

Cooling

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Cooling

Illustrated Index

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

Total Cooling System Capacity (Including heater and reservoir):

Manual: 8.7 ℓ (2.30 US gal, 1.91 Imp gal)

Automatic: 8.7 ℓ (2.30 US gal, 1.91 Imp gal)

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

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.

RADIATOR CAP
Test, 10-6

6 x 1.0 mm
8 N·m (0.8 kg-m, 6 lb-ft)

UPPER RADIATOR HOSE

ATF COOLER HOSES

DRAIN PLUG

THERMOSENSOR
28 N·m (2.8 kg-m, 20 lb-ft)

O-RINGS
Replace.

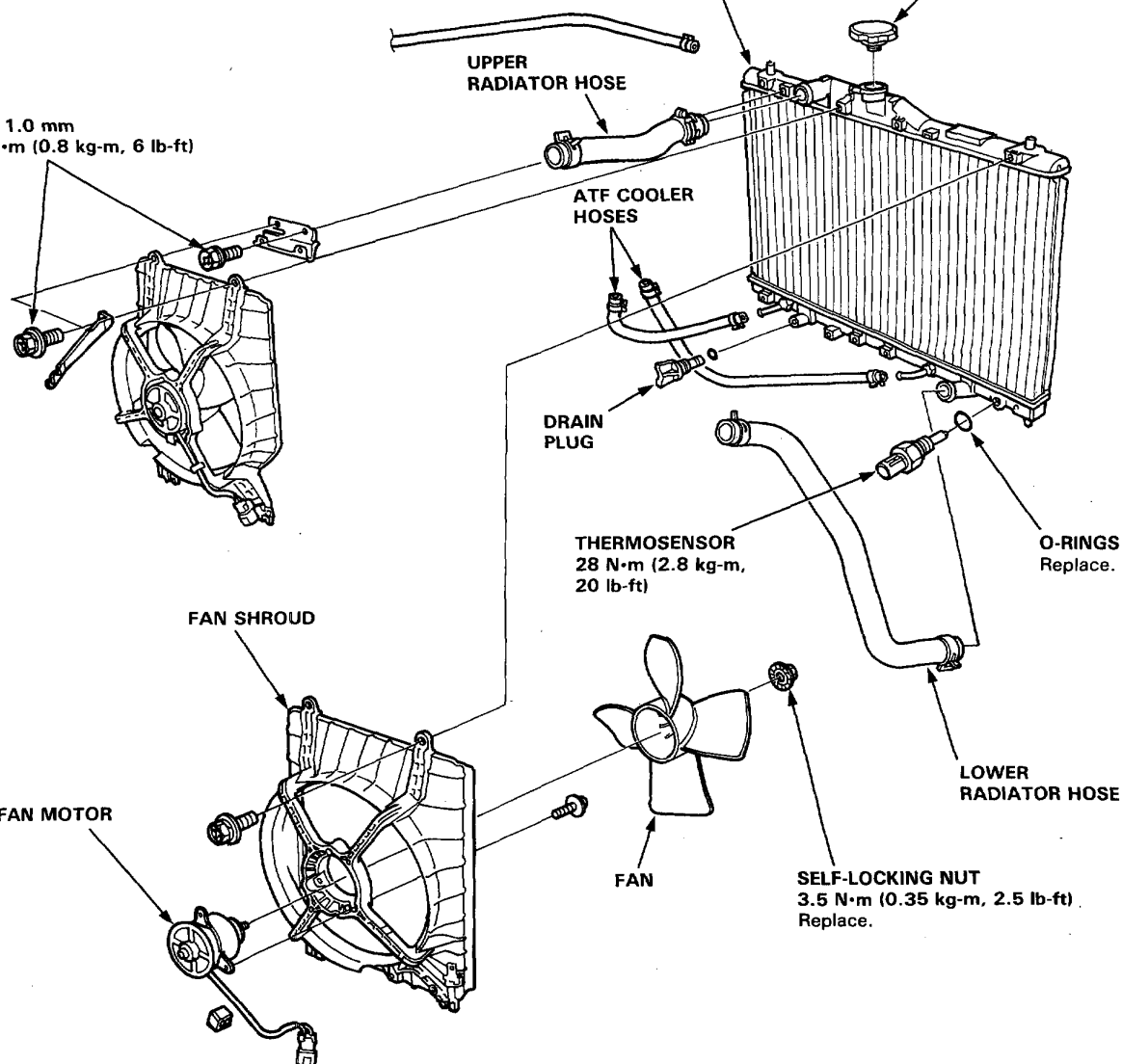
FAN SHROUD

FAN MOTOR

FAN

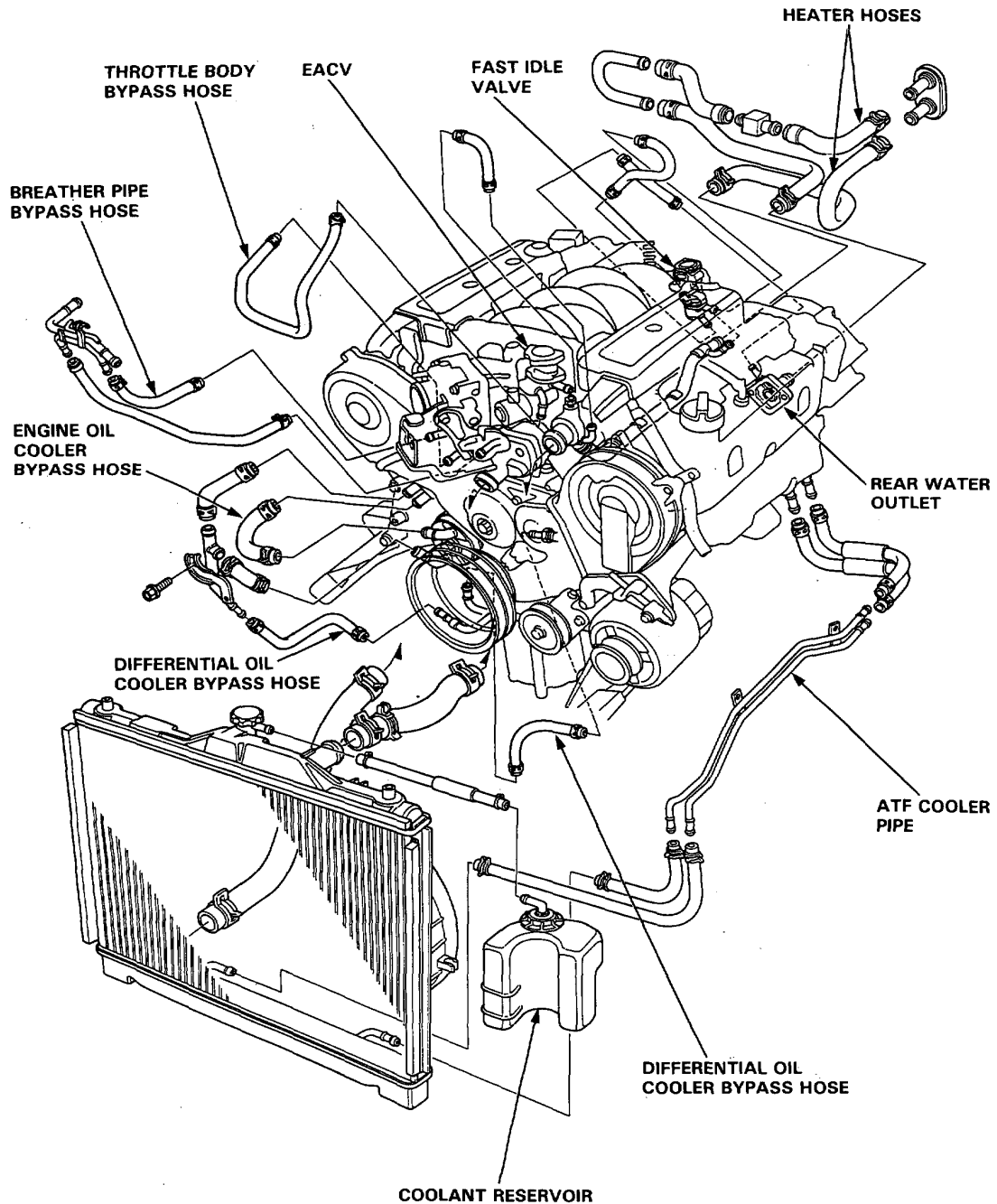
SELF-LOCKING NUT
3.5 N·m (0.35 kg-m, 2.5 lb-ft)
Replace.

LOWER RADIATOR HOSE





ENGINE CONNECTIONS



Radiator

Replacement

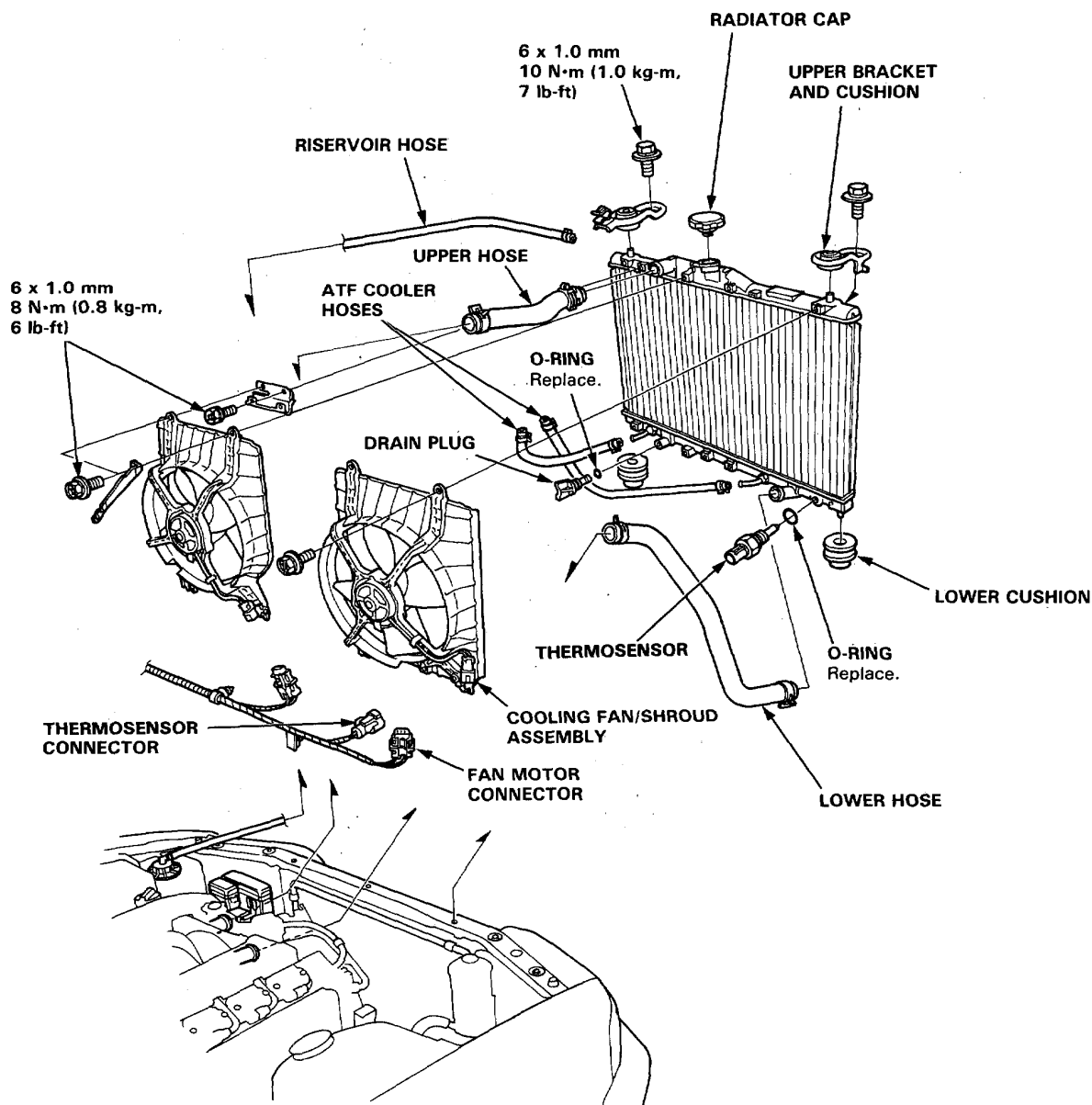
1. Drain the radiator coolant.
2. Remove the upper and lower radiator hoses, and ATF cooler hoses.
3. Disconnect the fan motor connectors and the thermosensor connector.
4. Remove the radiator upper brackets, then pull up the radiator.

5. Remove the 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.





Refilling and Bleeding

⚠ WARNING Removing the radiator cap while the engine is hot can cause the 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 let coolant spill on the electrical parts or the paint. If any coolant spills, rinse it off immediately.

NOTE:

- Perform this when the engine is cool.
- Before replacing the coolant, turn the ignition ON, slowly turn the climate control temperature knob to 90° and turn off the ignition. This will allow the coolant in the heater to drain out with the rest of the system.

1. When the radiator is cool, remove the radiator cap.
2. Loosen the drain plug, and drain the radiator coolant.
3. Retighten the drain plug securely.
4. Remove, drain and reinstall the reservoir. Fill the reservoir halfway to the MAX mark with water, then up to the MAX mark with coolant.
5. Mix the recommended anti-freeze/coolant with an equal amount of water in a clean container.

NOTE:

- Use only HONDA-RECOMMENDED anti-freeze/coolant.
- For best corrosion protection, the 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:

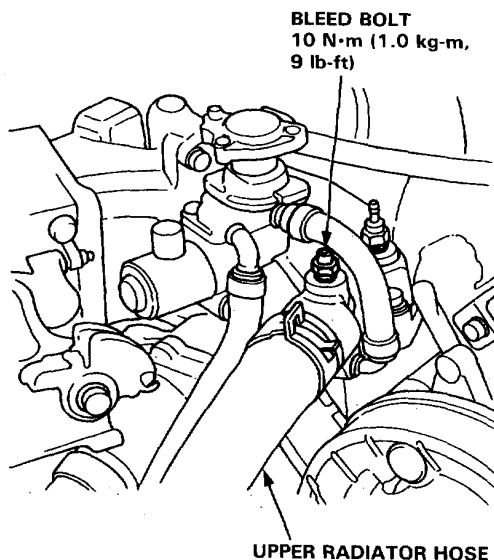
- Do not mix different brands of anti-freeze/coolant.
- Do not use additional rust inhibitors or anti-rust products; they may not be compatible with the recommended coolant.

Radiator Coolant Refill Capacity: Including reservoir 0.65 ℓ (0.69 US gal, 0.57 Imp gal)

Manual: 7.5 ℓ (1.98 US gal, 1.65 Imp gal)

Automatic: 7.5 ℓ (1.98 US gal, 1.65 Imp gal)

6. Loosen the air bleed bolt in the water outlet, then fill the radiator to the bottom of the filler neck with the coolant mixture. Tighten the bleed bolt as soon as coolant starts to run out in a steady stream without bubbles.

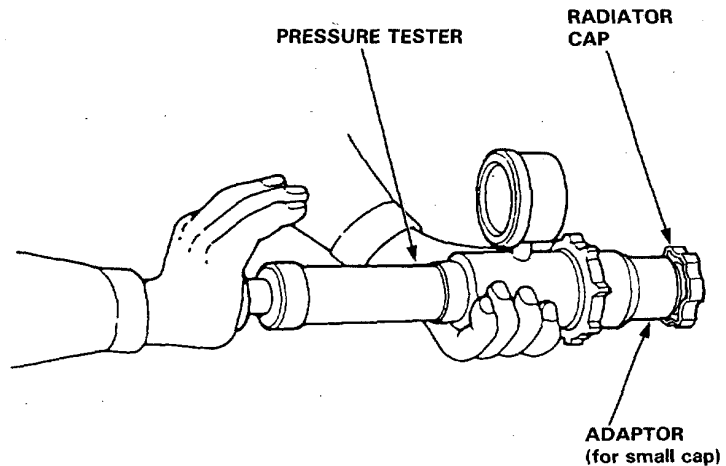


7. With the radiator cap off, start the engine and let it run until warmed up (fan goes on at least twice). Then, if necessary, add more coolant mix to bring the level back up to the bottom of the filler neck.
8. Put the radiator cap on, then run the engine again and check for leaks.

Radiator

Cap Testing

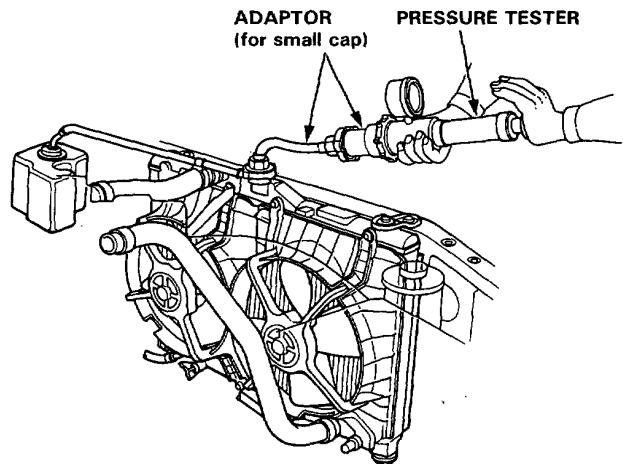
1. Remove the radiator cap, wet its seal with coolant, then install it on the pressure tester.
2. Apply a pressure of 95–125 kPa (0.95–1.25 kg/cm², 14–18 psi).
3. Check for a drop in pressure.



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 coolant and/or coolant in engine oil.

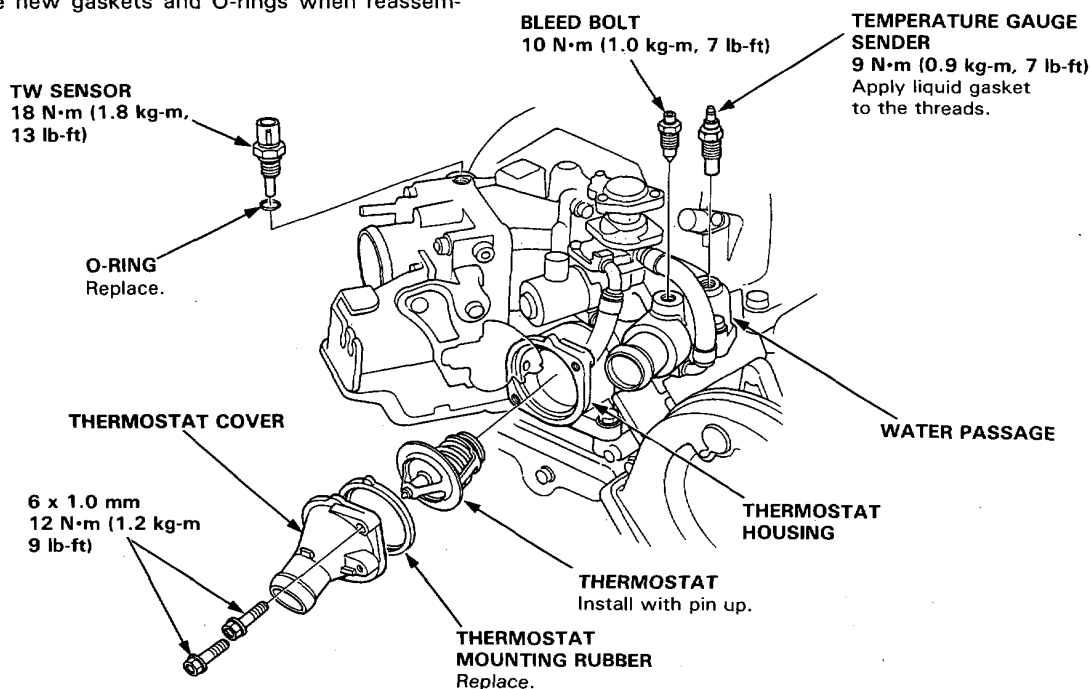




Thermostat

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:

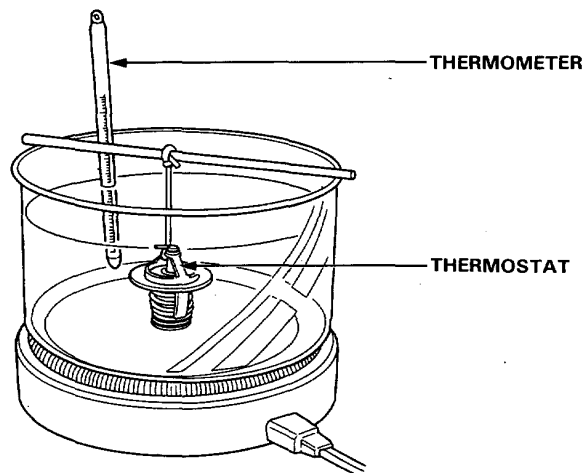
1. Suspend the thermostat in a container of water as shown.
2. Heat the water and check the temperature with a thermometer. Check the temperature at which the thermostat first opens and at full lift.

CAUTION: Do not let thermometer touch bottom of hot container.

3. Measure lift height of thermostat when fully open.

STANDARD THERMOSTAT

Lift height: above 10 mm (0.39 in)
Starts opening: $78^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ($172^{\circ}\text{F} \pm 3^{\circ}\text{F}$)
Fully open: 90°C (194°F)

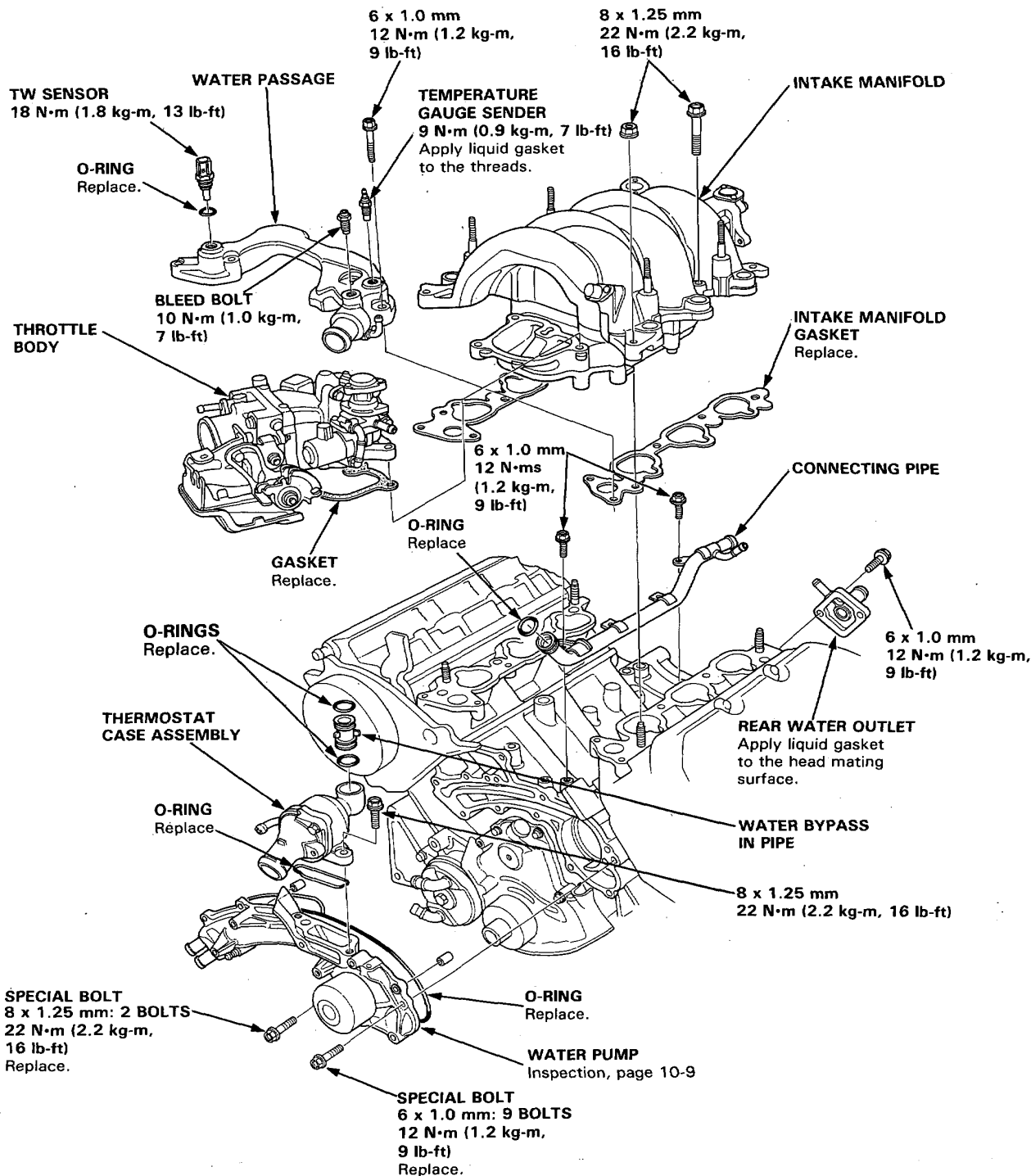


Water Pump

Illustrated Index

NOTE:

- Use new O-rings and new special bolts when reassembling.
- Use liquid gasket, Part No. 0Y740-99986.

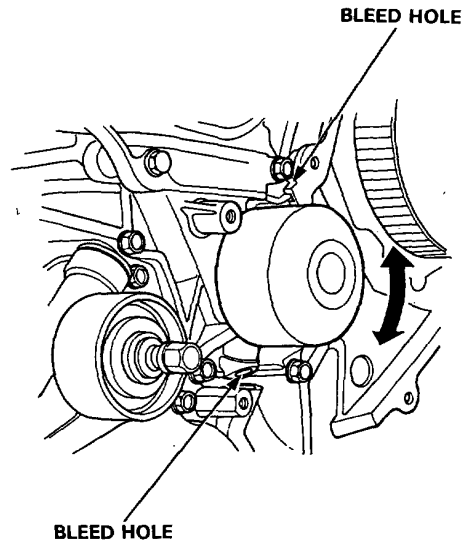




Inspection

1. Remove the timing belt (page 6-28).
2. Check the water pump pulley turns freely.
3. Check for signs of seal leakage.

NOTE: Small amount of "weeping" from the bleed hole is normal.



Replacement

NOTE: Use new O-rings and new special bolts when reassembling.

1. Drain the radiator coolant (page 10-5).
2. Remove the timing belt (page 6-28).
3. Remove the L. timing belt cover plate (page 6-10).
4. Remove two mounting bolts from the thermostat case.
5. Remove special bolts, then remove the water pump.

6. Install the water pump in the reverse order of removal.

