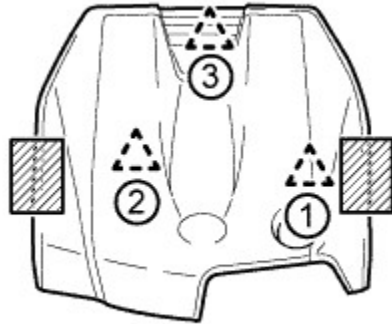


COOLANT > REPLACEMENT

for Preparation [Click here](#)

1. REMOVE V-BANK COVER SUB-ASSEMBLY



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- a. Place both hands on the sides of the cover as shown in the illustration, lift the cover to detach the 2 clips near the front in the order shown in the illustration, and then lift the cover further to detach the rear clip and remove the cover.

Text in Illustration

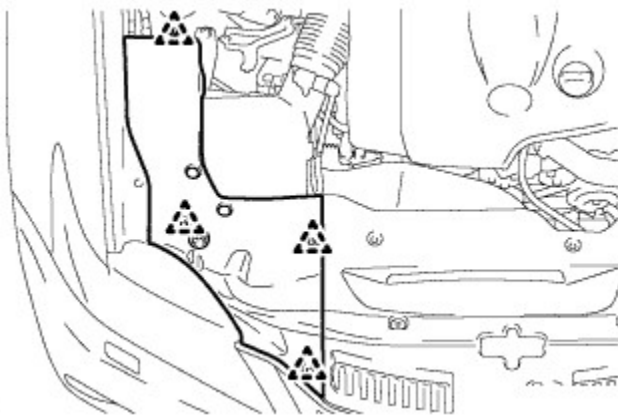


Areas to place hands when lifting cover

b. NOTICE:

- c. If the cover is lifted rearward or forward and to the right or left at the same time, the cover maybe damaged.

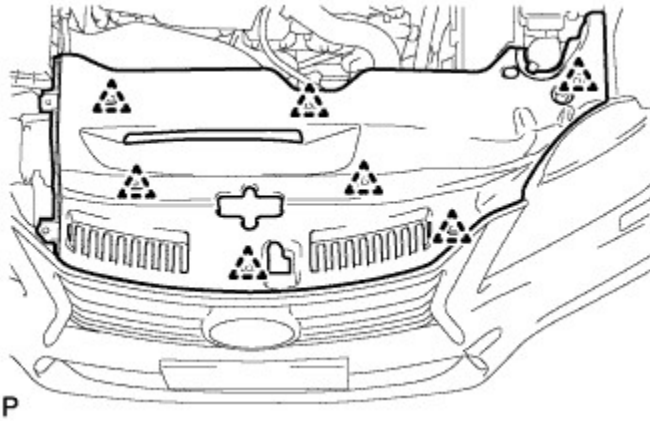
2. REMOVE ENGINE ROOM SIDE COVER



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- a. Remove the 4 clips and engine room side cover.

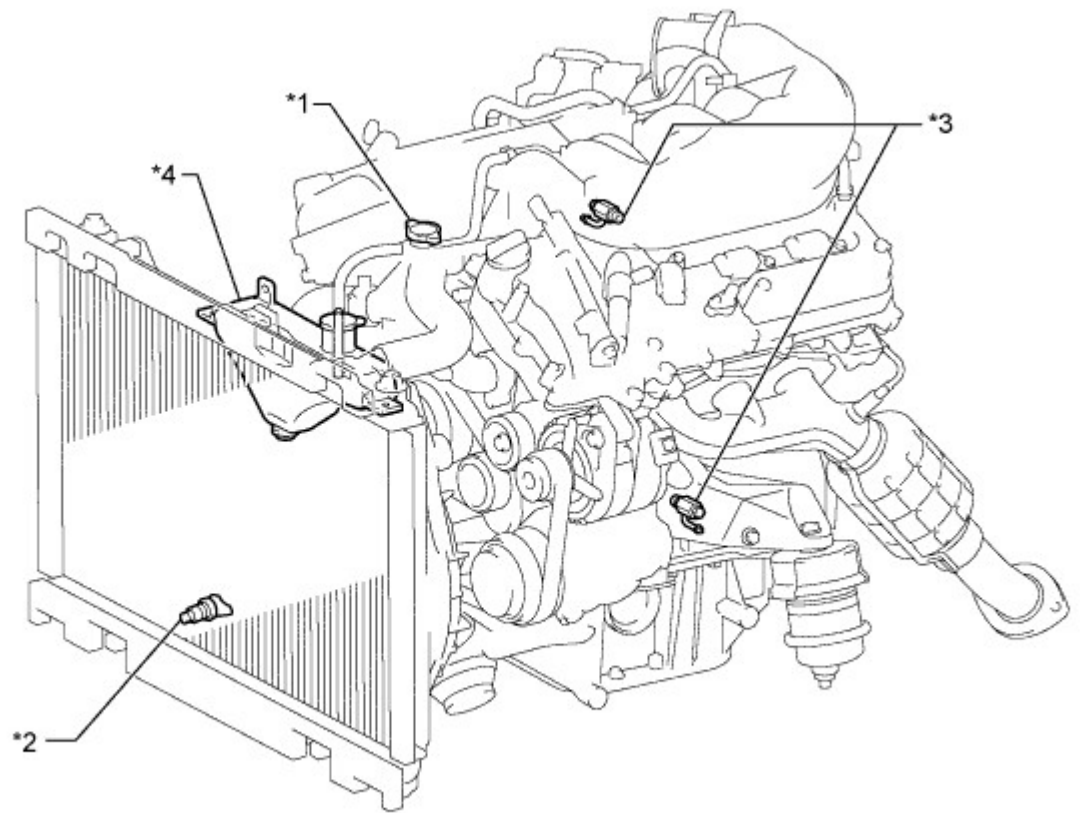
3. REMOVE COOL AIR INTAKE DUCT SEAL



- a. Remove the 7 clips and cool air intake duct seal.

4. DRAIN ENGINE COOLANT

- a. Loosen the radiator drain cock plug and drain the coolant.



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Text in Illustration			
*1	Radiator Cap	*2	Radiator Drain Cock Plug
*3	Cylinder Block Drain Cock Plug	*4	Radiator Reservoir Tank

CAUTION:

Do not remove the radiator cap, cylinder block drain cock plugs and radiator drain cock plug while the engine and radiator are still hot. Pressurized, hot engine coolant and steam may be released and cause serious burns.

HINT:

Collect the coolant in a container and dispose of it according to the local regulations.

- b. Remove the radiator cap.
- c. Loosen the 2 cylinder block drain cock plugs.

5. ADD ENGINE COOLANT

- a. Tighten the radiator drain cock plug by hand.
- b. Tighten the 2 cylinder block drain cock plugs.

Torque:

13 N*m { 130 kgf*cm , 9 ft.*lbf }

- c. Add TOYOTA Super Long Life Coolant (SLLC) to the water outlet sub-assembly opening.

Standard Capacity:

Item	Specified Condition
w/o Transmission Oil Cooler	9.7 liters (10.3 US qts, 8.5 Imp. qts)
w/ Transmission Oil Cooler	10.0 liters (10.6 US qts, 8.8 Imp. qts)

HINT:

TOYOTA vehicles are filled with TOYOTA SLLC at the factory. In order to avoid damage to the engine cooling system and other technical problems, only use TOYOTA SLLC or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, non-borate coolant with long-life hybrid organic acid technology (coolant with long-life hybrid organic acid technology is a combination of low phosphates and organic acids).

- d. Slowly pour coolant into the radiator reservoir tank until it reaches the full line.
- e. Press the No. 1 and No. 2 radiator hoses several times by hand, and then check the level of the coolant.
If the coolant level is low, add coolant.
- f. Install the radiator cap.
- g. Bleed air from the cooling system.

NOTICE:

Before starting the engine to warm up the engine, turn the A/C switch off.

- i. Warm up the engine until the thermostat opens. While the thermostat is open, circulate the coolant for several minutes.

CAUTION:

When pressing the radiator hoses:

- **Wear protective gloves.**
- **Be careful as the radiator hoses are hot.**
- **Keep your hands away from the radiator fans.**

HINT:

The thermostat open timing can be confirmed by pressing the No. 1 radiator hose by hand, and checking when the engine coolant starts to flow inside the hose.

- ii. Maintain the engine speed at 2000 to 2500 rpm.
- iii. Press the No. 1 and No. 2 radiator hoses several times by hand to bleed air.

CAUTION:

When pressing the radiator hoses:

- **Wear protective gloves.**
- **Be careful as the radiator hoses are hot.**
- **Keep your hands away from the radiator fans.**

- h. Stop the engine, and wait until the engine coolant cools down to ambient temperature.

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.

- i. Check the coolant level in the radiator reservoir tank.
If the coolant level is low, add SLLC to the radiator reservoir tank full line.

6. INSPECT FOR COOLANT LEAK**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.

NOTICE:

Before performing each inspection, turn the A/C switch off.

- a. Fill the radiator with coolant and attach a radiator cap tester.
- b. Warm up the engine.
- c. Using a radiator cap tester, increase the pressure inside the radiator to 137 kPa (1.4 kgf/cm², 20 psi), and check that the pressure does not drop.
If the pressure drops, check the hoses, radiator and water pump for leaks. If no external leaks are found, check the heater core, cylinder block and cylinder head.

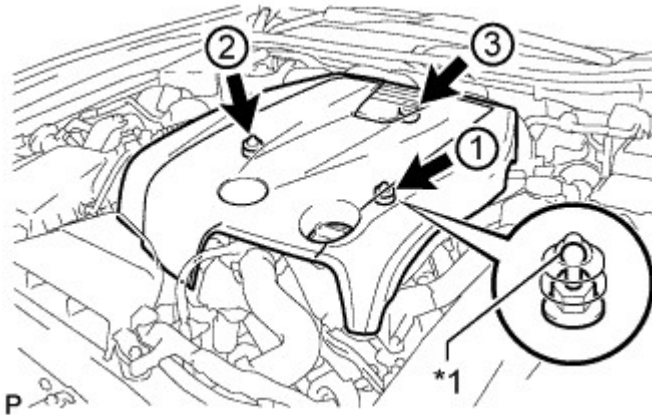
7. INSTALL COOL AIR INTAKE DUCT SEAL

- a. Install the cool air intake duct seal with the 7 clips.

8. INSTALL ENGINE ROOM SIDE COVER

- a. Install the engine room side cover with the 4 clips.

9. INSTALL V-BANK COVER SUB-ASSEMBLY



- a. Attach the 3 clips in the order shown in the illustration to install the V-bank cover.

Text in Illustration

*1 Tip (Round Portion)

b. NOTICE:

- **Securely attach the clips.**
- **If the clips are forcibly attached or struck with an object, they may be damaged.**
- **Do not apply any oil to the tips (round portions).**