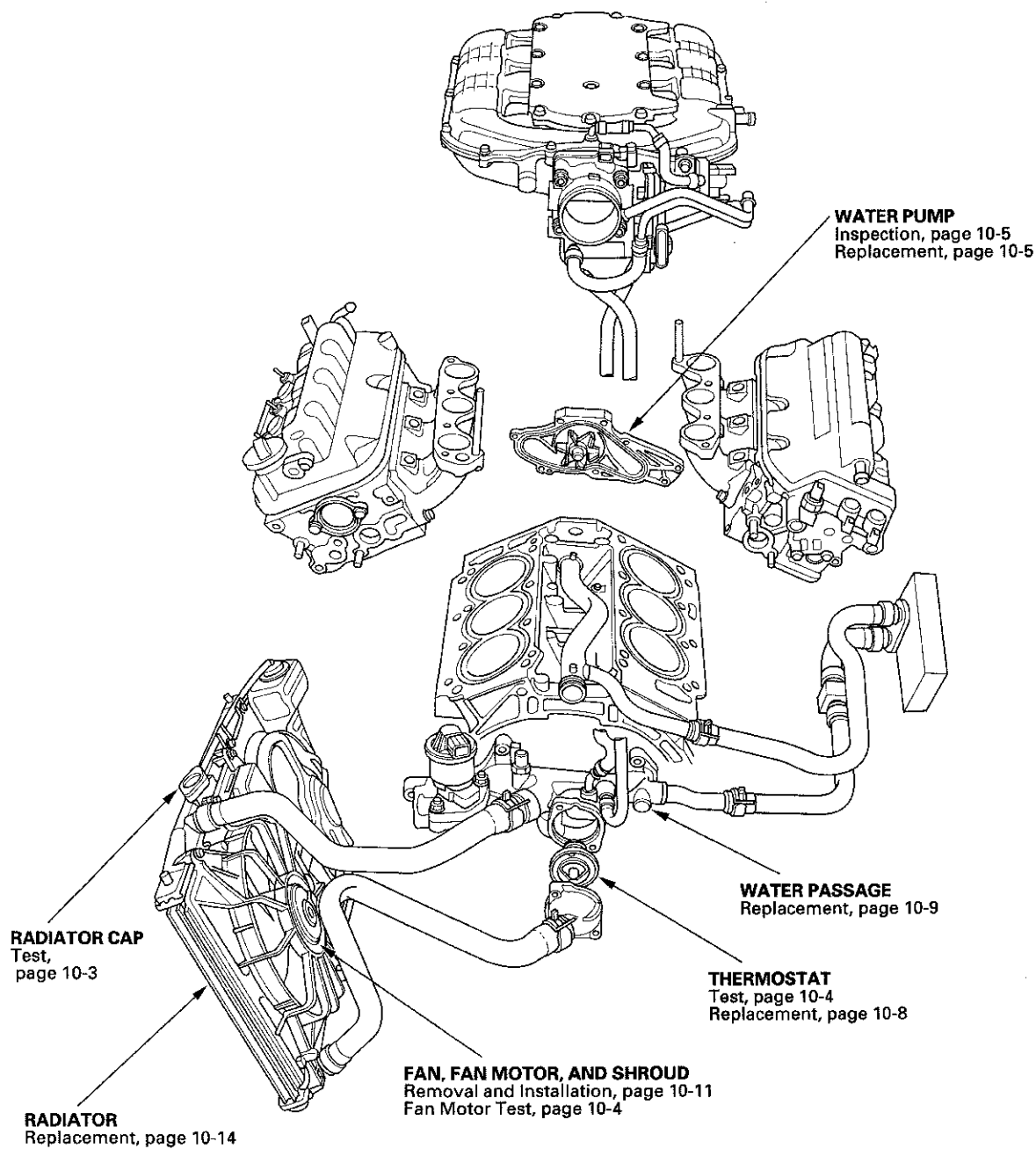


Cooling System

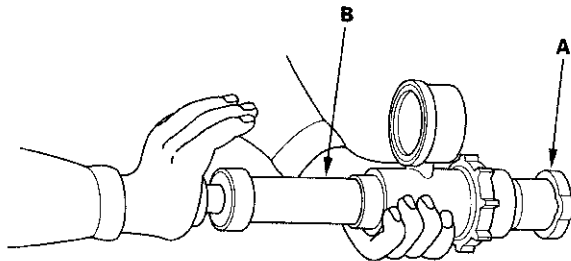
Component Location Index





Radiator Cap Test

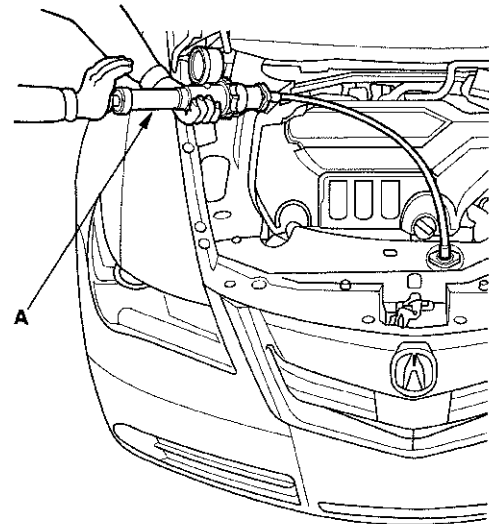
1. Wait until the engine is cool, then carefully remove the radiator cap (A). Wet the radiator cap seal with engine coolant, then install it on a commercially available pressure tester (B).



2. Apply a pressure of 93—123 kPa (0.95—1.25 kgf/cm², 14—18 psi).
3. Check for a drop in pressure.
4. If the pressure drops, replace the cap.

Radiator Test

1. Wait until the engine is cool, then carefully remove the radiator cap, and fill the radiator with engine coolant to the top of the filler neck.
2. Attach a commercially available pressure tester (A) to the radiator, and apply a pressure of 93—123 kPa (0.95—1.25 kgf/cm², 14—18 psi).

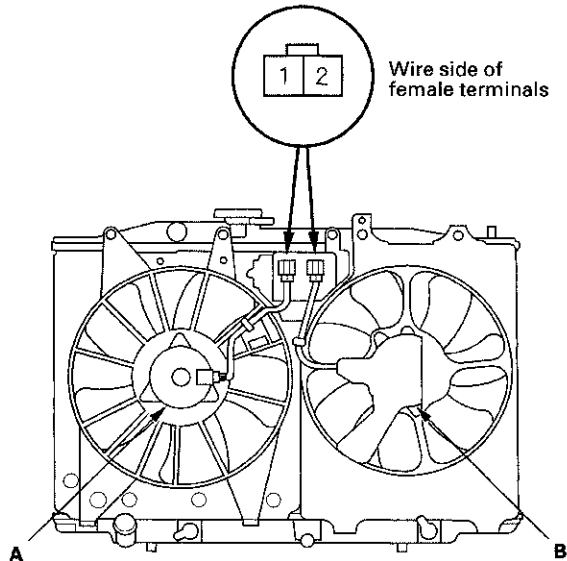


3. Inspect for engine coolant leaks and a drop in pressure.
4. Remove the tester, then reinstall the radiator cap.

Cooling System

Fan Motor Test

1. Disconnect the 2P connectors from the radiator fan motor (A) and the condenser fan motor (B).



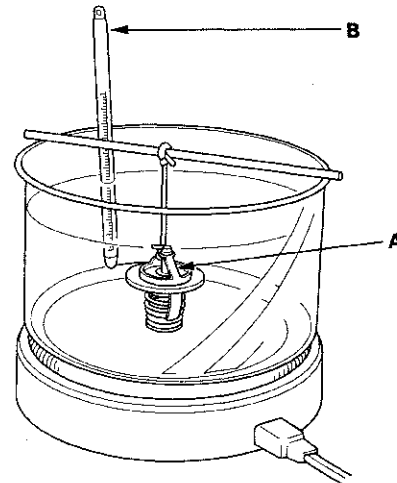
2. Test each motor by connecting battery power to terminal No. 1 and ground to terminal No. 2.
3. If either motor fails to run or does not run smoothly, replace it (see page 10-11).

Thermostat Test

Replace the thermostat if it is stuck in the open position at room temperature.

To test a closed thermostat:

1. Suspend the thermostat (A) in a container of water. Do not let the thermometer (B) touch the bottom of the hot container.



2. Heat the water and check the temperature with a thermometer. Check the temperature at which the thermostat first opens, and at which is fully open.
3. Measure the lift height of the thermostat when it is fully open.

Standard Thermostat

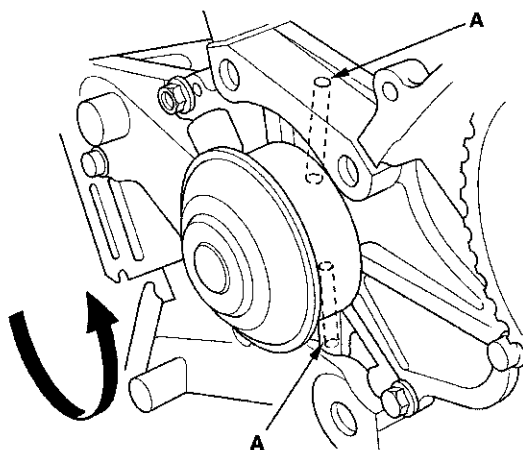
Lift Height: Above 10.0 mm (0.39 in)
Starts Opening: 169—176 °F (76—80 °C)
Fully Open: 194 °F (90 °C)



Water Pump Inspection

1. Remove the timing belt (see page 6-16).
2. Turn the water pump counterclockwise, and make sure that it turns freely. If it doesn't, replace the water pump (see page 10-5).

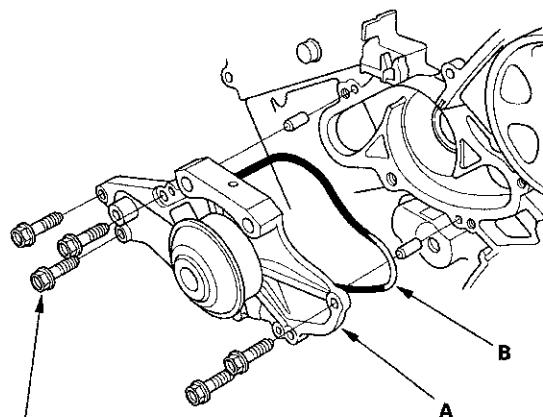
NOTE: When you check the water pump, you may see a small amount of "weeping" from the bleed holes (A). This is normal.



3. Install the timing belt (see page 6-18).

Water Pump Replacement

1. Drain the engine coolant (see page 10-6).
2. Remove the timing belt (see page 6-16).
3. Remove the timing belt adjuster (see page 6-28).
4. Remove the water pump (A) by removing the five bolts.



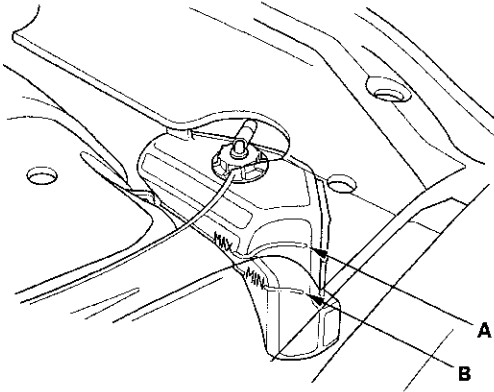
6 x 1.0 mm
12 N·m (1.2 kgf·m, 8.8 lbf·ft)

5. Inspect and clean the O-ring groove and the mating surface of the engine block.
6. Install the water pump with a new O-ring (B) in the reverse order of removal.
7. Clean up any spilled engine coolant.
8. Install the timing belt adjuster (see page 6-28).
9. Install the timing belt (see page 6-18).
10. Refill the radiator with engine coolant, then bleed the air from the cooling system (see step 8 on page 10-7).

Cooling System

Coolant Check

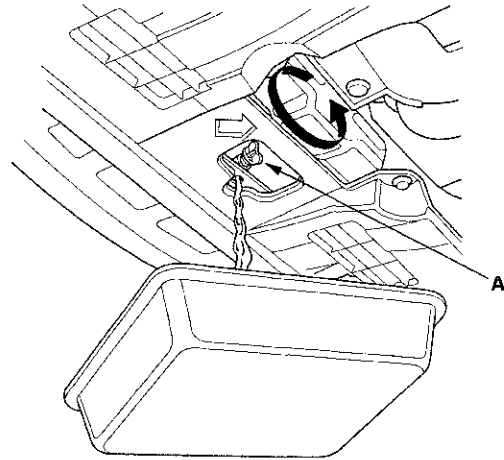
1. Check the coolant level in the coolant reservoir. Make sure it is between the MAX mark (A) and MIN mark (B).



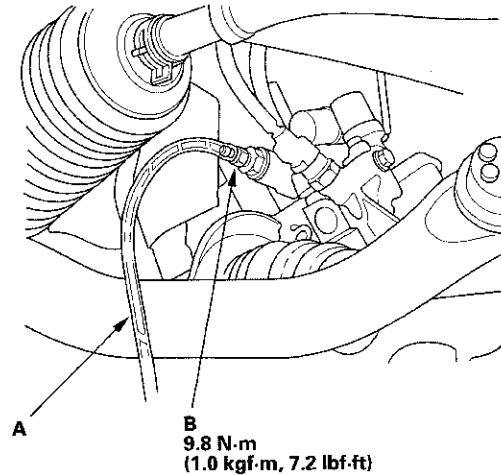
2. If the coolant level in the coolant reservoir is at or below the MIN mark, add coolant to bring it between the MIN and MAX marks, then inspect the cooling system for leaks.

Coolant Replacement

1. Start the engine. Set the heater temperature control dial to maximum heat, then turn the ignition switch to LOCK (0). Make sure the engine and the radiator are cool to the touch.
2. Remove the radiator cap.
3. Loosen the drain plug (A) and drain the coolant.



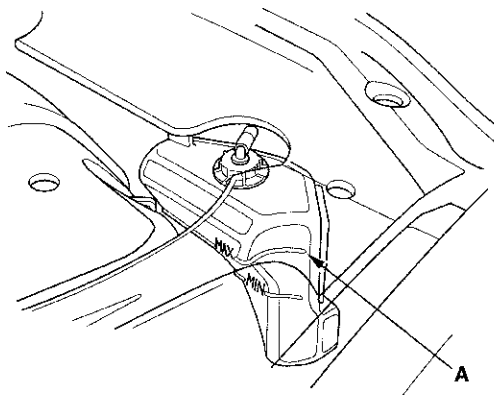
4. Install a rubber hose (A) on the drain bolt (B) located at the rear of the cylinder block, then loosen the drain bolt.



5. When the coolant stops draining, tighten the drain bolt. Remove the rubber hose.
6. Tighten the radiator drain plug securely.



7. Remove the coolant reservoir and drain the coolant, then reinstall the coolant reservoir.
8. Fill the coolant reservoir to the MAX mark (A) with Acura Long Life Antifreeze/Coolant Type 2 (P/N OL999-9011A).



9. Pour Acura Long Life Antifreeze/Coolant Type 2 into the radiator up to the base of the filler neck.

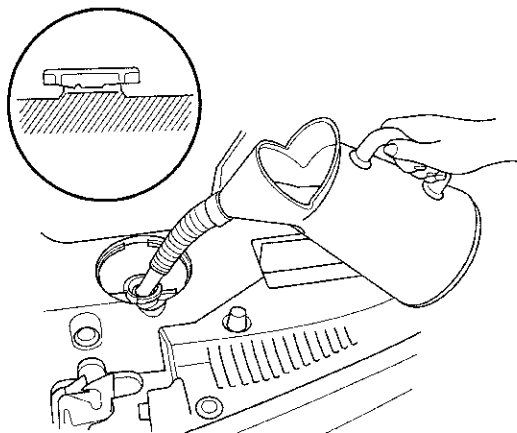
NOTE:

- Always use Acura Long Life Antifreeze/Coolant Type 2 (P/N OL999-9011A). Using a non-Acura coolant can result in corrosion, causing the cooling system to malfunction or fail.
- Acura Long Life Antifreeze/Coolant Type 2 is a mixture of 50 % antifreeze and 50 % water. Do not add water.

Engine Coolant Capacities (Including the reserve tank capacity of 0.58 L (0.153 US gal)):

After Coolant Change: 6.0 L (1.59 US gal)

After Engine Overhaul: 8.6 L (2.27 US gal)



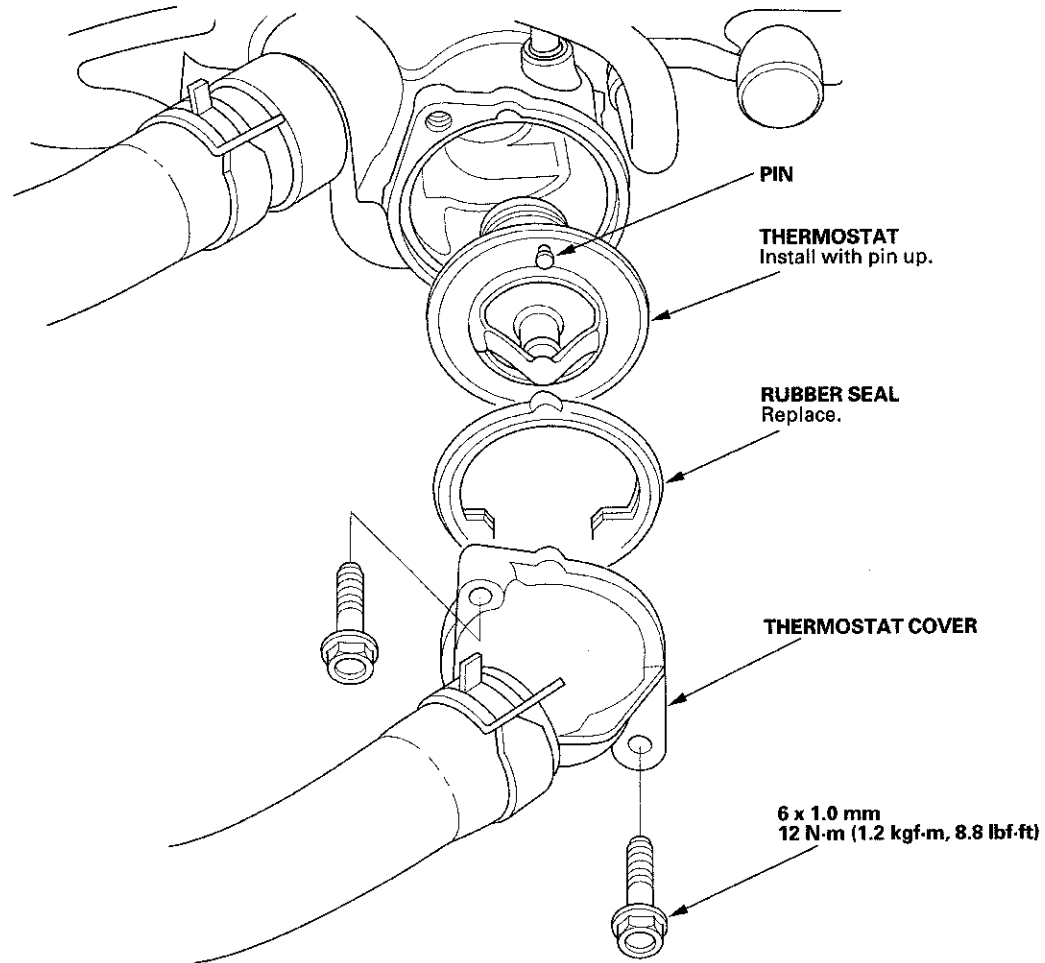
10. Install the radiator cap loosely.
11. Start the engine and let it run until it warms up (the radiator fan comes on at least twice).
12. Turn off the engine. Check the level in the radiator and add Acura Long Life Antifreeze/Coolant Type 2, if needed.

NOTE: Removing the radiator cap while the engine is hot can cause the coolant to spray out. Always let the engine and the radiator cool before removing the cap.
13. Put the radiator cap on tightly, then run the engine again and check for leaks.
14. Clean up any spilled engine coolant.
15. Connect the Honda Diagnostic System (HDS) to the data link connector (DLC) (see step 2 on page 11-3).
16. Make sure the HDS communicates with the vehicle and the powertrain control module (PCM). If it doesn't communicate, troubleshoot the DLC circuit (see page 11-211).
17. Turn the ignition switch to ON (II).
18. Select BODY ELECTRICAL with the HDS.
19. Select ADJUSTMENT in the GAUGE MENU with the HDS.
20. Select RESET in the MAINTENANCE MINDER with the HDS.
21. Select MAINTENANCE SUB ITEM 5 RESET with the HDS.

Cooling System

Thermostat Replacement

1. Do the battery removal procedure (see page 22-92).
2. Drain the engine coolant (see page 10-6).
3. Remove the thermostat cover, then remove the thermostat.

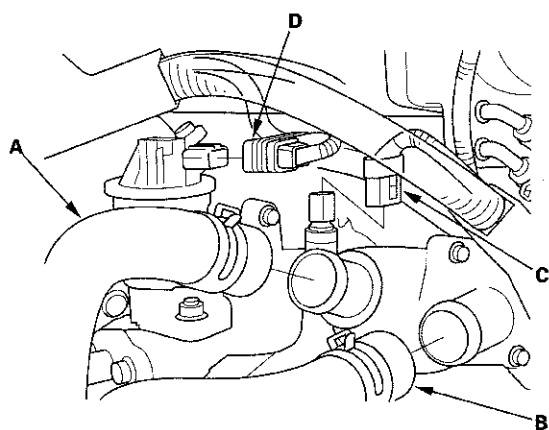


4. Install the thermostat with a new rubber seal and with the pin on the top side.
5. Do the battery installation procedure (see page 22-92).
6. Refill the radiator with engine coolant (see step 8 on page 10-7), then bleed the air from the cooling system.
7. Clean up any spilled engine coolant.

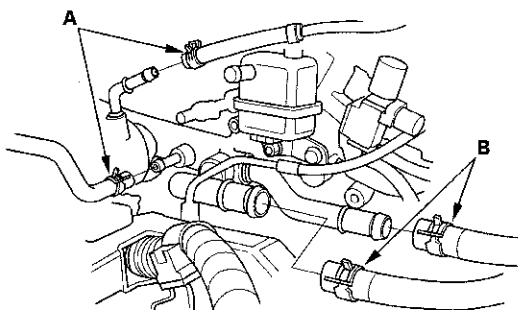


Water Passage Replacement

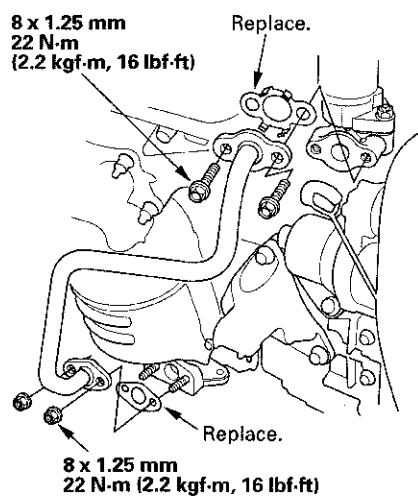
1. Do the battery removal procedure (see page 22-92).
2. Drain the engine coolant (see page 10-6).
3. Remove the upper radiator hose (A) and the lower radiator hose (B), then disconnect engine coolant temperature (ECT) sensor 1 connector (C) and the exhaust gas recirculation (EGR) valve connector (D).



4. Remove the water bypass hoses (A) and the heater hoses (B).



5. Remove the EGR pipe.

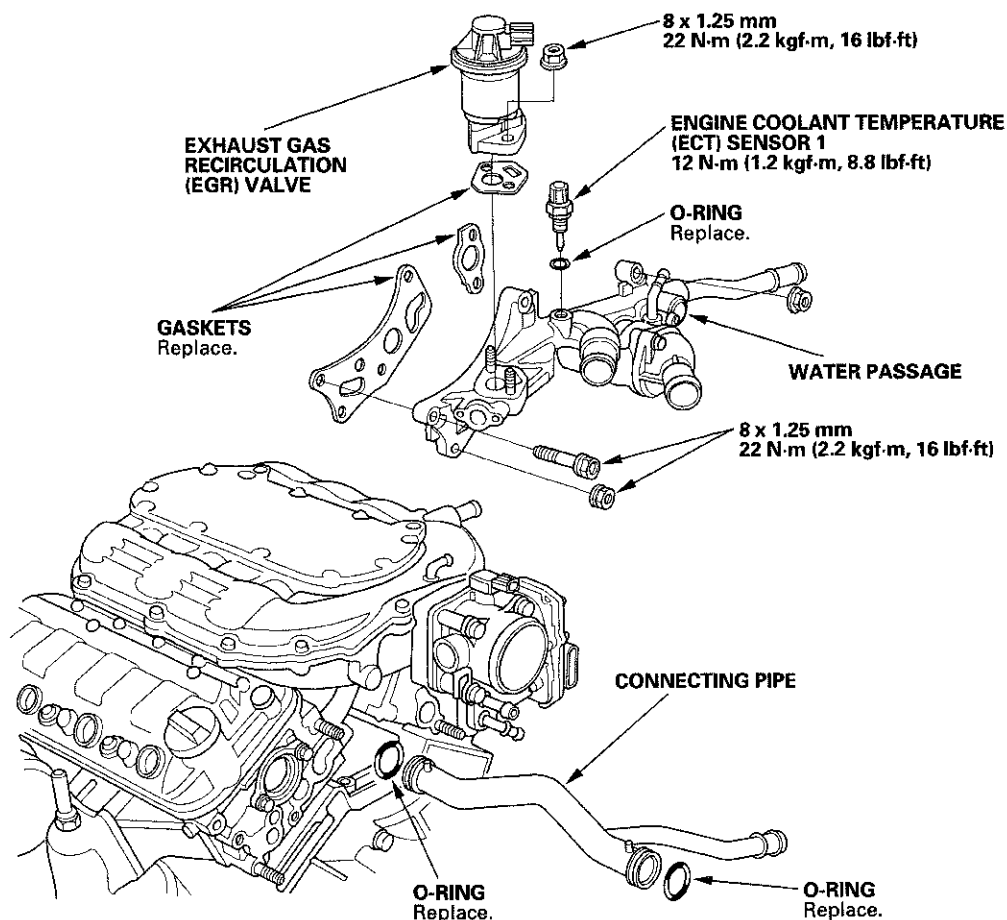


(cont'd)

Cooling System

Water Passage Replacement (cont'd)

6. Remove the water passage and related parts.



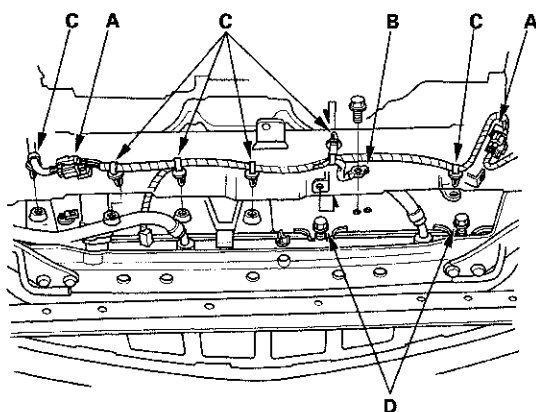
7. Install the water passage in the reverse order of the removal.
8. Do the battery installation procedure (see page 22-92).
9. Refill the radiator with engine coolant (see step 8 on page 10-7), and bleed the air from the cooling system with the heater valve open.
10. Clean up any spilled engine coolant.



Fan, Fan Motor, and Shroud Removal and Installation

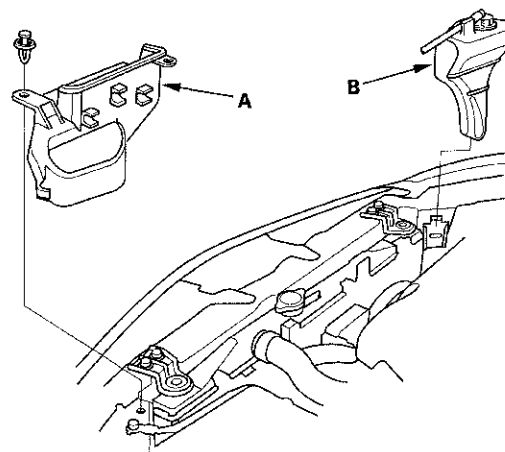
Removal

1. Remove the right side fender trim (see page 20-162).
2. Raise the vehicle on the lift to full height.
3. Remove the splash shield (see step 31 on page 5-7).
4. Remove the harness connectors (A), the ground cable (B), and the harness clamps (C).

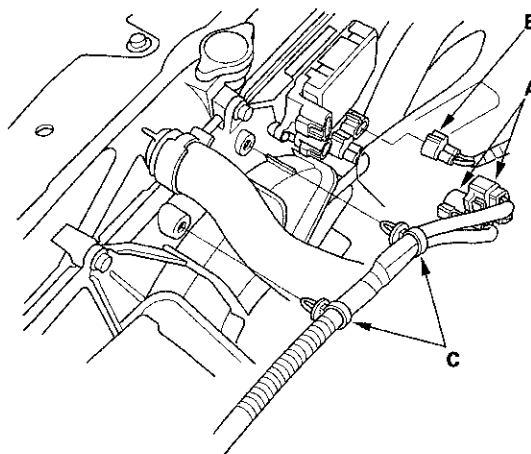


5. Loosen the A/C condenser fan shroud mounting bolts (D).
6. Lower the vehicle on the lift.

7. Remove the air intake duct cover (A) and the coolant reservoir (B).



8. Disconnect the radiator fan control (RFC) connectors (A) and the A/C condenser fan motor connector (B), then remove the harness clamps (C).



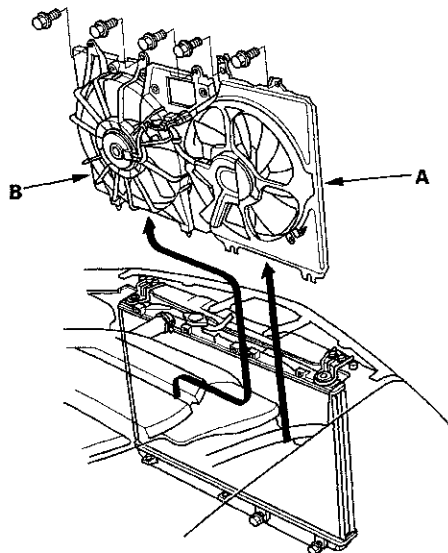
9. Remove the radiator fan control (RFC) unit (see page 10-22).

(cont'd)

Cooling System

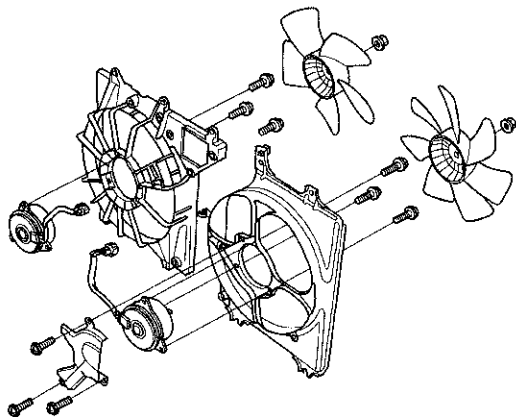
Fan, Fan Motor, and Shroud Removal and Installation (cont'd)

10. Remove the condenser fan shroud assembly (A).



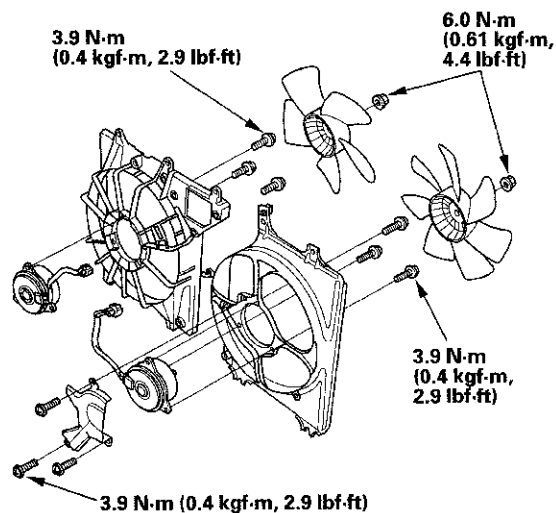
11. Remove the radiator fan shroud assembly (B) from right side of the engine compartment.

12. Disassemble the fan shrouds.

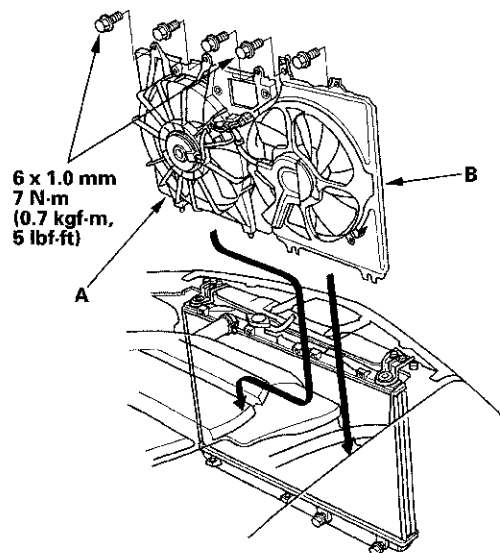


Installation

1. Assemble the fan shrouds.



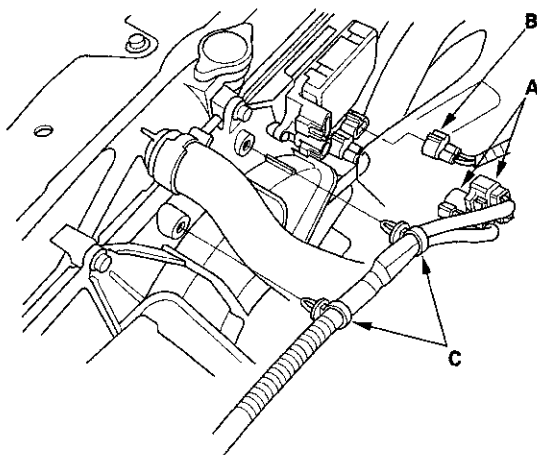
2. Install the radiator fan shroud assembly (A).



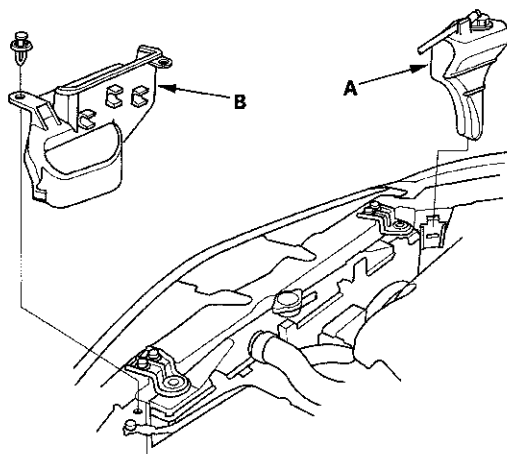
3. Install the condenser fan shroud assembly (B).
4. Install the RFC unit (see page 10-22).



5. Connect the RFC connectors (A) and the A/C condenser fan motor connector (B), then install the harness clamps (C).

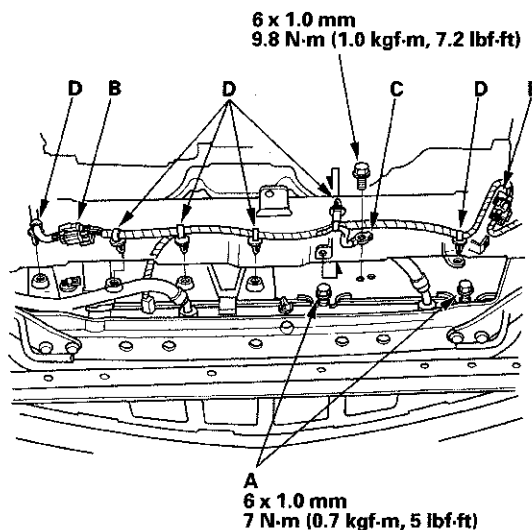


6. Install the coolant reservoir (A), and the air intake duct cover (B).



7. Raise the vehicle on the lift to full height.

8. Tighten the A/C condenser fan shroud mounting bolts (A).



9. Install the harness connectors (B), the ground cable (C), and the harness clamps (D).

10. Install the splash shield (see step 39 on page 5-17).

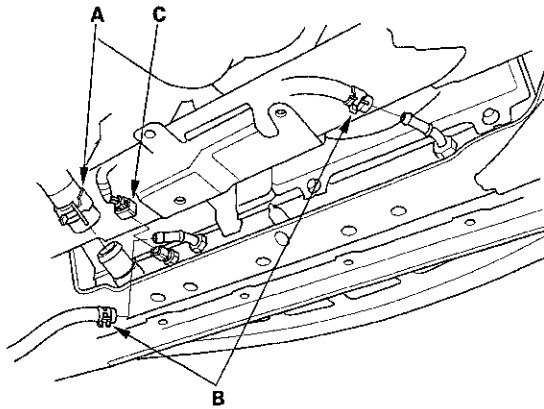
11. Lower the vehicle on the lift.

12. Install the right side fender trim (see page 20-162).

Cooling System

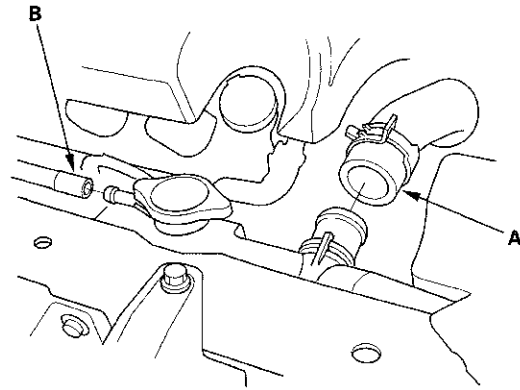
Radiator Replacement

1. Drain the engine coolant (see page 10-6).
2. Remove the right side fender trim (see page 20-162).
3. Raise the vehicle on the lift to full height.
4. Remove the splash shield (see step 31 on page 5-7).
5. Disconnect the lower radiator hose (A).

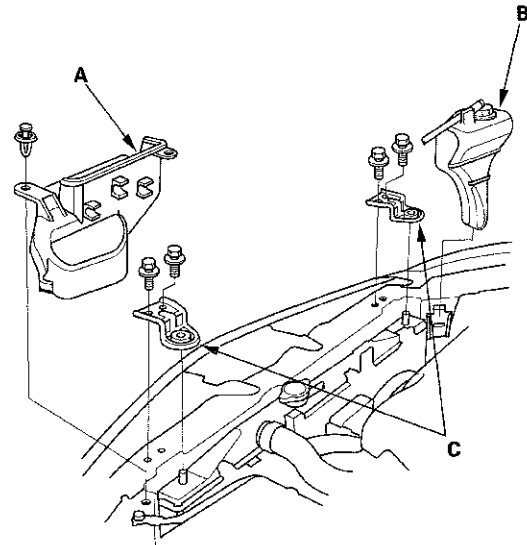


6. Disconnect the automatic transmission fluid (ATF) cooler hoses (B), then plug the hose and line.
7. Disconnect the engine coolant temperature (ECT) sensor 2 connector (C).
8. Lower the vehicle on the lift.

9. Disconnect the upper radiator hose (A) and the coolant reservoir hose (B).



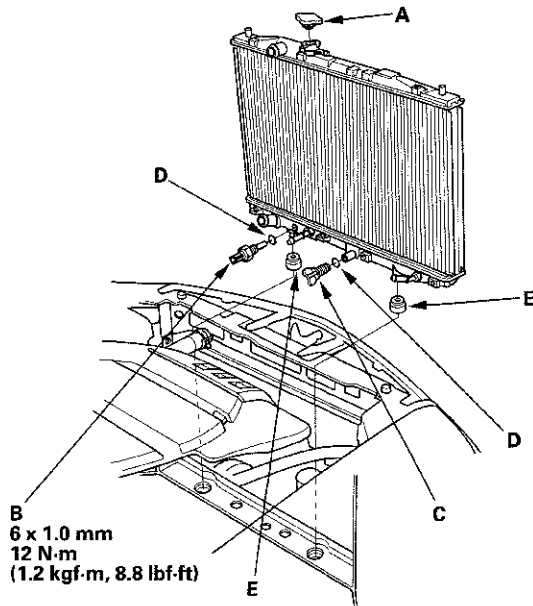
10. Remove the air intake duct cover (A), the coolant reservoir (B), and the radiator upper brackets (C).



11. Remove the A/C condenser fan shroud assembly and the radiator fan shroud assembly (see page 10-11).



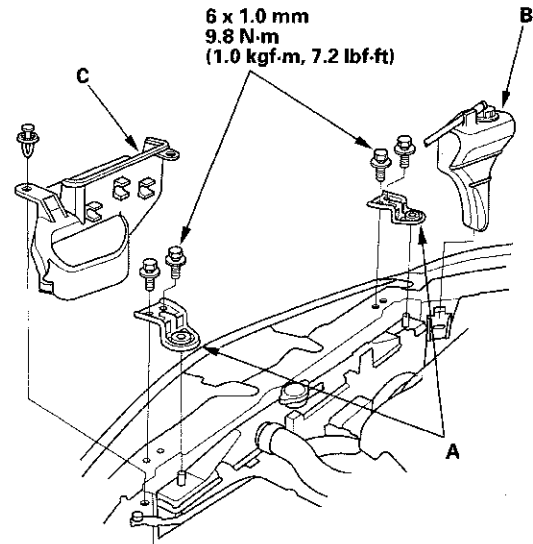
12. Pull up the radiator, then remove the radiator cap (A), the ETC sensor 2 (B), and the drain plug (C).



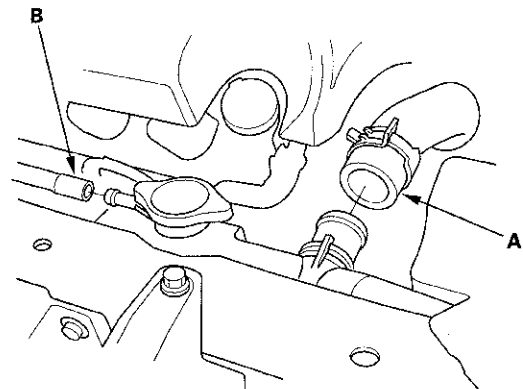
13. Reassemble the radiator with new O-rings (D).
14. Install the radiator. Make sure the lower cushions (E) are set securely.

15. Install the radiator fan shroud assembly and the A/C condenser fan shroud assembly (see page 10-12).

16. Install the radiator upper brackets (A), the coolant reservoir (B), and the air intake duct cover (C).



17. Install the upper radiator hose (A) and coolant reservoir hose (B).



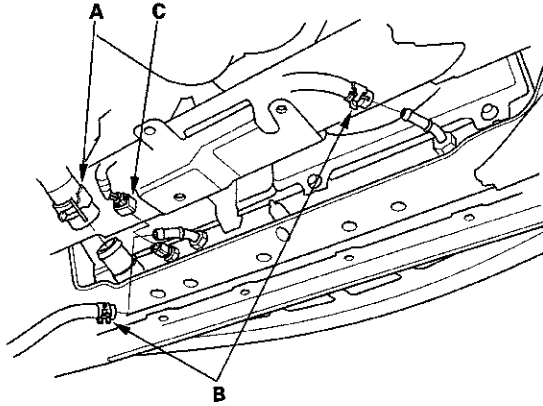
18. Lower the vehicle on the lift.

(cont'd)

Cooling System

Radiator Replacement (cont'd)

19. Install the lower radiator hose (A) and the ATF cooler hoses (B).



20. Connect the ECT sensor 2 connector (C).
21. Install the splash shield (see step 39 on page 5-17).
22. Lower the vehicle on the lift.
23. Install the right side fender trim (see page 20-162).
24. Refill the radiator with engine coolant, and bleed the air from the cooling system with the heater valve open (see step 8 on page 10-7).
25. Clean up any spilled engine coolant.