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2017.0 DISCOVERY (LR), 303-03


ENGINE COOLING - V6 S/C 3.0L PETROL

# COOLING SYSTEM PARTIAL DRAINING, FILLING AND BLEEDING

(G1987814)

GENERAL PROCEDURES

DRAINING

 NOTE:

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

1.

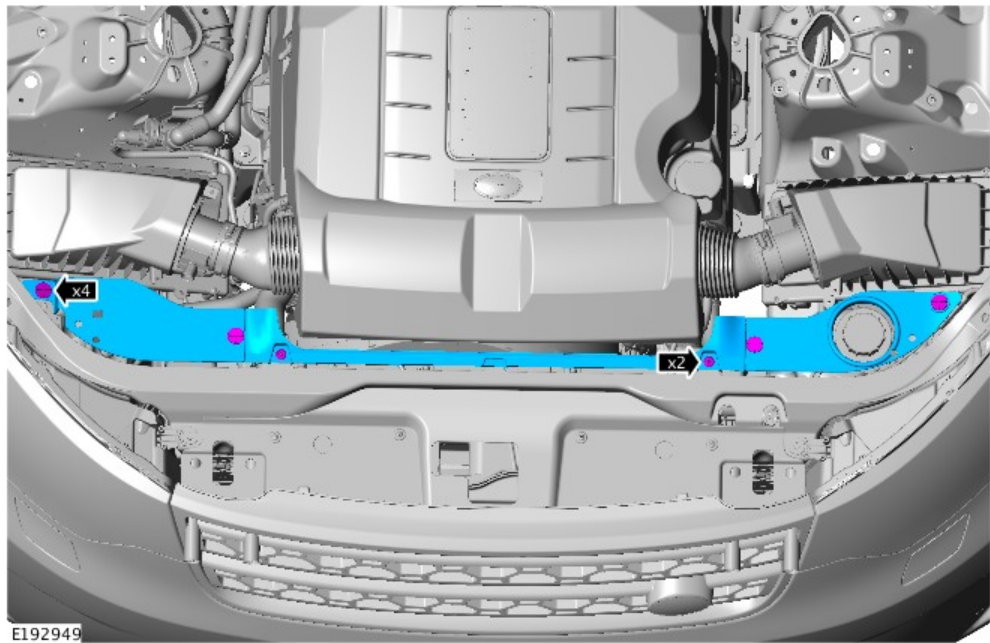


WARNING:

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

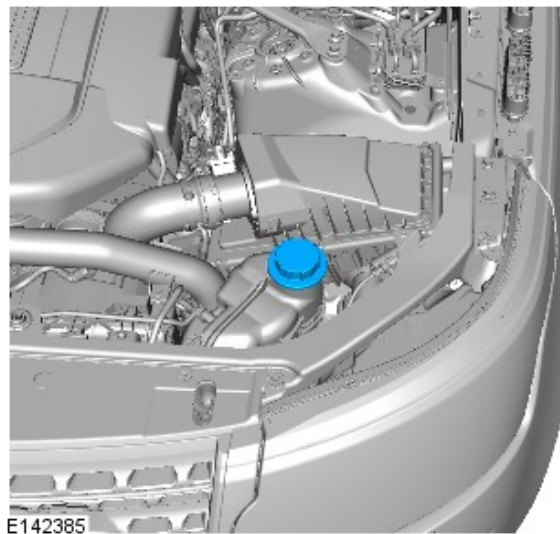
2.



3. Refer to: Air Cleaner Outlet Pipe T-Connector (303-12, Removal and Installation).

4. Refer to: Engine Undershield (501-02, Removal and Installation).

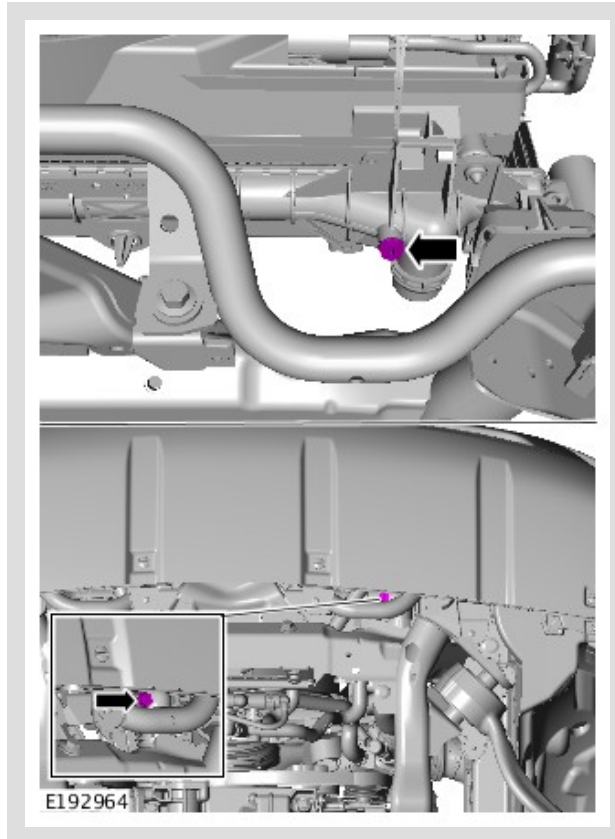
5.



6.

**⚠ CAUTION:**

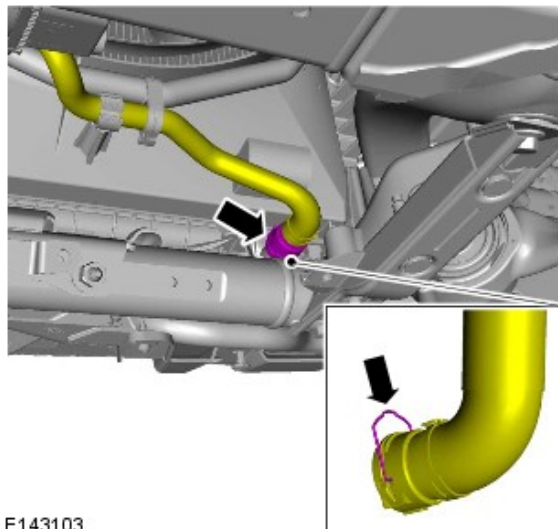
Be prepared to collect escaping coolant.



7.

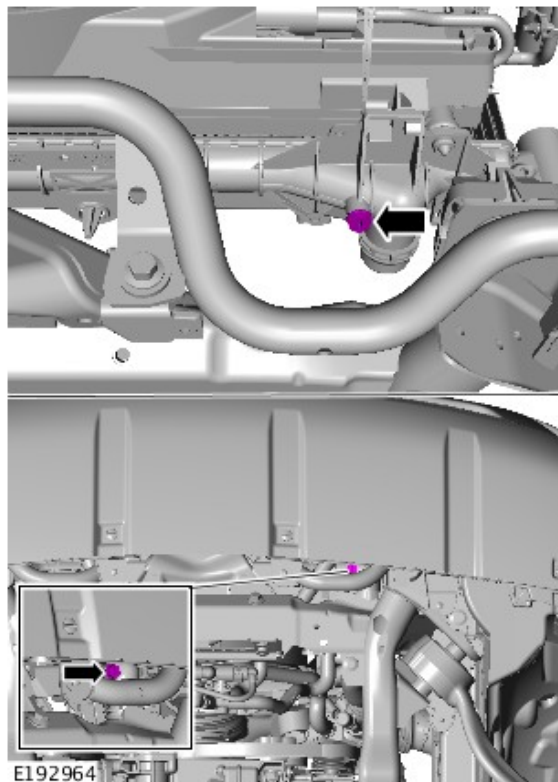
**⚠ CAUTION:**

Be prepared to collect escaping coolant.



E143103

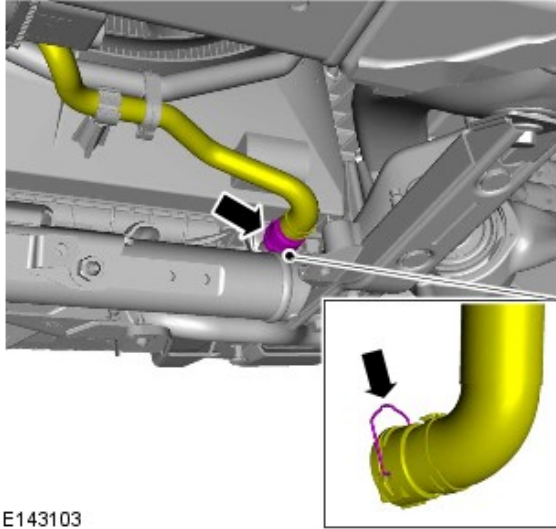
8.



E192964

- *Torque: 5 Nm*

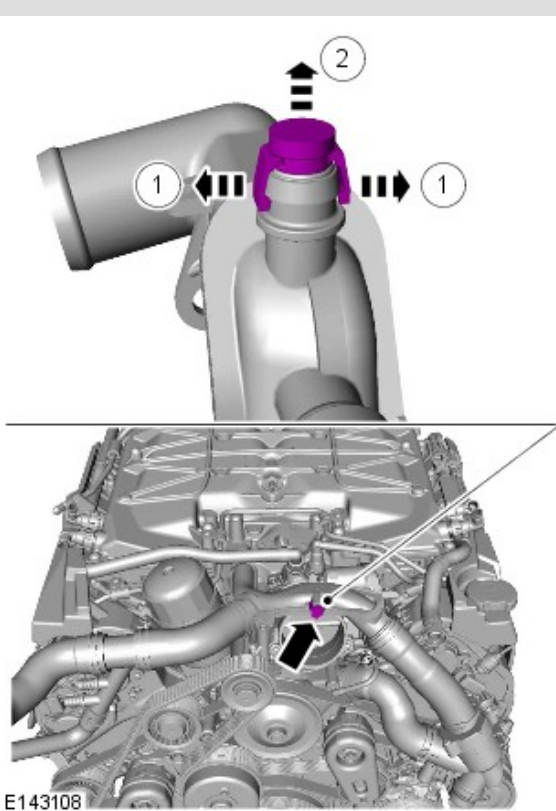
9.



E143103

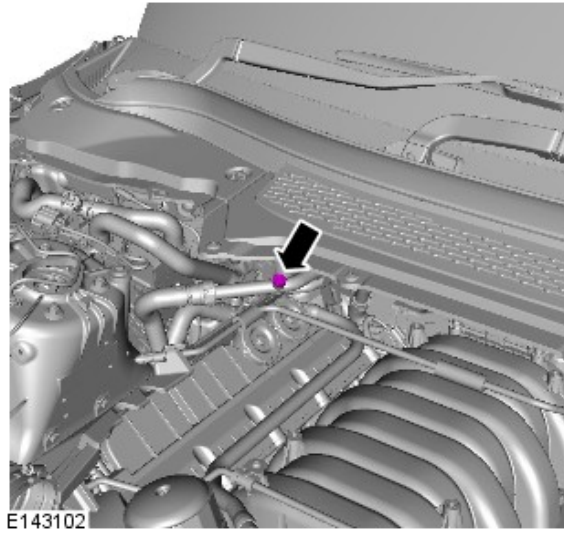
## FILLING

1.




E143108

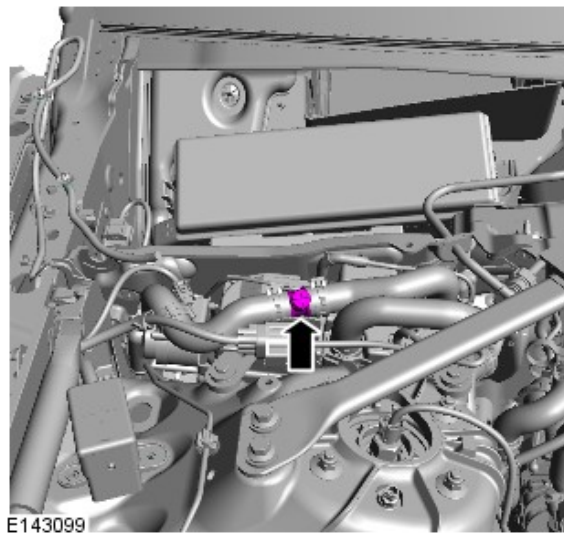
2.



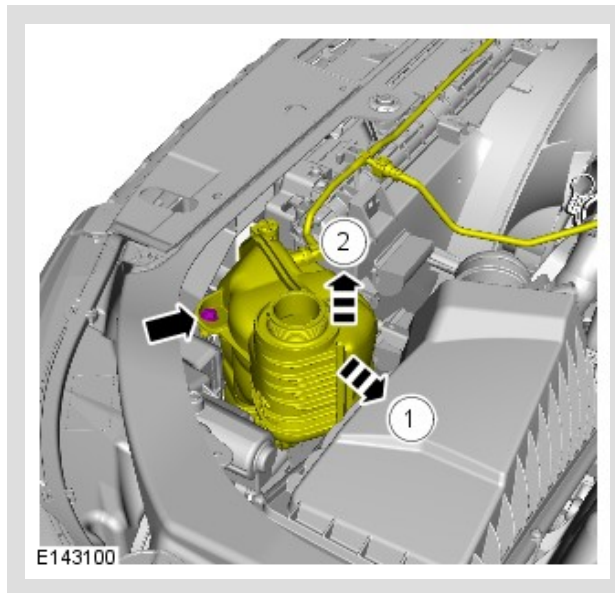
3.

 NOTE:

Where fitted.




4.

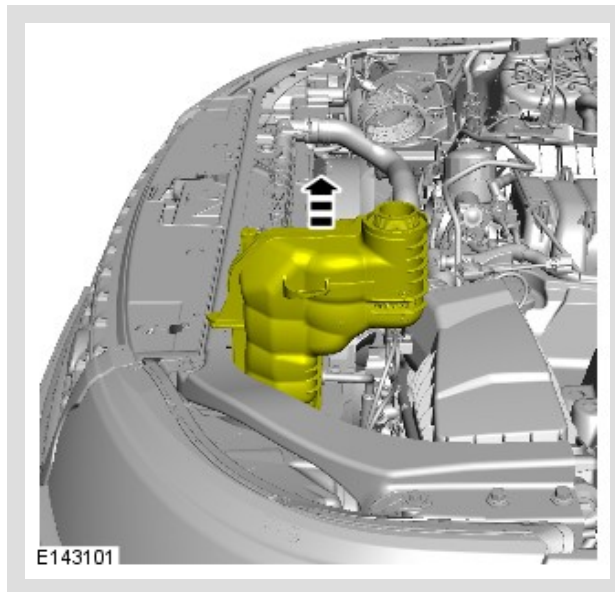


*Torque: 9 Nm*

5.

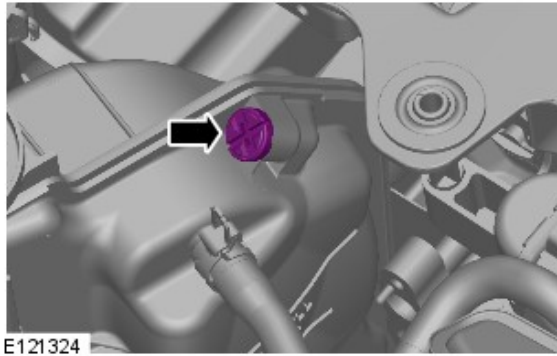
 **NOTE:**

Keep the coolant expansion tank vertical.

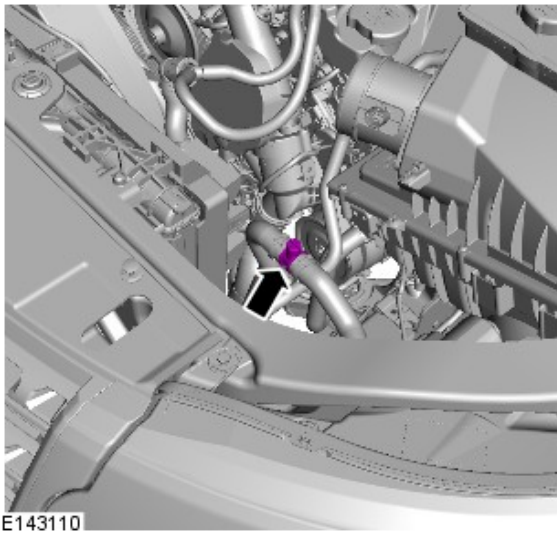


Raise the coolant expansion tank minimum 110mm from its original position.

6.



7.



8.

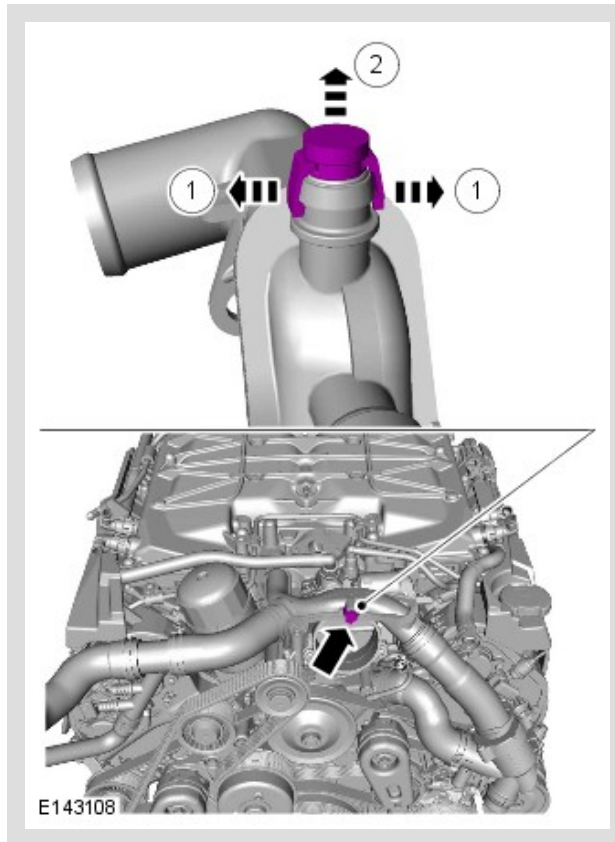
**ⓘ CAUTION:**

Anti-freeze concentration must be maintained at 50%.

Fill the coolant expansion tank to the rim and continue until coolant is visible from the outlet.

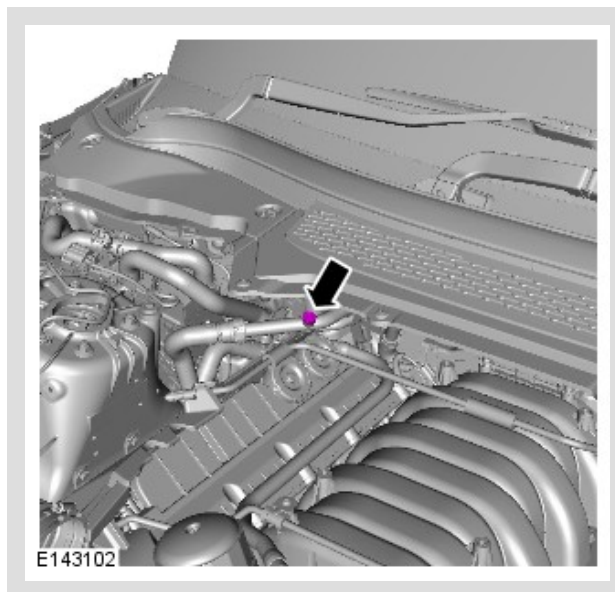


9.




Once coolant is visible from the outlet, close the bleeding points.

10.

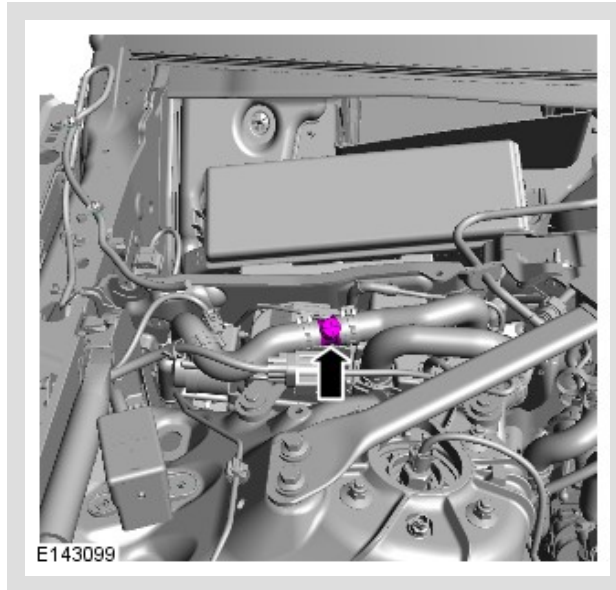


Once coolant is visible from the outlet, close the bleeding points.

11.

 NOTE:

Where fitted.

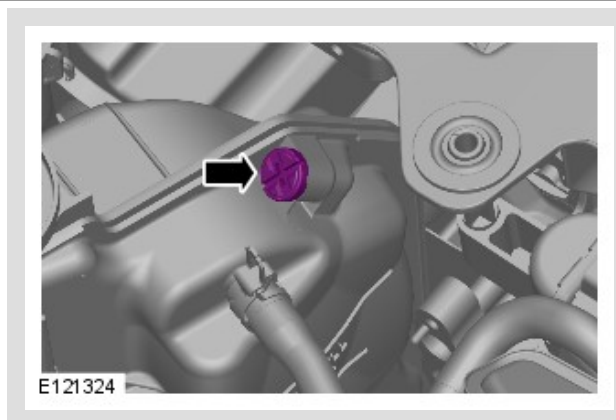


Once coolant is visible from the outlet, close the bleeding points.

12.

Continue to fill the coolant expansion tank to the rim until the coolant level stops dropping.

13.



14.

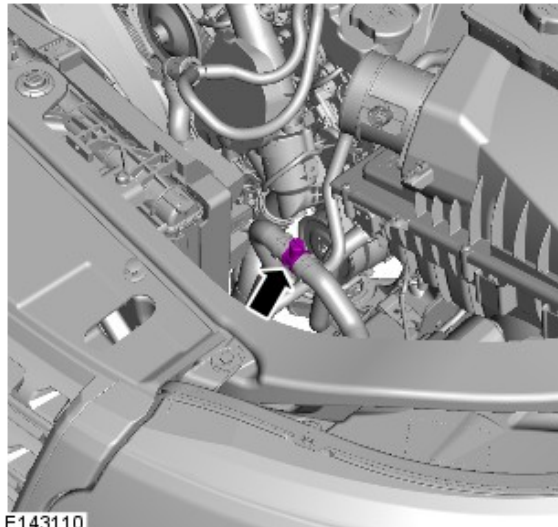
Set the heater controls to maximum.

15.

Start and run the engine.

16. Select sand mode, to aid the removal of air during bleeding process.

17.



Once coolant is visible from the outlet, close the bleeding points.

18. Continue to fill the coolant expansion tank to the rim until the coolant level stops dropping.

- 19.
- Switch the engine off.
  - Wait a minimum of 1 minute.

- 20.
- Start and run the engine.
  - Hold the engine speed at 2000 RPM until the coolant level stops dropping.

21. Increase the engine speed to 3500 rpm until hot air is emitted from the front and rear face vents.

22. Install the expansion tank cap after making sure that the final coolant level is 40mm above the maximum cold fill line.

23. Run the engine until the thermostat opens and hot air is emitted from the front and rear face vents.

24. Switch the engine off and allow to cool.

25. Install the coolant expansion tank.

26.



**WARNING:**

When releasing the cooling system pressure, cover the coolant expansion tank cap with a thick cloth.



**CAUTION:**

Make sure the coolant level remains above the "COLD FILL RANGE" lower level mark.

Check and top-up the coolant if required.

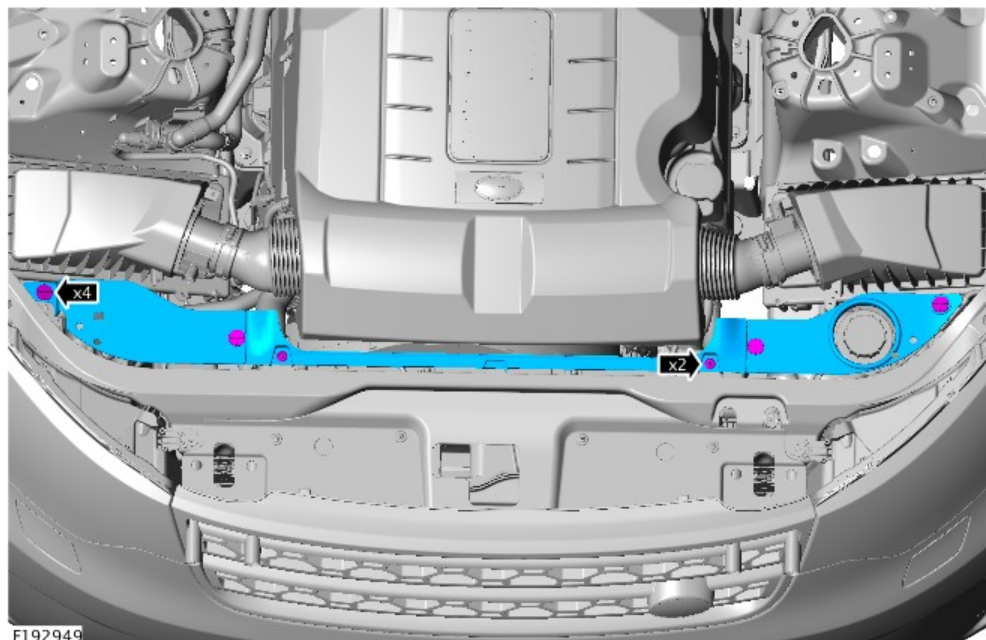
27.

Visually check the engine and cooling system for signs of coolant leakage.

28.

Refer to: Air Cleaner Outlet Pipe T-Connector (303-12, Removal and Installation).

29.



30.

Refer to: Engine Undershield (501-02, Removal and Installation).