COOLING SYSTEM (LIQUID COOLED TYPE)

GENERAL

⚠WARNING

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

NOTICE

- *Using coolant with silicate inhibitors may cause premature wear of water pump seals or blockage of radiator passages. Using tap water may cause engine damage.*
- Use only genuine Honda specified coolant when adding or replacing the coolant.
- The coolant should be inspected and replaced properly by following the maintenance schedule.
- DO NOT use non-ethylene glycol coolant, tap water, nor mineral water when adding or replacing the coolant. Use of improper coolant may cause damage, such as corrosion in the engine, blockage of the cooling passage or the radiator and premature wear of the water pump seal.
- Add coolant at the reserve tank. Do not remove the radiator cap except to refill or drain the system.
- Avoid spilling coolant on painted surfaces.
- After servicing the system, check for leaks with a cooling system tester.

TROUBLESHOOTING

Engine temperature too high

- Faulty temperature gauge or ECT sensor
- Thermostat stuck closed
- Faulty radiator cap
- Insufficient coolant
- Passage blocked in radiator, hoses or water jacket
- Air in system
- Faulty cooling fan motor
- Faulty fan control relay (If equipped)
- Faulty water pump

Engine temperature too low

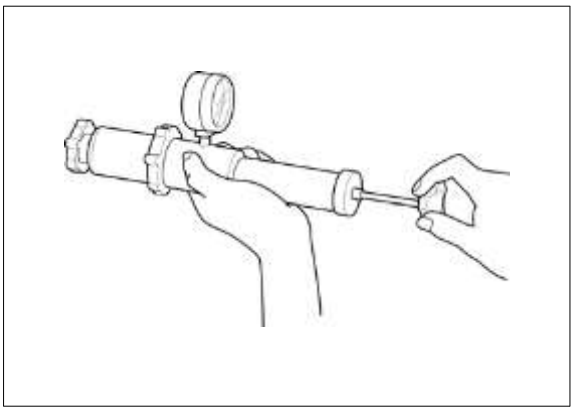
- Faulty temperature gauge or ECT sensor
- Thermostat stuck open
- Faulty fan control relay (If equipped)

Coolant leak

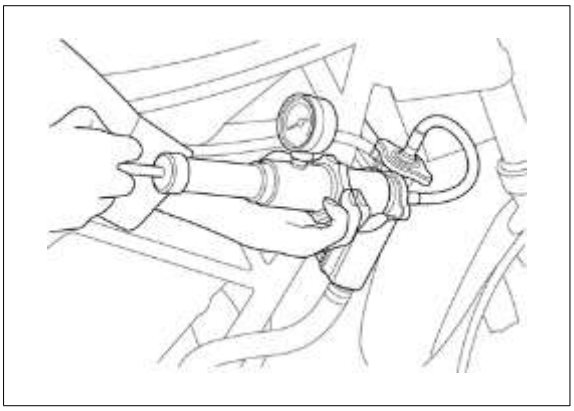
- Faulty water pump mechanical seal
- Deteriorated O-ring
- Faulty radiator cap
- Damaged or deteriorated cylinder head gasket
- Loose hose connection or clamp
- Damaged or deteriorated hoses
- Damaged radiator

COOLING SYSTEM TESTING

RADIATOR CAP/SYSTEM PRESSURE INSPECTION



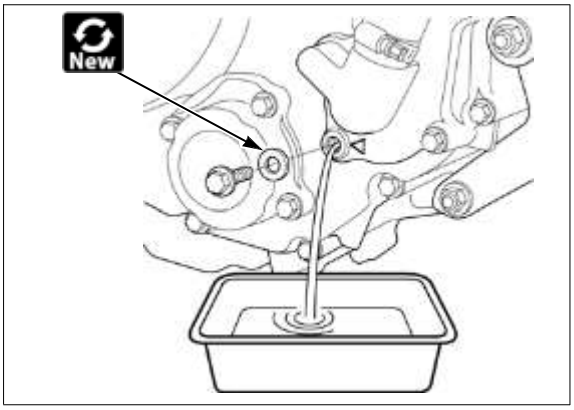
- Radiator cap
- Wet the sealing surfaces of the cap, then install the cap onto the tester.
- Pressurize the radiator cap using the tester.
  The cap must hold the specified pressure for at least 6 seconds.
  – Replace the radiator cap if it does not hold pressure, or if relief pressure is too high or too low.



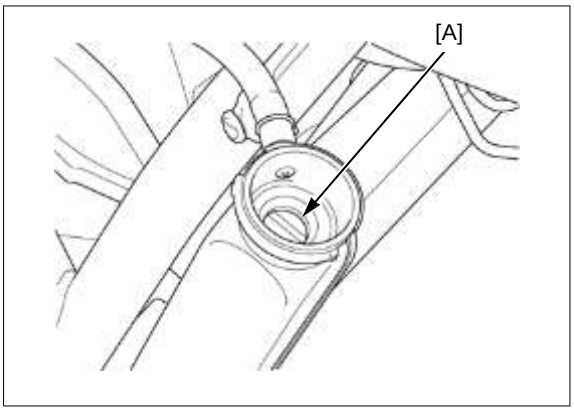
- Pressurize the radiator, engine and hoses using the tester, and check for leaks.
- Excessive pressure can damage the cooling system components. Do not exceed specified pressure.
- Repair or replace components if the system will not hold the specified pressure for at least 6 seconds.

COOLANT REPLACEMENT

REPLACEMENT/AIR BLEEDING



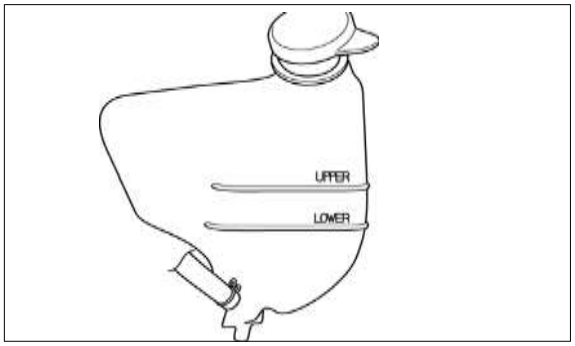
NOTE:
- When filling the system or reserve tank with coolant, or checking the coolant level, support the vehicle in an upright position on a flat, level surface.
- Radiator cap
- Drain bolt
- Sealing washer
- Drain the coolant
- New sealing washer
- Drain bolt
- Drain the coolant from the reserve tank.



- Fill the recommended coolant up to the filler neck [A].
- Bleed air from the system as follows:

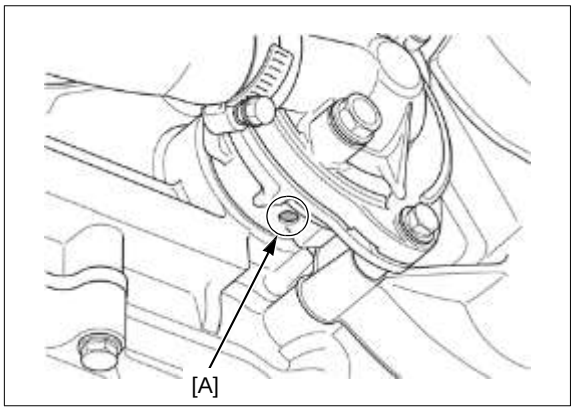
1. Start the engine and let it idle for 2 – 3 minutes.
2. Snap the throttle three or four times to bleed air from the system.
3. Stop the engine and add coolant up to the filler neck.

- Radiator cap



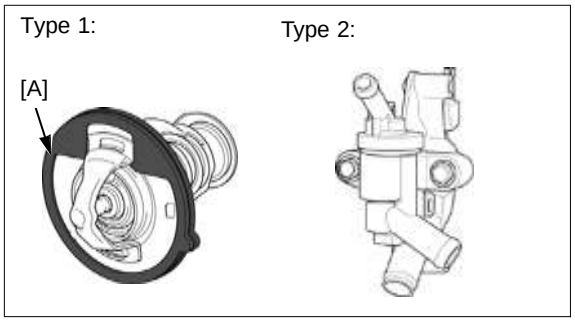
- Fill the reserve tank with the coolant to the upper level line.

WATER PUMP MECHANICAL SEAL

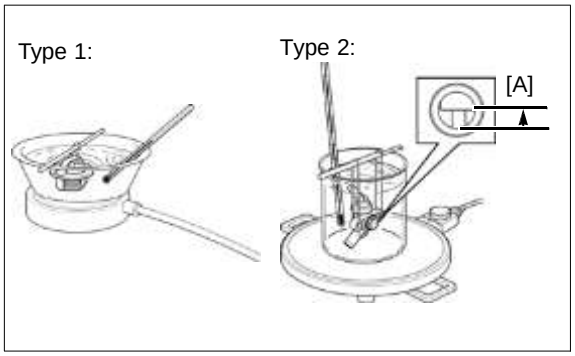


- Bleed hole [A] of the water pump for signs of coolant leakage
  – Make sure that there is no continuous coolant leakage from the bleed hole while operating the engine. A small amount of weeping from the bleed hole is normal.

THERMOSTAT INSPECTION



- Thermostat for damage.
- Seal ring [A] for damage (For Type 1).



- Heat the water with an electric heating element to operating temperature for 5 minutes.

NOTE:

- Wear insulated gloves and adequate eye protection. Keep flammable materials away from the electric heating element. Do not let the thermostat or thermometer touch the pan, or you will get false reading.
- Suspend the thermostat in heated water to check its operation.
- Replace the thermostat if the valve open at a temperatures other than those specified.

- Temperature at which the thermostat begins to open
- Thermostat valve lift length [A] (fully opened at the specified temperature)