

1.

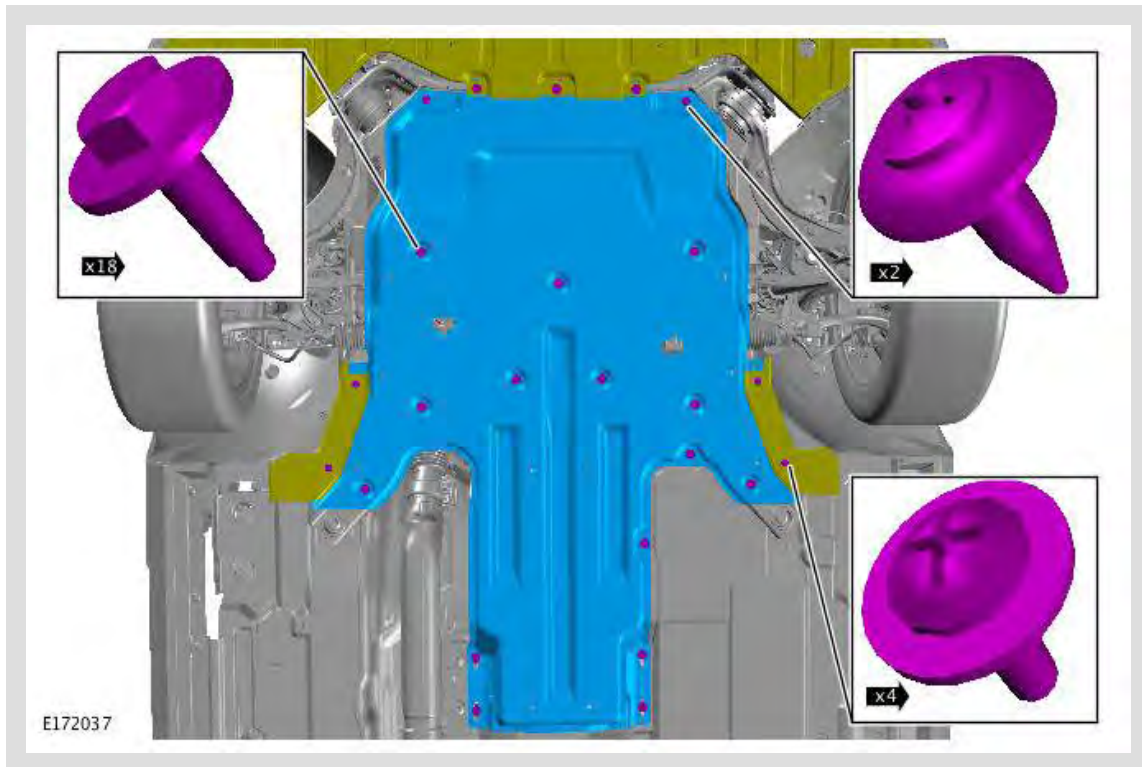


WARNING:

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2.



Torque: 7 Nm

INSTALLATION

1.

To install, reverse the removal procedure.

FRONT END BODY PANELS

FENDER (G1823028)

REMOVAL AND INSTALLATION

77.25.01

FRONT
FENDER -
RENEW

ALL
DERIVATIVES

1.4

USED WITHINS

REMOVAL

CAUTION:

Always protect paintwork and glass when removing exterior components.

NOTE:

Removal steps in this procedure may contain installation details.

1. Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).
2. Refer to: Fender Splash Shield (501-02 Front End Body Panels, Removal and Installation).
3. Refer to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
4. Refer to: Front Door (501-03, Removal and Installation).

SEATING

FRONT ROW SEAT TRACK (G1842029)

REMOVAL AND INSTALLATION

76.70.20	FRONT SEAT RUNNER - RENEW	ALL DERIVATIVES	1.6	USED WITHINS
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PART(S)

STEP	PART NAME	QUANTITY
Step 3	Backrest cover and clips kit	1
Step 6	Backrest cover and clips kit	1

REMOVAL

⚠ WARNING:

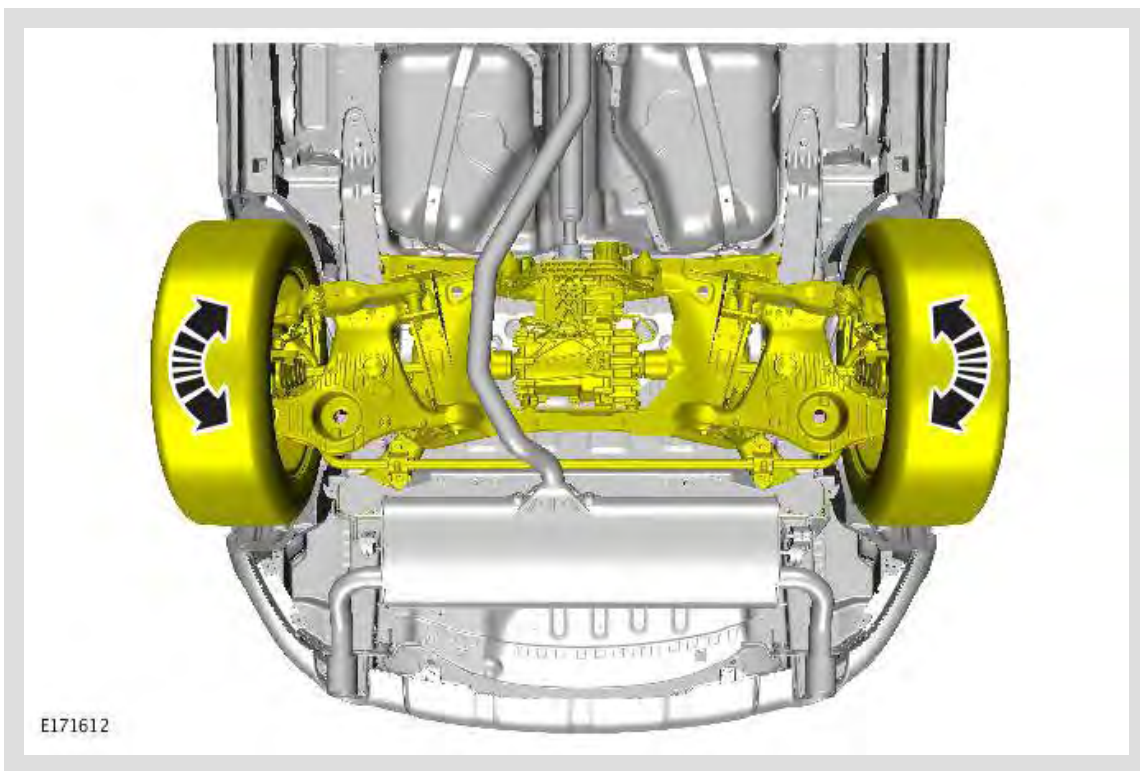
To avoid accidental deployment, the restraints control module backup power supply must be depleted. Wait at least two minutes after disconnecting the battery ground cable(s) before commencing any repair or adjustment to the supplemental restraint system (SRS), or any component(s) adjacent to the SRS sensors. Failure to follow these instructions may result in personal injury.

△ NOTE:

Some variation in the illustrations may occur, but the essential information is always correct.

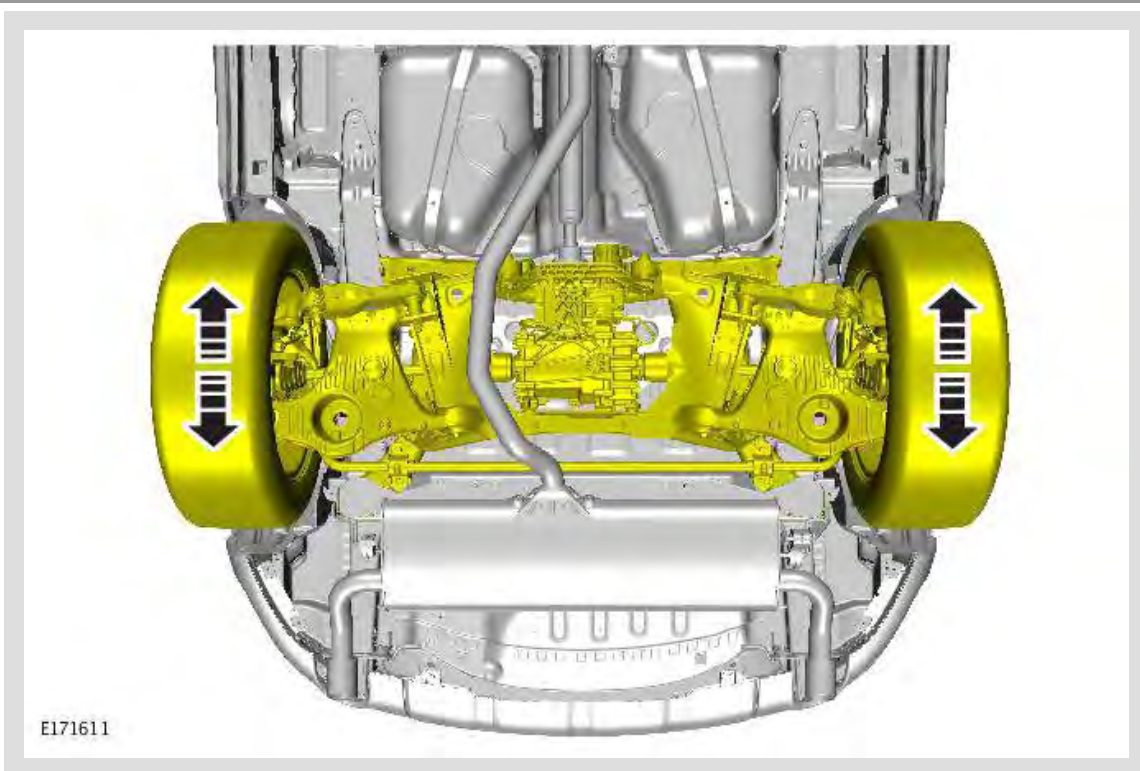
All vehicles

2.



Adjust the axle set-back. Note the readings from the steering geometry test equipment and adjust the geometry as required.

3.



Adjust the wheel base. Note the readings from the steering geometry test equipment and adjust the geometry as required.

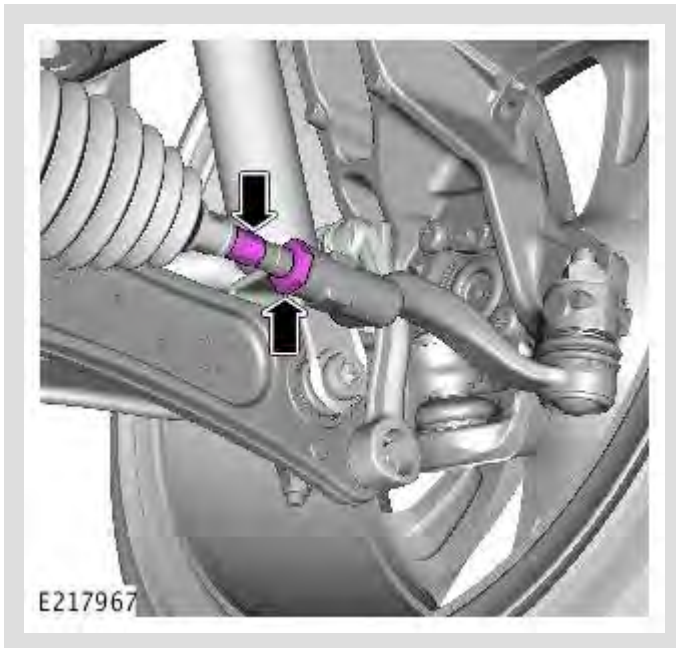
1.

⚠ CAUTION:

To prevent damage to the tie rods, use an additional wrench when loosening or tightening the components.

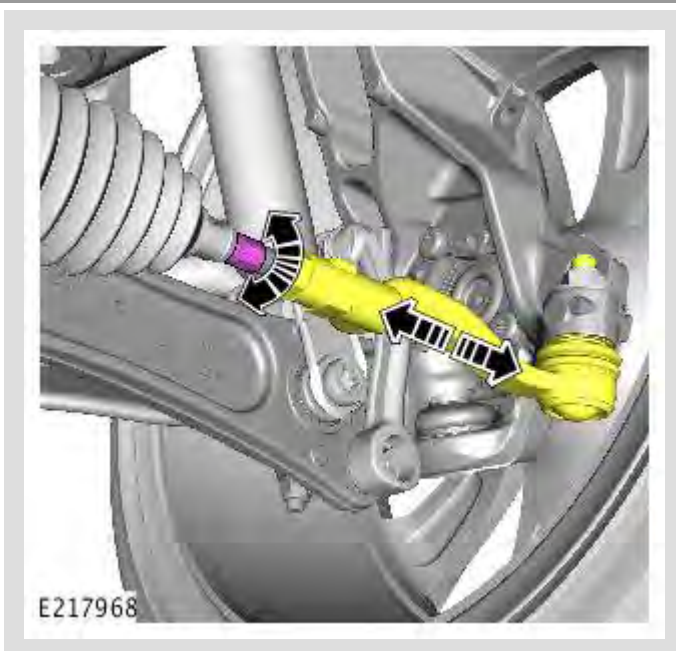
⚠ NOTE:

Do not allow the steering gear boot to twist.



Loosen the front tie rod locking nuts.

2.



Adjust the front wheel toe. Note the readings from the steering geometry test equipment and adjust the geometry as required.

INTAKE AIR DISTRIBUTION AND FILTERING - INGENIUM I4 2.0L DIESEL

AIR CLEANER ELEMENT (G1817Z10)

REMOVAL AND INSTALLATION

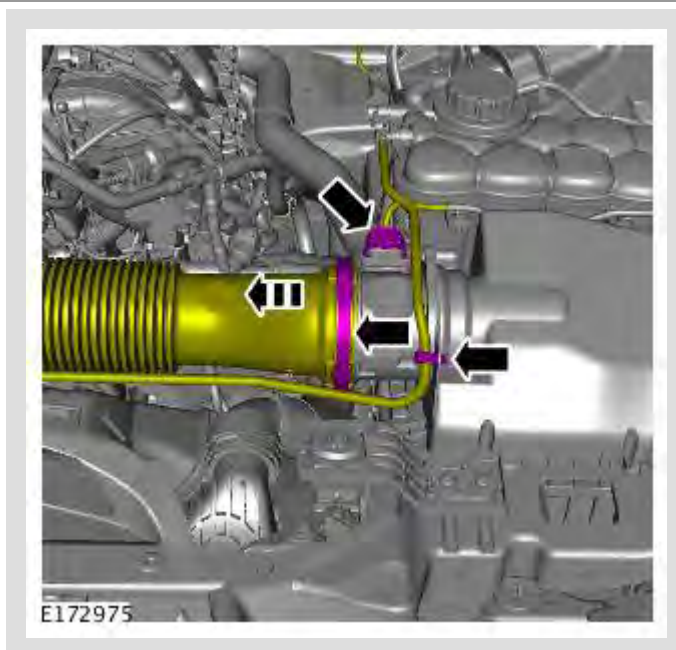
19.10.08	AIR CLEANER ELEMENT - ENGINE SET - RENEW	2000 CC, INGENIUM DIESEL	0.2	USED WITHINS
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REMOVAL

NOTE:

This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.

1.



Disconnect and release the air intake pipe and wiring harness.

INTAKE AIR DISTRIBUTION AND FILTERING - INGENIUM I4 2.0L DIESEL

CHARGE AIR COOLER (G1817211)

REMOVAL AND INSTALLATION

18.50.31	CHARGE AIR COOLER - RENEW	2000 CC, INGENIUM DIESEL	1.6	USED WITHINS
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REMOVAL

CAUTION:

Be prepared to collect escaping fluids.

NOTE:

Removal steps in this procedure may contain installation details.

1. Disconnect the startup battery ground cable.
Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).
2. Remove the engine cover.
Refer to: Engine Cover - INGENIUM I4 2.0L Diesel (501-05 Interior Trim and Ornamentation, Removal and Installation).
3. Drain the coolant system.
Refer to: Cooling System Draining and Vacuum Filling (303-03 Engine Cooling - INGENIUM I4 2.0L Diesel, General Procedures).
4. Raise and support the vehicle on a suitable 2 post lift.
Refer to: Lifting (100-02, Description and Operation).

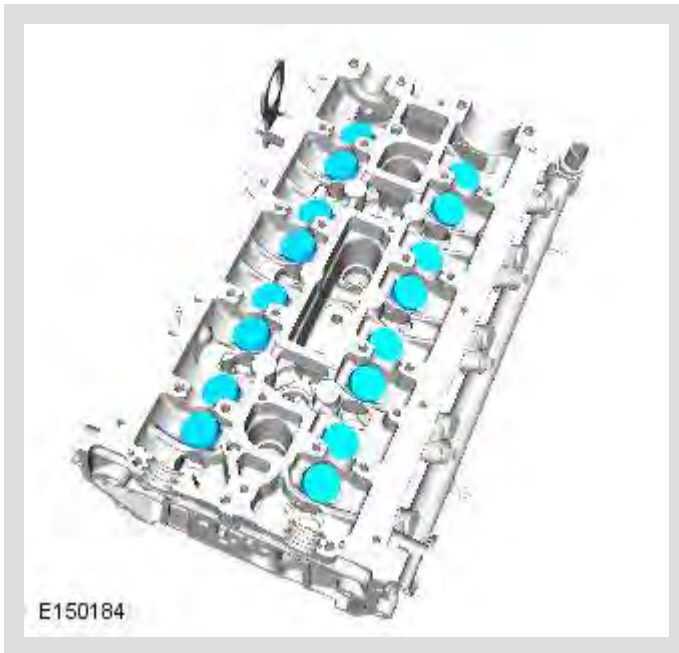
1.

⚠ CAUTION:

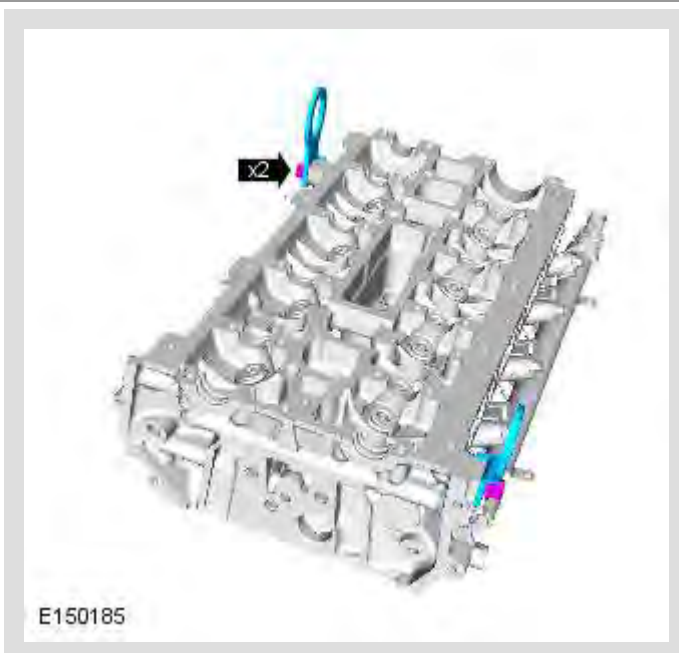
Clean and inspect the cam followers.

△ NOTE:

Note the orientation of the cam followers to aid installation.



2.



PART(S)

STEP	PART NAME	QUANTITY
Installation Step 1	Fuel injector seal	1
Installation Step 3	Fuel Injector replacement kits	1
Installation Step 9	Fuel rail supply pipe(s)	1

REMOVAL**⚠ CAUTION:**

Before disconnecting any components, make sure the area is clean and free from foreign material. When disconnected all openings must be sealed.

⚠ NOTE:

Some variation in the illustrations may occur, but the essential information is always correct.

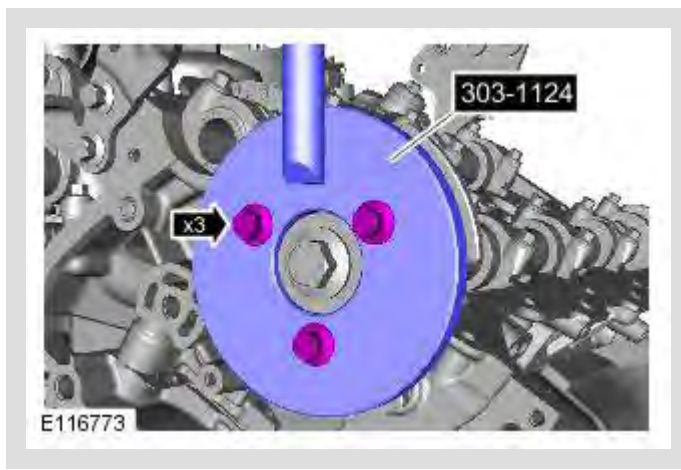
1. Refer to: Petrol and Petrol-Ethanol Fuel Systems Health and Safety Precautions (100-00 General Information, Description and Operation).

2. Refer to: Fuel System Pressure Release (310-00 Fuel System - General Information, General Procedures).

3. Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).

4. Refer to: Intake Manifold (303-01 Engine - GTDi 2.0L Petrol, Removal and Installation).

12.

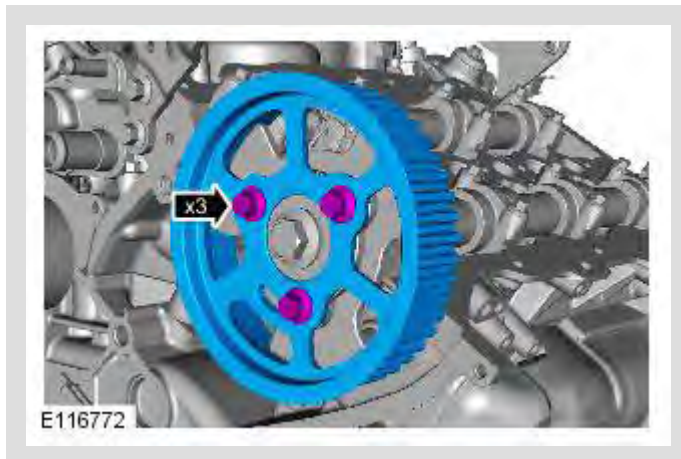


Remove the special tool.

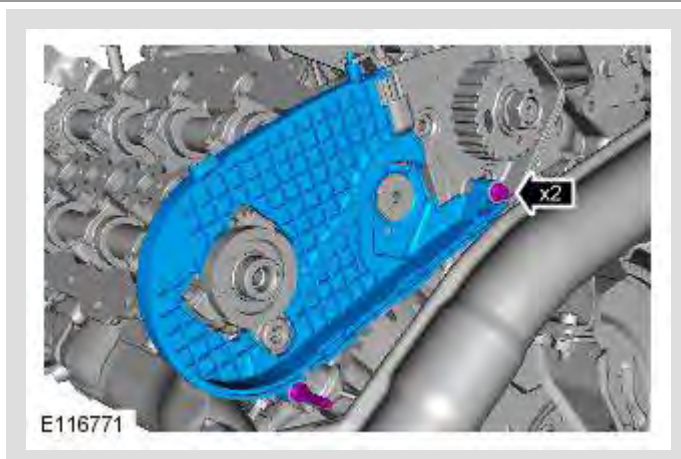
13.

⚠ CAUTION:

Only tighten the bolt finger-tight at this stage.



14.



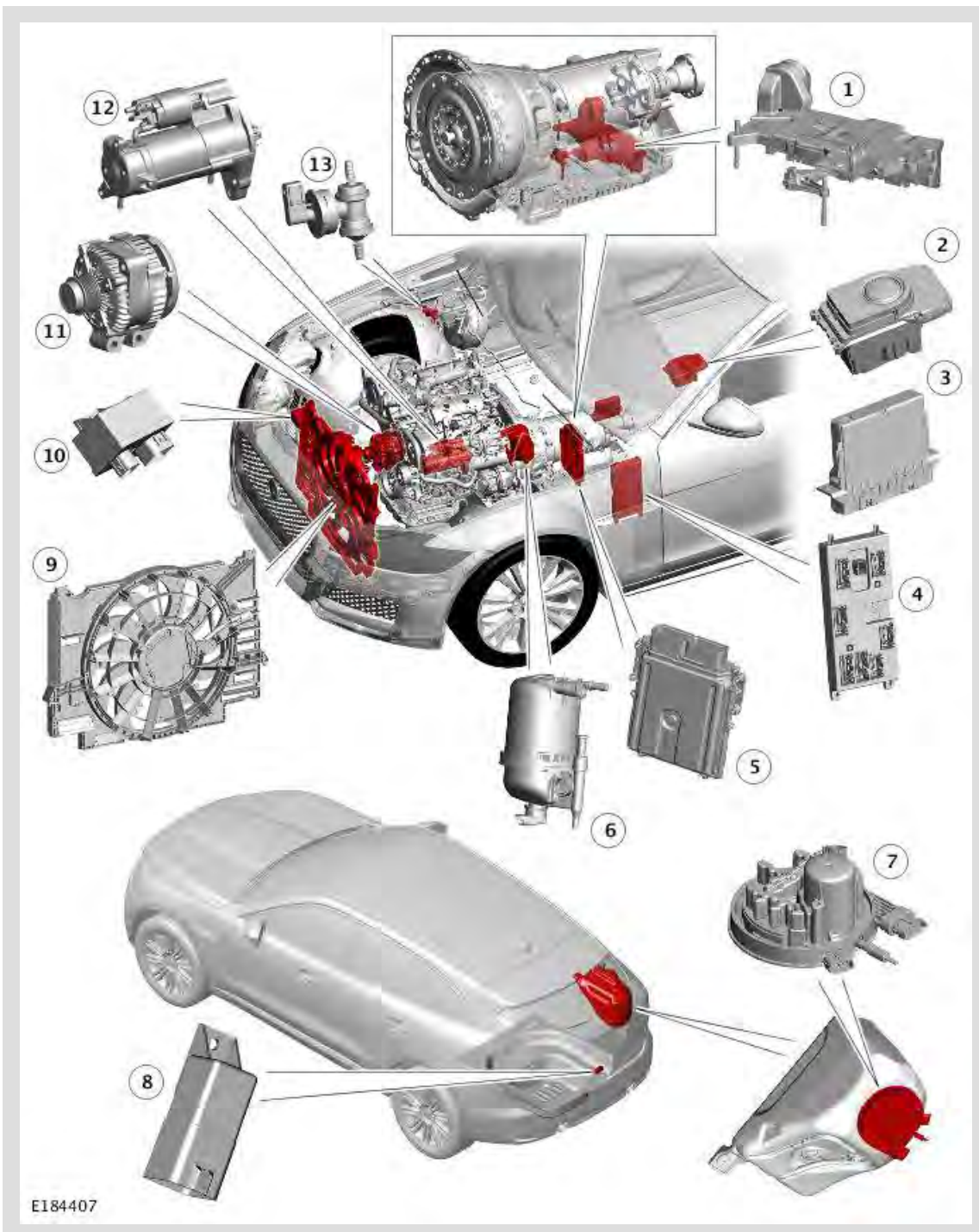
Torque: 10 Nm

PUBLISHED: 15-AUG-2017
2016.0 XF (X260), 303-14

ELECTRONIC ENGINE CONTROLS - TDV6 3.0L DIESEL

DESCRIPTION AND OPERATION

COMPONENT LOCATION - SHEET 1 OF 7



E184407

ITEM

1

Transmission Control Module (TCM)

PUBLISHED: 15-AUG-2017
2016.0 XF (X260), 310-03

SPEED CONTROL

ADAPTIVE SPEED CONTROL MODULE (G1835179)

REMOVAL AND INSTALLATION

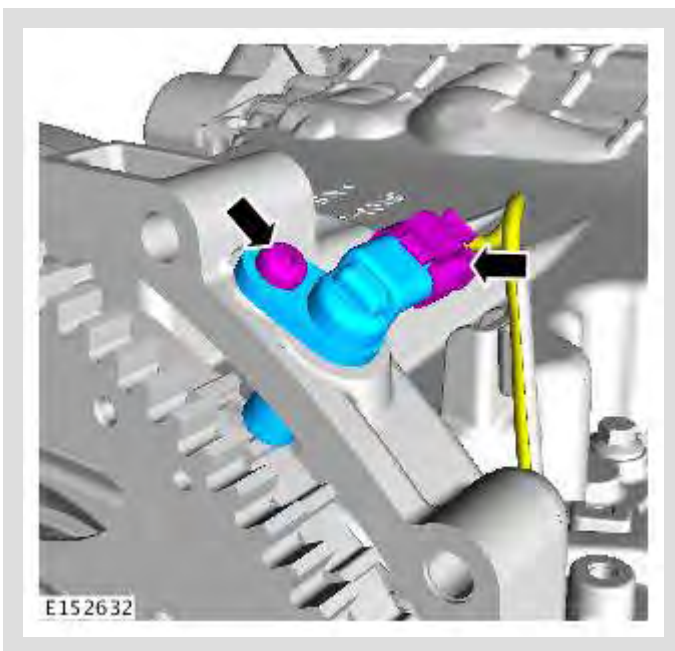
19.75.26	A.C.C. RADAR SENSOR MODULE - RENEW	ALL DERIVATIVES	1.5	USED WITHINS
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REMOVAL

NOTE:

- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.
- This procedure contains illustrations showing certain components removed to provide extra clarity.

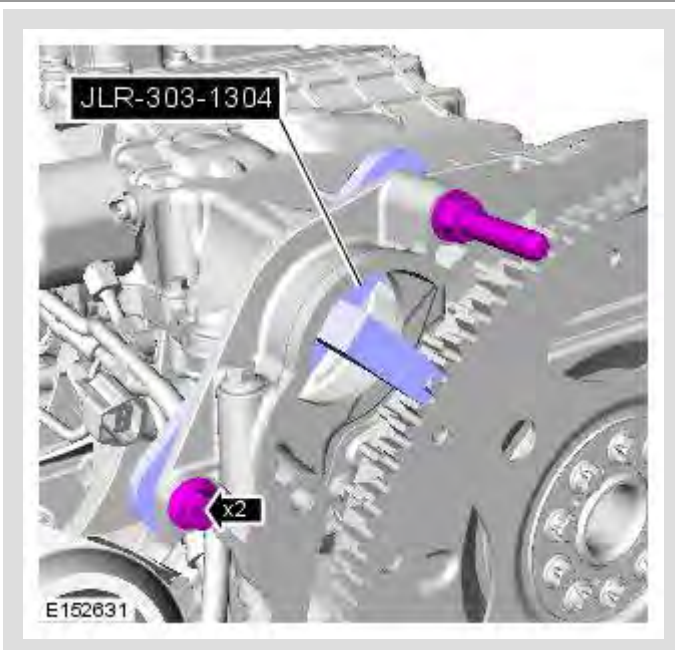
54.



Install the crankshaft position (CKP) sensor.

Torque: 10 Nm

55.



- Install the special tool.

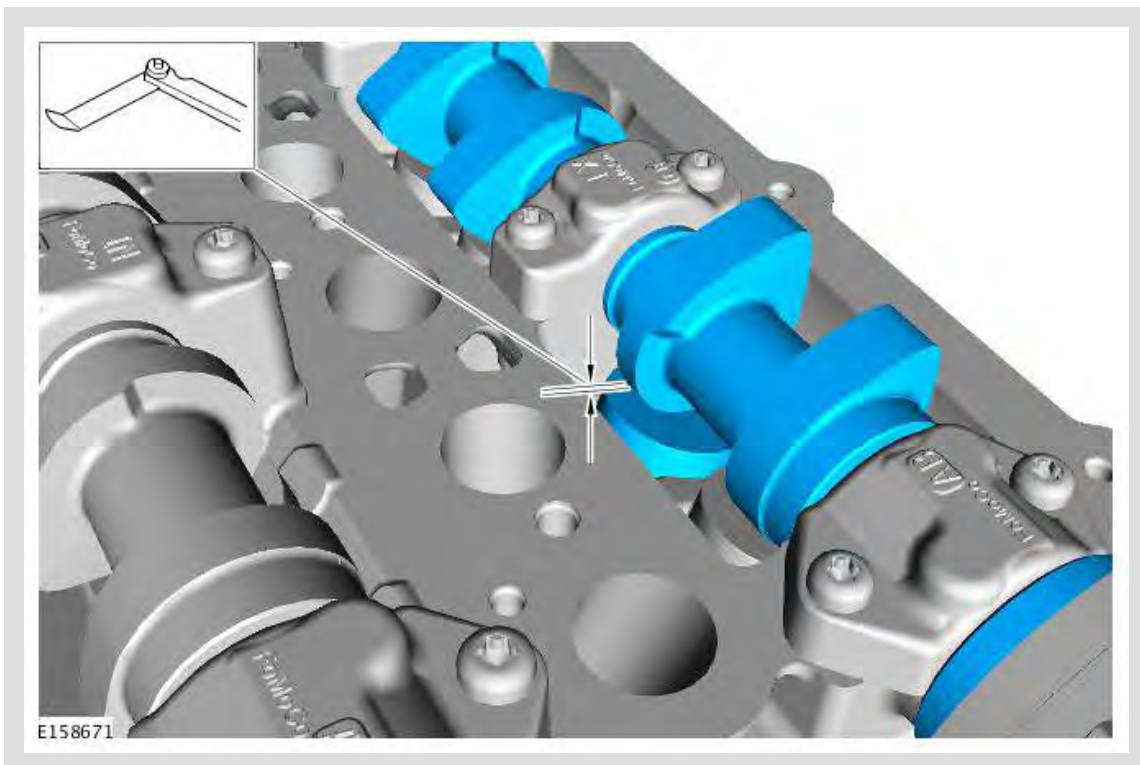
Special Tool(s): [JLR-303-1304](#)

1. Disconnect the startup battery ground cable.
Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).
2. Raise and support the vehicle on a suitable 2 post lift.
Refer to: Lifting (100-02, Description and Operation).
3. Remove the left valve cover.
Refer to: Left Valve Cover (303-01 Engine - V6 S/C 3.0L Petrol, Removal and Installation).
4. Remove the right valve cover.
Refer to: Right Valve Cover (303-01 Engine - V6 S/C 3.0L Petrol, Removal and Installation).

5.

⚠ CAUTION:

Do not rotate the crankshaft counterclockwise. The timing chains may bind causing engine damage.



- Rotate the engine clockwise until the camshafts are positioned as shown.
- Using feeler gauge check the gap between the tappet and the camshaft lobe and check against specifications table.
Refer to: Specifications (303-01B, Specifications).
- Repeat for the remaining valve tappets.

1. Visually inspect for obvious signs of mechanical or electrical damage.

Visual Inspection

MECHANICAL	ELECTRICAL
<ul style="list-style-type: none">▪ Heated Oxygen Sensor (HO2S) incorrect installation▪ Heated Oxygen Sensor (HO2S) contamination by incorrect fuel or oil▪ Heated Oxygen Sensor (HO2S) degraded▪ Exhaust system leakage▪ Exhaust system restriction▪ Air intake system leakage▪ Mass air flow sensor contamination▪ Incorrect fuel pressure▪ Pipe detached or union leakage between intake manifold and cylinder head	<ul style="list-style-type: none">▪ Connector is disconnected, connector pin is backed out, connector pin corrosion▪ Fuses▪ Wiring harness▪ Electrical connector(s)

1. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.

1. Using the approved diagnostic tool, check for Diagnostic Trouble Codes (DTCs).

1. Refer to the DTC help text in Section 100-00 for diagnostic help specific to the logged DTC(s).

HEATED OXYGEN SENSOR (HO2S) ACTIVATION REQUIREMENTS

NOTE:

If the sensor has not become active, then DTCs will not be logged.

The drive cycle required to activate all of the Heated Oxygen Sensor (HO2S) can vary greatly in time. This is dependent on all of the sensors reaching 'dew point' during previous drive cycles. 'Dew point' is where the moisture content in the exhaust has evaporated and can no longer damage the Heated Oxygen Sensor (HO2S). The closer a Heated Oxygen Sensor (HO2S) is to the engine, the faster it will achieve 'dew point'. Once a Heated Oxygen Sensor (HO2S) has reached 'dew point' the Heated Oxygen Sensor (HO2S) heating is activated and shortly afterwards the Heated Oxygen Sensor (HO2S) will be functional. **Once functional the Heated Oxygen Sensor (HO2S) diagnostics become active and can report any error states with a DTC.**

VIEWING OPERATION OF HEATED OXYGEN SENSOR (HO2S)

Using Datalogger view the output signals for all Heated Oxygen Sensors (HO2S) and confirm correct operation. As each Heated Oxygen Sensor (HO2S) becomes active the output signal can be seen reacting to changes in engine speed/load.