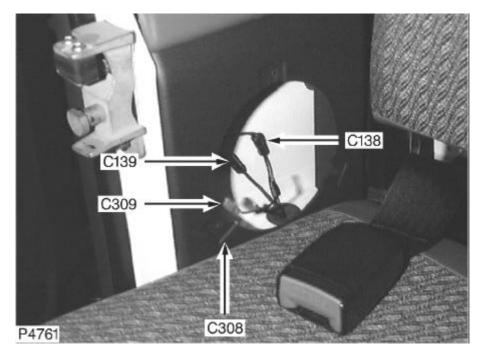
C308 REAR SPEAKER D

Behind LH rear speaker



Cav	Color	Cct
1	BU	ALL

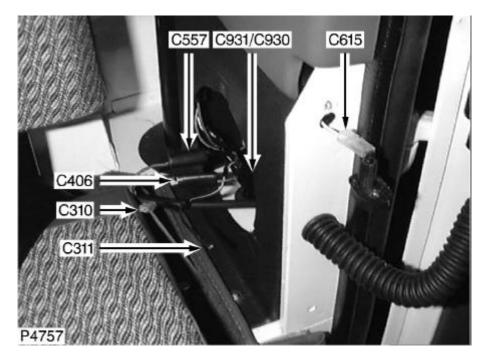
C309
REAR SPEAKER C
1 Way
Female
NATURAL
Behind LH rear speaker





Cav	Color	Cct
1	BG	ALL

C310
REAR SPEAKER A
1 Way
Female
NATURAL
Behind RH rear speaker

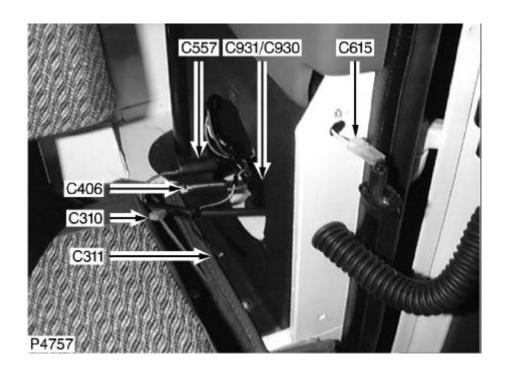




Cav	Color	Cct
1	BW	ALL

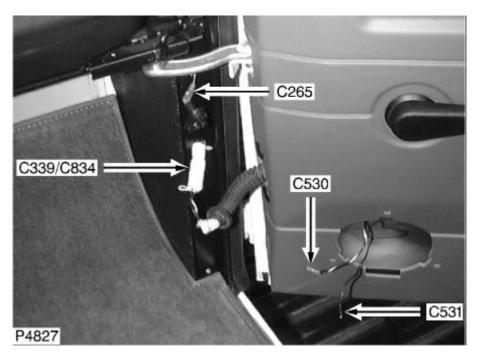
C311 REAR SPEAKER B

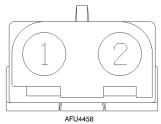
Behind RH rear speaker



Cav	Color	Cct
1	BN	ALL

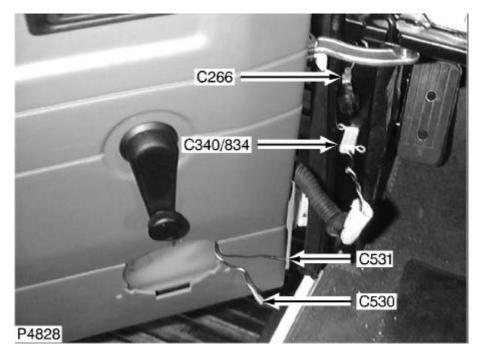
C339
SPEAKER - FRONT RH
2 Way
Female
WHITE
In front of passenger's
door

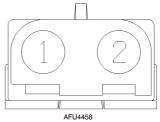




Cav	Color	Cct
1	BR	ALL
2	BK	ALL

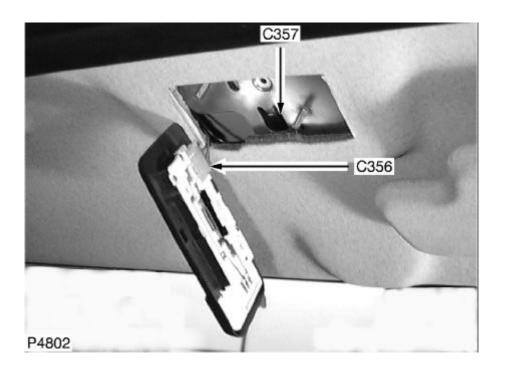
C340 SPEAKER - FRONT -LH 2 Way Female WHITE In front of driver's door





Cav	Color	Cct
1	ВО	ALL
2	BY	ALL

C356
INTERIOR LAMP
1 Way
Female
BLACK
Behind interior light

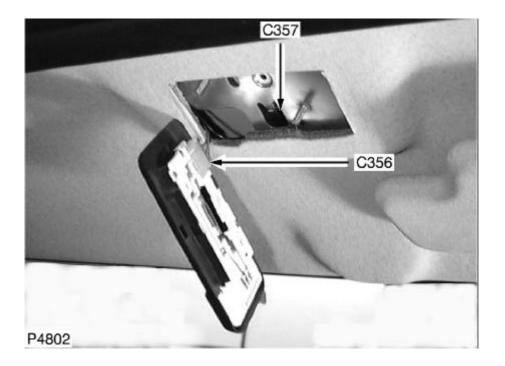


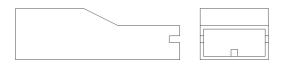


AAU1010

Cav	Color	Cct
1	PU	ALL
3	Р	ALL

C357
INTERIOR LAMP
1 Way
Female
BLACK
Behind interior light

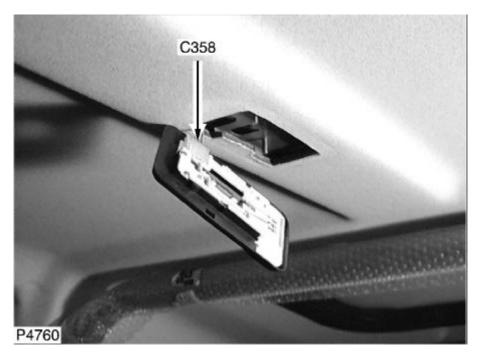




AAU1010

Cav	Color	Cct
1	В	ALL

C358
INTERIOR LIGHT
3 Way
Female
NATURAL
Front of headlining in the center





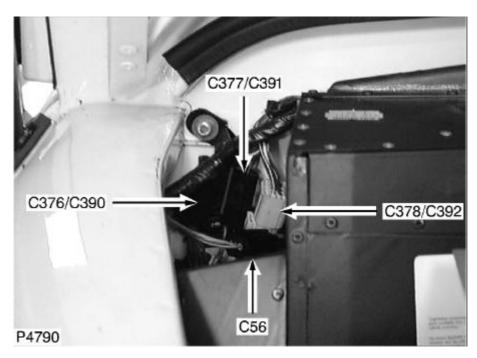
1 3

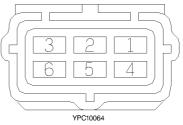
CavColorCct1PUALL

ALL

Р

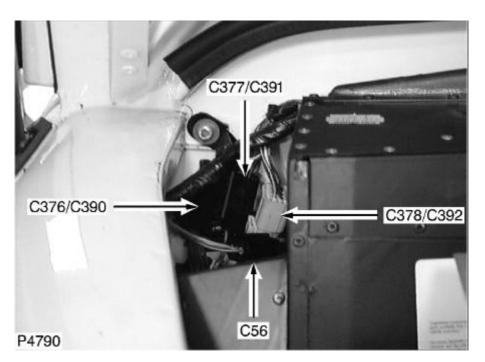
C376
MAIN HARNESS TO
CHASSIS HARNESS
6 Way
Female
BLACK
Under bonnet, RH inner
fender

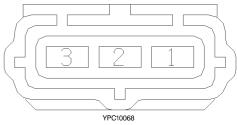




Cav	Color	Cct
1	GP	ALL
2	RO	ALL
3	GN	ALL
4	GR	ALL
5	GW	ALL
6	RB	ALL

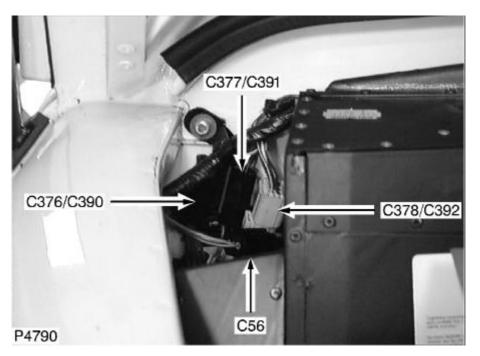
C377
MAIN HARNESS TO
CHASSIS HARNESS
3 Way
Female
BLACK
Under bonnet, RH inner
fender





Cav	Color	Cct
1	GB	ALL
2	WP	ALL
3	Р	ALL

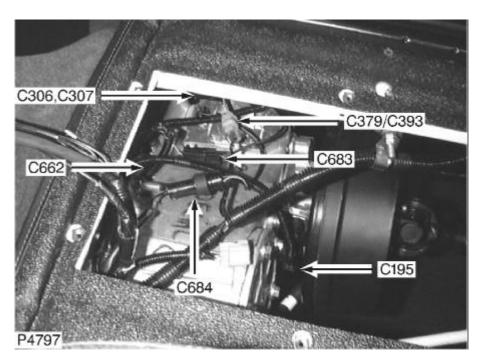
C378
MAIN HARNESS TO
CHASSIS HARNESS
6 Way
Female
WHITE
Under bonnet, RH inner
fender





Cav	Color	Cct
1	WB	ALL
2	PU	ALL
3	G	ALL
4	NLG	ALL
6	PW	ALL

C379
MAIN HARNESS TO
CHASSIS HARNESS
4 Way
Male
NATURAL
Above gearbox

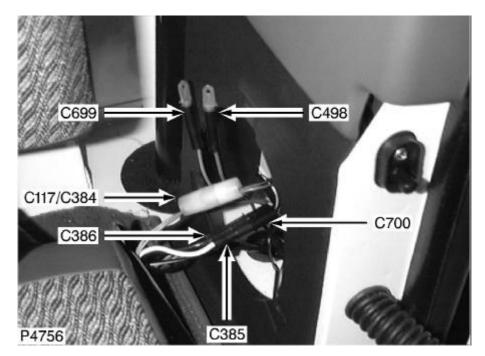




DBP8581

Cav	Color	Cct
1	BW	ALL
2	BG	ALL
3	BN	ALL
4	BU	ALL

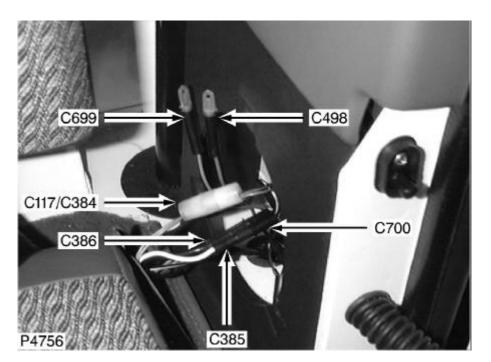
C384
TAILGATE HARNESS
TO CHASSIS HARNESS
4 Way
Male
WHITE
Behind RH rear speaker





Cav	Color	Cct
1	G	ALL
2	NLG	ALL

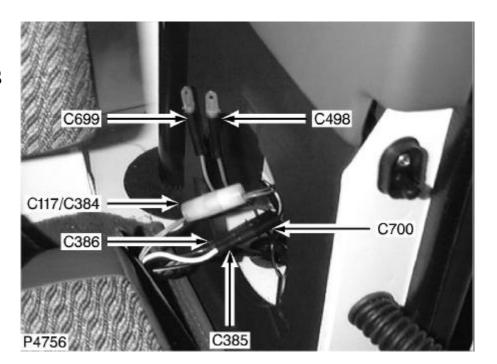
C385
TAILGATE HARNESS
TO CHASSIS HARNESS
1 Way
Female
BLACK
Behind RH rear speaker





Cav	Color	Cct
1	WB	ALL

C386
TAILGATE HARNESS
TO CHASSIS HARNESS
1 Way
Female
BLACK
Behind RH rear speaker

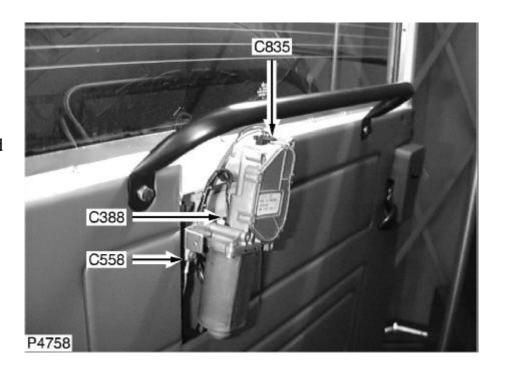




13H5155

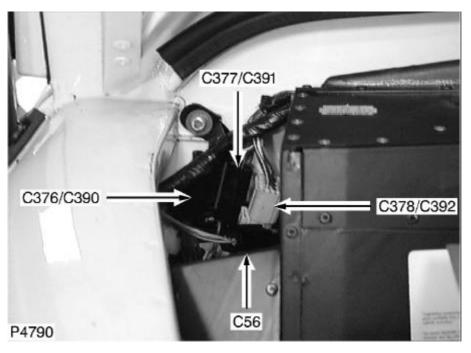
Cav	Color	Cct
1	В	ALL

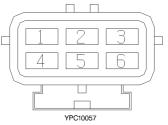
C388
REAR WIPER MOTOR
2 Way
Female
BLACK
Center of taildoor, behind
trim panel



Cav	Color	Cct
1	В	ALL
2	NY	ALL

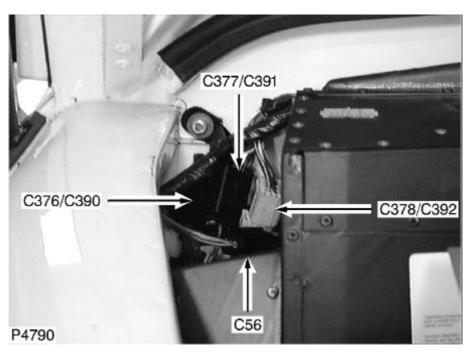
C390
CHASSIS HARNESS TO
MAIN HARNESS
6 Way
Male
BLACK
Under bonnet, RH inner
fender

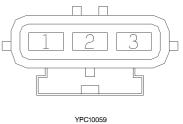




Cav	Color	Cct
1	GP	ALL
2	RO	ALL
3	GN	ALL
4	GR	ALL
5	GW	ALL
6	RB	ALL

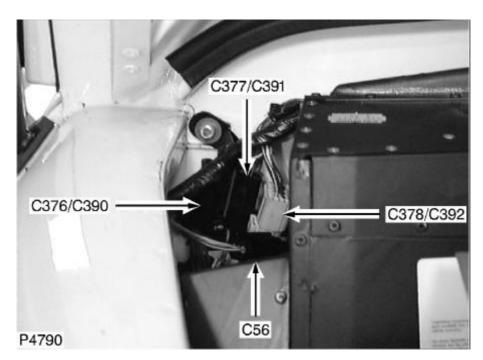
C391
CHASSIS HARNESS TO
MAIN HARNESS
3 Way
Male
BLACK
Under bonnet, RH inner
fender

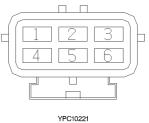




Cav	Color	Cct
1	GB	ALL
2	WP	ALL
3	Р	ALL

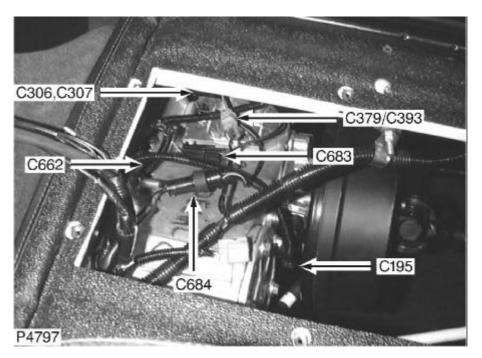
C392
CHASSIS HARNESS TO
MAIN HARNESS
6 Way
Male
WHITE
Under bonnet, RH inner
fender

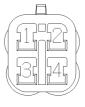




Cav	Color	Cct
1	WB	ALL
2	PU	ALL
3	G	ALL
4	NLG	ALL
6	PW	ALL

C393
CHASSIS HARNESS TO
MAIN HARNESS
4 Way
Female
NATURAL
Above gearbox

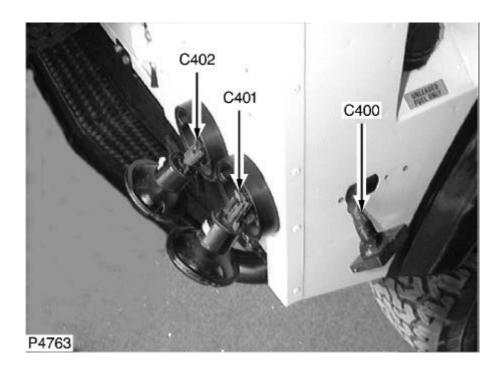


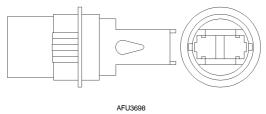


DBP8582

Cav	Color	Cct
1	BW	ALL
2	BG	ALL
3	BN	ALL
4	BU	ALL

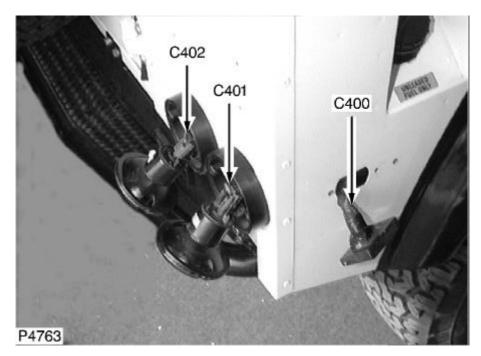
C400 SIDE MARKER - RH 2 Way Female BLACK Behind lamp

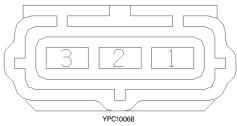




Cav	Color	Cct
1	RO	ALL
2	В	ALL

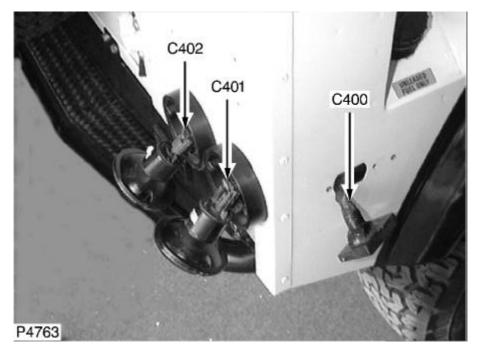
C401 STOP/TAIL LAMP - RH 3 Way Female BLACK Behind lamp

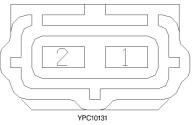




Cav	Color	Cct
1	В	ALL
2	GP	ALL
3	RO	ALL

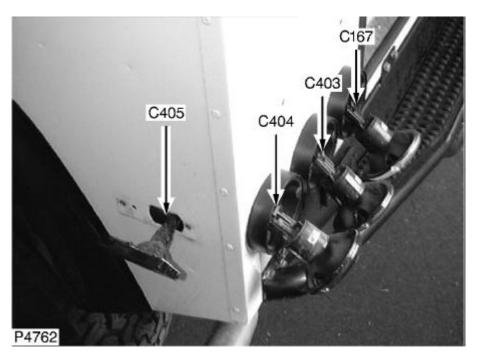
C402 REAR FLASHER - RH 2 Way Female RED Behind lamp

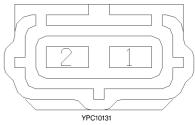




Cav	Color	Cct
1	В	ALL
2	GW	ALL

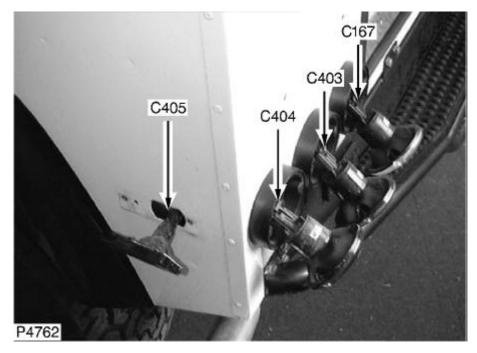
C403
REAR L.H FLASHER
2 Way
Female
RED
Behind lamp

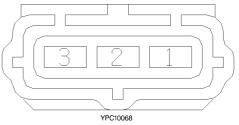




Cav	Color	Cct
1	В	ALL
2	GR	ALL

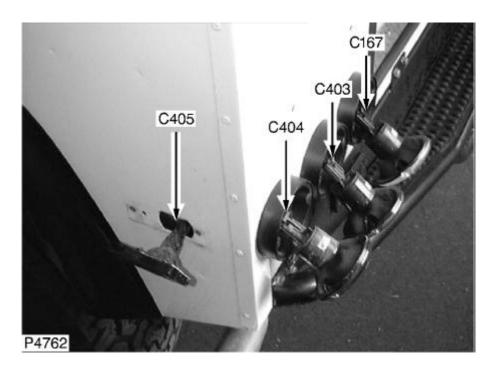
C404 L.H. STOP TAIL 3 Way Female BLACK Behind lamp

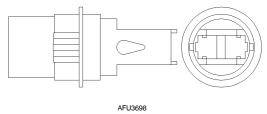




Cav	Color	Cct
1	В	ALL
2	GP	ALL
3	RB	ALL

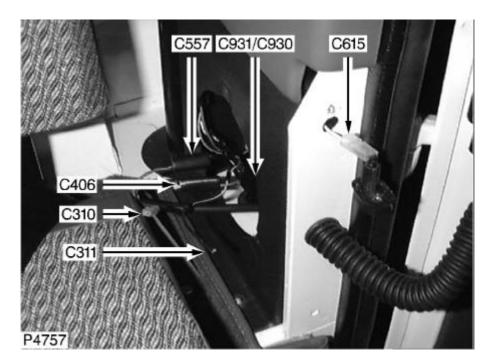
C405 SIDE MARKER - LH 2 Way Female BLACK Behind lamp





Cav	Color	Cct
1	RB	ALL
2	В	ALL

C406
BRAKE LAMP - HIGH
MOUNTED
2 Way
Male
BLACK
Behind RH rear speaker

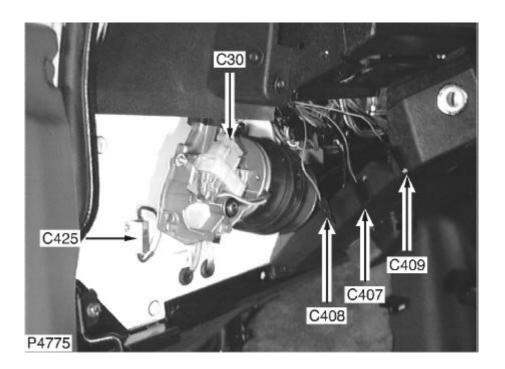




YPQ10010

Cav	Color	Cct
1	GP	ALL

C407 SIDE LAMP FEED 1 Way Female BLACK Under LH side of dash

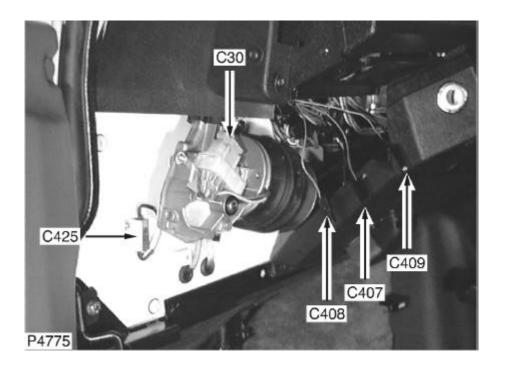




AAU1010

Cav	Color	Cct
1	RB	ALL

C408
MAIN LAMP FEED
1 Way
Female
BLACK
Under LH side of dash

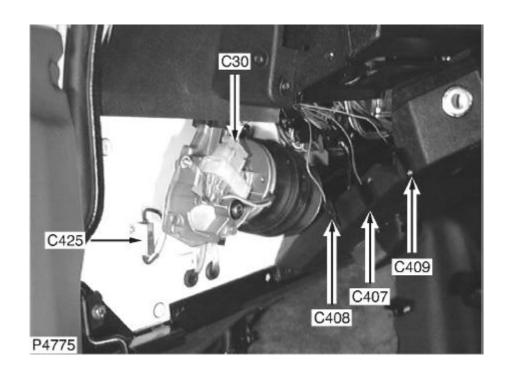




AAU1010

Cav	Color	Cct
1	UO	ALL

C409
DIP LAMP FEED
1 Way
Female
BLACK
Under LH side of dash



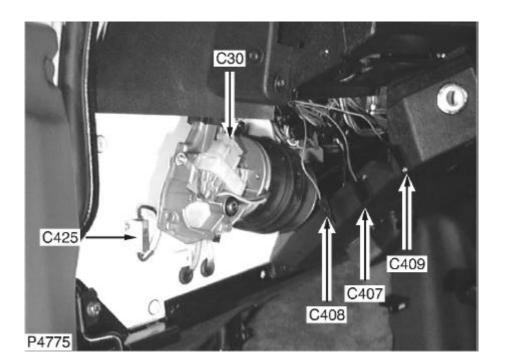


AAU1010

Cav	Color	Cct
1	UB	ALL

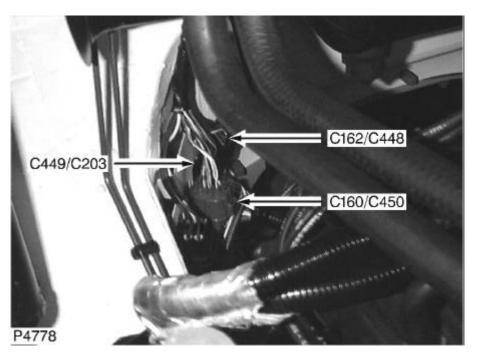
C425 HEATSINK RESISTOR

Under LH side of dash



Cav	Color	Cct
1	RB	ALL
2	RW	ALL

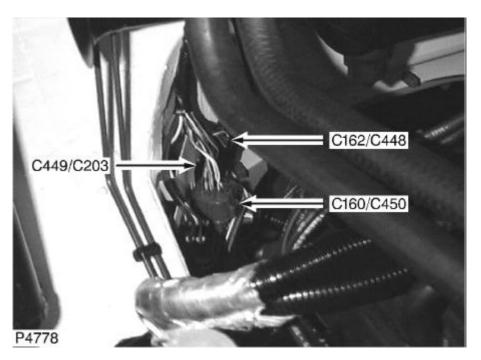
C448
MAIN HARNESS TO
ENGINE HARNESS
13 Way
Female
BLACK
RH side of fire wall

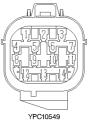




Cav	Color	Cct	Cav	Color	Cct
1	GU	ALL	8	ВО	ALL
2	WS	ALL	9	BS	ALL
3	WN	ALL	10	BY	ALL
4	GN	ALL	11	RS	ALL
5	YK	ALL	12	NY	ALL
6	OB	ALL	13	G	ALL
7	YB	ALL			

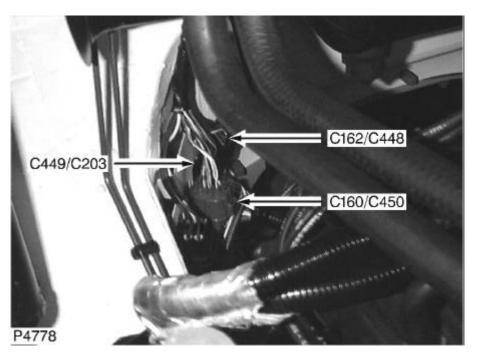
C449
MAIN HARNESS TO
ENGINE HARNESS
14 Way
Female
GREY
RH side of fire wall

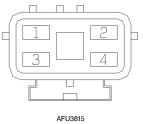




Cav	Color	Cct	Cav	Color	Cct
1	WLG	ALL	8	YR	ALL
2	WK	ALL	9	SB	ALL
3	В	ALL	10	BK	ALL
4	WG	ALL	11	GW	ALL
5	BR	ALL	12	SR	ALL
6	BU	ALL	13	GB	ALL
7	NO	ALL	14	PB	ALL

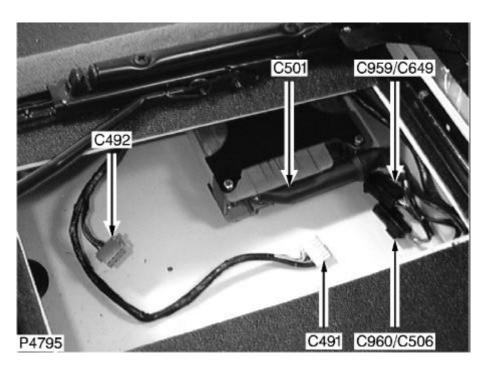
C450
MAIN HARNESS TO
ENGINE HARNESS
4 Way
Male
BLACK
RH side of fire wall

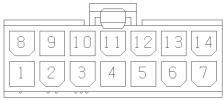




Cav	Color	Cct
1	PW	ALL
2	WP	ALL
3	NLG	ALL
4	NR	ALL

C491
POWER AMPLIFIER
14 Way
Female
NATURAL
Beneath front passenger's
seat

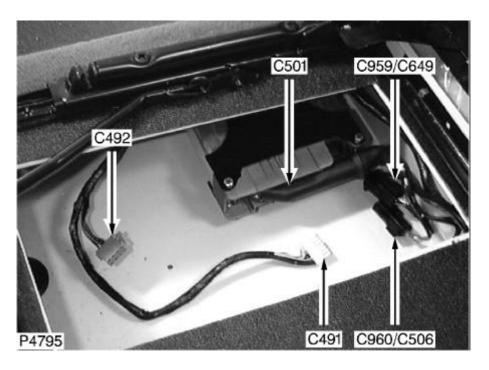


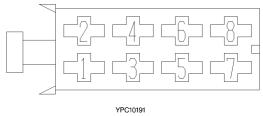


YPC108960

Cav	Color	Cct	Cav	Color	Cct
1	WLG	ALL	8	В	ALL
2	WLG	ALL	9	В	ALL
3	YP	ALL	11	BU	ALL
4	BG	ALL	12	BN	ALL
5	BW	ALL	13	ВО	ALL
6	BY	ALL	14	BR	ALL
7	BK	ALL			

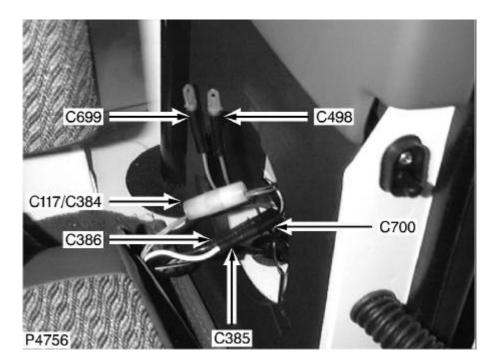
C492
POWER AMPLIFIER
8 Way
Female
BROWN
Beneath front passenger's seat





Cav	Color	Cct
1	BW	ALL
2	BN	ALL
3	BK	ALL
4	BR	ALL
5	BY	ALL
6	ВО	ALL
7	BG	ALL
8	BU	ALL

C498
TRAILER
1 Way
Female
BLACK
Behind RH rear speaker

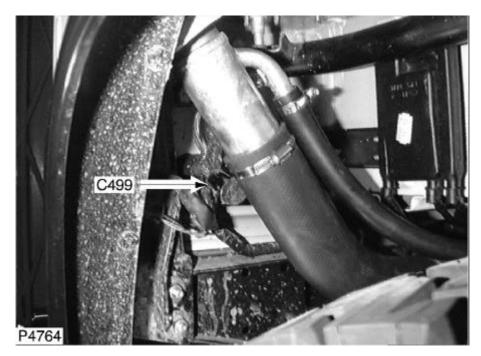




13H5155

Cav	Color	Cct
1	Р	ALL

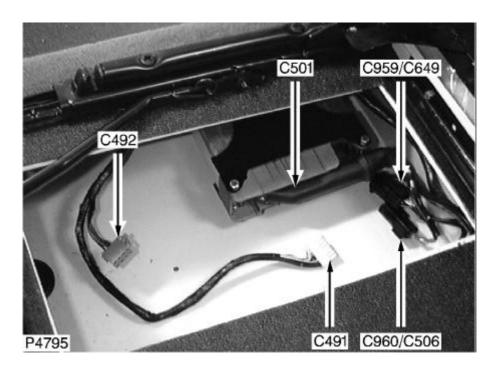
C499
TRAILER
CONNECTION
7 Way
Male
BLACK
Below RH rear wheelarch

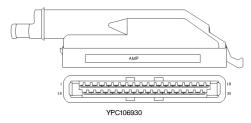




Cav	Color	Cct
1	RO	ALL
2	GP	ALL
3	GW	ALL
4	GR	ALL
5	В	ALL
7	RB	ALL

C501
ECU - OFF-ROAD
DETECTION
35 Way
Female
BLACK
Beneath front passenger's seat

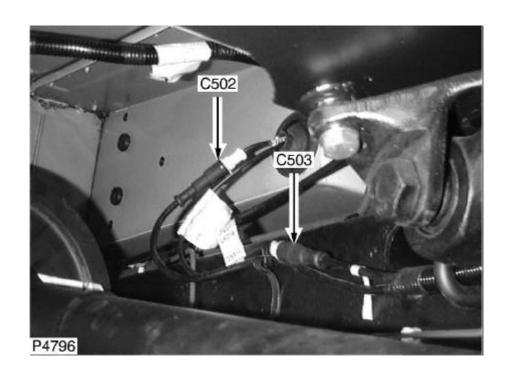




Cav	Color	Cct	Cav	Color	Cct
9	G	ALL	27	В	ALL
13	WLG	ALL	29	YR	ALL
14	WK	ALL	32	R	ALL
15	R	ALL	33	R	ALL
16	R	ALL	34	R	ALL
17	R	ALL	35	R	ALL
18	R	ALL			

C502 SPEED SENSOR -REAR - LH

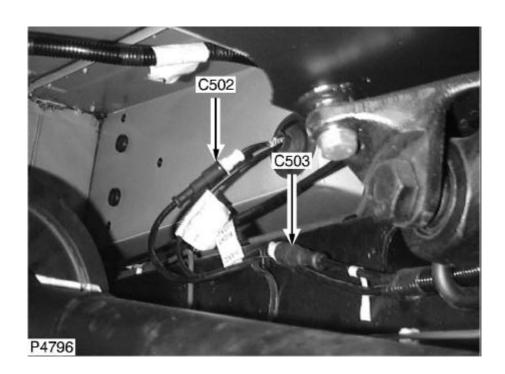
Beneath rear of vehicle RH side



Cav	Color	Cct
1	R	ALL
2	R	ALL

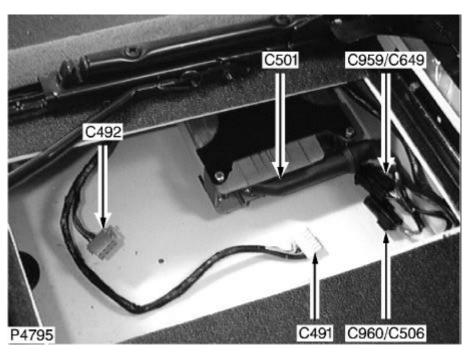
C503 SPEED SENSOR -REAR - RH

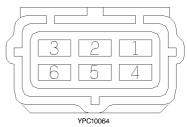
Beneath rear of vehicle RH side



Cav	Color	Cct
1	R	ALL
2	R	ALL

C506
MAIN HARNESS TO
SPEED SENSE
HARNESS
6 Way
Female
BLACK
Beneath front passenger's
seat

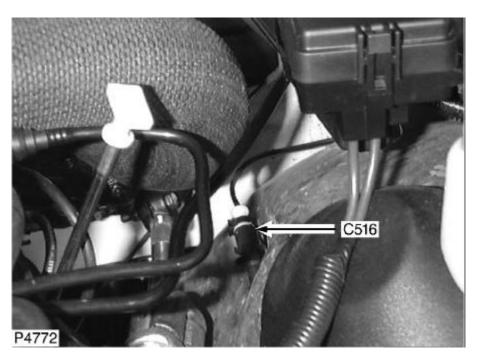




Cav	Color	Cct
1	G	ALL
2	В	ALL
3	YR	ALL
5	WK	ALL
6	WLG	ALL

C516 SPEED SENSOR -FRONT - LH

Under bonnet, LH inner fender

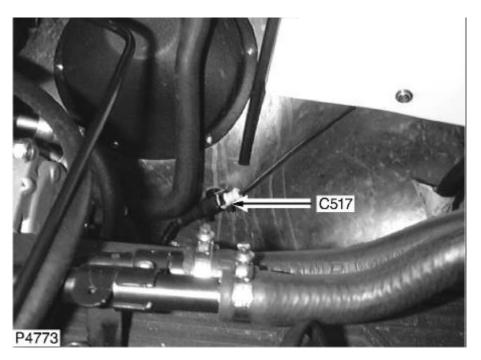


t:\compuset\erl\faceview\51276450.tif

Cav	Color	Cct
1	G	ALL
2	G	ALL

C517 SPEED SENSOR -FRONT - R.H

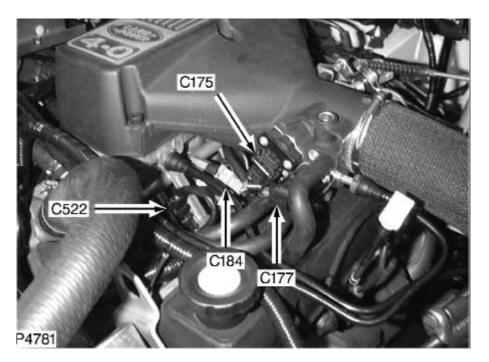
Under bonnet, RH inner fender

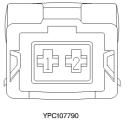


t:\compuset\erl\faceview\51276450.tif

Cav	Color	Cct
1	G	ALL
2	G	ALL

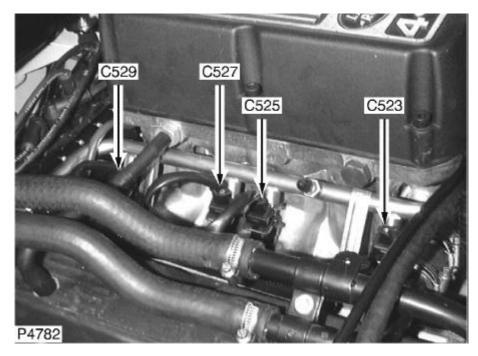
C522
INJECTOR 1
2 Way
Female
BLACK
Top of engine - LH side

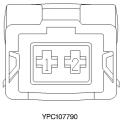




Cav	Color	Cct
1	YU	ALL
2	NO	ALL

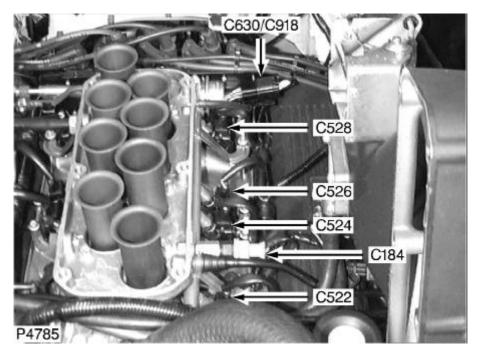
C523
INJECTOR 2
2 Way
Female
BLACK
Top of engine - RH side

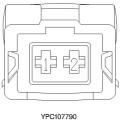




Cav	Color	Cct
1	YW	ALL
2	NO	ALL

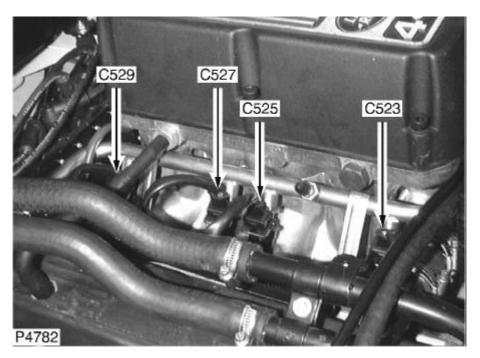
C524
INJECTOR 3
2 Way
Female
BLACK
Top of engine - LH side

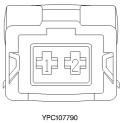




Cav	Color	Cct
1	YB	ALL
2	NO	ALL

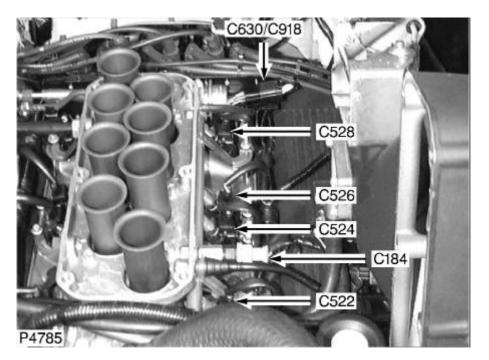
C525
INJECTOR 4
2 Way
Female
BLACK
Top of engine - RH side

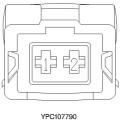




CavColorCct1YNALL2NOALL

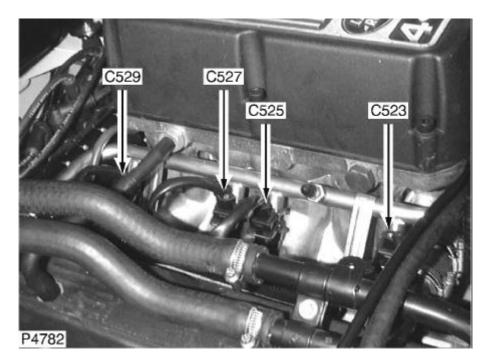
C526
INJECTOR 5
2 Way
Female
BLACK
Top of engine - LH side





Cav	Color	Cct
1	YG	ALL
2	NO	ALL

C527 INJECTOR 6 2 Way Female **BLACK** Top of engine - RH side

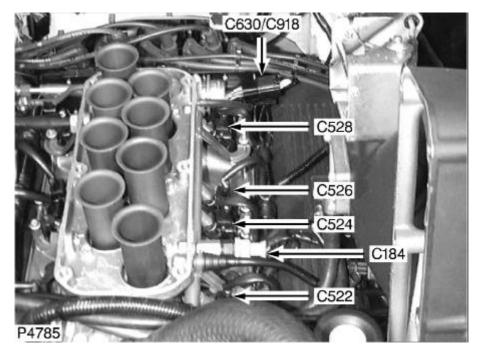


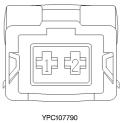


YPC107790

Cav	Color	Cct
1	YS	ALL
2	NO	ALL

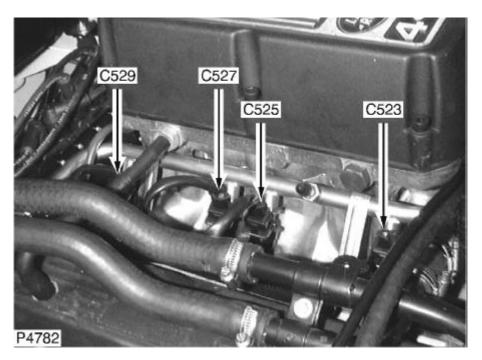
C528
INJECTOR 7
2 Way
Female
BLACK
Top of engine - LH side

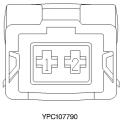




Cav	Color	Cct
1	YR	ALL
2	NO	ALL

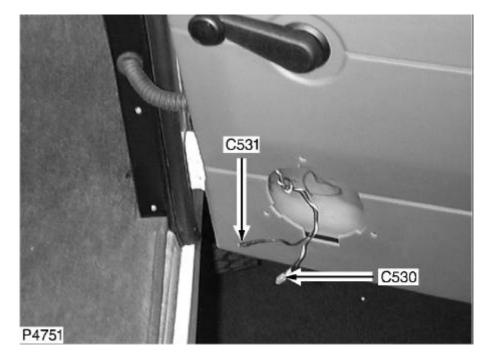
C529
INJECTOR 8
2 Way
Female
BLACK
Top of engine - RH side





Cav	Color	Cct
1	YK	ALL
2	NO	ALL

C530 SPEAKER 1 Way Female NATURAL Behind front speaker



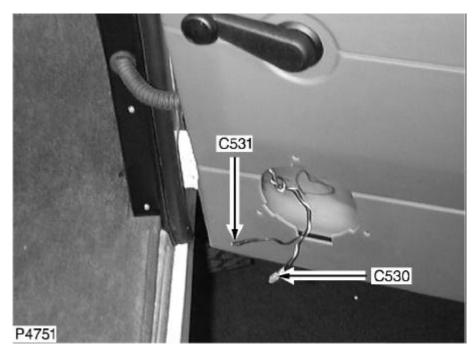


Cav	Color	Cct
1	BW	ALL

C531 SPEAKER

Female

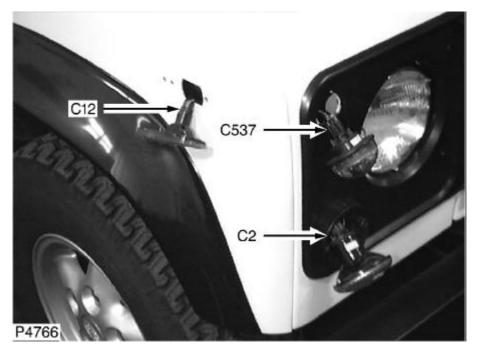
Behind front speaker

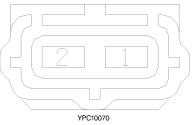


t:\compuset\erl\faceview\51153271.tif

Cav	Color	Cct
1	В	ALL

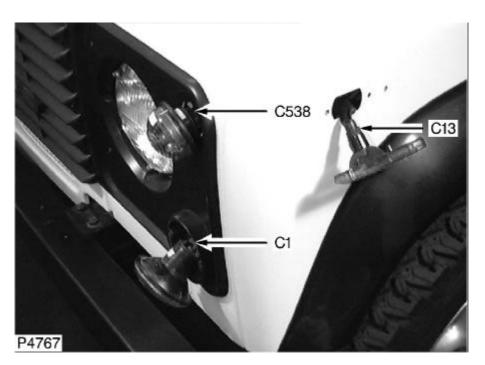
C537 SIDE LAMPS RH 2 Way Female BLACK Behind RH front side lamp

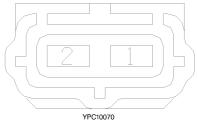




Cav	Color	Cct
1	В	ALL
2	RO	ALL

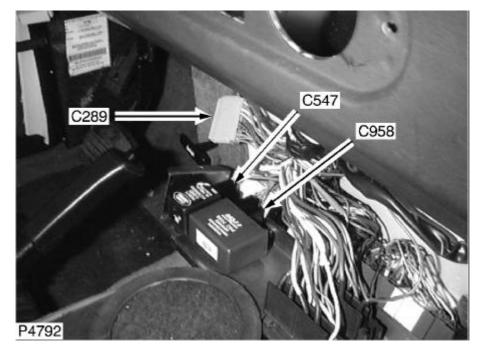
C538
SIDE LAMPS L.H
2 Way
Female
BLACK
Behind LH front side lamp

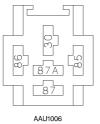




Cav	Color	Cct
1	В	ALL
2	RB	ALL

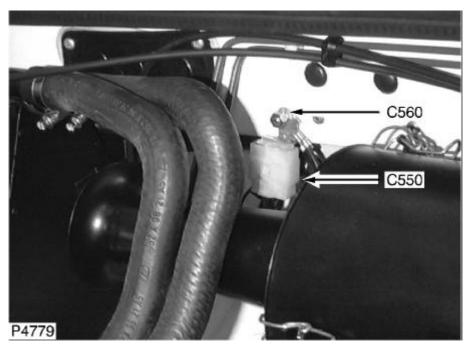
C547
FLASHER UNIT
5 Way
Female
BLACK
Behind front of center console

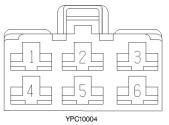




Cav	Color	Cct
30	LGP	ALL
85	LG	ALL
86	В	ALL
87	LGN	ALL

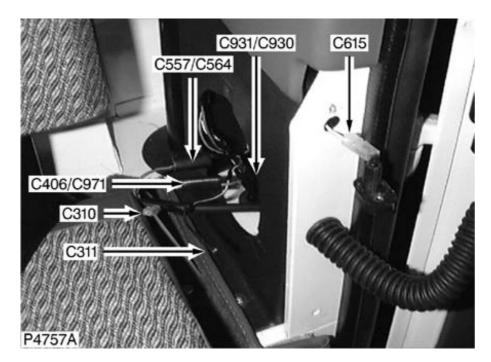
C550 GROUND HEADER 6 Way Female NATURAL Top of fire wall - center





Cav	Color	Cct
1	В	ALL
2	В	ALL
3	В	ALL
4	В	ALL
5	В	ALL
6	В	ALL

C557
BRAKE LAMP - HIGH
MOUNTED
2 Way
Male
BLACK
Behind RH rear speaker



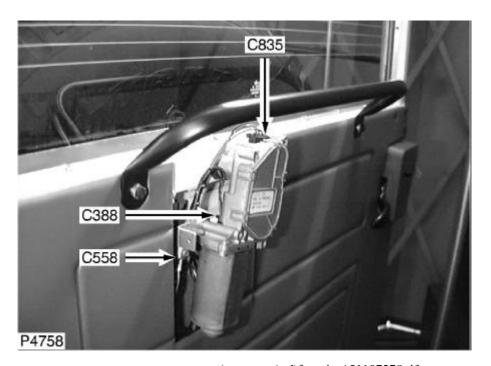


YPQ10010

Cav	Color	Cct
1	В	ALL

C558 GROUND EYELET 3

Center of taildoor, behind trim panel

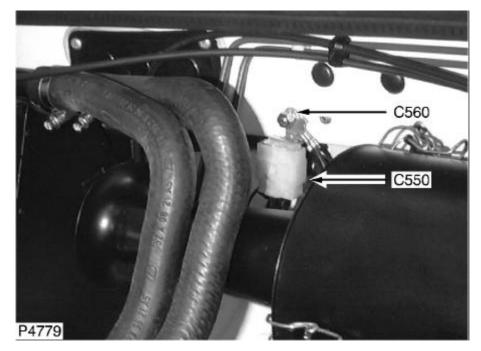


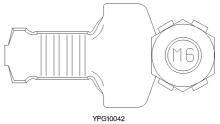
t:\compuset\erl\faceview\51107278.tif

Cav	Color	Cct
1	В	ALL

C560 GROUND EYELET 5 1 Way

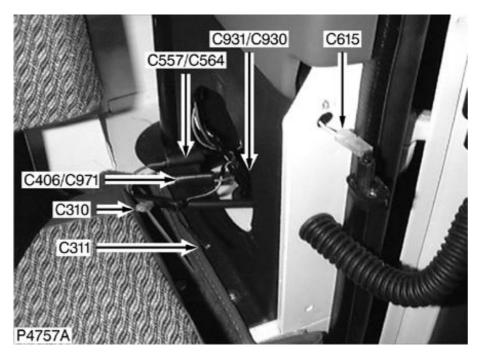
BRASS Top of fire wall - center





Cav	Color	Cct
1	В	ALL

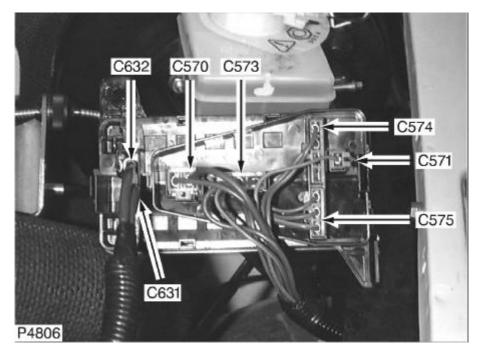
C564
BRAKE LAMP - HIGH
MOUNTED
2 Way
Female
BLACK
Behind RH rear speaker

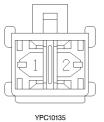


No connector face view

Cav	Color	Cct
1	В	ALL

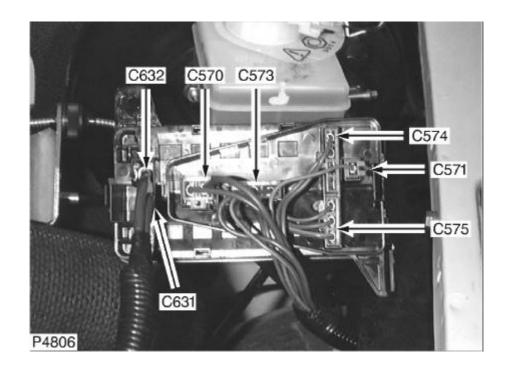
C570
FUSE BOX - ENGINE
COMPARTMENT
2 Way
Female
NATURAL
LH side of engine
compartment

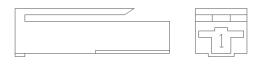




Cav	Color	Cct
1	NP	ALL
2	N	ALL

C571
FUSE BOX - ENGINE
COMPARTMENT
1 Way
Female
NATURAL
LH side of engine
compartment

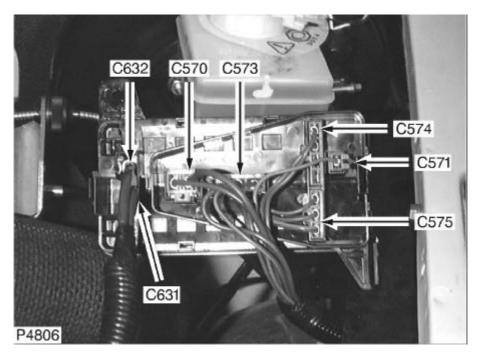


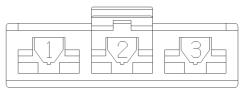


YPC10007

Cav	Color	Cct
1	Р	ALL

C573
FUSE BOX - ENGINE
COMPARTMENT
3 Way
Female
NATURAL
LH side of engine
compartment

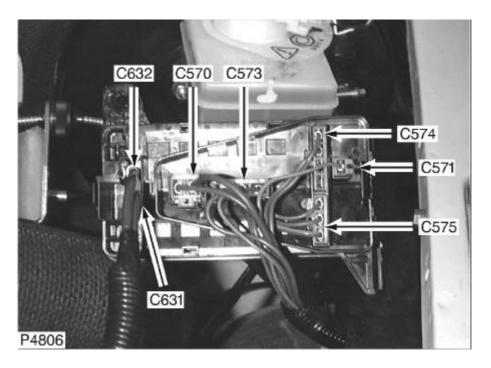


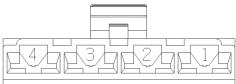


YPC10052

Cav	Color	Cct
2	Ν	ALL
3	NS	ALL

C574
FUSE BOX - ENGINE
COMPARTMENT
4 Way
Female
NATURAL
LH side of engine
compartment

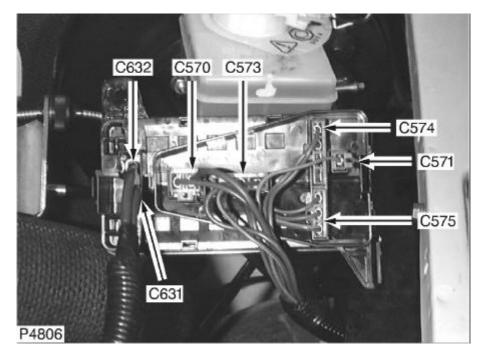


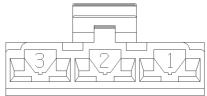


YPC10053

Cav	Color	Cct
3	Р	ALL
4	Р	ALL

C575
FUSE BOX - ENGINE
COMPARTMENT
3 Way
Female
NATURAL
LH side of engine
compartment



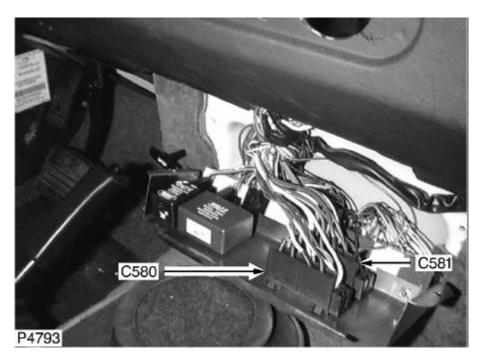


YPC10085

Cav	Color	Cct
1	NLG	ALL
2	PW	ALL
3	Р	ALL

C580 FUSE BOX -PASSENGER COMPARTMENT

Behind passenger compartment fusebox

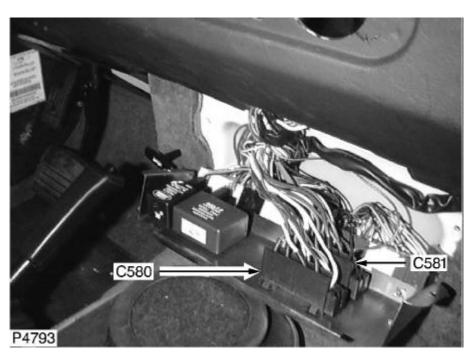


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Cav	Color	Cct	Cav	Color	Cct
1	W	ALL	12	WLG	ALL
2	WG	ALL	13	UR	ALL
3	N	ALL	14	UB	ALL
4	Р	ALL	16	UK	ALL
6	Р	ALL	17	UW	ALL
7	WO	ALL	18	UO	ALL
8	PG	ALL	20	US	ALL
10	WK	ALL			

C581 FUSE BOX -PASSENGER COMPARTMENT

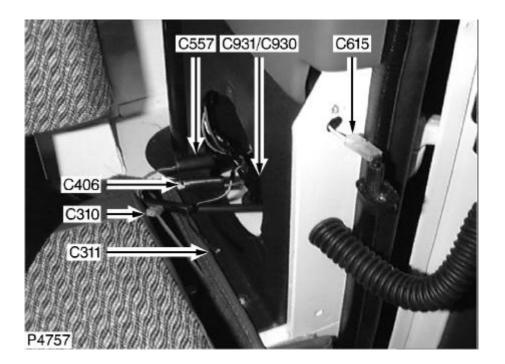
Behind passenger compartment fusebox



t:\compuset\erl\faceview\51167493.tif

Cav	Color	Cct	Cav	Color	Cct
1	R	ALL	12	NW	ALL
2	RB	ALL	13	W	ALL
4	RO	ALL	14	G	ALL
5	NP	ALL	16	G	ALL
6	Р	ALL	18	GO	ALL
8	Р	ALL	20	WG	ALL
10	NS	ALL			

C615
TAILGATE SWITCH
1 Way
Female
NATURAL
Behind RH rear speaker

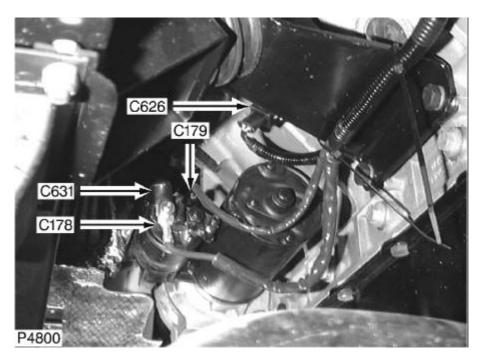


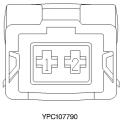


YPC10386

Cav	Color	Cct
1	PW	ALL

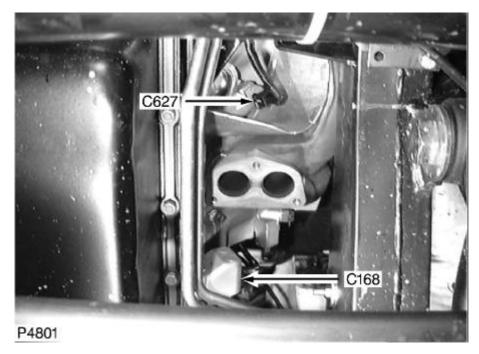
C626 KNOCK SENSOR -EVEN BANK 2 Way Female BLACK RH side of engine

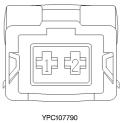




CavColorCctSCRSCRALL1WALL2YALL

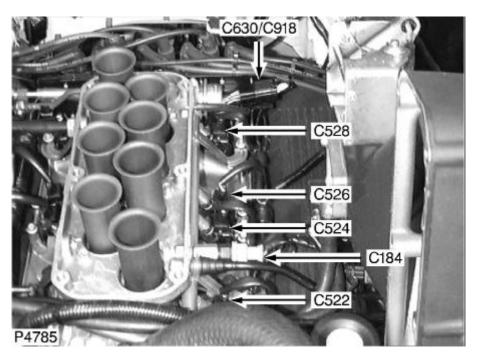
C627 KNOCK SENSOR -ODD BANK 2 Way Female BLACK LH side of engine

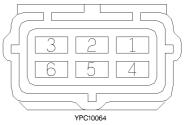




Cav	Color	Cct
SCR	SCR	ALL
1	В	ALL
2	0	ALL

C630
ENGINE HARNESS TO
COIL HARNESS
6 Way
Female
BLACK
Top of engine - LH side

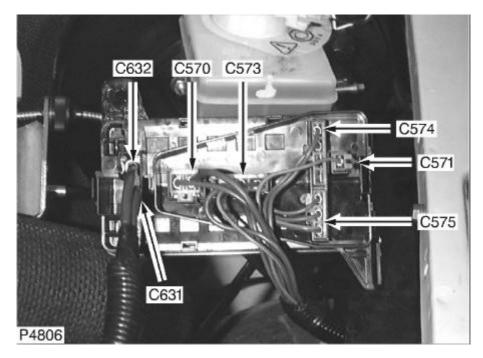


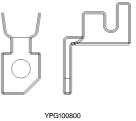


Cav	Color	Cct
1	WB	ALL
2	WY	ALL
3	WU	ALL
4	WK	ALL
5	WG	ALL

C631 FUSE BOX FEED

TINNED LH side of engine compartment

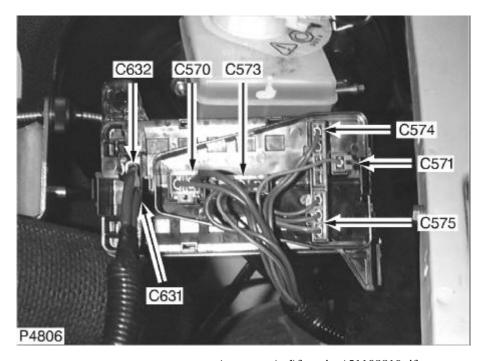




Cav	Color	Cct
1	N	ALL

C632 FUSE BOX FEED

LH side of engine compartment

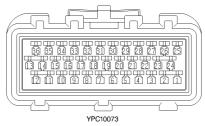


t:\compuset\erl\faceview\51108819.tif

Cav	Color	Cct
1	N	ALL

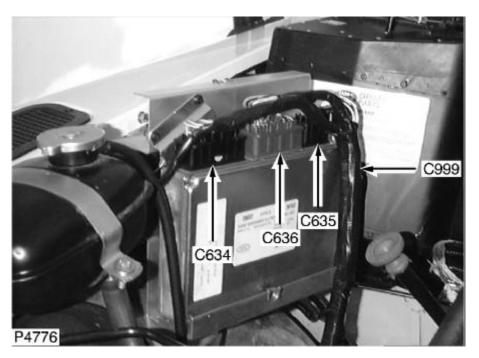
C634
ECM
36 Way
Female
BLACK
Rear RH side of engine
compartment

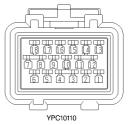




Cav	Color	Cct	Cav	Color	Cct
1	BS	ALL	22	RS	ALL
3	GW	ALL	24	UP	ALL
11	YB	ALL	28	WU	ALL
13	YU	ALL	30	YN	ALL
15	US	ALL	32	YR	ALL
16	RG	ALL	33	YG	ALL
17	YS	ALL	34	GW	ALL
18	YK	ALL	35	OR	ALL
19	SY	ALL	36	YW	ALL
21	WO	ALL			

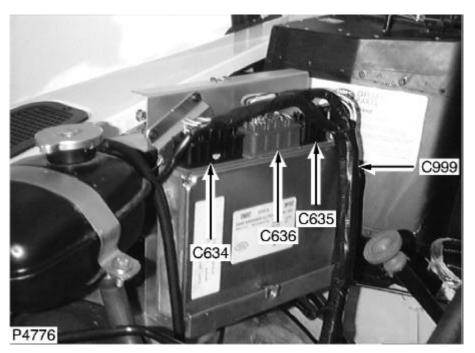
C635
ECM
18 Way
Female
BLACK
Rear RH side of engine
compartment

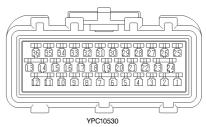




Cav	Color	Cct	Cav	Color	Cct
1	WK	ALL	11	G	ALL
4	R	ALL	12	N	ALL
5	В	ALL	13	WU	ALL
7	NO	ALL	14	WB	ALL
8	WG	ALL	15	WY	ALL
9	В	ALL	16	В	ALL
10	В	ALL	17	UR	ALL

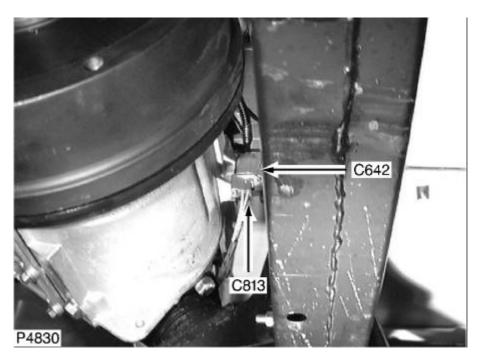
C636
ECM
36 Way
Female
RED
Rear RH side of engine
compartment





Cav	Color	Cct	Cav	Color	Cct	Cav	Color	Cct
1	YR	ALL	14	G	ALL	27	YK	ALL
2	SU	ALL	15	YLG	ALL	28	YB	ALL
7	GB	ALL	16	UG	ALL	29	PB	ALL
8	R	ALL	17	GW	ALL	32	RB	ALL
10	RB	ALL	18	ОВ	ALL	33	OG	ALL
11	0	ALL	20	WK	ALL	34	GR	ALL
12	Υ	ALL	23	WLG	ALL	35	SW	ALL
13	SLG	ALL	26	В	ALL	36	RB	ALL

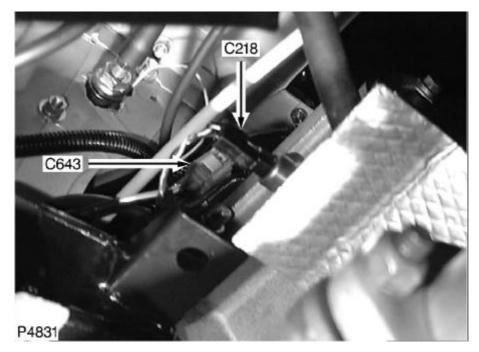
C642 HO2S - EVEN BANK -POST CATALYST 4 Way Female GREY RH side of transfer box





Cav	Color	Cct
SCR	SCR	ALL
1	J	ALL
2	R	ALL
3	WU	ALL
4	WG	ALL

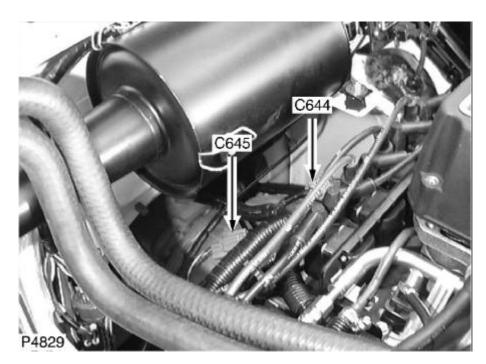
C643 HO2S - ODD BANK -POST CATALYST 4 Way Female ORANGE RH side of transfer box





Cav	Color	Cct
SCR	SCR	ALL
1	NW	ALL
2	GW	ALL
3	WU	ALL
4	WG	ALL

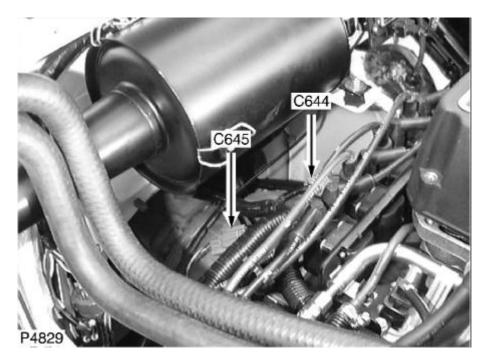
C644
HO2S - ODD BANK PRE-CATALYST
4 Way
Female
ORANGE
Above gearbox





Cav	Color	Cct
SCR	SCR	ALL
1	NU	ALL
2	GR	ALL
3	WO	ALL
4	WG	ALL

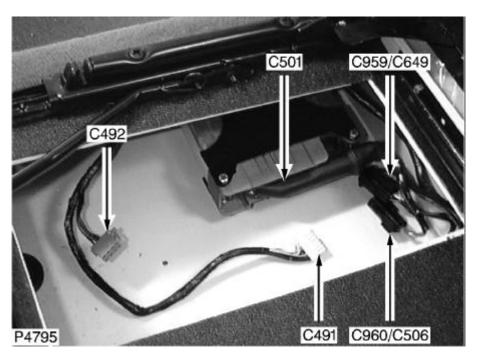
C645 HO2S - EVEN BANK -PRE-CATALYST 4 Way Female GREY Above gearbox

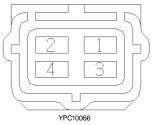




Cav	Color	Cct
SCR	SCR	ALL
1	YB	ALL
2	OG	ALL
3	WO	ALL
4	WG	ALL

C649
MAIN HARNESS TO
SPEED SENSE
HARNESS
4 Way
Female
BLACK
Beneath front passenger's
seat

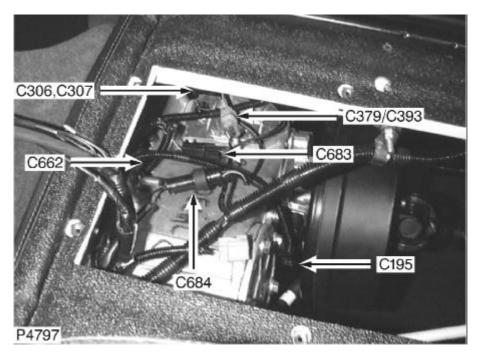




Cav	Color	Cct
1	G	ALL
2	G	ALL
3	G	ALL
4	G	ALL

C662 DIODE

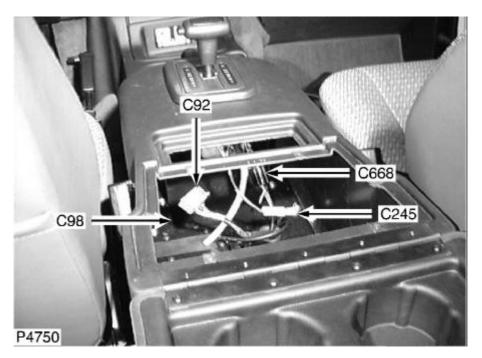
BLACK Above gearbox

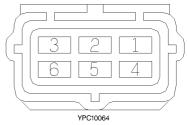


 $t: \\ compuset \\ | faceview \\ | YQP10003.tif$

Cav	Color	Cct
1	В	ALL
2	SB	ALL

C668
MAIN HARNESS TO
GEAR BOX HARNESS
6 Way
Female
BLACK
Behind center console

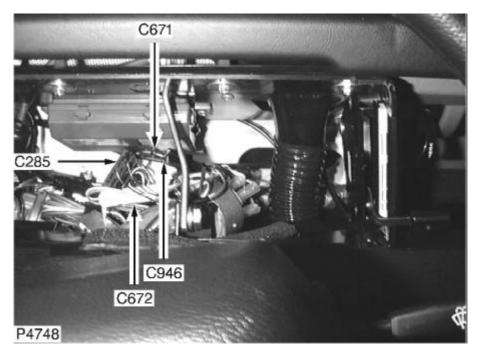




Cav	Color	Cct
1	BY	ALL
2	GP	ALL
3	В	ALL
4	В	ALL
5	KS	ALL
6	KS	ALL

C671 KEY LOCK SOLENOID

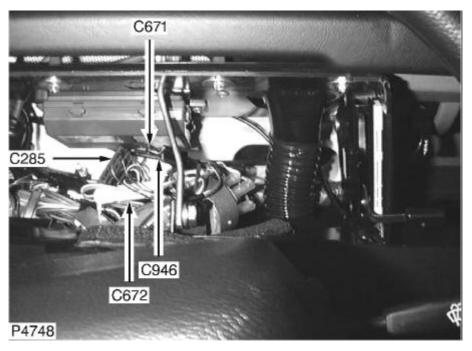
BLACK Behind instrument pack

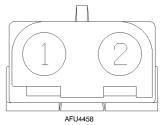


 $t:\\ compuset\\ erl\\ faceview\\ YPQ10020.tif$

Cav	Color	Cct
1	BR	ALL
2	BY	ALL

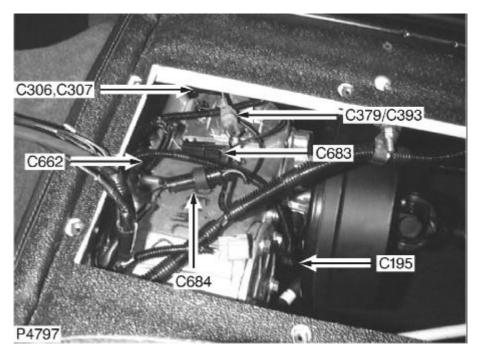
C672
KEY-IN SENSOR
2 Way
Female
WHITE
Behind instrument pack

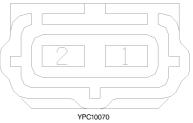




Cav	Color	Cct
1	BR	ALL
2	Р	ALL

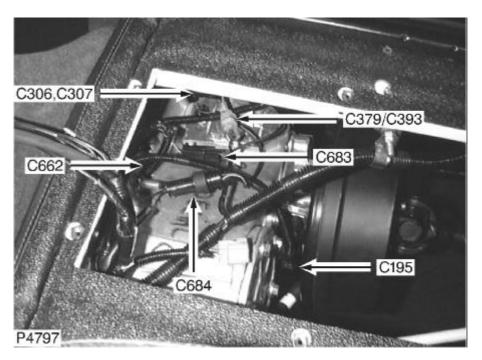
C683
SOLENOID TRANSFER BOX
2 Way
Female
BLACK
Above gearbox





Cav	Color	Cct
1	SB	ALL
2	В	ALL

C684
TRANSMISSION
NEUTRAL SENSE
3 Way
Male
BLACK
Above gearbox

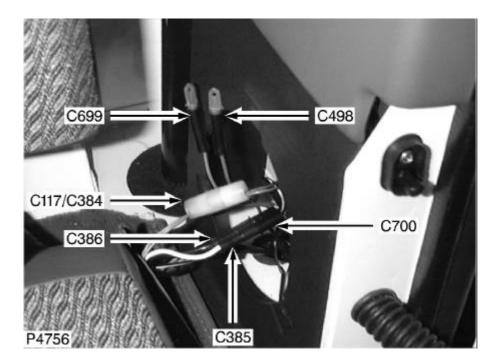




AJU1976

Cav	Color	Cct
2	В	ALL
3	BK	ALL

C699
TRAILER
1 Way
Female
BLACK
Behind RH rear speaker



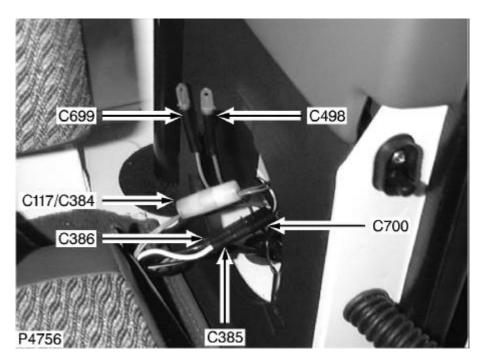


13H5155

Cav	Color	Cct
1	GN	ALL

C700 REAR WASHER 2 Way

BLACK Behind RH rear speaker

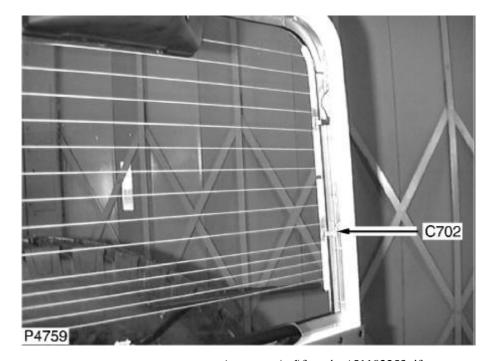




Cav	Color	Cct
1	WB	ALL
2	В	ALL

C702 HEATED REAR WINDOW

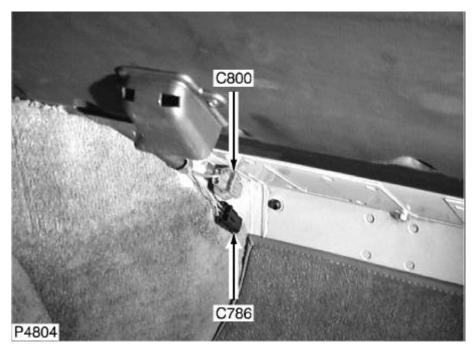
LH side of taildoor

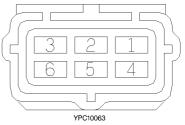


t:\compuset\erl\faceview\51102253.tif

Cav	Color	Cct
1	WB	ALL

C786
MAIN HARNESS TO
AIR CONDITIONING
HARNESS
6 Way
Female
BLACK
Passenger's footwell

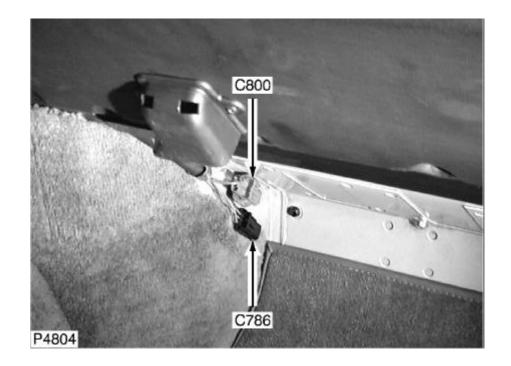




Cav	Color	Cct
1	G	ALL
2	GW	ALL
3	YB	ALL
4	BS	ALL
5	PB	ALL
6	NO	ALL

C800 MAIN HARNESS TO AIR CONDITIONING HARNESS

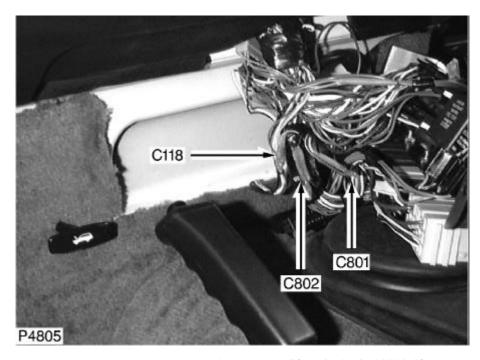
Passenger's footwell



Cav	Color	Cct
1	NW	ALL
2	NS	ALL

C801 DIODE

BLACK Behind passenger compartment fusebox

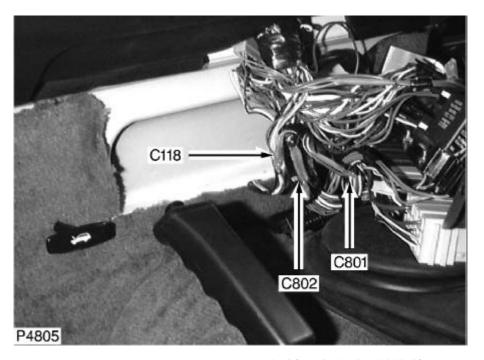


 $t: \\ \\ compuset \\ \\ erl\\ \\ faceview\\ \\ YQP10003.tif$

Cav	Color	Cct
1	YB	ALL
2	BY	ALL

C802 DIODE

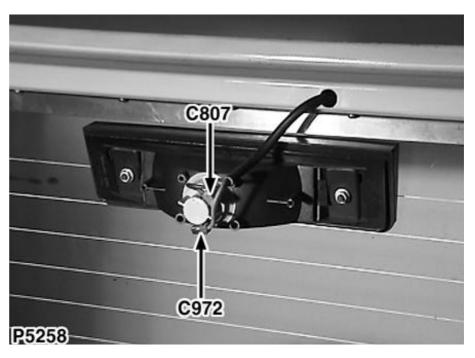
BLACK Behind passenger compartment fusebox



 $t: \\ \\ compuset \\ \\ \\ erl\\ \\ face view\\ \\ YQP10003.tif$

Cav	Color	Cct
1	BK	ALL
2	BY	ALL

C807
BRAKE LAMP - HIGH
MOUNTED
1 Way
Female
TIN-PLATE
Top of taildoor

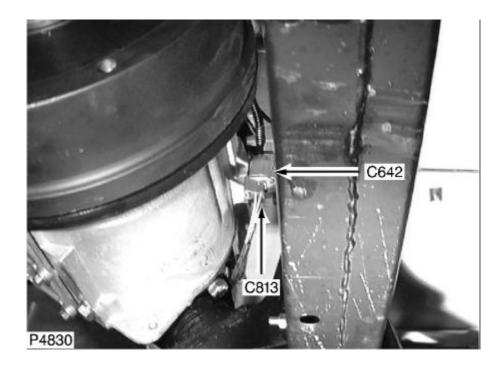


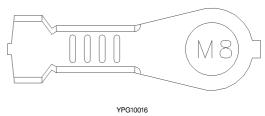
No connector face view

Cav	Color	Cct
1	В	ALL

C813 GEARBOX GROUND 1 Way

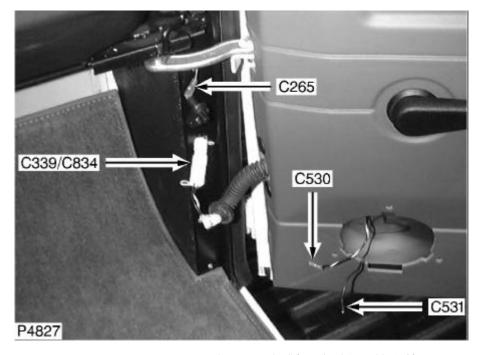
TIN-PLATE Beneath gearbox





Cav	Color	Cct
1	В	ALL

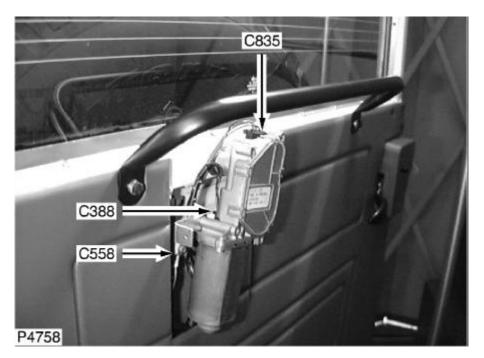
C834
SPEAKER/ MAIN
2 Way
Male
WHITE
In LH or RH 'A' post

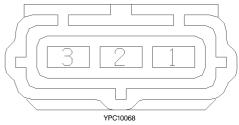


 $t: \\ \\ compuset \\ \\ erl\\ \\ faceview\\ \\ AFU4461.tif$

Cav	Color	Cct
1	BW	ALL
2	В	ALL

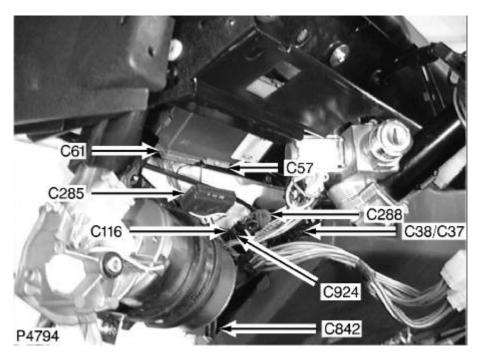
C835
WIPER PARK SWIT
3 Way
Female
BLACK
Center of taildoor, behind
trim panel

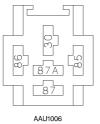




Cav	Color	Cct
1	NLG	ALL
2	G	ALL
3	NY	ALL

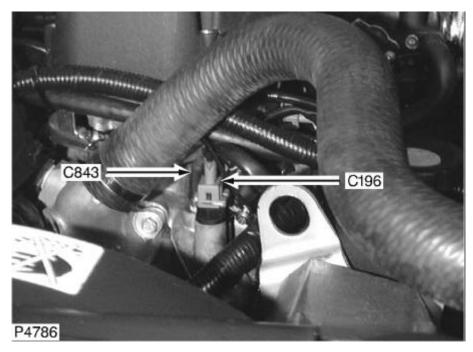
C842
WARNING LIGHT
CHECK UNIT
5 Way
Female
BLACK
Behind dash trim panel

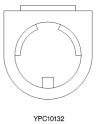




Cav	Color	Cct
30	SR	ALL
85	В	ALL
86	WG	ALL
87	WY	ALL

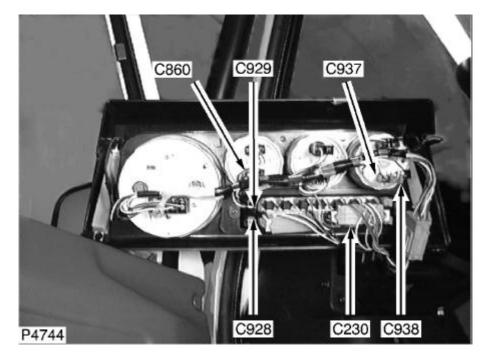
C843
TEMPERATURE
GAUGE SENDER
1 Way
Female
NATURAL
Front RH side of engine





Cav	Color	Cct
1	GU	ALL

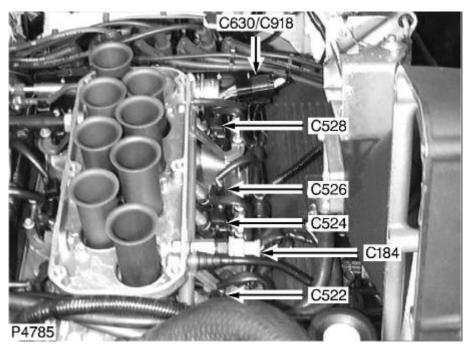
C860 FUEL GAUGE

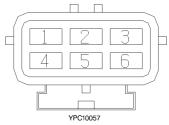


No connector face view

Cav	Color	Cct
1	В	ALL
2	WG	ALL
3	GB	ALL

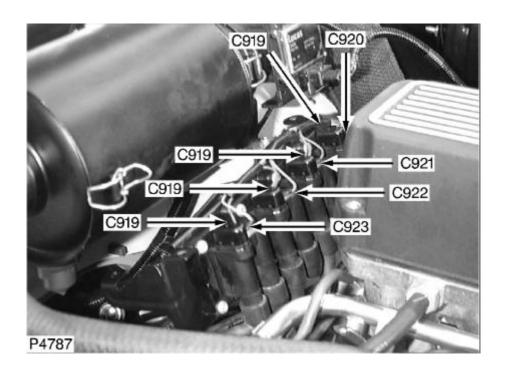
C918
COIL HARNESS TO
ENGINE HARNESS
6 Way
Male
BLACK
Top of engine - LH side

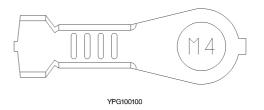




Cav	Color	Cct
1	J	ALL
2	Р	ALL
3	0	ALL
4	G	ALL
5	R	ALL

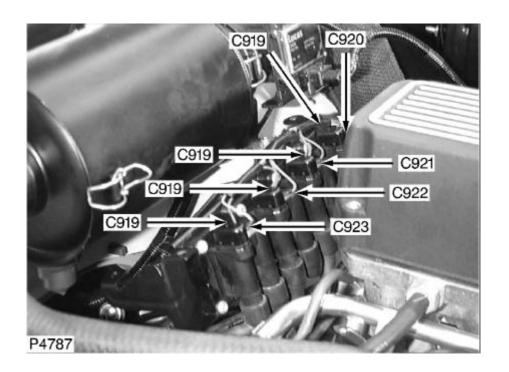
C919 COIL FEED

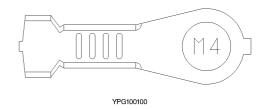




Cav	Color	Cct
1	R	ALL

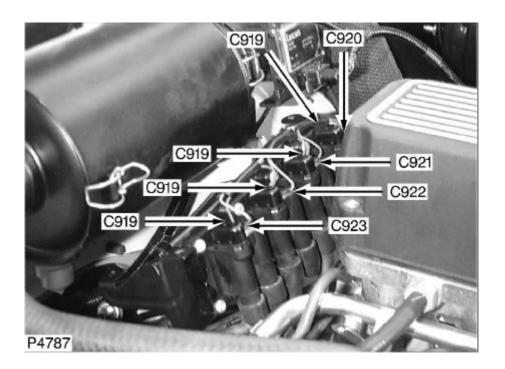
C920 NEGATIVE - COIL 1-6

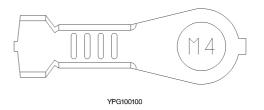




Cav	Color	Cct
1	U	ALL

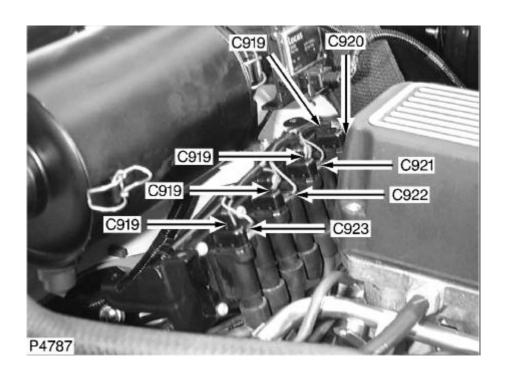
C921 NEGATIVE - COIL 5-8

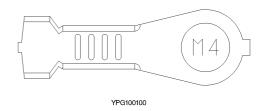




Cav	Color	Cct
1	G	ALL

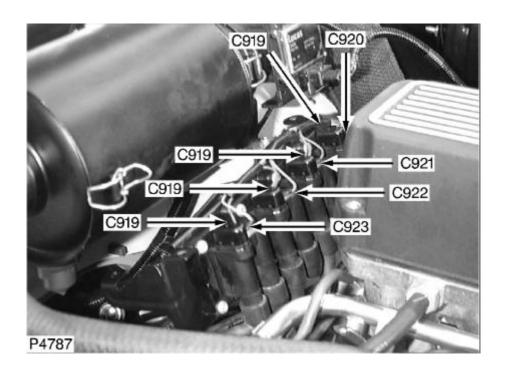
C922 NEGATIVE - COIL 4-7

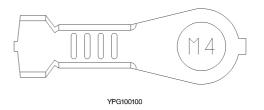




Cav	Color	Cct
1	Р	ALL

C923 NEGATIVE - COIL 2-3

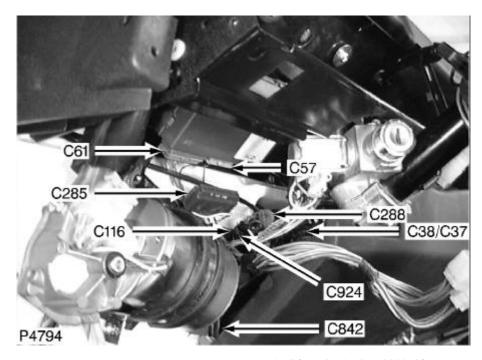




Cav	Color	Cct
1	0	ALL

C924 DIODE

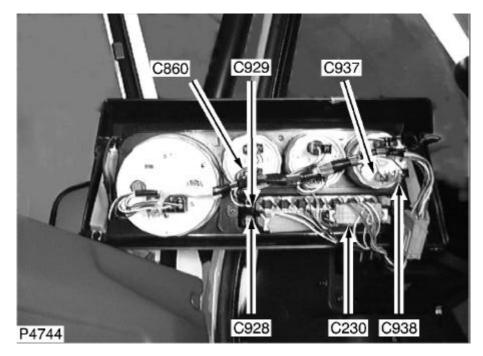
BLACK Behind dash trim panel



 $t: \\ compuset \\ | faceview \\ | YQP10003.tif$

Cav	Color	Cct
1	BY	ALL
2	BR	ALL

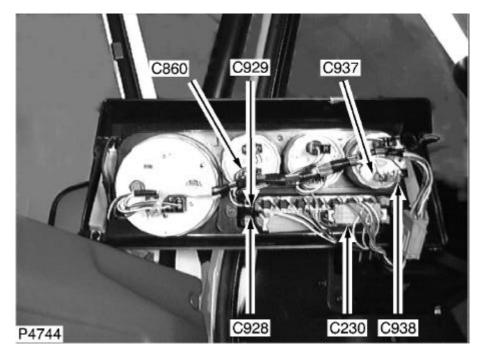
C928 HEATER REAR WINDOW



t:\compuset\erl\faceview\51100465.tif

Cav	Color	Cct
1	В	ALL

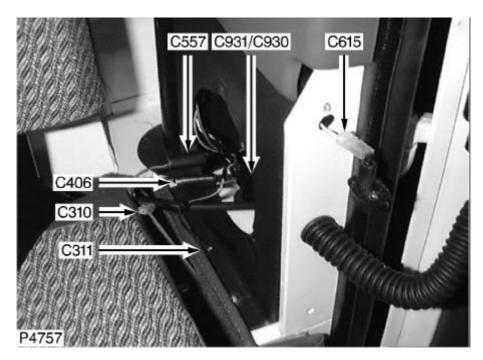
C929 HEATER REAR WINDOW

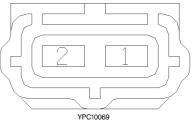


t:\compuset\erl\faceview\51100465.tif

Cav	Color	Cct
1	WB	ALL

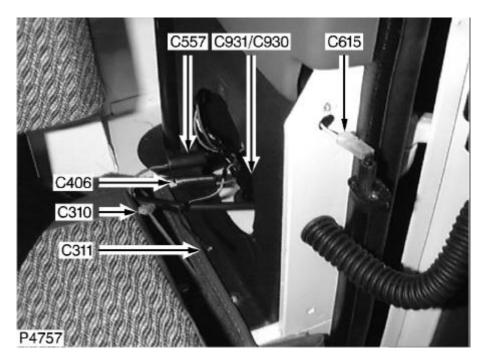
C930
INTERIOR LIGHT
HARNESS TO CHASSIS
HARNESS
2 Way
Female
BLACK
Behind RH rear speaker





Cav	Color	Cct
1	Р	ALL
2	PU	ALL

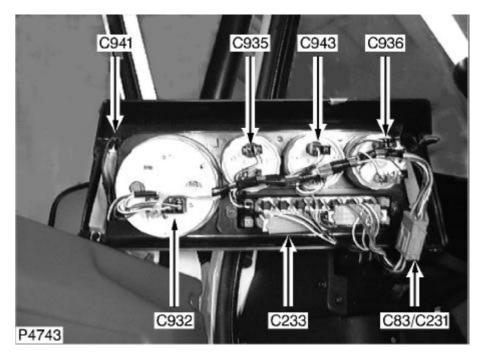
C931
CHASSIS TO
INTERIOR LAMP
HARNESS
2 Way
Male
BLACK
Behind RH rear speaker





Cav	Color	Cct
1	Р	ALL
2	PU	ALL

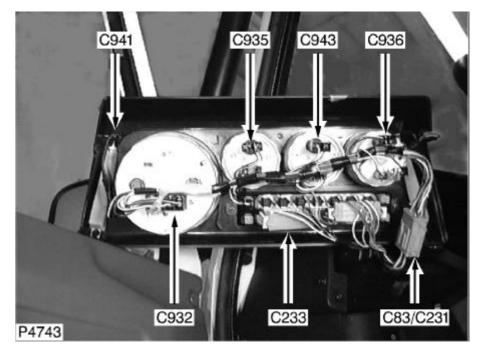
C932
SPEEDOMETER
8 Way
Female
Black
Behind instrument pack



No connector face view

Cav	Color	Cct
1	RW	ALL
2	W	ALL
3	В	ALL
4	BR	ALL
5	В	ALL
7	ΥK	ALL

C935
FUEL GAUGE
ILLUMINATION
2 Way
Female
BLACK
Behind instrument pack

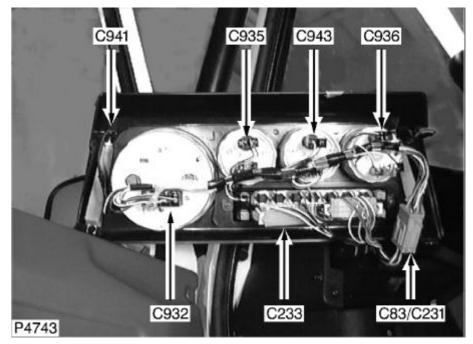




ADU8885

Cav	Color	Cct
1	RW	ALL
2	В	ALL

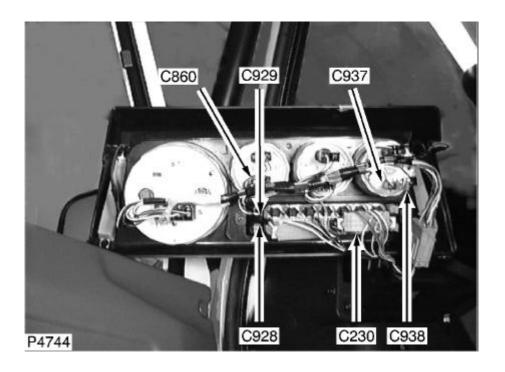
C936
TACHOMETER
ILLUMINATION
2 Way
Female
BLACK
Behind instrument pack





CavColorCct1RWALL2BALL

C937
TACHOMETER
1 Way
Female
RED
Behind instrument pack

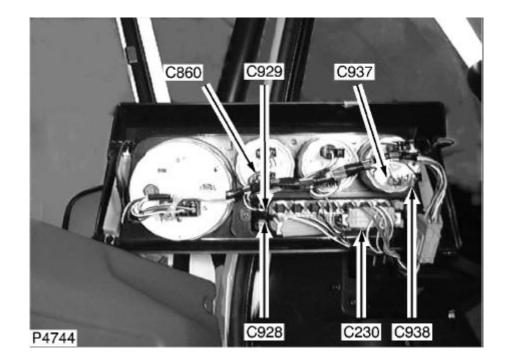




YPC10245

Cav	Color	Cct
1	WS	ALL

C938
TACHOMETER
1 Way
Female
NATURAL
Behind instrument pack

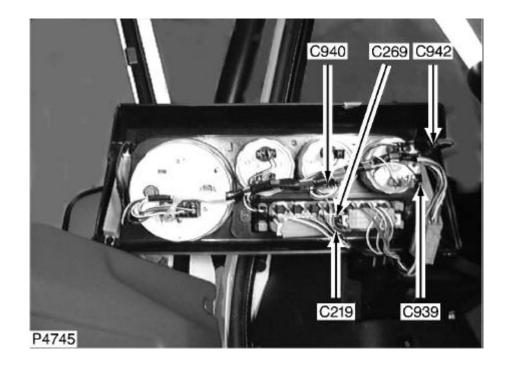




ADU8339

Cav	Color	Cct
1	WG	ALL

C939
TACHOMETER
1 Way
Female
BLACK
Behind instrument pack

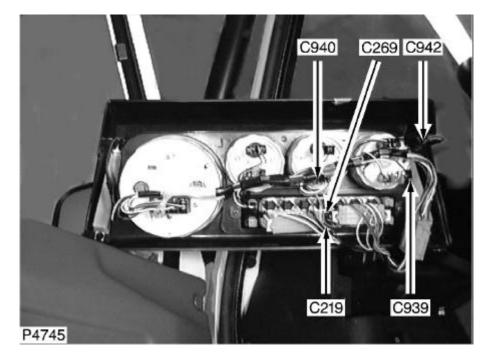




AAU1010

Cav	Color	Cct
1	В	ALL

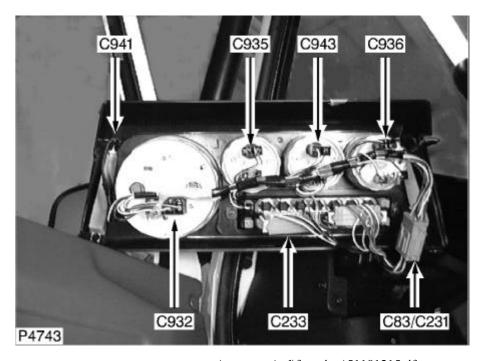
C940 TEMPERATURE GAUGE



No connector face view

Cav	Color	Cct
1	В	ALL
2	WG	ALL
3	GU	ALL

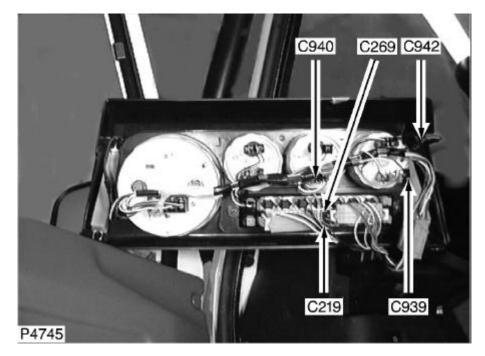
C941 HEATER ILLUMINATION - RH



t:\compuset\erl\faceview\51101215.tif

Cav	Color	Cct
1	RW	ALL
2	В	ALL

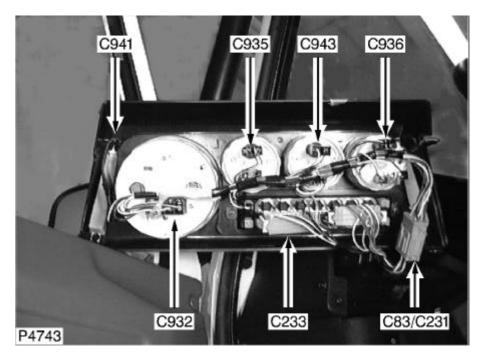
C942 HEATER ILLUMINATION - LH



t:\compuset\erl\faceview\51101215.tif

Cav	Color	Cct
1	RW	ALL
2	В	ALL

C943
TEMPERATURE
GAUGE
ILLUMINATION
2 Way
Female
BLACK
Behind instrument pack





ADU8885

Cav	Color	Cct
1	RW	ALL
2	В	ALL

C944
LINK CONNECTOR
3 Way
Male
NATURAL
Headlining - Front LH
side





Cav	Color	Cct
1	В	ALL
2	PU	ALL
3	Р	ALL

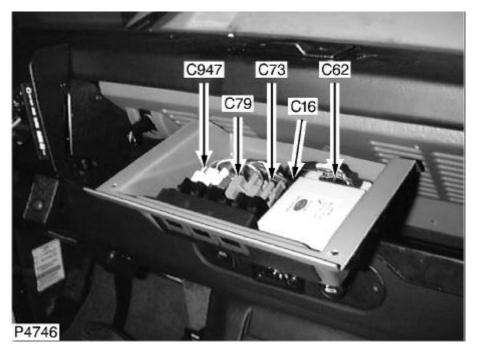
C945 LINK CONNECTOR 3 Way Female NATURAL Headlining - Front LH side

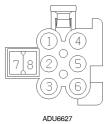




Cav	Color	Cct
1	В	ALL
2	PU	ALL
3	Р	ALL

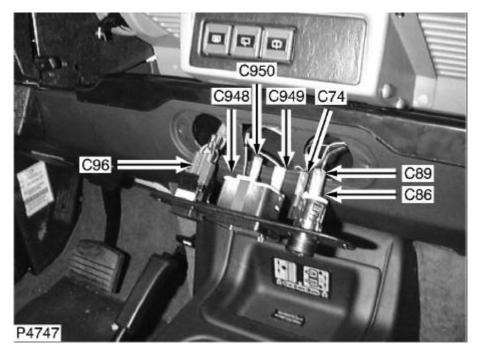
C947
HEATED REAR
SCREEN
7 Way
Female
WHITE
Behind dash trim panel





Cav	Color	Cct
2	В	ALL
5	WR	ALL
7	RW	ALL
8	В	ALL

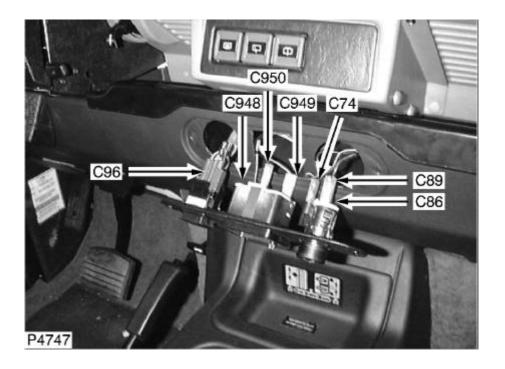
C948
BULB HOLDER
2 Way
Female
BLACK
Behind dash trim panel





Cav	Color	Cct
1	RW	ALL

C949
CLOCK
1 Way
Female
NATURAL
Behind dash trim panel

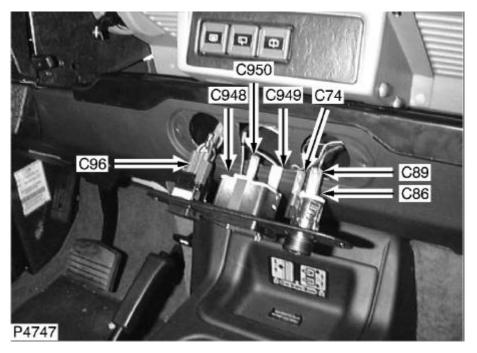


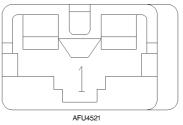


ADU8339

Cav	Color	Cct
1	Р	ALL

C950 CLOCK 1 Way Female NATURAL Behind dash trim panel

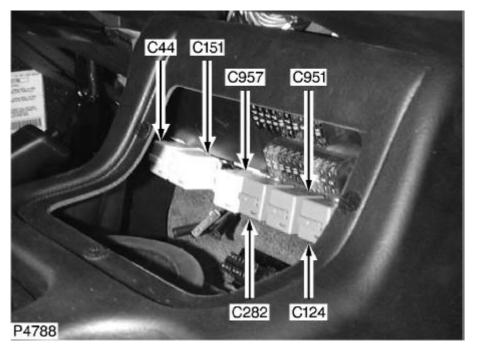


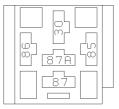


Cav	Color	Cct
1	В	ALL

C951 ILLUMINATION RELAY 5 Way

GREEN
Behind front of center console

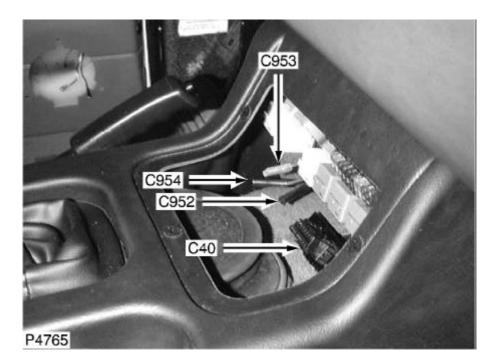




YPP100130

Cav	Color	Cct
30	RK	ALL
85	В	ALL
86	RB	ALL
87	RW	ALL
87A	G	ALL

C952
SPARE
1 Way
Female
BLACK
Behind front of center console

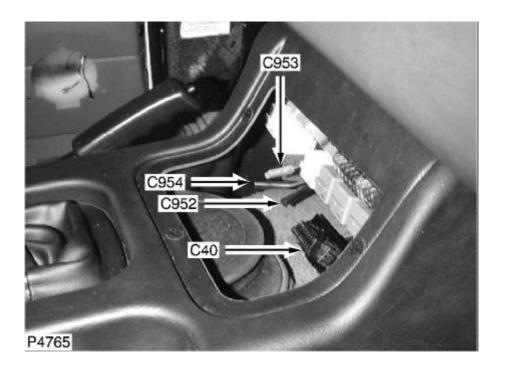




13H5155

Cav	Color	Cct
1	Р	ALL

C953
SPARE
1 Way
Female
NATURAL
Behind front of center console

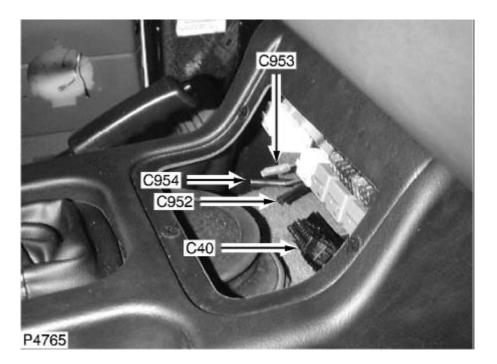




YPC10386

Cav	Color	Cct
1	GO	ALL

C954
SPARE
1 Way
Female
BLACK
Behind front of center console

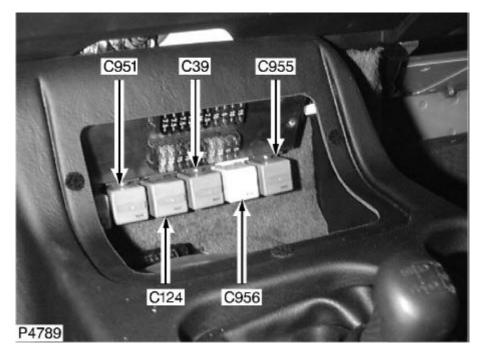


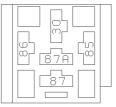


13H5155

Cav	Color	Cct
1	Ρ	ALL

C956
SHIFT INTERLOCK
5 Way
Female
YELLOW
Behind front of center console

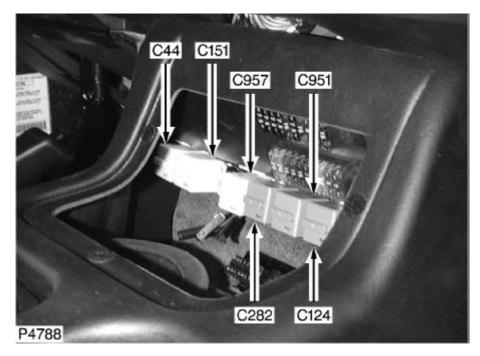


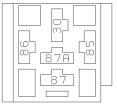


YPP100090

Cav	Color	Cct
30	SB	ALL
85	BR	ALL
86	YB	ALL
87	G	ALL

C957
DAYTIME RUNNING
LAMPS RELAY
5 Way
Female
BLACK
Behind front of center
console

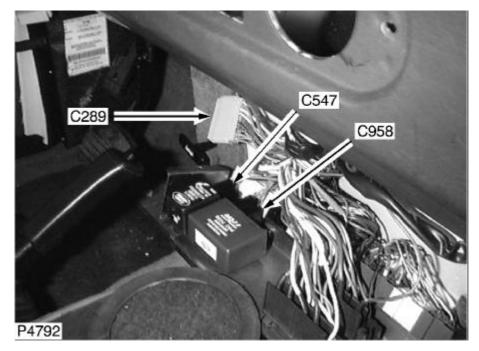


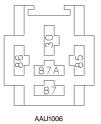


ADU7458

Cav	Color	Cct
30	UW	ALL
85	W	ALL
86	UK	ALL
87	В	ALL
87A	Ν	ALL

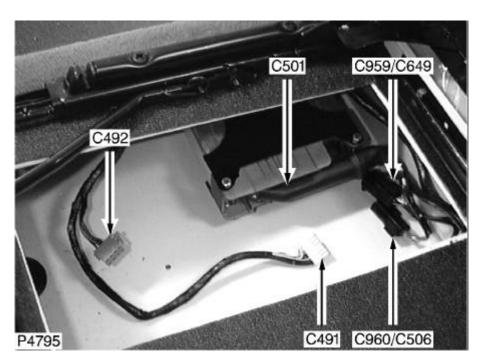
C958
CONTROL UNIT EMISSION
MAINTENANCE
REMINDER
5 Way
Female
BLACK
Behind front of center
console





Cav	Color	Cct
30	В	ALL
85	PY	ALL
86	Р	ALL
87	ΥK	ALL
87A	G	ALL

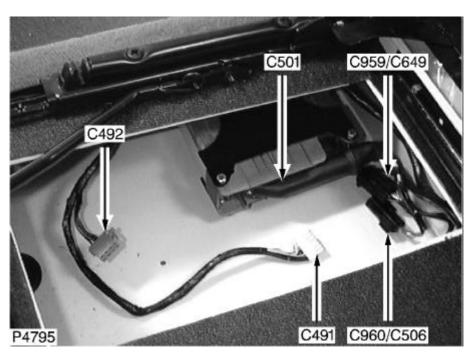
C959
SPEED SENSOR
HARNESS TO MAIN
HARNESS
4 Way
Male
BLACK
Beneath front passenger's
seat

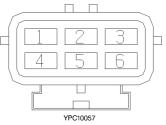




Cav	Color	Cct
1	R	ALL
2	R	ALL
3	R	ALL
4	R	ALL

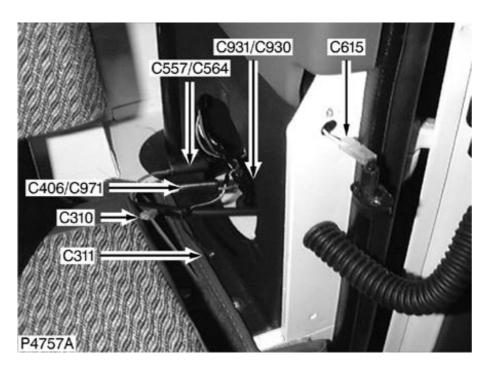
C960
SPEED SENSOR
HARNESS TO MAIN
HARNESS
6 Way
Male
BLACK
Beneath front passenger's
seat





Cav	Color	Cct
1	G	ALL
2	В	ALL
3	YR	ALL
5	WK	ALL
6	WLG	ALL

C971
BRAKE LAMP - HIGH
MOUNTED
1 Way
Female
BLACK
Behind RH rear speaker

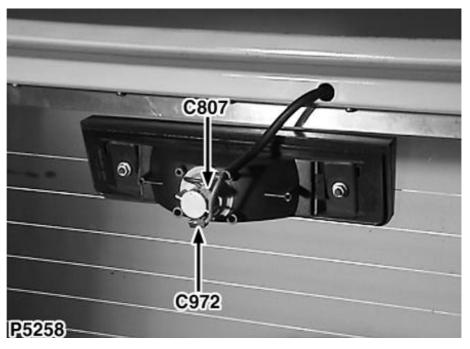




YPQ10010

Cav	Color	Cct
1	R	ALL

C972
BRAKE LAMP - HIGH
MOUNTED
1 Way
Female
BLACK
Top of tail door



No connector face view

Cav	Color	Cct
1	R	ALL

C999 SOLDERED JOINT

Rear RH side of engine compartment



 $t:\\ \\ compuset\\ \\ erl\\ \\ faceview\\ \\ \\ 51160386.tif$

Cav	Color	Cct
1	SCR	ALL
1	W	ALL