


2006 Ford Five Hundred 2WD V6-3.0L VIN 1

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Cooling System Draining, Filling and Bleeding

[Notes](#)

Cooling System Draining, Filling and Bleeding

Special Tool(s)	
 <p>ST2818-A</p>	<p>RADKITPLUS 078-00497</p>

Zoom

Sized for Print

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

Zoom

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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 has 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, (still with a cloth) turn and remove the pressure relief cap. Failure to follow these instructions can result in personal injury.

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.

CAUTION: All vehicle cooling systems are filled with Motorcraft Premium Gold Engine Coolant VC-7-A or equivalent meeting Ford specification WSS-M97B51-A1 (yellow color). Always fill the cooling system with the same type of coolant that is present in the system. Do not mix coolant types.

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

NOTE: Less than 80% of coolant capacity can be recovered with the engine in the vehicle. Dirty, rusty or contaminated coolant requires replacement.

1. With the vehicle in NEUTRAL, position it on a hoist.
2. Release the pressure in the cooling system by slowly turning the pressure relief cap one half to one turn counterclockwise to the first stop on the filler neck. When the pressure has been released, remove the pressure relief cap.
3. Remove the front splash shield.
4. Place a suitable container below the radiator draincock. Drain the coolant.
5. Close the radiator draincock and install the front splash shield when finished.

Filling and Bleeding with RADKITPLUS

NOTE: For vehicles equipped with an optional rear heater, RADKITPLUS must be used whenever the underbody coolant lines and/or rear [heater core](#) are drained or removed.

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

Filling and Bleeding without RADKITPLUS

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. When adding engine coolant, use a 50/50 mixture of engine coolant and clean, distilled 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.

- Do not add Motorcraft Specialty Orange Engine Coolant such as VC-2 or an equivalent meeting Ford specification WSS-M97B44-D. Mixing coolants can 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.

NOTE: For vehicles equipped with an optional rear heater, RADKITPLUS must be used whenever the underbody coolant lines and/or rear [heater core](#) are drained or removed.

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

1. Fill the degas bottle with the correct engine coolant mixture to the degas bottle seam line.
2. Install the pressure relief cap.
3. Remove the retaining clip and the fill tab on the top of the [thermostat housing](#) and fill through the thermostat housing until full.
4. Install the fill tab and retaining clip.
5. Select the maximum heater temperature and blower motor speed settings. Position the control to discharge air from the A/C vents in the instrument panel.
6. Start the engine and allow it to idle until engine reaches normal operating temperature. While the engine is idling, feel for hot air from the A/C vents.
7. **CAUTION:** If the air discharge remains cool and the engine coolant temperature gauge does not move or the low coolant light comes on, the engine coolant level is low in the engine and must be filled. Stop the engine, allow it to cool and fill the cooling system. Run the engine at **3,000 rpm for 10 minutes** . Hot air should discharge from the A/C vents. The engine coolant temperature gauge should maintain a stabilized reading in the middle of the normal range, and the upper radiator hose should feel hot to the touch.
 - Shut the engine off and allow it to cool.
 - Check the engine for coolant leaks.
 - Check the engine coolant level in the degas bottle and fill to the seam line.