

# COOLING SYSTEM PARTIAL DRAINING, FILLING AND BLEEDING (G1313552)

## GENERAL PROCEDURES

### **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.

### **CAUTIONS:**

- The engine cooling system must be maintained with the correct concentration and type of anti-freeze solution to prevent corrosion and frost damage. Failure to follow this instruction may result in damage to the engine.
- Engine coolant will damage the paint finished surfaces. If spilt, immediately remove the coolant and clean the area with water.

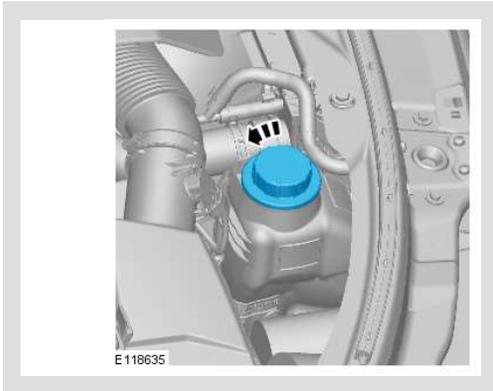
### **NOTE:**

Removal steps in this procedure may contain installation details.

1.

 **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.



2.

 **WARNING:**

Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

3.

For additional information, refer to: [Radiator Splash Shield](#) (501-02 Front End Body Panels, Removal and Installation).

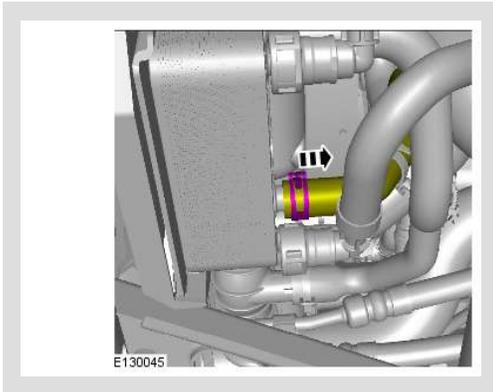
4.

**⚠ WARNING:**

Eye protection must be worn.

**⚠ CAUTION:**

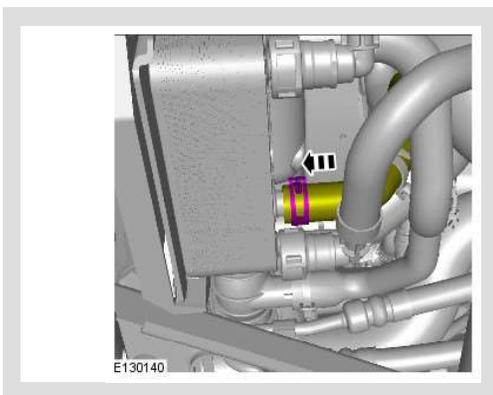
Be prepared to collect escaping fluids.



Allow the coolant to drain.

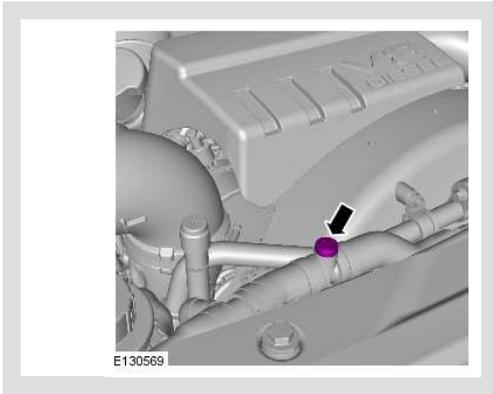
Position a container to collect the fluid.

5.



6. Remove the container.

7.



8. Set the heating system to MAX heat, the blower motor to MAX speed and the air distribution to the instrument panel registers.

9.

**⚠ CAUTION:**

Anti-freeze concentration must be maintained at 50%.

Fill the cooling system expansion tank until the coolant level becomes static with in the "COLD FILL RANGE".

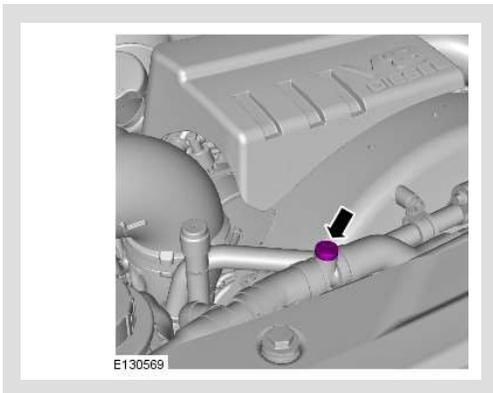
10.

**⚠ CAUTION:**

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

Start the engine and allow to idle.

11.



When coolant runs from the expansion tank bleed point bubble-free, tighten the bleed screw.

12. Add coolant to the expansion tank until the coolant level is 25 mm (0.98 inch) above the "COLD FILL RANGE" upper mark.

13.

**⚠ CAUTION:**

Correct installation of the Coolant expansion tank cap can be obtained by tightening the cap until an audible click is heard.



14. Increase the engine speed to 3000rpm.

15. When hot air is emitted from the centre registers, set the heating system to MIN and the blower motor to MIN.

16. Switch the engine off and allow to cool.

17.

**⚠ 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.

Check and top-up the coolant if required.

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

19. For additional information, refer to: [Radiator Splash Shield](#) (501-02 Front End Body Panels, Removal and Installation).