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ABOUT THIS DOCUMENT

General

This document is intended to assist in diagnosing electrical faults, and should be used in conjunction with the Electrical Circuit Diagrams. The document is divided into the following sections:

1. **INTRODUCTION:** Includes Electrical Precautions, a list of Abbreviations and general information on how to use this document.
2. **FUSE DETAILS:** Provides details of location, rating in Amperes, and circuit(s) protected.
3. **EARTH POINTS AND HEADERS:** Provides details of earth points and earth headers, including a plan view of the vehicle to aid location.
4. **DESCRIPTION AND OPERATION:** Provides an explanation of how each of the systems operate.
5. **CIRCUIT REFERENCE NUMBERS:** Provides a list of circuit reference numbers against a model or feature to which they apply.
6. **CONNECTOR DETAILS:** Details of connectors including a location photograph, face view and pin-out table.

NOTE: Before starting electrical checks on the vehicle, ensure that relevant mechanical functions operate satisfactorily.

References

References to the LH or RH side given in this document are made when viewing the vehicle from the rear.

Operations covered in this document do not include reference to testing the vehicle after repair. It is essential that work is inspected and tested after completion and, if necessary, a road test of the vehicle undertaken, particularly where safety related items are concerned.

CAUTION: Before undertaking any electrical work on a vehicle ALWAYS read the ELECTRICAL PRECAUTIONS.

Battery voltage

Open circuit voltage test

Before commencing diagnosis of electrical problems, verify the condition of the battery is acceptable by using the open circuit voltage test:

1. Switch off all electrical loads on the vehicle.
2. Adjust digital multimeter to read dc volts on the appropriate scale.
3. Connect test probes across battery terminals ensuring that polarity is correct and record the voltage displayed.

A reading of 12.3 V or more is acceptable; any battery which reads less than this will need charging.

NOTE: If the vehicle has been used within a period of 8 hours prior to the test, surface charge must be removed from the battery by switching the headlamps on for approximately 30 seconds. Wait a further 60 seconds before checking the open circuit voltage.

Battery voltage is used as a known reference for ascertaining whether or not circuits are receiving sufficiently high voltage for components to function correctly. This reference is only a guide since most electronic circuits are designed to function over a wide range of voltages. In addition, consideration must be given to readings affected by voltage drop across certain components and fluctuations due to cable lengths.

ELECTRICAL PRECAUTIONS

General

The following guidelines are intended to ensure the safety of the operator whilst preventing damage to the electrical and electronic components fitted to the vehicle. Where necessary, specific precautions are detailed in the relevant sections of this document, reference of which should be made prior to commencing repair operations.

Equipment - Prior to commencing any test procedure on the vehicle, ensure that the relevant test equipment is working correctly and any harness or connections are in good condition. This particularly applies to mains lead or connections.

Polarity - Never reverse connect the vehicle battery and always observe the correct polarity when connecting test equipment.

High voltage circuits - Whenever disconnecting live ht circuits, always use insulated pliers and never allow the open end of the ht lead to come into contact with other components, particularly ECU's. Since high voltage spikes can occur on the terminals of the coil while the engine is running, exercise caution when measuring the voltage at these points.

WARNING: The ht voltage of the ignition system is in excess of 50 kV and the lt voltage is in excess of 400 volts. Voltages this high can cause serious injury and may even be fatal. Never touch any ignition components while the engine is running or being cranked.

WARNING: Before commencing work on an ignition system, all high tension terminals, adapters and diagnostic equipment for testing should be inspected to ensure that they are adequately insulated and shielded to prevent accidental personal contact and to minimise the risk of shock. Wearers of surgically implanted pacemaker devices should not work in close proximity to ignition circuits or diagnostic equipment.

CAUTION: Never crank or run the engine with the ht leads disconnected from the ignition coils; failure of the ECM and/or the coil will result. Always disable the ignition system by disconnecting the lt connectors from the coil.

Connectors and harnesses - The engine compartment of a vehicle is a particularly hostile environment for electrical components and connectors. Always ensure these items are dry and oil free before disconnecting and connecting test equipment. Never force connectors apart either by using tools or by pulling on the wiring harness. Always ensure locking tabs are disengaged before removal and note orientation to enable correct reconnection. Ensure that any protective covers and substances are replaced if disturbed.

Before removing a faulty component, refer to the Workshop Manual for removal procedures. Ensure the ignition switch is turned to the 'OFF' position, the battery is disconnected (see Battery disconnecting) and any disconnected harnesses are supported to avoid any undue strain at the terminals. When replacing the component keep oily hands away from electrical connection areas and push connectors home until any locking tabs fully engage.

Battery disconnecting
Before disconnecting the battery, switch off all electrical equipment. If the radio is to be serviced, ensure the security code has been deactivated. When the battery is disconnected, certain data such as radio code and clock time will be lost. On vehicles with a Battery Backed-Up Sounder (BBUS) fitted, if the battery is disconnected with the alarm armed, the BBUS will sound.

CAUTION: To prevent damage to electrical components, always disconnect the battery when working on the vehicle electrical systems. The earth lead must be disconnected first and reconnected last. Always ensure that battery leads are routed correctly and are not close to any potential chafing points.

Battery charging
Recharge the battery out of the vehicle and keep the top well ventilated. While being charged or discharged, and for approximately fifteen minutes afterwards, batteries emit hydrogen gas. This gas is inflammable.

Always ensure any battery charging area is well ventilated and that every precaution is taken to avoid flames and sparks.

Disciplines
Switch off ignition prior to making any connection or disconnection in the system as electrical surge caused by disconnecting 'live' connections can damage electrical components.

Ensure hands and work surfaces are clean and free of grease, swarf, etc. as grease collects dirt which can cause tracking or high-resistance contacts.

When handling printed circuit boards, treat them as you would a disc – hold by the edges only; note that some electronic components are susceptible to body static.

Connectors should never be subjected to forced removal or refit, especially inter-board connectors. Damaged contacts will cause short-circuit and open-circuit conditions.

Prior to commencing testing, and periodically during testing, touch a good earth, e.g. cigar lighter socket, to discharge body static as some electronic components are vulnerable to static electricity.

Grease for electrical connectors
Some under bonnet and under body connectors are protected against corrosion by the application of a special grease on production. Should connectors of this type be disturbed, repaired, or replaced, a grease of this type, available under Part No. BAU 5811, should again be applied. Do not apply grease to any connectors that do not have grease applied as standard.

NOTE: The use of other greases must be avoided as they can migrate into relays, switches, etc. contaminating the contacts and leading to intermittent operation or failure.

ABBREVIATIONS

General

A	Ampere
ac	Alternating current
ABS	Anti-lock braking system
A/C	Air conditioning
BBUS	Battery backed–up sounder
Cav	Cavity
Cct	Circuit
CDL	Central door locking
Col	Colour
dc	Direct current
DCU	Diagnostic control unit
DDM	Driver door module
EAT	Electronic automatic transmission
EBD	Electronic braking force distribution
ECM	Engine control module
ECT	Engine coolant temperature
ECU	Electronic control unit
EM-CVT	Electro mechanical continuously variable transmission
EPAS	Electric power assisted steering
ETC	Electronic traction control
F	Fuse
FL	Fusible link
HRW	Heated rear window
ht	High tension
ISO	International Organisation for Standardization
LED	Light emitting diode
LH	Left hand
LHD	Left hand drive
MEMS	Modular engine management system
MPi	Multi point injection
PWM	Pulse width modulated
R	Relay
RF	Radio frequency
RH	Right hand
RHD	Right hand drive
SAE	Society of Automotive Engineers

SRS	Supplementary restraint system
V	Volt
VIN	Vehicle identification number
VVC	Variable valve control
W	Watt

HOW TO USE THIS DOCUMENT

Fuse details

Contains information on the fuse functions and values and should be used together with the power distribution circuit diagrams to establish which systems share a common power supply and to ensure that correct value fuses are fitted.

Earth points and headers

Shows a plan view of the vehicle with location of all earth points. Supporting photographs and connector detail information appears in the Connector section.

Description and operation

Presented in the same order as the circuit diagrams in the Electrical Circuit Diagram folder, each of the descriptions contains a brief overview of the main system functions and includes reference to the appropriate wire colours. Always read this section before starting work on a system so that a good understanding of system functionality is obtained.

Connector details

This section is effectively an index of every electrical connector on the vehicle, including headers 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 information comprises:

- **Connector number -** The assigned number, prefixed 'C'.
- **Connector name -** Usually derived from the component to which the connection is made.
- **Male/Female -** If applicable, identifies the gender of the connector pins (NOT the housing) as Male or Female. Generally, connectors mating directly into a component have Female pins.
- **Colour -** If applicable, the colour 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 location of the connector.
- **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. For convenience some photographs identify more than one connector.
- **Face view -** An outline of the connector housing, viewed from the front, showing pin numbers (if applicable).
- **Pin-out table -** A three column table, detailing the colour and position of each wire in the connector:

Cav	Col	Cct
1	GR	ALL
2	B	ALL

1. **Cav:** The connector pin (cavity) number.
2. **Col:** The colour of wire populating the connector pin.
3. **Cct:** Identifies the model or feature which uses the wire.

   'ALL' means applicable to all models in the range fitted with the feature or system in question. In instances where different models, features or systems require different colour wires to be fitted in a cavity, each instance of the cavity is included in the Pin-out table.

   NOTE: Wires may not be fitted to all cavities

Example – 12 pin Connector

Cav	Col	Cct
2	G	ALL
4	GW	3
4	GB	4
5	LGB	ALL
6	GB	6
6	GW	7
6	GB	9
8	B	ALL

A table listing the circuit reference numbers against a description of the model or features which may or may not be fitted can be found at the beginning of the Connector section. A sample of a typical table is shown below:

Cct	Model or feature
1	ABS
2	Japan only
3	With air conditioning
4	Without air conditioning
5	Without ABS
6	VVC
7	EM-CVT
8	Manual gearbox
9	MPi

FAULT DIAGNOSIS

General

When diagnosing an electrical fault, follow the steps below:

1. Read the circuit description appropriate to the reported fault to ensure a good understanding of circuit operation.
2. Study the power distribution, fuse details and earth distribution diagrams and identify other circuits which share fuses and/or earth points. Check whether these circuits operate correctly.
3. Using the photographs contained in the Connector section, locate a point on the circuit (approximately half way between supply and earth) which is easily accessible.
4. Check that the pin out details of the connector are correct and that the correct signals exist at the correct terminals.
5. Using the marker pen supplied (or other suitable non-permanent marker pen), mark the parts of the circuit you have verified.
6. Continue to the next point on the circuit which is easiest to access and repeat the above.
7. Continue with this approach until a fault is found, rectify the fault and then verify that the circuit operates correctly.

CAUTION: Never probe directly into the front face of a connector. This can damage the terminal and cause a failure. Always probe the back of a terminal, taking care not to damage the terminal or any seals.

Never probe the wire insulation. On small diameter cables this can cut the conductors. It may also allow moisture into the cable, causing corrosion.

WIRE COLOUR CODES

General

The following list contains the wire colour codes used on the vehicle harnesses.

Code	Colour
B	Black
G	Green
K	Pink
LG	Light Green
N	Brown
O	Orange
P	Purple
R	Red
S	Slate (Grey)
U	Blue
W	White
Y	Yellow

Introduction

The majority of the fuses are mounted in three fuse boxes: An under bonnet fuse box attached to the LH inner front wing, a passenger compartment fuse box installed behind a fuse box closing panel on the driver's side of the fascia; a satellite fuse box attached to the side of the passenger compartment fuse box. In addition to the fuse boxes, in-line fuses are installed:

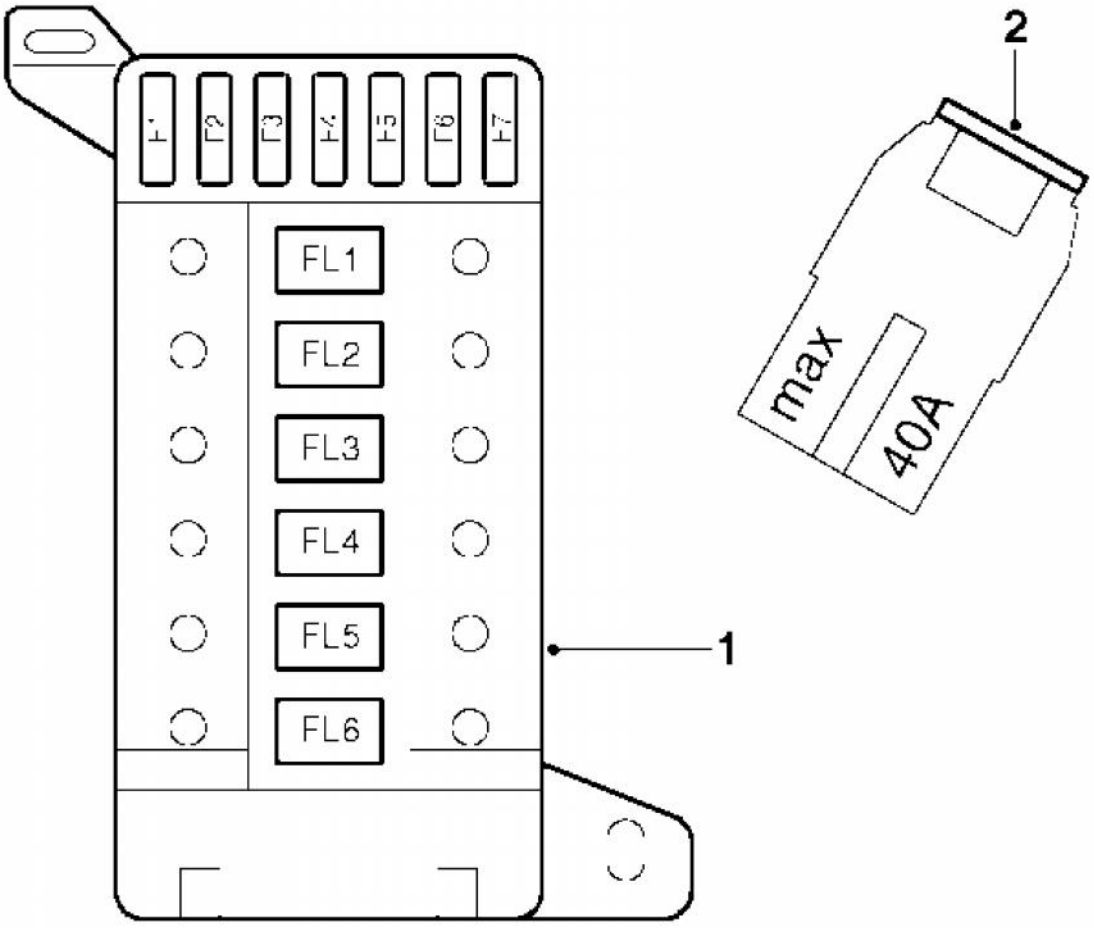
- Near the under bonnet fuse box, for the Electric Power Assisted Steering (EPAS) system.
- Behind the LH side trim of the luggage compartment, for the Electro Mechanical Constantly Variable Transmission (EM-CVT), where fitted.
- On the side of the passenger compartment fuse box, for the SRS system.

WARNING: Do not carry out any work on the SRS system before reading the SRS WARNINGS, CAUTIONS, and NOTES contained in the Introduction section of the Workshop Manual.

The under bonnet fuse box contains 6 fusible links, each of which is fixed in position with two cross-headed screws, and 7 pull-out fuses. Fusible Link 6 (FL6) is the battery feed and supplies FL3, FL4, FL5 and fuses 5, 6 and 7.

The fuses in the passenger compartment and satellite fuse boxes are all of the pull-out type.

UNDER BONNET FUSE BOX



M86 5062A

1. Under bonnet fuse box
2. EPAS in-line fuse

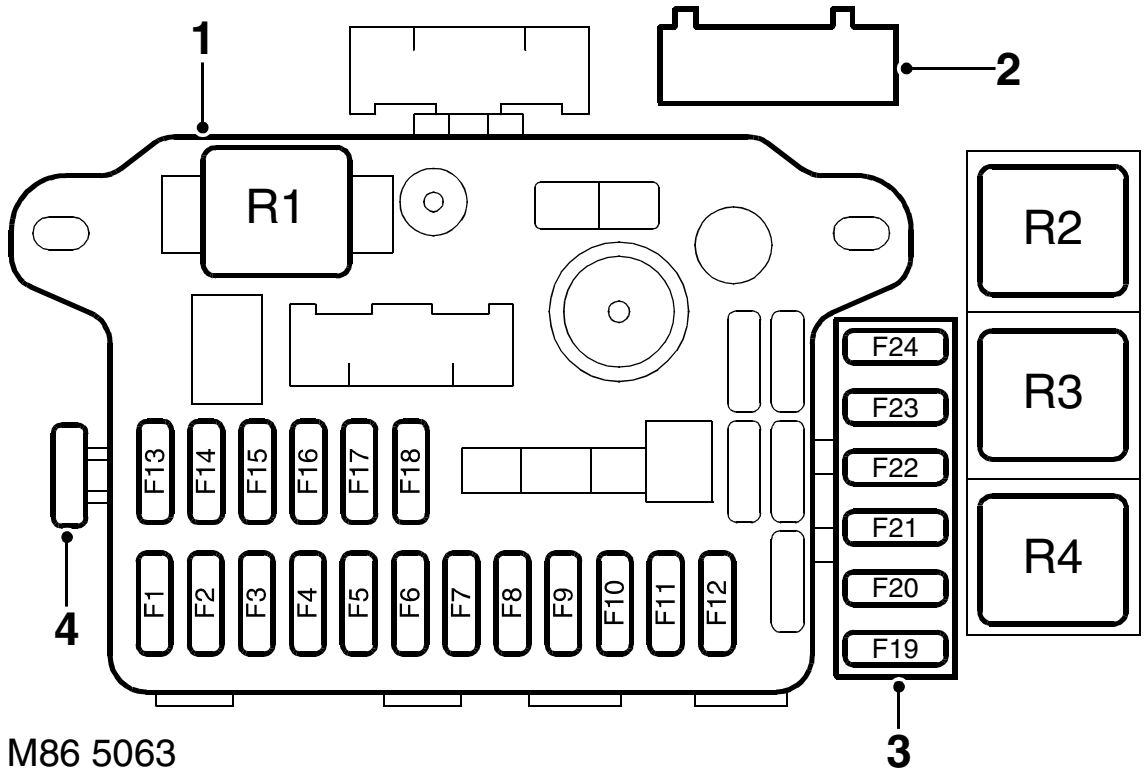
Fusible links

Link	Rating, Amperes	Function
FL1	40	Lighting switch, fuse 2 & fuse 12 passenger fusebox
FL2	60	ABS modulator
FL3	30	Window lift relay, fuse 6 passenger fusebox, fuse 23 satellite fusebox
FL4	40	Ignition switch
FL5	40	Ignition switch
FL6	60	Fuse links 3, 4 & 5; fuse 5, 6 & 7 under bonnet fusebox

Fuses

Fuse	Rating, Amperes	Function
F1	30	Engine management relay module
F2	30	Engine management relay module, inertia switch
F3	15	Alarm ECU
F4	10	Hazard warning lamps, instrument pack
F5	20	A/C relay pack
F6	15	Cooling fan relay (non A/C only), A/C relay pack (A/C only)
F7	15	ECM, Multi-function ECU
In-line	40	Electric power assisted steering ECU

PASSENGER COMPARTMENT AND SATELLITE FUSE BOXES



RHD shown, LHD similar

1. Passenger compartment fuse box
2. Diagnostic socket (reference)
3. Satellite fuse box
4. SRS in-line fuse

Fuses

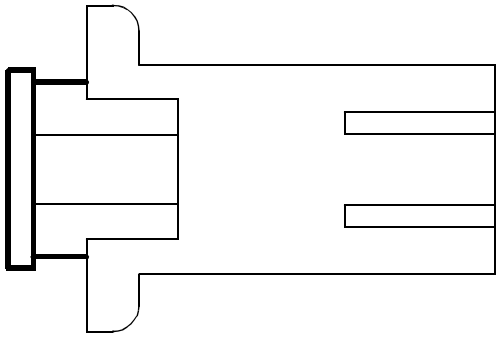
Fuse	Rating, Amperes	Function
F1	10	Instrument pack, EPAS ECU, multi-function ECU, hazard warning switch, automatic gearbox indicator lamp, cigar lighter relay
F2	10	Cigar lighter relay
F3	-	Not used
F4	15	RH front window switch (LHD vehicles); Window lift ECU (RHD vehicles)
F5	15	Window lift ECU (LHD vehicles); LH front window switch (RHD vehicles)
F6	10	Engine bay cooling fan relay, front window lift relay
F7	10	RH side and tail lamps

Fuse	Rating, Amperes	Function
F8	10	LH head lamp, header 0285 (see header details for circuits effected), instrument pack, instrument illumination dimmer
F9	10	Multi-function ECU
F10	10	LH headlamp dipped beam
F11	10	RH headlamp dipped beam, multi-function ECU
F12	15	Clock, radio and cassette player, front interior lamp, ignition switch illumination, LH front footwell lamp, RH front footwell lamp, load space lamp, under bonnet lamp, diagnostic socket
F13	15	Windscreen wiper motor, windscreen wash/wipe switch
F14	15	Alarm ECU, engine management relay module, ECM
F15	20	Cooling fan relay (non A/C only) A/C relay pack (A/C only), A/C switch pack (A/C only)
F16	15	Brake pedal switch
F17	10	Radio/Cassette player, oil temperature gauge
F18	10	Mirror switch, LH mirror, RH mirror
F19	10	Engine Management relay module
F20	15	ABS modulator
F21	10	RH headlamp main beam, instrument pack
F22	10	LH headlamp main beam
F23	25	Heated rear window relay
F24	20	Blower motor
In-line	10	SRS DCU

Relays

Relay	Function
R1	Cigar lighter
R2	Window lift
R3	Engine bay fan
R4	Heated rear window

EM-CVT FUSE

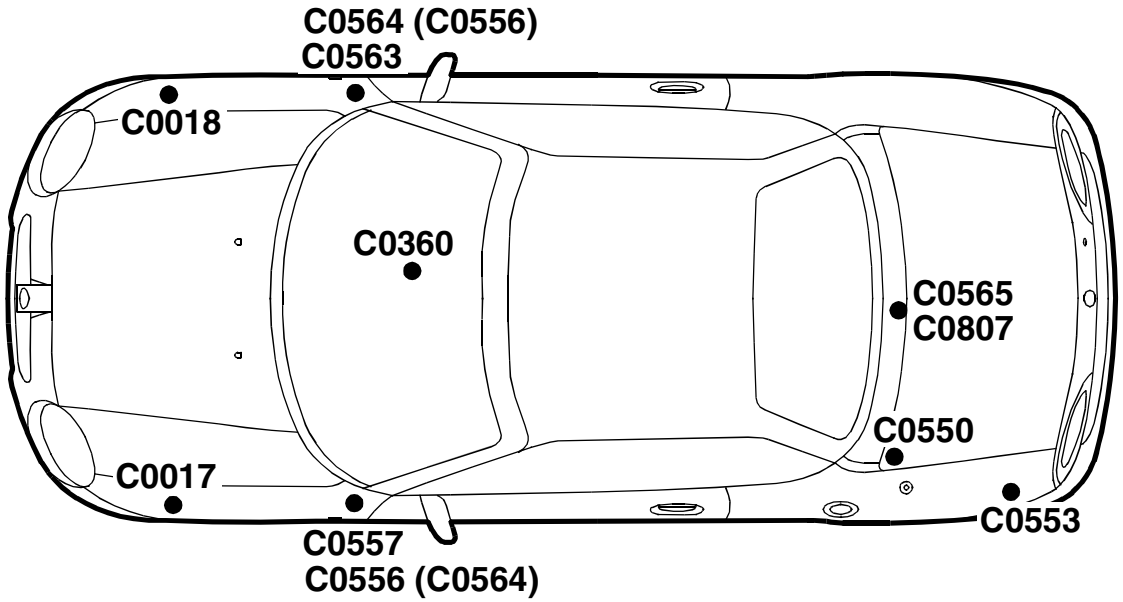


M86 5069

Fuse	Rating, Amperes	Function
In-line	10	EM-CVT ECU

GENERAL

The following Figure indicates the general position of each earth point and earth header on the vehicle. Refer to the Connector section for more information.



M86 5064

NOTE:*The location of all except two earth points/headers are common to LHD and RHD vehicles. The two exceptions give RHD identifier 1st followed by LHD identifier in parenthesis.*

Refer to the Circuit Diagrams for details of electrical components and their associated earth points and/or earth headers.

ANTI-THEFT ALARM AND CENTRAL DOOR LOCKING (CDL)

DESCRIPTION

General

The anti-theft alarm system monitors the vehicle and operates the alarm if unauthorised entry is detected. The central door locking system provides local and remote means of centrally locking and unlocking the doors. The anti-theft alarm system and the central door locking system are both controlled by the alarm Electronic Control Unit (ECU) located on the underside of the heater controls in the fascia. Active and/or passive engine immobilisation, depending on market, is incorporated into the alarm ECU to prevent unauthorised starting of the engine.

Anti-theft alarm system

The anti-theft alarm system operates in conjunction with the central door locking system and is automatically armed and disarmed when the vehicle is locked and unlocked using either the remote handset or the driver's door lock.

The main features of the system are:

- Perimetric protection that monitors the status of contact switches to detect unauthorised opening of the bonnet, doors and boot lid. This feature arms with all methods of door locking.
- Volumetric protection, where fitted, that uses a sensor, mounted under the rear bulkhead finisher, to monitor for movement in the passenger compartment (with the hood up or down). This feature arms only when the vehicle is locked with the remote handset.
- Engine immobilisation that prevents operation of the starter motor and fuel pump unless the system is disarmed by the remote handset.
- A red alarm Light Emitting Diode (LED) in the instrument pack.
- Indicator lamp flashing to provide visual confirmation of system arming and disarming.

Central Door Locking (CDL) system

The CDL system uses electric motors to lock and unlock the driver and passenger door locks. The electric motors are connected in parallel to provide simultaneous operation of the two door locks. Locking and unlocking is initiated using the remote handset, the driver's door lock or the driver's door sill button. Two levels of locking are incorporated; locking and superlocking. Each door contains two electric motors, one for locking and one for superlocking.

Locking allows the doors to be unlocked using the door sill button and is intended for use when someone remains in a parked vehicle. The driver's door lock and the driver's door sill button can be used when locking the doors. A single press of the lock button on the remote handset can also be used to lock the doors, but, where fitted, this will also arm the volumetric alarm.

Superlocking isolates the door sill buttons from the door locks. A double press of the lock button on the remote handset is used when superlocking the doors.

Handset

The remote handset is a Radio Frequency (RF) transmitter with surface mounted lock and unlock buttons. The remote handset transmits a coded radio signal when either the lock or unlock button is pressed. The button with a padlock symbol is used to lock the doors and arm the anti-theft alarm system. The plain button is used to unlock the doors and disarm the anti-theft alarm system.

Each time a remote handset button is pressed, the radio signal code is changed in a sequence mirrored by a receiver in the alarm ECU. If the sequence is broken (e.g. by remote handset battery renewal, or repeated pressing of the remote handset buttons while away from the vehicle), the remote handset will not operate the alarm system until the system has been re-synchronised.

The remote handset can be re-synchronised to the alarm ECU by ensuring that the driver's door is unlocked with the key and pressing the remote handset lock button at least four times in quick succession. The system will respond by locking the doors, indicating that the remote handset and alarm ECU are now synchronised.

On vehicles with passive immobilisation, the remote handset contains a transponder which works in conjunction with a coil around the ignition switch barrel to automatically mobilise the engine when the key is turned in the ignition switch.

OPERATION

Power supplies

Fuse 2 (C0571) in the under bonnet fuse box supplies a permanent feed to the inertia switch (C0123) on a N wire. The inertia switch (C0123) supplies the feed to the alarm ECU (C0057) and the engine management relay module (C0157) on NS wires.

Fuse 3 (C0571) in the under bonnet fuse box supplies a permanent feed to the alarm ECU (C0061) on a P wire.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the power is fed to fuse 14 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 14 (C0585) supplies the feed to the alarm ECU (C0061), the ECM (C0159) and the engine management relay module (C0154) on W wires.

System earths are provided by a B wire connected between the alarm ECU (C0061) and an earth point on the body (C0564) via the passenger compartment fuse box (C0584 and C0583).

Anti-theft alarm system
To determine when to arm, disarm and activate the anti-theft alarm system, the alarm ECU monitors the ignition feed and inputs from the:

- Remote handset.
- Driver's door lock barrel switch.
- Door, bonnet and load space lamp switches.

Lock and unlock requests from the remote handset are input to the alarm ECU on the Y aerial wire integrated into the vehicle harness between the hazard warning switch (C0096) and the alarm ECU (C0061).

A switch in the driver's door lock barrel connect earths to the alarm ECU to provide lock and unlock position signals, as appropriate. The door lock barrel switch (C1450) is earthed on a B wire connected to an earth point (C0564 on LHD) or earth header (C0018 on RHD). When the door lock is in the locked position, the B wire is connected to a BO wire between the door lock barrel switch (C1450) and the alarm ECU (C0061). When the door lock is in the unlocked position, the B wire is connected to a BK wire between the door lock barrel switch (C1449) and the alarm ECU (C0061).

Each door and the boot incorporate a switch in the latch that closes as the door/boot lid is opened. Opening and closing the bonnet operates a plunger switch that closes when the bonnet is opened. When either the door, bonnet or boot lid opens, an earth is connected to the alarm ECU (C0061):

- On a PW (LHD) or PS (RHD) wire from the driver's door switch (C1449); a B wire connects the driver's door switch (C1450) to an earth point (C0564 on LHD) or earth header (C0018 on RHD).
- On a PS (LHD) or PW (RHD) wire from the passenger door switch (C1451); a B wire connects the passenger's door switch (C1451) to an earth header (C0018 on LHD, C0017 on RHD).
- On a PR wire from the load space lamp switch (C0107); a B wire connects the load space lamp switch (C0110) to an earth header (C0550).
- On a BP wire from the bonnet switch (C0007), which is earthed through the switch fixing.

When the doors are open, the door switches also output an earth to the multi function ECU to operate the interior lamps.

Perimetric protection

When the vehicle is locked or superlocked, provided the ignition is off the alarm ECU arms the perimetric protection system. To indicate that perimetric protection has armed, the alarm ECU (C0061) intermittently earths the UK wire from the alarm LED (C0234) in the instrument pack. The alarm LED flashes rapidly for approximately 10 seconds and then flashes at a slower rate while the system remains armed. The alarm ECU (C0057) also connects momentary feeds to the header (C0287) in the direction indicator circuit, on the GR wire (LH indicators) and the GW wire (RH indicators), to flash all of the direction indicator lamps. The alarm ECU flashes the indicator lamps once if the vehicle is locked and four times if the vehicle is superlocked.

If a door, bonnet or boot lid is open when the vehicle is locked, the alarm ECU withholds the indicator lamp flash and continuously illuminates the alarm LED to indicate that the system is not fully armed. However, perimetric protection will be armed for those doors/ bonnet/ boot lid that are closed and engine immobilisation will be set, but volumetric protection will not be armed. If the open door/ bonnet/ boot lid is subsequently closed, the alarm ECU flashes the direction indicator lamps and proceeds to flash the alarm LED to indicate that the system is now fully armed.

A boot lock switch is installed in order to allow access to the luggage compartment while the alarm is armed. When the key is turned in the boot lock, contacts in the boot lock switch (C0831) close and input an earth to the alarm ECU (C0061) on a BR wire. The boot lock switch (C0831) is earthed by a B wire connected to an earth header (C0550). When the alarm ECU senses the earth it allows the boot lid to open without activating the alarm.

If a door, bonnet or boot lid is opened when perimetric protection is armed, the alarm ECU activates the alarm, which consists of flashing the indicator lamps and sounding the vehicle horns. To sound the vehicle horns the alarm ECU (C0061) earths the PB wire connected to the multi function ECU (C0062). Once triggered, the alarm operates for a period of 25 to 30 seconds and can be triggered up to three times. The alarm can be de-activated by pressing one of the buttons on the remote handset, or operating the driver's door lock (locking or unlocking).

Volumetric protection (where fitted)

When the vehicle is locked or superlocked using the remote handset, the alarm ECU arms volumetric protection, provided:

- The ignition is off.
- The doors, bonnet and boot lid are all closed.

Volumetric protection is armed by the alarm ECU supplying two feeds to activate the volumetric sensor: One on the SW wire between the alarm ECU (C0057) and the volumetric sensor (C0358); one on the WB wire between the alarm ECU (C0061) and the volumetric sensor (C0358). The volumetric sensor (C0358) is earthed on a B wire via the passenger compartment fuse box (C0584 and C0583) to an earth point on the body (C0564). To minimise false alarms, volumetric protection is not armed until 15 seconds after the alarm has received a lock request. The alarm ECU flashes the indicator lamps once if the vehicle is locked and four times if the vehicle is superlocked.

With volumetric protection armed, if any movement in the passenger compartment is detected the volumetric sensor (C0358) sends a signal to the alarm ECU (C0061) on the NB wire. The alarm ECU then activates the alarm as detailed above.

Engine immobilisation

Active immobilisation

The engine is immobilised when the perimetric protection function is armed, inhibiting the engine starter and fuel pump circuits. The engine is re-mobilised when the unlock button on the remote handset is pressed.

Passive immobilisation (where fitted)

If the car is not locked, the engine is immobilised 30 seconds after the ignition is switched off and the driver's door opens. When the engine is immobilised, the LED on the instrument pack flashes.

The engine is re-mobilised when the ignition switch is turned to position II, provided the remote handset is attached to the ignition key. When the ignition switch is turned to position II, the alarm ECU (C0057) activates the passive coil (C0672) on the SR and PK wires. This causes the transponder in the remote handset to transmit a signal containing the ignition key and rolling code data, which is received by the alarm ECU from the passive coil. Provided the data is correct, the alarm ECU then re-mobilises the engine. If the data from the transponder is incorrect or missing, the alarm ECU (C0061) signals the multi function ECU (C0062) on a WG wire to sound a warning buzzer. The alarm ECU also continuously illuminates the alarm LED.

Re-mobilisation

Non EM-CVT:When a valid unlock signal is received from the remote handset, the alarm ECU (C0061) connects the BW wire from the engine management relay module (C0154) to earth, to enable the engine starter. The alarm ECU (C0061) also signals the ECM (C0159) on the YR wire to enable operation of the fuel pump.

EM-CVT: When a valid unlock signal is received from the remote handset, the coil of the starter relay in the engine management relay module (C0154) is earthed on a BR wire to the park/neutral switch (C0268) and a BU wire from the park/neutral switch (C0268) to the alarm ECU (C0061) to enable the engine starter motor operation when the transmission selector lever is in Park or Neutral. With the selector lever in any position other than Park or Neutral, the park/neutral switch interrupts the starter relay coil earth path to the alarm ECU to prevent starter operation even though the re-mobilisation signal has been successfully received.

If the remote handset fails to operate or is lost while the engine is immobilised, re-mobilisation can be achieved by using the door key to enter the four digit Emergency Key Access (EKA) code (shown on the security card in the vehicle's literature pack). With the driver's door locked, enter the EKA code as follows:

1. Insert the key into the door lock.
2. Turn the key to the lock position and release the key.
3. Turn the key to the unlock position the number of times indicated by the first digit of the code.
4. Turn the key to the lock position the number of times indicated by the second digit of the code.
5. Repeat steps 3 and 4 for the third and fourth digits.
6. Turn the key to the unlock position to unlock the doors and mobilise the engine.

If the EKA code has been entered successfully, the LED on the instrument pack will stop flashing and the engine can be started. If the operation is unsuccessful, the horns will sound a warning beep when the key is turned to the final unlock position.

If an error is made during the process of entering the EKA code, the act of opening and closing the door will cancel the operation and the EKA code sequence can be re-entered. The system permits three attempts at entering the EKA code, after which a 10 minute lock-out period is initiated.

If the engine is mobilised using the EKA code, the engine immobilisation function is de-activated until the next time the remote handset is used to lock the doors.

Alarm system test

The alarm system can be tested by following the procedure described below:

1. Ensure doors, bonnet and boot lid are closed.
2. Sit in the driver's seat and close the door.

   NOTE: The next three actions must be carried out within 2 seconds.
3. Depress the driver's door sill button.
4. Switch the ignition on, off and on again.
5. Raise the driver's door sill button.

If the test mode has been entered correctly, the horns will give a short beep and the engine immobilisation buzzer will sound.

Opening either door, the bonnet or the boot lid, or operating the driver's door sill button, will cause the alarm LED to illuminate for approximately one second. If the LED does not illuminate, there is a system fault.

The volumetric sensor can also be tested while in test mode. To test the volumetric sensor, press the unlock button on the remote handset several times. The alarm LED will illuminate for approximately 1 second each time movement is detected in the vehicle.

The test mode is cancelled by switching the ignition OFF.

Handset battery replacement

Depending on usage, the battery in the remote handset should last for approximately three years. When the battery is near the end of its life, unlocking the doors will result in a rapid flashing of the instrument pack LED until a door is opened. A reduction in operating range may also be noticed.

To change the battery, first carefully prise open the remote handset casing at the key ring end, taking care not to damage the seal. Slide the battery out, without bending the clip or touching any of the contact surfaces. Press and hold each remote handset button for five seconds, to allow residual power to discharge.

Without touching the contact surfaces, carefully slide a new battery into the clip, ensuring that the side marked '+' faces the clip. Close the two halves of the remote handset case.

Ensure that the vehicle is unlocked using the key. Operate the lock button at least four times, until the vehicle is locked and the remote handset is synchronised to the car. The vehicle can then be unlocked with the remote handset and will operate normally.

Central Door Locking (CDL)

Locking

When the alarm ECU receives a lock signal, from the remote handset or the driver's door lock barrel switch, a feed is connected to the O wire between the alarm ECU (C0061) and the door locking motors (C1449 and C1451). The alarm ECU (C0061) also earths the K wire from the locking/ superlocking motors (C1449 and C1451), the locking motors then lock the doors.

Superlocking

When the alarm ECU receives two lock signals from the remote handset in quick succession, a feed is connected to the NK wire between the alarm ECU (C0057) and the door superlocking motors (C1449 and C1451). The alarm ECU (C0061) also earths the K wire from the locking/ superlocking motors (C1449 and C1451), the superlocking motors then lock the doors and disengage the door sill buttons.

NOTE: Pressing down the passenger door sill button will lock the passenger door but will not operate the central door locking system.

Unlocking

The car is unlocked by pressing the unlock button on the remote handset, turning the key in the driver's door in the unlock direction or, provided the vehicle is not superlocked, by raising the driver's door sill button. When an unlock signal is received, from the remote handset or the driver's door lock barrel switch, the alarm ECU reverses the polarity of the locking/ superlocking motor connections and the locking/ superlocking motors unlock the doors. The alarm ECU also operates the direction indicator lamps to give one long flash.

In the event of a severe crash, both doors will be unlocked by the operation of the inertia switch. When the inertia switch opens, the supply to the alarm ECU is disconnected and the alarm ECU operates the locking or superlocking circuit as appropriate.

WINDOW LIFT

DESCRIPTION

General

Electrically operated windows are installed in the driver and passenger doors. The driver's window features 'one shot' opening. Operation of the windows is controlled by switches on the centre console and a window lift ECU at the base of the driver's side A post. The windows operate when the ignition switch is in position II provided the driver's door is closed.

OPERATION

Power supplies

Fusible link 3 (C0570) in the under bonnet fuse box supplies a permanent feed to the switch contacts of window lift relay (C0042) and to fuse 6 (C0582) in the passenger compartment fuse box on N wires. Fuse 6 (C0584) supplies the feed to the coil of the window lift relay (C0042), also on a N wire. Fuse 7 (C0572) in the under bonnet fuse box supplies a permanent feed to the multi function ECU (C0016) on a PN wire.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 1 (C0099) in the passenger compartment fuse box by a BY wire. Fuse 1 (C0585) supplies the feed to the multi function ECU (C0016) on a G wire. When the driver's door is closed, the multi function ECU (C0062) is connected to earth on a PW (LHD) or PS (RHD) wire to the driver's door switch (C1449), and a B wire from the driver's door switch (C1450) to an earth point (C0564 on LHD) or an earth header (C0018 on RHD). The multi function ECU then connects the BN wire, between the coil of the window lift relay (C0042) and the multi function ECU (C0062), to earth on the B wire between the multi function ECU (C0016) and an earth header (C0017).

When the window lift relay energises, the feed from fusible link 3 in the under bonnet fuse box is connected to the NU wire between the window lift relay (C0042) and fuses 4 and 5 in the passenger compartment fuse box (C0583). Fuse 4 (C0585) supplies a feed on a SG wire to the passenger window switch (C0081 on LHD) or the window lift ECU (C0341 on RHD); fuse 5 (C0585) supplies a feed on a NY wire to the window lift ECU (C0341 on LHD) or the passenger window switch (C0321 on RHD).

Passenger's window

Operating the passenger window switch to lower the window connects the feed from fuse 4 (LHD) or fuse 5 (RHD), in the passenger compartment fuse box, to the SY (LHD) or SB (RHD) wire between the passenger window switch (C0081 on LHD; C0321 on RHD) and the passenger window motor (C0741), which is earthed on a SR (LHD) or SK (RHD) wire from the passenger window motor (C0741) to the passenger window switch (C0081 on LHD; C0321 on RHD), and a B wire between the passenger window switch (C0081 on LHD; C0321 on RHD) and an earth point (C0564). While energised, the passenger window motor runs to lower the window.

Operating the passenger window switch to the raise the window reverses the polarity of the passenger window motor connections. While energised, the passenger window motor runs to raise the window.

Driver's window

Operating the driver window switch to lower the window connects the SK (LHD) or SR (RHD) wire, between the window lift ECU (C0341) and the driver window switch (C0321 on LHD; C0081 on RHD), to earth on the B wire between the driver window switch (C0321 on LHD; C0081 on RHD) and an earth point (C0564). When an earth is detected on the SK (LHD) or SR (RHD) wire, the window lift ECU (C0341) powers the driver window motor, via the SW and SU wires, to lower the window. The window lift ECU (C0341) earths the driver window motor on the B wire between the window lift ECU (C0341) and an earth point (C0564).

Operating the driver window switch to raise the window connects the SB (LHD) or SY (RHD) wire, between the window lift ECU (C0341) and the driver window switch (C0321 on LHD; C0081 on RHD), to earth on the B wire between the driver window switch (C0321 on LHD; C0081 on RHD) and an earth point (C0564). When an earth is detected on the SB (LHD) or SY (RHD) wire, the window lift ECU powers the driver window motor, via the SW and SU wires, to raise the window.

The window lift ECU(C0341) is earthed on a B wire to earth point (C0564).

DOOR MIRRORS

DESCRIPTION

General

The door mirrors feature electrical heating and adjustment. Each door mirror incorporates a heating element and two adjustment motors. The heating elements are permanently on when the ignition switch is in position II. Operation of the adjustment motors is controlled by a mirror switch on the inboard side of the instrument pack finisher. Door mirror adjustment is only enabled while the ignition switch is in position II.

OPERATION

Power supplies

Fusible link 4 (C0570) in the under bonnet fuse box supplies a power feed to the ignition switch (C0028) on the NP wire. When the ignition switch (C0028) is in position II, the feed is connected to fuse 18 (C0099) in the passenger compartment fuse box on a Y wire. Fuse 18 (C0585) supplies the feed to the mirror switch (C0066) and the heating element in the LH door mirror (C0352 on LHD; C0353 on RHD) and the RH door mirror (C0353 on LHD; C0352 on RHD) on LG wires.

Mirror heaters

The heating element in the LH door mirror (C0352 on LHD; C0353 on RHD) is earthed by a B wire connected to an earth point (C0564 on LHD) or an earth header (C0017 on RHD). The heating element in the RH door mirror (C0353 on LHD; C0352 on RHD) is earthed by a B wire connected to an earth header (C0018). With the ignition switch in position II the heater elements are energised and heat the mirror glass.

Mirror adjustment

When the mirror switch is turned to the left, ganged LH/RH contacts in the mirror switch (C0066) connect to BU and BY wires from the adjustment motors in the LH door mirror (C0352 on LHD; C0353 on RHD). When the mirror switch is subsequently tilted to the left, ganged left/ right contacts in the mirror switch connect the feed from fuse 18 to the BU wire to the driver side mirror horizontal adjustment motor (C0352 on LHD; C0353 on RHD) and simultaneously connects the earth return SW wire, from the horizontal adjustment motor (C0352 on LHD; C0353 on RHD), to the door mirror switch (C0066). The earth path continues on a B wire between the mirror switch (C0066) and the earth point (C0564). The horizontal adjustment motor then runs to turn the mirror glass to the left. When the mirror switch is tilted to the right, the left/ right ganged contacts reverse the polarity of the horizontal adjustment motor connections, and the mirror glass turns to the right. The LH door mirror vertical adjustment operates the same way as horizontal adjustment, using ganged up/ down contacts in the mirror switch and the BY and SW wires between the mirror switch (C0066) and the vertical adjustment motor in the LH door mirror (C0352 on LHD; C0353 on RHD).

When the mirror switch is turned to the right, the ganged LH/RH contacts in the mirror switch (C0066) connect to BP and BN wires from the adjustment motors in the RH door mirror (C0353 on LHD; C0352 on RHD). When the mirror switch is subsequently tilted to the left, the ganged left/ right contacts in the mirror switch connect the power feed from fuse 18 to the BP wire to the passenger side mirror horizontal adjustment motor (C0353 on LHD; C0352 on RHD) and simultaneously connects the earth return SW wire, from the horizontal adjustment motor (C0353 on LHD; C0352 on RHD), to the door mirror switch (C0066). The earth path continues on a B wire between the mirror switch (C0066) and the earth point (C0564). The horizontal adjustment motor then runs to turn the mirror glass to the left. When the mirror switch is tilted to the right, the left/ right ganged contacts reverse the polarity of the horizontal adjustment motor connections, and the mirror glass turns to the right. RH door mirror vertical adjustment operates the same way as horizontal adjustment, using the ganged up/ down contacts in the mirror switch and the BN and SW wires between the mirror switch (C0066) and the vertical adjustment motor in the RH door mirror (C0353 on LHD; C0352 on RHD).

DIAGNOSTIC SOCKET

DESCRIPTION

General

The diagnostic socket is located immediately above the passenger compartment fuse box. The socket is constructed to SAE directive J1962 standard and allows attachment of TestBook, or any other SAE standard diagnostic tool, to the vehicle for fault diagnosis checks.

OPERATION

Power supplies

Fusible link 1 (C0570) of the under bonnet fuse box supplies a permanent feed to fuse 12 (C0582) of the passenger compartment fuse box on a N wire. Fuse 12 supplies the power feed from the passenger compartment fusebox (C0585) to the diagnostic socket (C0040) on a P wire. The diagnostic socket (C0040) is earthed on a B wire connected to an earth point (C0564) via the passenger compartment fuse box (C0584 and C0583).

General

The diagnostic socket (C0040) is connected with the following on K wires, which make up the ISO 9141 K line bus:

- The ABS modulator (C0501).
- The EPAS ECU (C0316).
- The ECM (C0159).

The diagnostic socket (C0040) also communicates with:

- The airbag DCU (C0256) on a YK wire.
- The alarm ECU (C0061) on OU and RU wires.

STARTING AND CHARGING

DESCRIPTION

General

The starting system on the vehicle comprises a 12 V starter motor which drives the engine to start the combustion process.

The charging system consists of an alternator that contains a rectifier pack and regulator to maintain a constant direct current (dc) voltage in the system. The alternator is belt driven from the crankshaft and cooled by a fan mounted behind the pulley. The alternator 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. The instrument pack incorporates a charge warning lamp which illuminates when there is no output or a low output from the alternator.

OPERATION

Power supplies

The starter motor (C0849) receives a permanent feed direct from the battery (C0631) on a N wire. The starter motor (C0178) supplies the feed to the alternator (C0183) on a N wire via an in-line 80A alternator fuse (C0602).

Fuse 1 (C0571) of the under bonnet fuse box supplies a permanent feed to the switch contacts of the starter relay (C0157), in the engine management relay module, on a N wire.

Fuse 2 (C0571) of the under bonnet fuse box supplies a permanent feed to the inertia switch (C0123) on a N wire. The inertia switch (C0123) supplies the feed to the alarm ECU (C0057) and the switch contacts of the fuel pump relay (C0157), in the engine management relay module, on NS wires.

Fusible link 4 (C0570) of the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II or III, a power feed is connected from the ignition switch to fuses 1 and 14 (C0099) of the passenger compartment fuse box on a BY wire. Fuse 1 (C0590) supplies the feed to the ignition/no charge warning lamp (C0230) in the instrument pack on a G wire; the opposite side of the ignition/no charge warning lamp (C0230) is connected to the alternator (C0185), via the passenger compartment fuse box (C0590 and C0585) by NY wires. Fuse 14 (C0585) supplies the feed to the coil of the fuel pump relay (C0154) on a W wire.

When the ignition switch (C0028) is in position III, a power feed is also connected to fuse 19 (C0595) in the satellite fuse box on a WR wire. Fuse 19 (C0595) supplies the feed to the coil of the starter relay (C0154) on a WR wire.

Starting
Provided that the engine immobiliser has been disarmed, the fuel pump relay is energised by the ECM for a few seconds after the ignition is switched to position II and continuously during cranking and once the engine has started. The ECM energises the fuel pump relay by connecting an earth to the BP wire between the fuel pump relay (C0154) and the ECM (C0159).

When the engine immobiliser is disarmed, the coil of the starter relay (C0154) is earthed through the alarm ECU (C0061) on a BW wire (manual gearbox models), or on a BR wire to the park/neutral switch (C0268) and a BW wire from the park/neutral switch (C0268) to the alarm ECU (EM-CVT models). When the ignition is switched from position II to position III, the power feed from the ignition switch through fuse 19 of the satellite fuse box energises the starter relay. With the starter relay energised, the supply from fuse 1 of the under bonnet fuse box is fed from the starter relay (C0157) to the solenoid in the starter motor (C0179) on a NR wire. The solenoid earths through the starter motor fixings and energises to connect the direct feed from the battery to the starter motor. The starter motor is also earthed through the starter motor fixings.

Charging
Current flow through the ignition/no charge warning lamp and the field windings partially magnetises the rotor. When the engine is started, the magnetised rotor turns within the stator windings, generating a 3 phase alternating current (ac) and voltage that rises rapidly with rotor speed. The field diodes convert the ac into dc and generated voltage is fed back to the field windings. The fed back voltage causes an increase to the magnetic influence of the rotor, resulting in self-excitation of the rotor. The field current increases with rotor speed and thus increases generated current and voltage until the alternator is fully excited.

When the voltage applied to the alternator side of the ignition/no charge warning lamp exceeds battery voltage, the ignition/no charge warning lamp is extinguished, indicating that the alternator is developing battery charging current. A diode prevents reverse flow through the ignition/no charge warning lamp. The regulator functions as an electronic control switch on the earth side of the field coils, rapidly switching the earth circuit off and on to maintain the maximum voltage and thus the current, to safe limits.

If the battery is in a low state of charge, or current draw from electrical units causes a voltage drop, the alternator automatically charges at its maximum rate until 14 volts is reached. When the demand on the alternator falls, the current output is reduced.

FUEL PUMP

DESCRIPTION

General

The fuel pump is an electric submersible pump located in the fuel tank and controlled by the ECM.

OPERATION

Power supplies

Fuse 2 of the under bonnet fuse box (C0571) supplies a permanent battery feed to the inertia switch (C0123) on a N wire. A NS wire connects the inertia switch (C0123) to the switch contacts of the fuel pump relay (C0157) in the engine management relay module.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II or III, power is supplied from the ignition switch on a BY wire to fuse 14 (C0099) in the passenger compartment fuse box. Fuse 14 (C0585) supplies the feed to the coil of the fuel pump relay (C0154) on a W wire.

General

The fuel pump relay is energised by the ECM for a few seconds after the ignition is switched to position II and then continuously during cranking and once the engine has started. The ECM energises the fuel pump relay by connecting an earth to the BP wire between the fuel pump relay (C0154) and the ECM (C0159).

When the fuel pump relay is energised, the fuel pump (C0114) is supplied with battery power from the switch contacts of the fuel pump relay (C0157) on a WP wire. The fuel pump (C0114) is earthed on a B wire connected to an earth header (C0550).

In the event of an impact, the inertia switch opens and disconnects the electrical supply to the fuel pump relay to prevent operation of the fuel pump.

ENGINE MANAGEMENT - MEMS 3

DESCRIPTION

General

For details of the Engine Management systems, ***see Workshop Manual.***

ELECTRIC POWER ASSISTED STEERING (EPAS)

DESCRIPTION

General

Steering power assistance is provided by an electric motor mounted on the steering column which drives the column through a worm gear arrangement. The level of steering assistance is governed by the power output of the motor. The EPAS ECU controls the current to the motor and hence the level of steering assistance. The EPAS ECU measures the steering column torque input from the driver and the road speed of the vehicle, supplying the motor with current to achieve the required level of assistance. The motor is connected to the column via an electromagnetic clutch which is controlled by the EPAS ECU. If the EPAS ECU detects a fault in the system, the motor will be disconnected from the column by disengaging the clutch. The steering reverts to a normal unassisted system with the clutch disengaged.

The driver steering torque input and direction of torque is monitored by a sensor mounted on the steering column. The sensor measures the angular displacement of a torque tube. Outputs from the sensor are processed by two independent systems, these readings being compared by the EPAS ECU for accuracy. A difference in the two calculated values indicates a fault. The road speed signal, from a speed transducer on the gearbox, is also processed by two independent systems.

OPERATION

Power supplies

Power for the EPAS motor is supplied from the in-line EPAS fuse (C0318) to the EPAS ECU (C0317) on a N wire.

Fusible link 4 (C0570) in the under bonnet fuse box supplies battery power to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the power is fed to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0585) supplies the feed to the EPAS ECU (C0316) on a G wire.

A system earth is provided by a B wire connected between the EPAS ECU (C0317) and an earth point (C0556).

General

When the ignition switch is first turned to position II, the EPAS ECU performs an integrity check to ensure that the system is operating correctly. During the integrity check, the EPAS ECU (C0316) earths the KU wire from the instrument pack (C0234) to illuminate the EPAS warning lamp. The warning lamp remains illuminated until the EPAS ECU (C0316) receives an engine speed signal from the ECM (C0159) on a WB wire.

The road speed signal is transmitted on a WO wire from the speed transducer (C0195) to the EPAS ECU (C0316).

The EPAS ECU (C0316) outputs a 5 volts supply to the torque sensor (C1326) on an O wire and connects the OY wire to earth to complete the circuit. Two independent torque signals are input from the torque sensor (C1326) to the EPAS ECU (C0316) on the OU and W wires.

NOTE: Although installed in the harness, the UG and OW wires are not used.

When, from the torque sensor signals, the EPAS ECU detects a steering input, it switches the supply from the in-line EPAS fuse to the EPAS motor. For a right turn, the supply is switched to the NU wire between the EPAS ECU (C0317) and the EPAS motor (C1327), and the NR wire is connected to earth. For a left turn the polarity is reversed. The EPAS ECU regulates the supply to the EPAS motor between approximately 0.5 and 12 volts, depending on the level of assistance required.

The clutch in the EPAS motor (C1327) has a power feed from the EPAS ECU (C0316) on a US wire. The earth side of the clutch (C1327) is connected to the EPAS ECU by a UK wire. The EPAS ECU continually monitors the performance of the system. If a fault is detected, the EPAS ECU energises the clutch, to disengage the motor drive from the steering column, and illuminates the EPAS warning lamp in the instrument pack; a fault code is then stored in the memory of the EPAS ECU and the steering operates without power assistance. Fault codes can be read using TestBook, which communicates with the system on the K wire connected between the EPAS ECU (C0316) and the diagnostic socket (C0040). For certain faults, the EPAS ECU may temporarily reduce power to the motor instead of disengaging the clutch.

Possible causes for clutch disengagement or reduced power assistance include:

- Motor overheat - Repeated turning of the steering wheel from lock to lock causes a temperature build up in the EPAS motor. The EPAS ECU monitors the power supply to the EPAS motor and, if the level of EPAS motor activity will cause an unacceptable temperature, reduces the current of the power supply. Reducing the current of the power supply limits the power available for steering assistance and prevents permanent damage to the EPAS motor.
- Engine racing - If the engine speed is in excess of 2500 rev/min for 30 seconds and no vehicle speed is detected, the EPAS ECU suspects a fault with either the engine speed sensor or the road speed sensor. The EPAS ECU then disengages the clutch and illuminates the warning lamp. If the vehicle subsequently moves off and a road speed signal is received, the warning lamp is extinguished and the clutch engaged.
- Low battery voltage - If the battery voltage is below 8.4 volts, the clutch will be disengaged and the warning lamp illuminated.
- Poor power supply - A fault in the power supply to the motor may produce poor steering feel. Low battery voltage may cause steering wheel loads to increase as the assistance is impaired. Fluctuating voltage due to poor battery condition or an alternator fault may cause torque fluctuations to be felt through the steering wheel.

ANTI-LOCK BRAKE SYSTEM (ABS)

DESCRIPTION

General

For a description of the ABS, ***see Workshop Manual.***

OPERATION

Power supplies

The ABS modulator (C0501) has two permanent feeds from fusible link 2 (C0573) of the under bonnet fuse box on NK wires. The feeds operate the solenoid valves and return pump motor via relays in the ABS modulator.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is supplied to the passenger compartment fuse box (C0099) on a BY wire. From the passenger compartment fuse box (C0582), a W wire connects the feed to fuse 20 (C0595) in the satellite fuse box. Fuse 20 (C0595) supplies the feed to the ABS modulator on a GK wire.

Earths for system operation are provided by B wires connected between the ABS modulator (C0501) and an earth header (C0018).

General

The ABS modulator (C0501) is connected to the four ABS sensors by four pairs of wires, as follows:

Sensor (Connector)	Wire colours
LH front (C0516)	U and N
RH front (C0517)	P and O
LH rear (C0502)	W and R
RH rear (C0503)	G and Y

The ABS modulator (C0501) outputs a rough road signal to the Engine Control Module (ECM) (C0159) on a SB wire.

When the brakes are applied, the ABS modulator (C0501) receives an input from the brake switch (C0075) on a GP wire.

During braking, if the ABS modulator detects that a wheel deceleration indicates imminent wheel lock, the relevant inlet valve is closed, preventing any further increase in hydraulic pressure to the brake caliper (pressure hold). If the wheel speed remains low, the associated outlet valve is opened briefly to allow brake fluid to flow from the caliper to the accumulator (pressure dump), hence reducing brake fluid pressure at the caliper. Brake fluid in the accumulator is pumped back into the pressurised side of the circuit by the return pump, ready for re-application. When the wheel is up to speed, the ABS modulator repeatedly de-energises the inlet valve briefly, allowing re-application of fluid pressure to the brake caliper (pressure build up) until excessive wheel deceleration is again detected. The process of pressure hold, pressure dump and pressure build up is repeated until the vehicle speed is below 5 mph (8 km/h), the risk of wheel lock subsides or the brake is released. During ABS operation, it is normal for pulsing to be felt through the brake pedal.

Diagnostics

The ABS modulator has a self diagnosis function which operates whenever the ignition is switched to position II. During the self test, the ABS modulator earths the UR wire from the ABS warning lamp in the instrument pack (C0234) for approximately 3 seconds to illuminate the lamp for a bulb check. When the vehicle moves off and reaches a speed of approximately 5 mph (8 km/h), the ABS modulator carries out a number of dynamic tests which include running the return pump and energising the inlet and outlet valves. If the brake pedal is being pressed at this time, a pulsing of the pedal may be felt.

The ABS modulator continues to monitor system performance while the ignition is in position II. If a fault is detected, the ABS modulator disables the system and illuminates the ABS warning lamp. With the system disabled, normal, non ABS braking is available. The ABS warning lamp remains illuminated until the ignition is switched OFF. If the fault is still detected when the ignition is next switched to position II, the ABS warning lamp remains illuminated after the bulb check. If the fault is not detected, the ABS warning lamp goes off after the bulb check.

If the ABS modulator detects a fault, a code relating to the fault is stored in the ABS modulator memory. If the fault is a temporary one, the code remains in the ABS modulator memory for 20 cycles of the ignition switch, after which the fault code is erased from ABS modulator memory. The ABS modulator memory can be interrogated for fault code retrieval using TestBook. TestBook communicates with the ABS modulator on the K wire between the diagnostic socket (C0040) and the ABS modulator (C0501).

SUPPLEMENTARY RESTRAINT SYSTEM (SRS)

DESCRIPTION

General

The Supplementary Restraint System (SRS) provides additional protection for the occupant(s) in the event of a frontal impact.

The system is controlled by the airbag Diagnostic Control Unit (DCU), located between the passenger seats, under the centre console. The airbag DCU checks the integrity of the system when the ignition is switched to position II and illuminates a warning lamp on the instrument pack while the self test is in operation. After approximately 3 seconds, the lamp should be extinguished to indicate that the system is operational. The airbag DCU continues to monitor the SRS during vehicle use and illuminates the warning lamp if any fault is found. A fault code, stored in the airbag DCU memory, can only be cleared using TestBook. The SRS will not function if the warning lamp is illuminated.

The airbag DCU detects frontal impacts within 30° of the vehicle centre line. If the impact is of sufficient severity, the airbag DCU deploys the seat belt pretensioners, drivers airbag and passenger airbag (if fitted). The system has a power backup circuit to ensure that the system operates if the vehicle's battery becomes disconnected during the impact.

The seat belt pretensioners are bolted to the seat base and are designed to retract approximately 75 mm (3 in) to tighten the belt and restrain the occupants securely in their seats. The pretensioners are of the pyrotechnic gas generation type. The airbag DCU fires the pretensioners 0.015 second after detecting an impact.

The driver airbag provides head and upper torso protection by inflating a 30 litres gas filled bag, from the steering wheel, to act as a damper. The airbag uses a double base chemical gas generator. The airbag DCU fires the airbag 0.035 second after the seat belt pretensioners have been fired.

The passenger airbag is optional and operates in a similar manner to the driver airbag. The passenger airbag has a capacity of 80 litres and is fired together with the driver airbag.

OPERATION

Power supplies

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent power supply to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is supplied to the passenger compartment fuse box (C0099) on a BY wire. The passenger compartment fuse box (C0582) supplies the feed to the in-line SRS fuse (C0300) on a W wire. The SRS fuse (C0300) supplies the feed to the airbag DCU (C0256) on a G wire.

The airbag DCU (C0256) is connected to an earth point (C0360) by a B wire.

Driver airbag
The airbag DCU (C0256) provides the driver airbag (C0257) a feed via the rotary coupler (C0545) on a R wire. The earth side of the driver airbag (C0257) is connected to the airbag DCU (C0256) via the rotary coupler (C0545) by a Y wire.

Passenger airbag
The airbag DCU (C0256) provides the passenger airbag (C0251 and C0261) two feeds on N wires. Two earths for the passenger airbag (C0251 and C0261) are connected to the airbag DCU (C0256) by U wires.

Pretensioners
The airbag DCU (C0256) is connected to the two pretensioners as follows:

- The LH pretensioner (C0252) is provided a feed by the airbag DCU (C0256) on an O wire. The earth side of the LH pretensioners (C0252) is connected to the airbag DCU (C0256) by an OU wire.
- The RH pretensioner (C0254) is provided a feed by the airbag DCU (C0256) on a N wire. The earth side of the RH pretensioner (C0254) is connected to the airbag DCU by a NR wire.

SRS warning lamp
To illuminate the SRS warning lamp in the instrument pack (C0234), the airbag DCU (C0256) connects an earth to the OP wire. To extinguish the SRS warning lamp, the airbag DCU disconnects the earth.

Diagnostics
The SRS system can be interrogated via the diagnostic socket. The diagnostic socket (C0040) is connected to the airbag DCU (C0256) by a YK wire.

AIR CONDITIONING (A/C)

DESCRIPTION

General

The Air Conditioning (A/C) system provides cooled air for the occupants of the car. The system is sealed and filled with refrigerant R134a.

The compressor, driven by the alternator drive belt, pumps low pressure refrigerant vapour from the evaporator to the condenser. As the refrigerant passes through the condenser, it is cooled by air passing over the outer fins. The vapour reverts to its liquid state as it is cooled. Air flow over the cooling fins is assisted by the cooling fan and the condenser fan.

From the condenser, the refrigerant passes to the receiver-drier which acts as a reservoir and also removes any moisture from the refrigerant.

High pressure liquid refrigerant passes through the thermostatic expansion valve which converts the refrigerant to a low pressure spray as it enters the evaporator. The change in pressure causes the liquid to change to a vapour and as it does so, heat is absorbed from the surrounding air. Air is blown over the evaporator matrix and directed into the passenger compartment. The refrigerant vapour in the evaporator returns to the compressor and continues the cycle.

The system contains a number of safety features which guard against mechanical damage. If the refrigerant pressure is too high or too low, the evaporator matrix is too cold, the compressor becomes too hot or the engine coolant temperature becomes too high, the compressor drive is disengaged.

System operation is controlled by the A/C switch on the centre console and the Engine Control Module (ECM). The system only operates when one of the four blower speeds is selected and the engine is running.

OPERATION

Power supplies

Fuse 5 (C0601) and fuse 6 (C0572) of the under bonnet fuse box provide the A/C relay pack (C0172) with permanent feeds on NW and N wires respectively. The A/C relay pack contains relays for the compressor clutch, cooling fan and condenser fan.

Fusible link 4 (C0570) and fusible link 5 (C0573) of the under bonnet fuse box provide the ignition switch (C0028) with permanent feeds on NP and NW wires respectively. When the ignition switch is in position II, feeds are connected from the ignition switch to:

- Fuse 15 (C0099) of the passenger compartment fuse box on a Y wire. From fuse 15 (C0585), the feed is connected to the A/C relay pack (C0173), A/C switch pack (C0275), fresh/ recirculated air switch (C0750) and fresh/ recirculated air mode motor (C0413) on LGS wires.
- Fuse 24 (C0595) of the satellite fuse box on a WLG wire. From fuse 24 (C0595), the feed is connected to the blower motor (C0056) on a LGP wire and from the blower motor (C0056) to the blower motor switch (C0058) by a SB wire. When the blower is selected to positions 1 to 4, the feed is supplied from the blower switch (C0058) to the A/C switch pack (C0275) on a SW wire.

A/C request

When the A/C switch is pressed, while one of the four blower speeds is selected, SK wires connect the power feed from the A/C switch pack (C0275) to the A/C thermostat (C0422) and from the A/C thermostat (C0423) to the trinary switch (C0279). Provided the high and low temperature switches are closed, the trinary switch (C0279) then supplies the power feed to the ECM (C0159) on a UR wire. With A/C selected on, the tell tale illumination LED in the A/C switch pack (C0275) is earthed on the B wire, connected to an earth header (C0017), and illuminates.

When the ECM receives an A/C request, it energises the appropriate relays in the A/C relay pack to operate the compressor, cooling fan and condenser fan.

The high and low switches in the trinary switch guard against extremes of pressure in the refrigerant system. If refrigerant system pressure reaches either of the limits, the related switch opens and disconnects the A/C request to the ECM. The air temperature sensor detects evaporator matrix temperature and, if the temperature is less than 2 °C (36 °F), opens and disconnects the A/C request to the ECM.

Compressor

To operate the compressor, the ECM earths the UB wire between the ECM (C0159) and the coil of the compressor clutch relay in the A/C relay pack (C0173). The energised compressor clutch relay connects the power feed from fuse 5 in the under bonnet fuse box to the R wire between the A/C relay pack (C0172) and the A/C compressor clutch (C0127). The A/C compressor clutch is earthed through the compressor fixings and energises to transmit drive to the compressor.

Cooling and condenser fans

The ECM operates the two fans together at one of two speeds. Low speed is achieved by connecting the fans in series and high speed is achieved by connecting the fans in parallel. The fans operate at low speed when either the compressor clutch is engaged or the engine coolant temperature is between 92 and 99 °C (198 and 210 °F). The fans operate at high speed when either the engine temperature is in excess of 107 °C (225 °F) or the medium pressure switch in the trinary switch detects a system pressure in excess of 18 bar (261 lbf.in^2). When refrigerant system pressure exceeds 18 bar (261 lbf.in^2), the medium pressure switch closes and connects the UG wire, between the ECM (C0159) and the trinary switch (C0279), to earth on the B wire between the trinary switch (C0279) and the earth point (C0564 on LHD) or earth header (C0017 on RHD).

On receipt of an A/C request, the ECM (C0159) earths the US wire from the A/C relay pack (C0173) to energise cooling fan relay 2. The energised cooling fan relay 2 connects the feed from fuse 6 of the under bonnet fuse box to the PS wire between the A/C relay box (C0172) and the cooling fan motor (C0005). The feed passes through the cooling fan motor (C0005) to cooling fan relay 1 in the A/C relay pack (C0172) on the US wire, then from cooling fan relay 1 to the condenser fan relay. The condenser fan relay connects the feed to the SU wire between the A/C relay pack and (C0172) and the condenser fan (C0280). The condenser fan (C0280) is earthed on a B wire connected to an earth header (C0017). With the fans connected in series, they run at slow speed.

If the engine temperature or system pressure increases to their respective switching points, the ECM (C0159) earths the UY wire to energise cooling fan relay 1 and the condenser fan relay in the A/C relay pack (C0173). The energised cooling fan relay 1 switches the feed from the cooling fan motor to earth on the B wire between the A/C switch pack (C0172) and the earth point (C0564 on LHD) or earth header (C0017 on RHD). The energised condenser fan relay switches a feed from fuse 5 in the under bonnet fuse box to the SU wire between the A/C relay pack (C0172) and the condenser fan (C0280). With the fans connected in parallel, they run at high speed.

Recirculated air

With the fresh/ recirculated air switch in the fresh air (off) position, current flows from the fresh/ recirculated air mode motor (C0413) to the fresh/ recirculated air switch (C0750) on the Y wire and to earth on a B wire between the fresh/ recirculated air switch (C0750) and an earth header (C0017). With the fresh/ recirculated air switch in the recirculated air (on) position, current flows from the fresh/ recirculated air mode motor (C0413) to the fresh/ recirculated air switch (C0750) on the K wire and to earth on the B wire; the tell tale illumination in the fresh/ recirculated air switch is also earthed on the B wire and illuminates to indicate the position on the fresh/ recirculated air mode motor.

HEATER BLOWER

DESCRIPTION

General

The heater blower is an electric fan that boosts the flow of ventilation air to the vehicle interior. The blower is installed in the heater assembly and controlled by a rotary switch on the heating control panel. The ignition switch must be in position II for the blower to operate.

OPERATION

Power supplies

Fusible link 5 (C0573) in the under bonnet fuse box supplies battery power to the ignition switch (C0028) on a NW wire. When the ignition switch is in position II, the power is fed from the ignition switch (C0028) to fuse 24 (C0595) in the satellite fuse box on a WLG wire. Fuse 24 (C0595) supplies a feed to the blower motor (C0056) on a LGP wire. The earth side of the blower motor (C0056) is connected to the resistor pack (C0425) and the blower motor switch (C0058) by SB wires.

General

Depending on the position of the blower motor switch, the blower motor is off or operates at one of four speeds. In the off position, the earth side of the blower motor is open circuit. In position IV, the blower motor is connected direct to earth on the B wire between the blower motor switch (C0058) and the earth header (C0017). In positions I to III, the blower motor is earthed through the resistor pack, on one of three wires to the blower switch, and the B wire from the blower switch to the earth header:

- With the blower motor switch in position I, the earth is routed through 3 resistors in series in the resistor pack (C0425) and connected to the blower motor switch (C0058) by a KB wire.
- With the blower motor switch in position II, the earth is routed through 2 resistors in series in the resistor pack (C0425) and connected to the blower motor switch (C0058) by a YB wire.
- With the switch in position III, the earth is routed through a single resistor in the resistor pack (C0425) and connected to the blower motor switch (C0058) by a GB wire.

COOLING FANS

DESCRIPTION

General

The information below is for the cooling fan in models without Air Conditioning (A/C). The information on the engine bay cooling fan is applicable to all models. See the A/C Section for details of the cooling fan in models with A/C.

☞ **AIR CONDITIONING (A/C).**

The cooling fan boosts the air flow through the radiator matrix to prevent excessive engine coolant temperatures. The fan is installed behind the radiator and is driven by an electric motor which is automatically controlled by the ECM. The temperature of the engine coolant is monitored by the ECM via signals from an Engine Coolant Temperature (ECT) sensor, which is mounted in the cylinder block outlet elbow.

The engine bay cooling fan boosts the air flow through the engine compartment to maintain the temperature at an acceptable level. The fan is installed at the outlet of the engine compartment's RH cooling duct and is driven by an electric motor which is automatically controlled by the ECM. The temperature of the engine compartment is monitored by the ECM via signals from an ambient air temperature sensor, which is mounted on the engine compartment header panel above the inlet manifold. A warning lamp in the instrument pack illuminates if the temperature in the engine compartment is too high.

The fans are operational while the ignition switch is in position II and for a limited time after the engine stops.

OPERATION

Power supplies

The switch contacts of cooling fan relay (C0019) have a permanent power supply from fuse 6 (C0572) of the under bonnet fuse box on a N wire. Fusible link 4 (C0570) in the under bonnet fuse box supplies battery power to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the power is fed to fuse 15 (C0099) in the passenger compartment fuse box on a Y wire. Fuse 15 (C0585) supplies the power to the coil of cooling fan relay (C0019) on a LGS wire.

Fusible link 3 (C0570) in the under bonnet fuse box supplies battery power to fuse 6 (C0582) in the passenger compartment fuse box on a N wire. From fuse 6 (C0584), N wires feed the power to the switch contacts and coil of the engine bay cooling fan relay (C1448).

Cooling fan

If the engine coolant temperature rises to 102 °C (216 °F), the ECM (C0159) switches the coil of the cooling fan-1 relay (C0019) to earth via a US wire. The energised cooling fan relay (C0019) supplies power to the cooling fan motor (C0005) on a UP wire. The cooling fan motor (C0005) is earthed by a B wire connected to an earth header (C0017) and operates to boost the airflow through the radiator.

When the engine coolant temperature falls below 96 °C (205 °F), the ECM disconnects the earth of the cooling fan relay coil and the cooling fan motor is switched off.

Engine bay cooling fan

The ambient air temperature sensor (C0884) provides an input to the ECM (C0159) on a SW wire. The earth side of the ambient air temperature sensor (C0884) is connected to the ECM (C0159) by a KB wire.

If an engine compartment temperature of approximately 85 °C (185 °F) is reached, the ECM earths the NB wire connected between the coil of the engine bay cooling fan relay (C1448) and the ECM (C0159). The engine bay cooling fan relay (C1448) energises and supplies power to the engine bay cooling fan motor (C1328) on a NY wire. The engine bay cooling fan motor (C1328) is earthed by a B wire connected to an earth header (C0550), and operates to boost the air flow through the engine compartment.

If the engine compartment temperature reaches approximately 130 °C (266 °F) the ECM earths the GR wire, between the instrument pack (C0234) and the ECM (C0159), to illuminate the engine bay fan warning lamp.

When the engine compartment temperature decreases below 110 °C (230 °F), the engine bay fan warning lamp is extinguished. The engine bay cooling fan motor is switched off 1 minute after the engine compartment temperature decreases to 75 °C (167 °F), or immediately the temperature decreases below 60 °C (140 °F).

NOTE: It is normal for the engine bay cooling fan motor to run for up to 8 minutes after the ignition has been switched off.

If the warning lamp is illuminated and the engine bay cooling fan motor runs continuously when the ignition switch is in position II, the probable cause is a faulty ambient air temperature sensor.

HEATED REAR WINDOW (HRW)

DESCRIPTION

General

Hard tops feature a glass rear window which incorporates a heater element. The heater element will only operate while the engine is running.

OPERATION

Power supplies

Fusible link 3 (C0570) in the under bonnet fuse box supplies a permanent feed to fuse 23 (C0595) in the satellite fuse box on a N wire. Fuse 23 (C0595) supplies the feed to the switch contacts of the HRW relay (C0044) on a NO wire.

Fusible link 4 (C0570) supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0585) supplies the feed to the multi function ECU (C0016) on a G wire. An earth for the multi function ECU (C0016) is provided by a B wire connected to an earth header (C0017).

General

When the engine starts, the contacts of the oil pressure switch (C0187) close and connect a WN wire from the multi function ECU (C0062) to earth. When the HRW switch is pressed, a BO wire, between the multi function ECU (C0062) and the switch (C0072), is connected to earth, via a B wire from the switch (C0072) to an earth point (C0564); the earthed B wire is routed to the earth point (C0564) via the passenger compartment fuse box (C0584 and C0583) and header (C0286). The multi function ECU (C0062) then connects the feed from fuse 1 (C0585) in the passenger compartment fuse box to the coil of the HRW relay (C0044) on a GO wire. The coil of the HRW (C0044) is earthed on a B wire connected to the earth point (C0564 on LHD via header C0286 and passenger compartment fusebox C0583 and C0584) or earth header (C0018 on RHD). The power feed to the HRW relay (C0044) is from fuse 23 (C0595) of the satellite fuse box on a NO wire. When the HRW relay is energised, the power feed is passed through the relay contacts to the BG wires between the relay (C0044), the HRW element (C0381) and the tell tale LED in the HRW switch (C0072). The HRW element (C0381) is earthed on a B wire connected to an earth header (C0550) and energises to heat the rear window. The tell tale LED is earthed on the B wires, between the HRW switch (C0072) and the earth point (C0564), and illuminates.

WIPERS AND WASHERS

DESCRIPTION

General

The vehicle incorporates 2 speed windscreen wipers with intermittent and flick wipe functions. An electrically operated windscreen washer is also installed. Operation of the wipers and washers is controlled by a windscreen wash/ wipe switch, in the steering column RH stalk, and the multi function ECU.

OPERATION

Power supplies

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuses 1 and 13 (C0099) in the passenger compartment fuse box by a BY wire. Fuse 1 (C0585) supplies the feed to the multi function ECU (C0016) on a G wire. Fuse 13 (C0581 and C0585) supplies the feed to the windscreen wiper motor (C0030) and the windscreen wash/ wipe switch (C0035) on GS wires.

Intermittent speed

When intermittent wipe is selected, the feed from fuse 13 in the passenger compartment fuse box is connected to a LGG wire between the windscreen wash/ wipe switch (C0035) and the multi function ECU (C0062). The multi function ECU then energises an internal relay to connect the wash/ wipe motor to earth on

- A RLG wire between the wash/ wipe motor (C0030) and the windscreen wash/ wipe switch (C0035).
- A LGP wire between the windscreen wash/ wipe switch (C0035) and the multi function ECU (C0062).
- A B wire between the multi function ECU (C0016) and an earth header (C0017).

The windscreen wiper motor begins to operate at slow speed and closes the windscreen park switch. After 0.85 second the multi function ECU de-energises the internal relay. This transfers the earth for the windscreen wiper motor to a NLG wire between the multi function ECU (C0016) and the windscreen wiper motor (C0030), then through the windscreen park switch to a B wire between the windscreen wiper motor (C0030) and an earth header (C0017 on LHD, C0018 on RHD). The wiper motor continues to operate until the windscreen park switch opens, after one cycle, and breaks the circuit.

While intermittent speed remains selected, the multi function ECU energises the internal relay, for 0.85 second, every 6 seconds.

Slow speed
When slow speed wipe is selected, the windscreen wash/ wipe switch (C0035) connects the RLG wire from the windscreen wiper motor (C0030) to earth on a B wire between the windscreen wash/ wipe switch (C0035) and an earth header (C0018). The windscreen wiper motor operates continuously at slow speed. When the windscreen wash/ wipe switch is selected off, the earth path for the windscreen wiper motor is routed through the multi function ECU and the windscreen park switch, and the motor stops when the windscreen park switch opens.

Fast speed
When fast speed wipe is selected, the windscreen wash/ wipe switch (C0035) connects the ULG wire from the windscreen wiper motor (C0030) to earth on the B wire between the windscreen wash/ wipe switch (C0035) and the earth header (C0018). The windscreen wiper motor operates continuously at fast speed. When the windscreen wash/ wipe switch is selected off, the earth path for the windscreen wiper motor is routed through the multi function ECU and the windscreen park switch, and the motor stops when the windscreen park switch opens.

Flick wipe
When flick wipe is selected, the windscreen wash/ wipe switch (C0035) connects the ULG wire from the windscreen wiper motor (C0030) to earth on the B wire between the windscreen wash/ wipe switch (C0035) and the earth header (C0018). The windscreen wiper motor operates at fast speed while the windscreen wash/ wipe switch is held in the flick wipe position. When the windscreen wash/ wipe switch is released, the earth path for the windscreen wiper motor is routed through the multi function ECU and the windscreen park switch, and the motor stops when the windscreen park switch opens.

Windscreen washers
When windscreen wash is selected, the feed from fuse 13 in the passenger compartment fuse box is connected to a LGB wire between the windscreen wash/ wipe switch (C0035) and the windscreen washer pump (C0008). The windscreen washer pump (C0008) is earthed on a B wire connected to an earth header (C0018 on LHD, C0017 on RHD) and operates continuously while windscreen wash is selected.

EXTERIOR LAMPS - BRAKE AND REVERSE LAMPS

DESCRIPTION

General

Brake and reverse lamps are incorporated into the tail lamp units and a high mounted brake lamp is installed in the rear face of the boot lid. The brake and reverse lamps only operate while the ignition switch is in position II.

OPERATION

Power supplies

Fusible link 4 (C0570) in the under bonnet fuse box supplies a feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 16 (C0099) in the passenger compartment fuse box on a Y wire. Fuse 16 (C0585) supplies the feed to the brake pedal switch (C0075) and the reverse lamp switch (C0166, manual gearbox models) or neutral switch (C0268, EM-CVT models) on GY wires.

Brake lamps

When the brake pedal is pressed, the brake pedal switch closes and connects the feed from fuse 16 in the passenger compartment fuse box to the GP wires between the brake pedal switch (C0075) and the brake lamps (C0613, C0121 and C0125). The brake lamps (C0613, C0121 and C0125) are all earthed on B wires connected to an earth header (C0553) and the bulbs illuminate.

Reverse lamps

When reverse gear is selected, the reverse lamp switch (C0166, manual gearbox models) or neutral switch (C0268, EM-CVT models) closes and connects the feed from fuse 16 in the passenger compartment fuse box to the GN wires between the reverse lamp switch (C0163)/ neutral switch (C0268) and the reverse lamps (C0121 and C0125). The reverse lamps (C0121 and C0125) are earthed on the B wires connected to the earth header (C0553) and the bulbs illuminate.

EXTERIOR LAMPS - HEAD, SIDE AND TAIL LAMPS

DESCRIPTION

General

LH and RH headlamp units contain individual bulbs for headlamp main and dipped beams, and for the side lamps. Tail lamp bulbs are incorporated into the tail lamp units. Rear number plate illumination is provided by two lamps installed in the rear bumper. Operation of the headlamps and side lamps is controlled by a lighting switch in the steering column LH stalk. A 'lights on' alarm is installed to prevent the lights being inadvertently left on when the vehicle is parked.

OPERATION

Power supplies

Fuse 7 (C0572) in the under bonnet fuse box supplies a permanent feed to the multi function ECU (C0016) on a PN wire.

Fusible link 1 (C0570) in the under bonnet fuse box supplies two permanent feeds to the lighting switch (C0041) on N wires.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is turned to position II, the feed is supplied to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0585) supplies the feed to the multi function ECU (C0016) on a G wire.

Side lamps

Turning the lighting switch to the side lamps position connects a feed from the lighting switch (C0041) to fuses 7 and 8 (C0582) of the passenger compartment fuse box on R wires. Fuse 7 (C0581 and C0585) feeds the RH side lamp (C0011) and the RH tail lamp (C0125) on RO wires. Fuse 8 (C0581 and C0585) feeds the LH side lamp (C0009), LH tail lamp (C0121), LH rear number plate lamp (C0139) and RH rear number plate lamp (C0138) on RB wires. All of the lamps are earthed on B wires and illuminate.

Headlamps

Dipped beam

Turning the lighting switch to the headlamps position operates the side lamps as detailed above and also connects a feed from the lighting switch (C0041) to fuses 10 and 11 (C0582) of the passenger compartment fuse box on a UK wire. Fuse 10 (C0585) feeds the LH headlamp dipped beam (C0009) on a UK wire. Fuse 11 (C0585) feeds the RH headlamp dipped beam (C0011) on a UB wire. Both headlamp dipped beams are earthed on the same B wires as the side lamps and illuminate.

Main beam
Selecting main beam connects a feed from the lighting switch (C0041) to fuses 21 and 22 (C0595) of the satellite fuse box on a UW wire. Fuse 21 (C0595) feeds the RH headlamp main beam (C0011) on a UG wire. Fuse 22 (C0595) feeds the LH headlamp main beam (C0009) on a US wire. Both headlamp main beams are earthed on the same B wires as the side lamps and illuminate.

Main beam flash
Operating the main beam flash bypasses the main beam contacts in the lighting switch and operates the main beam circuits as detailed above. When the switch is released the circuit is broken and the headlamp main beams are extinguished.

Lights on alarm
The multi function ECU operates an integral warning sounder if the lights are on with the ignition off and the driver's door open.

When the side lamps or headlamps are on, the multi function ECU (C0062) receives a feed from fuse 8 (C0581) of the passenger compartment fuse box on a RB wire. When the ignition switch is in position II, the multi function ECU (C0116) receives a feed from fuse 1 (C0585) of the passenger compartment fuse box on a G wire. When the driver's door opens, the PW wire (LHD models) or PS wire (RHD models), between the multi function ECU (C0062) and the driver's door lock motor (C1449), is connected to earth on the B wire between the driver's door lock motor (C1450) and an earth point (C0564 on LHD models) or earth header (C0017 on RHD models). While the driver's door is open, if the side lamps or headlamps are on and the ignition switch is not in position II, the multi function ECU (C0116) switches the warning sounder to earth on a B wire connected to an earth header (C0017) and the warning sounder operates.

EXTERIOR LAMPS - REAR FOG LAMPS

DESCRIPTION

General

Rear fog guard lamps are incorporated into the tail lamp units. A warning lamp in the instrument cluster illuminates when the rear fog guard lamps are on. Operation is controlled by a switch on the centre console and the multi function ECU. For the rear fog guard lamps to operate the headlamps must be on and the ignition switch must be in position II. Rear fog guard lamps operation is automatically cancelled at ignition off.

OPERATION

Power supplies

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to the headlamp lighting switch (C0041) on a N wire.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0585) supplies the feed to the coil of a fog lamp relay in the multi function ECU (C0016) on a G wire.

General

When the headlamps are on, a feed from the lighting switch (C0041) is connected to fuses 9 and 11 (C0582) of the passenger compartment fuse box on UK wires. Fuse 9 (C0585) feeds the switch contacts of the fog lamp relay (C0016) in the multi function ECU on a UR wire. Fuse 11 (C0585) supplies a feed to a switch in the multi function ECU (C0062) on a UB wire. Pressing the rear fog guard lamp switch temporarily earths the switch in the multi function ECU by connecting the RY wire, between the multi function ECU (C0062) and the rear fog guard lamp switch (C0064), to the B wire between the rear fog guard lamp switch (C0064) and an earth point (C0564). The switch closes and earths the coil of the fog lamp relay on the B wire between the multi function ECU (C0016) and an earth header (C0017). The fog lamp relay energises and connects the supply, from fuse 9 in the passenger compartment fuse box, to the UY wires between the multi function ECU (C0016) and the:

- LH rear fog guard lamp (C0121); the lamp (C0121) is earthed by a B wire connected to an earth header (C0553) and illuminates.
- RH rear fog guard lamp (C0125); the lamp (C0125) is earthed by a B wire connected to an earth header (C0553) and illuminates.
- Rear fog guard warning lamp (C0233) in the instrument pack; the warning lamp (C0230) is earthed by a B wire connected to an earth point (C0564) via the passenger compartment fuse box (C0590 and C0583) and illuminates.
- Tell tale LED in the rear fog guard lamp switch (C0064); the LED (C0064) is earthed by a B wire connected to an earth point (C0564) and illuminates.

Turning the ignition switch off, or pressing the rear fog guard lamp switch again, de-energises the fog lamps relay and extinguishes the rear fog guard lamps. Turning the lighting switch to side lamps or off extinguishes the rear fog guard lamps but, while the ignition switch remains in position II, the fog lamp relay remains energised. If the lighting switch is subsequently turned back to the headlamps position, the rear fog guard lamps illuminate again.

EXTERIOR LAMPS - DIRECTION INDICATOR/HAZARD WARNING LAMPS

DESCRIPTION

General

Front direction indicator lamps are installed in the front bumper, below the headlamps. Side repeater lamps are installed in each front wing and rear direction indicator lamps are incorporated into the tail lamp units. LH and RH direction indicator warning lamps and a hazard warning lamp are installed in the instrument pack.

The direction indicators are controlled by the direction indicator switch in the steering column LH stalk and operate only when the ignition switch is in position II. The hazard warning system is controlled by the hazard warning switch in the centre console and operates in all ignition switch positions.

OPERATION

Power supplies

Fuse 4 (C0572) in the under bonnet fuse box supplies permanent feeds on NO wires to the hazard warning switch (C0096) and to the hazard warning lamp (C0233) in the instrument pack.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is position II, the feed is supplied to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0585) supplies the feed to the hazard warning switch (C0096) on a G wire. When the hazard warning switch is in the off position, the feed flows through the hazard warning switch (C0096) to the hazard warning relay (flasher unit) (C0585) in the passenger compartment fuse box on a LGK wire. The coil of the hazard warning relay (C0583) is earthed on a B wire connected to an earth point (C0564) and energises to connect the feed to the direction indicator switch (C0036) and the hazard warning switch (C0096) on LGN wires.

Direction indicating

Left turn

When the direction indicator switch is moved for a left turn, power flows from the switch (C0036) on GR wires to the passenger compartment fuse box (C0581), and from:

- The passenger compartment fuse box (C0585) to the LH front direction indicator lamp (C0001), LH side repeater lamp (C0013) and LH rear direction indicator lamp (C0121). The lamps are all earthed on B wires and the bulbs illuminate.
- The passenger compartment fuse box (C0590) to the LH direction indicator warning lamp (C0230) in the instrument pack. B wires between the LH direction indicator warning lamp (C0230) and an earth point (C0564), via the passenger compartment fuse box (C0583 and C0590), complete the circuit and the bulb illuminates.

The current draw of the direction indicator lamps causes the hazard warning relay to constantly de-energise and re-energise, and so flash all the LH direction indicator lamps.

Right turn

When the direction indicator switch is moved for a right turn, power flows from the switch (C0036) on GW wires to the passenger compartment fuse box (C0581), and from:

- The passenger compartment fuse box (C0585) to the RH front direction indicator lamp (C0002), RH side repeater lamp (C0012) and RH rear direction indicator lamp (C0125). The lamps are all earthed on B wires and the bulbs illuminate.
- The passenger compartment fuse box (C0590) to the RH direction indicator warning lamp (C0233) in the instrument pack. B wires between the RH direction indicator warning lamp (C0230) and an earth point (C0564), via the passenger compartment fuse box (C0583 and C0590), complete the circuit and the bulb illuminates.

The current draw of the direction indicator lamps causes the hazard warning relay to constantly de-energise and re-energise, and so flash all the RH direction indicator lamps.

Hazard warning

When the hazard warning switch is selected on, contacts in the switch are mechanically latched closed and connect the feed from fuse 4 in the under bonnet fuse box to an internal relay and electronic switches. The relay energises and disconnects the supply from fuse 1 in the passenger compartment fuse box. The electronic switches close and:

- Earth the GY wire, between the hazard warning lamp (C0233) in the instrument pack and the hazard warning switch (C0096), and illuminate the hazard warning lamp.
- Connect the feed from fuse 4 in the under bonnet fuse box to the LGK wire between the hazard warning switch (C0096) and the hazard warning relay (C0585) in the passenger compartment fuse box. The energised hazard warning relay (C0585) feeds the hazard warning switch (C0096) on the LGN wire.
- Connect the feed, on the LGN wire from the hazard warning relay, to the GR and GW wires between the hazard warning switch (C0096) and the LH and RH indicator lamps. The GR and GW wires also feed the LH and RH direction indicator warning lamps in the instrument pack (C0585). The current draw of the lamps causes the hazard warning relay to operate and flash all the direction indicator lamps.

INTERIOR LAMPS

DESCRIPTION

General

Interior lamps consist of an under bonnet lamp, a load space lamp and passenger compartment lamps. The passenger compartment lamps consist of twin interior lamps in the rear view mirror, ignition switch illumination, a glove box lamp and two footwell lamps. Contact switches control the operation of the under bonnet lamp and the load space lamp. Operation of the passenger compartment lamps is controlled by the glove box switch, door switches, the multi function ECU and integral switches in the interior lamps. Passenger compartment lamp operation incorporates timed and fade off functions.

OPERATION

Power supplies

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to the lighting switch (C0041) and fuse 12 (C0582) in the passenger compartment fuse box on N wires. Fuse 12 (C0099) supplies the feed to the ignition switch illumination on a P wire, via a P link wire on the passenger compartment fuse box (C0581). P wires from fuse 12 (C0585) also connect the feed to the:

- Under bonnet lamp (C1329). The earth side of the under bonnet lamp (C1330) is connected to the bonnet switch (C0007) by a BP wire.
- load space lamp (C0119). The earth side of the load space lamp (C0120) is connected to the load space lamp switch (C0107) by a PR wire.
- Front interior lamps (C0355).
- LH front footwell lamp (C0077) and RH front footwell lamp (C0080).

Under bonnet lamp

When the bonnet is opened, the bonnet switch closes and connects to earth via the switch fixing, which illuminates the under bonnet lamp.

Load space lamp

When the boot lid is opened, the load space lamp switch (C0110) closes and connects to an earth header (C0550) on a B wire, which illuminates the load space lamp.

Passenger compartment lamps

Glove box lamp

When the lighting switch is in the side lamps or headlamps position, a feed from the lighting switch (C0041) is connected to fuse 8 (C0582) of the passenger compartment fuse box on a R wire. Fuse 8 (C0581) feeds the glove box lamp (C0227) on a RB wire, and the earth side of the glove box lamp (C0235) is connected to the glove box switch (C0238) by a BY wire. When the glove box opens, the glove box switch (C0222) closes and connects to an earth header (C0018 on LHD) or earth point (C0564, via the passenger compartment fuse box, on RHD) on a B wire to illuminate the glove box lamp.

Ignition, interior and footwell lamps

The ignition switch illumination (C0028), LH front footwell lamp (C0078), RH front footwell lamp (C0076) and interior lamps (C0355) all have an earth route through the multi function ECU (C0062) on PR wires. The multi function ECU controls the earth connection to automatically operate the lamps together, when the doors open and close and the ignition is switched on. When a door opens, the related door switch closes and connects an earth to the multi function ECU (C0062) via a PS wire from the RH door switch (C1451 on LHD, C1449 on RHD) or a PW wire from the LH door switch (C1449 on LHD, C1451 on RHD).

When either or both of the doors open, the ignition switch illumination, footwell lamps and interior lamps are illuminated. The multi function ECU extinguishes the lamps as follows:

- The lamps will fade out immediately on the first occasion that the last door is closed and the ignition switch is not in position II.
- Subsequent opening and closing of the door(s) will result in the lamps remaining on for approximately 18 seconds, after the last door closes, and then fading out.
- When the lamps are illuminated with both doors closed, turning the ignition switch to position II will cause the lamps to immediately fade out.
- The lamps will immediately fade out when the doors are locked using either the key or the remote handset.
- If a door is left open, the lamps will fade off after approximately 9 minutes.

In addition to automatic operation, each interior lamp (C0355) has a manual switch which provides a route to earth on a B wire connected to an earth header (C0018) and hence illuminates the interior lamp regardless of the door and ignition switch positions.

INTERIOR ILLUMINATION

DESCRIPTION

General

Instruments, controls and switch graphics are automatically illuminated when the side lamps or headlamps are switched on. The brightness of the instrument pack illumination can be adjusted using an instrument illumination dimmer.

OPERATION

Power supplies

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to the lighting switch (C0041) on a N wire.

General

When the lighting switch is in the side lamps or headlamps position, a feed is connected from the lighting switch (C0041) to fuse 8 (C0582) of the passenger compartment fuse box on a R wire. Fuse 8 (C0581 and C0590) feeds all of the interior illumination bulbs/ LED's and the instrument illumination dimmer (C0201) on RB wires. On EM-CVT models, the RB wire for the remote Steptronic switches terminates at the rotary coupler (C0082); G wires then supply the feed from the rotary coupler (C1254) to the up Steptronic remote switch (C1664) and down Steptronic remote switch (C1665). The illumination bulbs/ LED's are connected to earth as follows:

- The rear fog guard lamp switch (C0064) on LHD models/ transmission mode switch (C0985) on Japan EM-CVT models, automatic gearbox selector indicator lamp (C0245), RH window switch (C0081) and LH window switch (C0321) are earthed on B wires connected to an earth point (C0564).
- The up Steptronic remote switch (C1664) via the rotary coupler (C1254 and C0082), down Steptronic remote switch (C1665) via the rotary coupler (C1254 and C0082), heated rear window switch (C0072), rear fog guard lamp switch (C0064) on RHD models, oil temperature gauge (C0344), analogue clock (C0232) and hazard warning switch (C0096) are earthed on B wires connected to an earth point (C0564 - LHD models; C0556 - RHD models) via the passenger compartment fuse box (C0584 and C0583).
- The radio/cassette player (C0098)/ CD player (C1353) is earthed on a B wire connected to an earth point (C0556).
- The instrument pack (C0233) is earthed on a RW wire connected to the instrument illumination dimmer (C0201), then a B wire from the instrument illumination dimmer (C0201) to an earth point (C0564) via the passenger compartment fuse box (C0590 and C0583).
- The A/C switch pack (C0275), fresh/ recirculated air switch (C0750) and heater control illumination (C0051) are earthed on B wires connected to an earth header (C0017).

Except for the instrument pack, the interior illumination bulbs/ LED's illuminate at a fixed brightness level. The brightness level of the instrument pack illumination is dependant on the setting of the instrument illumination dimmer. Turning the thumbwheel of the instrument illumination dimmer alters the resistance of the instrument pack's earth path and hence brightness level of the illumination bulbs.

INSTRUMENTS

DESCRIPTION

General

The instrument pack contains a speedometer, tachometer, fuel gauge, coolant temperature gauge and four groups of warning lamps. An oil temperature gauge is located on the centre console.

OPERATION

Power supplies

Fusible link 1 (C0570) of the under bonnet fuse box supplies a permanent feed to the lighting switch (C0041) on a N wire.

Fusible link 4 (C0570) of the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0590) supplies the feed to the instrument pack (C0230) on a G wire to power the instruments and, except where stated otherwise, the warning lamps. Except where stated otherwise, the earth connection for the instruments and the warning lamps is provided by a B wire connected between the instrument pack (C0230) and an earth point (C0564), via the passenger compartment fuse box (C0590 and C0583).

Speedometer

The speedometer (C0234) receives a road speed signal from the gearbox mounted speed transducer (C0195) on a WO wire. The instrument pack also uses this signal for the total and trip distances in the odometer display.

Tachometer

The tachometer (C0230) receives an engine speed signal from the ECM (C0159) on a WB wire.

Fuel gauge

The fuel gauge (C0233) receives a contents signal from the fuel tank unit (C0114) on a GB wire.

Coolant temperature gauge

The coolant temperature gauge (C0230) receives a temperature signal from the coolant temperature gauge sensor (C0165) on a GU wire.

Oil temperature gauge

The oil temperature gauge (C0334) receives a temperature signal from the oil temperature unit (C1666) on a NU wire.

Warning lamps

Anti-theft alarm LED

The anti-theft alarm LED (C0233) receives a power supply from fuse 4 of the under bonnet fuse box, via splice SJ21, on a NO wire. The earth for the anti-theft alarm LED (C0234) is controlled by the alarm ECU (C0061) on a UK wire.

Hazard warning

The hazard warning lamp (C0233) receives a power supply from fuse 4 of the under bonnet fuse box, via splice SJ21, on a NO wire. The earth for the hazard warning lamp (C0233) is controlled by the hazard warning switch (C0096) on a GY wire.

Electronic Power Assisted Steering (EPAS)

The earth for the EPAS warning lamp (C0234) is controlled by the EPAS ECU (C0316) on a KU wire.

Supplementary Restraint System (SRS)

The earth for the SRS warning lamp (C0234) is controlled by the airbag DCU (C0256) on a OP wire.

Seat belt (Australia and Japan only)

The earth for the seat belt warning lamp (C0234) is controlled by the multi function ECU (C0062) on a BR wire.

Ignition/No charge

When the alternator is not generating a charge, the ignition/no charge warning lamp (C0230) is earthed on the NY wire to the alternator (C0185) via the passenger compartment fuse box (C0590 and C0585). When the engine is running, the alternator applies a voltage to the NY wire to extinguish the lamp.

Handbrake/Low brake fluid

The route to earth for the handbrake/low brake fluid warning lamp (C0233) is on BW wires to the handbrake switch (C0091) and the brake fluid level switch (C0026), via the passenger compartment fuse box (C0590, C0581 and C0585). When the handbrake lever is applied, the handbrake switch (C0091) closes and connects the BW wire to earth through a switch fixing. If the fluid in the brake reservoir falls to a low level, the brake fluid level switch (C0026) closes and connects the BW wire to an earth header (C0018) on a B wire.

Main beam

When the flash switch is closed, or the lighting switch is selected to the headlamps position and the dip switch is in the main beam position, the feed from fusible link 1 in the under bonnet fuse box is connected to the UW wire between the lighting switch (C0041) and fuse 21 (C0595) in the satellite fuse box. Fuse 21 (C0595) supplies the feed to the main beam warning lamp (C0230) on a UG wire.

Direction indicator
The LH direction indicator warning lamp (C0230) receives a feed from the direction indicator switch (C0036) on a GR wire, via the passenger compartment fuse box (C0581 and C0590). The RH direction indicator warning lamp (C0233) receives a feed from the direction indicator switch (C0036) on a GW wire, via the passenger compartment fuse box (C0581 and C0590).

Oil temperature (all except Japan)
The oil temperature warning lamp (C0234) receives a feed from the oil temperature unit (C1666) on a NU wire.

Snow mode (Japan only)
Operation of the snow mode warning lamp (C0234) is controlled by a Pulse Width Modulated (PWM) signal from the ECM (C0914), which is input to the instrument pack on a WG wire. This signal also operates the gear ratio indicator in the odometer display and the gearbox fault warning lamp.

Oil pressure
The earth route for the oil pressure warning lamp (C0230) is through the oil pressure switch (C0187) on a WN wire. When there is no engine oil pressure, the switch is closed and the WN wire is connected to earth through the switch body.

Engine Management / MIL Warning Lamp
In accordance with ECD3 legislation, the ECM uses an On Board Diagnostic (OBD) strategy and can record faults relating to the engine management and EM-CVT gearbox interface unit functions. After detecting a fault which causes an increase of emissions above the legislated threshold, in addition to storing a 'P' code, the ECM also illuminates a Malfunction Indicator Lamp (MIL) in the instrument pack. The ECM also performs a 2 seconds bulb check of the MIL each time the ignition is switched on.

The engine management/MIL warning lamp (C0230) is operated by the ECM (C0159) connecting a UO wire to earth.

Anti-lock Brake System (ABS)
The ABS warning lamp (C0234) is operated by the ABS modulator (C0501) connecting a UR wire to earth.

Engine bay cooling fan
The engine bay cooling fan warning lamp (C0234) is operated by the ECM (C0159) connecting a GR wire to earth.

Rear fog guard
When the rear fog guard lamps are illuminated, the rear fog guard warning lamp (C0233) receives a feed from the multi function ECU (C0016) on a UY wire.

Gearbox fault (EM-CVT models only)

Operation of the gearbox fault warning lamp is controlled by a Pulse Width Modulated (PWM) signal from the ECM (C0914), which is input to the instrument pack (C0234) on a WG wire. This signal also operates the gear ratio indicator in the odometer display. On Japanese EM-CVT models the signal also operates the snow mode warning lamp.

Boot open

The boot open warning lamp (C0234) is operated by the load space lamp switch (C0107) on a PR wire.

HORNS

DESCRIPTION

General

The vehicle has two horns installed under the bonnet on the RH inner wing. The horns are operated by two horn buttons on the steering wheel, or the Anti-theft Alarm System, via a relay.

OPERATION

Power supplies

Fuse 7 (C0572) of the under bonnet fuse box supplies a permanent feed to the horn relay (C0016) in the multi function ECU on a PN wire.

General

Pressing either of the horn buttons connects the coil of the horn relay to earth on:

- The PB wire from the horn relay (C0062) to the rotary coupler (C0082).
- R wires from the rotary coupler (C1254) to the horn switches (C1662 and C1663).
- B wires from the horn switches (C1662 and C1663) to the rotary coupler (C1254), and from the rotary coupler (C0082) to a body earth point (C0564) via the passenger compartment fuse box (C0584 and C0583).

When the horn relay energises, the feed from fuse 7 is connected to the PY wires between the horn relay (C0016) and the horns (C0003 and C0004). The horns (C0003 and C0004) are earthed on B wires connected to an earth header (C0018) and sound continuously while the horn relay is energised.

If the alarm is triggered, the alarm ECU (C0061) earths the PB wire from the horn relay (C0062) to sound the horns.

CLOCK

DESCRIPTION

General

The analogue clock is installed in the centre console in the fascia.

OPERATION

General

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to fuse 12 (C0582) in the passenger compartment fuse box on a N wire. Fuse 12 (C0585) supplies the feed to the analogue clock (C0095) on a P wire. The circuit is completed by B wires from the analogue clock (C0232) to an earth point (C0564), via the passenger compartment fuse box (C0584 and C0583).

CIGAR LIGHTER

DESCRIPTION

General

The cigar lighter is located in the centre console and operates only when the ignition switch is in position II.

OPERATION

Power supplies

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to fuse 2 (C0583) in the passenger compartment fuse box on a N wire. Fuse 2 (C0585) supplies the feed to the switch contacts of the cigar lighter relay (C0583) in the passenger compartment fuse box on a PU wire.

Fusible link 4 (C0570) in the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, the feed is connected to fuse 1 (C0099) in the passenger compartment fuse box on a BY wire. Fuse 1 (C0590) supplies the feed to the coil of the cigar lighter relay (C0590) on a G wire. The relay is energised by the B wire between the cigar lighter relay coil (C0583) and an earth point (C0564). The energised relay connects the feed from fuse 2 to the PS wire between the passenger compartment fuse box (C0581) and the cigar lighter (C0089).

General

Pushing the heating element into the locking clips of the cigar lighter completes the circuit. Current flows through the heating element and is earthed through the cigar lighter casing and the B wire between the cigar lighter (C0089) and the earth point (C0564), via the passenger compartment fuse box (C0584 and C0583). At a pre-determined temperature the locking clips release the heating element from the cigar lighter and the circuit is broken.

AUDIO SYSTEMS

DESCRIPTION

General

The audio system consists of either a radio/ cassette player, or a CD player, driving six speakers. The system operates when the ignition switch is in position I or II. Except where stated, the information detailed below is common to both radio/ cassette player and CD player systems.

OPERATION

Power supplies

Fusible link 1 (C0570) in the under bonnet fuse box supplies a permanent feed to fuse 12 (C0582) in the passenger compartment fuse box on a N wire. Fuse 12 (C0585) supplies the feed to the radio/ cassette player (C0098), or CD player (C1353), on a P wire. The permanent feed enables the radio presets and security code to be retained while the ignition is off.

Fusible link 5 (C0573) supplies a permanent feed to the ignition switch (C0028) on a NW wire. When the ignition switch is in position I or II, the feed is supplied to fuse 17 (C0099) in the passenger compartment fuse box on a WR wire. Fuse 17 supplies the feed to the radio/ cassette player (C0098), or CD player (C1353), on a LGW wire.

The radio/ cassette player (C0098), or CD player (C1353), is earthed on a B wire connected to an earth point (C0556).

General

Radio signals are received by the radio/ cassette player (C0366), or CD player (C0366), on a B wire from the aerial (C0611).

The speakers are driven from the radio/ cassette player (C0092), or CD player (C1353), as follows:

- The RH rear speaker (C0445) on SK and SB wires.
- The RH door speaker (C0339) and RH tweeter (C0530) on OK and OB wires.
- The LH door speaker (C0340) and LH tweeter (C0531) on YK and YB wires.
- The LH rear speaker (C0445) on UK and UB wires.

SEAT BELT WARNING (Australia and Japan only)

DESCRIPTION

General

The seat belt warning lamp (if fitted) is controlled by the Multi-function Unit (MFU). When the ignition switch is first turned to the 'ignition' position, the seat belt warning lamp should illuminate for approximately 5 seconds, irrespective of seat belt latch switch status. After this initial period, the lamp can only be extinguished by latching the belt buckle within the seat belt stalk.

The seat belt warning lamp will illuminate if the belt buckle is released from the seat belt stalk while the ignition is still switched on.

OPERATION

Power Supplies

Feed from the positive battery terminal (C0192) is supplied to fusible link 6 and fusible link 4 of the under bonnet fuse box (C0632) on an N wire. Fusible link 4 (C0570) of the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in the ignition position, a power feed is connected from the ignition switch to fuse 1 (C0099) of the passenger compartment fuse box on a BY wire. Fuse 1 (C0590) supplies the feed to the seat belt warning lamp (C0230) in the instrument pack, the seat belt buckle switch (C0100) and the multi-function ECU on G wires.

General

When the ignition switch is first turned to the 'ignition' position, current flows across the seat belt warning lamp (C0230 and C0234) to the MFU (C0062) on a BR wire. The MFU (C0016) provides an earth path for the seat belt warning lamp on a B wire to earth header (C0017). The seat belt warning lamp will now illuminate. After approximately 5 seconds, the MFU withdraws the earth path, and providing the seat belt buckle is located within the seat belt stalk, the warning lamp will extinguish. If the seat belt buckle is released from the seat belt stalk, current flows across the buckle switch (C0100) to the MFU (C0062) on a WY wire. When the MFU receives this feed, it reinstates the earth path for the seat belt warning lamp to illuminate the warning lamp in the instrument pack.

SHIFT INTERLOCK (EM-CVT selected markets only)

DESCRIPTION

General

The shift interlock solenoid (if fitted) is powered by the Gearbox Interface Unit (GIU). When the solenoid is energised, a pin is ejected which engages with a hole in the selector lever, locking it in the park position. When the selector lever is in the 'P' position and the ignition is on, the solenoid will be energised until the footbrake is depressed. When the solenoid is de-energised the pin is retracted allowing the selector lever to be moved.

OPERATION

Power supplies

Feed from the positive battery terminal (C0192) is supplied to fusible link 6 and fusible link 4 of the under bonnet fuse box (C0632) on an N wire. Fusible link 4 (C0570) of the under bonnet fuse box supplies a permanent feed to the ignition switch (C0028) on a NP wire. When the ignition switch is in position II, a power feed is connected from the ignition switch to fuse 18 (C0099) of the passenger compartment fuse box on a Y wire. Fuse 18 (C0585) supplies the feed to the brake pedal switch (C0075) and the park/neutral switch (C0268) on GY wires.

General

When the ignition switch is in position II and the brake pedal is released, power is fed through the brake pedal switch (C0075) to the GIU (C0932) on a GP wire. When the selector lever is in the park position, the contacts of the park/neutral switch (C0268) is closed and power is fed through the switch to the GIU (C0932) on a BR wire.

With the brake pedal released and the selector lever in the park position, the GIU (C0932) provides a positive feed to the shift interlock solenoid on a G wire. The solenoid is energised so that the locking pin prevents movement of the selector lever. The shift interlock solenoid (C0673) is earthed to earth header 0017 on a B wire.

When the brake pedal is pressed the power feed to the GIU unit is broken and the power feed from the GIU unit to the shift interlock solenoid is removed. If the brake pedal is released before the selector lever is moved from the park position, power will be re-applied to the GIU and shift interlock solenoid and the locking pin will re-engage. When the selector lever is moved out of the park position while the brake pedal is depressed, the power feed through the park/neutral switch to the GIU is removed and the shift interlock solenoid will be de-energised to allow selector lever movement.

CIRCUIT REFERENCE NUMBERS

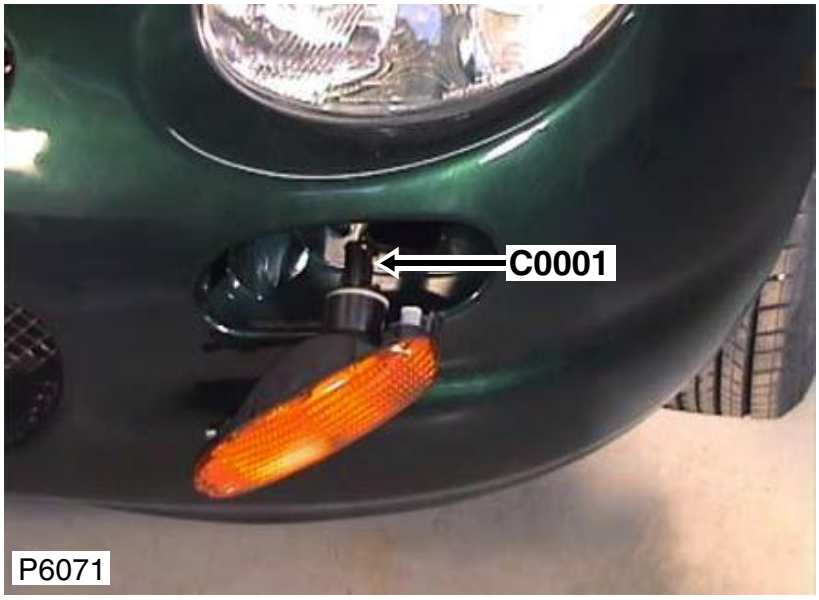
CONNECTOR APPLICABILITY

General

The following Table lists the circuit reference numbers against a description of the model or feature to which they apply.

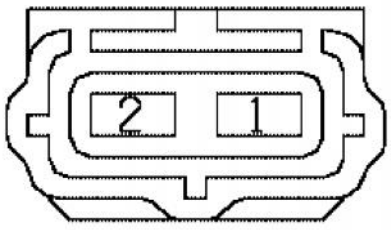
This information should be used in conjunction with the Connector Pin Out Tables, on the following pages, to determine the wire configuration of the vehicle being worked on.

Cct	Model or feature
1	ABS
2	With A/C
3	Japanese specification
4	Without A/C
5	EPAS
6	Without ABS
7	Electrically controlled mirrors
8	With EM-CVT
9	Electric boot release
10	Not Japanese specification
11	Non ABS models with manual gearbox
12	Shift interlock
13	1.8 MPi
14	Japanese and Australian specification only
15	Manual gearbox
18	1.8 MPi with manual gearbox
21	1.8 VVC



Cav	Col	Cct
1	GR	ALL
2	B	ALL

Description: *Lamp - Direction indicator / hazard warning - Front - LH*
Location: *Behind LH front indicator lamp*

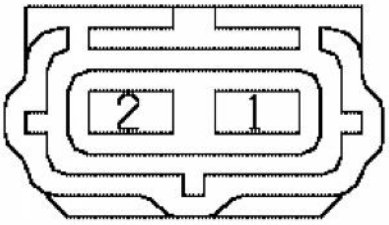


YPC10070

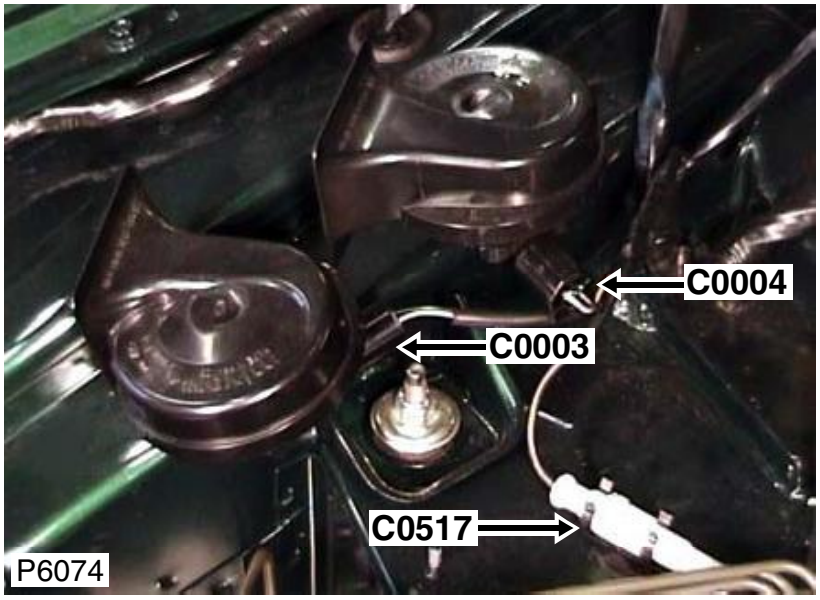
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	GW	ALL
2	B	ALL

Description: *Lamp - Direction indicator / hazard warning - Front - RH*
Location: *Behind RH front indicator lamp*

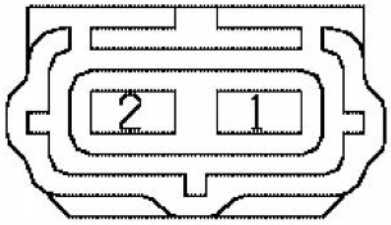


Colour: *BLACK*
Gender: *Female*

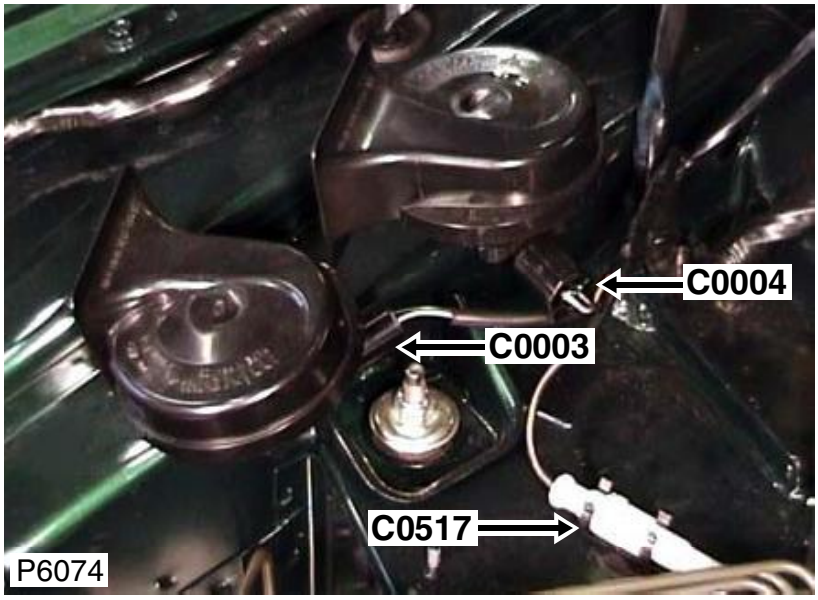


Cav	Col	Cct
1	B	ALL
2	PY	ALL

Description: *Horn - LH*
Location: *Under bonnet, RH side*

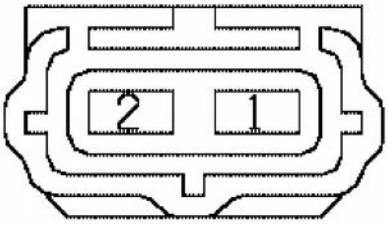


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	B	ALL
2	PY	ALL

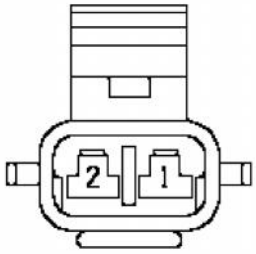
Description: *Horn - RH*
Location: *Under bonnet, RH side*



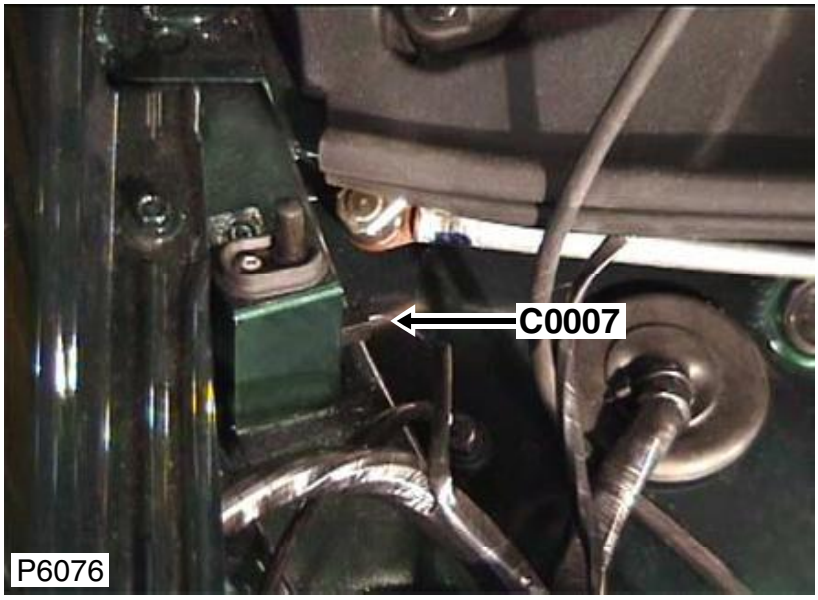
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	US	2
1	B	4
2	PS	2
2	UP	4

Description: *Motor - Cooling fan - 1*
Location: *Behind radiator*

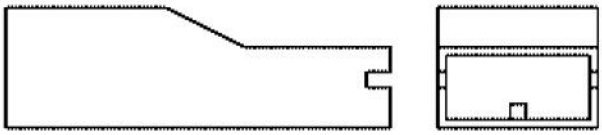


Colour: *BLACK*
Gender: *Female*

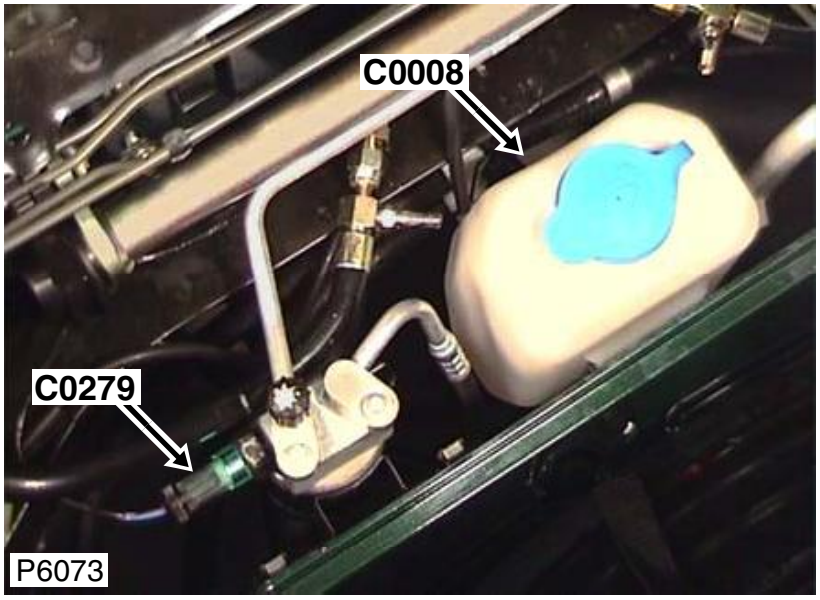


Cav	Col	Cct
1	BP	ALL

Description: *Switch - Bonnet*
Location: *Under bonnet, RH side*

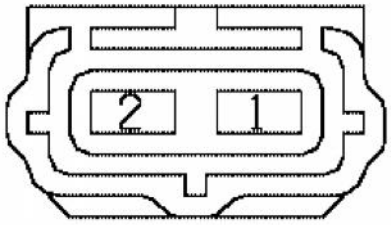


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	LGB	ALL
2	B	ALL

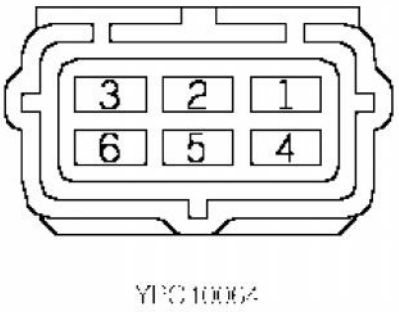
Description: *Pump - Washer - Windscreen*
Location: *Under bonnet behind closing panel - centre*



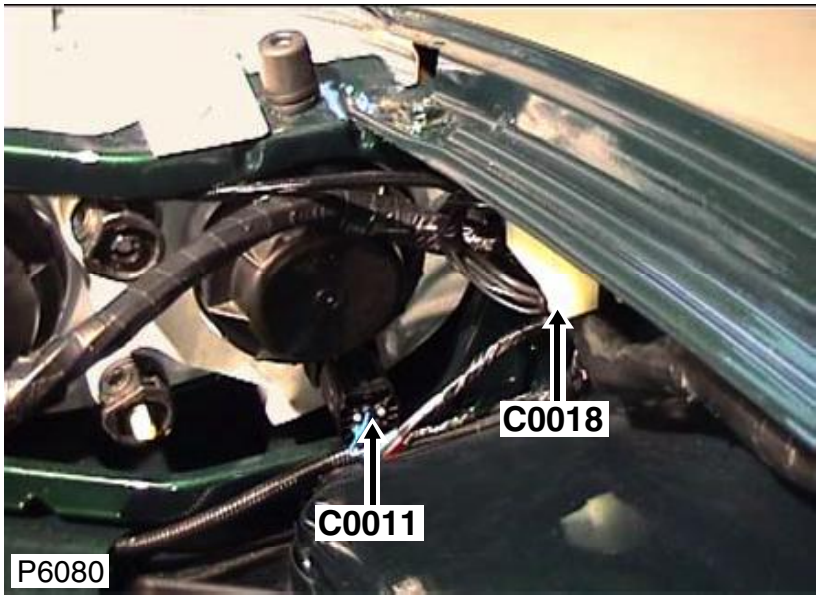
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
2	UK	ALL
4	US	ALL
5	RB	ALL
6	B	ALL

Description: *Headlamp - LH*
Location: *Under bonnet, LH side*

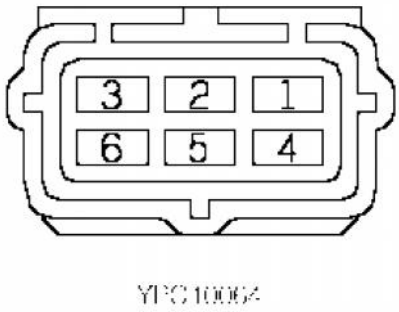


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
2	UB	ALL
4	UG	ALL
5	RO	ALL
6	B	ALL

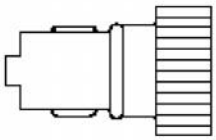
Description: *Headlamp - RH*
Location: *Under bonnet, RH side*



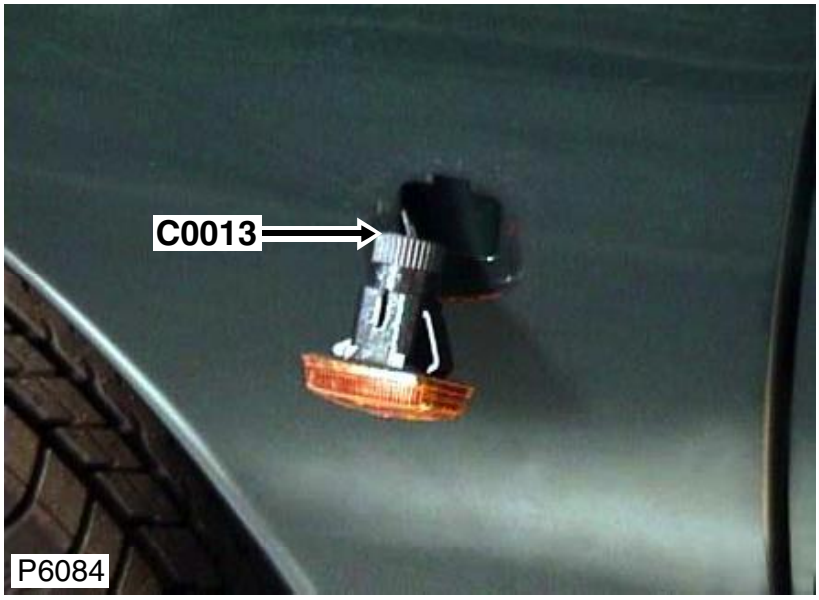
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	GW	ALL
2	B	ALL

Description: *Lamp - Side repeater - Front - RH*
Location: *Behind RH side repeater lamp*

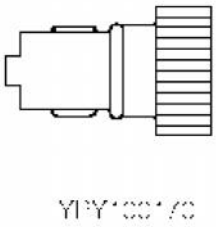


Colour: *BLACK*
Gender: *Female*

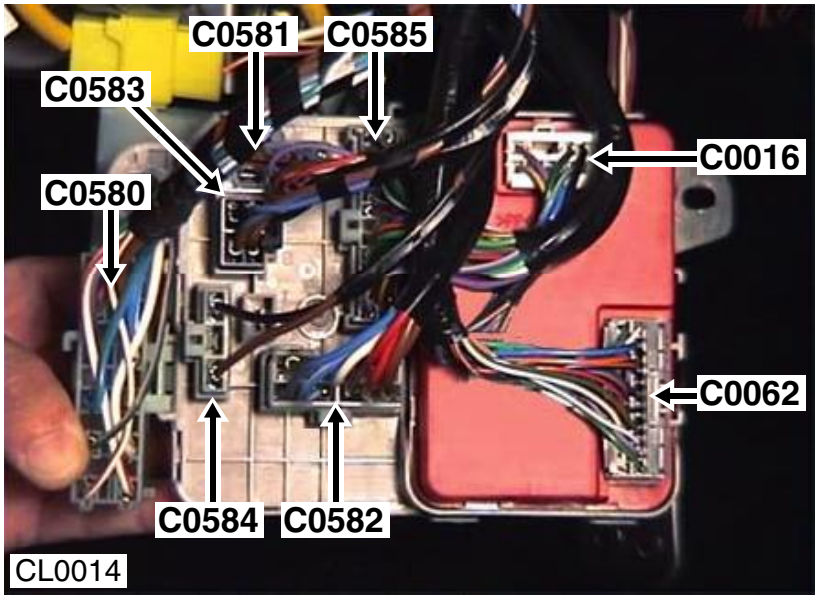


Cav	Col	Cct
1	GR	ALL
2	B	ALL

Description: *Lamp - Side repeater - Front - LH*
Location: *Behind LH side repeater lamp*

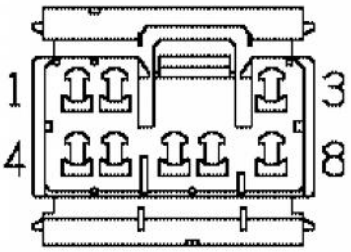


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	B	ALL
2	G	ALL
3	PN	ALL
5	UY	ALL
6	UR	ALL
7	NLG	ALL
8	PY	ALL

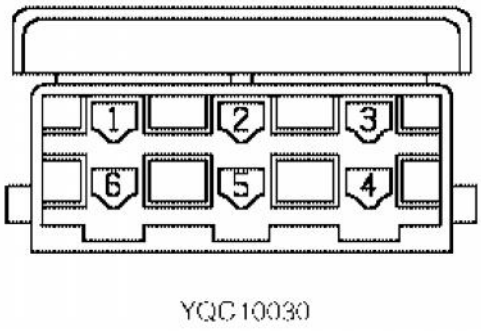
Description: *ECU - Multi function*
Location: *Behind driver side of fascia*



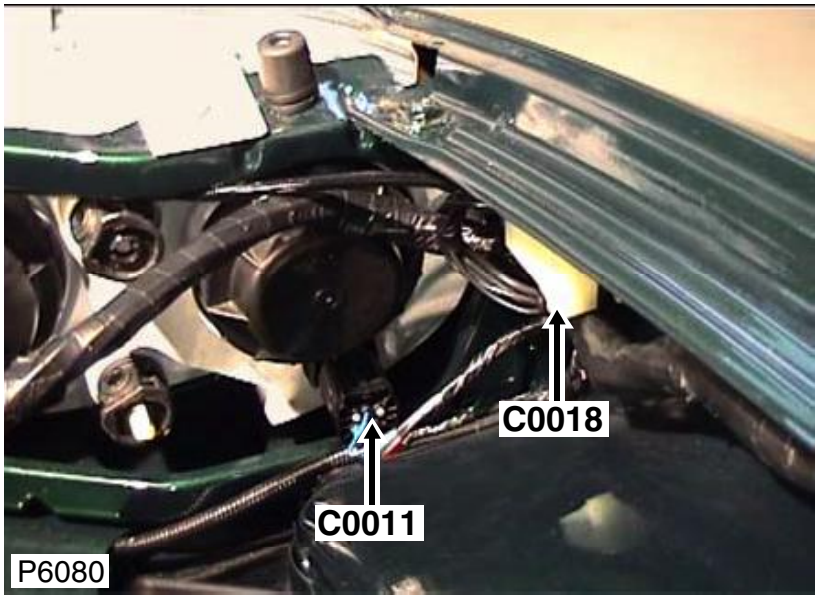
Colour: *WHITE*
Gender: *Female*

Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL

Description: *Header - Earth*
Location: *Under bonnet, LH side*

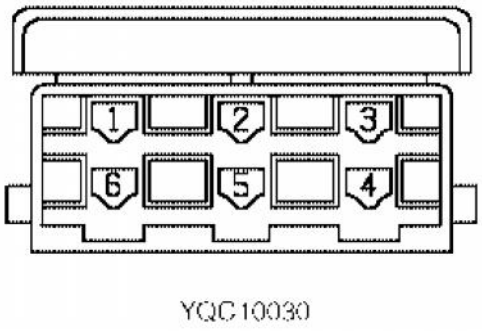


Colour: *NATURAL*
Gender: *Female*

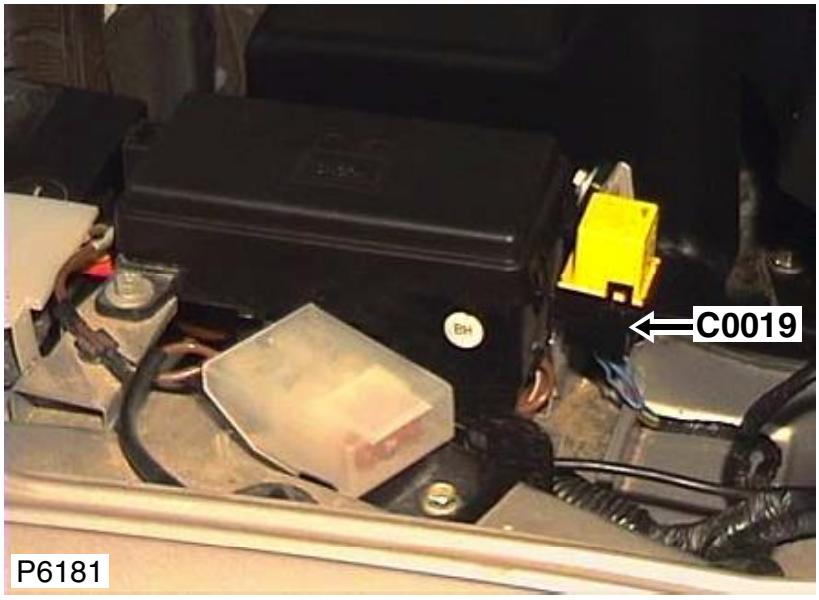


Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
5	B	1
6	B	ALL

Description: *Header - Earth*
Location: *Under bonnet, RH side*

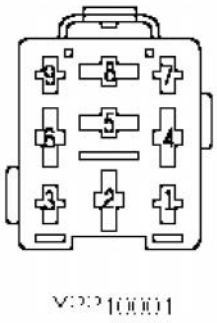


Colour: *NATURAL*
Gender: *Female*

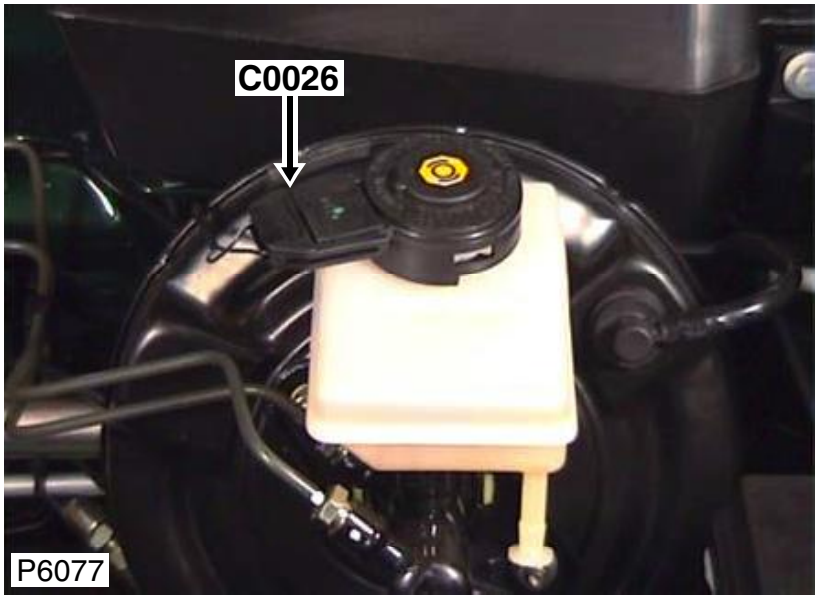


Cav	Col	Cct
2	N	4
4	LGS	4
6	US	4
8	UP	4

Description: *Relay - Cooling fan - 1*
Location: *Under bonnet, LH side*

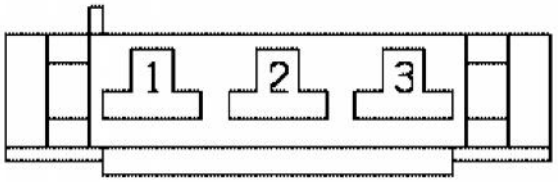


Colour: *BLACK*
Gender: *Female*



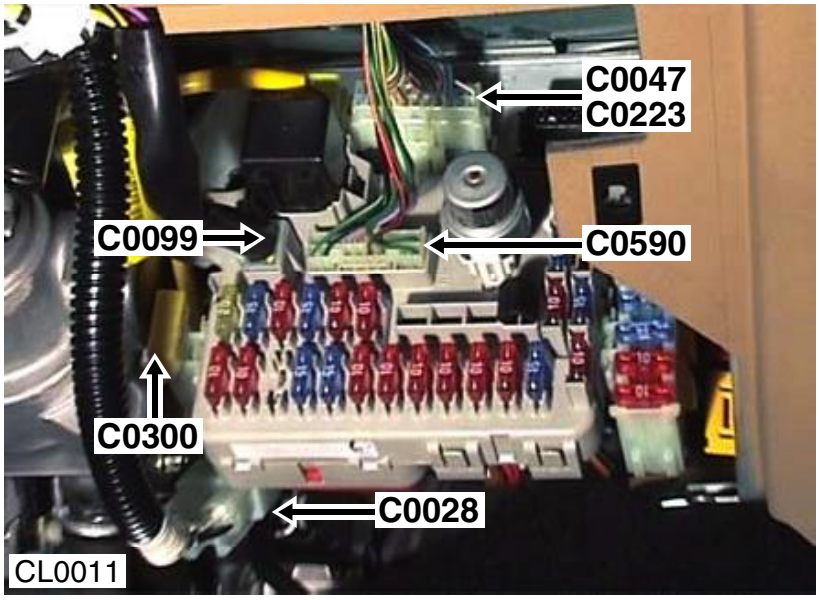
Cav	Col	Cct
1	BW	ALL
3	B	ALL

Description: *Switch - Brake fluid level*
Location: *Under bonnet, LH side*



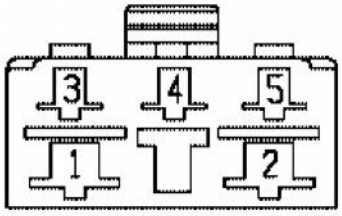
ADU6599

Colour: *BLACK*
Gender: *Female*



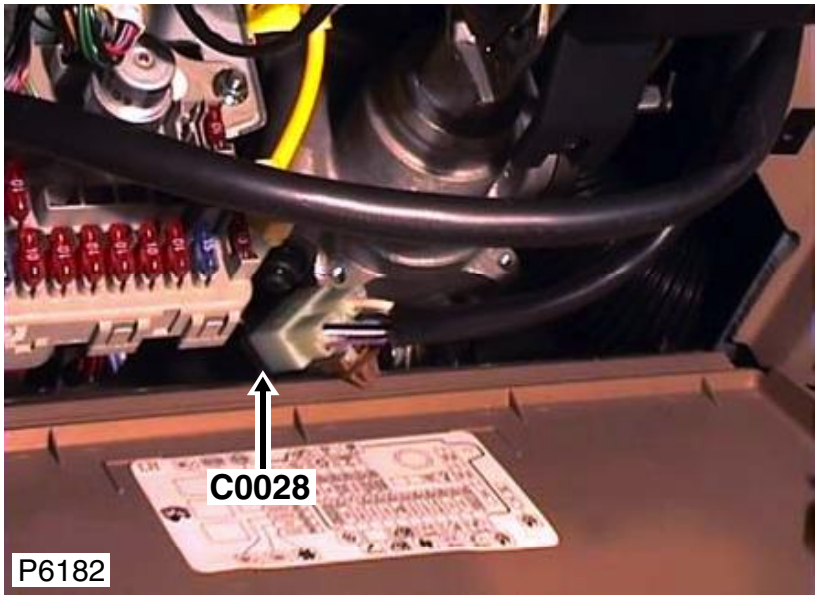
Cav	Col	Cct
1	NP	ALL
2	NW	ALL
3	WR	ALL
4	WLG	ALL
5	PR	ALL

Description: *Switch - Ignition - RHD*
Location: *Behind driver side of fascia*



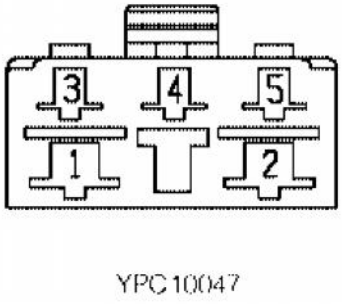
YPC10047

Colour: *NATURAL*
Gender: *Female*



Cav	Col	Cct
1	NP	ALL
2	NW	ALL
3	WR	ALL
4	WLG	ALL
5	PR	ALL

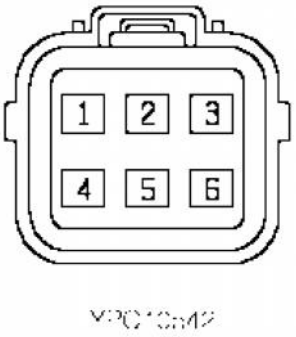
Description: *Switch - Ignition - LHD*
Location: *Behind driver side of fascia*



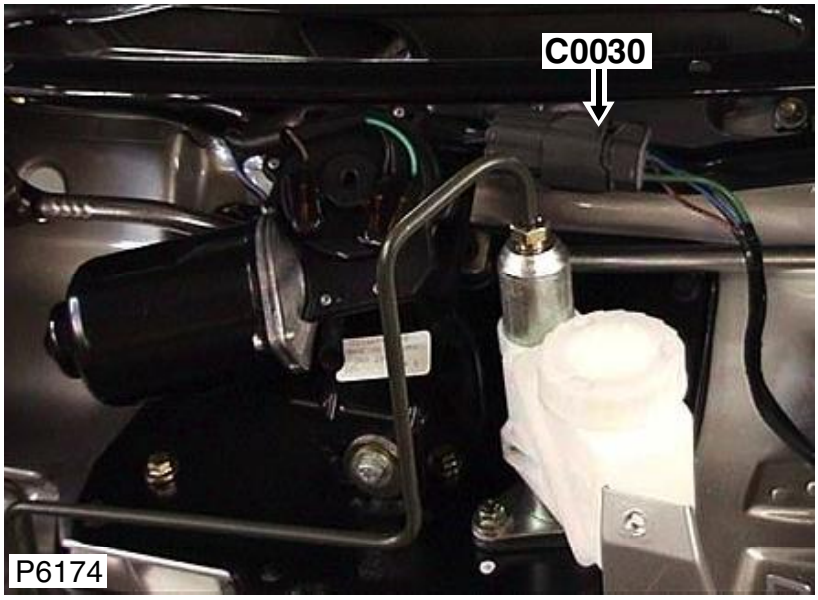
Colour: *NATURAL*
Gender: *Female*

Cav	Col	Cct
1	B	ALL
2	RLG	ALL
3	ULG	ALL
4	NLG	ALL
6	GS	ALL

Description: *Motor - Wiper - Windscreen - RHD*
Location: *Under bonnet, RH side*



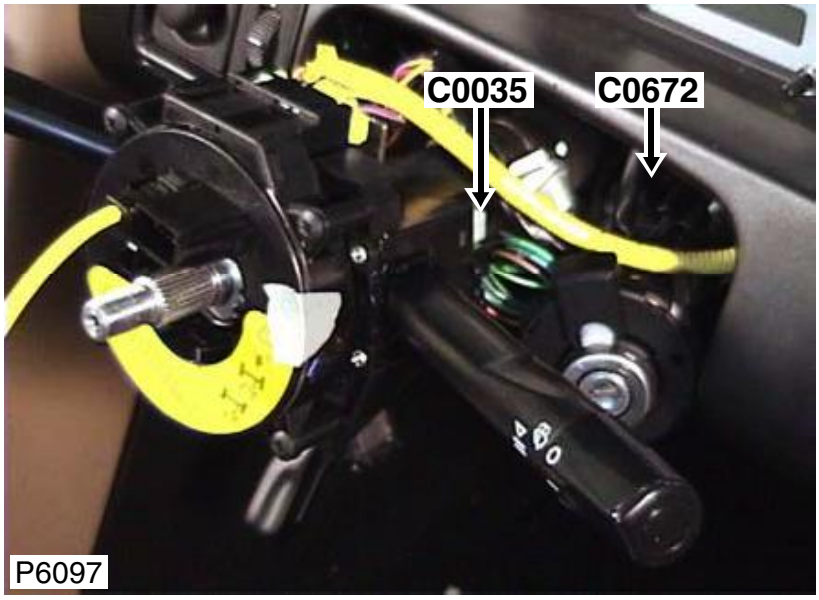
Colour: *GREY*
Gender: *Female*



Cav	Col	Cct
1	B	ALL
2	RLG	ALL
3	ULG	ALL
4	NLG	ALL
6	GS	ALL

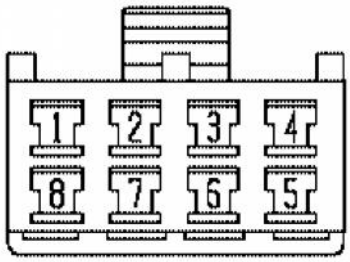
Description: *Motor - Wiper - Windscreen - LHD*
Location: *Under bonnet, LH side*

Colour: *GREY*
Gender: *Female*

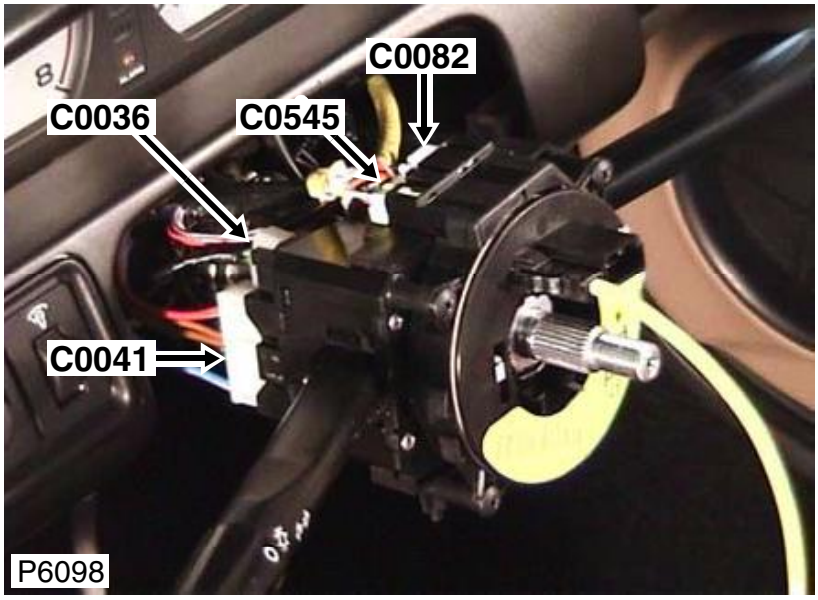


Cav	Col	Cct
1	GS	ALL
2	LGG	ALL
3	ULG	ALL
4	RLG	ALL
5	B	ALL
7	LGP	ALL
8	LGB	ALL

Description: *Switch - Wiper - Front*
Location: *RH side of steering column*

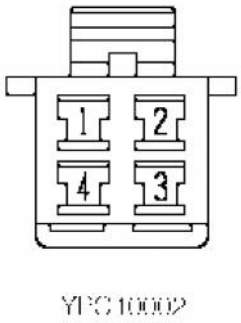


Colour: *NATURAL*
Gender: *Female*

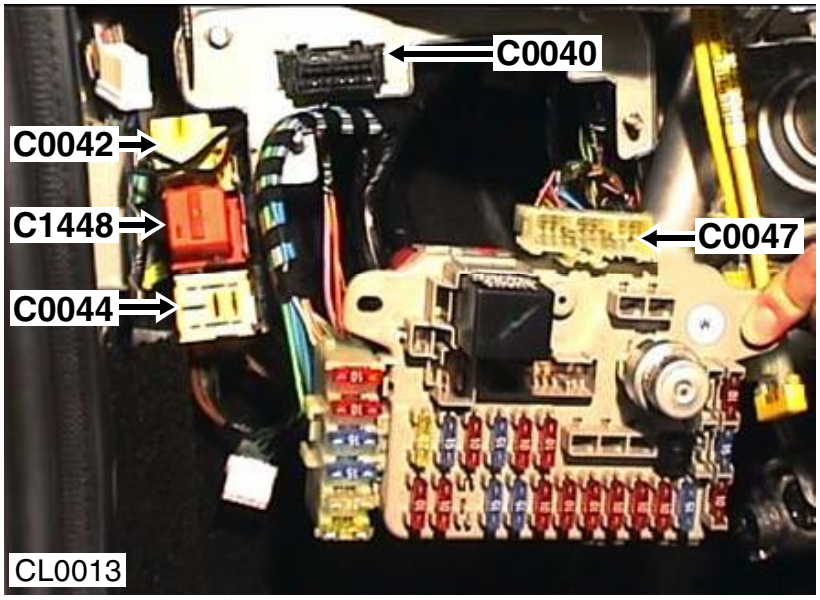


Cav	Col	Cct
1	GR	ALL
2	LGN	ALL
4	GW	ALL

Description: *Switch - Direction indicator*
Location: *LH side of steering column*

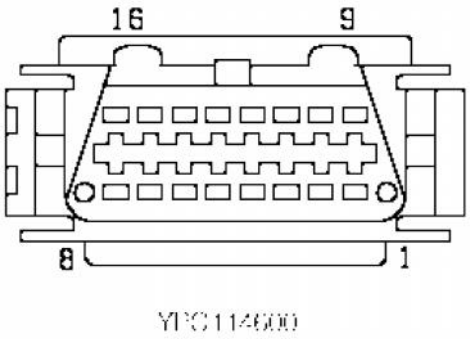


Colour: *NATURAL*
Gender: *Female*

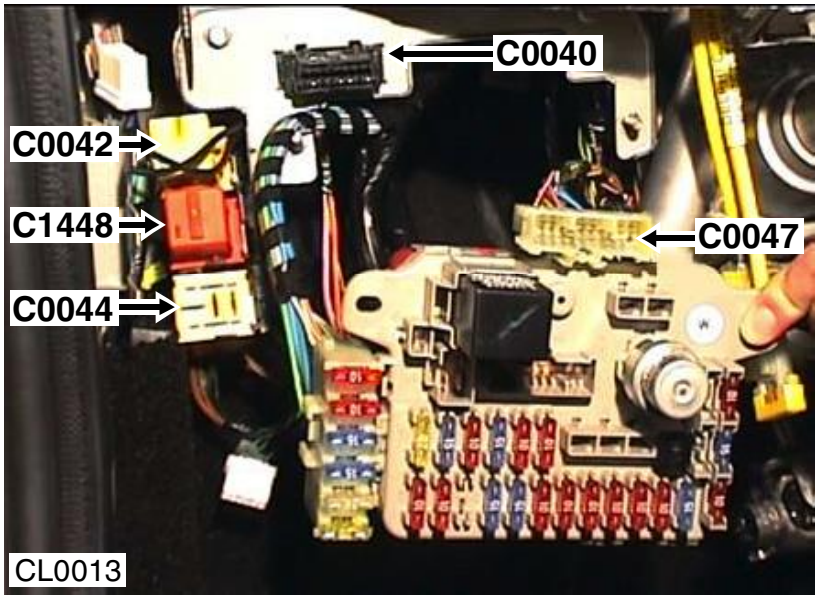


Cav	Col	Cct
1	OU	ALL
3	RU	ALL
4	B	ALL
7	K	5
13	YK	ALL
16	P	ALL

Description: *Diagnostic socket - RHD*
Location: *Behind driver side of fascia*

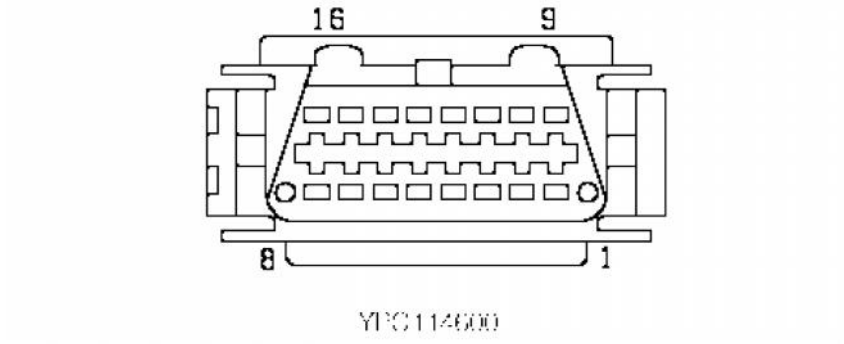


Colour: *BLACK*
Gender: *Female*

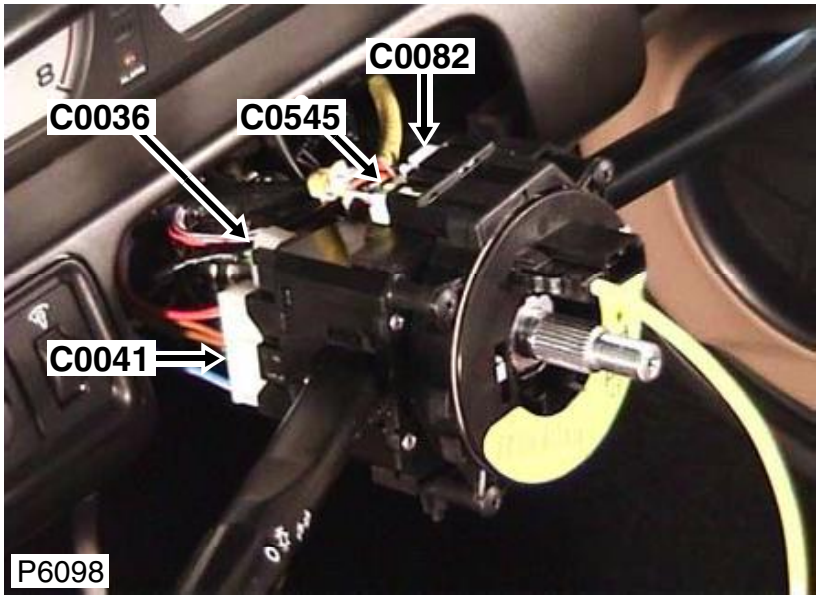


Cav	Col	Cct
1	OU	ALL
3	RU	ALL
4	B	ALL
7	K	5
13	YK	ALL
16	P	ALL

Description: *Diagnostic socket - LHD*
Location: *Behind driver side of fascia*

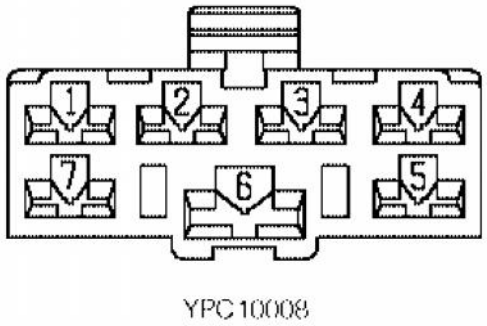


Colour: *BLACK*
Gender: *Female*

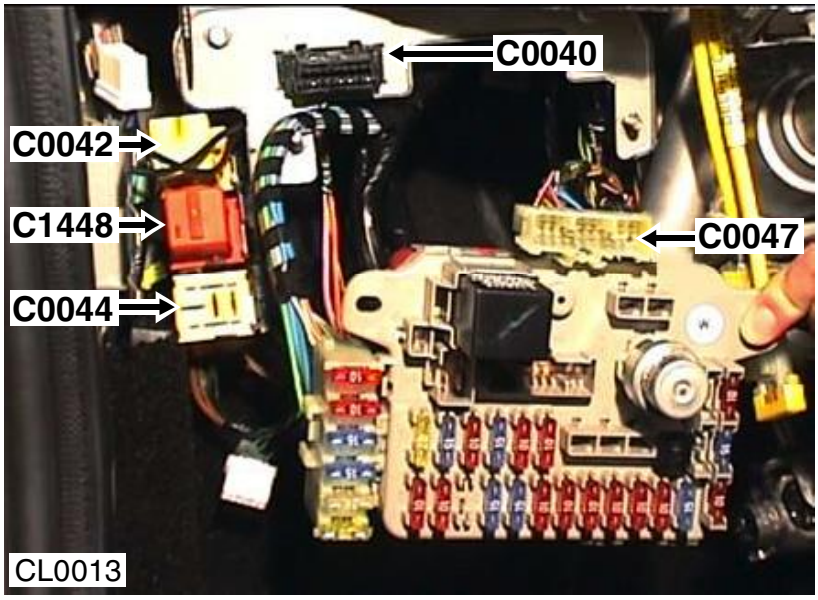


Cav	Col	Cct
1	UK	ALL
3	N	ALL
4	R	ALL
5	UW	ALL
6	N	ALL

Description: *Switch - Lighting*
Location: *LH side of steering column*

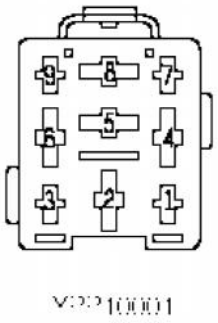


Colour: *NATURAL*
Gender: *Female*

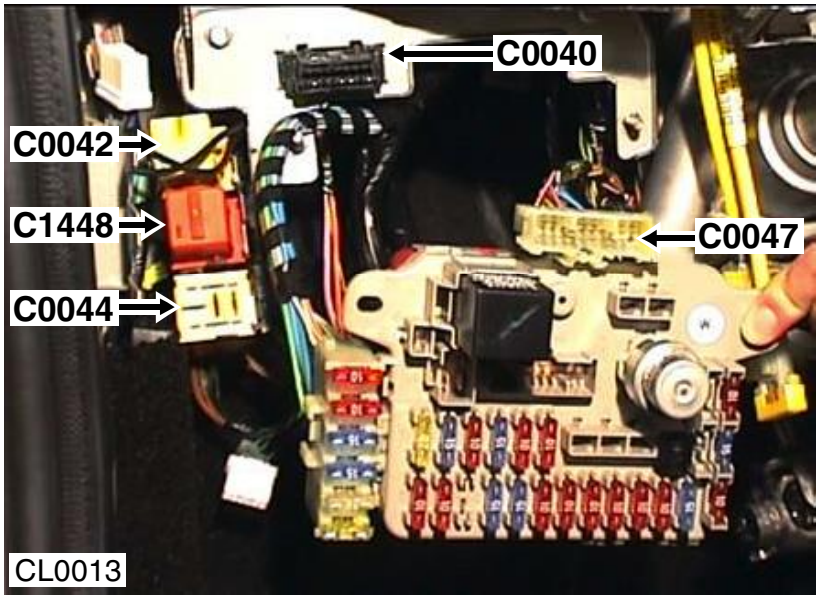


Cav	Col	Cct
2	N	ALL
4	N	ALL
6	BN	ALL
8	NU	ALL

Description: *Relay - Window lift - Front - RHD*
Location: *Behind driver side of fascia*

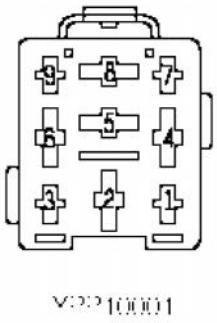


Colour: *BLACK*
Gender: *Female*

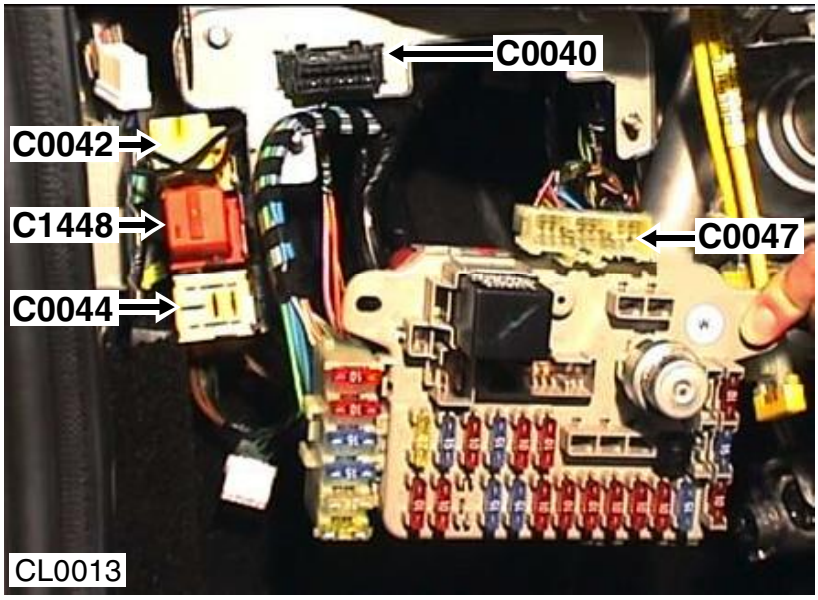


Cav	Col	Cct
2	N	ALL
4	N	ALL
6	BN	ALL
8	NU	ALL

Description: *Relay - Window lift - Front - LHD*
Location: *Behind driver side of fascia*

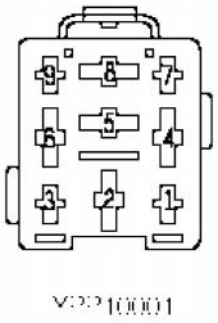


Colour: *BLACK*
Gender: *Female*

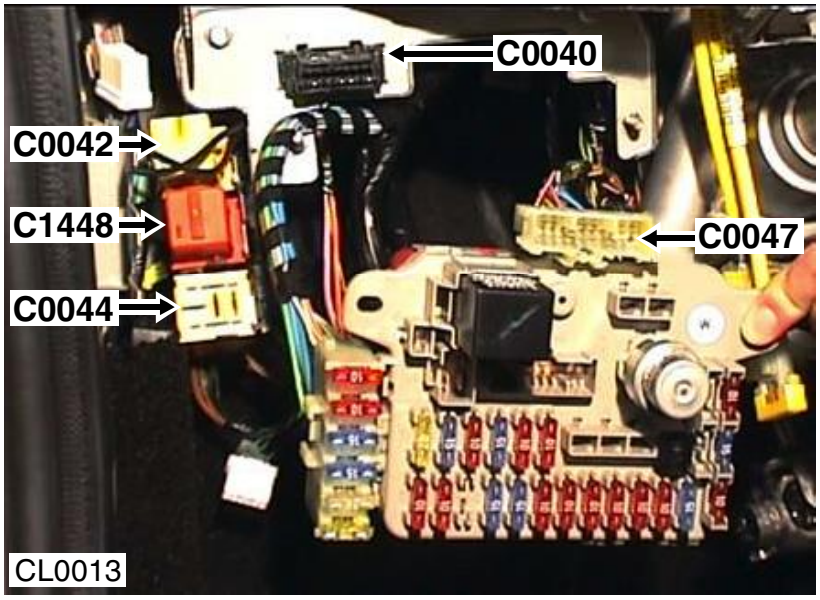


Cav	Col	Cct
2	NO	ALL
4	GO	ALL
6	B	ALL
8	BG	ALL

Description: *Relay - Heated rear screen - RHD*
Location: *Behind driver side of fascia*

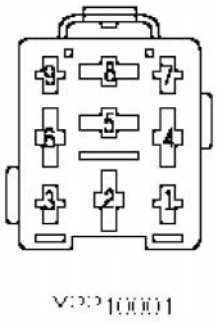


Colour: *BLACK*
Gender: *Female*

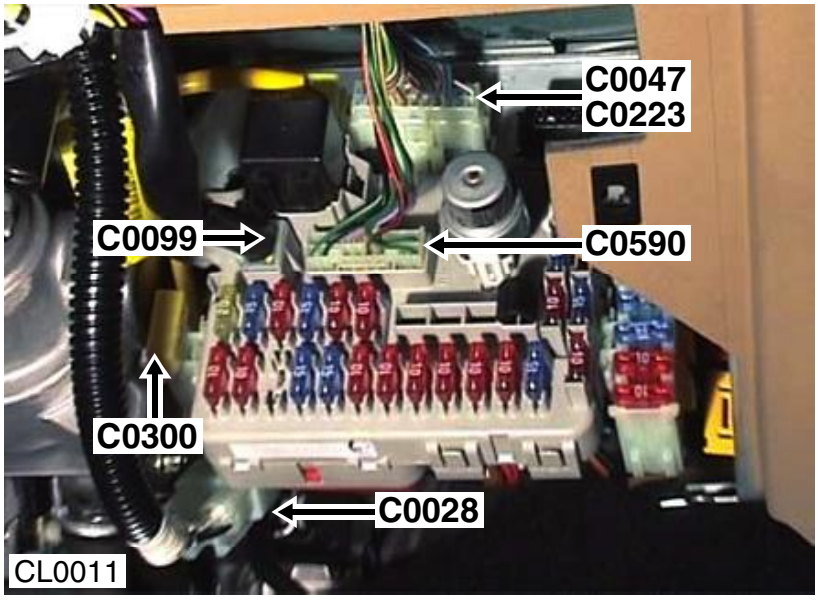


Cav	Col	Cct
2	NO	ALL
4	GO	ALL
6	B	ALL
8	BG	ALL

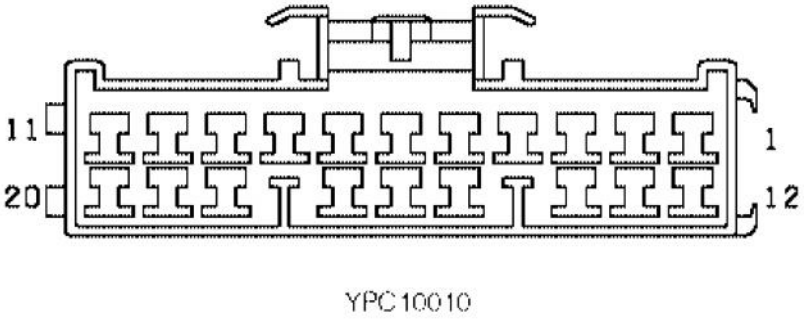
Description: *Relay - Heated rear screen - LHD*
Location: *Behind driver side of fascia*



Colour: *BLACK*
Gender: *Female*

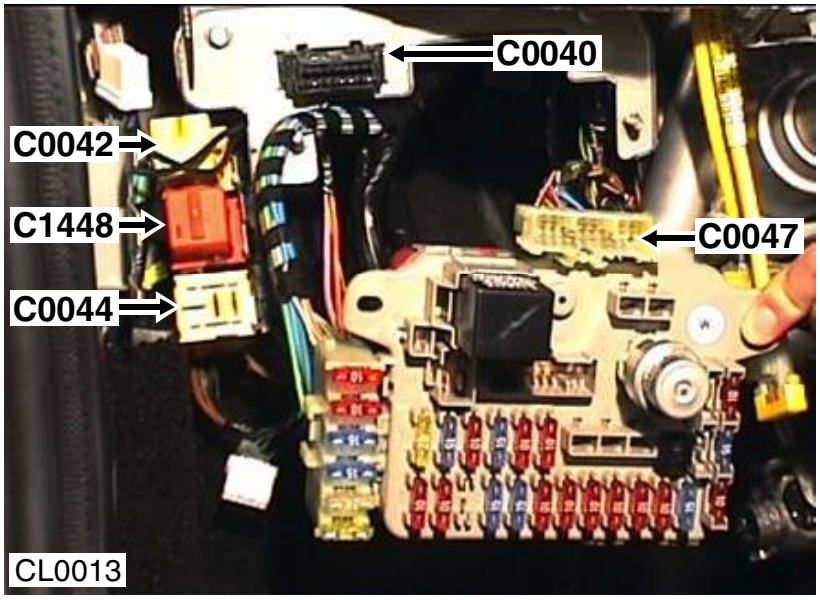


Description: *Main harness to fascia harness - RHD*
Location: *Behind driver side of fascia*

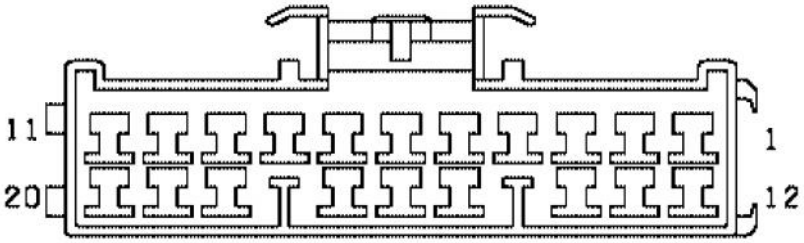


Colour: *NATURAL*
Gender: *Male*

Cav	Col	Cct
1	UY	ALL
2	WB	5
3	LGY	ALL
4	WN	ALL
5	NO	ALL
6	GU	ALL
7	UR	1
7	B	6
8	GB	ALL
9	UK	ALL
10	UG	ALL
11	BR	3
12	UO	ALL
13	KU	5
14	GR	ALL
15	WO	ALL
16	OP	ALL
17	NU	ALL
18	WO	5
19	PR	ALL
20	WG	8



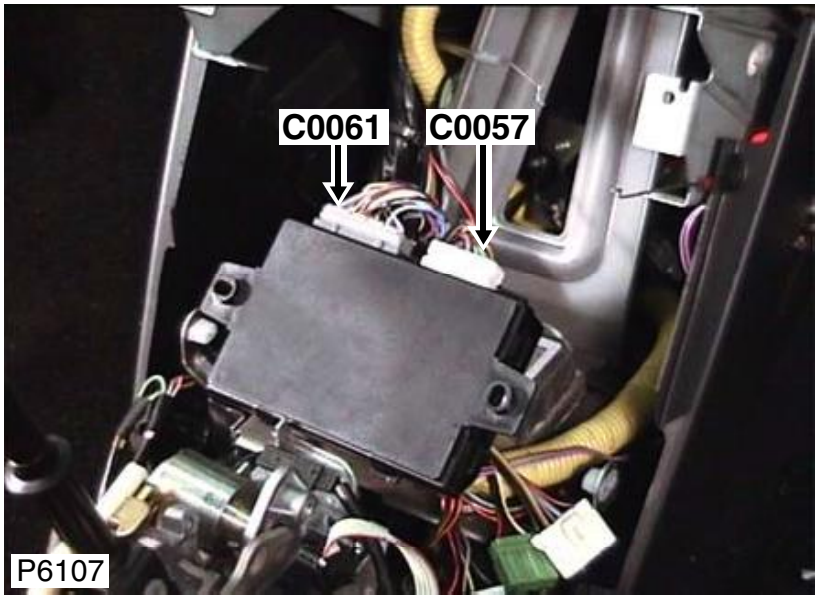
Description: *Main harness to fascia harness - LHD*
Location: *Behind driver side of fascia*



YPC10010

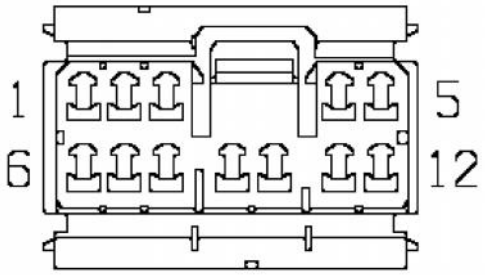
Colour: *NATURAL*
Gender: *Male*

Cav	Col	Cct
1	UY	ALL
2	WB	5
3	LGY	ALL
4	WN	ALL
5	NO	ALL
6	GU	ALL
7	UR	1
7	B	6
8	GB	ALL
9	UK	ALL
10	UG	ALL
12	UO	ALL
13	KU	5
14	GR	ALL
15	WO	ALL
16	OP	ALL
17	NU	ALL
18	WO	5
19	PR	ALL
20	WG	8

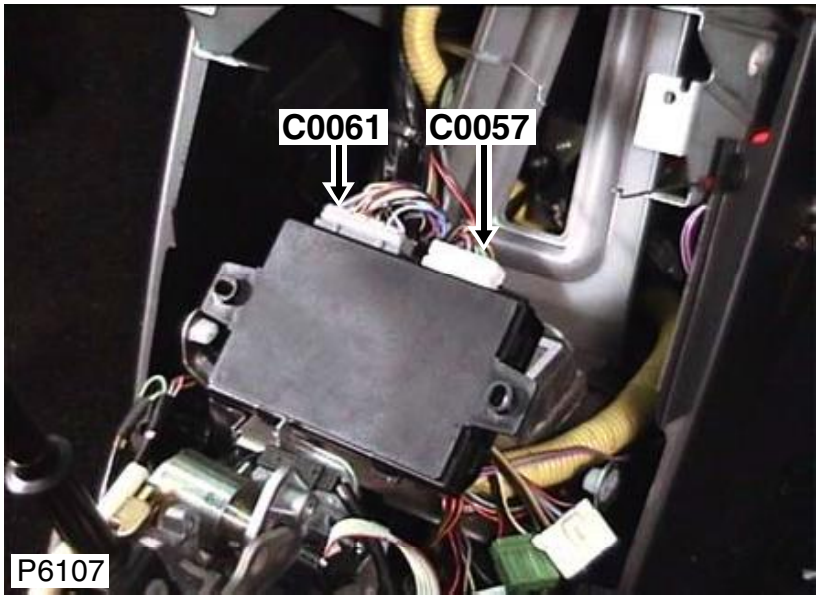


Cav	Col	Cct
1	NK	ALL
6	GW	ALL
7	GR	ALL
8	SW	ALL
9	NS	ALL
11	SR	ALL
12	PK	ALL

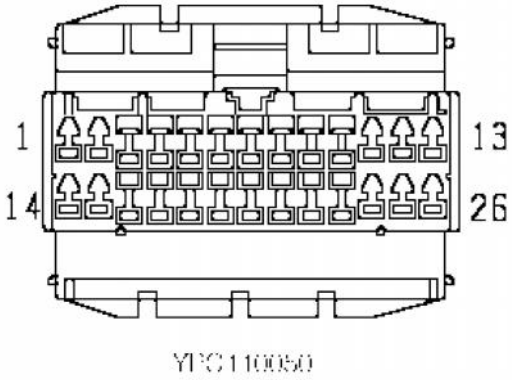
Description: *ECU - Alarm*
Location: *Behind centre console*



Colour: *WHITE*
Gender: *Female*

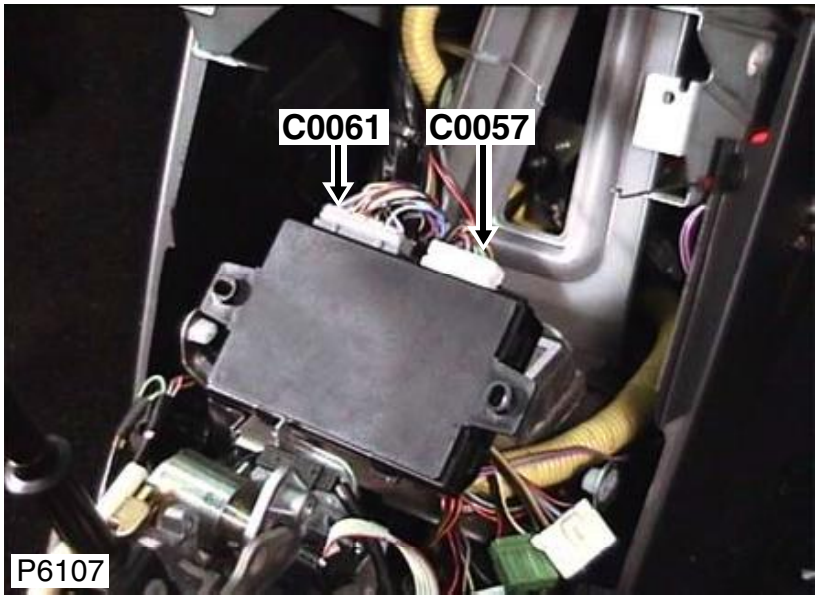


Description: *ECU - Alarm - RHD*
Location: *Behind centre console*

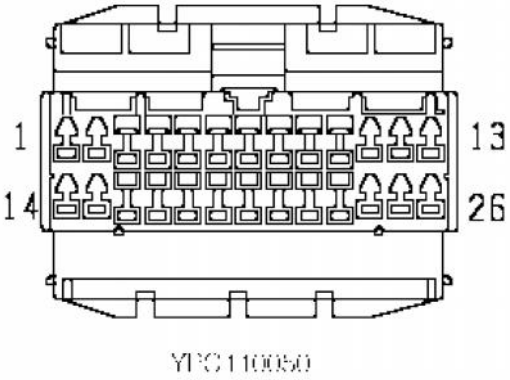


Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	W	ALL
2	B	ALL
4	BK	ALL
6	PW	ALL
7	PS	ALL
8	PB	ALL
9	YR	ALL
10	Y	ALL
11	K	ALL
13	O	ALL
14	WB	10
16	RU	ALL
17	UK	ALL
18	BP	ALL
19	BO	ALL
20	NB	10
21	PR	ALL
22	BR	ALL
23	BU	8
23	BW	18
24	OU	ALL
25	WG	ALL
26	P	ALL

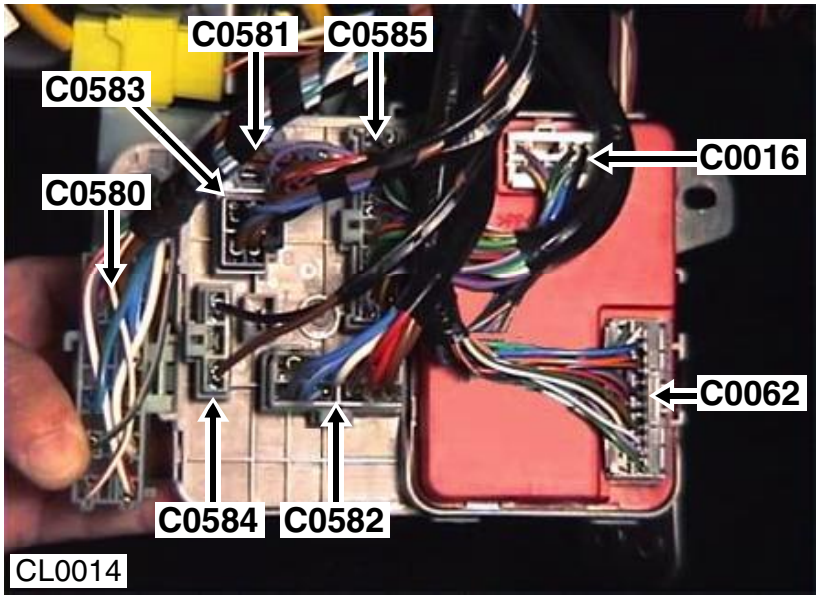


Description: *ECU - Alarm - LHD*
Location: *Behind centre console*

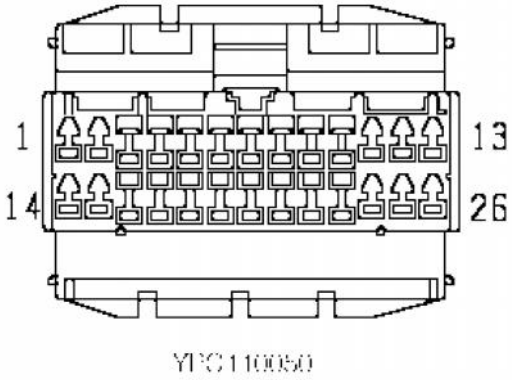


Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	W	ALL
2	B	ALL
4	BK	ALL
6	PS	ALL
7	PW	ALL
8	PB	ALL
9	YR	ALL
10	Y	ALL
11	K	ALL
13	O	ALL
14	WB	ALL
16	RU	ALL
17	UK	ALL
18	BP	ALL
19	BO	ALL
20	NB	ALL
21	PR	ALL
22	BR	ALL
23	BU	8
23	BW	18
24	OU	ALL
25	WG	ALL
26	P	ALL

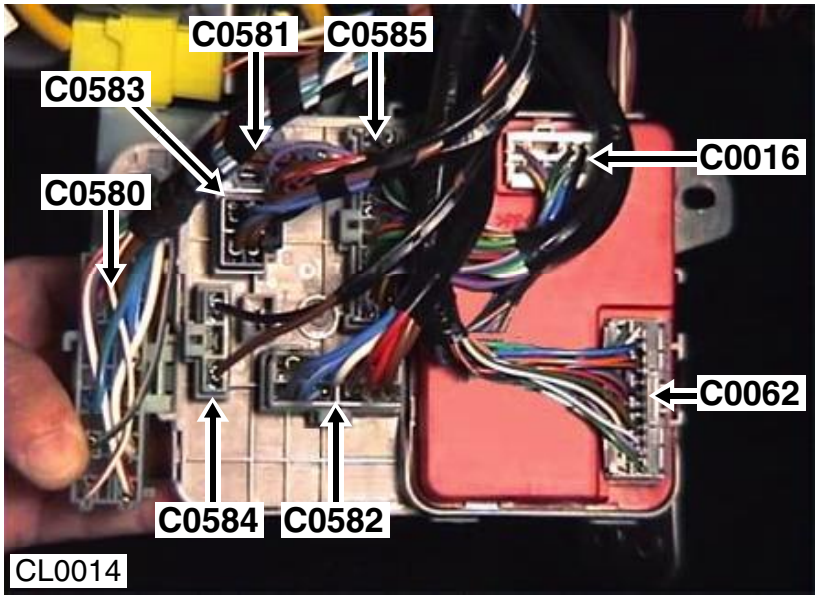


Description: *ECU - Multi function - RHD*
Location: *Behind driver side of fascia*

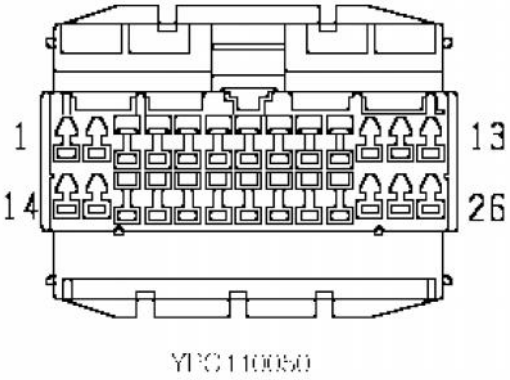


Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	LGG	ALL
2	PR	ALL
3	WG	ALL
4	GO	ALL
6	PB	ALL
7	BN	ALL
10	BR	3
12	UB	ALL
13	WN	ALL
14	WY	3
18	RB	ALL
20	PS	ALL
21	PW	ALL
22	BO	ALL
24	RY	ALL
26	LGP	ALL

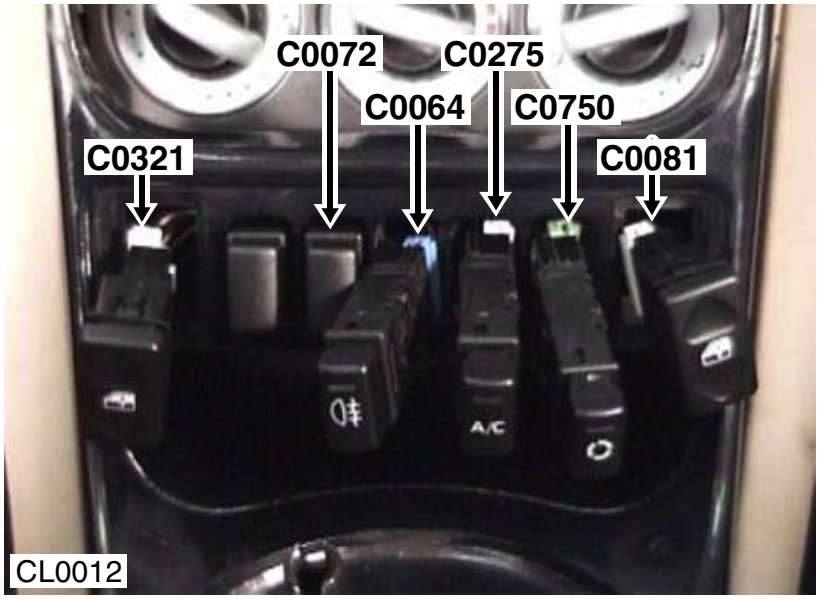


Description: *ECU - Multi function - LHD*
Location: *Behind driver side of fascia*



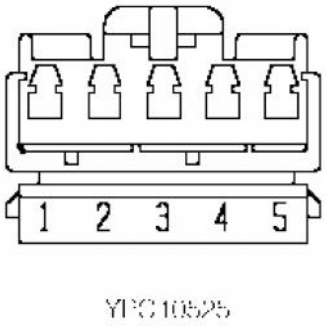
Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	LGG	ALL
2	PR	ALL
3	WG	ALL
4	GO	ALL
6	PB	ALL
7	BN	ALL
12	UB	ALL
13	WN	ALL
18	RB	ALL
20	PW	ALL
21	PS	ALL
22	BO	ALL
24	RY	ALL
26	LGP	ALL

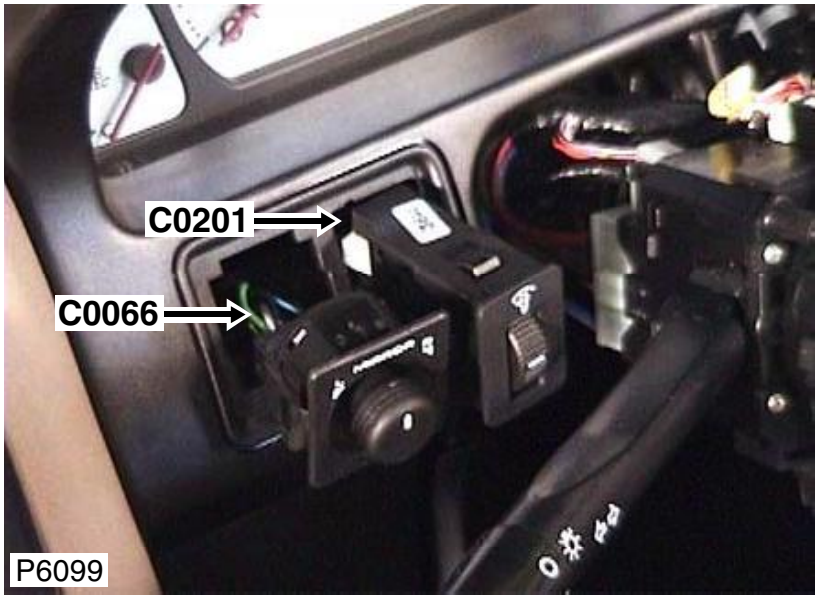


Cav	Col	Cct
1	RY	ALL
2	RB	ALL
4	B	ALL
5	UY	ALL

Description: *Switch - Fog guard lamp - Rear*
Location: *Beneath front console*

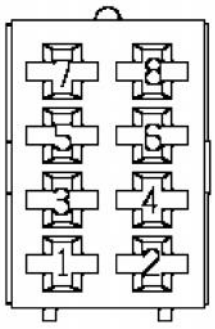


Colour: *BLUE*
Gender: *Female*

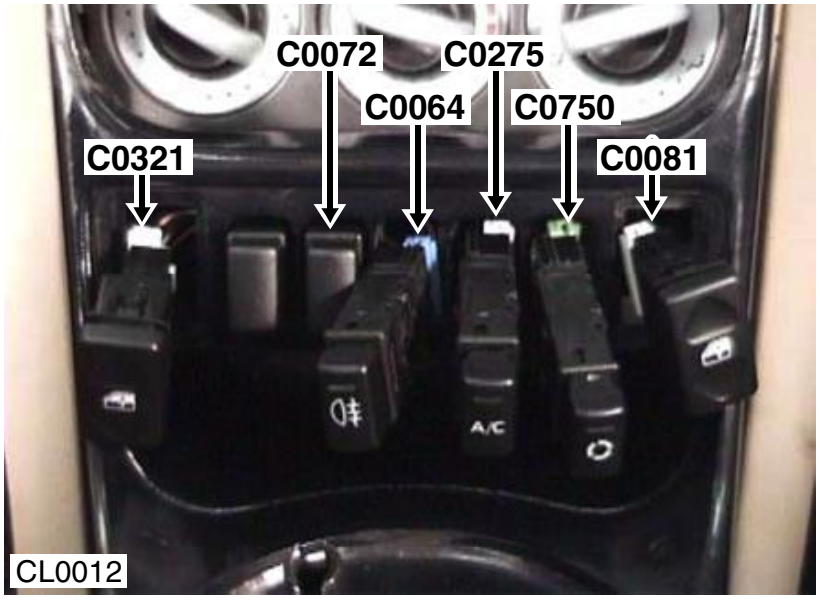


Cav	Col	Cct
1	BY	7
2	BN	7
3	SW	7
4	LG	7
5	BP	7
6	B	7
7	BU	7

Description: *Switch - Mirror*
Location: *Adjacent steering column*

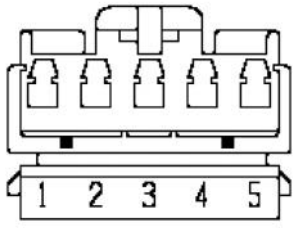


Colour: *BLACK*
Gender: *Female*

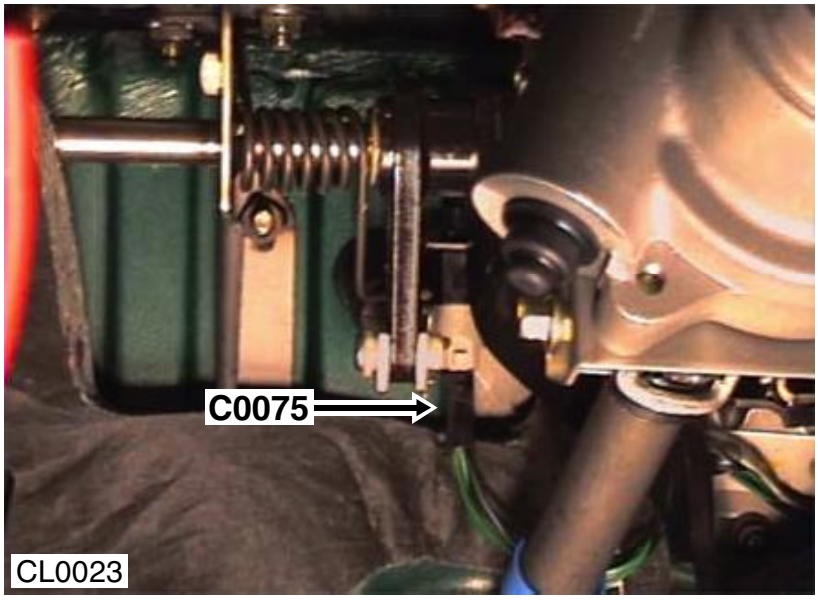


Cav	Col	Cct
1	BO	ALL
2	RB	ALL
4	B	ALL
5	BG	ALL

Description: *Switch - Heated rear screen*
Location: *Beneath front console*

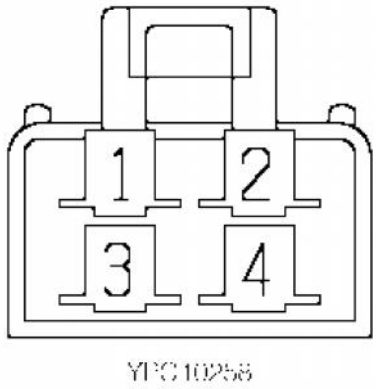


Colour: *BLACK*
Gender: *Female*

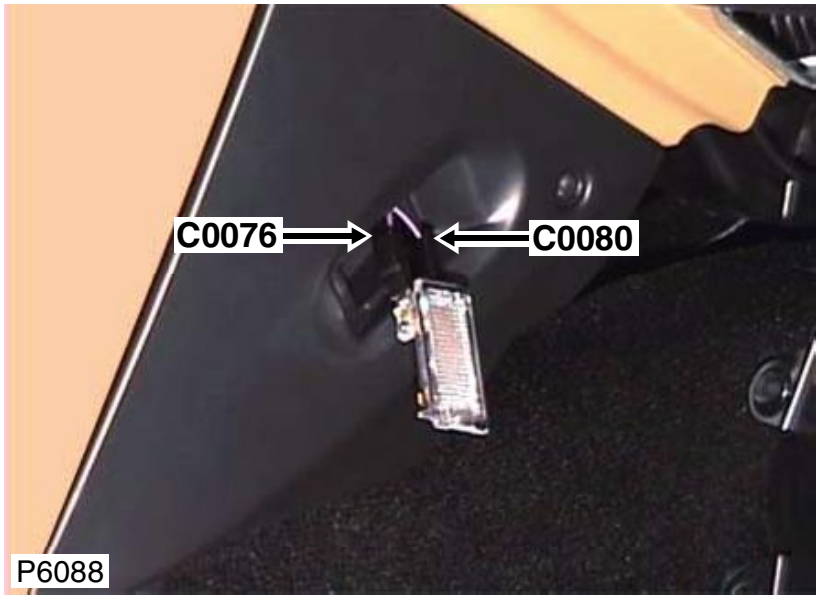


Cav	Col	Cct
2	GP	ALL
3	GY	ALL

Description: *Switch - Brake pedal*
Location: *LH side of steering column*



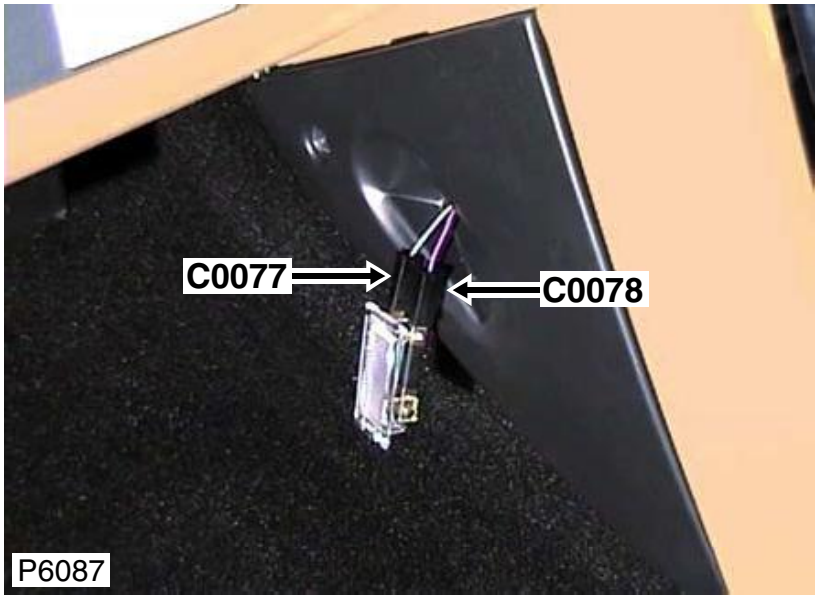
Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	PR	ALL

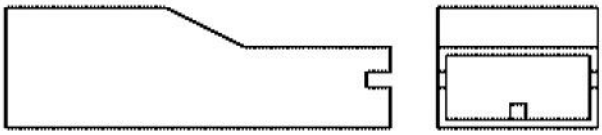
Description: *Lamp - Footwell - Front - RH*
Location: *Behind footwell trim panel - RH side*

Colour: *BLACK*
Gender: *Female*



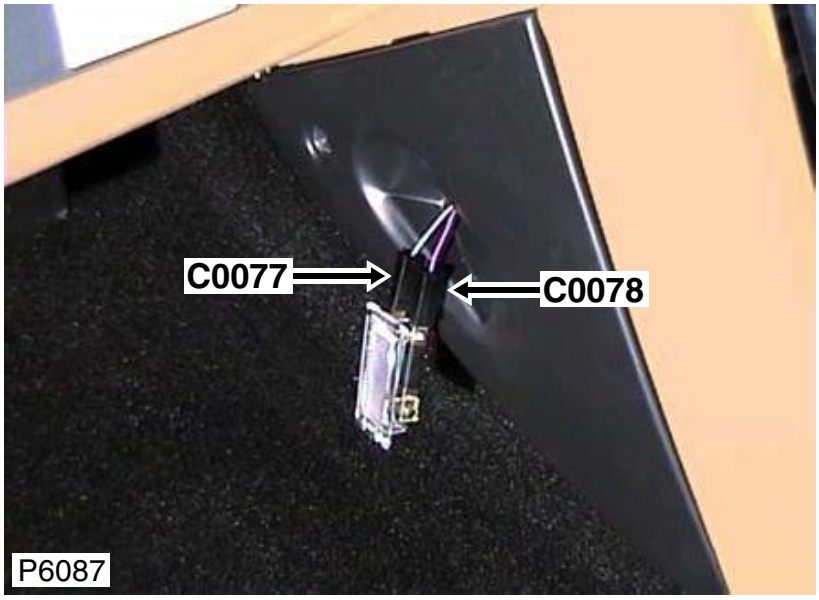
Cav	Col	Cct
LL	P	ALL
1	P	ALL

Description: *Lamp - Footwell - Front - LH*
Location: *Behind footwell trim panel - LH side*



AAU1010

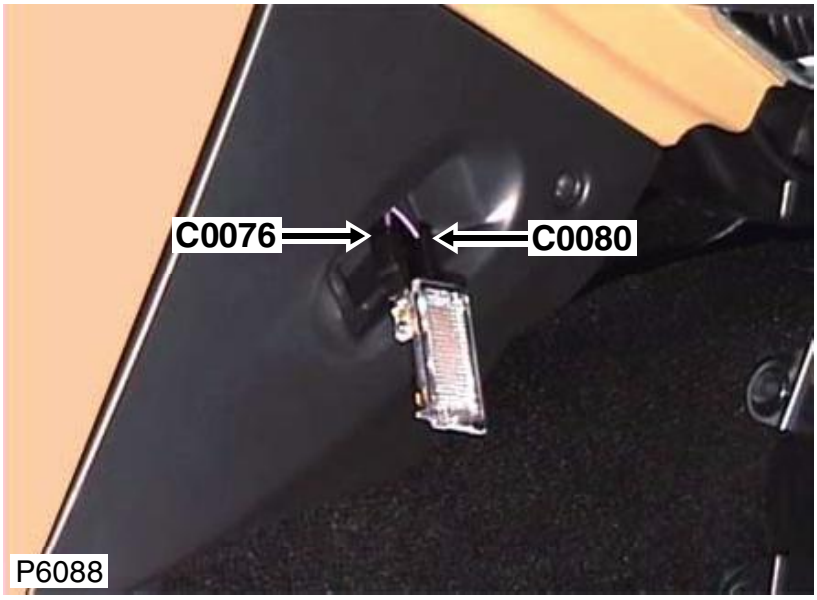
Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	PR	ALL

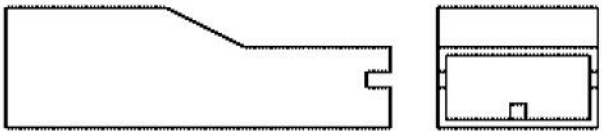
Description: *Lamp - Footwell - Front - LH*
Location: *Behind footwell trim panel - LH side*

Colour: *BLACK*
Gender: *Female*

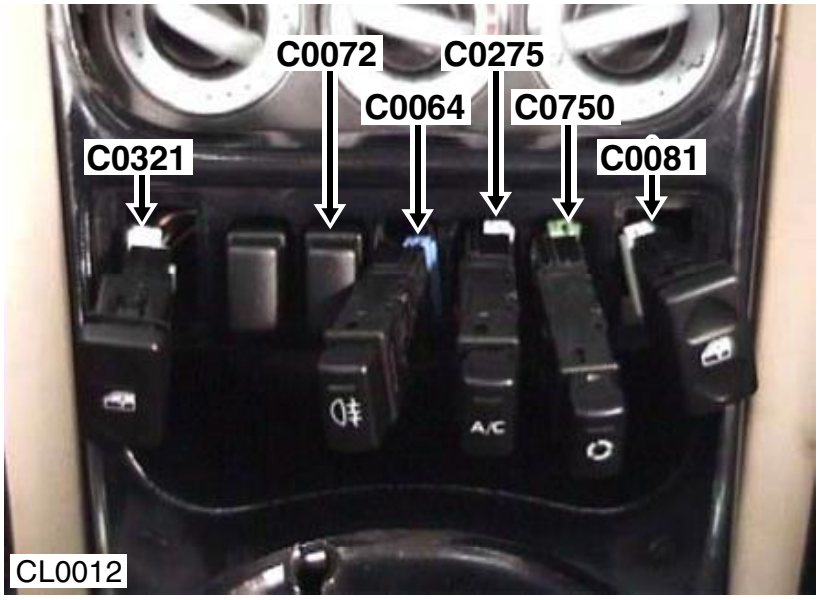


Cav	Col	Cct
1	P	ALL

Description: *Lamp - Footwell - Front - RH*
Location: *Behind footwell trim panel - RH side*

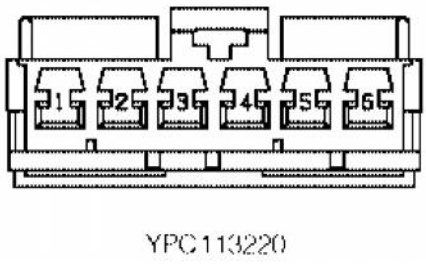


Colour: *BLACK*
Gender: *Female*

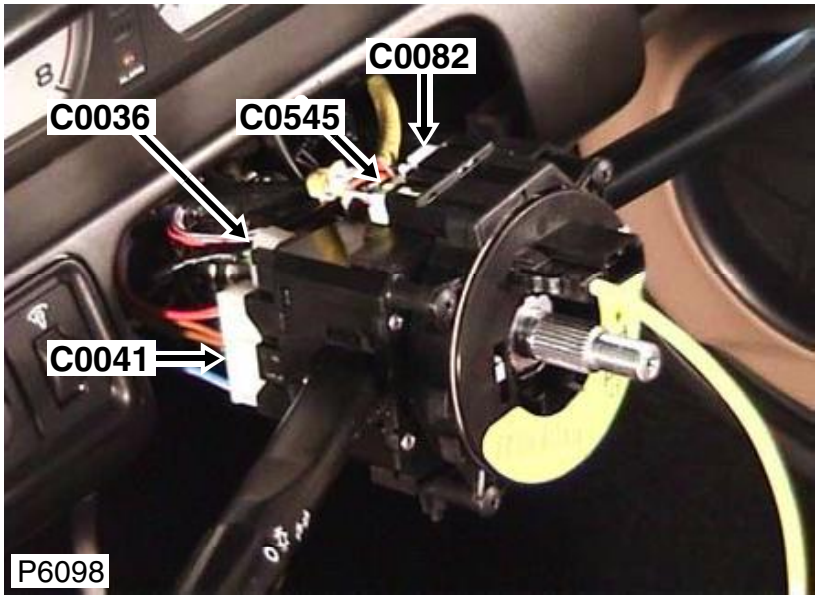


Cav	Col	Cct
1	B	ALL
2	SG	ALL
3	SY	ALL
4	SR	ALL
6	RB	ALL

Description: *Switch - Window - Front - RH*
Location: *Beneath front console*

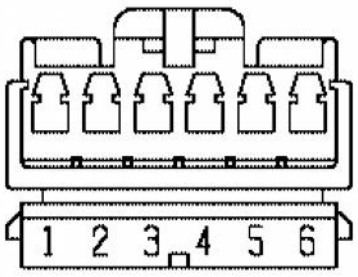


Colour: *WHITE*
Gender: *Female*

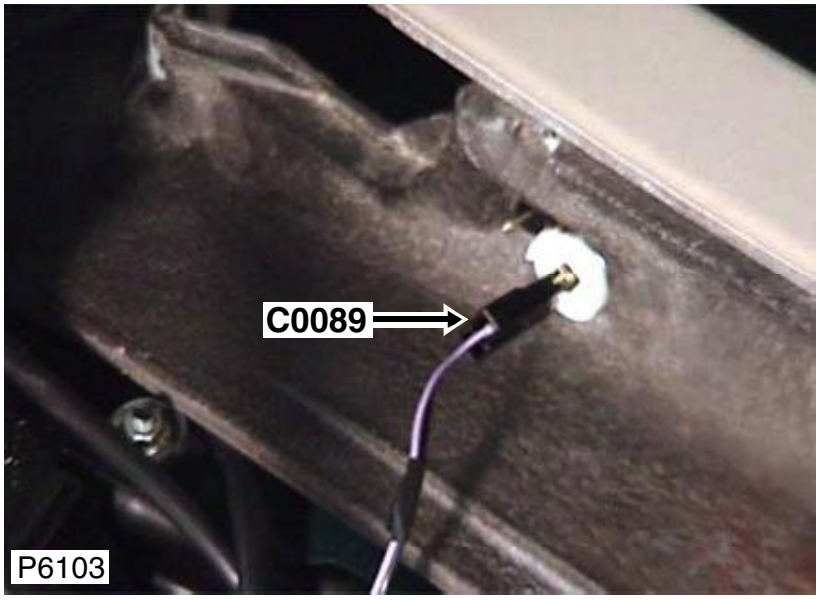


Cav	Col	Cct
1	WR	8
2	R	8
3	RB	8
4	PB	ALL
6	B	ALL

Description: *Rotary coupler*
Location: *LH side of steering column*

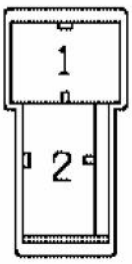


Colour: *WHITE*
Gender: *Female*



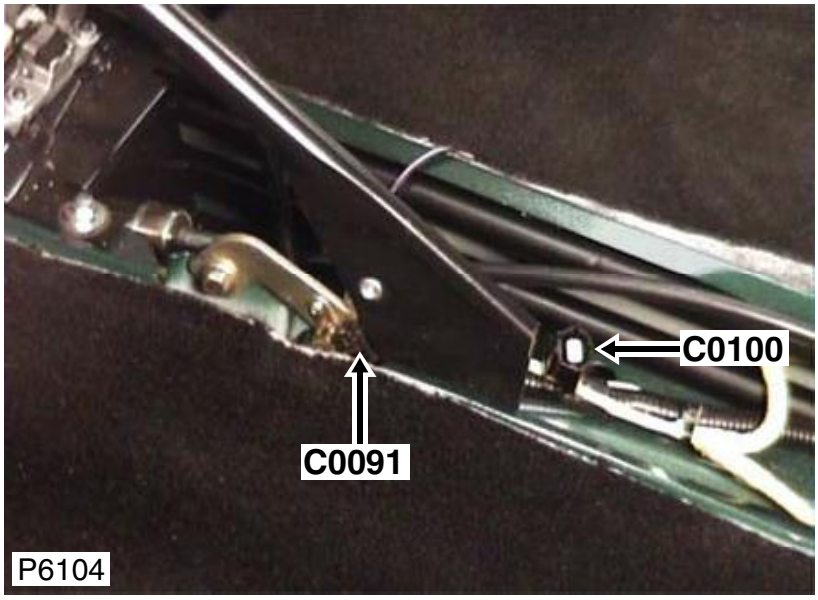
Cav	Col	Cct
1	B	ALL
2	PS	ALL

Description: *Cigar lighter - Front*
Location: *Behind centre console*



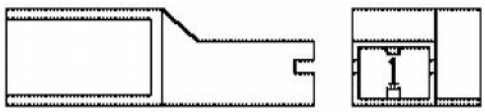
AFU3199

Colour: *BLACK*
Gender: *Female*



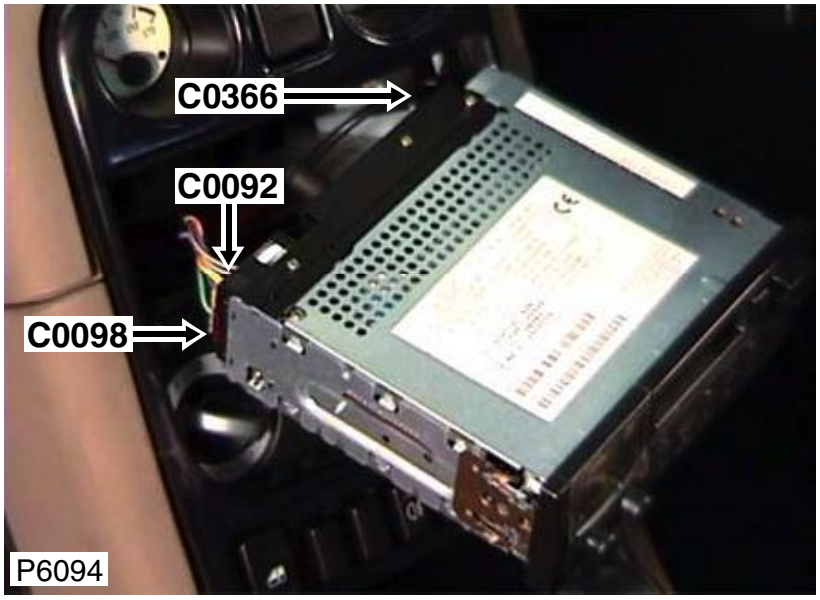
Cav	Col	Cct
1	BW	ALL

Description: *Switch - Handbrake*
Location: *Behind centre console*



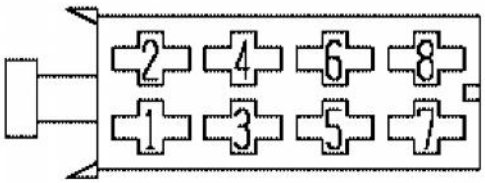
YPC10165

Colour: *BLACK*
Gender: *Female*



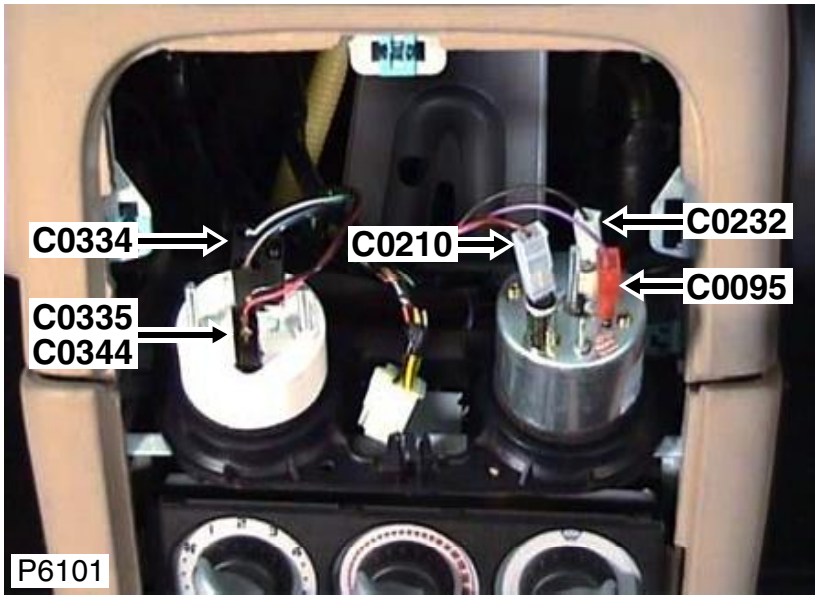
Cav	Col	Cct
1	SK	ALL
2	SB	ALL
3	OK	ALL
4	OB	ALL
5	YK	ALL
6	YB	ALL
7	UK	ALL
8	UB	ALL

Description: *Speakers*
Location: *Behind radio*



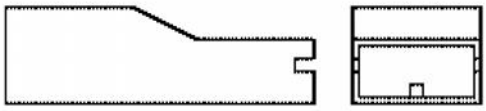
YPC10191

Colour: *BROWN*
Gender: *Female*



Cav	Col	Cct
1	P	ALL

Description: *Clock - Analogue*
Location: *Beneath front console*

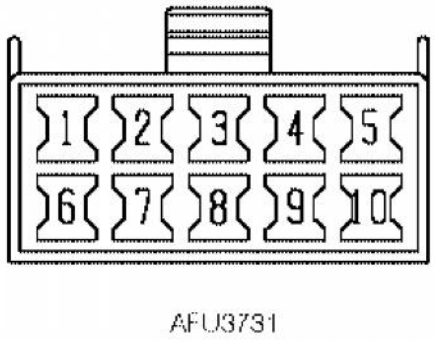


YPC10245

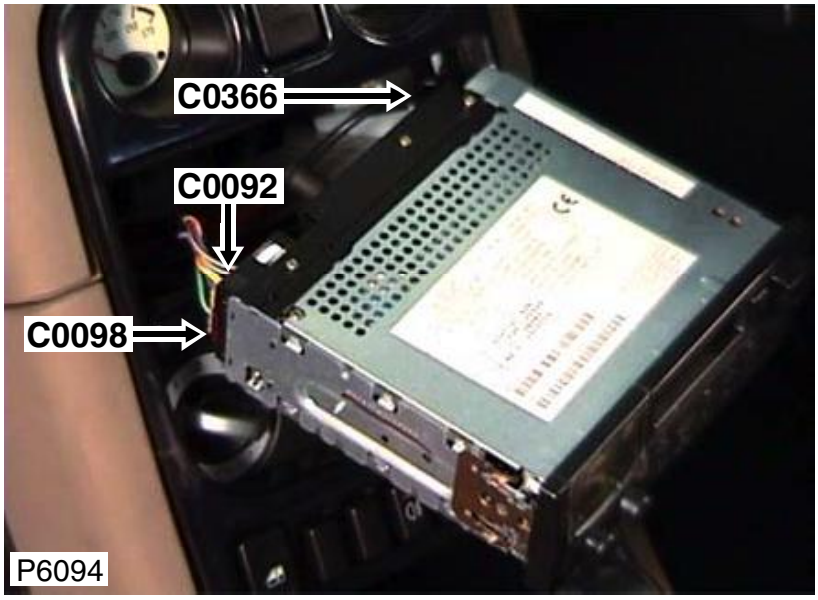
Colour: *RED*
Gender: *Female*

Cav	Col	Cct
1	G	ALL
2	NO	ALL
3	LGK	ALL
4	RB	ALL
5	B	ALL
6	LGN	ALL
7	GR	ALL
8	LGY	ALL
9	GW	ALL
10	Y	ALL

Description: *Switch - Hazard warning*
Location: *Beneath front console*

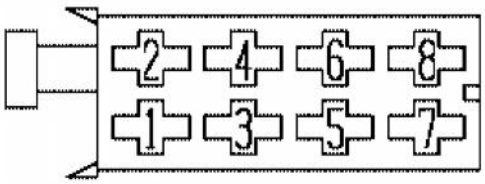


Colour: *NATURAL*
Gender: *Female*



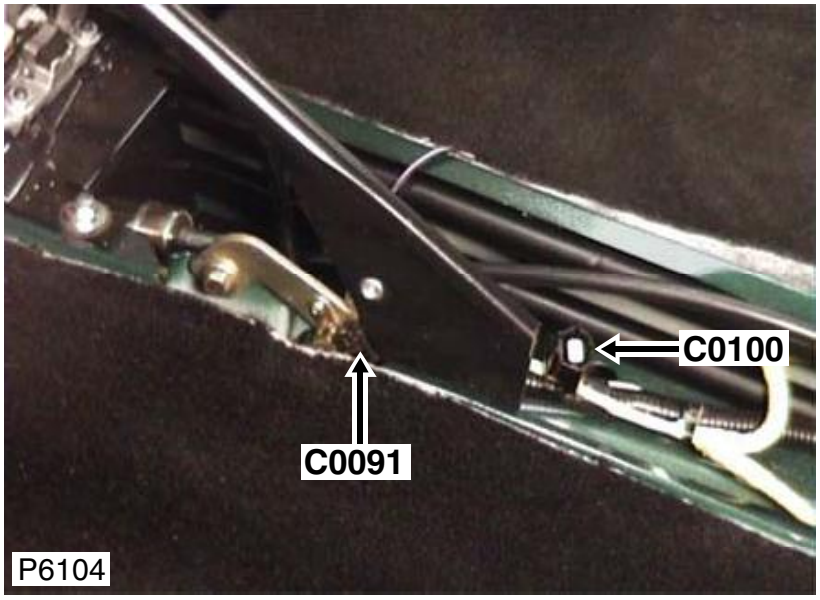
Cav	Col	Cct
4	P	ALL
6	RB	ALL
7	LGW	ALL
8	B	ALL

Description: *Radio / cassette player*
Location: *Behind radio*



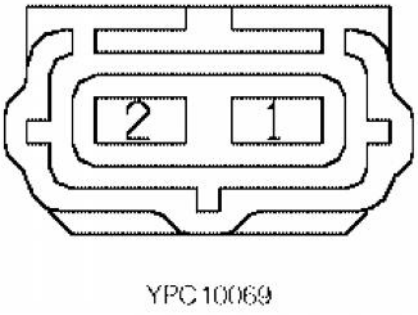
YPC10190

Colour: *GREY*
Gender: *Female*

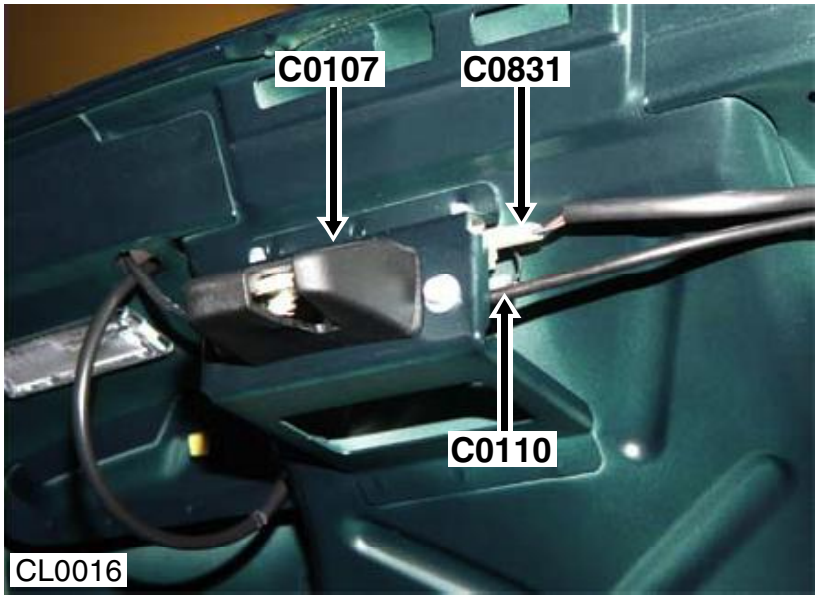


Cav	Col	Cct
1	G	3
2	WY	3

Description: *Switch - Seat belt*
Location: *Behind centre console*

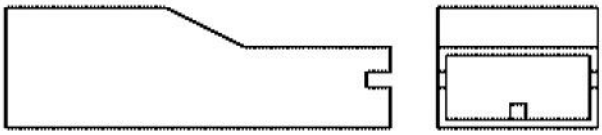


Colour: *BLACK*
Gender: *Female*

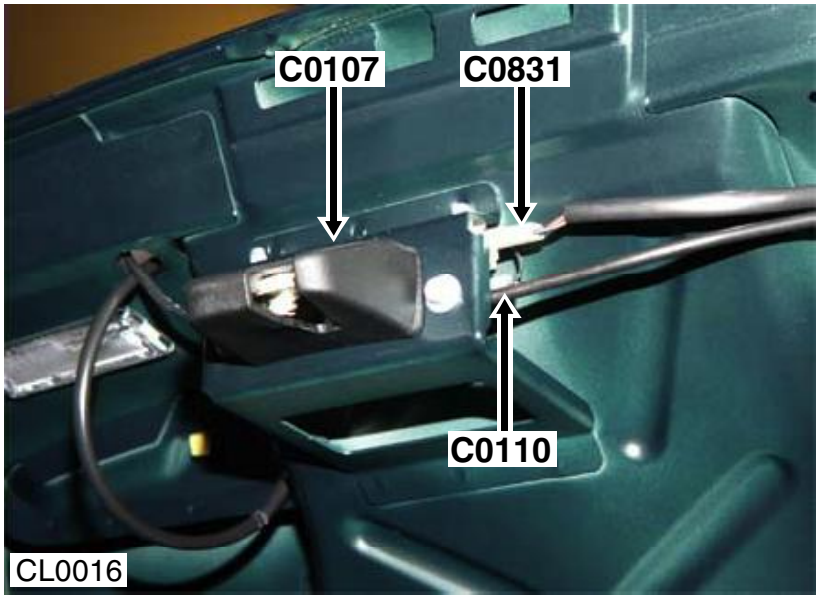


Cav	Col	Cct
1	PR	ALL

Description: *Switch - Lamp - Luggage compartment*
Location: *Boot latch*

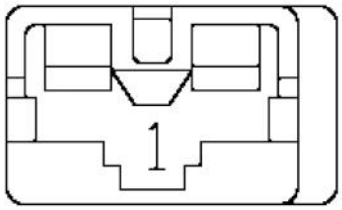


Colour: *BLACK*
Gender: *Female*



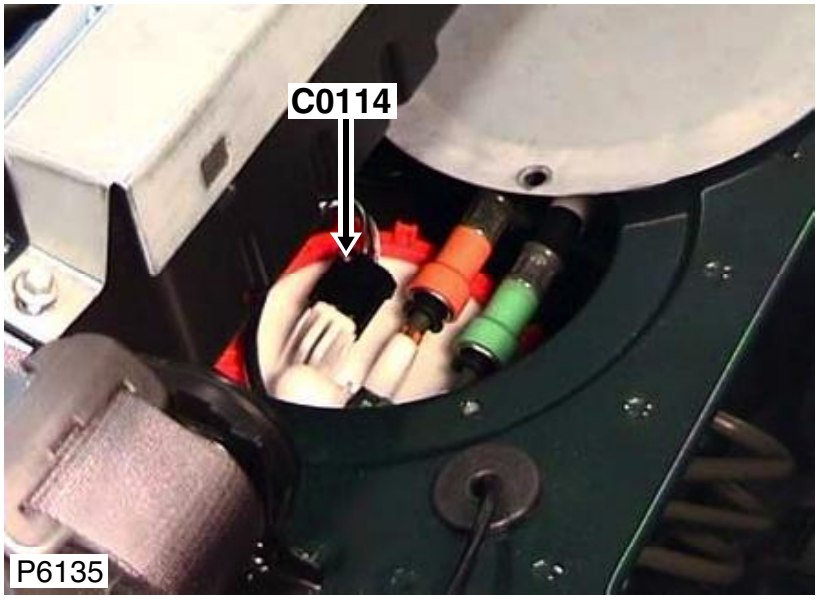
Cav	Col	Cct
1	B	ALL

Description: *Switch - Lamp - Luggage compartment*
Location: *Boot latch*



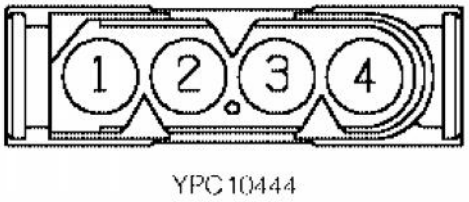
AU4521

Colour: *NATURAL*
Gender: *Female*

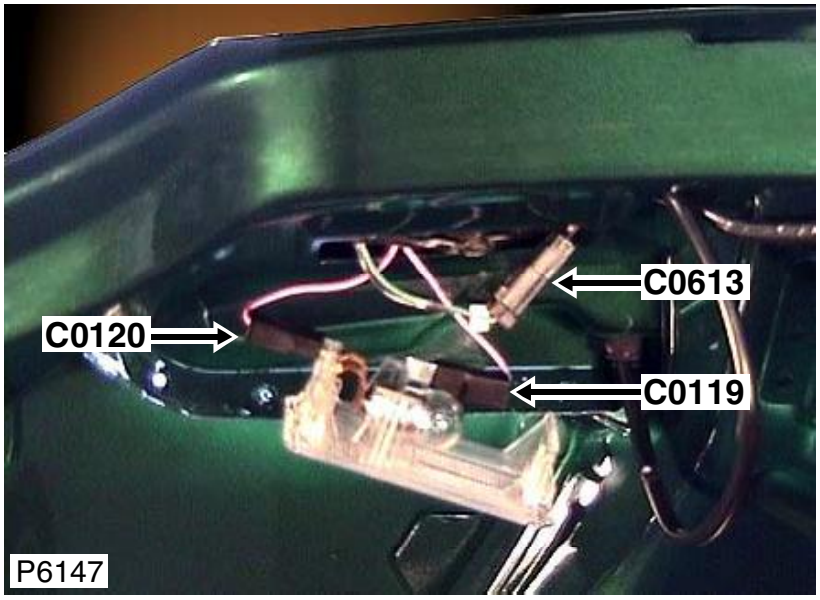


Cav	Col	Cct
1	GB	ALL
2	B	ALL
3	B	ALL
4	WP	ALL

Description: *Fuel tank*
Location: *Parcel shelf - under left hand side*



Colour: *BLACK*
Gender: *Female*

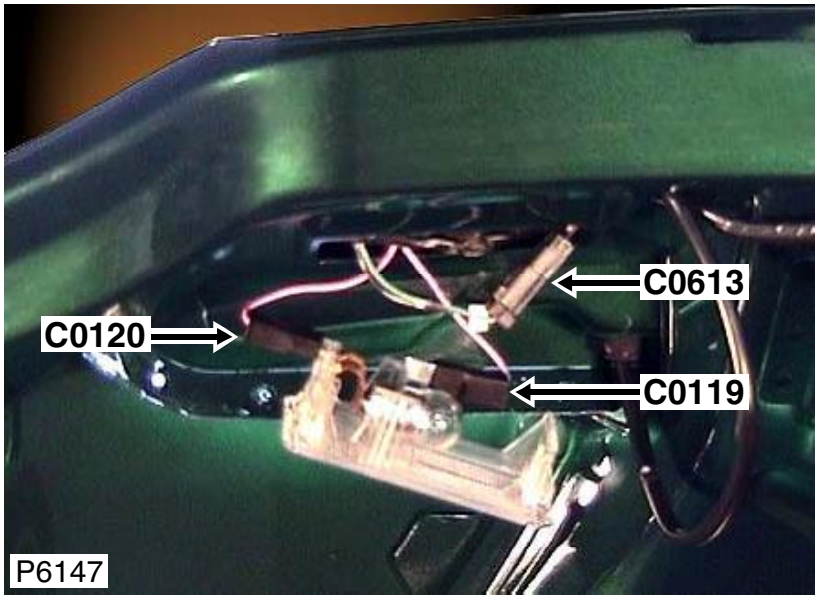


Cav	Col	Cct
1	P	ALL

Description: *Lamp - Load space*
Location: *Behind luggage compartment light*

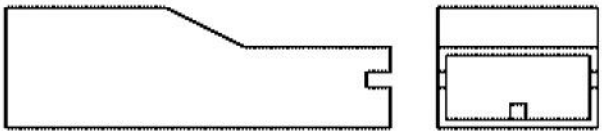
AAU1010

Colour: *BLACK*
Gender: *Female*



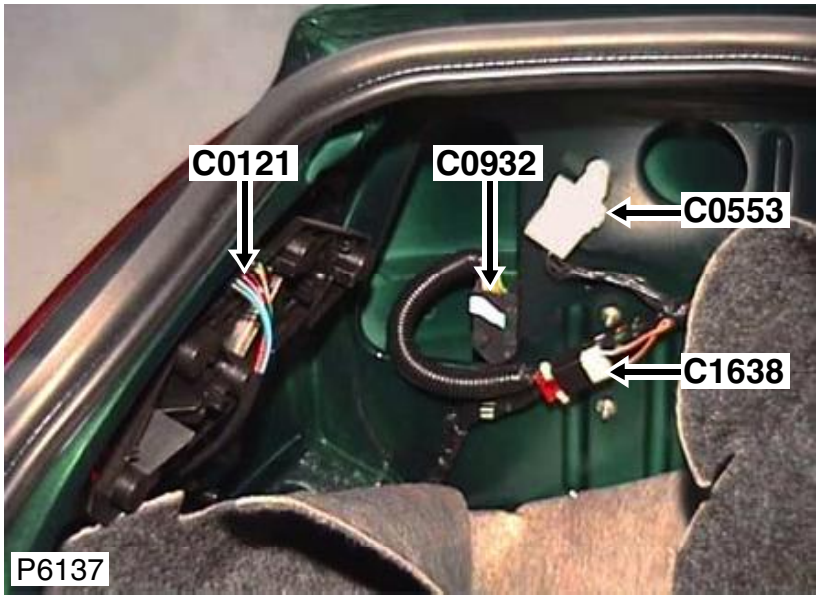
Cav	Col	Cct
1	PR	ALL

Description: *Lamp - Load space*
Location: *Behind luggage compartment light*



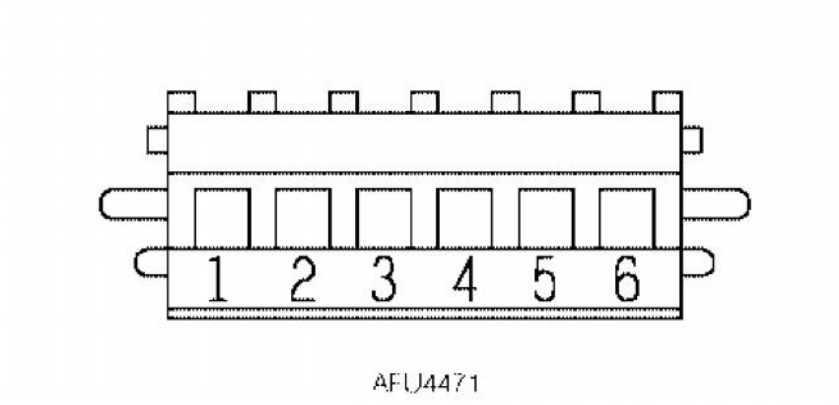
AAU1010

Colour: *BLACK*
Gender: *Female*

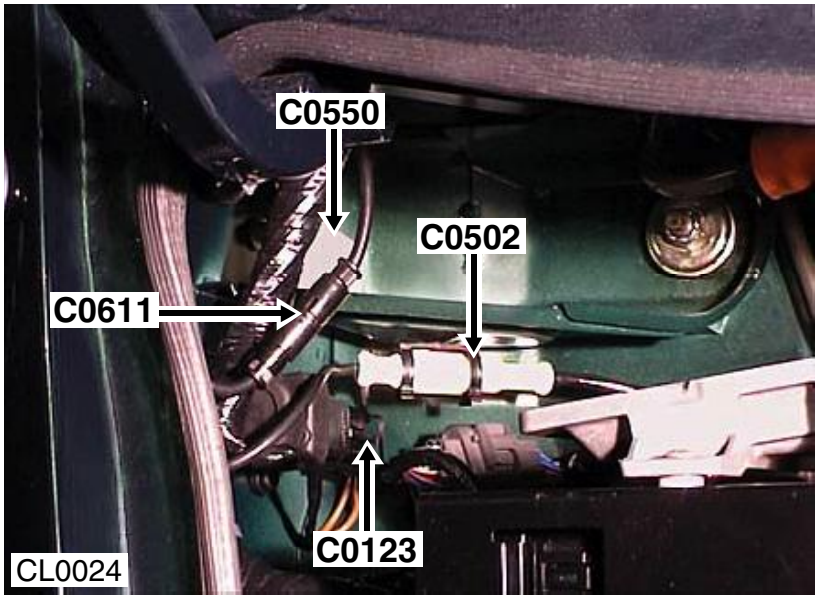


Cav	Col	Cct
1	GN	ALL
2	UY	ALL
3	RB	ALL
4	B	ALL
5	GR	ALL
6	GP	ALL

Description: *Lamp - Tail - LH*
Location: *Behind luggage compartment carpet LH side*

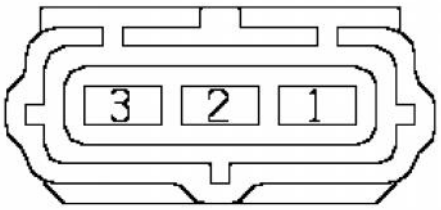


Colour: *BLACK*
Gender: *Female*

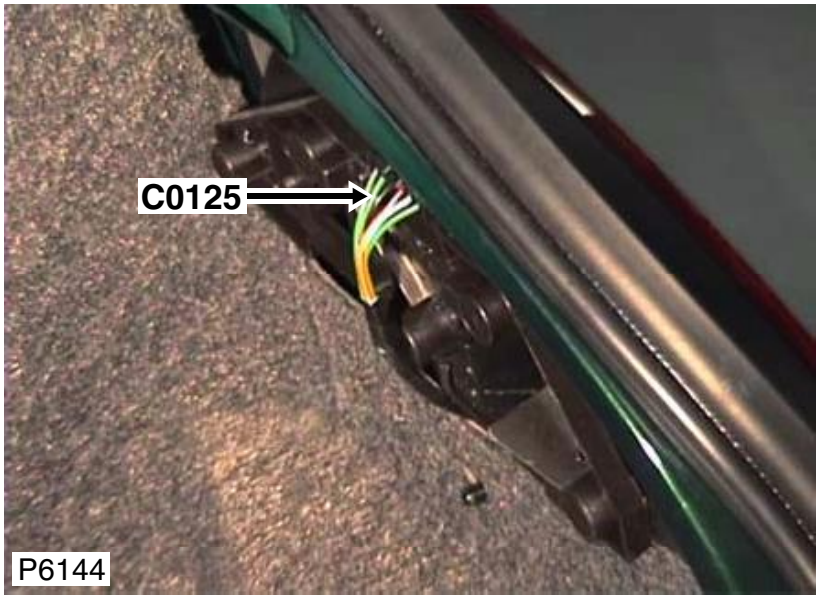


Cav	Col	Cct
1	N	ALL
3	NS	ALL

Description: *Relay - Inertia fuel cut-off*
Location: *LH side of engine compartment*

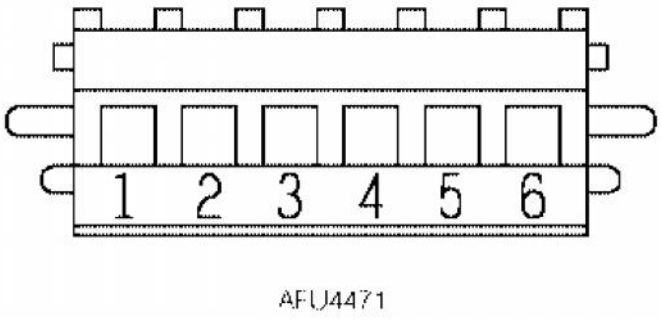


Colour: *BLACK*
Gender: *Female*

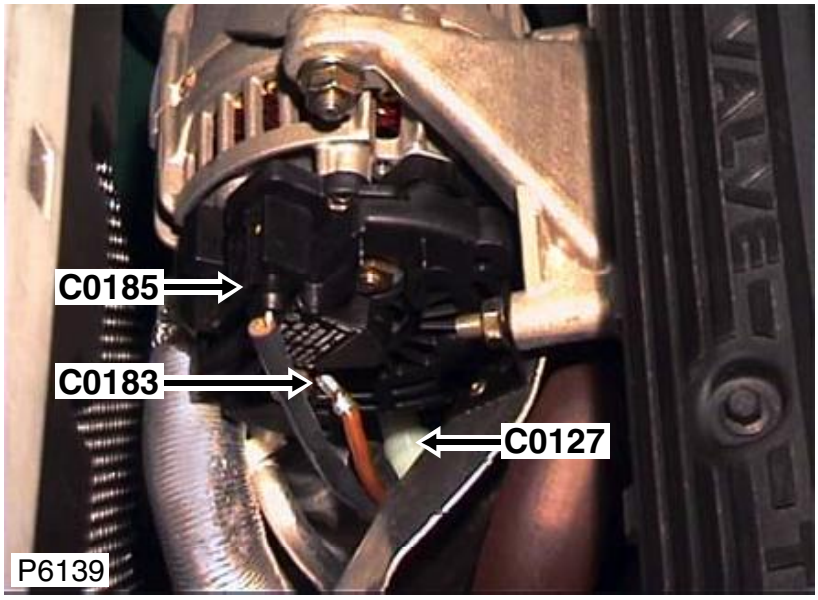


Cav	Col	Cct
1	GP	ALL
2	GW	ALL
3	B	ALL
4	RO	ALL
5	UY	ALL
6	GN	ALL

Description: *Lamp - Tail - RH*
Location: *Luggage compartment - RH side*

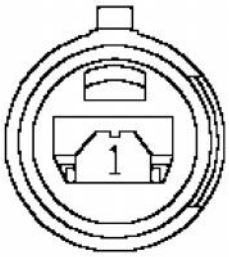


Colour: *BLACK*
Gender: *Female*

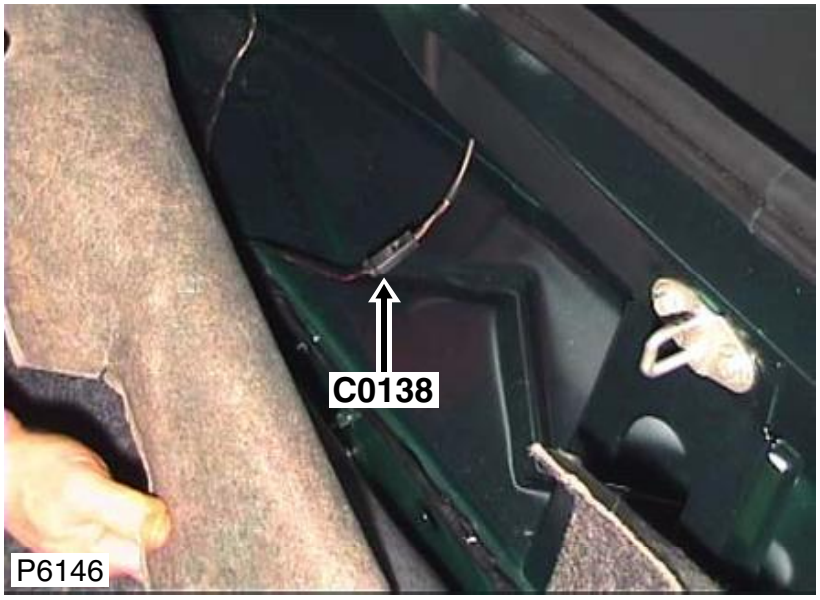


Cav	Col	Cct
1	R	2

Description: *Clutch - Compressor - Air conditioning (A/C)*
Location: *Front RH side of engine*

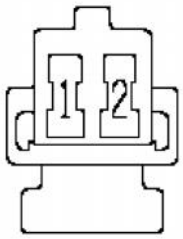


Colour: *NATURAL*
Gender: *Female*



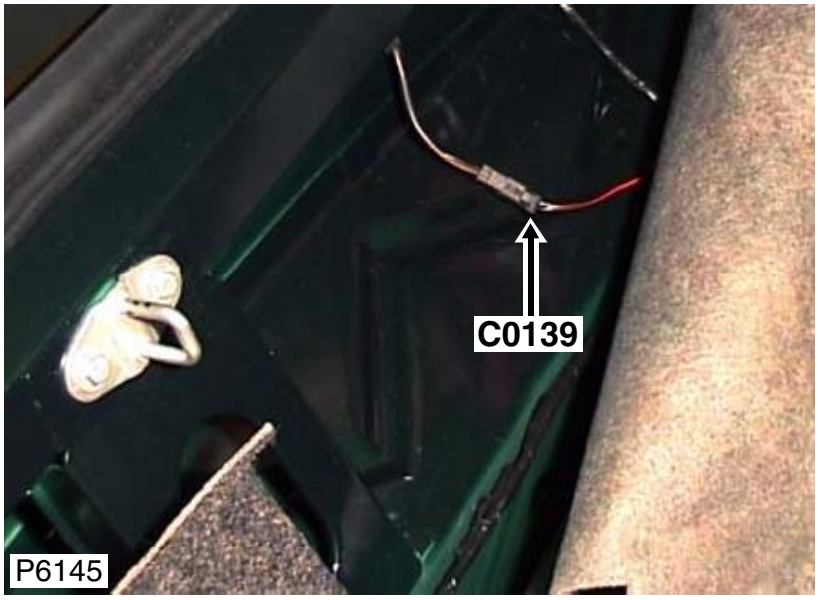
Cav	Col	Cct
1	RB	ALL
2	B	ALL

Description: *Lamp - Number plate*
Location: *Behind luggage compartment carpet RH side*



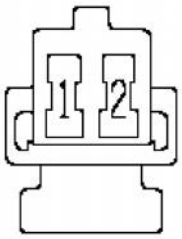
YTC 10225

Colour: *BLACK*
Gender: *Female*

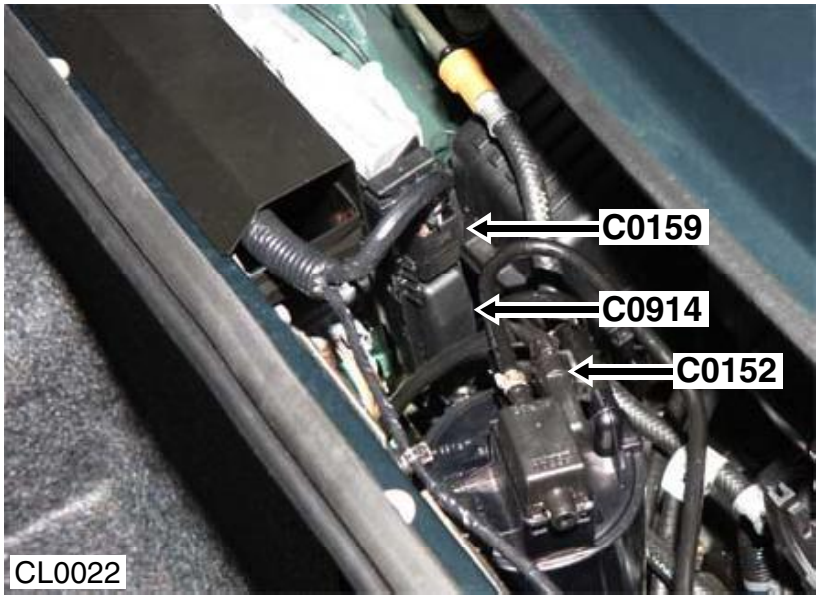


Cav	Col	Cct
1	RB	ALL
2	B	ALL

Description: *Lamp - Number plate*
Location: *Behind luggage compartment carpet LH side*

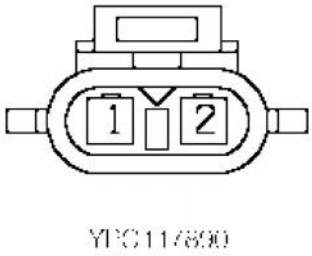


Colour: *BLACK*
Gender: *Female*

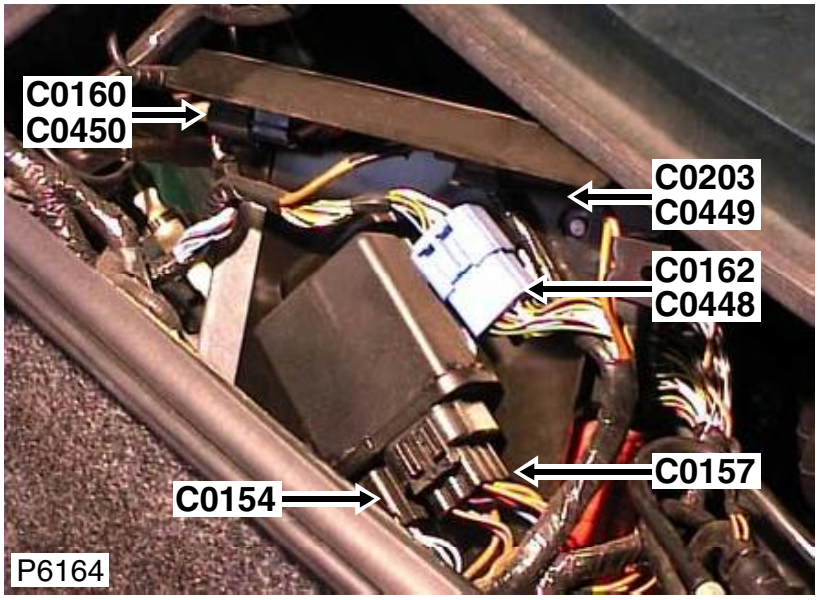


Cav	Col	Cct
1	NK	ALL
2	BO	ALL

Description: *Purge control valve*
Location: *LH side of engine compartment*

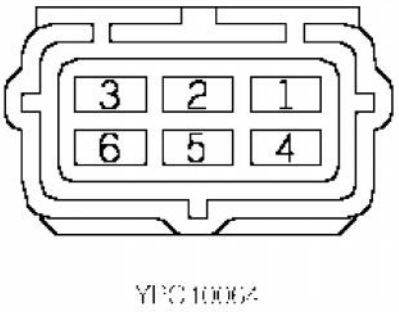


Colour: *BLACK*
Gender: *Female*

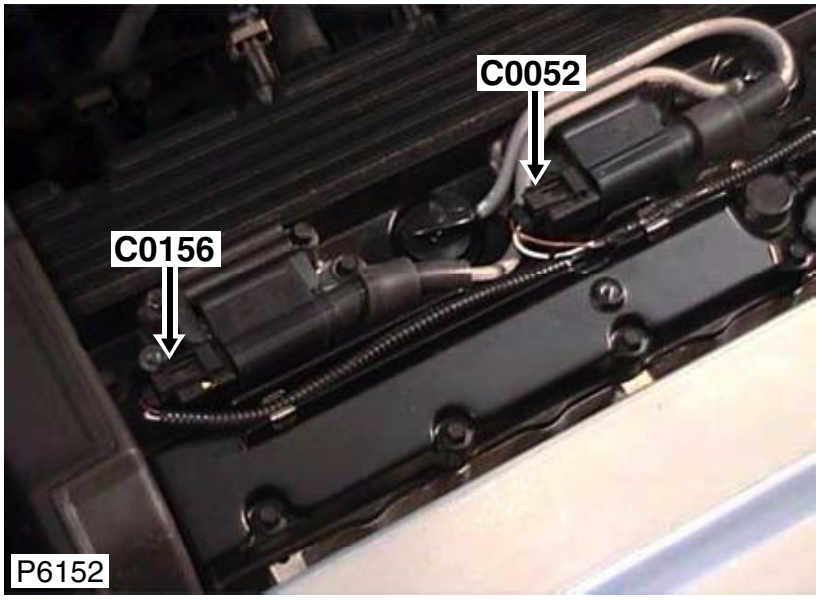


Cav	Col	Cct
1	BP	ALL
2	W	ALL
3	WK	ALL
4	BR	8
4	BW	18
6	WR	ALL

Description: *Relay module*
Location: *LH side of engine compartment*

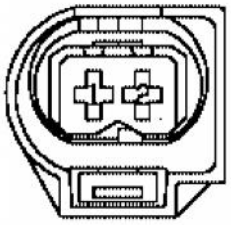


Colour: *BLACK*
Gender: *Female*

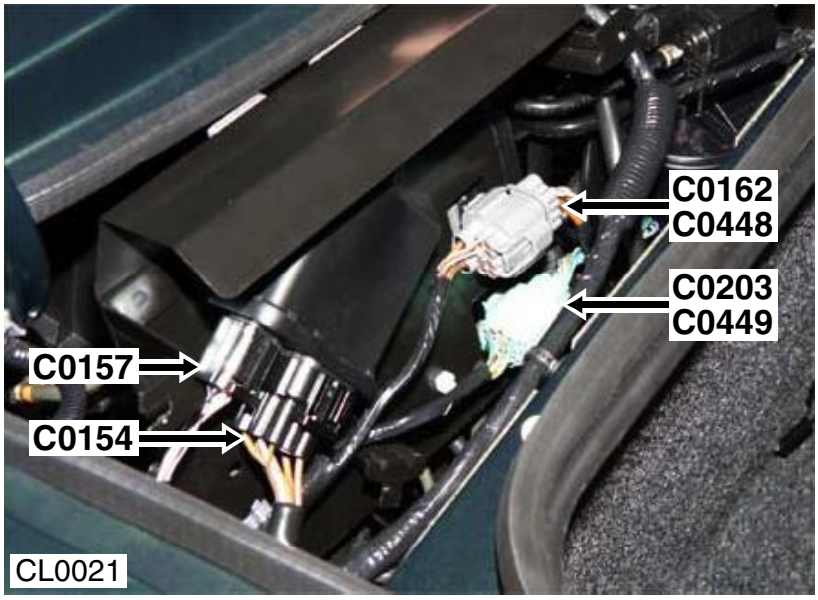


Cav	Col	Cct
1	NK	ALL
2	WO	ALL

Description: *Ignition coil*
Location: *Top of engine*

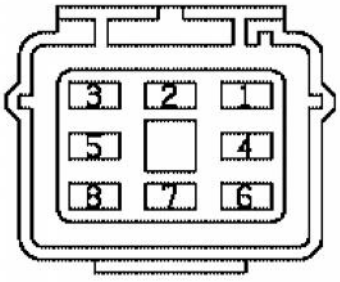


Colour: *BLACK*
Gender: *Female*

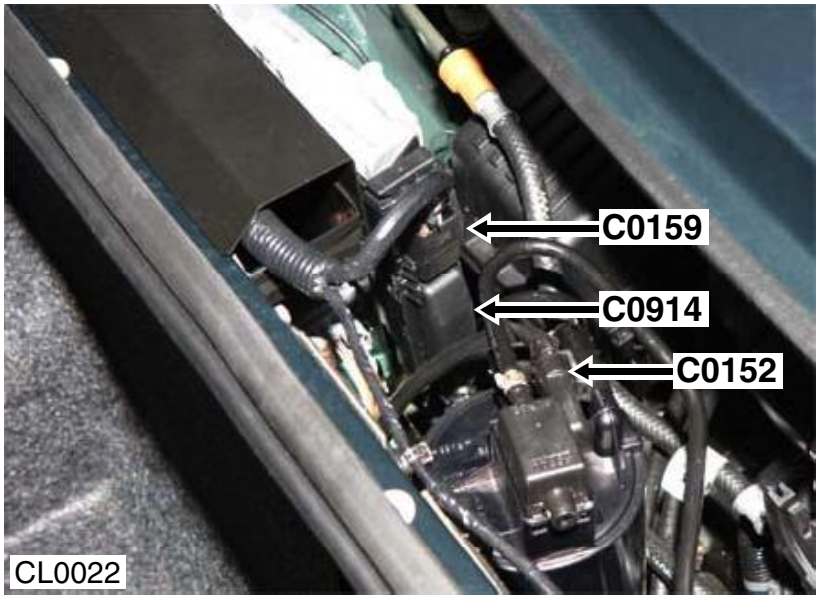


Cav	Col	Cct
1	NS	ALL
3	NK	ALL
4	WP	ALL
5	NR	ALL
6	N	ALL
7	N	ALL
8	NK	ALL

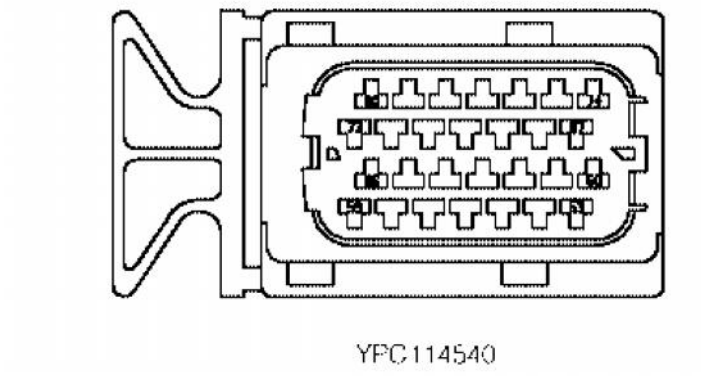
Description: *Relay module*
Location: *LH side of engine compartment*



Colour: *BLACK*
Gender: *Female*

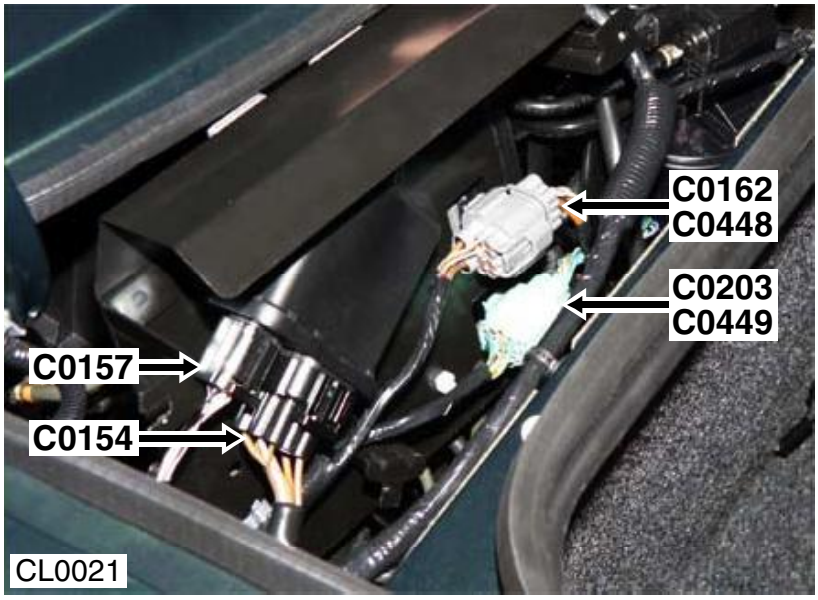


Description: *Engine control module (ECM)*
Location: *Front LH side of engine compartment*



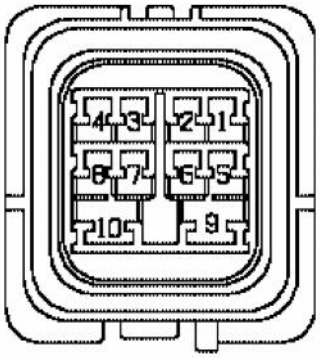
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
53	UB	2
54	WK	ALL
55	WB	5
56	UR	2
58	K	5
59	B	ALL
60	UY	2
61	W	ALL
62	GR	ALL
63	BR	8
64	W	11
66	B	ALL
67	US	ALL
68	BP	ALL
69	UO	ALL
71	KB	ALL
72	YR	ALL
73	B	ALL
74	NB	ALL
75	OW	8
76	GB	ALL
77	PW	8
78	SB	1
78	R	11
80	PN	ALL

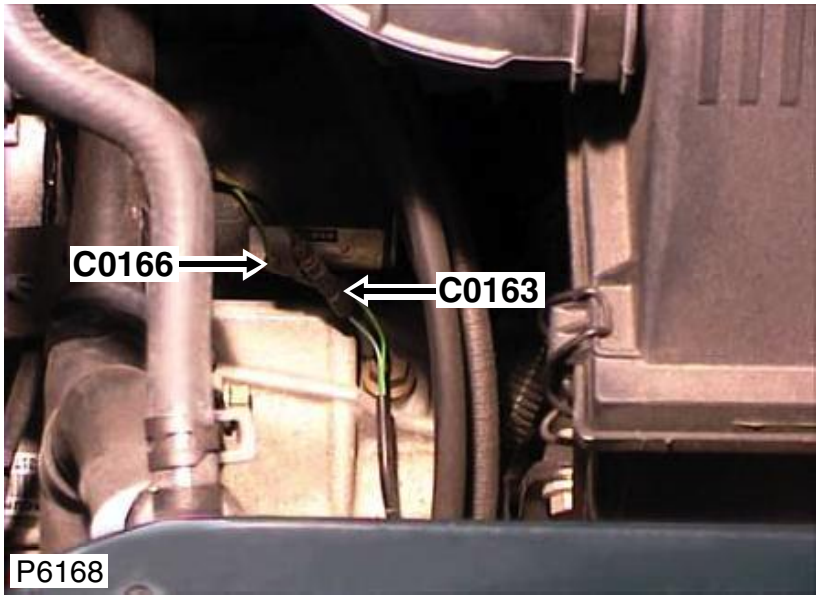


Cav	Col	Cct
1	BU	8
2	BR	8
3	UW	8
4	UR	8
5	UY	8
6	US	8
7	WN	ALL
8	NK	ALL
9	NK	ALL
10	NR	ALL

Description: *Engine harness to main harness*
Location: *LH side of engine compartment*

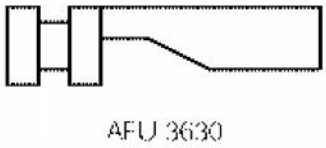


Colour: *GREY*
Gender: *Male*

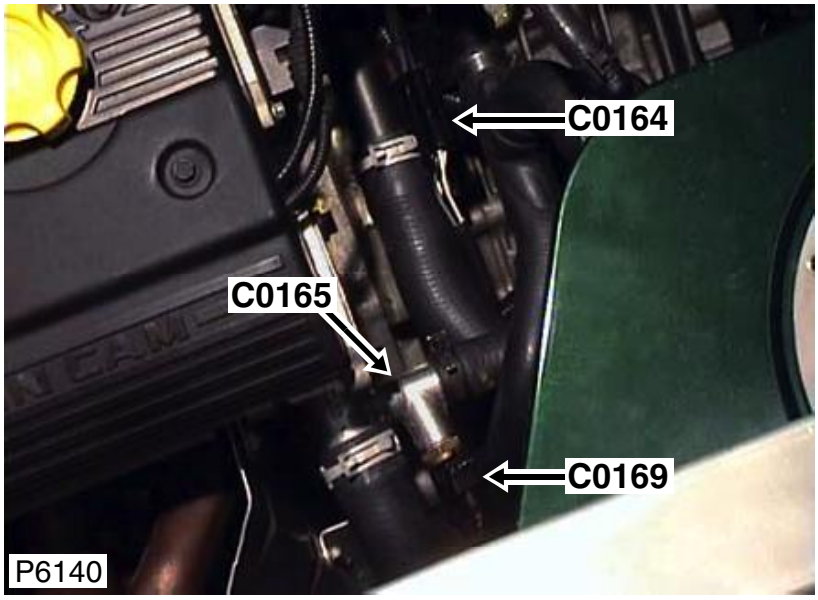


Cav	Col	Cct
1	GN	15

Description: *Switch - Reverse lamp*
Location: *Above gearbox*

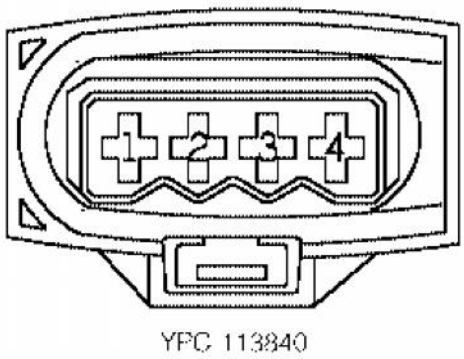


Colour: *BLACK*
Gender: *Male*

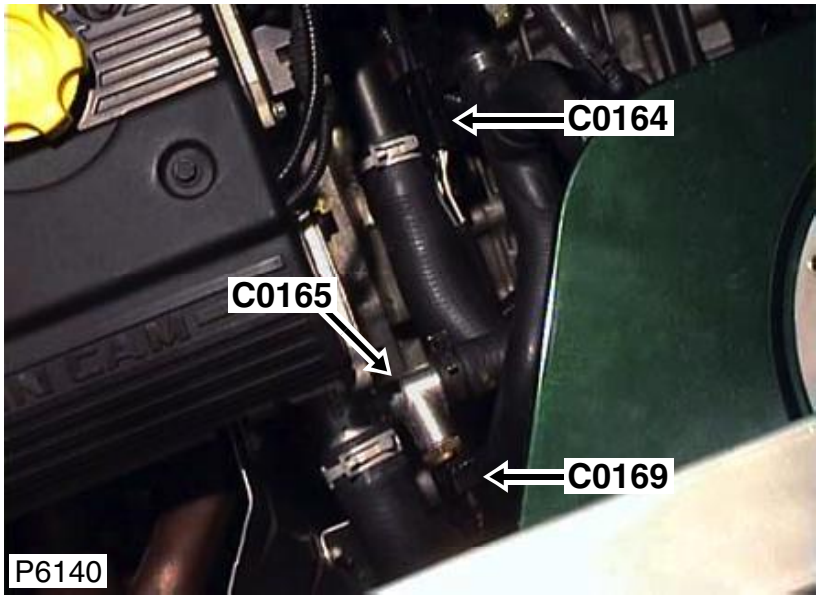


Cav	Col	Cct
1	GY	ALL
2	GN	ALL
3	BU	ALL
4	NK	ALL

Description: *Sensor - Heated oxygen (HO2S) - Front*
Location: *Top of engine*

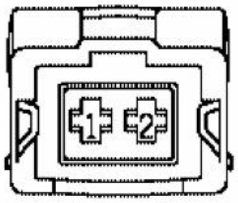


Colour: *BLACK*
Gender: *Female*



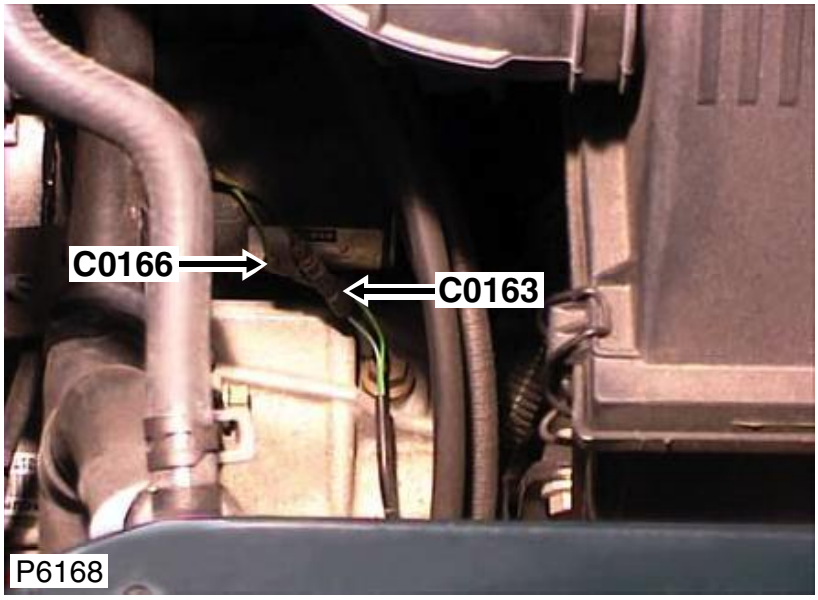
Cav	Col	Cct
1	GU	ALL

Description: *Sensor - coolant temperature gauge*
Location: *Top of engine*



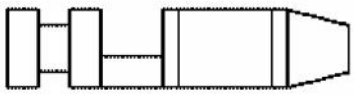
YPC107800

Colour: *BLUE*
Gender: *Female*

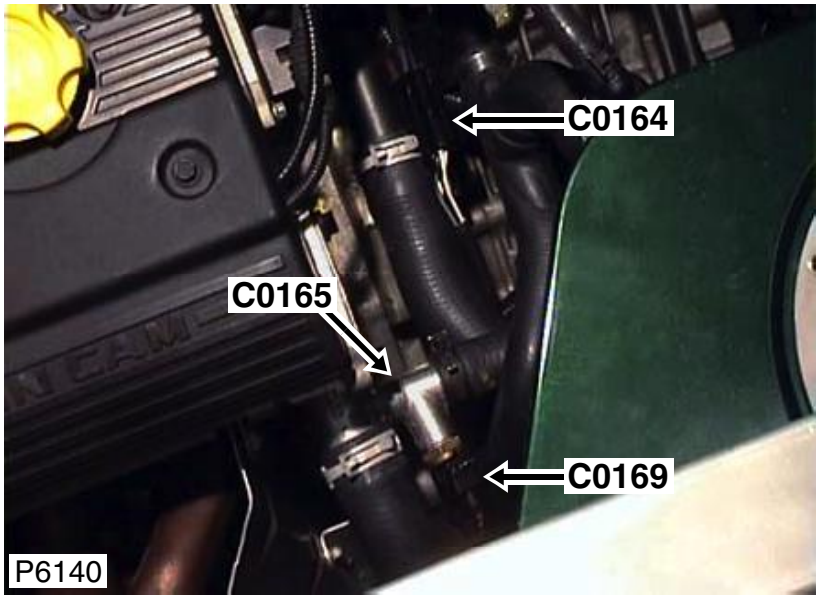


Cav	Col	Cct
1	GY	15

Description: *Switch - Reverse lamp*
Location: *Above gearbox*

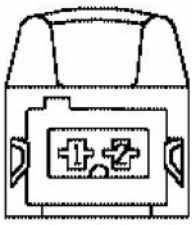


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	KB	ALL
2	KG	ALL

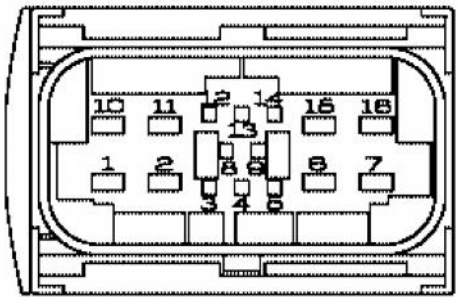
Description: *Sensor - Engine coolant temperature (ECT)*
Location: *Top of engine*



Colour: *BLACK*
Gender: *Female*

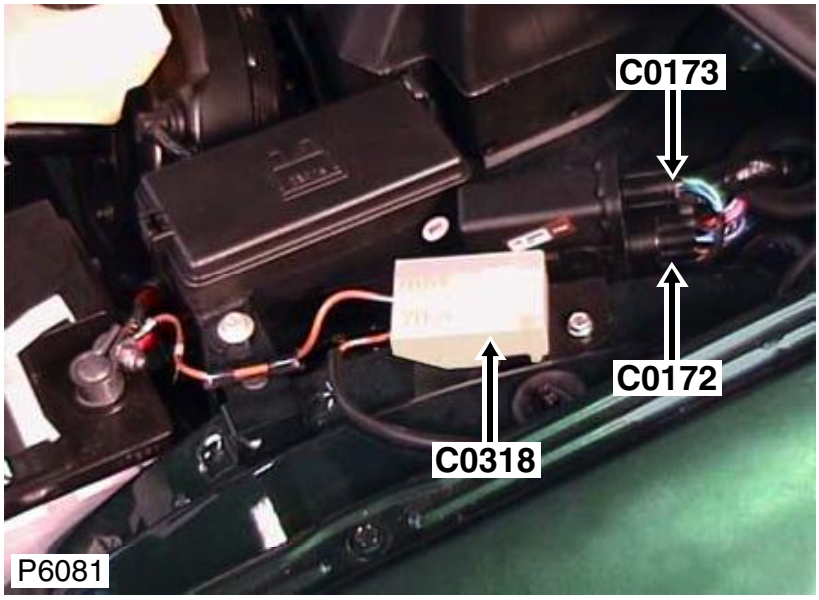
Description: *Engine harness to injector harness*
Location: *Below throttle housing, LH side of engine*

Cav	Col	Cct
1	NK	ALL
2	YU	ALL
6	YG	ALL
7	YR	ALL
8	KB	ALL
9	YW	13
10	YN	ALL
11	NK	ALL
12	YP	ALL
13	RG	ALL
15	WB	ALL
16	WO	ALL



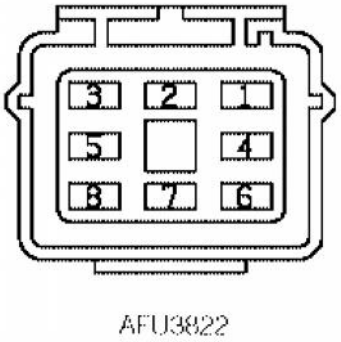
YPC116590

Colour: *BLACK*
Gender: *Female*

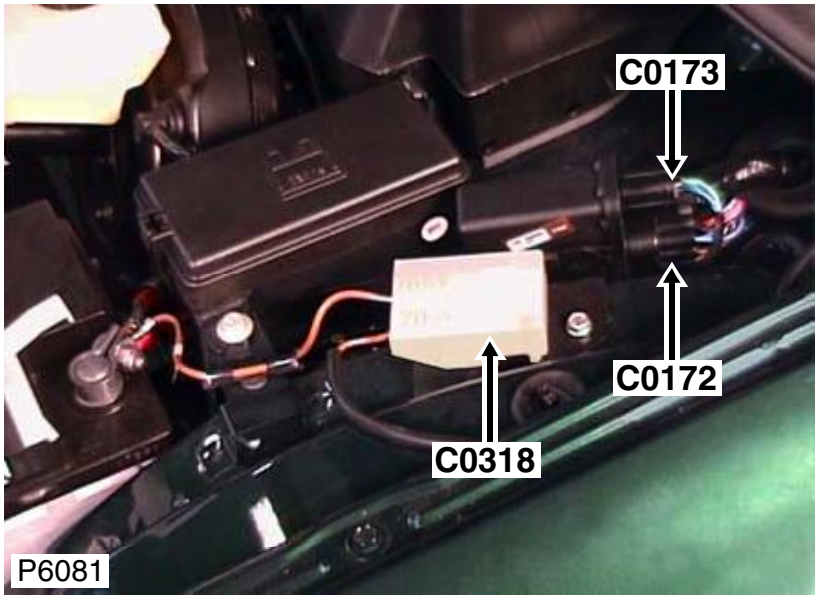


Cav	Col	Cct
2	R	2
3	SU	2
4	B	2
5	PS	2
6	US	2
7	N	2
8	NW	2

Description: *Relay pack - Air conditioning (A/C)*
Location: *Under bonnet, LH side*

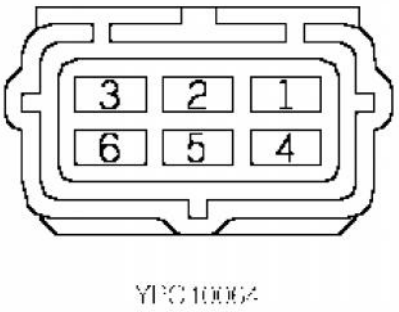


Colour: *BLACK*
Gender: *Female*

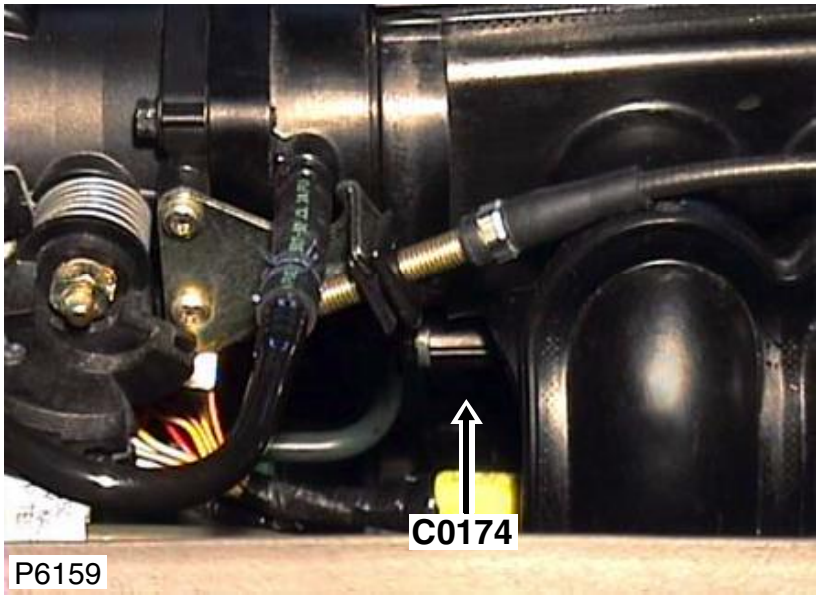


Cav	Col	Cct
1	LGS	2
2	US	2
3	UY	2
4	LGS	2
5	UB	2

Description: *Relay pack - Air conditioning (A/C)*
Location: *Under bonnet, LH side*

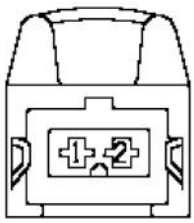


Colour: *BLACK*
Gender: *Female*

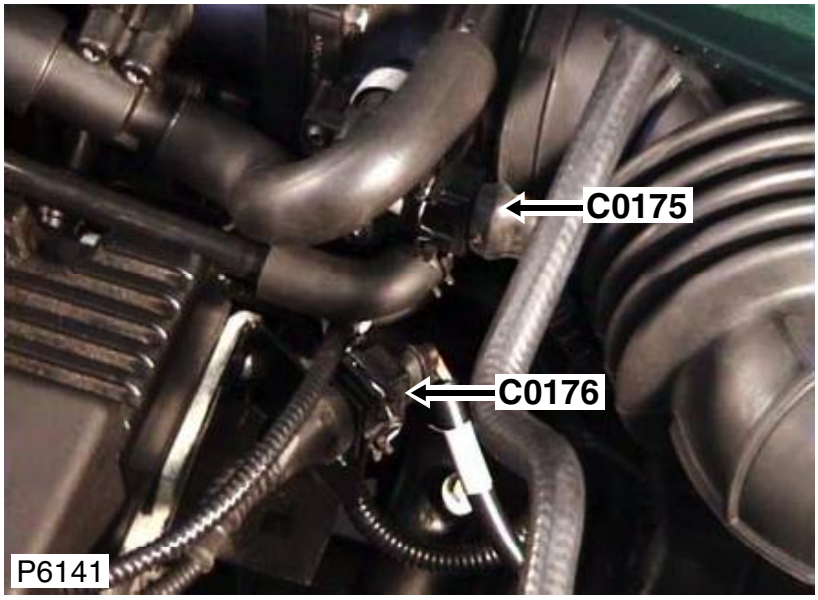


Cav	Col	Cct
1	KB	21
2	YW	21

Description: *Sensor - Inlet air temperature (IAT)*
Location: *Below throttle housing, LH side of engine*

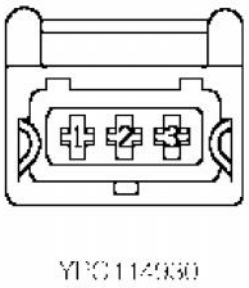


Colour: *BLACK*
Gender: *Female*

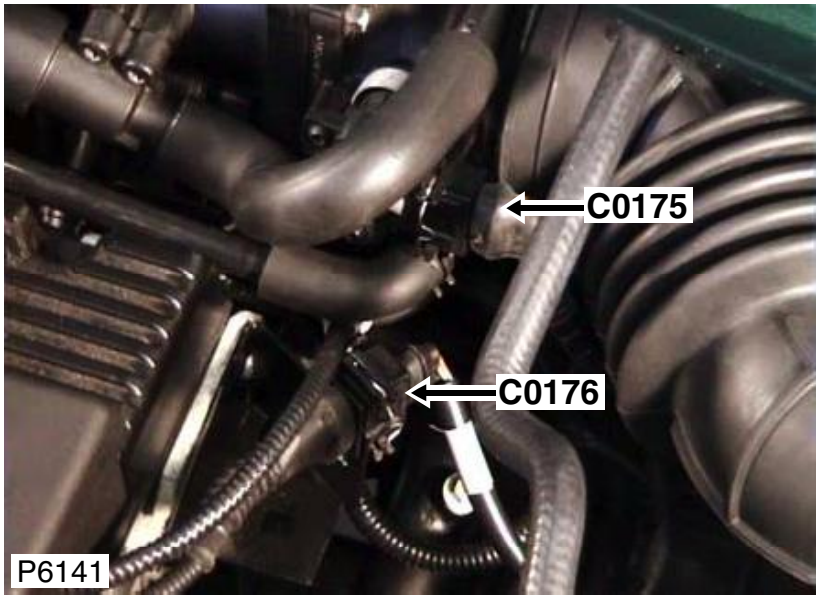


Cav	Col	Cct
1	KP	ALL
2	GY	ALL
3	KB	ALL

Description: *Sensor - Throttle position (TP)*
Location: *Top of engine*

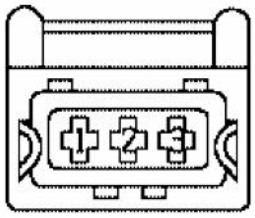


Colour: *BLACK*
Gender: *Female*



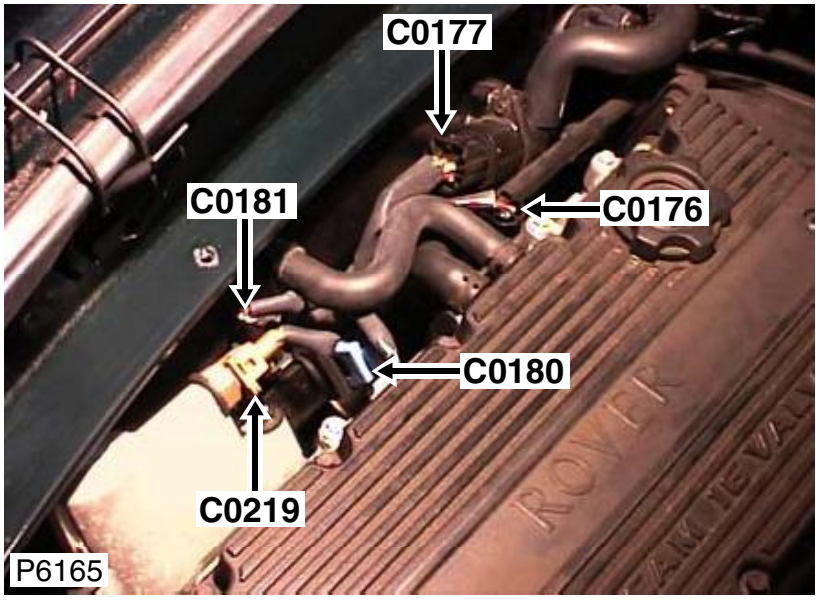
Cav	Col	Cct
1	NK	13
1	BS	21
2	YP	ALL
3	BS	13

Description: *Sensor - Camshaft position (CMP) - Automatic gearbox*
Location: *Top of engine*



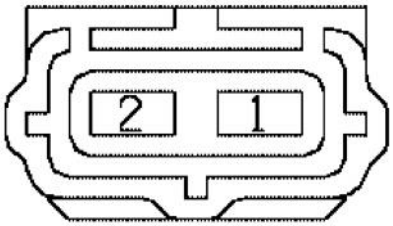
YPC114950

Colour: *BLACK*
Gender: *Female*



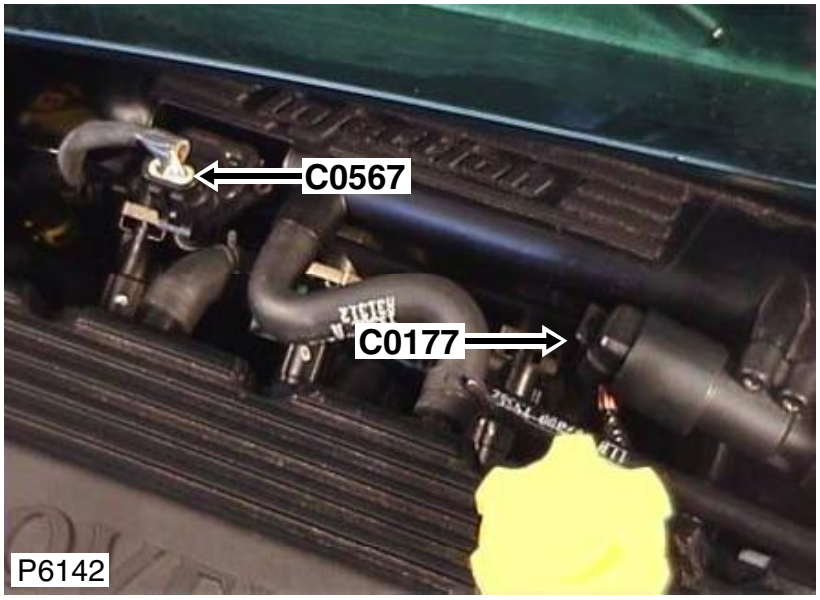
Cav	Col	Cct
1	NK	13
1	BS	21
2	YP	ALL
3	BS	13

Description: *Sensor - Camshaft position (CMP) - Manual gearbox*
Location: *Top of engine*



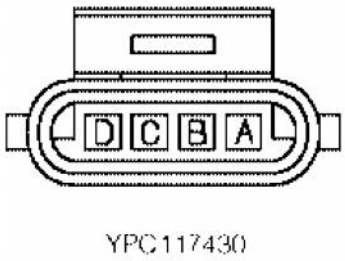
YPC10187

Colour: *WHITE*
Gender: *Female*

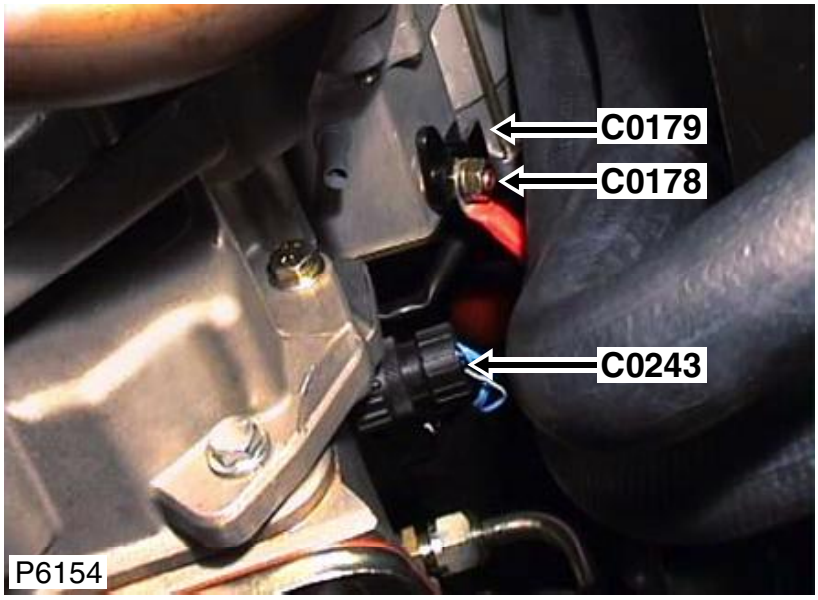


Cav	Col	Cct
1	KU	ALL
2	OG	ALL
3	OS	ALL
4	OU	ALL

Description: *Idle air control valve (IACV)*
Location: *Top of engine*

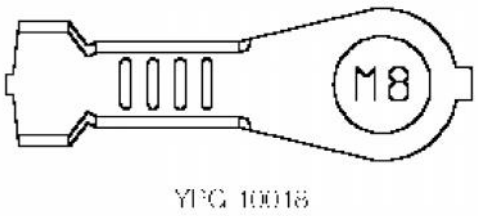


Colour: *BLACK*
Gender: *Female*

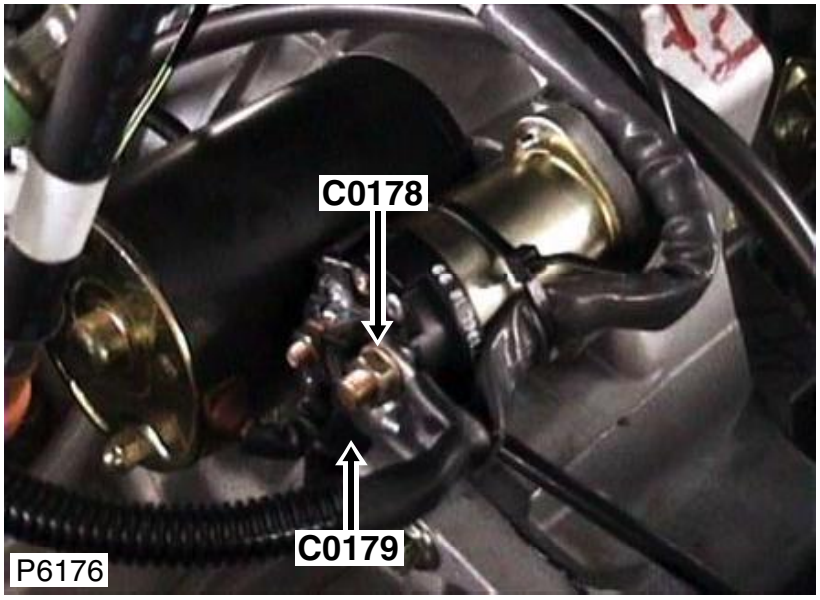


Cav	Col	Cct
1	N	ALL

Description: *Starter motor - Automatic gearbox*
Location: *Above gearbox*

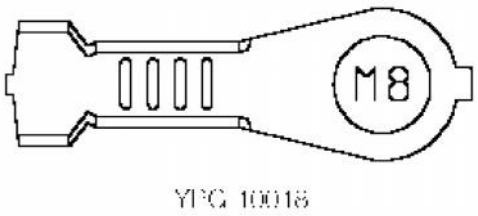


Colour: *TIN-PLATE*
Gender:

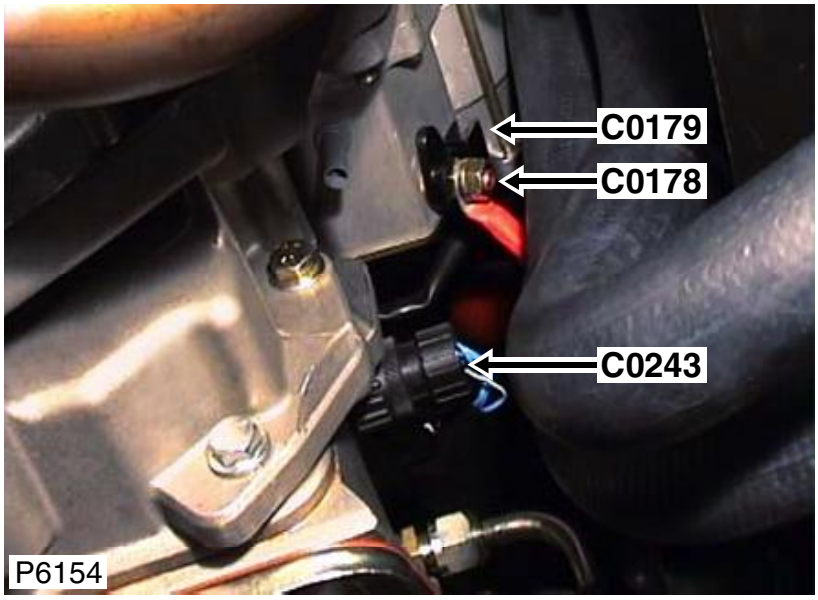


Cav	Col	Cct
1	N	ALL

Description: *Starter motor - K1.8*
Location: *Above gearbox*

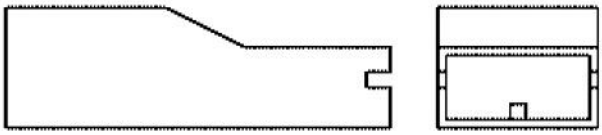


Colour: *TIN-PLATE*
Gender:



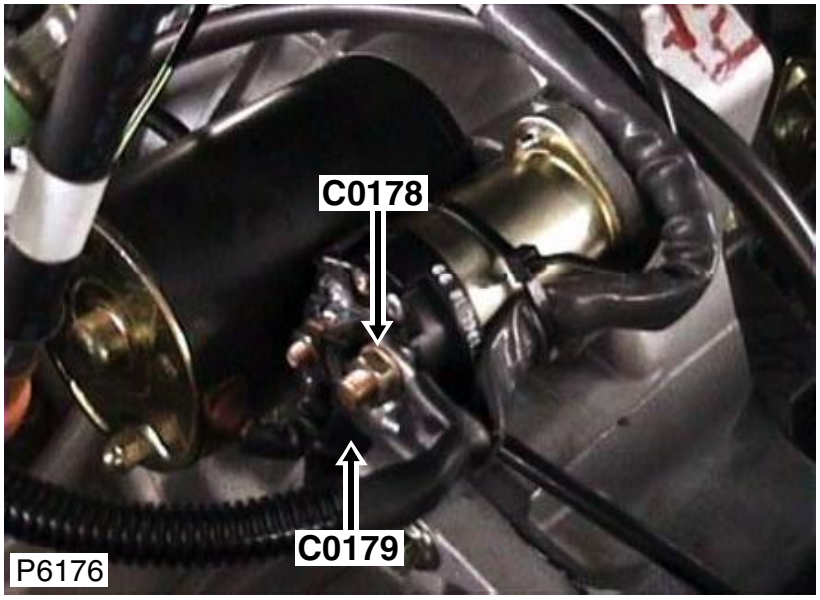
Cav	Col	Cct
1	NR	ALL

Description: *Solenoid - Starter motor - Automatic gearbox*
Location: *Above gearbox*



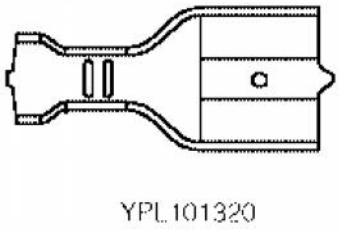
AAU1010

Colour: *BLACK*
Gender: *Female*

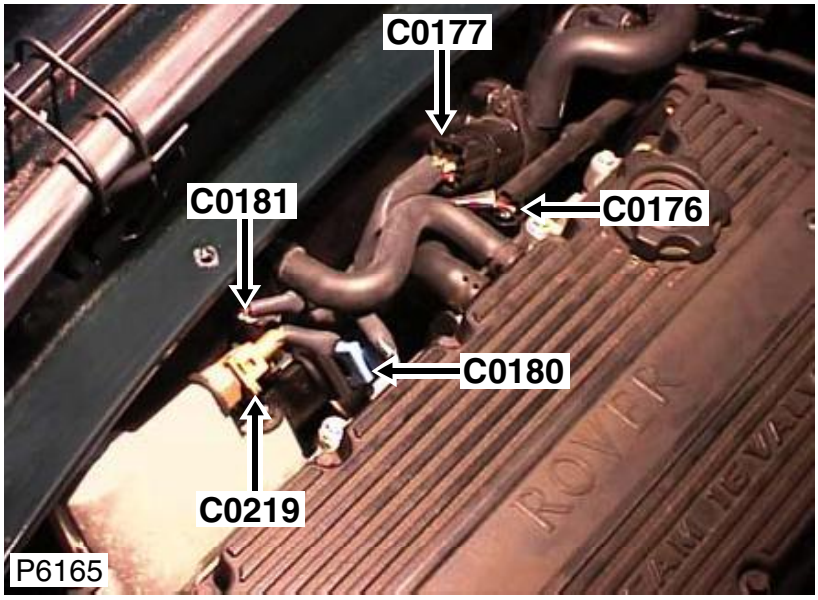


Cav	Col	Cct
1	NR	ALL

Description: *Solenoid - Starter motor - K1.8*
Location: *Above gearbox*

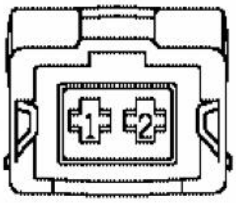


Colour: *BRASS, TIN-PLATED*
Gender: *Female*



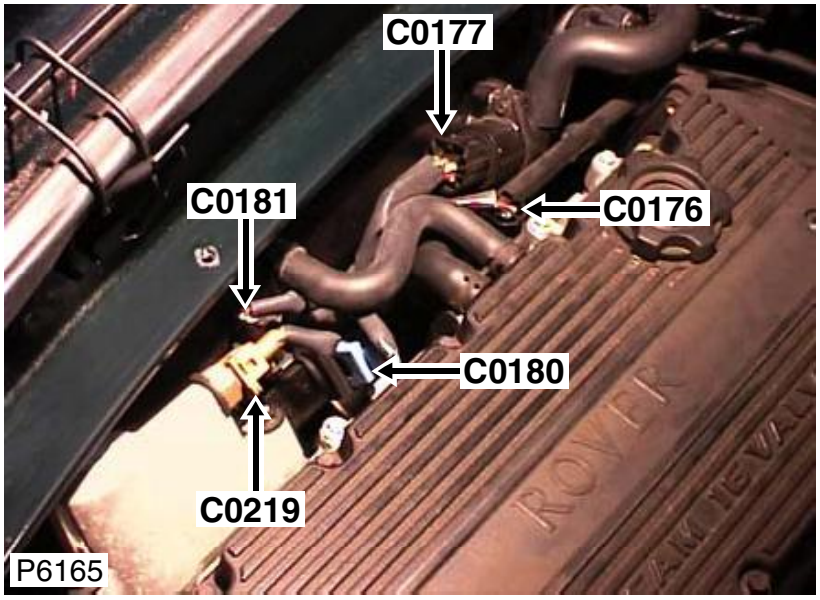
Cav	Col	Cct
1	BN	21
2	NK	21

Description: *Solenoid - Valve - Increase - K1.8 VVC*
Location: *Top of engine*



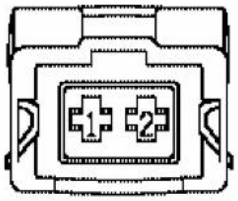
YPC107800

Colour: *BLUE*
Gender: *Female*



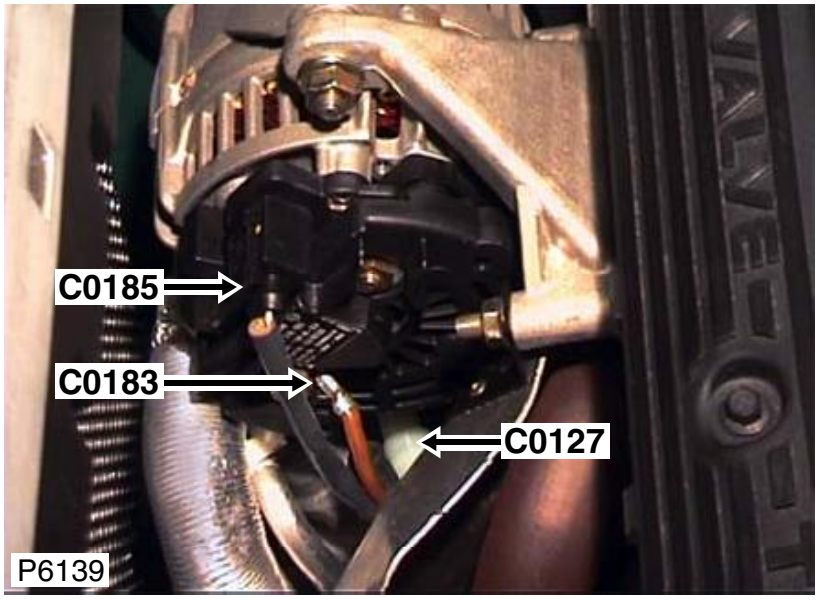
Cav	Col	Cct
1	BY	21
2	NK	21

Description: *Solenoid - Valve - Decrease - K1.8 VVC*
Location: *Top of engine*



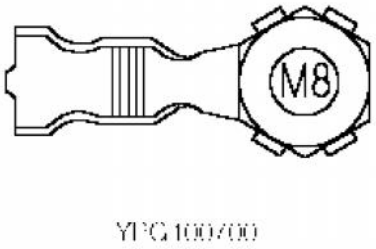
YPC107780

Colour: *BROWN*
Gender: *Female*

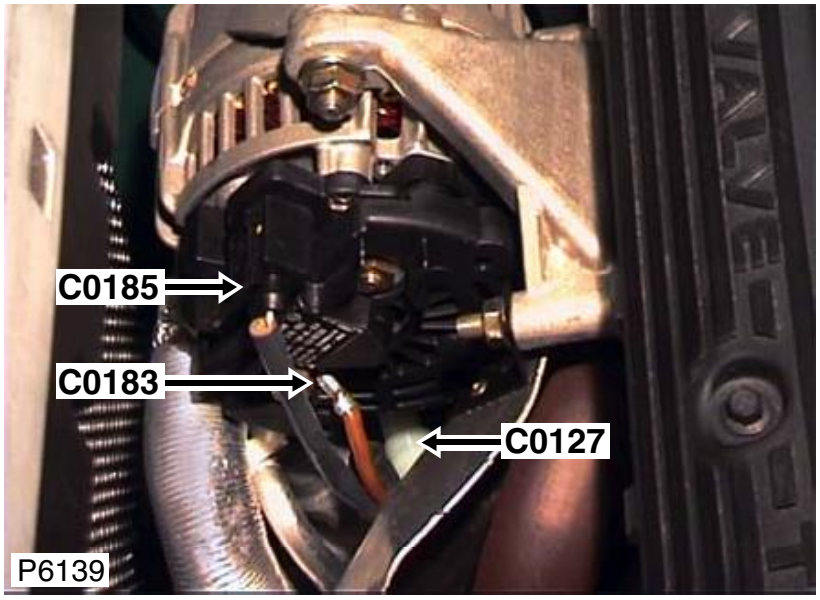


Cav	Col	Cct
1	N	ALL

Description: *Power - Alternator*
Location: *Behind RH front door trim panel*

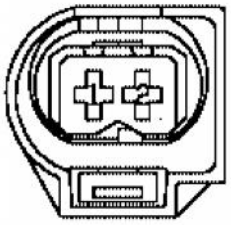


Colour: *BRASS*
Gender:

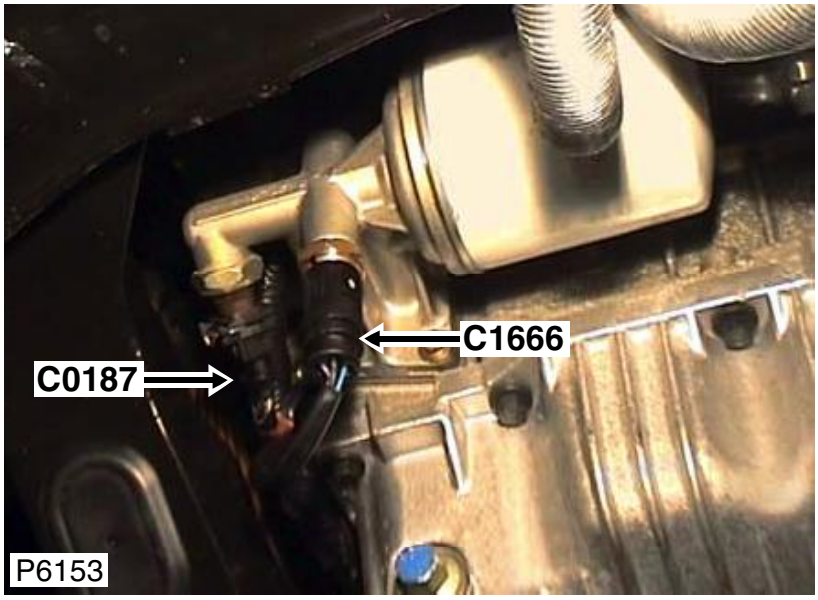


Cav	Col	Cct
1	NY	ALL
2	WR	ALL

Description: *Warning lamp - Ignition / no charge*
Location: *Behind RH front door trim panel*

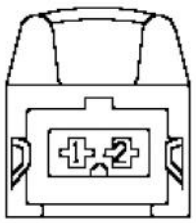


Colour: *BLACK*
Gender: *Female*

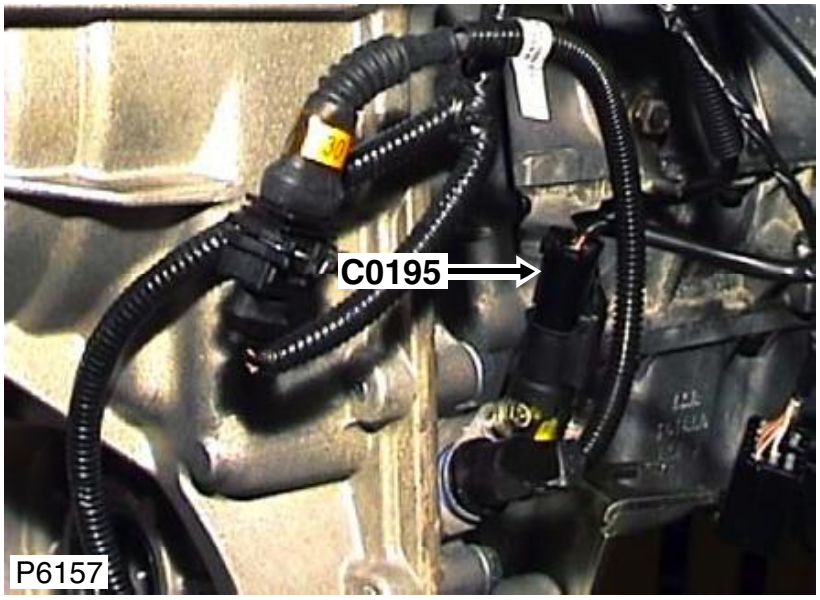


Cav	Col	Cct
1	WN	ALL

Description: *Switch - Oil pressure*
Location: *Bottom of engine - RH side*

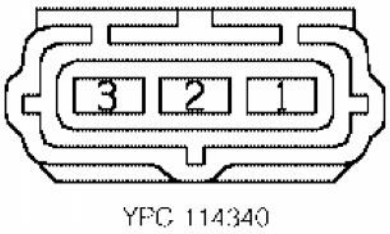


Colour: *BLACK*
Gender: *Female*

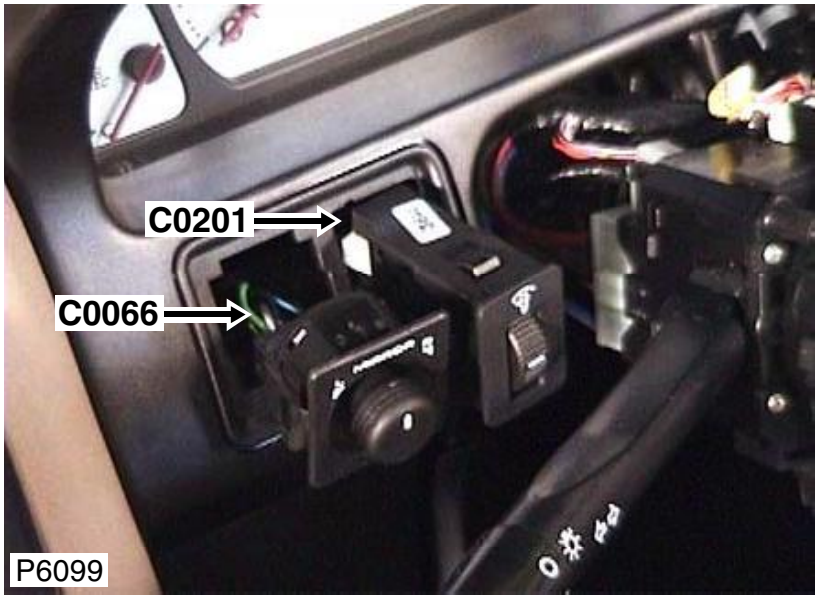


Cav	Col	Cct
1	NK	ALL
2	B	ALL
3	WO	ALL

Description: *Speed transducer*
Location: *Lower rear of engine - LH side*

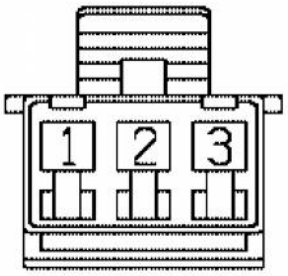


Colour: *NATURAL*
Gender: *Female*

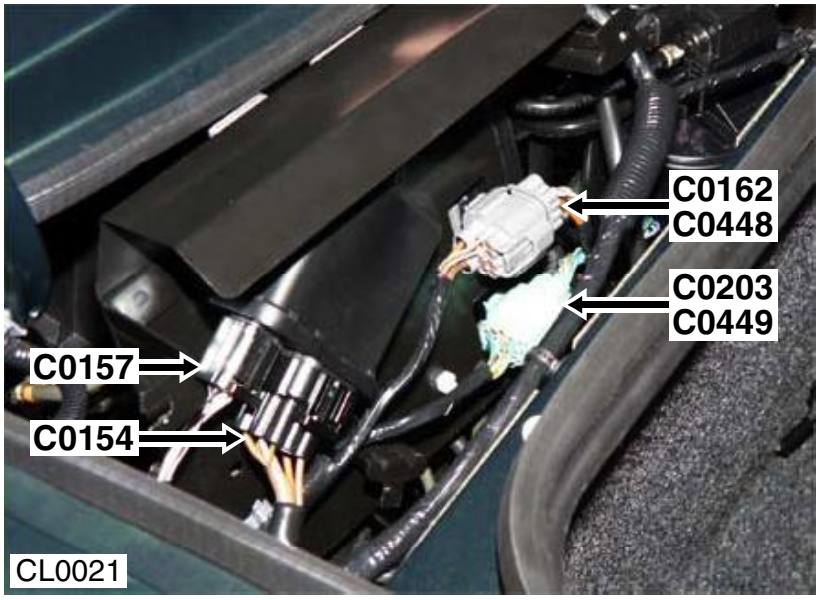


Cav	Col	Cct
1	RW	ALL
2	B	ALL
3	RB	ALL

Description: *Dimmer - Instrument illumination*
Location: *Adjacent steering column*

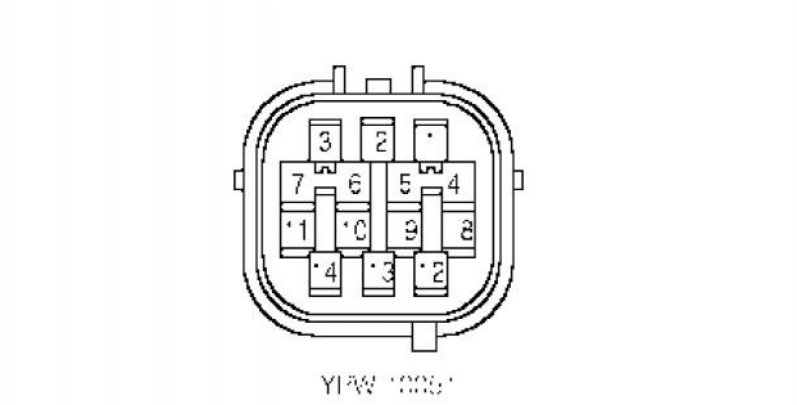


Colour: *NATURAL*
Gender: *Female*

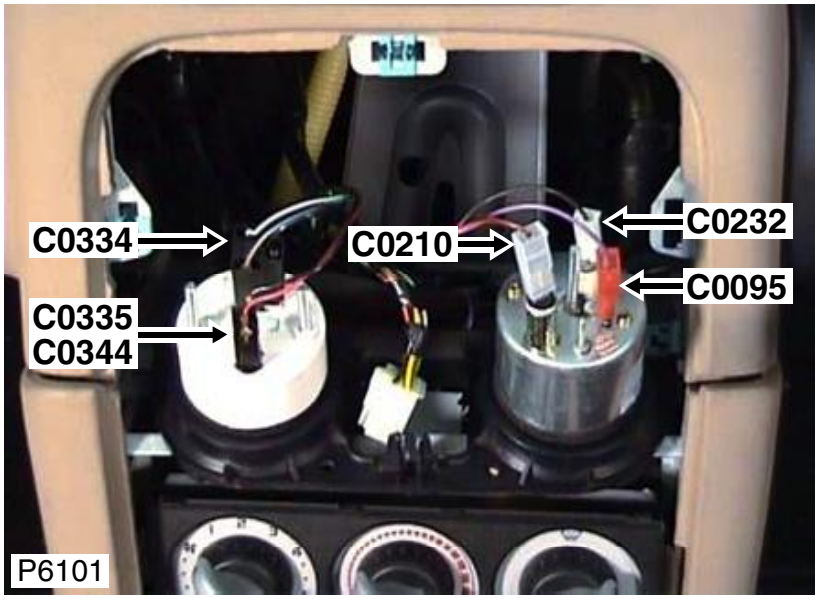


Description: *Engine harness to main harness*
Location: *LH side of engine compartment*

Cav	Col	Cct
1	SW	ALL
2	KB	ALL
3	UY	ALL
4	R	2
5	GY	ALL
6	GN	ALL
7	NY	ALL
8	GU	ALL
9	NU	ALL
10	WO	ALL
11	WG	8
12	U	2
13	GB	ALL
14	UR	ALL

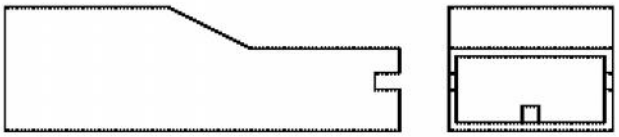


Colour: *GREEN*
Gender: *Female*

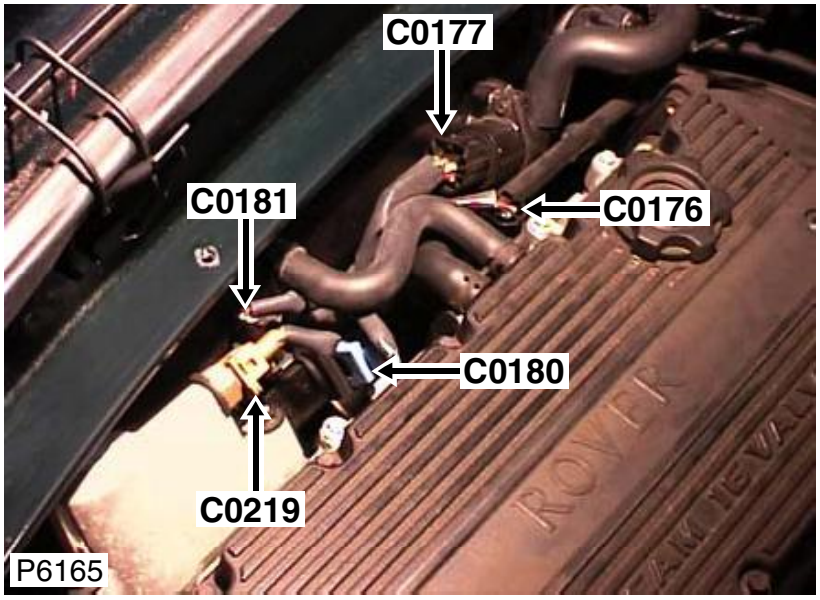


Cav	Col	Cct
1	RB	ALL

Description: *Clock - Analogue*
Location: *Beneath front console*

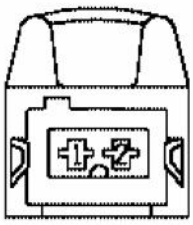


Colour: *NATURAL*
Gender: *Female*

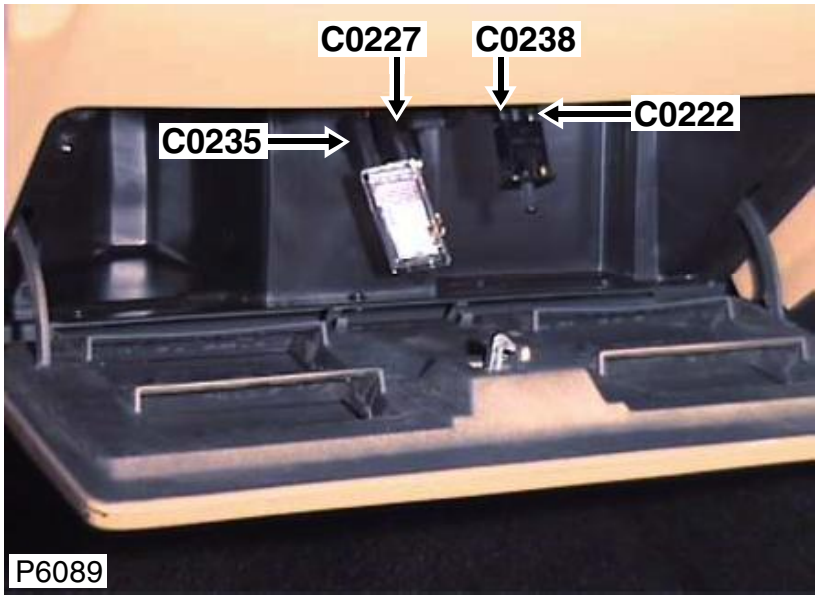


Cav	Col	Cct
1	U	21
2	GO	21

Description: *Switch - Oil temperature*
Location: *Top of engine*

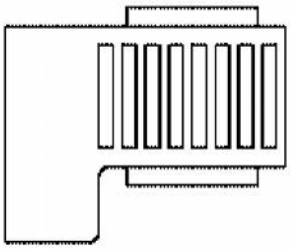


Colour: *BLACK*
Gender: *Female*

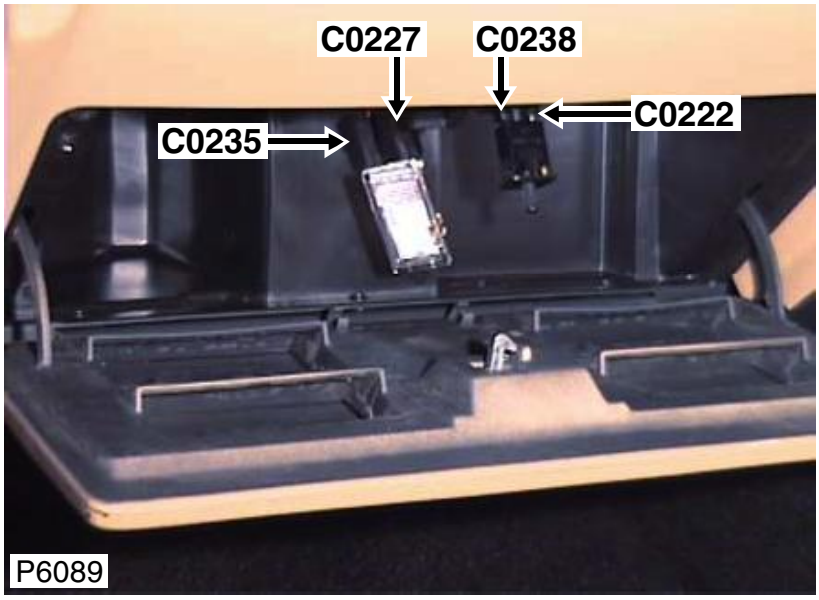


Cav	Col	Cct
1	B	ALL

Description: *Switch - Glove box - RHD*
Location: *Glovebox - inside*



Colour: *BLACK*
Gender: *Female*

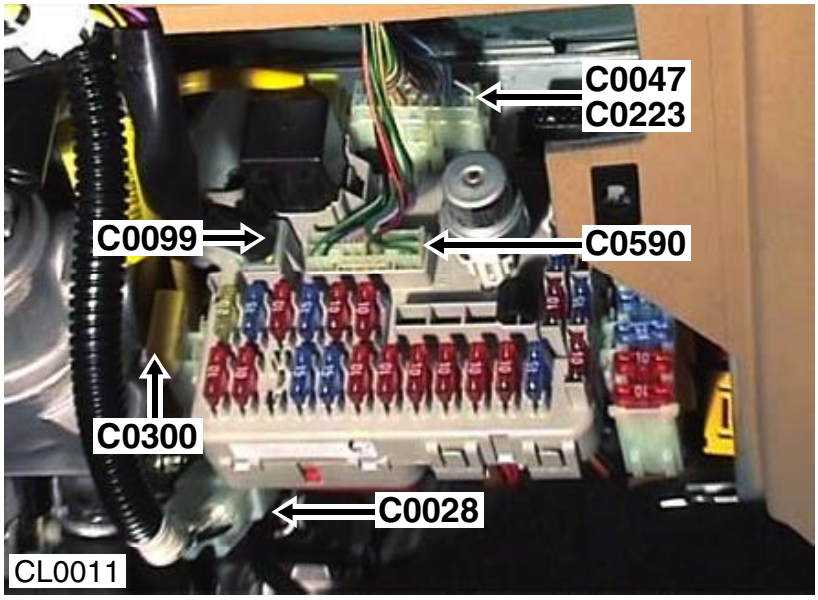


Cav	Col	Cct
1	B	ALL

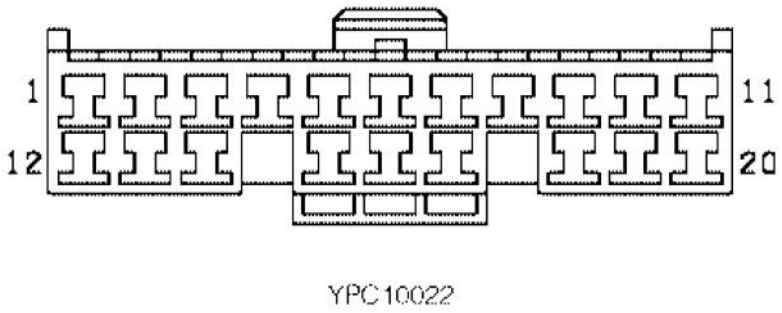
Description: *Switch - Glove box - LHD*
Location: *Glovebox - inside*

AAU1010

Colour: *BLACK*
Gender: *Female*

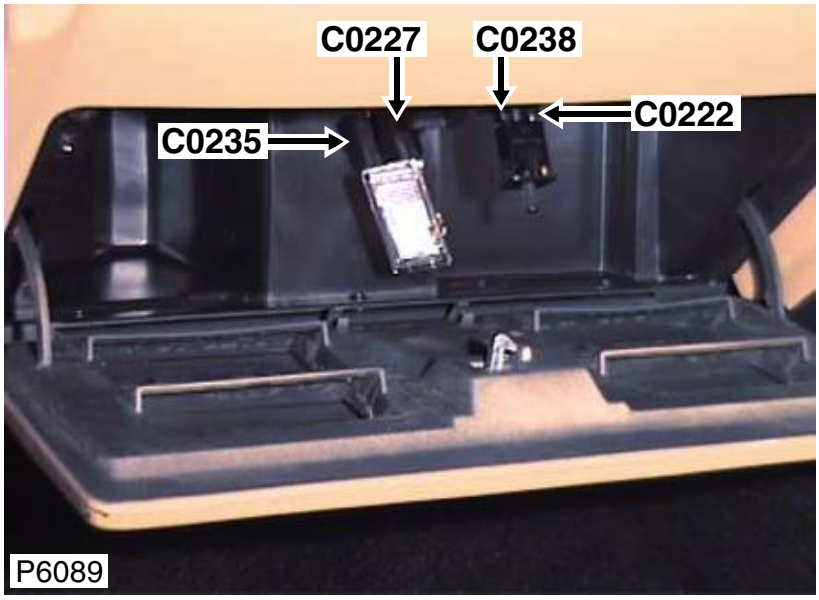


Description: *Fascia harness to main harness*
Location: *Behind driver side of fascia*



Colour: *NATURAL*
Gender: *Female*

Cav	Col	Cct
1	UY	ALL
2	WB	ALL
3	LGY	ALL
4	WN	ALL
5	NO	ALL
6	GU	ALL
7	UR	ALL
8	GB	ALL
9	UK	ALL
10	UG	ALL
11	BR	14
12	UO	ALL
13	KU	ALL
14	GR	ALL
15	WO	ALL
16	OP	ALL
17	NU	ALL
18	WO	ALL
19	PR	ALL
20	WG	8

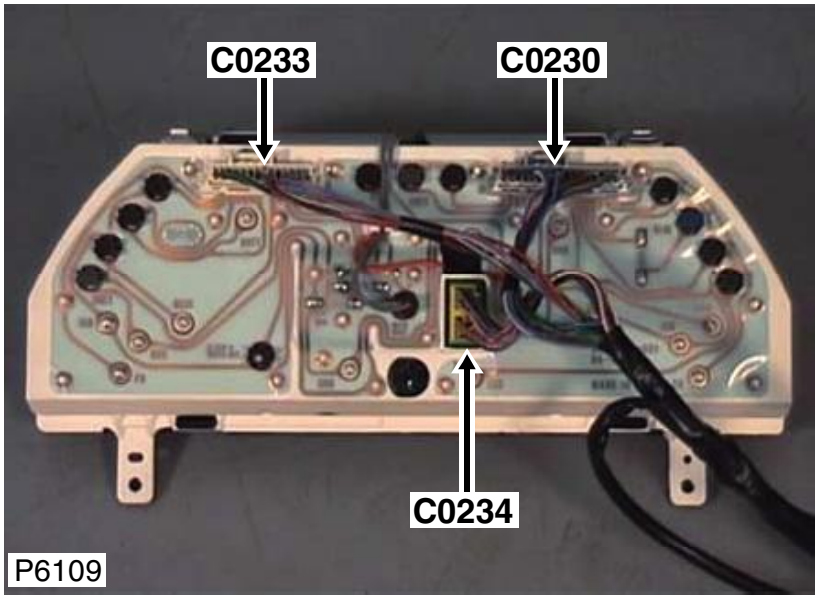


Cav	Col	Cct
1	RB	ALL

Description: *Lamp - Glove box*
Location: *Glovebox - inside*

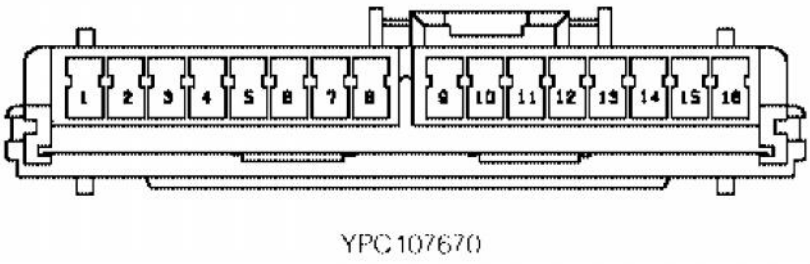
AAU1010

Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	GU	ALL
2	WN	ALL
5	NY	ALL
6	UO	ALL
7	G	ALL
9	B	ALL
11	WB	ALL
15	UG	ALL
16	GR	ALL

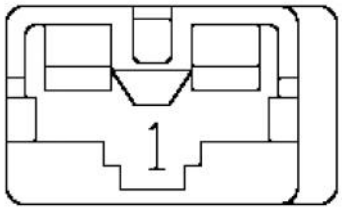
Description: *Instrument Pack*
Location: *Behind instrument pack*



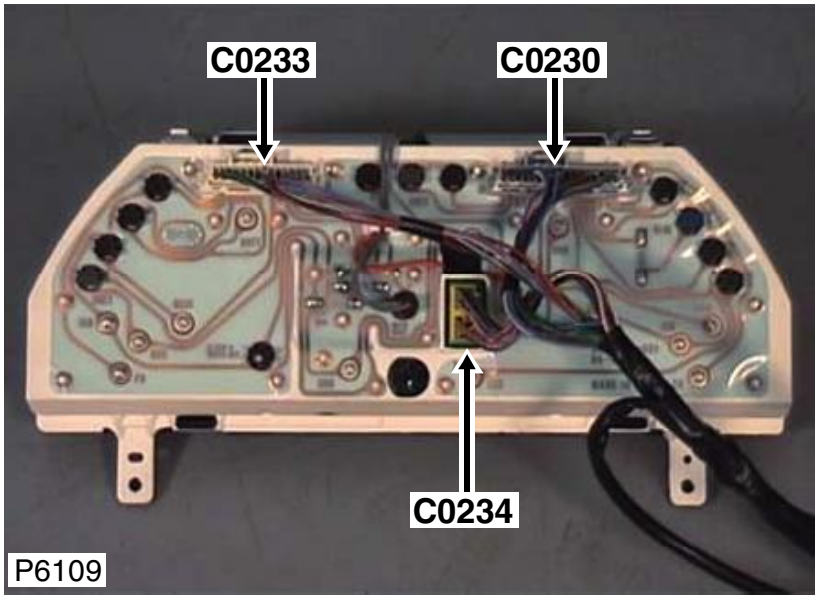
Colour: *LIGHT GREY*
Gender: *Female*

Cav	Col	Cct
1	B	ALL

Description: *Clock - Analogue*
Location: *Beneath front console*

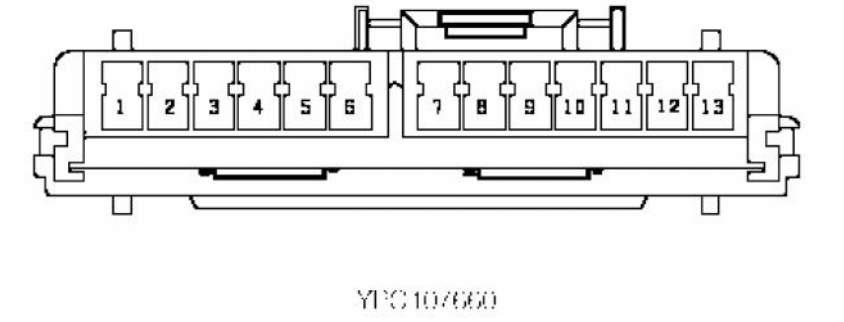


Colour: *NATURAL*
Gender: *Female*

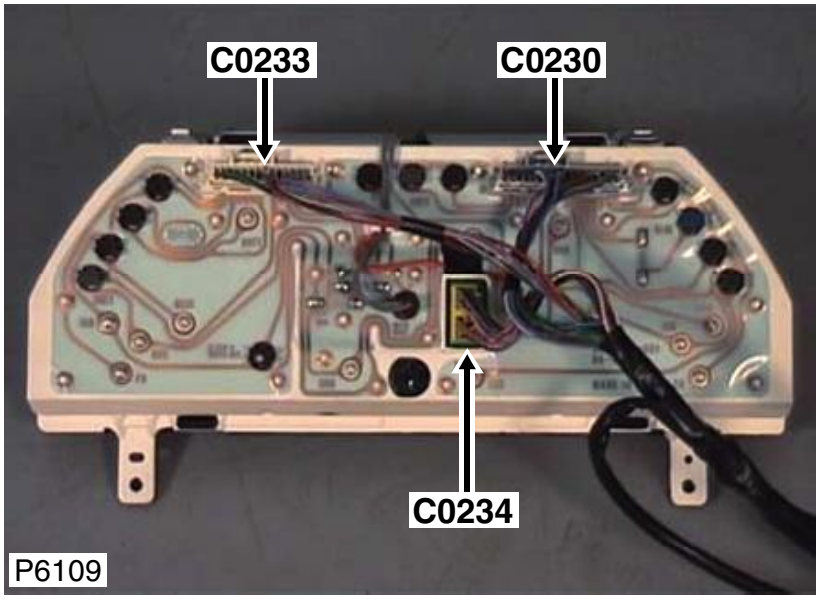


Cav	Col	Cct
1	GW	ALL
3	RW	ALL
4	RB	ALL
6	UY	ALL
7	NO	ALL
11	LGY	ALL
12	BW	ALL
13	GB	ALL

Description: *Instrument Pack*
Location: *Behind instrument pack*

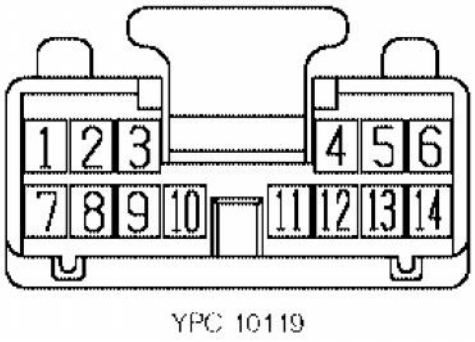


Colour: *WHITE*
Gender: *Female*

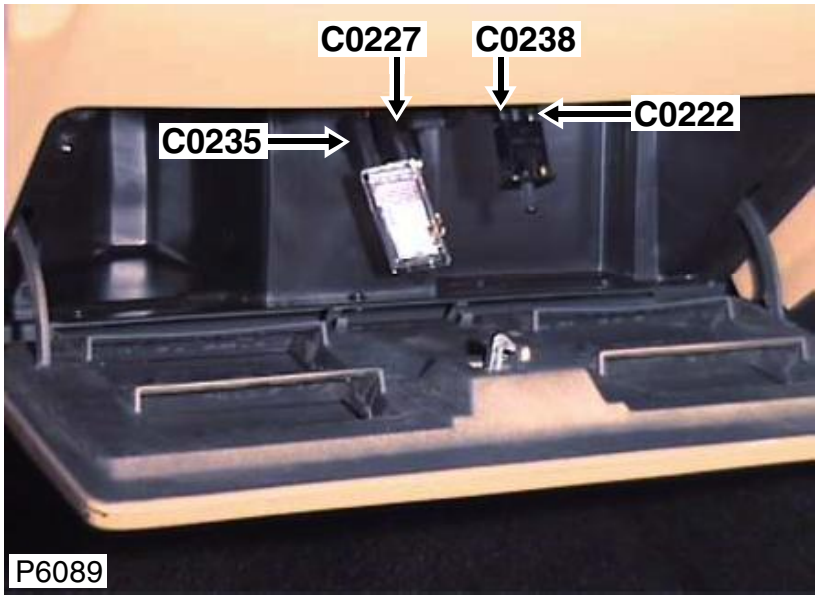


Cav	Col	Cct
1	WG	8
2	WO	ALL
5	UK	ALL
7	UR	ALL
8	OP	ALL
9	NU	ALL
10	BR	14
11	KU	ALL
12	GR	ALL
13	PR	ALL

Description: *Instrument Pack*
Location: *Behind instrument pack*

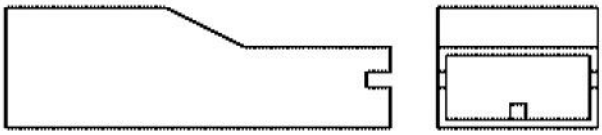


Colour: *YELLOW*
Gender: *Female*



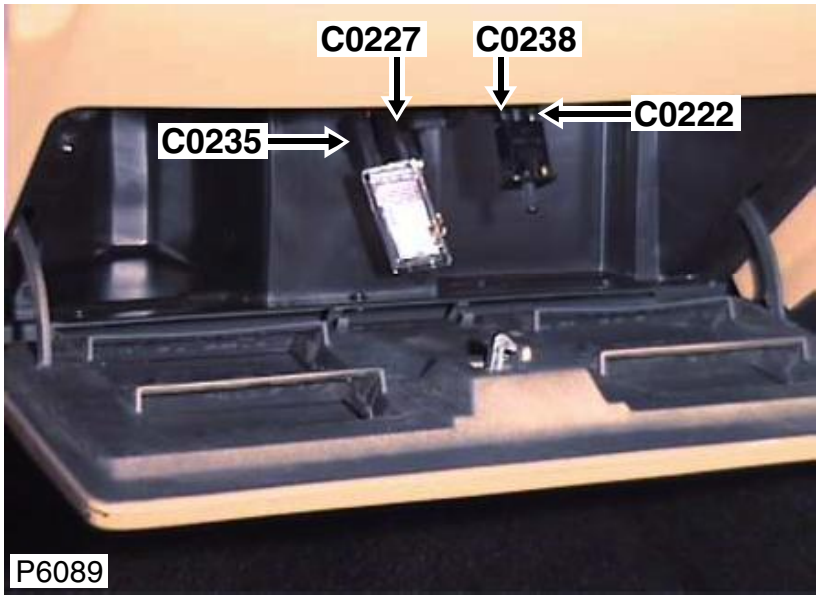
Cav	Col	Cct
1	BY	ALL

Description: *Lamp - Glove box*
Location: *Glovebox - inside*



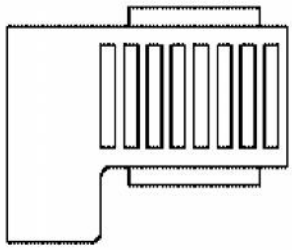
AAU1010

Colour: *BLACK*
Gender: *Female*

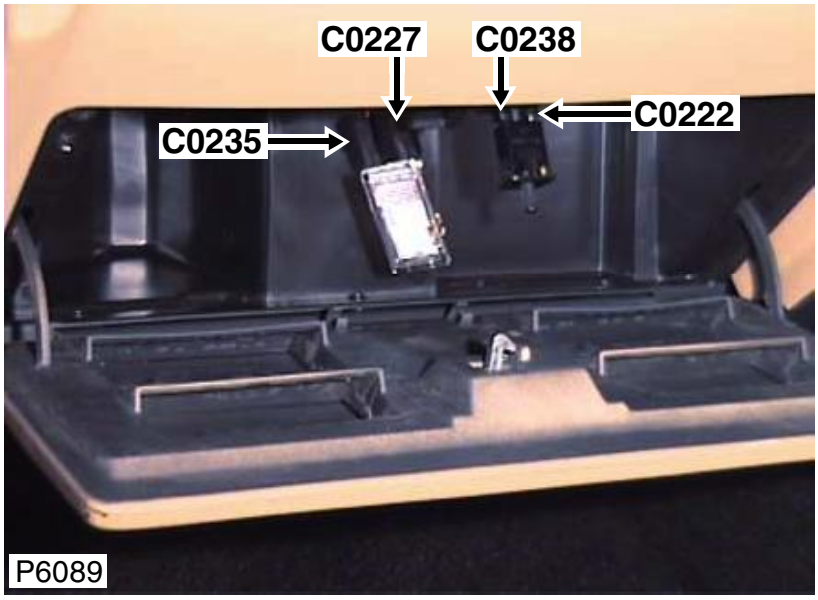


Cav	Col	Cct
1	BY	ALL

Description: *Switch - Glove box - RHD*
Location: *Glovebox - inside*

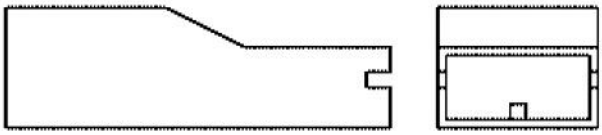


Colour: *BLACK*
Gender: *Female*



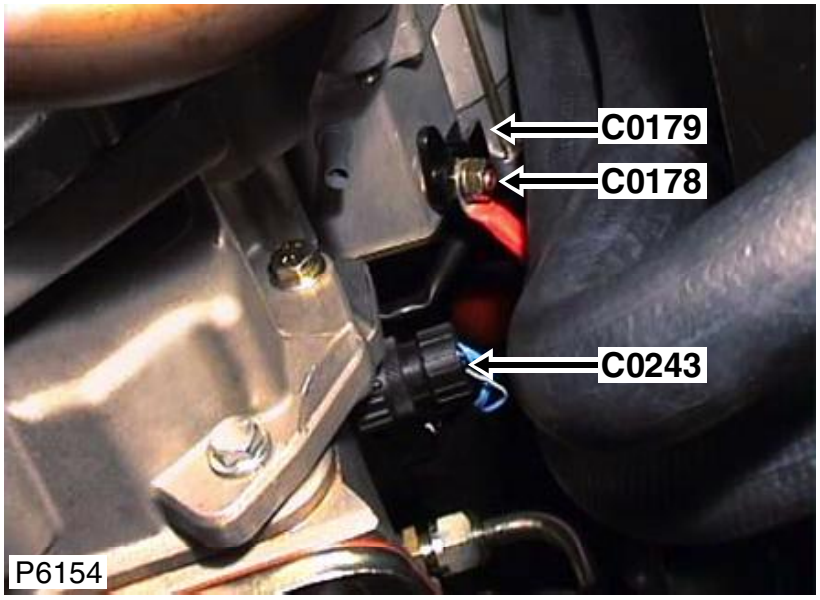
Cav	Col	Cct
1	BY	ALL

Description: *Switch - Glove box - LHD*
Location: *Glovebox - inside*



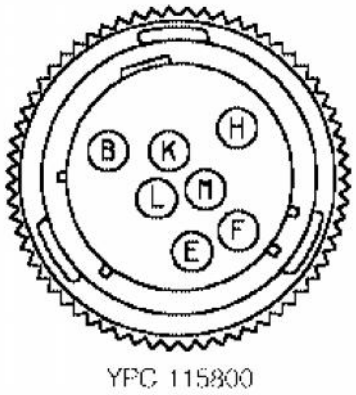
AAU1010

Colour: *BLACK*
Gender: *Female*

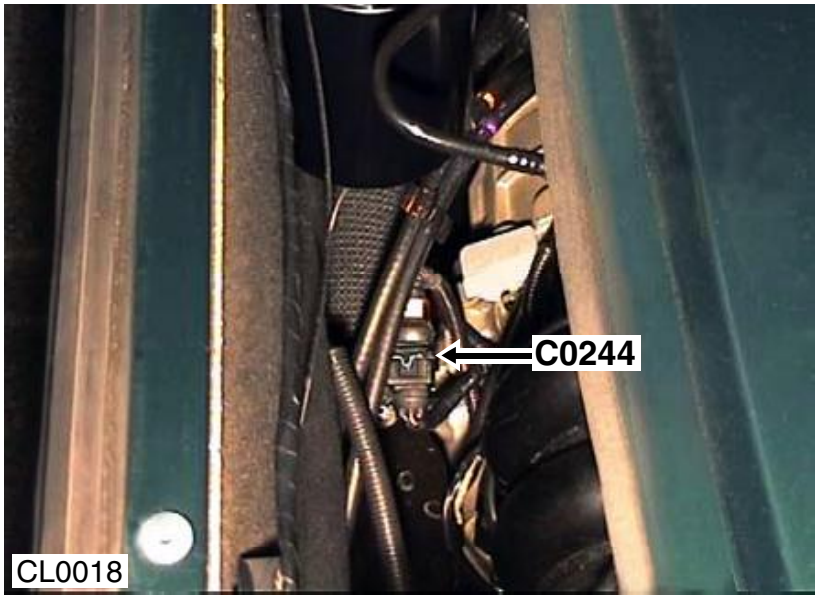


Cav	Col	Cct
B	UW	8
E	US	8
F	UY	8
H	UR	8

Description: *Solenoid - Gearbox - Automatic gearbox*
Location: *Front LH side of engine*

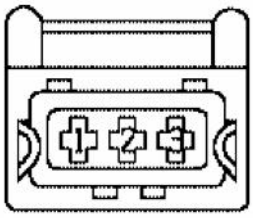


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	NK	8
2	K	8
3	B	8

Description: *Solenoid - Gearbox - Automatic gearbox*
Location: *Rear of engine compartment*

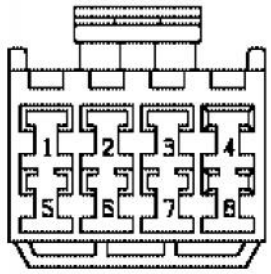


YPC114950

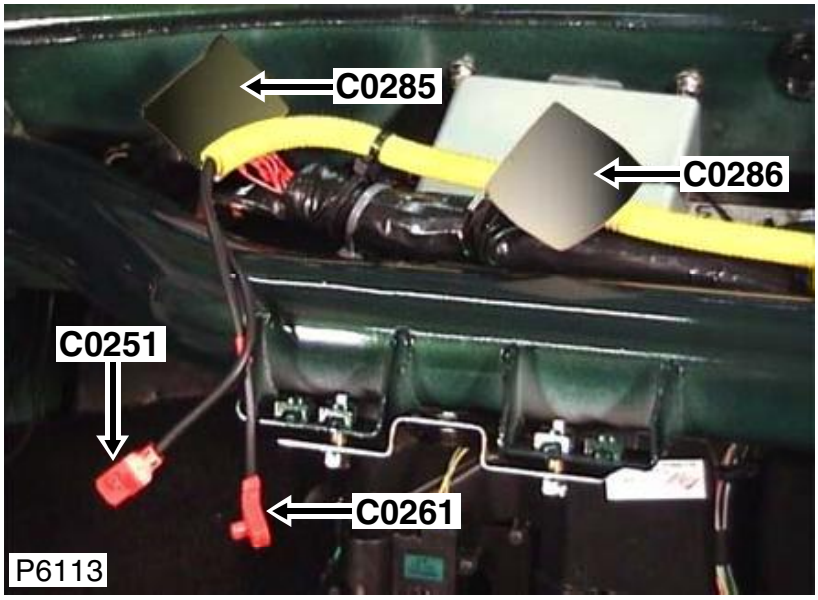
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	RB	8
2	B	8
3	G	8
4	NW	8
5	NR	8
6	NB	8
7	NY	8
8	NG	8

Description: *General illumination - Automatic gearbox*
Location: *Behind gear lever gaiter*

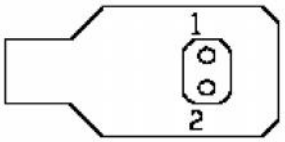


Colour: *NATURAL*
Gender: *Female*

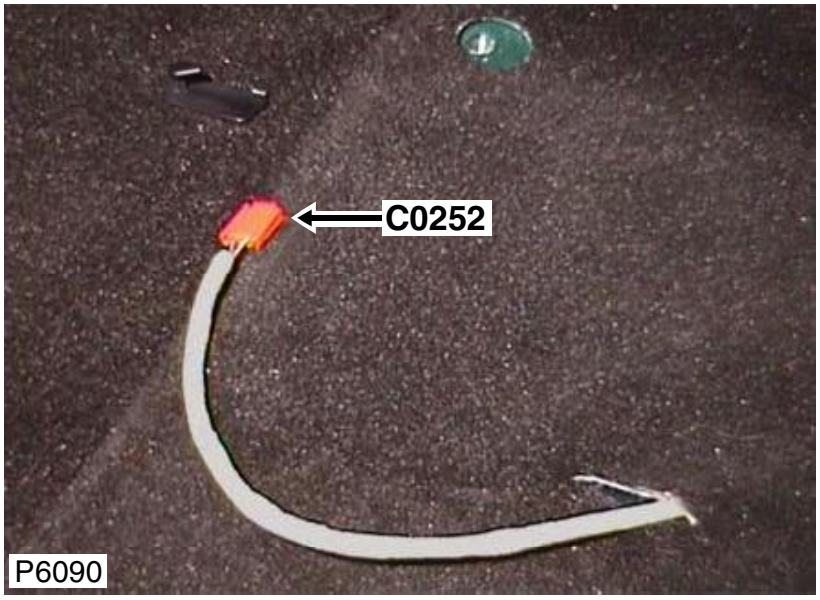


Cav	Col	Cct
1	N	ALL
2	U	ALL

Description: *Air bag - Passenger*
Location: *Behind passenger side of fascia*

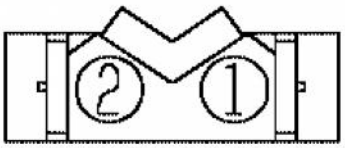


Colour: *RED*
Gender: *Female*



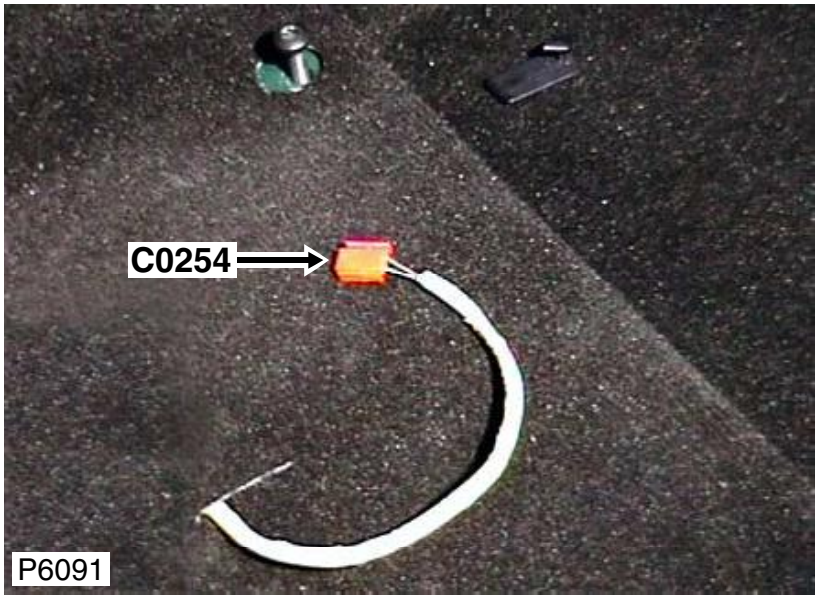
Cav	Col	Cct
1	O	ALL
2	OU	ALL

Description: *Pre-tensioner - LH*
Location: *Beneath LH seat*



YPC10274

Colour: *RED*
Gender: *Female*

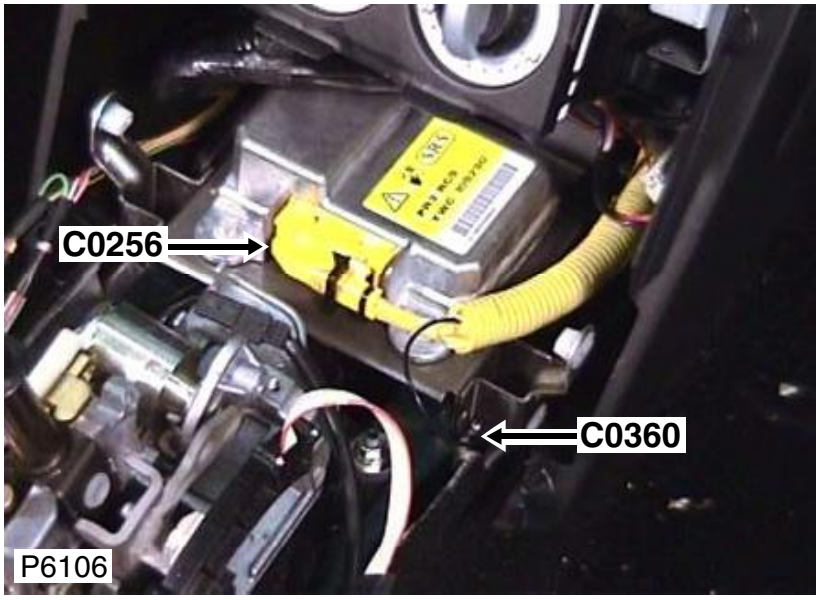


Cav	Col	Cct
1	N	ALL
2	NR	ALL

Description: *Pre-tensioner - RH*
Location: *Beneath RH seat*

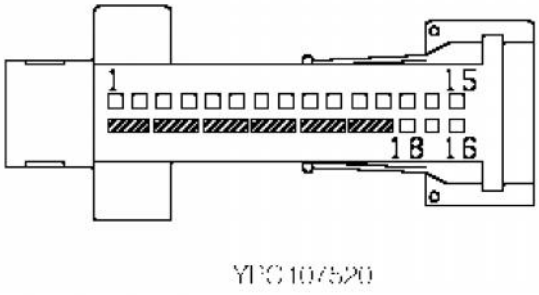
YPC10274

Colour: *RED*
Gender: *Female*

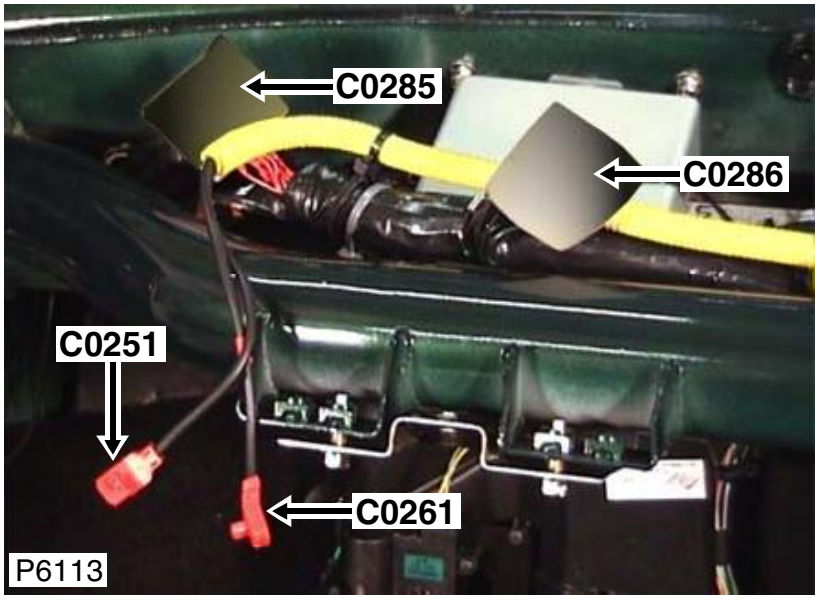


Description: *DCU - Airbag*
Location: *Behind centre console*

Cav	Col	Cct
1	B	ALL
2	OP	ALL
3	O	ALL
4	OU	ALL
5	N	ALL
6	NR	ALL
7	N	ALL
8	U	ALL
9	N	ALL
10	U	ALL
11	Y	ALL
12	R	ALL
14	YK	ALL
15	G	ALL

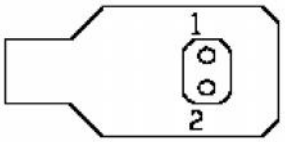


Colour: *YELLOW*
Gender: *Female*



Cav	Col	Cct
1	N	ALL
2	U	ALL

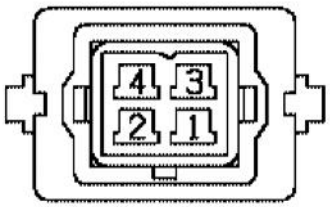
Description: *Air bag - Passenger*
Location: *Behind passenger side of fascia*



Colour: *RED*
Gender: *Female*

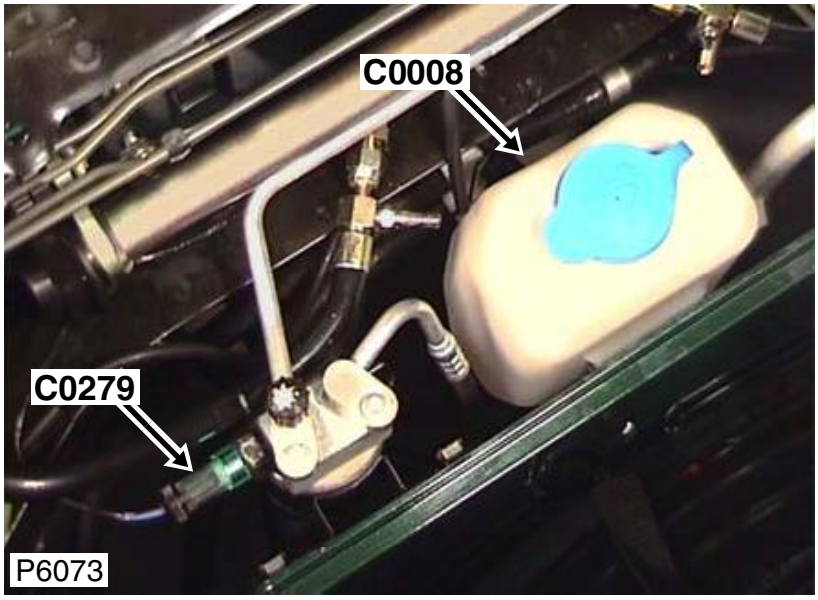
Cav	Col	Cct
1	BU	8
2	GY	8
3	BR	8
4	GN	8

Description: *Switch - Automatic transmission starter inhibitor / reverse light*
Location: *Lower rear of engine - LH side*



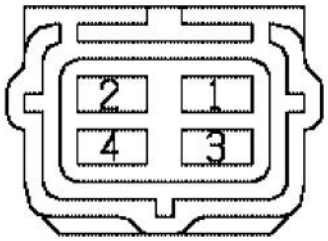
YPC10259

Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	SK	2
2	UR	2
3	B	2
4	U	2

Description: *Switch - Trinary*
Location: *Under bonnet behind closing panel - centre*

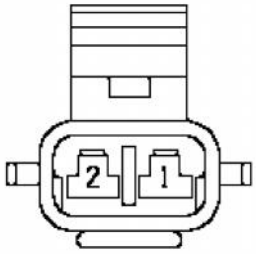


YPC10066

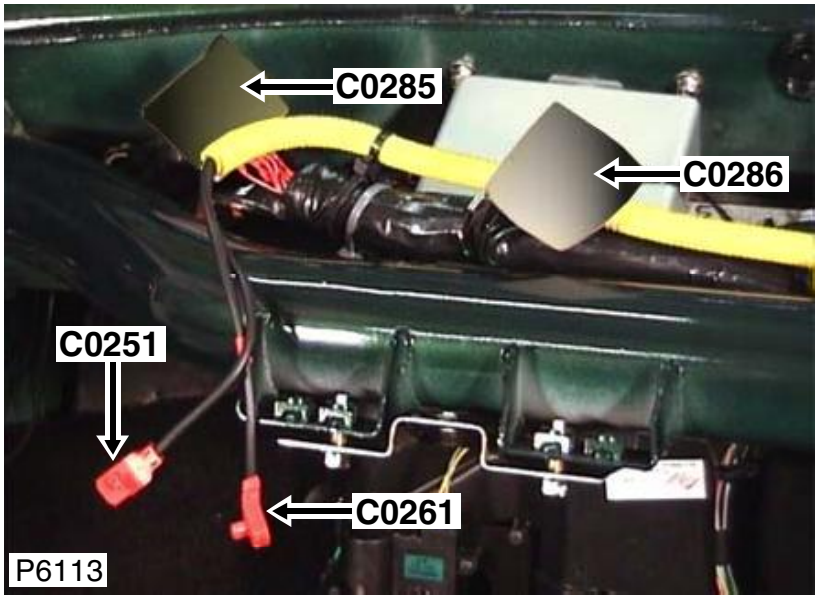
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	B	2
2	SU	2

Description: *Fan - Condenser*
Location: *Behind radiator*

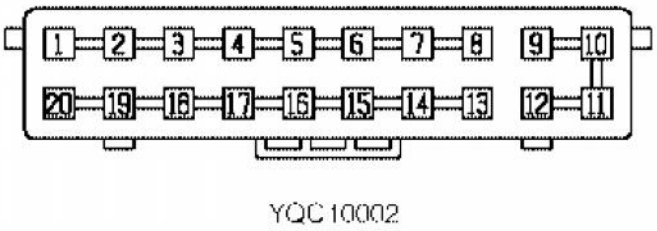


Colour: *BLACK*
Gender: *Female*

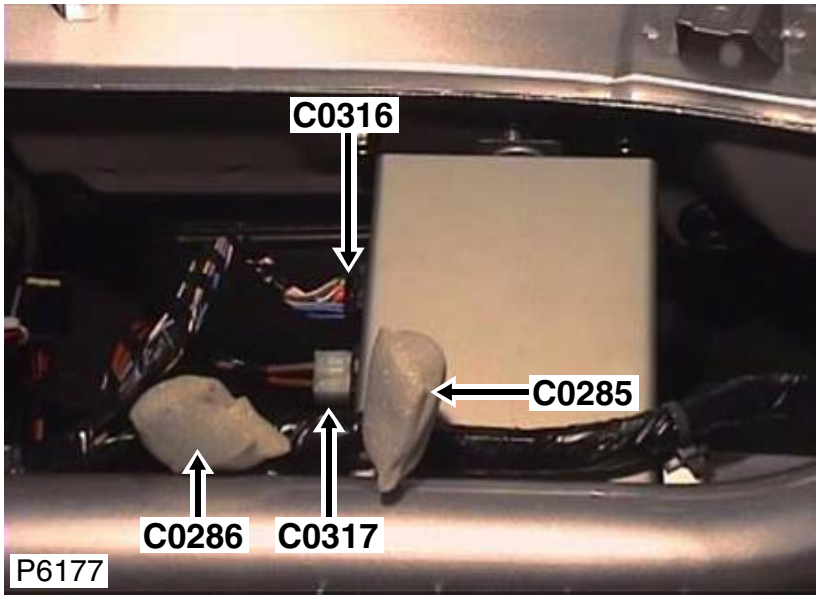


Description: *Header - RHD*
Location: *Behind LH side of fascia*

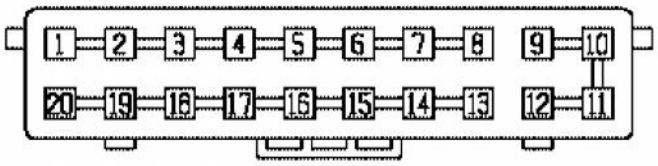
Cav	Col	Cct
1	RB	ALL
2	RB	ALL
3	RB	ALL
4	RB	ALL
5	RB	ALL
6	RB	ALL
7	RB	ALL
8	RB	ALL
9	BR	ALL
10	BR	ALL
12	BR	ALL
13	RB	8
14	RB	ALL
15	RB	ALL
16	RB	ALL
17	RB	ALL
18	RB	ALL
19	RB	ALL
20	RB	ALL



Colour: *GREY*
Gender: *Female*

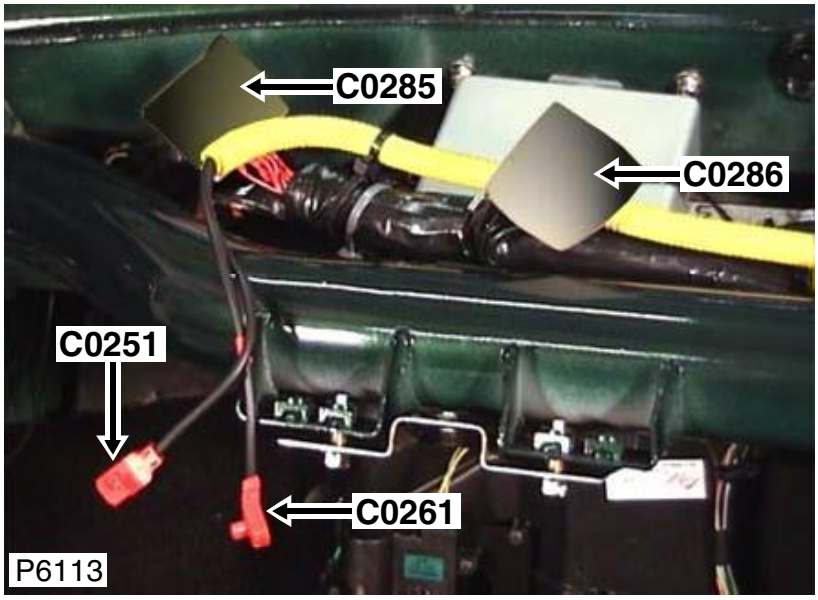


Description: *Header - LHD*
Location: *Behind RH side of fascia*



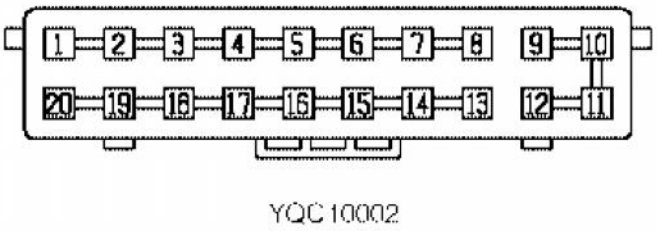
Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	RB	ALL
2	RB	ALL
3	RB	ALL
4	RB	ALL
5	RB	ALL
6	RB	ALL
7	RB	ALL
8	RB	ALL
9	BR	ALL
11	BR	ALL
12	BR	ALL
13	RB	8
14	RB	ALL
15	RB	ALL
16	RB	ALL
17	RB	ALL
18	RB	ALL
19	RB	ALL
20	RB	ALL

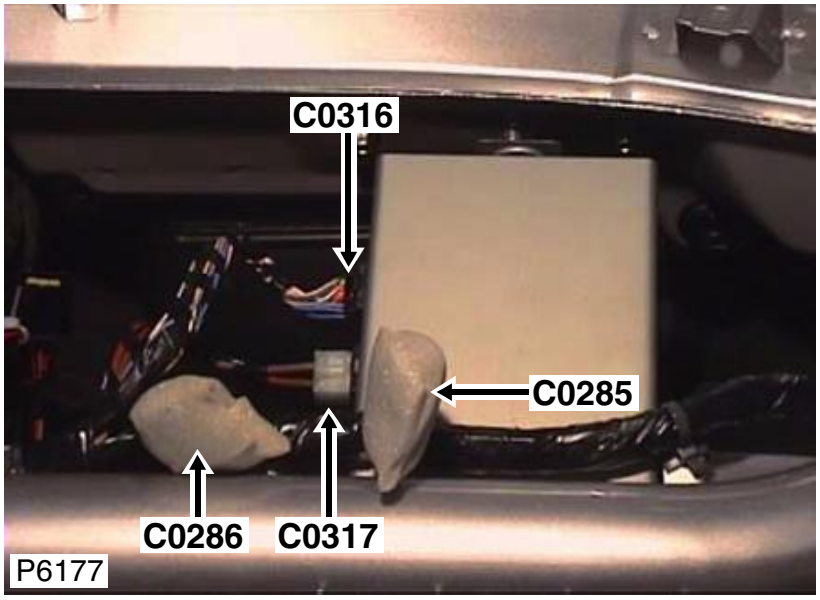


Description: *Header - RHD*
Location: *Behind LH side of fascia*

Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL
8	B	ALL
9	BG	ALL
10	BG	ALL
11	BG	ALL
13	B	ALL
14	B	ALL
15	B	ALL
16	B	ALL
17	B	ALL
18	B	ALL
19	B	10
20	B	ALL

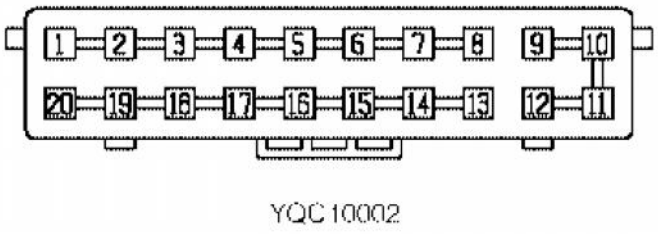


Colour: *GREY*
Gender: *Female*



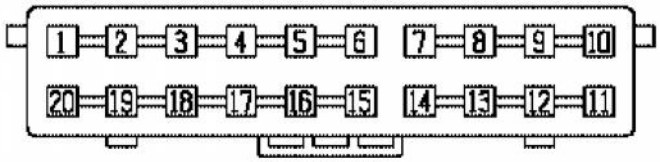
Description: *Header - LHD*
Location: *Behind RH side of fascia*

Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL
8	B	ALL
9	BG	ALL
10	BG	ALL
11	BG	ALL
13	B	ALL
14	B	ALL
15	B	ALL
16	B	ALL
18	B	ALL
19	B	ALL
20	B	ALL



Colour: *GREY*
Gender: *Female*

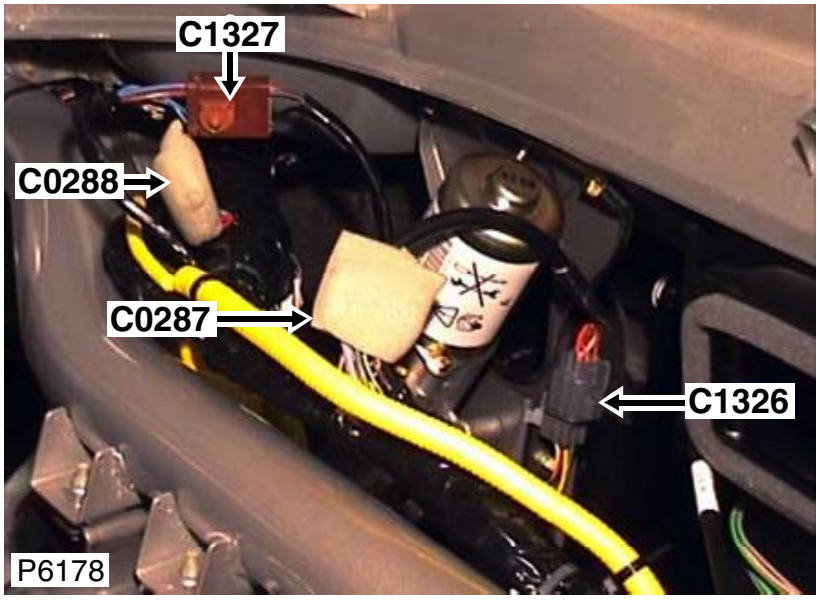
Description: *Header - RHD*
Location: *Behind RH side of fascia*



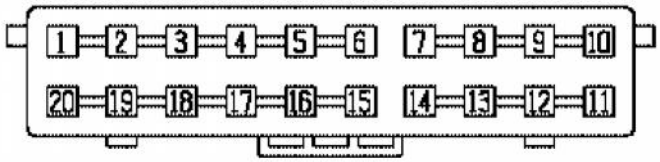
YQC10005

Colour: *BLUE*
Gender: *Female*

Cav	Col	Cct
1	GW	ALL
2	GW	ALL
3	GW	ALL
4	GW	ALL
5	GW	ALL
6	GW	ALL
7	PS	ALL
8	PS	ALL
9	PS	ALL
12	WN	ALL
13	WN	ALL
14	WN	ALL
15	GR	ALL
16	GR	ALL
17	GR	ALL
18	GR	ALL
19	GR	ALL
20	GR	ALL



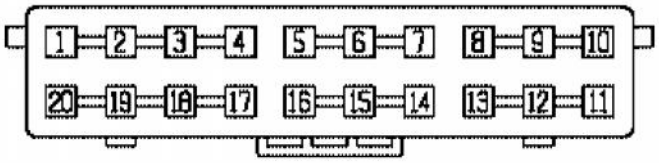
Description: *Header - LHD*
Location: *Behind LH side of fascia*



Colour: *BLUE*
Gender: *Female*

Cav	Col	Cct
1	GW	ALL
2	GW	ALL
3	GW	ALL
4	GW	ALL
5	GW	ALL
6	GW	ALL
7	PS	ALL
8	PS	ALL
9	PS	ALL
12	WN	ALL
13	WN	ALL
14	WN	ALL
15	GR	ALL
16	GR	ALL
17	GR	ALL
18	GR	ALL
19	GR	ALL
20	GR	ALL

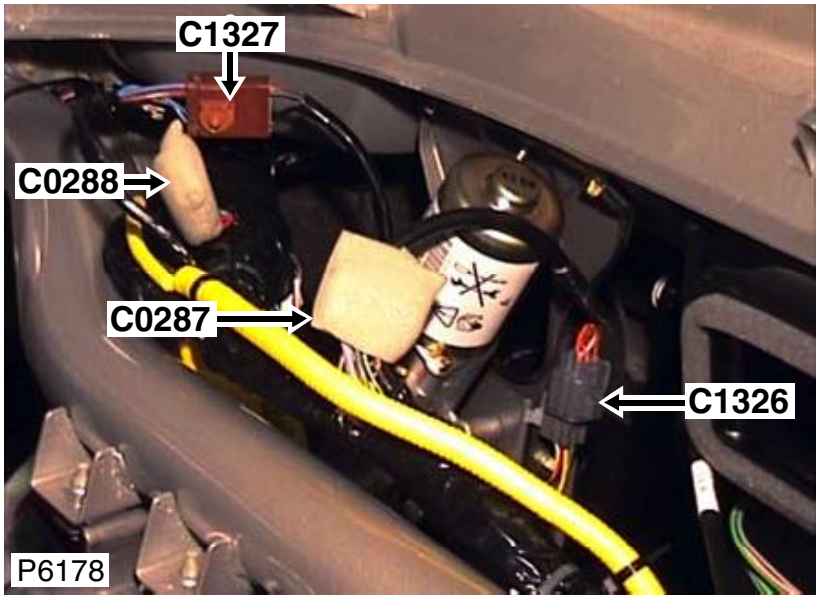
Description: *Header - RHD*
Location: *Behind RH side of fascia*



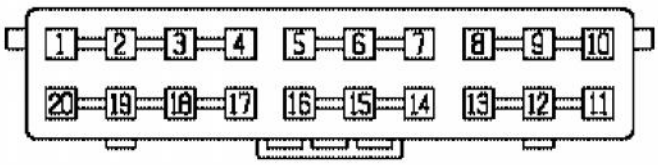
YQC 10003

Colour: *ORANGE*
Gender: *Female*

Cav	Col	Cct
1	LG	7
2	LG	7
3	LG	ALL
4	LG	7
5	PB	ALL
6	PB	ALL
7	PB	ALL
8	UG	ALL
9	UG	ALL
10	UG	ALL
11	R	ALL
12	R	ALL
13	R	ALL
14	LGN	ALL
15	LGN	ALL
16	LGN	ALL
17	PY	ALL
18	PY	ALL
19	PY	ALL

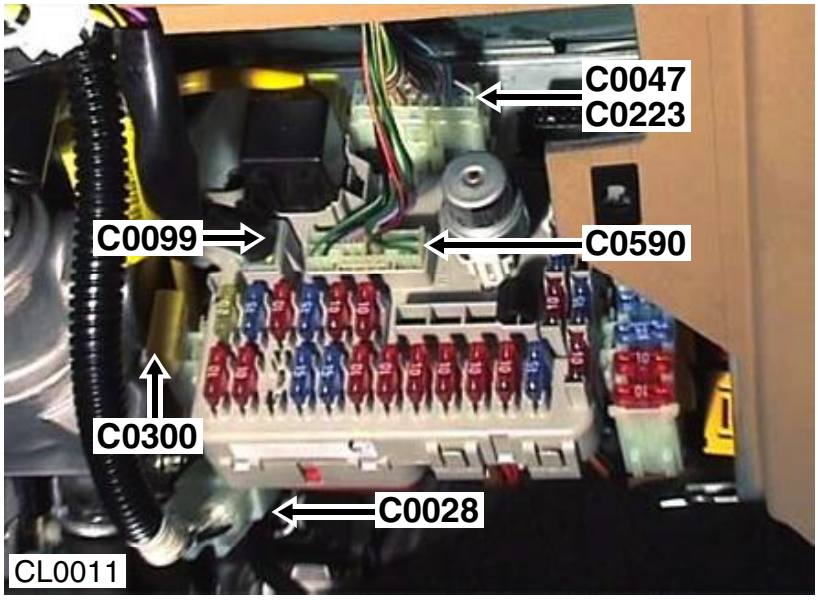


Description: *Header - LHD*
Location: *Behind LH side of fascia*



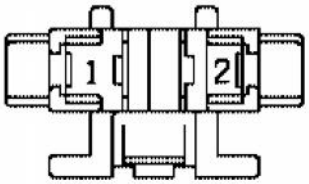
Colour: *ORANGE*
Gender: *Female*

Cav	Col	Cct
1	LG	7
2	LG	7
3	LG	ALL
4	LG	7
5	PB	ALL
6	PB	ALL
7	PB	ALL
8	UG	ALL
9	UG	ALL
10	UG	ALL
11	R	ALL
12	R	ALL
13	R	ALL
14	LGN	ALL
15	LGN	ALL
16	LGN	ALL
17	PY	ALL
18	PY	ALL
19	PY	ALL



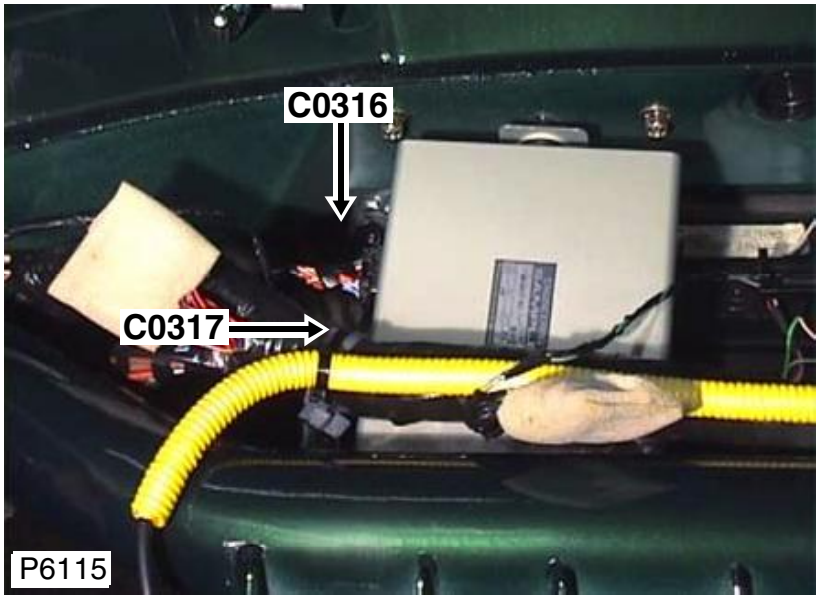
Cav	Col	Cct
1	W	ALL
2	G	ALL

Description: *Fuse - Airbag - SRS*
Location: *Behind driver side of fascia*



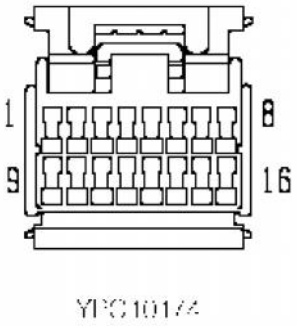
YQE 10001

Colour: *NATURAL*
Gender: *Female*

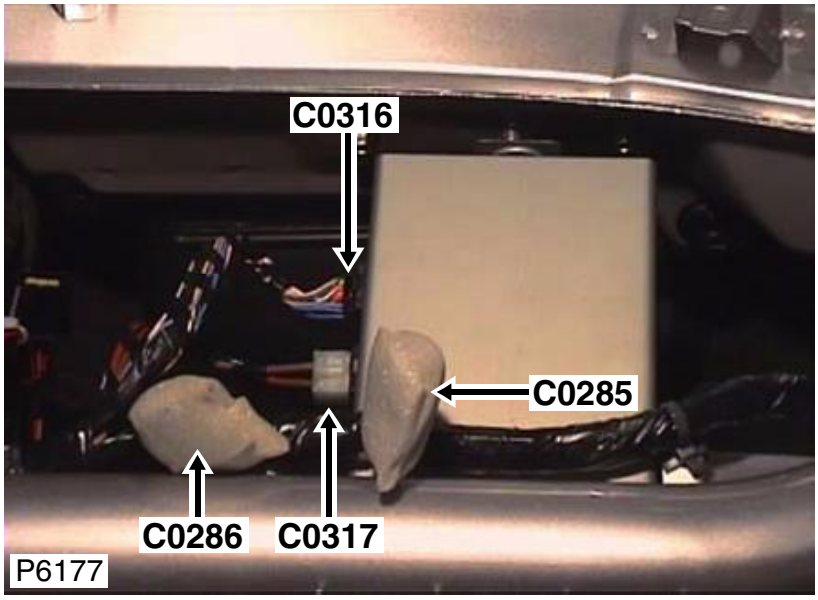


Description: *ECU - Electrical Power Assisted Steering (EPAS) - RHD*
Location: *Behind LH side of fascia*

Cav	Col	Cct
1	UK	5
2	KU	5
4	OY	5
5	OU	5
6	O	5
7	WO	5
8	G	5
9	US	5
12	UG	5
13	W	5
14	OW	5
15	WB	5
16	K	5

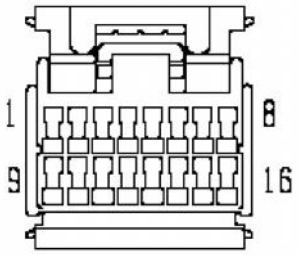


Colour: *BLACK*
Gender: *Female*

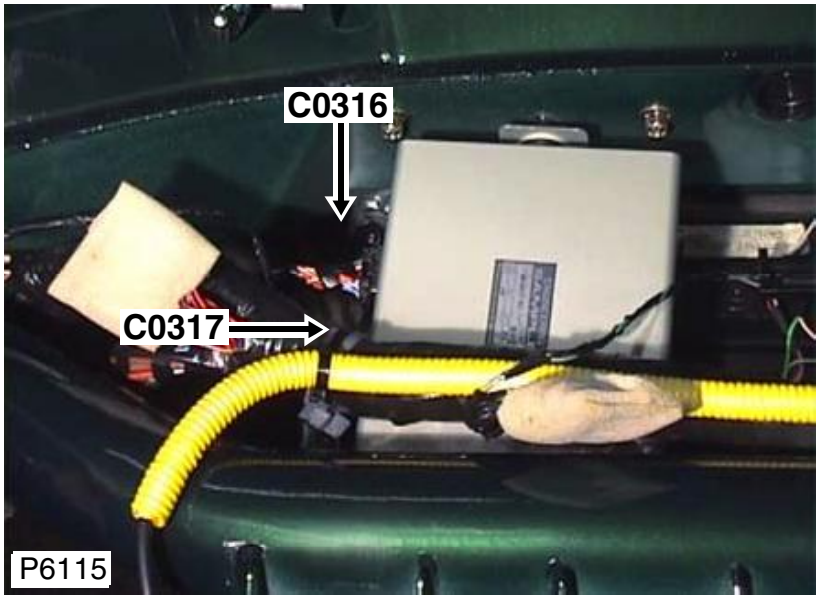


Description: *ECU - Electrical Power Assisted Steering (EPAS) - LHD*
Location: *Behind RH side of fascia*

Cav	Col	Cct
1	UK	5
2	KU	5
4	OY	5
5	OU	5
6	O	5
7	WO	5
8	G	5
9	US	5
12	UG	5
13	W	5
14	OW	5
15	WB	5
16	K	5

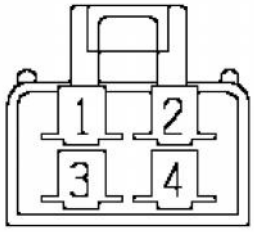


Colour: *BLACK*
Gender: *Female*

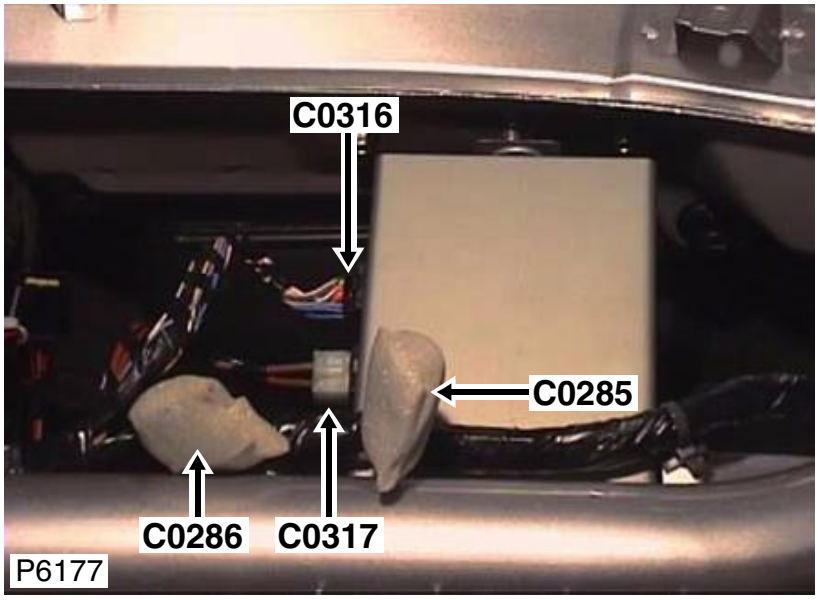


Cav	Col	Cct
1	N	5
2	NU	5
3	B	5
4	NR	5

Description: *ECU - Electrical Power Assisted Steering (EPAS) - RHD*
Location: *Behind LH side of fascia*

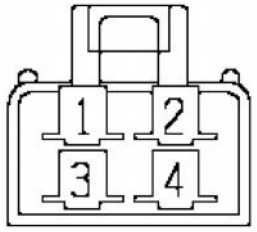


Colour: *NATURAL*
Gender: *Female*

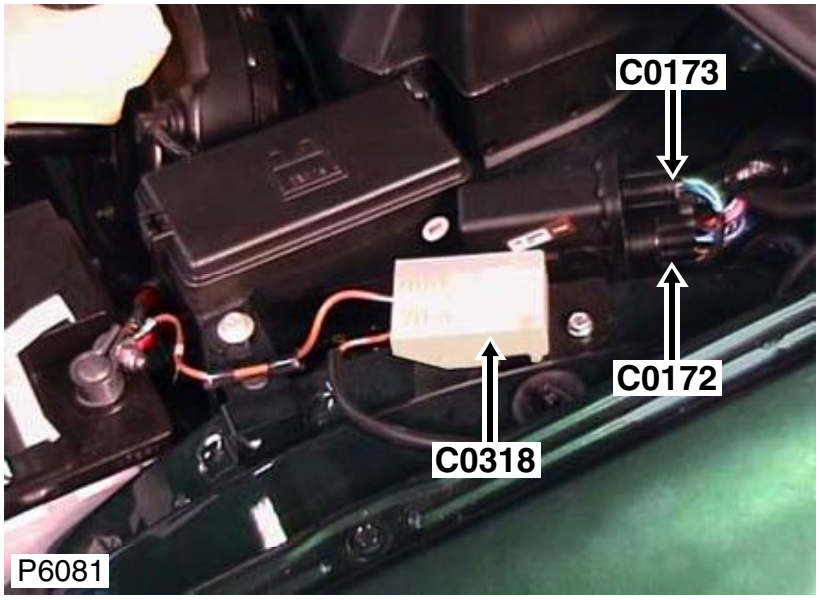


Cav	Col	Cct
1	N	5
2	NU	5
3	B	5
4	NR	5

Description: *ECU - Electrical Power Assisted Steering (EPAS) - LHD*
Location: *Behind RH side of fascia*



Colour: *NATURAL*
Gender: *Female*

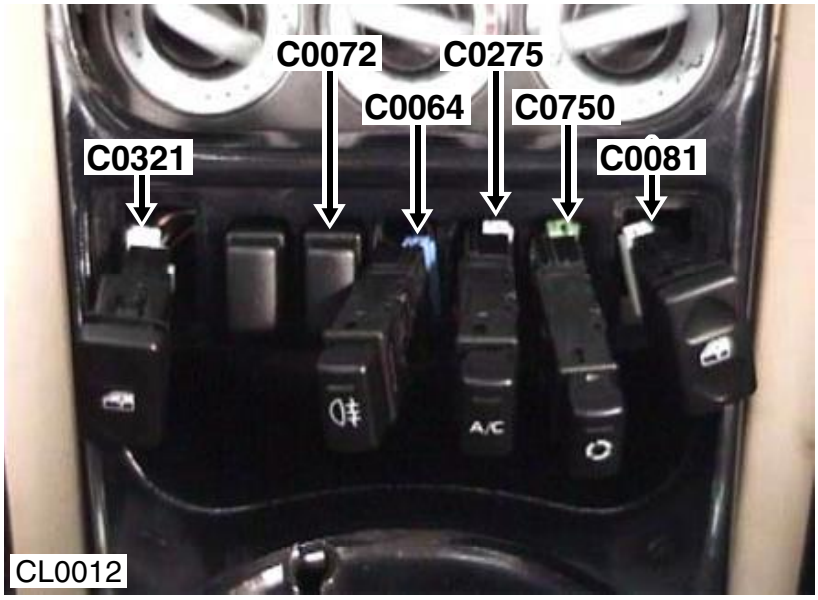


Cav	Col	Cct
1	N	5

Description: *Fuse - Electrical Power Assisted Steering (EPAS)*
Location: *Under bonnet, LH side*

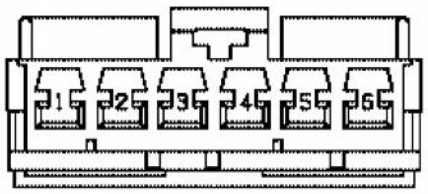
NO CONNECTOR FACE

Colour: *BRASS, TIN-PLATED*
Gender: *Female*



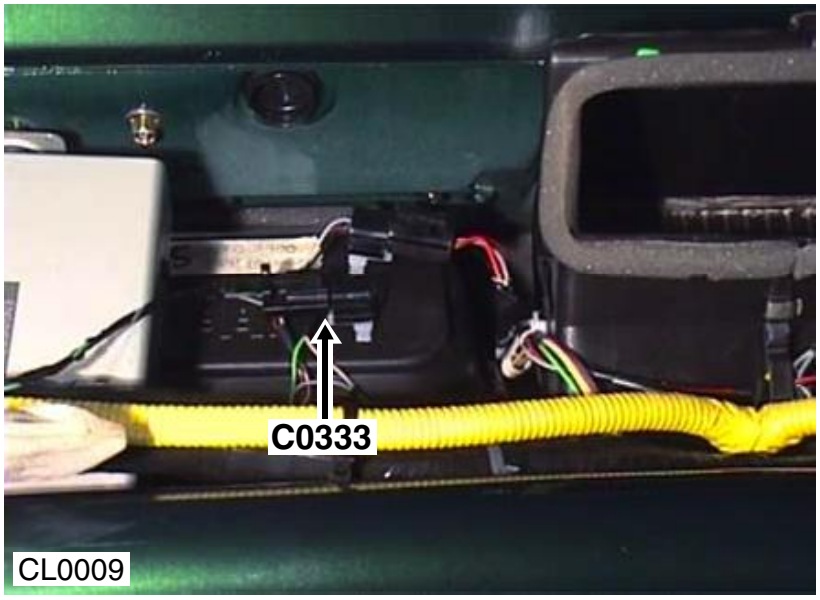
Cav	Col	Cct
1	B	ALL
2	NY	ALL
3	SB	ALL
4	SK	ALL
6	RB	ALL

Description: *Switch - Window - Front - LH*
Location: *Beneath front console*



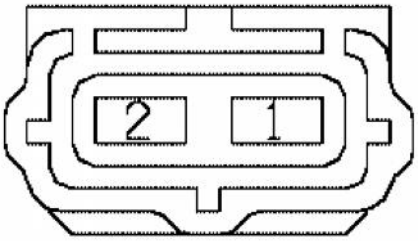
YPC113220

Colour: *WHITE*
Gender: *Female*



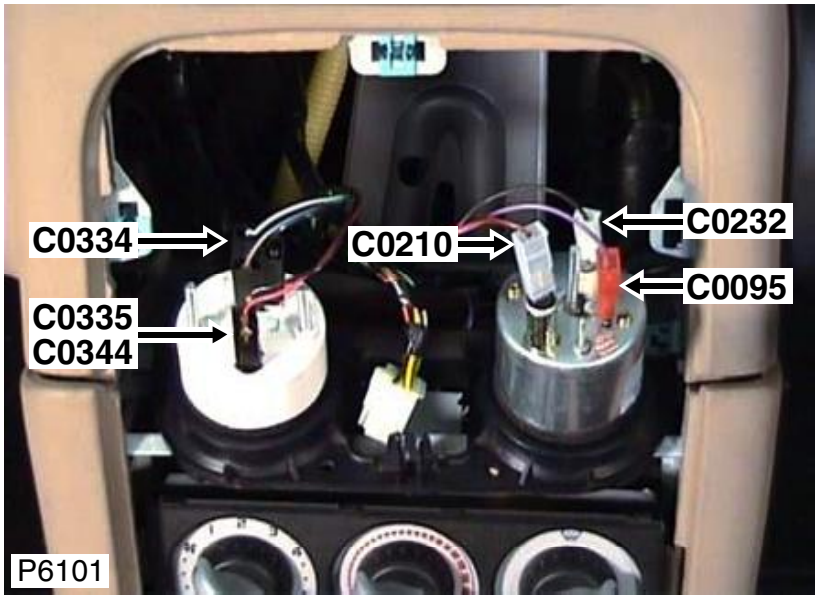
Cav	Col	Cct
1	LGS	2
2	SK	2

Description: *Main harness to link harness*
Location: *Behind passenger side of fascia*



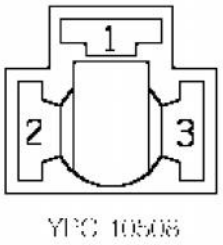
YPC 10069

Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	B	ALL
2	NU	ALL
3	LGW	ALL

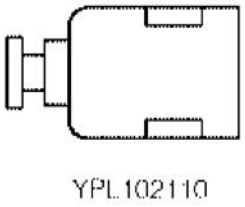
Description: *Gauge - Oil pressure*
Location: *Beneath front console*



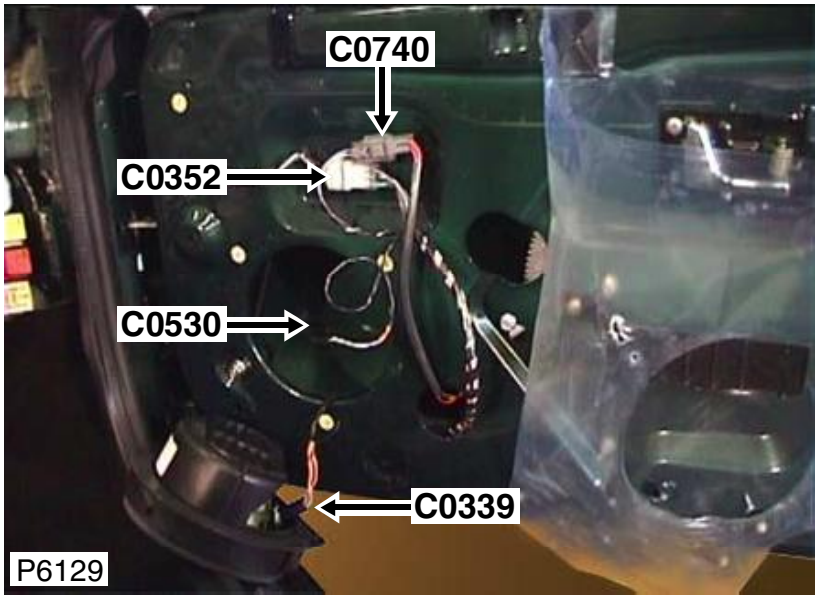
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	RB	ALL

Description: *Gauge - Oil pressure*
Location: *Beneath front console*

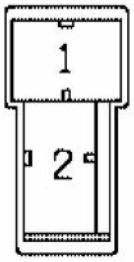


Colour: *BRASS*
Gender: *Female*



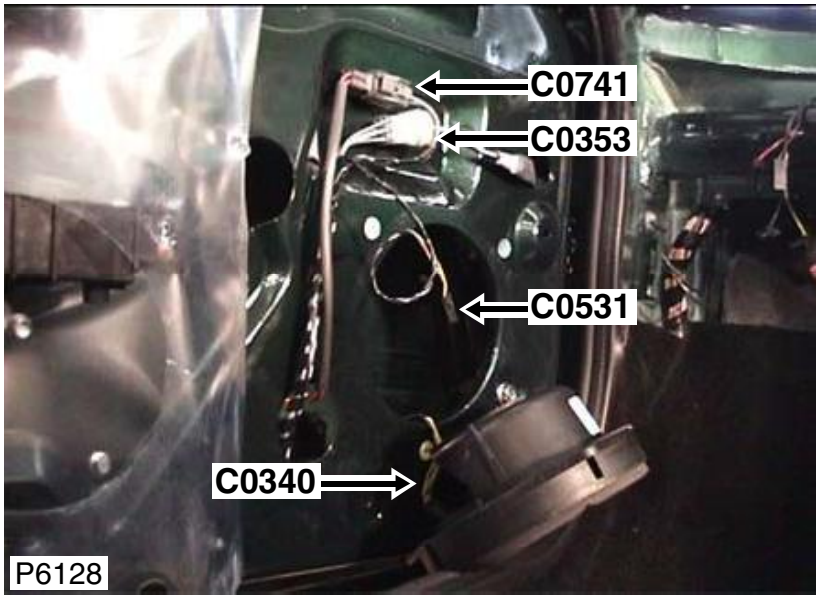
Cav	Col	Cct
1	OK	ALL
2	OB	ALL

Description: *Speaker - Door - Front - RH*
Location: *Behind RH front door trim panel*



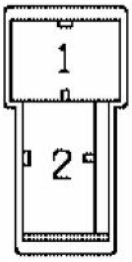
AFU3199

Colour: *BLACK*
Gender: *Female*



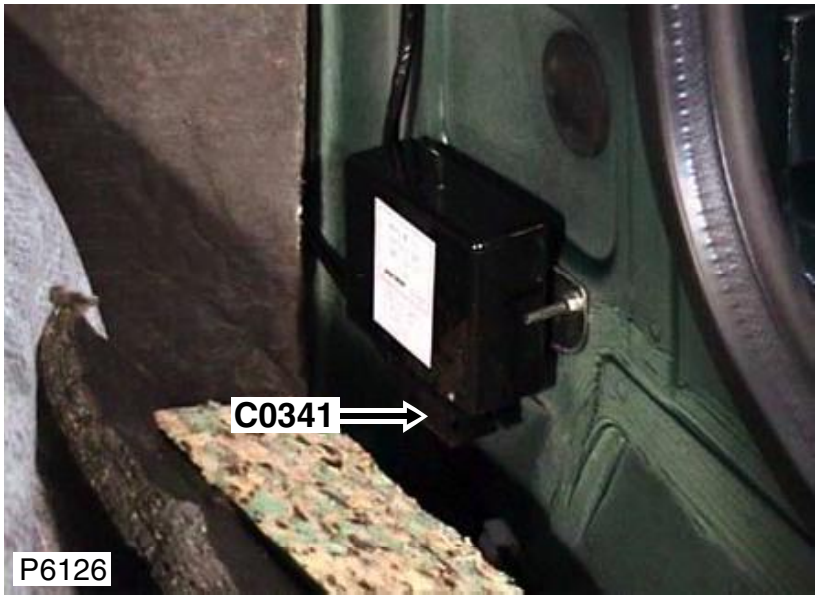
Cav	Col	Cct
1	YK	ALL
2	YB	ALL

Description: *Speaker - Door - Front - LH*
Location: *Behind LH front door trim panel*



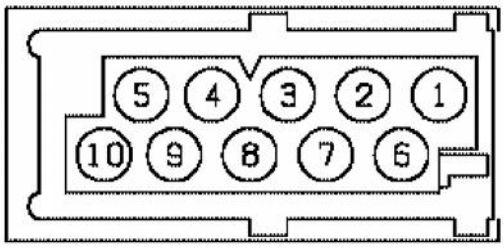
AFU3199

Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
2	SY	ALL
4	SR	ALL
5	B	ALL
6	SG	ALL
7	SU	ALL
9	SW	ALL

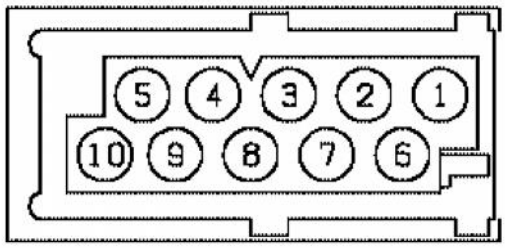
Description: *ECU - Window lift - RHD*
Location: *Base of RH 'A' post*



Colour: *BLACK*
Gender: *Female*

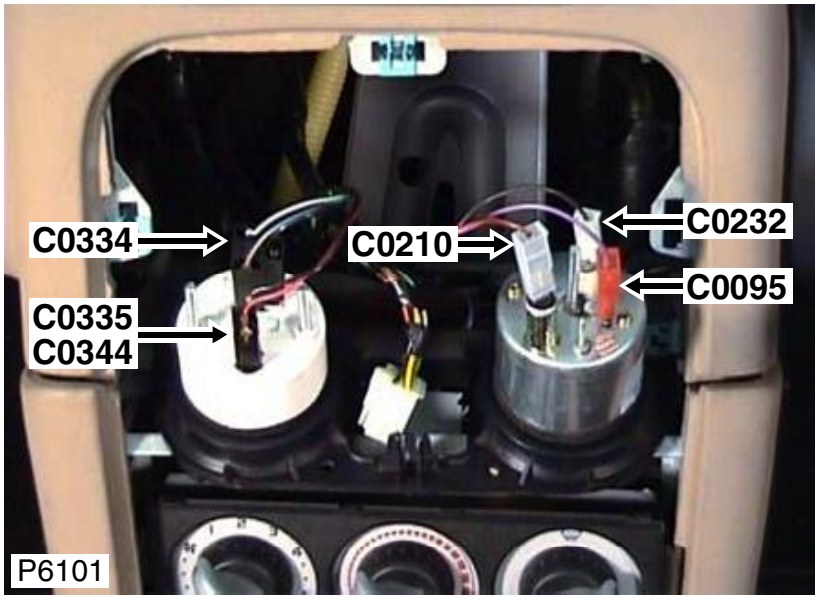
Cav	Col	Cct
2	SB	ALL
4	SK	ALL
5	B	ALL
6	NY	ALL
7	SU	ALL
9	SW	ALL

Description: *ECU - Window lift - LHD*
Location: *Base of LH 'A' post*



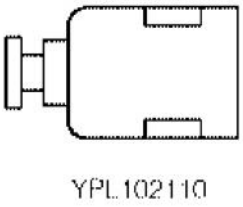
YPC112620

Colour: *BLACK*
Gender: *Female*

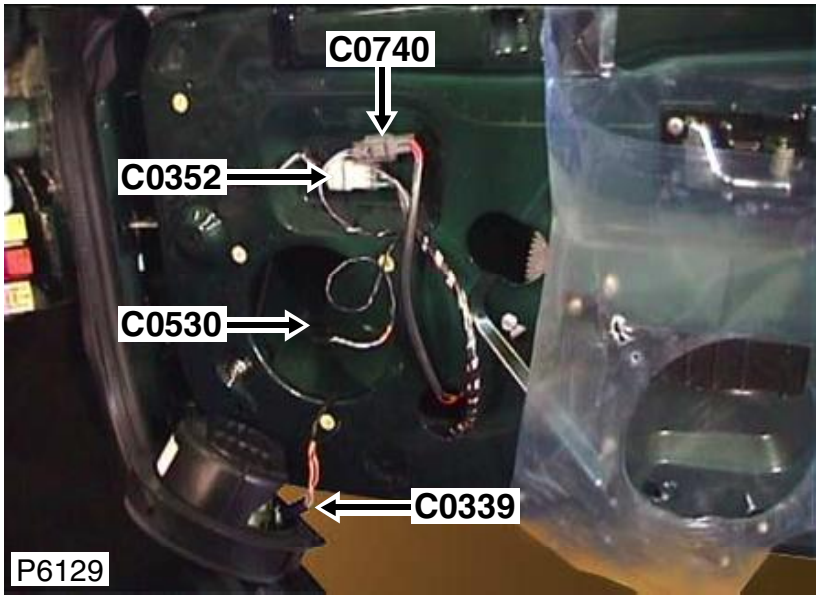


Cav	Col	Cct
1	B	ALL

Description: *Gauge - Oil pressure*
Location: *Beneath front console*

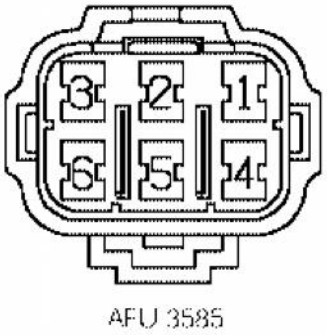


Colour: *BRASS*
Gender: *Female*

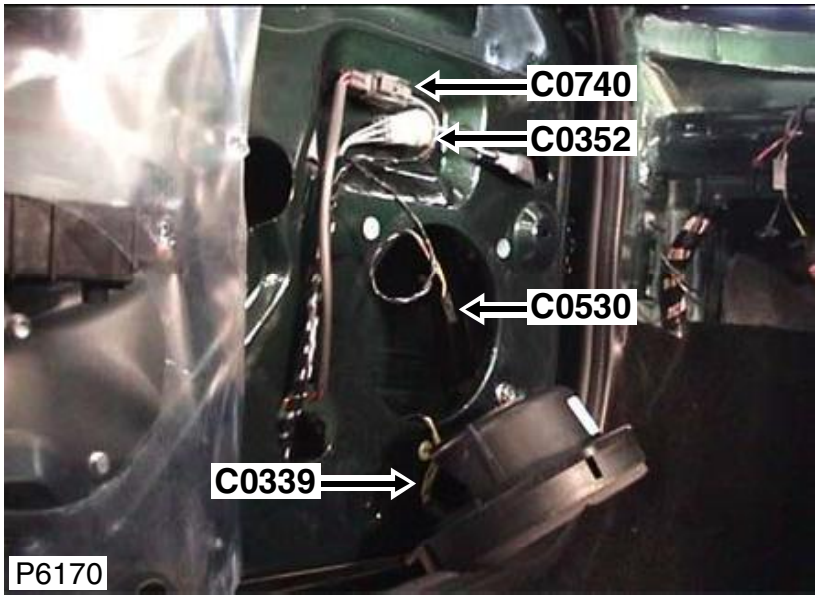


Cav	Col	Cct
1	SW	7
2	SW	7
3	B	7
4	LG	7
5	BN	7
6	BP	7

Description: *Mirror - Folding - Driver Door - RHD*
Location: *Behind RH front door trim panel*

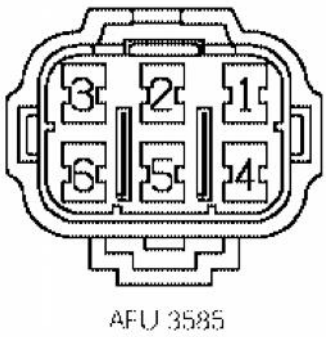


Colour: *NATURAL*
Gender: *Male*

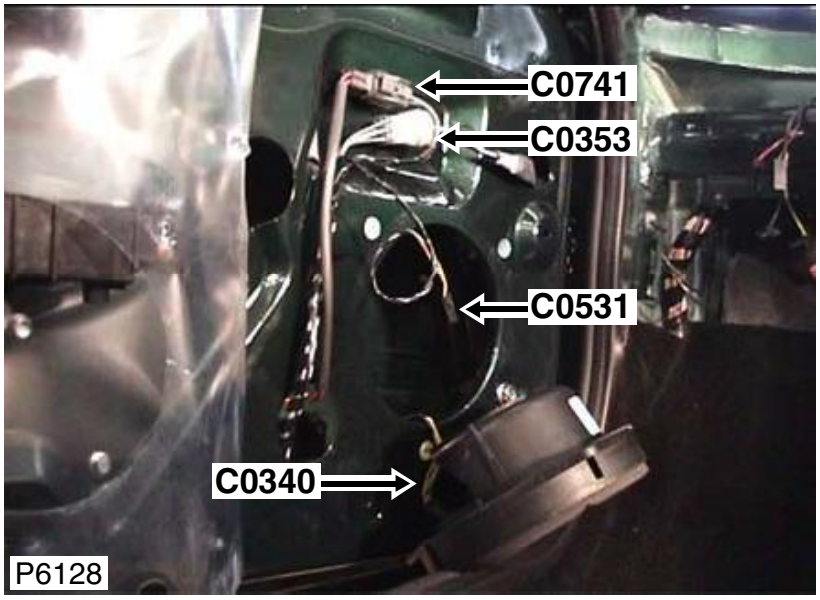


Cav	Col	Cct
1	BU	7
2	BY	7
3	B	7
4	LG	7
5	SW	7
6	SW	7

Description: *Mirror - Folding - Driver Door - LHD*
Location: *Behind LH front door trim panel*

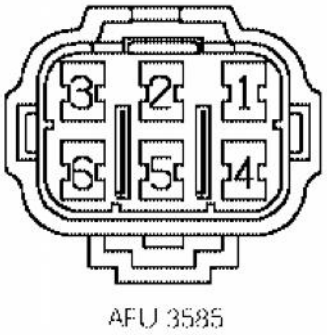


Colour: *NATURAL*
Gender: *Male*

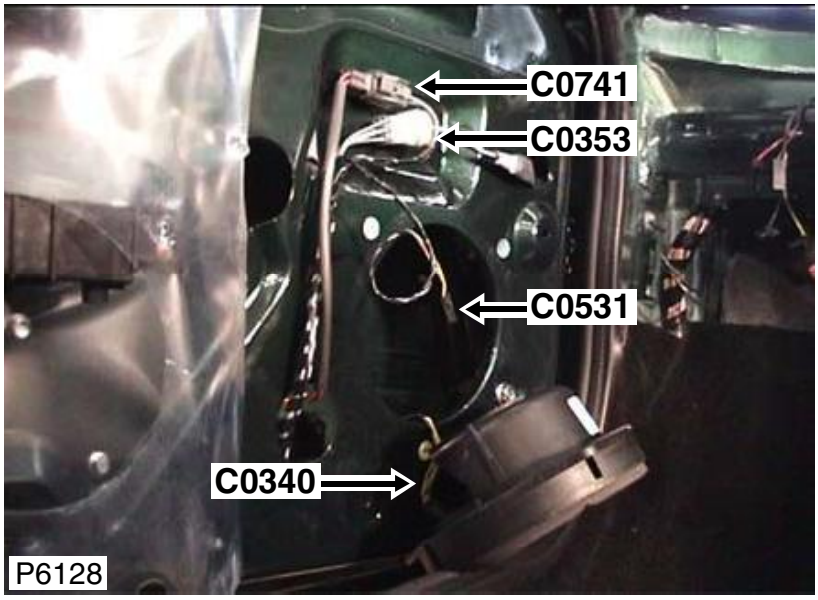


Cav	Col	Cct
1	BU	7
2	BY	7
3	B	7
4	LG	7
5	SW	7
6	SW	7

Description: *Mirror - Folding - Passenger Door - RHD*
Location: *Behind LH front door trim panel*

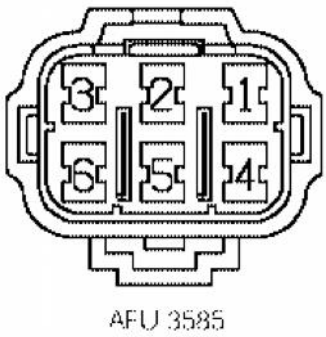


Colour: *NATURAL*
Gender: *Male*

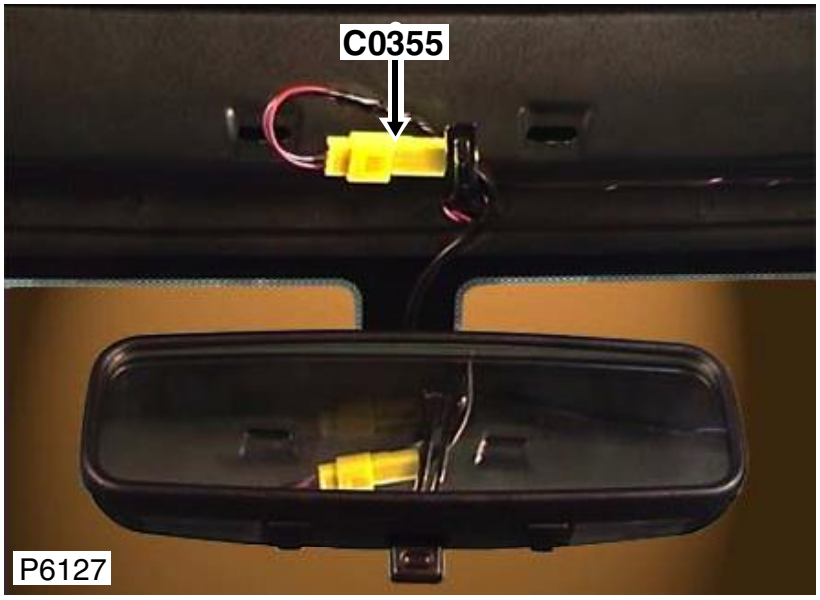


Cav	Col	Cct
1	SW	7
2	SW	7
3	B	7
4	LG	7
5	BN	7
6	BP	7

Description: *Mirror - Folding - Passenger Door - LHD*
Location: *Behind RH front door trim panel*

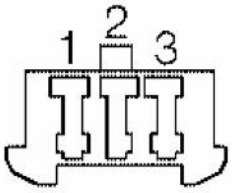


Colour: *NATURAL*
Gender: *Male*



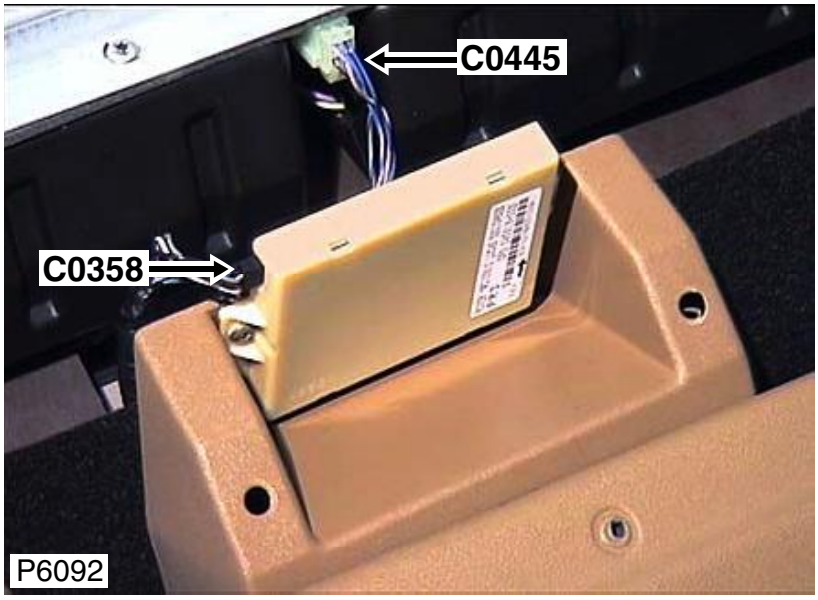
Cav	Col	Cct
1	B	ALL
2	P	ALL
3	PR	ALL

Description: *Lamp - Interior - Front*
Location: *Behind header trim*



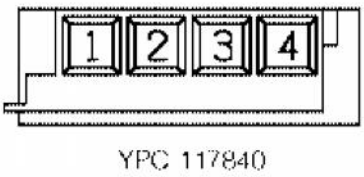
YPC113330

Colour: *YELLOW*
Gender: *Female*

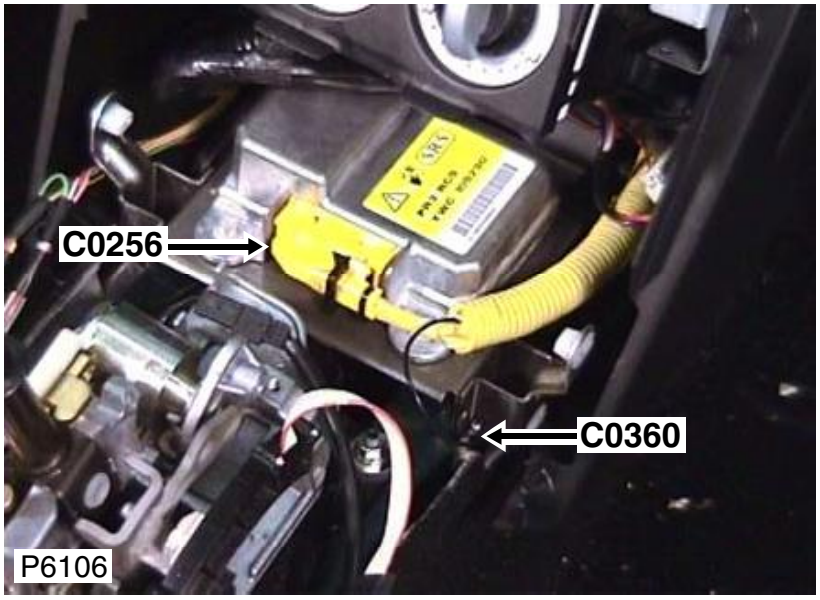


Cav	Col	Cct
1	WB	ALL
2	NB	ALL
3	SW	ALL
4	B	ALL

Description: *Sensor - Volumetric*
Location: *Beneath rear bulkhead finisher - centre*

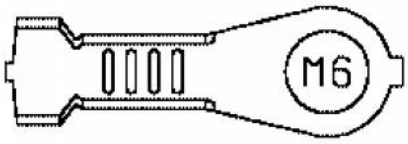


Colour: *BLACK*
Gender: *Female*



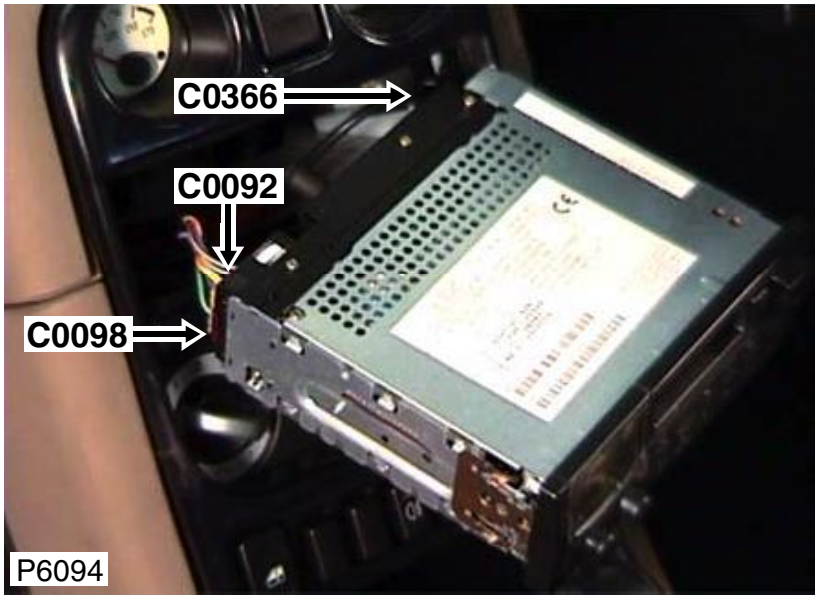
Cav	Col	Cct
1	B	ALL

Description: *Earth - SRS*
Location: *Behind centre console*



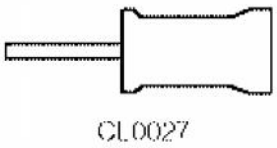
YPG 10003

Colour: *TIN-PLATE*
Gender:

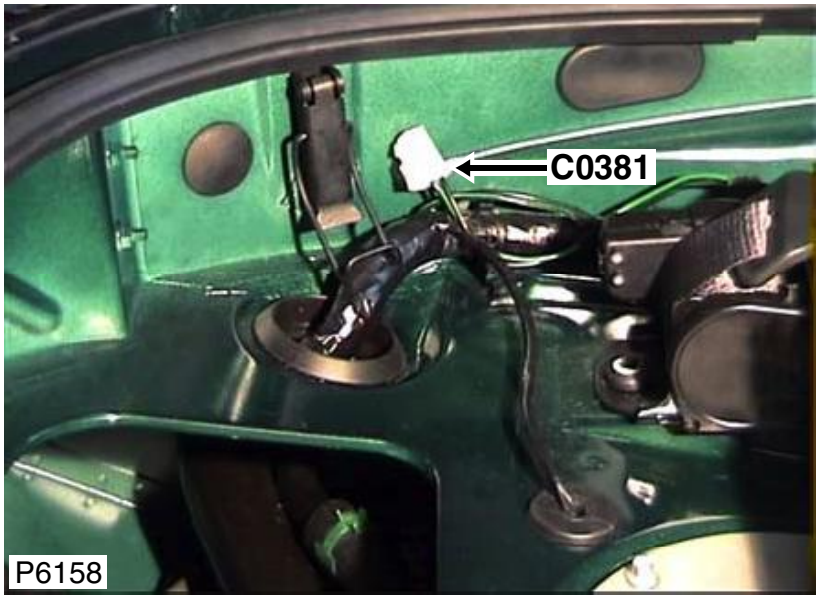


Cav	Col	Cct
1	B	ALL

Description: *Aerial*
Location: *Behind radio*

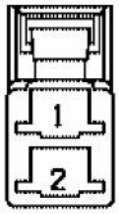


Colour:
Gender: *Male*



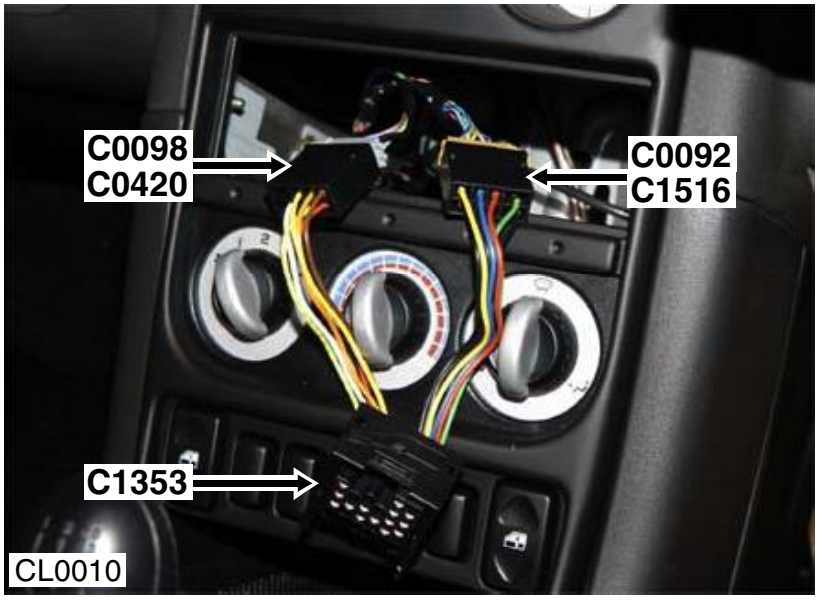
Cav	Col	Cct
1	BG	ALL
2	B	ALL

Description: *Heater element - Rear screen*
Location: *Parcel shelf - under left hand side*



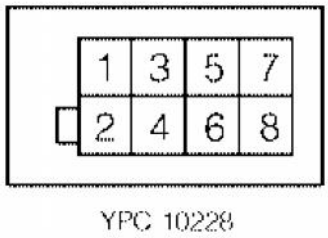
YPC10041

Colour: *NATURAL*
Gender: *Female*

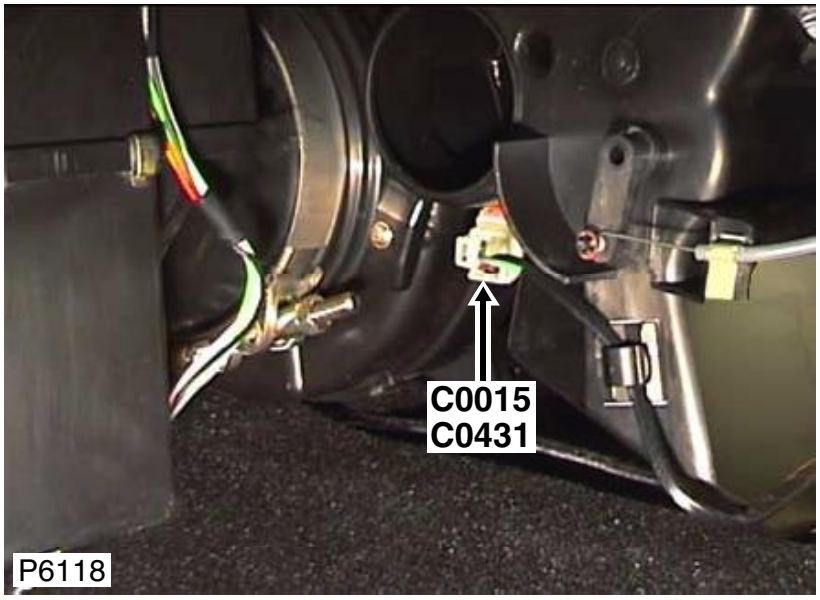


Cav	Col	Cct
4	P	ALL
5	PY	ALL
6	RB	ALL
7	LGW	ALL
8	B	ALL

Description: *Link harness to main harness*
Location: *Behind radio*

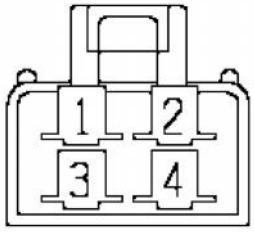


Colour: *BLACK*
Gender: *Male*

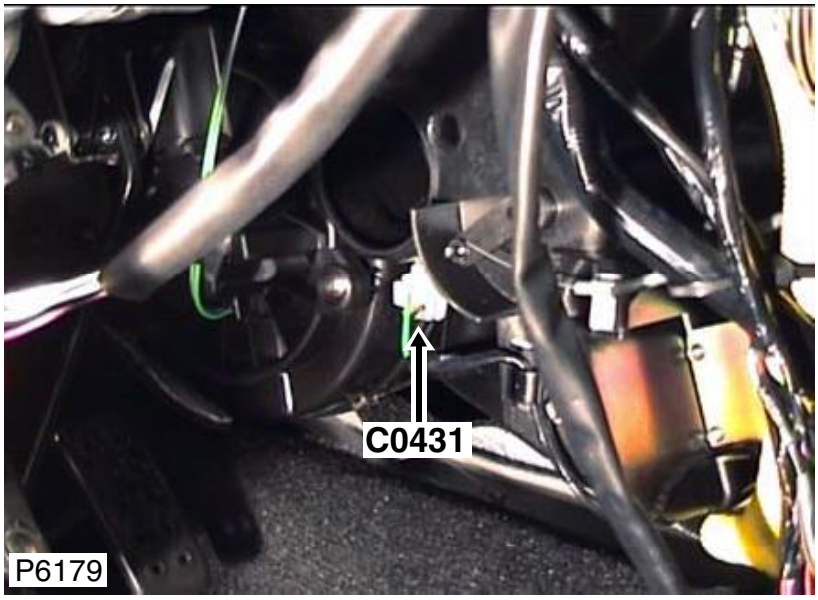


Cav	Col	Cct
1	LGP	ALL
2	RB	ALL
4	B	ALL

Description: *Main harness to heater harness - RHD*
Location: *Under LH side of fascia*

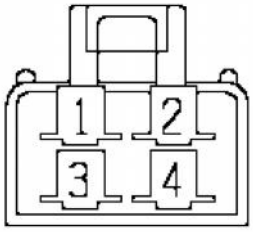


Colour: *NATURAL*
Gender: *Female*

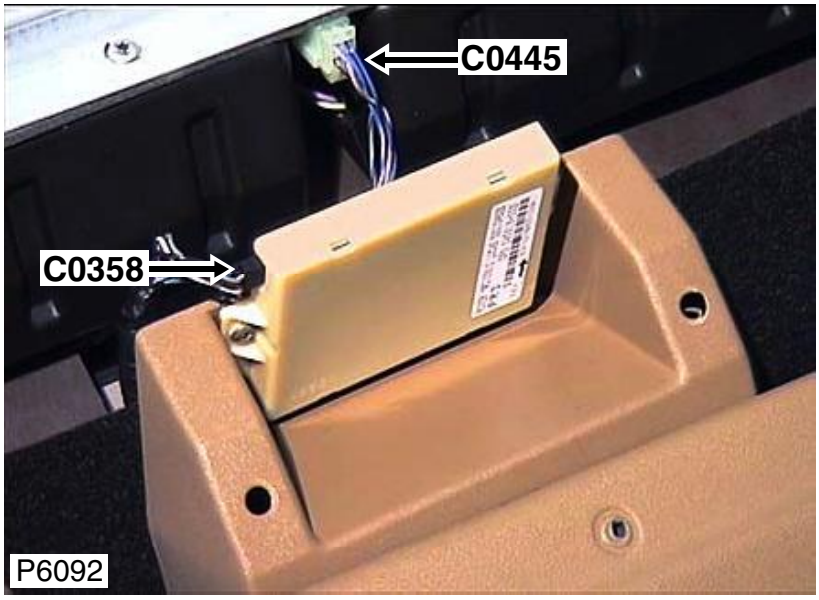


Cav	Col	Cct
1	LGP	ALL
2	RB	ALL
4	B	ALL

Description: *Main harness to heater harness - LHD*
Location: *Under LH side of fascia*

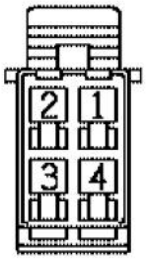


Colour: *NATURAL*
Gender: *Female*



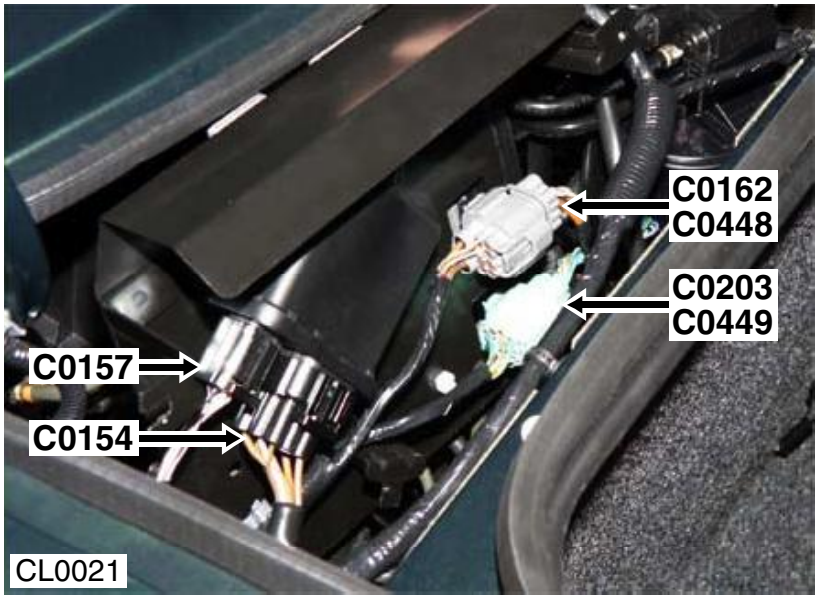
Cav	Col	Cct
1	SK	ALL
2	SB	ALL
3	UK	ALL
4	UB	ALL

Description: *Speakers - Rear*
Location: *Beneath rear bulkhead finisher - centre*



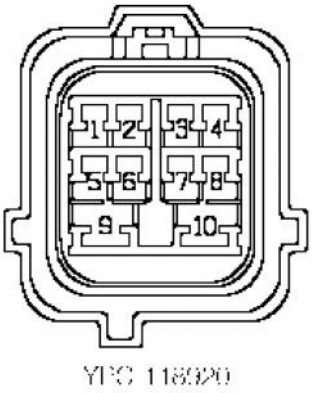
AFU3561

Colour: *NATURAL*
Gender: *Female*

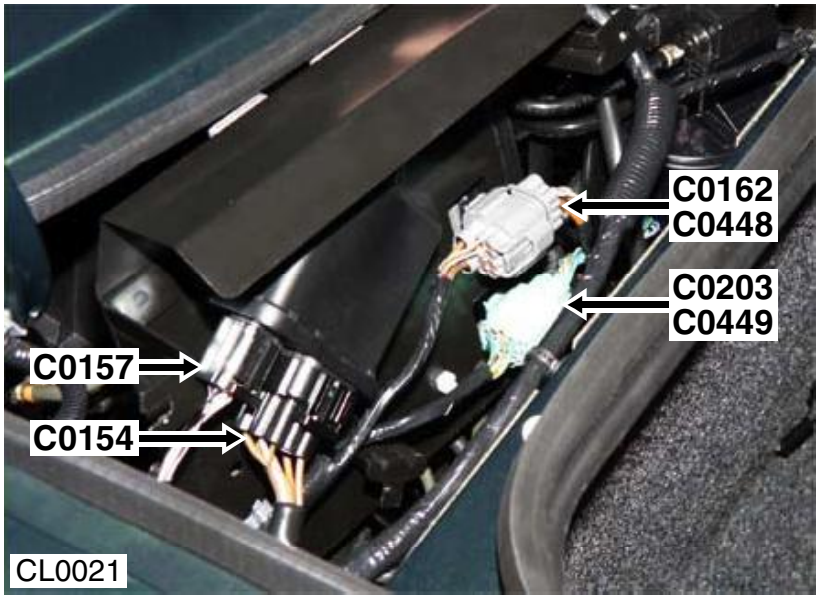


Cav	Col	Cct
1	BU	8
2	BR	8
3	UW	8
4	UR	8
5	UY	8
6	US	8
7	WN	ALL
8	NK	ALL
9	NK	ALL
10	NR	ALL

Description: *Main harness to engine harness*
Location: *LH side of engine compartment*

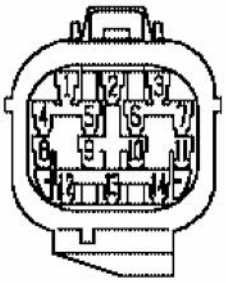


Colour: *GREY*
Gender: *Female*

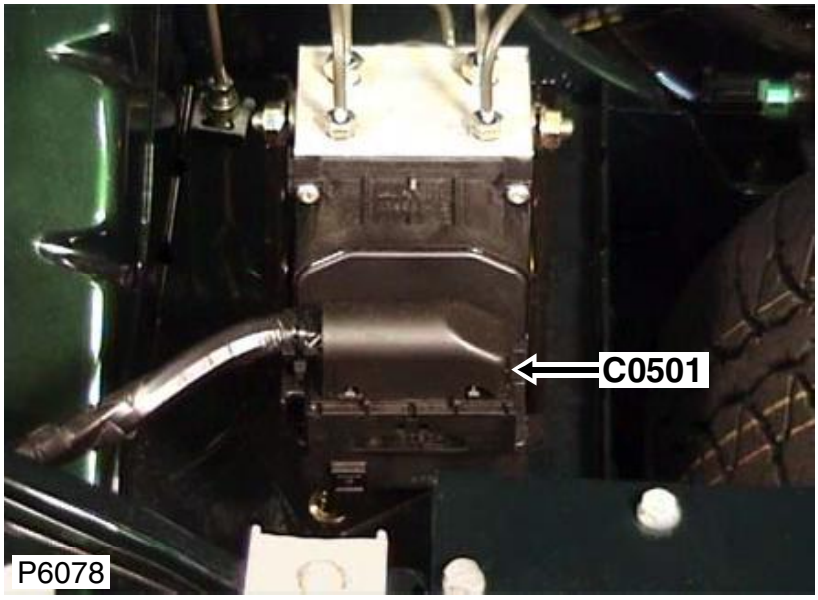


Description: *Main harness to engine harness*
Location: *LH side of engine compartment*

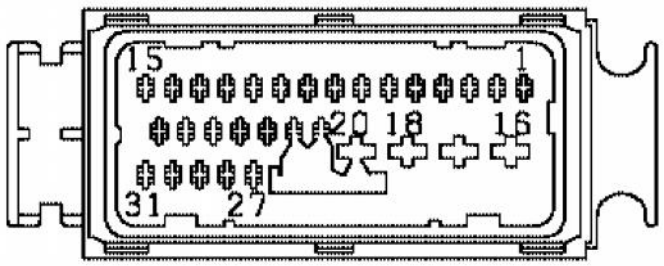
Cav	Col	Cct
1	SW	ALL
2	KB	ALL
3	UY	ALL
4	R	2
5	GY	ALL
6	GN	ALL
7	NY	ALL
8	GU	ALL
9	NU	ALL
10	WO	ALL
11	WG	8
12	U	2
13	GB	ALL
14	UR	ALL



Colour: *GREY*
Gender: *Female*

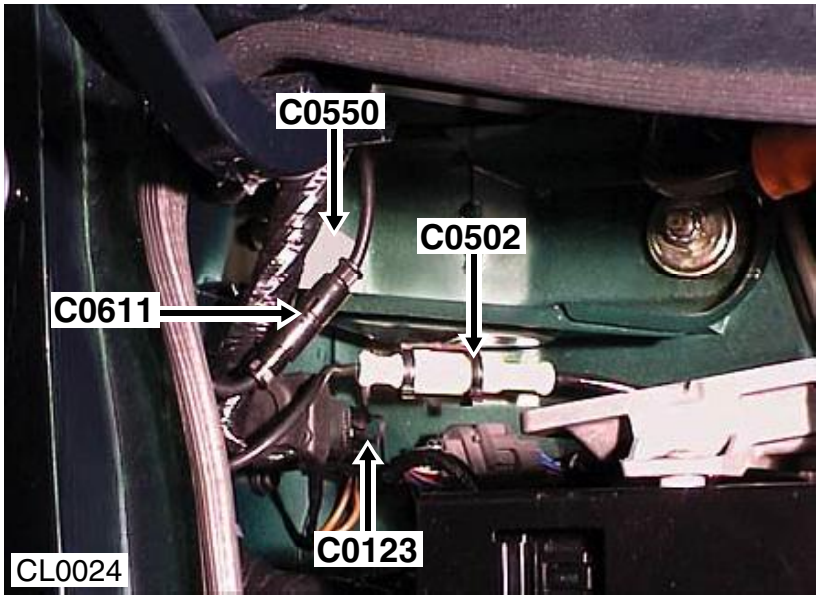


Description: *Modulator - ABS*
Location: *Under bonnet, RH side*



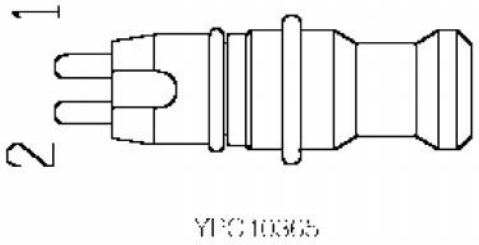
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	G	1
2	Y	1
4	P	1
5	O	1
6	U	1
7	N	1
8	W	1
9	R	1
11	K	1
14	GP	1
15	GK	1
16	B	1
17	NK	1
18	NK	1
19	B	1
21	UR	1
23	SB	1

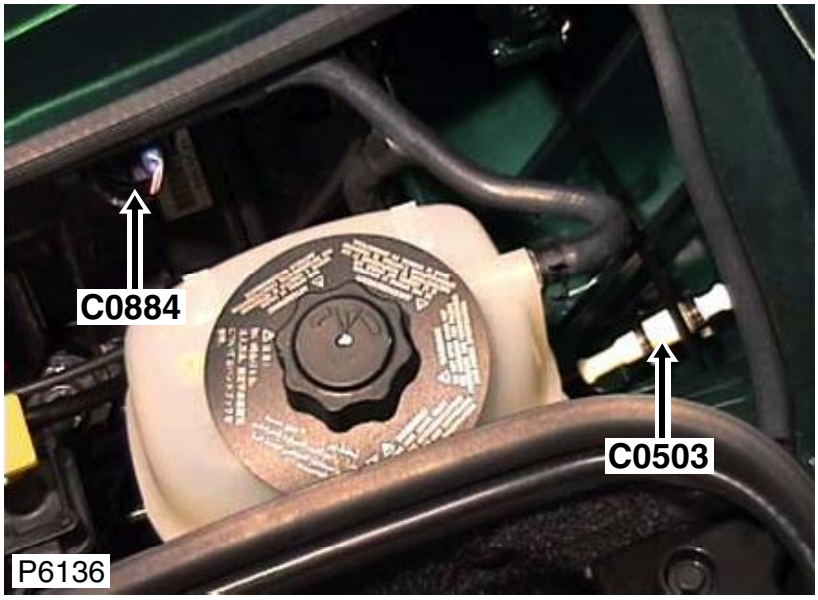


Cav	Col	Cct
1	W	ALL
2	R	ALL

Description: *Sensor - ABS - Rear - LH*
Location: *LH side of engine compartment*

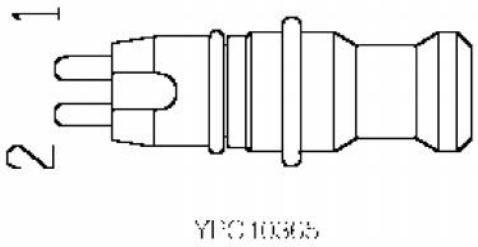


Colour: *NATURAL*
Gender: *Male*

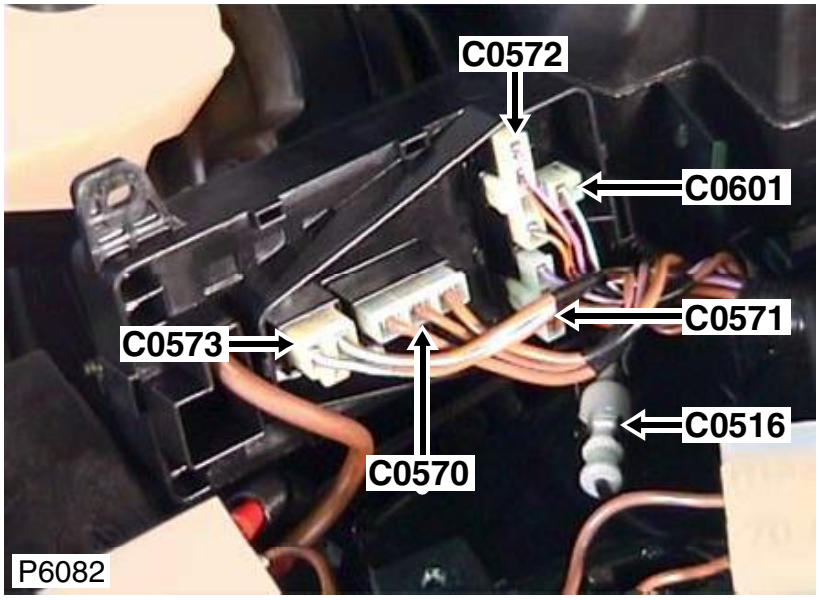


Cav	Col	Cct
1	G	1
2	Y	1

Description: *Sensor - ABS - Rear - RH*
Location: *RH side of engine compartment*

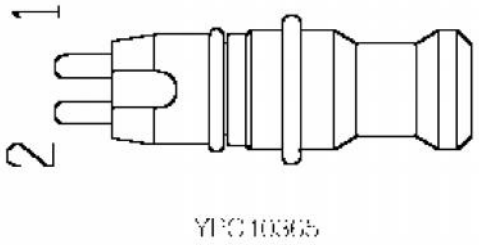


Colour: *NATURAL*
Gender: *Male*

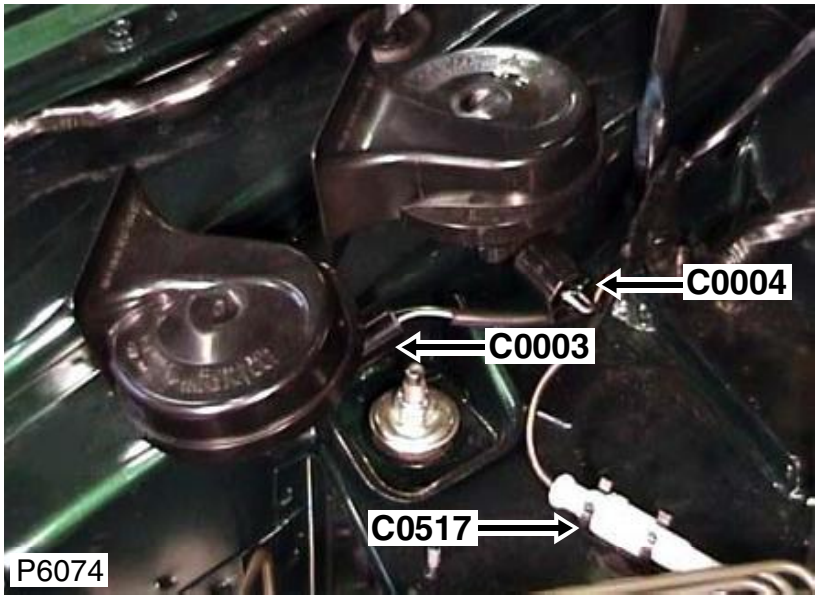


Cav	Col	Cct
1	U	1
2	N	1

Description: *Sensor - ABS - Front - LH*
Location: *Under bonnet, LH side*

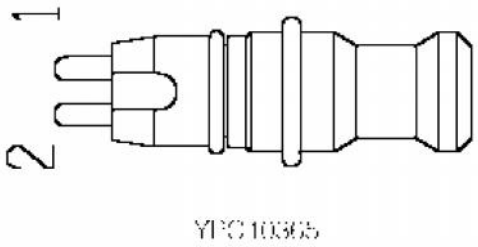


Colour: *NATURAL*
Gender: *Male*



Cav	Col	Cct
1	P	1
2	O	1

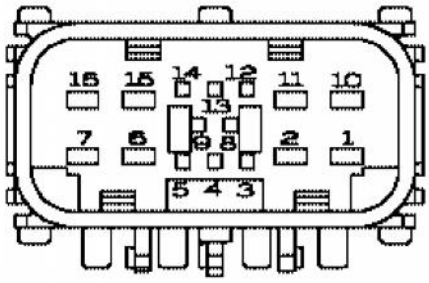
Description: *Sensor - ABS - Front - RH*
Location: *Under bonnet, RH side*



Colour: *NATURAL*
Gender: *Male*

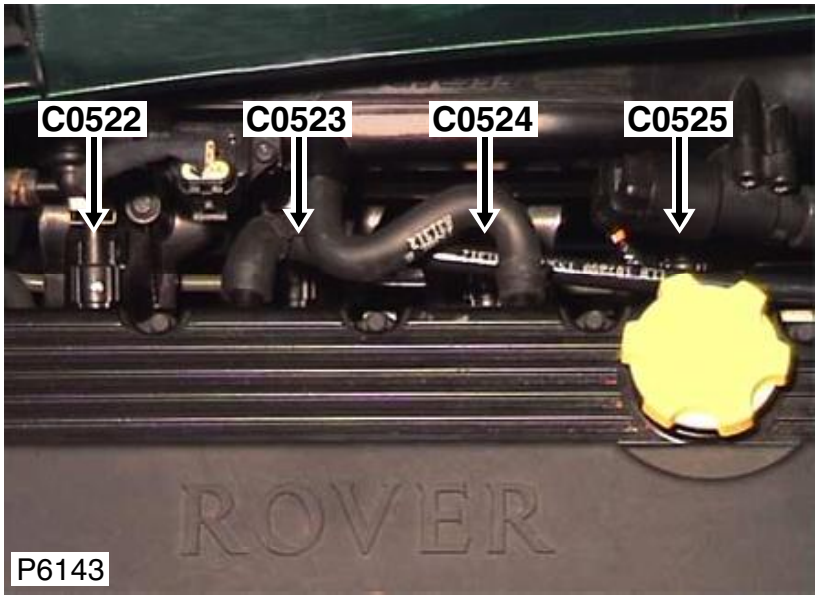
Cav	Col	Cct
1	NK	ALL
2	YU	ALL
6	YG	ALL
7	YR	ALL
8	KB	ALL
9	YW	ALL
10	YN	ALL
11	NK	ALL
12	YP	ALL
13	RG	ALL
15	WB	ALL
16	WO	ALL

Description: *Engine harness to injector harness*
Location: *Below throttle housing, LH side of engine*



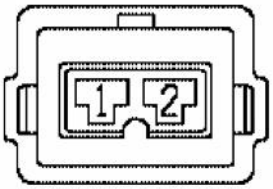
YPC116610

Colour: *BLACK*
Gender: *Male*



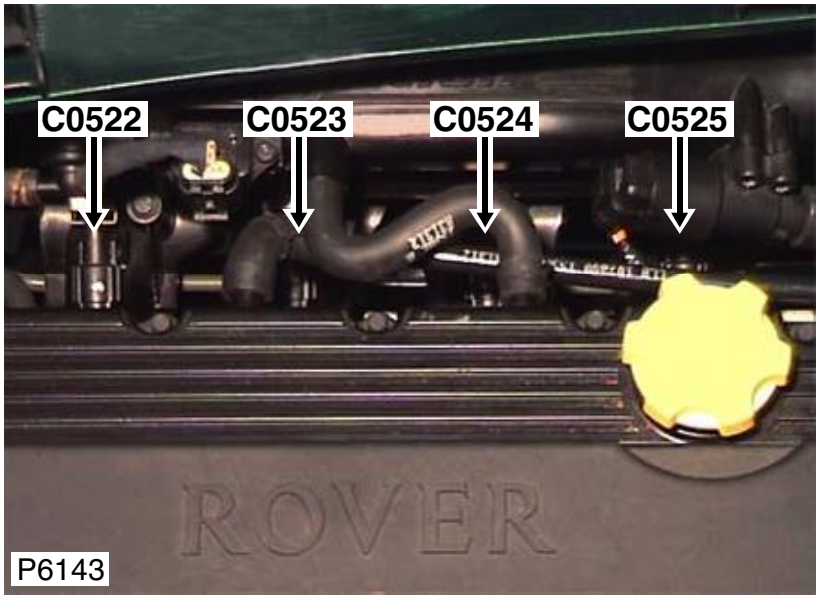
Cav	Col	Cct
1	NK	ALL
2	YU	ALL

Description: *Fuel injector - No. 1*
Location: *Top of engine*



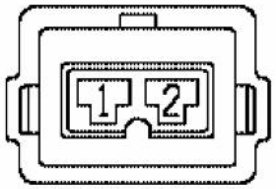
YPC115270

Colour: *BLACK*
Gender: *Female*

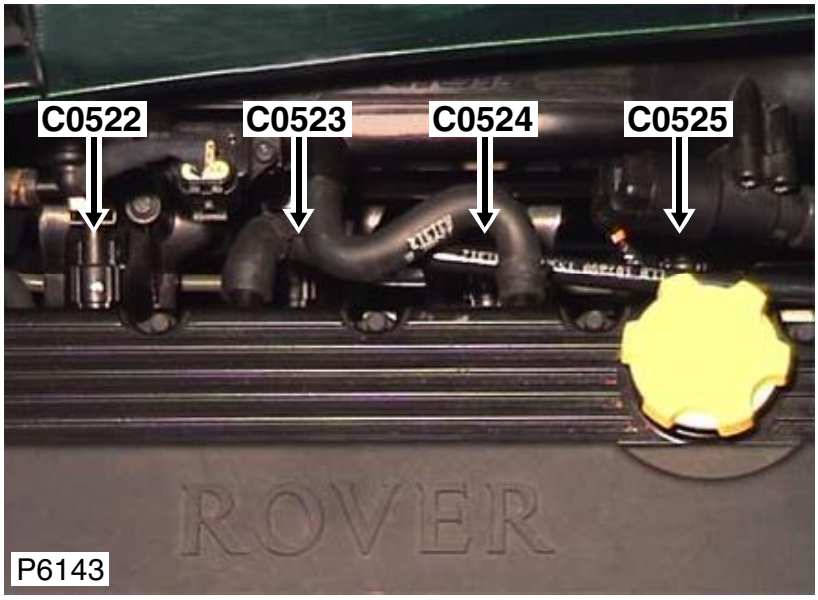


Cav	Col	Cct
1	NK	ALL
2	YG	ALL

Description: *Fuel injector - No. 2*
Location: *Top of engine*

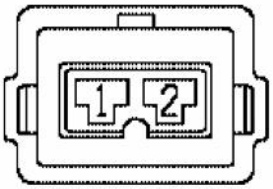


Colour: *BLACK*
Gender: *Female*



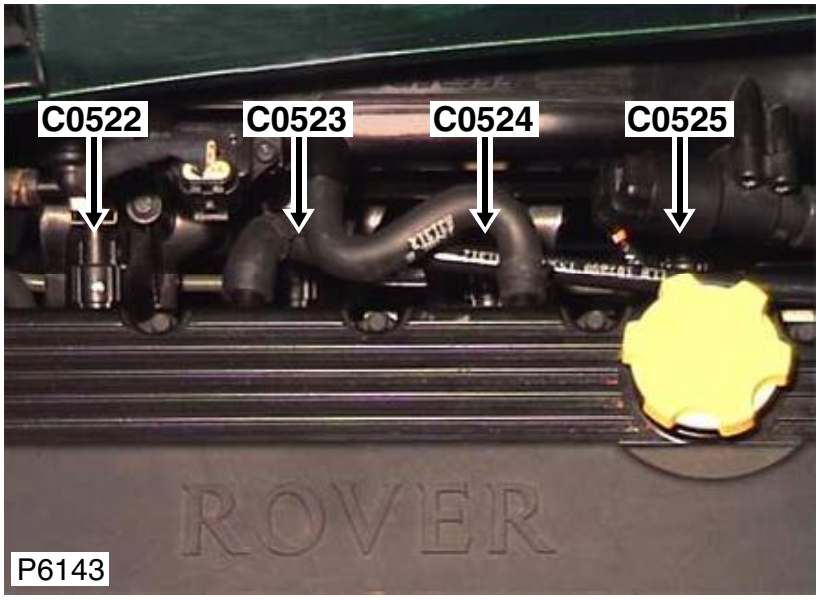
Cav	Col	Cct
1	NK	ALL
2	YR	ALL

Description: *Fuel injector - No. 3*
Location: *Top of engine*



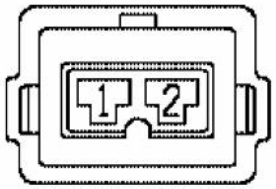
YPC115270

Colour: *BLACK*
Gender: *Female*



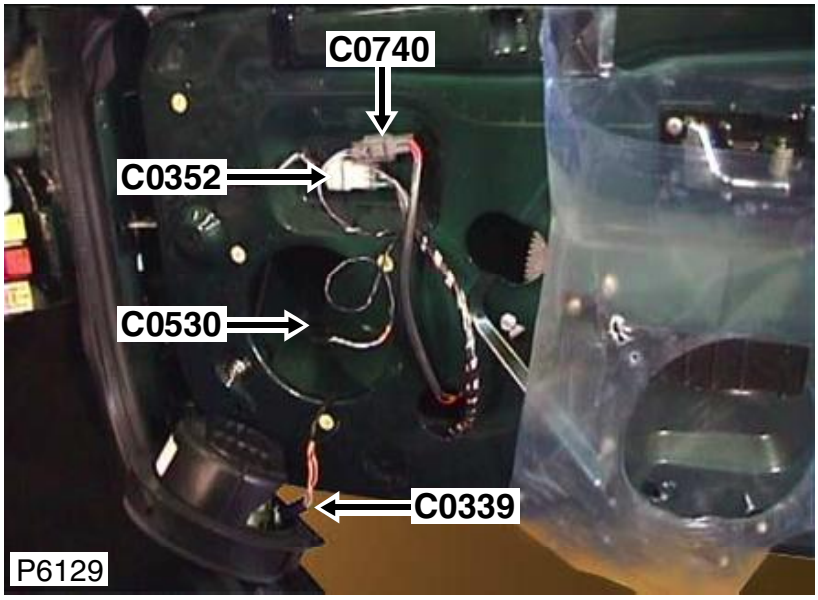
Cav	Col	Cct
1	NK	ALL
2	YN	ALL

Description: *Fuel injector - No. 4*
Location: *Top of engine*



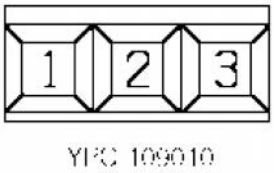
YPC115270

Colour: *BLACK*
Gender: *Female*

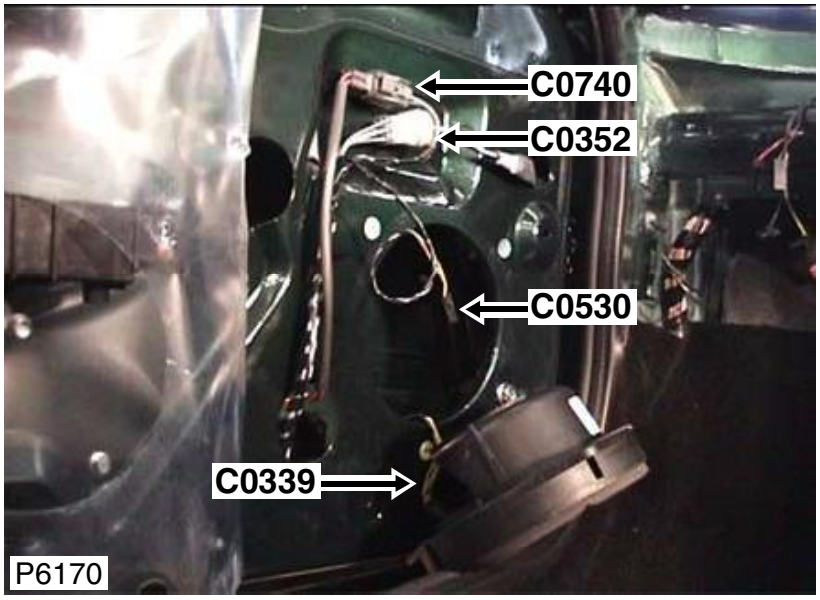


Cav	Col	Cct
1	OK	ALL
3	OB	ALL

Description: *Speakers - High Range - RHD*
Location: *Behind RH front door trim panel*

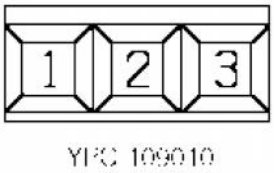


Colour: *BLACK*
Gender: *Female*

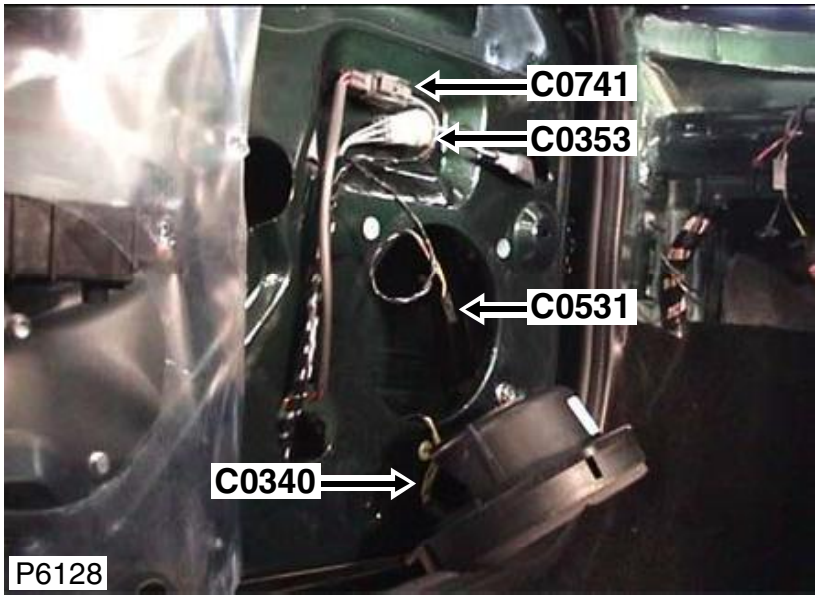


Cav	Col	Cct
1	OK	ALL
3	OB	ALL

Description: *Speakers - High Range - LHD*
Location: *Behind LH front door trim panel*

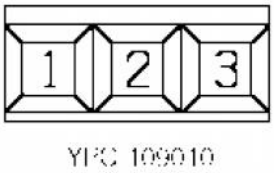


Colour: *BLACK*
Gender: *Female*

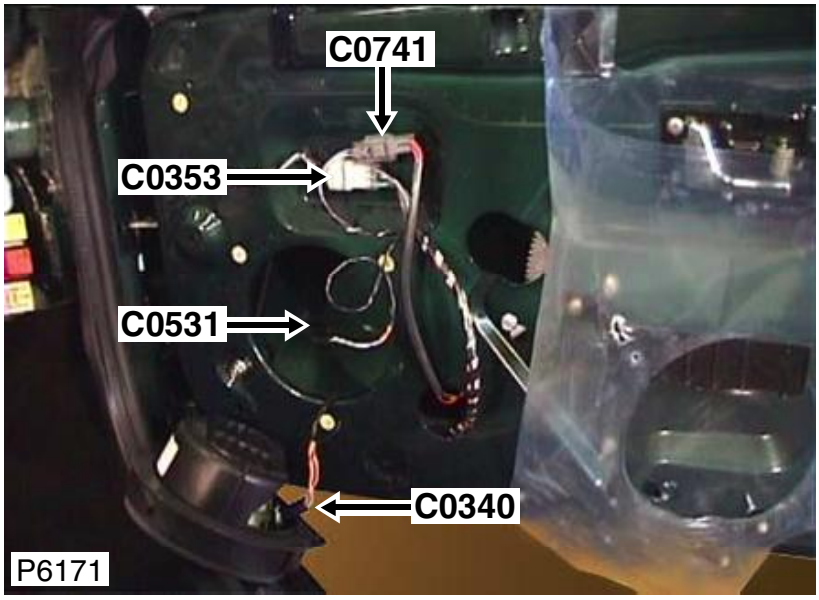


Cav	Col	Cct
1	YK	ALL
3	YB	ALL

Description: *Speakers - High Range - RHD*
Location: *Behind LH front door trim panel*

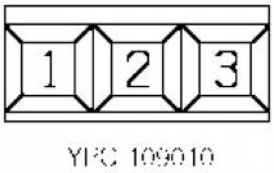


Colour: *BLACK*
Gender: *Female*

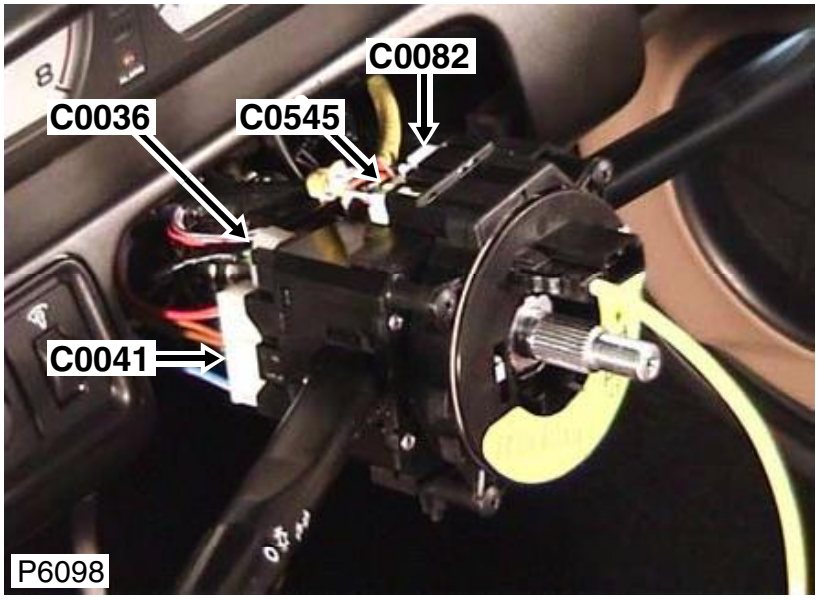


Cav	Col	Cct
1	YK	ALL
3	YB	ALL

Description: *Speakers - High Range - LHD*
Location: *Behind RH front door trim panel*

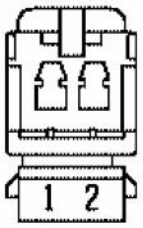


Colour: *BLACK*
Gender: *Female*



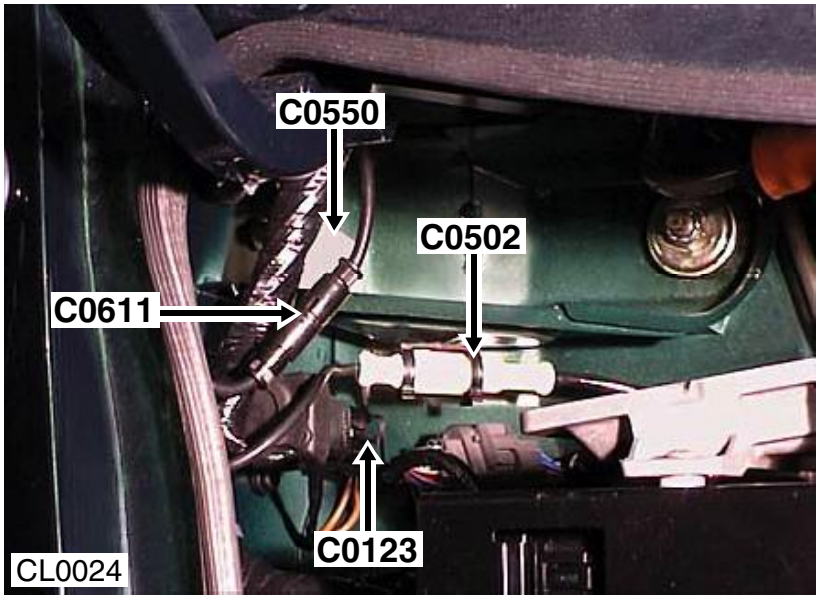
Cav	Col	Cct
1	R	ALL
2	Y	ALL

Description: *Air bag harness to rotary coupler*
Location: *LH side of steering column*



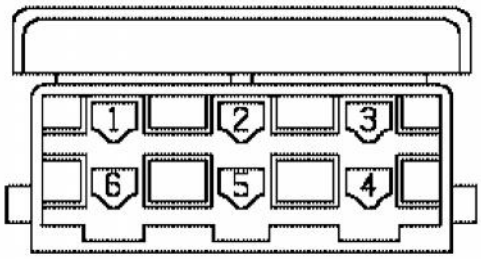
YPC106880

Colour: *YELLOW*
Gender: *Female*

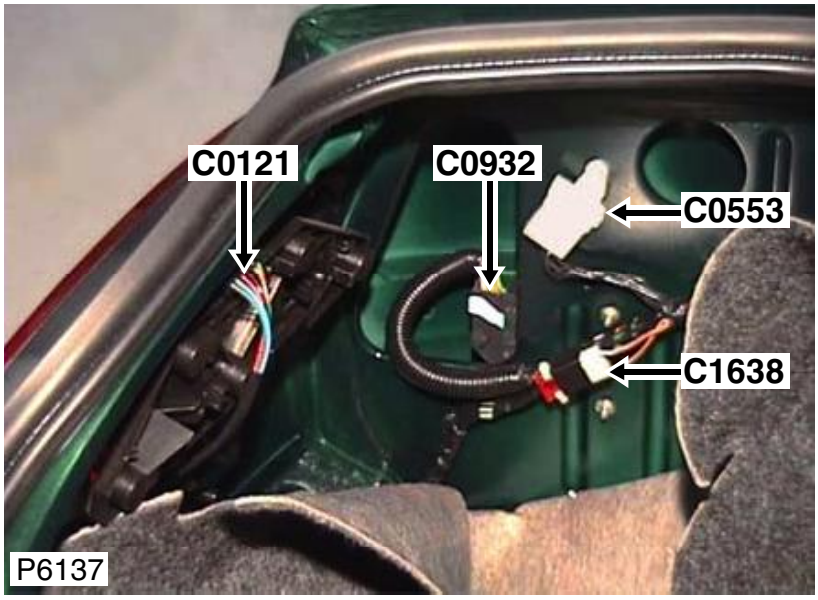


Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL

Description: *Header - Earth*
Location: *LH side of engine compartment*

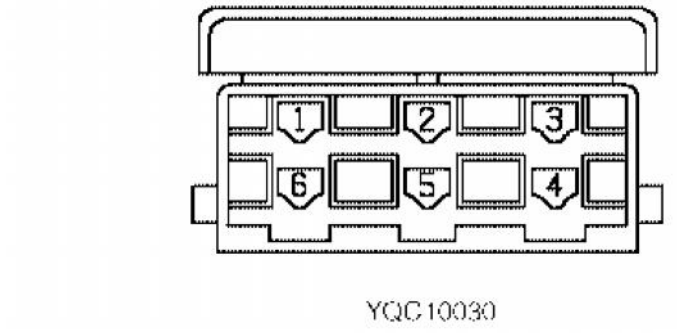


Colour: *NATURAL*
Gender: *Female*

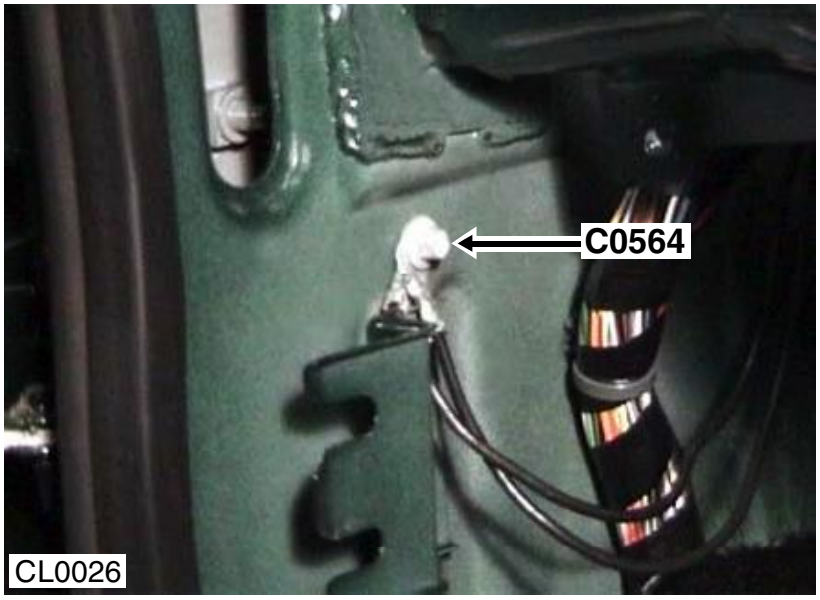


Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL

Description: *Header - Earth*
Location: *Behind luggage compartment carpet LH side*

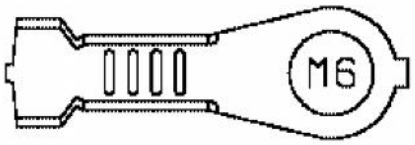


Colour: *NATURAL*
Gender: *Female*



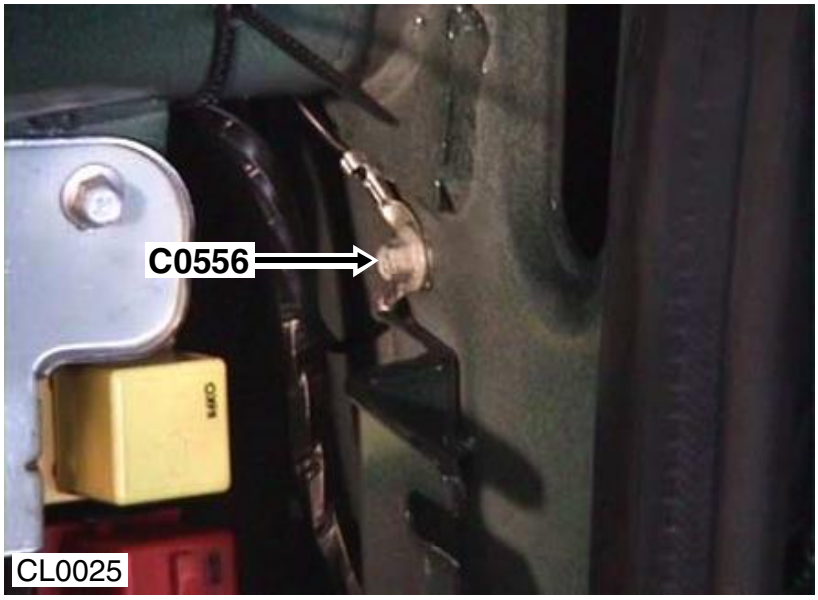
Cav	Col	Cct
1	B	ALL

Description: *Earth - RHD*
Location: *LH 'A' post*



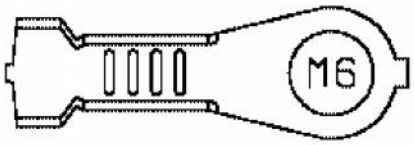
YPG 10013

Colour: *TIN-PLATE*
Gender: *Female*



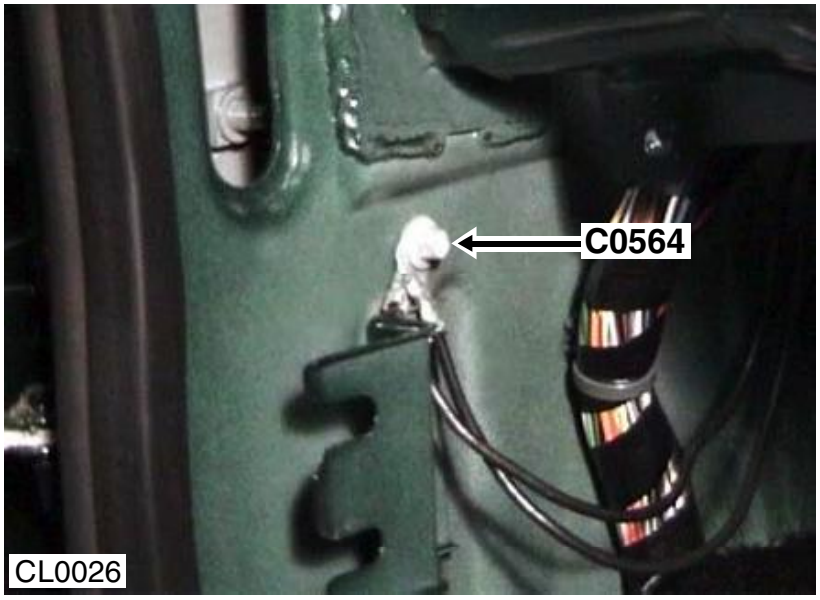
Cav	Col	Cct
1	B	ALL

Description: *Earth - LHD*
Location: *RH 'A' post*



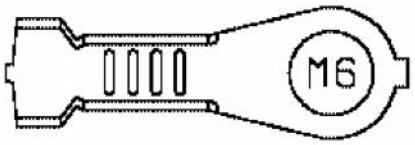
YPG10013

Colour: *TIN-PLATE*
Gender: *Female*



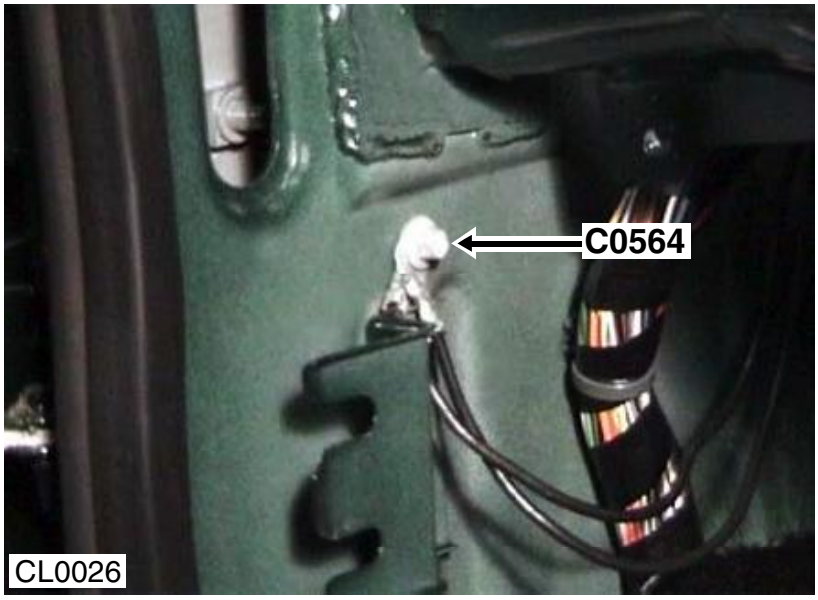
Cav	Col	Cct
1	B	ALL

Description: *Earth - RHD*
Location: *RH 'A' post*



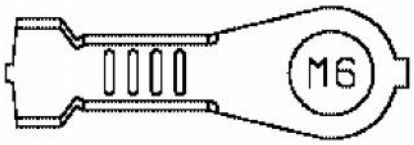
YPG 10013

Colour: *TIN-PLATE*
Gender: *Female*



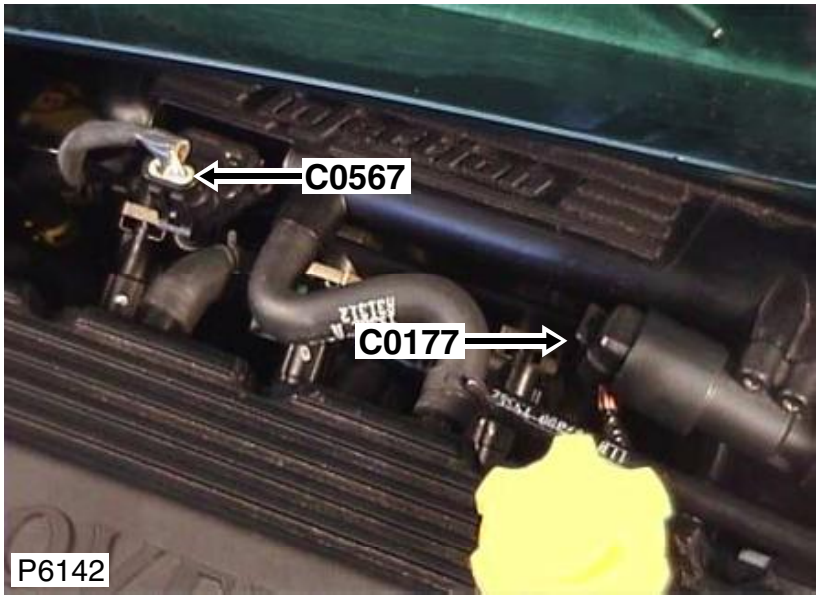
Cav	Col	Cct
1	B	ALL

Description: *Earth - LHD*
Location: *LH 'A' post*



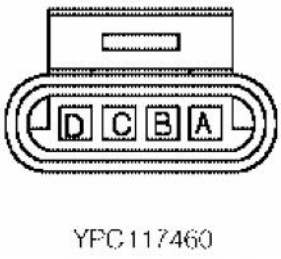
YPG10013

Colour: *TIN-PLATE*
Gender: *Female*

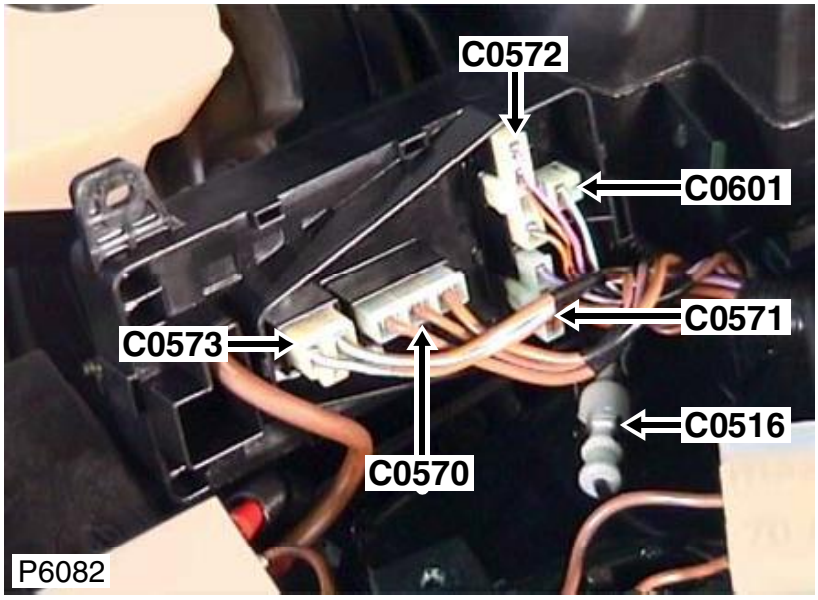


Cav	Col	Cct
A	KB	ALL
B	YW	ALL
C	YP	ALL
D	RG	ALL

Description: *Sensor - Inlet air temperature (IAT)*
Location: *Top of engine*

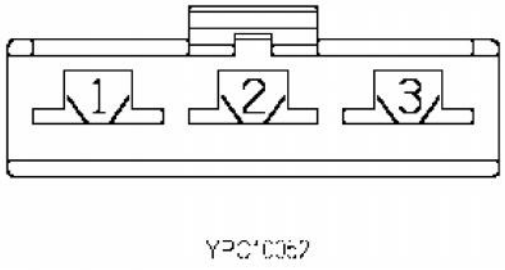


Colour: *BLACK*
Gender: *Female*

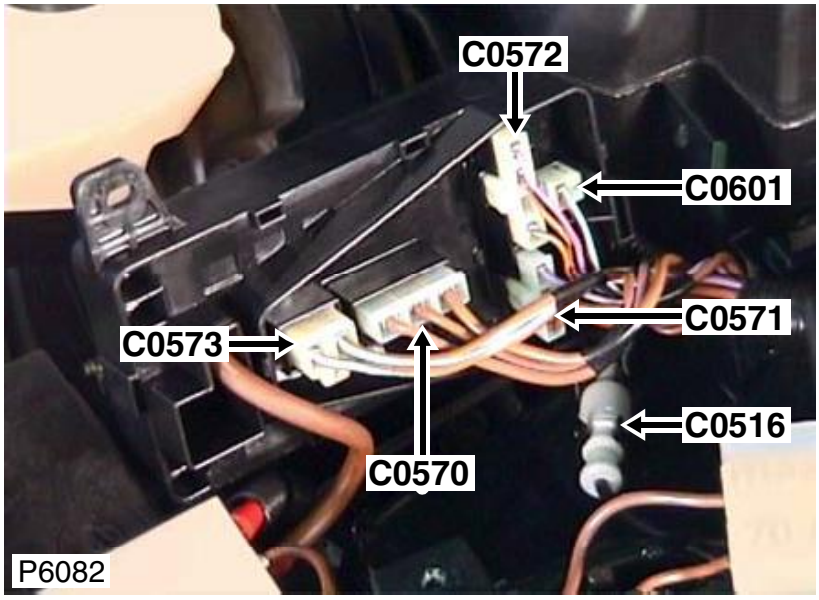


Cav	Col	Cct
1	NP	ALL
2	N	ALL
3	N	ALL

Description: *Fuse box - Engine compartment*
Location: *Under bonnet, LH side*

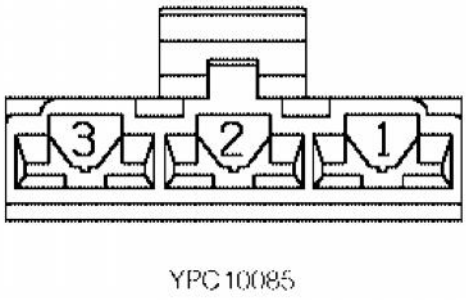


Colour: *NATURAL*
Gender: *Female*

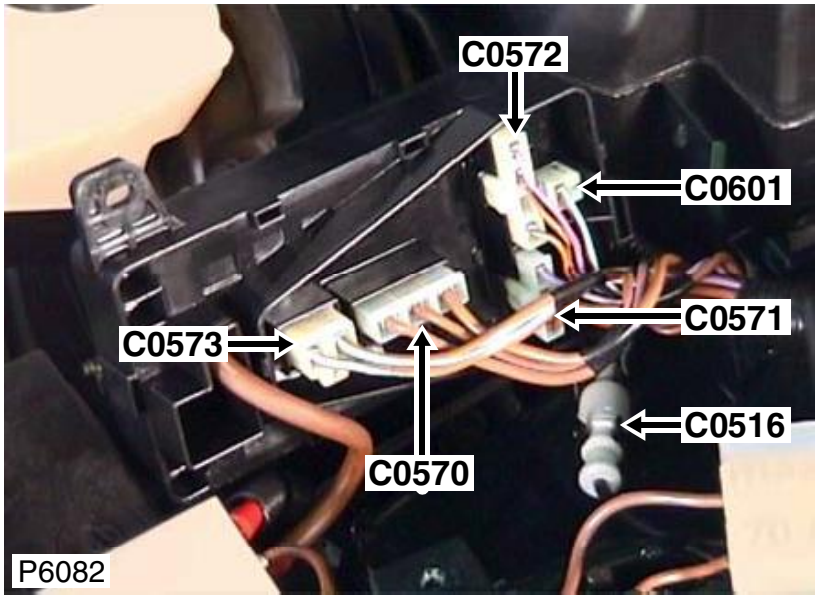


Cav	Col	Cct
1	N	ALL
2	N	ALL
3	P	ALL

Description: *Fuse box - Engine compartment*
Location: *Under bonnet, LH side*

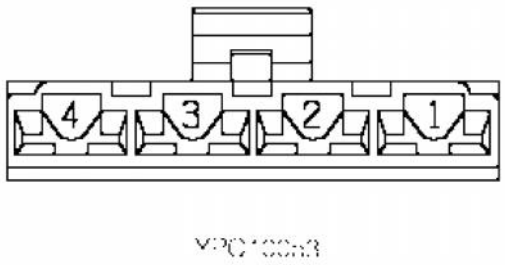


Colour: *NATURAL*
Gender: *Female*

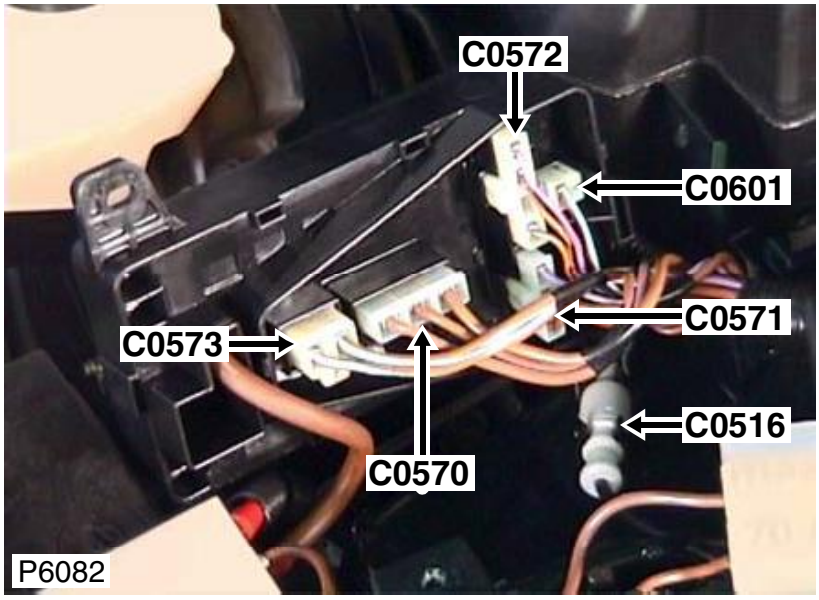


Cav	Col	Cct
1	NO	ALL
3	N	ALL
4	PN	ALL

Description: *Fuse box - Engine compartment*
Location: *Under bonnet, LH side*

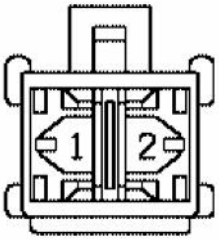


Colour: *NATURAL*
Gender: *Female*



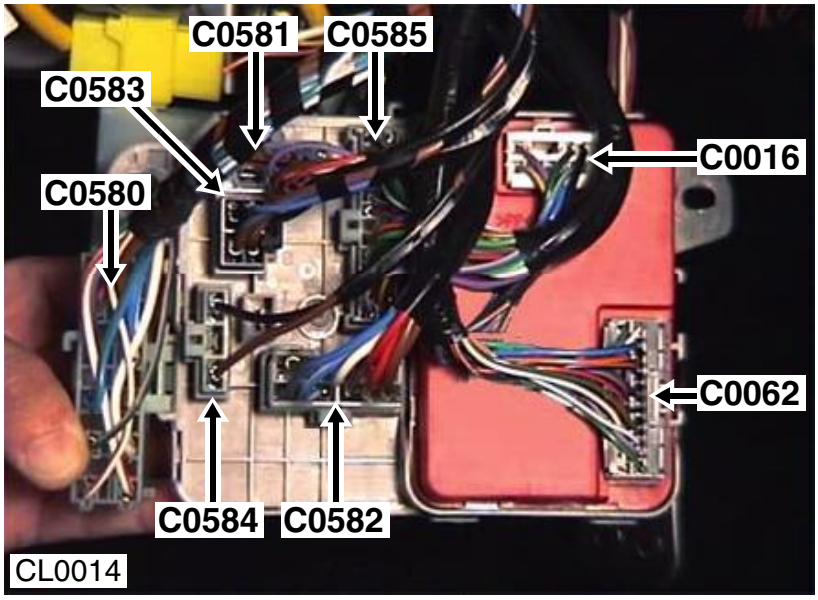
Cav	Col	Cct
1	NW	ALL
2	NK	1

Description: *Fuse box - Engine compartment*
Location: *Under bonnet, LH side*



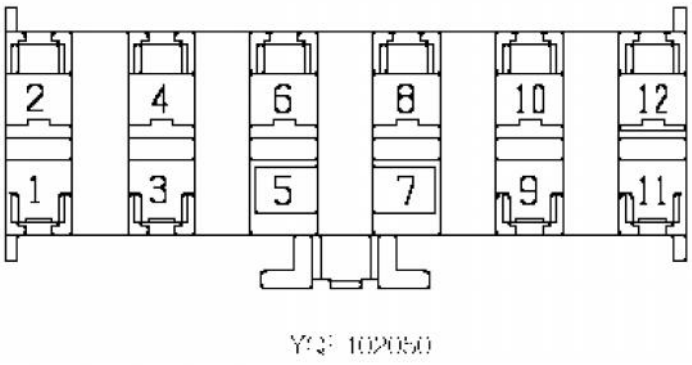
YPC10135

Colour: *NATURAL*
Gender: *Female*

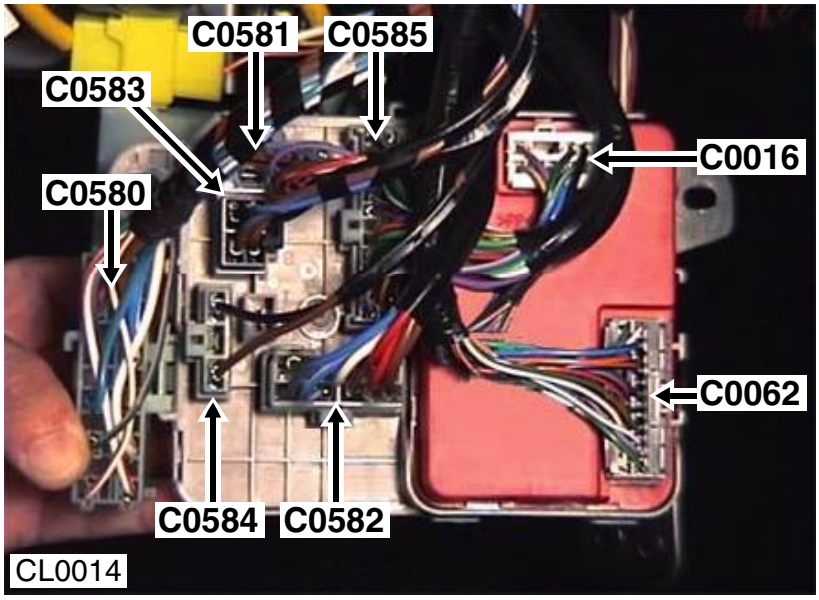


Cav	Col	Cct
1	WLG	ALL
2	LGP	ALL
3	N	ALL
4	NO	ALL
5	UW	ALL
6	US	ALL
8	UG	ALL
9	W	1
10	GK	1
11	WR	ALL
12	WR	ALL

Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*

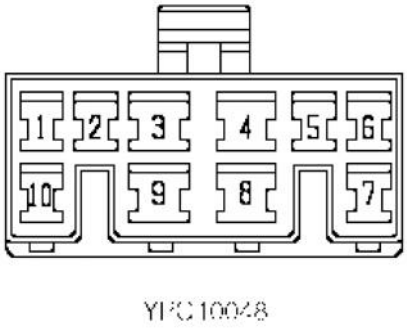


Colour: *NATURAL*
Gender: *Female*

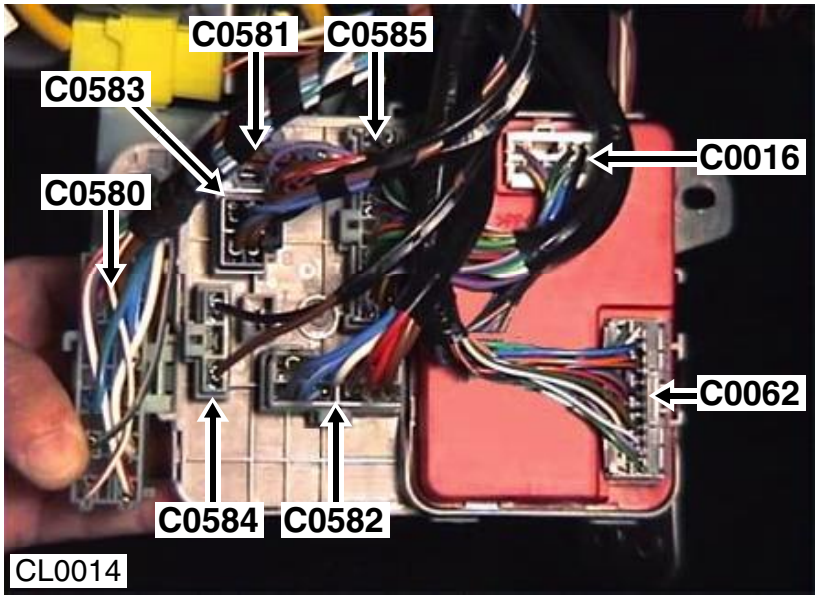


Cav	Col	Cct
1	GW	ALL
2	GR	ALL
3	BW	ALL
4	P	ALL
5	P	ALL
6	GS	ALL
7	RB	ALL
9	PS	ALL
10	RO	ALL

Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*

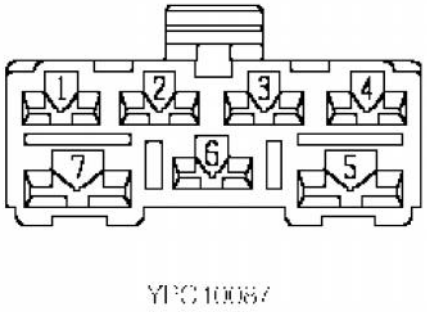


Colour: *NATURAL*
Gender: *Female*

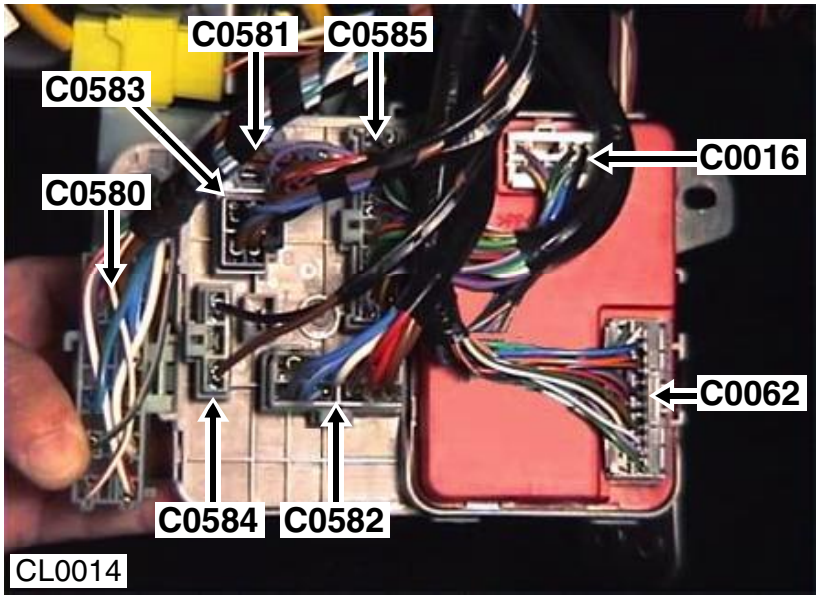


Cav	Col	Cct
1	UK	ALL
2	UK	ALL
3	R	ALL
4	R	ALL
5	N	ALL
6	W	ALL
7	N	ALL

Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*

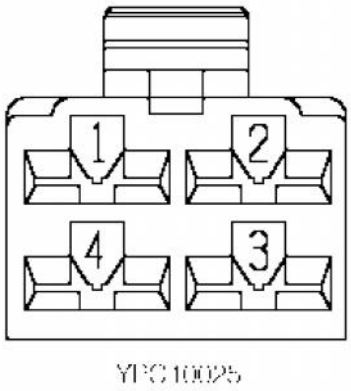


Colour: *NATURAL*
Gender: *Female*

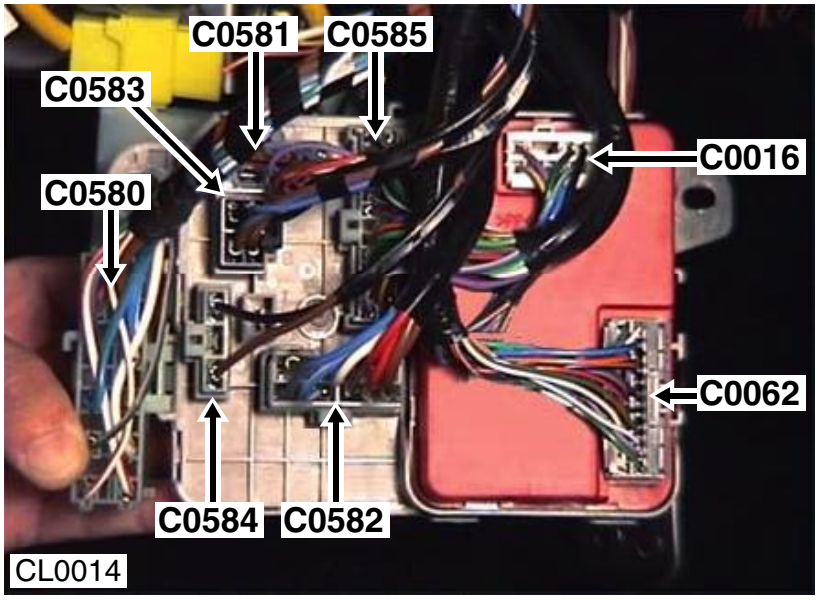


Cav	Col	Cct
1	N	ALL
2	PU	ALL
3	B	ALL
4	NU	ALL

Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*

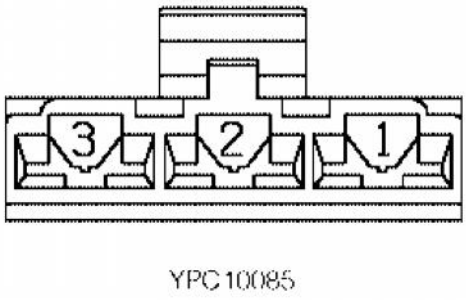


Colour: *BLACK*
Gender: *Female*

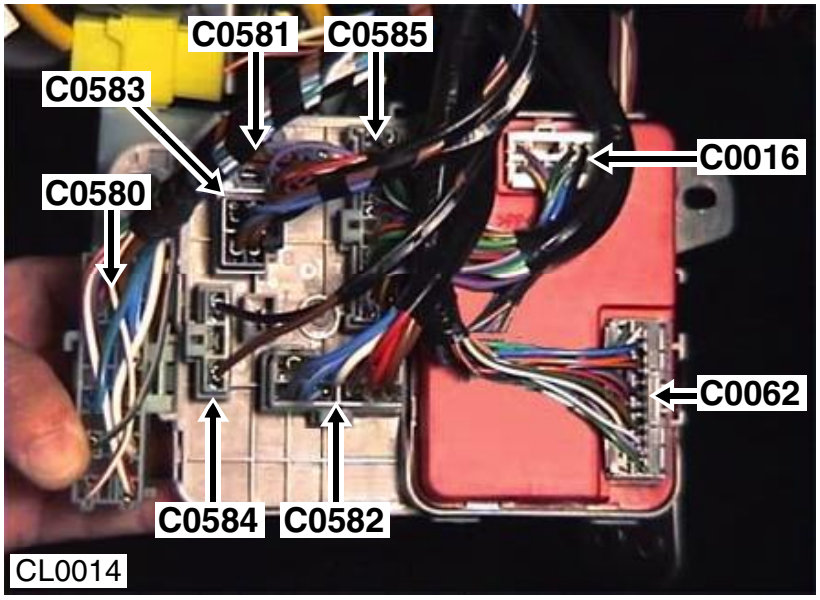


Cav	Col	Cct
1	N	ALL
3	B	ALL

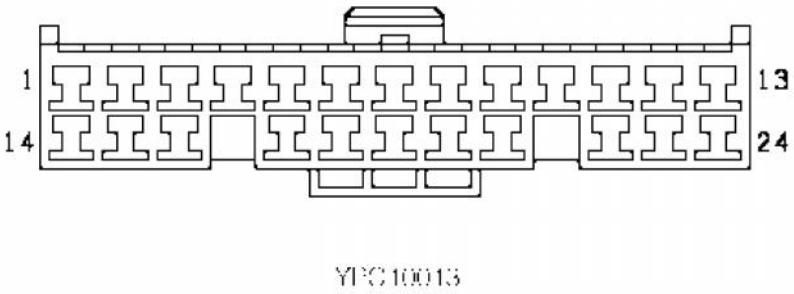
Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*



Colour: *NATURAL*
Gender: *Female*

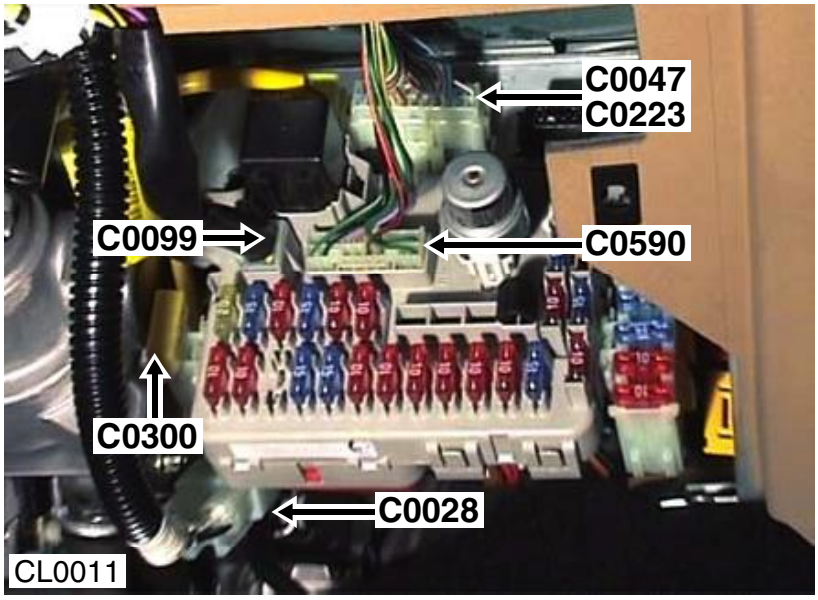


Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*



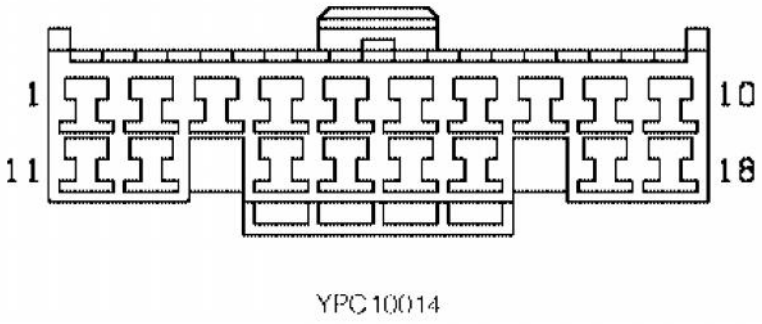
Colour: *NATURAL*
Gender: *Female*

Cav	Col	Cct
1	UB	ALL
2	GS	ALL
3	GW	ALL
4	GR	ALL
5	BW	ALL
6	UR	ALL
8	RO	ALL
9	LGW	ALL
10	G	ALL
11	SG	ALL
12	RB	ALL
13	UK	ALL
14	LGK	ALL
15	LGN	ALL
16	NY	ALL
17	P	ALL
18	LG	ALL
20	W	ALL
21	PU	ALL
22	LGS	ALL
23	GY	ALL
24	NY	ALL

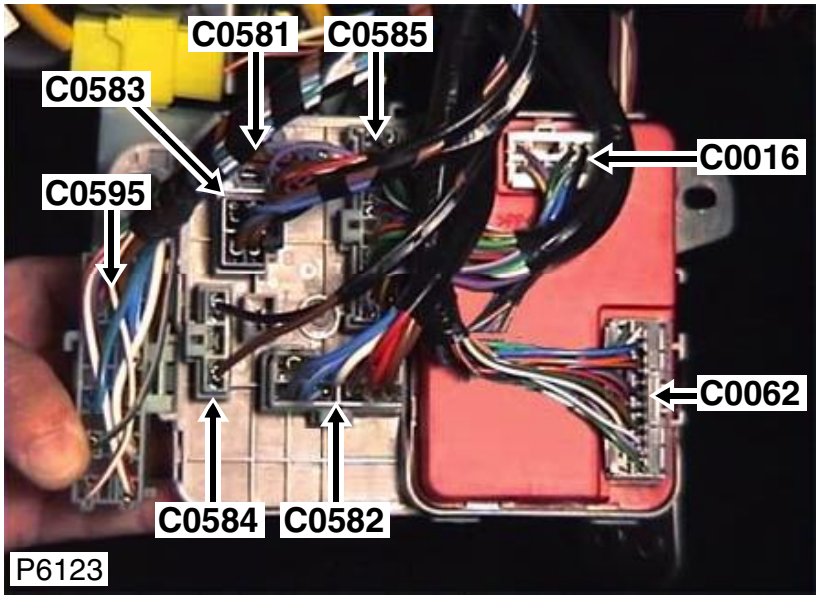


Cav	Col	Cct
1	G	ALL
6	NY	ALL
9	B	ALL
11	G	ALL
13	GR	ALL
14	RB	ALL
17	BW	ALL
18	GW	ALL

Description: *Fuse box - Passenger compartment*
Location: *Behind driver side of fascia*

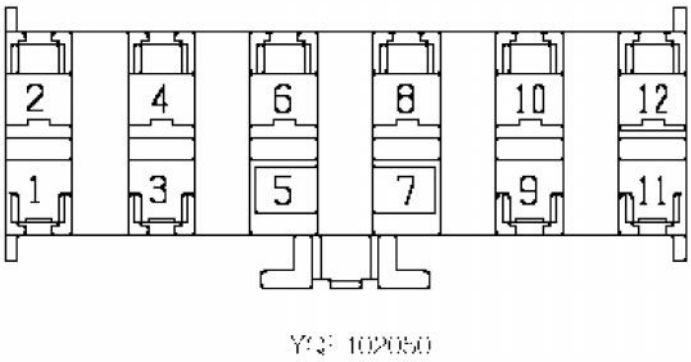


Colour: *NATURAL*
Gender: *Female*

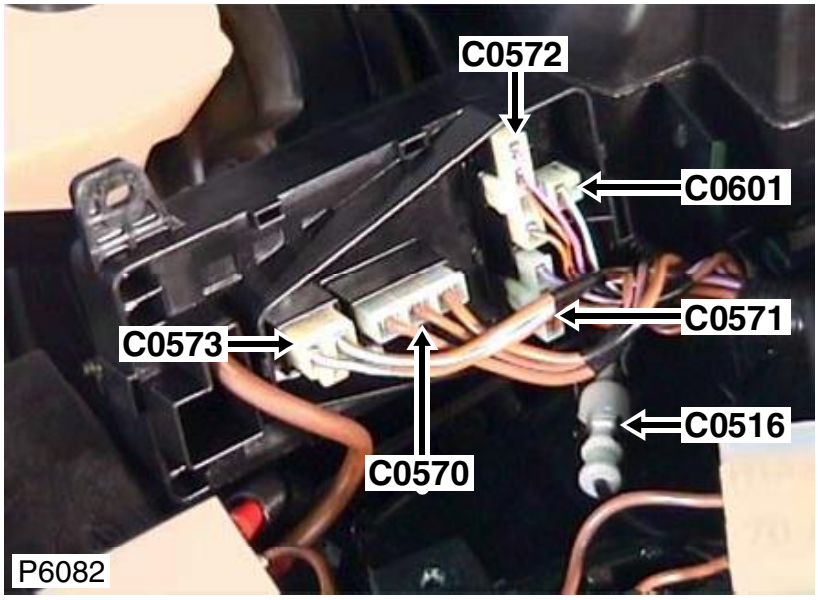


Cav	Col	Cct
1	WLG	ALL
2	LGP	ALL
3	N	ALL
4	NO	ALL
5	UW	ALL
6	US	ALL
8	UG	ALL
9	W	1
10	GK	1
11	WR	ALL
12	WR	ALL

Description: *Fuse box - Satellite*
Location: *Behind driver side of fascia*

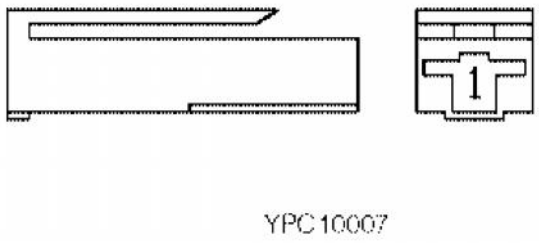


Colour: *NATURAL*
Gender: *Male*

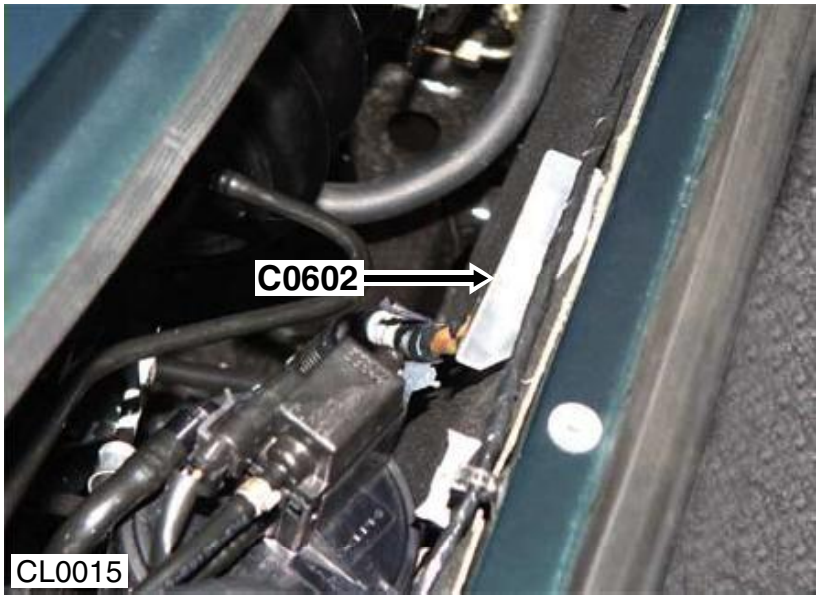


Cav	Col	Cct
1	NW	2

Description: *Fuse box - Engine compartment*
Location: *Under bonnet, LH side*

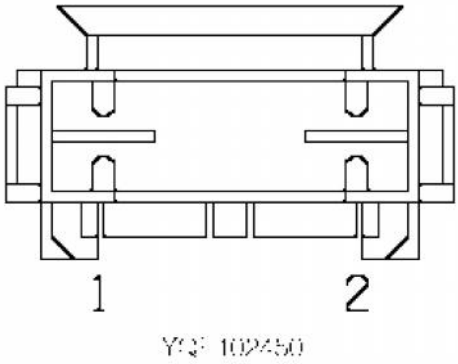


Colour: *NATURAL*
Gender: *Female*

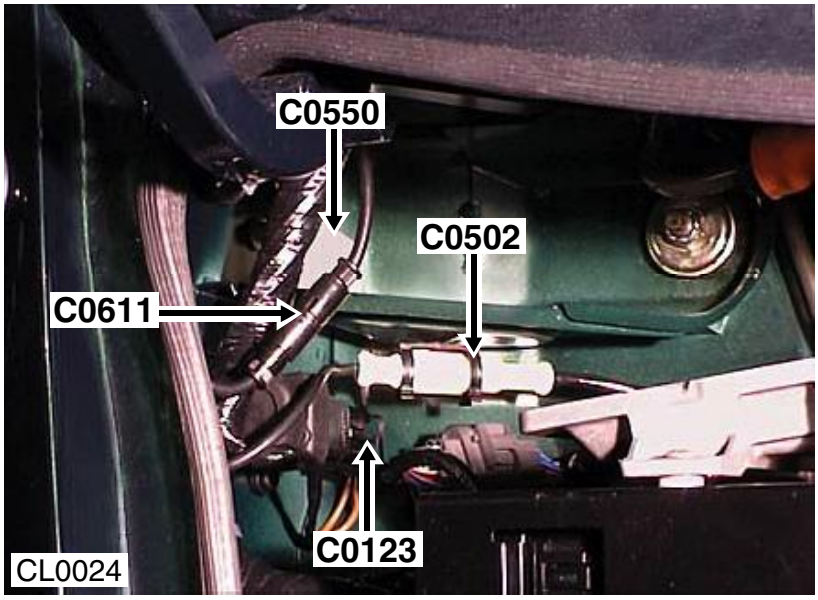


Cav	Col	Cct
1	N	ALL
2	N	ALL

Description: *Fuse - Airbag - SRS*
Location: *Behind driver side of fascia*

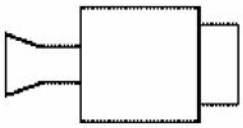


Colour: *NATURAL*
Gender: *Female*



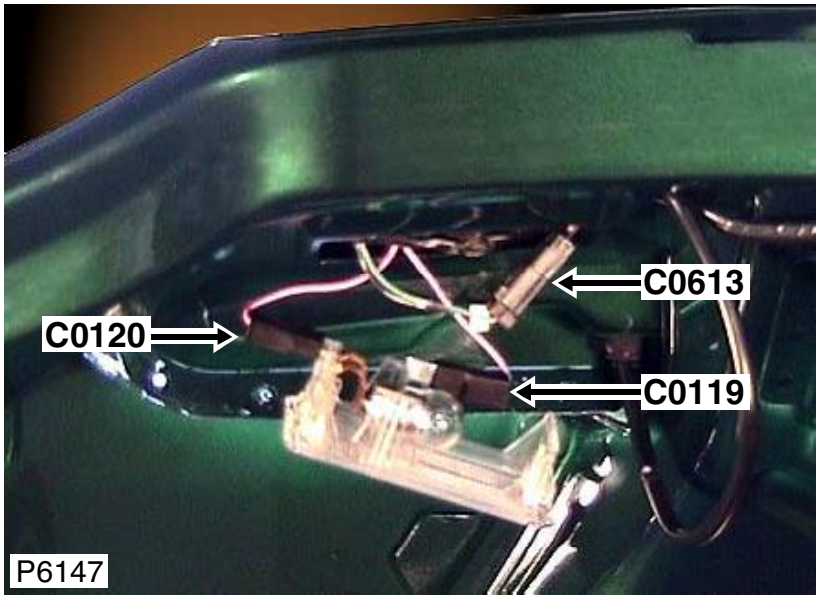
Cav	Col	Cct
1	B	ALL

Description: *Aerial*
Location: *LH side of engine compartment*



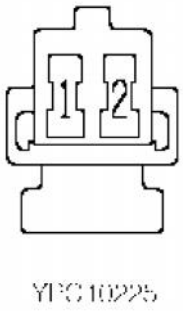
XUD100430

Colour:
Gender:

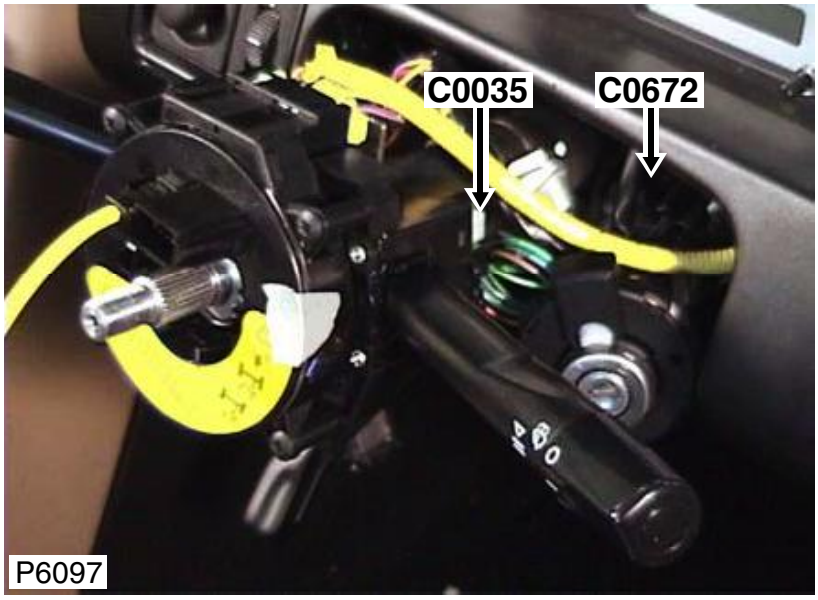


Cav	Col	Cct
1	GP	ALL
2	B	ALL

Description: *Lamp - brake - high mounted*
Location: *Behind luggage compartment light*

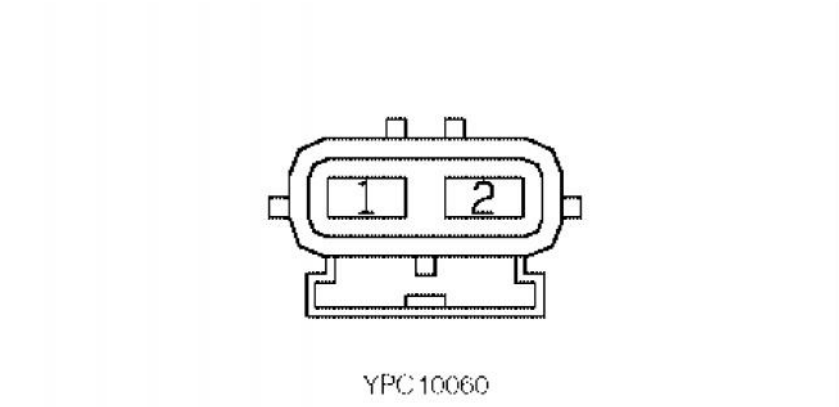


Colour: *BLACK*
Gender: *Female*

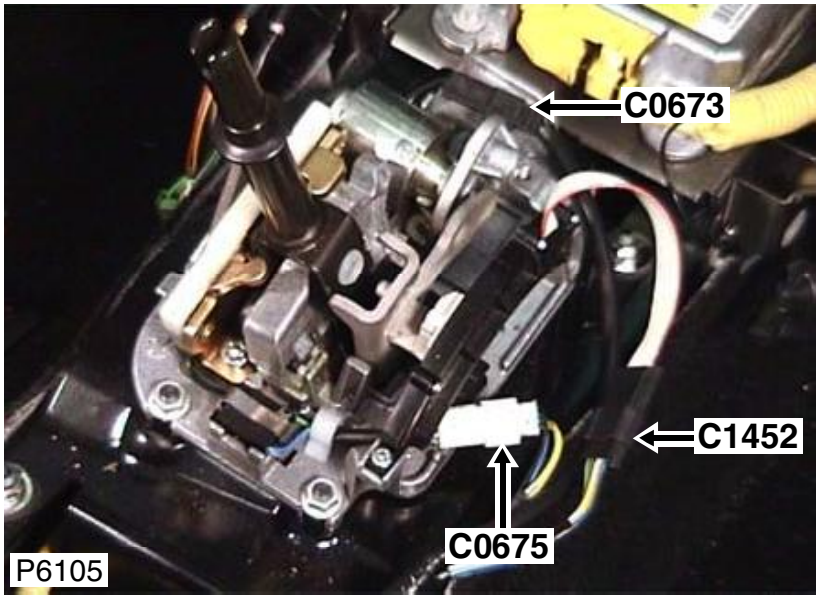


Cav	Col	Cct
1	SR	ALL
2	PK	ALL

Description: *Sensor - Key in*
Location: *RH side of steering column*

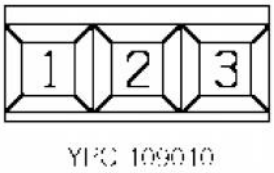


Colour: *BLACK*
Gender: *Male*

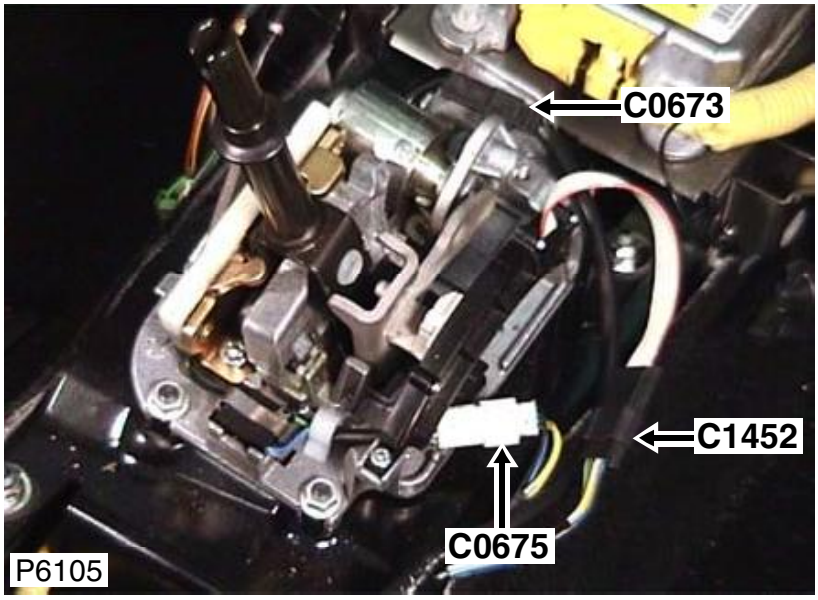


Cav	Col	Cct
1	G	12
3	B	12

Description: *Solenoid - Shift - Interlock*
Location: *Behind centre console*

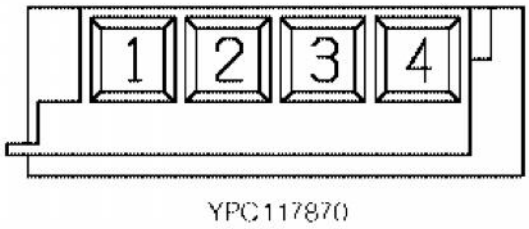


Colour: *BLACK*
Gender: *Female*

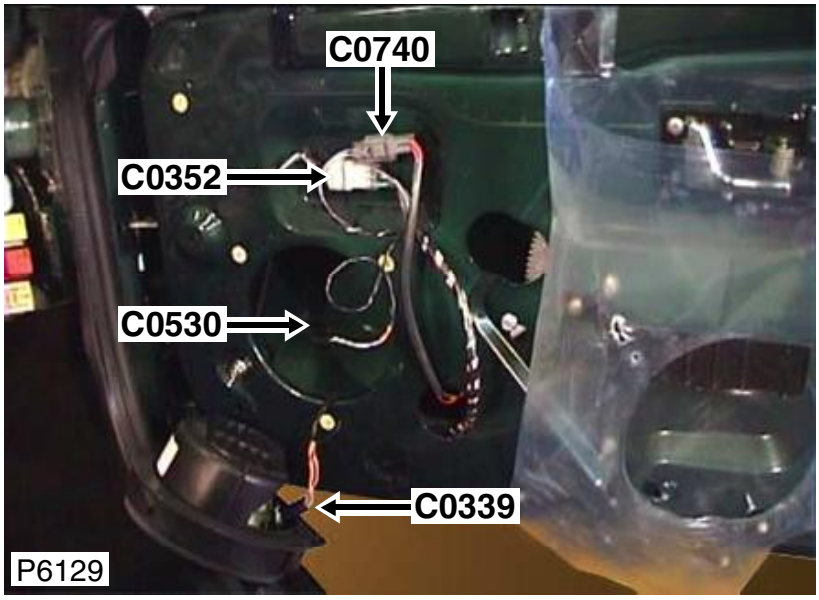


Cav	Col	Cct
1	B	8
2	YG	8
3	UB	8
4	YS	8

Description: *Selector - Automatic transmission*
Location: *Behind centre console*

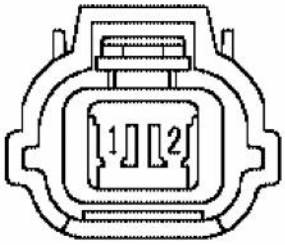


Colour: *PURPLE*
Gender: *Female*



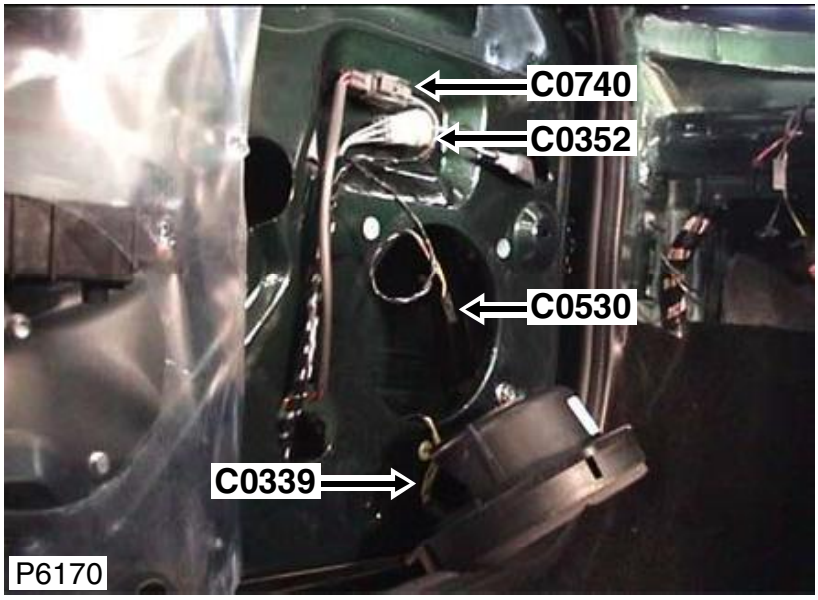
Cav	Col	Cct
1	SW	ALL
2	SU	ALL

Description: *Motor - Window - Driver - RHD*
Location: *Behind RH front door trim panel*



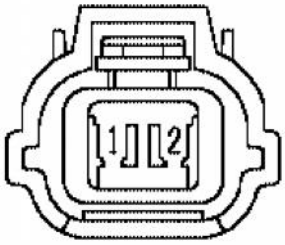
YPC10180

Colour: *GREY*
Gender: *Female*

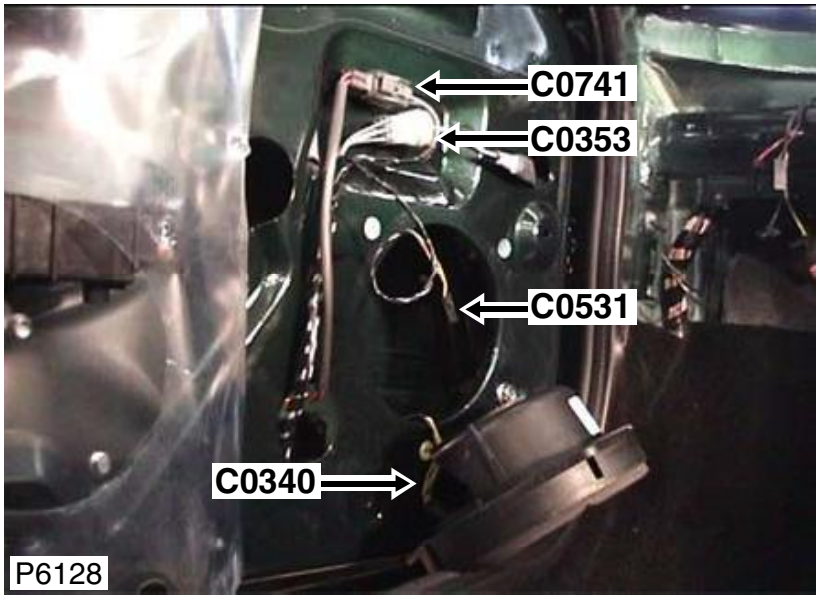


Cav	Col	Cct
1	SW	ALL
2	SU	ALL

Description: *Motor - Window - Driver - LHD*
Location: *Behind LH front door trim panel*

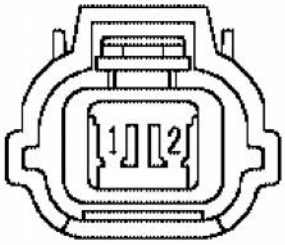


Colour: *GREY*
Gender: *Female*



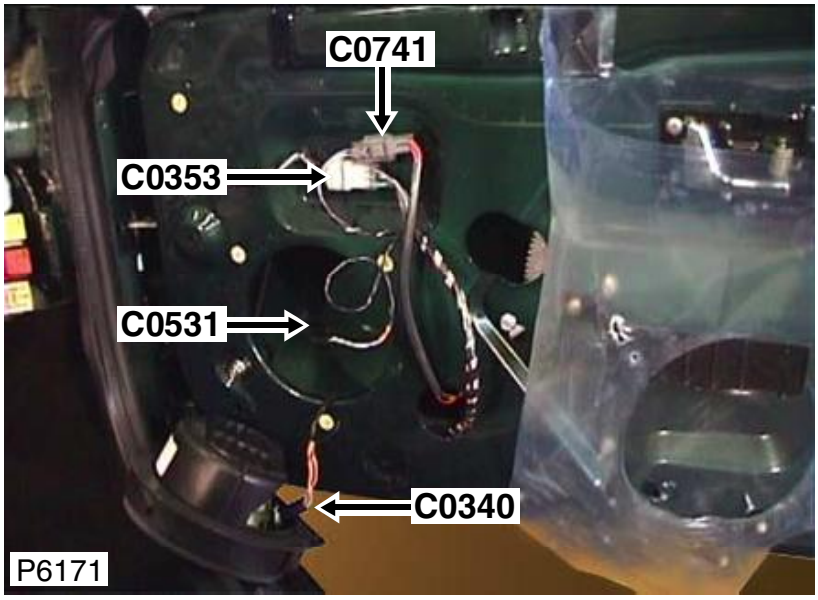
Cav	Col	Cct
1	SK	ALL
2	SB	ALL

Description: *Motor - Window - Passenger - RHD*
Location: *Behind LH front door trim panel*



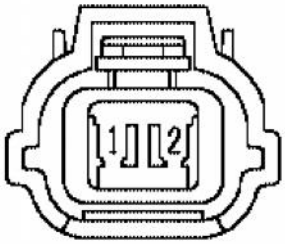
YPC10180

Colour: *GREY*
Gender: *Female*

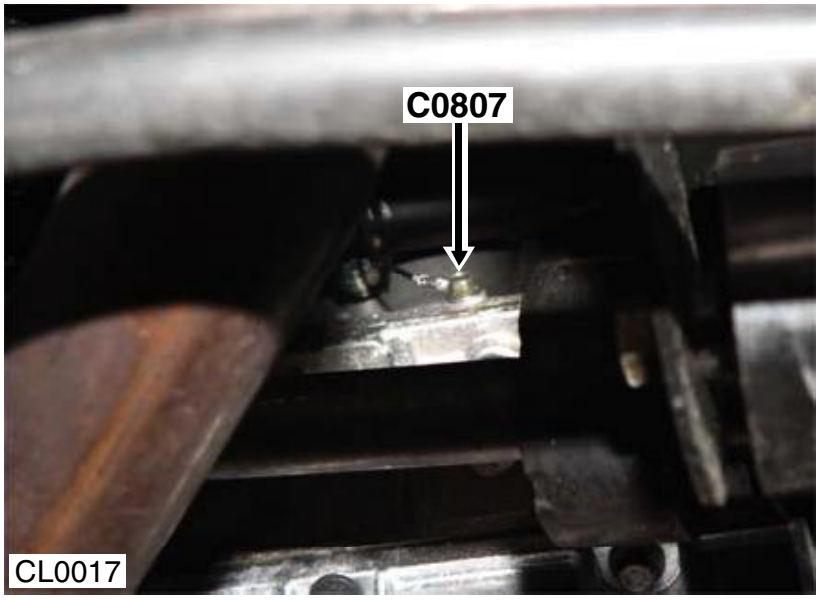


Cav	Col	Cct
1	SR	ALL
2	SY	ALL

Description: *Motor - Window - Passenger - LHD*
Location: *Behind RH front door trim panel*

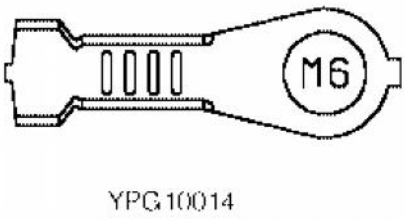


Colour: *GREY*
Gender: *Female*

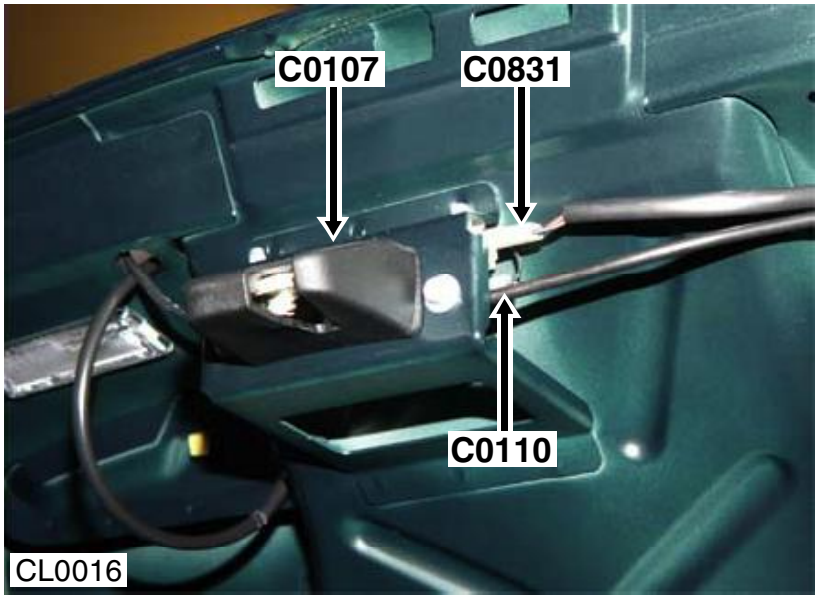


Cav	Col	Cct
1	B	ALL

Description: *Earth*
Location: *Rear of engine compartment*

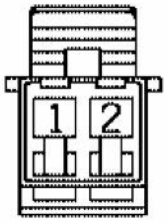


Colour: *TIN-PLATE*
Gender: *Female*

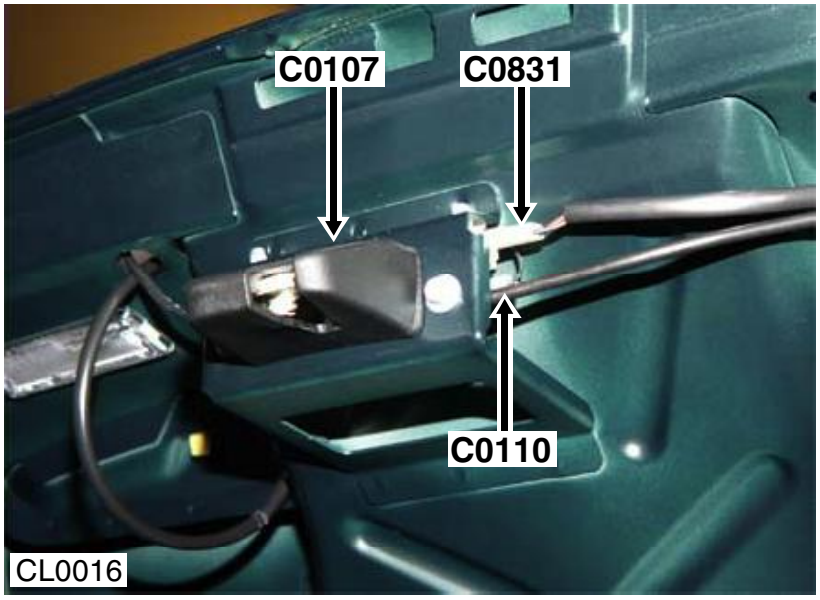


Cav	Col	Cct
1	BR	ALL
2	B	ALL

Description: *Motor - Lock - Tail door - RHD*
Location: *Boot latch*

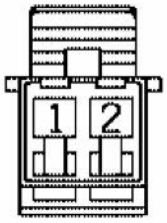


Colour: *NATURAL*
Gender: *Female*



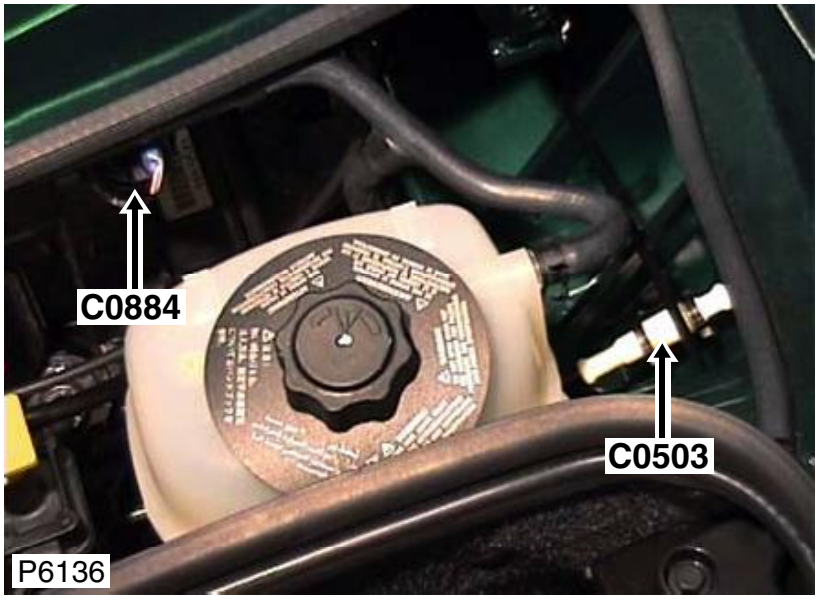
Cav	Col	Cct
1	BR	ALL
2	B	ALL

Description: *Motor - Lock - Tail door - LHD*
Location: *Boot latch*



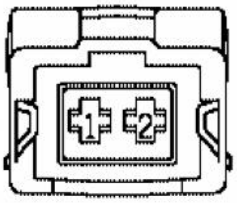
AFU3573

Colour: *NATURAL*
Gender: *Female*



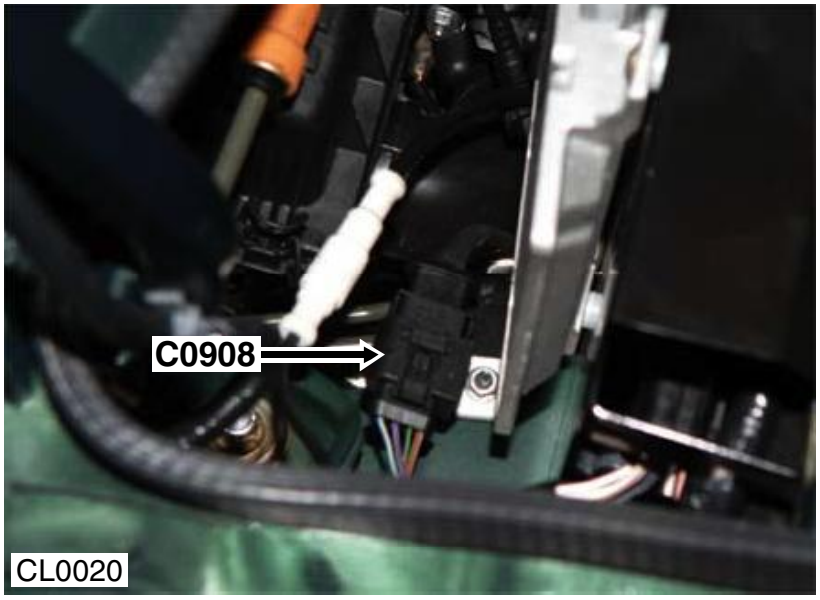
Cav	Col	Cct
1	KB	ALL
2	SW	ALL

Description: *Sensor - Ambient air temperature*
Location: *RH side of engine compartment*



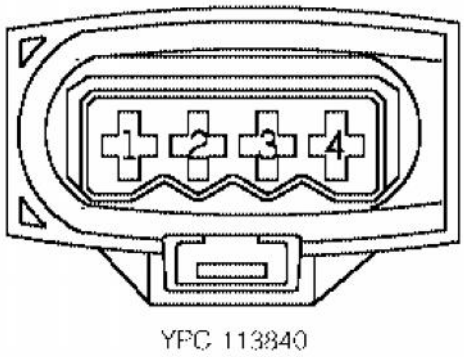
YPC107790

Colour: *BLACK*
Gender: *Female*

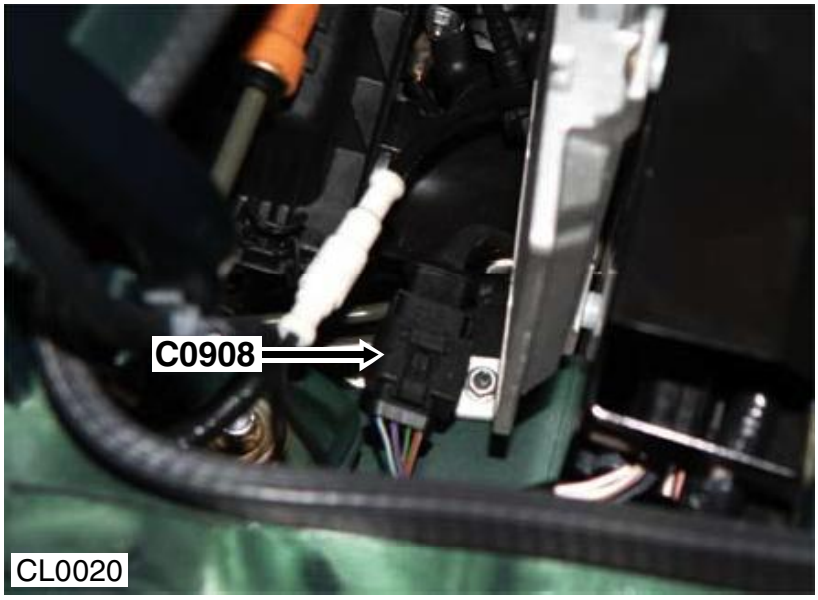


Cav	Col	Cct
1	UY	ALL
2	UR	ALL
3	GB	ALL
4	NK	ALL

Description: *Sensor - Heated oxygen (HO2S) - RHD*
Location: *LH side of engine compartment*

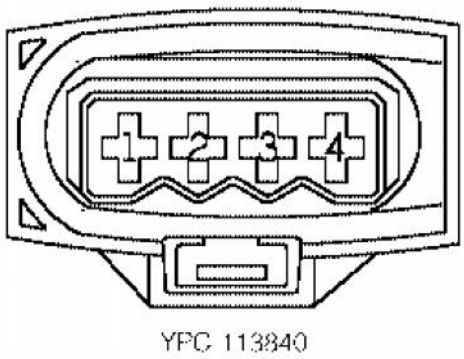


Colour: *BLACK*
Gender: *Female*

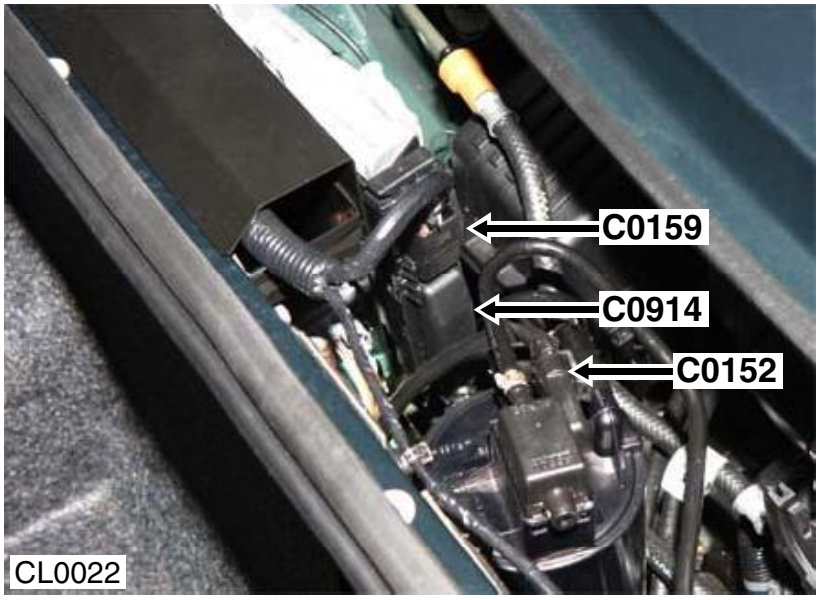


Cav	Col	Cct
1	UY	ALL
2	UR	ALL
3	GB	ALL
4	NK	ALL

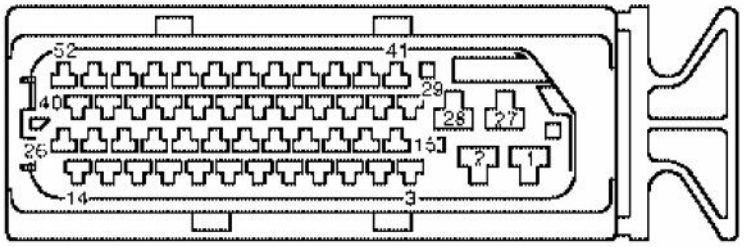
Description: *Sensor - Heated oxygen (HO2S) - LHD*
Location: *LH side of engine compartment*



Colour: *BLACK*
Gender: *Female*



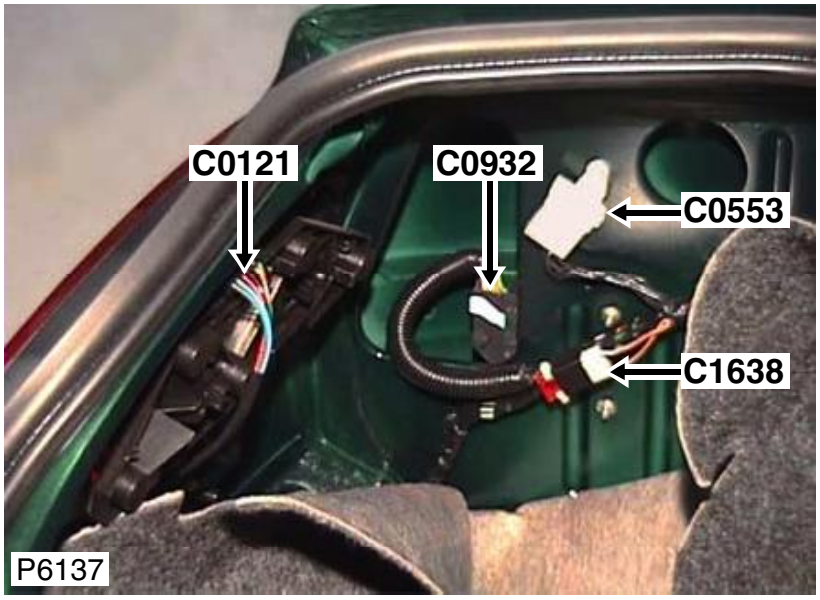
Description: *Engine control module (ECM)*
Location: *Front LH side of engine compartment*



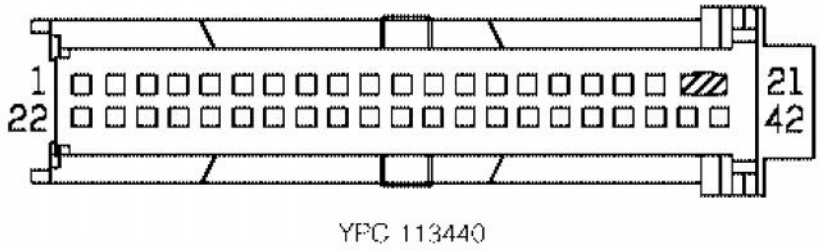
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	BU	ALL
3	UY	ALL
4	UP	ALL
5	BR	21
6	U	ALL
7	KB	ALL
8	YP	ALL
9	K	8
10	GO	21
12	BY	21
13	OS	ALL
14	YR	ALL
15	GY	ALL
16	YP	ALL
17	BS	ALL
18	KB	21
19	NK	ALL
20	GY	ALL
21	SW	ALL
22	U	2
24	OU	ALL
25	YU	ALL
26	WB	ALL
27	GB	ALL
28	BK	ALL
29	UR	ALL
30	WU	ALL
31	KB	ALL
32	GO	ALL
33	KG	ALL
34	KB	ALL
35	WR	ALL
37	KB	ALL
38	BO	ALL
39	OG	ALL
40	YN	ALL
41	GN	ALL

Cav	Col	Cct
42	BS	ALL
44	YW	ALL
45	RG	ALL
46	KP	ALL
48	WG	8
49	BN	21
50	KU	ALL
51	YG	ALL
52	WO	ALL

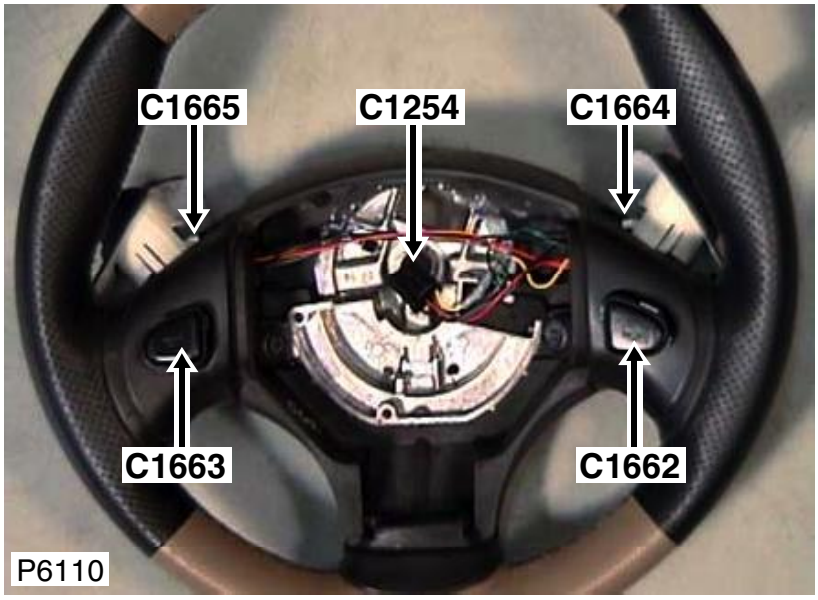


Description: *ECU - Electronic automatic transmission*
Location: *Behind luggage compartment carpet LH side*



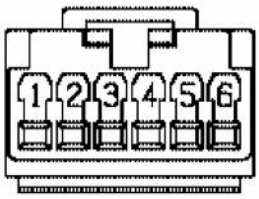
Colour: *LIGHT BLUE*
Gender: *Female*

Cav	Col	Cct
1	G	12
3	NK	8
4	B	8
5	US	8
6	UY	8
7	UR	8
8	UW	8
13	GP	12
14	BR	12
17	PW	8
18	OW	8
26	NW	8
27	NR	8
28	NB	8
29	NY	8
30	NG	8
31	U	8
32	Y	8
33	UG	8
34	GY	8
35	YS	8
36	UB	8
37	WR	8
38	YG	8
39	R	8



Cav	Col	Cct
1	Y	ALL
2	O	ALL
3	G	ALL
4	R	ALL
6	B	ALL

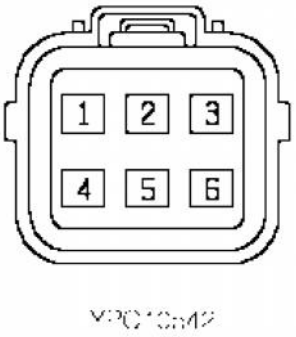
Description: *Rotary coupler*
Location: *In centre of steering wheel*



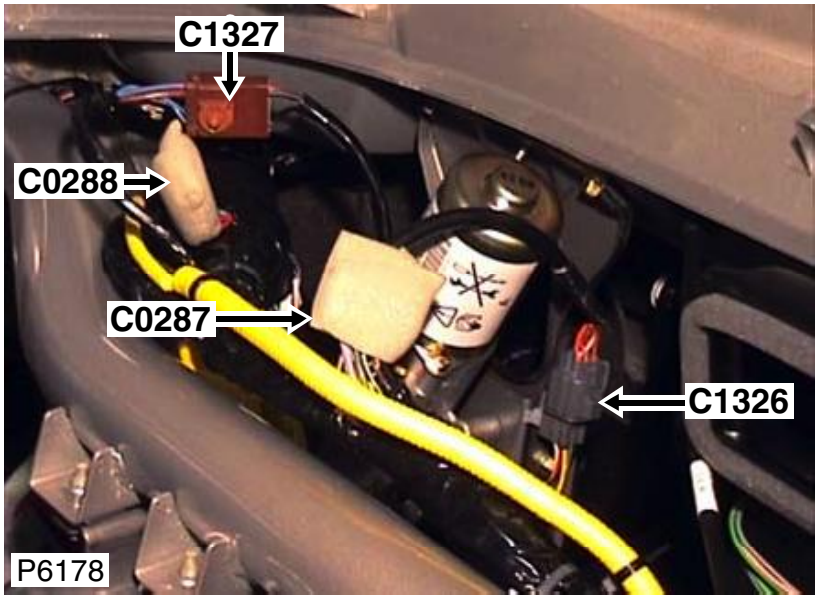
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	O	5
2	OU	5
3	OY	5
4	UG	5
5	W	5
6	OW	5
7	SCR	5

Description: *Sensor - Torque - RHD*
Location: *Behind RH side of fascia*

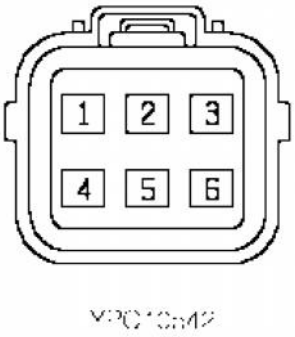


Colour: *GREY*
Gender: *Female*



Cav	Col	Cct
1	O	5
2	OU	5
3	OY	5
4	UG	5
5	W	5
6	OW	5
7	SCR	5

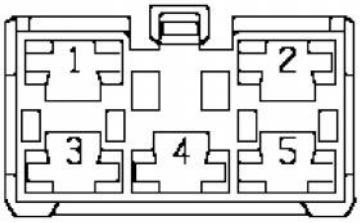
Description: *Sensor - Torque - LHD*
Location: *Behind LH side of fascia*



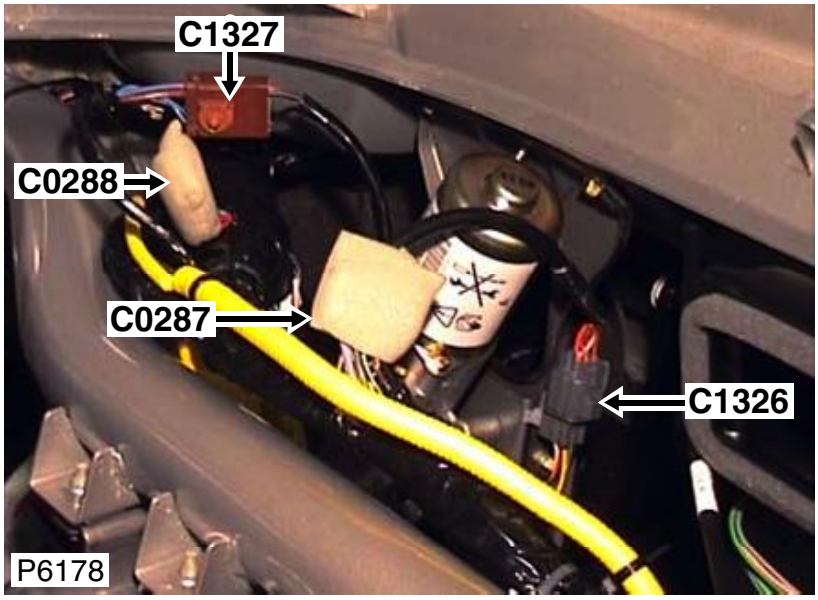
Colour: *GREY*
Gender: *Female*

Cav	Col	Cct
1	NU	5
2	US	5
3	NR	5
5	UK	5

Description: *Clutch - Electrical Power Assisted Steering (EPAS) - RHD*
Location: *Behind RH side of fascia*

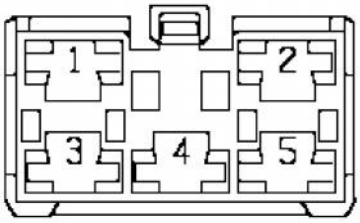


Colour: *BROWN*
Gender: *Female*

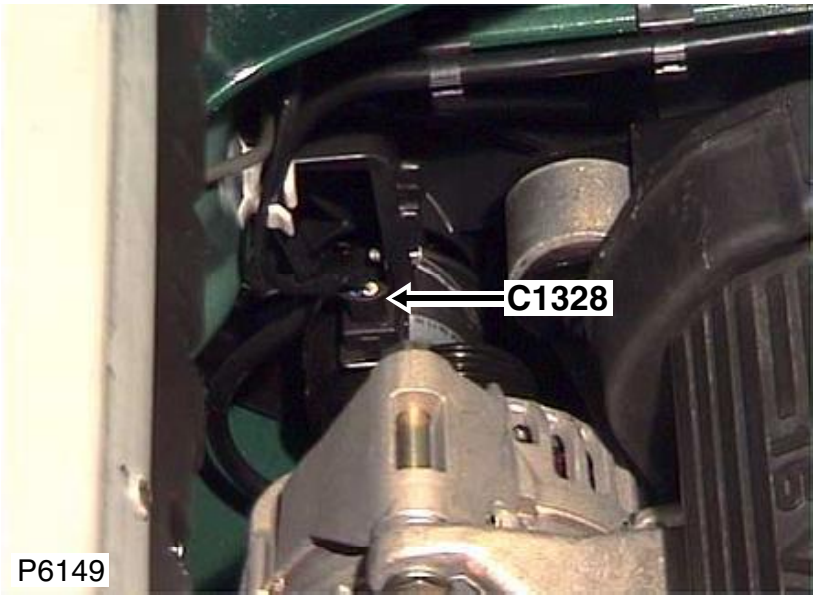


Cav	Col	Cct
1	NU	5
2	US	5
3	NR	5
5	UK	5

Description: *Clutch - Electrical Power Assisted Steering (EPAS) - LHD*
Location: *Behind LH side of fascia*

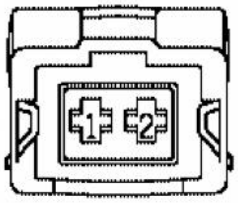


Colour: *BROWN*
Gender: *Female*



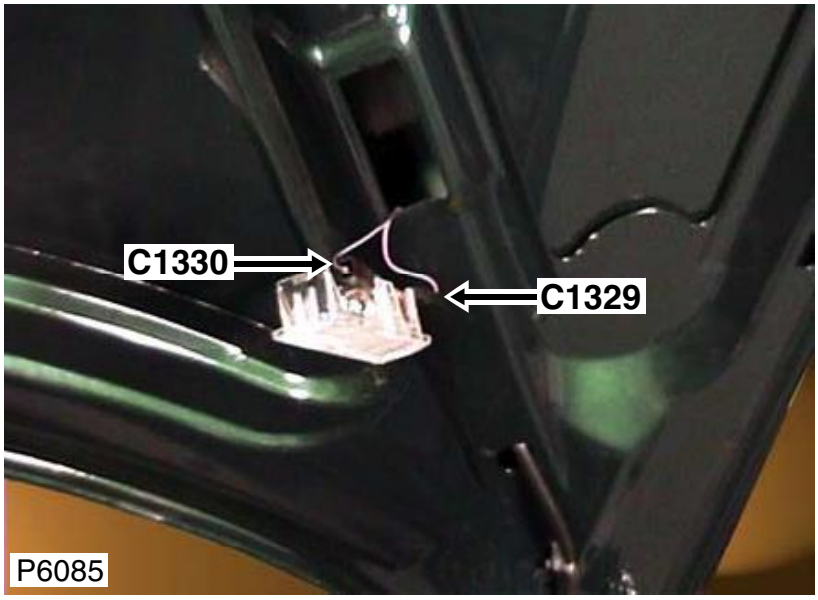
Cav	Col	Cct
1	B	ALL
2	NY	ALL

Description: *Fan - Engine bay*
Location: *RH side of engine compartment*



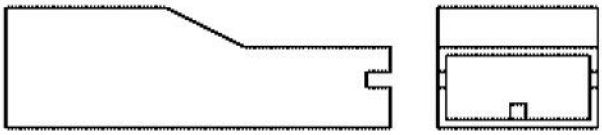
YPC107790

Colour: *BLACK*
Gender: *Female*

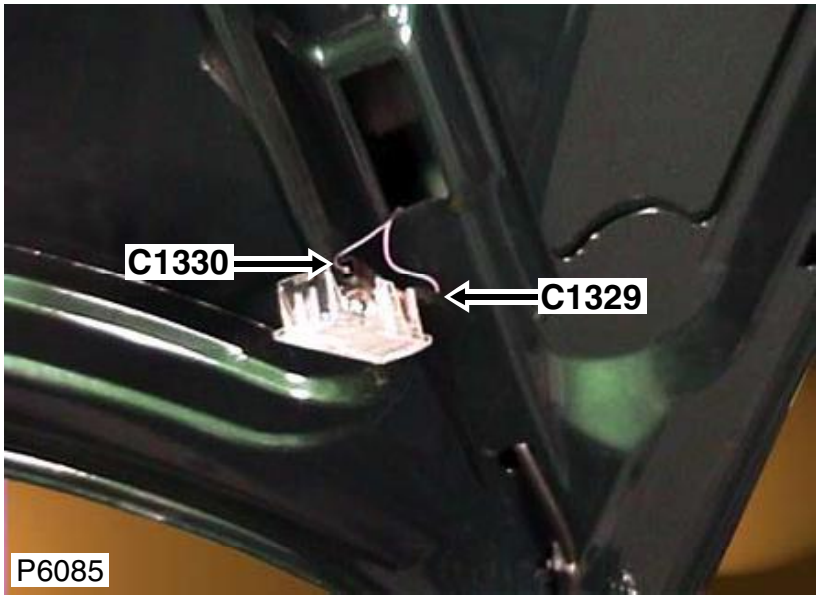


Cav	Col	Cct
1	P	ALL

Description: *Lamp - Under bonnet*
Location: *Behind bonnet lamp*



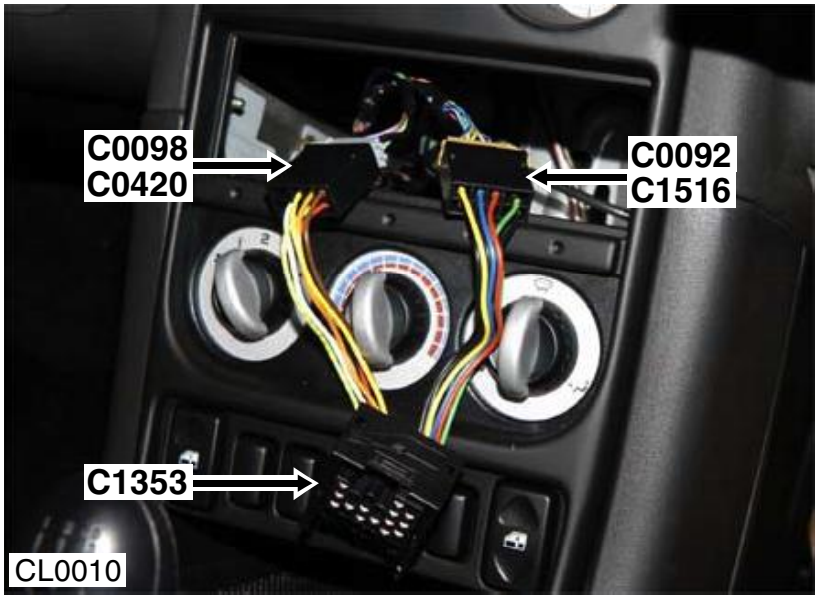
Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	BP	ALL

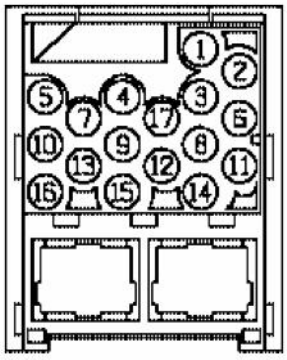
Description: *Lamp - Under bonnet*
Location: *Behind bonnet lamp*

Colour: *BLACK*
Gender: *Female*

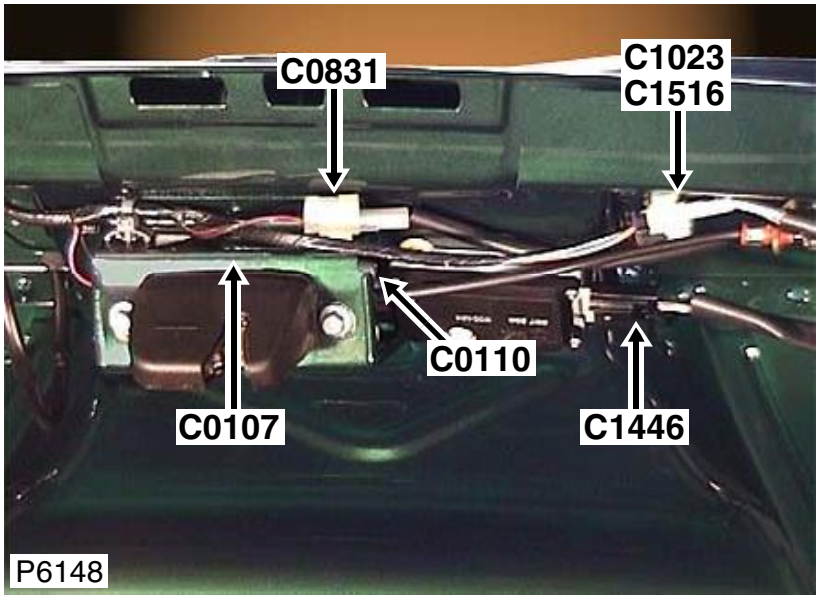


Description: *Link harness to main harness*
Location: *Behind radio*

Cav	Col	Cct
1	YK	ALL
2	OK	ALL
3	UK	ALL
5	LGW	ALL
6	SK	ALL
8	YB	ALL
9	P	ALL
11	OB	ALL
12	UB	ALL
13	RB	ALL
14	SB	ALL
15	B	ALL
16	PY	ALL

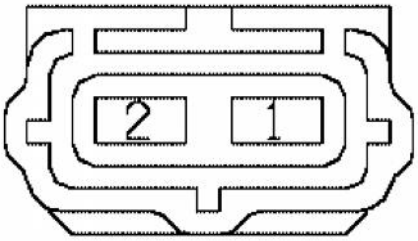


Colour: *BLACK*
Gender: *Female*



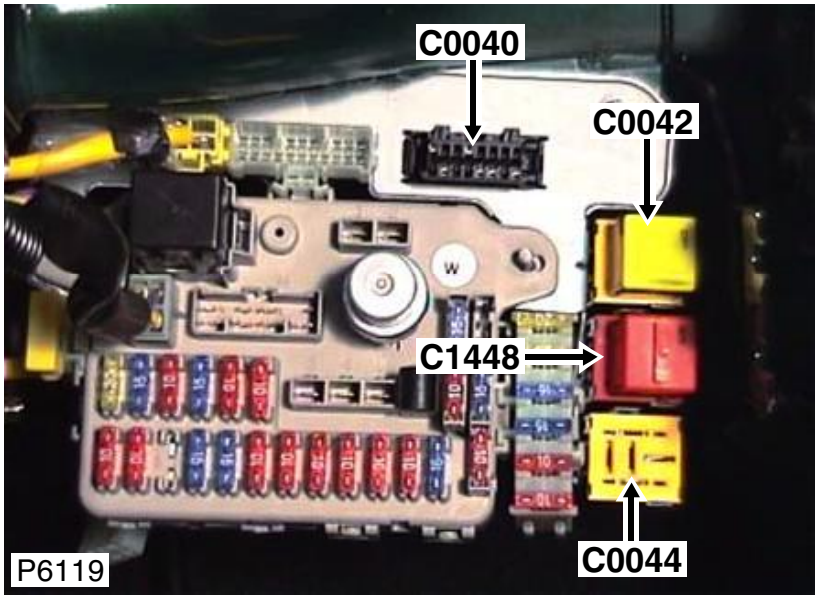
Cav	Col	Cct
1	NR	9
2	BK	9

Description: *Actuator - Boot release*
Location: *Boot latch*



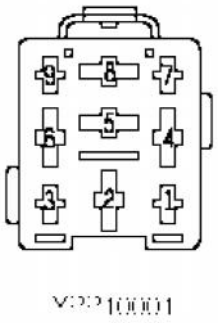
YPC 10069

Colour: *BLACK*
Gender: *Female*

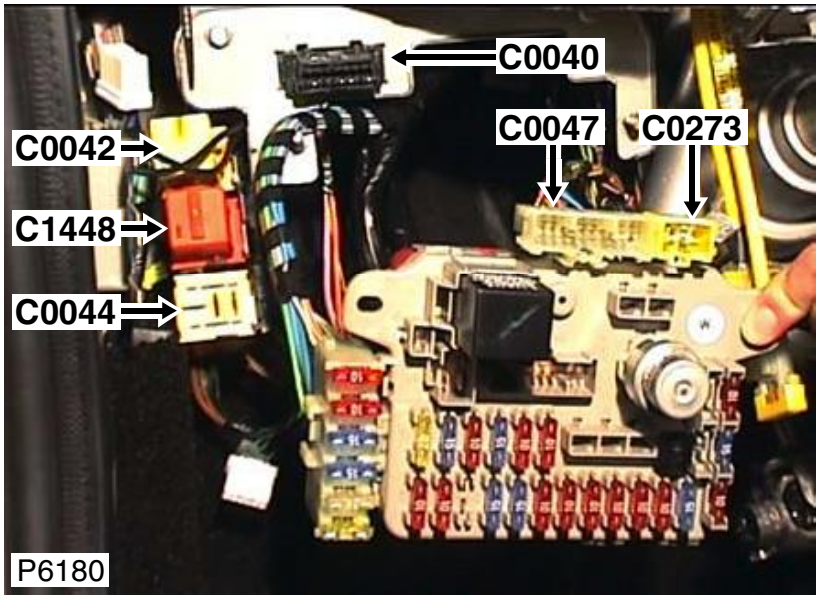


Cav	Col	Cct
2	N	ALL
4	N	ALL
6	NB	ALL
8	NY	ALL

Description: *Relay - Engine bay cooling fan - RHD*
Location: *Behind driver side of fascia*

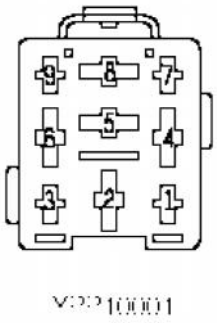


Colour: *BLACK*
Gender: *Female*

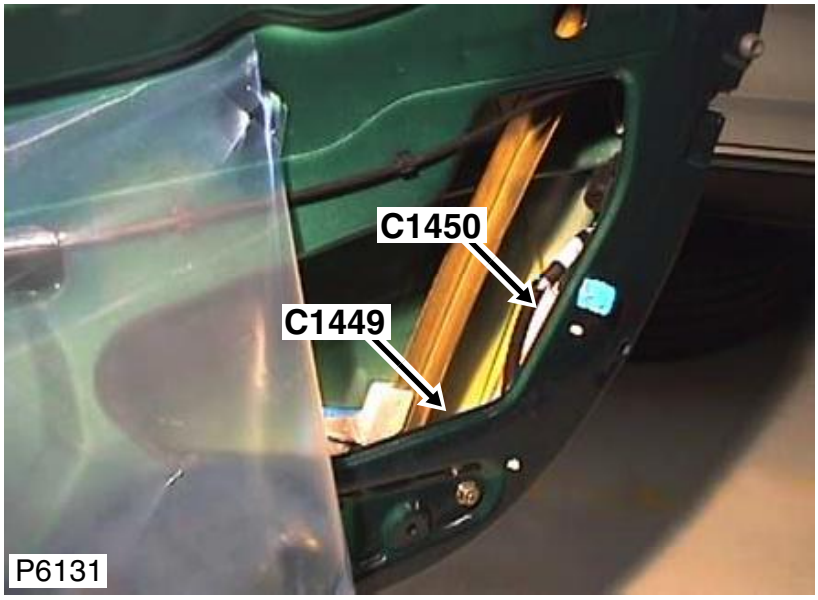


Cav	Col	Cct
2	N	ALL
4	N	ALL
6	NB	ALL
8	NY	ALL

Description: *Relay - Engine bay cooling fan - LHD*
Location: *Behind driver side of fascia*

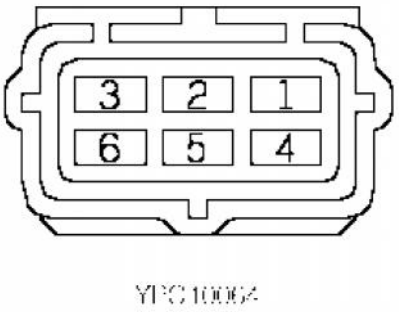


Colour: *BLACK*
Gender: *Female*

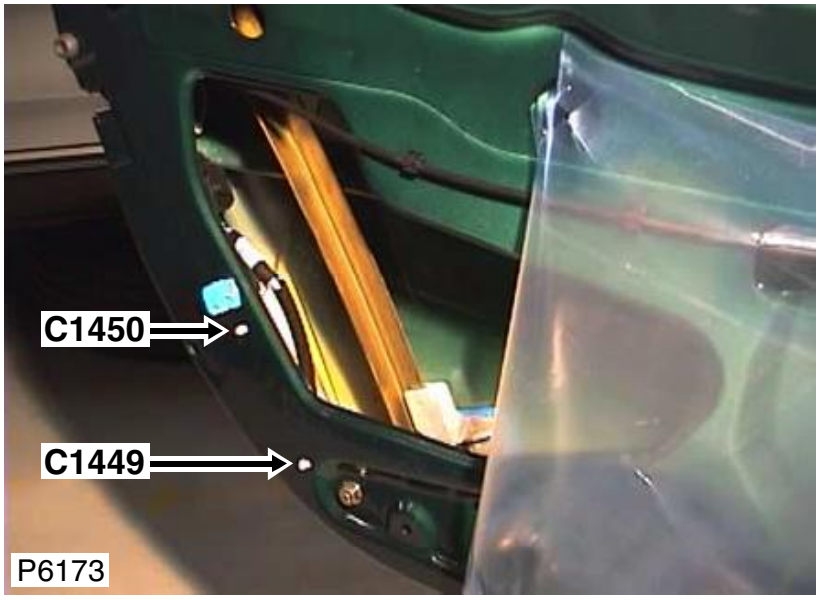


Cav	Col	Cct
1	O	ALL
2	BR	ALL
3	BK	ALL
4	K	ALL
5	NK	ALL
6	PS	ALL

Description: *Assembly - Door lock - Drivers - RHD*
Location: *Behind RH front door trim panel*

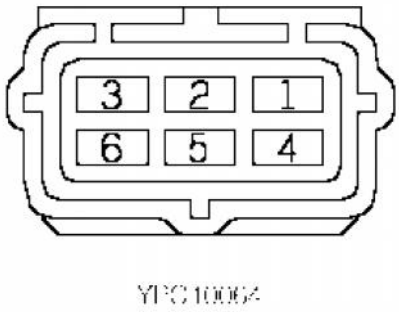


Colour: *BLACK*
Gender: *Female*

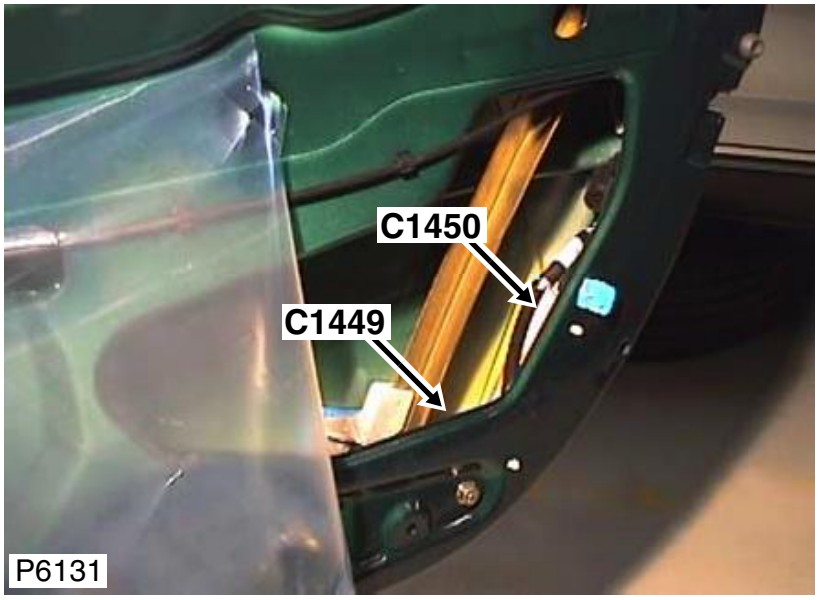


Cav	Col	Cct
1	BK	ALL
2	BR	ALL
3	O	ALL
4	PW	ALL
5	NK	ALL
6	K	ALL

Description: *Assembly - Door lock - Drivers - LHD*
Location: *Behind LH front door trim panel*

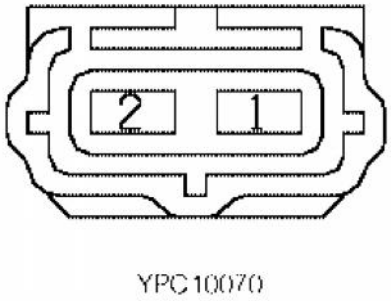


Colour: *BLACK*
Gender: *Female*

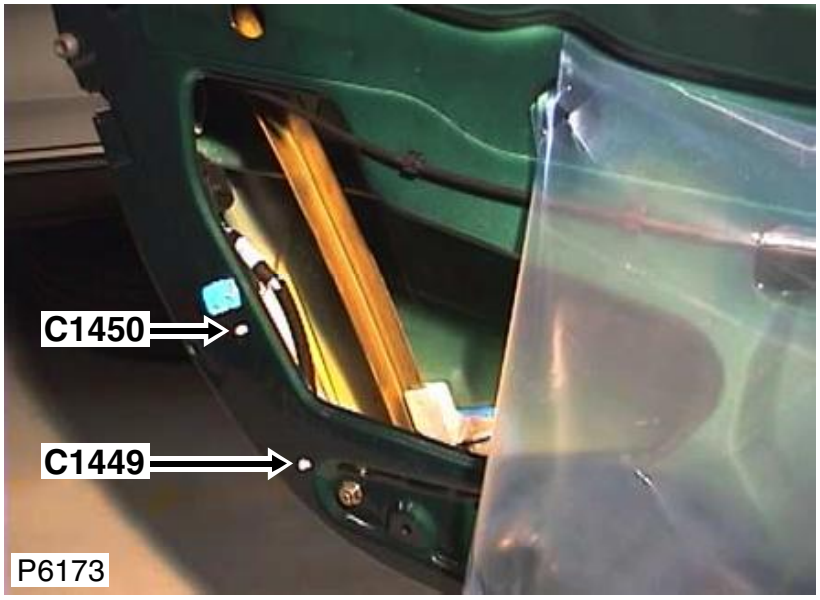


Cav	Col	Cct
1	BO	ALL
2	B	ALL

Description: *Assembly - Door lock - Drivers - RHD*
Location: *Behind RH front door trim panel*

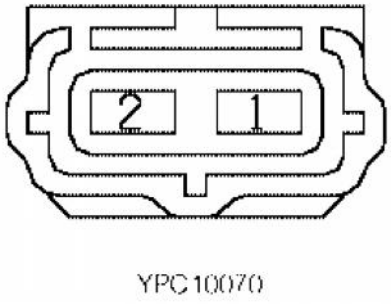


Colour: *BLACK*
Gender: *Female*



Cav	Col	Cct
1	BO	ALL
2	B	ALL

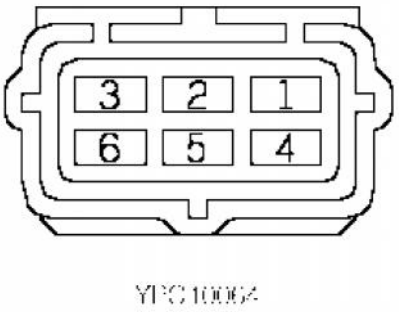
Description: *Assembly - Door lock - Drivers - LHD*
Location: *Behind LH front door trim panel*



Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	B	ALL
3	O	ALL
4	PW	ALL
5	NK	ALL
6	K	ALL

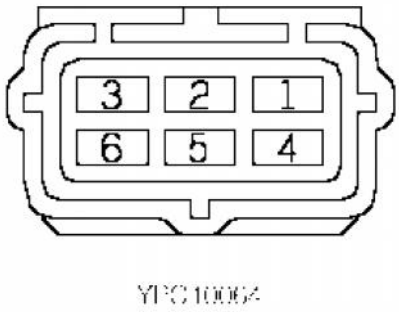
Description: *Assembly - Door lock - Passenger - RHD*
Location: *Behind LH front door trim panel*



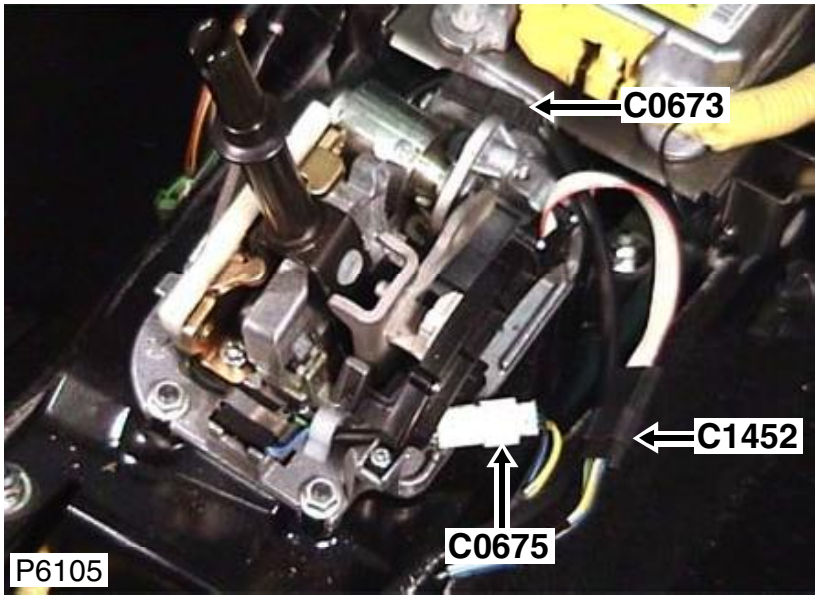
Colour: *BLACK*
Gender: *Female*

Cav	Col	Cct
1	O	ALL
3	B	ALL
4	K	ALL
5	NK	ALL
6	PS	ALL

Description: *Assembly - Door lock - Passenger - LHD*
Location: *Behind RH front door trim panel*

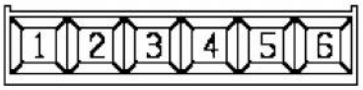


Colour: *BLACK*
Gender: *Female*



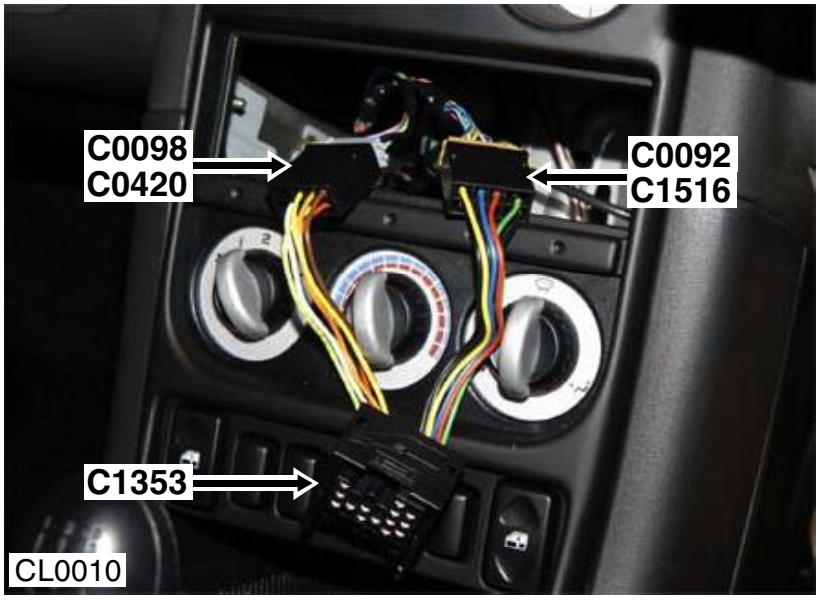
Cav	Col	Cct
1	B	8
2	U	8
3	Y	8
4	UG	8
5	GY	8

Description: *Selector - Automatic transmission*
Location: *Behind centre console*



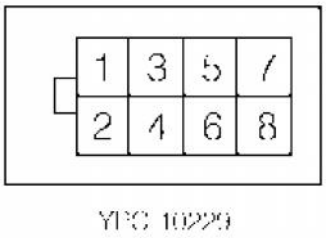
YTC111760

Colour: *BLACK*
Gender: *Female*

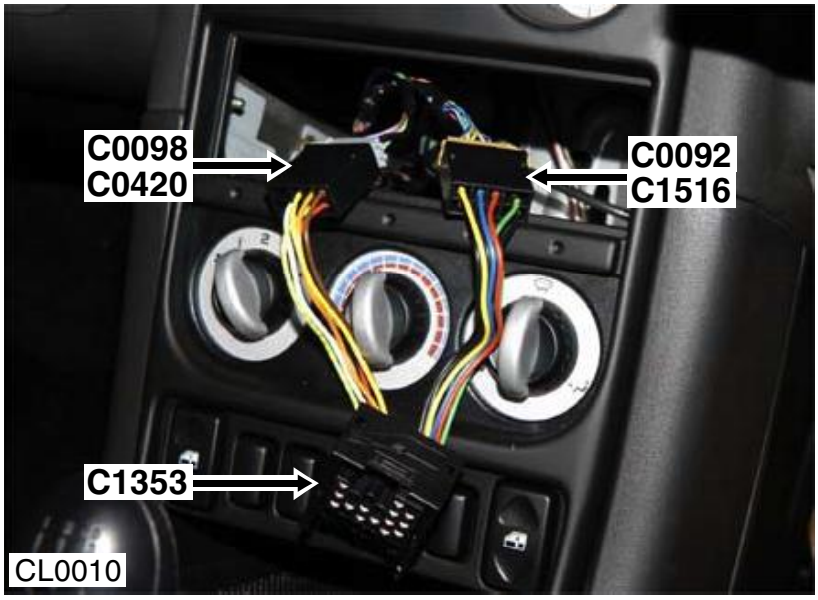


Cav	Col	Cct
1	SK	ALL
2	SB	ALL
3	OK	ALL
4	OB	ALL
5	YK	ALL
6	YB	ALL
7	UK	ALL
8	UB	ALL

Description: *Link harness to main harness - CD player*
Location: *Behind radio*

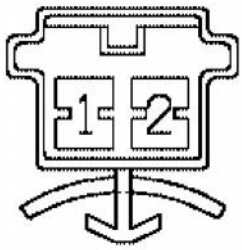


Colour: *BROWN*
Gender: *Male*

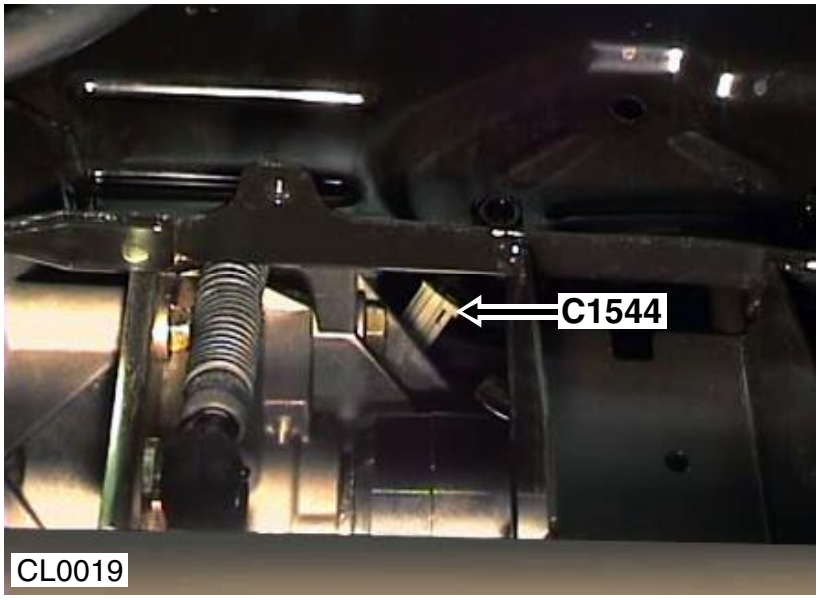


Cav	Col	Cct
1	BK	9
2	NR	9

Description: *Link harness to main harness*
Location: *Behind radio*

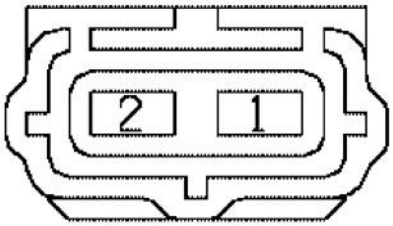


Colour: *NATURAL*
Gender: *Male*



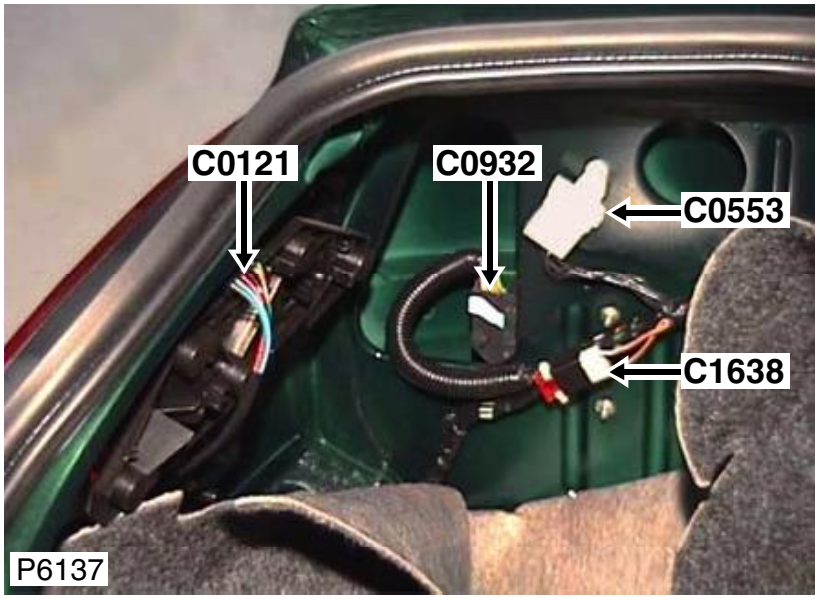
Cav	Col	Cct
1	WU	ALL
2	UP	ALL

Description: *Sensor - Crankshaft position (CKP)*
Location: *Lower rear of engine - LH side*



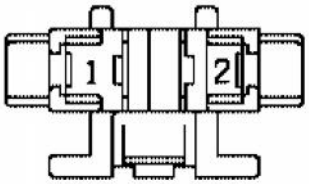
YPC10187

Colour: *WHITE*
Gender: *Female*



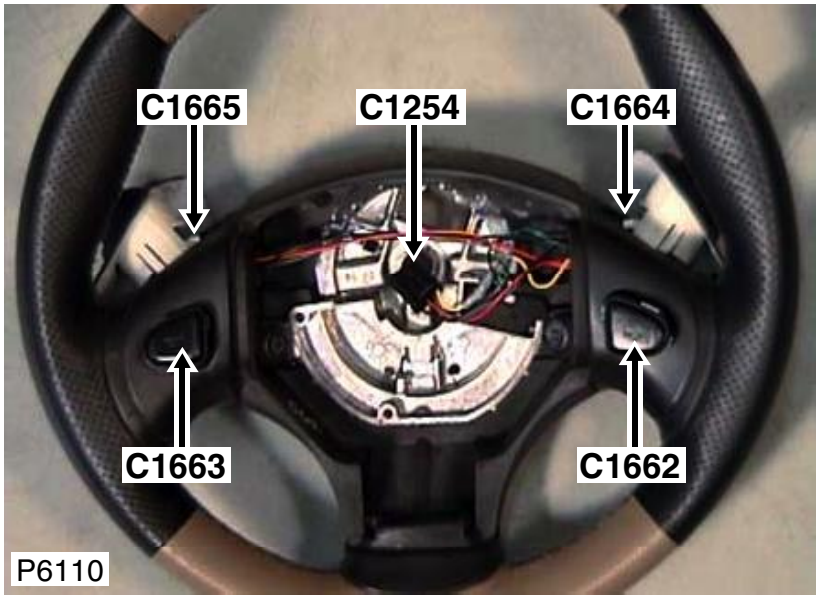
Cav	Col	Cct
1	NK	8
2	NK	8

Description: *Fuse - Unit - Gearbox interface*
Location: *Behind luggage compartment carpet LH side*



YQE 10001

Colour: *NATURAL*
Gender: *Female*

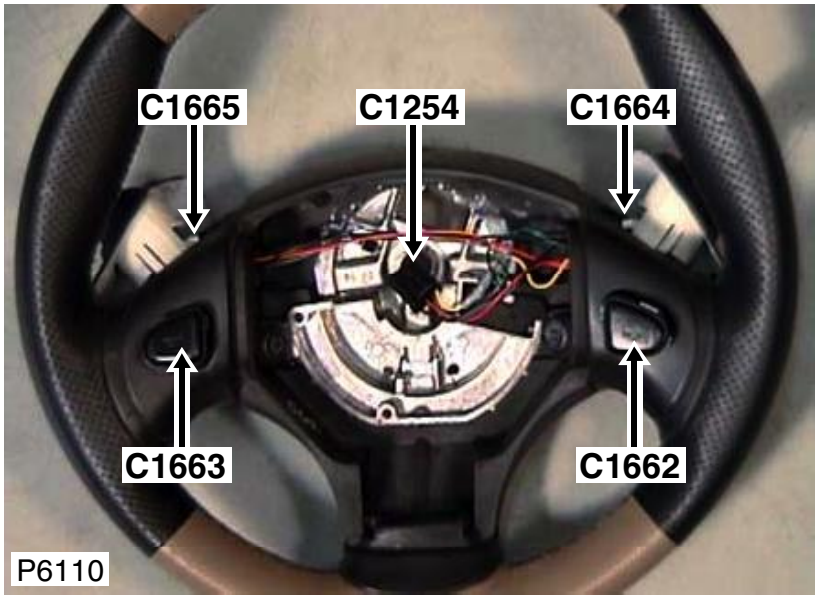


Cav	Col	Cct
1	B	ALL
2	R	ALL

Description: *Switch - Horn - RH*
Location: *In centre of steering wheel*

NO CONNECTOR FACE

Colour:
Gender:

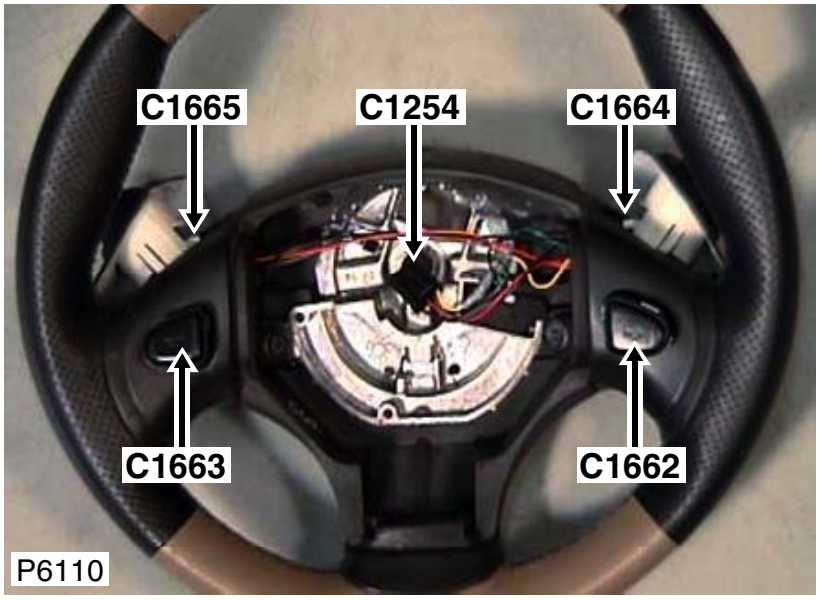


Cav	Col	Cct
1	B	ALL
2	R	ALL

Description: *Switch - Horn - LH*
Location: *In centre of steering wheel*

NO CONNECTOR FACE

Colour:
Gender:

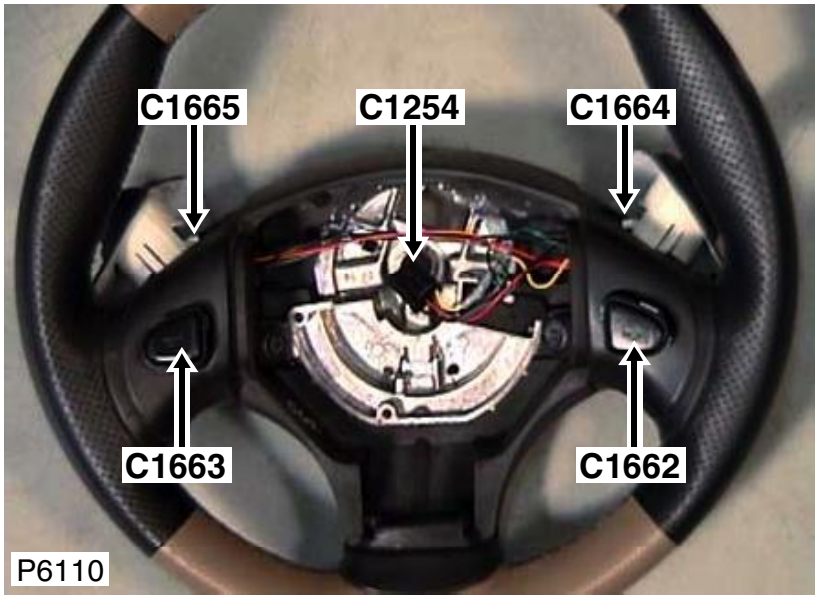


Cav	Col	Cct
1	O	ALL
2	B	ALL
3	Y	ALL
4	G	ALL

Description: *Switch - Remote - Steptronic - Up*
Location: *In centre of steering wheel*

NO CONNECTOR FACE

Colour:
Gender:

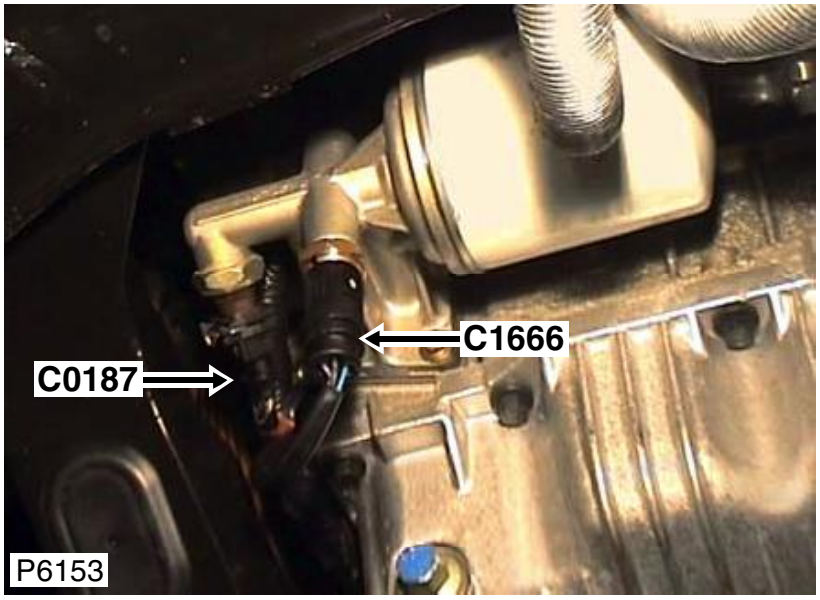


Cav	Col	Cct
1	O	ALL
2	B	ALL
3	Y	ALL
4	G	ALL

Description: *Switch - Remote - Steptronic - Down*
Location: *In centre of steering wheel*

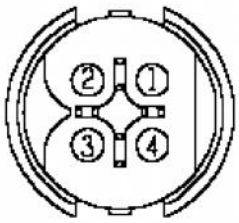
NO CONNECTOR FACE

Colour:
Gender:



Cav	Col	Cct
1	NU	ALL
2	B	ALL
3	U	ALL
4	GO	ALL

Description: *Sensor - Oil temperature*
Location: *Bottom of engine - RH side*



Colour: *BLACK*
Gender: *Female*