Remove the lower cowl (page 2-4).

Remove the drain bolt on the water pump cover and drain the system coolant.

Reinstall the drain bolt with the new sealing washer. Tighten the water pump drain bolt to the specified torque.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)

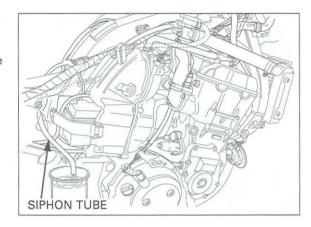


Disconnect the siphon tube from the radiator.

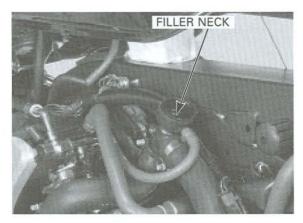
Drain the reserve tank coolant. Empty the coolant and rinse the inside of the reserve

Reinstall the radiator siphon tube.

tank with water.



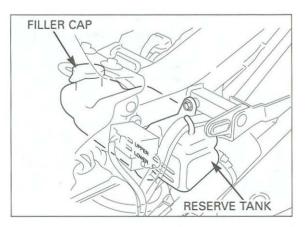
Fill the system with the recommended coolant through the filler opening up to filler neck.



Remove the radiator reserve tank cap and fill the reserve tank to the upper level line.

Bleed air from the system as follows:

- 1. Shift the transmission into neutral. Start the engine and let it idle for 2 3 minutes.
- Snap the throttle 3 4 times to bleed air from the system.
- 3. Stop the engine and add coolant up to the proper level if necessary. Reinstall the radiator cap.
- Check the level of coolant in the reserve tank and fill to the upper level if it is low.



# **THERMOSTAT**

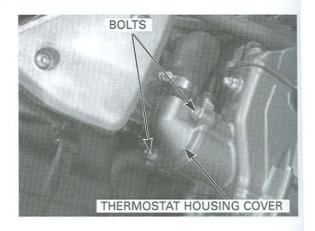
#### THERMOSTAT REMOVAL

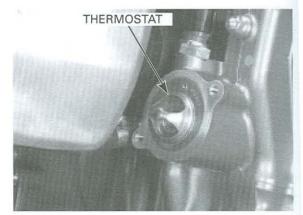
Open and support the front end of fuel tank (page 3-4).

Drain the coolant (page 6-5).

Remove the bolts and thermostat housing cover. Remove the O-ring from the thermostat housing cover.

Remove the thermostat from the housing.





#### INSPECTION

Wear insulated gloves and adequate eye protection. Keep flammable materials away from the electric heating element.

Visually inspect the thermostat for damage.

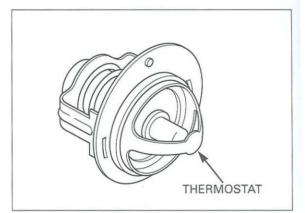
Heat the water with an electric heating element to operating temperature for 5 minutes.

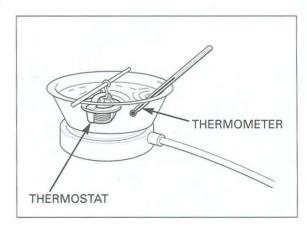
Suspend the thermostat in heated water to check its operation.

Replace the thermostat if the valve stays open at room temperature, or if it responds at temperatures other than those specified.

THERMOSTAT BEGIN TO OPEN: 80 – 84 °C (176 – 183 °F) VALVE LIFT:

8 mm (0.3 in) minimum at 95 °C (203 °F)

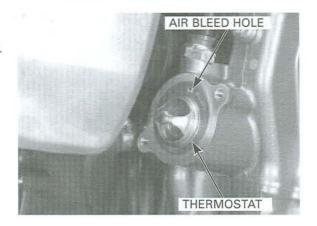




Do not let the thermostat or thermometer touch the pan, or you will get a false reading.

# THERMOSTAT INSTALLATION

Install the thermostat housing onto the cylinder head.



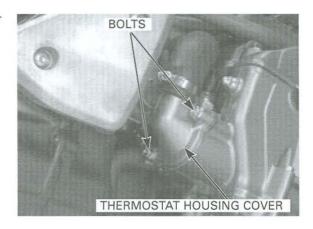
Install the new O-ring onto the thermostat housing cover.



Install the thermostat housing cover onto the cylinder head and tighten the housing cover bolts.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)

Fill the coolant and bleed air from the system (page 6-5).



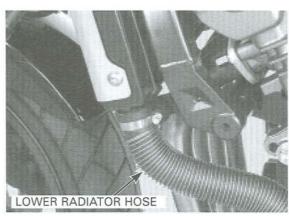
# **RADIATOR**

# REMOVAL

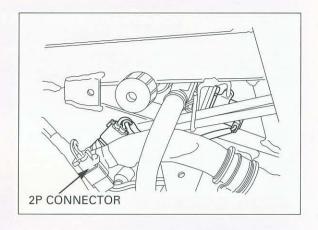
Open and support the front end of fuel tank (page 3-4).

Drain the coolant (page 6-5).

Disconnect the lower radiator hose.



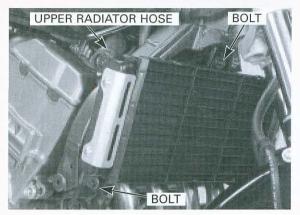
Disconnect the fan-motor 2P connector.



Disconnect the upper radiator hose. Remove the radiator lower mounting bolt/nut and washer.

Remove the radiator upper mounting bolt.

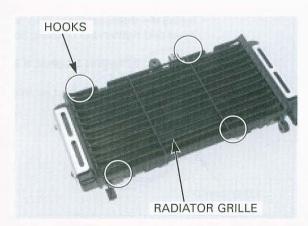
Slide the radiator to the right, then release the upper grommet from the frame boss.
Remove the radiator assembly.



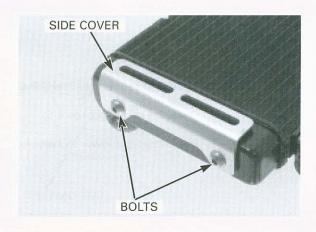
# **DISASSEMBLY**

Be careful not to damage the radiator core.

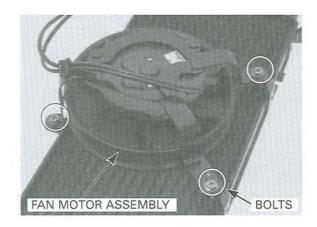
Remove the radiator grille.



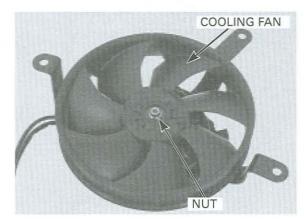
Remove the bolts and side cover.



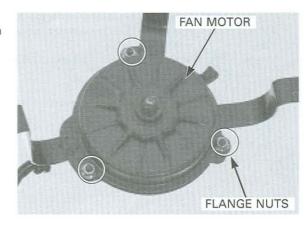
Remove the bolts and fan motor assembly.



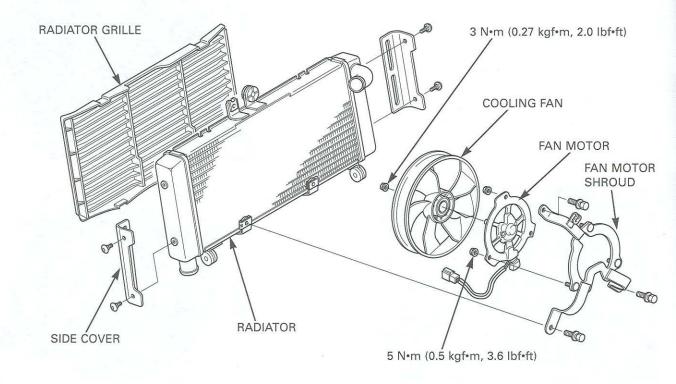
Remove the nut and cooling fan.



Remove the fan motor wire from the clamp. Remove the flange nuts and fan motor from the fan motor shroud.



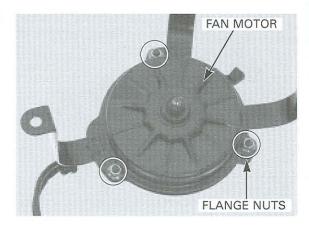
#### **ASSEMBLY**



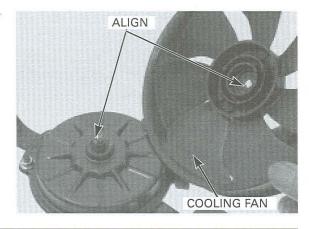
Install the fan motor onto the fan motor shroud and tighten the flange nuts to the specified torque.

TORQUE: 5 N·m (0.5 kgf·m, 3.6 lbf·ft)

Install the fan motor wire to the clamp.

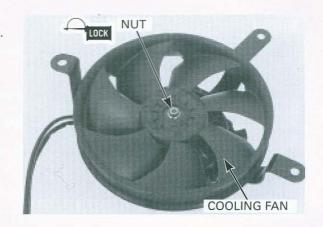


Install the cooling fan onto the fan motor shaft by aligning the flat surfaces.



Apply a locking agent to the cooling fan nut threads. Install and tighten the nut to the specified torque.

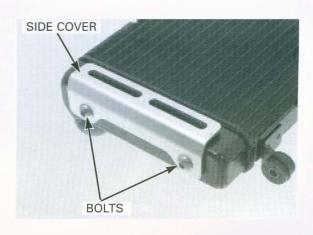
TORQUE: 3 N·m (0.27 kgf·m, 2.0 lbf·ft)



Install the cooling fan motor assembly onto the radiator.
Install and tighten the bolts.



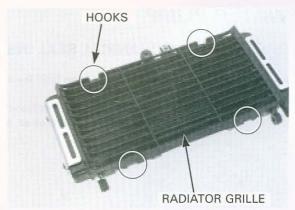
Install the side cover and tighten the bolts.



BOLTS

Be careful not to damage the radiator core.

Install the hook of the radiator grille to the radiator.



#### INSTALLATION

Install the radiator assembly, aligning its grommet with the frame boss.

Install the washer and upper mounting bolt, then tighten the bolt.

Install the radiator lower mounting bolt/nut, tighten the nut securely.

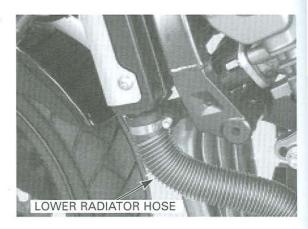
Connect the upper radiator hose and tighten hose band screw securely.

UPPER RADIATOR HOSE

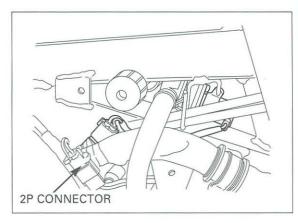
BOLT

BOLT

Connect the lower radiator hose and tighten hose band screw securely.



Connect the fan motor 2P connector. Fill the system with recommended coolant (page 6-5).

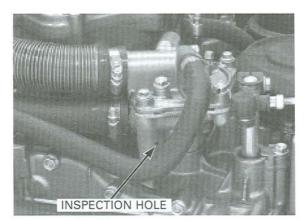


# **WATER PUMP**

#### MECHANICAL SEAL INSPECTION

Inspect the inspection hole for signs of coolant leakage.

If there is leakage, the mechanical seal is defective. Replace the water pump as an assembly.

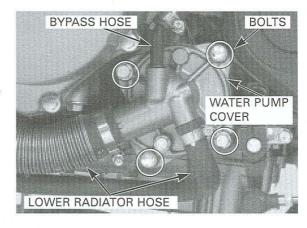


# **REMOVAL**

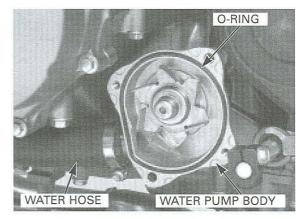
Drain the coolant (page 6-4).

Disconnect the lower radiator hose and bypass hose from the water pump cover.

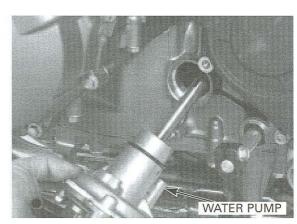
Remove the bolts and water pump cover.



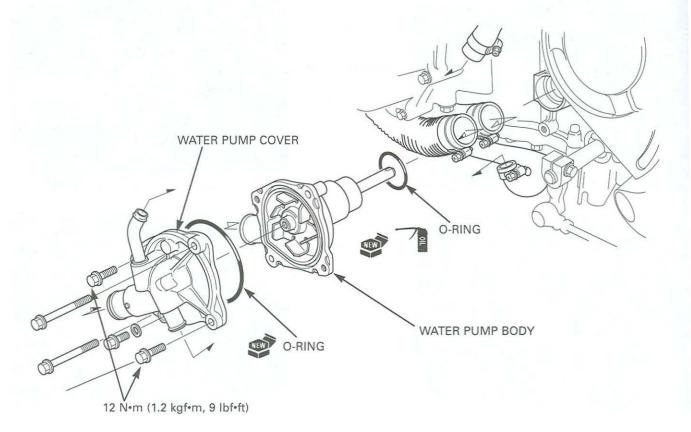
Remove the O-ring from the water pump body. Disconnect the water pump-to-water joint hose and oil cooler water hose from the water pump body.



Remove the water pump body from the crankcase.

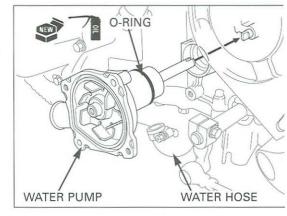


# INSTALLATION



Apply engine oil to a new O-ring and install it onto the stepped portion of the water pump.

Install the water pump into the crankcase while aligning the water pump shaft groove with the oil pump shaft end by turning the water pump impeller.



Install a new O-ring into the groove in the water pump body.
Connect the water hose.

