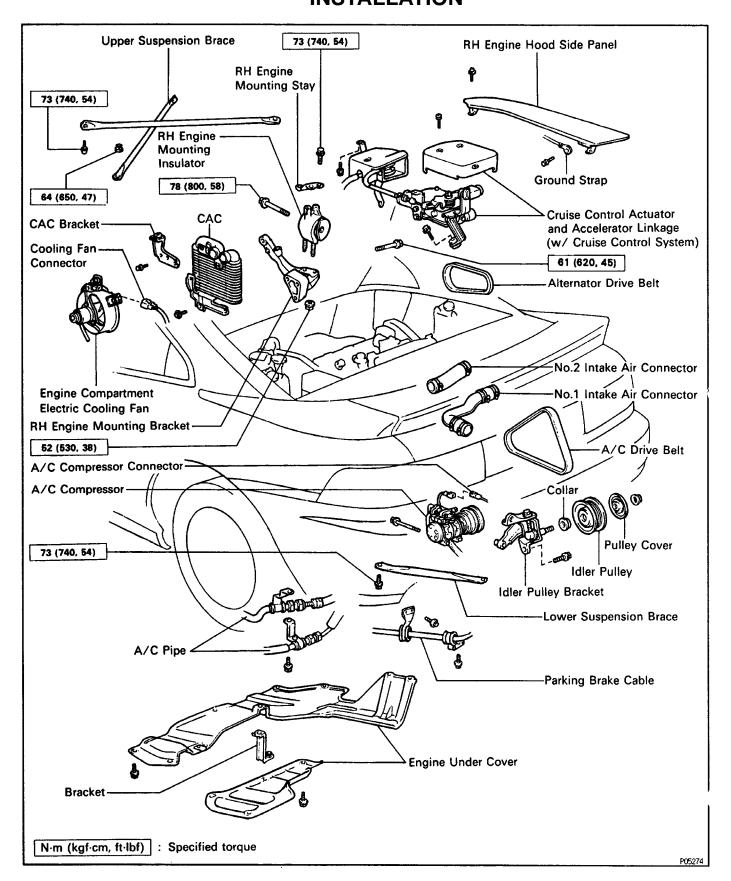
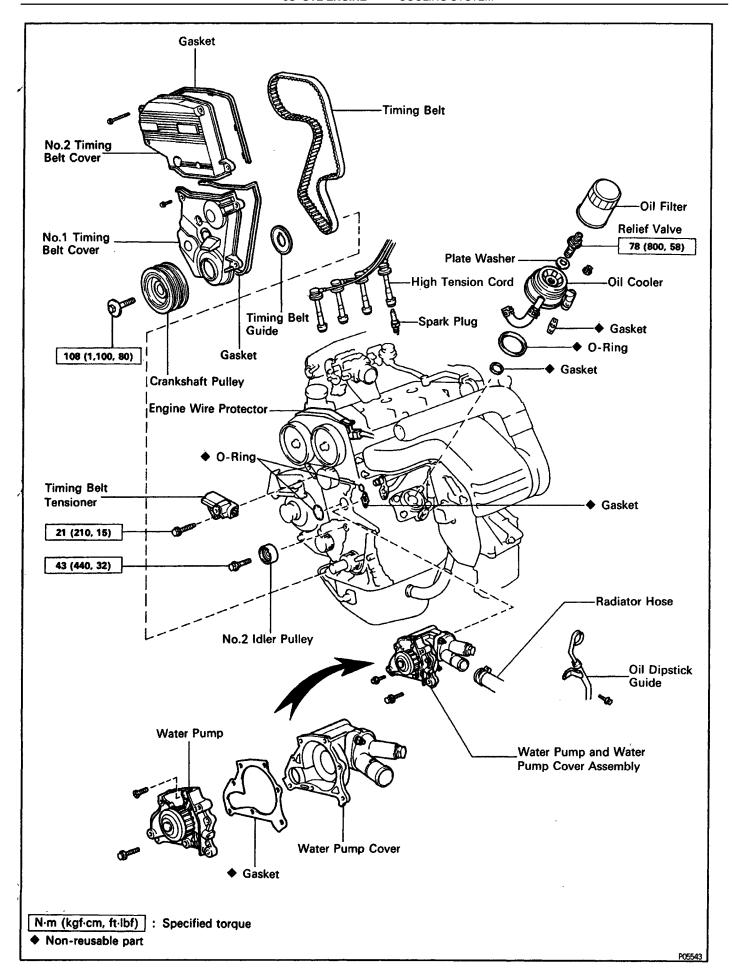
WATER PUMP COMPONENTS FOR REMOVAL AND INSTALLATION





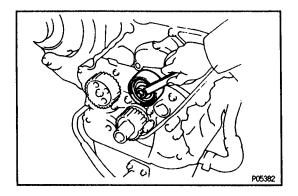
100ZF-01

WATER PUMP REMOVAL

(See Components for Removal and Installation)

- 1. DRAIN ENGINE COOLANT
- 2. REMOVE TIMING BELT

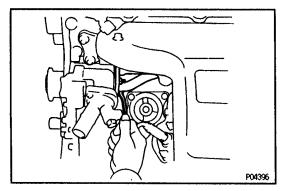
(See steps 1 to 26 and 28 to 31 in Timing Belt Removal under Engine Mechanical)



3. REMOVE NO.2 IDLER PULLEY

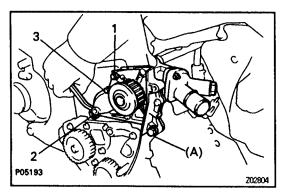
Remove the bolt and pulley.

4. DISCONNECT RADIATOR HOSE FROM WATER OUTLET

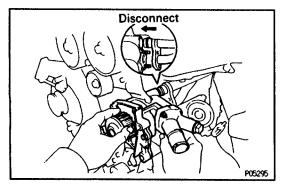


5. REMOVE WATER PUMP AND WATER PUMP COVER ASSEMBLY

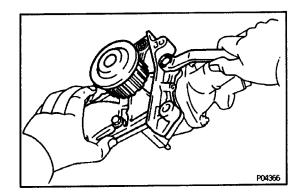
(a) Remove the two nuts holding the water pump to the water by–pass pipe.



- (b) (w/o A/C)
 - Remove the bolt (A).
- (c) Remove the three bolts in the sequence shown.



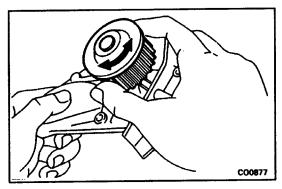
- (d) Disconnect the water pump cover from the water by -pass pipe, and remove the water pump and water pump cover assembly.
- (e) Remove the gasket and two O-rings from the water pump and water by-pass pipe.



6. REMOVE WATER PUMP FROM WATER PUMP COVER

Remove the screw, two bolts, water pump and gasket.



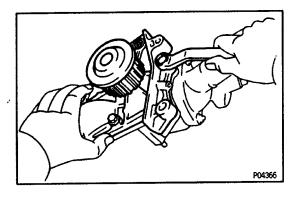


WATER PUMP INSPECTION

INSPECT WATER PUMP

Turn the pulley and check that the water pump bearing moves smoothly and quietly.





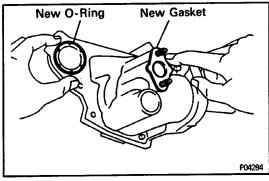
WATER PUMP INSTALLATION

(See Components for Removal and Installation)

1. INSTALL WATER PUMP TO WATER PUMP COVER

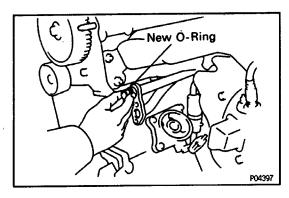
Install a new gasket and the water pump with the screw and two bolts.

Torque: 9.3 N-m (95 kgf-cm, 82 in.-lbf)

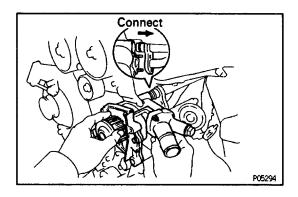


2. INSTALL WATER PUMP AND WATER PUMP COVER ASSEMBLY

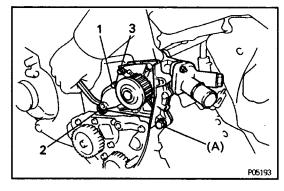
(a) Install new O-ring and gasket to the water pump cover.



- (b) Instal a new O-ring to the water by-pass pipe.
- (c) Apply soapy water to the O-ring on the water by-pass pipe.



(d) Connect the water pump cover to the water by–pass pipe. Do not install the nuts yet.



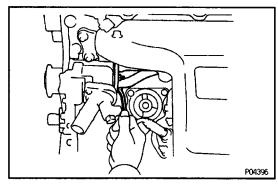
(e) Install the water pump with the three bolts. Tighten the bolts in the sequence shown.

Torque: 7.8 N-m (80 kgf-cm, 69 in-lbf)

(f) (w/o A/C)

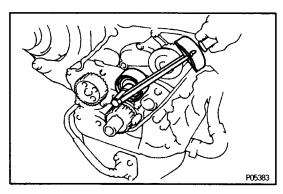
Install the bolt (A).

Torque: 27 N-m (275 kgf-cm, 20 ft-lbf)



(g) Install the two nuts holding the water pump cover to the water by—pass pipe.

Torque: 12 N-m (120 kgf-cm, 9 ft-lbf)



3. INSTALL NO.2 IDLER PULLEY

(a) Install the pulley with the bolt.

Torque: 43 N-m (440 kgf-cm, 32 ft-lbf)

(b) Check that the idler pulley moves smoothly.

- 4. CONNECT LOWER RADIATOR HOSE TO WATER INLET
- 5. INSTALL TIMING BELT

(See steps 3. 5 to 8 to 36 in Timing Belt Installation under Engine Mechanical)

- 6. FILL WITH ENGINE COOLANT
- 7. START ENGINE AND CHECK FOR COOLANT LEAKS