Filling — 4.6L (4V)

CAUTION: Some vehicle cooling systems are filled with Motorcraft Premium Engine Coolant VC-4-A (in Oregon VC-5, in Canada CXC-10) or equivalent meeting Ford specification ESE-M97B44-A (green color). Others are filled with Motorcraft Premium Gold Engine Coolant VC-7-A (in Oregon VC-7-B) 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 clean, drinkable water.

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

- Add Motorcraft Premium Engine Coolant VC-4-A (in Oregon VC-5, in Canada CXC-10) or equivalent meeting Ford specification ESE-M97B44-A (green color), or Motorcraft Premium Gold Engine Coolant VC-7-A (in Oregon VC-7-B) 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.
- 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.
- Do not mix with recycled coolant unless it meets the requirements of Ford specification ESE-M97B44-A or WSS-M97B51-A1. Not all coolant recycling processes meet these Ford specifications. Use of such coolants can harm the engine and cooling system components.

NOTE: The addition of Motorcraft Cooling System Stop Leak Pellets, VC-6, darkens Motorcraft Premium Gold Engine Coolant from yellow to golden tan.

- 1. Check all hose clamps for correct tightness. Make sure the radiator draincock is closed.
- 2. Place the heater temperature selector in maximum heat position.
- 3. Remove the pressure cap from the cooling system reservoir and the fill plug from the engine crossover tube.
- 4. CAUTION: Do not fill the cooling system through the reservoir only. Coolant will not enter the engine. Only the reservoir and the radiator will be filled and engine overheating will occur.

Add coolant into the fill neck on the engine crossover tube until coolant reaches the top of the fill neck on the cooling system reservoir.

5. Install the cooling system pressure cap on the reservoir.

- 6. Continue to fill the cooling system at the engine crossover fill neck until full.
- 7. Install the engine crossover tube fill plug.
- 8. WARNING: To avoid the possibility of personal injury or damage to the vehicle, do not operate the engine with the hood open until the fan has been first examined for possible cracks and separation.

CAUTION: If the engine temperature gauge does not move, coolant level is low in the engine and must be filled. Stop the engine, allow to cool, and fill the cooling system as outlined.

Run the engine until the thermostat opens (coolant flowing through the radiator lower hose becomes hot).

- 9. Stop the engine and allow to cool.
- 10. Add coolant to the engine crossover tube fill neck until the cooling system is full.
- 11. Install the fill plug.
- 12. Repeat the fill procedure if necessary.

Bleeding

- 1. Select the maximum heater temperature and blower motor speed settings. Position the control to discharge air at A/C vents in instrument panel (04320).
- 2. Start the engine and allow to idle. While engine is idling, feel for hot air at A/C vents.
- 3. 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 (8260) should feel hot to the touch.

- 4. Shut the engine off and allow the engine to cool.
- 5. Check the engine for coolant leaks.
- 6. Check the engine coolant level in the degas bottle/coolant expansion tank and fill as necessary.