

## ARTICLE BEGINNING

### INSPECTION

#### 1. CHECK ENGINE COOLANT LEVEL AT RADIATOR RESERVOIR

The engine coolant level should be between the LOW and FULL lines at normal temperature (20° C (68° F)).

If low, check for leaks and add Toyota Long Life Coolant or equivalent up to the FULL line.

#### 2. CHECK ENGINE COOLANT QUALITY

- a. Remove the radiator cap from the reservoir.



**CAUTION:** To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot, as fluid and steam can be blown out under pressure.

- b. There should not be any excessive deposits of rust or scale around the radiator cap or reservoir filler hole, and the coolant should be free from oil.

If excessively dirty, clean the coolant passages and replace the coolant.

- c. Reinstall the radiator cap.

### REPLACEMENT

#### 1. REMOVE V-BANK COVER

#### 2. REMOVE AIR CLEANER INLET

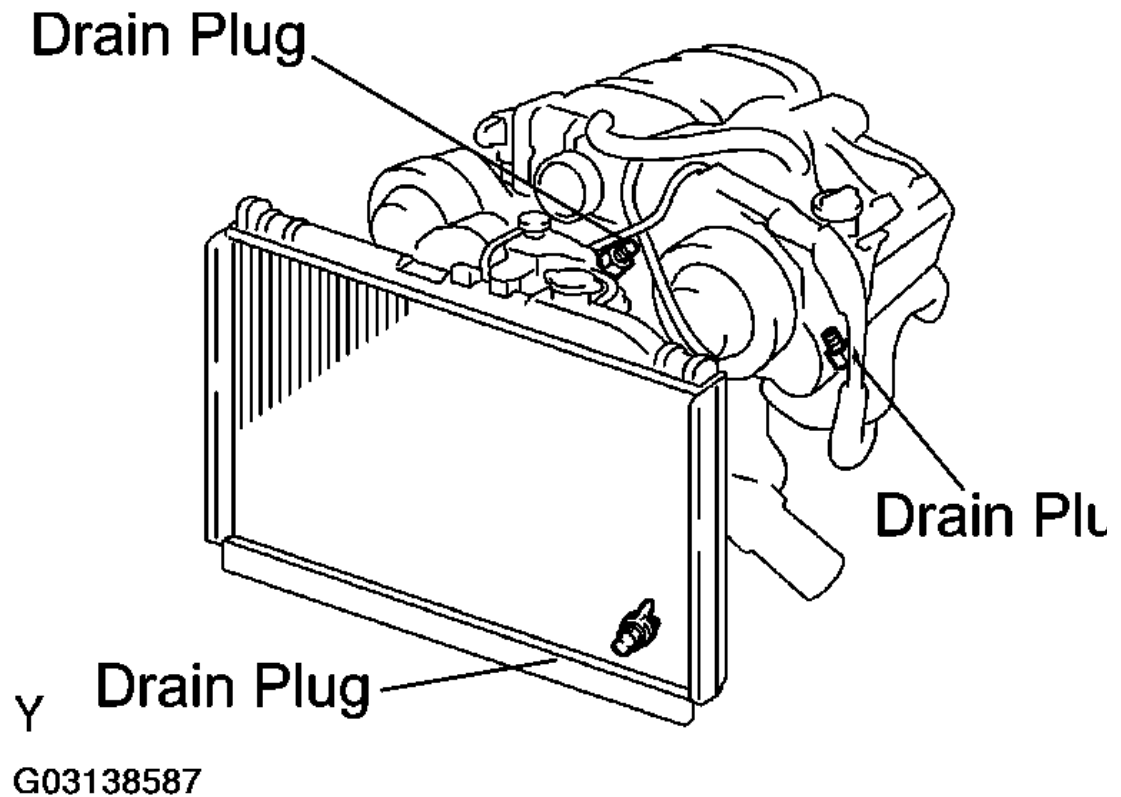
#### 3. DRAIN ENGINE COOLANT

- a. Remove the 2 radiator caps from the radiator reservoir and radiator.



**WARNING:** To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot, as fluid and steam can be blown out under pressure.

- b. Remove the 3 drain plugs on the engine and radiator, and drain the coolant.



**Fig. 1: Removing 3 Drain Plugs On Engine And Radiator**

- c. Close the 3 drain plugs.

**Torque:**

**12.7 N.m (130 kgf.cm, 9 ft.lbf) for engine drain**

**4. REFILL WITH ENGINE COOLANT**

- a. Slowly fill coolant to the radiator until it is full.
- Use of improper coolants may damage engine cooling system.
  - Use Toyota Long Life Coolant or equivalent and mix it with plain water according to the manufacturer's directions.
  - Use of the coolant which includes more than 50% (freezing protection down to  $-35^{\circ}\text{C}$  ( $-31^{\circ}\text{F}$ )) or 60% (freezing protection down to  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ )) of ethylene-glycol is recommended, but not more than 70%.



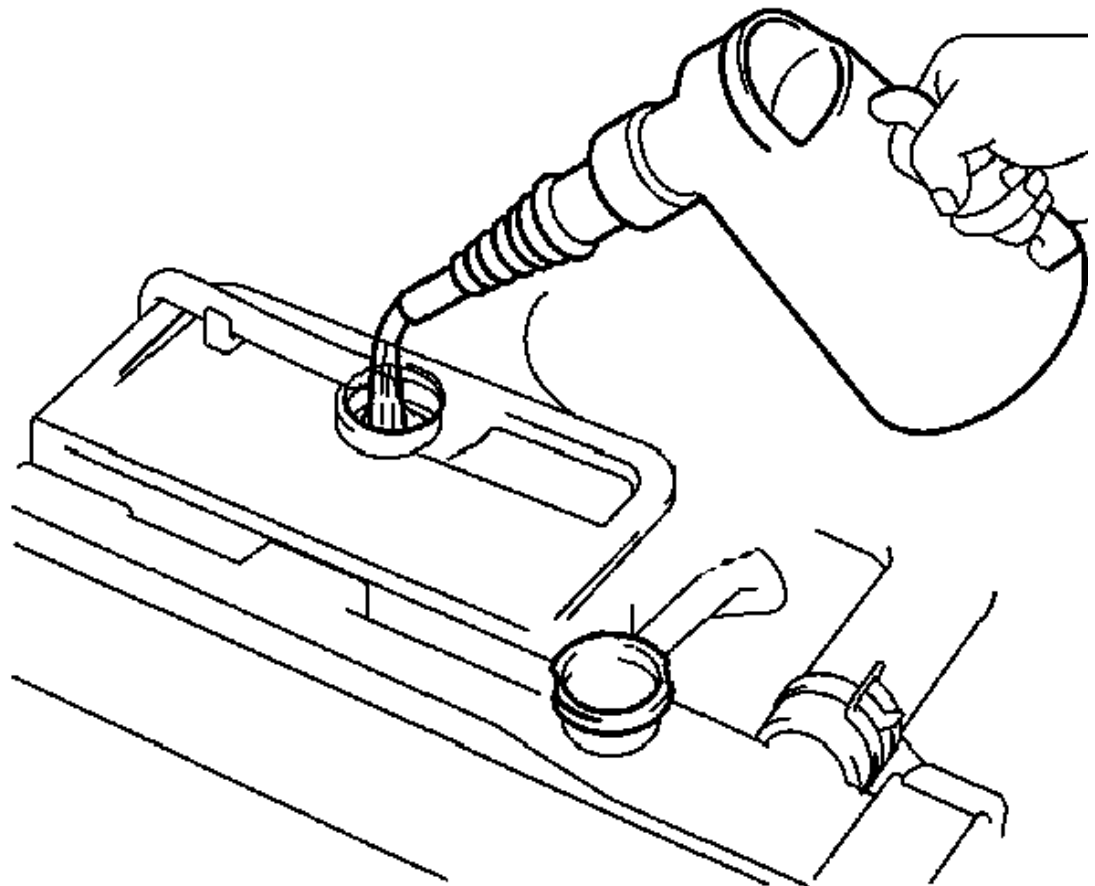
**CAUTION:**



- Do not use an alcohol type coolant or plain water alone.
- The coolant should be mixed with plain water (preferably demineralized water or distilled water).

**Capacity: 9.8 liters (10.4 US qts, 8.6 Imp. qts)**

- b. Slowly pour coolant into the radiator reservoir until it is FULL.



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**[Fig. 2: Pouring Coolant Into Radiator Reservoir](#)**

- c. Install the radiator cap to the radiator and radiator reservoir.
  - d. Bleed the cooling system.
    - Start the engine, and open the heater water valve.
    - Maintain the engine speed at 2,000 -- 2,500 rpm, and warm up the engine.
  - e. Stop the engine, and wait until the engine coolant cools down.
  - f. Refill coolant to the radiator until it is full and into the reservoir until it is FULL.
5. **CHECK ENGINE COOLANT FOR LEAKS**
  6. **CHECK ENGINE COOLANT SPECIFIC GRAVITY CORRECTLY**
  7. **INSTALL AIR CLEANER INLET**
  8. **INSTALL V-BANK COVER**

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