

Cooling

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Illustrated Index

WARNING: System is under high pressure when engine is hot. To avoid danger of releasing scalding engine coolant, remove cap only when engine is cold.

Total Cooling System Capacity (including heater and reservoir):

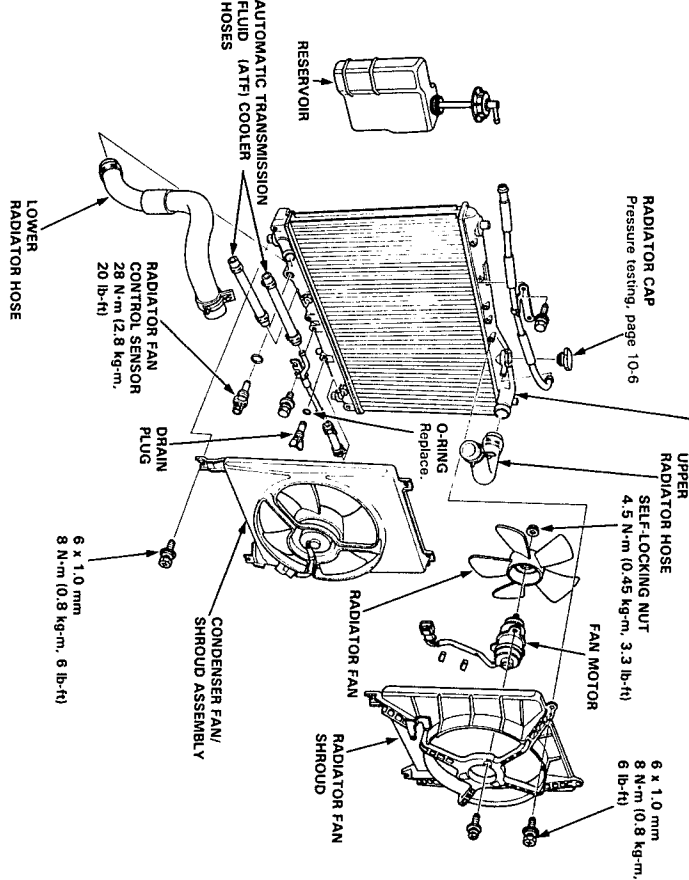
Manual Transmission:
7.6 l (8.0 US qt, 6.7 Imp qt)

Automatic Transmission:
7.5 l (7.9 US qt, 6.6 Imp qt)

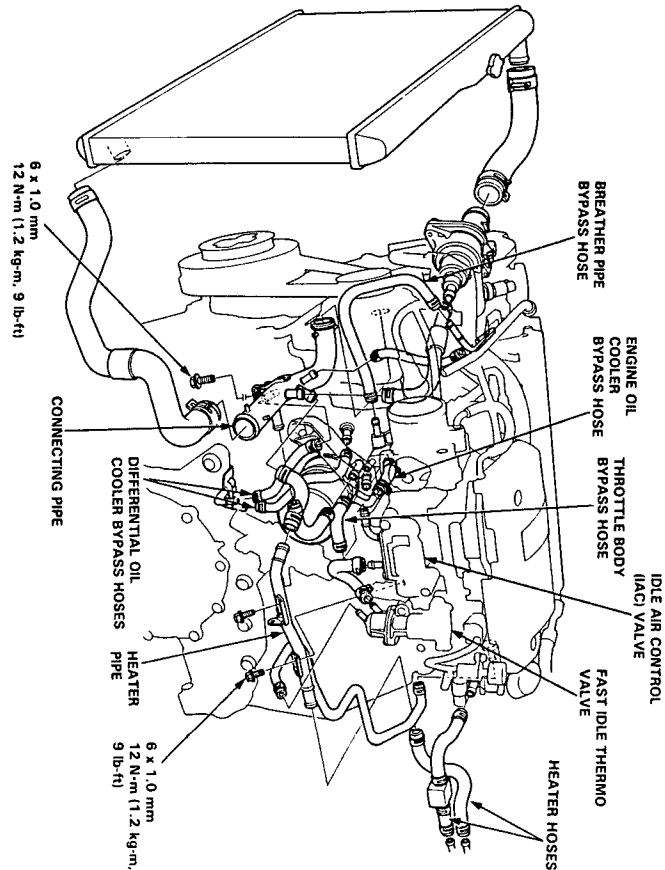
Reservoir: 0.70 l (0.74 US qt, 0.62 Imp qt)

- NOTE:**
- Check all cooling system hoses for damage, leaks or deterioration and replace if necessary.
 - Check all hose clamps and retighten if necessary.
 - Use new O-rings when reassembling.

RADIATOR
Engine coolant refilling and bleeding, page 10-5
Leak testing, page 10-6
Inspect soldered joints and seams for leaks.
Blow dirt out from between core fins with compressed air. If insects, etc., are clogging radiator, wash them off with low pressure water.



ENGINE CONNECTIONS:



Radiator

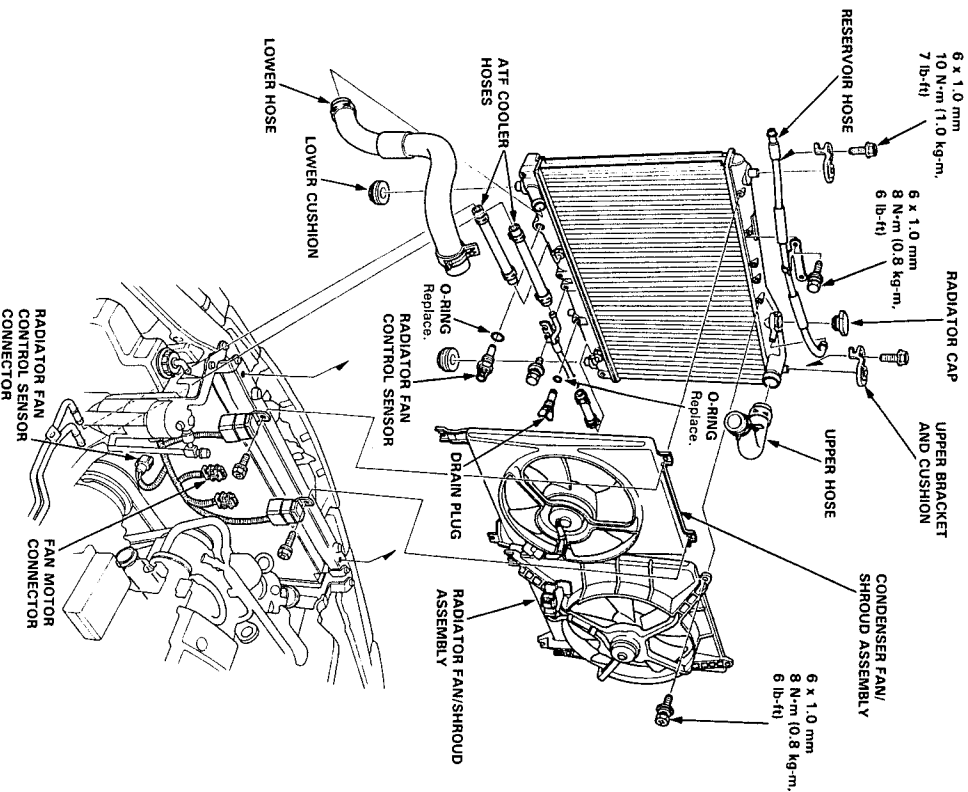
Replacement

1. Drain the engine coolant.
2. Remove the upper and lower radiator hoses, and ATF cooler hoses.
3. Disconnect the fan motor connectors and the radiator fan control sensor connector.
4. Remove the radiator upper brackets, then pull up the radiator.
5. Remove the radiator and condenser fan shroud assemblies and other parts from radiator.

Install the radiator in the reverse order of removal:

NOTE:

- Set the upper and lower cushions securely.
- Fill the radiator and bleed the air.



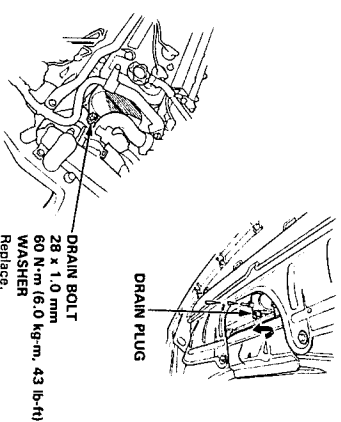
Engine Coolant Refilling and Bleeding

WARNING

Removing the radiator cap while the engine is hot can cause the engine coolant to spray out, seriously scalding you. Always let the engine and radiator cool down before removing the radiator cap.

CAUTION: When pouring coolant, be sure to shut the relay box lid and not to spill coolant on the electrical parts or the paint. If any coolant spills, rinse it off immediately.

1. Slide the heater temperature control lever to maximum heat. Make sure the engine and radiator are cool to the touch.
2. Remove the radiator cap.
3. Loosen the drain plug on the bottom of the radiator and remove the drain bolt on the engine block. Let the coolant drain out.



4. Remove the reservoir from its holder by pulling it straight up. Drain the coolant, then put the reservoir back in its holder.
5. When the coolant stops draining, apply liquid gasket to the drain bolt threads, then reinstall the bolt with a new washer. Tighten it securely.
6. Tighten the radiator drain plug securely.
7. Mix the recommended antifreeze/coolant with an equal amount of water in a clean container.

NOTE:

- Use only Genuine Honda Antifreeze/Coolant.
- For best corrosion protection, the engine coolant concentrations must be maintained year-round at 50% MINIMUM. Coolant concentrations less than 50% may not provide sufficient protection against corrosion or freezing.
- Coolant concentrations greater than 60% will impair cooling efficiency and are not recommended.

CAUTION:

- Do not mix different brands of antifreeze/coolant.
- Do not use additional rust inhibitors or anti-rust products; they may not be compatible with the genuine engine coolant.

Engine Coolant Refill Capacity: Including reservoir 0.70 ℓ (0.74 US qt, 0.62 Imp qt)

Manual Transmission:

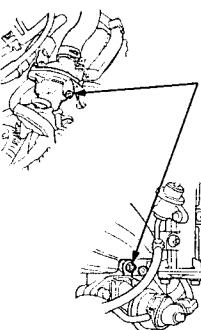
6.0 ℓ (6.3 US qt, 5.3 Imp qt)

Automatic Transmission:

5.9 ℓ (6.2 US qt, 5.2 Imp qt)

8. Pour coolant into the radiator up to the base of the filler neck.
9. Loosen the two bleed bolts on top of the engine. Tighten them again when coolant comes out in a steady stream with no bubbles.

BLEED BOLTS
10 N·m (1.0 kg-m, 7 lb-ft)



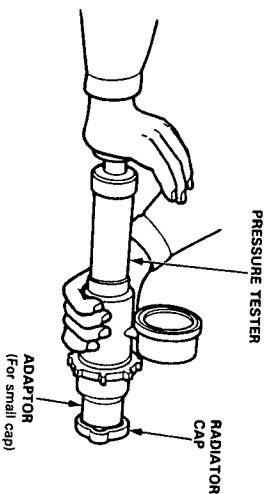
10. Refill the radiator to the base of the filler neck. Put the cap on the radiator, and tighten it only to the first stop. Start the engine and let it run until it warms up (the radiator cooling fan comes on at least twice).
11. Turn off the engine. Check the level in the radiator, add coolant if needed. Install the radiator cap, and tighten it fully.
12. Fill the reservoir to the MAX mark. Install the reservoir cap.



Radiator

Cap Testing

1. Remove the radiator cap, wet its seal with coolant, then install it on the pressure tester.
2. Apply a pressure of 95–125 kPa (0.95–1.25 kg/cm², 14–18 psi).
3. Check for a drop in pressure.

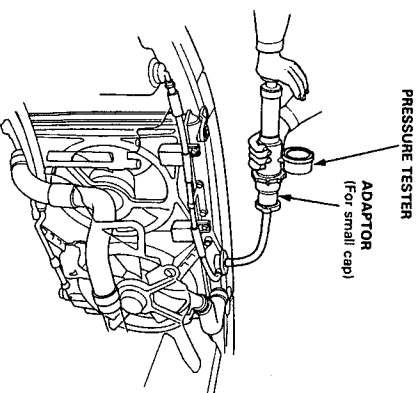


Pressure Testing

1. Wait until the engine is cool, then carefully remove the radiator cap and fill the radiator with coolant to the top of the filler neck.
2. Attach the pressure tester to the radiator and apply a pressure of 95–125 kPa (0.95–1.25 kg/cm², 14–18 psi).
3. Inspect for coolant leaks and a drop in pressure.
4. Remove the tester and reinstall the radiator cap.

NOTE:

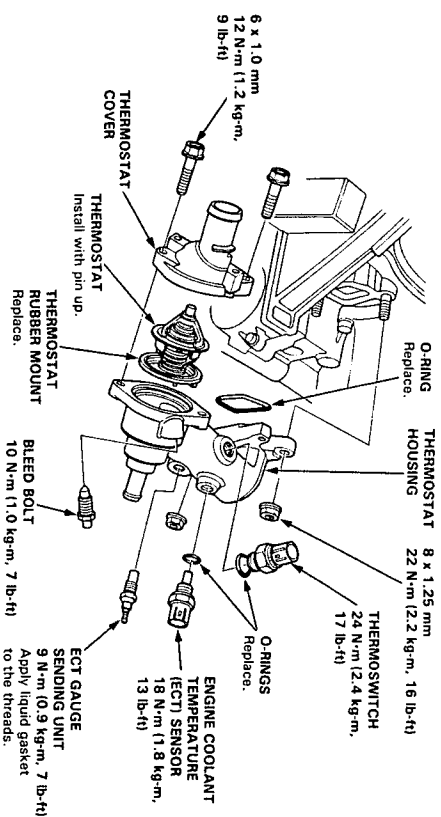
- Check for engine oil in the coolant and/or coolant in the engine oil.
- Check for ATF in the coolant and/or coolant in the ATF (A/T).



Thermostat

Replacement

NOTE: Use new gaskets and O-rings when reassembling.



Testing

Replace thermostat if it is open at room temperature.

To test a closed thermostat:

1. Suspend the thermostat in a container of water as shown.
 2. Heat the water and check the temperature with a thermometer. Check the temperature at which the thermostat first opens and at full lift.
- CAUTION:** Do not let the thermometer touch the bottom of the hot container.
3. Measure the lift height of the thermostat when it's full open.

STANDARD THERMOSTAT

Starts opening:

Primary valve: 180 ± 4°F (82 ± 2°C)

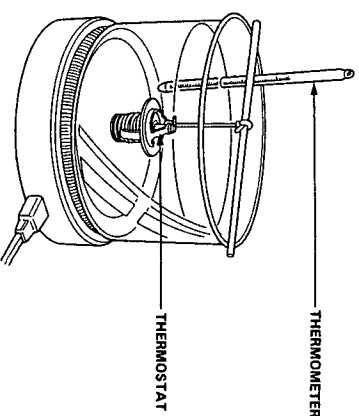
Secondary valve: 185 ± 4°F (85 ± 2°C)

Fully open: 203°F (95°C)

Lift height:

Primary valve: 10.0 mm (0.39 in) min.

Secondary valve: 8.5 mm (0.33 in) min.

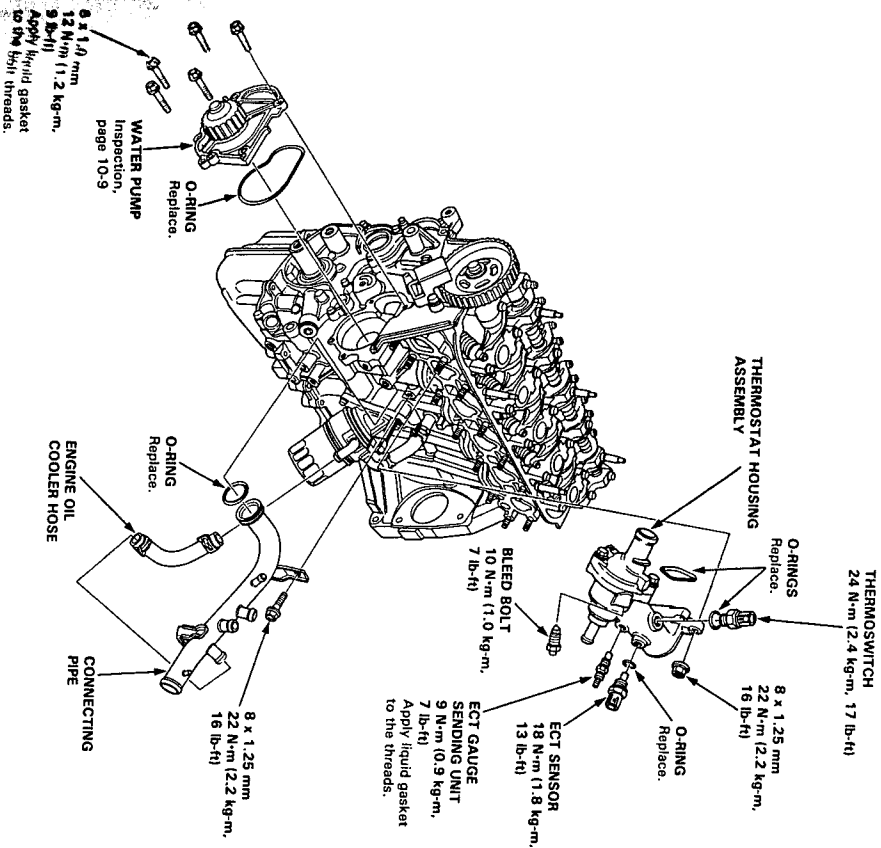


Water Pump

Illustrated Index

NOTE:

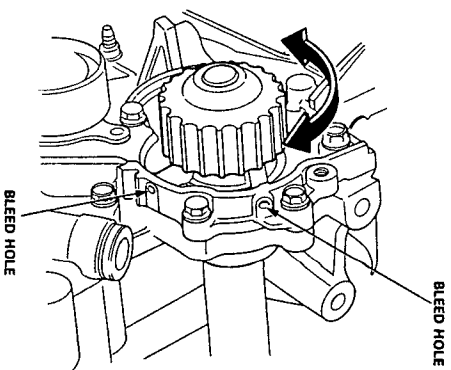
- Use new O-rings and new special bolts when reassembling.
- Use liquid gasket, Part No. 08718-0001.



Inspection

1. Remove the timing belt (page 6-29).
2. Check that the water pump pulley turns freely.
3. Check for signs of seal leakage.

NOTE: A small amount of weepage from the bleed hole is normal.



Replacement

NOTE:

- Use new O-rings and new special bolts when reassembling.
- Use liquid gasket, Part No. 08718-0001.

1. Drain the engine coolant (page 10-5).
2. Remove the timing belt (page 6-29).
3. Remove the bolts, then remove the water pump.
4. Install the water pump in the reverse order of removal.

