

Cooling

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Cooling

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 cool.

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

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.

Total Cooling System Capacity: Including reservoir 0.4 l (0.42 US qt, 0.35 Imp qt)

D16Z6, D16Z7 engine:

M/T 4.5 l (1.19 US gal, 0.99 Imp gal)

A/T 4.7 l (1.24 US gal, 1.03 Imp gal)

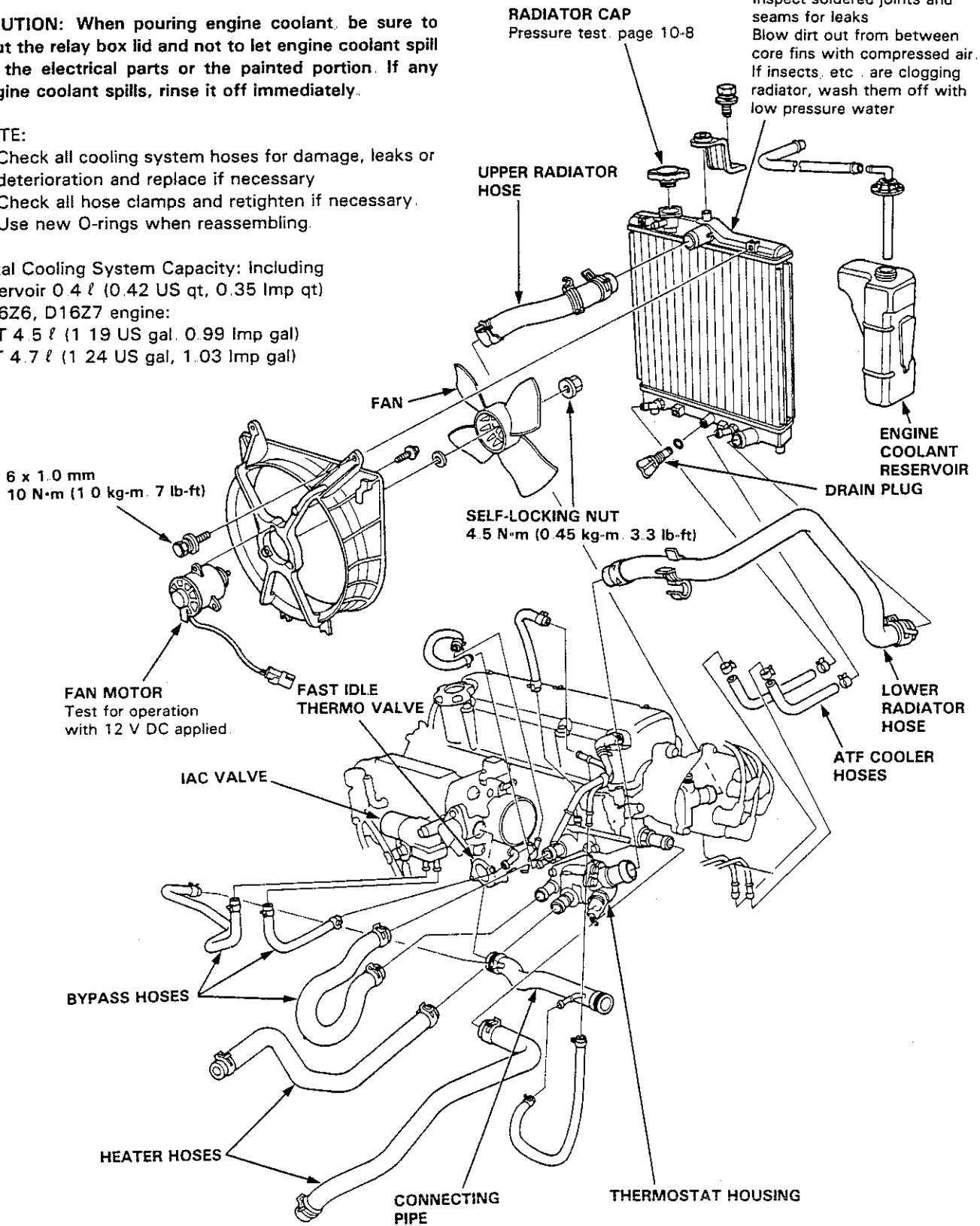
RADIATOR

Refilling, page 10-6

Leak test, page 10-8

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

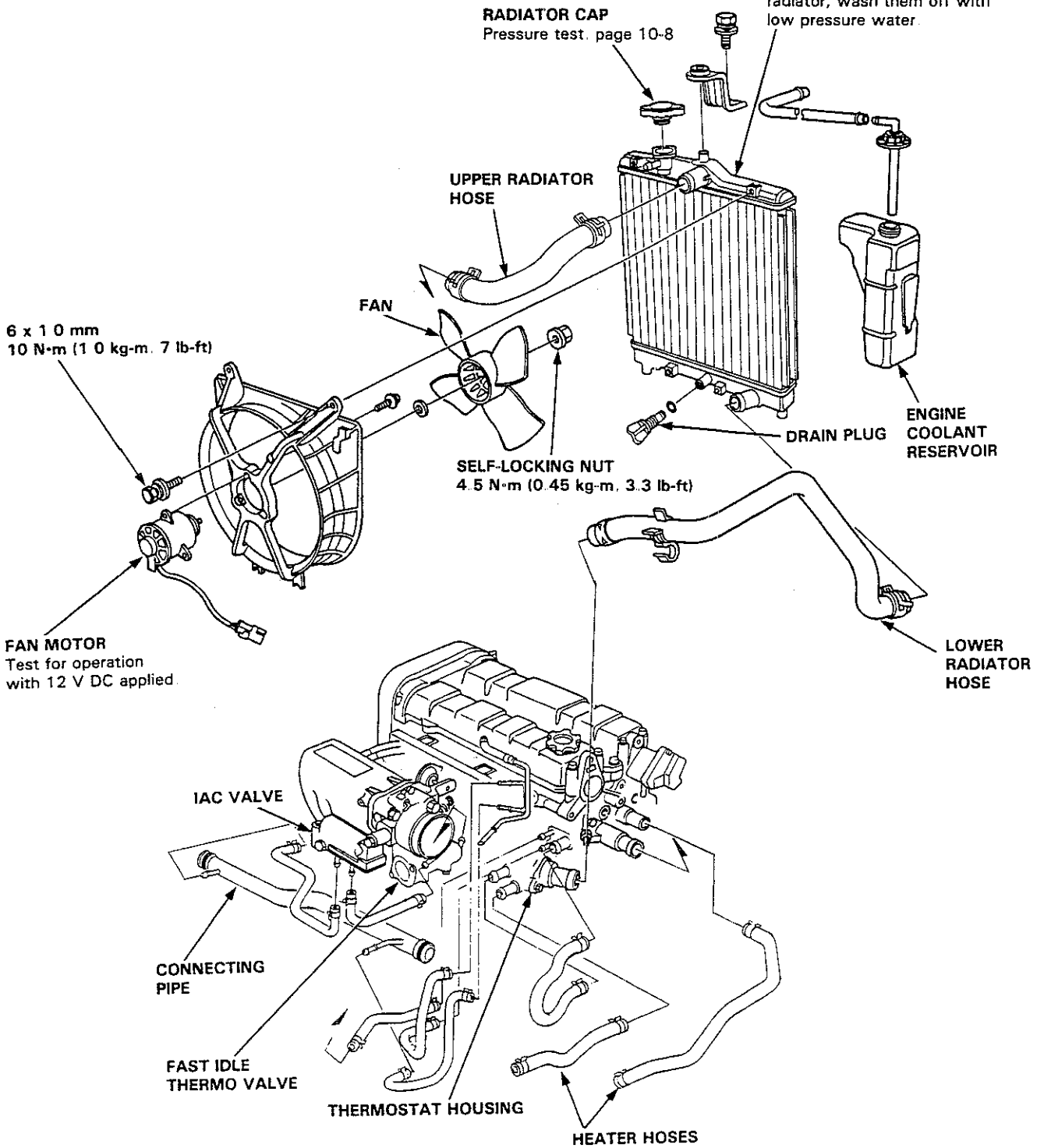




Total Cooling System Capacity: Including reservoir 0.4 ℓ (0.42 US qt, 0.35 Imp qt)
D16A9 engine:
M/T 4.5 ℓ (1.19 US gal, 0.99 Imp gal)

RADIATOR

Refilling, page 10-6
Leak test, page 10-8
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.



(cont'd)

Cooling

Illustrated Index (cont'd)

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

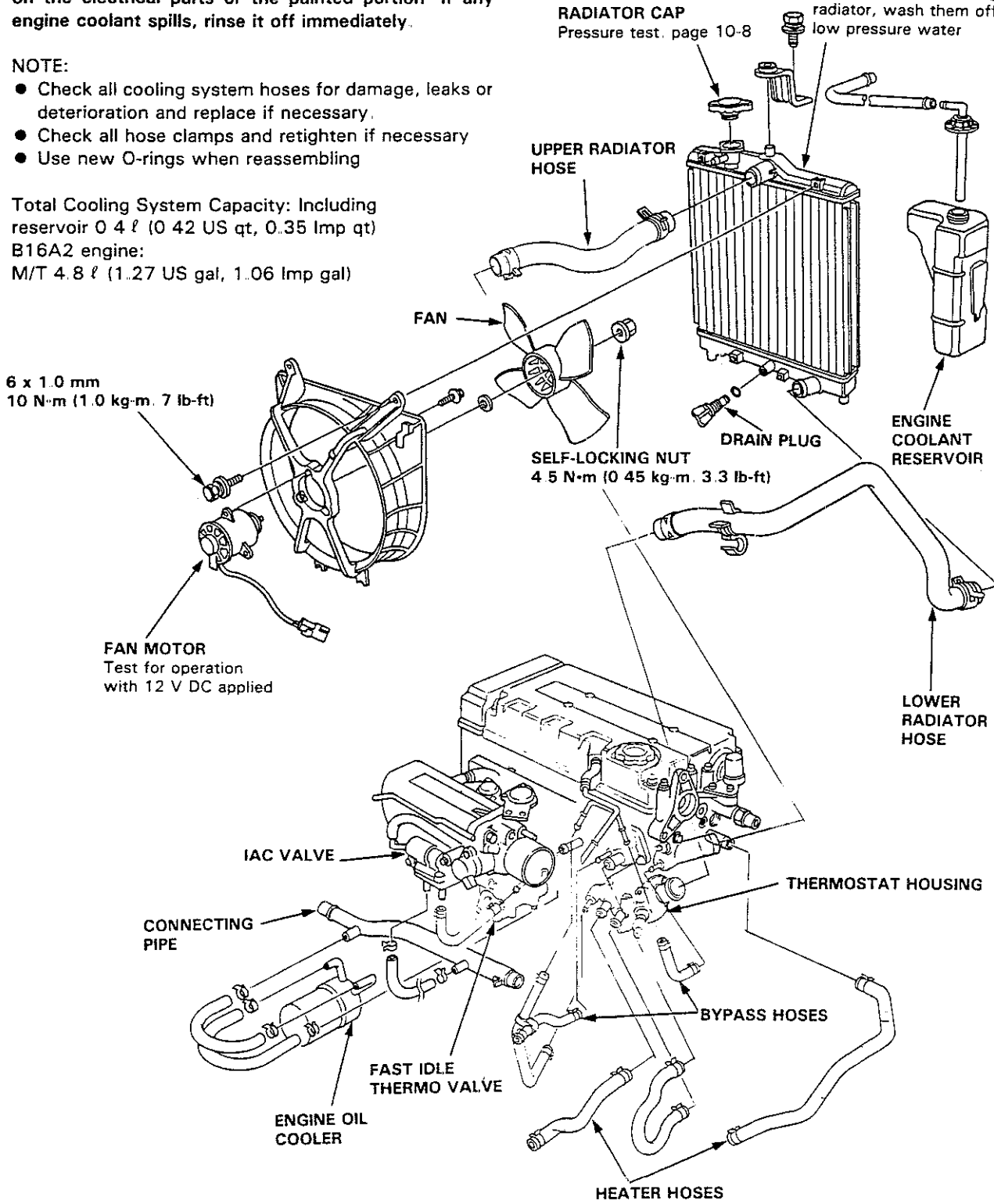
CAUTION: When pouring engine coolant, be sure to shut the relay box lid and not to let engine coolant spill on the electrical parts or the painted portion. If any engine coolant spills, rinse it off immediately.

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

Total Cooling System Capacity: Including reservoir 0.4 l (0.42 US qt, 0.35 Imp qt)
 B16A2 engine:
 M/T 4.8 l (1.27 US gal, 1.06 Imp gal)

RADIATOR
 Refilling, page 10-6
 Leak test, page 10-8
 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

Replacement

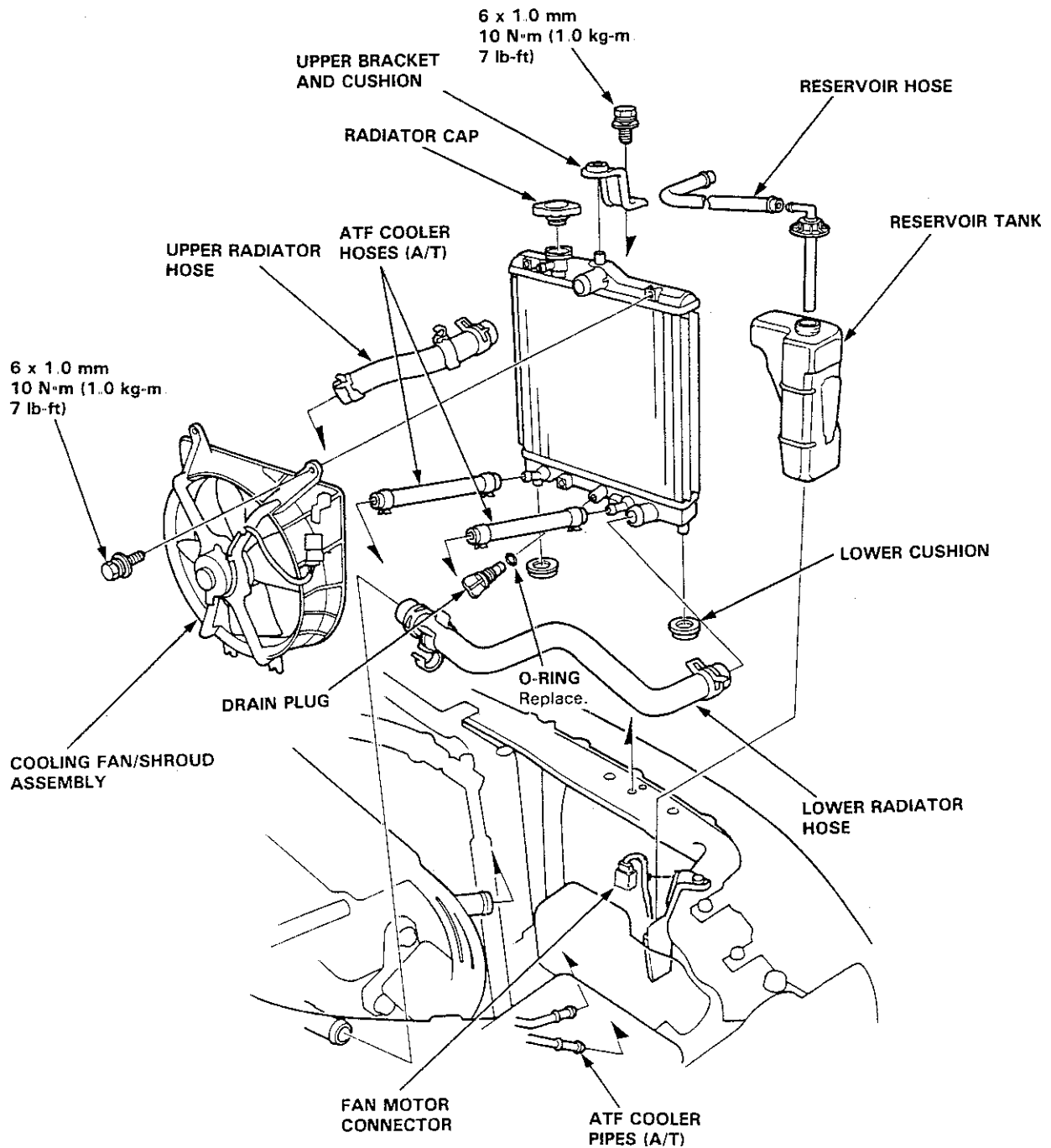
1. Drain the engine coolant.
2. Remove the upper and lower radiator hoses, and ATF cooler hoses (A/T)
3. Disconnect the fan motor connector.
4. Remove the radiator upper brackets, then pull up the radiator

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.



Radiator

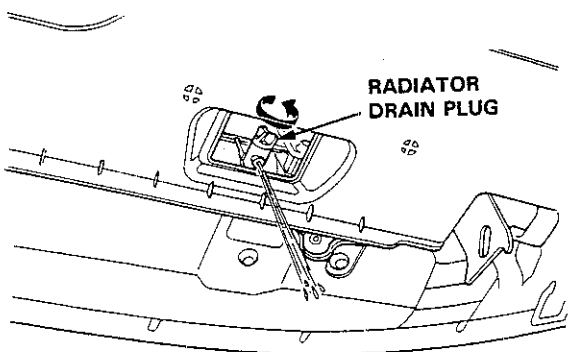
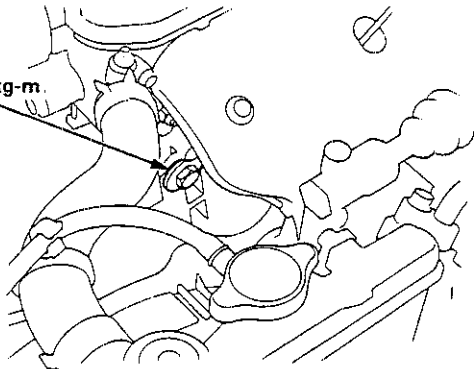
Engine Coolant Refilling and Bleeding

⚠ 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 engine coolant, be sure to shut the relay box lid and not let engine coolant spill on the electrical parts or the paint. If any engine coolant spills, rinse it off immediately.

1. Start the engine. Slide the heater temperature control lever to maximum heat and turn off the engine. 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 engine coolant drain out.

ENGINE DRAIN BOLT
40 N·m (4.0 kg-m,
29 lb-ft)
WASHER
Replace



4. Remove the reservoir from its holder by pulling it straight up. Drain the engine coolant, then put the reservoir back in its holder.
5. When the engine 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/engine coolant with an equal amount of water in a clean container.

NOTE:

- Use only HONDA-RECOMMENDED antifreeze/coolant.
- For best corrosion protection, the coolant concentrations must be maintained year-round at 50% MINIMUM. Engine coolant concentrations less than 50% may not provide sufficient protection against corrosion or freezing.

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 recommended engine coolant.

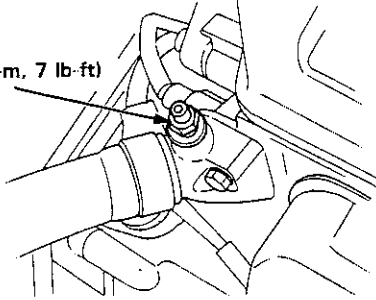
Engine Coolant Refill Capacity: Including reservoir 0.4 ℓ (0.42 US qt, 0.35 Imp qt)

ENGINE TYPE	M/T	A/T
	ℓ (US gal, Imp gal)	
D16A9	3.6 (0.95, 0.79)	3.8 (1.00, 0.84)
D16Z6, D16Z7	3.6 (0.95, 0.79)	—
B16A2	3.9 (1.03, 0.86)	—



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

BLEED BOLT
10 N·m (1.0 kg-m, 7 lb-ft)

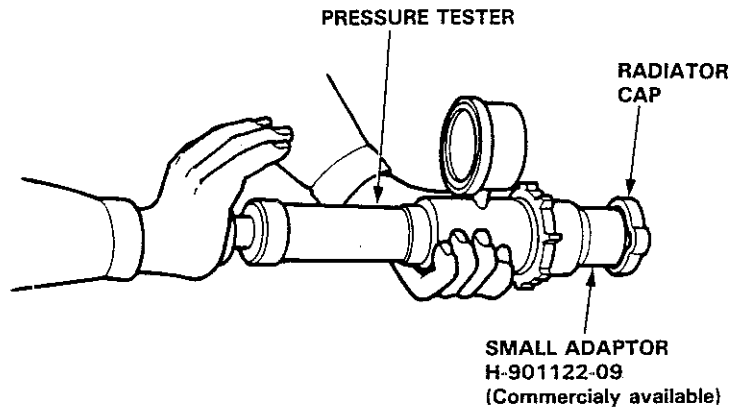


10. Refill the radiator to the base of the filler neck. Put the cap on the radiator, and tighten it only to the first stop. Start the engine and let it run until it warms up (the radiator cooling fan comes on at least twice).
11. Turn off the engine. Check the level in the radiator, add engine coolant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

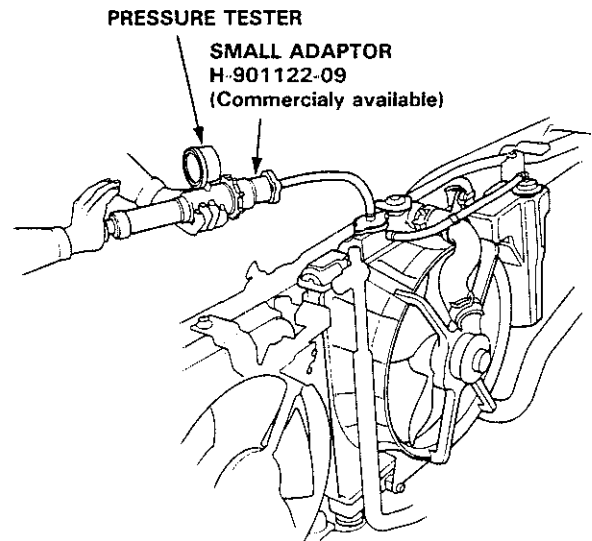


Pressure Testing

1. Wait until the engine is cool, then carefully remove the radiator cap and fill the radiator with engine 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 engine coolant leaks and a drop in pressure.
4. Remove the tester and reinstall the radiator cap.

NOTE:

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

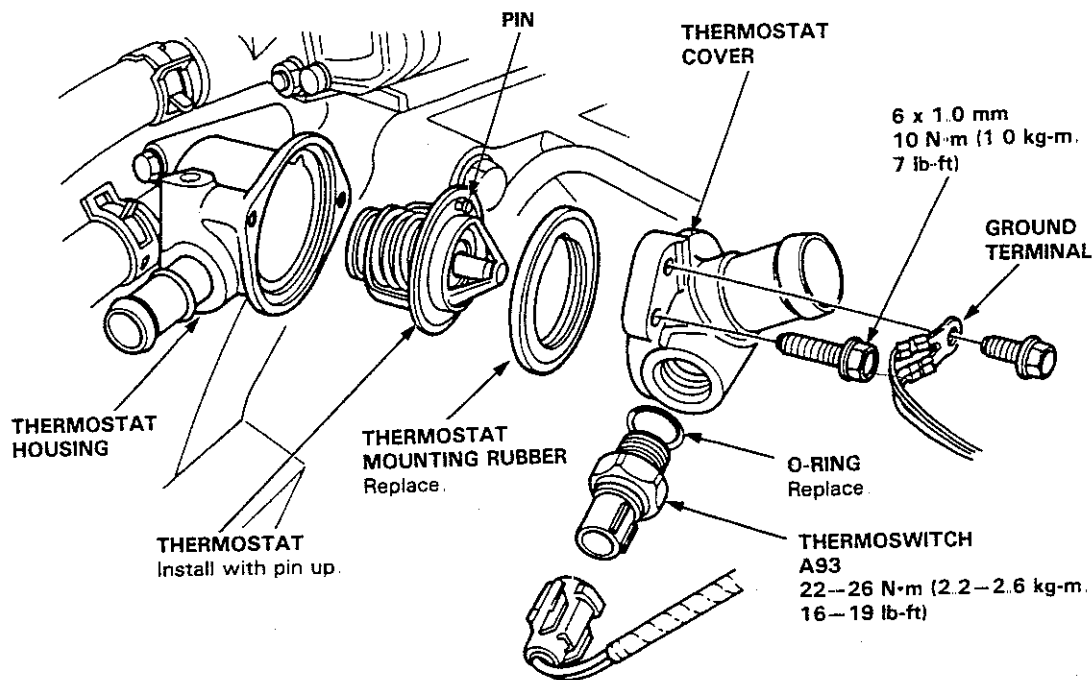




Thermostat

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.

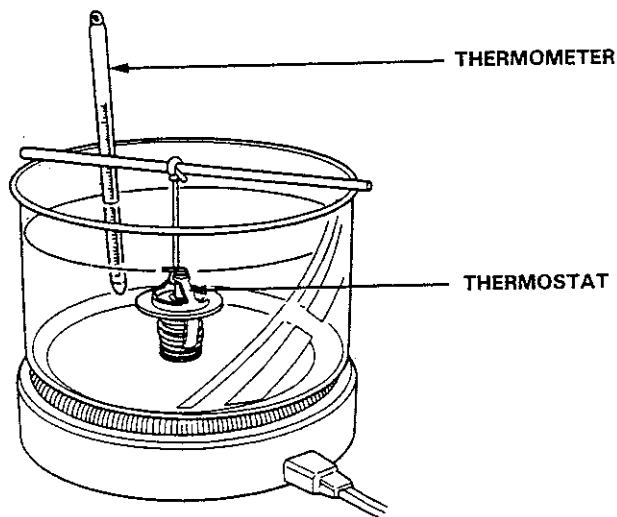
3. Measure the lift height of the thermostat when it's full open.

STANDARD THERMOSTAT

Starts opening: $78 \pm 2^{\circ}\text{C}$ ($172 \pm 4^{\circ}\text{F}$)

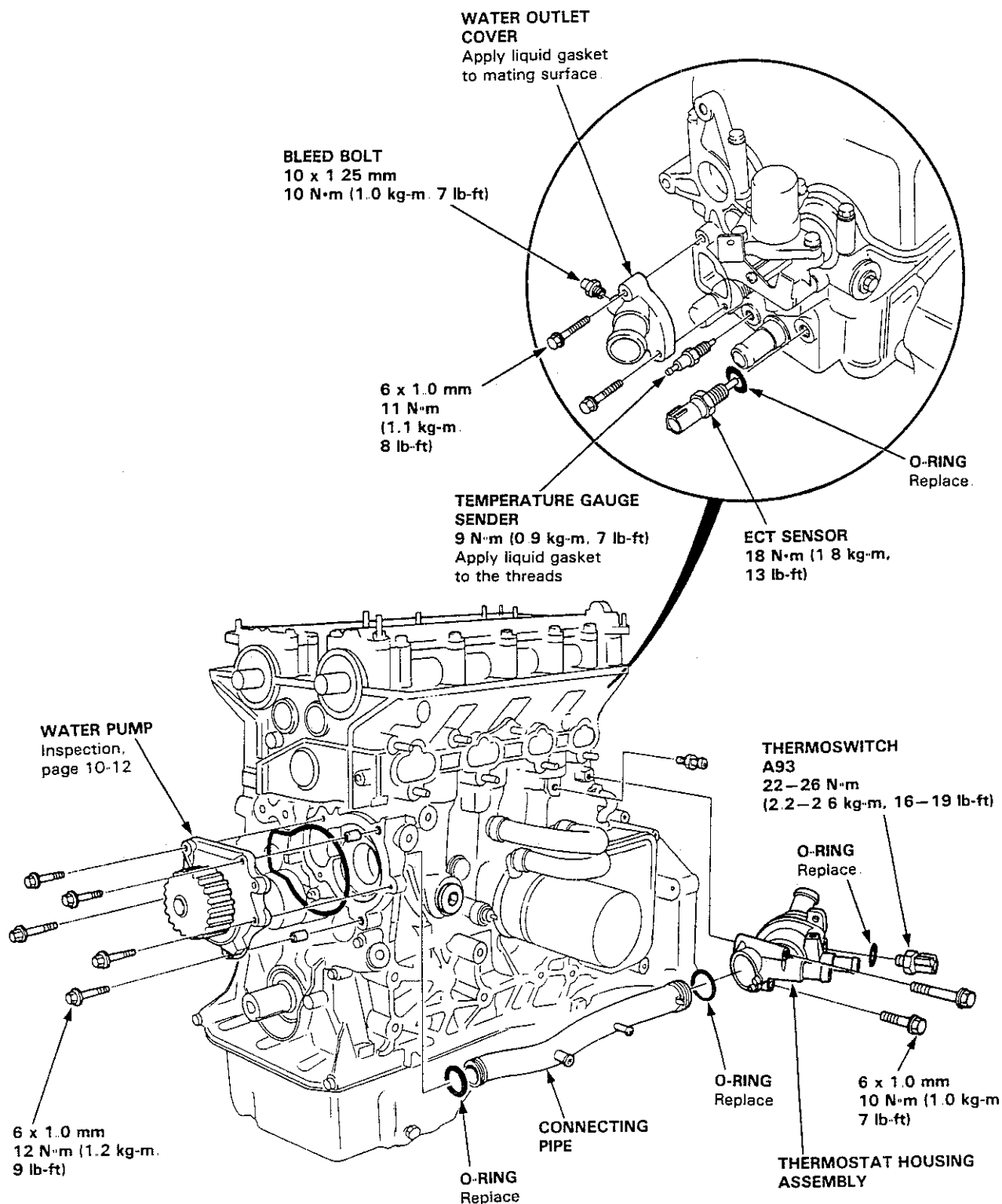
Fully open: 90°C (194°F)

Lift height: 8.0 mm (0.31 in)





B16A2 engine:



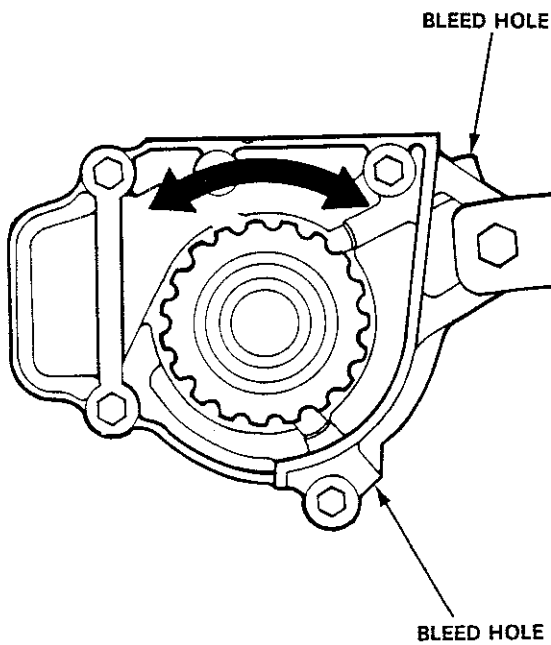
Water Pump

Inspection

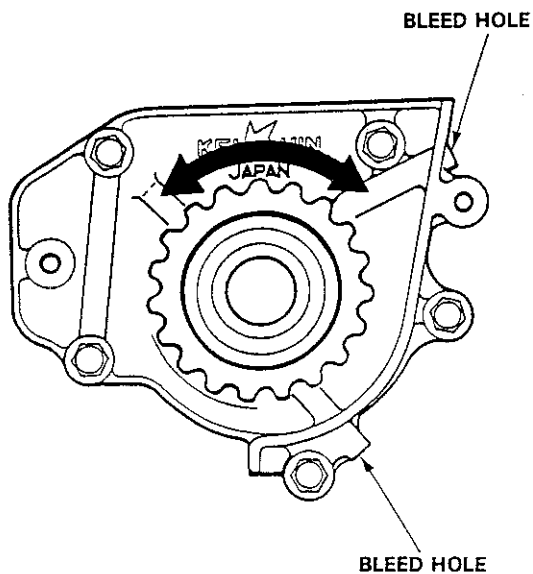
1. Remove the timing belt (D16Z6, D16Z7 engine: page 6-41, D16A9 engine: page 6-68, B16A2 engine: page 6-103).
2. Check that the water pump pulley turns freely.
3. Check for signs of seal leakage.

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

Except B16A2 engine:



B16A2 engine:



Replacement

1. Remove the timing belt (D16Z6, D16Z7 engine: page 6-41, D16A9 engine: page 6-68, B16A2 engine: page 6-103).
2. Remove the water pump by removing five bolts.
3. Install the water pump in the reverse order of removal.

