

TRAINING PROGRAM

2004 MODEL YEAR X-TYPE TECHNICAL UPDATE GUIDE



INTRODUCTION

GENERAL INFORMATION

BODY & TRIM

ELECTRICAL SYSTEMS

POWERTRAIN

CHASSIS

PUBLICATION CODE – NPX4

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INTRODUCTION

COURSE OBJECTIVES

- The main objective of this technical publication is to introduce all Jaguar dealer service personnel to the new technical updates on the 2004 Model Year X-TYPE.

PROGRAM CONTENT

1. INTRODUCTION
2. GENERAL INFORMATION
3. BODY & TRIM
4. ELECTRICAL SYSTEMS
5. POWERTRAIN
6. CHASSIS

DISCLAIMER

The illustrations, technical information, data and descriptive text in this publication, to the best of our knowledge, were correct at the time of going to print. The right to change specifications, equipment, procedures and maintenance instructions at any time without notice is reserved as part of our policy of continuous development and improvement.

No liability can be accepted for any inaccuracies or omissions in this publication, although every possible care has been taken to make it as complete and accurate as possible.

The Jaguar Technical Guide is intended to provide an overview only and must not be used as a reference source for servicing procedures. All servicing must be carried out in accordance with the appropriate JTIS disc.

Jaguar Cars North America Service Training Department

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2004 MODEL YEAR X-TYPE

General Information

Technical changes to the X-TYPE model year update, may not be self-evident, however, significant modifications have been made to the body, electrical system, and the powertrain.

NOTE:

Some of changes to the X-TYPE discussed in this manual will make reference to an X-TYPE Sports Brake (Station Wagon) and/or an X-TYPE 2.0 Liter Diesel engine. This two models variants will not be introduced to the North American Specification (NAS) market.

2004MY X-TYPE VIN Information

The Job 1 start for the 2004MY changes on the X-TYPE is: **D56272**.

NOTE:

Please note that some of the new technical features discussed in this manual will be introduced as running changes during the 2004 model year cycle.



Fig. 1 2004 Model Year X-TYPE

Towing hooks

With the introduction of new front & rear bumpers, the towing hook locations and covers have changed slightly. The following illustrations shows the new locations.

The front towing point is located behind a square cover on the face of the bumper on the left-hand side of the vehicle.

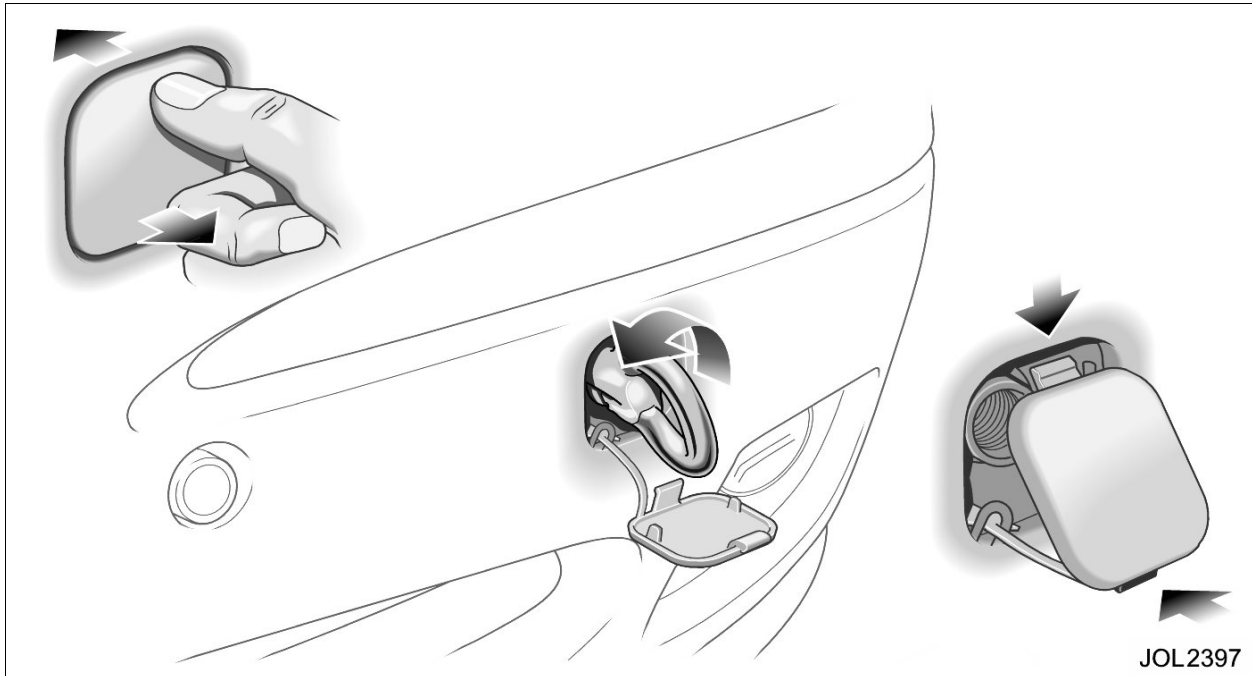
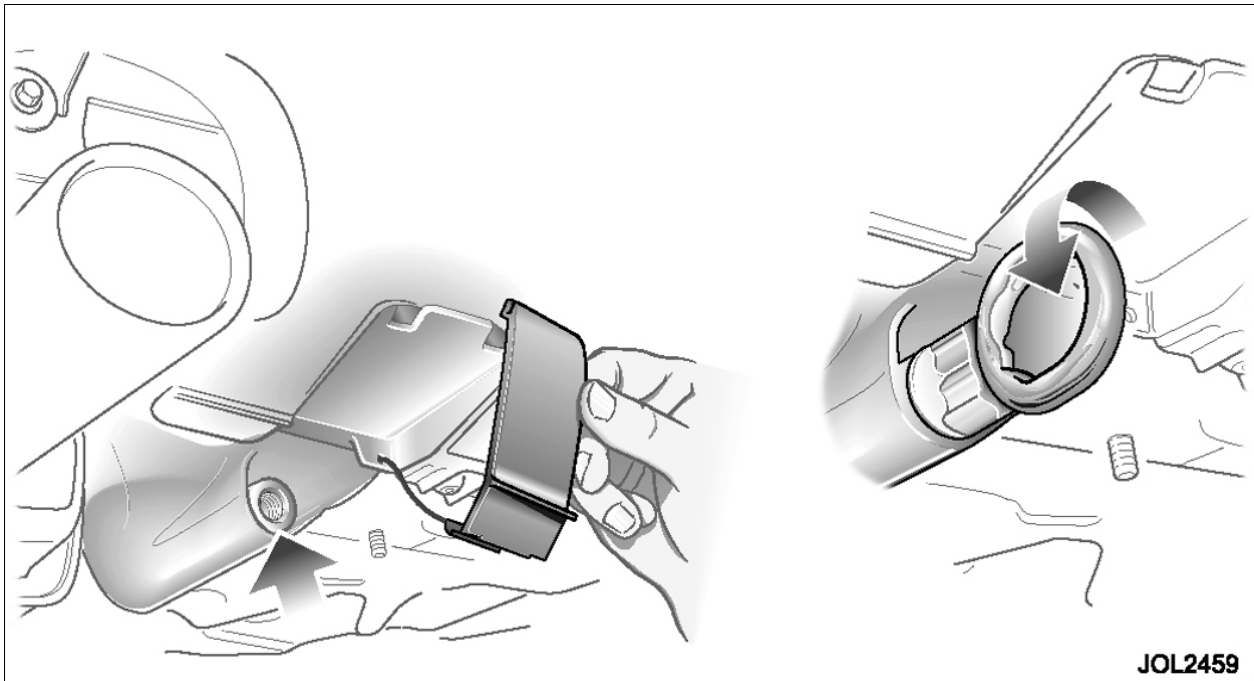


Fig. 2 Front tow point

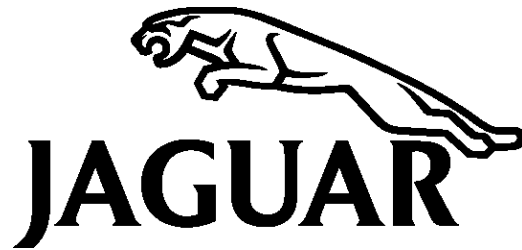
To access the towing point, push the top of the tow point cover inwards, which will cause the cover to pop out of place. Lift the cover from the access hole. The tow point cover is attached to the vehicle by a retaining strap.



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Fig. 3 Rear tow point

The rear towing point is alongside the left-hand exhaust pipe. Remove the small cover from the bumper. Remove the bung and screw the towing eye into the vehicle, right up to the shoulder.



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OVERVIEW OF BODY & TRIM CHANGES

Body In White (BIW) and Exterior/Interior changes

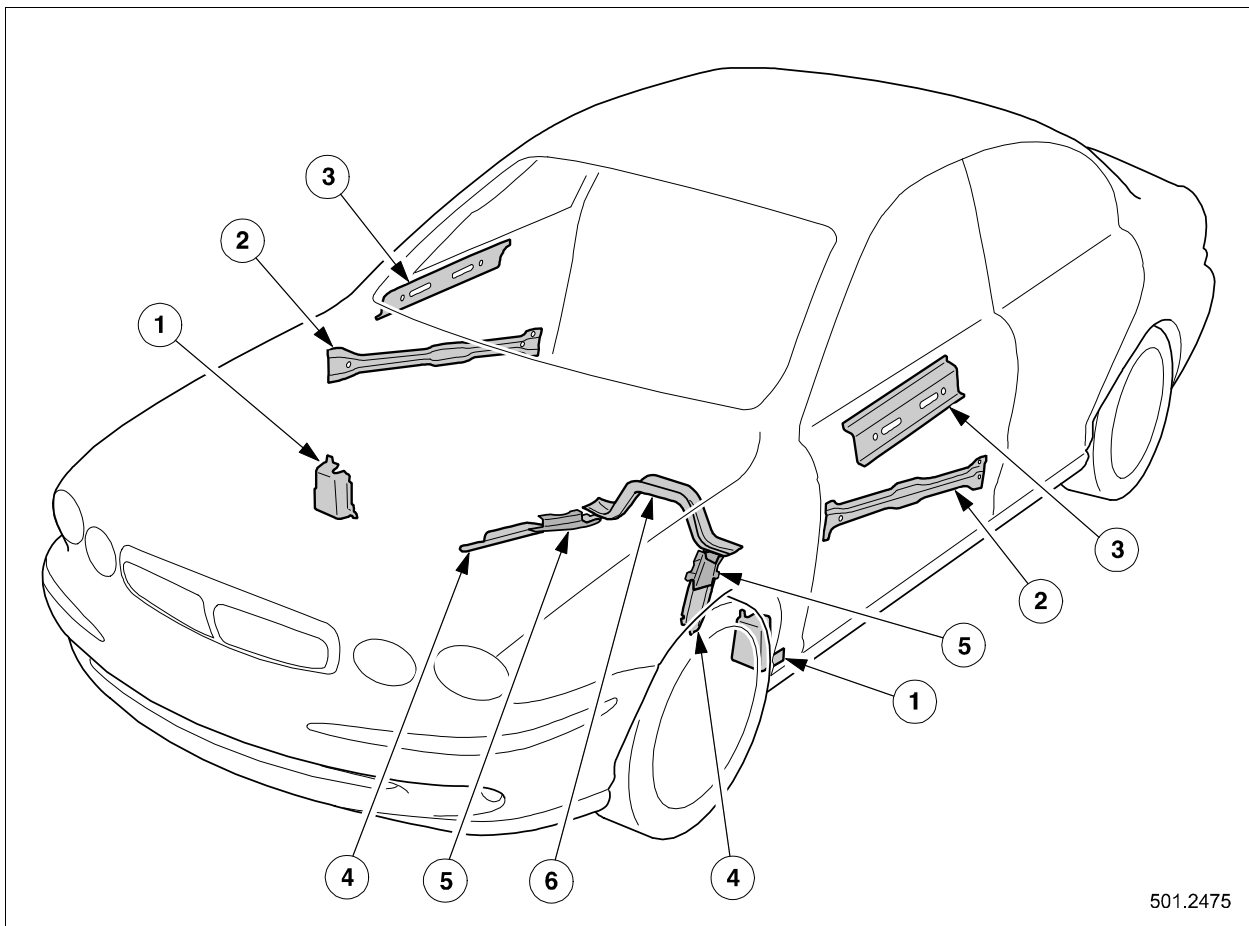
- A bolt-on front-end that: provides a weight reduction; improves repairability and service access.
- A new front bumper to accommodate the bolt-on front-end and front parking aid (where applicable)
- A new trunk-lid finisher
- Exterior trunk release above license plate
- A new stack-bracket mounted to the left-hand side of the trunk to accommodate the multimedia modules
- Black finish roof moldings
- Body color roof molding
- Black finish roof moldings
- Black finish side window trim
- Lockable fascia glove box w/ chrome finished latch flap
- Sport styled steering wheel w/ audio, telephone & speed control switches in upper spokes
- Cloth trimmed upper pillar trim finishers
- New wood veneer material
- Front seat Head Restraints - 4-way adjustable
- Reflectors in lower edge of front doors

BODYSHELL AND DOOR MODIFICATIONS

Body Construction

The following are some of the modifications:

- Additional welded front door waist reinforcement.
- Up-gauge to front door inner strainer panel.
- Additional bolt-on wheel catcher.
- Several minor modifications to the body superstructure and hood.



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Fig. 4 Main body-in-white modifications

1. Bolt-on wheel catcher
2. Up-gauged front door inner strainer panel
3. Welded front door waist reinforcement
4. Bolt-on floor reinforcement panel
5. Welded floor reinforcement panel
6. Front floor cross center member

FRONT END BODY PANELS

The bolt-on front end provides a weight reduction and improves service repairability and service access.

The bumper beam, previously welded to the crush cans, can now be withdrawn after removing four securing bolts.

Additionally, the crush can assemblies can be unbolted from the longitudinal. The longitudinal are modified to include an adaptor plate to accommodate the crush can assemblies.

As a result of these changes, it has been necessary to move the position of the towing eye (not shown, left hand side only).

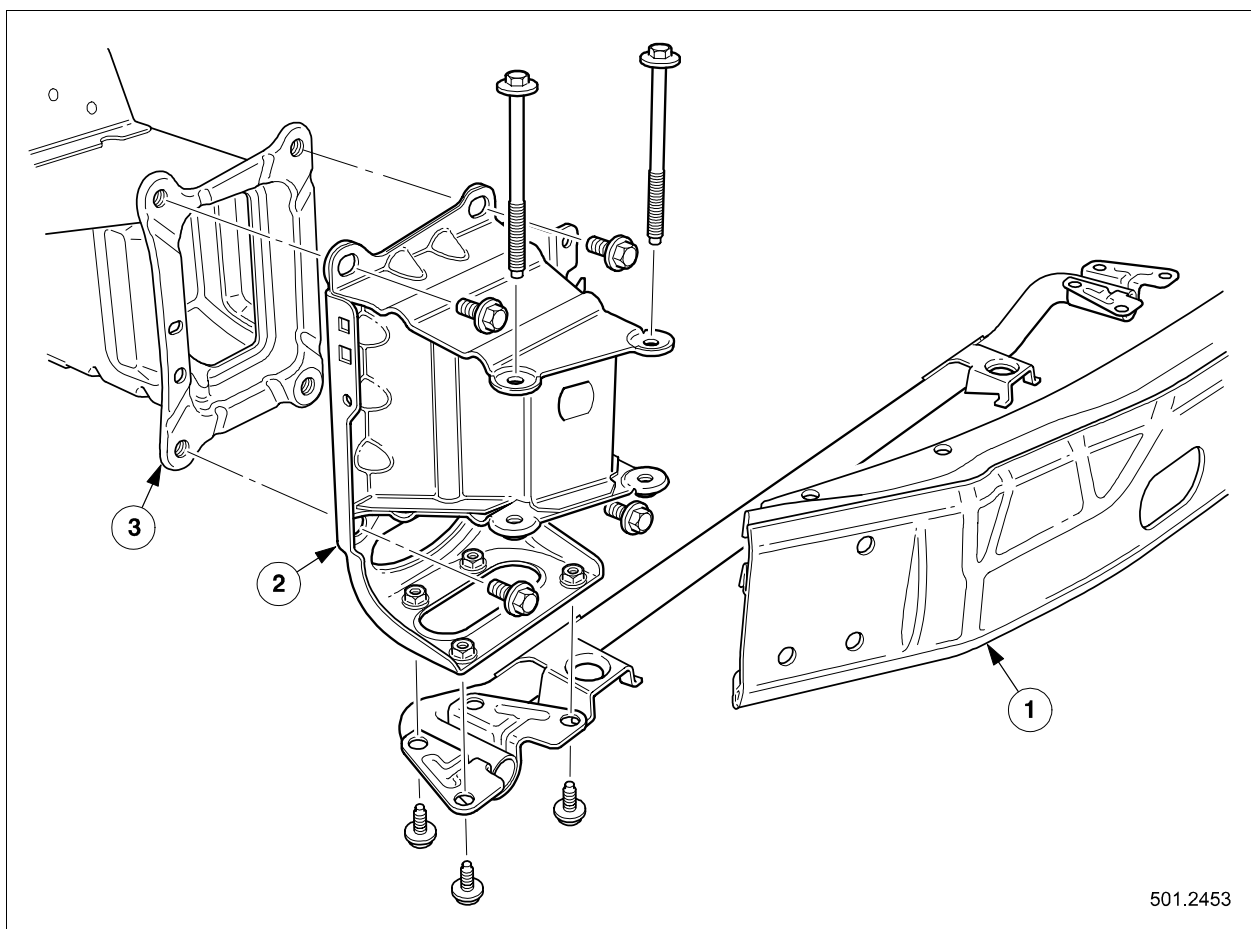


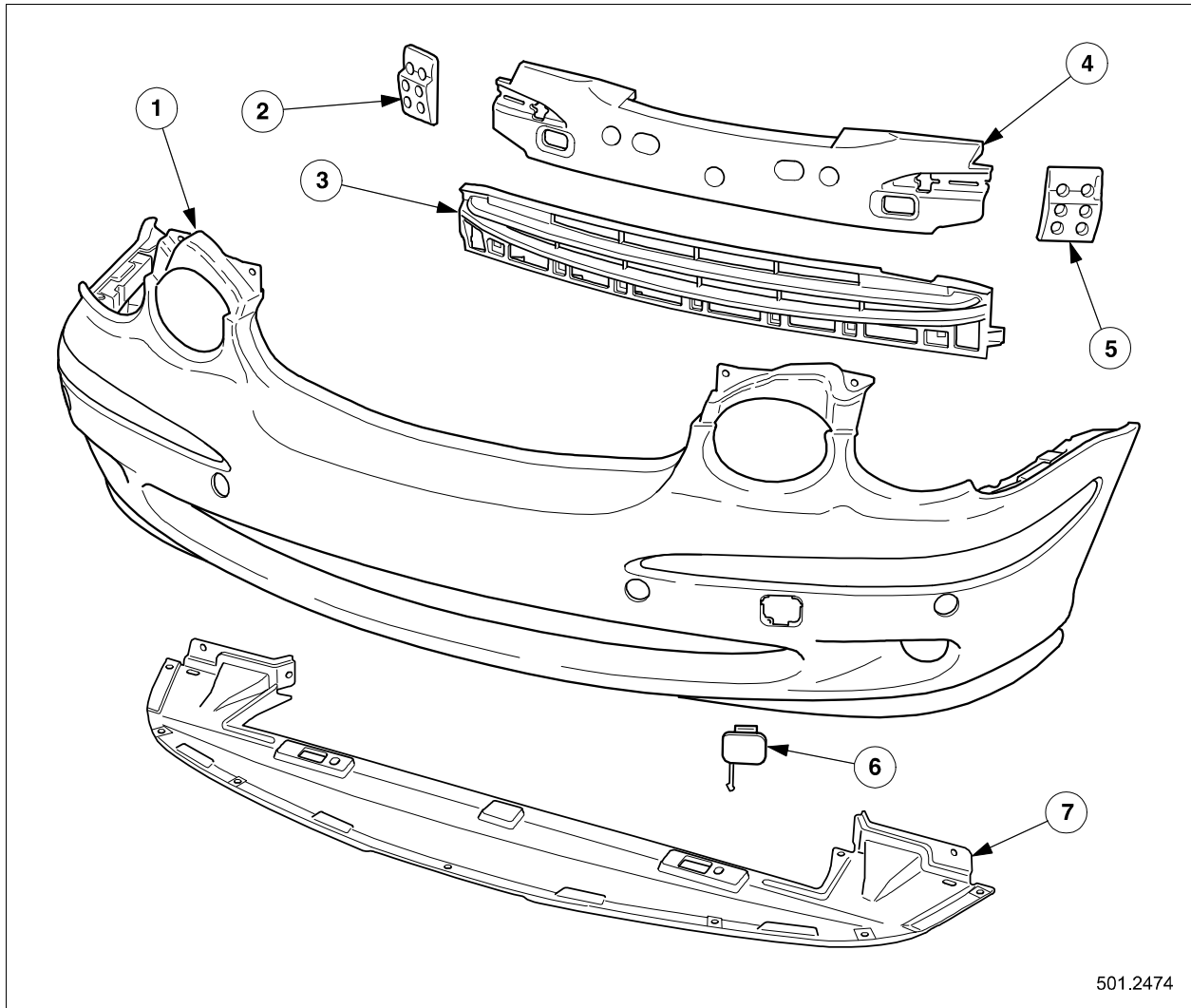
Fig. 5 Bolt-on front end

1. Bumper beam
2. Crush can
3. Longitudinal adaptor plate

MODIFICATIONS FOR BOLT-ON FRONT END

Design changes required to suit the introduction of the bolt-on front end include:

- A new tow eye aperture cover in the front face of the bumper cover, as a consequence of repositioning the tow eye. An advantage of this is there is no longer the need to remove the splitter vane, to fit the tow eye.
- New foams and bumper isolators on the bumper cover to suit the new bumper beam profile.



501.2474

Fig. 6 Bumper cover and components

1. Bumper cover
2. Bumper isolator
3. Bumper opening cover and splitter vane
4. Bumper foam insert
5. Bumper isolator
6. Tow eye cover
7. Bumper valance with rear flip

Underbody Modifications

- Lower front cross-member holes for bolt-on front end assembly.
- For bolt-on front end assembly: headlamp mounting panel; corner panel and front fender upper outer reinforcement apron.
- Dash panel holes for the diesel supplementary heater, floor mounted throttle and diesel fuel fired heater.
- Rear floor fixings for trunk carpet.
- Rear tow eye (smaller reinforcement only to reduce weight).
- Spare wheel well stud changes.
- Bolt-on floor reinforcements.
- Longitudinal reinforcement panels: hole added for fixings for bolt-on floor reinforcements.
- Additional 'S' brace reinforcement fixings for bolt-on wheel catcher.
- Down-gauged battery tray and new fuse box mounting on battery tray.

OTHER MODIFICATIONS

- The front bumper opening cover and splitter vane is reduced from four pieces to a one-piece moulding.
- The bumper washer bottle is changed from having a screen wash only and a combined power and screen wash derivative to one common bottle.
- New fog lamp and fog lamp bracket. The new and old style lamp and bracket are not interchangeable due to a new style connector and harness.
- Introduction of front bumper parking aid ultrasonic sensors (not NAS specification).

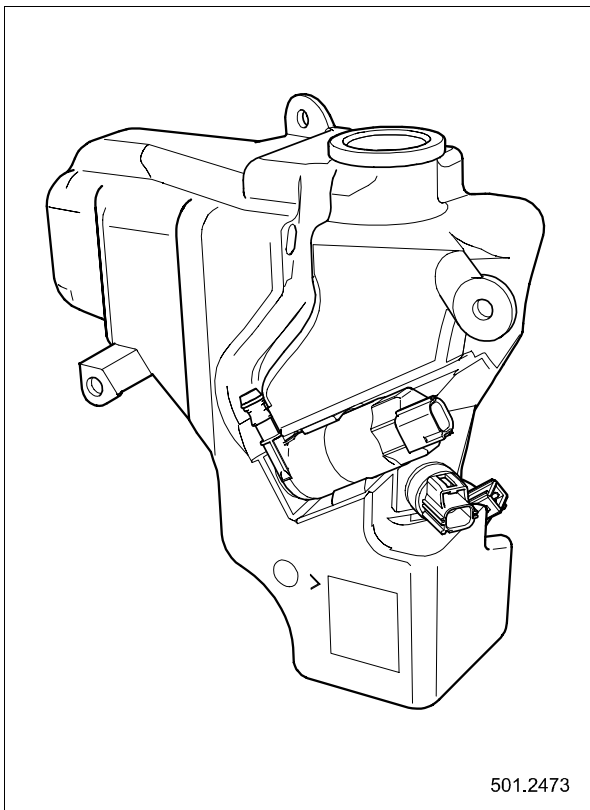


Fig. 7 Screenwash bottle

Trunk Finisher

Whereas the trunk release button was formally on the outer face of the new trunk finisher, the new position is on the underside.

The new release button has a grained profile but no longer bears the Jaguar logo. The number plate lamps and lenses are new and are not interchangeable with pre-2003 model year vehicles. The switch is new but is interchangeable with current car.

Bulb access is gained by unclipping the lens. Note the lenses are left and right-handed.

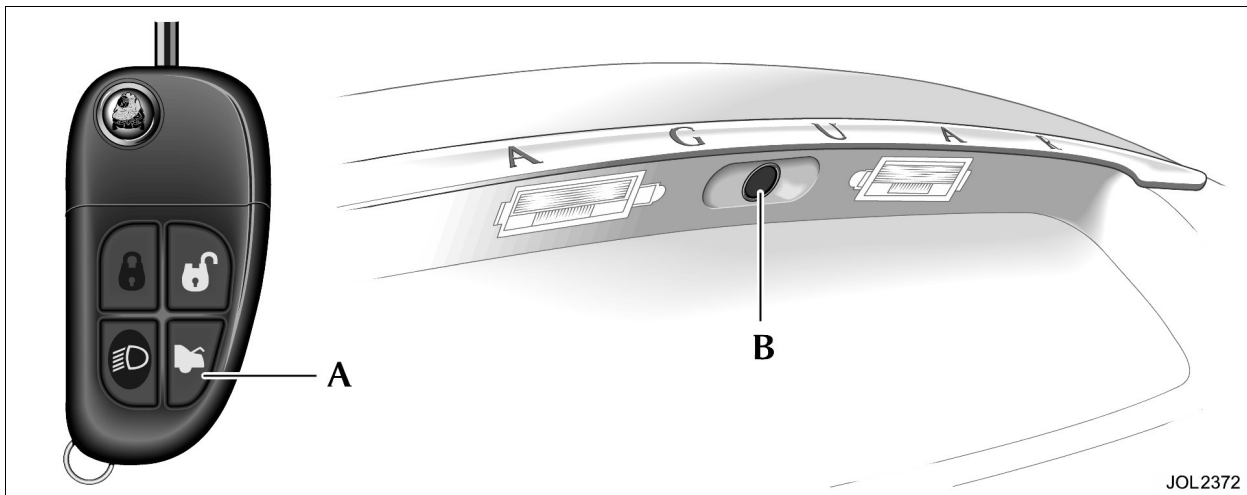
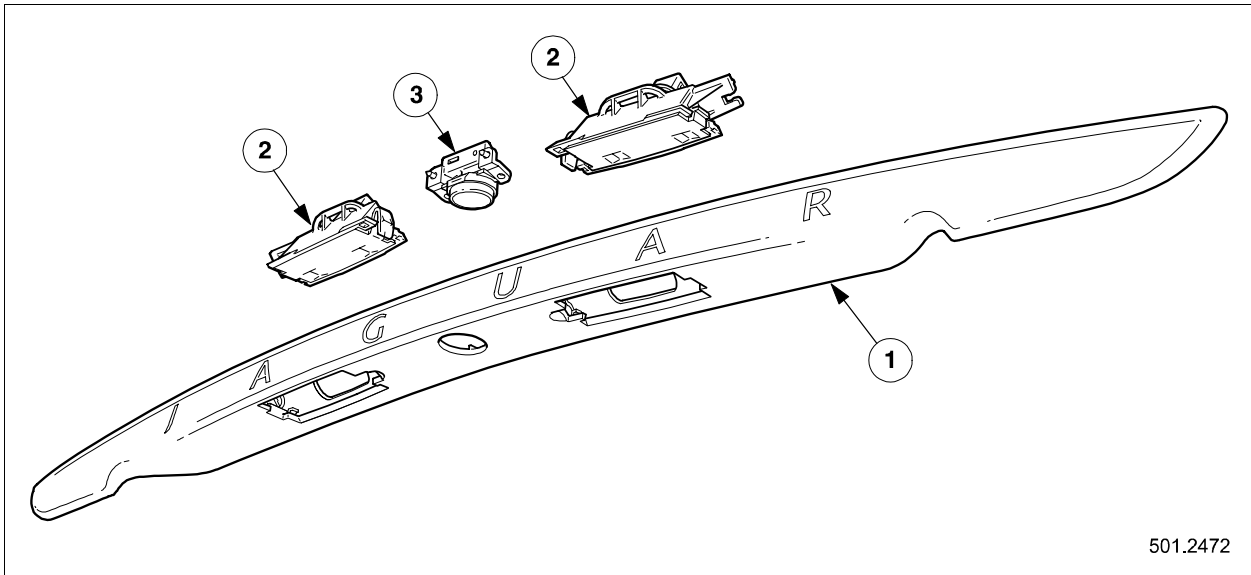


Fig. 8

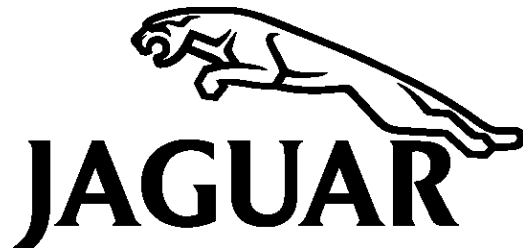
- A. Luggage compartment button on the key transmitter
- B. Release button on the compartment lid.



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Fig. 9 New trunk finisher, release button and number plate lamp

1. Trunk finisher
2. Number plate lamps
3. Trunk release button



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OVERVIEW OF CHANGES

Electrical System Changes

- The battery junction box which interfaces to the wiring harness via eight connectors instead of being hard-wired.
- Printed circuit Board relays as on 2004MY XJ Series
- Addition of Audio system amplifier to the D2B Network
- Memory system for the drive seat and mirror
- Driver side knee bolster
- Optional front parking aid.
- Center console stowage compartment with 12 volt outlet
- Minor modifications to the instrument cluster.
- Refinements to the Entertainment System
- AM/FM/single CD radio with 6 speakers (including 2 tweeters in front door handle finishers) 120 watts
- 320 watt Premium Sound w/ 6-disc CD changer (in trunk)

ELECTRICAL DISTRIBUTION

Junction Boxes

The electrical harness incorporates two serviceable power distribution fuse boxes:

- The Power Distribution Fuse Box located in the engine compartment
- The Passenger Junction Fuse Box located in the left-hand 'A' Post

All fuses and relays (except the trailer towing accessory kit and two Diesel vehicle relays) are located in the two fuse boxes.

The junction boxes are new and different but located in similar positions to those installed for the introduction of X-TYPE.

Battery Junction Box

- The battery junction box (BJB) interfaces to the wiring harness via eight connectors instead of being hard-wired.

NOTE:

A ninth connector (item 2) is only used for diesel derivatives (not for NAS vehicles).

- The mega-fuse and midi-fuses can be accessed after removal of the cover fitted underneath the junction box.
- Spare fuses and the fuse-puller are located in the body rather than the lid.
- Some relays are the pcb-mounted type; refer to **X-Type 2004 Model Year Electrical Guide** for detailed information.

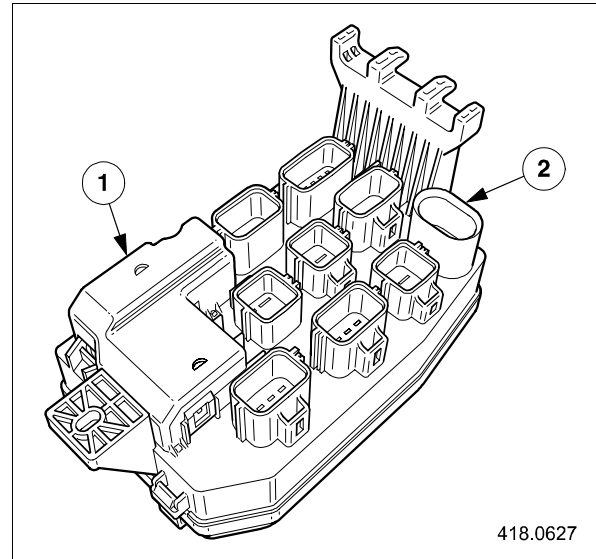


Fig. 10 Battery junction box

1. Mega-fuse cover
2. Diesel only connector (Not for NAS vehicles)

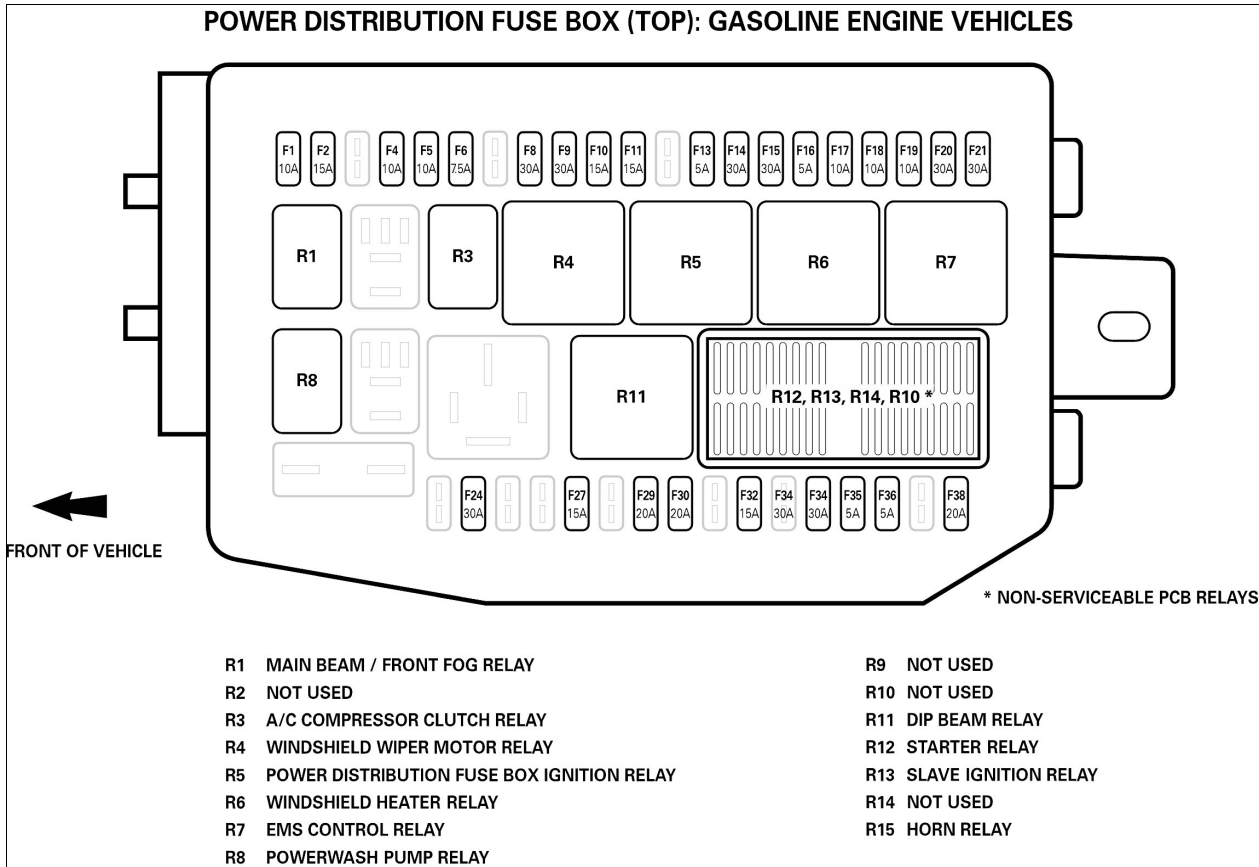


Fig. 11

Central Junction Box

The central junction boxCJB contains some pcb-mounted type relays; refer to **X-Type 2004 Model Year Electrical Guide** for detailed information.

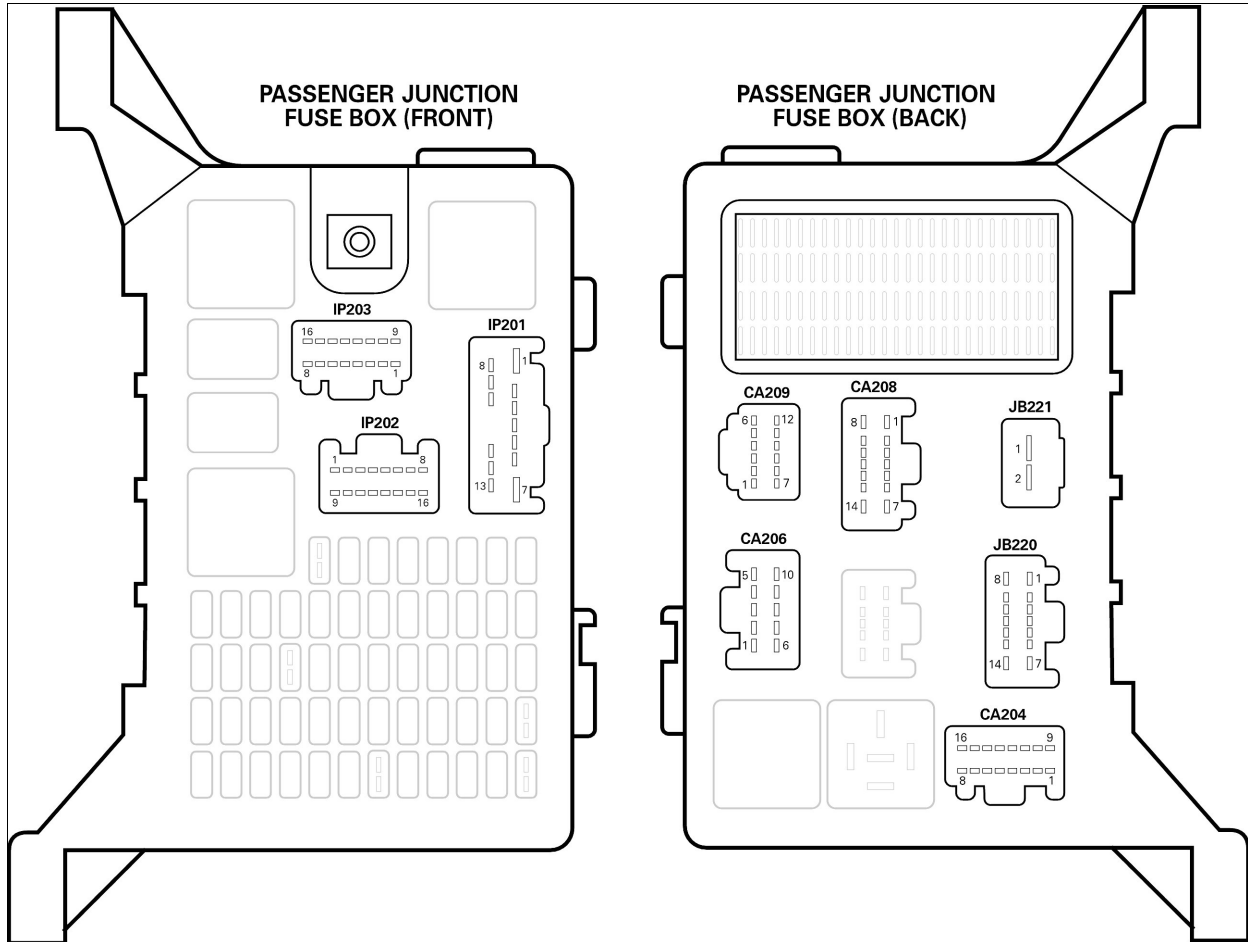


Fig. 12

Printed Circuit relays (PCB)

Non-serviceable relays are located in both fuse boxes. They are a component part of the fuse box printed circuit board (PCB) and are arranged in singles or pairs.

The relays use the ISO pin numbering system – 1, 2, 3, 4, 5 (single relay or top pair relay) and 6, 7, 8, 9, 10 (bottom pair relay). Each relay is identified by an “R” number unique only to the fuse box in which it is located.

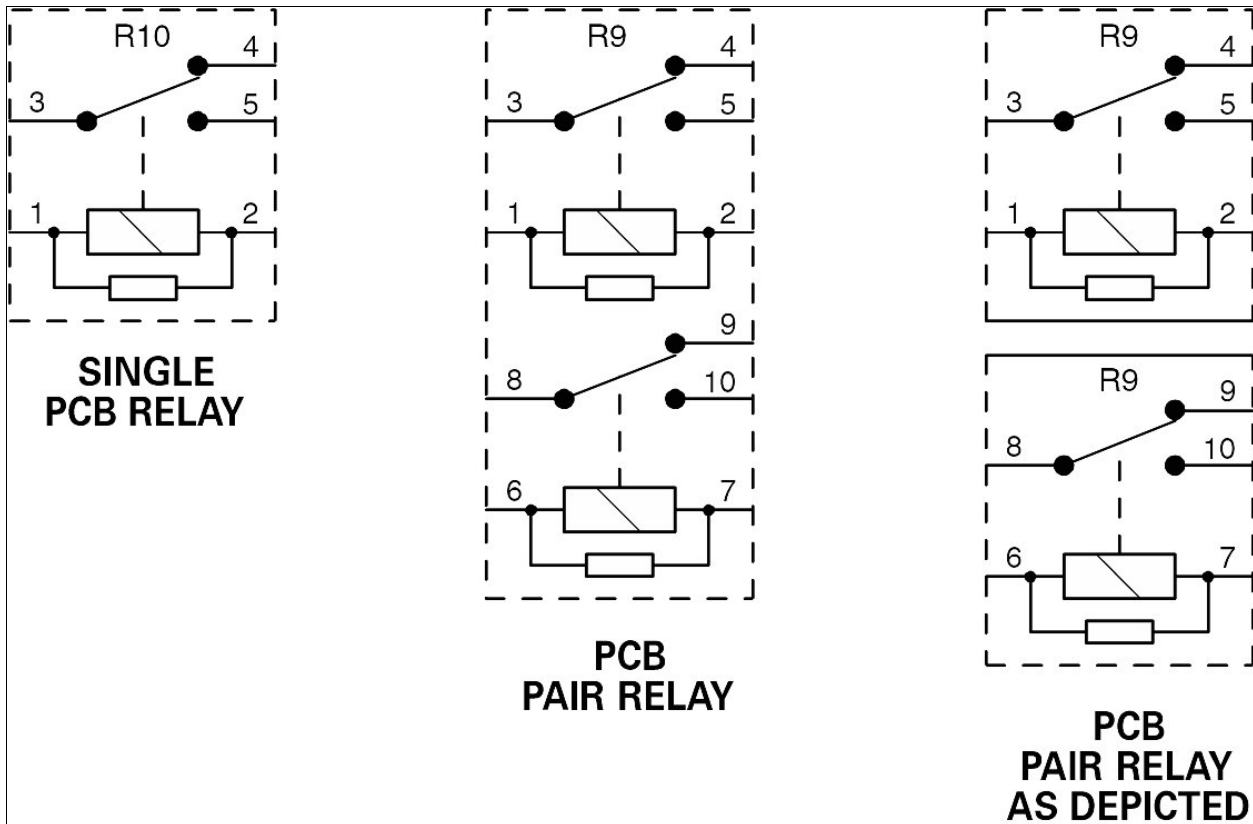


Fig. 13

MODULES

There are very few changes to the vehicle module architecture on the 2004MY X-TYPE.

There are two new module additions to the vehicle. The first addition is the Driver seat module which controls the memory seat, mirrors and also serves as the control device for the heated seats.

The memory module is part of the CAN network.

The second module is the power amplifier which is part of the D2B fiber optic network. This new feature follows the same D2B network architecture as the 2003MY S-TYPE and 2004MY XJ Series.

NOTE:

The following Control Module Location illustration shows a Speed Control Module, Vehicle Information Control Module and Vacuum Module which are only fitted to the non-NAS 2.0 Liter X-TYPE and not the 2.5 & 3.0 Liter models sold in this market.

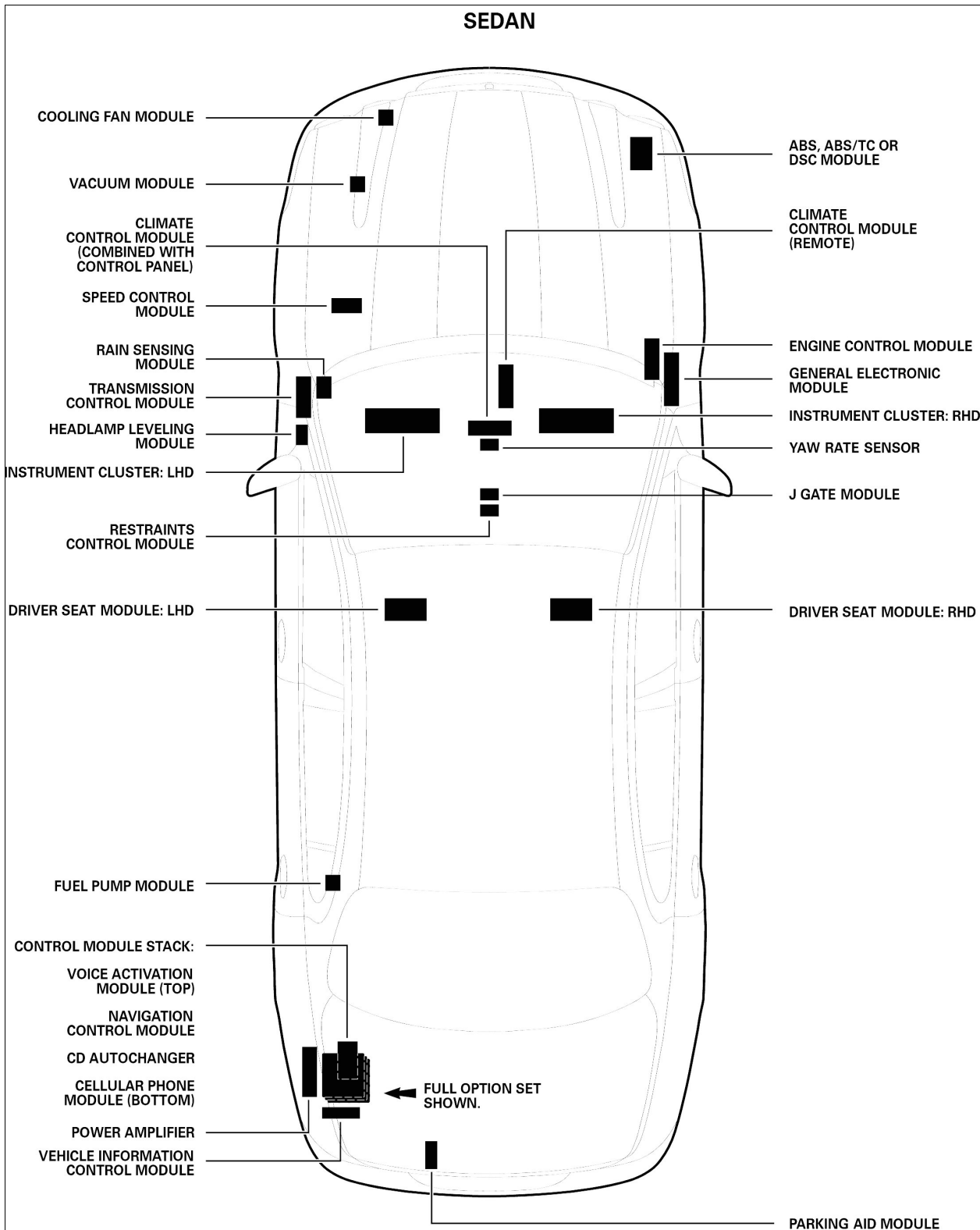


Fig. 14 X-TYPE Vehicle module location

Multimedia Modules

The rear stack-bracket is a new design intended to accommodate the following multimedia modules (where applicable):

- CD changer.
- Cellular phone control module.
- Voice activation module.
- Navigation control module.

NOTE:

The inclination sensor is also mounted to the bracket. Inclination sensor is only available as dealer fit option.

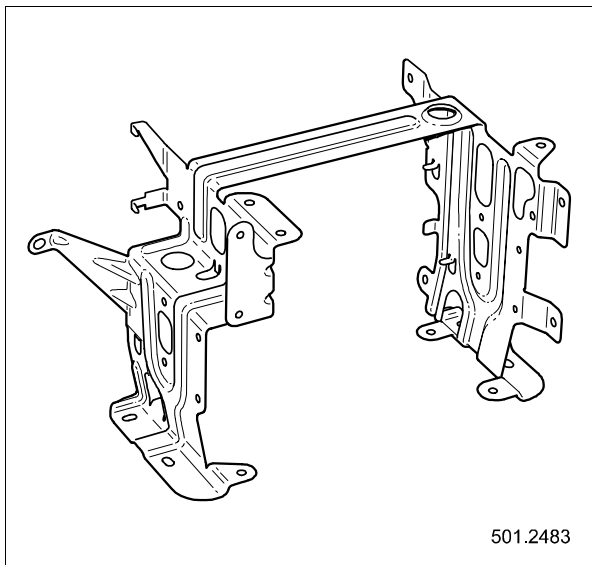


Fig. 15 Stack-bracket

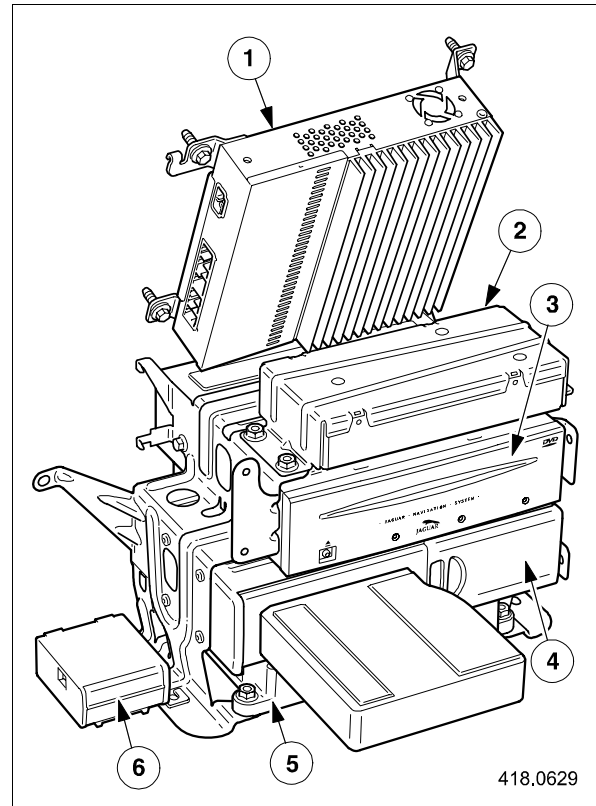
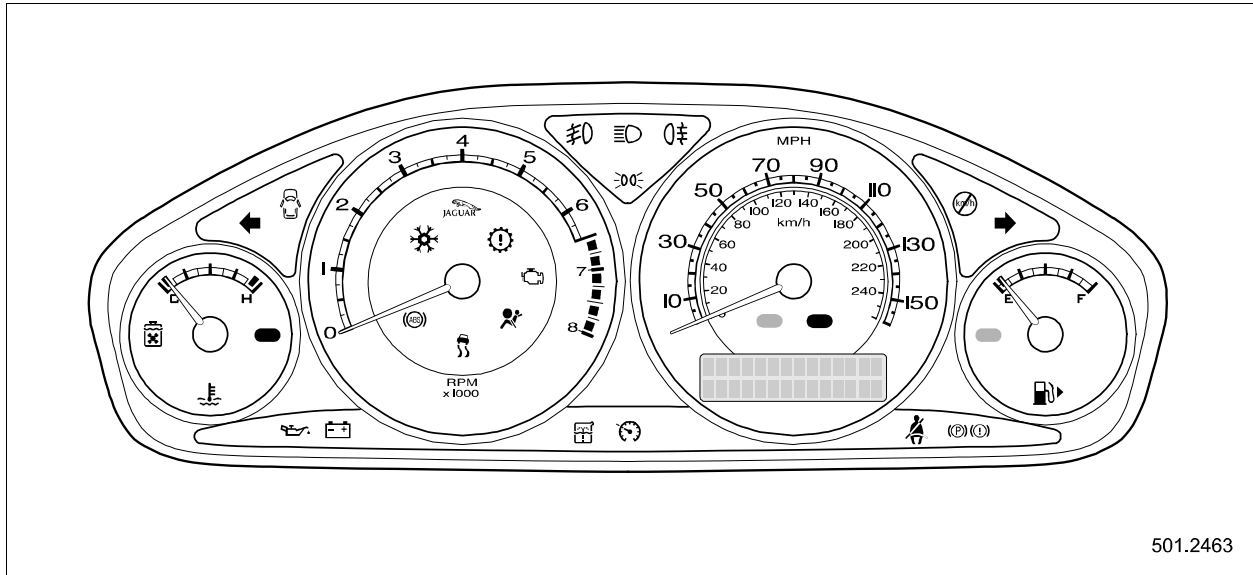


Fig. 16 Module location

1. Remote amplifier
2. Voice activation module
3. Navigation control module
4. CD changer
5. Cellular phone control module
6. Inclination sensor

INSTRUMENTATION AND WARNING SYSTEMS

Instrument Cluster



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Fig. 17 Instrument Cluster (AWD variants)

The instrument cluster has undergone some minor revisions:

- A new "all black" appliqué has been introduced
- New text messages support memory seats (where applicable).
- "Low Outside Temperature" warning light instead of the message on previous X-TYPE models
- "Powertrain Malfunction Indicator" light in addition to the check engine light on vehicles with no message center
- "Low washer fluid" warning light on vehicles with no message center

A dedicated warning lamp (snowflake symbol) has been introduced, which replaces the text message to indicate "low ambient temperature". The lamp illuminates to indicate that temperatures have fallen low enough for frost or ice to form on road surfaces. The lamp will remain illuminated until the ambient temperature rises to a safer level.

Memory Seats supported with new instrument cluster text messages.

NOTE:

There are no additional service or repair considerations.

Powertrain Malfunction (Red)

Illuminates when there is an engine malfunction or transmission system malfunction.

NOTE:

If a message centre is fitted the light will not illuminate but instead a message will be displayed.

The warning indicates the following activities:

- That there is an engine system malfunction (non-MIL/OBD II)
- That there is an automatic transmission system malfunction.



Fig. 18 Powertrain Malfunction (Red)

Low Outside Temperature (Amber)

Illuminates when frost or ice is likely to form on road surfaces. The light will continue to be illuminated until the outside temperature rises to a safer level.

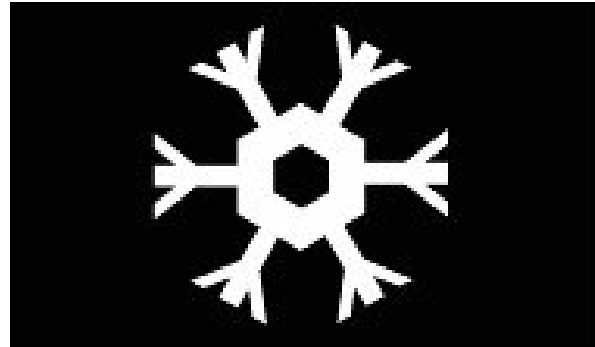


Fig. 19 Low Outside Temperature (Amber)

When the temperature is equal to or less than 39 degrees F (4 degrees C), the yellow light will illuminate. When the temperature rises to 42 degrees F (6 degrees C) or higher, the yellow light turns off.

The low warning temp. light can be turned off using WDS if the customer wishes not to have this feature.

Low Washer Fluid Level (Amber)

Illuminates when the washer fluid level is low. If a message centre is fitted the light will not illuminate but instead a message will be displayed.



Fig. 20 Low Washer Fluid Level (Amber)

Instrument Cluster Test Mode

Engineering Test Mode (ETM) is entered by holding down the stalk mode button whilst turning the ignition on. During this mode The trip and ODO display internal data that can be cycled through by pressing the stalk mode button.

ETM can be exited by holding the stalk mode for longer than 3 seconds or cycling the ignition. All gauges and lamps will operate normally during this test mode.

Function and display is the same for both high and low series.

STEERING WHEEL & SWITCHES

A new type of steering wheel will be introduced later this year on the X-TYPE.

It has a Hybrid armature made up from magnesium hub and upper spokes and steel rim and lower spokes, which has a hexagonal hole that attaches to the steering column.

The steering wheel is fixed using an M10x20 torx drive bolt.



Fig. 24 2004MY X-TYPE dash featuring new style steering wheel

The X-TYPE sees the first introduction of the new cross carline switches. They are mounted on to the upper two spokes on the wheel assembly.

The ICE switch pack consists of two buttons for mode selection and mute/phone and two rotary thumb wheels (which have a 30 degree angle of rotation) used for the volume and seek functions.



Fig. 25 New style steering wheel switches

The cruise control switch pack consists of two buttons for resume and cancel features (on/off has been dropped) and a rotary thumb wheel used for speed increase and decrease.

To service the switch gear, the driver's airbag and steering wheel must be removed. Once this is done, the steering wheel back cover can be removed by unscrewing the four retaining screws. Once this has been removed, the switches can be displaced by removing the single mounting screw from the rear of the wheel.

The switch gear harness includes the horn harness which once the switch fixing is removed can be disconnected from the horn assembly.

VEHICLE LIGHTING

Number plate lights

The number plate lamps are of a new design and are non-interchangeable with current vehicle, i.e., 2002–2003MY X-TYPE.

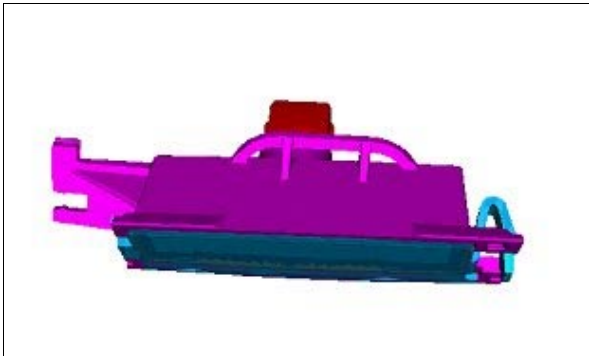


Fig. 26 2004MY Number plate light assembly

RESTRAINTS SYSTEM

The restraints system has been extensively modified to meet the new Federal Legislation for restraints system.

The following are the items that are new, modified or redesigned:

- New driver airbag
- Inflatable Knee Bolster (airbag) on the driver's side
- Dash modifications for Inflatable Knee Bolster
- New front seatbelt retractor pretensioners
- New passenger seatbelt tension sensor
- New passenger seatbelt tension sensor
- New passenger seat weight sensor
- Revised Restraints Control software
- Revised front seat foams
- New sunvisor label to meet revised text requirements
- New passenger air bag deactivation light symbol

Inflatable Knee Bolster (IKB)

The 2004MY X-TYPE Inflatable knee bolster (IKB) is one of several modifications necessary to meet the new Federal standard #208.

The Inflatable Knee Bolster is fitted to all AWD vehicles (2.5 and 3.0L), all markets and body styles. It replaces current driver side lower panel.

NOTE:

The IKB technology will be introduced at a later time during the 2004MY. It will not be available on early 2004MY X-TYPE models.

The IKB has a single stage inflation: One airbag connection to be made.

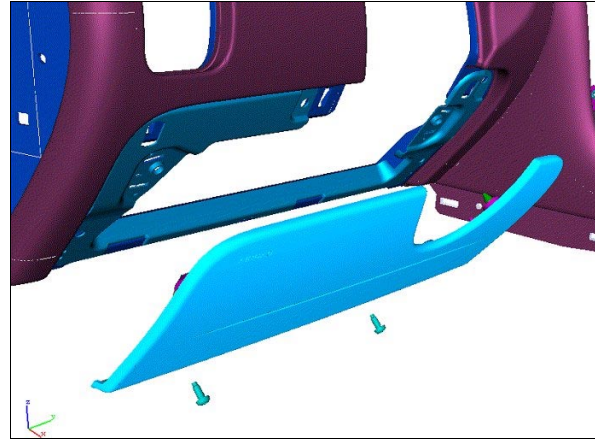


Fig. 27 IKB assembly

Deployment logic

The logic for IKB deployment is simultaneous with "stage 1" of the driver airbag, for occupants seated rearward of seat track position sensor. When the occupant is seated further forward, IKB would not be a benefit and so is deactivated.

Service

There are 8 variants of IKB: LHD and RHD versions, each in four colors. Ivory (NED), Champagne (SEL), Stone (LJE), Warm Charcoal (LEG).

Removal of IKB should only be necessary to service the module itself. Service of most column and instrument panel hardware can be accomplished with IKB still in place.

Seat belt reel pre-tensioners

NOTE:

The seat belt pre—tensioner technology will be introduced during the 2004/2005 model year. It will not be available on early 2004MY X-TYPE models.

To meet the new advanced restraints federal legislation, the 2004MY X-TYPE is fitted with seat belt reel pre-tensioners. The reel pre-tensioners are used in addition to the seat belt buckle pre-tensioners.

The operation of the reel pre-tensioner is the same as the buckle pre-tensioner, that is, using electrically triggered pyrotechnics that tighten the seatbelt a prescribed amount upon sensing a crash event.

In the event of a frontal impact, the reel pre-tensioners deploy first, followed by the buckle pre-tensioners 4ms later.

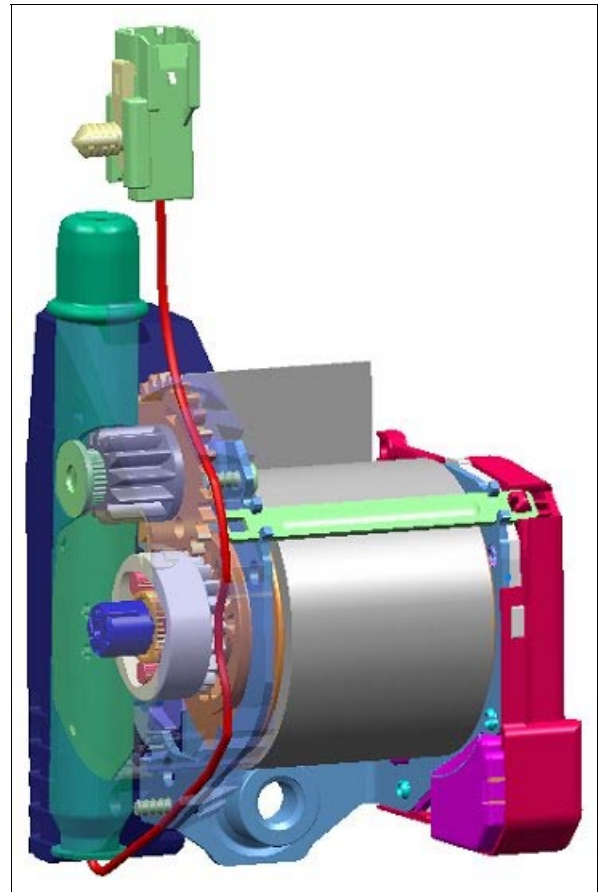


Fig. 28 Reel Pre-Tensioner

Passenger Belt Tension Sensor

The belt tension sensor is a strain-gauge type encapsulated within the passenger safety belt anchor.

The sensor converts the force applied to the belt into an electrical signal. In the event that a child-seat is installed onto the front passenger seat (not recommended), the force applied to the passenger safety belt is reflected by the output signal from the sensor, which provides data to supplement that received from the silicon bladder. The passenger seat weight-sensing module processes the input data and makes it available to the restraints control module which then makes the necessary adjustments in respect of passenger air bag deployment.

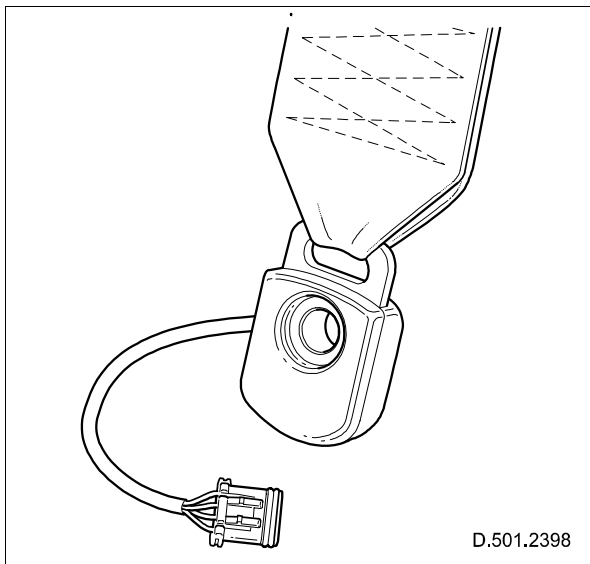


Fig. 29 Belt tension sensor

IN-CAR ENTERTAINMENT

System updates

Minor refinements have been made to the Entertainment System including the introduction of a remote power amplifier and new speaker arrangements. In addition, the CD-changer is mounted to a new stack-bracket.

Premium Sound System Features

- Addition of Sub-woofer.
- Digital signal processing (DSP), which facilitates optimization of sound for specific seating positions.
- Dedicated equalization tuned for the car.
- Auto-loudness changes with latest audio unit software.

Remote Amplifier

The remote amplifier (where installed) is:

- located in the luggage compartment to the left-hand side above the stack-bracket;
- capable of delivering 8 x 40W output;
- part of the D2B network.

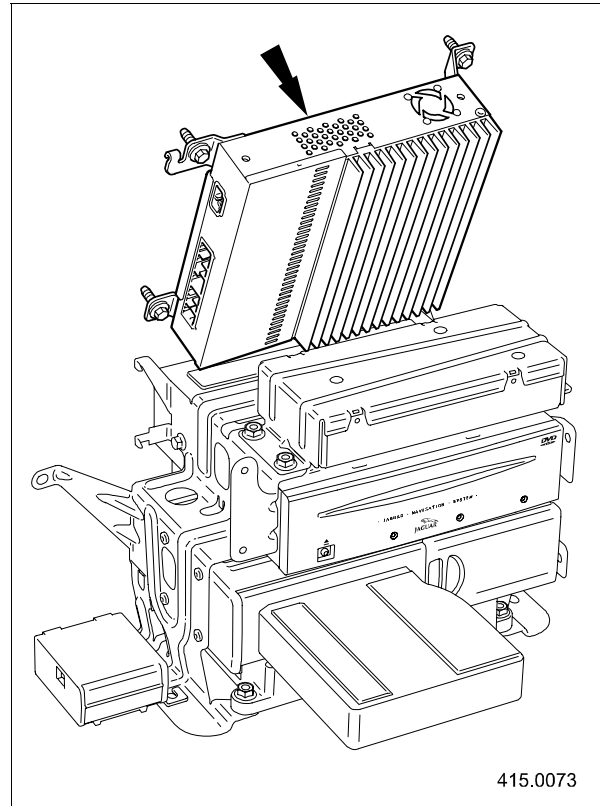


Fig. 30 Remote amplifier

Speakers

The standard audio sound speaker system comprises:

- Two lightweight mid-bass door speakers (front).
- Two door-mounted tweeters (front).
- Two full-range speakers (rear)

The premium audio sound system speaker system comprises:

- Four lightweight mid-bass door speakers.
- Four door-mounted tweeters.
- Two sub-woofers.

NOTE:

The sub-woofers are no longer installed within an enclosure.

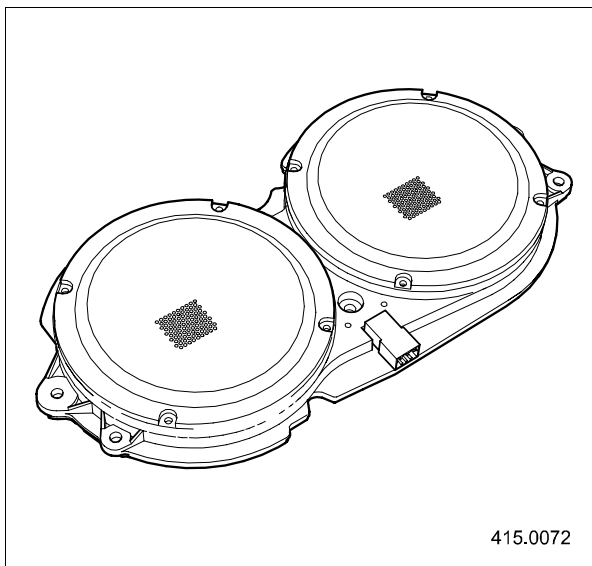
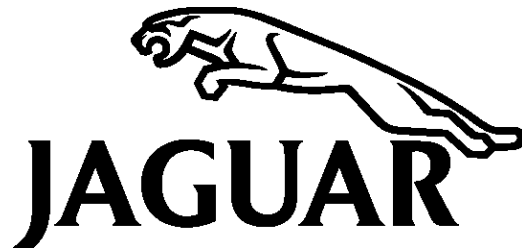


Fig. 31 Sub-woofers



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OVERVIEW OF POWERTRAIN CHANGES

Powertrain System changes

- The redesign of the fuel system to meet USA Federal LEV 2 emissions requirements:
 - New fuel tank.
 - New carbon canister.
 - Deletion of the fuel rail 'schraeder' valve.
 - New filler pipe assembly and cap.
 - A new driveshaft with sliding spline and sealed CV joints.
 - Deletion of the transfer case viscous coupling
 - Dynamic Stability Control w/ Emergency Brake Assist

FUEL TANK AND LINES

Introduction

The vehicle has a new fuel system designed to meet USA Federal LEV 2 emissions requirements. Parts affected are:

- Under floor fuel lines.
- Fuel tank assembly.
- Fuel filler pipe.
- Carbon canister.
- Fuel filler cap.

Service Port

In order to further reduce emissions, the fuel rail 'schraeder' valve is deleted. Should a service port be needed, a new service special tool will be available to fit between the fuel rail and the fuel feed line connection.



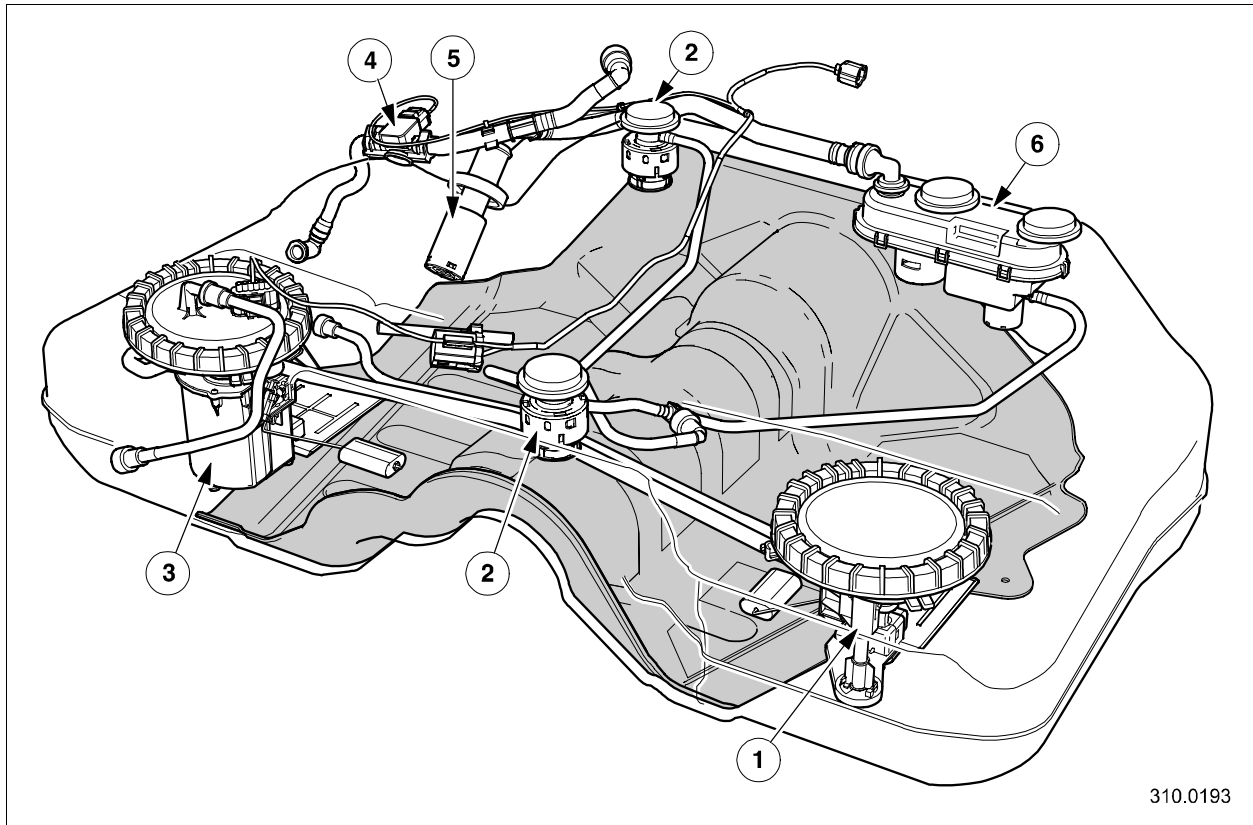
Fig. 32 Fuel pressure check tool

To fit this connector into place it will be necessary to depressurize the system first by removing the pump fuse and starting the engine until the engine stops running.

Fuel Tank

Differences from the previous tank:

- Fuel delivery shut-off valve and roll-over valves are mounted internally.
- Change to the fuel delivery module and Jet pump module.
- The fuel delivery module and jet pump module internal cross-over lines have had their connections reversed.
- The pressure transducer is replaced by one from another supplier. It was mounted on the tank but is now mounted in the vapor line.
- The inlet check valve is changed.



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Fig. 33 Fuel tank

1. Sender and fuel transfer module
2. Roll-over valve
3. Sender and pump assembly
4. Pressure transducer
5. Inlet check valve
6. Fuel delivery shut-off valve

Fuel Filler Pipe and Cap

There is a new filler pipe assembly where:

- The material is changed to stainless steel.
- Hose material is changed.
- The plastic insert is deleted at the nozzle end of the pipe.
- The steel part of the filler pipe cup has a new tread and curl design of thread form.

- A plastic sleeve is fitted to the outside of the filler pipe to fill the gap in the filler bowl housing.

Changes to the cap comprise:

- A new main seal.
- Revised relief valve springs for increased relief pressure.

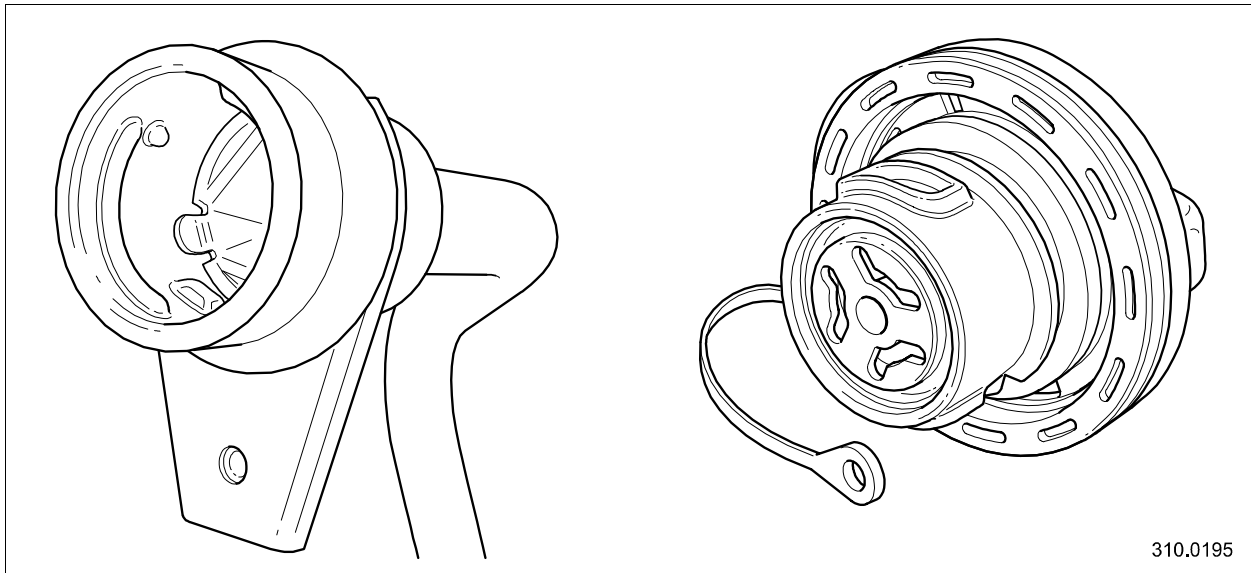


Fig. 34 Fuel filler pipe and cap

Carbon Canister

A new design of carbon canister is fitted:

- A bleed can is added to reduce bleed emissions. The bleed can is basically an additional carbon canister used to catch bleed/break away hydrocarbons that occur in hot climate conditions. It

is not serviceable and is supplied as part of the carbon can assembly.

- An extra fixing is added to secure the canister assembly.
- A reverse connection of the port to the fuel tank is made to improve access to the vapor hose.

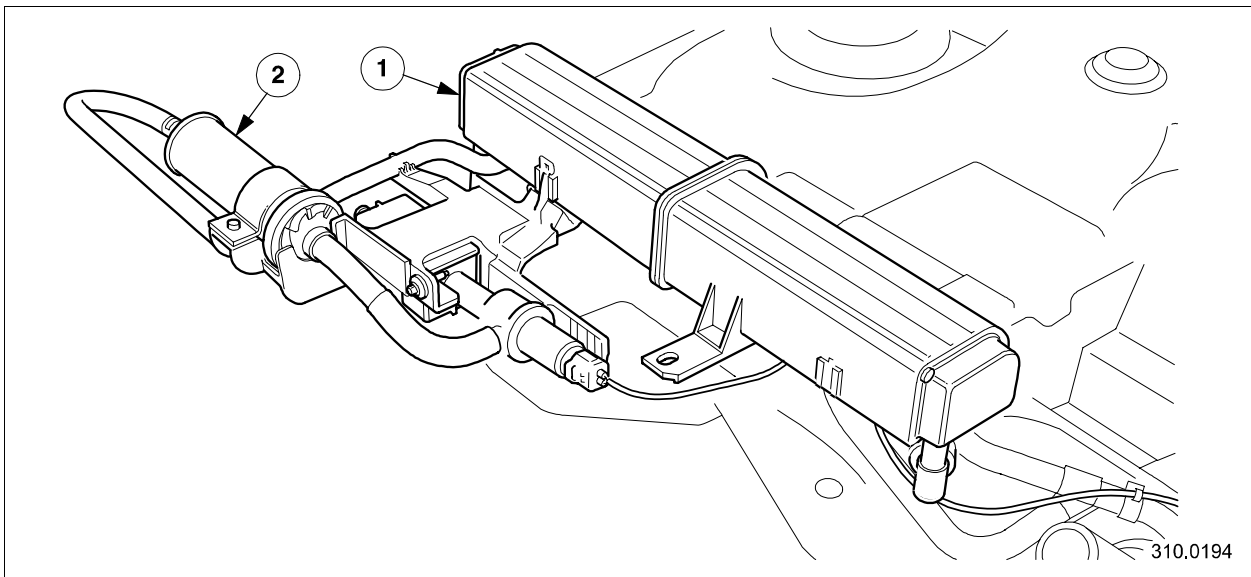


Fig. 35 Carbon canister

1. Carbon canister
2. Bleed can

THROTTLE PEDAL/ THROTTLE POSITION SENSOR

Throttle Pedal assembly

A new type of throttle pedal assembly and throttle position sensor has been introduced. It supplements the Knee Bolster Safety System.

This type of assembly, offers a more refined Pedal Feel over current Pendulum Pedal (increased pedal surface area for actuation).

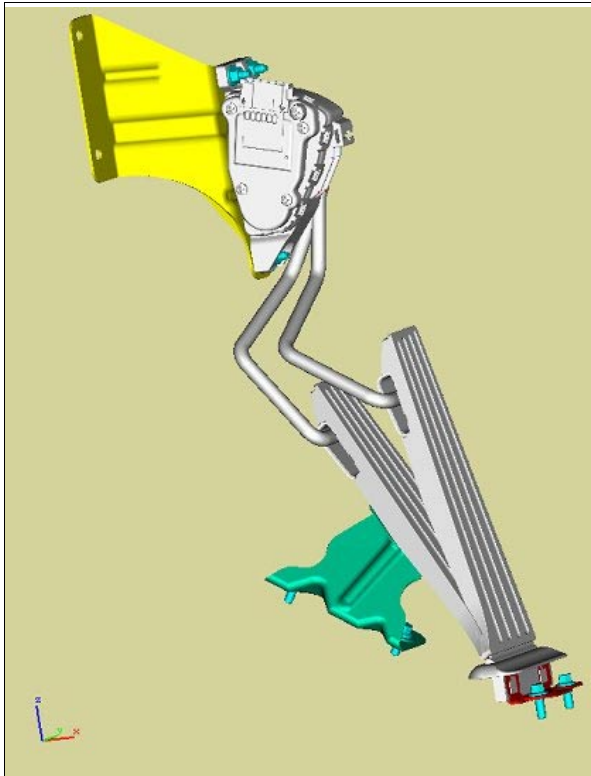


Fig. 36 Throttle pedal assembly

Throttle Sensor/Pad assembly

The sensor bracket is mounted to a combination of the brake pedal assembly. (LHD Only) and direct to the bulkhead.

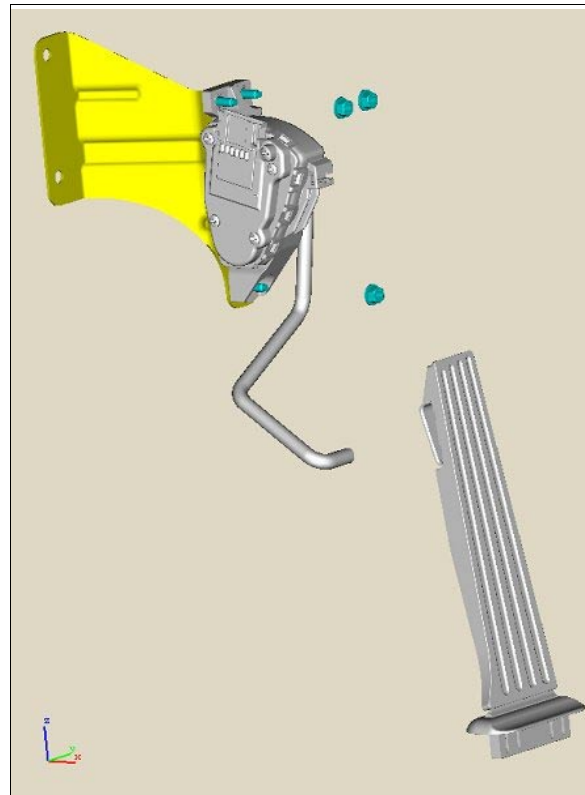


Fig. 37

Fixings for the throttle sensor are mounted on the sensor bracket. The throttle sensor is mounted to the bracket with 3x M6 nuts.

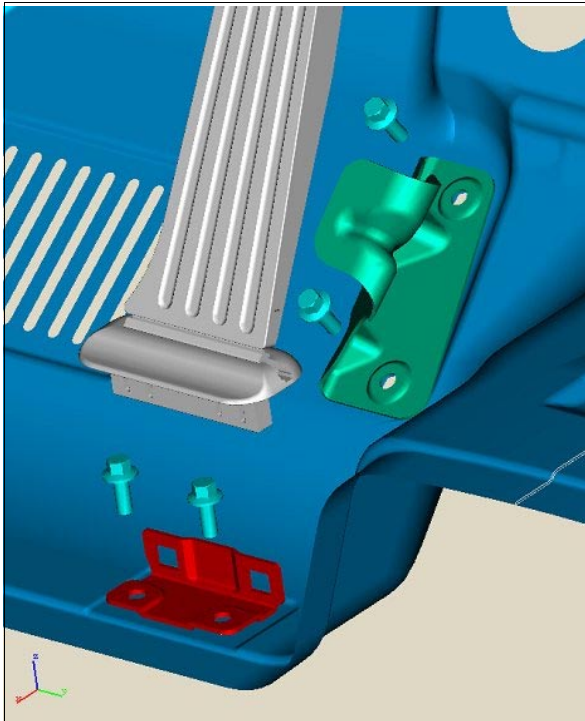


Fig. 38 Pad Assembly - Service

Once Pad is located onto sensor arm it can be dropped over the floor bracket and locked via two mechanical clips housed in the pad socket.



Fig. 39 Pad assembly mechanical clip

The organ-type pad assembly can be disassembled by inserting 2 x 2 mm diameter prongs into 2 holes located on the front socket fascia (not shown in illustration). Prongs will release clips engaged with floor bracket.

DRIVELINE

Driveshaft

The principal change to the AWD driveshaft is a new sliding spline, which provides a crash collapsible feature. The second notable change is to the center bearing. This driveshaft is a backward compatible fitment to earlier vehicles.

Front Tube Sliding Spline

The forward section of the front tube has a sliding formed steel spline, which locates within an aluminum splined sleeve muff (box coupling) on the front tube rear section. This replaces the current "swaged" tube design.

Sealed CV Joints

The previous driveshaft had open CV joints. The new driveshaft has sealed joints at both ends (steel can shaped fabrication). The steel can has two roles:

- To compress the sealing gasket between the CV joint and the steel can.
- To retain grease in the CV joint.

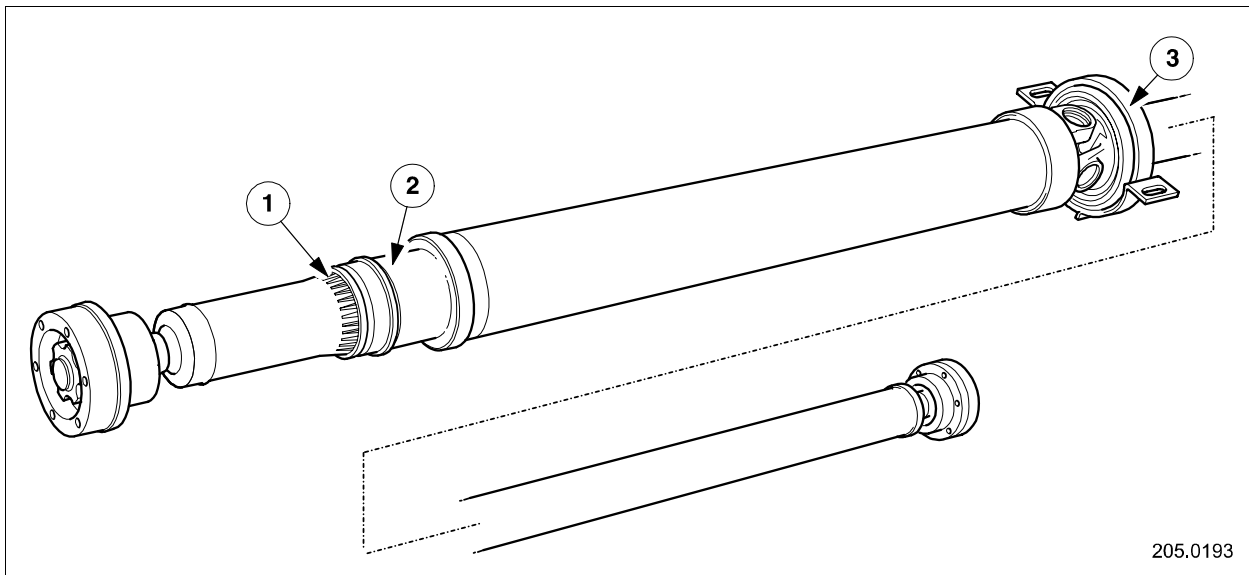


Fig. 40 Driveshaft

1. Sliding spline
2. Aluminum splined sleeve muff
3. Center bearing

TRANSMISSION

Transmission Control Module

A new 32-BIT TCM has been introduced on the X-TYPE Jatco 5-speed automatic transmission. The reason for the new processor is due to more available processing power and memory to instigate new shift strategies.

The two TCM modules are different in regards to the TCM case and connector. In addition, the new TCM is not backwards compatible.



Fig. 41 16-Bit TCM (current module)



Fig. 42 32-bit TCM (new module)

NOTE:

The 32-BIT TCM will be introduced as a running change on the 2004MY. It will not be fitted to early 2004MY X-TYPE models.

Torque Converter

A new redesigned torque converter has been introduced with lower stall speeds which improves drivability when the driver tips on the accelerator pedal.

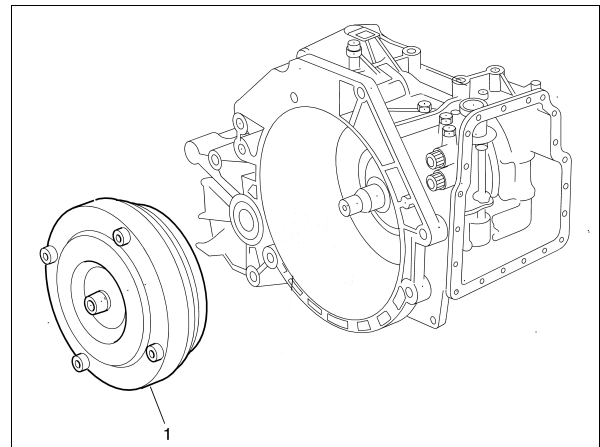
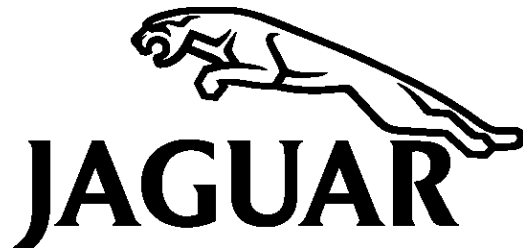


Fig. 43
1. Torque Converter

Transfer Case

The only change to the AWD system is the deletion of the Viscous coupling. Any difference in traction between the front and rear wheels is now handled by the DSC system.



TRAINING PROGRAM

2004 MODEL YEAR X-TYPE TECHNICAL UPDATE GUIDE



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GENERAL INFORMATION

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POWERTRAIN

CHASSIS

PUBLICATION CODE – NPX4

OVERVIEW OF CHASSIS CHANGES

Chassis changes

- Introduction of Emergency Brake Assist (also known as Panic Brake Assist) as part of the ABS/TC/DSC System.
- Introduction of new wheel packages

DSC Switch

Due to the introduction of a revised middle console, the DSC switch has been relocated.

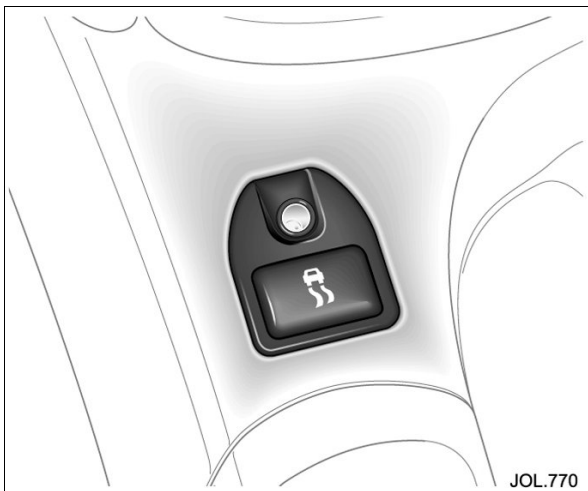


Fig. 44 DSC Switch

Emergency Brake Assist

In addition to ABS, TC and DSC, the X-TYPE is now available with the Bosch Emergency Brake Assist system.

The system is slightly different from the one used on the 2003MY S-TYPE and 2004MY XJ series vehicles due to the fact that it uses the ABS recirculating pump to generate the additional pressure instead of having an active booster to generate pedal pressure.

The hydraulic unit/control module is the same unit as previous, i.e. Bosch 5.7 but re-calibrated, and hence different part numbers. The system uses the same DSC pressure switch mounted in the HU as before, but using the new additional software.

The system monitors the rate of pressure increase at the switch and the system takes over when the required criteria has been met. The EBA system is desensitized below approximately 20 m.p.h. and drops out approximately 9 m.p.h.