

# Subaru FA20DIT HPFP

## High Pressure Fuel Pump Installation

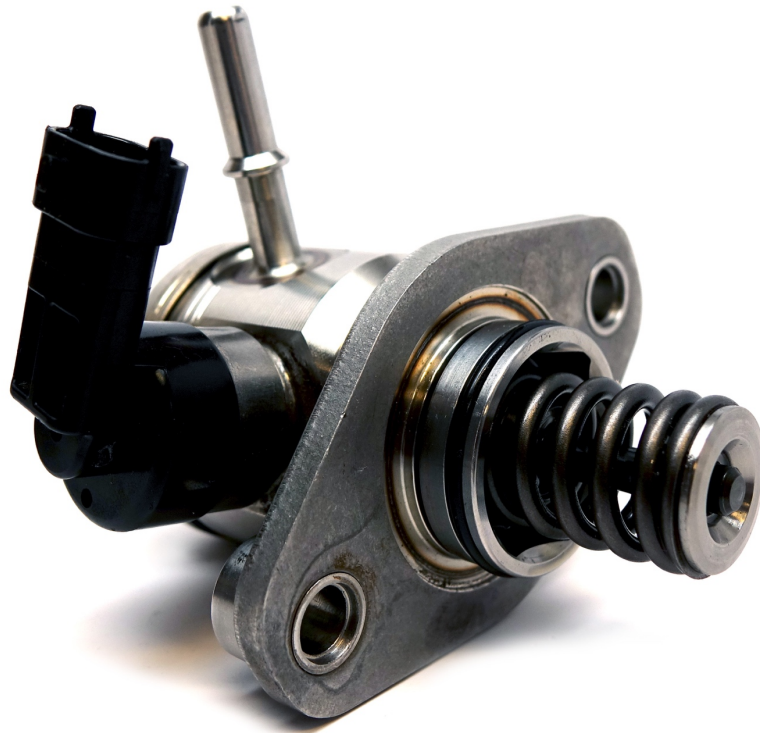
### H136-0571

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**ALWAYS REFER TO FACTORY SERVICE MANUAL BEFORE COMPLETING INSTALL OF NEW PUMP**

#### **Removal of the OEM high pressure fuel pump**

1. Disconnect low pressure fuel line from pump (catch excess fuel with rag)
2. Disconnect high pressure fuel line (Catch excess fuel with rag)
3. Disconnect pump wiring connector
4. Use TORX plus bit to remove bolts securing pump to base
5. Carefully remove pump



**WARNING!** PLEASE FOLLOW ALL WARNINGS AND INSTRUCTIONS FOUND IN YOUR VEHICLE OWNER'S MANUAL. THE FOLLOWING INSTRUCTIONS MUST BE READ AND FULLY UNDERSTOOD BEFORE BEGINNING INSTALLATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN VEHICLE DAMAGE, PERSONAL INJURY OR DEATH. IF THESE INSTRUCTIONS ARE NOT FULLY UNDERSTOOD, DO NOT ATTEMPT INSTALLATION.

## High Pressure Fuel Pump

FUEL INJECTION (FUEL SYSTEMS)

### 9. High Pressure Fuel Pump

#### A: REMOVAL

##### 1. HIGH-PRESSURE FUEL PUMP

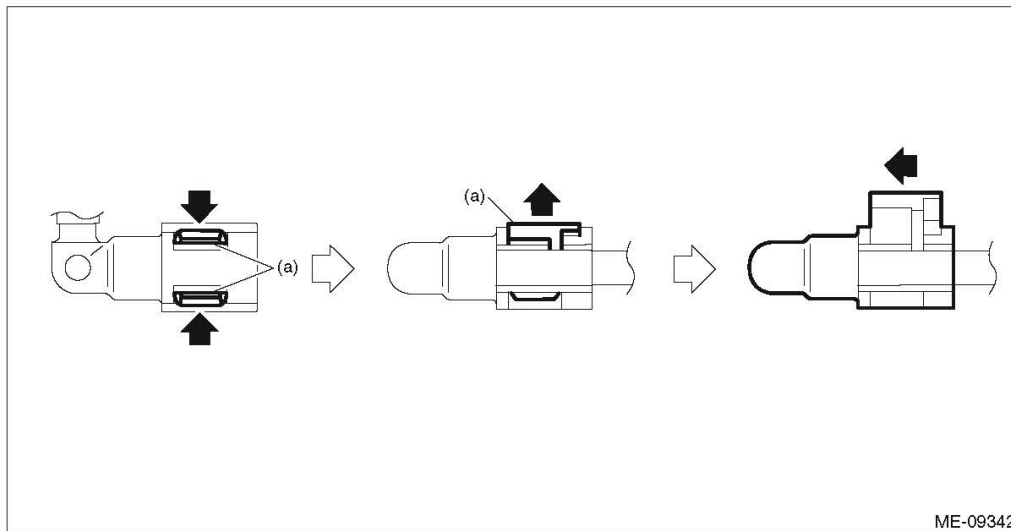
###### CAUTION:

- Be careful not to spill fuel.
- Catch the fuel from the pipes using a container or cloth.

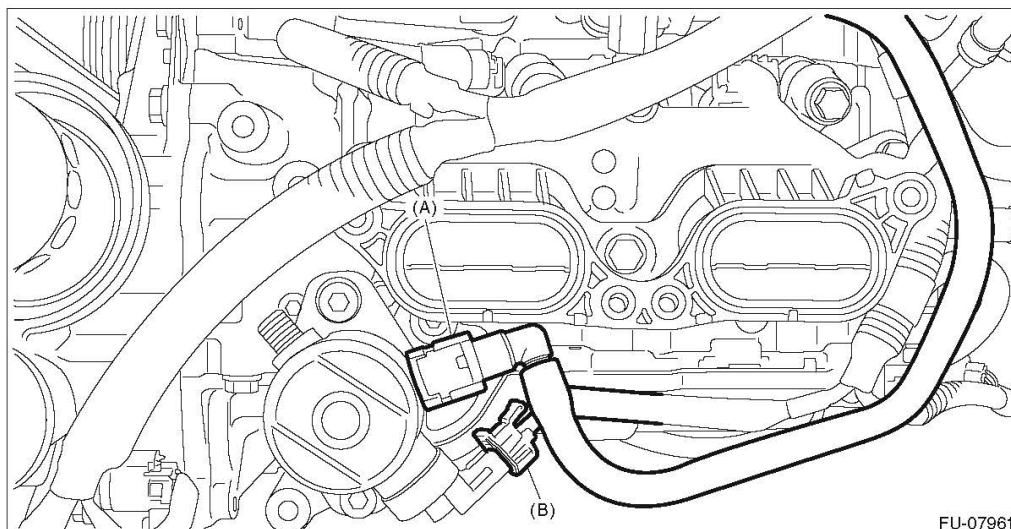
- 1) Disconnect the ground terminal from battery sensor. <Ref. to NT-6, BATTERY, NOTE, Note.>
- 2) Remove the high-pressure fuel delivery pipes. <Ref. to FU(w/o STI)-78, HIGH-PRESSURE FUEL DELIVERY PIPE, REMOVAL, High Pressure Fuel Delivery Pipe.>
- 3) Remove the fuel delivery pipe (A) from the high-pressure fuel pump, and disconnect the connector (B) from the high-pressure fuel pump.

###### NOTE:

Disconnect the quick connector as shown in the figure.



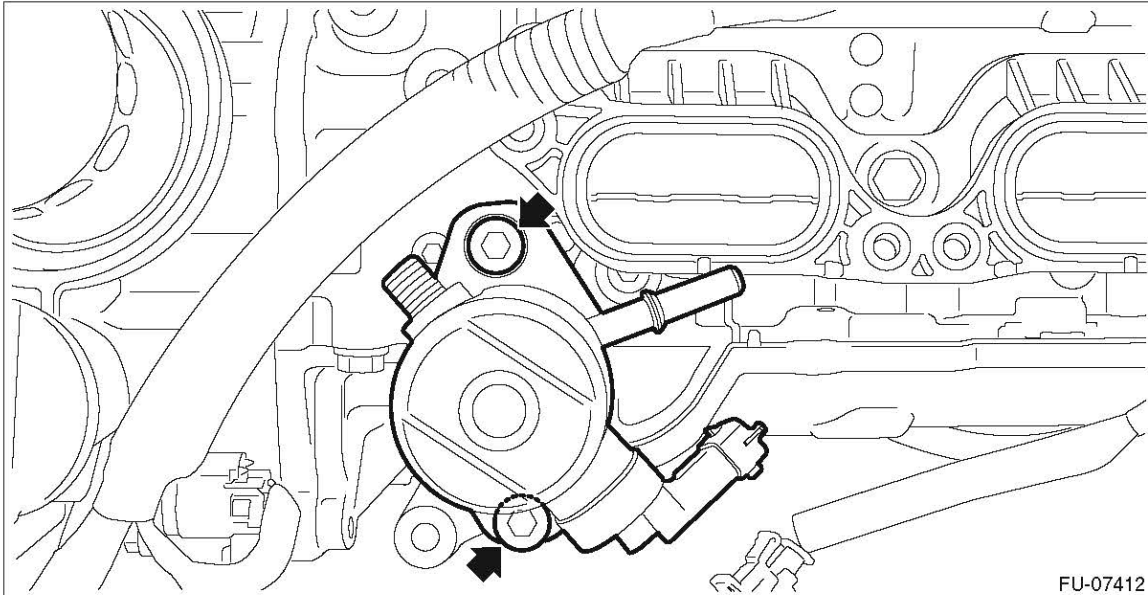
(a) Slider



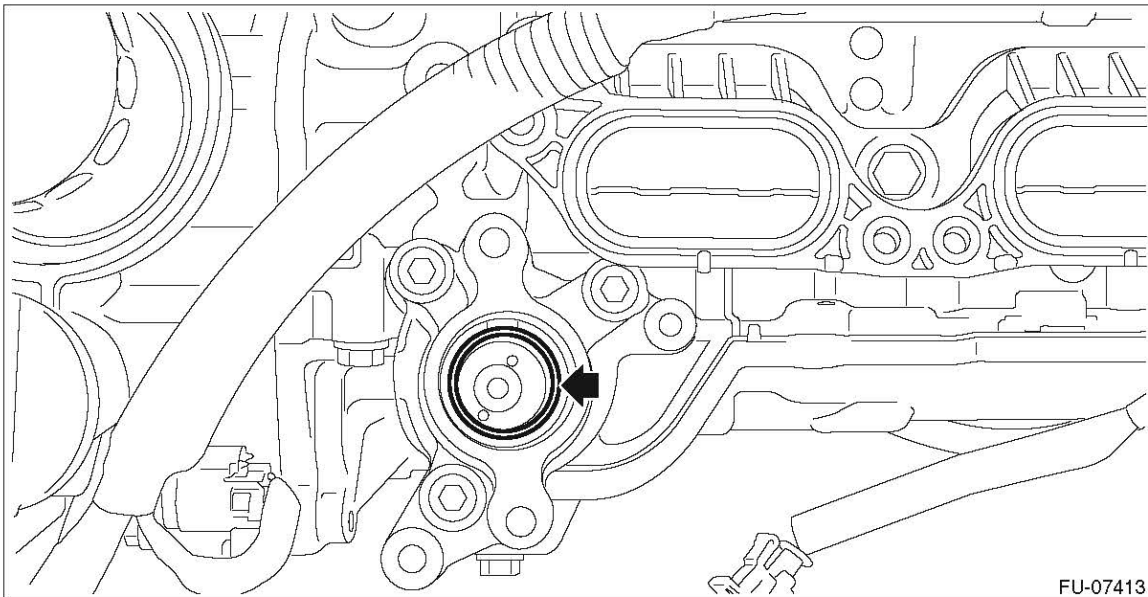
## High Pressure Fuel Pump

### FUEL INJECTION (FUEL SYSTEMS)

- 4) Using TORX PLUS® bit 40IP, remove the high-pressure fuel pump.



- 5) Remove the fuel pump lifter from the fuel pump case.

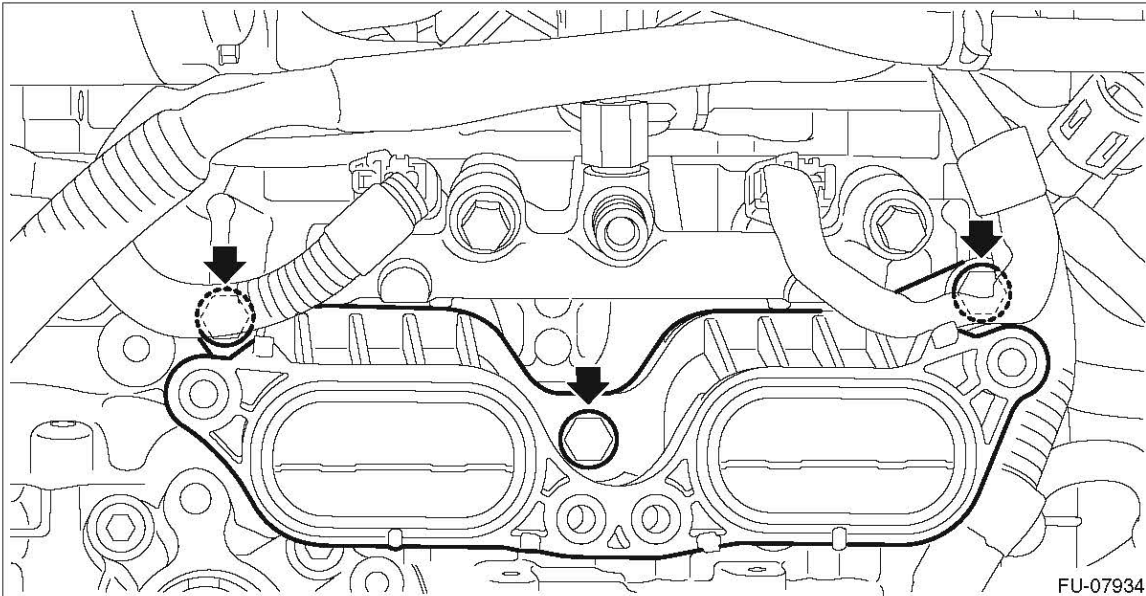


## High Pressure Fuel Pump

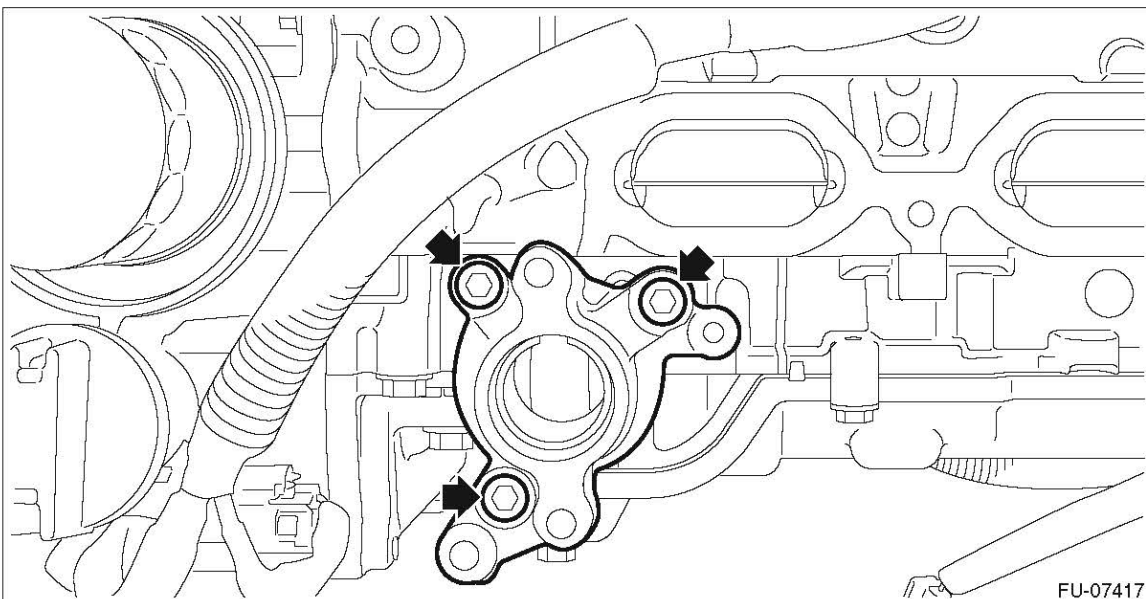
FUEL INJECTION (FUEL SYSTEMS)

### 2. HIGH-PRESSURE FUEL PUMP CASE

- 1) Remove the high-pressure fuel pump. <Ref. to FU(w/o STI)-69, HIGH-PRESSURE FUEL PUMP, REMOVAL, High Pressure Fuel Pump.>
- 2) Remove the air intake adapter LH from the cylinder head.



- 3) Remove the high-pressure fuel pump case from the cam carrier assembly LH.



## Installation of NEW Nostrum High Pressure Fuel Pump

1. Carefully guide new pump into bore
2. Install pump to head flange bolts and torque to (21NM, 15.5FT-LBS)
3. Carefully thread high pressure fitting back on until fully seated and torque to (6.4NM, 4.7FT-lbs)
4. Reinstall low pressure fuel line making sure the locking clip is fully seated
5. Reinstall fuel pump wiring connector

### High Pressure Fuel Pump

FUEL INJECTION (FUEL SYSTEMS)

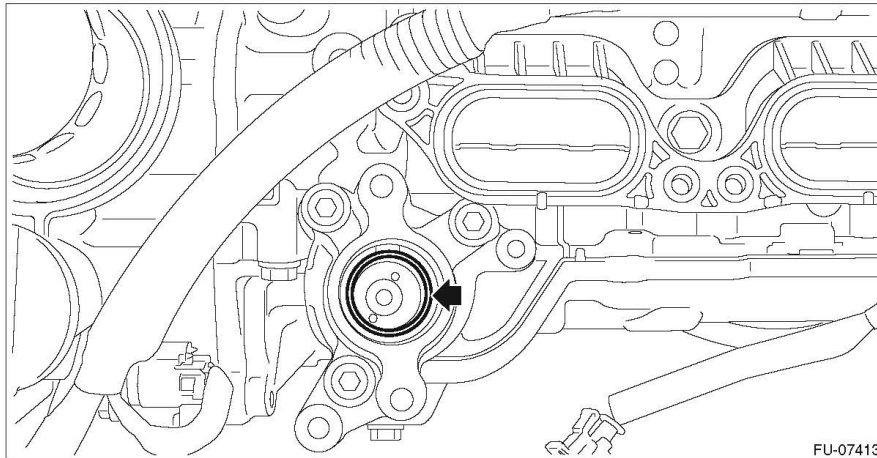
#### B: INSTALLATION

##### 1. HIGH-PRESSURE FUEL PUMP

- 1) Install the fuel pump lifter to the high-pressure fuel pump case.

NOTE:

Apply engine oil to the side of the high-pressure fuel pump case and to the bottom surface of the fuel pump lifter.



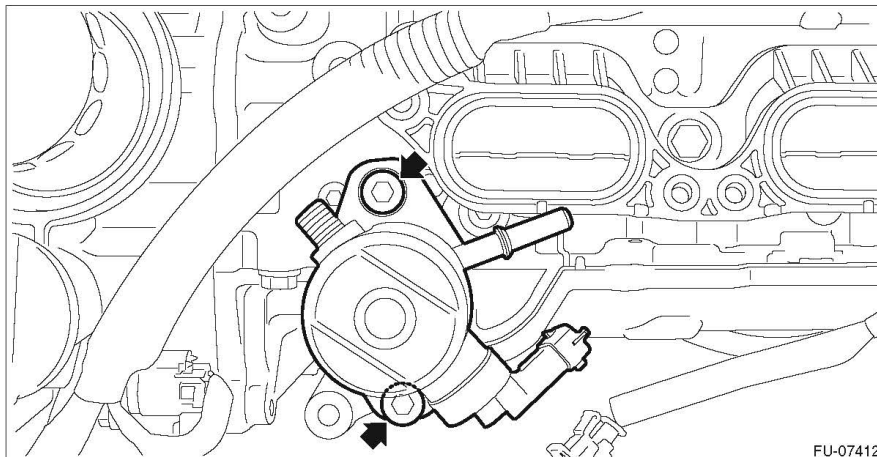
- 2) Using TORX PLUS® bit 40IP, install the high-pressure fuel pump.

NOTE:

Use new O-rings.

**Tightening torque:**

**21 N·m (2.1 kgf·m, 15.5 ft·lb)**



## High Pressure Fuel Pump

FUEL INJECTION (FUEL SYSTEMS)

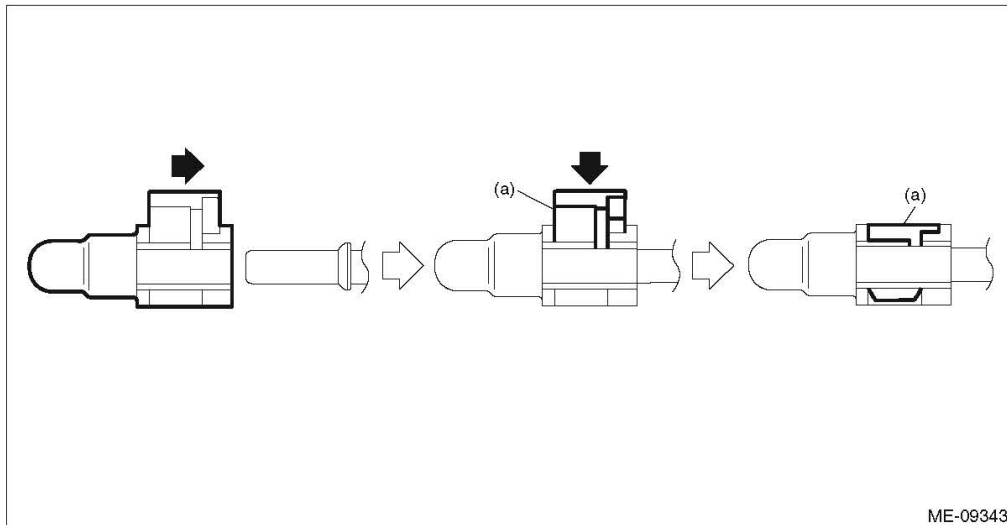
3) Connect the connector (B) to the high-pressure fuel pump, and install the fuel delivery pipe (A) to the high-pressure fuel pump.

**CAUTION:**

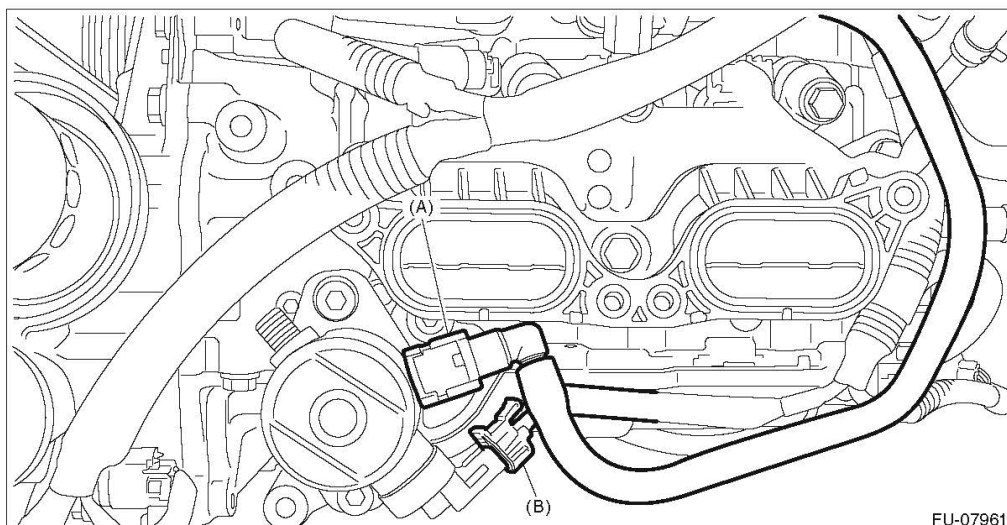
- Check that there is no damage or dust on the quick connector. If necessary, clean the seal surface of the pipe.
- When connecting the quick connector, make sure to insert it all the way in before locking the slider.
- When it is difficult to lock the slider, check that the connector is fully inserted.
- After locking the slider, check again that the quick connector is securely connected.

**NOTE:**

Connect the quick connector as shown in the figure.



(a) Slider



4) Install the high-pressure fuel delivery pipe. <Ref. to FU(w/o STI)-79, HIGH-PRESSURE FUEL DELIVERY PIPE, INSTALLATION, High Pressure Fuel Delivery Pipe.>

5) Connect the ground terminal to battery sensor. <Ref. to NT-6, BATTERY, NOTE, Note.>