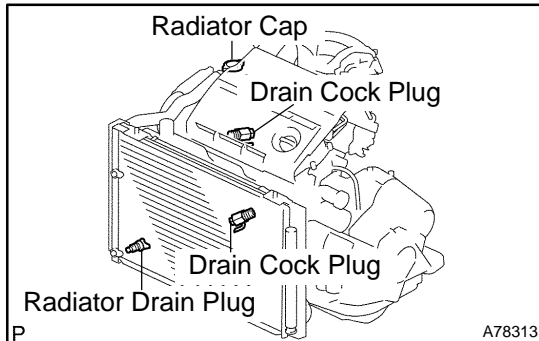


ENGINE COOLANT REPLACEMENT

16038-12



1. DRAIN COOLANT

- (a) Remove the radiator.

CAUTION:

To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot. Thermal expansion will cause hot engine coolant and steam to blow out from the radiator.

- (b) Loosen the radiator drain plug and the 2 drain cock plugs, and drain the coolant.
(c) Tighten the 2 drain cock plugs.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)

2. ADD COOLANT

- (a) Tighten the drain plug of the radiator.
(b) Slowly fill the cooling system with coolant.

Capacity: 11.7 liters (12.4 US qts, 10.3 Imp. qts)

NOTICE:

Do not use plain water by itself.

HINT:

- Use of improper coolant may damage the engine cooling system.
 - Use only "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. (Coolant with long-life hybrid organic acid technology consists of the combination of low phosphates and organic acids.)
 - "Toyota Super Long Life Coolant" is premixed with 50% coolant and 50% deionized water. This coolant provides protection down to about -35°C (-31°F).
 - Observe the coolant level inside the radiator by pressing the inlet and outlet radiator hoses several times by hand. If the coolant level is low, add coolant.
- (c) Install the radiator cap securely.
(d) Fill the radiator reservoir tank with the coolant.
(e) Warm up the engine.

NOTICE:

Warm up the engine until the fan starts running with the A/C, heater and defroster all off.

- (f) Press the inlet and outlet radiator hoses several times by hand while warming up the engine.
(g) Stop the engine and wait until the coolant cools down.
(h) Remove the radiator cap and check the coolant level inside the radiator.
(i) If the coolant level is below the full level, perform the steps from (c) through (i) and repeat the operation until the coolant level stays the full level.
(j) Recheck the coolant level inside the radiator reservoir tank. If it is below the full level by +10 mm, add the coolant.

3. CHECK FOR ENGINE COOLANT LEAKS

- (a) Fill the radiator with coolant and attach a radiator cap tester.
(b) Pump it to 118 kPa (1.2 kgf/cm²), and check for leakage.