

FUEL SYSTEM

PRECAUTION

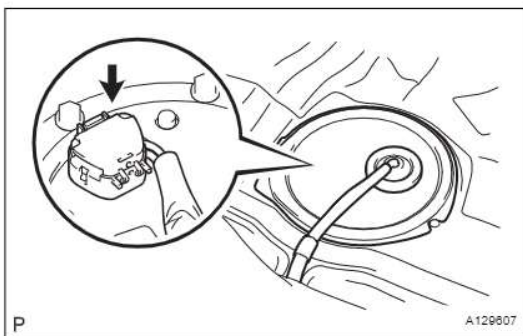
1. PRECAUTION

- (a) Before inspecting and repairing the fuel system, disconnect the negative (-) battery terminal.
- (b) Do not smoke or work near fire when handling the fuel system.
- (c) Keep gasoline away from rubber or leather parts.

2. DISCHARGE FUEL SYSTEM PRESSURE

CAUTION:

- Perform the following procedures to prevent fuel from spilling out before removing any fuel system parts.
- Pressure will still remain in the fuel line even after performing the following procedures. When disconnecting the fuel line, cover it with a shop rag or a piece of cloth to prevent fuel from spraying or coming out.



- (a) Disconnect the fuel pump connector.
 - (1) Remove the rear seat cushion assembly.
 - (2) Remove the rear floor service hole cover.
 - (3) Disconnect the fuel pump connector.
 - (4) Start the engine.
 - (5) After the engine stops, turn the ignition switch off.

HINT:
DTC P0171/25 (fuel problem) and/or P0191/49 (fuel pressure sensor signal error) may be detected.

 - (6) Crank the engine again. Check that the engine does not start.
 - (7) Remove the fuel tank cap to discharge pressure from the fuel tank.
 - (8) Disconnect the negative (-) battery terminal.
 - (9) Reconnect the fuel pump connector.
 - (10) Install the rear floor service hole cover.
 - (11) Install the rear seat.

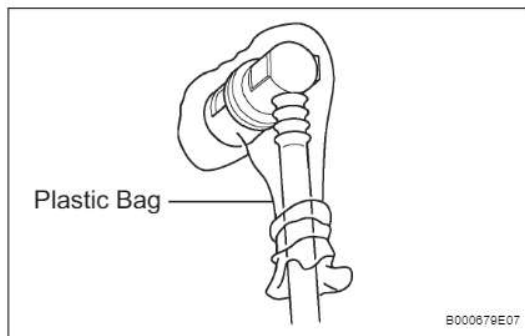
3. FUEL SYSTEM

- (a) When disconnecting the high fuel pressure line, a large amount of gasoline will spill out, so observe the following procedures:
 - (1) Discharge the fuel system pressure. (step 2)
 - (2) Disconnect the fuel pump tube (See page [FU-23](#)).
 - (3) Drain the fuel that remains inside the fuel pump tube.

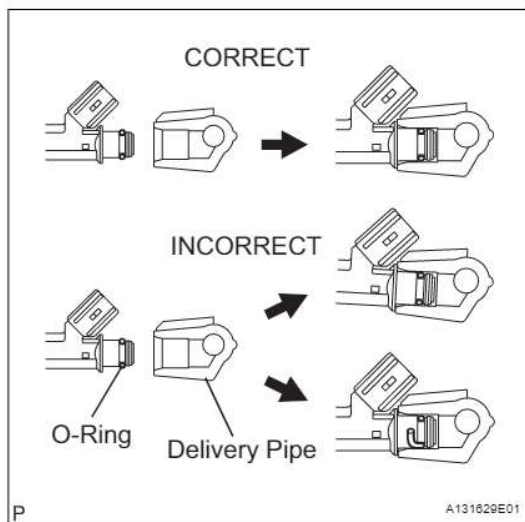
FU

FU-2

2AZ-FE FUEL – FUEL SYSTEM



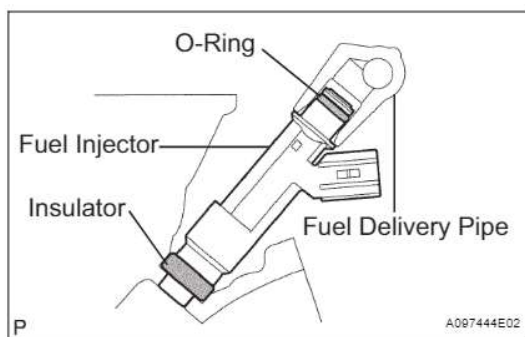
- (4) To protect the disconnected fuel pump tube from damage and contamination, cover it with a plastic bag.
- (5) Put a container under the connection part.



- (b) Observe the following precautions when removing and installing the fuel injectors:
 - (1) Never reuse an O-ring.
 - (2) When placing a new O-ring on the injector, do not damage the O-ring.
 - (3) Coat a new O-ring with gasoline before installing it.

NOTICE:

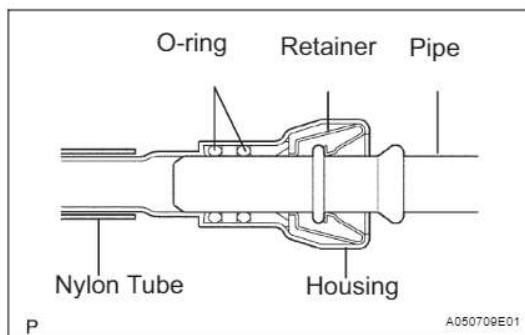
Do not use engine oil, gear oil or brake fluid.



- (c) Install the injector to the delivery pipe and cylinder head, as shown in the illustration.

NOTICE:

Before installing the injector, be sure to apply grease or gasoline to the place where the delivery pipe or cylinder head contacts the O-ring of the injector.



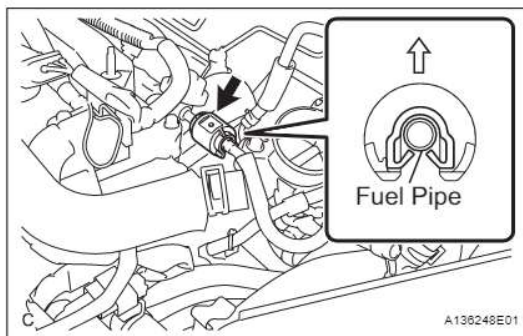
- (d) Observe the following precautions when disconnecting the fuel delivery pipe (metallic type):

HINT:

The structure of the metallic connector is shown on the left.

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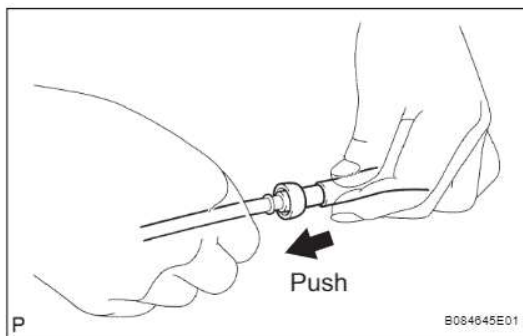


- (1) Remove the No. 2 fuel pipe clamp.
HINT:
The No. 2 fuel pipe clamp cannot be reused.

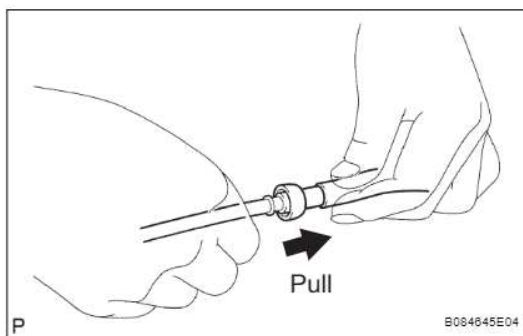


- (2) Find the metallic connector of the fuel tube assembly.
- (3) Assemble SST to the connection as shown in the illustration.
SST 09268-21010
- (4) Turn the SST, align the retainers inside the connector with the SST chamfered parts and insert SST into the connector.
- (5) Slide the SST and the connector together towards the fuel tube assembly.

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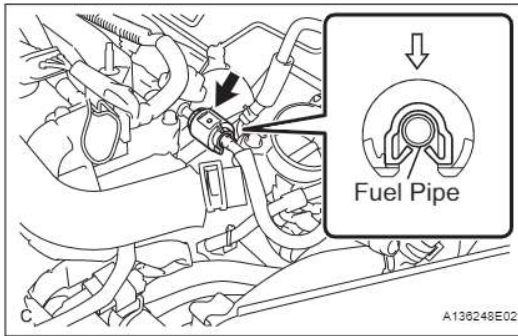
- (e) Observe the following precautions when connecting the fuel tube connector (metallic type):
 - (1) Check if there is any damage or foreign objects on the connecting part of the pipe.
 - (2) Match the axis of the connector with the axis of the pipe, and push into the connector until the connector makes a "click" sound. If the connection is tight, apply a small amount of fresh engine oil to the tip of the pipe.



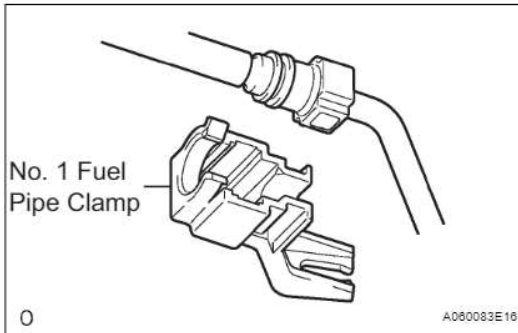
- (3) After finishing the connection, check if the pipe and the connector are securely connected by pulling on them.
- (4) Check for fuel leaks.

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2AZ-FE FUEL – FUEL SYSTEM

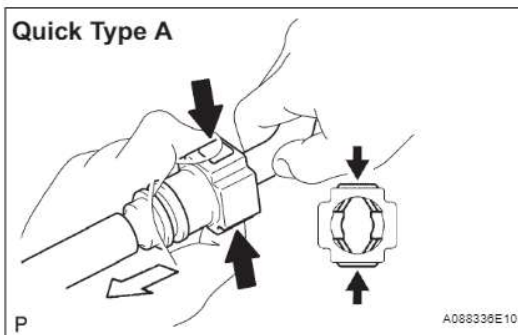


(5) Install a new No. 2 fuel pipe clamp.

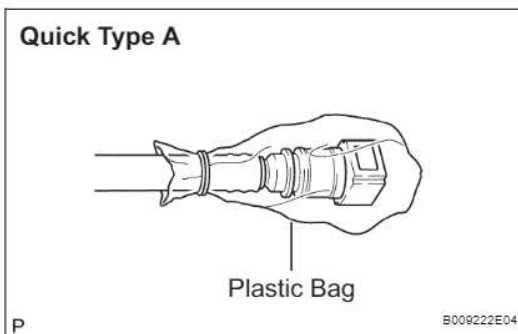


(f) Observe the following precautions when disconnecting the fuel tube connectors (Quick type A):

- (1) Remove the No. 1 fuel pipe clamp from the tube connector.
- (2) Check that there is no dirt or other foreign objects on the pipe and around the connector before disconnecting them. Clean them if necessary.



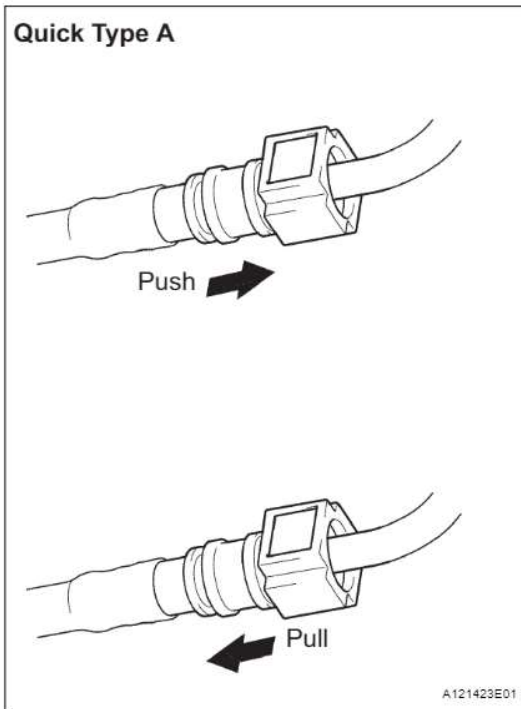
- (3) Disconnect the connector from the pipe by hand.
- (4) When the connector and the pipe are stuck, push in and pull on the connector to release it. Pull the connector out of the pipe carefully.
- (5) Check that there is no dirt or other foreign objects on the sealing surface of the disconnected pipe. Clean it away if necessary.



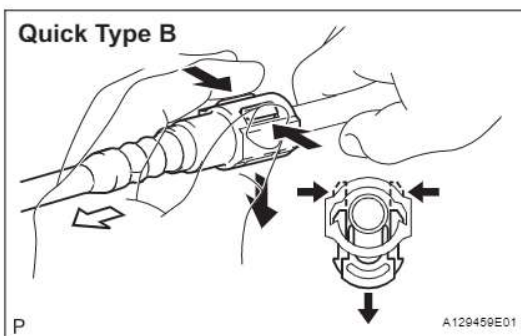
- (6) Do not damage the disconnected pipe and connector, and prevent entry of foreign objects by covering them with a plastic bag.

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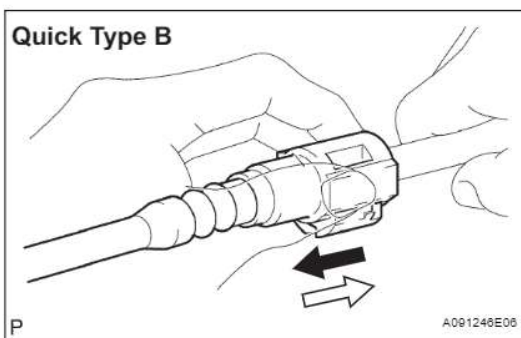
FU-5



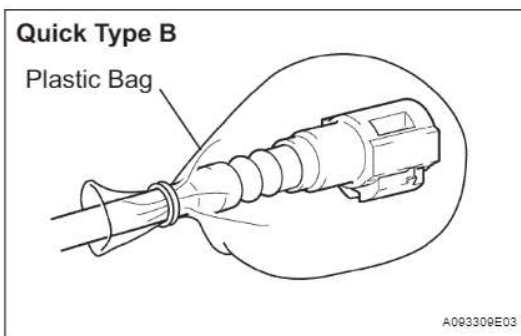
- (g) Observe the following precautions when connecting the fuel tube connectors (Quick Type A):
- (1) Check if there is any damage or foreign objects on the connecting parts of the pipes.
 - (2) Line up the two parts of the pipes to be connected, and push them together until the connector makes a "click" sound. If the pipe is difficult to push into the connector, apply a small amount of clean engine oil to the tip of the pipe and reinsert it.
 - (3) After connecting the pipes, check that the pipe and connector are securely connected by pulling on them.
 - (4) Check for fuel leaks.



- (h) Observe the following precautions when disconnecting the fuel tube connector (Quick type B):
- (1) Before disconnecting the connector, clean off any dirt that may be present.
 - (2) Pinch the tabs of the fuel tube retainer to disengage the 2 claws. Push the retainer down as shown in the illustration.
- HINT:**
Be sure to disconnect the connector by hand.



- (3) If the connector and pipe are stuck, hold the fuel pipe by hand and push and pull on the connector. Pull the two pipes apart to separate the connector.
- (4) If there is any dirt or any other foreign objects on the sealing surfaces of the disconnected pipes, clean them if necessary.

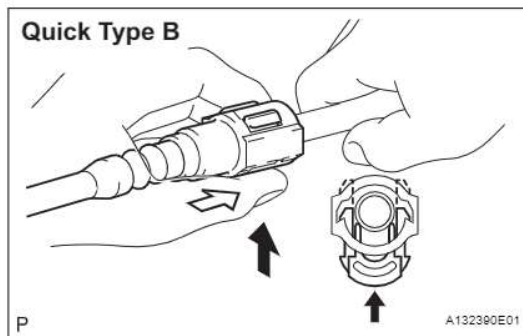


- (5) Do not damage the disconnected pipe and connector, and prevent entry of foreign objects by covering them with a plastic bag.

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2AZ-FE FUEL – FUEL SYSTEM



(i) Observe the following precautions when connecting the fuel tube connector (Quick Type B):

- (1) Line up the two parts of the pipes to be connected, and fully push the fuel tube connector and pipe together until they are fully seated. Next, push the retainer into the connector until its claws lock. If the pipe is difficult to push in to the connector, apply a small amount of clean engine oil to the tip of the pipe and reinsert it.
- (2) After connecting the pipes, check that the pipe and connector are securely connected by pulling on them.
- (3) Check for fuel leaks.

(j) Observe the following precautions when handling a nylon tube:

CAUTION:

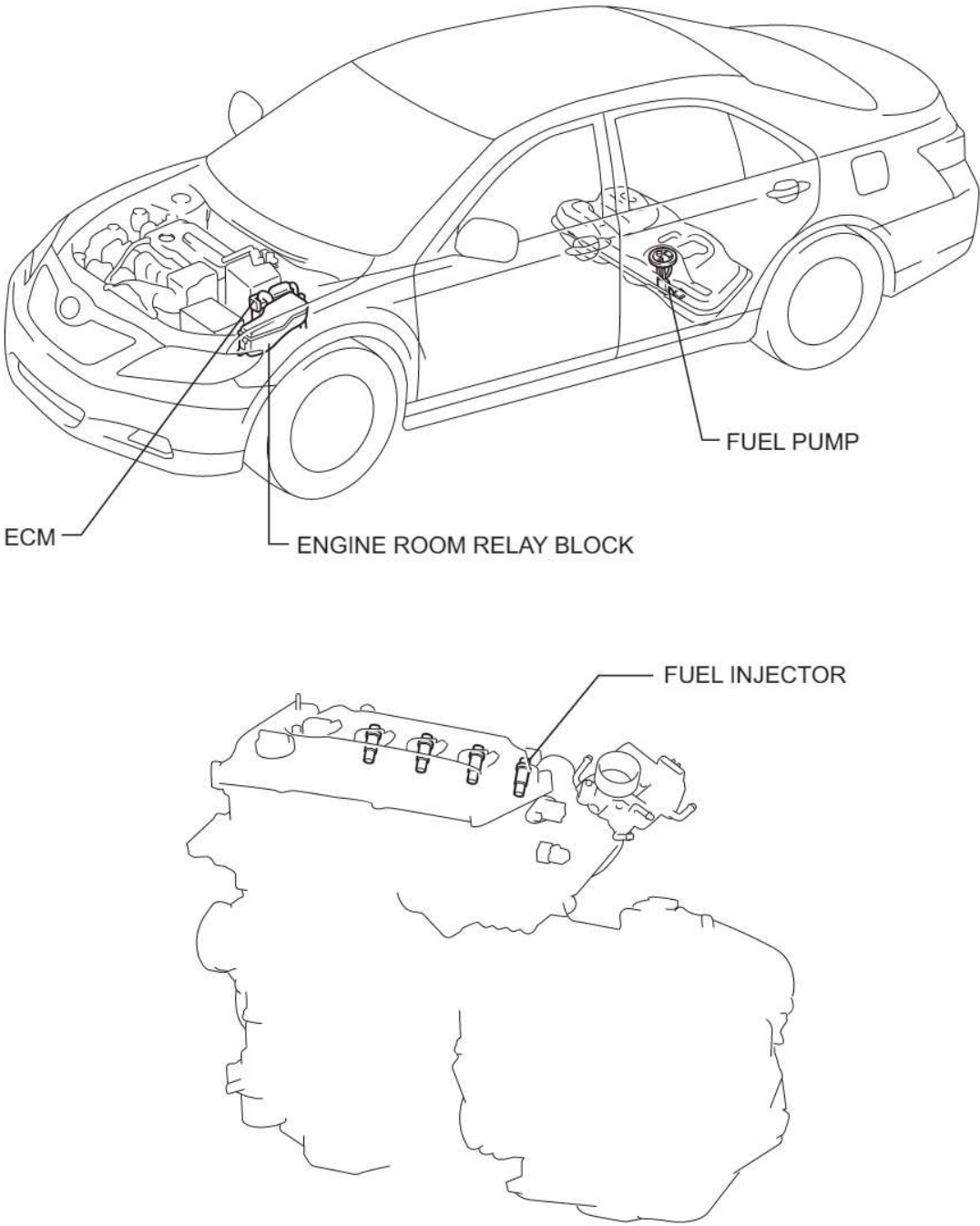
- Do not twist the connection part of the nylon tube and the quick connector when connecting them.
- Do not bend or twist the nylon tube.
- Do not remove the EPDM protector on the outside of the nylon tube.
- Do not close the piping by bending the nylon tube.

4. CHECK FOR FUEL LEAKS

- (a) Check that there are no fuel leaks from the fuel system after doing any maintenance or repairs (See page [FU-9](#)).

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PARTS LOCATION

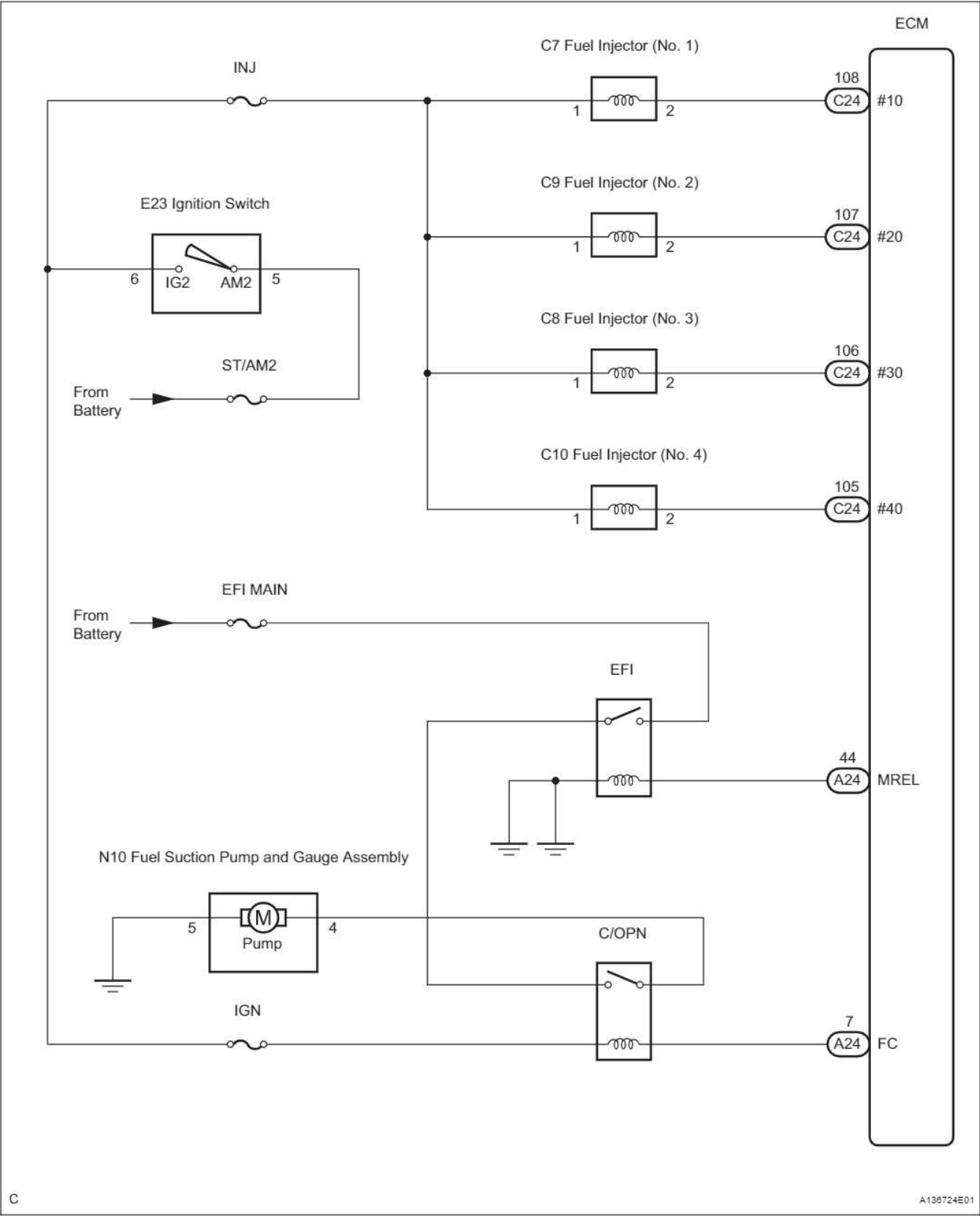


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SYSTEM DIAGRAM



ON-VEHICLE INSPECTION

1. CHECK FUEL PUMP OPERATION AND FOR FUEL LEAKS

- (a) Check fuel pump operation.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch to the ON position and push the intelligent tester main switch on.

NOTICE:

Do not start the engine.

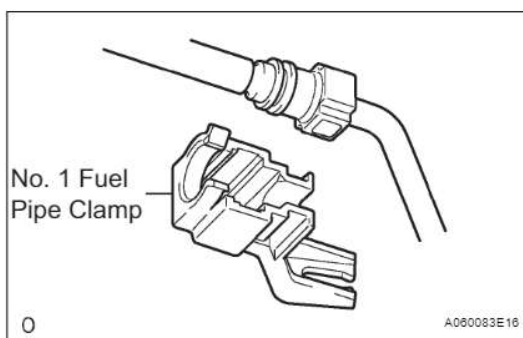
- (3) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / FUEL PUMP / SPD.
- (4) Check for pressure in the fuel inlet tube from the fuel line. Check that sound of fuel flowing in the fuel tank can be heard. If no sound can be heard, check the integration relay, fuel pump, ECM and wiring connector.
- (b) Check for fuel leaks.
 - (1) Check that there are no fuel leaks anywhere on the system after performing maintenance. If there is a fuel leak, repair or replace parts as necessary.
- (c) Turn the ignition switch off.
- (d) Disconnect the intelligent tester from the DLC3.

2. CHECK FUEL PRESSURE

- (a) Using a voltmeter, measure the battery voltage.
Standard voltage:
11 to 14 V
- (b) Discharge the fuel system pressure (See page [FU-1](#)).
- (c) Disconnect the cable from the negative (-) battery terminal.
- (d) Remove the No. 1 fuel pipe clamp from the fuel tube connector.
- (e) Disconnect the fuel hose from the fuel main tube.

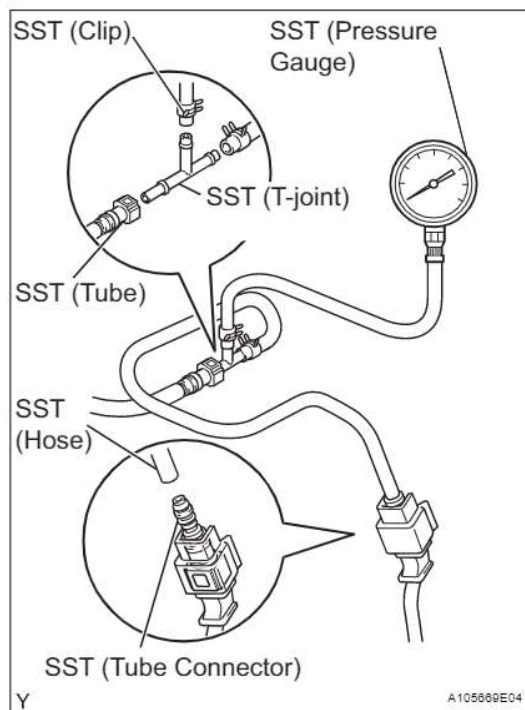
CAUTION:

- Always read the precautions (See page [FU-1](#)) before disconnecting the fuel tube connector (quick type).
- The fuel pipe line may spray fuel as a result of retained pressure that remains in it. Do not allow fuel to be sprayed in the engine compartment.



FU-10

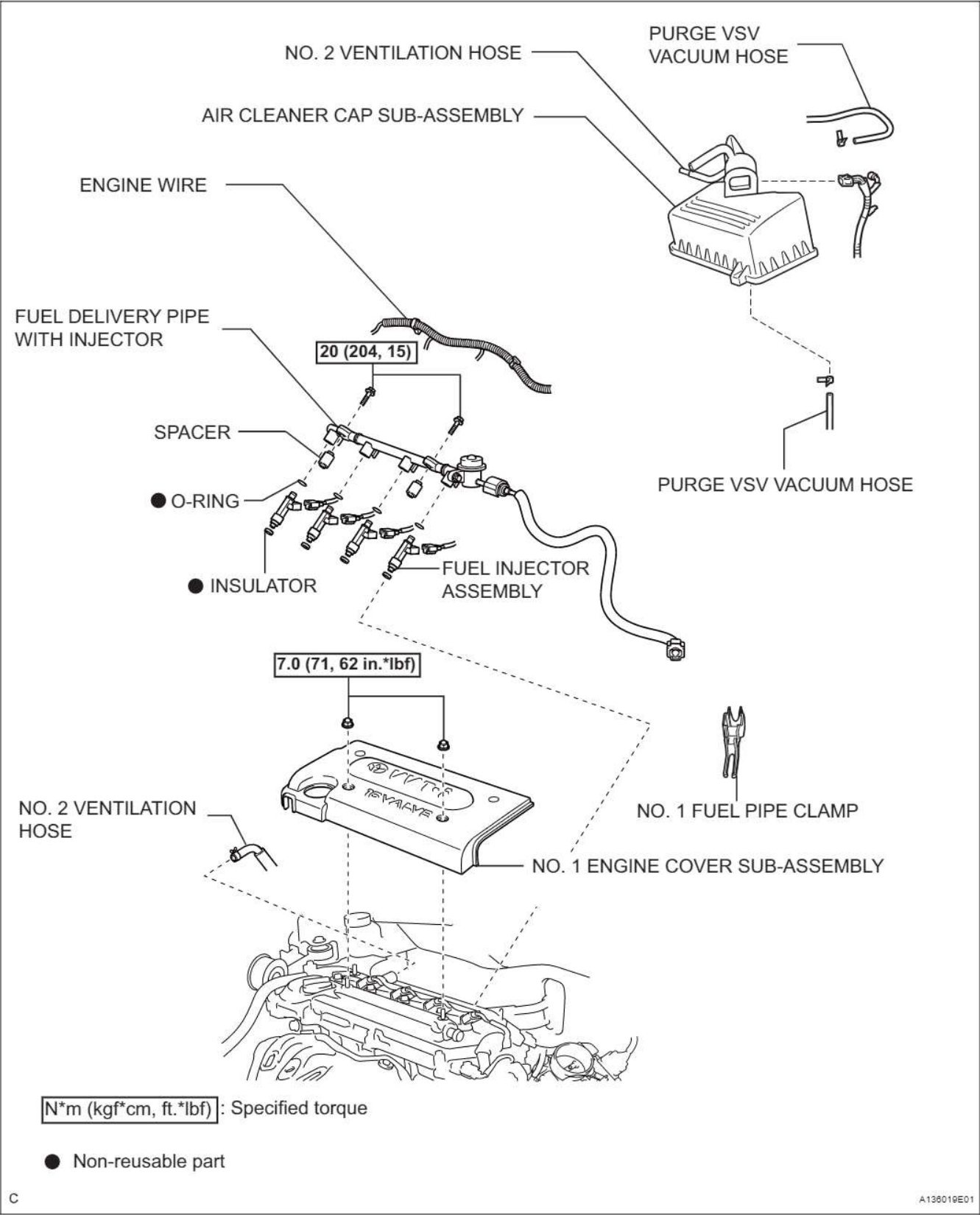
2AZ-FE FUEL – FUEL SYSTEM



- (f) Install SST (pressure gauge) and the fuel tube connector using SST as shown in the illustration.
SST 09268-31011 (09268-41500, 90467-13001, 95336-08070), 09268-45014 (09268-41200, 09268-41220, 09268-41250)
- (g) Wipe up any gasoline.
- (h) Reconnect the cable to the negative (-) battery terminal.
- (i) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / FUEL PUMP / SPD.
- (j) Measure the fuel pressure.
Fuel pressure:
304 to 343 kPa (3.1 to 3.5 kgf/cm², 44.1 to 49.7 psi)
 If the pressure is high, replace the fuel pressure regulator.
 If the pressure is low, check the fuel hoses and connections, fuel pump, fuel filter and fuel pressure regulator.
- (k) Disconnect the intelligent tester from the DLC3.
- (l) Start the engine.
- (m) Measure the fuel pressure at idle.
Fuel pressure:
304 to 343 kPa (3.1 to 3.5 kgf/cm², 44.1 to 49.7 psi)
 (n) Stop the engine.
 (o) Check that the fuel pressure remains as specified for 5 minutes after the engine has stopped.
Fuel pressure:
147 kPa (1.5 kgf/cm², 21 psi) or more
 If the pressure is not as specified, check the fuel pump, pressure regulator and/or injectors.
- (p) After checking the fuel pressure, disconnect the cable from the negative battery terminal and carefully remove the SST to prevent gasoline from splashing.
- (q) Reconnect the fuel main tube (fuel tube connector).
CAUTION:
Always read the precautions (See page FU-1) before connecting the fuel tube connector (quick type).
- (r) Install the No. 1 fuel pipe clamp to the fuel tube connector.
- (s) Check for fuel leaks (Step 1).

FUEL INJECTOR

COMPONENTS



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2AZ-FE FUEL – FUEL INJECTOR

REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

HINT:

See page [FU-1](#).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

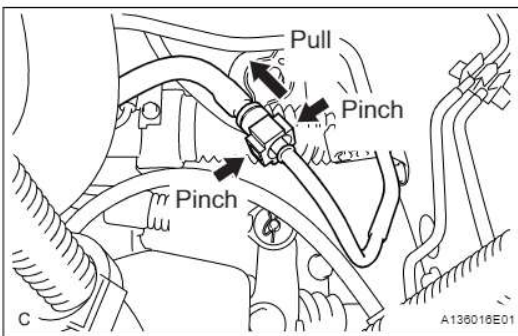
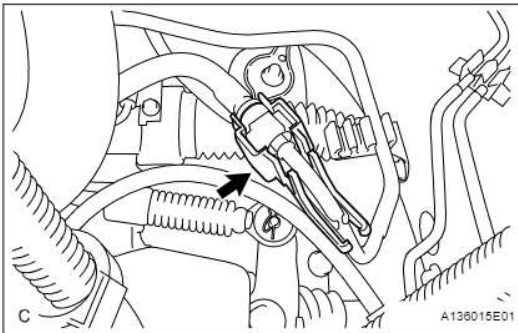
3. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-416](#))4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY (See page [EM-94](#))

5. DISCONNECT FUEL TUBE SUB-ASSEMBLY

(a) Remove the No. 1 fuel pipe clamp.

NOTICE:

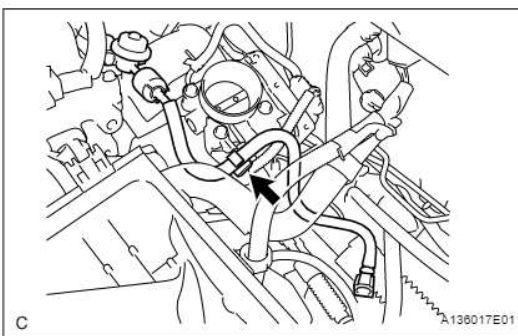
Check for foreign matter on the pipe and around the connector before disconnecting the quick connector. Clean the connector if necessary.



(b) If the connector and pipe are stuck, pinch the connector, and push and pull the pipe to disconnect them.

NOTICE:

- Do not use any tools in this procedure.
- Check for foreign matter on the sealing surface of the disconnected pipe. Clean it if necessary.

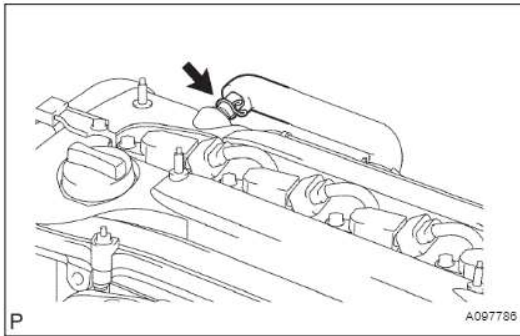


(c) Separate the fuel tube from the fuel hose clamp.

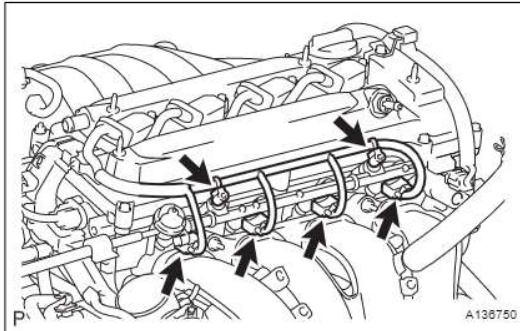
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2AZ-FE FUEL – FUEL INJECTOR

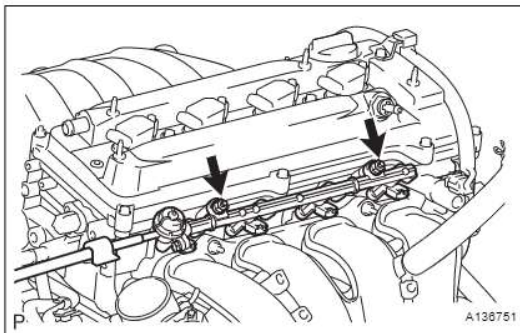
FU-13

**6. DISCONNECT NO. 2 VENTILATION HOSE**

- (a) Disconnect the No. 2 ventilation hose from the ventilation valve.

**7. REMOVE FUEL DELIVERY PIPE WITH INJECTOR**

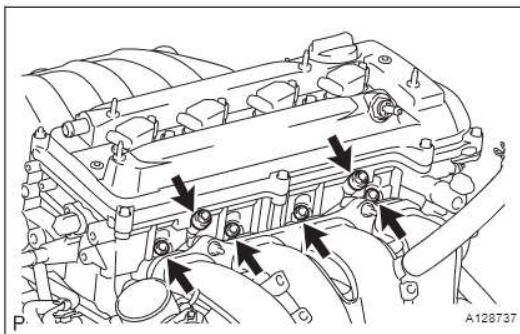
- (a) Remove the 2 wire harness clamps.
(b) Disconnect the 4 fuel injector connectors.



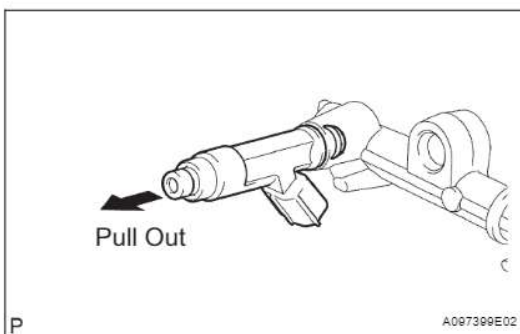
- (c) Remove the 2 bolts, then remove the fuel delivery pipe together with the 4 fuel injectors.

NOTICE:

Be careful not to drop the fuel injectors when removing the fuel delivery pipe.



- (d) Remove the 2 delivery pipe spacers from the cylinder head.
(e) Remove the 4 insulators from the cylinder head.

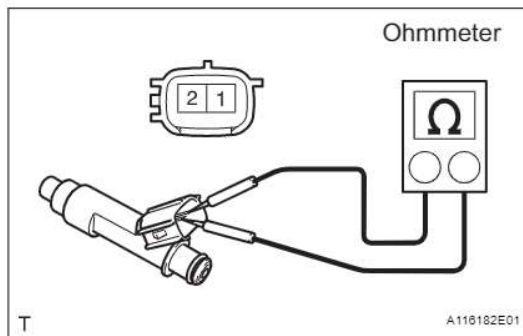
**8. REMOVE FUEL INJECTOR ASSEMBLY**

- (a) Pull out the 4 injectors from the delivery pipe.
(b) Remove the 4 O-rings from the injectors.

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FU-14

2AZ-FE FUEL – FUEL INJECTOR



INSPECTION

1. INSPECT FUEL INJECTOR ASSEMBLY

- (a) Measure the resistance between the injector terminals.

Standard resistance:

11.6 to 12.4 Ω at 20°C (68°F)

If the result is not as specified, replace the injector.

- (b) Inspect the injector injection volume.

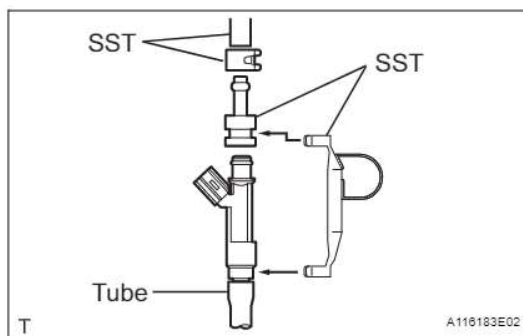
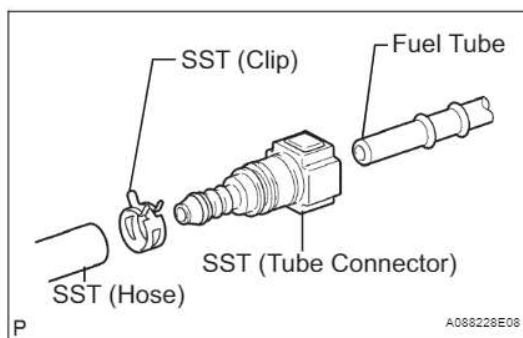
CAUTION:

Keep the injector away from sparks during this test.

- (1) Connect SST (fuel tube connector) to SST (hose), then connect them to the fuel pipe (vehicle side).

SST 09268-31011 (09268-41500, 90467-13001, 95336-08070)

- (2) Install the O-ring to the fuel injector.



- (3) Connect SST (adapter and hose) to the injector, and hold the injector and union with SST (clamp).

SST 09268-31011 (09268-41110, 09268-41300, 90467-13001)

- (4) Put the injector into the graduated cylinder.

CAUTION:

Install a suitable vinyl tube onto the injector to contain gasoline spray.

- (5) Operate the fuel pump.

- (6) Connect SST (wire) to the injector and the battery for 15 seconds, and measure the injection volume with the graduated cylinder. Test each injector 2 or 3 times.

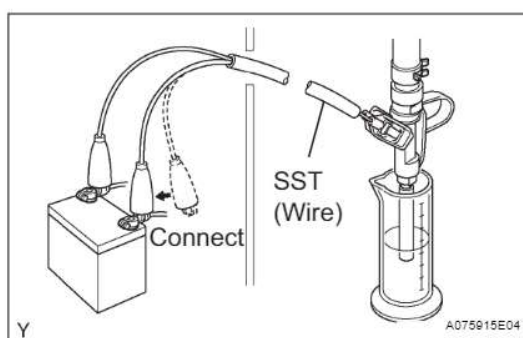
SST 09842-30080

Standard injection volume:

76 to 92 cm³ (4.6 to 5.6 cu in.) per 15 seconds

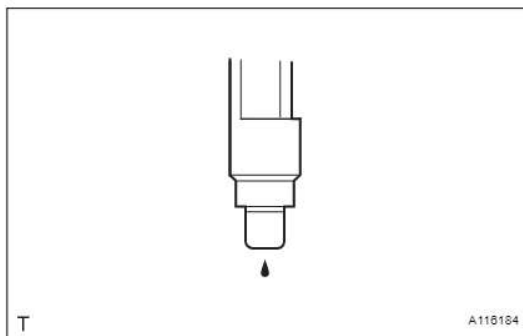
Standard difference between each injector:

16 cm³ (0.98 cu in.) or less



2AZ-FE FUEL – FUEL INJECTOR

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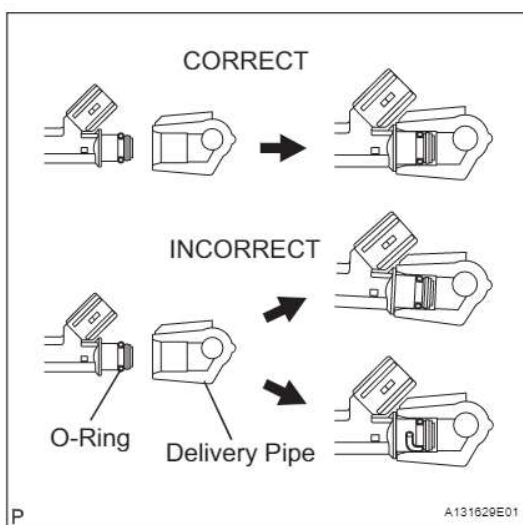
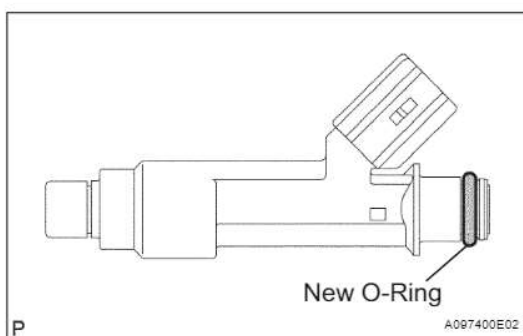
- (c) Inspect the fuel leakage.
- (1) Disconnect the SST (wire) tester probes from the battery and check the fuel leakage from the injector.

Standard fuel drop:**1 drop or less per 12 minutes**

- (2) Turn the ignition switch off.
- (3) Disconnect the cable from the negative (-) battery terminal.
- (4) Remove the SST.
- (5) Disconnect the intelligent tester from the DLC3.
- (6) Reconnect the fuel inlet hose (rear fuel pipe) to the fuel main tube.

INSTALLATION**1. INSTALL FUEL INJECTOR ASSEMBLY**

- (a) Apply a light coat of gasoline or spindle oil to new O-rings, then install one onto each fuel injector.



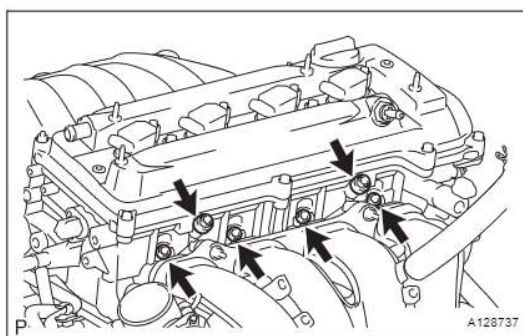
- (b) Apply a light coat of gasoline or spindle oil to the part of the fuel delivery pipe which comes into contact with the O-ring of the fuel injector.
- (c) Apply a light coat of gasoline or spindle oil to the O-ring again, then install the right and left fuel injectors onto the fuel delivery pipe.

NOTICE:**Make sure that the O-ring is not cracked or jammed before installing the injector.**

- (d) Check that the fuel injector rotates smoothly. If the fuel injector does not rotate, replace the O-ring.

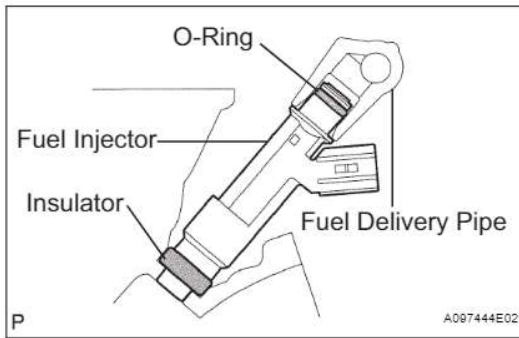
2. INSTALL FUEL DELIVERY PIPE WITH INJECTOR

- (a) Install 4 new insulators into the cylinder head.
- (b) Install the 2 delivery pipe spacers onto the cylinder head.



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2AZ-FE FUEL – FUEL INJECTOR



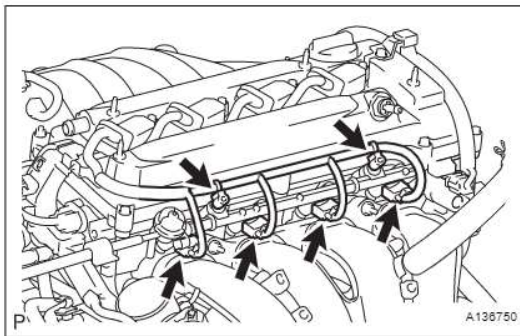
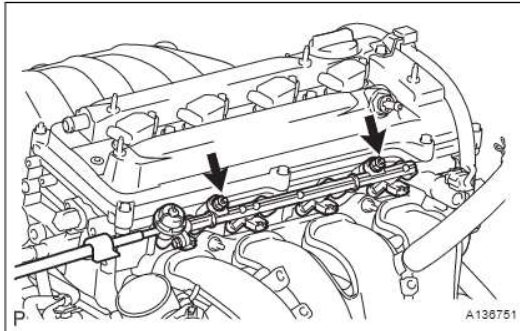
- (c) Install the fuel delivery pipe together with the 4 fuel injectors, then temporarily tighten the 2 bolts.

NOTICE:

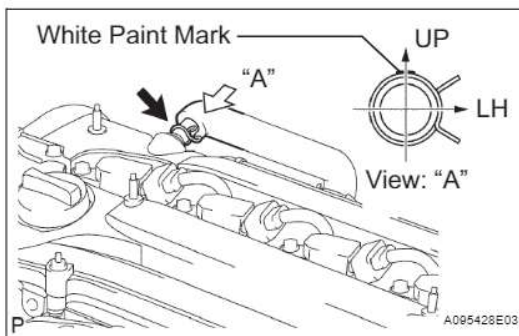
Be careful not to drop the fuel injectors when installing the fuel delivery pipe.

- (d) Check that the fuel injector rotates smoothly. If the fuel injector does not rotate smoothly, replace the O-ring.

- (e) Tighten the 2 bolts to the specified torque.
Torque: 20 N*m (204 kgf*cm, 15 ft.*lbf)



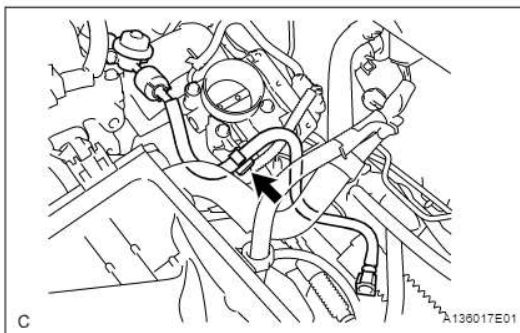
- (f) Connect the 4 fuel injector connectors.
(g) Install the 2 wire harness clamps.

**3. INSTALL NO. 2 VENTILATION HOSE**

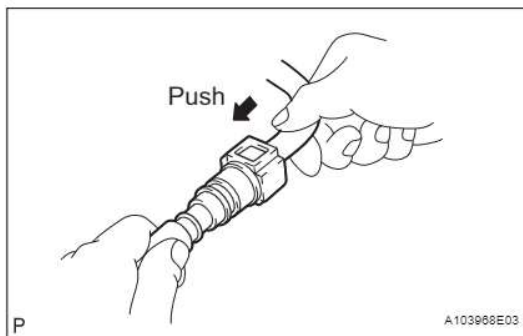
- (a) Connect the ventilation hose to the ventilation valve.

NOTICE:

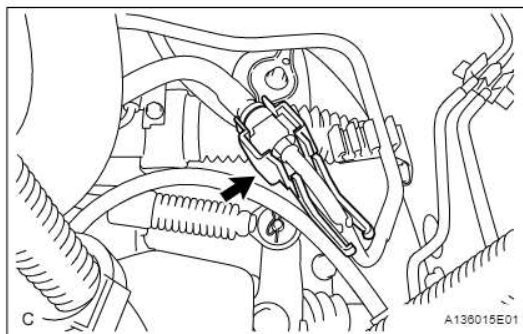
Make sure that the paint mark and hose clamp are positioned as shown in the illustration after connecting the hose.

**4. CONNECT FUEL TUBE SUB-ASSEMBLY**

- (a) Install the fuel tube to the fuel hose clamp.

2AZ-FE FUEL – FUEL INJECTOR**FU-17**

- (b) Push the fuel tube connector until it makes a "click" sound.



- (c) Install the No. 1 fuel pipe clamp.

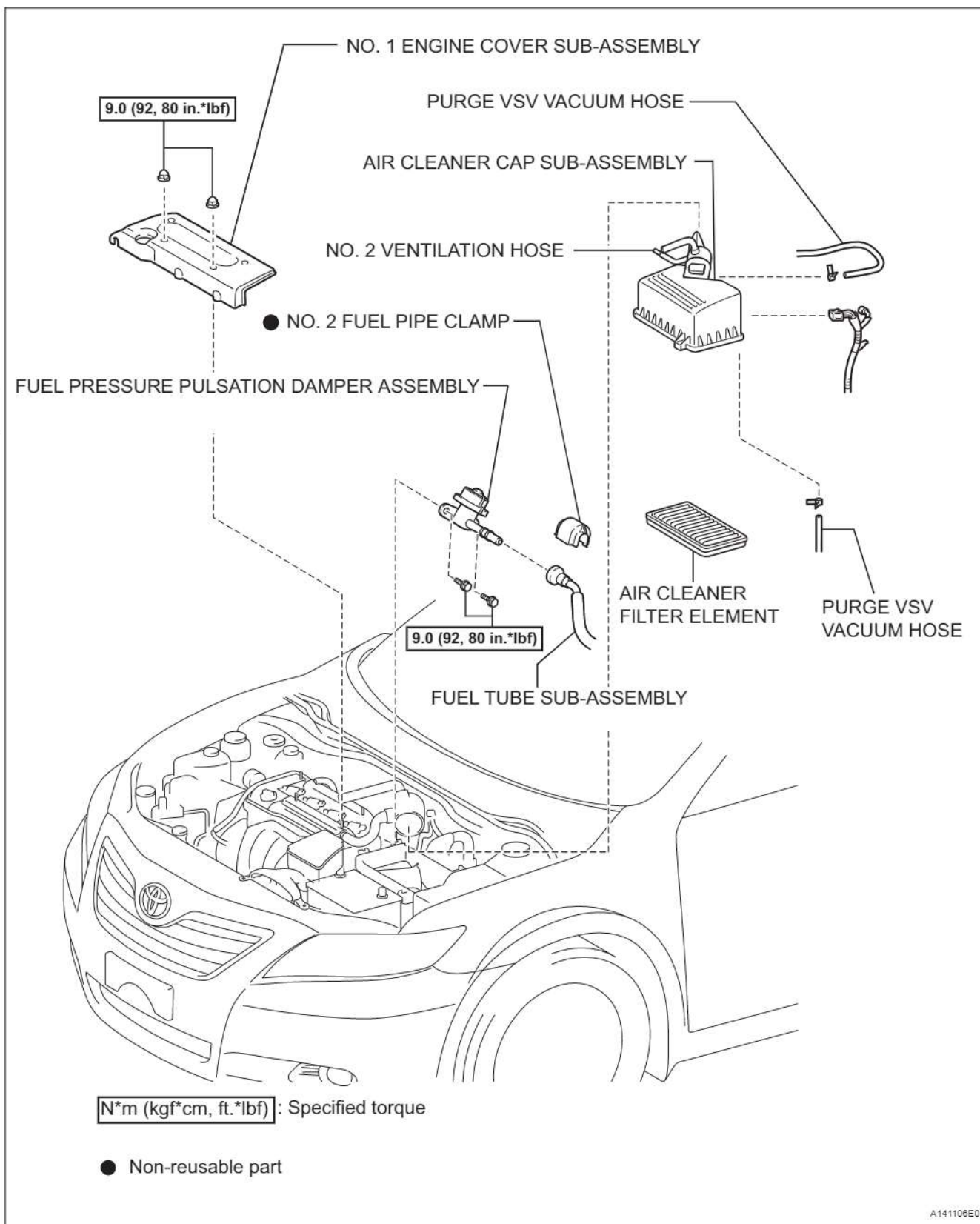
5. **INSTALL AIR CLEANER CAP SUB-ASSEMBLY** (See page [ES-419](#))
6. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
7. **CHECK FOR FUEL LEAKS**
HINT:
See page [FU-9](#).
8. **INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY** (See page [EM-121](#))

FU

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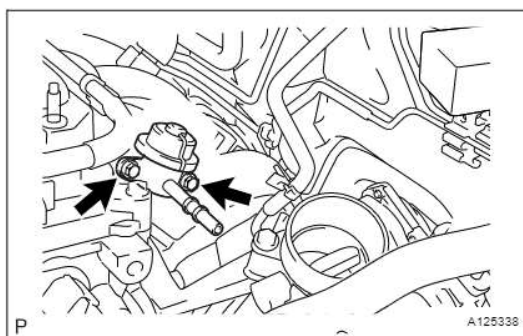
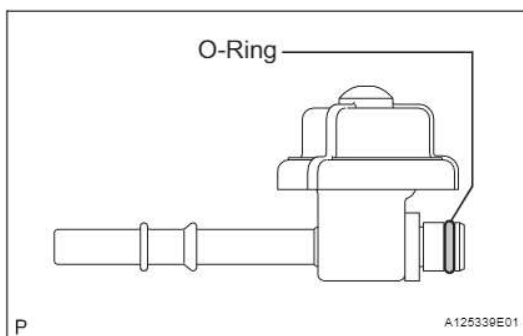
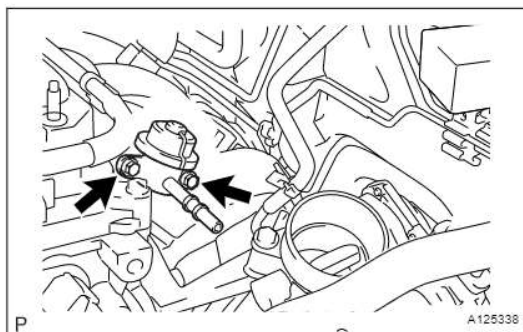
2AZ-FE FUEL – FUEL PRESSURE PULSATION DAMPER

FUEL PRESSURE PULSATION DAMPER COMPONENTS



REMOVAL

1. **DISCHARGE FUEL SYSTEM PRESSURE**
HINT:
See page [FU-1](#).
2. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
3. **REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY**
(See page [EM-94](#))
4. **REMOVE AIR CLEANER CAP SUB-ASSEMBLY** (See page [ES-416](#))
5. **DISCONNECT FUEL TUBE SUB-ASSEMBLY**
HINT:
Disconnect the metallic type connector (See page [FU-1](#)).
6. **REMOVE FUEL PRESSURE PULSATION DAMPER ASSEMBLY**
(a) Remove the 2 bolts and fuel pressure pulsation damper.



INSTALLATION

1. **INSTALL FUEL PRESSURE PULSATION DAMPER ASSEMBLY**
(a) Apply a light coat of gasoline or spindle oil to the O-ring of the fuel pressure pulsation damper.

(b) Install the fuel pressure pulsation damper with the 2 bolts.
Torque: 9.0 N*m (90 kgf*cm, 80 in.*lbf)
NOTICE:
Make sure that the O-ring is not cracked or jammed before installing the damper.
2. **INSTALL FUEL TUBE SUB-ASSEMBLY**
HINT:
Connect the metallic type connector (See page [FU-1](#)).
3. **INSTALL AIR CLEANER CAP SUB-ASSEMBLY** (See page [ES-419](#))
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

FU

FU-20**2AZ-FE FUEL – FUEL PRESSURE PULSATION DAMPER**

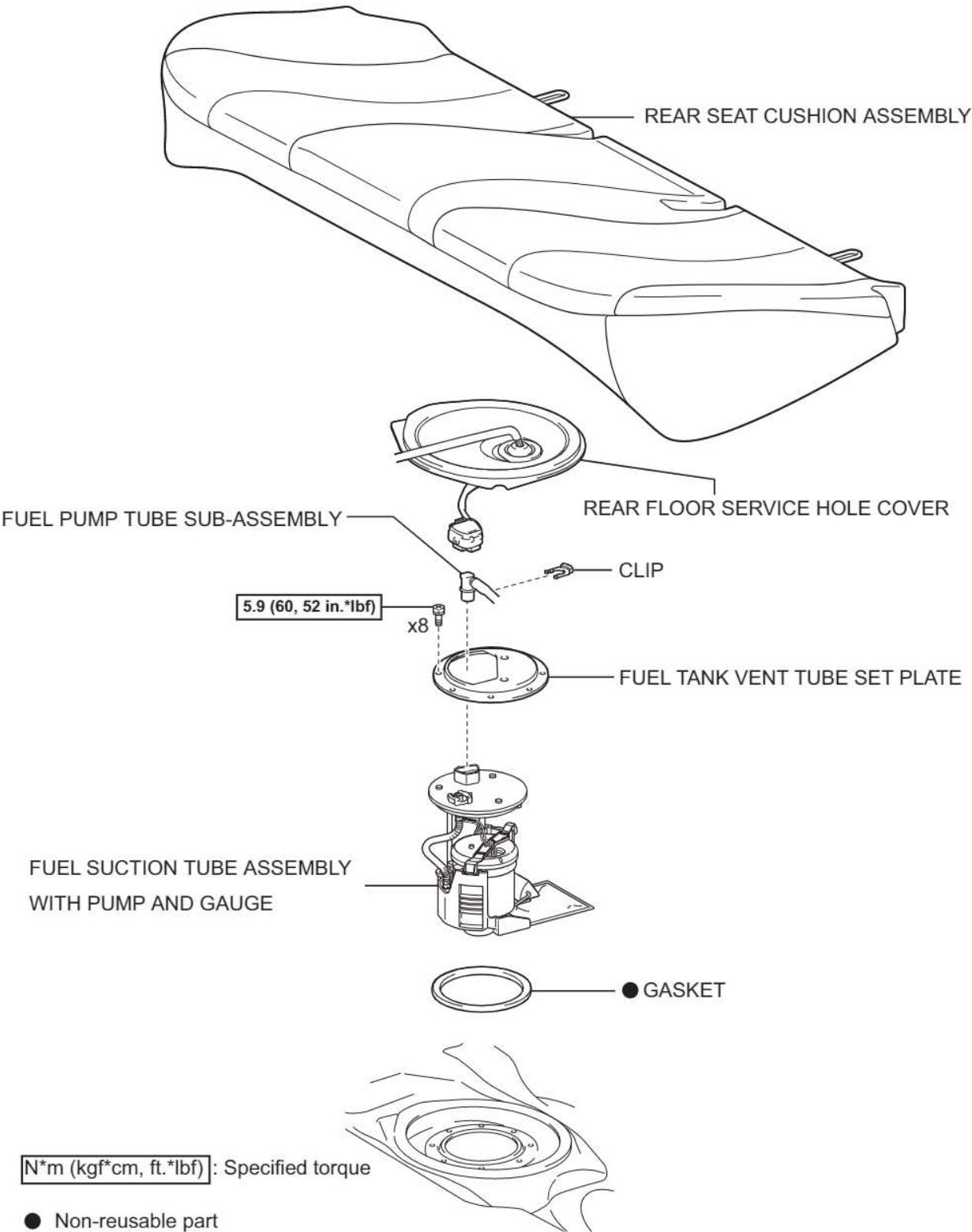
5. CHECK FOR FUEL LEAKS

HINT:

See page [FU-9](#).**6. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY
(See page [EM-121](#))****FU**

FUEL PUMP
COMPONENTS

FU



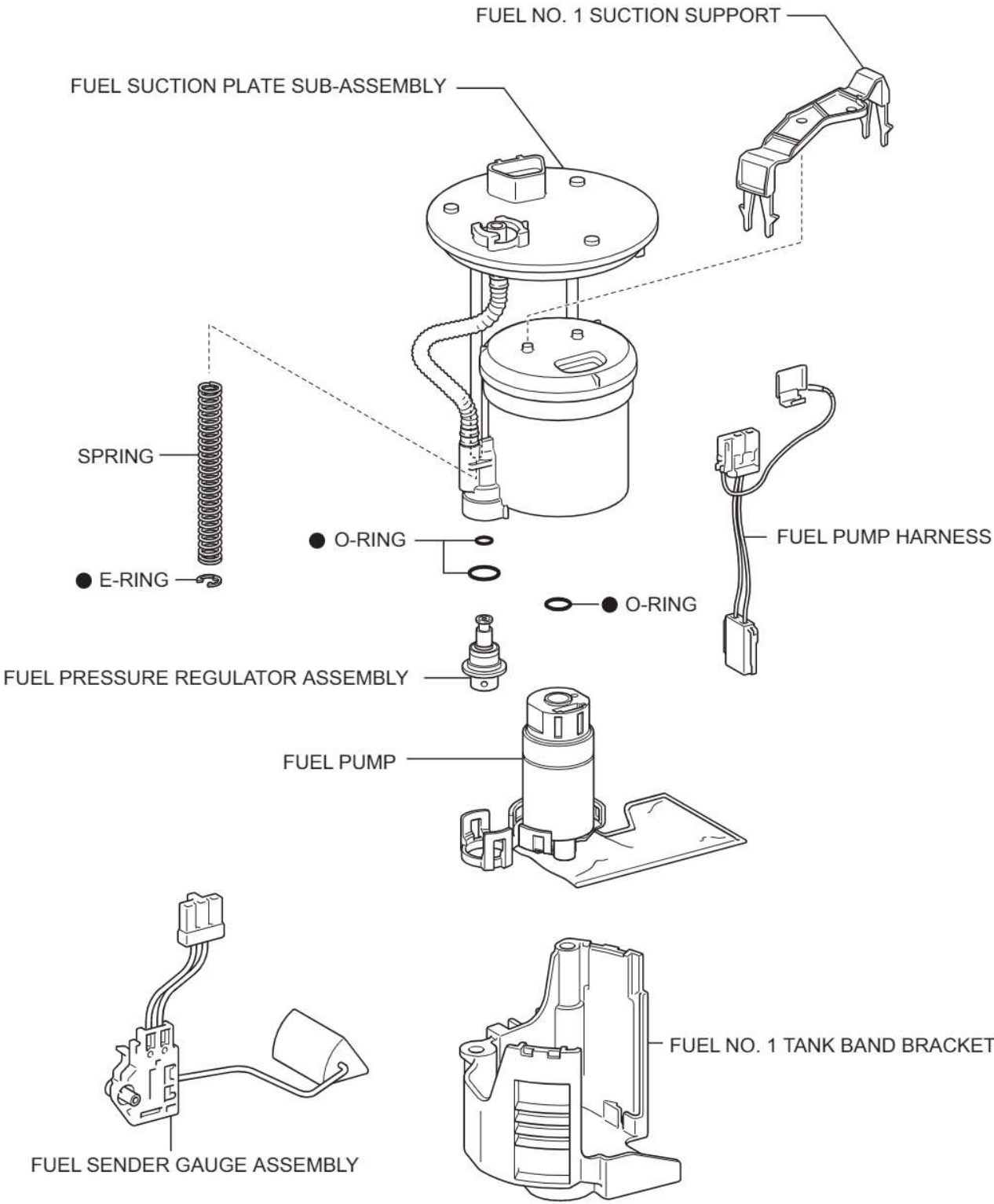
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2AZ-FE FUEL – FUEL PUMP

FU



REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

HINT:

See page [FU-1](#).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

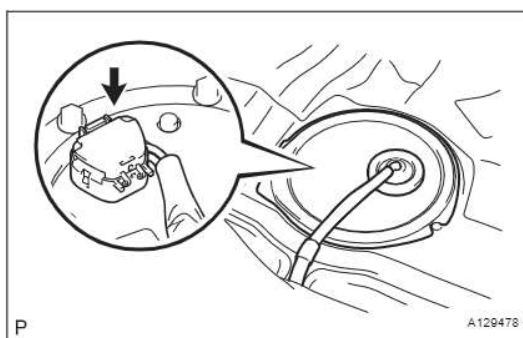
3. REMOVE REAR SEAT CUSHION ASSEMBLY (for Fixed Seat Type) (See page [SE-77](#))

4. REMOVE REAR SEAT CUSHION ASSEMBLY (for Fold Down Seat Type) (See page [SE-47](#))

5. REMOVE REAR SEAT CUSHION ASSEMBLY (for Reclining Seat Type) (See page [SE-62](#))

6. REMOVE REAR FLOOR SERVICE HOLE COVER

- Remove the rear floor service hole cover.
- Disconnect the fuel pump connector.



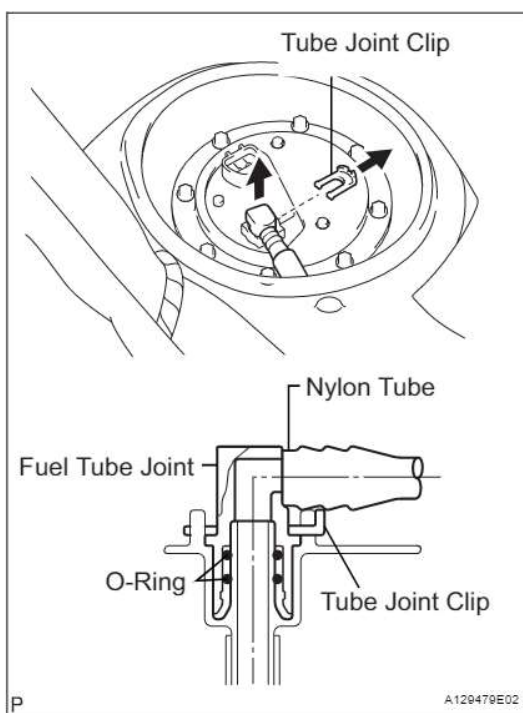
FU

7. SEPARATE FUEL PUMP TUBE SUB-ASSEMBLY

- Remove the tube joint clip, and pull out the fuel pump tube.

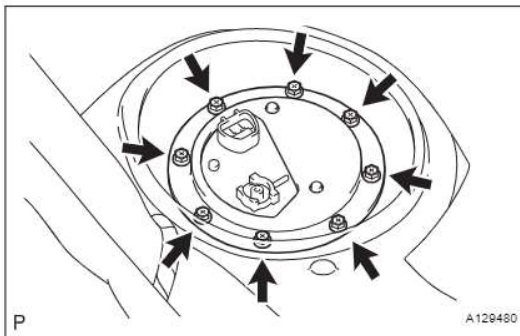
NOTICE:

- Check that there is no dirt around the fuel tube joint before this work and clean any dirt away.
- It is necessary to prevent mud or dirt from entering the fuel tube joint. If mud enters the joint, the O-rings may not seal the fuel tube connector and fuel suction plate properly.
- Do not use any tools in this work.
- Do not bend or twist the nylon tube.
- After disconnecting, cover the fuel tube joint with a plastic bag.
- If the fuel tube joint and fuel suction plate are stuck, pinch the fuel tank tube between fingers, and turn it carefully to release. Disconnect the fuel tank tube.

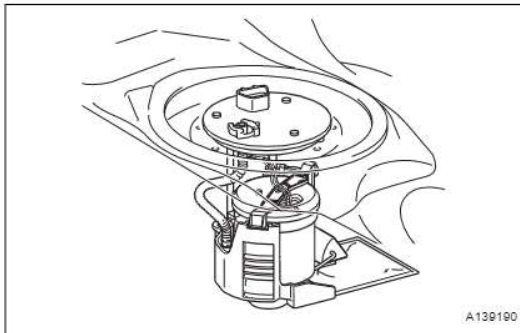


FU-24

2AZ-FE FUEL – FUEL PUMP

**8. REMOVE FUEL TANK VENT TUBE SET PLATE**

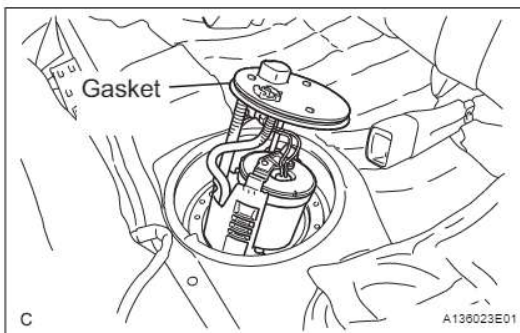
- (a) Remove the 8 bolts and set plate.

**9. REMOVE FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE**

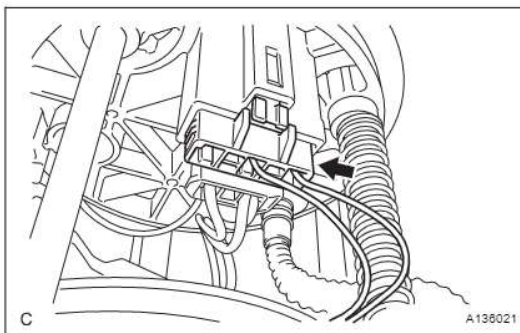
- (a) Pull out the fuel suction tube from the fuel tank.

NOTICE:

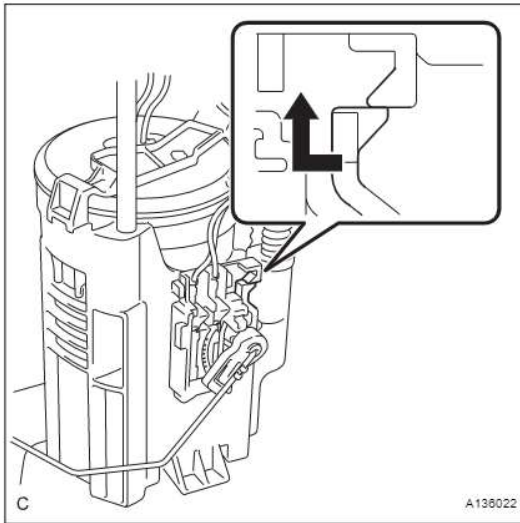
- Do not damage the fuel pump filter.
- Be careful that the arm of the sender gauge does not bend.



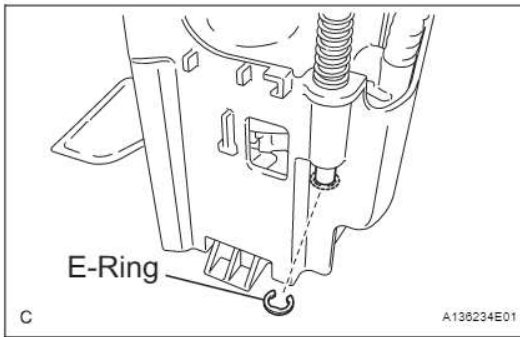
- (b) Remove the gasket from the fuel suction tube.

**DISASSEMBLY****1. REMOVE FUEL SENDER GAUGE ASSEMBLY**

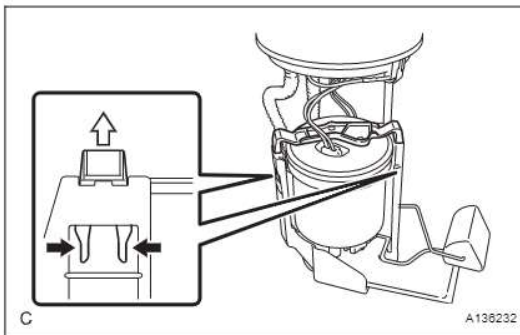
- (a) Disconnect the fuel sender gauge connector.

2AZ-FE FUEL – FUEL PUMP**FU-25**

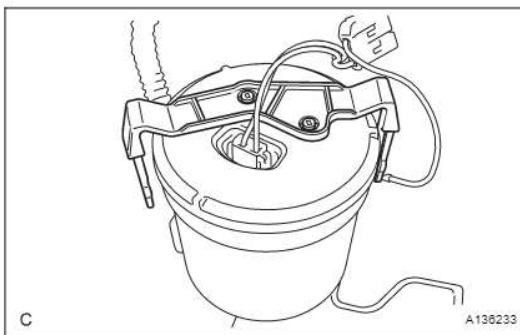
- (b) Unlock the fuel sender gauge, and slide it to remove.

**2. REMOVE FUEL NO. 1 TANK BAND BRACKET**

- (a) Using needle nozzle pliers, remove the E-ring.



- (b) Disengage the 4 claws of the fuel No. 1 suction support and remove the fuel No. 1 tank band bracket from the fuel suction plate with the fuel filter.
(c) Remove the spring from the fuel suction plate.

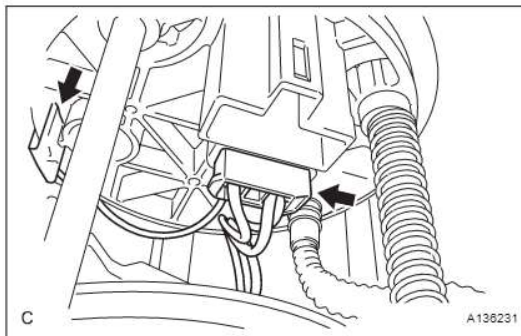
**3. REMOVE FUEL NO. 1 SUCTION SUPPORT**

- (a) Using a screwdriver with the tip taped, disengage the claw and remove the fuel No. 1 suction support.

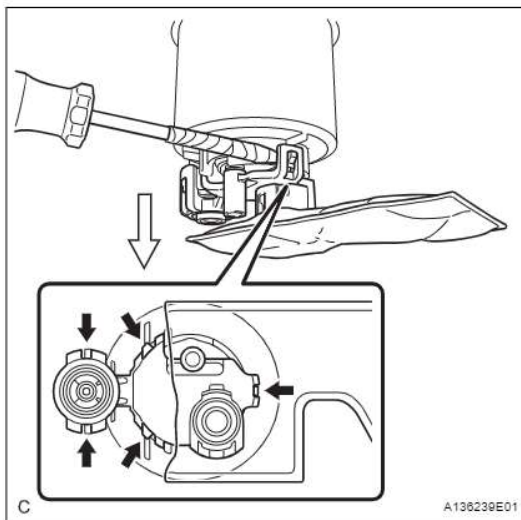
FU

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2AZ-FE FUEL – FUEL PUMP

**4. DISCONNECT FUEL PUMP HARNESS**

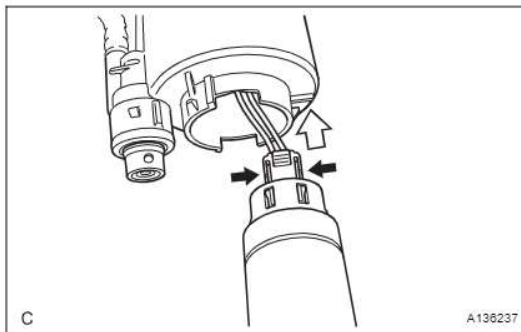
- (a) Disconnect the fuel pump harness connector from the fuel suction plate.

**5. REMOVE FUEL PUMP**

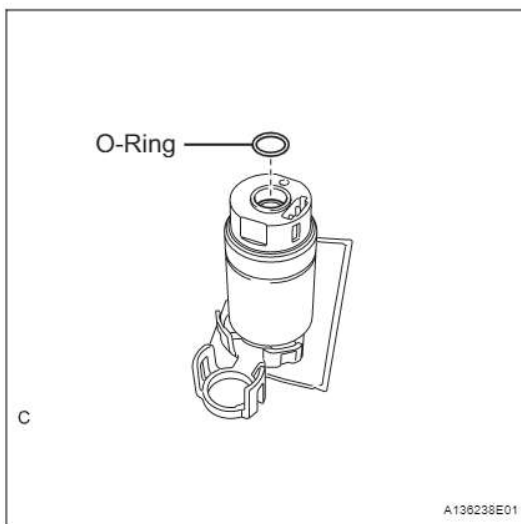
- (a) Using a screwdriver with its tip taped, disengage the 5 claws and pull out the fuel pump from the fuel filter assembly.

NOTICE:

- Do not damage the fuel pump filter.
- Do not remove the suction filter.



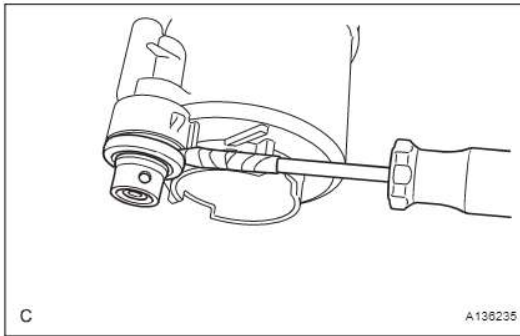
- (b) Remove the fuel pump harness connector.



- (c) Remove the O-ring from the fuel pump.

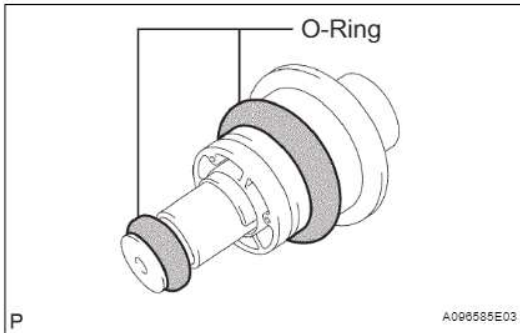
2AZ-FE FUEL – FUEL PUMP

FU-27

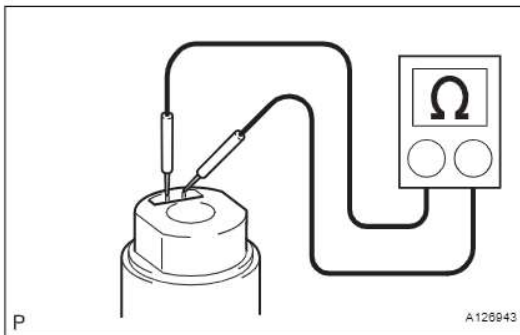


6. REMOVE FUEL PRESSURE REGULATOR ASSEMBLY

- (a) Using a screwdriver with its tip taped, remove the fuel pressure regulator from the fuel filter.



- (b) Remove the 2 O-rings from the fuel pressure regulator.



INSPECTION

1. INSPECT FUEL PUMP

- (a) Check the fuel pump resistance.
- (1) Measure the resistance between terminals 1 and 2.
Standard resistance:
0.2 to 3.0 Ω at 20°C (68°F)
 If the result is not as specified, replace the fuel pump.

- (b) Check fuel pump operation.
- (1) Apply battery voltage to terminals 1 and 2.
 Check that the pump operates.

NOTICE:

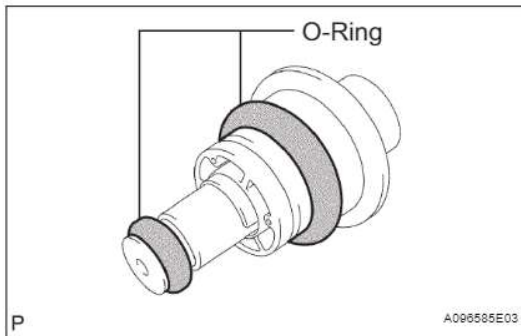
- **These tests must be completed within 10 seconds to prevent the coil from burning out.**
- **Keep the fuel pump as far away from the battery as possible.**
- **Always switch the voltage on and off on the battery side, not on the fuel pump side.**

If the pump does not operate, replace the fuel pump.

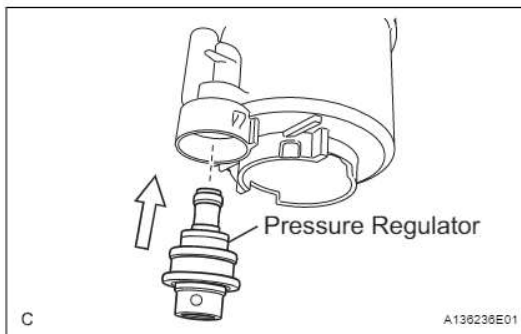
FU

FU-28

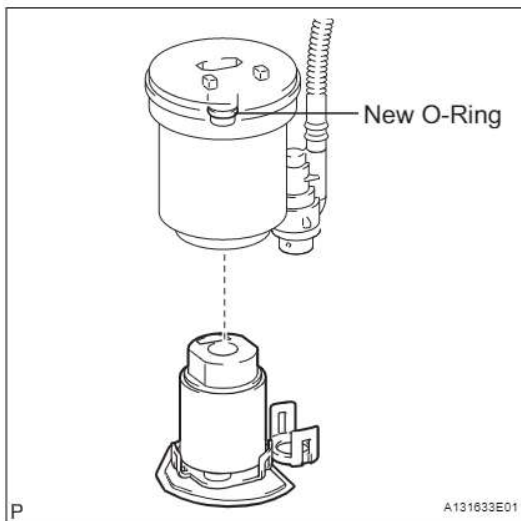
2AZ-FE FUEL – FUEL PUMP

**REASSEMBLY****1. INSTALL FUEL PRESSURE REGULATOR ASSEMBLY**

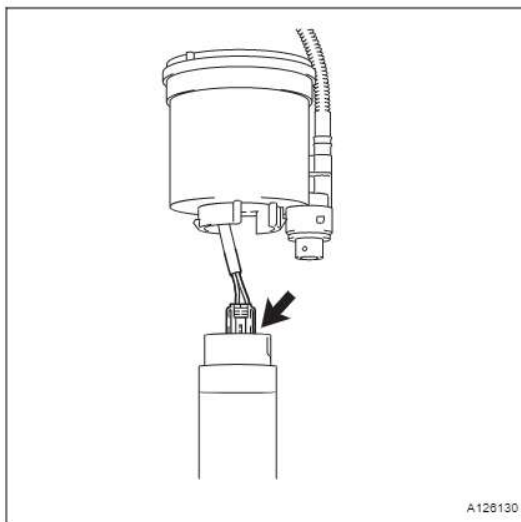
- (a) Apply a light coat of gasoline to 2 new O-rings, and install them to the fuel pressure regulator.



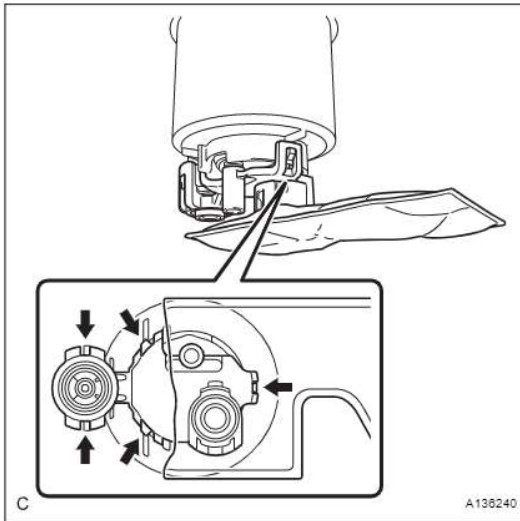
- (b) Install the fuel pressure regulator to the fuel filter.

**2. INSTALL FUEL PUMP**

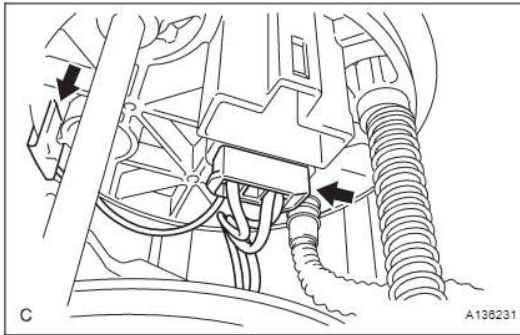
- (a) Apply gasoline to a new O-ring and install it to the fuel filter.



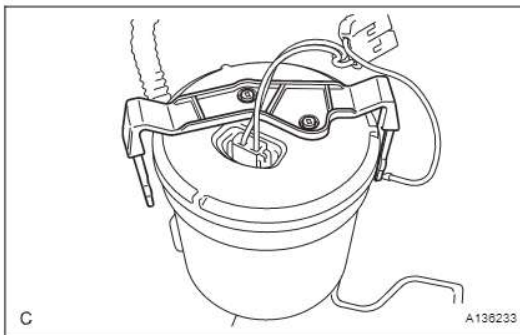
- (b) Connect the fuel pump harness connector.

2AZ-FE FUEL – FUEL PUMP**FU-29**

- (c) Engage the 5 claws on the fuel filter and install the fuel pump with the pump filter.

**3. CONNECT FUEL PUMP HARNESS**

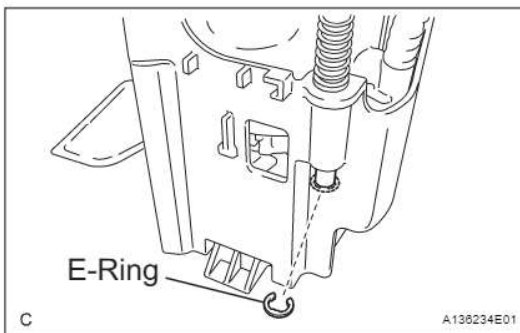
- (a) Connect the fuel pump harness connector from the fuel suction plate.

**4. INSTALL FUEL NO. 1 SUCTION SUPPORT**

- (a) Install the fuel No. 1 suction support to the fuel filter.

5. INSTALL FUEL NO. 1 TANK BAND BRACKET

- (a) Install the spring to the fuel suction plate shaft and install them to the fuel No. 1 tank band bracket.
 (b) Engage the 4 claws of the fuel No. 1 suction support and install the fuel No. 1 tank band bracket to the fuel suction plate with the fuel filter.

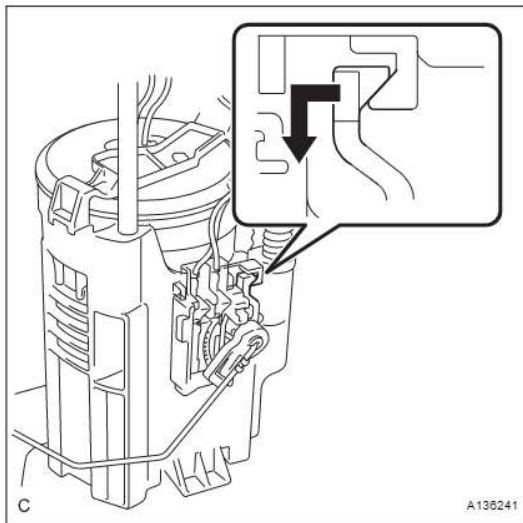


- (c) Install a new E-ring.

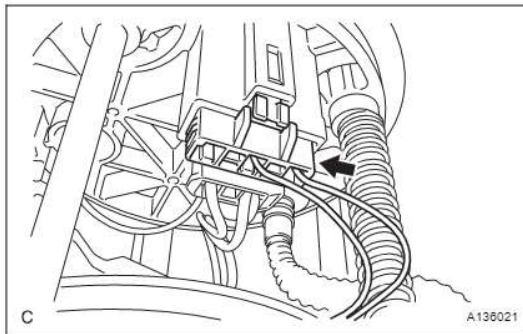
FU

FU-30

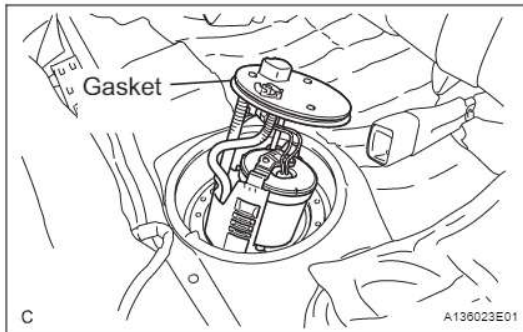
2AZ-FE FUEL – FUEL PUMP

**6. INSTALL FUEL SENDER GAUGE ASSEMBLY**

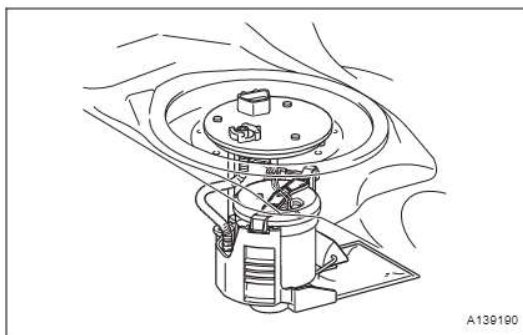
- (a) Slide the fuel sender gauge to engage the claw.



- (b) Connect the fuel sender gauge connector.

**INSTALLATION****1. INSTALL FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE**

- (a) Install a new gasket to the fuel suction tube.



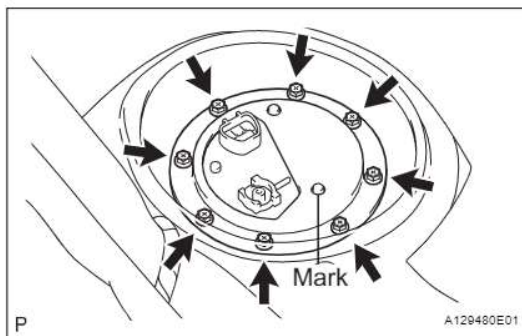
- (b) Install the fuel suction tube.

NOTICE:

- Do not damage the fuel pump filter.
- Be careful that the arm of the sender gauge does not bend.

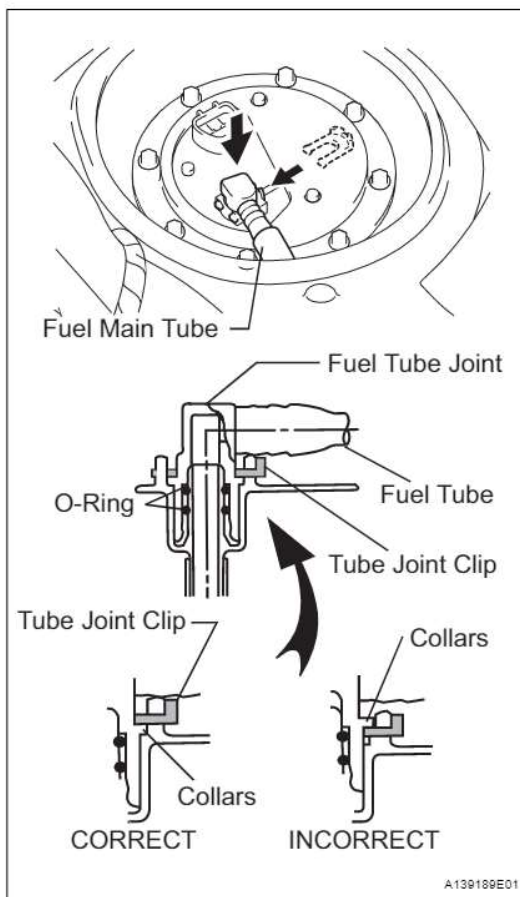
2AZ-FE FUEL – FUEL PUMP

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2. INSTALL FUEL TANK VENT TUBE SET PLATE

- (a) Align the mark of the set plate with the fuel suction tube.
- (b) Install the set plate with the 8 bolts.
Torque: 5.9 N*m (60 kgf*cm, 52 in.*lbf)



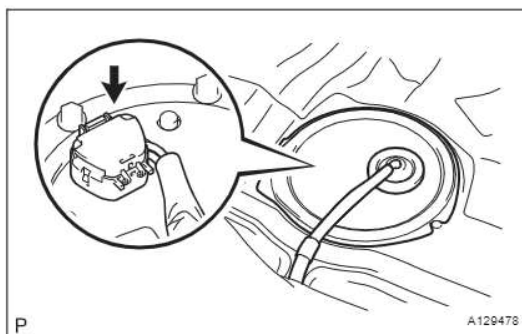
3. CONNECT FUEL PUMP TUBE SUB-ASSEMBLY

- (a) Install the fuel pump tube with the tube joint clip.

NOTICE:

- Check that there are no scratches or foreign objects on the connecting part.
- Check that the fuel tube joint is inserted securely.
- Check that the tube joint clip is on the collar of the fuel tube joint.
- After installing the tube joint clip, check that the fuel tube joint is pulled off.

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

5. CHECK FOR FUEL LEAKS (See page [FU-8](#))

6. INSTALL REAR FLOOR SERVICE HOLE COVER

- (a) Connect the fuel pump connector.
- (b) Install the rear floor service hole cover with new butyl tape.

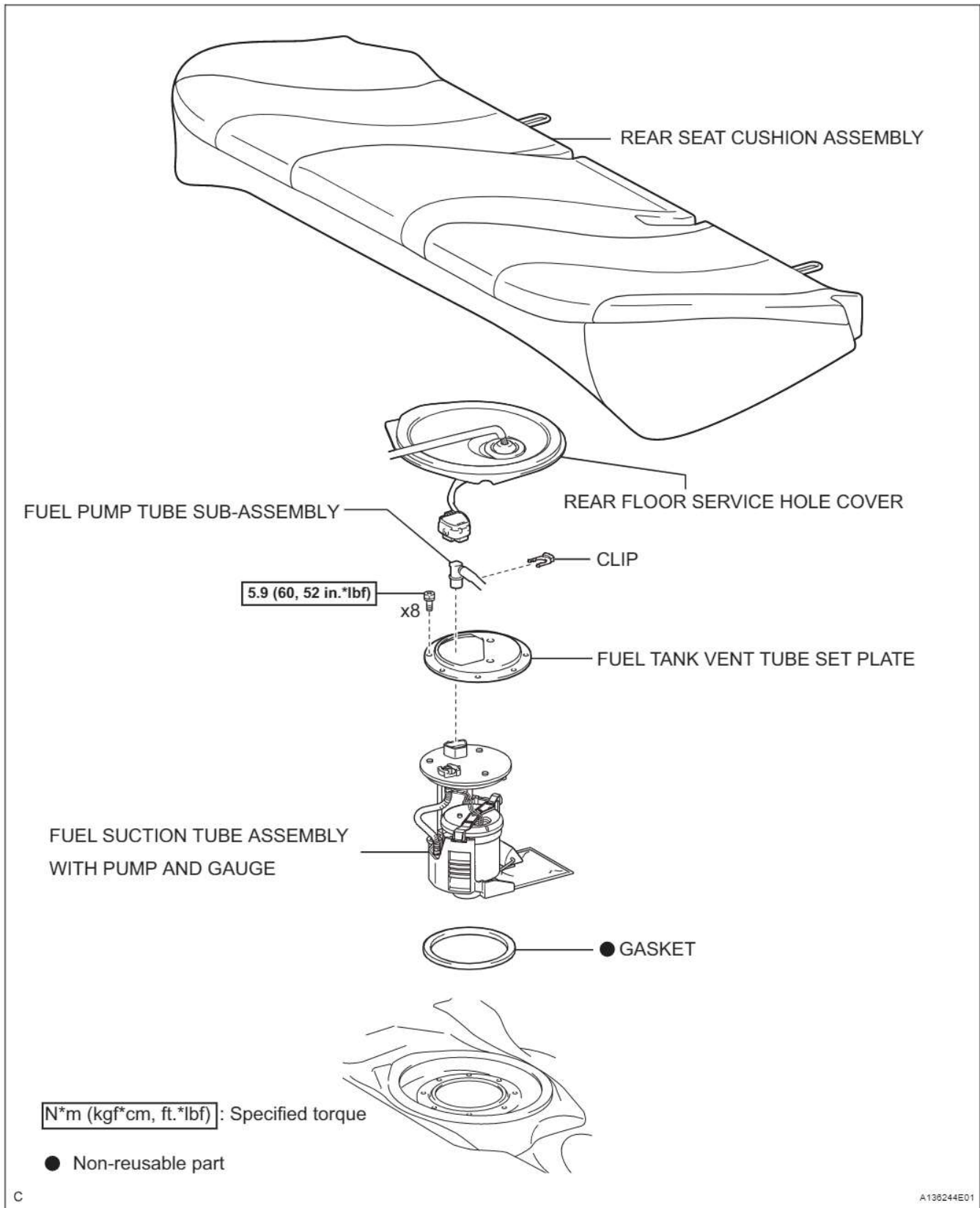
7. INSTALL REAR SEAT CUSHION ASSEMBLY (for Fixed Seat Type) (See page [SE-84](#))8. INSTALL REAR SEAT CUSHION ASSEMBLY (for Fold Down Seat Type) (See page [SE-58](#))9. INSTALL REAR SEAT CUSHION ASSEMBLY (for Reclining Seat Type) (See page [SE-73](#))

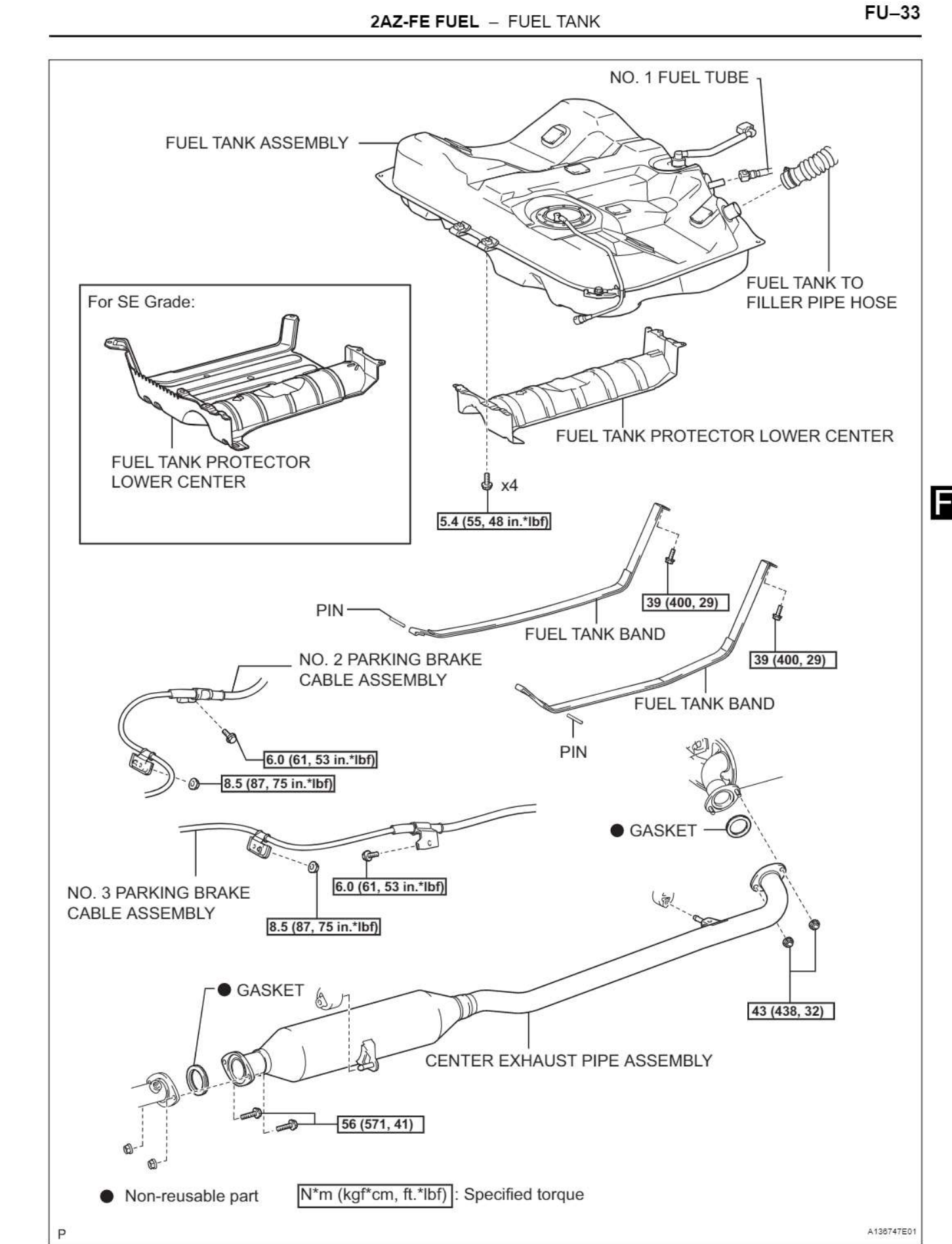
FU

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2AZ-FE FUEL – FUEL TANK

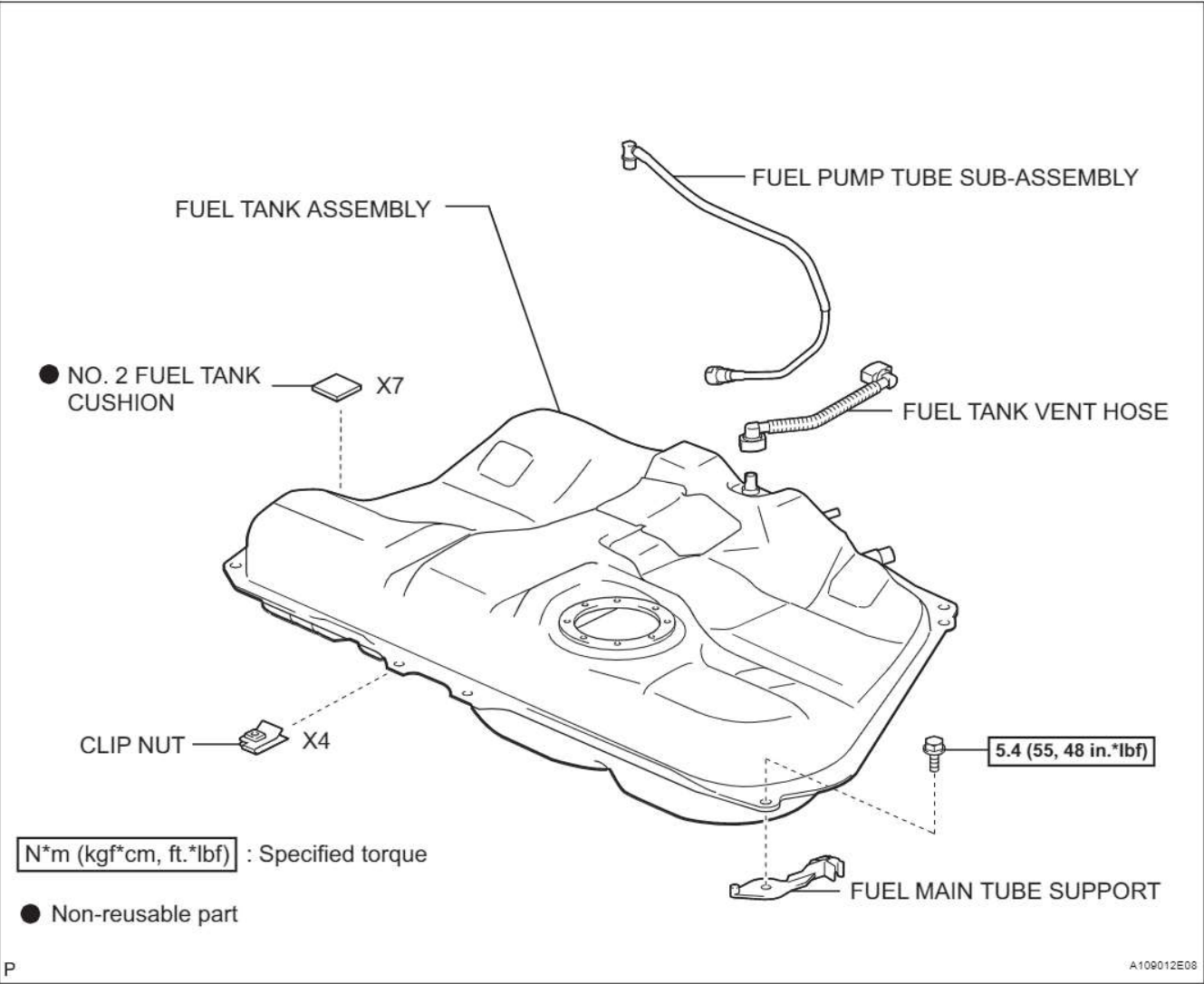
FUEL TANK COMPONENTS





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2AZ-FE FUEL – FUEL TANK



REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

HINT:

See page [FU-1](#).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

3. REMOVE REAR SEAT CUSHION ASSEMBLY (for Fixed Seat Type) (See page [SE-77](#))

4. REMOVE REAR SEAT CUSHION ASSEMBLY (for Fold Down Seat Type) (See page [SE-47](#))

5. REMOVE REAR SEAT CUSHION ASSEMBLY (for Reclining Seat Type) (See page [SE-62](#))

6. REMOVE REAR FLOOR SERVICE HOLE COVER (See page [FU-27](#))

7. SEPARATE FUEL PUMP TUBE SUB-ASSEMBLY (See page [FU-27](#))

8. REMOVE FUEL TANK VENT TUBE SET PLATE (See page [FU-28](#))

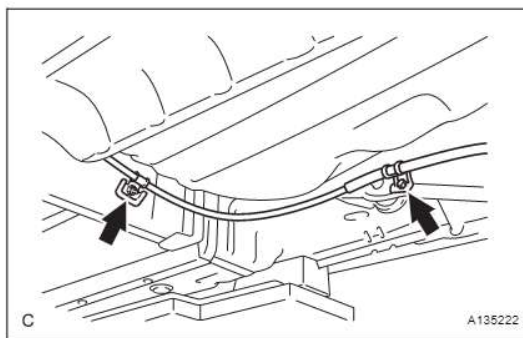
9. REMOVE FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE (See page [FU-28](#))

10. DRAIN FUEL

11. REMOVE CENTER EXHAUST PIPE ASSEMBLY (See page [EX-2](#))

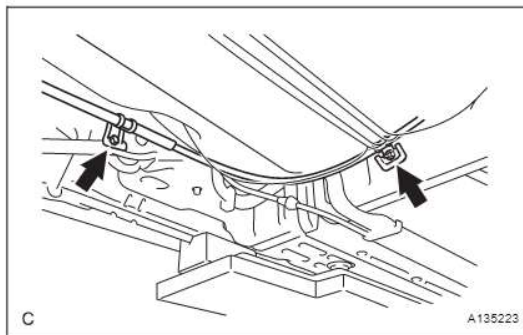
12. DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY

- (a) Remove the set bolt and set nut of the No. 2 parking brake cable assembly.



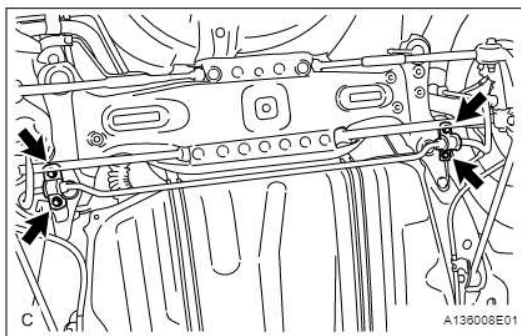
13. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY

- (a) Remove the set bolt and set nut of the No. 3 parking brake cable assembly.

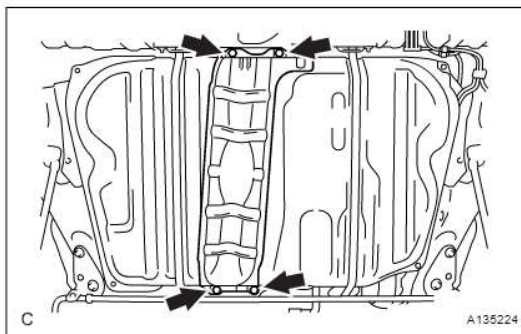
**FU**

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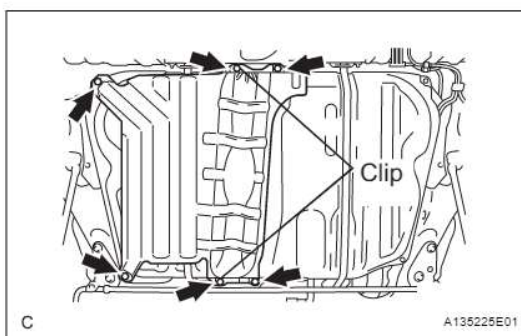
2AZ-FE FUEL – FUEL TANK

**14. REMOVE REAR STABILIZER BAR NO. 1 BRACKET**

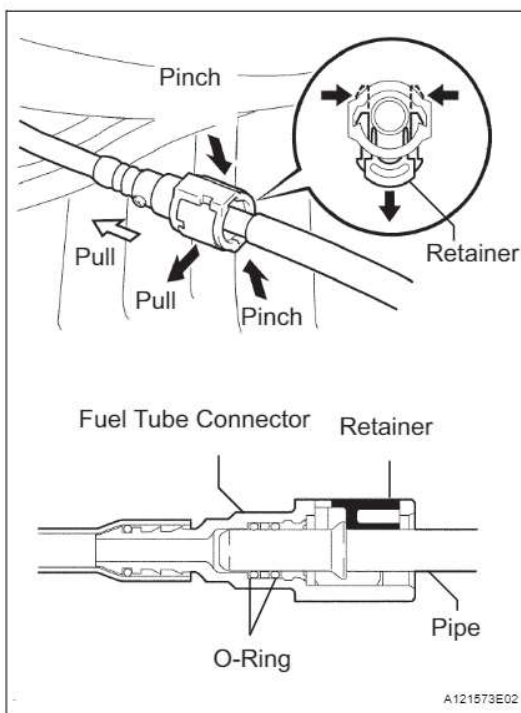
- (a) Remove the 4 bolts and 2 rear stabilizer bar No. 1 brackets.

**15. REMOVE FUEL TANK PROTECTOR LOWER CENTER**

- (a) Remove the 4 bolts and fuel tank protector (Except SE Grade).



- (b) Remove the 4 bolts and 2 clips (for SE Grade).
(c) Remove the fuel tank protector (for SE Grade).

**16. REMOVE FUEL TANK ASSEMBLY**

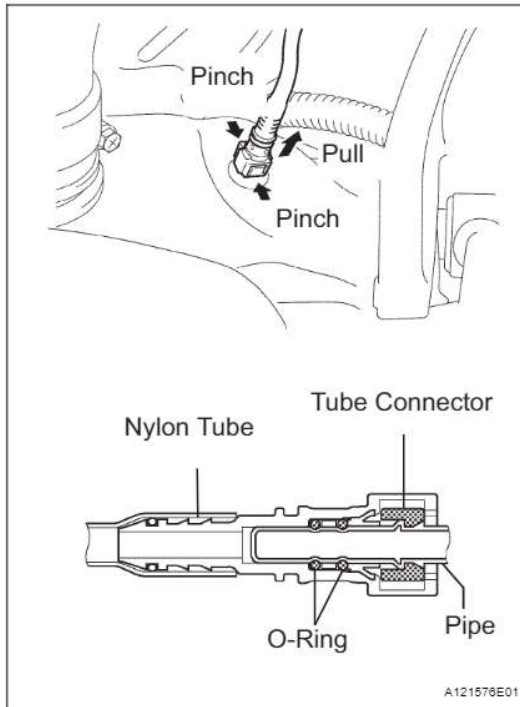
- (a) Disconnect the fuel pump tube.
(1) Pinch the tab of the retainer to disengage the lock claws and pull it down as shown in the illustration.
(2) Pull out the fuel tank main tube.

NOTICE:

- Check that there is no dirt or other foreign objects around the connector before this operation and clean the connector as necessary.
- It is necessary to prevent mud or dirt from entering the quick connector. If mud enters the connector, the O-rings may not seal properly.
- Remove the quick connector by hand.
- Do not bend or twist the nylon tube. Protect the connector by covering it with a plastic bag.

2AZ-FE FUEL – FUEL TANK

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- If the pipe and connector are stuck, try wiggling or pushing and pulling the connector to release it and pull the connector off of the pipe carefully.

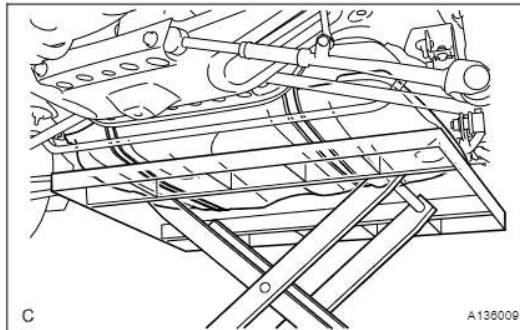
(b) Disconnect the No. 1 fuel tube.

- (1) Pinch the tube connector and then pull out the No. 1 fuel tube.

NOTICE:

- Check that there is no dirt or other foreign objects around the connector before this operation and clean the connector if necessary.
- It is necessary to prevent mud or dirt from entering the quick connector. If mud enters the connector, the O-rings may not seal properly.
- Remove the quick connector by hand.
- Do not bend or twist the nylon tube. Protect the connector by covering it with a plastic bag.
- If the pipe and connector are stuck, try wiggling or pushing and pulling the connector to release it and pull the connector off of the pipe carefully.

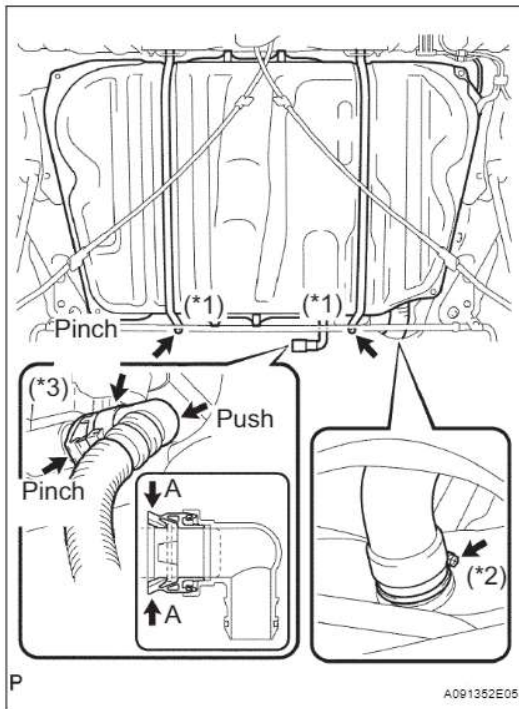
FU



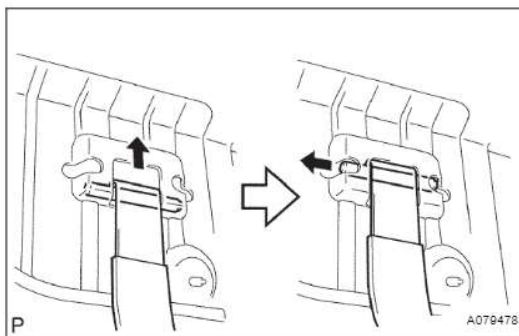
(c) Place a engine lifter under the fuel tank assembly.

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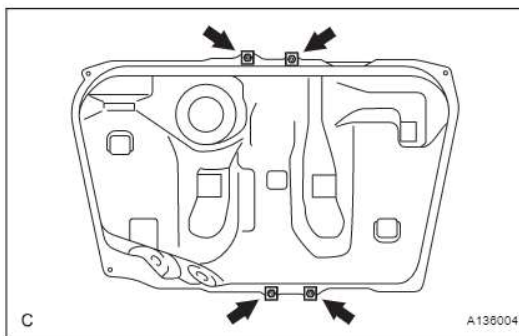
2AZ-FE FUEL – FUEL TANK



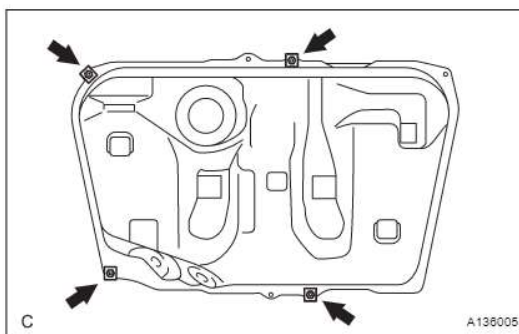
- (d) Remove the 2 set bolts of the fuel tank bands. (*1)
- (e) Remove the hose clamp and disconnect the fuel tank to filter pipe hose. (*2)
- (f) Slightly lower the transmission jack.
- (g) Disconnect the fuel tank vent hose from the charcoal canister. (*3)
 - (1) Push the connector deep into the charcoal canister to release the locking pin.
 - (2) Pinch portion A.
 - (3) Pull out the connector.
- (h) Remove the fuel tank.



- (i) Remove the 2 pins and 2 fuel tank bands as shown in the illustration.



- (j) Remove the 4 clip nuts (Except SE Grade).

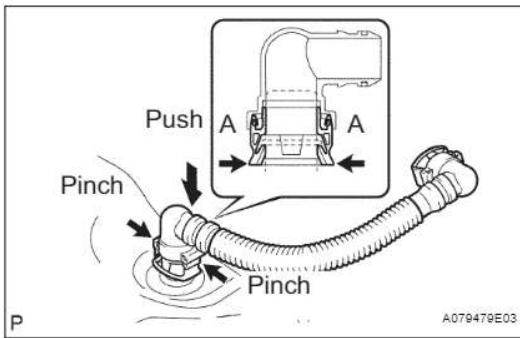


- (k) Remove the 4 clip nuts (for SE Grade).

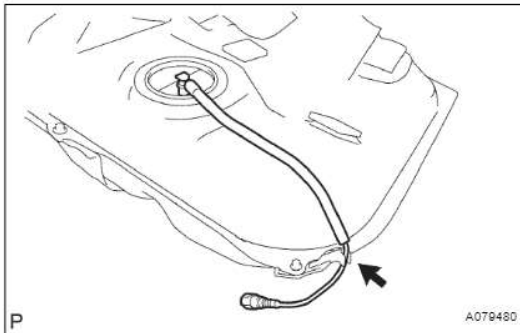
FU

2AZ-FE FUEL – FUEL TANK

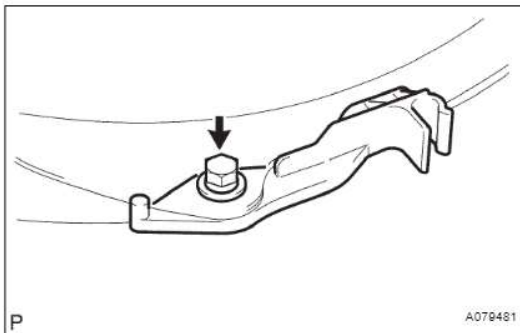
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**17. REMOVE FUEL TANK VENT HOSE**

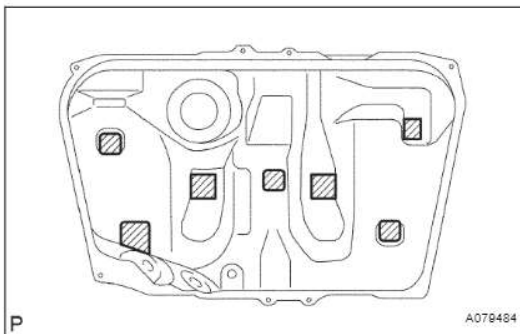
- (a) Push the connector deep into the charcoal canister to release the locking pin.
- (b) Pinch portion A.
- (c) Pull out the connector.

**18. REMOVE FUEL PUMP TUBE SUB-ASSEMBLY**

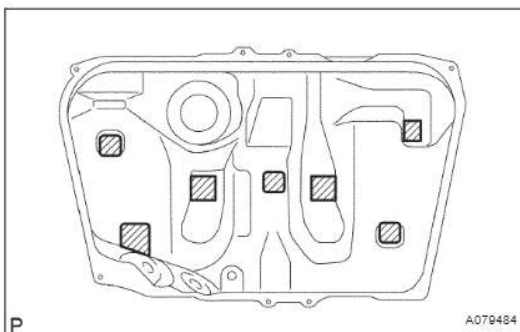
- (a) Remove the fuel pump tube from the fuel main tube support.

**19. REMOVE FUEL MAIN TUBE SUPPORT**

- (a) Remove the bolt and tube support.

**20. REMOVE NO. 2 FUEL TANK CUSHION**

- (a) Remove the 7 No. 2 fuel tank cushions.

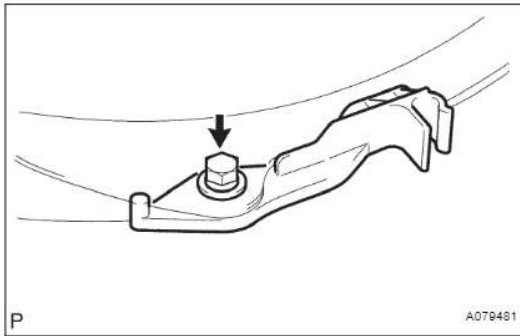
**INSTALLATION****1. INSTALL NO. 2 FUEL TANK CUSHION**

- (a) Install 7 new No. 2 fuel tank cushions to the fuel tank.

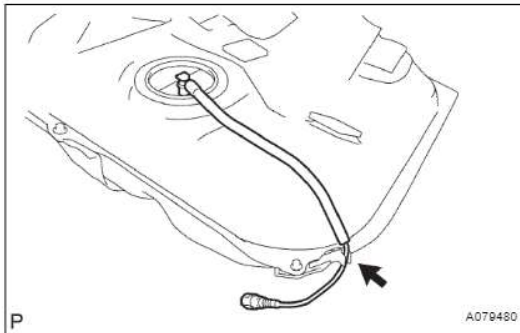
FU

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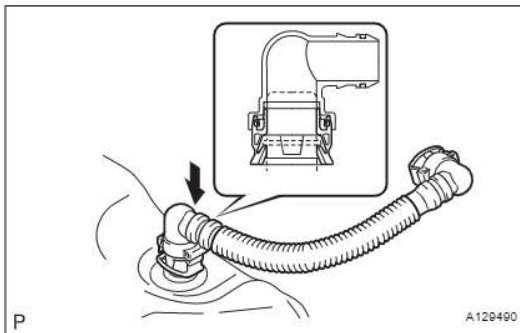
2AZ-FE FUEL – FUEL TANK

**2. INSTALL FUEL MAIN TUBE SUPPORT**

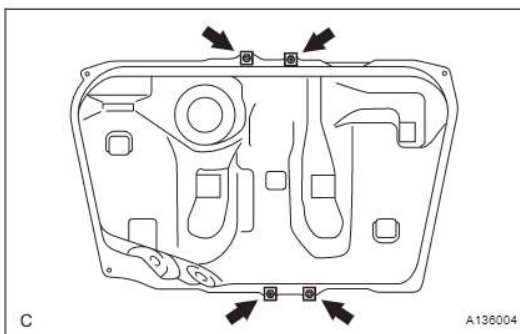
- (a) Install the fuel main tube support with the bolt.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

**3. INSTALL FUEL PUMP TUBE SUB-ASSEMBLY**

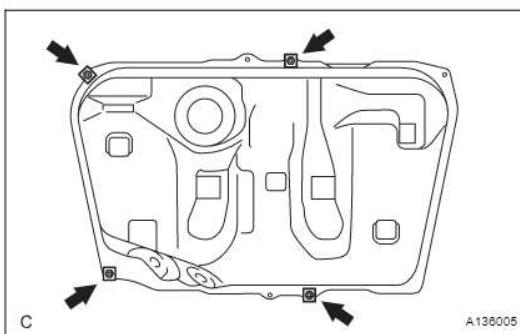
- (a) Install the fuel pump tube to the fuel main tube support.

**4. INSTALL FUEL TANK VENT HOSE**

- (a) Install the fuel tank vent hose.

**5. INSTALL FUEL TANK ASSEMBLY**

- (a) Install the 4 clip nuts (Except SE Grade).

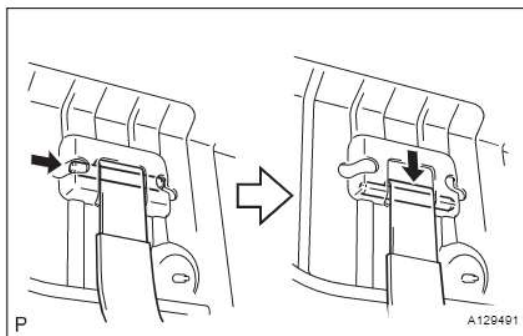


- (b) Install the 4 clip nuts (for SE Grade).

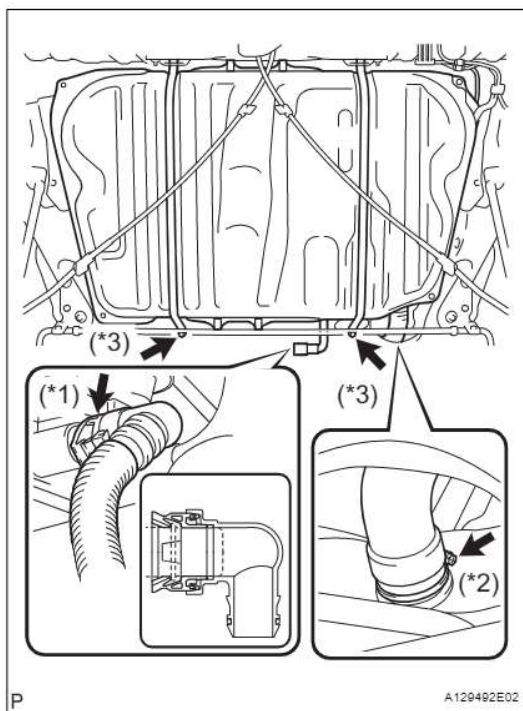
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- (c) Install the 2 fuel tank bands with the 2 pins.
- (d) Set the fuel tank assembly onto the transmission jack.



- (e) Raise the transmission jack so that the fuel tank vent hose can be connected. (*1)

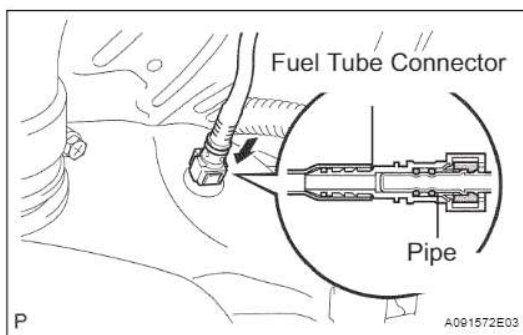
NOTICE:

Slowly raise the jack to prevent the fuel tank assembly from dropping.

- (f) Connect the fuel tank inlet pipe with the fuel filter pipe clamp. (*2)
- (g) Tighten the 2 set bolts of the fuel tank bands. (*3)

Torque: 39 N*m (400 kgf*cm, 29 ft.*lbf)

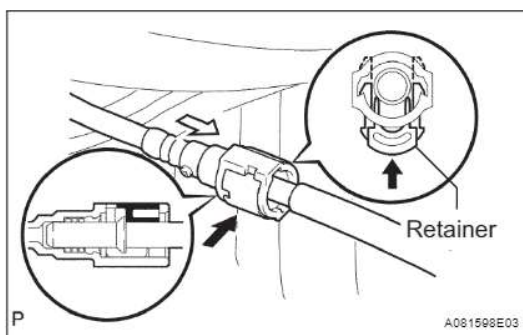
FU



- (h) Connect the No. 1 fuel tube.
- (1) Push the fuel tube connector into the pipe until the fuel tube connector makes a "click" sound.

NOTICE:

- Before connecting the tube, make sure that it is not damaged. Make sure that there is no dirt present on the connecting surfaces.
- After connecting, check if the fuel tube connector and the pipe are securely connected by pulling on them.



- (i) Connect the fuel pump tube.
- (1) Push the fuel connector into the pipe and push up the retainer so that the claws engage.

NOTICE:

- Before connecting the tube, make sure that it is not damaged. Make sure that there is no dirt present on the connecting surfaces.

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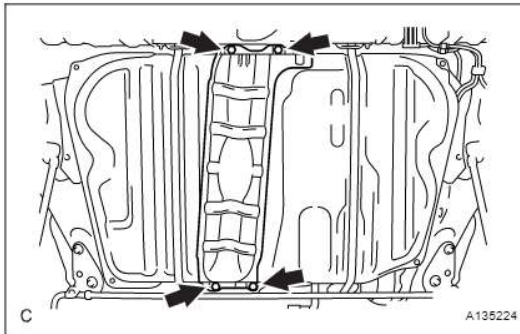
2AZ-FE FUEL – FUEL TANK

- After connecting, check if the fuel tube connector and the pipe are securely connected by pulling on them.

6. INSTALL FUEL TANK PROTECTOR LOWER CENTER

- (a) Install the 4 bolts and fuel tank protector (Except SE Grade).

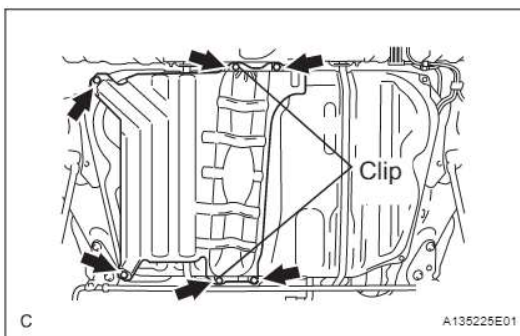
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)



- (b) Install the fuel tank protector with the 4 bolts and 2 clips (for SE Grade).

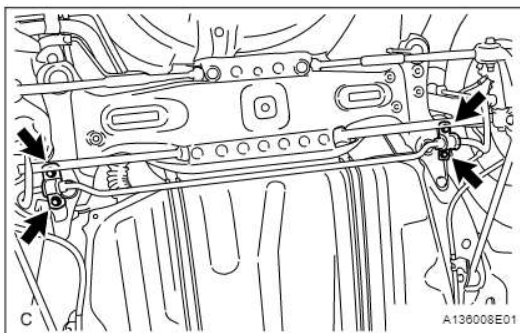
Torque: Bolt

5.4 N*m (55 kgf*cm, 48 in.*lbf)

**7. INSTALL REAR STABILIZER BAR NO. 1 BRACKET**

- (a) Install the 2 rear stabilizer bar No. 1 brackets with the 4 bolts.

Torque: 31 N*m (316 kgf*cm, 23 ft.*lbf)

**8. INSTALL NO. 3 PARKING BRAKE CABLE ASSEMBLY**

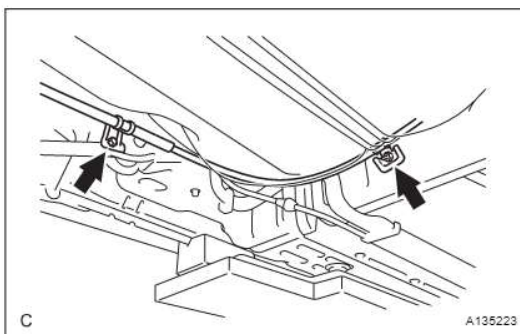
- (a) Install the No. 3 parking brake cable assembly with the bolt and nut.

Torque: Bolt

6.0 N*m (61 kgf*cm, 53 in.*lbf)

Nut

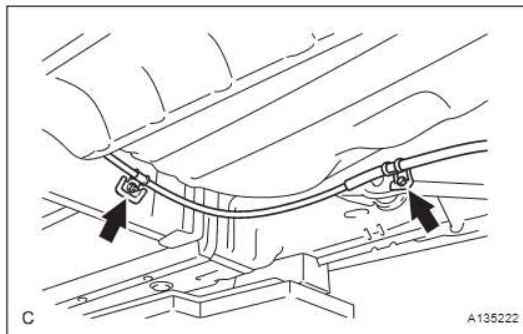
8.5 N*m (87 kgf*cm, 75 in.*lbf)



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**9. INSTALL NO. 2 PARKING BRAKE CABLE ASSEMBLY**

- (a) Install the No. 2 parking brake cable assembly with the bolt and nut.

Torque: Bolt**6.0 N*m (61 kgf*cm, 53 in.*lbf)****Nut****8.5 N*m (87 kgf*cm, 75 in.*lbf)****10. INSTALL CENTER EXHAUST PIPE ASSEMBLY (See page [EX-4](#))****11. INSTALL FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE (See page [FU-32](#))****12. INSTALL FUEL TANK VENT TUBE SET PLATE (See page [FU-32](#))****13. CONNECT FUEL PUMP TUBE SUB-ASSEMBLY (See page [FU-33](#))****14. ADD FUEL****15. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL****16. CHECK FOR FUEL LEAKS (See page [FU-8](#))****17. CHECK FOR EXHAUST GAS LEAKS****18. INSTALL REAR FLOOR SERVICE HOLE COVER****19. INSTALL REAR SEAT CUSHION ASSEMBLY (for Fixed Seat Type) (See page [SE-84](#))****20. INSTALL REAR SEAT CUSHION ASSEMBLY (for Fold Down Seat Type) (See page [SE-58](#))****21. INSTALL REAR SEAT CUSHION ASSEMBLY (for Reclining Seat Type) (See page [SE-73](#))****FU**