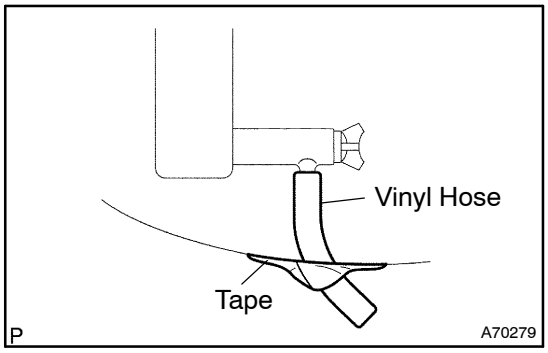
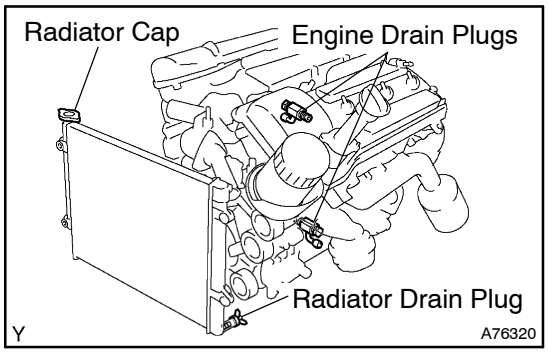
COOLANT (1GR–FE)

REPLACEMENT

160JE–02





1. DRAIN ENGINE COOLANT

CAUTION:

The hot engine coolant and steam will blow out from the radiator by thermal expansion themselves. To avoid a danger of scalding yourself, do not remove the radiator cap while the engine and radiator are still hot.

(a) Remove the service hole cover of the engine under cover.
(b) Install a vinyl hose to the drain on the radiator side.
(c) Fix the vinyl hose with tape.
(d) Remove the radiator cap.
(e) Loosen the 3 drain plugs on the engine and radiator, and drain the coolant.
(f) Drain the coolant from the reservoir tank.
(g) Close the 3 drain plugs.
Torque: 13 N·m (130 kgf·cm, 9 ft·lbf) for engine
(h) Remove the vinyl hose from the radiator.

2. ADD ENGINE COOLANT

(a) Fill the radiator with engine coolant carefully.
(1) Using a high grade ethylene–glycol base coolant. When mixing ethylene–glycol with water, read a manufacturer's instruction carefully.
Grade: "TOYOTA LONG LIFE Antifreeze Coolant" or equivalent
(2) Using the coolant which includes more than 50 % ethylene–glycol (but not more than 70 %) is recommended.

NOTICE:

- **Do not use an alcohol type coolant.**
- **The coolant should be mixed with demineralized water or distilled water.**

Capacity:

A/T	9.8 liters (10.4 US gts, 8.6 Imp. gts)
M/T	9.0 liters (9.5 US gts, 7.9 Imp. gts)

(b) Install the radiator cap.
(c) Fill the reservoir tank with the coolant until it reaches to the FULL line.
(d) Bleed the cooling system.
(1) Start the engine, and open the heater water valve.
(2) Sustain the engine speed at 2,000 to 2,500 rpm, and warm up the engine.
(e) Stop the engine, and wait until the engine coolant cools down.
(f) Remove the radiator cap again, and so check the coolant level inside the radiator.

HINT:

- Refill the radiator with the coolant if the coolant level is low.
- Refill the radiator reservoir with the coolant if it is lower than the FULL line.

3. CHECK FOR ENGINE COOLANT LEAKS (See page 16–1)