

# General Information - General Service Information

Description and Operation

## Repairs and Replacements

When service parts are required, it is essential that only genuine Jaguar/Daimler replacements are used.

Attention is drawn to the following points concerning repairs and the fitting of replacement parts and accessories:

- Safety features embodied in the vehicle may be impaired if other than genuine parts are fitted. In certain territories, legislation prohibits the fitting of parts which are not produced to the vehicle manufacturer's specification.
- Torque wrench setting figures given in this manual must be strictly adhered to. Locking devices, where specified, must be fitted. If the efficiency of a locking device is impaired during removal it must be renewed.
- Owners purchasing accessories while travelling abroad should make sure that the accessory and its fitted location on the vehicle conform to mandatory requirements existing in their country of origin.
- The vehicle warranty may be invalidated by the fitting of other than genuine Jaguar/Daimler parts. All Jaguar/Daimler replacements have the full backing of the factory warranty.
- Jaguar/Daimler dealers are obliged to supply only genuine service parts.

## Vehicle Specifications

Purchasers are advised that the specification details set out in this manual apply to a range of vehicles and not to any specific one. For the specification of a particular vehicle, purchasers should consult their dealer.

The Manufacturer reserves the right to vary the specifications, with or without notice, and at such times and in such manner as the Manufacturer thinks fit. Major as well as minor changes may be involved, in accordance with the Manufacturer's policy of continuous improvement.

Whilst every effort is made to make sure the accuracy of the particulars contained in this manual, neither the Manufacturer nor the Dealer, by whom the manual is supplied, shall in any circumstances be held liable for any inaccuracy or the consequences thereof.

## Service Repair Operation Numbering

A master index of numbered operations has been compiled for universal application to all vehicles manufactured by Jaguar Cars Ltd.

Each operation is allocated a number from the master index and cross-refers with an identical number in the Repair Operation Times schedule. The number consists of six digits arranged in three pairs.

Each maintenance procedure in this manual is described in the sequence necessary to complete the operation in the minimum time, as specified in the Repair Operation Times schedule.

## References to Bank-1 and Bank-2


References to Bank-1 and Bank-2 are made with regard to the engine. When viewed from the flywheel the right-hand bank will be Bank-1 and the left-hand bank will be Bank-2.

## Special Tools

Any special tools and equipment required to perform a maintenance procedure, are shown at the beginning of each procedure. When possible, illustrations are given to assist in identifying the tool needed.

## Disconnecting/Connecting the Battery

Always stop the engine before disconnecting the battery negative lead and make sure the battery positive lead is isolated i.e. wrapped in a suitable cloth.

 **WARNING:** Radio code saving devices must not be used when conducting work on Air Bag or Fuel systems. It must be noted that, when using these devices, the vehicle electrical system is still live albeit with a reduced current flow.

• **NOTE:** Before disconnecting the battery make sure that the radio receiver/cassette player/mini disc player and compact disc player keycodes are known and, that no data is required from the engine control module (ECM) as battery disconnection will erase any fault codes and idle/drive values held in the Keep Alive Memory (KAM). It is not necessary to disconnect or remove electronic control modules.

Always disconnect the battery before commencing repair operations which require:

- The vehicle to be jacked up
- Work on the engine
- Work underneath the vehicle
- Arc welding

Alternatively a Radio Code Saver may be used. With the battery disconnected, a Radio Code Saver will allow sufficient current to pass to maintain the radio receiver/cassette player/mini disc player and compact disc player memory, operate the clock and supply the door operated interior lights while isolating the battery in the event of a short circuit.

## Reconnecting the Battery

 **WARNING:** If the battery has been on bench charge the cells may be giving off explosive hydrogen gas. Avoid creating sparks, and if in doubt cover the vent plugs or covers with a damp cloth.

Always make sure that all electrical systems are switched OFF before reconnecting the battery to avoid causing sparks or damage to sensitive electrical equipment.

Always reconnect the battery positive lead first and the negative last, ensuring that there is a good electrical contact and the battery terminals are secure.

Restart the clock (where fitted) and set it to the correct time.

- VIN Position 8**
- NOTE: \*1 EU. Includes the following markets; Austria, Belgium, Cyprus, Czech Rep, Denmark, Estonia, Finland, France, Germany, Greece, Netherlands, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Rep. of Ireland, Slovenia, Slovakia, Spain (including Canary Islands), Sweden, Bulgaria, Romania and UK.
  - NOTE: \*2 East Europe. Includes the following markets; Croatia and Serbia.
  - NOTE: \*3 Russia. Includes the following markets; Belarus, Kazakhstan, Ukraine and Uzbekistan.
  - NOTE: \*4 Middle East. Includes the following markets; Abu Dhabi, Bahrain, Dubai, Jordan, Kuwait, Lebanon, Oman, Quatar, Saudi Arabia.

VIN Code	Engine	Market
F	2.5L	Argentina, Dominican Rep, Guatemala, *4 Middle East, Panama, Uruguay, Philippines and Taiwan
E	3.0L	
N	2.0L	
M	2.5L	*2 East Europe, Morocco, *3 Russia and Chile
L	3.0L	
S	2.0L	
M	2.5L	*1 EU, Israel, Norway, Switzerland, and Turkey
L	3.0L	
N/A	2.0L	
K	2.5L	Brazil
J	3.0L	
N/A	2.0L	
H	2.5L	Egypt, Syria and South Korea
G	3.0L	
P	2.0L	
M	2.5L	Japan
L	3.0L	
S	2.0L	
N/A	2.5L	USA
A	3.0L	
N/A	2.0L	
N/A	2.5L	Canada
A	3.0L	
N/A	2.0L	
N/A	2.5L	Mexico
L	3.0L	
N/A	2.0L	
F	2.5L	Indonesia, Malaysia, Singapore, Sri Lanka and Thailand
E	3.0L	
N	2.0L	
M	2.5L	Australia, Hong Kong and New Zealand
L	3.0L	
S	2.0L	
H	2.5L	South Africa (includes Trinidad and Tobago)
G	3.0L	
P	2.0L	
M	2.5L	Cyprus, Malta and UK (and Eire)
L	3.0L	
N/A	2.0L	
1	2.0L Diesel	Argentina, *2 East Europe, *1 EU, Morocco, Norway, Switzerland, Turkey, Uruguay and *3 Russia
1	2.2L Diesel	Argentina, *2 East Europe, *1 EU (except Belgium), Morocco, Norway, Switzerland, Turkey, Uruguay and *3 Russia
2	2.2L Diesel	Belgium (110 Kw engine only)
1	2.0L Diesel	Cyprus, Malaysia, Malta, UK (and Eire), South Africa (includes Trinidad and Tobago)
1	2.2L Diesel	Cyprus, Malaysia, Malta, UK (and Eire), South Africa (includes Tobago)
3	2.2L Diesel + cDPF	*1 EU, Norway, Switzerland, and Turkey

### Check Digit

VIN Position 9	
VIN Code	Description
0 - 9 or X	Calculated in accordance with American standard CFR part 565


### Model Year

VIN Position 10	
VIN Code	Description
6	2006 Model Year
7	2007 Model Year

### Assembly Plant and Model Line

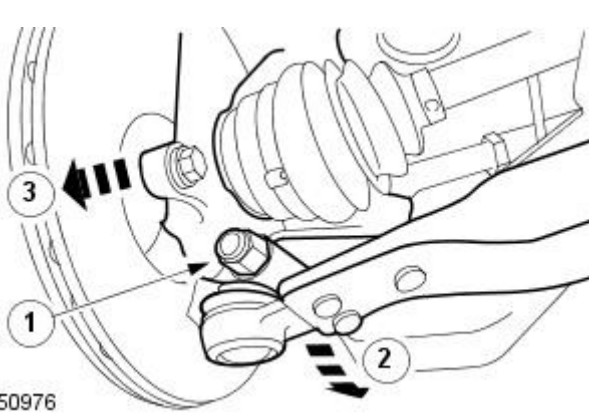
VIN Position 11	
VIN Code	Description
W	Halewood 3.0L
X	Halewood 2.5L
Y	Halewood 2.0L
6	Halewood 2.0L Diesel
B	Halewood 2.2L Diesel

### Production Sequence Number

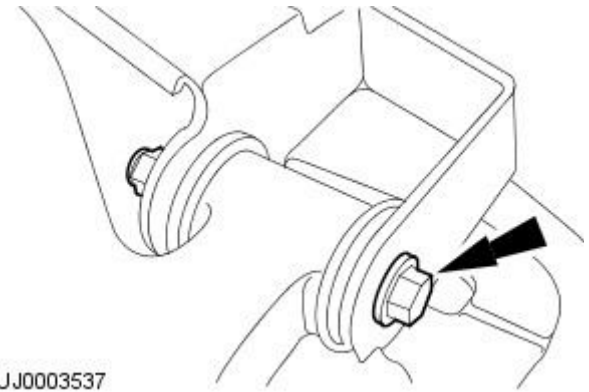
**15.**  **CAUTION:** To prevent damage to the lower arm bushing, make sure the subframe is lowered before detaching the lower arm ball joint. Failure to follow this instruction may result in damage to the vehicle.

Detach the lower arm from the wheel knuckle.

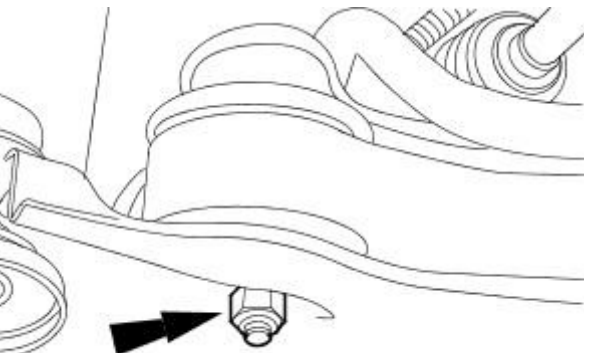
1. Remove the lower arm ball joint retaining nut and bolt.
2. Reposition the lower arm.
3. Reposition the wheel knuckle.



E50976

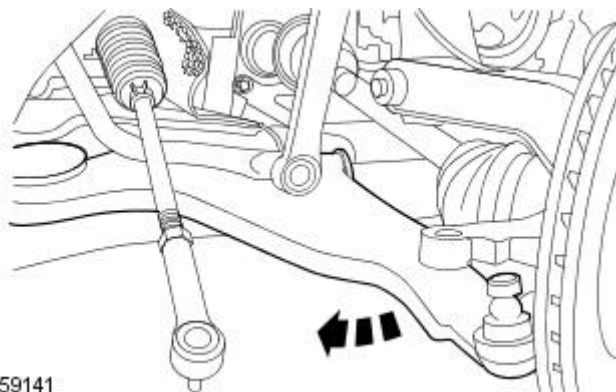


VUJ0003537



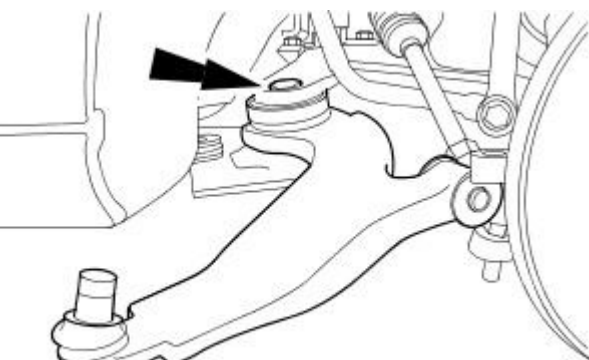
E50645

**17.** Remove and discard the lower arm retaining nut.



E59141

**18.** Reposition the lower arm.



E59142

**19.** Remove the lower arm.

- Remove and discard the lower arm rear retaining bolt.


# Rear Suspension - Spring

## Removal and Installation

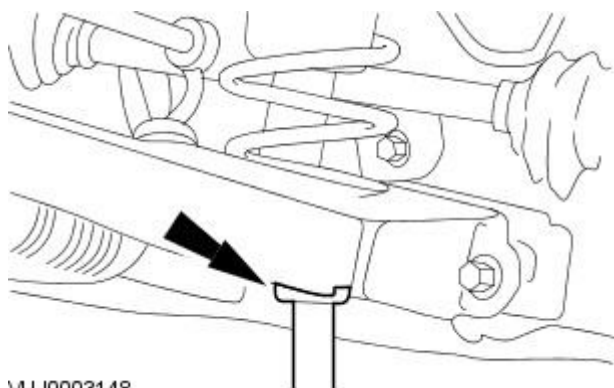
### Removal

1. Remove the rear wheel and tire.  
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

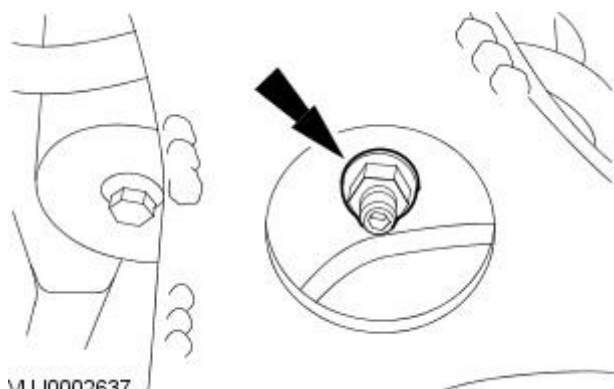
2. Using suitable tie straps, secure the spring to the subframe.

3.  **CAUTION:** Make sure that excessive strain is not placed on the rear lower arm.

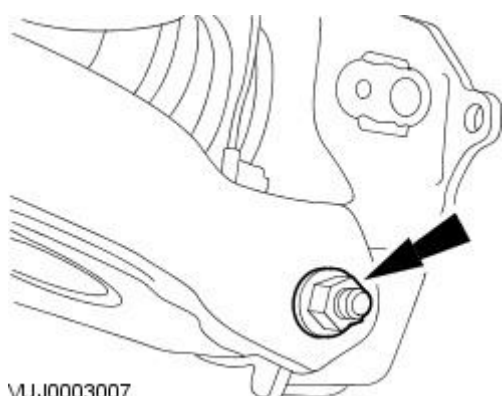
Using a suitable transmission jack, support the rear lower arm.



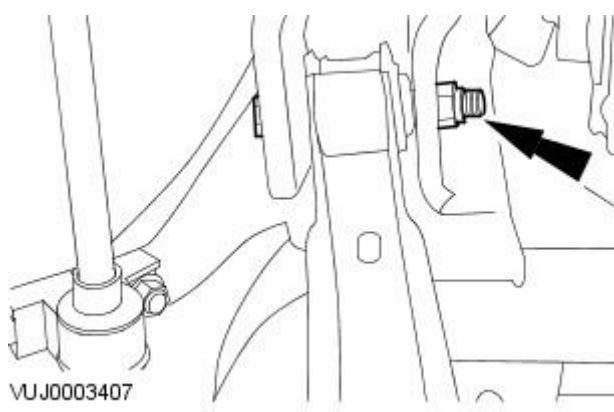
VUJ0003148



VUJ0002637



VUJ0003007



VUJ0003407

4. Detach the stabilizer bar link.

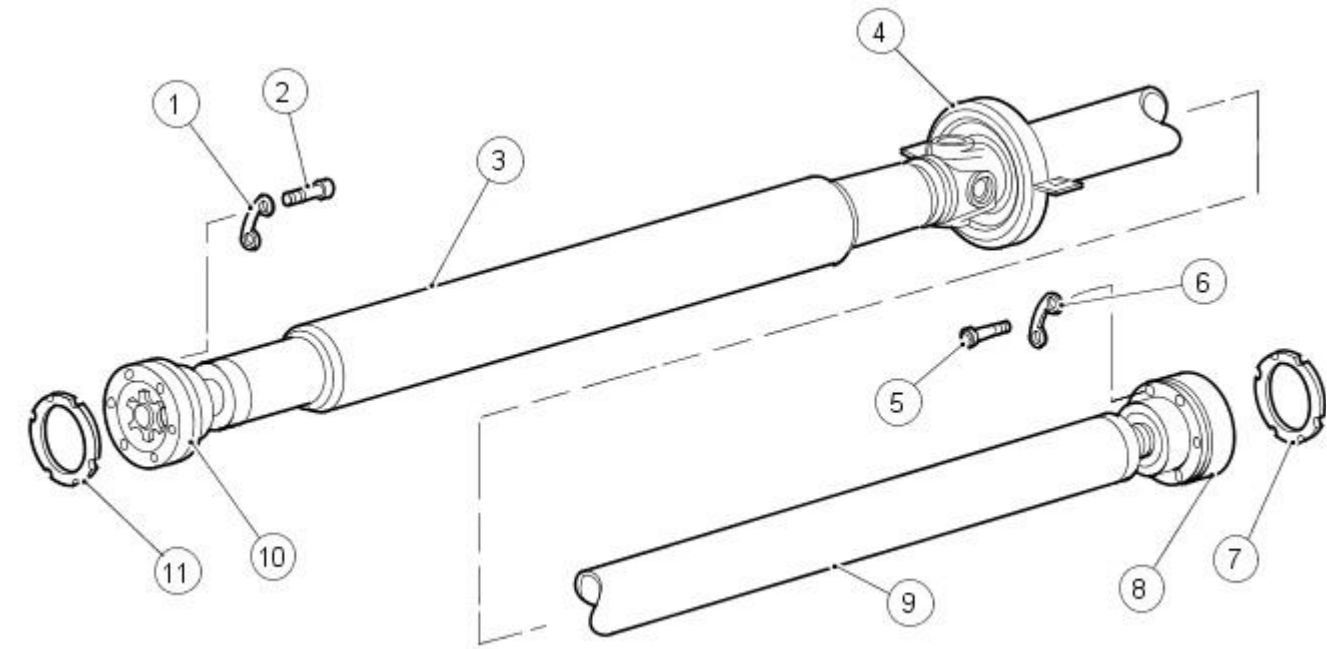
5. Detach the rear lower arm.

6.  **CAUTION:** Carefully lower the transmission jack.

Loosen the rear lower arm from the subframe.

# Driveshaft - Driveshaft


Description and Operation



VUJ0002769

Item	Part Number	Description
1	—	Link washer
2	—	Driveshaft universal joint retaining bolt
3	—	Driveshaft front collapsible tube
4	—	Driveshaft center bearing
5	—	Driveshaft universal joint retaining bolt
6	—	Link washer
7	—	Paper gasket
8	—	Driveshaft rear universal joint
9	—	Driveshaft rear tube
10	—	Driveshaft front universal joint
11	—	Paper gasket

 **WARNING:** Under no circumstances must a 2004.25 MY or earlier driveshaft assembly be fitted to a later vehicle. Failure to follow this instruction may result in personal injury.

 **CAUTION:** To preserve 'drive line' refinement, individual parts, other than fixings, **MUST NOT** be renewed. In the event of any balance or driveshaft component related concern, the complete assembly must be renewed. Under no circumstances may the universal joint be removed from the driveshaft (or its fixings be loosened). Do not drop or subject the driveshaft to damage.

• **NOTE:** 2004.25 MY driveshaft assemblies may be fitted to earlier model year vehicles. For modification details refer to [Driveshaft](#) in this section.

• **NOTE:** All driveshaft assemblies are balanced. If undercoating the vehicle, protect the driveshaft, universal joints and the drive half shafts to prevent over-spray of the undercoating material.

The driveshaft consists of the following:

- A two piece welded steel tube.
- A center bearing.
- Two universal joints.

## Universal Joint

The universal joints are:

- A lubed-for-life design and require no lubrication in service.

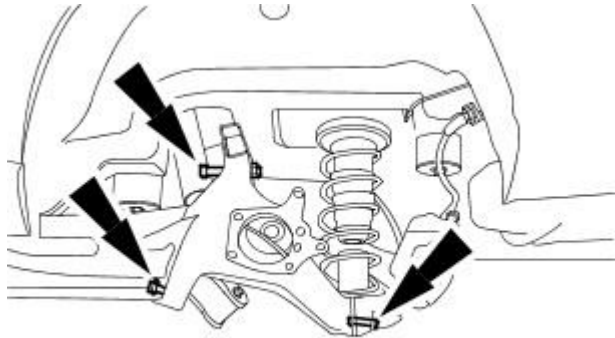


# Rear Drive Axle/Differential - Axle Assembly

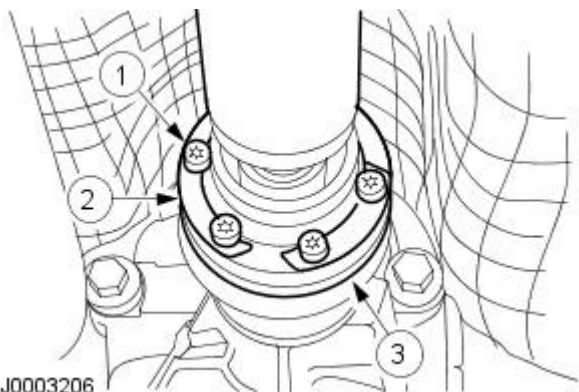
Removal and Installation

## Removal

1. Remove the left-hand rear halfshaft.  
For additional information, refer to: [Rear Halfshaft](#) (205-05 Rear Drive Halfshafts, Removal and Installation).
2. Loosely install the rear wheel knuckle retaining bolts.



VUJ0004053

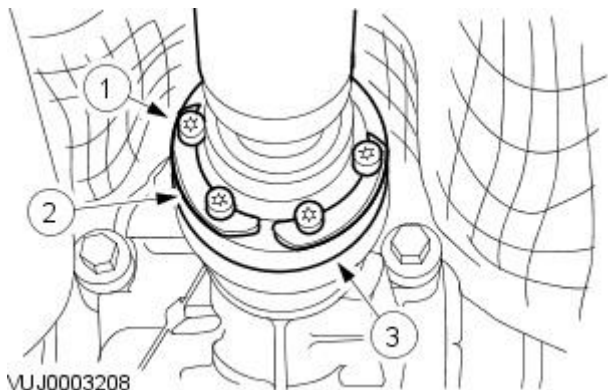


VUJ0003206

3.  **CAUTION:** Support the driveshaft front and rear sections. Failure to follow this instruction may result in damage to the vehicle.

Detach the driveshaft front universal joint.

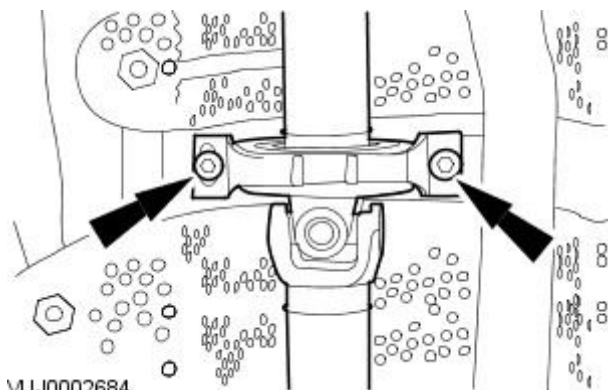
1. Remove and discard the driveshaft front universal joint retaining bolts.
2. Remove and discard the driveshaft retaining bolts link washers.
3. Detach the driveshaft front universal joint.
  1. Remove and discard the gasket.



VUJ0003208

4. Detach the driveshaft rear universal joint.

1. Remove and discard the driveshaft rear universal joint retaining bolts.
2. Remove and discard the driveshaft retaining bolts link washers.
3. Detach the driveshaft rear universal joint.
  1. Remove and discard the gasket.



VUJ0002684

5.  **CAUTION:** Support the driveshaft front and rear sections.

Remove the driveshaft.

- Discard the retaining bolts.

# Front Drive Halfshafts - Intermediate Shaft

## Removal and Installation

### Removal

All vehicles

1. Remove the right-hand halfshaft.  
For additional information, refer to [Halfshaft RH](#) in this section.

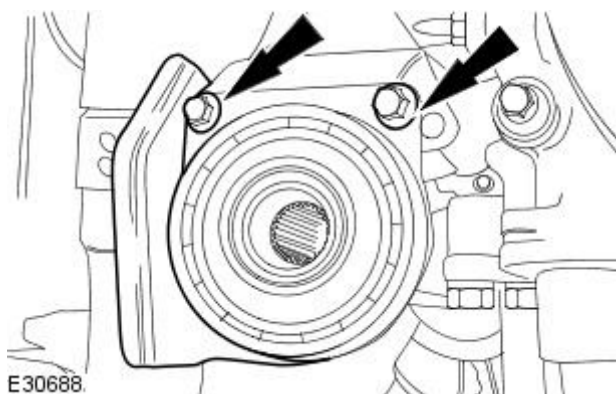
Vehicles with automatic transmission


2. Drain the automatic transmission fluid. For additional information, refer to Section [307-01A Automatic Transmission/Transaxle](#) / [307-01B Automatic Transmission/Transaxle](#).

Vehicles with manual transmission

3. Drain the manual transmission fluid.  
For additional information, refer to Section [308-03 Manual Transmission/Transaxle](#).

All vehicles

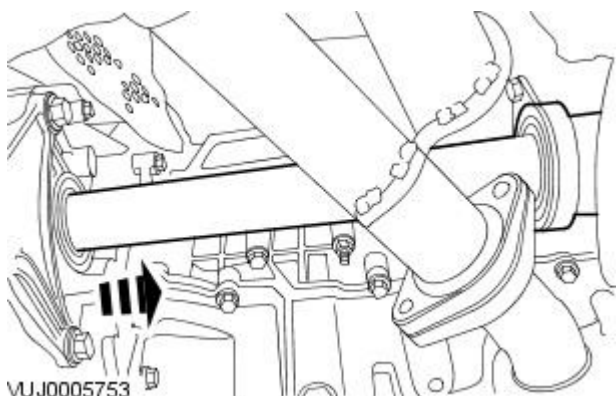


4.  **CAUTION:** Before removing the bearing carrier retaining bolts, identify their correct position. Failure to follow this procedure will result in damage to the vehicle.

Remove the intermediate shaft bearing carrier retaining bolts.

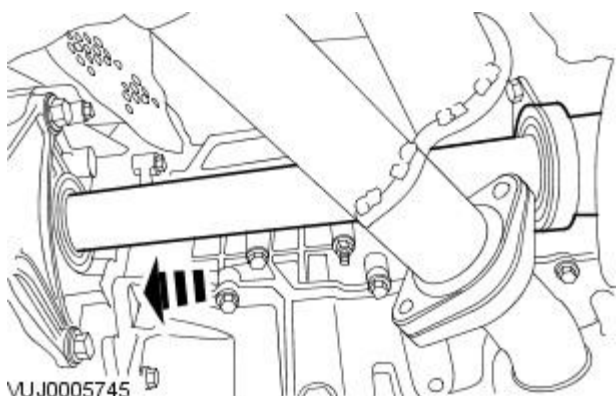
- Remove the branch pipe heat shield.


5. Remove the intermediate shaft.



### Installation

All vehicles

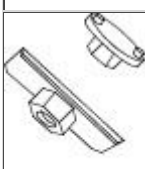
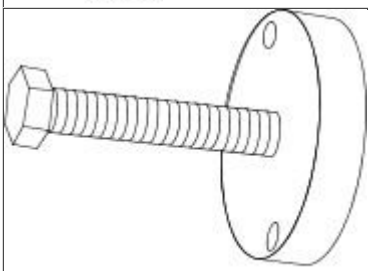


1.  **CAUTION:** Make sure the intermediate shaft splines are located fully. Do not use excessive force when engaging the intermediate shaft into the transmission.

Install the intermediate shaft.

# Rear Disc Brake - Brake Pads

## Removal and Installation

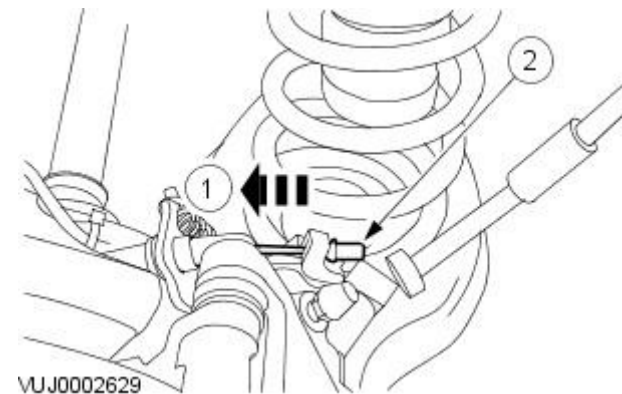
Special Tool(s)	
 206-08C	Brake caliper piston retractor tool 206-080
	 303-588

## Removal

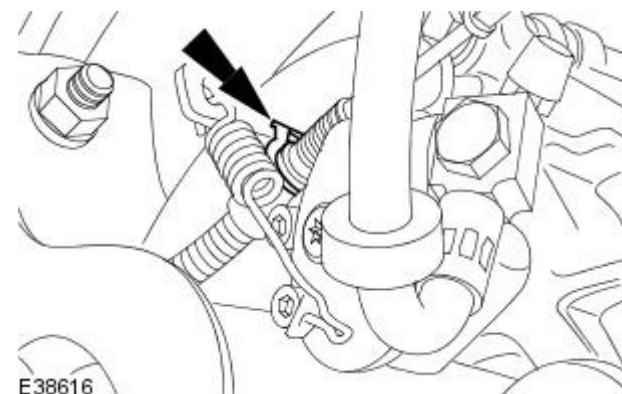
1. Remove the wheel and tire.  
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

2. Detach the parking brake cable.

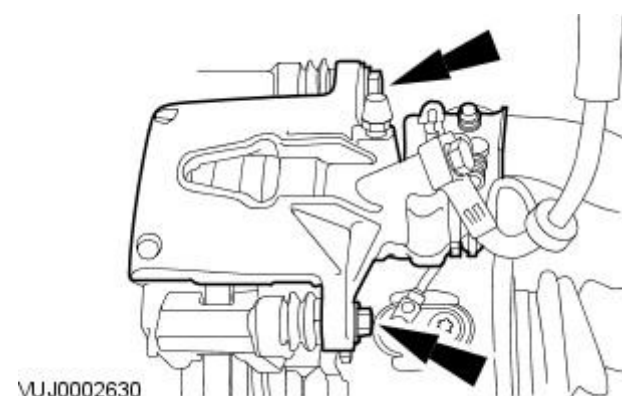
1. Release the tension.
2. Detach the parking brake cable.



3. Remove the parking brake cable retaining clip.



4. Detach the brake caliper and secure to one side.
  - Remove and discard the brake caliper retaining bolts.





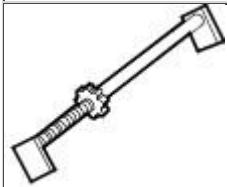
# Power Brake Actuation - Brake BoosterRHD AWD/RHD FWD

Removal and Installation

## Special Tool(s)

Brake pedal hold down tool

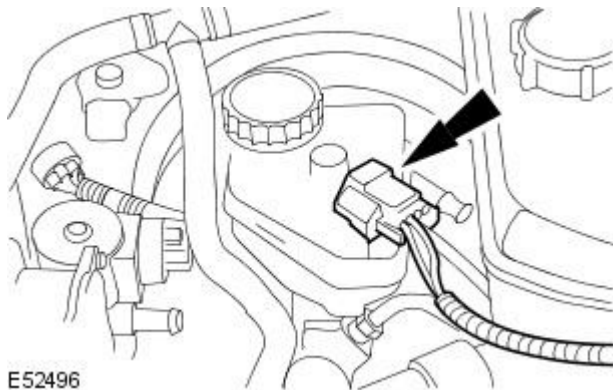
JDS 9013



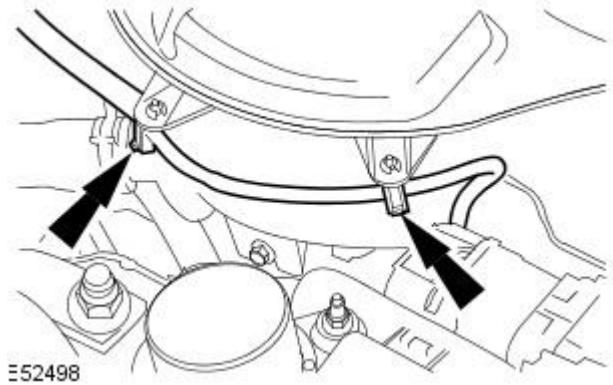
## Removal

All vehicles

1. Disconnect the brake fluid low level warning indicator electrical connector.

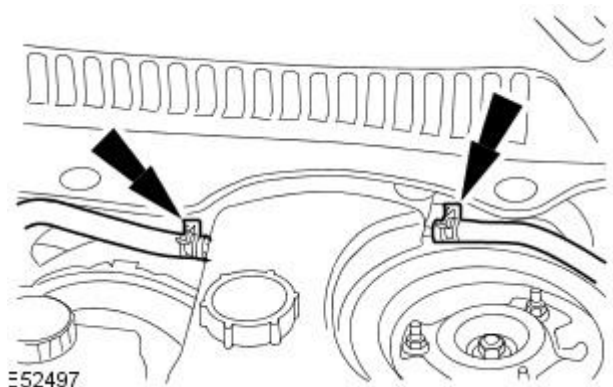


2. Detach the brake fluid low level warning indicator wiring harness from the coolant expansion tank.



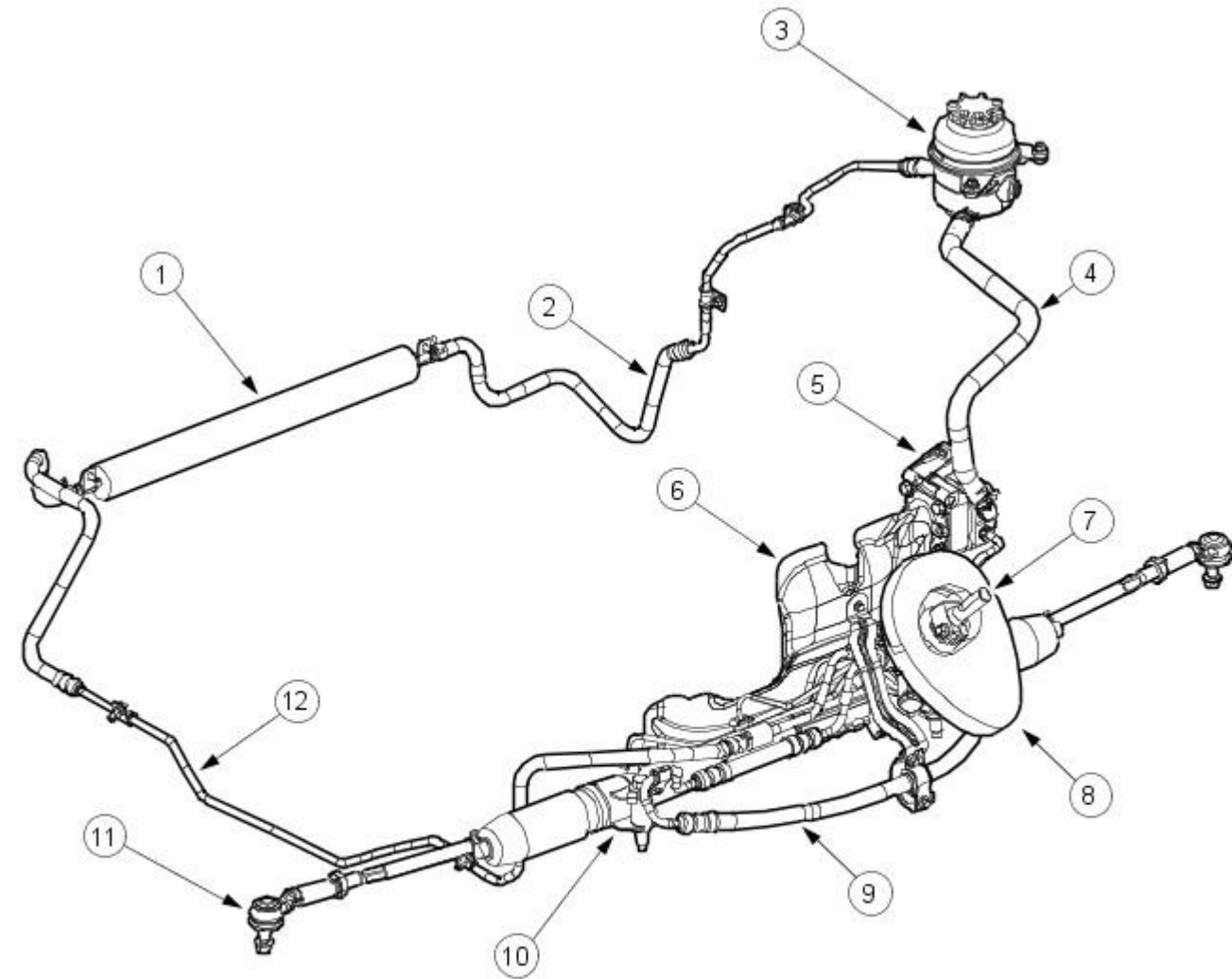
3. **NOTE:** Install blanking plugs to the cooling system vent hoses and the coolant expansion tank.

Detach the cooling system vent hoses from the coolant expansion tank.



# Steering System - General Information - Steering System

Description and Operation



VJJ0003736

Item	Part Number	Description
1	—	Fluid cooler
2	—	Low pressure pipe - fluid cooler to reservoir
3	—	Fluid reservoir
4	—	Power steering pump
5	—	Heat shield
6	—	Extension shaft
7	—	Dash panel seal
8	—	High pressure pipe
9	—	Steering gear
10	—	Tie-rod end
11	—	Low pressure pipe - steering gear to fluid cooler

Vehicles with 2.0L or diesel engines

The power steering system is a rack and pinion design, with an engine-driven pump providing the steering assistance.

Vehicles with 2.5L or 3.0L engines

The power steering system is a rack and pinion design, with an engine-driven pump providing the steering assistance. The system features variable steering assistance with vehicle speed and a variable ratio steering rack.

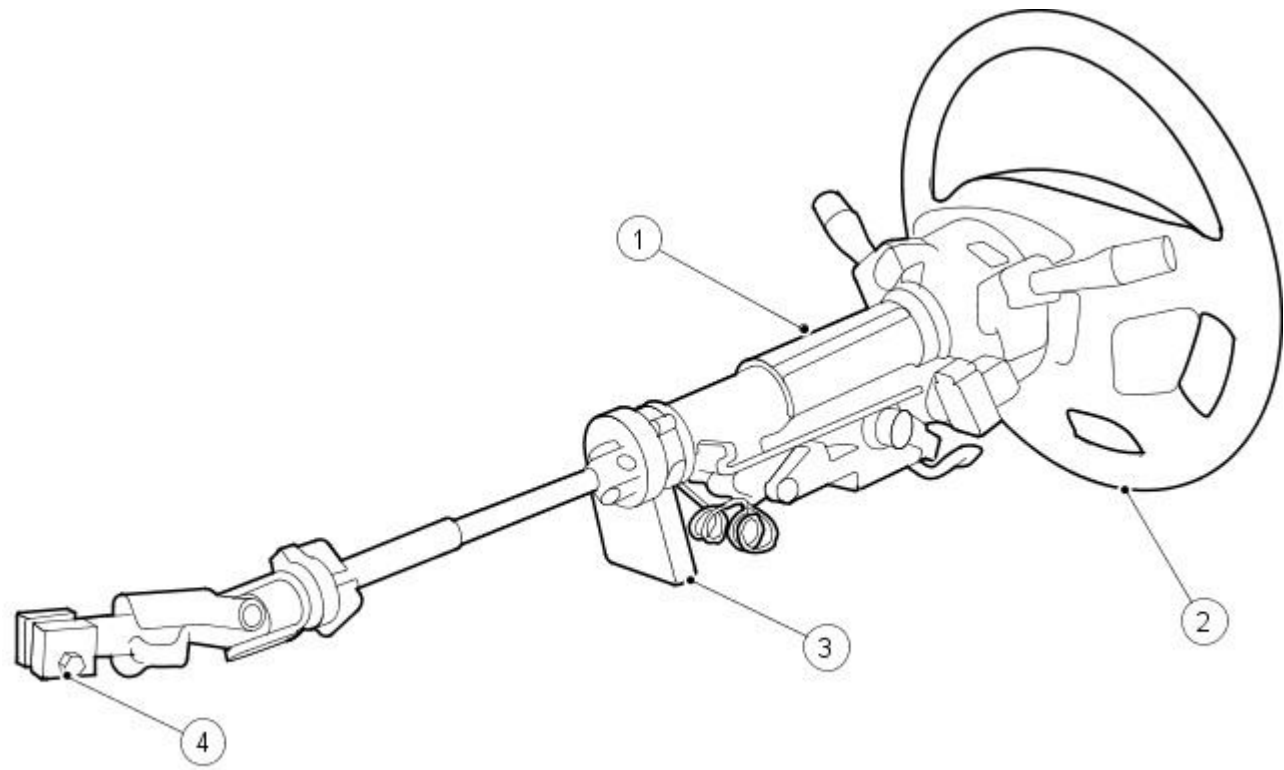
Absolute cleanliness must be observed when replenishing the fluid or dismantling any part of the system. New fluid from a sealed container must be used.

• NOTE: If the steering gear, pump or cooler are being replaced for leakage or noise related issues and there is no evidence of fluid contamination, there is no need to replace the reservoir.

In some cases where the fluid clearly contains particulate matter, and the system continues to function, flush the system with fresh fluid and replace the reservoir, as there is the possibility that the reservoir internal filter may be damaged or faulty.

# Steering Column - Steering Column

Description and Operation



VUJ0005478

Item	Part Number	Description
1	—	Steering column
2	—	Steering wheel
3	—	Steering wheel angle sensor
4	—	Steering column flexible coupling

The steering column lock is secured to the upper casting of the steering column and consists of a locking pin. The steering column is locked and unlocked by inserting and removing the ignition key respectively.

The steering column has tilt and telescope functions. These allow the driver to manually set the steering column position by using the tilt/telescope lever, regardless of the ignition switch position. The steering column is capable of being tilted up or tilted down and telescoped in or out, and is unlocked and locked into position using a single lever located on the underside of the steering column.

The lower part of the steering column consists of two shafts. The lower flexible coupling shaft is attached to both the steering gear and the upper shaft.

No routine maintenance of the steering wheel is required. Any setting of steering wheel for misalignment must be achieved by adjusting the tie rods.

# Engine - 2.0L NA V6 - AJV6/2.5L NA V6 - AJV6/3.0L NA V6 - AJ27 - Lower Intake Manifold

In-vehicle Repair

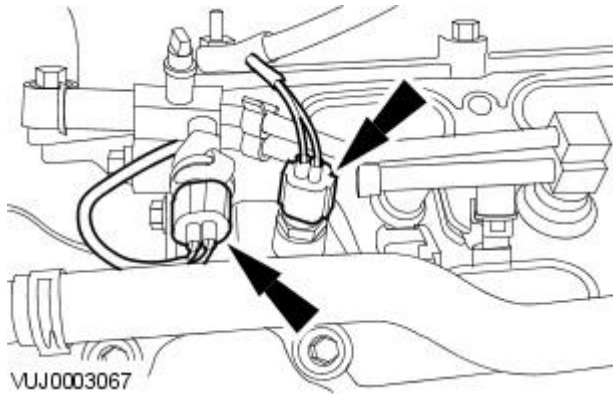
## Removal

All vehicles

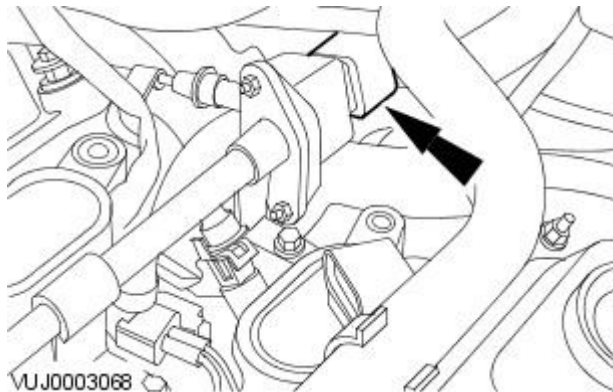
1. Remove the intake manifold.  
For additional information, refer to: [Intake Manifold](#) (303-01A Engine - 2.0L NA V6 - AJV6/2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, In-vehicle Repair).
2. Disconnect the spring lock coupling.  
For additional information, refer to: [Spring Lock Couplings](#) (310-00 Fuel System - General Information, General Procedures).

Vehicles with 2.5L or 3.0L engine

3. Disconnect the engine coolant temperature (ECT) and fuel temperature sensor electrical connectors.

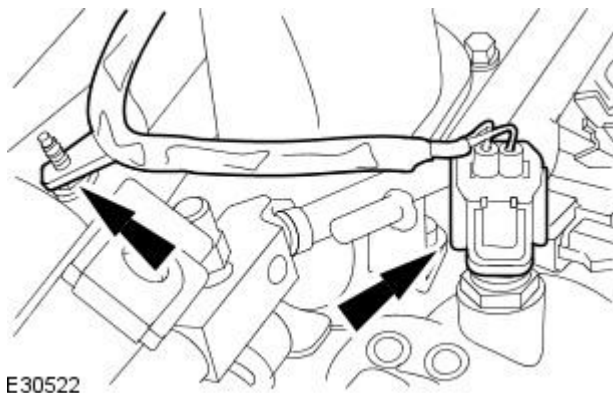


4. Disconnect the fuel pressure sensor electrical connector.



Vehicles with 2.0L engine

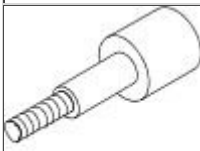
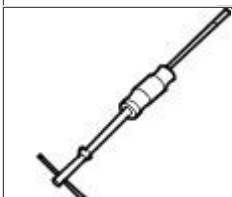
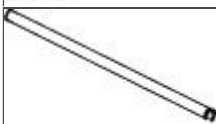
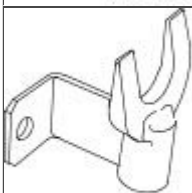
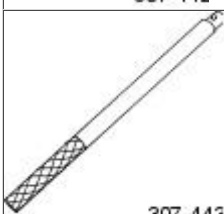
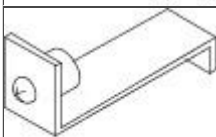
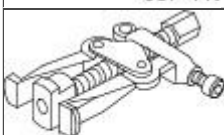
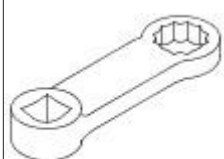
5. Disconnect the engine coolant temperature (ECT) electrical connector.
  - Detach the harness.



All vehicles

# Transfer Case - Transfer Case

Removal

Special Tool(s)	
 100-012-03	Slide hammer adapter 100-012-03
 100-012	Slide hammer 100-012
 100-012-02	100-012-02 Slide hammer shaft
 307-442	Right-hand halfshaft splitter 307-442
 307-443	Right-hand halfshaft splitter handle 307-443
 307-446	Link shaft limiter bracket 307-446
 308-208	Link shaft oil seal remover 308-208
 E46430	Torque adaptor 303-1069

## Removal

All vehicles

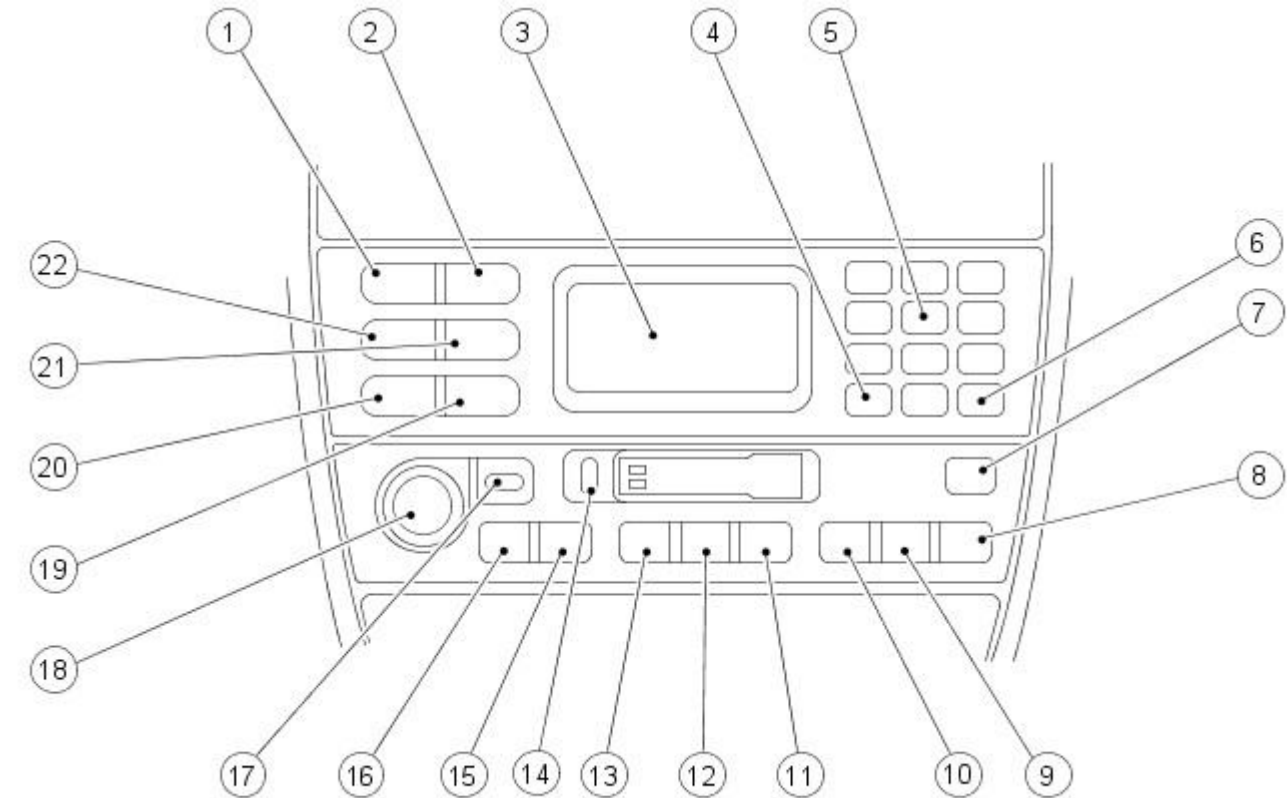
1. Position the front wheels in a straight ahead position and centralize the steering wheel.
- Lock in position and remove the ignition key.



Audio Unit - Audio System

Description and Operation

Base cassette



VUJ0004284

Item	Part Number	Description
1	—	Dolby noise reduction button
2	—	Repeat CD button
3	—	Audio system display
4	-	Seek a stored number from the phones memory
5	—	Radio station pre-set buttons
6	—	Seek a stored number from the phones memory
7	—	CD track mix button
8	—	Priority programme type button
9	—	Traffic announcement button
10	—	Auto memory button
11	—	Select CD changer
12	—	Cassette play and side change button
13	—	Audio Source - AM/FM radio
14	-	Cassette eject button
15	—	CD seek forward, cassette fast forward, radio seek forward button
16	—	CD seek back, cassette fast rewind, radio seek back button
17	—	Mode button (volume/bass/treble/balance/fade)
18	—	ON/OFF push (rotary volume/bass/treble/balance/fade) knob
19	—	Phone mode - send/end button
20	—	Phone mode select button
21	—	Memory recall button
22	—	Cancel button

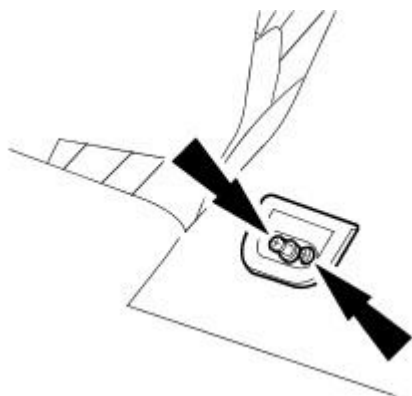
Base CD/MD

# Handles, Locks, Latches and Entry Systems - Fuel Filler Door Release Handle and CableWagon

Removal and Installation

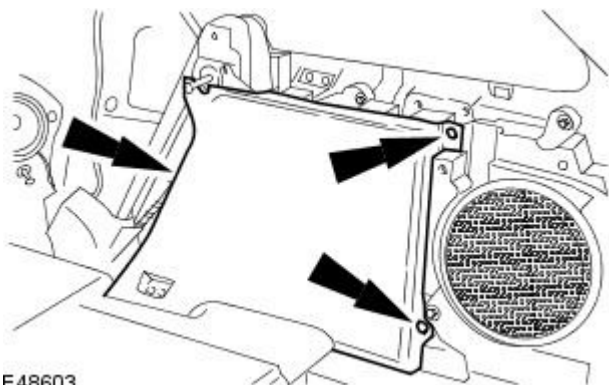
## Removal

1. Remove the rear seat cushion.  
For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).
2. Remove the rear seat bolster.  
For additional information, refer to: [Rear Seat Bolster - Wagon](#) (501-10 Seating, Removal and Installation).
3. Remove the driver front scuff plate trim panel.  
For additional information, refer to: [Front Scuff Plate Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
4. Remove the driver rear scuff plate trim panel.  
For additional information, refer to: [Rear Scuff Plate Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
5. Remove the loadspace trim panel.  
For additional information, refer to: [Loadspace Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
6. Remove the right-hand front retaining hook.



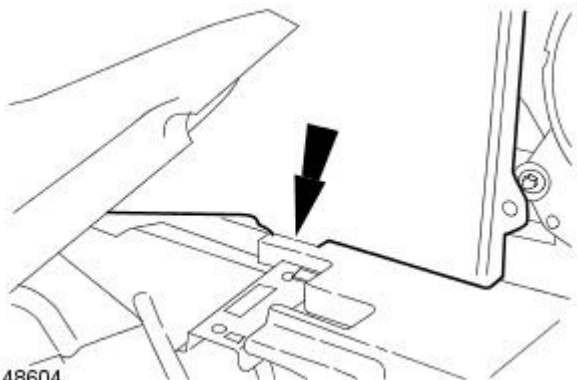
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7. Detach the right-hand loadspace side trim panel.



E48603

8. Remove the right-hand loadspace trim panel.



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