# **Body - Diesel**

## **All vehicles**

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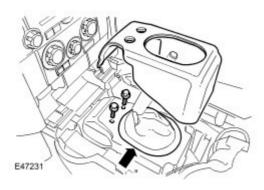
In this procedure, the body is removed from the integrated body-frame. This procedure can only be performed using a 2-Post ramp.

- 1. Open the upper liftgate and lower tailgate.
- 2 . Disconnect the battery ground cable.
- 3.
  Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

## Vehicles with manual transmission

- 4 . Remove the floor console upper panel.
- 5. Release the gearshift lever mounting bracket.
  - Remove the acoustic pad.
  - Release the gaitor.
  - Remove the 2 bolts.

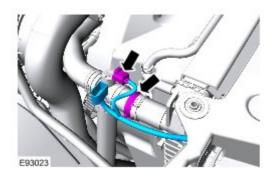


## **All vehicles**

- 6 . Remove the wheels and tires.
- 7 . Drain the cooling system.
- ${\bf 8}$  . Recover the air conditioning (A/C) refrigerant.
- 9. Remove the air cleaner assembly.

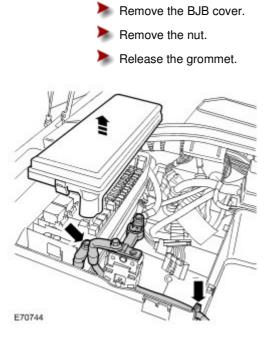
## Vehicles built 01/2007 onwards

10 . Disconnect the engine coolant temperature (ECT) sensor electrical connector. Release the clip.

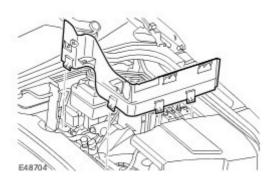


## **All vehicles**

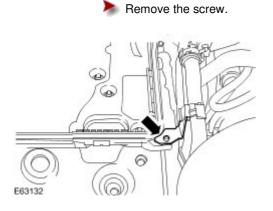
- 11 . Remove the four-wheel drive (4WD) control module.
- 12 . Release the battery positive cable.



- 13 . Remove the battery compartment side wall.
  - Release the battery positive cable and grommet.
  - Release the four clips.

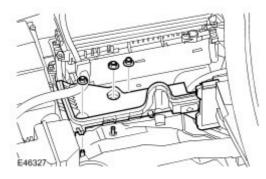


14 . Release the heater pipes.



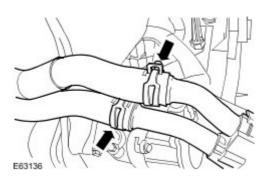
15. Remove the battery tray.

Remove the 3 nuts.

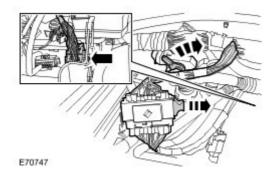


16 . Disconnect the heater supply and return hoses.

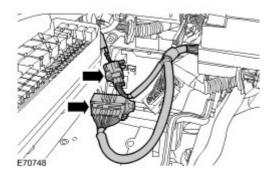
Release the 2 clips and disconnect the hoses.



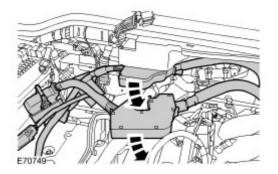
- 17. Remove the auxiliary battery tray.
- 18 . Release and disconnect the 2 engine wiring harness electrical connectors.



19 . Release and disconnect the 2 transmission wiring harness electrical connectors.

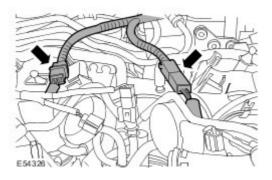


20 . Release the engine and transmission wiring harness cassettes, position the wiring harnesses aside. Release the 2 clips.



21 . Disconnect the glow plug electrical connectors.

Release the glow plug wiring harness.



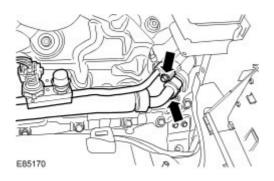


: Make sure that all openings are sealed. Use new blanking caps.

Disconnect the high and low-pressure A/C lines.

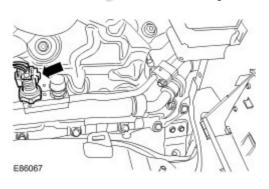
Remove the 2 bolts.

Remove and discard the 2 O-ring seals.



23 . Disconnect the A/C low-pressure switch electrical connector.

Release the wiring harness.

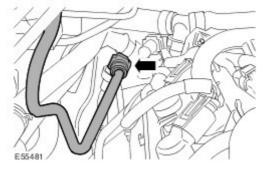


24.

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: Make sure that all openings are sealed. Use new blanking caps.

Disconnect the brake booster vacuum hose.



25.

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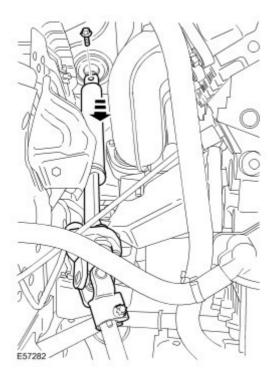
: Do not turn the steering wheel with the steering column lower shaft disconnected as damage to the clockspring and steering wheel switches may occur.

. Make sure the steering is in the straight ahead position.

Note the fitted position.

Release the steering column lower shaft.

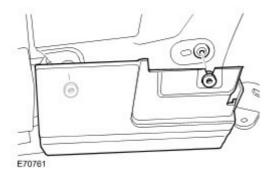
Remove and discard the steering column lower shaft upper bolt.



- 26 . Remove both front fender splash shields.
- 27 . Remove both fender lower mouldings.

Release the 2 clips.

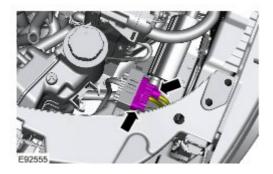
Repeat the above procedure for the other side.



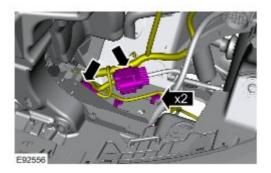
28 . Remove the hood latch panel.

# Vehicles built 01/2007 onwards

29. LH side behind the front headlamp: Disconnect the frame wiring harness electrical connector.

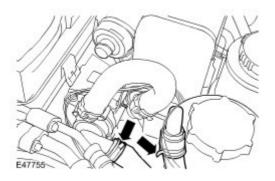


- 30 . LH side behind the front panel: Disconnect the 2 electrical connectors from the frame wiring harness.
- 31 . LH side behind headlamp: Release the 2 clips from the inner fender.

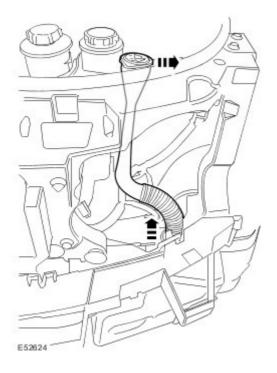


# All vehicles

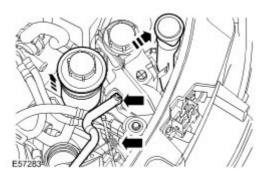
32 . Disconnect the fuel fired booster heater inlet and outlet coolant hoses. Release the 2 clips.



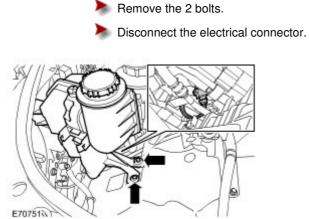
33 . Remove the windshield washer reservoir filler neck.



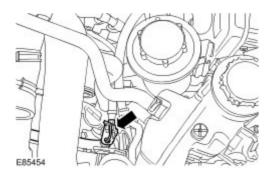
34 . Disconnect the 2 hoses from the coolant expansion tank. Release the 2 clips.



35 . Remove the coolant expansion tank.



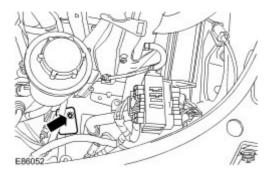
36 . Disconnect the cooling fan electrical connector.



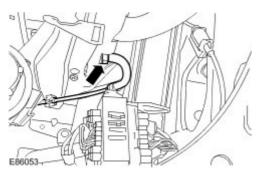
37 . Release the battery positive cable.

Remove the nut.

Release the battery positive cable bracket.



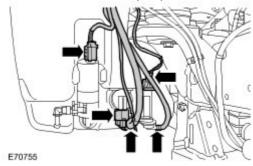
38 . Disconnect the fuel fired booster heater fuel line.



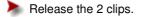
- 39 . Disconnect the 3 electrical connectors from the washer reservoir.
- 40.:

Note the fitted position.

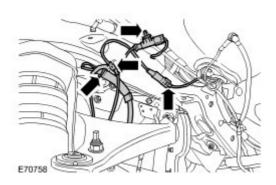
Disconnect the 2 washer pump hoses.



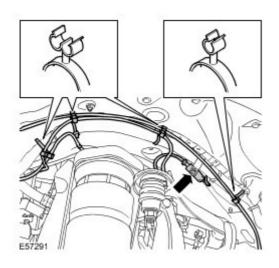
41 . LH side front: Release the ABS sensor lead.



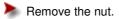
- Disconnect the electrical connector.
- 42 . LH side front: Disconnect the brake pad wear sensor electrical connector. Release from the 4 clips.



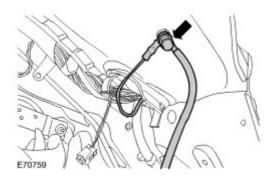
43 . LH side front: Release the 2 air lines. Release from the 5 clips.



44 . LH side front: Release the integrated body frame ground cables.



Release the 2 ground cables.



45.

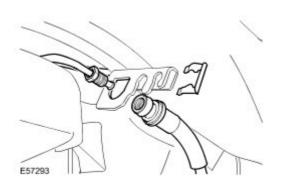
!

: Before disconnecting or removing the components, make sure the area around the joint

#### faces and connections are clean. Plug open connections to prevent contamination.

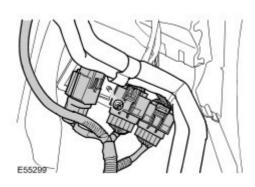
LH side front: Release the brake line.

- Position an absorbent cloth to collect fluid spillage.
- Disconnect the line union.
- Remove the clip.



## Vehicles built up to 01/2007

46 . Disconnect the 3 electrical connectors from the frame wiring harness.

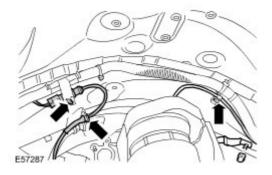


## **All vehicles**

- 47 . RH side front: Release the air suspension line from the wiring harness clip.
- 48 . RH side front: Release the ABS sensor lead.

Release the 2 clips.

- Disconnect the electrical connector.
- 49. RH side front: Release the engine ground cable from the integrated body frame.

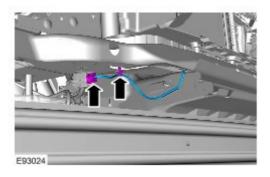


50.

# : Before disconnecting or removing the components, make sure the area around the joint faces and connections are clean. Plug open connections to prevent contamination.

RH side front: Release the brake line.

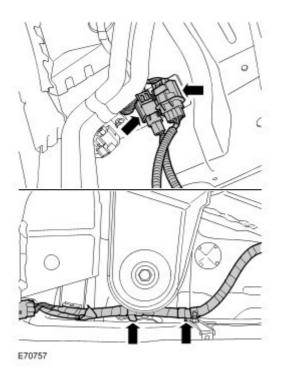
- Position an absorbent cloth to collect fluid spillage.
- Disconnect the line union.
  Remove the clip.
- 51 . Disconnect the ambient air temperature sensor electrical connector. Release the clip.



# Vehicles built up to 01/2007

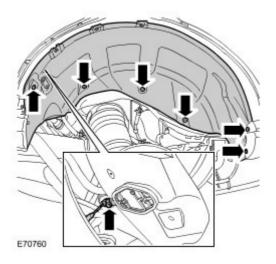
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52 . Disconnect the 2 electrical connectors from the frame wiring harness. Release the 2 clips.



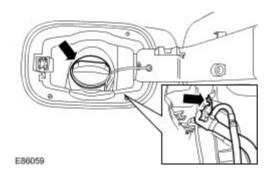
# All vehicles

- 53 . Remove the RH rear quarter panel moulding.
- 54 . Remove the RH rear fender splash shield.
  - Remove the 5 screws.
  - Remove the retainer.
  - Disconnect the electrical connector.
  - Repeat the above procedure for the other side.



- 55 . Remove the rear bumper cover.
- 56 . Release the fuel filler neck.
  - Open the fuel filler door and remove the cap.

Remove the bolt.

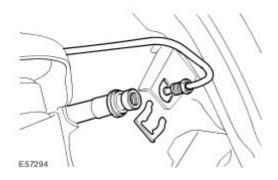


57.

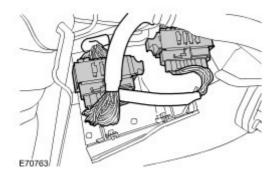
: Before disconnecting or removing the components, make sure the area around the joint faces and connections are clean. Plug open connections to prevent contamination.

RH side rear: Disconnect the brake line.

- Position an absorbent cloth to collect fluid spillage.
- Disconnect the line union.
- Remove the clip.



58 . LH side rear: Disconnect the 2 electrical connectors from the frame wiring harness.

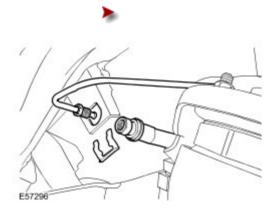


59. Before disconnecting or removing the components, make sure the area around the joint faces and connections are clean. Plug open connections to prevent contamination.

LH side rear: Disconnect the brake line.

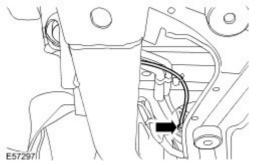
- Position an absorbent cloth to collect fluid spillage.
- Disconnect the line union.

Remove the clip.



60.

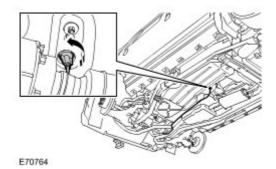
: Before disconnecting or removing the components, make sure the area around the joint faces and connections are clean. Plug open connections to prevent contamination.



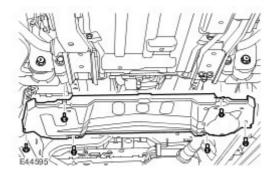
LH side rear: Disconnect the suspension air compressor intake line.



Release the parking brake emergency release cable.



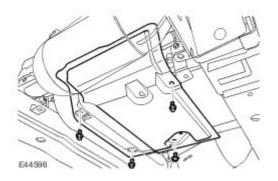
62 . Remove the transmission undershield. Remove the 6 bolts.



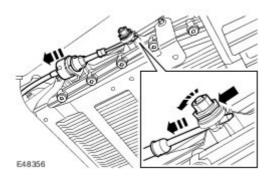
## Vehicles with automatic transmission

63 . Remove the transmission heat shield.

Remove the 4 bolts.



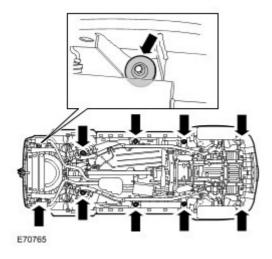
- 64 . Release the selector lever cable.
  - by Using an additional wrench, restrain the clamping bush and loosen the locknut.
    - Compress the latch and release the cable.



## All vehicles

65 . Remove the body mount retaining bolts.

Remove the 10 spacing washers.



- 66 . Temporarily install the road wheels and tires.
  - Install the wheel nuts.
  - Lower the vehicle on the lift.
- 67.

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2

2. Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

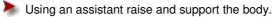
: To prevent the body becoming unstable when raised from the integrated body frame, install the vehicle tie down straps.

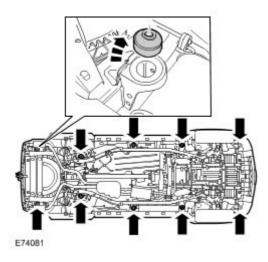
Note the fitted position of the body mounts.

The body mounts are color coded.

Using an assistant raise and support the body.

Remove the 10 body mounts.





## All vehicles

Similar that new bolts are installed.

: Make sure that all components are free and do not get caught up whilst lowering the body onto the integrated body frame.

Using an assistant install the body to the integrated body frame.

- Install the body mounts.
- Nith assistance align the body and integrated body frame mounts.
- Install the bolts, but do not tighten fully at this stage.
- 2. Remove the tie down straps securing the body.

3.
 3. Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

Raise the vehicle with the supports under the integrated body-frame.

- 4. Tighten the integrated body frame to body bolts to 133 Nm (98 lb.ft).
- 5 . Remove the wheels and tires.

#### Vehicles with automatic transmission

6 . Attach the selector cable.

#### **All vehicles**

1.

7 . Secure the parking brake emergency release cable.

Clean the component mating faces.

8.:

Remove and discard the blanking caps.

LH side rear: Connect the suspension air compressor intake line.

Clean the component mating faces.

- 9. LH side rear: Connect the brake line.
  - Clean the component mating faces.
  - Install the brake tube.
  - Install the clip.
  - Tighten the brake line union to 16 Nm (12 lb.ft).
- 10 . LH side rear: Connect the 2 body harness electrical connectors.
- 11 . RH side rear: Connect the brake line.
  - Clean the component mating faces.
  - Install the brake tube.

lnstall the clip.

Tighten the brake line union to 16 Nm (12 lb.ft).

12 . Secure the fuel filler neck.

Tighten the bolt to 10 Nm (7 lb.ft).

- 13 . Install the RH rear fender splash shield.
- 14 . Install the rear bumper cover.
- 15 . Install the RH rear quarter panel moulding.

## Vehicles built up to 01/2007

16 . Connect the 3 electrical connectors to the frame wiring harness.

Secure the 3 clips.

## All vehicles

- 17 . LH side front: Connect the brake line.
  - Clean the component mating faces.
  - Install the brake tube.
  - Secure the clip.
  - Tighten the brake line union to 16 Nm (12 lb.ft).
- 18 . LH side front: Connect the integrated body frame ground cable.
  - Connect the ground cables.
  - Tighten the nut to 25 Nm (18 lb.ft).
- 19 . LH side front: Secure the air lines to the clips.
- 20 . LH side front: Connect the brake pad wear sensor electrical connector. Secure in the clips.
- 21 . LH side front: Connect the ABS sensor lead.
  - Sonnect the electrical connector.
  - Secure in the clips.
- 22 . Secure the fuel fired booster heater exhaust bracket.
- 23.:

Install the components to their original fitted positions.

Connect the washer pump hoses.

- 24 . Connect the washer reservoir electrical connectors.
- 25 . RH side front: Secure the body-frame harness.

Secure with the 2 clips.

- 26 . RH side front: Connect the brake line.
  - Clean the component mating faces.
  - Install the brake tube.
  - Secure the clip.
  - Tighten the brake line union to 16 Nm (12 lb.ft).
- 27 . RH side front: Connect the ABS sensor lead.
  - Sonnect the electrical connector.
  - Secure the clips.
- 28 . RH side front: Install the air suspension line to the wiring harness clip.
- 29 . RH side front: Connect the engine ground cable to the body. Tighten the nut to 25 Nm (18 lb.ft).
- 30. Connect the ambient air temperature sensor harness.
  - Sonnect the electrical connector.
  - Secure the clip.

#### Vehicles built up to 01/2007

31 . Connect the 2 electrical connectors to the frame wiring harness.Secure the 2 clips.

# All vehicles

- 32 . Connect the fuel fired booster heater coolant hoses.Secure with the clips.
- 33 . Secure the battery positive cable.
- 34 . Install the hood latch panel.

#### Vehicles built 01/2007 onwards

- 35 . Reposition the frame wiring harness through the inner fender.
- 36 . LH side behind the front headlamp: Connect the frame wiring harness electrical connector.
- 37. LH side behind the front panel: Connect the 2 electrical connectors to the frame wiring harness.
- 38 . LH side behind headlamp: Secure the 2 clips to the inner fender.

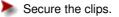
#### All vehicles

39 . Install the coolant expansion tank.

Connect the electrical connector.

Tighten the bolts to 10 Nm (7 lb.ft).

40 . Connect the coolant hoses to the expansion tank.



- 41 . Install the windshield washer reservoir filler neck.
- 42. Secure the power steering fluid reservoir.

Position and secure to mounting bracket.

- 43 . Connect the cooling fan electrical connector.
- 44 . Install both front fender splash shields.
- 45 . Install the fender lower moulding.

Secure in the 2 clips.

Repeat the above procedure for the other side.

46.:

Remove and discard the blanking caps.

Connect the high and low-pressure A/C lines.

- Clean the component mating faces.
- lnstall new O-ring seals.
- 47 . Connect the A/C low-pressure switch electrical connector.Secure the wiring harness.
- 48 . Connect the wiring harness to the glow plugs.
  - Secure the glow plug wiring harness.
- 49 . Install the 4WD control module.

## Vehicles built 01/2007 onwards

 ${\bf 50}$  . Connect the ECT sensor electrical connector.

Secure the clip.

#### **All vehicles**

- 51 . Align the engine, transmission harness and cassettes.
- 52 . Connect the 2 engine harness electrical connectors.
- 53 . Connect the 2 transmission harness electrical connectors.
- 54 . Install the engine and transmission harness cassettes.
- 55 . Install the auxiliary battery tray.

#### 56.**:**

Make sure the steering is in the straight ahead position.

Connect the steering column lower shaft.

- Clean the component mating faces.
- Install a new patchlock bolt and tighten to 25 Nm (18 lb.ft).
- 57 . Connect the heater coolant hoses.

Secure the clips.

58.:

Remove and discard the blanking caps.

Connect the brake booster vacuum hose.

59 . Install the battery tray.

Tighten the nuts to 12 Nm (9 lb.ft).

- 60 . Install the battery compartment side wall extension.
- 61 . Install the battery compartment side wall.

Secure the clips.

- 62 . Install the battery positive cable.
  - Connect the battery positive cable to the BJB.
  - Tighten the nut to 25 Nm (18 lb.ft).
  - Install the grommet.
  - Install the BJB cover.

## Vehicles with manual transmission

- 63 . Install the floor console upper panel.
- 64 . Secure the gearshift lever mounting bracket.
  - Tighten the bolts to 25 Nm (18 lb.ft).
  - Secure the gaitor.
  - Install the acoustic pad.

### All vehicles

- 65 . Install the air cleaner assembly.
- 66 . Connect the battery ground cable.
- 67 . Refill and bleed the cooling system.
- 68 . Recharge the A/C system.
- 69 . Bleed the brake system.
- 70 . Install the wheels and tires.

Tighten nuts to 140 Nm (103 lb.ft).

# Vehicles with automatic transmission

71 . Adjust the selector cable.