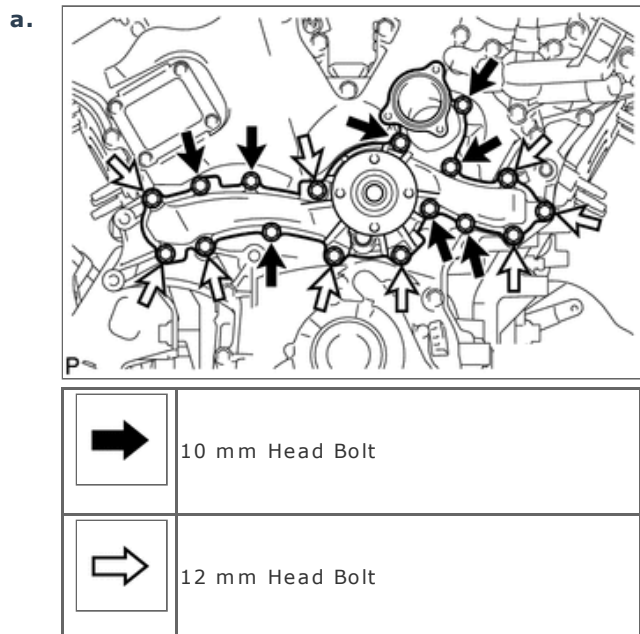


1GR-FE COOLING WATER PUMP INSTALLATION

PROCEDURE

1.INSTALL ENGINE WATER PUMP ASSEMBLY

16100



Install a new gasket and the engine water pump assembly with the 17 bolts.

Torque:

for 10 mm head bolt : 11 N*m (112 kgf*cm, 8 ft.*lbf)

for 12 mm head bolt : 21 N*m (214 kgf*cm, 15 ft.*lbf)

2.INSTALL V-RIBBED BELT TENSIONER ASSEMBLY

16620

[Click here](#)Engine / Hybrid System>1GR-FE ENGINE MECHANICAL>ENGINE UNIT>INSTALLATION

3.INSTALL IDLER PULLEY BRACKET (w/o Air Conditioning System)

16631B

- a. Install the idler pulley assembly with the 3 bolts.

Torque:

25 N*m (255 kgf*cm, 18 ft.*lbf)

4.CONNECT COOLER COMPRESSOR ASSEMBLY (w/ Air Conditioning System)

88320

[Click here](#)Engine / Hybrid System>1GR-FE ENGINE CONTROL>CRANKSHAFT POSITION SENSOR>INSTALLATION

5.INSTALL GENERATOR ASSEMBLY

27020

[Click here](#)Power Source / Network>1GR-FE BATTERY / CHARGING>GENERATOR>INSTALLATION

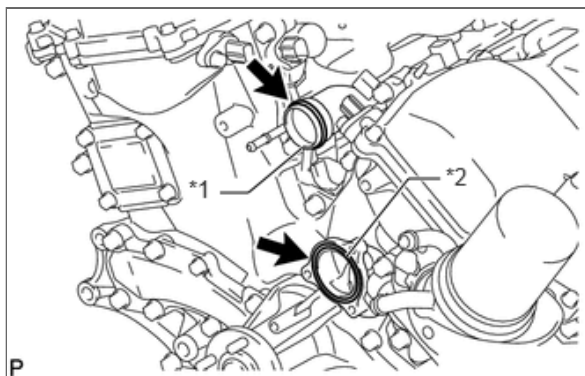
6.INSTALL NO. 2 IDLER PULLEY SUB-ASSEMBLY

16604

[Click here](#)Engine / Hybrid System>1GR-FE ENGINE MECHANICAL>ENGINE UNIT>INSTALLATION

7.INSTALL WATER INLET HOUSING

16323



*1	No. 1 Water Outlet Pipe
*2	Engine Water Pump Assembly

- a. Install a new gasket to the No. 1 water outlet pipe.
- b. Install a new gasket to the engine water pump assembly.
- c. Apply soapy water to the gasket of the No. 1 water outlet pipe.
- d. Install the water inlet housing with the 5 bolts.
Torque:
9.0 N*m (92 kgf*cm, 80 in.*lbf)
- e. Connect the No. 3 water by-pass hose to the water inlet housing, and slide the clip to secure the hose.
- f. Connect the water by-pass hose to the water inlet housing and union, and slide the 2 clips to secure the hoses.
- g. Connect the No. 2 water by-pass hose to the water inlet housing, and slide the clip to secure the hose.
- h. Connect the No. 4 water by-pass hose and No. 5 water by-pass hose to the water inlet housing, and slide the 2 clips to secure the hoses.
- i. Connect the oil cooler hose and No. 2 oil cooler hose to the water inlet housing, and slide the 2 clips to secure the hoses.



8.INSTALL FAN SHROUD

16711

[Click here](#)Engine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION



9.INSTALL NO. 2 RADIATOR HOSE

16572D

[Click here](#)Engine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION



10.INSTALL NO. 1 RADIATOR HOSE

16571C

[Click here](#)Engine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION



11.INSTALL AIR CLEANER CAP WITH AIR CLEANER HOSE

[Click here](#)Engine / Hybrid System>1GR-FE INTAKE / EXHAUST>INTAKE MANIFOLD>INSTALLATION



12.CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



13.ADD ENGINE COOLANT

[Click here](#)Engine / Hybrid System>1GR-FE COOLING>COOLANT>REPLACEMENT



14.INSPECT FOR COOLANT LEAK

[Click here](#)Engine / Hybrid System>1GR-FE COOLING>COOLING SYSTEM>ON-VEHICLE INSPECTION



[Click here](#)Engine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION

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