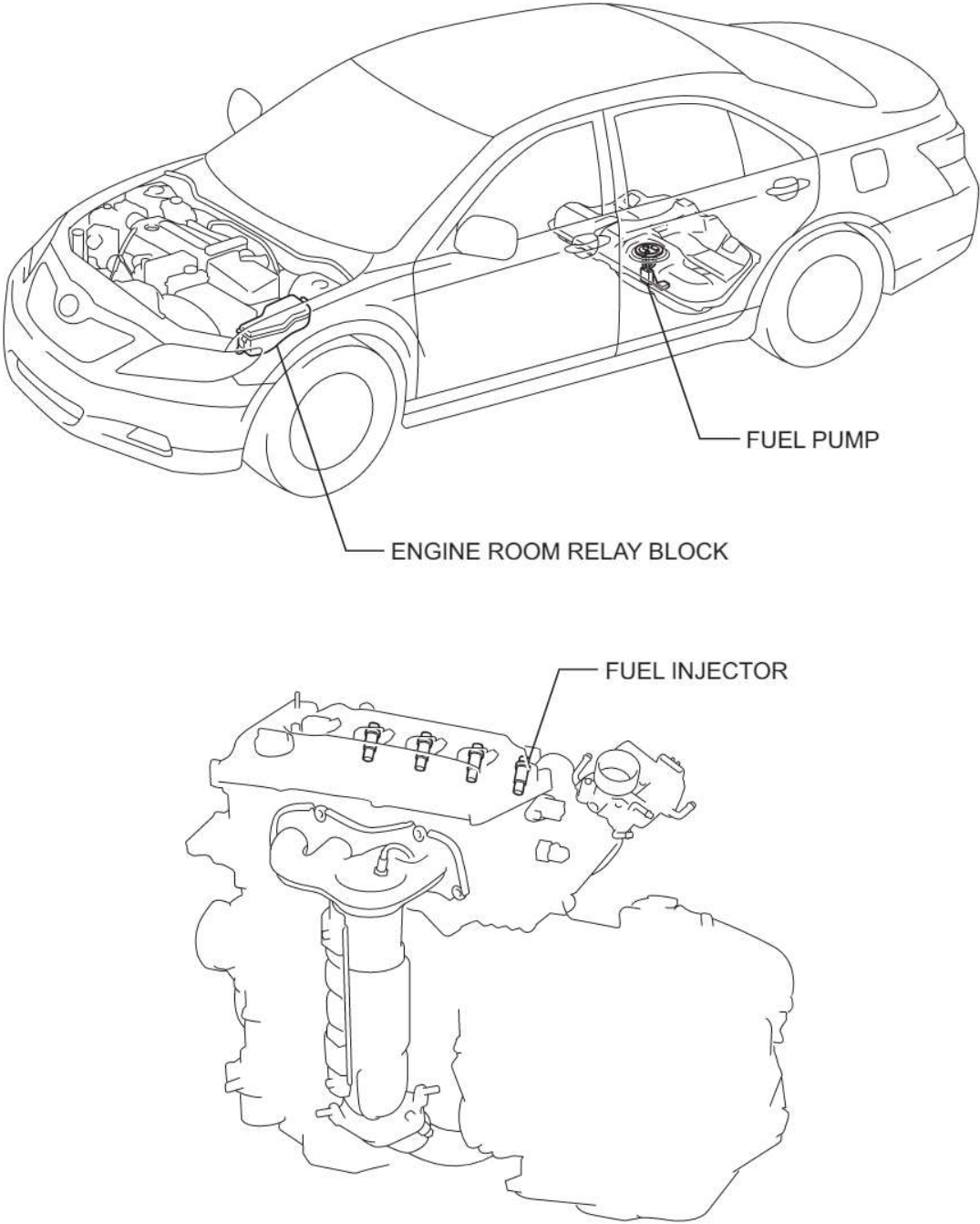


PARTS LOCATION

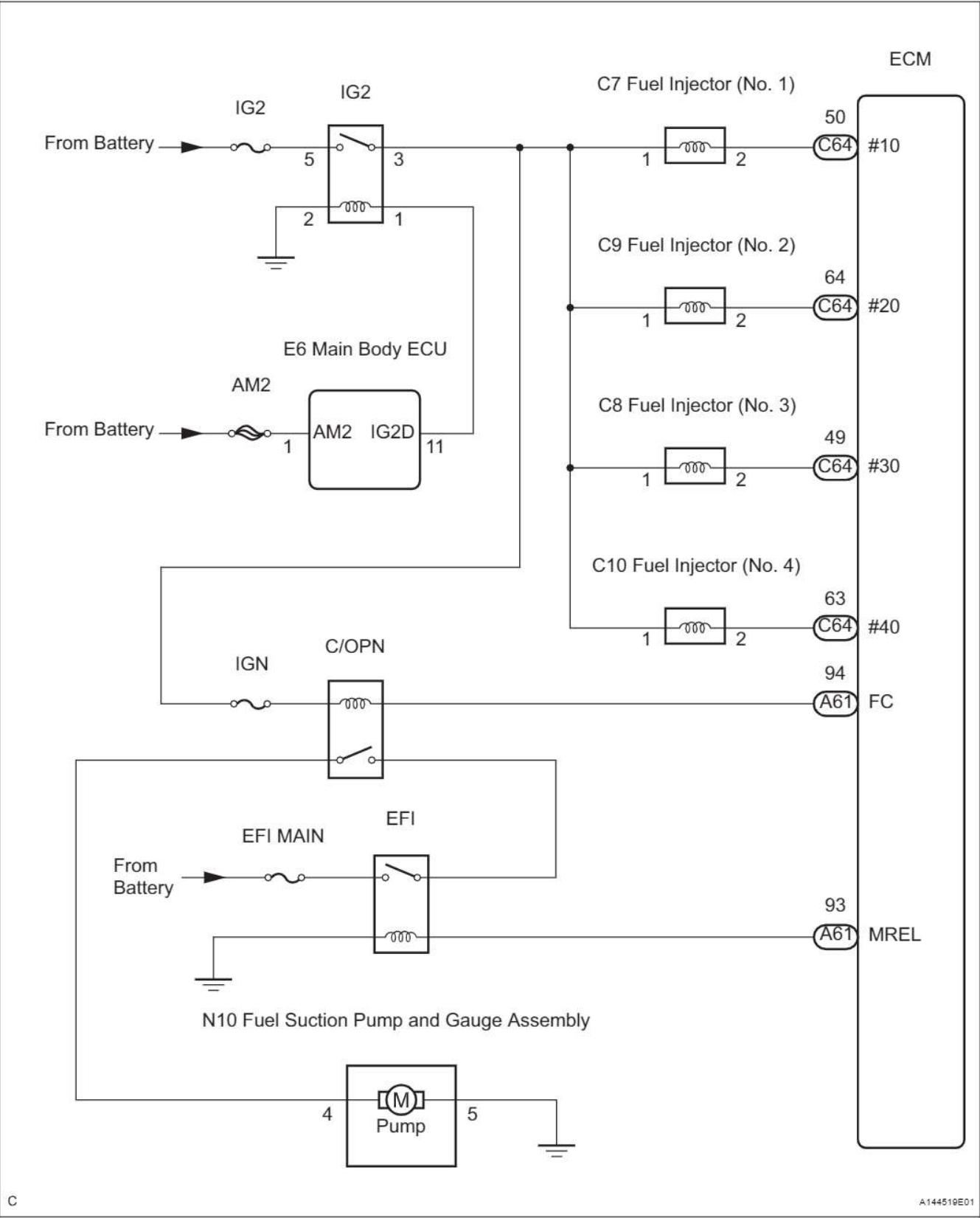


FU

FU-8

2AZ-FXE FUEL – FUEL SYSTEM

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 power switch on (IG) and turn the intelligent tester main switch on.

NOTICE:
Do not start the engine.

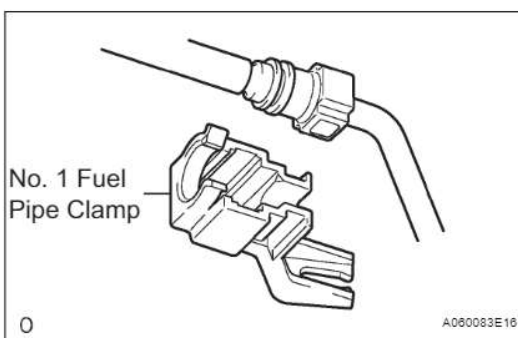
 - (3) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / FUEL PUMP / SPD.
- (b) Check the fuel pump operation.
 - (1) Check for pressure in the fuel inlet tube from the fuel line. Check that sound of fuel flowing in the fuel tank can be heard. If no sound can be heard, check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

2. CHECK FUEL PRESSURE

- (a) Check that the battery positive voltage is above 12 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.

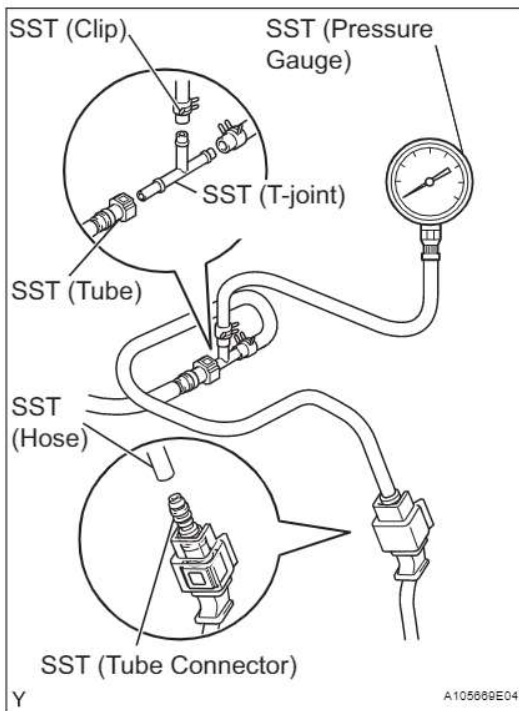
CAUTION:

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



FU-10

2AZ-FXE FUEL – FUEL SYSTEM



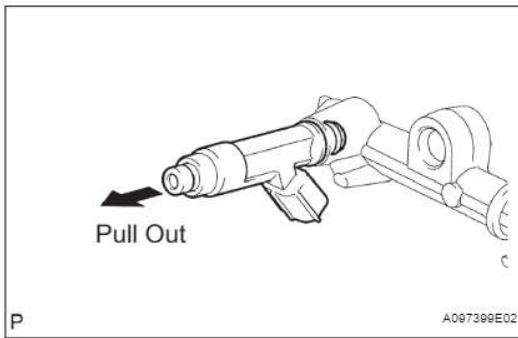
- (f) Install SST (pressure gauge) and the fuel tube connector using SST as shown in the illustration.
SST 09268-31011 (09268-41500, 90467-13001, 95336-08070), 09268-45014 (09268-41200, 09268-41220, 09268-41250)
- (g) Wipe up any gasoline.
- (h) Connect the cable to the negative (-) battery terminal.
- (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)
 If the pressure is not as specified, check the fuel pump, pressure regulator and/or injectors.
- (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).

3. PERFORM INITIALIZATION

- (a) Perform initialization procedure (See page IN-43).
HINT:
 Some systems need initialization after reconnecting the cable to the negative battery terminal.

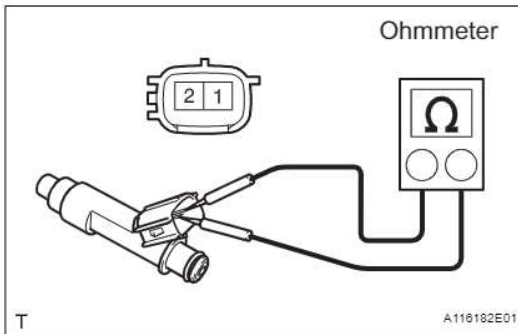
FU-14

2AZ-FXE FUEL – FUEL INJECTOR



8. REMOVE FUEL INJECTOR ASSEMBLY

- Pull out the 4 injectors from the delivery pipe.
- Remove the 4 O-rings from the injectors.



INSPECTION

1. INSPECT FUEL INJECTOR ASSEMBLY

- 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.

- Inspect the injector injection volume.

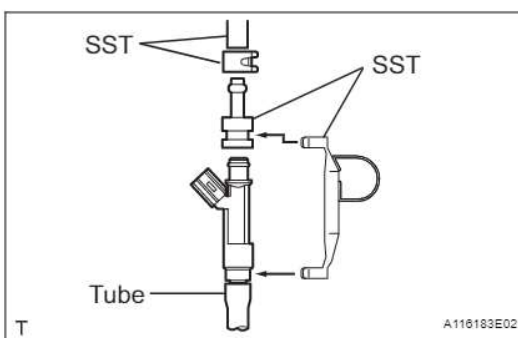
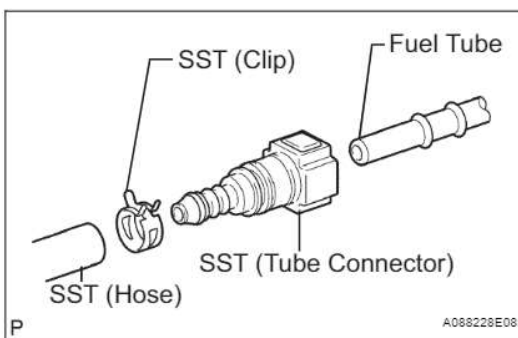
CAUTION:

Keep the injector away from sparks during this test.

- 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)

- Install the O-ring to the fuel injector.



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

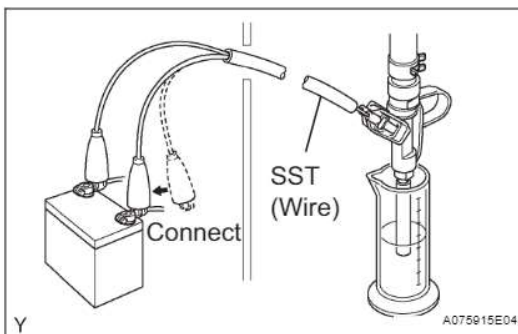
SST 09268-31011 (09268-41110, 09268-41300, 90467-13001)

- Put the injector into the graduated cylinder.

CAUTION:

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

- Operate the fuel pump.



- 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:

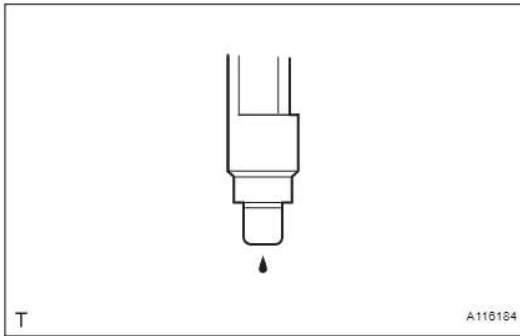
76 to 92 cm³ (4.6 to 5.6 cu in.) per 15 seconds

Standard difference between each injector:

16 cm³ (0.98 cu in.) or less

2AZ-FXE FUEL – FUEL INJECTOR

FU-15

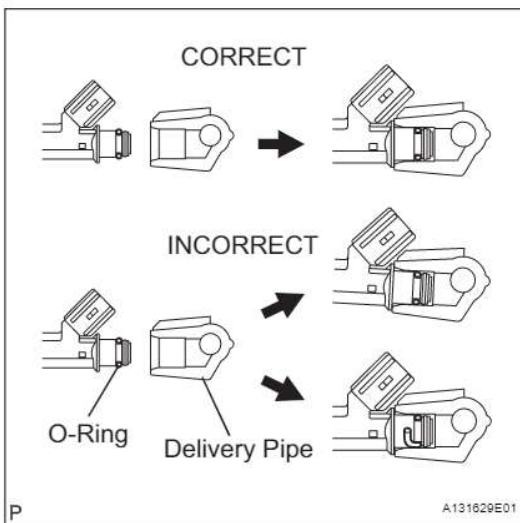
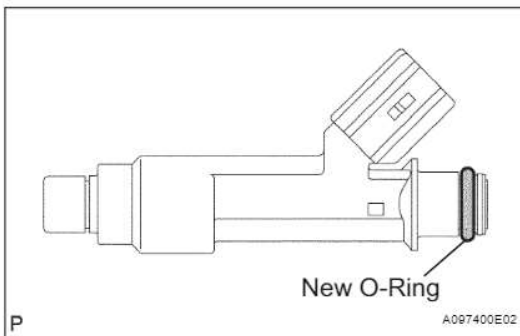


- (c) Inspect the fuel leakage.
- (1) Disconnect the SST (wire) tester probes from the battery and check the fuel leakage from the injector.
- Standard fuel drop:**
1 drop or less per 12 minutes
- (2) Turn the power switch off.
 - (3) Disconnect the cable from the negative (-) battery terminal.
 - (4) 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 them to 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.

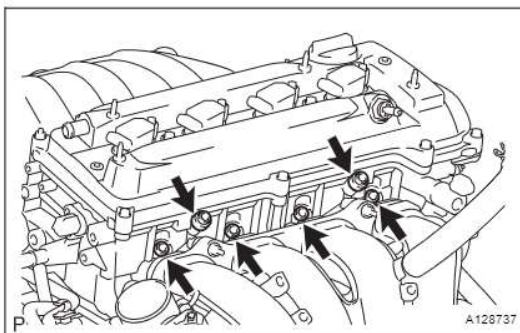
NOTICE:

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.

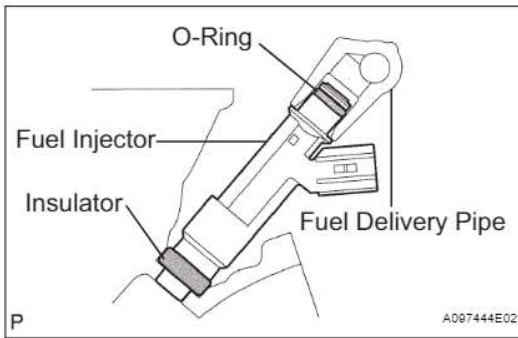
2. INSTALL FUEL DELIVERY PIPE WITH INJECTOR

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



FU-16

2AZ-FXE FUEL – FUEL INJECTOR



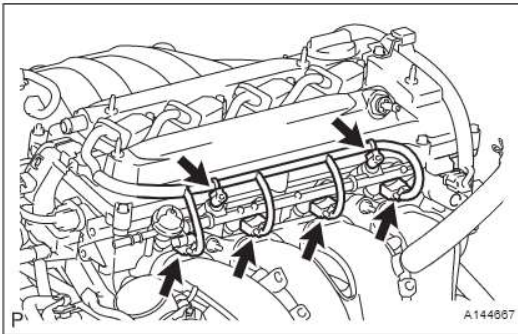
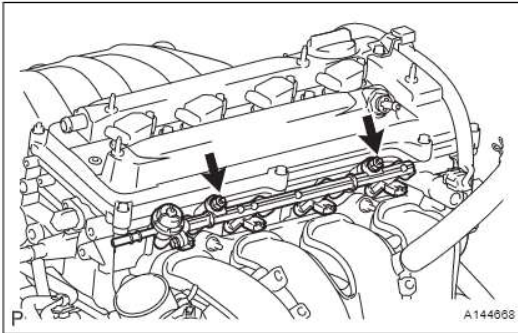
- (c) Install the fuel delivery pipe together with the 4 fuel injectors, then temporarily tighten the 2 bolts.

NOTICE:

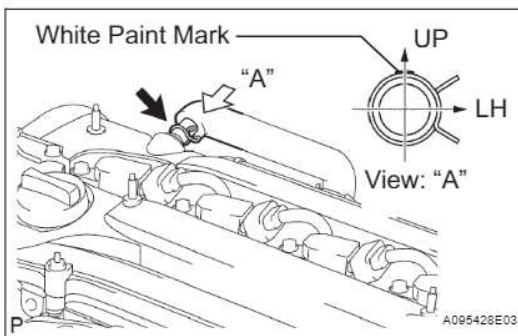
Be careful not to drop the fuel injectors when installing the fuel delivery pipe.

- (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**

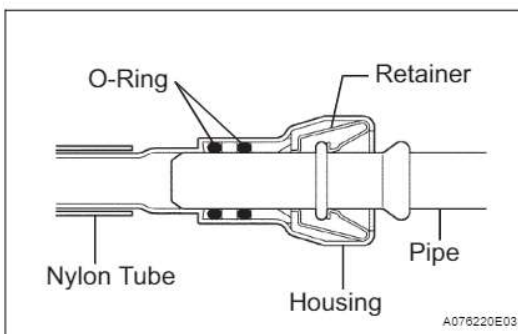
- (a) Connect the ventilation hose to the ventilation valve.

NOTICE:

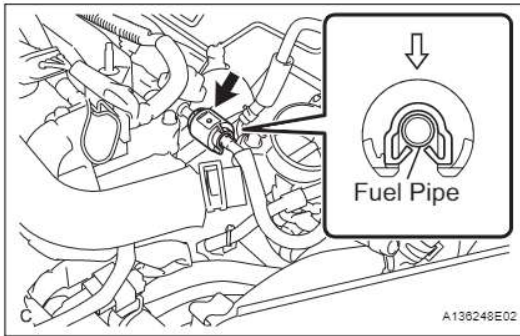
Make sure that the paint mark and hose clamp are positioned as shown in the illustration after connecting the hose.

4. CONNECT FUEL TUBE SUB-ASSEMBLY

- (a) Connect the fuel tube.



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

2AZ-FXE FUEL – FUEL INJECTOR**FU-17**

- (c) Install the No. 2 fuel pipe clamp.
- (d) Install the fuel tube to the fuel hose clamp.
- 5. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-398](#))**
- 6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
- 7. INSPECT FOR FUEL LEAK**
HINT:
See page [FU-9](#).
- 8. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY (See page [EM-114](#))**
- 9. PERFORM INITIALIZATION**
 - (a) Perform initialization procedure (See page [IN-43](#)).
HINT:
Some systems need initialization after reconnecting the cable to the negative battery terminal.

FU

REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

HINT:

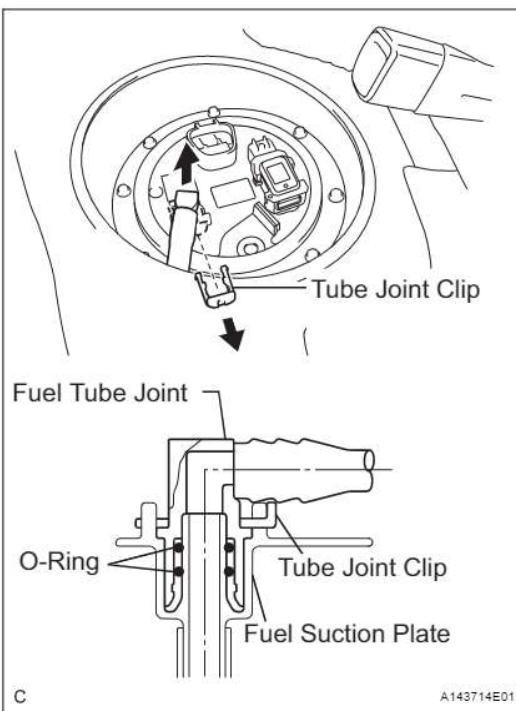
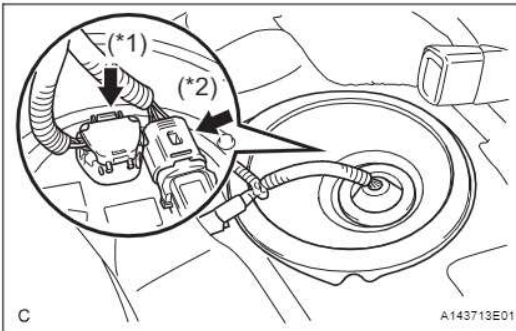
See page [FU-1](#).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

3. REMOVE REAR SEAT CUSHION ASSEMBLY (See page [SE-44](#))

4. REMOVE REAR FLOOR SERVICE HOLE COVER

- Remove the rear floor service hole cover.
- Disconnect the fuel pump connector (*1).
- Disconnect the vapor pressure sensor connector (*2).



5. SEPARATE FUEL PUMP TUBE SUB-ASSEMBLY

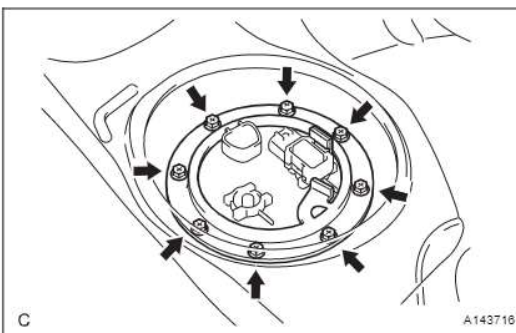
- Remove the tube joint clip, and pull out the fuel pump tube.

NOTICE:

- Check that there is no dirt around the fuel tube joint before removing it. Clean any dirt away.
- It is necessary to prevent mud or dirt from entering the fuel tube joint. If mud or dirt gets in the joint, the O-rings may not seal the fuel tube connector and fuel suction plate properly.
- Do not use any tools for this work.
- Do not bend, kink or twist the nylon tubes.
- After disconnecting, protect the fuel tube joint by connecting it 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 it. Disconnect the fuel tank tube.

6. REMOVE FUEL TANK VENT TUBE SET PLATE

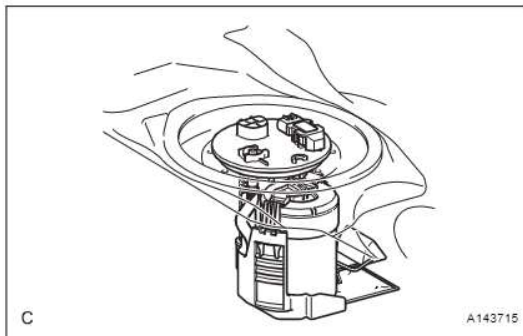
- Remove the 8 bolts and vent tube set plate.



FU

FU-24

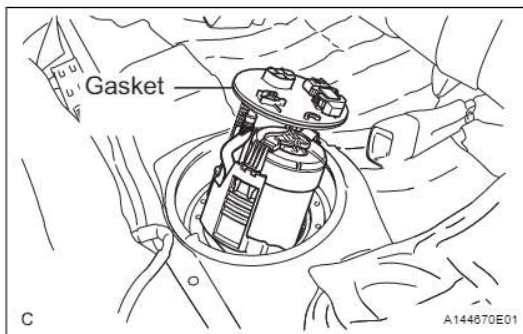
2AZ-FXE FUEL – FUEL PUMP

**7. 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.

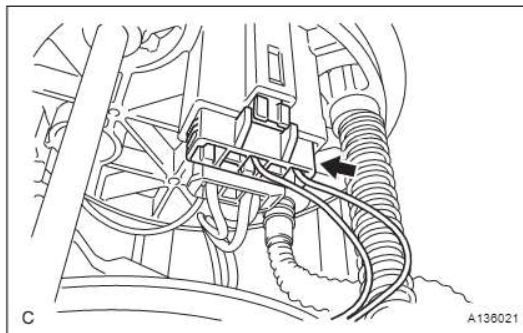
FU

2AZ-FXE FUEL – FUEL PUMP

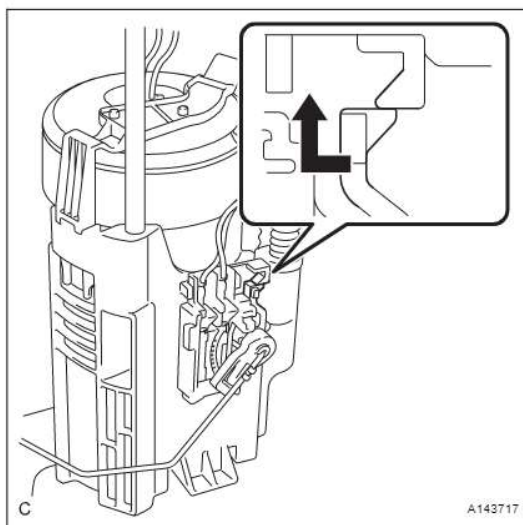
FU-25

DISASSEMBLY**1. REMOVE VAPOR PRESSURE SENSOR ASSEMBLY****2. REMOVE FUEL SENDER GAUGE ASSEMBLY**

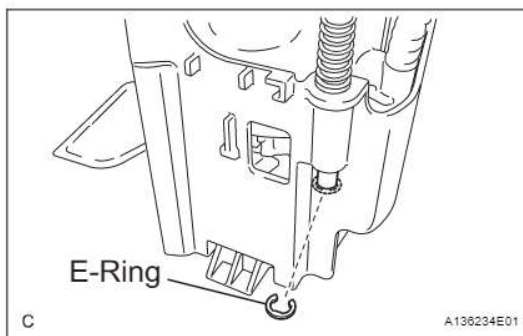
(a) Disconnect the fuel sender gauge connector.



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

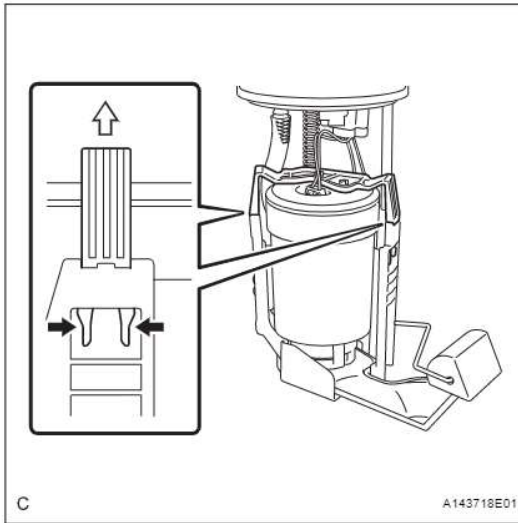
**3. REMOVE FUEL NO. 1 TANK BAND BRACKET**

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

**FU**

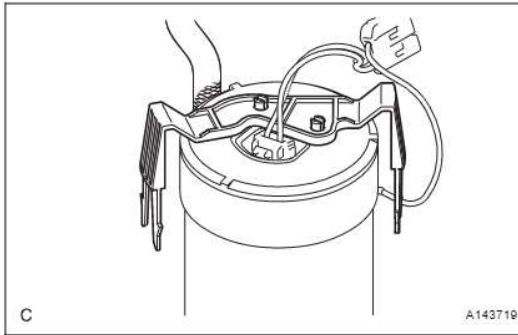
FU-26

2AZ-FXE FUEL – FUEL PUMP



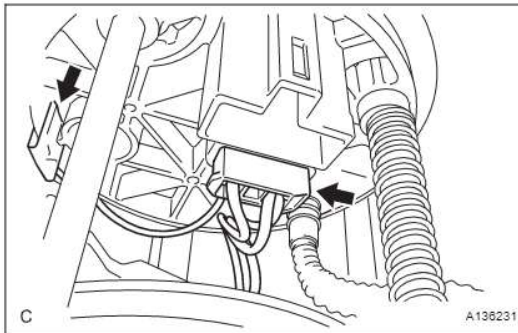
- (b) Disengage the 4 claws of the fuel No. 1 suction support and remove the fuel No. 1 tank band bracket from the fuel suction plate with the fuel filter.
- (c) Remove the spring from the fuel suction plate.

FU



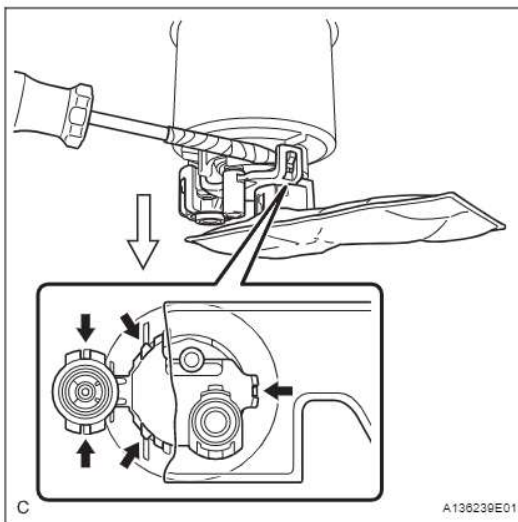
4. REMOVE FUEL NO. 1 SUCTION SUPPORT

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



5. DISCONNECT FUEL PUMP HARNESS

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



6. REMOVE FUEL PUMP

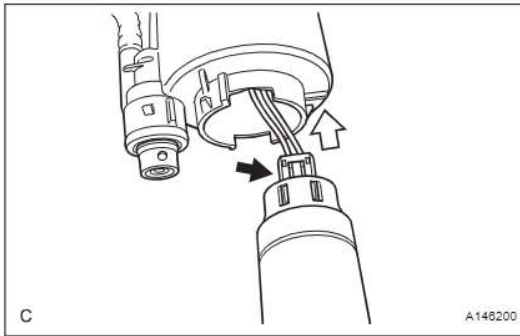
- (a) Using a screwdriver with its tip taped, disengage the 5 claws and pull out the fuel pump from the fuel filter assembly.

NOTICE:

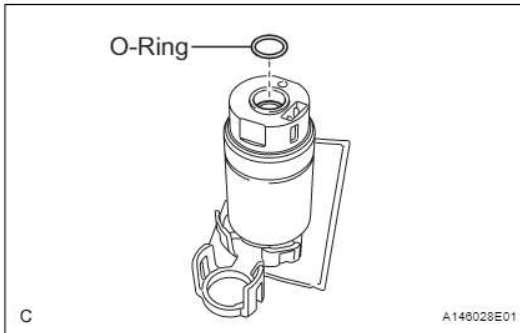
- Do not damage the fuel pump filter.
- Do not remove the suction filter.

2AZ-FXE FUEL – FUEL PUMP

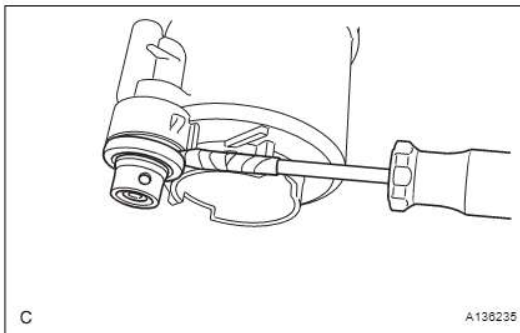
FU-27



(b) Remove the fuel pump harness connector.

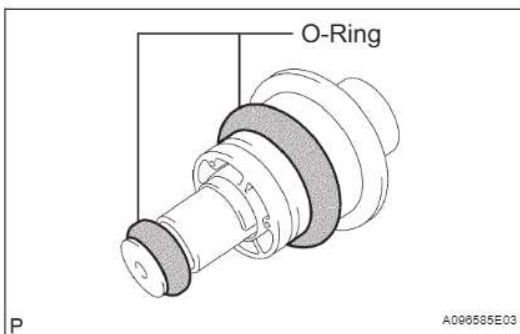


(c) Remove the O-ring from the fuel pump.

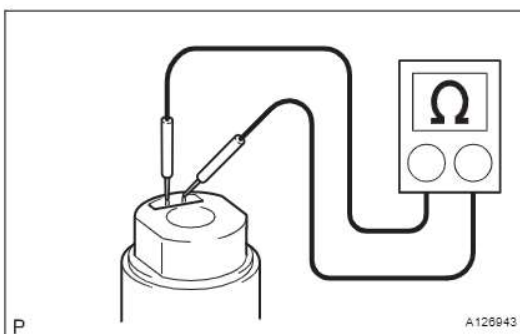


7. REMOVE FUEL PRESSURE REGULATOR ASSEMBLY

(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.

FU

FU-28

2AZ-FXE FUEL – FUEL PUMP

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

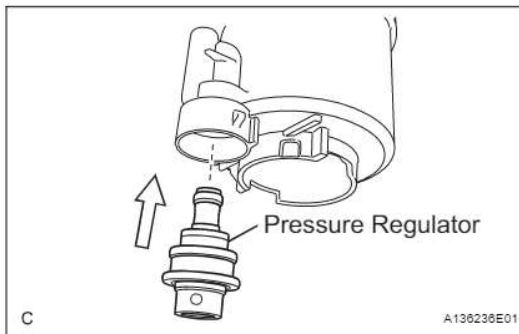
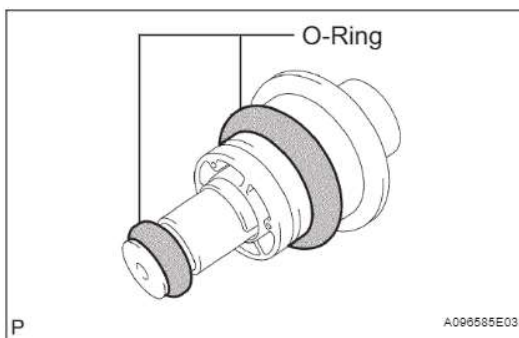
NOTICE:

- 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.

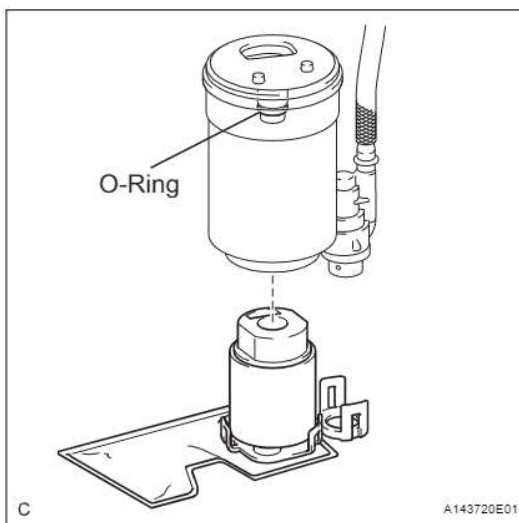
If the pump does not operate, replace the fuel pump.

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

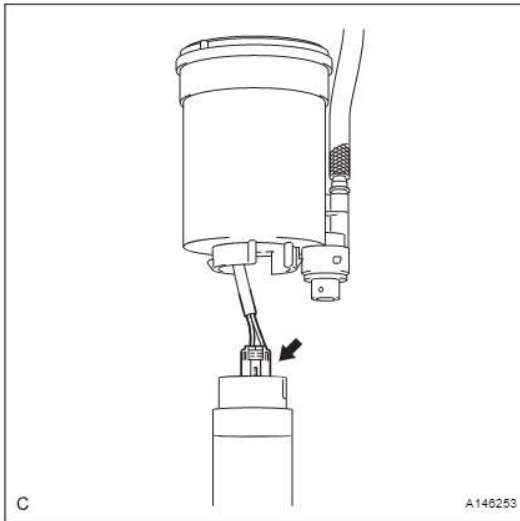
- (a) Apply a light coat of gasoline to 2 new O-rings, and install them to the fuel pressure regulator.



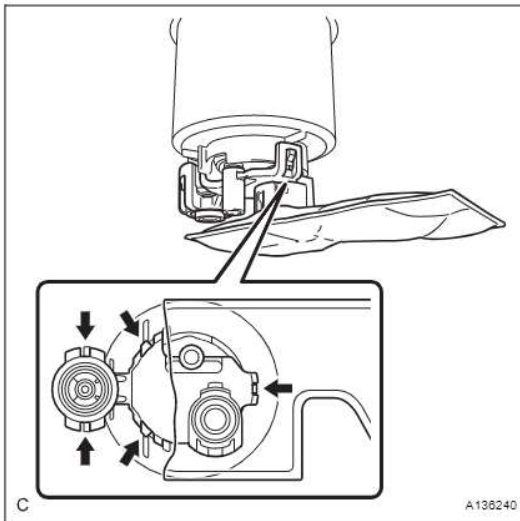
- (b) Install the fuel pressure regulator to the fuel filter.

**2. INSTALL FUEL PUMP**

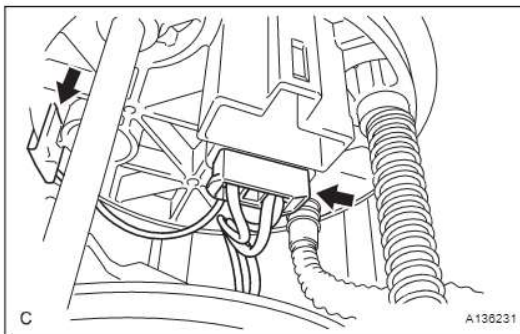
- (a) Apply gasoline to a new O-ring and install it to the fuel filter.

2AZ-FXE FUEL – FUEL PUMP**FU-29**

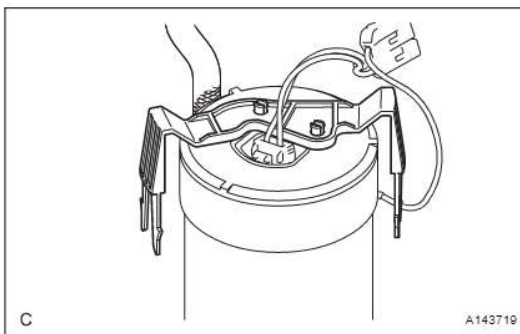
(b) Connect the fuel pump harness connector.



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

**3. CONNECT FUEL PUMP HARNESS**

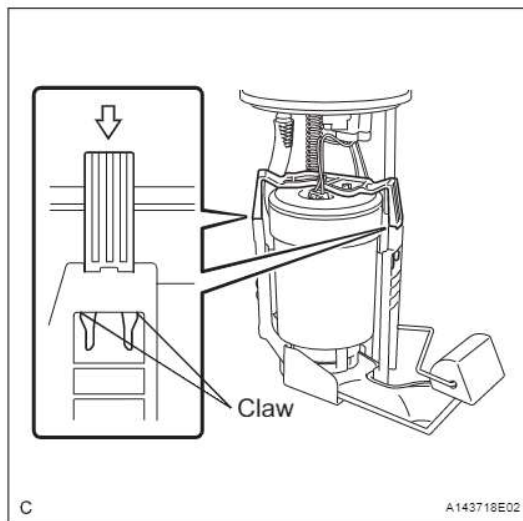
(a) Connect the fuel pump harness connector to the fuel suction plate.

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

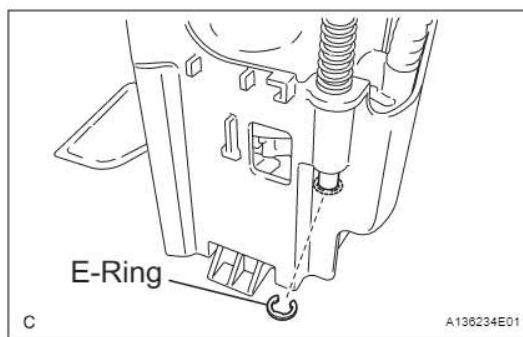
(a) Install the fuel No. 1 suction support to the fuel filter.

5. INSTALL FUEL NO. 1 TANK BAND BRACKET

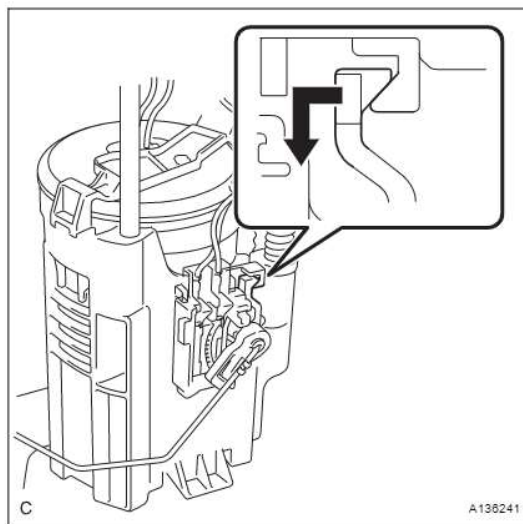
(a) Install the spring to the fuel suction plate shaft and install them to the fuel No. 1 tank band bracket.

FU-30**2AZ-FXE FUEL – FUEL PUMP**

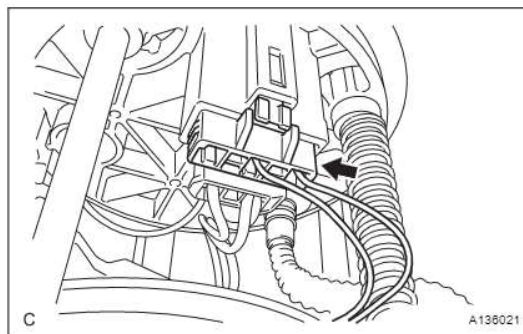
- (b) Engage the 4 claws of the fuel No. 1 suction support and install the fuel No. 1 tank band bracket to the fuel suction plate with the fuel filter.

FU

- (c) Install a new E-ring.

**6. INSTALL FUEL SENDER GAUGE ASSEMBLY**

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

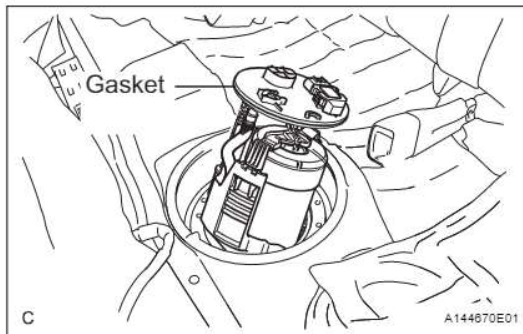


- (b) Connect the fuel sender gauge connector.

7. INSTALL VAPOR PRESSURE SENSOR ASSEMBLY

2AZ-FXE FUEL – FUEL PUMP

FU-31

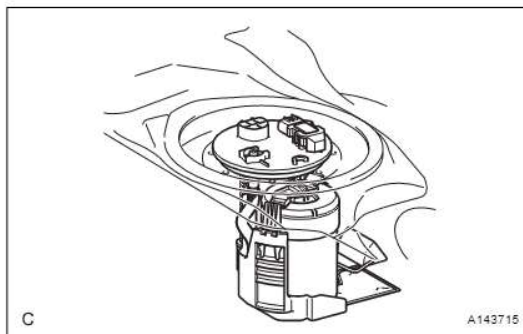
**INSTALLATION****1. INSTALL FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE**

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

- (b) Install the fuel suction tube.

NOTICE:

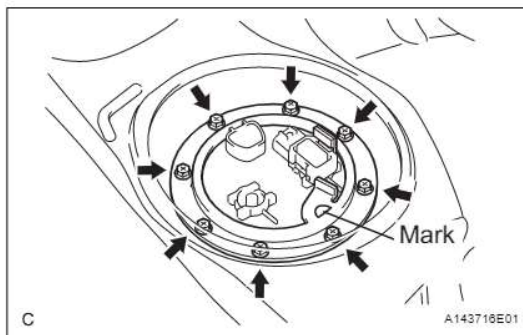
- Do not damage the fuel pump filter.
- Be careful that the arm of the sender gauge does not bend.

FU**2. INSTALL FUEL TANK VENT TUBE SET PLATE**

- (a) Align the mark of the set plate with the fuel suction tube.

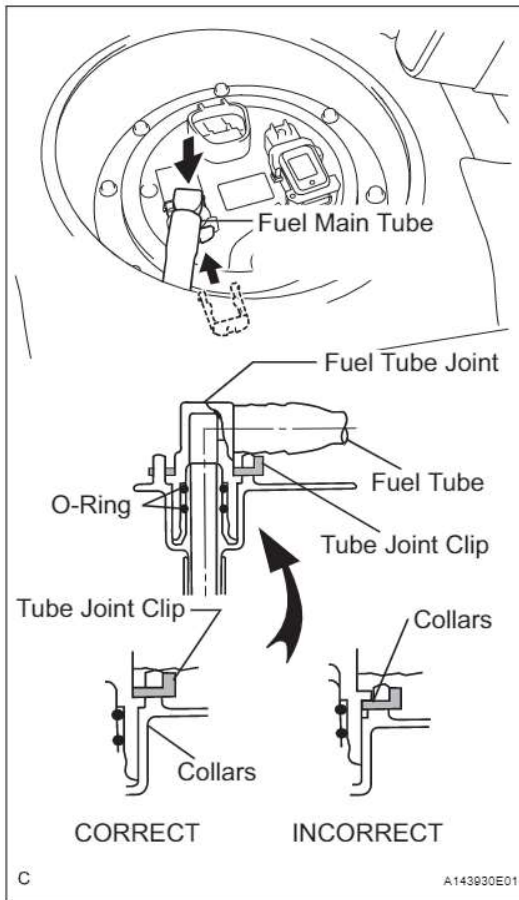
- (b) Install the set plate with the 8 bolts.

Torque: 5.9 N*m (60 kgf*cm, 52 in.*lbf)



FU-32

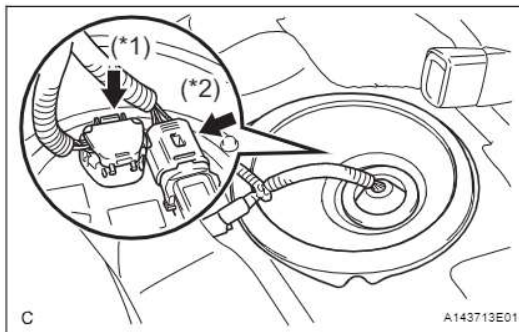
2AZ-FXE FUEL – FUEL PUMP

**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. INSPECT FOR FUEL LEAK (See page [FU-9](#))****6. INSTALL REAR FLOOR SERVICE HOLE COVER**

- (a) Connect the vapor pressure sensor connector (*2).
- (b) Connect the fuel pump connector (*1).
- (c) Install the rear floor service hole cover with new butyl tape.

7. INSTALL REAR SEAT CUSHION ASSEMBLY (See page [SE-55](#))**8. PERFORM INITIALIZATION**

- (a) Perform initialization procedure (See page
- [IN-43](#)
-).

HINT:

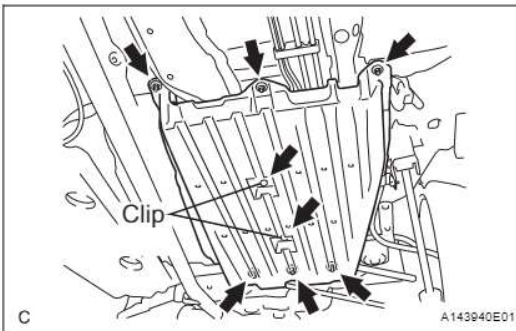
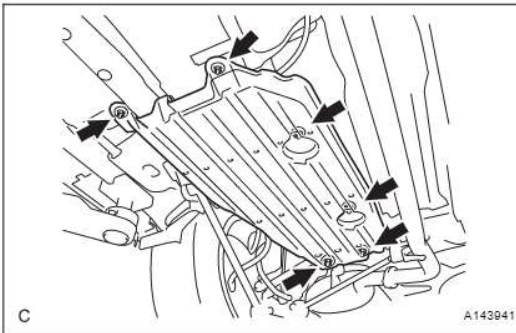
Some vehicle systems require initialization after reconnecting the cable to the negative battery terminal.

FU-36

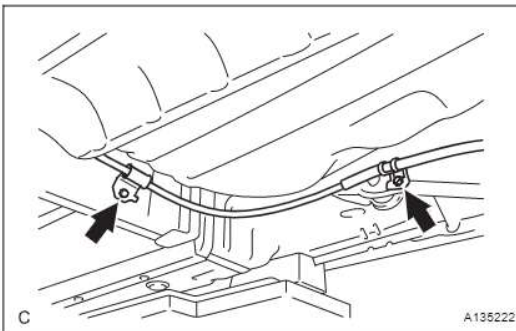
2AZ-FXE FUEL – FUEL TANK

REMOVAL

1. **DISCHARGE FUEL SYSTEM PRESSURE**
HINT:
See page [FU-1](#).
2. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
3. **REMOVE REAR SEAT CUSHION ASSEMBLY** (See page [SE-44](#))
4. **REMOVE REAR FLOOR SERVICE HOLE COVER** (See page [FU-23](#))
5. **SEPARATE FUEL PUMP TUBE SUB-ASSEMBLY** (See page [FU-23](#))
6. **REMOVE FUEL TANK VENT TUBE SET PLATE** (See page [FU-23](#))
7. **REMOVE FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE** (See page [FU-24](#))
8. **DRAIN FUEL**
9. **REMOVE NO. 1 FLOOR UNDER COVER**
(a) Loosen the 6 grommets and remove the No. 1 floor under cover.



10. **REMOVE NO. 2 FLOOR UNDER COVER**
(a) Remove the 2 clips.
(b) Loosen the 6 grommets and remove the No. 2 floor under cover.
11. **REMOVE CENTER EXHAUST PIPE ASSEMBLY**
HINT:
See page [EX-2](#).

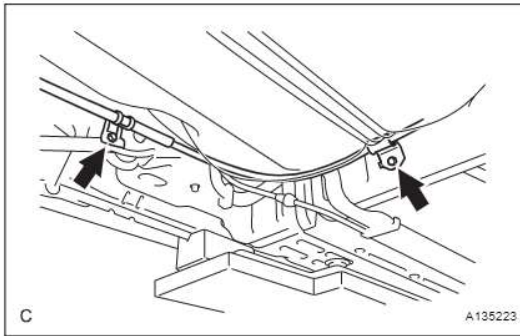


12. **DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY**
(a) Remove the set bolt and set nut of the No. 2 parking brake cable assembly.

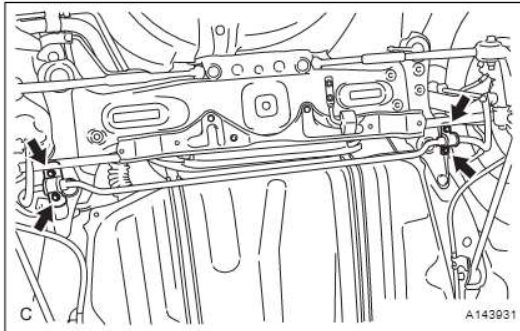
FU

2AZ-FXE FUEL – FUEL TANK

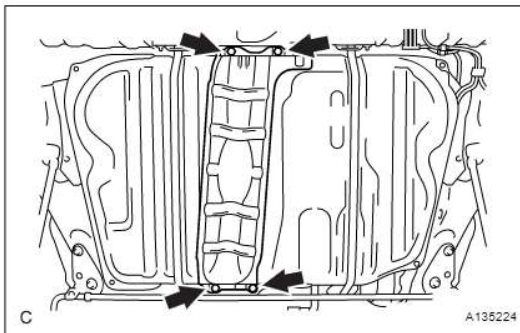
FU-37

**13. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**

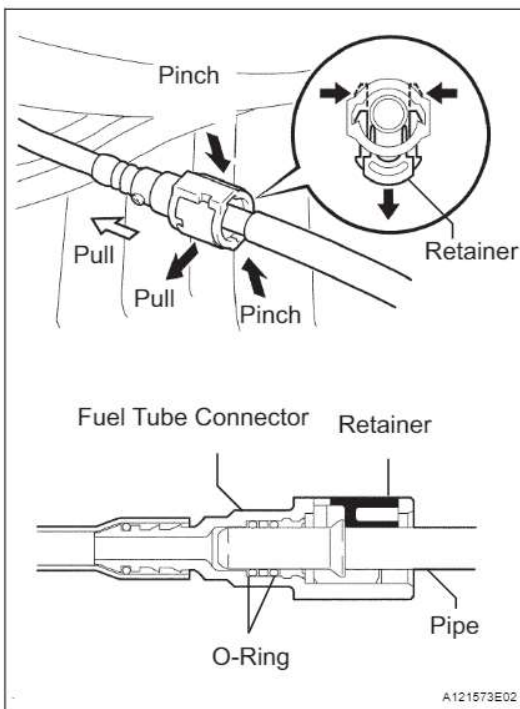
- (a) Remove the set bolt and set nut of the No. 3 parking brake cable assembly.

**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 lower center.

**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 disconnecting it. Clean the connector as necessary.
- It is necessary to prevent mud or dirt from entering the quick connector. If mud or dirt gets in the connector, the O-rings may not seal properly.
- Remove the quick connector by hand.
- Do not bend, kink or twist the nylon tubes. Protect the connector by covering it with a plastic bag.

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2AZ-FXE FUEL – FUEL TANK

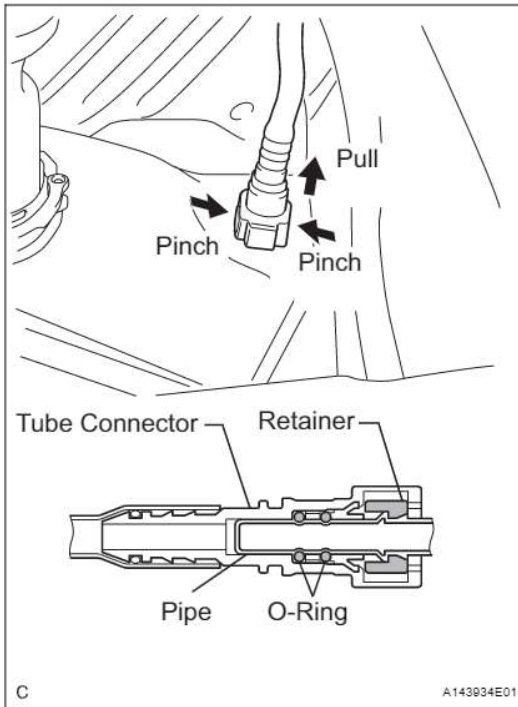
- If the pipe and connector are stuck, carefully try wiggling or pushing and pulling on the connector to release it. Pull the connector off the pipe carefully.

(b) Disconnect the No. 1 fuel tube.

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

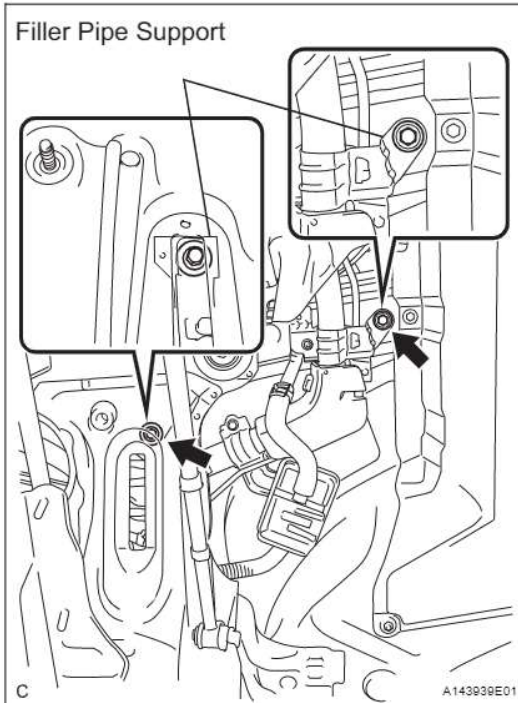
NOTICE:

- Check that there is no dirt or other foreign objects around the connector before disconnecting it. Clean the connector as necessary.
- It is necessary to prevent mud or dirt from entering the quick connector. If mud or dirt gets in the connector, the O-rings may not seal properly.
- Remove the quick connector by hand.
- Do not bend, kink or twist the nylon tubes. Protect the connector by covering it with a plastic bag.
- If the pipe and connector are stuck, carefully try wiggling or pushing and pulling on the connector to release it. Pull the connector off the pipe carefully.



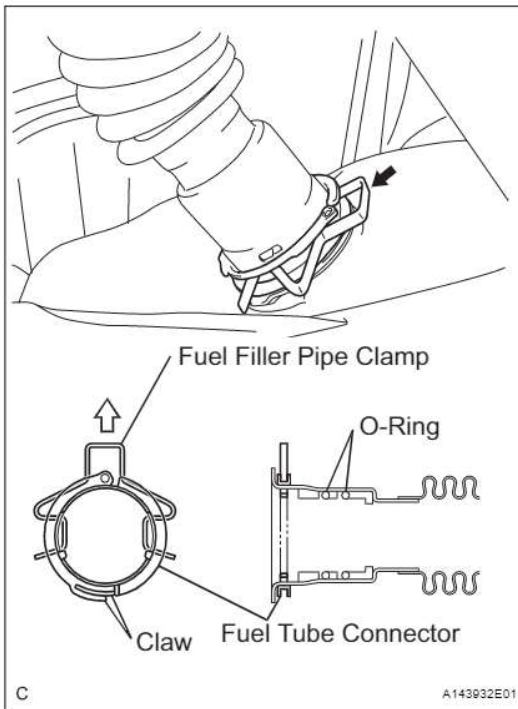
(c) Disconnect the fuel filler pipe.

- (1) Remove the 2 bolts from the fuel tank filler pipe support.



2AZ-FXE FUEL – FUEL TANK

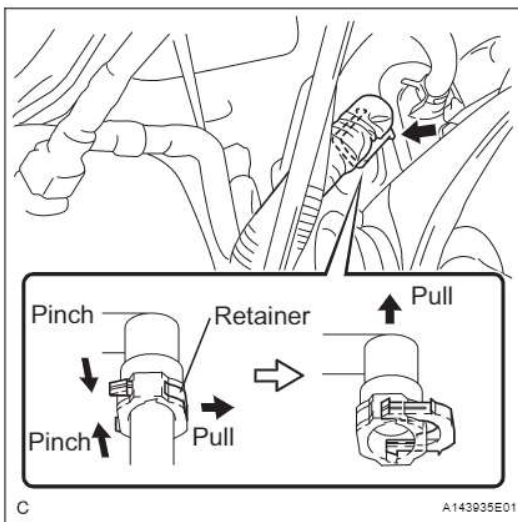
FU-39



- (2) Remove the fuel filler pipe clamp.

NOTICE:

- Check that there is no dirt or other foreign objects around the connector before disconnecting it. Clean the connector if necessary.
- It is necessary to prevent mud or dirt from entering the fuel filler pipe. If mud or dirt gets in the fuel filler pipe, the O-rings may not seal properly.
- Remove the fuel filler pipe by hand.
- Protect the fuel filler pipe by covering it with a plastic bag.
- If the fuel filler pipe and fuel tank are stuck, carefully try wiggling or pushing and pulling on the fuel filler pipe to release it. Pull the fuel filler pipe off the fuel tank carefully.



- (d) Disconnect the fuel tank vent hose from the charcoal canister.

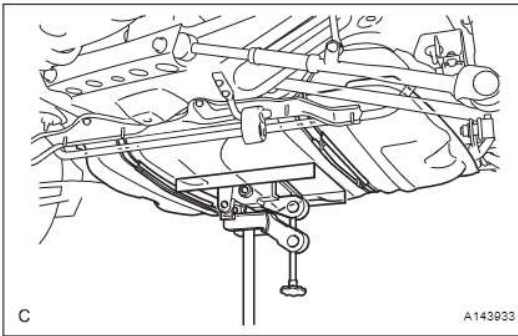
- (1) Pinch the tab of the retainer to disengage the lock claws and pull it down as shown in the illustration.
- (2) Pull out the fuel tank vent hose from the charcoal canister.

NOTICE:

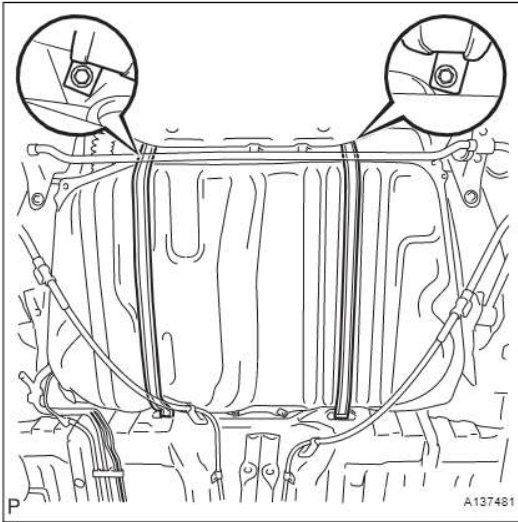
- Check that there is no dirt or other foreign objects around the connector before disconnecting it. Clean the connector as necessary.
- It is necessary to prevent mud or dirt from entering the quick connector. If mud or dirt gets in the connector, the O-rings may not seal properly.
- Remove the quick connector by hand.
- Do not bend, kink or twist the nylon tubes. Protect the connector by covering it with a plastic bag.
- If the pipe and connector are stuck, carefully try wiggling or pushing and pulling on the connector to release it. Pull the connector off the pipe carefully.

FU-40

2AZ-FXE FUEL – FUEL TANK



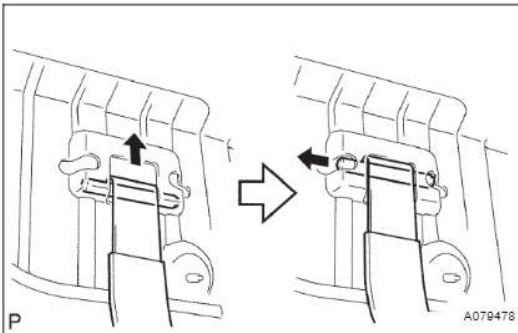
(e) Place an engine lifter under the fuel tank assembly.



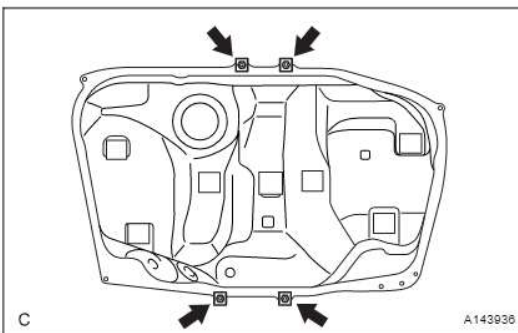
(f) Remove the 2 set bolts of the fuel tank bands.

(g) Slightly lower the transmission jack.

(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.

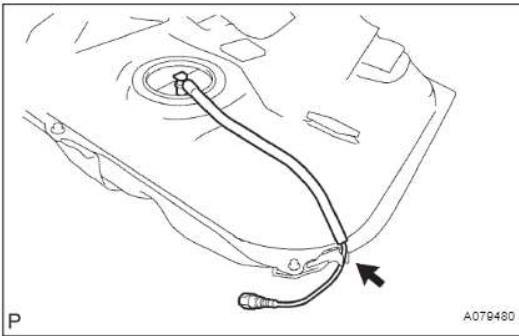
17. REMOVE FUEL VAPOR CONTAINMENT VALVE (See page EC-29)

18. REMOVE FUEL SOLENOID VALVE RETURN BRACKET (See page EC-30)

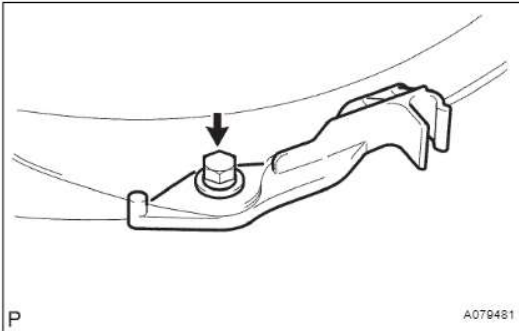
19. REMOVE NO. 1 FUEL TUBE CLAMP (See page EC-30)

2AZ-FXE FUEL – FUEL TANK

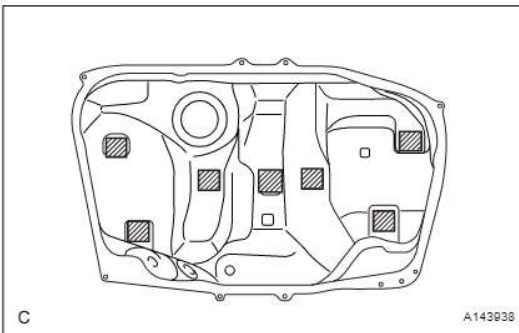
FU-41

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

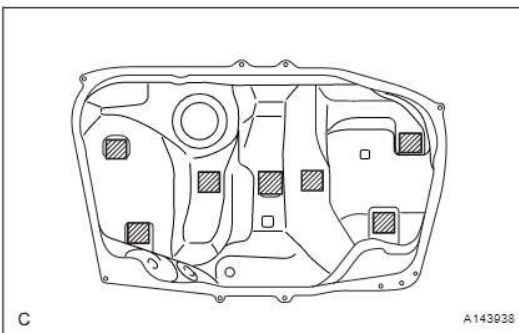
- (a) Remove the fuel pump tube from the fuel main tube support.

**21. REMOVE FUEL MAIN TUBE SUPPORT**

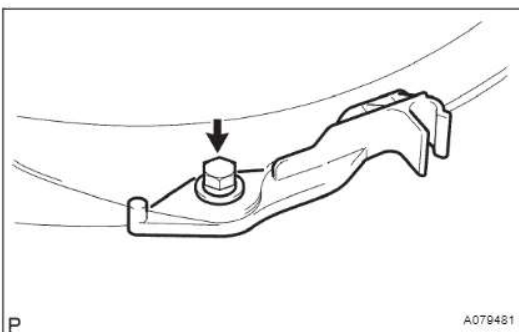
- (a) Remove the bolt and tube support.

**22. 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.

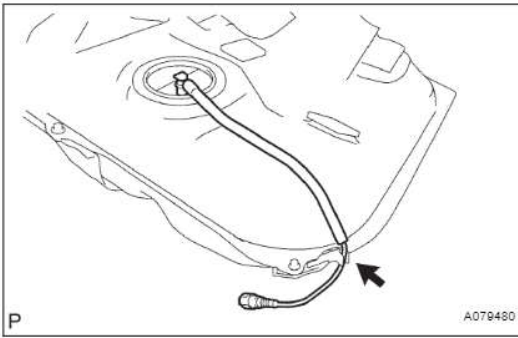
**2. INSTALL FUEL MAIN TUBE SUPPORT**

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

FU

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2AZ-FXE FUEL – FUEL TANK



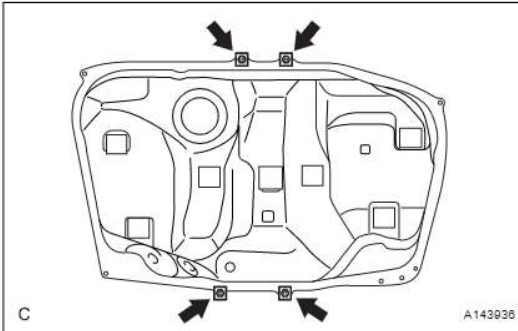
3. INSTALL FUEL PUMP TUBE SUB-ASSEMBLY

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

4. INSTALL NO. 1 FUEL TUBE CLAMP (See page EC-30)

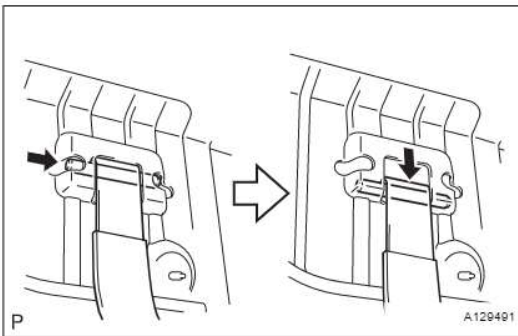
5. INSTALL FUEL SOLENOID VALVE RETURN BRACKET (See page EC-30)

6. INSTALL FUEL VAPOR CONTAINMENT VALVE (See page EC-31)



7. INSTALL FUEL TANK ASSEMBLY

- (a) Install the 4 clip nuts.



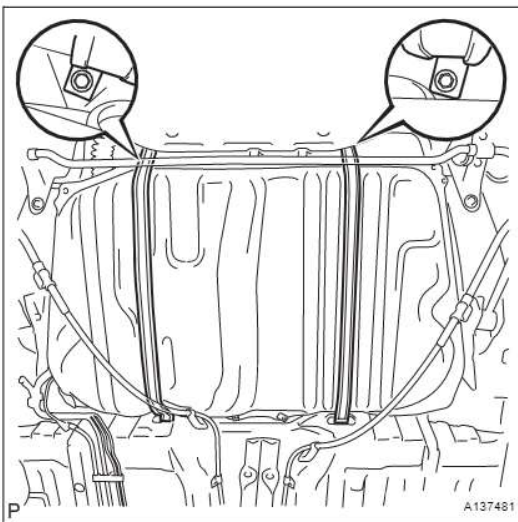
- (b) Install the 2 fuel tank bands with the 2 pins.

- (c) Set the fuel tank assembly onto the transmission jack.

- (d) Raise the transmission jack.

NOTICE:

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



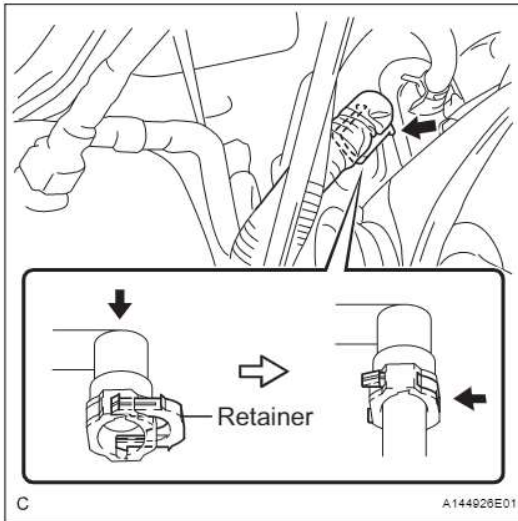
- (e) Tighten the 2 set bolts of the fuel tank bands.

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

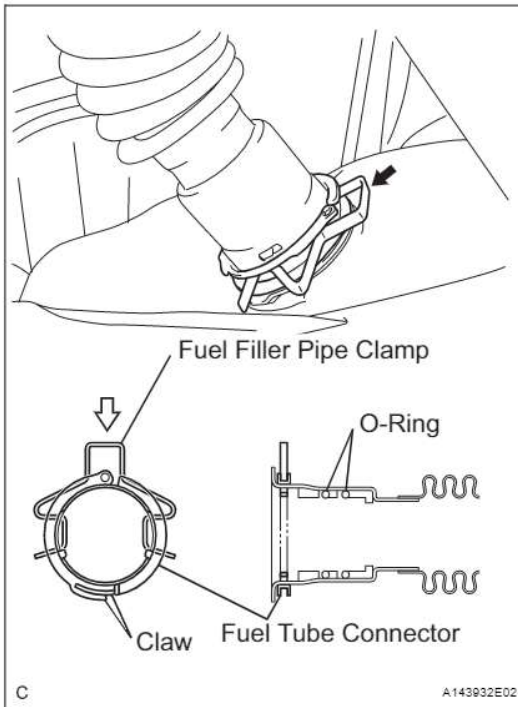
FU

2AZ-FXE FUEL – FUEL TANK

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- (f) Connect the fuel tank vent hose to the charcoal canister.
- (1) Push the quick 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.
 - After connecting, check if the quick connector and the charcoal canister are securely connected by pulling on them.

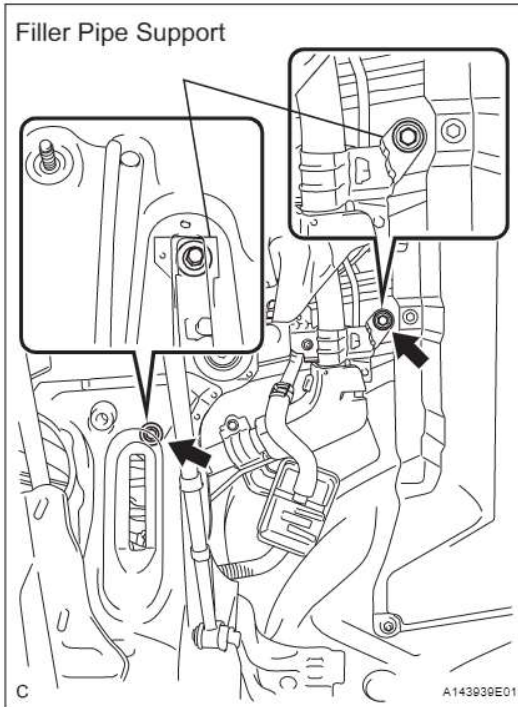


- (g) Connect the fuel filler pipe.
- (1) Install the fuel tube connector to the fuel filler pipe.
- (2) Install the fuel filler pipe clamp.
- NOTICE:**
- Before connecting the pipe, make sure that it is not damaged. Make sure that there is no dirt present on the connecting surfaces.
 - After connecting, check if the fuel filler pipe and the fuel tank are securely connected by pulling on them.

FU

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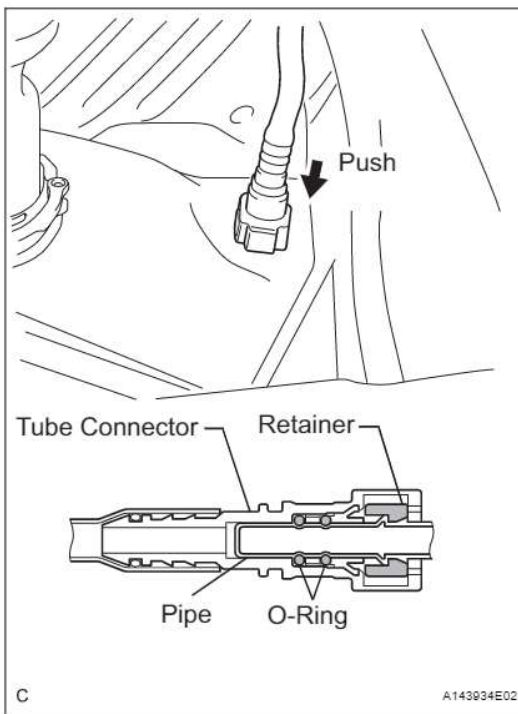
2AZ-FXE FUEL – FUEL TANK



- (3) Install the 2 bolts to the fuel tank filler pipe support.

Torque: 18 N*m (185 kgf*cm, 13 ft.*lbf)

FU

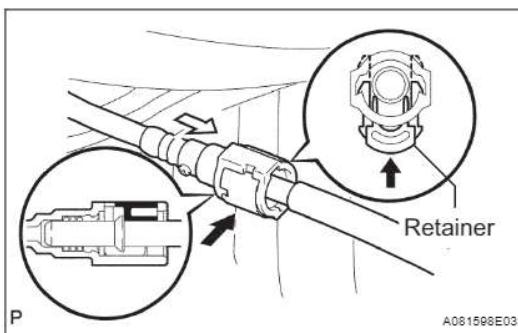


- (h) Connect the No. 1 fuel tube.

- (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 fuel tank 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.

2AZ-FXE FUEL – FUEL TANK

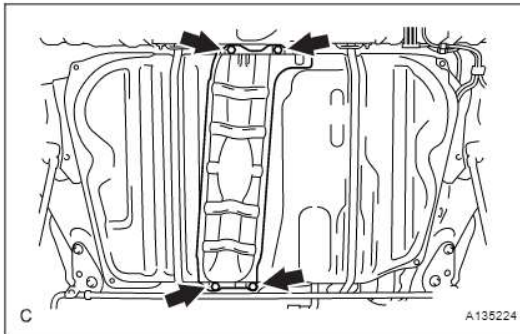
FU-45

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

8. INSTALL FUEL TANK PROTECTOR LOWER CENTER

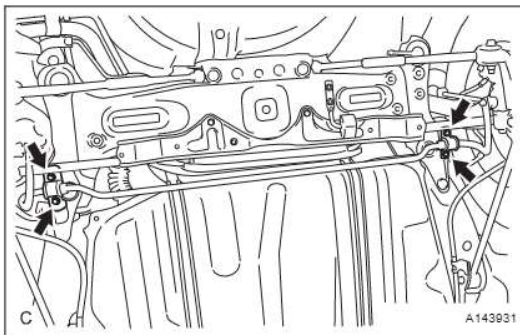
- (a) Install the 4 bolts and fuel tank protector lower center.

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

**9. 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)

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

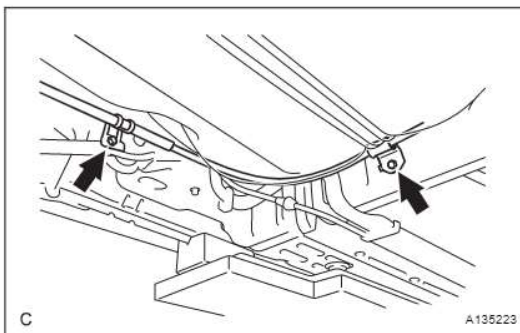
- (a) Install the No. 3 parking brake cable assembly with the bolt and nut.

Torque: Bolt

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

Nut

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

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

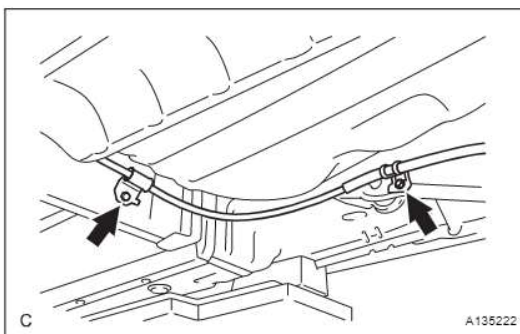
- (a) Install the No. 2 parking brake cable assembly with the bolt and nut.

Torque: Bolt

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

Nut

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

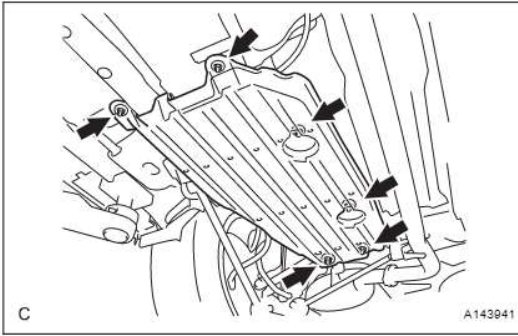
**12. INSTALL CENTER EXHAUST PIPE ASSEMBLY**

HINT:

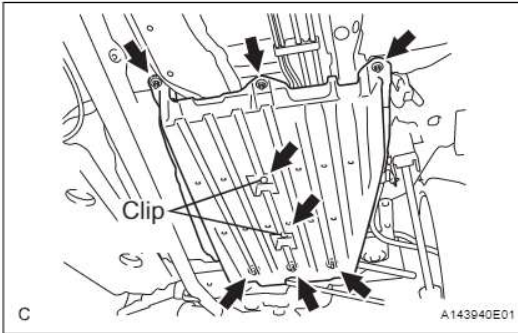
See page [EX-4](#).

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2AZ-FXE FUEL – FUEL TANK

**13. INSTALL NO. 1 FLOOR UNDER COVER**

- (a) Install the No. 1 floor under cover with the 6 grommets.

**14. INSTALL NO. 2 FLOOR UNDER COVER**

- (a) Install the No. 2 floor under cover with the 2 clips and 6 grommets.

15. INSTALL FUEL SUCTION TUBE ASSEMBLY WITH PUMP AND GAUGE (See page [FU-30](#))**16. INSTALL FUEL TANK VENT TUBE SET PLATE (See page [FU-31](#))****17. CONNECT FUEL PUMP TUBE SUB-ASSEMBLY (See page [FU-31](#))****18. ADD FUEL****19. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL****20. INSPECT FOR FUEL LEAK (See page [FU-9](#))****21. INSPECT FOR EXHAUST GAS LEAK****22. INSTALL REAR FLOOR SERVICE HOLE COVER (See page [FU-32](#))****23. INSTALL REAR SEAT CUSHION ASSEMBLY (See page [SE-55](#))****24. PERFORM INITIALIZATION**

- (a) Perform initialization procedure (See page [IN-43](#)).

HINT:

Some vehicle systems require initialization after reconnecting the cable to the negative battery terminal.

FU

FUEL SYSTEM

PRECAUTION

1. PRECAUTION

- (a) Before inspecting and repairing the fuel system, disconnect the cable from 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.

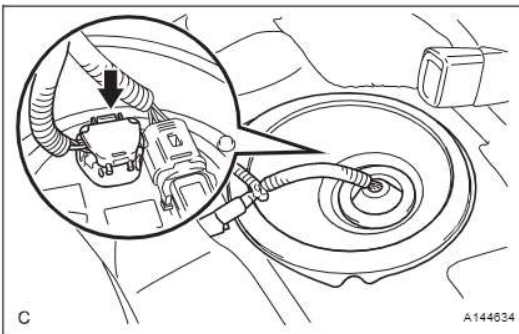
- (a) Remove the rear seat cushion assembly.
- (b) Remove the rear floor service hole cover.
- (c) Connect the intelligent tester to the DLC3.
- (d) Set the vehicle to the "Inspection Mode" (See page [ES-35](#)).
- (e) Start the engine.
- (f) Disconnect the fuel pump connector.
- (g) After the engine has stopped on its own, turn the power switch off.

HINT:

- DTC P0171/25 (fuel problem) may be detected.
- (h) Loosen the fuel tank cap, then discharge the pressure in the fuel tank completely.
- (i) Disconnect the cable from the negative (-) battery terminal.
- (j) Reconnect the fuel pump connector.
- (k) Install the rear floor service hole cover.
- (l) Install the rear seat.

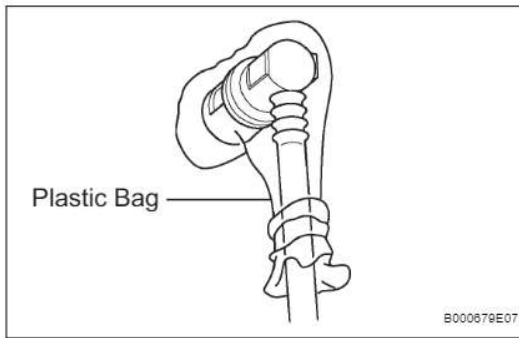
3. FUEL SYSTEM

- (a) When disconnecting the high pressure fuel 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.

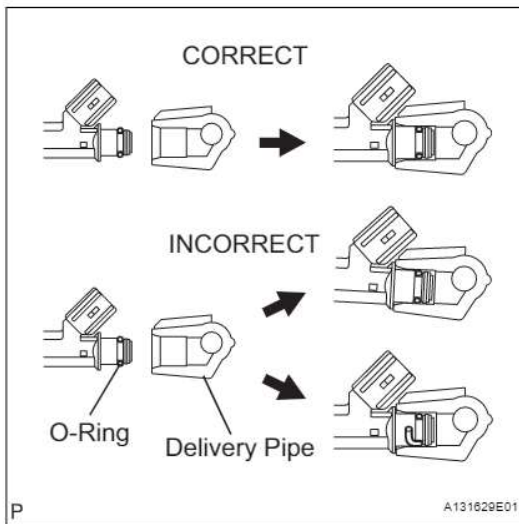

FU

FU-2

2AZ-FXE FUEL – FUEL SYSTEM



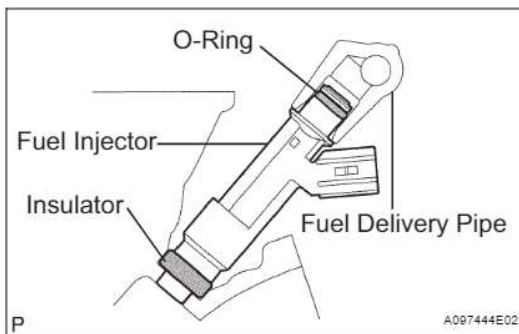
- (4) To protect the disconnected fuel pump tube from damage and contamination, cover it with a plastic bag.
- (5) Put a container under the connectors.



- (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:

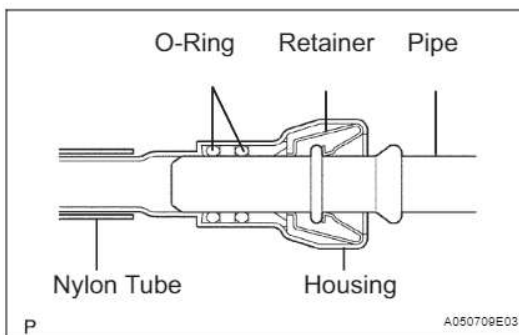
Do not use engine oil, gear oil or brake fluid.



- (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 appropriate lubricant or gasoline to the place where the delivery pipe or cylinder head contacts the O-ring of the injector.



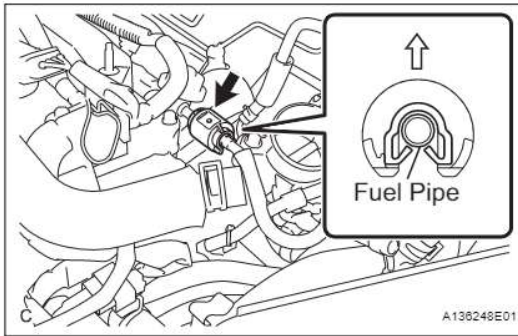
- (d) Observe the following precautions when disconnecting the fuel delivery pipe (metallic type):

HINT:

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

2AZ-FXE FUEL – FUEL SYSTEM

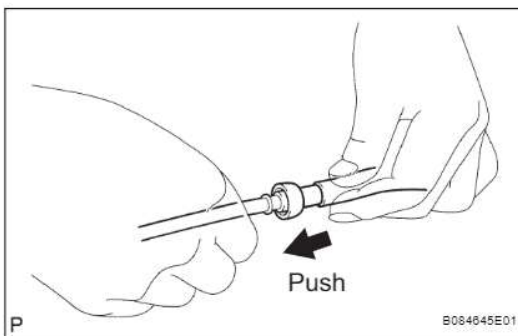
FU-3



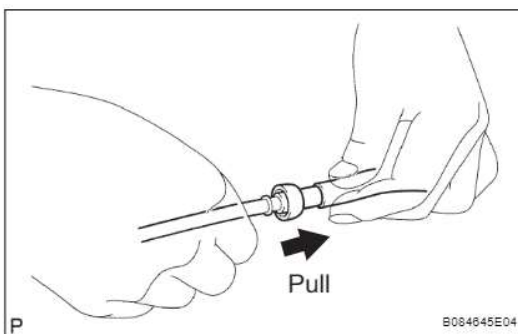
- (1) Remove the No. 2 fuel pipe clamp.
HINT:
The No. 2 fuel pipe clamp cannot be reused.



- (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 the SST into the connector.
- (5) Slide the SST and the connector together towards the fuel tube assembly.



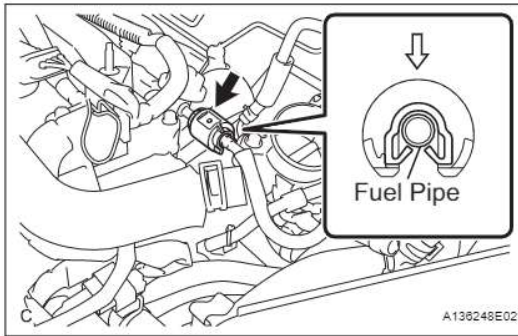
- (e) Observe the following precautions when connecting the fuel tube connector (metallic type):
 - (1) Check if there is any damage or foreign objects on the connecting part of the pipe.
 - (2) Match the axis of the connector with the axis of the pipe, and push into the connector until the connector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



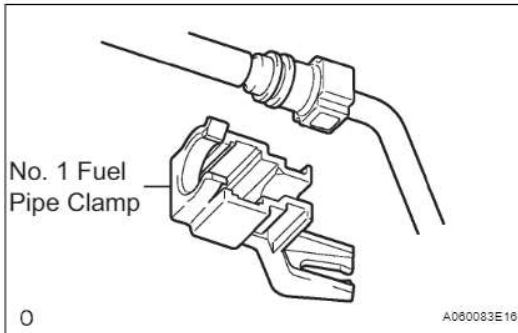
- (3) After finishing the connection, check if the pipe and the connector are securely connected by pulling on them.
- (4) Check for fuel leaks.

FU-4

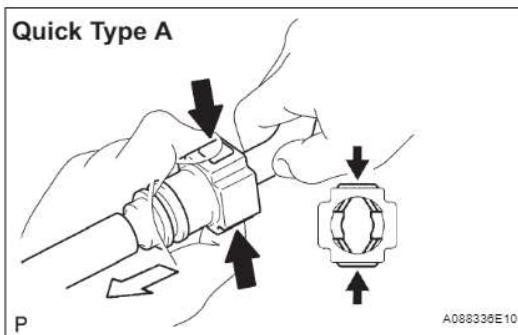
2AZ-FXE FUEL – FUEL SYSTEM



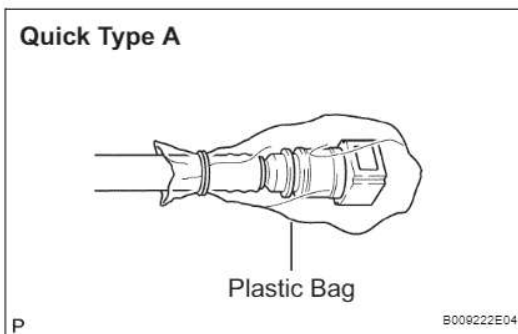
(5) Install a new No. 2 fuel pipe clamp.



- (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) If 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 the surfaces if necessary.

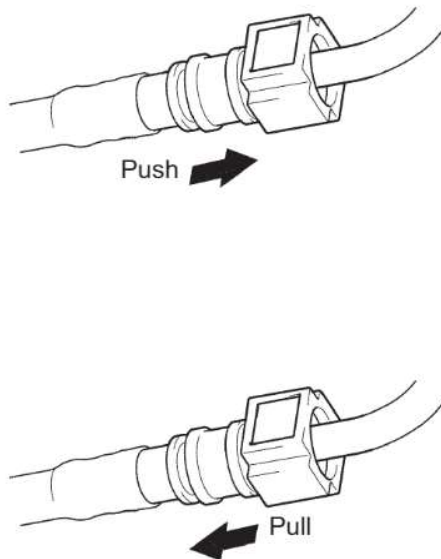


- (6) Do not damage the disconnected pipe and connector. Prevent entry of foreign objects by coverings the connectors with plastic bags.

2AZ-FXE FUEL – FUEL SYSTEM

FU-5

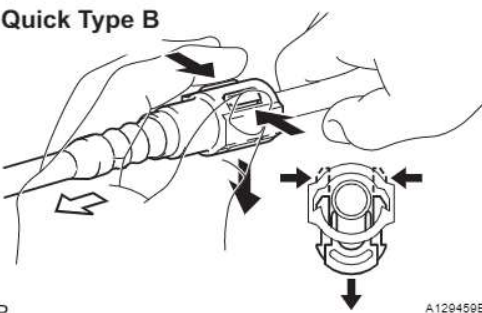
FU

Quick Type A

A121423E01

(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.

Quick Type B

P

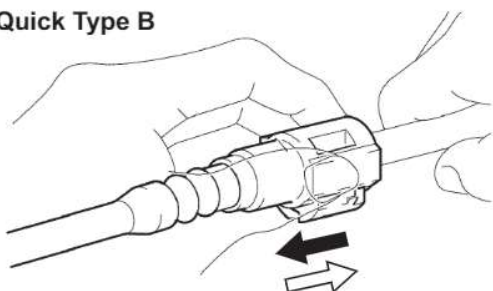
A129459E01

(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.

Quick Type B

P

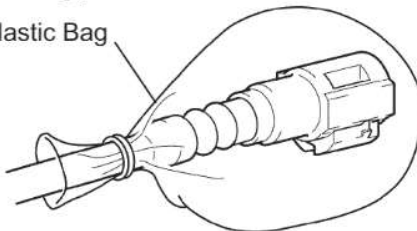
A091246E06

(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) Check if there is any dirt or any other foreign objects on the sealing surfaces of the disconnected pipes. Clean the sealing surfaces if necessary.

Quick Type B

Plastic Bag

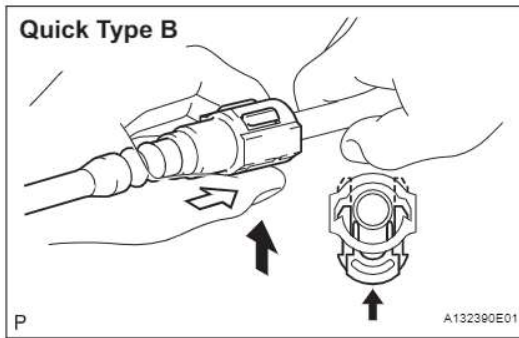


A093309E03

(5) Do not damage the disconnected pipe and connector, and prevent entry of foreign objects by covering the connectors with plastic bags.

FU-6

2AZ-FXE 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 into 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:

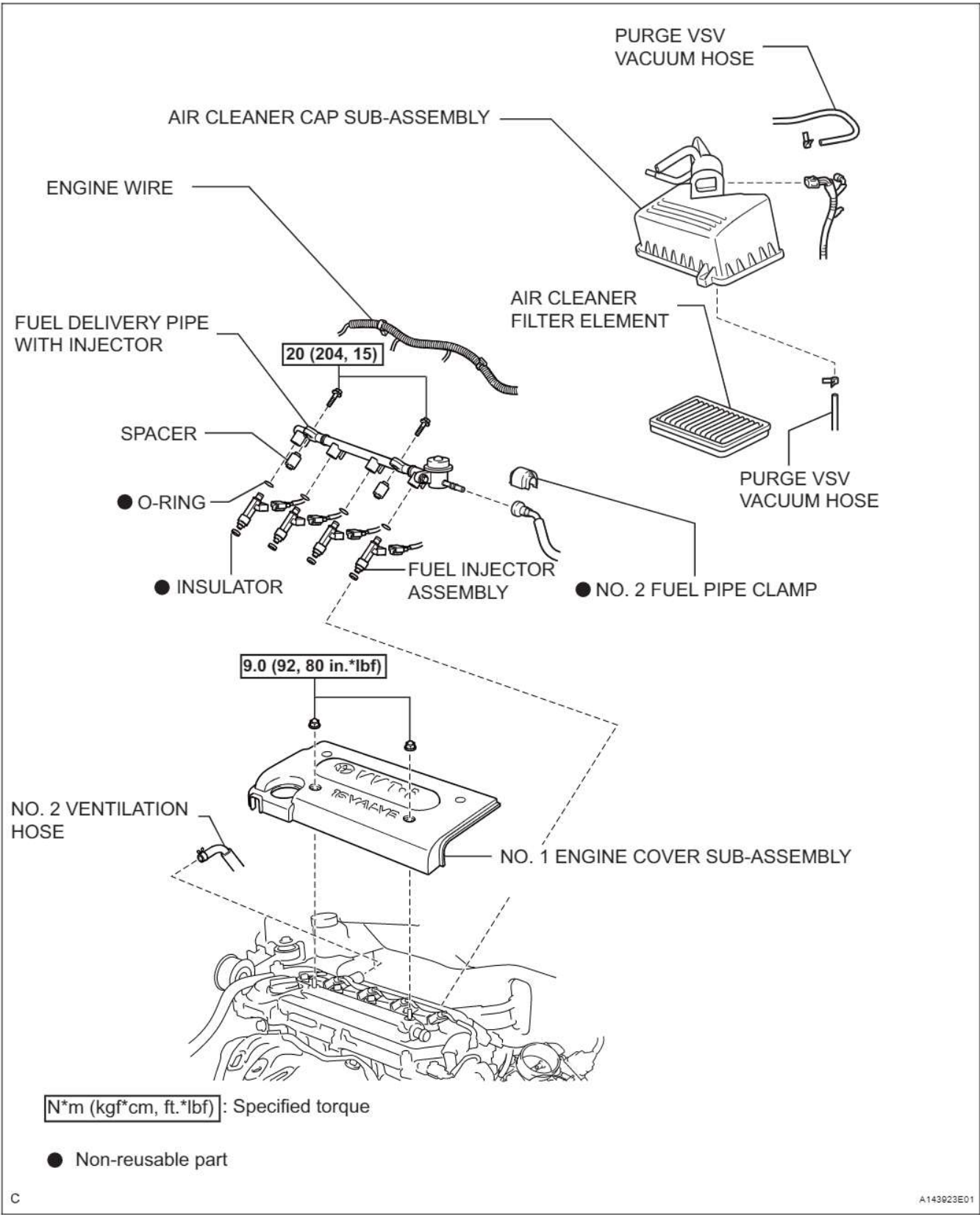
- Do not twist the connector part of the nylon tube or the quick connector when connecting them.
- Do not bend or twist the nylon tube.
- Do not remove the EPDM protector on the outside of the nylon tube.
- Do not pinch or kink the nylon tubes to prevent fuel leakage.

4. INSPECT FOR FUEL LEAK

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

FU

FUEL INJECTOR
COMPONENTS



FU

FU-12

2AZ-FXE FUEL – FUEL INJECTOR

REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

HINT:

See page [FU-1](#).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

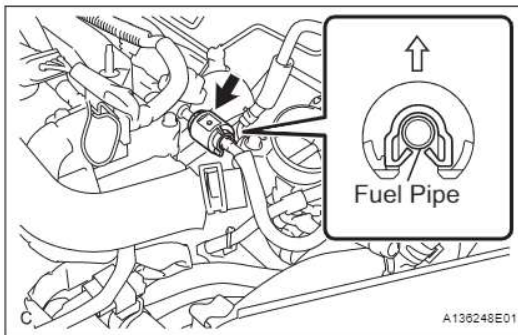
3. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-395](#))4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY (See page [EM-90](#))

5. DISCONNECT FUEL TUBE SUB-ASSEMBLY

- (a) Remove the No. 2 fuel pipe clamp.

HINT:

The No. 2 fuel pipe clamp cannot be reused.



- (b) Remove the fuel tube from the fuel hose clamp.

NOTICE:**Do not forcibly bend and twist the fuel main tube.**

- (c) Wipe off any dirt on the fuel tube connector.

- (d) Hold the fuel tube connector, and then install SST.

SST 09268-21010

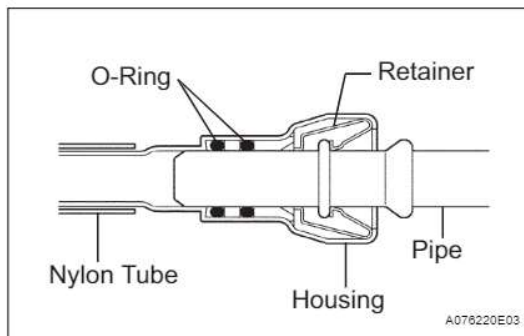
- (e) Turn SST to align the retainer inside the fuel tube connector with the chamfered part of SST.

- (f) Insert SST into the fuel tube and hold it. Then push the fuel tube connector toward SST.

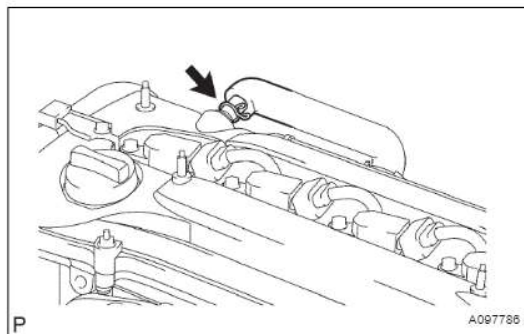
- (g) Mount the retainer of the fuel tube connector onto the chamfered part of SST.

2AZ-FXE FUEL – FUEL INJECTOR

FU-13

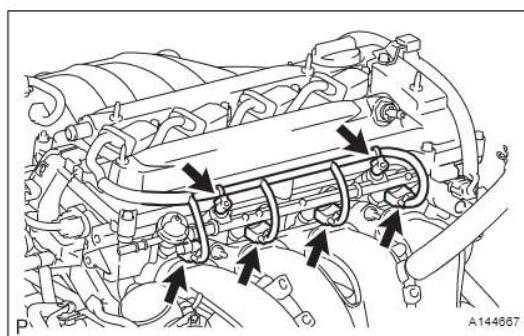


- (h) Slide SST and fuel tube connector together towards the fuel tube until they make a "click" sound, and then disconnect the fuel tube.
- (i) Drain the fuel remaining inside the fuel tube.
- (j) Cover the fuel tube and fuel pipe with a plastic bag to protect the disconnected part.



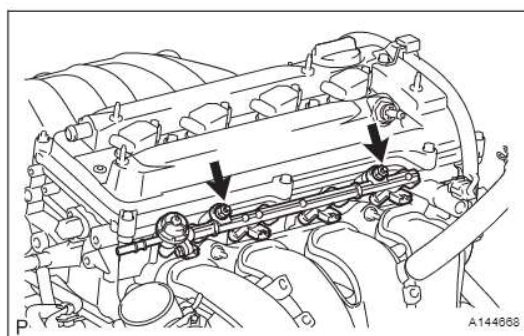
6. DISCONNECT NO. 2 VENTILATION HOSE

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



7. REMOVE FUEL DELIVERY PIPE WITH INJECTOR

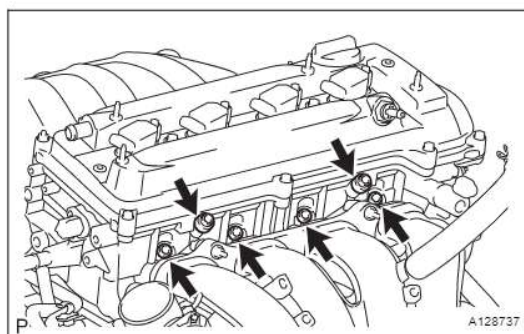
- (a) Remove the 2 wire harness clamps.
- (b) Disconnect the 4 fuel injector connectors.



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

NOTICE:

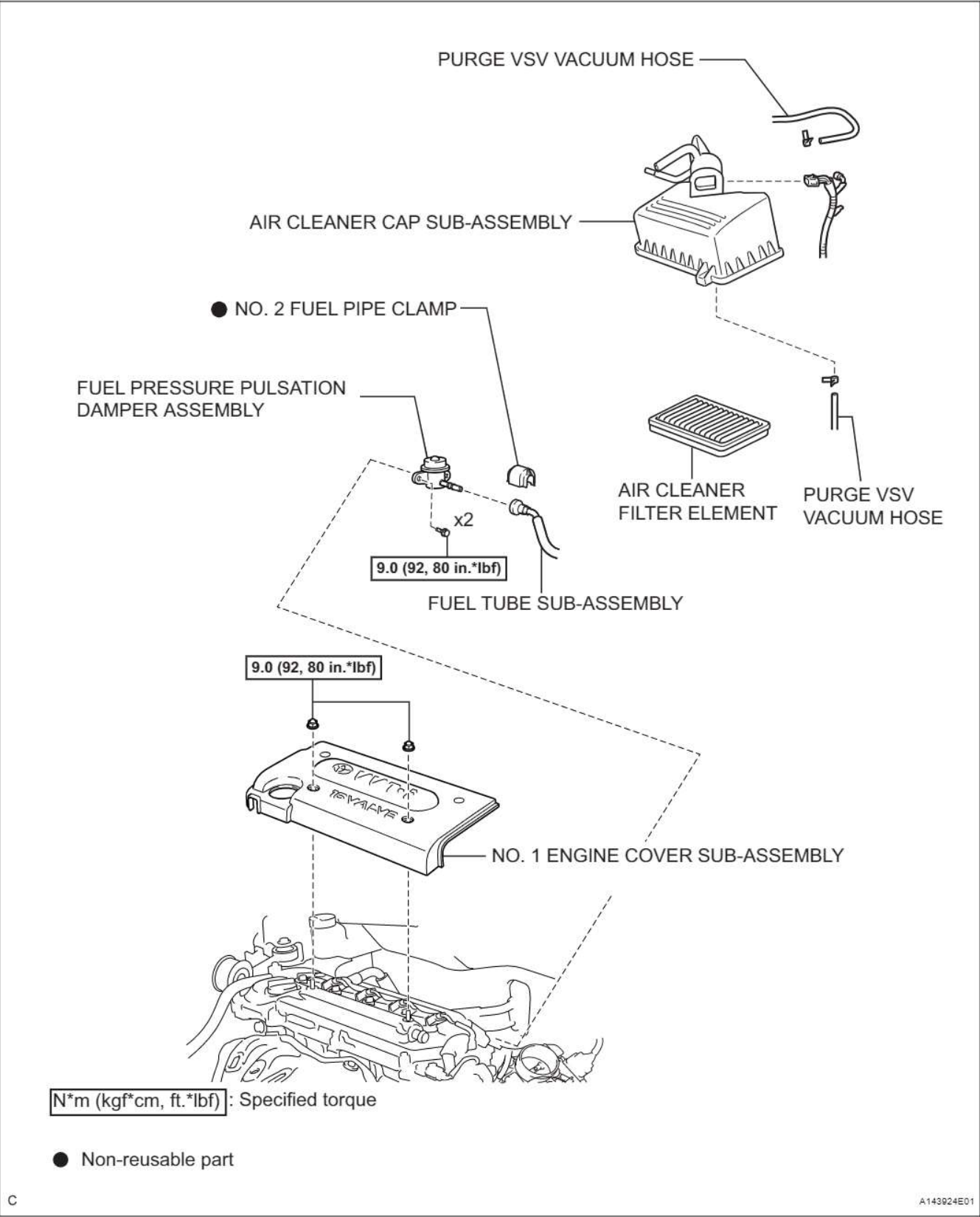
Be careful not to drop the fuel injectors when removing the fuel delivery pipe.



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

FUEL PRESSURE PULSATION DAMPER

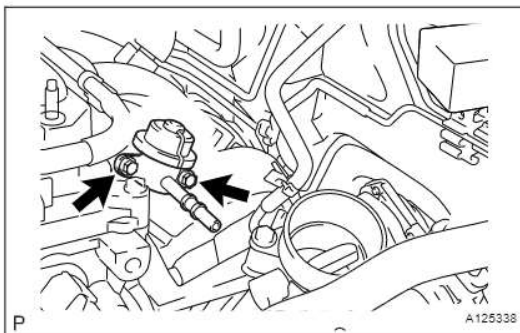
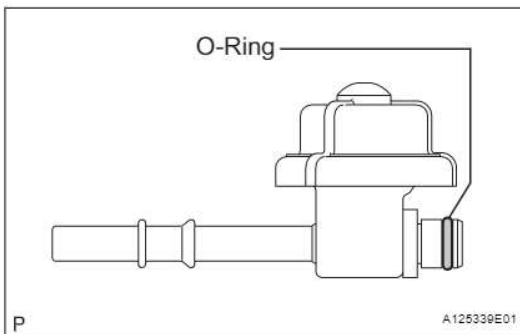
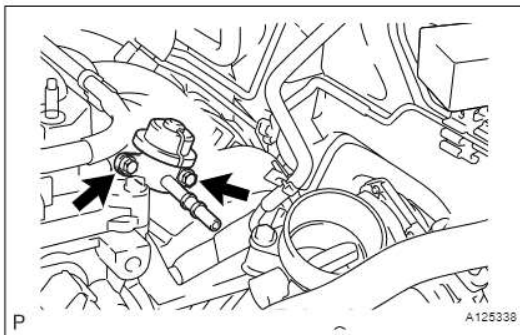
COMPONENTS



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-90](#))
4. **REMOVE AIR CLEANER CAP SUB-ASSEMBLY** (See page [ES-395](#))
5. **DISCONNECT FUEL TUBE SUB-ASSEMBLY**
HINT:
Disconnect the metallic type connector (See page [FU-12](#)).
6. **REMOVE FUEL PRESSURE PULSATION DAMPER ASSEMBLY**
 - (a) Remove the 2 bolts and fuel pressure pulsation damper.

FU



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 (92 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-398](#))
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

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

5. INSPECT FOR FUEL LEAK

HINT:

See page [FU-9](#).**6. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY
(See page [EM-114](#))****7. PERFORM INITIALIZATION**(a) Perform initialization procedure (See page [IN-43](#)).

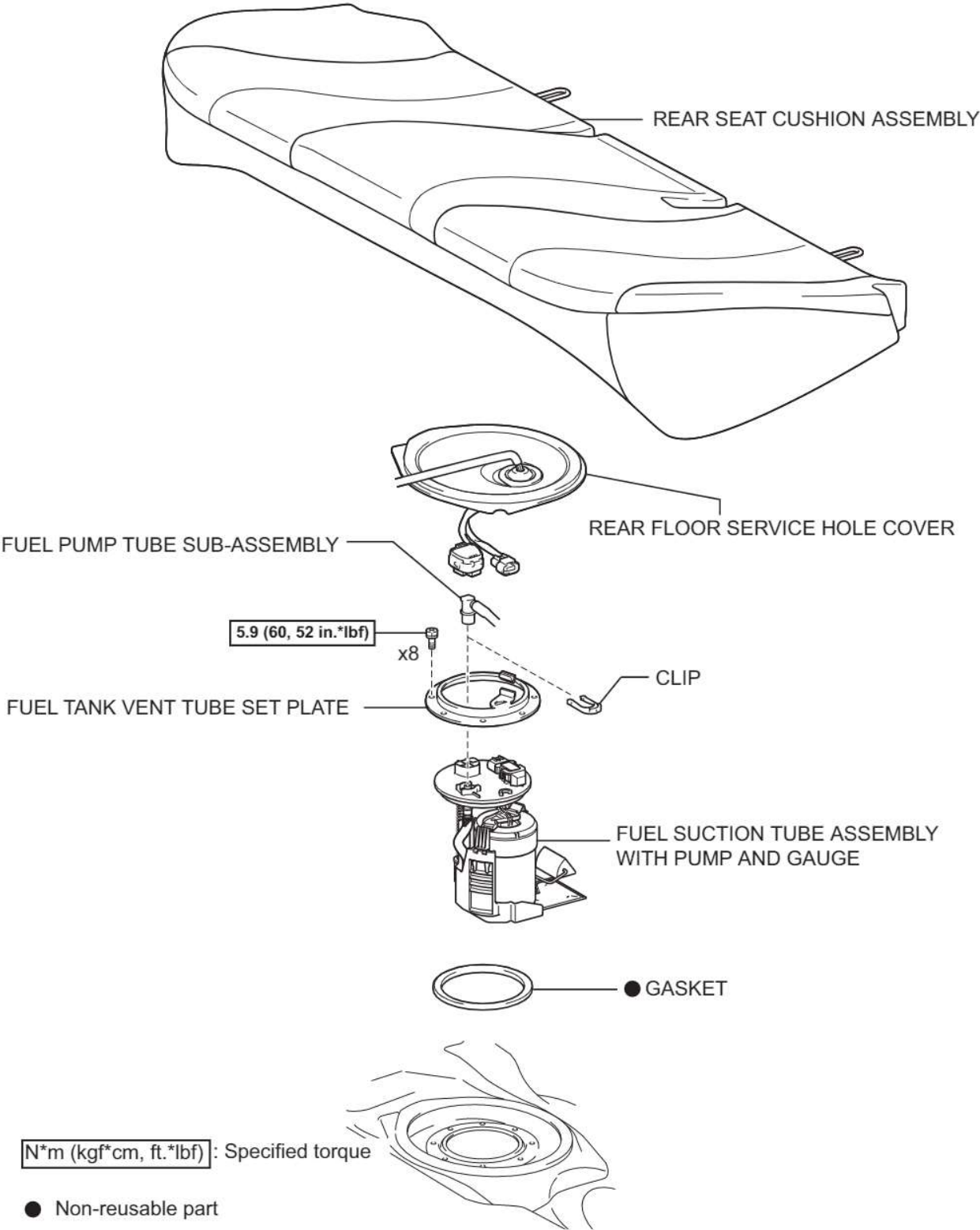
HINT:

Some systems need initialization after reconnecting the cable to the negative battery terminal.

FU

FUEL PUMP
COMPONENTS

FU

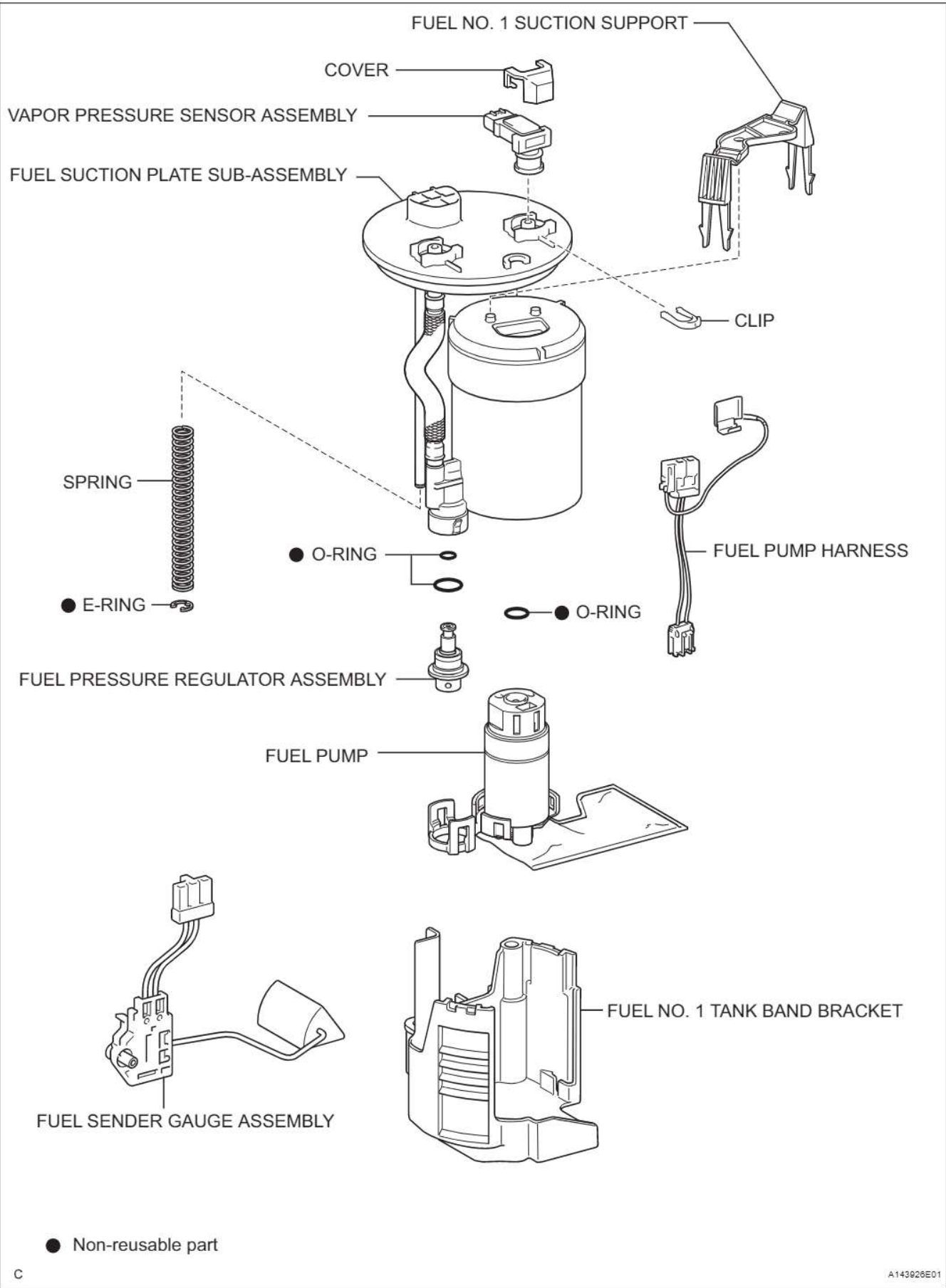


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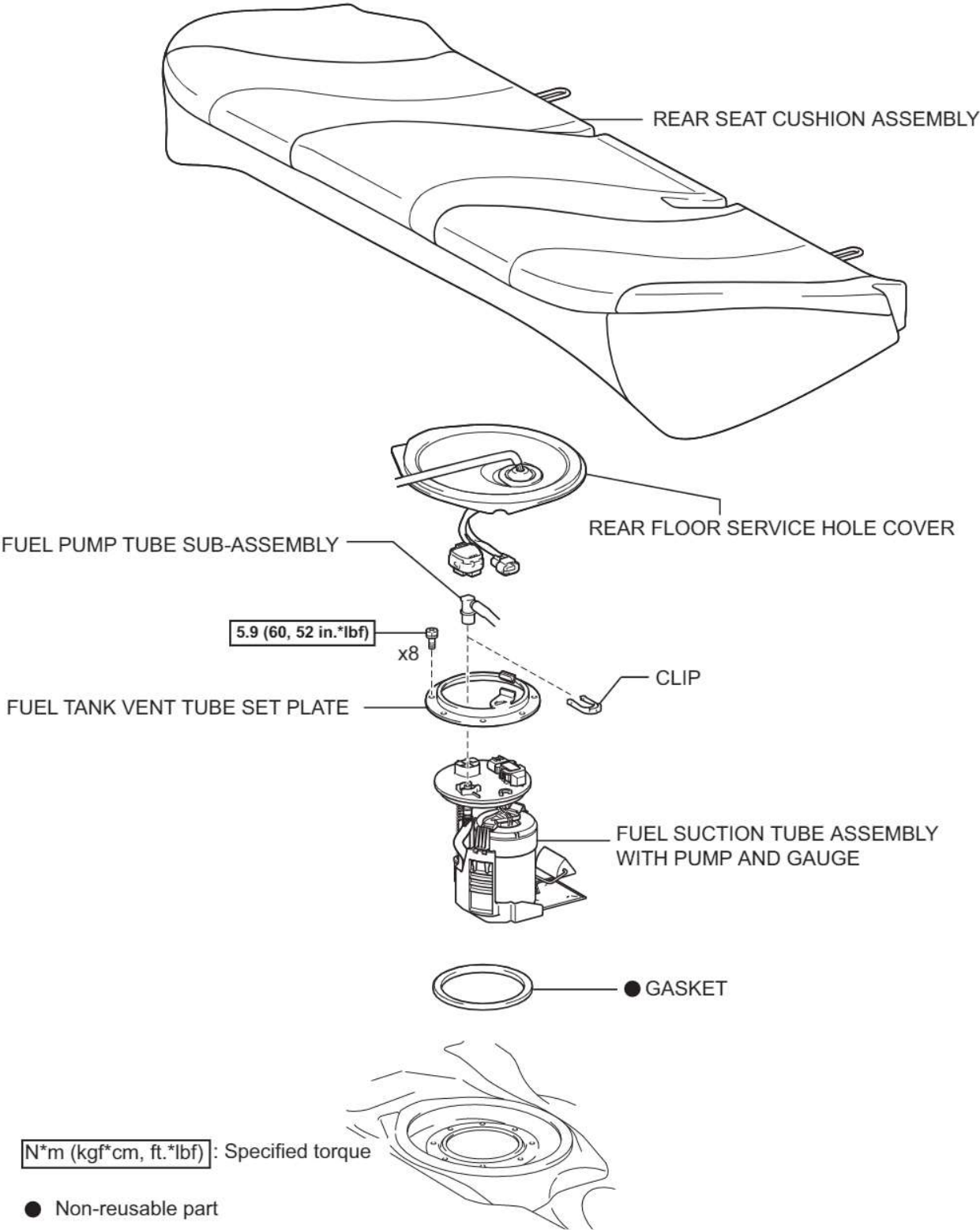
FU-22

2AZ-FXE FUEL – FUEL PUMP



FUEL TANK
COMPONENTS

FU



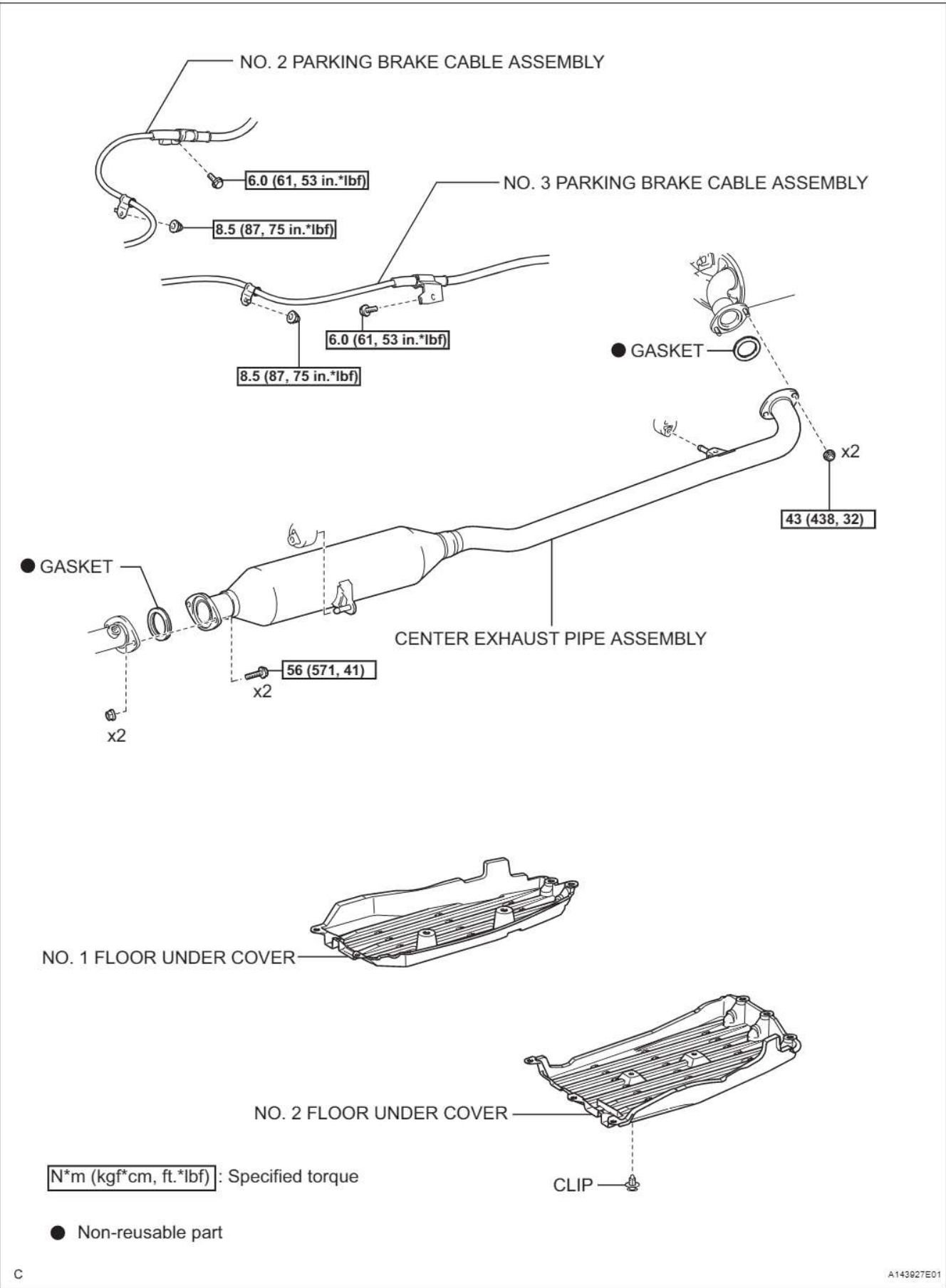
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FU-34

2AZ-FXE FUEL – FUEL TANK

FU



2AZ-FXE FUEL – FUEL TANK

