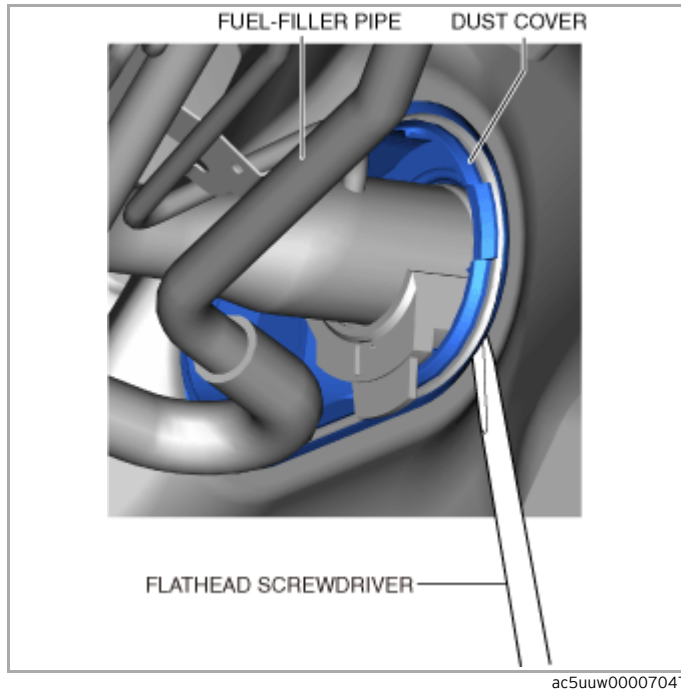


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2007 MAZDA BT-50 OEM Service and Repair Workshop Manual

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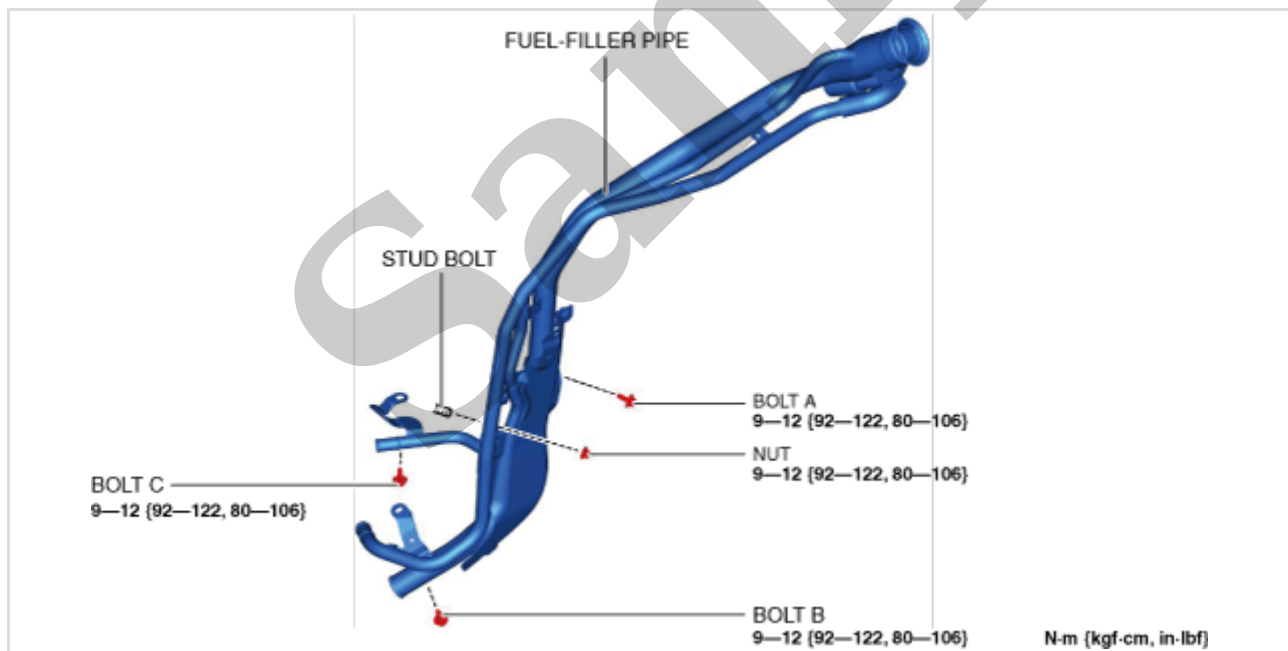


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3.Remove the dust cover.

Fuel-filler Pipe Installation Note

1.Temporarily install the fuel-filler pipe to the vehicle-side stud bolt.



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2.Temporarily tighten bolt A.

3.Completely tighten bolt B.

4.Completely tighten bolt C.

NON-RETURN VALVE INSPECTION [SKYACTIV-G 2.5T]

SM2897450

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Warning

- Highly pressurized fuel may spray out if the fuel line is cut. Due to the following dangers occurring with a fuel spray, always complete the “Fuel Line Safety Procedure” to prevent the fuel from spraying.
 - Fuel may cause irritation if it comes in contact with skin and eyes.
 - If fuel ignites and causes a fire, it may lead to serious injury or death, and damage to property and facilities.
- A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before draining fuel, make sure to discharge static electricity by touching the vehicle body.

1. Complete the “BEFORE SERVICE PRECAUTION”. (See [BEFORE SERVICE PRECAUTION \[SKYACTIV-G 2.5T\]](#).)

2. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION](#).)

3. Remove the rear seat cushion. (See [REAR SEAT CUSHION REMOVAL/INSTALLATION](#).)

4. Remove the fuel pump unit. (See [FUEL PUMP UNIT REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\]](#).)

5. Drain the fuel from the fuel tank to the position where the non-return valve is visible. (See [FUEL DRAINING PROCEDURE \[SKYACTIV-G 2.5T\]](#).)

Note

- Non-return valve is integrated in the fuel tank.
- The non-return valve is normally closed by the spring force.

6. Verify that the non-return valve is closed.

- If the non-return valve is stuck open and does not open even when pulled up by a finger, replace the fuel tank. (See [FUEL TANK REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\]](#).)

Caution

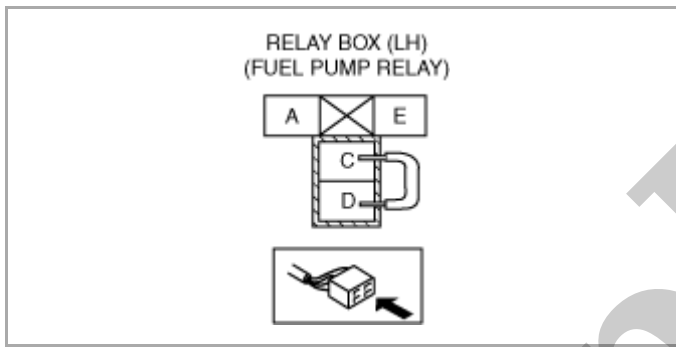
- The fuel pump could be damaged if it is operated while there is no fuel in the fuel tank. Verify the amount of fuel being discharged from the hose and stop operation of the fuel pump when essentially no fuel is being discharged.

Using M-MDS

1. Connect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
2. Connect the M-MDS to the DLC-2.
3. Using the simulation function "FP", start the fuel pump. (See [ON-BOARD DIAGNOSTIC TEST \[PCM \(SKYACTIV-G 2.5T\)\].](#))
 - If the fuel pump cannot be operated, remove the fuel using the procedure in the reference. (See [Fuel Siphoning Procedure Not Using Fuel Pump.](#))

Without using M-MDS

1. Using a jumper wire, short fuel pump relay terminals C and D in the relay box (LH).



Caution

- Short the specified terminals because shorting the wrong terminal of the relay box (LH) may cause malfunctions.
2. Connect the negative battery terminal and operate the fuel pump. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
 - If the fuel pump cannot be operated, remove the fuel using the procedure in the reference. (See [Fuel Siphoning Procedure Not Using Fuel Pump.](#))

Caution

- The fuel pump could be damaged if it is operated while there is no fuel in the fuel tank. Verify the amount of fuel being discharged from the hose and stop operation of the fuel pump when essentially no fuel is being discharged.

6. Stop the fuel pump using the following procedure.

Using M-MDS

1. Using the simulation function "FP", stop the fuel pump. (See [ON-BOARD DIAGNOSTIC TEST \[PCM \(SKYACTIV-G 2.5T\)\].](#))
2. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))

Without using M-MDS

1. Remove the jumper wire to stop the fuel pump.
2. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))

Fuel Siphoning Procedure Not Using Fuel Pump

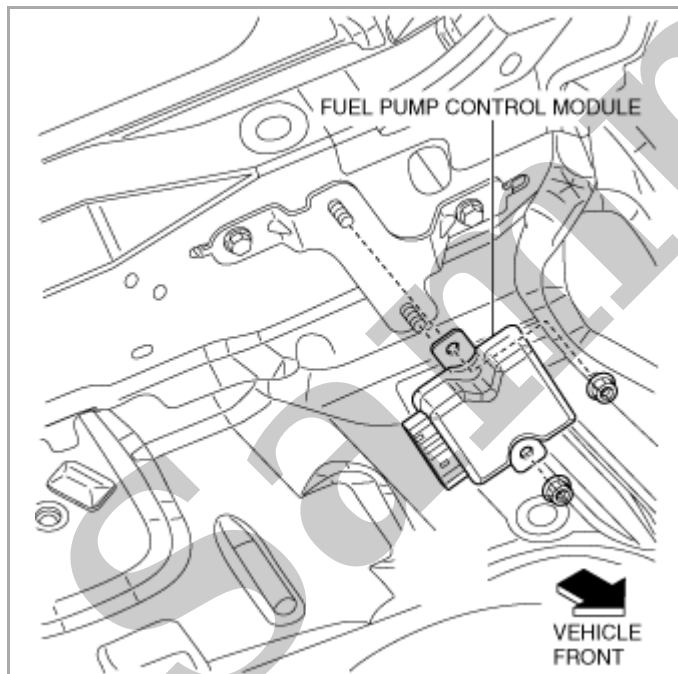
1. Perform the "Fuel Line Safety Procedure" referring to the "BEFORE SERVICE PRECAUTION". (See [BEFORE SERVICE PRECAUTION \[SKYACTIV-G 2.5T\].](#))

FUEL PUMP CONTROL MODULE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

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1. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
2. Remove the rear seat cushion. (See [REAR SEAT CUSHION REMOVAL/INSTALLATION.](#))
3. Disconnect the fuel pump control module connector.
4. Remove the fuel pump control module.

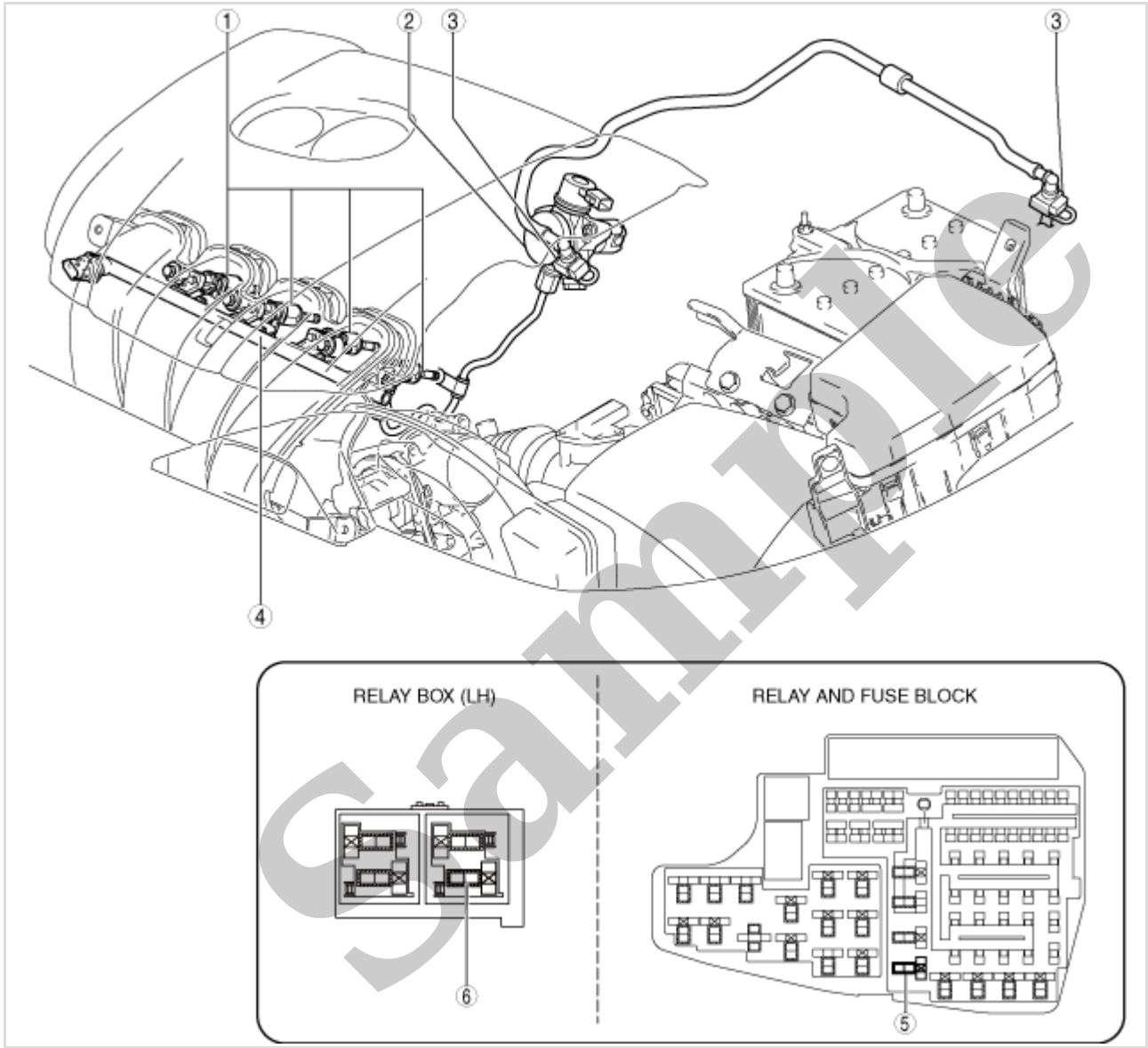


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5. Install the fuel pump control module using the following procedure.

(1) Insert the bracket tabs into the installation holes in the order shown in the figure.

Engine Compartment Side



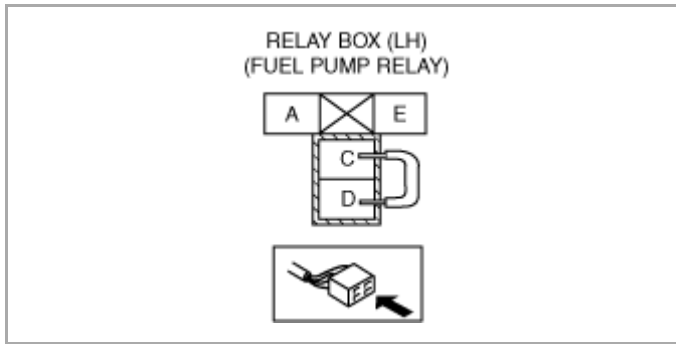
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1	Fuel injector (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .) (See FUEL INJECTOR INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
2	High pressure fuel pump (See HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION [SKYACTIV-G (WITHOUT EGR COOLER)] .) (See HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION [SKYACTIV-G (WITH EGR COOLER)] .) (See HIGH PRESSURE FUEL PUMP INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
3	Quick release connector (See QUICK RELEASE CONNECTOR (FUEL SYSTEM) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
4	Fuel distributor (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)

Sample

Without using M-MDS

1. Using a jumper wire, short fuel pump relay terminals C and D in the relay box (LH).



Caution

- Short the specified terminals because shorting the wrong terminal of the relay box (LH) may cause malfunctions.

2. Connect the negative battery terminal and operate the fuel pump. (See **NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.**)
9. Operate the fuel pump for 10 s.
10. Measure the fuel line pressure.

- If not within the specification, inspect the following:

If it less than the specification:

- Fuel pump unit
- Fuel line for restriction or leakage

If it exceeds the specification:

- Fuel line restriction

Fuel pressure

405–485 kPa {4.13–4.94 kgf/cm², 58.8–70.3 psi}

11. Stop the fuel pump using the following procedure.

Using M-MDS

1. Using the simulation function “FP”, stop the fuel pump. (See **ON-BOARD DIAGNOSTIC TEST [PCM (SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION))].**)

Without using M-MDS

1. Disconnect the negative battery terminal. (See **NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.**)

12. Measure the fuel hold pressure after 5 min.

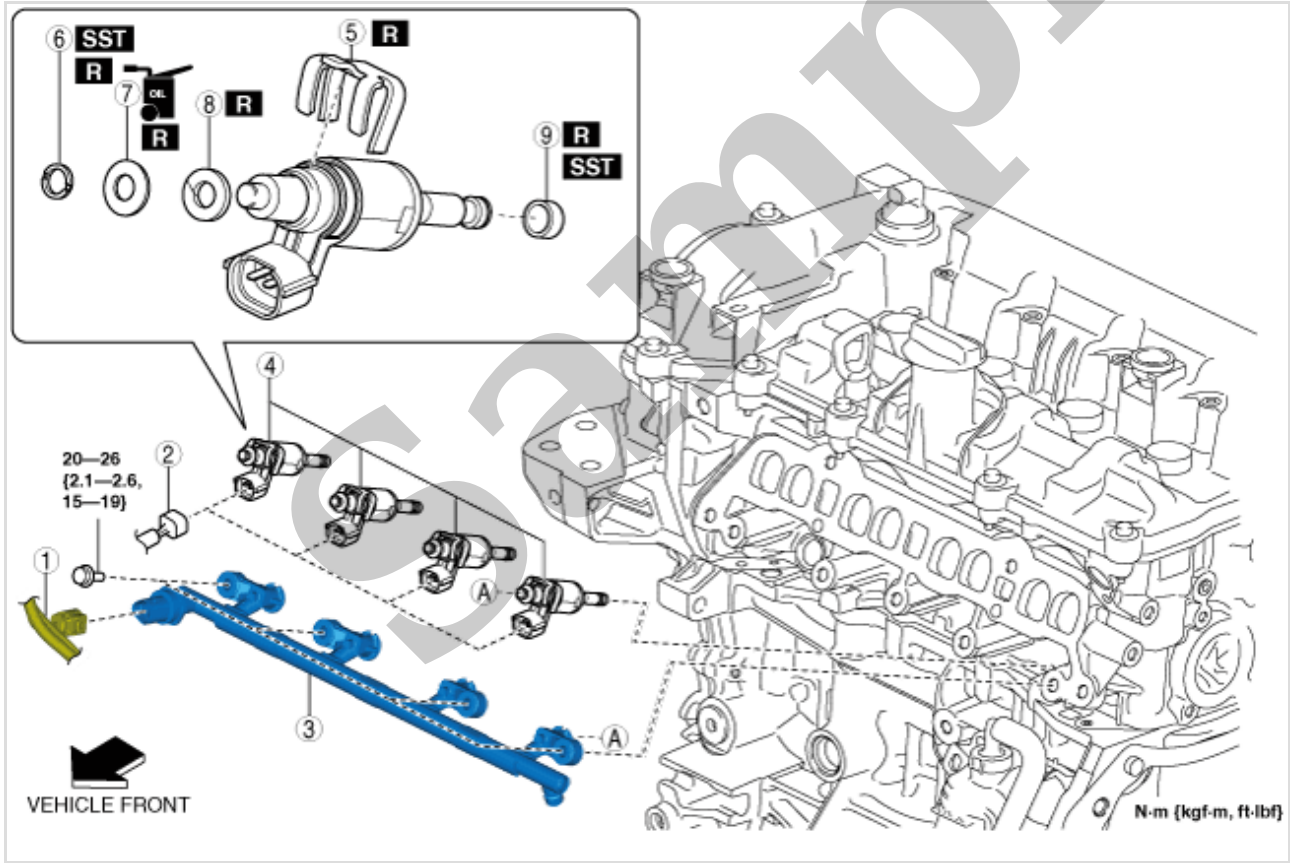
- If not within the specification, inspect the following:

- Fuel line leakage

Fuel hold pressure

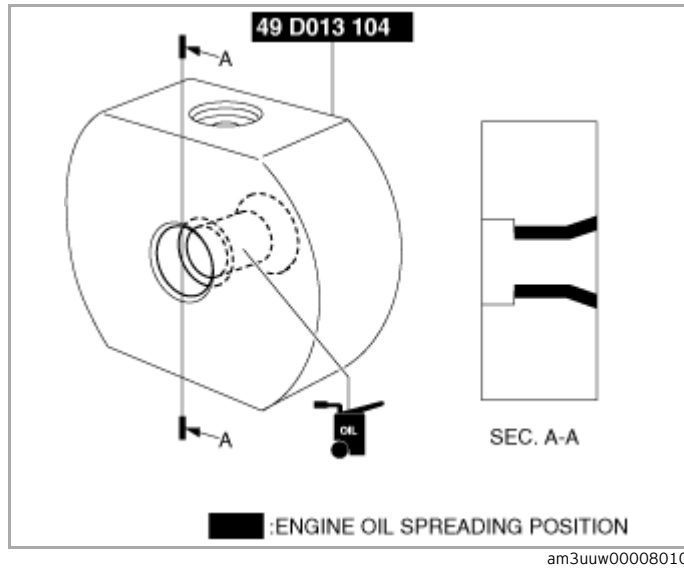
230 kPa {2.35 kgf/cm², 33.4 psi} or more

- 2.Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
- 3.Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))
- 4.Remove the intake manifold. (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G \(WITHOUT EGR COOLER\)\].](#)) (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G \(WITH EGR COOLER\)\].](#))
- 5.Remove in the order indicated in the table.
- 6.Install in the reverse order of removal.
- 7.Complete the “AFTER SERVICE PRECAUTION”. (See [AFTER SERVICE PRECAUTION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))

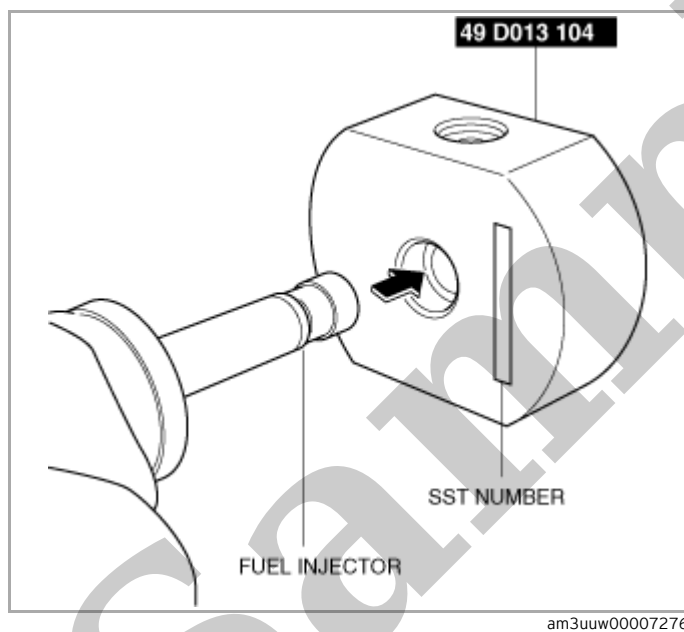


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1	Fuel pressure sensor connector
2	Fuel injector connector
3	Fuel distributor (See Fuel Distributor Removal Note.) (See Fuel Distributor Installation Note.)
4	Fuel injector (See Fuel Injector Installation Note.)
5	Spacer (See Spacer Installation Note.)



2. Install the SST with the mark on the SST facing the fuel injector.



3. Insert a new teflon seal onto the SST.

