

INSPECTION (Continued)

Coolant Concentration Check**Tools Required:**

- Rotunda Battery Anti-Freeze Tester O2 1-00046

(Not Required when Coolant Is Replaced)

Check coolant concentration for recommended protection level using Rotunda Battery Anti-Freeze Tester O2 1-00046 or equivalent. If concentration is low, partially drain the system and add 100 percent coolant such as Premium Cooling System Fluid E2FZ-19549-AA (ESE-M97B44-A and ESE-M97B43-A) or equivalent to obtain the recommended protection level.

Coolant Drain Procedure

With the engine off and sufficiently cool, place heater temperature control at the maximum heat position, remove radiator pressure cap, open draincock and allow coolant to drain. A 9.5mm (3/8-inch) hose should be attached to the draincock to direct coolant into a suitable container.

Coolant System Flush Procedure**Radiator Installed**

1. Drain cooling system as outlined.
2. Install block drain plug, if removed, and close radiator draincock.
3. Fill system with water at radiator filler neck.
4. Idle engine for 3 to 5 minutes.
5. Turn engine OFF and drain water by opening draincock.
6. Repeat Steps 1 through 5 as many times as necessary until nearly clear water is drained from radiator.
7. Allow remaining water to drain, then close draincock.
8. Disconnect overflow hose from radiator filler neck connection.
9. Remove coolant recovery reservoir from fender apron and empty fluid. Flush reservoir with clean water, drain and install reservoir and overflow hose and clamp to radiator filler neck.

Radiator Removed

CAUTION: Radiator internal pressure must not exceed 138 kPa (20 psi). Damage may result.

1. Back-flush radiator. Ensure radiator pressure cap is in position. Turn radiator upside down. Position a high-pressure water hose in bottom hose location and back-flush.
2. Remove thermostat housing and thermostat. Refer to Thermostat Removal.
3. Back-flush engine. Position high-pressure hose into engine through thermostat location and back-flush engine.

Coolant Refill Procedure

With the entire cooling system drained, the following procedure should be used to ensure a complete fill.

NOTE: It is important to maintain engine coolant concentration between 40 percent -24°C (-11°F) and 60 percent -52°C (-62°F) depending on climate conditions. Below 40 percent there is a loss of freeze protection. Above 60 percent the engine may overheat on a warm day. Outside this range protection against rust and corrosion may be greatly reduced. Refer to the Owner Guide for specified coolant.

1. Install block drain plug, if removed, and close draincock. With engine off, add a 50/50 mixture of coolant and water to the bottom of the radiator filler as coolant in radiator filler neck seat. Wait approximately five minutes, as coolant in radiator will drop. Slowly add more coolant until level remains at the filler neck seat. Refer to Specifications for refill capacities. Then, add water until it reaches the radiator filler neck seat.
2. Install radiator pressure cap to first notch to keep spillage to a minimum.
3. Start and idle engine until upper radiator hose is warm. (This indicates thermostat is open and coolant is flowing through entire system).
4. Remove cap carefully and top off radiator with water.
5. Install cap on radiator securely.
6. Fill coolant recovery reservoir to FULL COLD mark with specified 50/50 coolant mixture, then add water to FULL HOT mark. This will ensure a proper mixture in coolant recovery reservoir.