

1GR-FE COOLING WATER PUMP REMOVAL

PROCEDURE

1. PRECAUTION

NOTICE:

After turning the ignition switch off, waiting time may be required before disconnecting the cable from the battery terminal. Therefore, make sure to read the disconnecting the cable from the battery terminal notice before proceeding with work.

[Click here](#)[General>INTRODUCTION>REPAIR INSTRUCTION>PRECAUTION](#)

2.DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

3.REMOVE NO. 2 ENGINE UNDER COVER

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4.DRAIN ENGINE COOLANT

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

5.REMOVE NO. 1 RADIATOR HOSE

16571C

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6.REMOVE NO. 2 RADIATOR HOSE

16572D

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7.REMOVE FAN SHROUD

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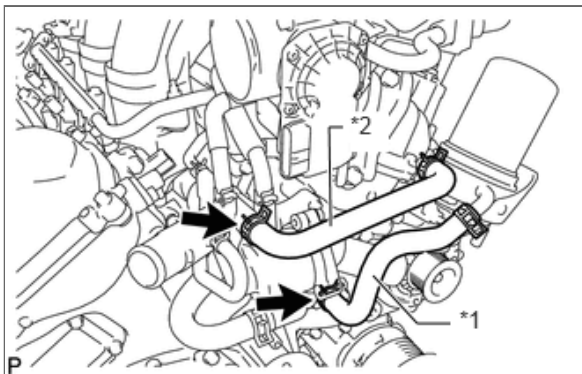
8.REMOVE AIR CLEANER CAP WITH AIR CLEANER HOSE

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

9.REMOVE WATER INLET HOUSING

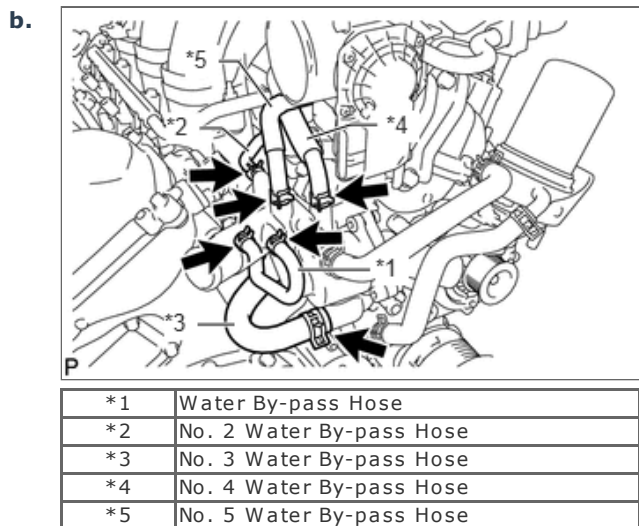
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a.



| | |
|----|-----------------------|
| *1 | Oil Cooler Hose |
| *2 | No. 2 Oil Cooler Hose |

Slide the 2 clips and disconnect the oil cooler hose and No. 2 oil cooler hose from the water inlet housing.

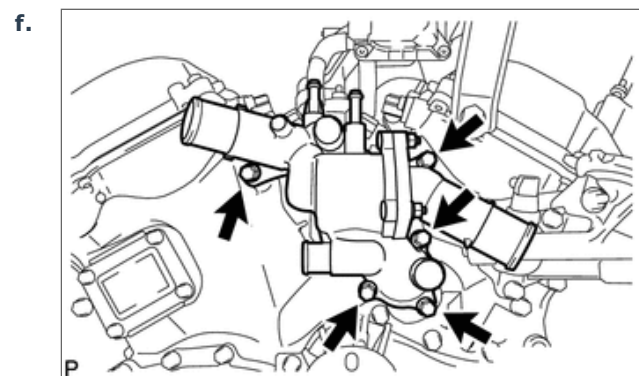


Slide the 2 clips and disconnect the No. 4 water by-pass hose and No. 5 water by-pass hose from the water inlet housing.

c. Slide the clip and disconnect the No. 2 water by-pass hose from the water inlet housing.

d. Slide the 2 clips and disconnect the water by-pass hose from the water inlet housing and union.

e. Slide the clip and disconnect the No. 3 water by-pass hose from the water inlet housing.



Remove the 5 bolts and water inlet housing.

g. Remove the gasket from the No. 1 water outlet pipe.

h. Remove the gasket from the engine water pump assembly.

10.REMOVE NO. 2 IDLER PULLEY SUB-ASSEMBLY

16604

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11.REMOVE GENERATOR ASSEMBLY

27020

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

12.REMOVE V-RIBBED BELT TENSIONER ASSEMBLY

16620

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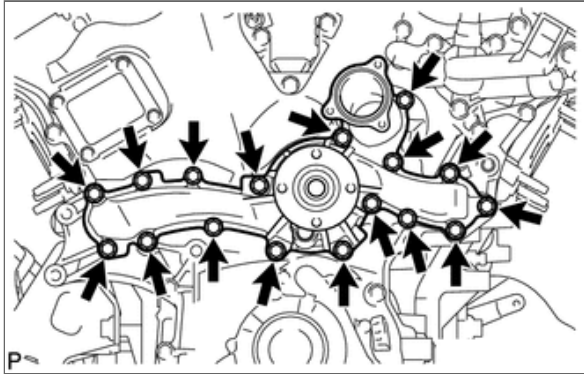
13.REMOVE IDLER PULLEY BRACKET (w/o Air Conditioning System)

16631B

a. Remove the 3 bolts and idler pulley assembly.

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

a.



Remove the 17 bolts, engine water pump assembly and gasket.