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Cooling System Pressure Test

NOTE :

The following procedure will enable the cooling system to be pressure tested for condition and leaks. Stage 1 will check the expansion tank cap register seal and the cap for leaks. Stage 2 will check the the entire cooling system.

NOTE :

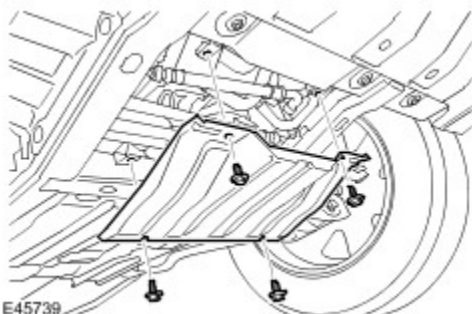
It will be necessary to use the cooling system test kit, Part Number 511 3301 006 00, which is available under the equipment programme.

- 1 . Disconnect the battery ground cable.

[Specifications](#)

- 2 . Raise and support the vehicle.

- 3 . Remove the radiator access panel.
 - Remove the 4 bolts.



- 4 . Examine the coolant hoses for signs of cracking, distortion and security of the hose connections.

- 5 .



WARNING: Since injury such as scalding could be caused by escaping steam or coolant, allow the vehicle cooling system to cool prior to carrying out this procedure.

NOTE :

Stage 1.

Disconnect the coolant expansion tank bleed hose.

- Release the clip.

- 6 . Install the 'T' piece adaptor (part of the cooling system test kit) between the coolant expansion tank and the coolant bleed hose.

- Secure with the 2 clips.

- 7 . Check the pressure pump and gauge prior to connection.

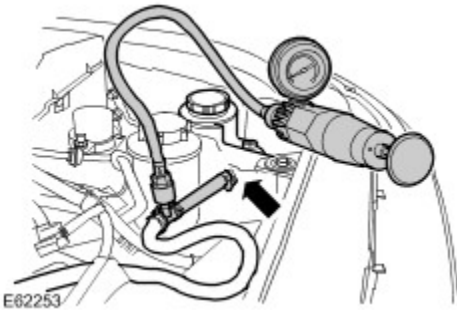
- Operate the pump plunger twice noting the reading on the pressure gauge. Make sure the pressure reading remains constant until the pressure release button is pressed.

8 . Install the coolant pressure pump assembly.

- Connect to the 'T' piece.

9 . Pressurize the cooling system.

- Slowly pressurize the cooling system to 1.0 bar (100 kPa) (14.5 psi).
- Check the pressure remains above 0.9 bar (90 kPa) (13 psi) after waiting for 30 seconds.
- During the pressure drop check, listen for a hissing noise from the expansion tank cap.



10 . **NOTE :**

If the coolant expansion tank cap is found to be leaking, replace the cap.

Depressurize the cooling system.

- Disconnect the 'T' piece.
- Connect the coolant expansion tank bleed hose.
- Secure the clip.

11 .



WARNING: Since injury such as scalding could be caused by escaping steam or coolant, allow the vehicle cooling system to cool prior to carrying out this procedure.

NOTE :

Stage 2.

Remove the coolant expansion tank cap.

12 . **NOTE :**

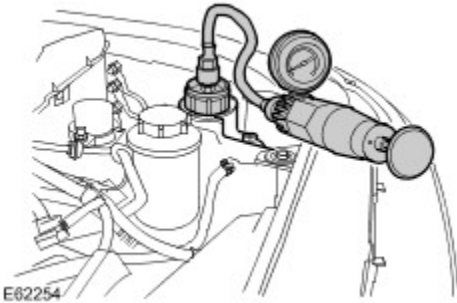
This adaptor is part of the cooling system test kit.

Install adaptor K83 to the coolant expansion tank.

- Clean the component mating faces.
- Lubricate the seal.

13 . Install the coolant pressure pump assembly.

- Slowly pressurize the cooling system to 1.5 bar (150kPa) (22 psi), check the pressure over a 5 minute period. A small pressure decay of approximately 0.15 bar (15 kPa) (1 psi) over the first minute is normal, as the air in the expansion tank cools.
- If the pressure continues to drop after the initial tolerance, there is a coolant leak.



14 . Identify and replace the defective component.

- Repeat the pressure test.
- When the pressure over time remains constant, depressurize and remove the pressure pump and gauge.
- Install the coolant expansion tank cap.

15 . Install the radiator access panel.

- Tighten the bolts to 25 Nm (18 lb.ft).

16 . Connect the battery ground cable.

[Specifications](#)