

GENERAL PROCEDURES

Cooling System Draining, Filling and Bleeding

Special Tool(s)



Material

Item	Specification
Motorcraft Premium Gold Engine Coolant VC-7-A (in California, Oregon and New Mexico VC-7-B, in Canada CVC-7-A) or equivalent (yellow color)	WSS-M97B51-A1

Draining

⚠ WARNING: Never remove the pressure relief cap while the engine is operating or when the cooling system is hot. Failure to follow these instructions can result in damage to the cooling system or engine or personal injury. To avoid having scalding hot coolant or steam blow out of the degas bottle when removing the pressure relief cap, wait until the engine is cooled, then wrap a thick cloth around the pressure relief cap and turn it slowly. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, turn and remove the pressure relief cap (still with a cloth).

⚠ CAUTION: The coolant must be recovered in a suitable, clean container for reuse. If the coolant is contaminated, it must be recycled or disposed of correctly.

NOTE: Less than 80% of coolant capacity can be recovered with the engine in the vehicle. Dirty, rusty or contaminated coolant should be drained and filled with new coolant.

1. Release the pressure in the cooling system by slowly turning the pressure relief cap one half turn counterclockwise or the radiator cap counterclockwise to the first stop. When the pressure is released, remove the pressure relief cap/radiator cap.
2. Place a suitable container below the radiator draincock. Open the draincock and drain the engine coolant.
 - Close the radiator draincock.

Filling and Bleeding with RADKITPLUS

1. Using the special tool, install the RADKITPLUS and follow the RADKITPLUS manufacturer's instructions to fill and bleed the cooling system.

Filling and Bleeding without RADKITPLUS

⚠ CAUTION: Vehicle cooling systems are filled with Motorcraft Premium Gold Engine Coolant VC-7-A (in California, Oregon and New Mexico VC-7-B, in Canada CVC-7-A) or equivalent meeting Ford specification WSS-M97B51-A1 (yellow color). Always fill the cooling system with the same coolant that is present in the system. Do not mix coolant types.


⚠ CAUTION: Engine coolant provides freeze protection, boil protection, cooling efficiency, and corrosion protection to the engine and cooling components. In order to obtain these protections, the engine coolant must be maintained at the correct concentration and fluid level in the degas bottle.

When adding engine coolant, use a 50/50 mixture of engine coolant and deionized water.

To maintain the integrity of the coolant and the cooling system:

- Add Motorcraft Premium Gold Engine Coolant VC-7-A (in California, Oregon and New Mexico VC-7-B, in Canada CVC-7-A) or equivalent meeting Ford specification WSS-M97B51-A1 (yellow color). Use the same coolant that was drained from the cooling system. Do not mix coolant types.

GENERAL PROCEDURES (Continued)

- **Do not add/mix orange-colored Motorcraft Speciality Orange Engine Coolant VC-2 or equivalent meeting Ford specification WSS-M97B44-D. Mixing coolants may degrade the coolant's corrosion protection.**
 - **Do not add alcohol, methanol, or brine, or any engine coolants mixed with alcohol or methanol antifreeze. These can cause engine damage from overheating or freezing.**
 - **Ford Motor Company does NOT recommend the use of recycled engine coolant in vehicles originally equipped with Motorcraft Premium Gold Engine Coolant since a Ford-approved recycling process is not yet available.**
1. Fill the radiator through the degas bottle until the coolant level is between the "COOLANT FILL LEVEL" marks.
 2. Select the maximum heater temperature and blower motor speed settings. Position the control to discharge air at A/C vents in instrument panel.
 3. Start the engine and allow to idle. While engine is idling, feel for hot air at A/C vents.
 4.  **CAUTION: If the air discharge remains cool and the engine coolant temperature gauge does not move, the engine coolant level is low and must be filled. Stop the engine, allow the engine to cool and fill cooling system.**
Start the engine and allow it to idle until normal operating temperature is reached. Hot air should discharge from A/C vents. The engine coolant temperature gauge should maintain a stabilized reading in the middle of the NORMAL range. The upper radiator hose should feel hot to the touch.
 5. Shut the engine off and allow the engine to cool.
 6. Check the engine for coolant leaks.
 7. Check the engine coolant level in the degas bottle and fill as necessary.
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