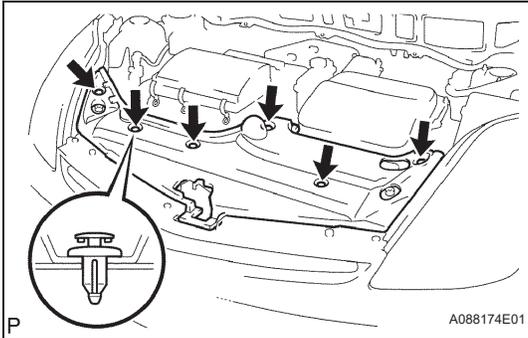


# COOLANT

## ON-VEHICLE INSPECTION

### 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.



### 1. REMOVE RADIATOR SUPPORT OPENING COVER

- (a) Remove the 6 clips and radiator support opening cover.

### 2. REMOVE ENGINE UNDER COVER LH

### 3. REMOVE FRONT FENDER LINER LH

- (a) Remove the front part of the front fender liner LH.

### 4. DRAIN ENGINE COOLANT

- (a) Disconnect the coolant heat storage water pump connector.
- (b) Connect a vinyl hose to the drain cock of the radiator.
- (c) Connect a vinyl hose to the drain cock of the engine.
- (d) Connect a vinyl hose to the drain cock of the coolant heat storage tank.

### CAUTION:

**If the tank has any malfunctions, the tank surface becomes hot. To prevent injuries from burns, do not touch the tank.**

- (e) Loosen the drain cock plugs of the radiator, engine and coolant heat storage tank, then drain the coolant.

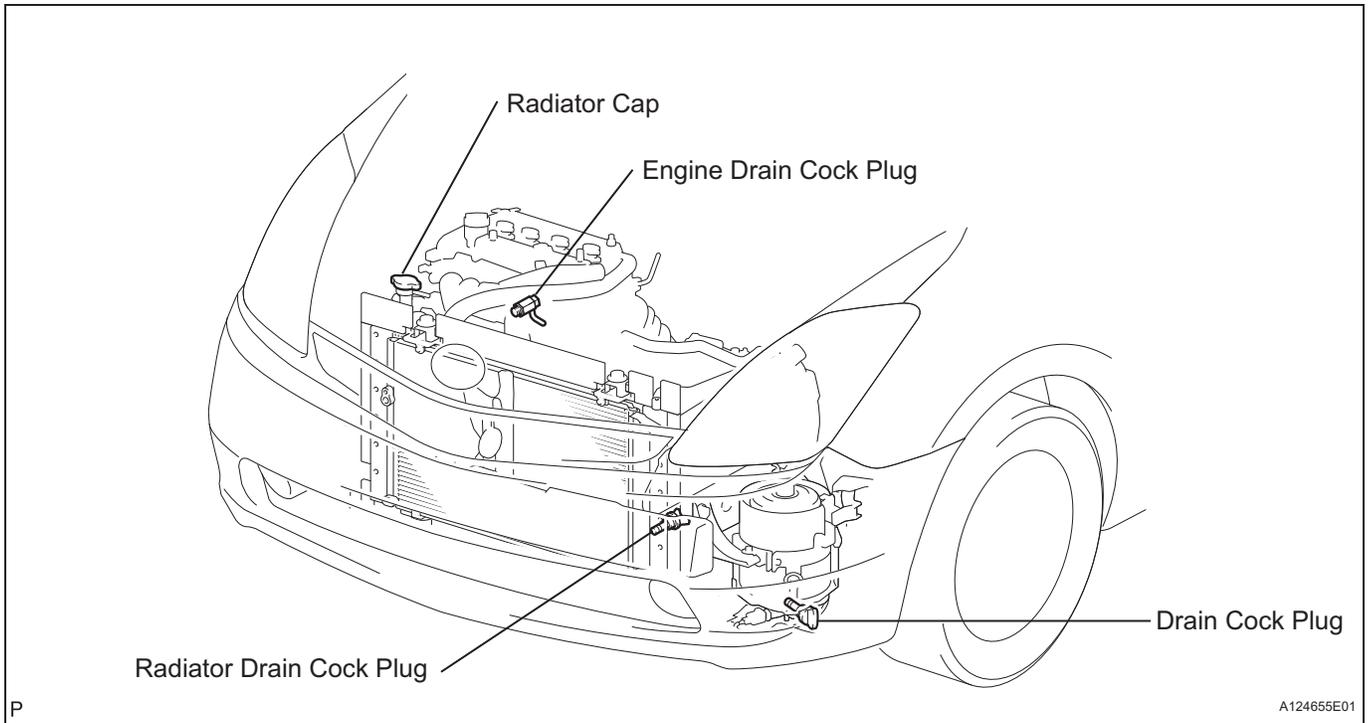
### CAUTION:

**Even if the engine is cold, the coolant in the coolant heat storage tank is still hot. Be careful of the hot coolant when draining it.**

### HINT:

Record the amount of the drained coolant. It will be referred to when refilling the tank with coolant.

- (f) Remove the radiator cap.



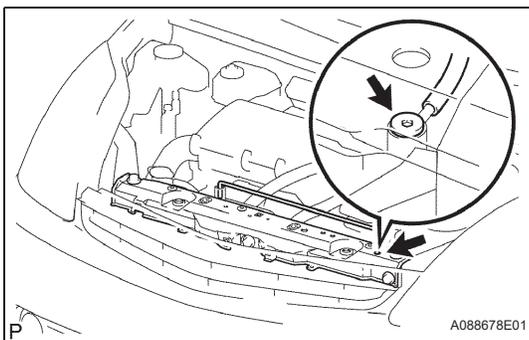
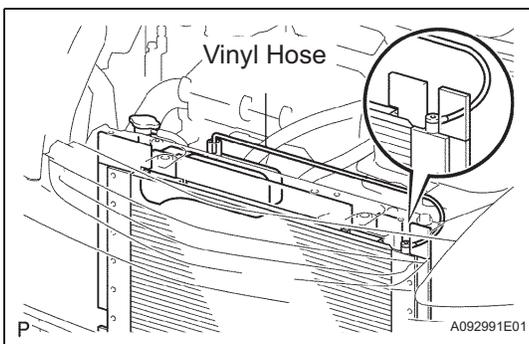
- (g) Drain the coolant in the radiator reservoir.

## 5. ADD ENGINE COOLANT

- (a) Tighten the drain cock plug of the coolant heat storage tank, then disconnect the vinyl hose.  
 (b) Tighten the drain cock plug of the engine, then disconnect the vinyl hose.  
**Torque: 13 N\*m (133 kgf\*cm, 9.6 ft.\*lbf)**  
 (c) Tighten the drain cock plug of the radiator, then disconnect the vinyl hose.  
 (d) Connect a vinyl hose to the bleeder plug of the radiator assembly and the radiator reservoir.

HINT:

Insert the vinyl hose inside the radiator reservoir tank.



- (e) Using a 6 mm socket hexagon wrench, loosen the radiator bleeder plug from the radiator support service hole.

- (f) Fill the radiator with coolant up to the fill port.

**Standard capacity:**

**8.6 liters (9.1 US qts, 7.6 Imp. qts)**

HINT:

- When filling coolant, press the radiator hose a few times. If the coolant level goes down, add more coolant.

- Amount of coolant to fill: Approximately 2.4 liters (2.5 US qts, 2.1 Imp. qts)
- 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 (-31°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 more coolant.

**NOTICE:**

**Never use water as a substitute for engine coolant.**

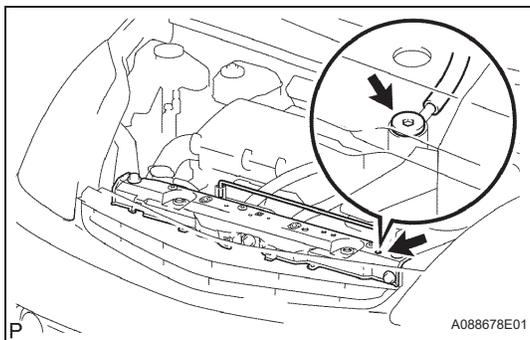
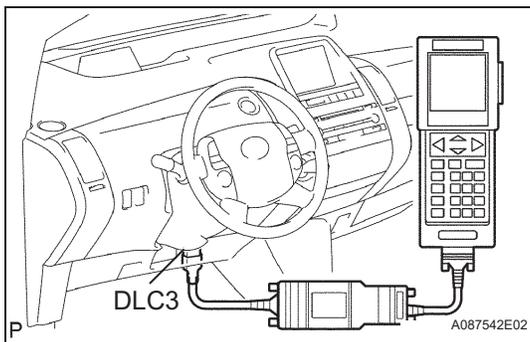
- (g) Using a 6 mm socket hexagon wrench, tighten the radiator bleeder plug.  
**Torque: 1.5 N\*m (15 kgf\*cm, 13 in.\*lbf)**
- (h) Install the radiator cap.  
 (i) Fill the radiator reservoir tank with coolant to the full level.  
 (j) Connect the coolant heat storage water pump connector.
- (k) Connect the intelligent tester to the DLC3.  
 (l) Turn the power switch ON (IG).  
 (m) Select the item:  
 DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / WATER PUMP

**NOTICE:**

- **The water pump motor operates for 30 seconds after WATER PUMP is ON in the ACTIVE TEST mode, then it automatically stops operating.**
- **Do not actuate the water pump motor without coolant filled.**

- (n) Using a 6 mm socket hexagon wrench, loosen the radiator bleeder plug from the radiator support service hole.  
 (o) Remove the radiator cap, then fill the radiator with coolant up to the fill port.  
**HINT:**  
 When filling coolant, press the radiator hose a few times. If the coolant level goes down, add more coolant.
- (p) Using a 6 mm socket hexagon wrench, tighten the radiator bleeder plug.

**Torque: 1.5 N\*m (15 kgf\*cm, 13 in.\*lbf)**



- (q) Install the radiator cap.
- (r) Slowly pour coolant into the radiator reservoir until it reaches the full line.
- (s) Disconnect the vinyl hose between the bleeder plug of the radiator assembly and the radiator reservoir tank.
- (t) Set the vehicle to inspection mode (see page [IN-5](#)).
- (u) Warm up the engine until the thermostat is open.
- (v) Stop the engine, then wait until the coolant becomes cold. Remove the radiator cap and check the coolant level.

**CAUTION:**

**If the engine or radiator is hot, do not remove the radiator cap.**

If the coolant level is lower, add coolant again. Warm up the engine, then check the coolant level.

- (w) When the coolant level stops going down, add coolant to the radiator reservoir tank up to the full level.

**6. CHECK FOR ENGINE COOLANT LEAKS**

- (a) Fill the radiator with engine coolant and attach a radiator cap tester.
- (b) Pump the tester to 137 kPa (1.4 kgf/cm<sup>2</sup>, 19.9 psi) and check for leakage.

**7. INSTALL FRONT FENDER LINER LH****8. INSTALL ENGINE UNDER COVER LH****9. INSTALL RADIATOR SUPPORT OPENING COVER**

- (a) Install the opening cover with the 6 clips.

