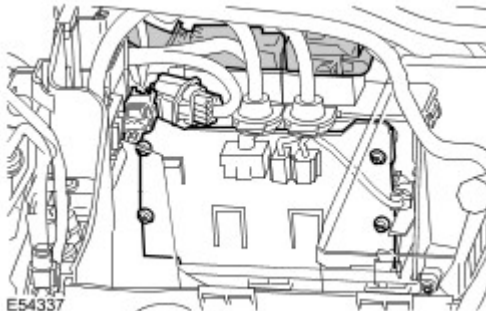


## Battery Junction Box (BJB) - 4.0L (86.70.55)

### Removal

#### All vehicles

- 1 . Disconnect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
- 2 . Make the SRS system safe. For additional information, refer to [Standard Workshop Practices](#) (Section 100-00)
- 3 . Remove both inboard ignition coils. For additional information, refer to [Ignition Coil \(18.20.32\)](#) (Section 303-07)
- 4 . Remove the radiator grille. For additional information, refer to [Radiator Grille \(76.55.03\)](#) (Section 501-08)
- 5 . Remove the air cleaner assembly. For additional information, refer to [Air Cleaner \(19.10.01\)](#) (Section 303-12)
- 6 . Remove the four-wheel drive control module. For additional information, refer to [Four-Wheel Drive \(4WD\) Control Module \(41.30.01\)](#) (Section 308-07)
- 7 . Remove the battery tray. For additional information, refer to [Battery Tray \(76.10.30\)](#) (Section 414-01)
- 8 . Remove the auxiliary battery tray. For additional information, refer to [Auxiliary Battery Tray \(76.10.31\)](#) (Section 414-01)
- 9 . Remove the ECM cover.
  - Disconnect 2 electrical connectors for access.
  - Disconnect the 2 ECM electrical connectors.
  - Remove the 4 Torx screws.



- 10 . Remove the ECM.
  - Remove the ECM top cover.



11. Remove the BJB cover.  
▶ Release the clip.

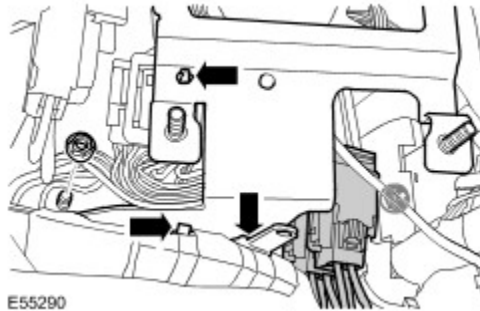
12. Disconnect the battery positive cable from the BJB.  
▶ Remove the nut.



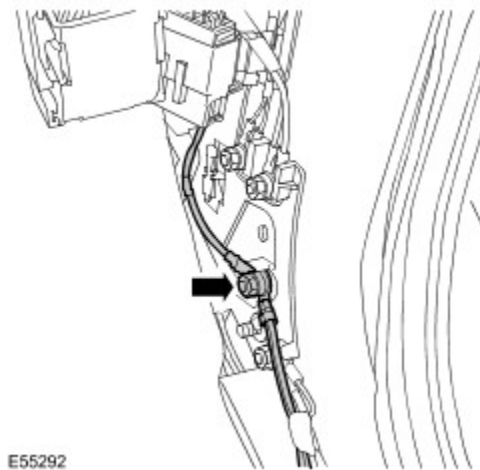
13. Remove both cowl side trim panels. For additional information, refer to [Cowl Side Trim Panel \(76.13.27\)](#) (Section 501-05)
14. Remove the CJB. For additional information, refer to [Central Junction Box \(CJB\) \(86.70.56\)](#) (Section 418-00)
15. Release the CJB bracket.  
▶ Release the 3 upper wiring harness clips.  
▶ Remove the 2 bolts.



- 16 . Remove the CJB bracket.
- Disconnect the 2 electrical connectors.
  - Release the 3 lower wiring harness clips.
  - Remove the 2 nuts.



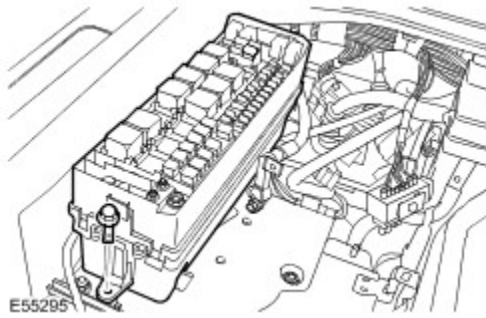
- 17 . Release the 2 ground cables from the lower A-pillar.
- Remove the nut.



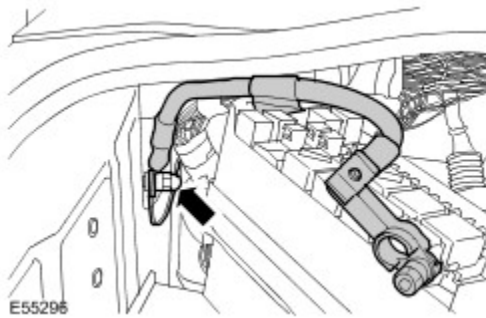
- 18 . Disconnect the heater motor electrical connector.



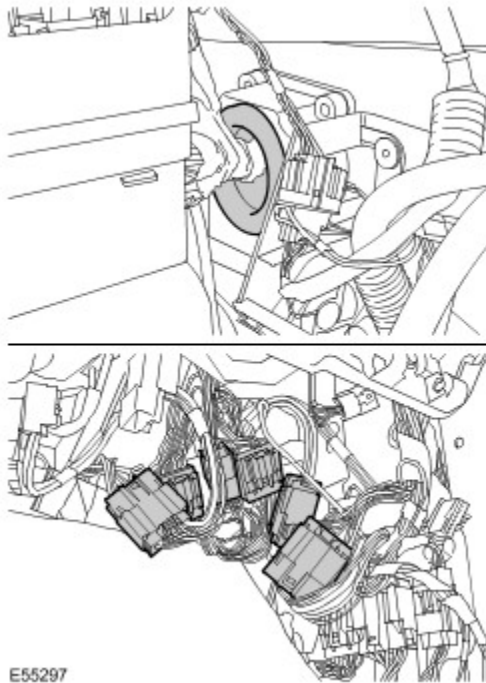
- 19 . Release the BJB from the bracket.
- Remove the bolt.



- 20 . Remove the battery ground cable.
- Remove the nut.
  - Release the additional ground cable.

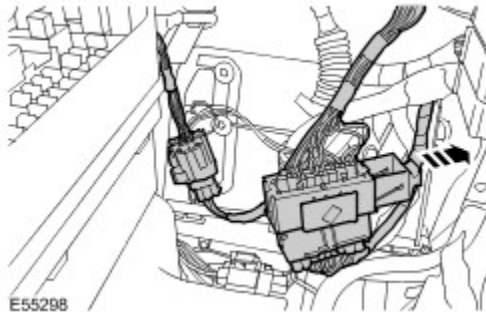


- 21 . Release the BJB wiring harness from the bulkhead.
- Disconnect the 6 electrical connectors.
  - Release the grommet.



- 22 . Raise and support the vehicle.

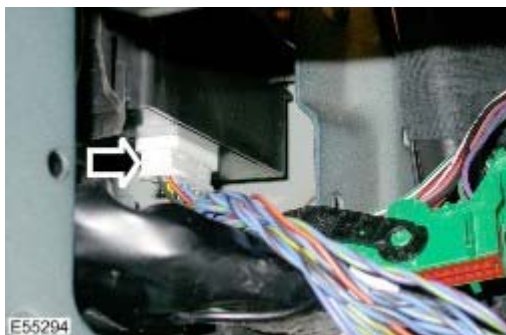
- 23 . Remove both front fender splash shields. For additional information, refer to [Fender Splash Shield \(76.10.48\)](#) (Section 501-02)
- 24 . Remove both headlamps. For additional information, refer to [Headlamp Assembly \(86.40.49\)](#) (Section 417-01)
- 25 . Passenger side: Disconnect the engine wiring harness electrical connector.
- 26 . Passenger side: Disconnect the transfer case electrical connector.



- 27 . LH side: Disconnect the washer jet hose.



- 28 . LH side: Disconnect the adaptive front lighting control module electrical connector.

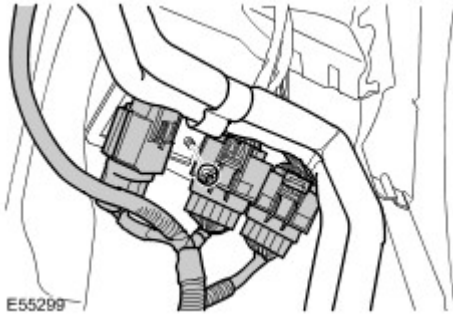


## Vehicles with auxiliary climate control

- 1 . LH side: Release the A/C lines from the body panel.
  - Remove the nut.

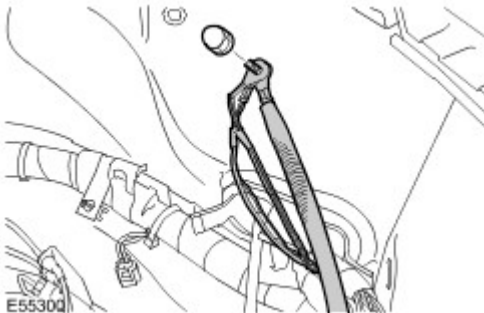
## All vehicles

1. LH side: Disconnect the 3 body panel electrical connectors.



2. LH side: Release the 3 body panel ground cables.

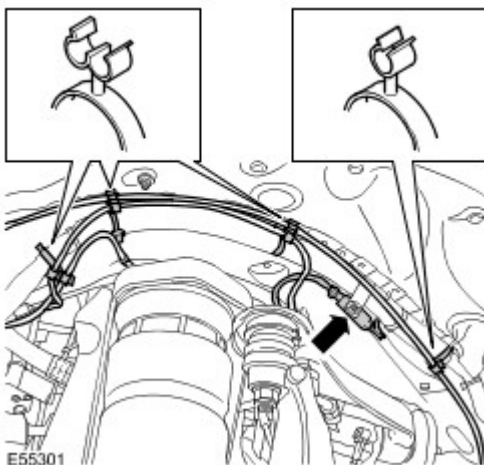
▶ Remove the nut.



3. LH side: Release the 2 air suspension pipes from the wiring harness.

▶ Release the 7 clips.

4. LH side: Disconnect the ABS electrical connector.

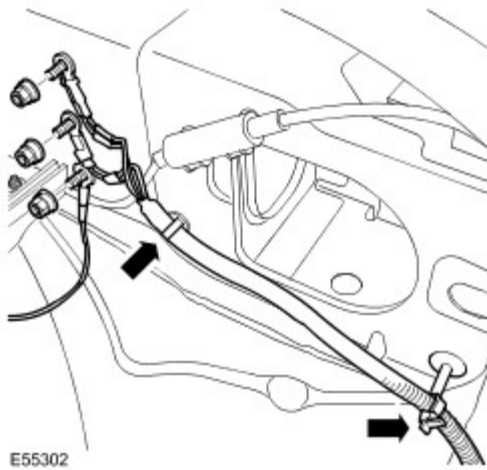


5. LH side: Release 3 engine compartment ground cables.

▶ Remove the 3 nuts.

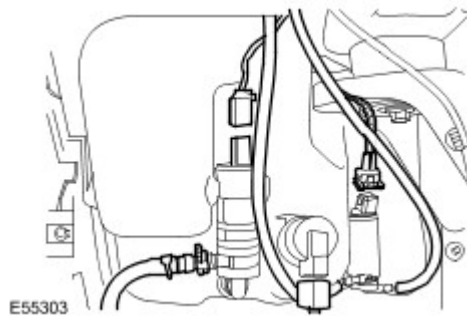
▶ Release the 2 clips.



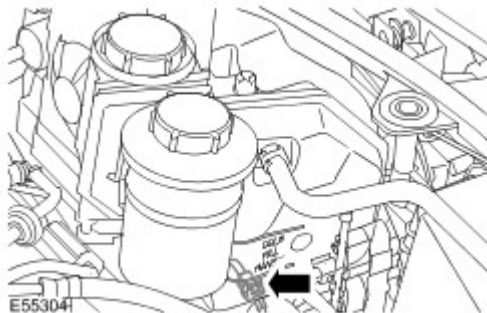


6. LH side: Release the washer reservoir wiring harness.

- Disconnect the 3 electrical connectors.
- Disconnect the 2 washer jet hoses.



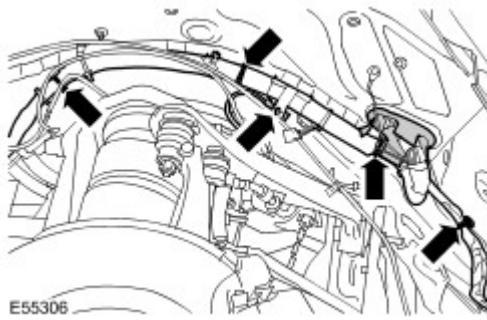
7. LH side: Disconnect the coolant expansion tank level switch electrical connector.



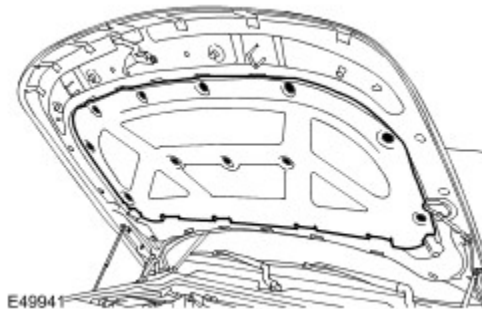
8. LH side: Disconnect the brake pad wear sensor electrical connector.

9. LH side: Release the wiring harness.

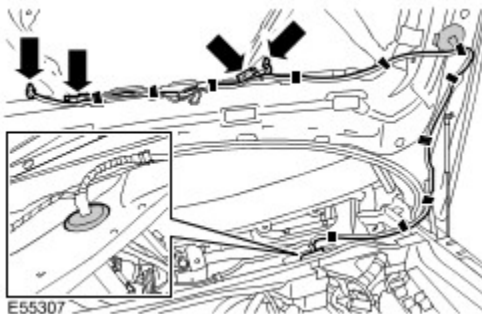
- Release the grommet.
- Release the 4 clips.



10. Remove the windshield wiper motor. For additional information, refer to [Windshield Wiper Motor \(84.15.12\)](#) (Section 501-16)
11. Remove the hood pad.
  - ▶ Remove the 11 clips.



12. Release the hood wiring harness.
  - ▶ Disconnect the 2 washer jet hoses.
  - ▶ Disconnect the 2 electrical connectors.
  - ▶ Release the 10 clips.
  - ▶ Remove the wiring harness cover.
  - ▶ Release the grommet.



13. Disconnect the brake booster vacuum pump electrical connector.





14. Disconnect the A/C pressure transducer electrical connector.

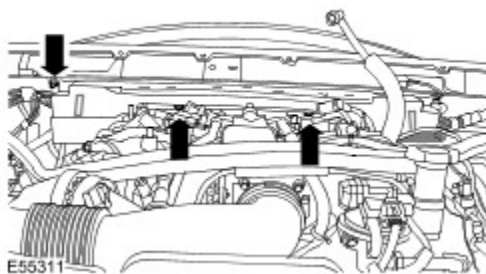


15. Disconnect the battery to engine compartment wiring harness electrical connector.



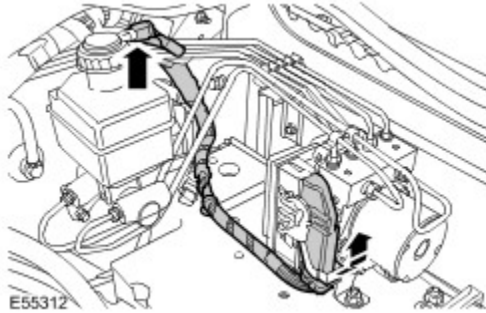
16. Release the wiring harness from the plenum.

- Release the 2 clips.
- Remove the 3 nuts.



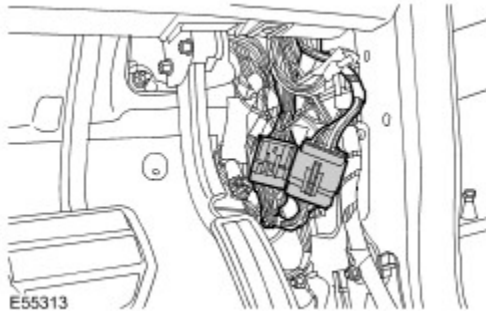
17. Disconnect the brake fluid reservoir electrical connector.

18. Disconnect the ABS module electrical connector.



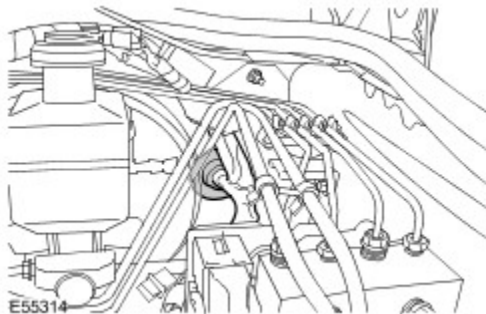
19. Remove the air suspension control module. For additional information, refer to [Air Suspension Control Module \(60.50.04\)](#) (Section 204-05)

20. Driver side: Disconnect 2 electrical connectors from the lower A-pillar.



21. Driver side: Release the wiring harness from the bulkhead.

➤ Release the grommet.

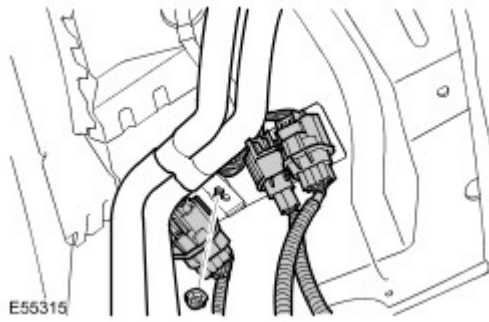


## Vehicles with auxiliary heating

1. RH side: Release the heater pipes from the body panel.
- Remove the nut.

## All vehicles

1. RH side: Disconnect the 3 body panel electrical connectors.



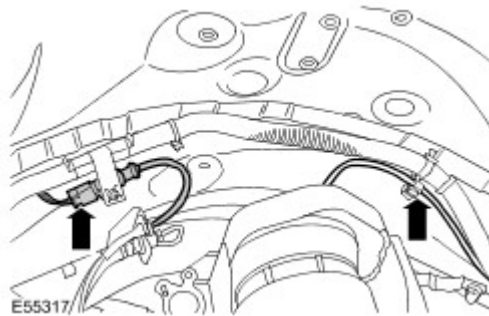
2. RH side: Release the 3 body panel ground cables.

▶ Remove the nut.



3. RH side: Disconnect the ABS electrical connector.

4. RH side: Release the air suspension pipe from the wiring harness clip.

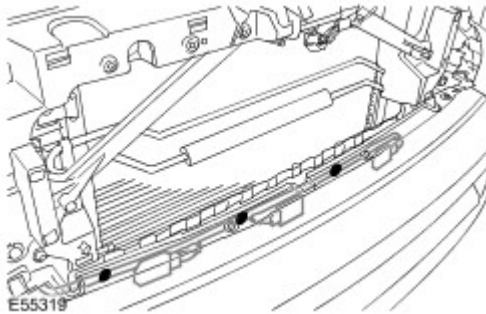


5. RH side: Release 2 engine compartment ground cables.

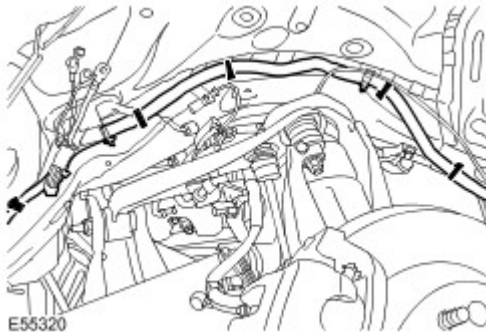
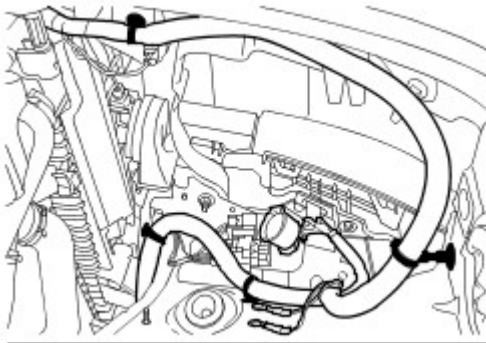
▶ Remove the 2 nuts.



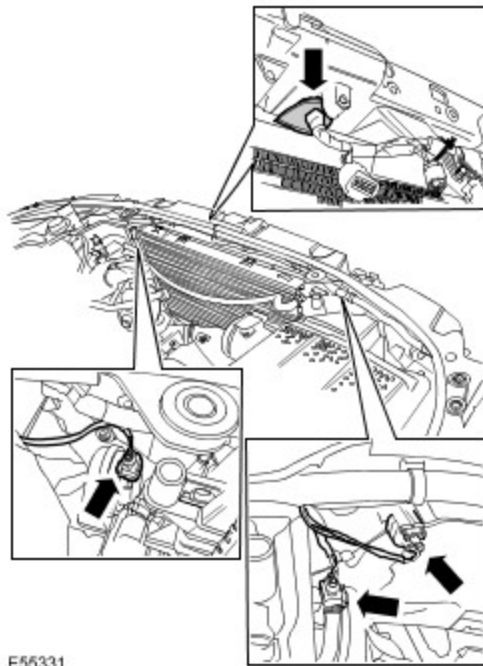
6. Disconnect the ambient air temperature sensor electrical connector.
7. Disconnect both front impact severity sensor electrical connectors.  
▶ Release the 3 clips.



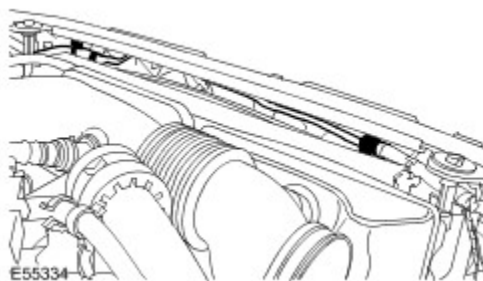
8. RH side: Release the wiring harness.  
▶ Release the 9 clips.



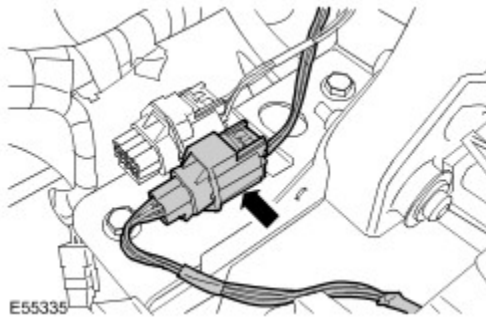
9. Disconnect the hood switch electrical connector.
10. Disconnect both horn electrical connectors.



- 11 . If installed, disconnect the speed control module electrical connector.
- 12 . If installed, disconnect the pollution sensor electrical connector.
  - Release the clip.
  - Release the grommet.
- 13 . Release the hood release cable.
  - Release from the 3 clips.



- 14 . Disconnect the front bumper wiring harness electrical connector.



15. With assistance, remove the BJB and wiring harness.

## Installation

### All vehicles

1. With assistance, install the BJB and wiring harness.
2. Connect the front bumper wiring harness electrical connector.
3. Attach the hood release cable.
  - Secure with the clips.
4. If installed, connect the pollution sensor electrical connector.
  - Install the grommet.
  - Secure the clip.
5. If installed, connect the speed control module electrical connector.
6. Connect the horn electrical connectors.
7. Connect the hood switch electrical connector.
8. RH side: Secure the wiring harness.
  - Secure the clips.
9. Connect both front impact electrical connectors.
  - Secure the clips.
10. RH side: Attach the air suspension pipe.
11. Connect the ambient air temperature sensor electrical connector.
12. RH side: Attach the engine compartment ground cables.
  - Tighten the nuts to 25 Nm (18 lb.ft).












- 13 . RH side: Connect the ABS electrical connector.
- 14 . RH side: Attach the body panel ground cables.
  - ▶ Tighten the nut to 25 Nm (18 lb.ft).
- 15 . RH side: Connect the body panel electrical connectors.

### Vehicles with auxiliary heating


- 1 . RH side: Secure the heater pipes to the body panel.
  - ▶ Tighten the nut to 10 Nm (7 lb.ft).

### All vehicles

- 1 . Driver side: Attach the wiring harness to the bulkhead.
  - ▶ Install the grommet.
- 2 . Driver side: Connect the lower A-pillar electrical connectors.
- 3 . Install the air suspension control module. For additional information, refer to [Air Suspension Control Module \(60.50.04\)](#) (Section 204-05)
- 4 . Connect the ABS module electrical connector.
- 5 . Connect the brake fluid reservoir electrical connector.
- 6 . Attach the wiring harness to the plenum.
  - ▶ Secure the clips.
  - ▶ Tighten the nuts to 4 Nm (3 lb.ft).
- 7 . Connect the battery to engine compartment wiring harness electrical connector.
- 8 . Connect the A/C pressure transducer electrical connector.
- 9 . Connect the brake booster vacuum pump electrical connector.
- 10 . Attach the hood wiring harness.
  - ▶ Install the grommet.
  - ▶ Install the cover.
  - ▶ Secure with the clips.
  - ▶ Connect the electrical connectors.
  - ▶ Connect the washer jet hoses.

- 11 . Install the hood pad.
  -  Install the clips.
- 12 . Install the windshield wiper motor. For additional information, refer to [Windshield Wiper Motor \(84.15.12\)](#) (Section 501-16)
- 13 . LH side: Attach the wiring harness.
  -  Install the grommet.
  -  Secure the clips.
- 14 . LH side: Connect the brake pad wear sensor electrical connector.
- 15 . LH side: Connect the coolant expansion tank level switch electrical connector.
- 16 . LH side: Attach the washer reservoir wiring harness.
  -  Connect the washer jet hoses.
  -  Connect the electrical connectors.
- 17 . LH side: Attach the engine compartment ground cables.
  -  Secure the clips.
  -  Tighten the nuts to 25 Nm (18 lb.ft).
- 18 . LH side: Connect the ABS electrical connector.
- 19 . LH side: Attach the air suspension pipes.
  -  Secure the clips.
- 20 . LH side: Attach the body panel ground cables.
  -  Tighten the nut to 25 Nm (18 lb.ft).
- 21 . LH side: Connect the body panel electrical connectors.



### Vehicles with auxiliary climate control

- 1 . LH side: Secure the A/C lines to the body panel.
  -  Tighten the nut to 10 Nm (7 lb.ft).

### All vehicles

- 1 . LH side: Connect the adaptive front lighting control module electrical connector.
- 2 . LH side: Connect the washer jet hose.
- 3 . Passenger side: Connect the transfer case electrical connector.

- 4 . Passenger side: Connect the engine wiring harness electrical connector.
- 5 . Install the headlamps. For additional information, refer to [Headlamp Assembly \(86.40.49\)](#) (Section 417-01)
- 6 . Install the fender splash shields. For additional information, refer to [Fender Splash Shield \(76.10.48\)](#) (Section 501-02)
- 7 . Attach the BJB wiring harness to the bulkhead.
  - ▶ Connect the electrical connectors.
  - ▶ Install the grommet.
- 8 . Install the battery ground cable.
  - ▶ Attach the additional ground cable.
  - ▶ Tighten the nut to 25 Nm (18 lb.ft).
- 9 . Secure the BJB to the bracket.
  - ▶ Tighten the bolt to 6 Nm (4 lb.ft).
- 10 . Connect the heater motor electrical connector.
- 11 . Connect the ground cables to the lower A-pillar.
  - ▶ Tighten the nut to 10 Nm (7 lb.ft).
- 12 . Install the CJB bracket.
  - ▶ Tighten the nuts to 10 Nm (7 lb.ft).
  - ▶ Secure the clips.
  - ▶ Connect the electrical connectors.
  - ▶ Tighten the bolts to 25 Nm (18 lb.ft).
- 13 . Install the CJB. For additional information, refer to [Central Junction Box \(CJB\) \(86.70.56\)](#) (Section 418-00)
- 14 . Connect the battery positive cable to the BJB.
  - ▶ Tighten the nut to 25 Nm (18 lb.ft).
- 15 . Install the BJB cover.
  - ▶ Secure the clip.
- 16 . Install the ECM.
  - ▶ Install the ECM top cover.
- 17 . Install the ECM cover.

-  Tighten the Torx screws.
-  Connect the electrical connectors.

- 18 . Install the auxiliary battery tray. For additional information, refer to [Auxiliary Battery Tray \(76.10.31\)](#) (Section 414-01)
- 19 . Install the battery tray. For additional information, refer to [Battery Tray \(76.10.30\)](#) (Section 414-01)
- 20 . Install the four-wheel drive control module. For additional information, refer to [Four-Wheel Drive \(4WD\) Control Module \(41.30.01\)](#) (Section 308-07)
- 21 . Install the air cleaner assembly. For additional information, refer to [Air Cleaner \(19.10.01\)](#) (Section 303-12)
- 22 . Install the radiator grille. For additional information, refer to [Radiator Grille \(76.55.03\)](#) (Section 501-08)
- 23 . Install the ignition coils. For additional information, refer to [Ignition Coil \(18.20.32\)](#) (Section 303-07)
- 24 . Connect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
- 25 . Check the headlamp beam alignment. For additional information, refer to [Headlamp Adjustment \(86.40.17\)](#) (Section 417-01)