

Coolant System Flushing

COOLING SYSTEM DRAINING AND FILLING (ENGINE HEATING AND COOLING)

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Special Tools

GE-26568tester

Pressurized Cooling System Warning:

With a pressurized cooling system, the coolant temperature in the radiator can be considerably higher than the boiling point of the solution at atmospheric pressure. Removal of the surge tank cap, while the cooling system is hot and under high pressure, causes the solution to boil instantaneously with explosive force. This will cause the solution to spew out over the engine, the fenders, and the person removing the cap. Serious bodily injury may result.

Note: Use only a GM released anti-freeze mixture and ensure a concentration of 50 percent water to 50 percent antifreeze. Antifreeze does not just prevent the cooling system from freezing up, it also protects all the components that are in contact with coolant from rust/limescale deposits. As a result, antifreeze should always be added, even in tropical countries.

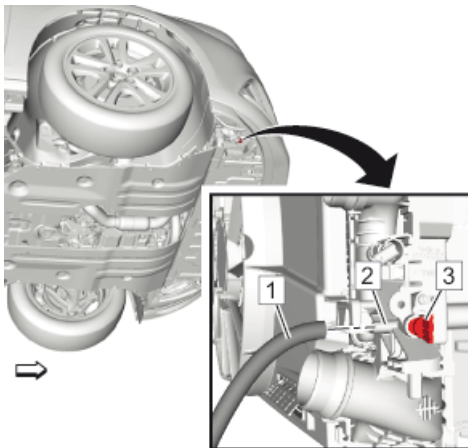
In addition to the anti-freeze mixture, water quality also plays an important role. Potable tap water should normally suffice to fulfil this requirement. The quality of regenerated sea water is not suitable.

Damage may also be caused to the engine if unauthorized anti-freeze agent is used.

If radiator, cylinder head or cylinder head seal have been replaced the old coolant must not be re-used.

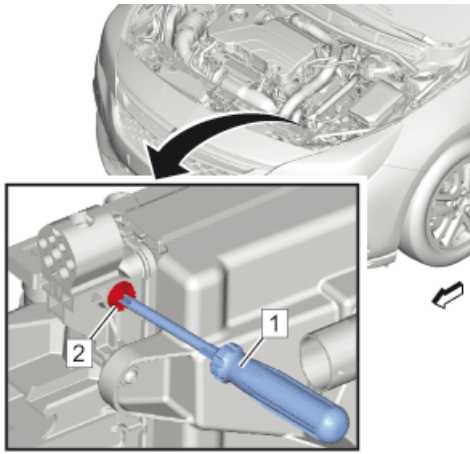
Cooling System Draining

1. Open the cooling system. Unscrew the coolant surge tank cap.
2. Raise and support the vehicle. [Lifting and Jacking the Vehicle](#)

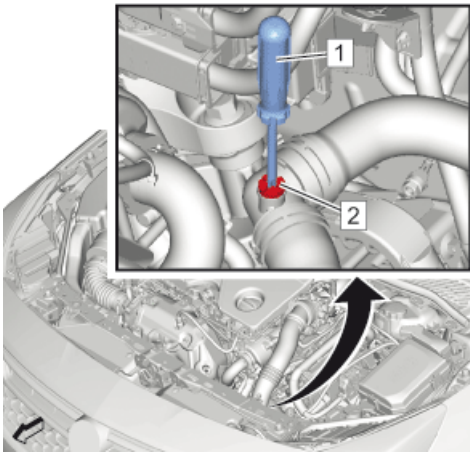


3. Install a suitable drain hose (1) to the radiator flange (2).
4. Open the drain cock (3) and allow the coolant to drain out completely.
5. After draining the system, close the radiator drain cock (3).
6. Lower the vehicle.

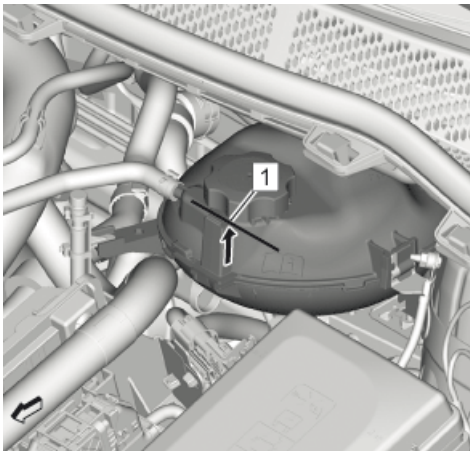
Cooling System Filling



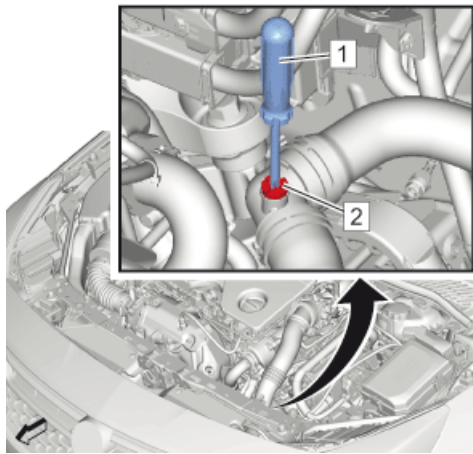
1. Open the radiator vent screw (2), use a screwdriver (1).



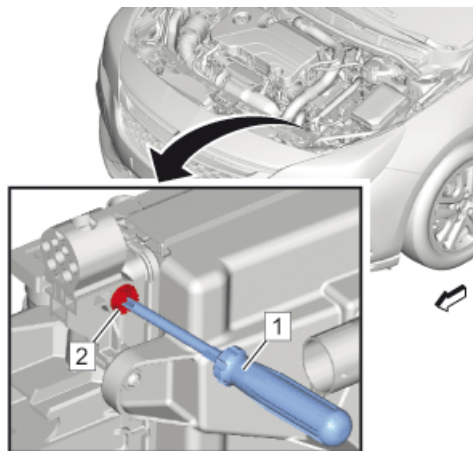
2. If equipped, open the radiator inlet hose vent screw (2), use a screwdriver (1).



3. Top up coolant to the bottom line (arrow) of the radiator surge tank bleed nozzle (1).



4. If equipped, close the radiator inlet hose vent screw (2) when coolant starts to drain out of it.



5. Close the radiator vent screw (2) when coolant starts to drain out of it.

Note: After Engine Start top up coolant immediately until the bottom line of the down pipe hole (black arrow) and close cap.

6. Start the engine and switch the air conditioning off.

Note: After removing the heater core (located in passenger room) the following additional work has to be done:

Kick the accelerator pedal 3 times immediately – thereby the engine speed should not exceed 2500 RPM.

7. Warm up the engine.

8. Vent cooling system.

Warm up the engine until the coolant fan is being switched ON.

Kick the accelerator pedal 3 times - thereby the engine speed should not exceed 2500 RPM.

Note: After removing the heater core (located in passenger room) the following additional work has to be done.

9. After removing the heater core, let the engine run for further 2 minutes at 2500 RPM.

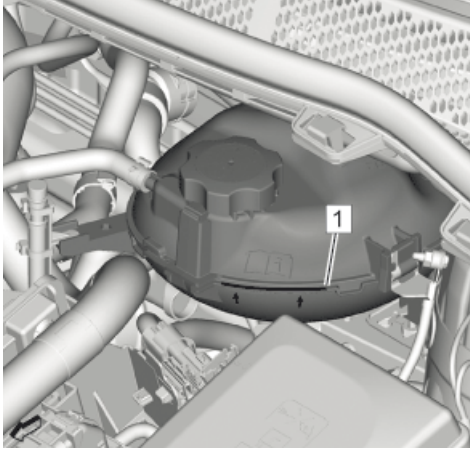
10. Switch the engine off and let the engine cool down.

11. Remove the surge tank cap.

12. Inspect the concentration of the engine coolant, using GE-26568tester . Adjust concentration as necessary prior to adding additional coolant.

13. Slowly remove the vent screw on the radiator until coolant begins to flow from the vent port.

14. Tighten the vent screw.



15. Check coolant level and correct the coolant to the welding area (1) if necessary.
16. Install the surge tank cap.
17. Rinse away any excess coolant from the engine and the engine compartment.
18. After a test drive let the engine cool down and check the coolant level again.

Portions of materials contained herein are sourced from General Motors Inc., Co.

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