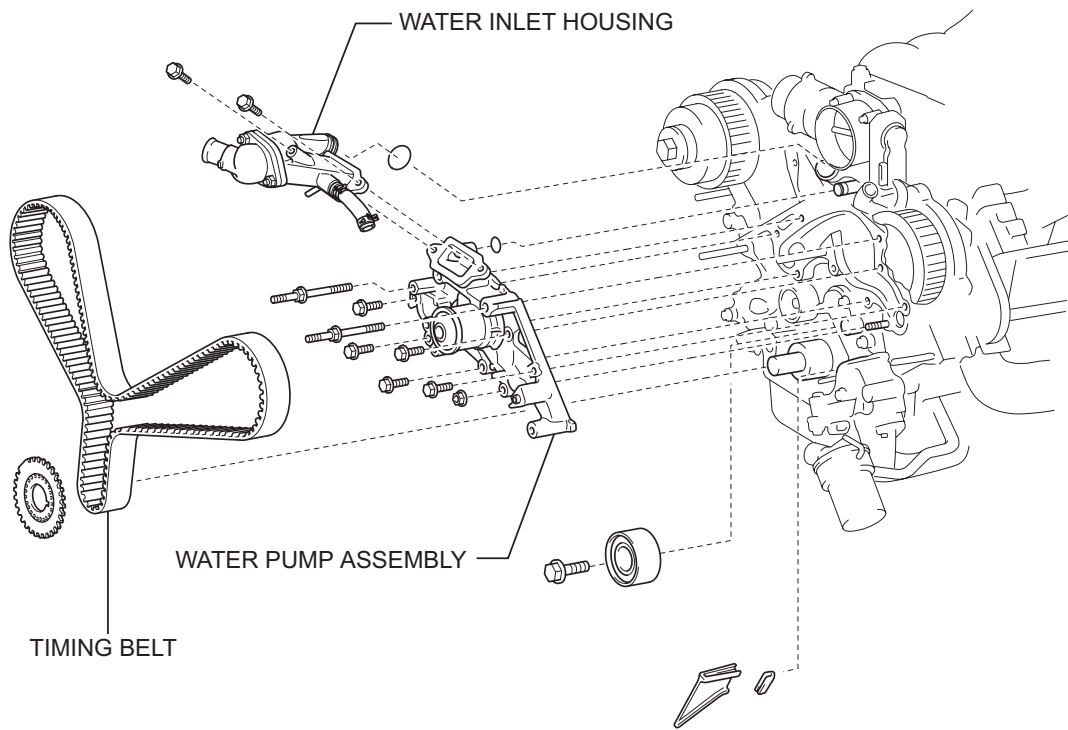


WATER PUMP COMPONENTS

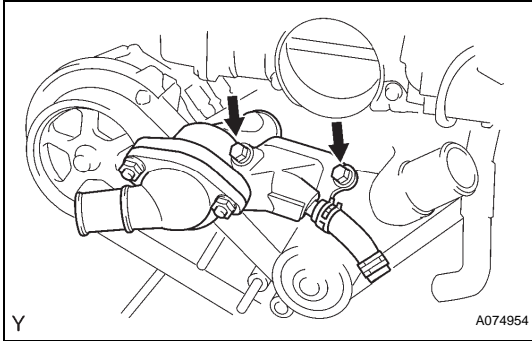


CO

REMOVAL

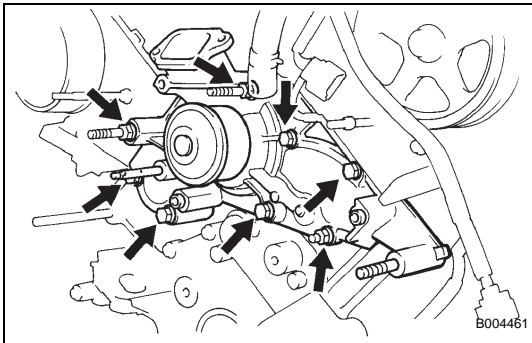
1. REMOVE TIMING BELT

- Remove the timing belt (See page [EM-16](#)).



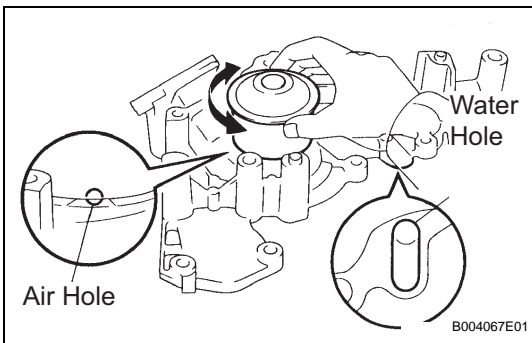
2. REMOVE WATER INLET HOUSING

- Disconnect the water bypass hose from the water inlet housing.
- Remove the 2 bolts holding the water inlet housing to the water pump.
- Disconnect the water inlet housing from the front water bypass joint, and remove the water inlet housing w/ water inlet.



3. REMOVE WATER PUMP ASSEMBLY

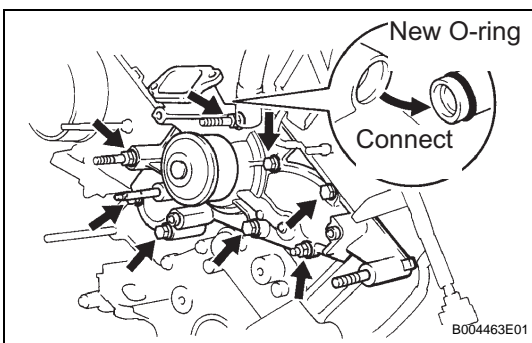
- Remove the 5 bolts, 2 stud bolts, nut, water pump and gasket.
- Remove the O-ring from the water bypass pipe.



INSPECTION

1. INSPECT WATER PUMP ASSEMBLY

- Visually check the air hole and water hole for coolant leakage. If leakage is found, replace the water pump assembly.
- Turn the pulley and check that the water pump bearing moves smoothly and quietly. If necessary, replace the water pump assembly.



INSTALLATION

1. INSTALL WATER PUMP ASSEMBLY

- Install a new O-ring to the water bypass pipe end.
- Apply soapy water to the O-ring.
- Connect the water pump to the water bypass pipe end.
- Install the water pump and new gasket with the 5 bolts, 2 stud bolts and nut. Uniformly tighten the bolts, stud bolts and nut in several passes.

Torque: Bolt

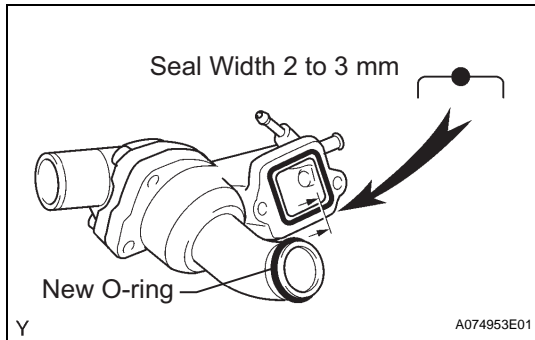
21 N*m (215 kgf*cm, 16 ft.*lbf)

Stud bolt and nut

18 N*m (185 kgf*cm, 13 ft.*lbf)

2. INSTALL WATER INLET HOUSING

- (a) Remove any old packing (FIPG) material and be careful not to drop any oil on the contact surfaces of the water inlet housing and water pump.
 - (1) Using a razor blade and gasket scraper, remove all the old packing (FIPG) material from the gasket surfaces and sealing groove.
 - (2) Thoroughly clean all components to remove all the loose material.
 - (3) Using a non-residue solvent, clean both sealing surfaces.
- (b) Apply seal packing to the sealing groove of water inlet housing as shown in the illustration.



Seal packing:

Toyota Genuine Seal Packing 1282B, Three Bond 1282B or equivalent

- (1) Cut the opening of a nozzle for seal packing to a diameter of 2 to 3 mm (0.08 to 0.12 in.), and install it.
- (2) Parts must be assembled within 5 minutes of application. Otherwise the material must be removed and reapplied.
- (3) Immediately remove the nozzle from the tube and reinstall cap.
- (c) Install a new O-ring to the water inlet housing.
- (d) Apply soapy water to the O-ring.
- (e) Attach the water inlet housing end to the front water bypass joint hole.
- (f) Install the water inlet and housing assembly with the 2 bolts. Alternately tighten the bolts.

Torque: 18 N*m (185 kgf*cm, 13 ft.*lbf)

3. INSTALL TIMING BELT

- (a) Install timing belt (See page [EM-19](#)).