

# COOLANT INSPECTION

COO10-06

## HINT:

Check the coolant level when the engine is cold.

### 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 Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology up to the "FULL" line.

### 2. CHECK ENGINE COOLANT QUALITY

(a) Remove the radiator cap.

#### 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 radiator 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.

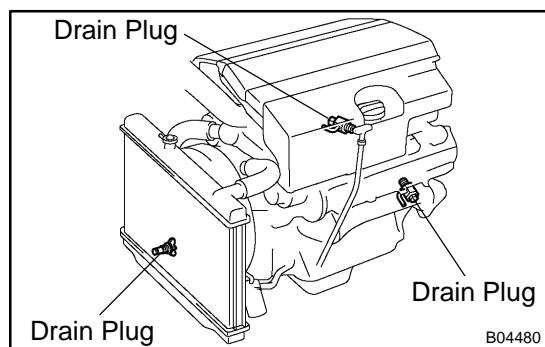
## REPLACEMENT

### 1. DRAIN ENGINE COOLANT

- (a) Remove the radiator cap.

#### 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) Remove the 3 drain plugs on the engine and radiator, and drain the coolant.

- (c) Close the 3 drain plugs.

**Torque: 12.7 N-m (130 kgf-cm, 9 ft-lbf) for engine**

### 2. REFILL WITH ENGINE COOLANT

- (a) Slowly fill the system with coolant.

#### Capacity:

**w/ Front heater: 14.8 liters (15.6 US qts, 13.0 Imp. qts)**

**w/ Front heater and rear heater:**

**15.3 liters (16.2 US qts, 13.4 Imp. qts)**

#### NOTICE:

**Do not use plain water alone.**

#### HINT:

- ◆ Use of improper coolants may damage the engine cooling system.
- ◆ Use "Toyota Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology.
- ◆ New Toyota vehicles are filled with Toyota Super Long Life Coolant (color is pink, premixed ethylene glycol concentration is approximately 50 % and freezing temperature is  $-35^{\circ}\text{C}$  ( $-31^{\circ}\text{F}$ )). When replacing the coolant, Toyota Super long Life Coolant is recommended.
- ◆ Observe the coolant level inside the radiator by pressing the inlet and outlet radiator hoses several times by hand. If the coolant level goes down, add the coolant.

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- (b) Install the radiator cap.
- (c) Bleed the cooling system.
- (1) Start the engine, and open the heater water valve.
  - (2) Maintain the engine speed at 2,000 - 2,500 rpm, and warm up the engine.
- (d) Stop the engine, and wait until the engine coolant cools down.
- (e) Refill coolant into the reservoir until it is "FULL".

### 3. CHECK FOR ENGINE COOLANT LEAKS

### 4. CHECK ENGINE COOLANT SPECIFIC GRAVITY CORRECTLY