

JTB00566

TECHNICAL BULLETIN

16 AUG 2017



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INFORMATION

SECTION:

303-03 - Engine Cooling

SUBJECT/CONCERN:

Coolant Leak From The Engine Compartment

AFFECTED VEHICLE RANGE:

MODEL:	MODEL YEAR:	VIN:	ASSEMBLY PLANT:	APPLICABILITY:
XJ Range (X351)	2012 Onwards	V39060 Onwards	Castle Bromwich	V6 S/C 3.0L Petrol /V8 S/C 5.0L Petrol
XJ Range (X351)	2014 Onwards	J76001 Onwards		V6 S/C 3.0L Petrol /V8 S/C 5.0L Petrol
XF (X250)	2012-2015	S52534-U88785	Castle Bromwich	V6 S/C 3.0L Petrol /V8 S/C 5.0L Petrol
XF (X250)	2015	T00002-T03748		V6 S/C 3.0L Petrol /V8 S/C 5.0L Petrol
F-TYPE (X152)	2014 Onwards	K00001 Onwards	Castle Bromwich	V6 S/C 3.0L Petrol /V8 S/C 5.0L Petrol

MARKETS:

ASIA PACIFIC; CHINA; EUROPE; JAPAN; MENA; OVERSEAS

CONDITION SUMMARY:**NOTE:**

PUNE assembled vehicles are affected by this technical bulletin.

SITUATION:

A Customer may express a concern that the "engine overheat" message is displayed on the Instrument Cluster (IC) and that coolant is leaking from engine compartment area.

CAUSE:

Weakness in the plastic weld process of the coolant pipes. **Suggested Customer concern code - MD1.**

ACTION:

Should a Customer express this concern, follow the service instruction below.

PARTS:

PART NUMBER	DESCRIPTION	QUANTITY:
AJ813917	Coolant outlet pipe - Upper	1
AJ813865	Coolant outlet pipe - Lower	1
C2Z17249	Supercharger gasket kit	2
C2Z17248	Inlet manifold gasket	1
C2Z28265	Throttle body gasket	1
JLM209722	Engine coolant	1

TOOLS:

**303-1449-01**Supercharger Installation
Guide Pins - Threaded

WARRANTY:**NOTES:**

- Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to TOPIx to obtain the latest repair time.
- The JLR Claims Submission System requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero

DESCRIPTION

SRO

TIME (HOURS)

CONDITION CODE

CAUSAL PART

Coolant outlet pipe - Upper & lower - Renew

26.31.97

4.6

D4

C2Z28536

NOTE:

Normal Warranty procedures apply.

SERVICE INSTRUCTION:**CAUTIONS:**

- When refilling the cooling system, make sure to use the Jaguar Land Rover approved specification of engine coolant at a 50% mix ratio with water and check the specific gravity of the engine coolant. (See TOPlx Workshop Manual section: 303-03 - Engine Cooling - Specification - V6 S/C 3.0L Petrol).
- Make sure to only use Jaguar Land Rover approved engine coolant.

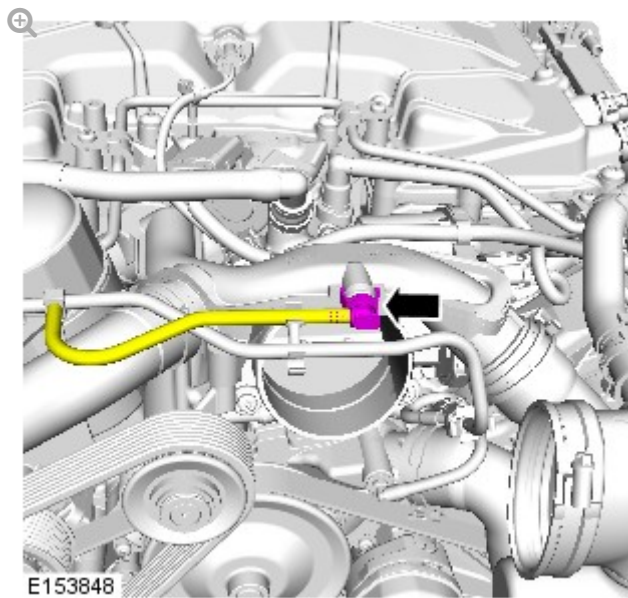
¹ Remove the charge air cooler (see TOPlx Workshop Manual section: 303-12 Intake Air Distribution and Filtering - Charge Air Cooler).

² Remove the air cleaner outlet pipe T-connector (see TOPlx Workshop Manual section: 303-12 - Intake Air Distribution and Filtering - Air Cleaner Outlet Pipe T-Connector).

³

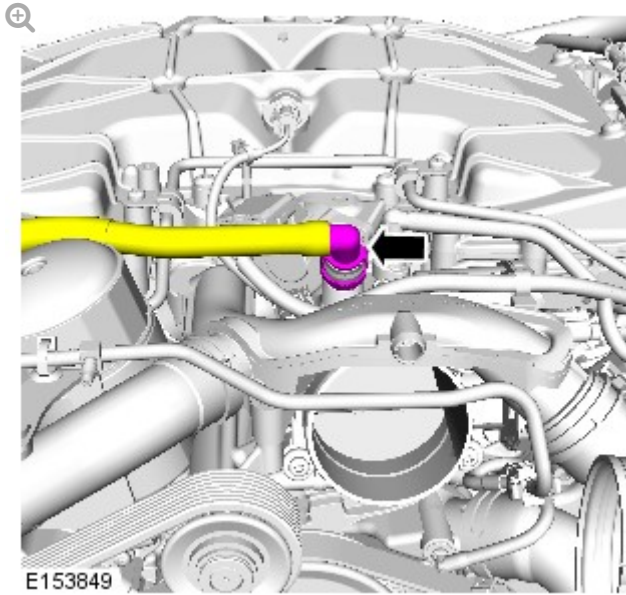
CAUTION:

Be prepared to collect escaping engine coolant.



Disconnect and reposition the hose.

4

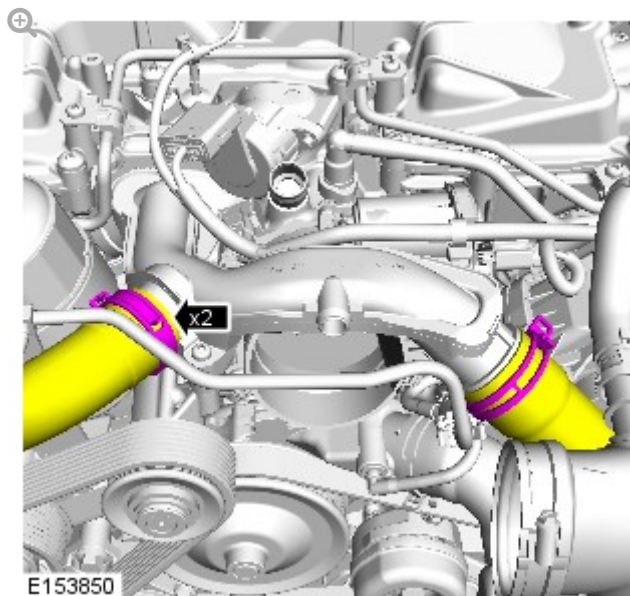


Disconnect and reposition the hose.

5

CAUTION:

Be prepared to collect escaping engine coolant.



Disconnect and reposition the hoses.

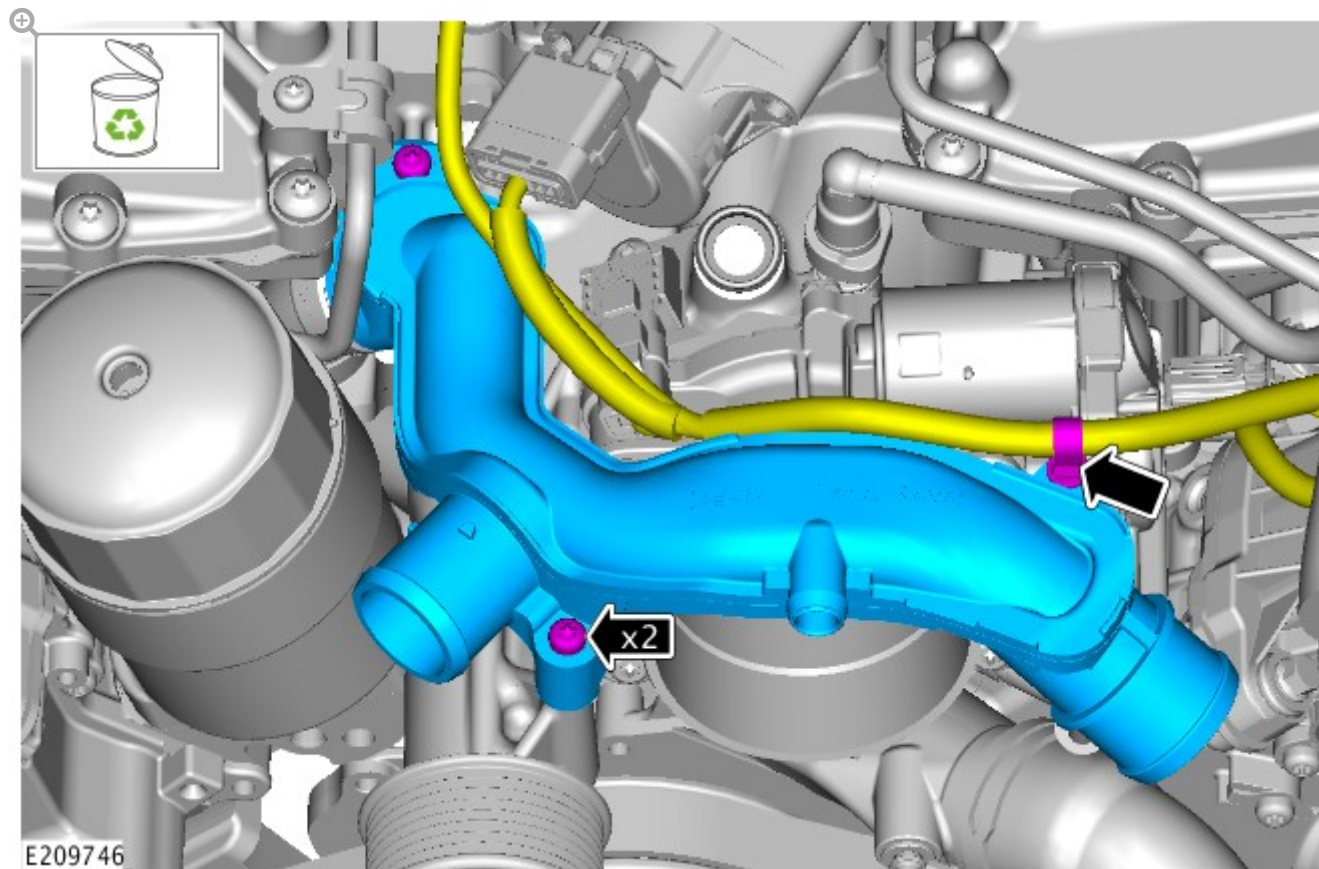
6

CAUTION:

Be prepared to collect escaping engine coolant.

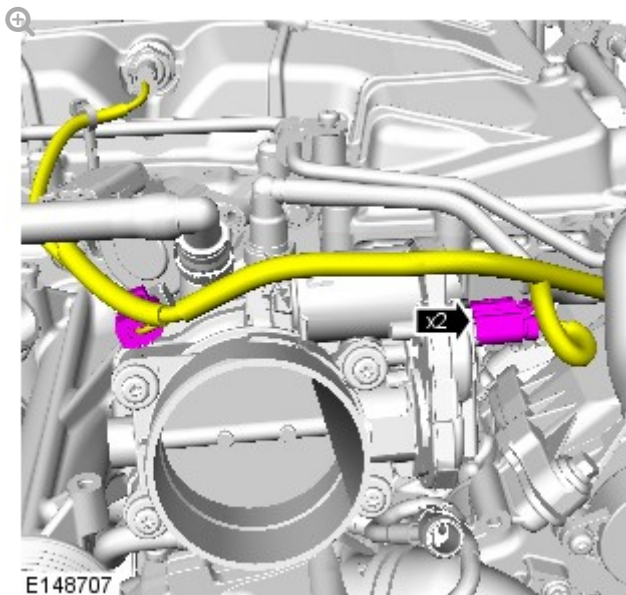
NOTE:

Make sure to retain the fixings.



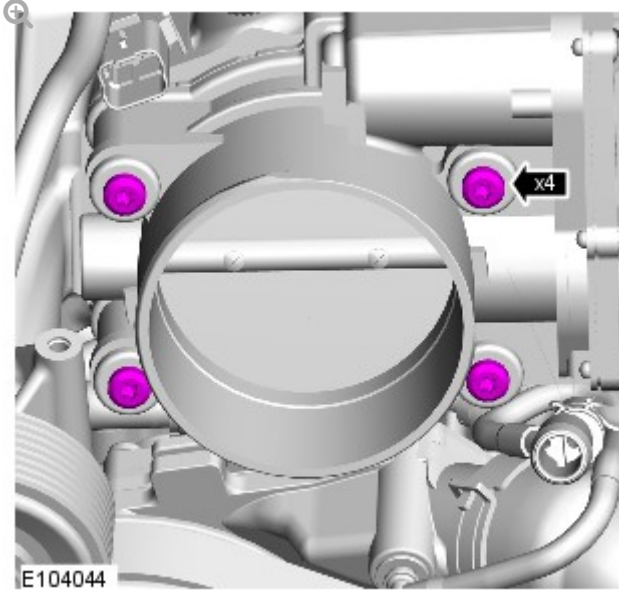
Remove and discard the upper coolant outlet pipe.

7



Disconnect the wiring harness from the throttle body.

8

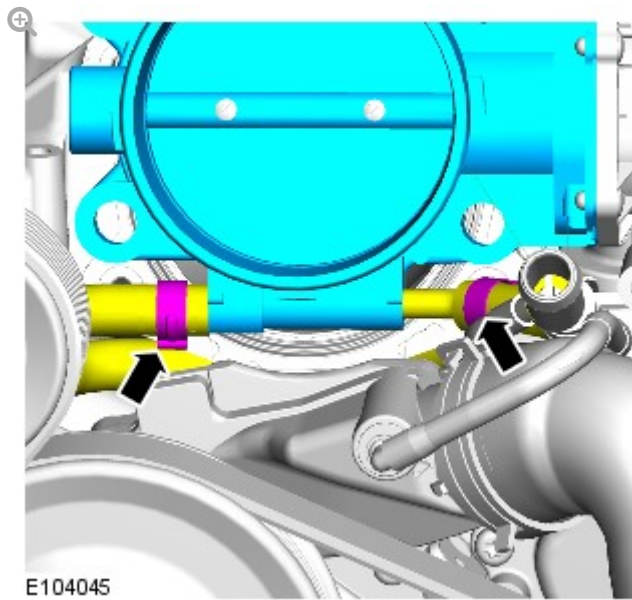


Remove the throttle body fixings.

9

CAUTION:

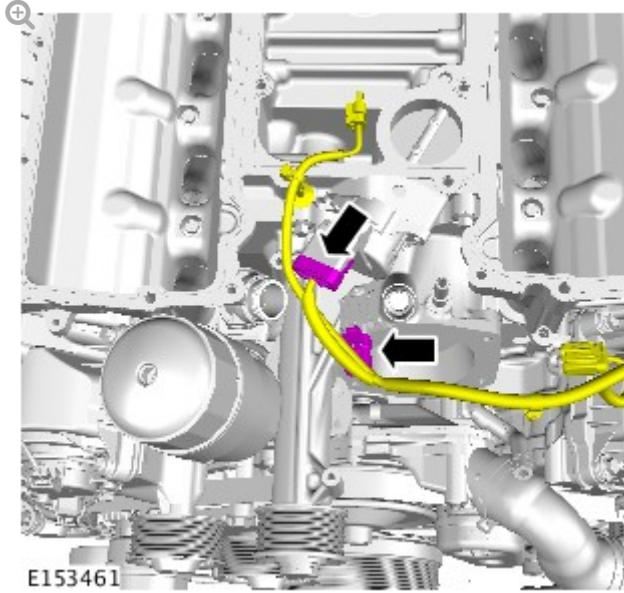
Take extra care when removing the throttle body, failure to follow this instruction may result in damage to the Manifold Absolute Pressure and Temperature (MAPT) sensor.



Disconnect the hoses and remove the throttle body.

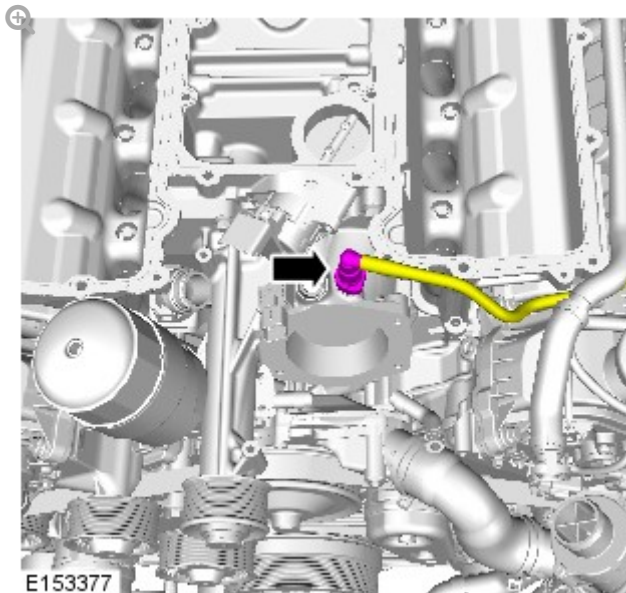
- 10 Remove the supercharger belt (see TOPIx Workshop Manual section: 303-05 - Accessory Drive - Supercharger Belt).

11



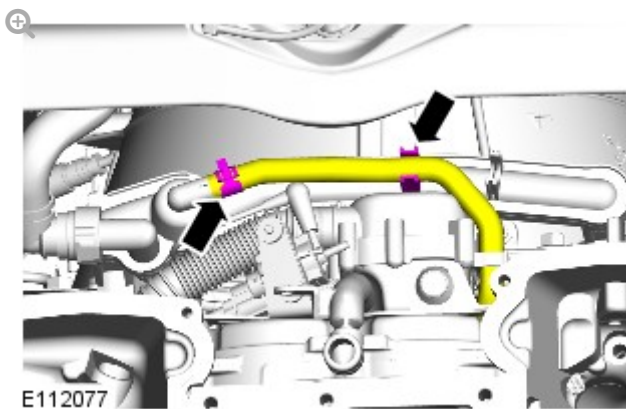
Disconnect and reposition the wiring harness.

12



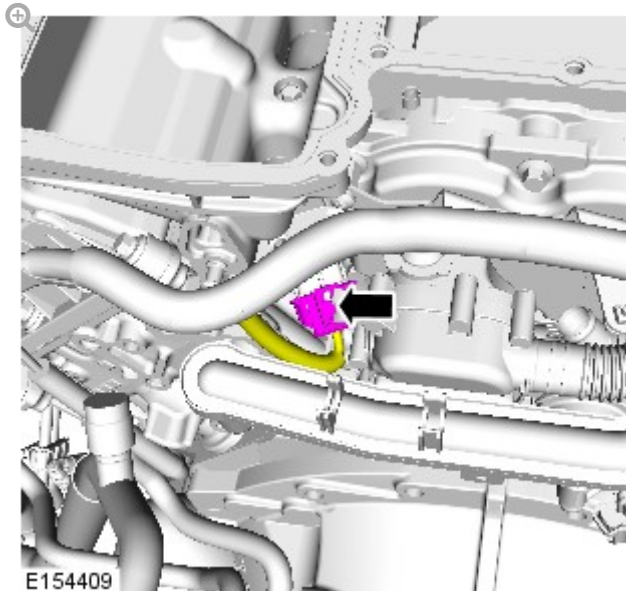
Disconnect and reposition the hose.

13



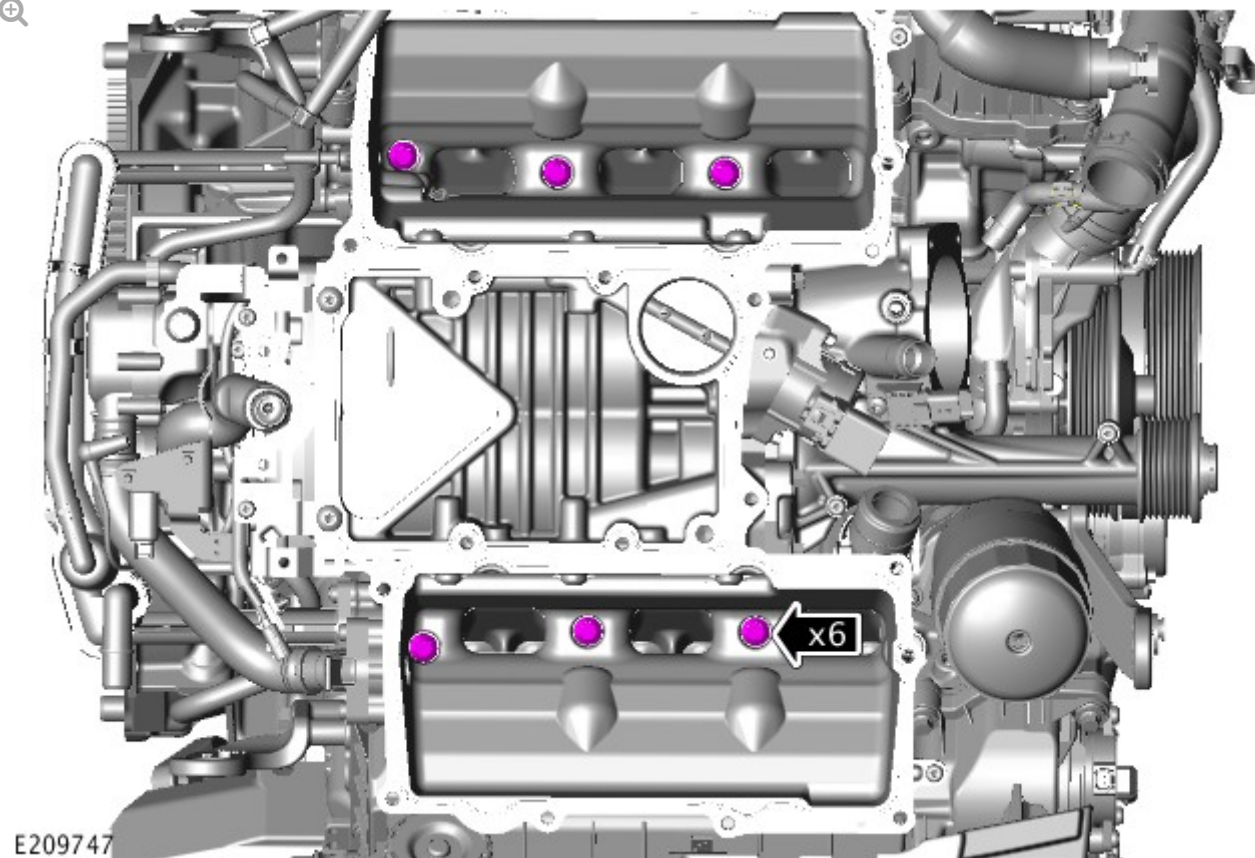
Disconnect and reposition the hose.

14



Disconnect and reposition the wiring harness.

15

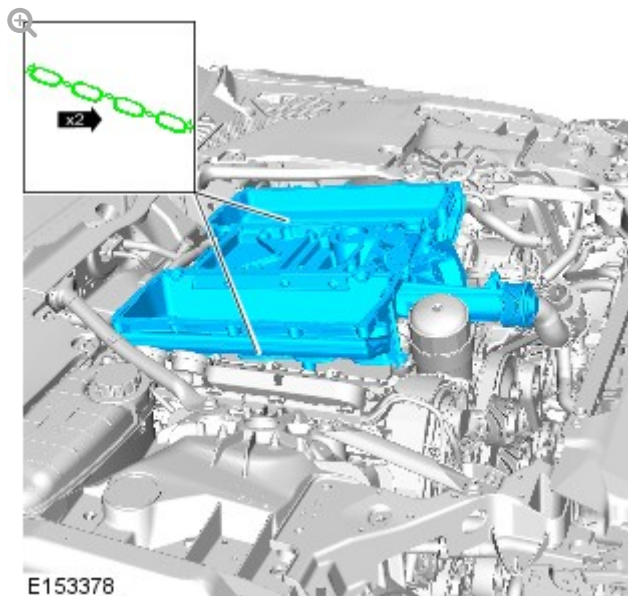


Remove the 6 fixings.

16

NOTE:

The shape of the gasket may differ from the one shown in the illustration.



Remove the supercharger assembly.

- Discard the gaskets.

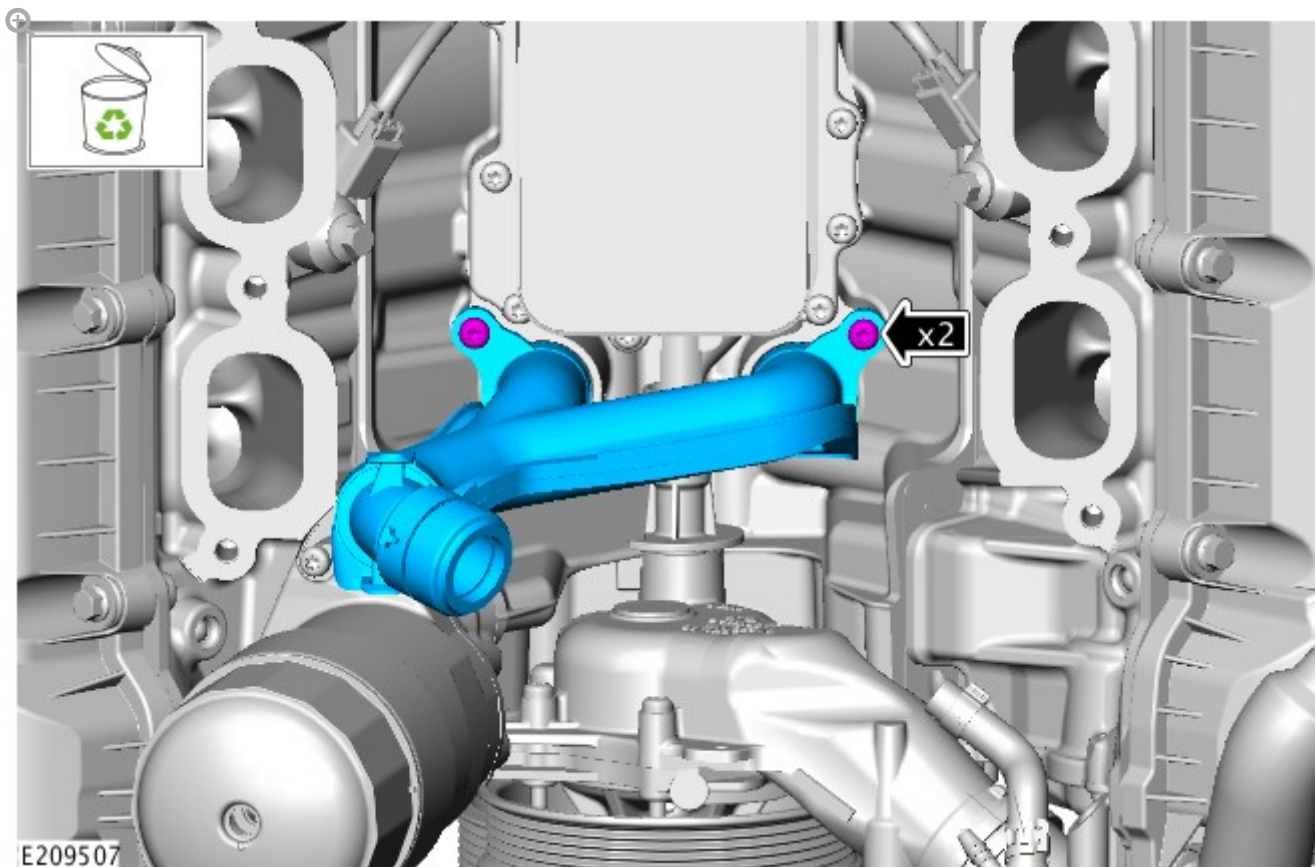
17

CAUTIONS:

- Be prepared to collect escaping engine coolant.
- Make sure no part of the lower coolant return pipe remains in both cylinder block recesses as these plastic pipes can sometimes break up on removal.

NOTE:

Make sure to retain the fixings.

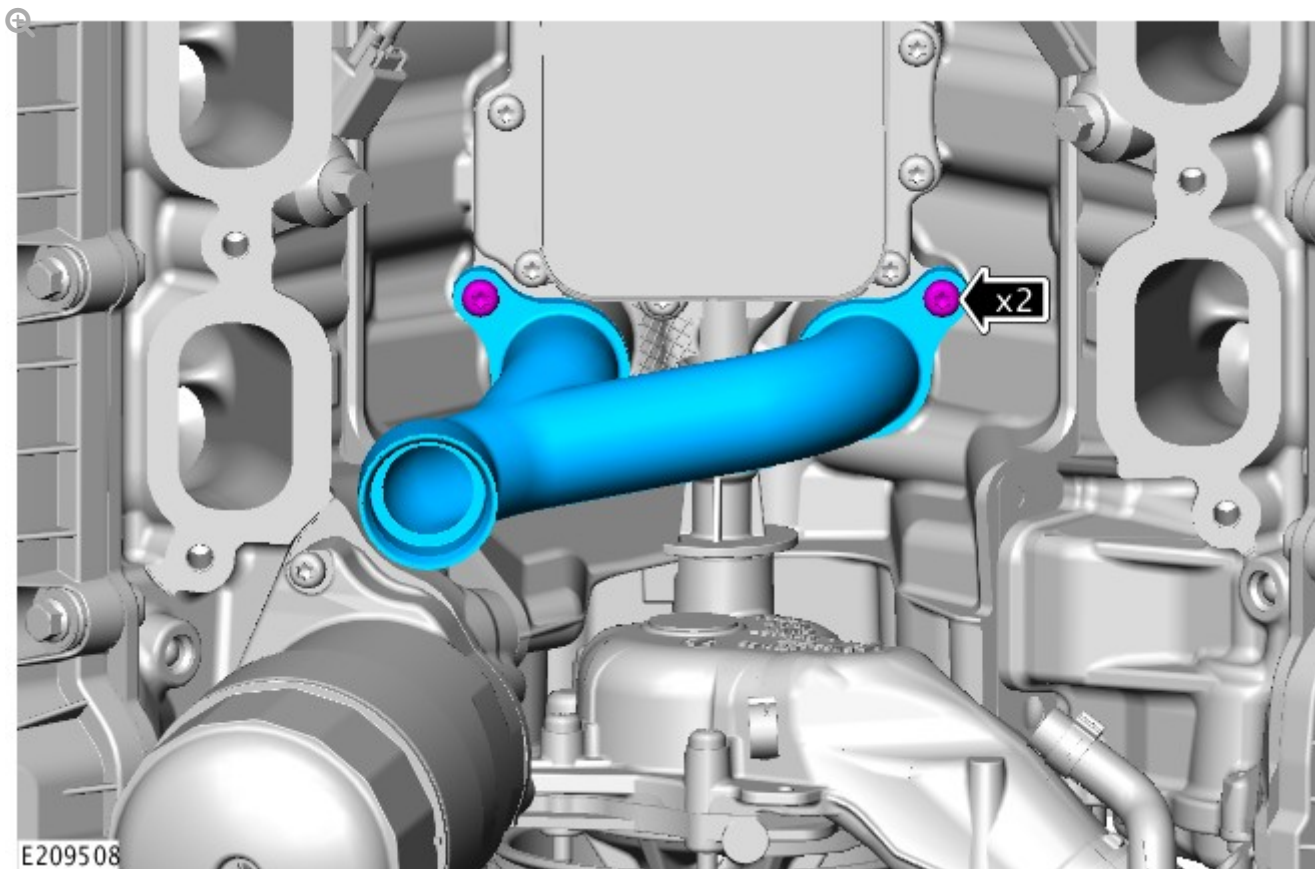


Remove and discard the lower coolant outlet pipe.

18

CAUTION:

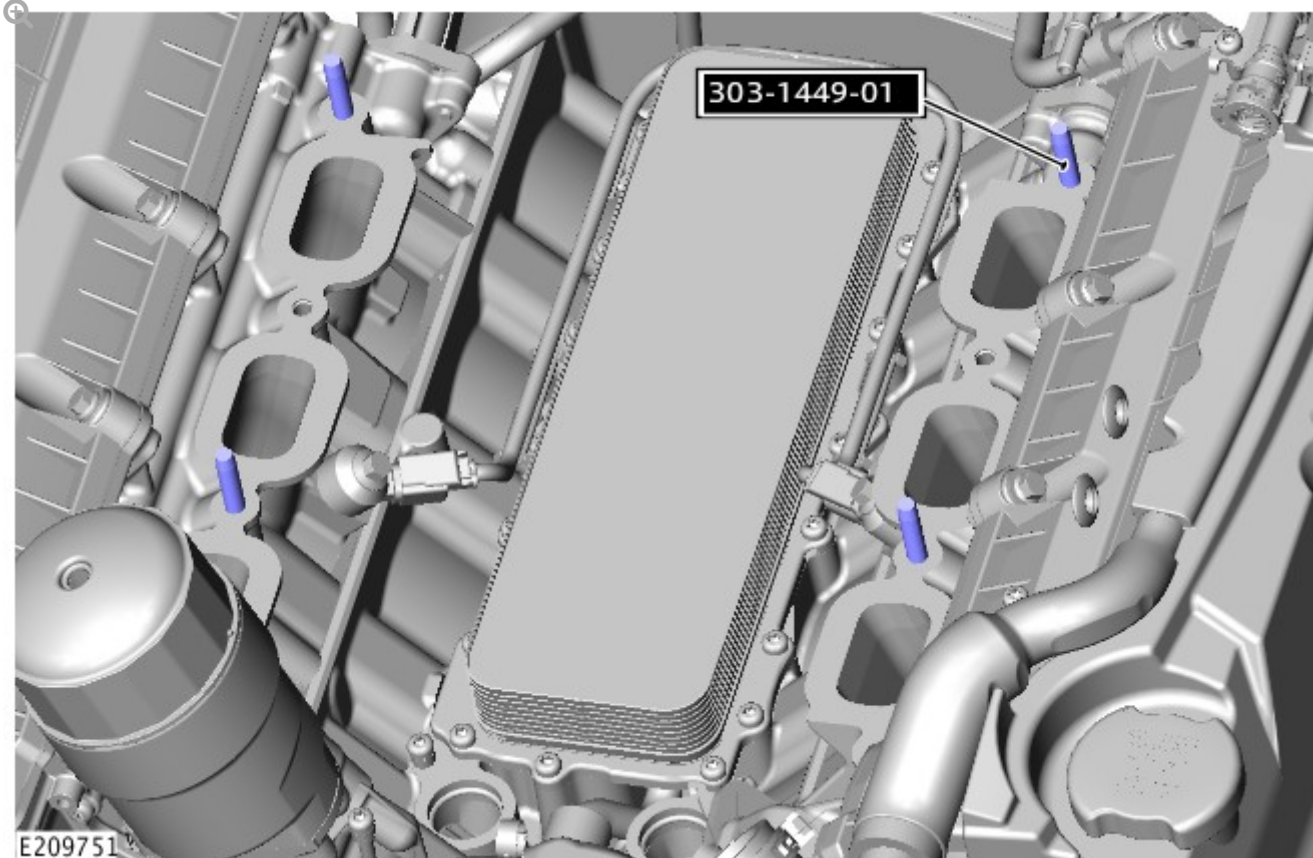
When installing the new coolant pipe into the cylinder block, make sure the O-rings are correctly installed.



Install the replacement lower coolant outlet pipe.

- **Torque: 12 Nm**

19

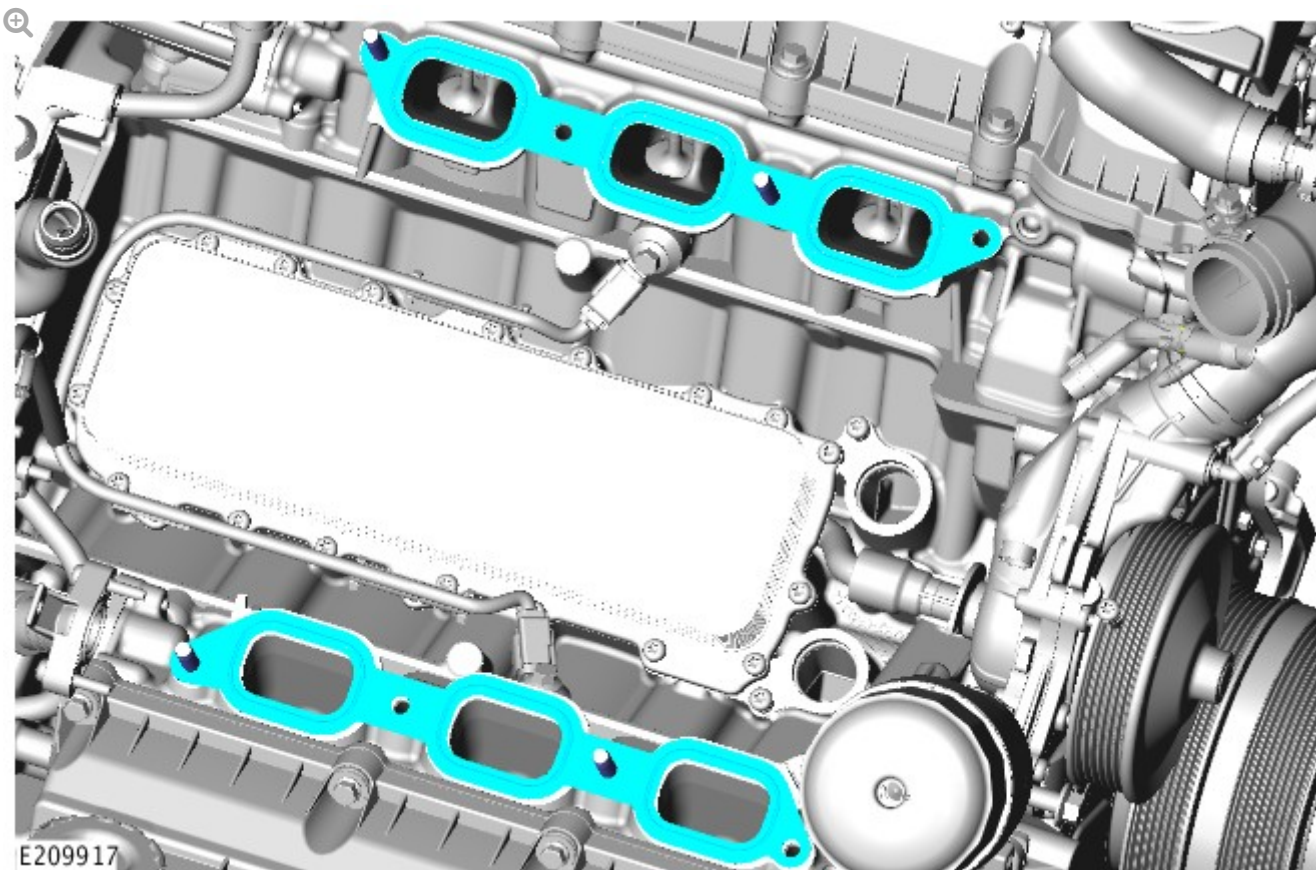


Install the guide pins to aid installation of the supercharger.

20

CAUTION:

Make sure that the mating faces are clean and free of foreign material.

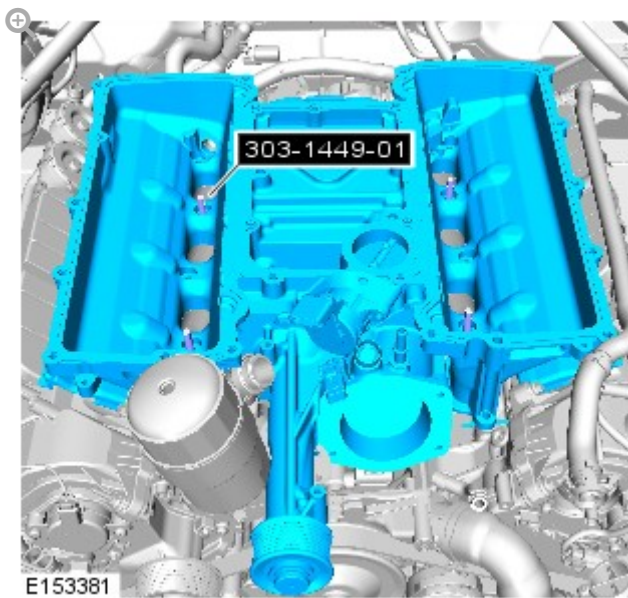


Install new supercharger to cylinder head gaskets.

21

CAUTION:

Make sure that the mating faces are clean and free of foreign material.

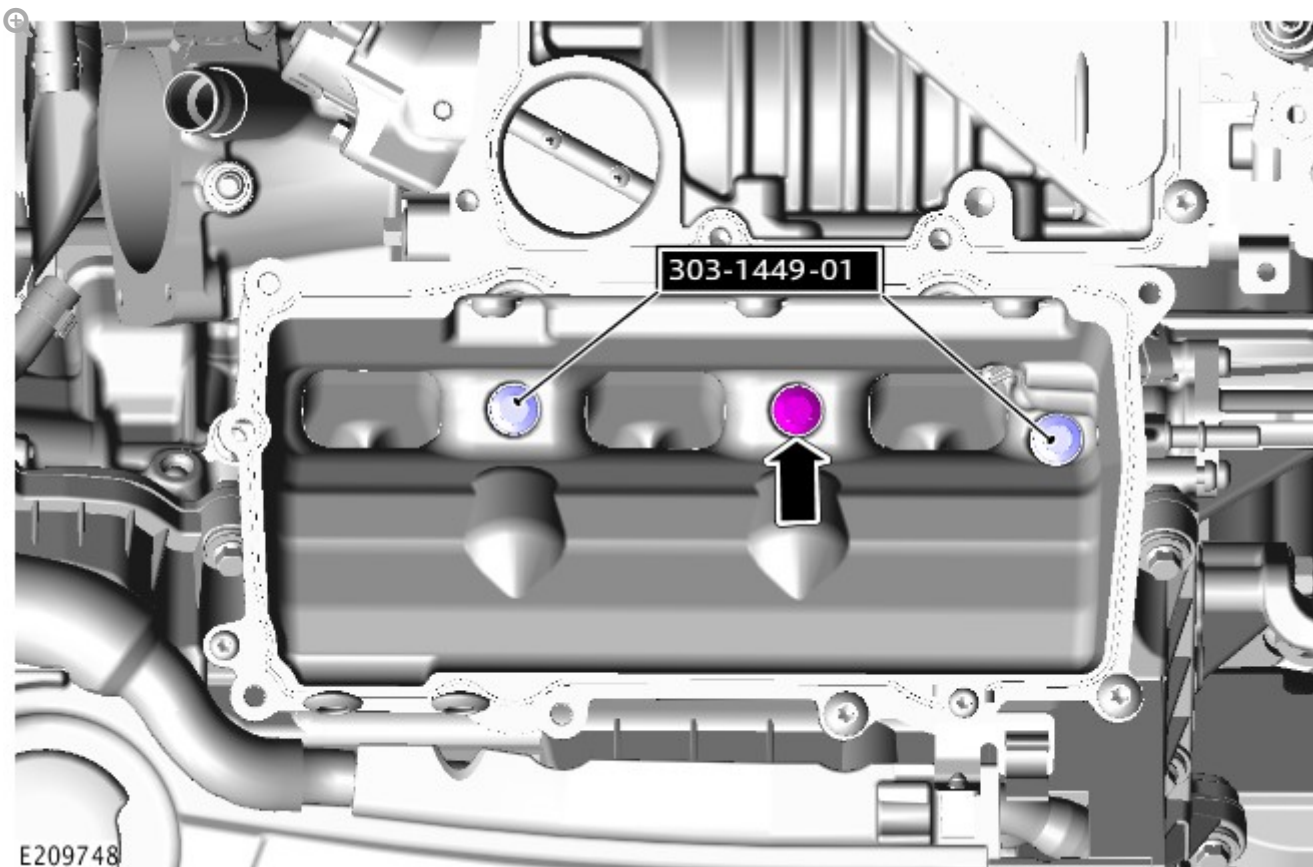


Install the supercharger assembly.

22

NOTE:

Left side is shown, right side is similar.



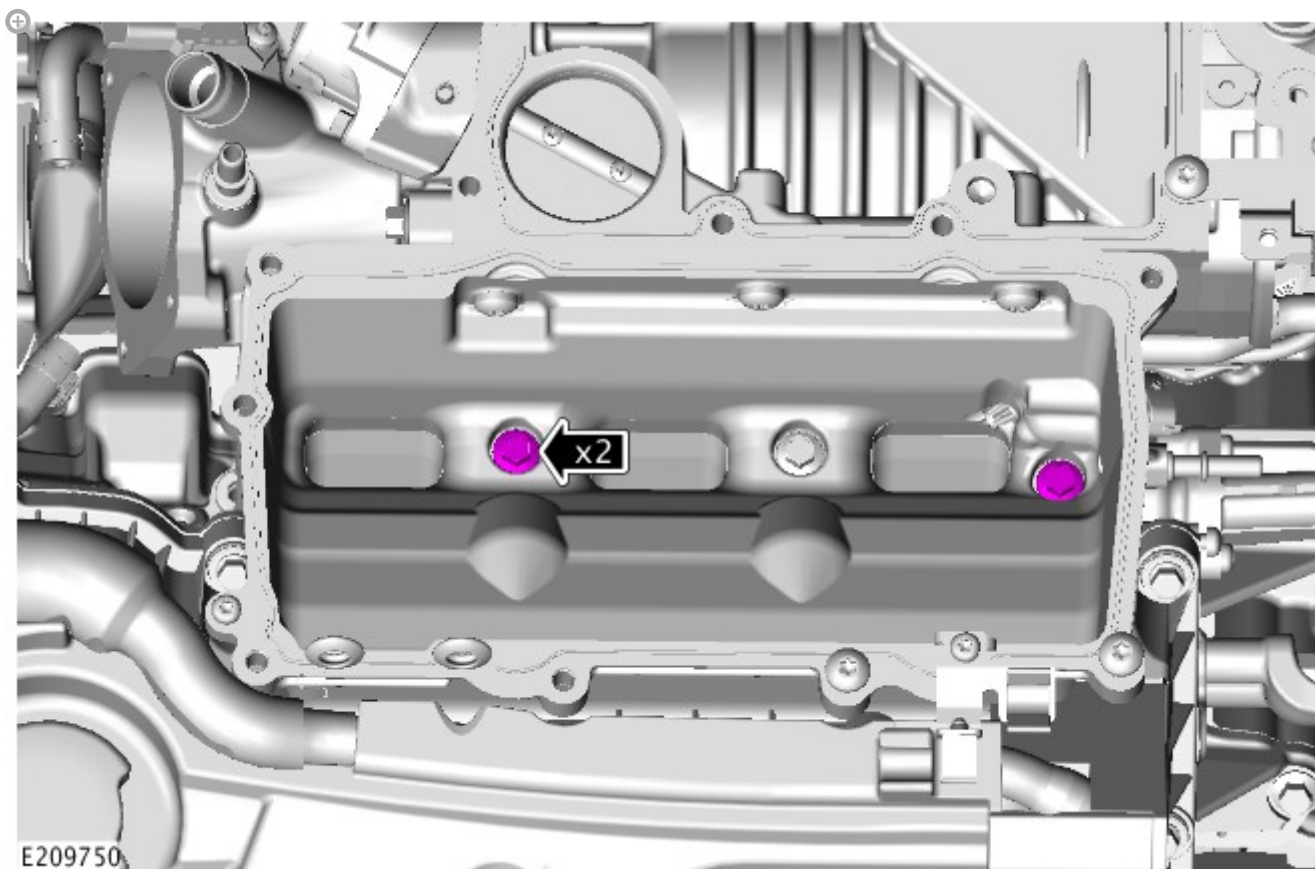
Install the fixing bolt.

- **Torque: 25 Nm**
- Repeat this step on the right side of the engine.
- Remove the guide pins from both sides.

23

NOTE:

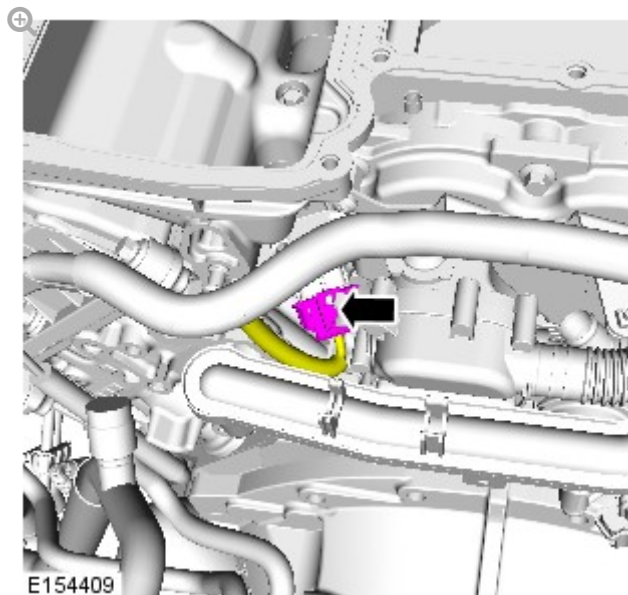
Left side is shown, right side is similar.



Install the two remaining fixings into the locations where the guide pins had previously been installed.

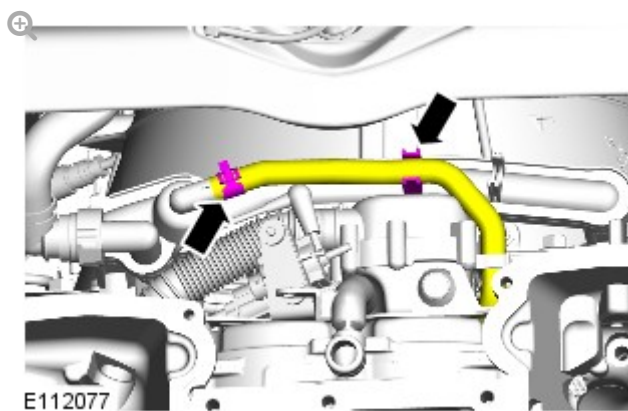
- **Torque: 25 Nm**
- Repeat this step on the right side of the engine.

24



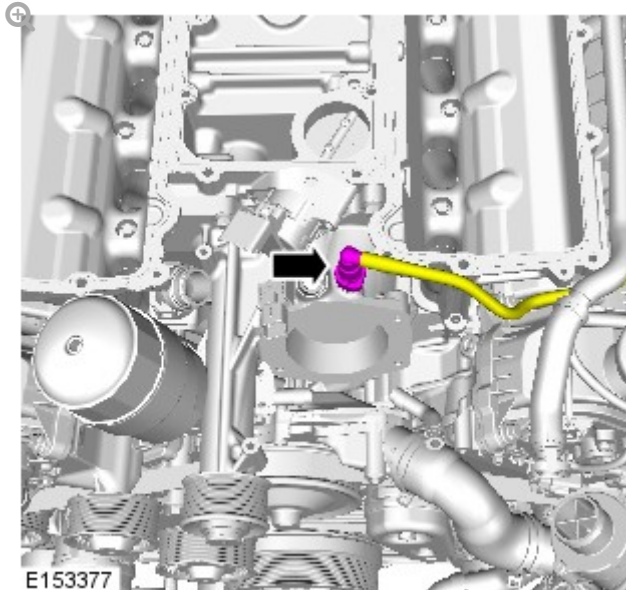
Install the wiring harness.

25



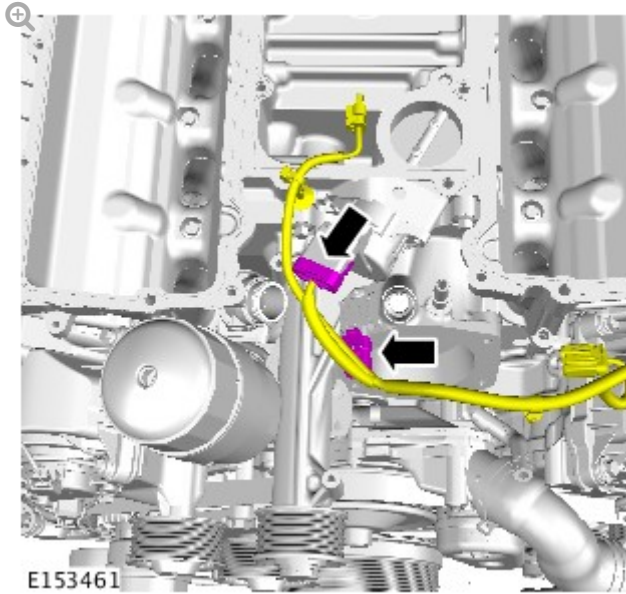
Install the hose.

26



Install the hose.

27



Install the wiring harness.

- 28 Install the supercharger belt (see TOPIx Workshop Manual section: 303-05B Accessory Drive - V8 S/C 5.0L Petrol, Removal and Installation).

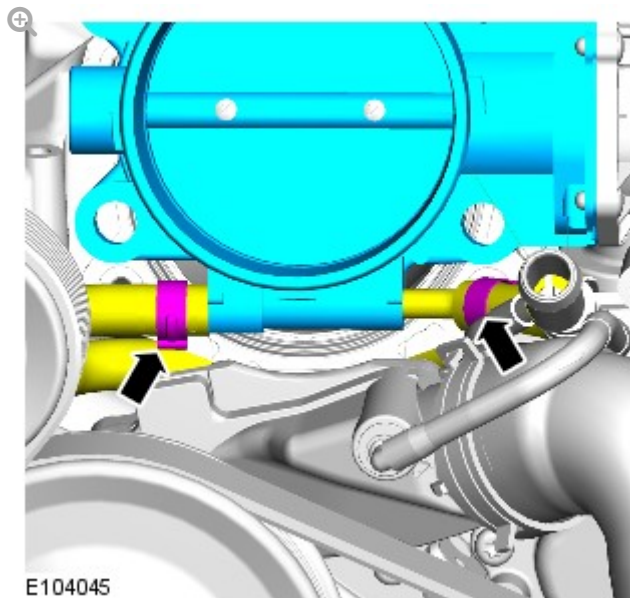
29

CAUTIONS:

- Take extra care when installing the throttle body, failure to follow this instruction may result in damage to the Manifold Absolute Pressure and Temperature (MAPT) sensor.
- Do not attempt to clean the throttle body bore, build up of deposits reduces air leakage past the throttle plate at the fully closed position.

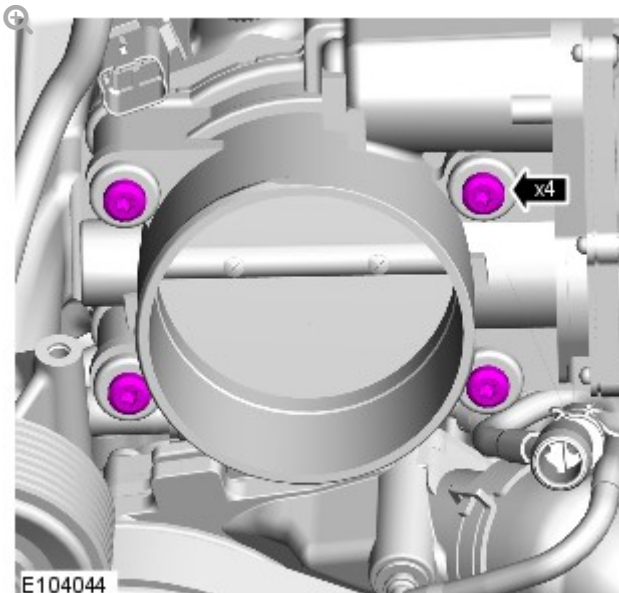
NOTE:

Make sure to install a new gasket.



Install the throttle body and connect the pipes.

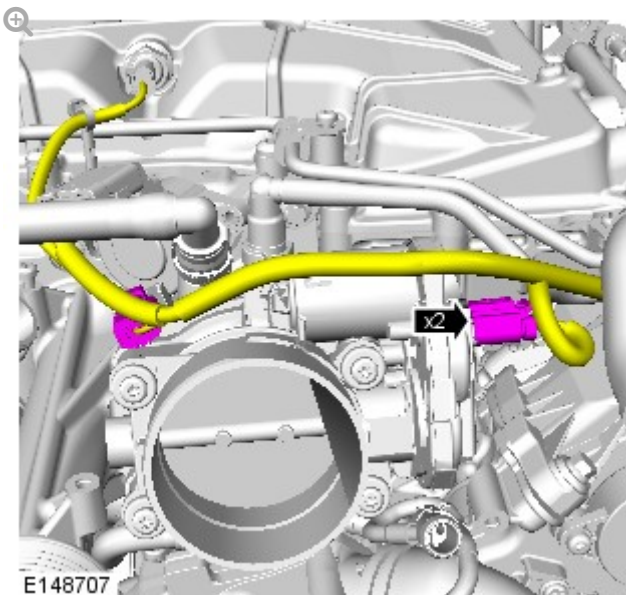
30



Install the throttle body fixings.

- **Torque: 10 Nm**

31



Install the wiring harness to the throttle body.

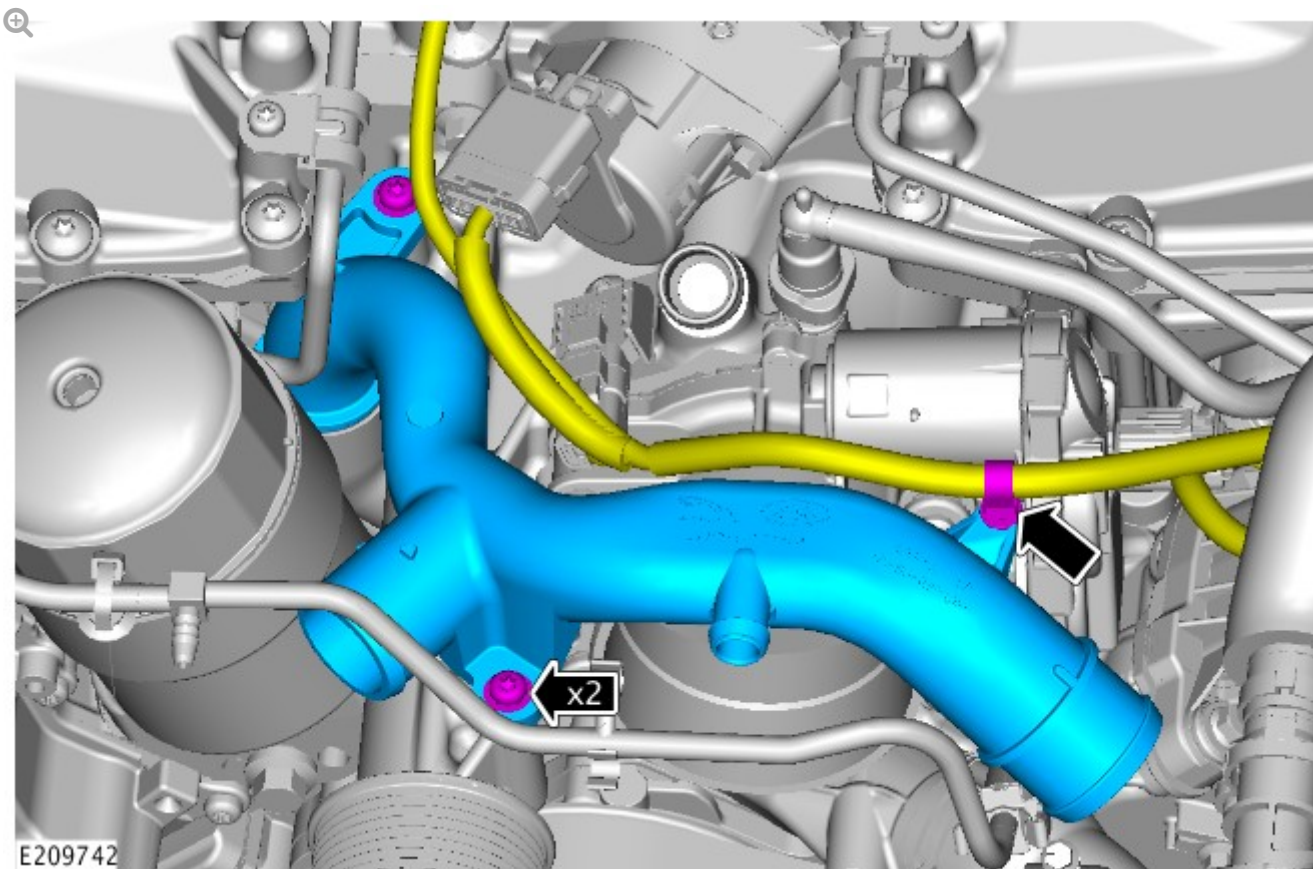
32

CAUTION:

When installing the new upper coolant pipe, make sure the O-ring is correctly installed.

NOTES:

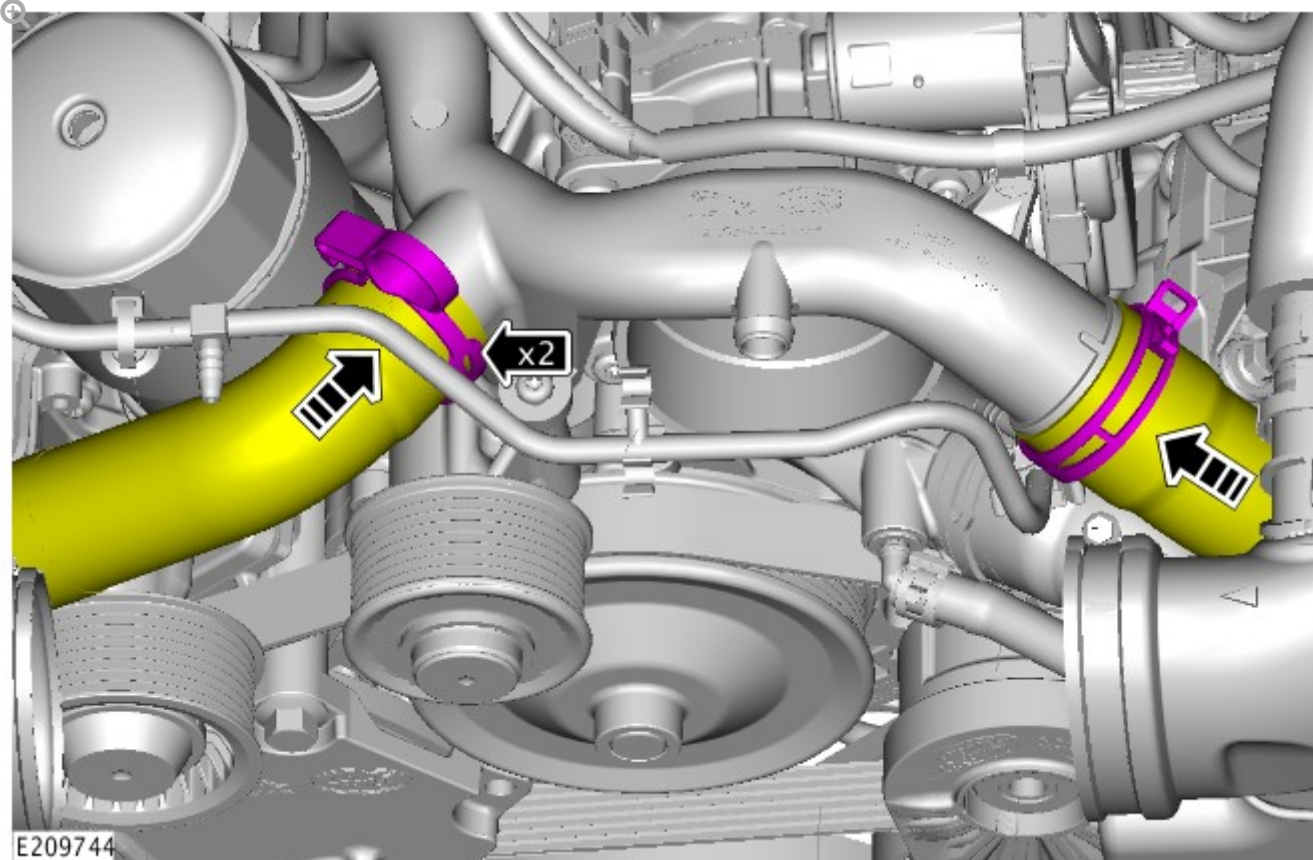
- Make sure to retain the fixings.
- The revised design of coolant pipe has no intermediate pipe between the upper and lower sections.



Install the replacement upper coolant outlet pipe.

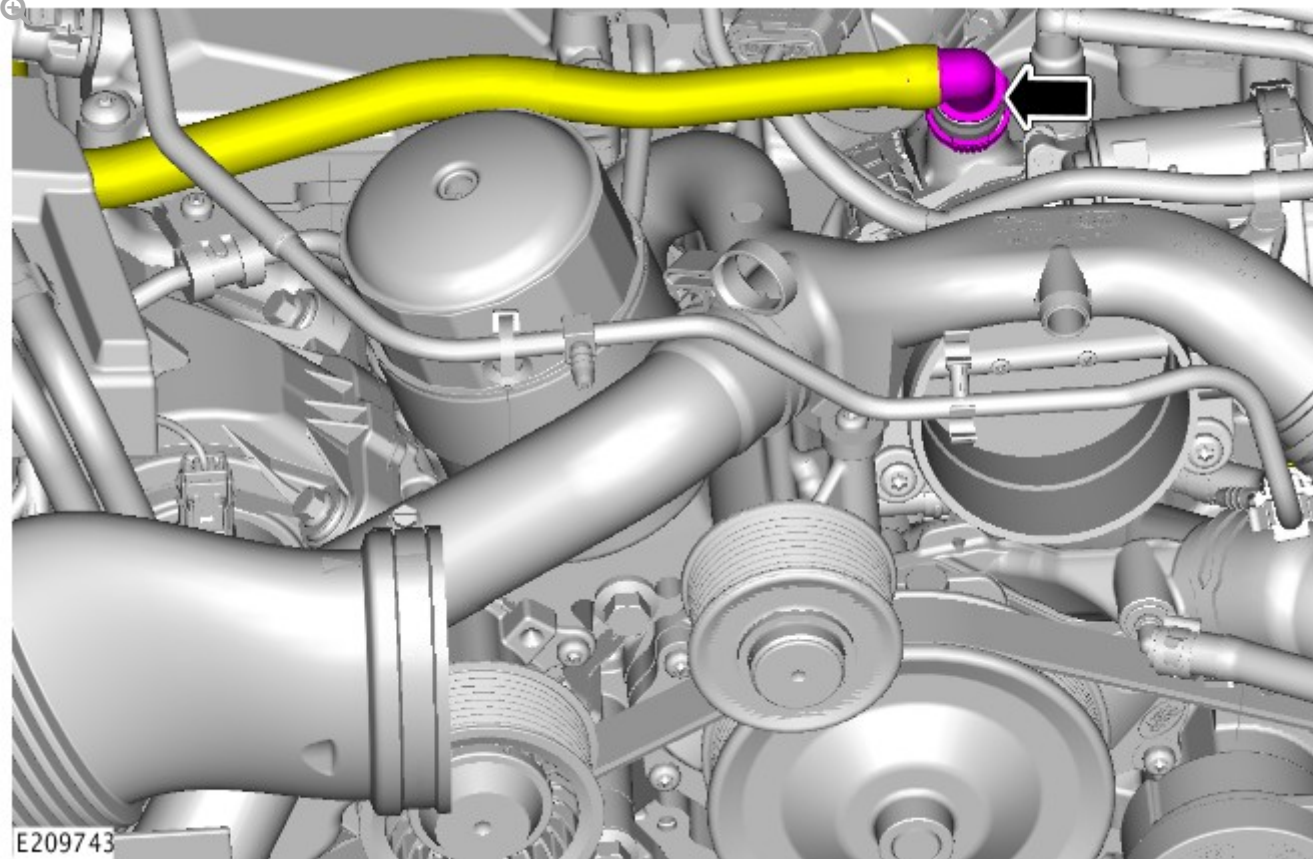
- Clip the wiring harness to the pipe.
- **Torque: 10 Nm**

33



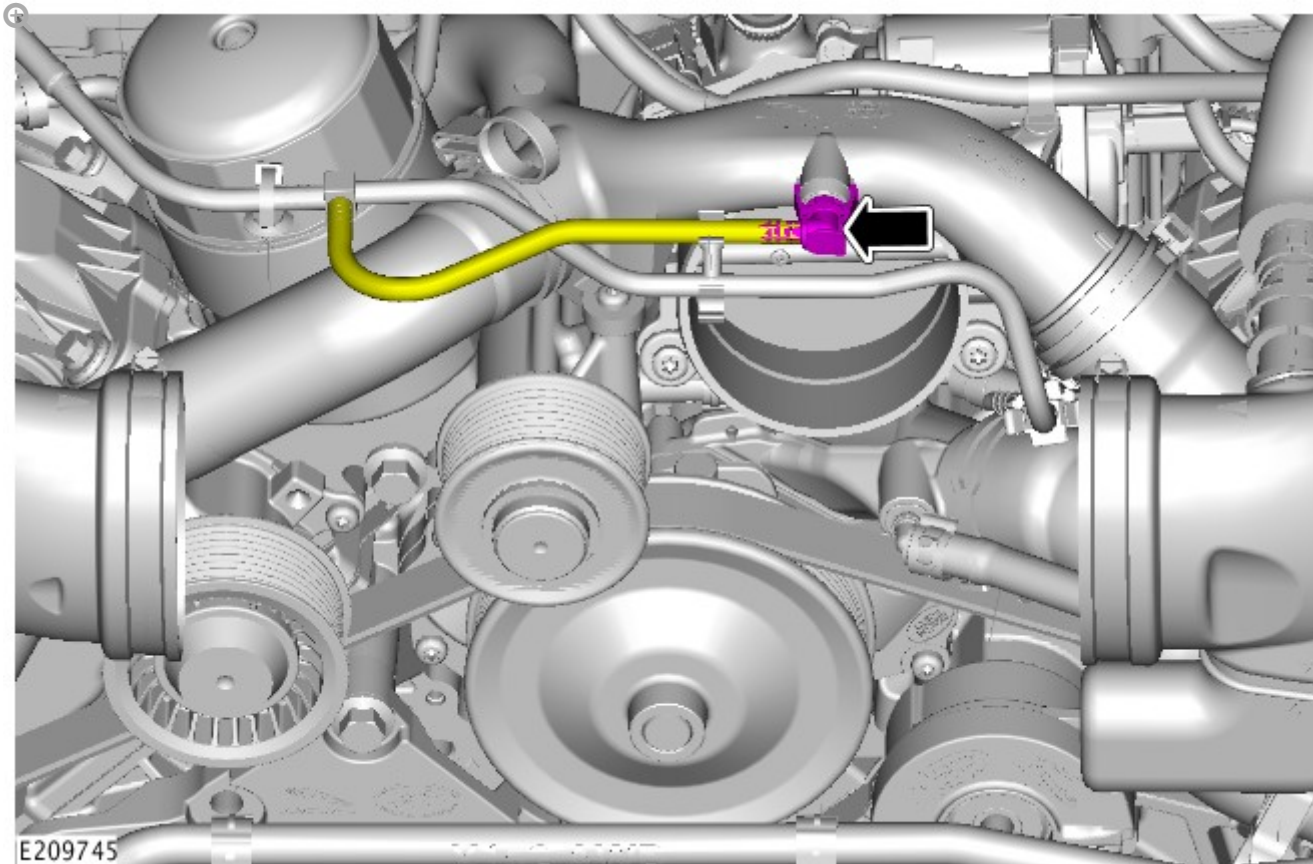
Install the 2 coolant hoses.

34



Install the hose

35



Install the hose

- 36 Install the air cleaner outlet pipe T-connector (see TOPIx Workshop Manual section: 303-12 - Intake Air Distribution and Filtering - Air Cleaner Outlet Pipe T-Connector).
- 37 Install the charge air cooler (see TOPIx Workshop Manual section: 303-12 - Intake Air Distribution And Filtering - Charge Air Cooler).

