

## REPLACEMENT

### CAUTION:

Be sure to perform the operation after the engine and coolant are completely cool down because there is a fear of burning.

### NOTICE:

- In order to do sure filling of the coolant, perform the operation where the vehicle can be kept evenly flat.
- In order to replace the coolant securely, must keep the following operation procedure. Also, after replacing the coolant, driving within 500 km (311 miles) or within a week, check the water level of the reservoir tank once or twice.

### 1. DRAIN ENGINE COOLANT

- Remove the luggage under cover.
- Remove the tool box and luggage compartment trim box cover.
- Remove the reservoir tank cap.
- Remove the drain plugs (radiator, radiator pipes and engine), and drain the coolant.

### NOTICE:

Check the drain plug and the gasket of the radiator pipes. When they are damaged, replace them. At the same time, check the hoses and hose clamps. When there are any misregistration and deformation of the hose clamps or damage of the hoses, replace them.

### HINT:

We recommend to replace the gaskets at the same time when to replace the coolant.

- Close the drain plugs.

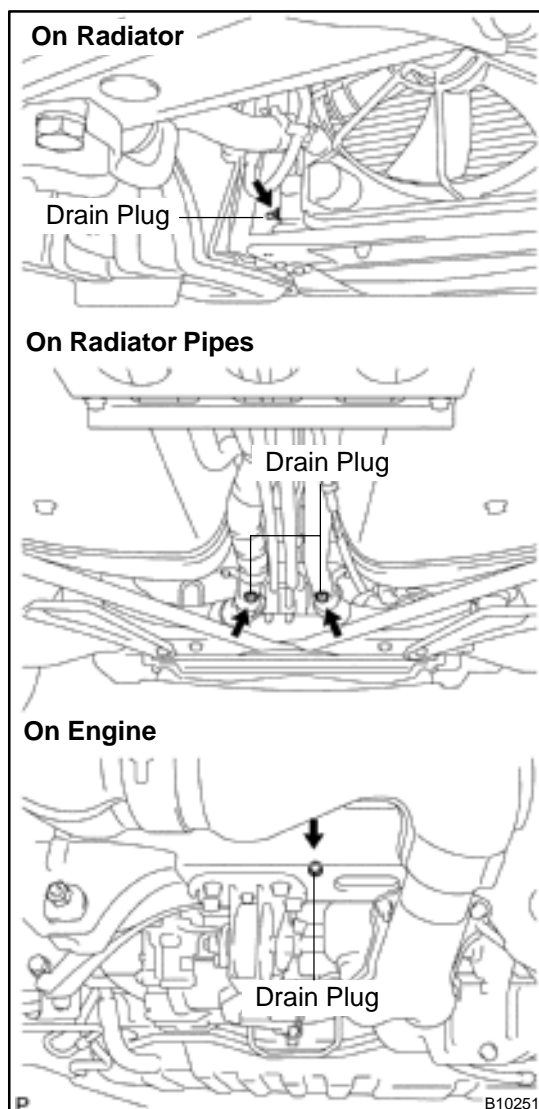
### Torque:

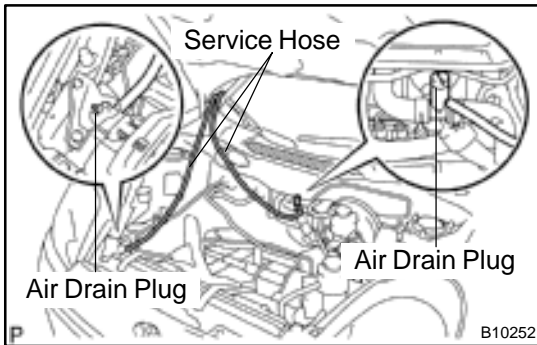
Engine: 13 N·m (133 kgf·cm, 9.6 ft·lbf)

Radiator pipes: 16.5 N·m (168 kgf·cm, 12 ft·lbf)

### 2. REFILL WITH ENGINE COOLANT

- Set the service hoses.
  - Connect the service hoses to the air drain plug of the radiator and heater water valve.





- (2) Suspend the opposite ends the front hood as shown in the illustration.

**NOTICE:**

**Do not close-off or pinch any of the service hoses.**

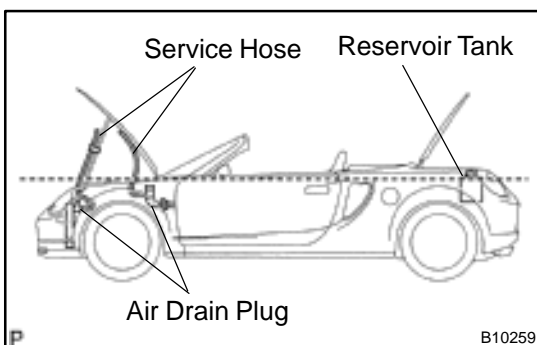
- (b) Fill the engine coolant.
  - (1) Turn each air drain plugs of the radiator and heater water valve counterclockwise and make it open.
  - (2) Slowly fill the system with coolant.
    - Use of improper coolants may damage engine cooling system.
    - Use "Toyota Long Life Coolant" or equivalent and mix it with plain water according to the manufacturer's directions.
    - Using of coolant which includes more than 50 % (freezing protection down to  $-35^{\circ}\text{C}$  ( $-31^{\circ}\text{F}$ )) or 60 % (freezing protection down to  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ )) of ethylene-glycol is recommended but not more than 70 %.

**NOTICE:**

- **Do not use an alcohol type coolant or plain water alone.**
- **The coolant should be mixed with plain water (preferably demineralized water or distilled water).**

**Capacity: 10.4 liters (10.9 US qts, 9.2 Imp. qts)**

- (3) Check that air is bleeding from the air drain service hoses of the radiator and heater water valve.
- (4) When filling coolant into the reservoir tank, do it at the height as near to the filling inlet (by making the water surface by or more than 1/2 of the reservoir tank) as possible and fill the coolant until the level keeps A line of the filling inlet.



- (5) Check with your eyes that the water level of the air drain service hoses of radiator and heater water valve is as high as that of the reservoir tank.

When the water level of the air drain service hoses of the radiator and heater water valve is obviously lower, fix the crash and bent of the air drain service hoses, check the air bleed and perform step (4).

- (6) Turn the air drain plugs of the radiator and heater water valve clockwise and make it close.

- (7) Never have any leakage from each drain plugs of the radiator, radiator pipes or engine. Make sure that the air drain plugs of the radiator and heater water valve are closed and turn the reservoir tank cap to close until the lock position until it clicks.
  - (8) Remove the service hoses of the radiator and heater water valve and collect the coolant remained in the service hoses.
  - (9) Start the engine, check that the air is bleeding to the reservoir tank and warm up the engine sufficiently.
  - (10) Check that the water level of the reservoir tank after the warming up of the engine is over the FULL.
  - (11) After complete cooling of the engine, the level shall be between LOW and FULL.
- (c) Replace the service hoses to the original place.
  - (d) Reinstall the tool box and luggage compartment trim box cover.
  - (e) Reinstall the luggage under cover.