COOLANT (3MZ-FE)

16038-10

REPLACEMENT

1. DRAIN ENGINE COOLANT

(a) Remove the radiator cap.

CAUTION:

Do not remove the radiator cap while the engine and radiator are still hot. Pressurized, hot engine coolant and steam may be released and cause serious burns.

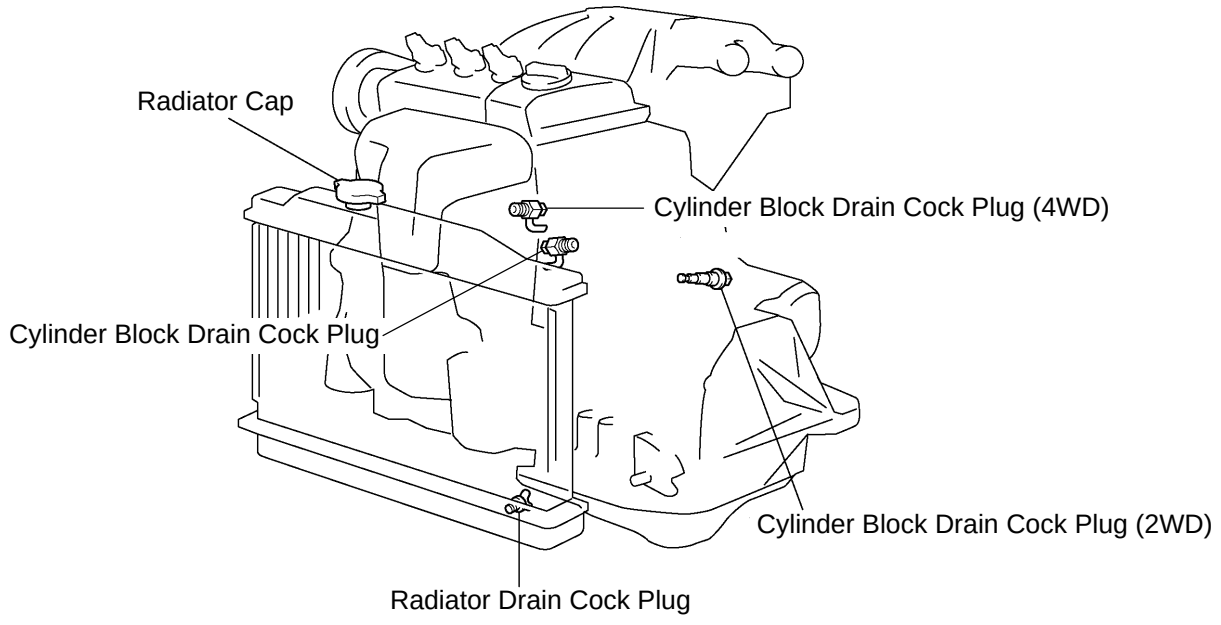
(b) Drain engine coolant by loosening the radiator drain cock plug and the engine's cylinder block drain cock plug.

HINT:

Engine coolant inside the radiator is drained from the drain hole located on the bottom of the engine under cover.

(c) Tighten the cylinder block drain cock plugs.

Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)



2. ADD ENGINE COOLANT

(a) Tighten the radiator drain plug.

(b) Add engine coolant into the radiator until it overflows.

Capacity:

Item		Specified Condition
w/ heater (front only)	Standard	9.4 liters (9.9 US qts, 8.3 Imp. qts)
	Towing	10.1 liters (10.7 US qts, 8.9 Imp. qts)
w/ Rear heater (front and rear)	Standard	10.7 liters (11.3 US qts, 9.4 Imp. qts)
	Towing	11.4 liters (12.0 US qts, 10.0 Imp. qts)

HINT:

- Use of improper coolants may damage the engine cooling system.
- Only 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°C (-95°F)).
- 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.

NOTICE:

Do not use plain water alone.

(c) Pour coolant into the radiator reservoir tank until the coolant reaches the full line.

(d) Install the radiator cap.

(e) Warm up the engine.

HINT:

As the engine warms up, press the inlet and outlet radiator hoses several times by hand.

(f) Stop the engine and wait until the coolant cools down to the ambient temperature.

(g) Remove the radiator cap and check the coolant level inside the radiator.

(h) If the coolant level is below the full level, repeat steps (c) to (g) until the coolant level stays the same from step (c) to (g).

(i) Install the radiator cap and check the radiator reservoir tank coolant level. If it is below the full line, add 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/cm^2, 17.1 psi) and check leakage.