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Cooling System Draining, Filling and Bleeding (26.10.01)



WARNING: Since injury such as scalding could be caused by escaping steam or coolant, do not remove the filler cap from the coolant expansion tank while the system is hot.

- 1 . Position the vehicle on a lift.
- 2 . Set the heater controls to maximum.
- 3 . Disconnect the battery ground cable.
- 4 . Remove the engine cover.
[Engine Cover - 4.4L \(12.30.50\)](#)

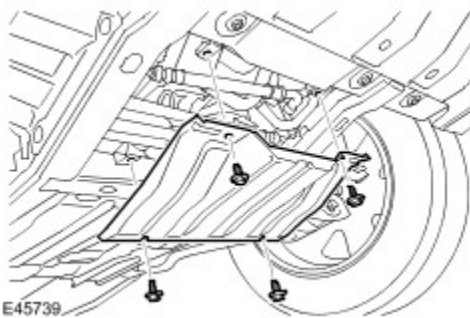
5 .



WARNING: Since injury such as scalding could be caused by escaping steam or coolant, do not remove the filler cap from the coolant expansion tank while the system is hot.

Remove the coolant expansion tank cap.

- 6 . Remove the front LH splash shield.
 - Remove the 4 clips.
- 7 . Remove the radiator access panel.
 - Remove the 4 bolts.



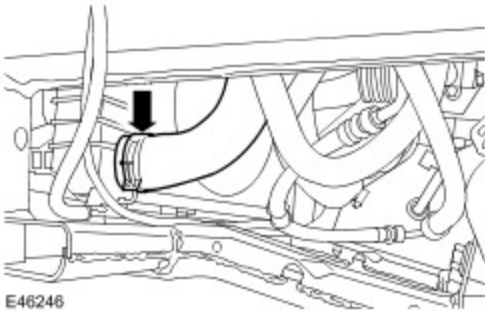
- 8 . Position a container to collect the fluid.

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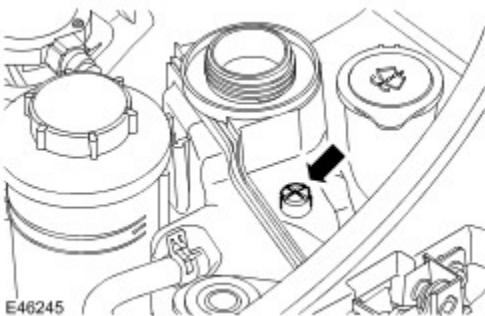


CAUTION: Engine coolant will damage the paint finished surfaces. If spilt, immediately remove the coolant and clean the area with water.

Release the clip and disconnect the radiator lower hose, allow the coolant to drain.



- 10 . Remove the container.
- 11 . Connect and secure the radiator lower hose.
 - Secure with the clip.
- 12 . Connect the battery ground cable.
- 13 . Connect exhaust extraction hoses to the tail pipes.
- 14 . Loosen the coolant expansion tank bleed screw.



- 15 . Fill the cooling system, keeping coolant to the upper level mark of the expansion tank.
- 16 . Tighten the bleed screw.
- 17 . Install the coolant expansion tank cap.
- 18 . Start and run the engine at idle until the normal operating temperature is reached.
- 19 .



WARNING: Release the cooling system pressure by slowly turning the coolant expansion tank cap a quarter of a turn. Cover the expansion tank cap with a thick cloth to prevent the possibility of scalding. Failure to follow this instruction may result in personal injury.

NOTE :

When the coolant bleed is complete and prior to installing the expansion tank cap, top-up the expansion tank to 30mm above the maximum level.

Switch the engine off.

- Remove the coolant expansion cap, allow the level to settle and top-up so that the level is 30mm above the upper level.
- Allow the engine to cool.

20 . Install the engine cover.
[Engine Cover - 4.4L \(12.30.50\)](#)

21 . Clean any spilt coolant from the vehicle.

22 . Install the radiator access panel.

- Tighten the 4 bolts to 10 Nm (7 lb.ft).

23 . Install the front LH splash shield.