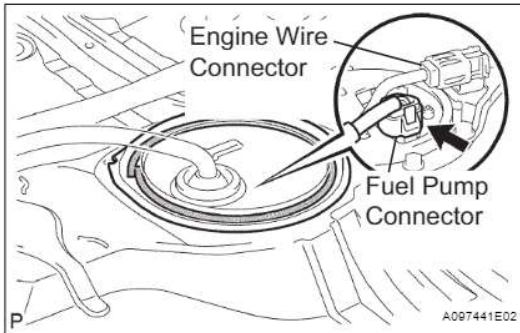


FUEL SYSTEM

PRECAUTION

1. BEFORE WORKING ON FUEL SYSTEM

- (a) Do not work near an open flame.
- (b) Keep gasoline away from rubber and leather parts.
- (c) Discharge the fuel pressure before disconnecting the fuel line to prevent gasoline slipping out. Refer to the following procedure.

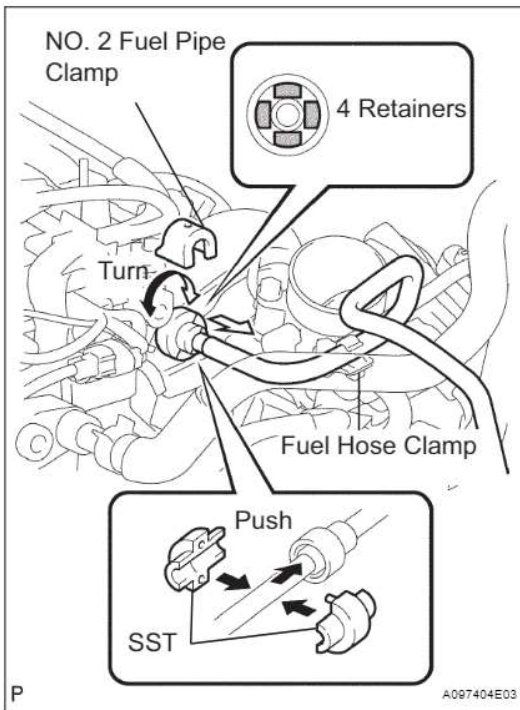


2. DISCHARGE FUEL PRESSURE

NOTICE:

DTC P0171 lean fuel trim may be present. Clear DTCs after the repair.

- (a) Remove the rear seat cushion and rear floor service hole cover.
- (b) Disconnect the fuel pump connector.
- (c) Allow the engine to idle until the engine stops.
- (d) Turn the ignition switch OFF.
- (e) Remove the fuel cap to release the fuel tank pressure.
- (f) Connect the fuel pump connector.
- (g) Install the rear floor service hole cover and rear seat cushion.



3. DISCONNECT FUEL MAIN TUBE

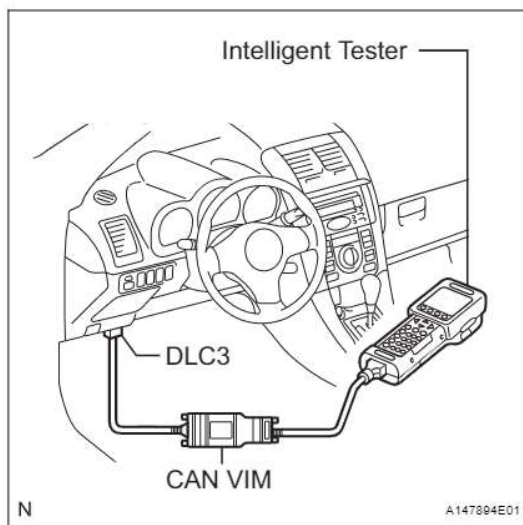
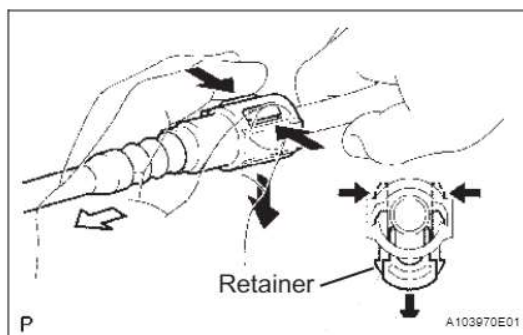
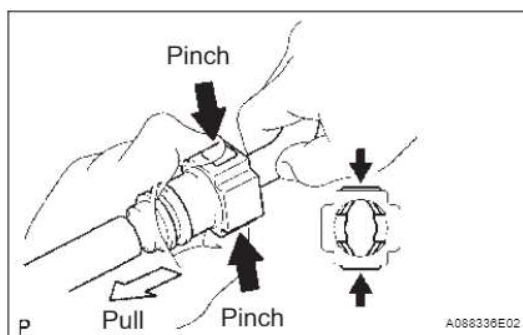
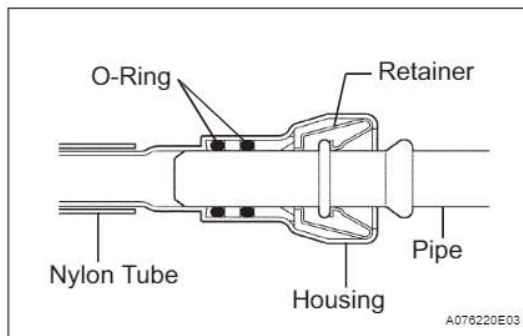
NOTICE:

Do not forcibly bend and twist the fuel main tube.

- (a) Remove the fuel pipe clamp.
 - (b) Wipe off dirt on the fuel tube connector.
 - (c) Hold the fuel tube connector, and then install the SST.
- SST 09268-21010**
- (d) Turn the SST to align the retainer inside the fuel tube connector with the chamfered part of the SST.
 - (e) Insert the SST into the fuel tube and hold it. Then push the fuel tube connector toward the SST side.
 - (f) Mount the retainer of the fuel tube connector onto the chamfered part of the SST.

FU-2

2AZ-FE FUEL – FUEL SYSTEM



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

4. CONNECT FUEL MAIN TUBE

- (a) Connect the fuel main tube.
- (b) Push the fuel tube connector until it makes a click sound.
- (c) Install the fuel pipe clamp.
- (d) Install the fuel tube into the fuel hose clamp.

5. DISCONNECT FUEL TUBE CONNECTOR A TYPE

- (a) Wipe off dirt on the fuel tube connector.
- (b) Pinch the fuel tube connector, and then disconnect the fuel tube. DO not use any tools.
- (c) Drain the fuel remaining inside the fuel tube.
- (d) Cover the fuel tube and fuel pipe with a plastic bag to protect the disconnected part.

6. CONNECT FUEL TUBE CONNECTOR A TYPE

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

HINT:

If it is difficult to connect the fuel tube connector, apply a small amount of new engine oil on the tip of the pipe.

7. DISCONNECT FUEL TUBE CONNECTOR B TYPE

- (a) Wipe off dirt on the fuel tube connector.
- (b) Detach the 2 claws of the connector retainer, and then disconnect the fuel tube. DO not use any tools.
- (c) Drain the fuel remaining inside the fuel tube.
- (d) Cover the fuel tube and fuel pipe with a plastic bag to protect the disconnected part.

ON-VEHICLE INSPECTION**1. CHECK FUEL PUMP OPERATION**

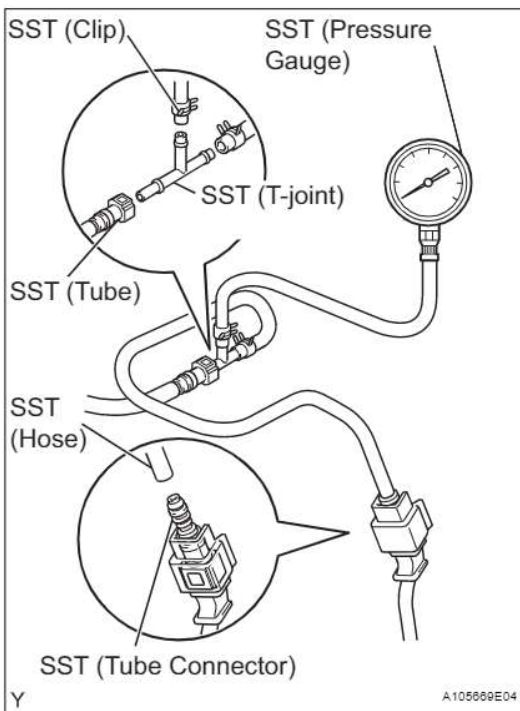
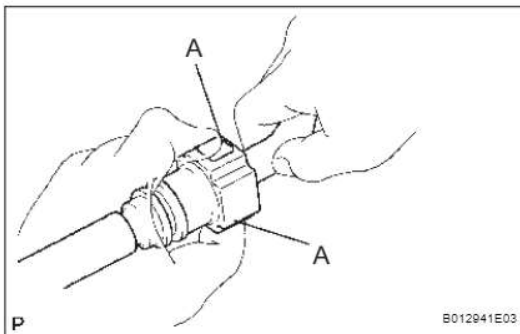
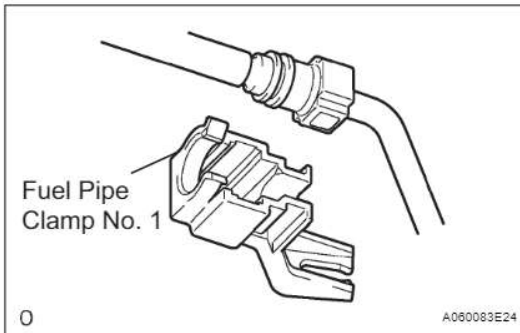
- (a) Connect the intelligent tester to the DLC3.
 - (b) Turn the ignition switch ON. Do not start the engine.
 - (c) Select the tester menus: DIAGNOSIS, ENHANCED OBD II, ACTIVE TEST and FUEL PUMP/SPD, to operate the fuel pump.
 - (d) Touch the fuel hose in the engine compartment to check the fuel flow.
 - (e) Stop the fuel pump.
- If there is no fuel flow, the fuel pump may not operate. Check the fuel pump circuit (see page [ES-354](#)).

2. CHECK FUEL PRESSURE

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

2AZ-FE FUEL – FUEL SYSTEM

FU-3



- (b) Disconnect the cable from the negative (-) battery terminal.
- (c) Remove the fuel pipe clamp No. 1 from the fuel tube connector.

- (d) Disconnect the fuel tube connector from the fuel pipe by pinching part A with your fingers, as shown in the illustration.

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.

- (e) 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)
- (f) Wipe up any gasoline.
- (g) Connect the cable to the negative (-) battery terminal.
- (h) When using the intelligent tester:
Operate the fuel pump (See step 1).
- (i) Measure the fuel pressure.

Fuel pressure:**304 to 343 kPa (3.1 to 3.5 kgf/cm², 44 to 50 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.

- (j) Start the engine.
- (k) Measure the fuel pressure at idle.

Fuel pressure:**304 to 343 kPa (3.1 to 3.5 kgf/cm², 44 to 50 psi)**

- (l) Stop the engine.
- (m) 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)**

If the pressure is not as specified, check the fuel pump, pressure regulator and/or injectors.

FU-4**2AZ-FE FUEL – FUEL SYSTEM**

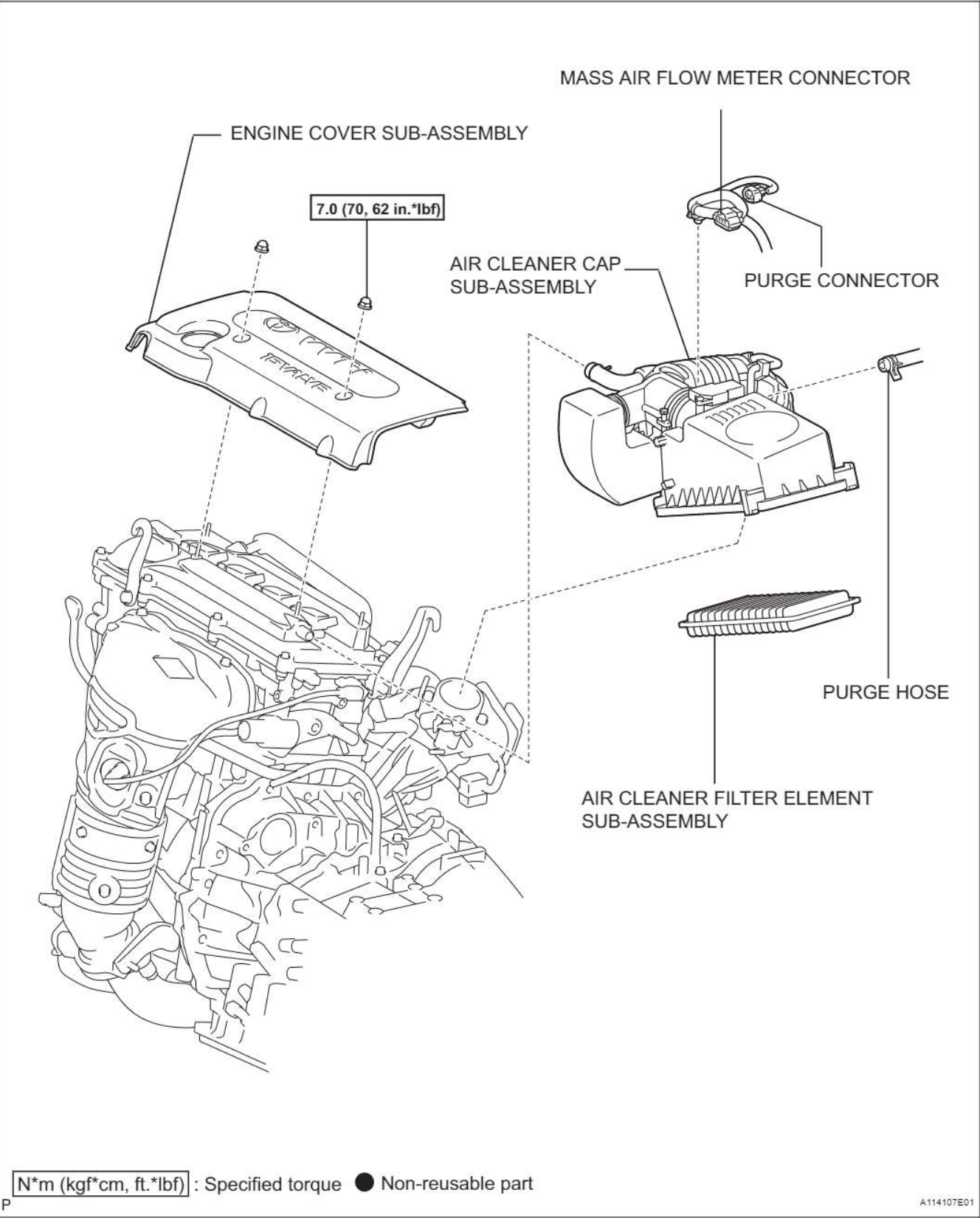
- (n) After checking the fuel pressure, disconnect the cable from the negative (-) battery terminal and carefully remove SST and the fuel tube connector to prevent gasoline from spraying.
- (o) Reconnect the fuel inlet tube (fuel tube connector).

CAUTION:

Always read the precautions (See page [FU-1](#)) before connecting the fuel tube connector (quick type).

FU

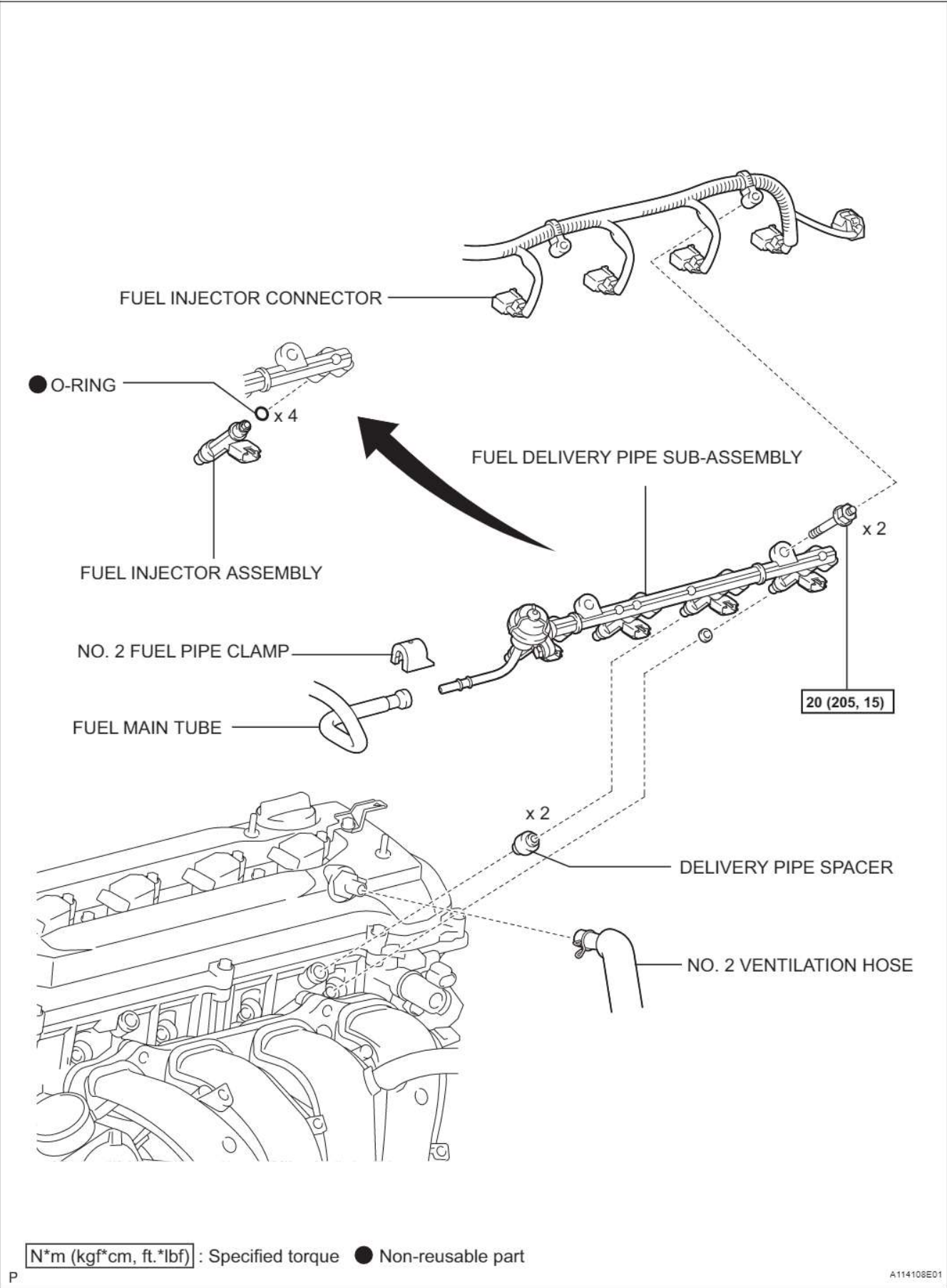
FUEL INJECTOR
COMPONENTS



FU-6

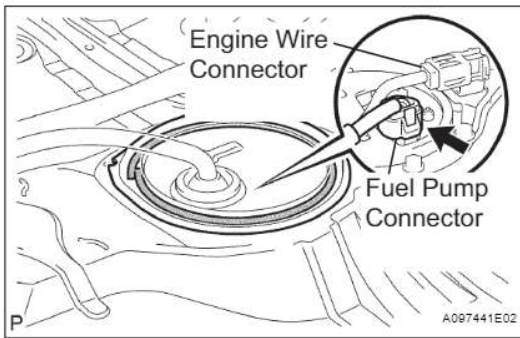
2AZ-FE FUEL – FUEL INJECTOR

FU



2AZ-FE FUEL – FUEL INJECTOR

FU-7



REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE

NOTICE:

DTC P0171 lean fuel trim may be present. Clear DTCs after the repair.

- Remove the rear seat cushion and rear floor service hole cover.
- Disconnect the fuel pump connector.
- Allow the engine to idle until the engine stops.
- Turn the ignition switch OFF.
- Remove the fuel cap to release the fuel tank pressure.
- Connect the fuel pump connector.
- Install the rear floor service hole cover and rear seat cushion.

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

3. REMOVE ENGINE COVER SUB-ASSEMBLY (See page [ES-382](#))4. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-383](#))

5. DISCONNECT FUEL MAIN TUBE

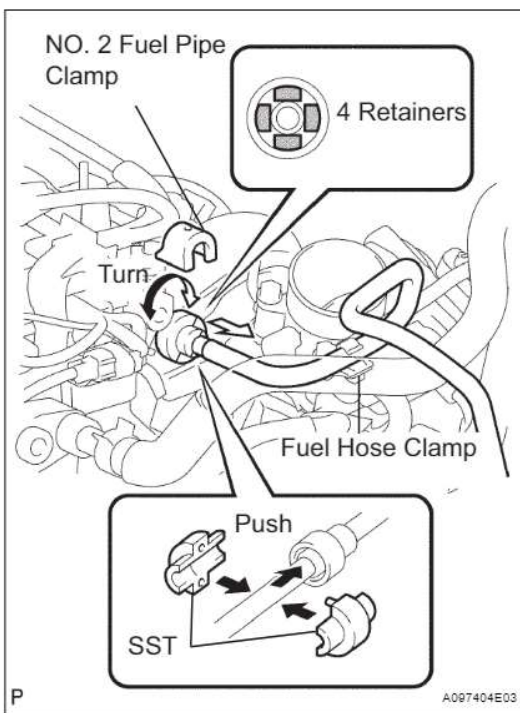
NOTICE:

DO not forcibly bend and twist the fuel main tube.

- Remove the fuel pipe clamp.
- Wipe off dirt on the fuel tube connector.
- Hold the fuel tube connector, and then install the SST.

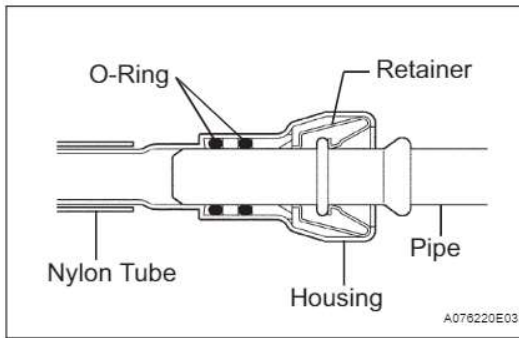
SST 09268-21010

- Turn the SST to align the retainer inside the fuel tube connector with the chamfered part of the SST.
- Insert the SST into the fuel tube and hold it. Then push the fuel tube connector toward the SST side.
- Mount the retainer of the fuel tube connector onto the chamfered part of the SST.

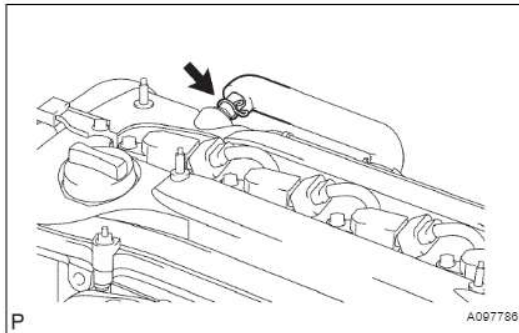


FU-8

2AZ-FE FUEL – FUEL INJECTOR

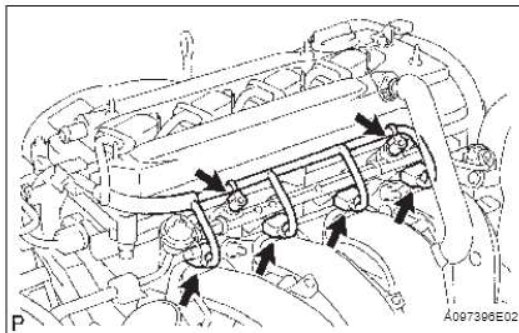


- (g) Slide the SST and fuel tube connector together towards the fuel tube until they make a click sound, and then disconnect the fuel tube.
- (h) Drain the fuel remaining inside the fuel tube.
- (i) Cover the fuel tube and fuel pipe with a plastic bag to protect the disconnected part.



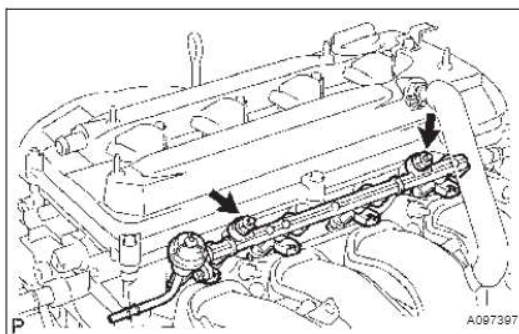
6. DISCONNECT NO. 2 VENTILATION HOSE

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



7. REMOVE FUEL DELIVERY PIPE SUB-ASSEMBLY

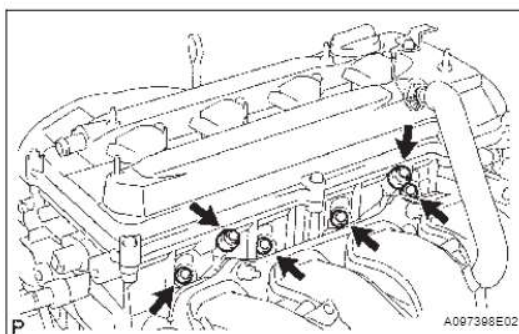
- (a) Remove the 2 wire harness clamps.
- (b) Disconnect the 4 fuel injector connectors.



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

NOTICE:

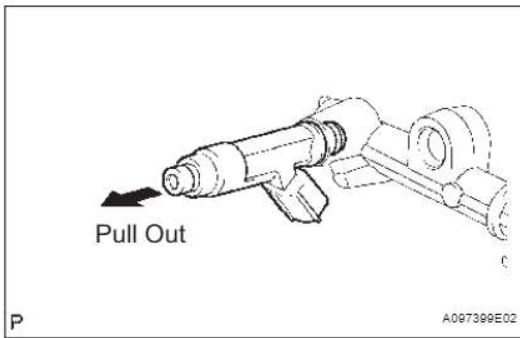
Be careful not to drop the fuel injectors when removing the fuel delivery pipe.



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

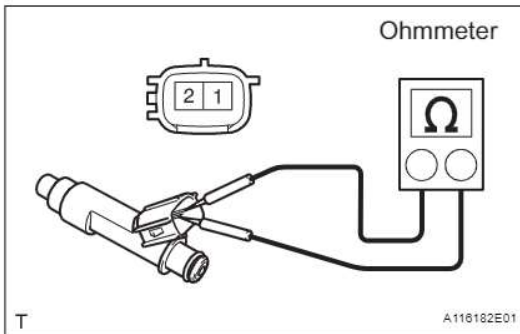
2AZ-FE FUEL – FUEL INJECTOR

FU-9



8. REMOVE FUEL INJECTOR ASSEMBLY

- (a) Pull the 4 fuel injectors out of the fuel delivery pipe.



INSPECTION

1. INSPECT FUEL INJECTOR ASSEMBLY

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

Standard resistance:

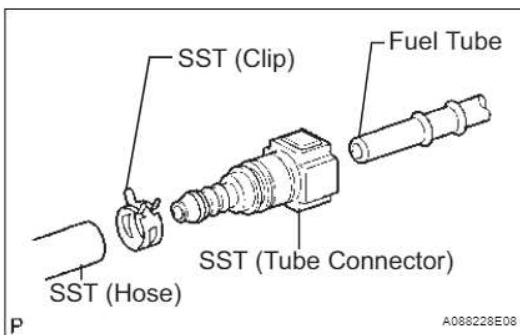
11.6 to 12.4 Ω at 20°C (68°F)

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

- (b) Inspect the injector injection volume.

CAUTION:

- This test involves high-pressure fuel and electricity.
- Take every precaution regarding safe handling of both the fuel and the electricity.
- Perform this test in a safe area, and avoid any sparks or flame.
- Do not smoke.



- (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)

CAUTION:

Always read the precautions (See page FU-1) before connecting the fuel tube connector (quick type).

- (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).

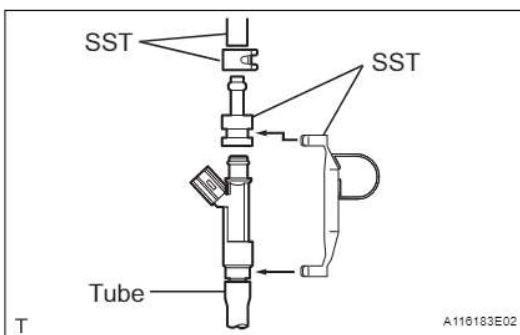
SST 09268-31011 (09268-41110, 09268-41300, 90467-13001)

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

CAUTION:

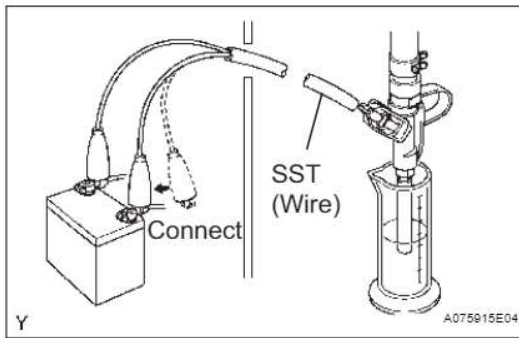
Install a suitable vinyl tube onto the injector to contain gasoline spray.

- (5) Operate the fuel pump (See page FU-2).



FU-10

2AZ-FE FUEL – FUEL INJECTOR



- (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:

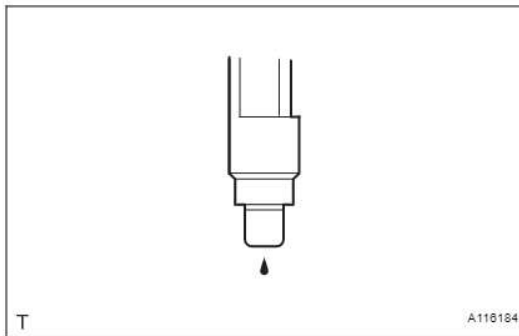
76 to 92 cm³ (4.6 to 5.6 cu in.) per 15 seconds

Standard difference between each injector:

16 cm³ (1.0 cu in.) or less

NOTICE:

Always turn on and off the voltage on the battery side, not the fuel pump side.



- (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:

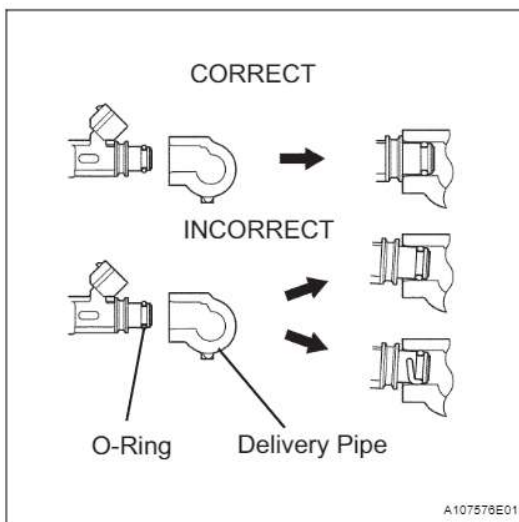
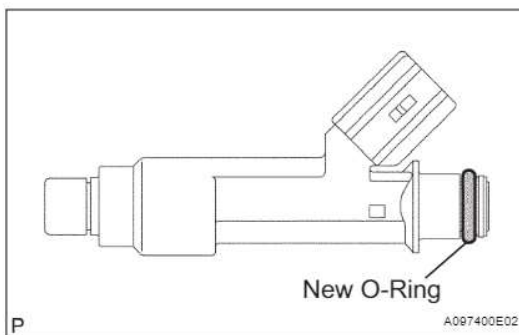
1 drop or less per 12 minutes

- (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 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 fuel injector right and left onto the fuel delivery pipe.

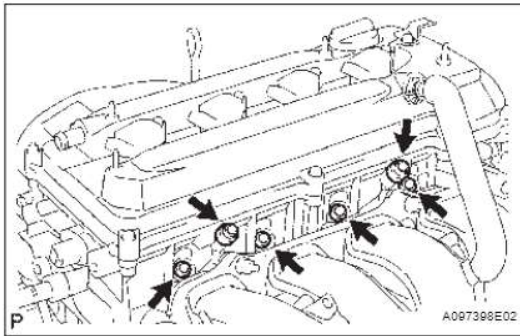
NOTICE:

Make sure that the O-ring is not cracked or jammed when installing.

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

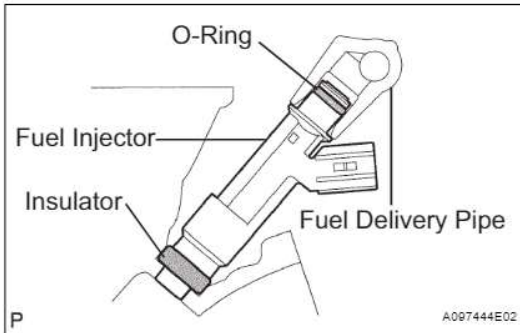
2AZ-FE FUEL – FUEL INJECTOR

FU-11



2. INSTALL FUEL DELIVERY PIPE SUB-ASSEMBLY

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

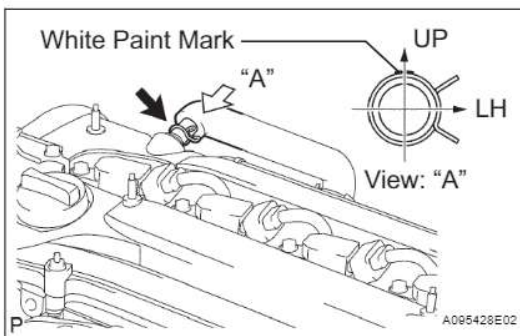
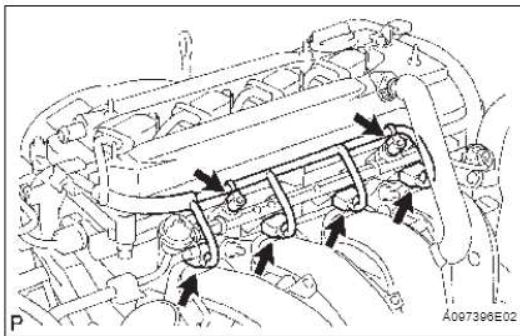


- (c) Install the fuel delivery pipe together with the 4 fuel injectors, then temporarily tighten the 2 bolts.

NOTICE:

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

- (d) Check that the fuel injector rotate smoothly. If the fuel injector does not rotate, replace the O-ring.
- (e) Retighten the 2 bolts to specified torque.
Torque: 20 N*m (205 kgf*cm, 15 ft.*lbf)
- (f) Connect the 4 fuel injector connectors.
- (g) Install the 2 wire harness clamps.



3. CONNECT NO. 2 VENTILATION HOSE

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

NOTICE:

Make sure that the paint mark and hose clamp are at the correct angle when installing.

4. CONNECT FUEL MAIN TUBE

- (a) Connect the fuel main tube.
- (b) Push the fuel tube connector until it makes a click sound.
- (c) Install the fuel pipe clamp.
- (d) Install the fuel tube into the fuel hose clamp.

5. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-387](#))6. INSTALL ENGINE COVER SUB-ASSEMBLY (See page [ES-389](#))

7. CONNECT CABLE TO BATTERY NEGATIVE TERMINAL

8. CHECK FOR FUEL LEAKAGE

FU-12

2AZ-FE FUEL – FUEL INJECTOR

9. PERFORM INITIALIZATION

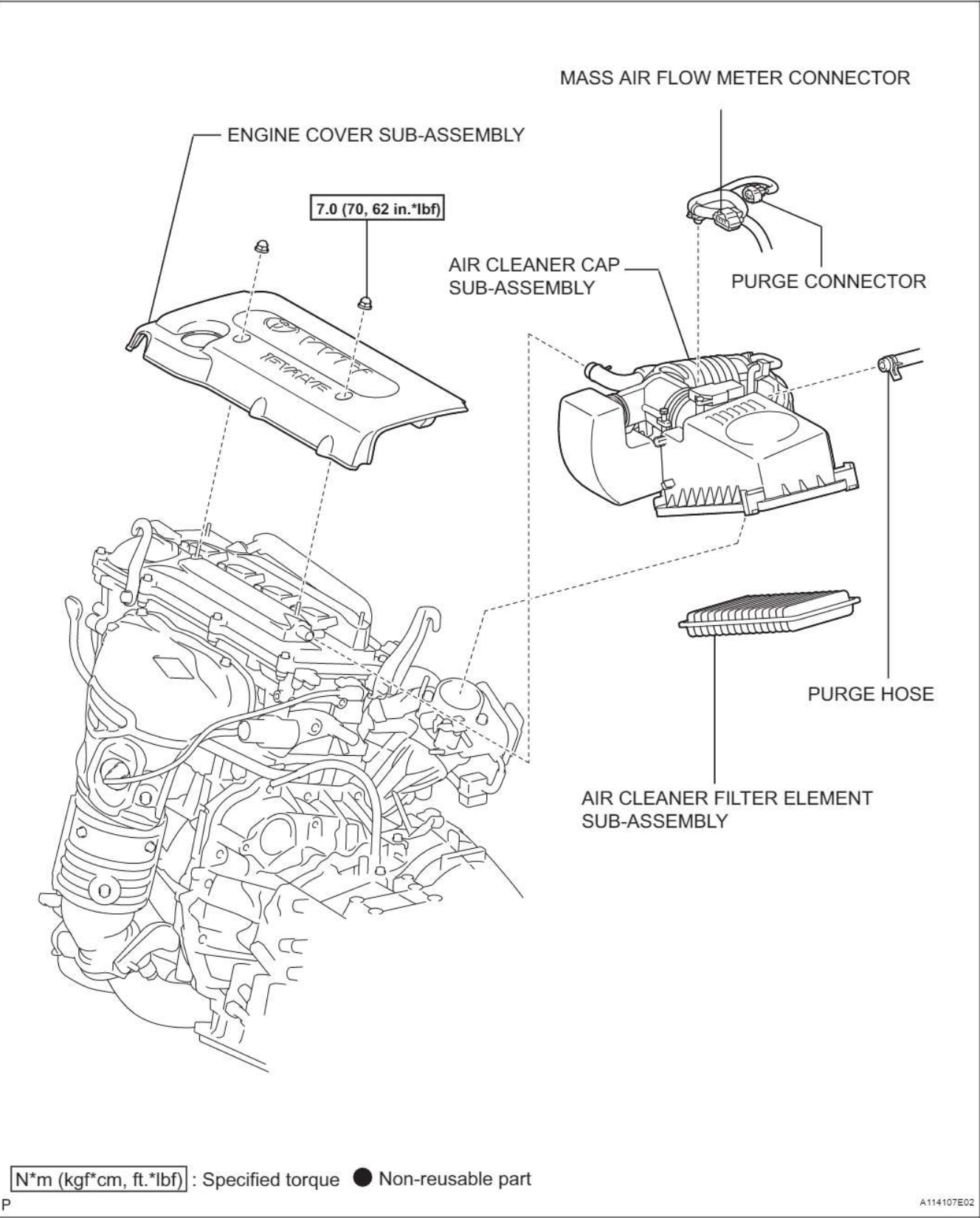
- (a) Perform initialization (see page [IN-23](#)).

NOTICE:

Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

FU

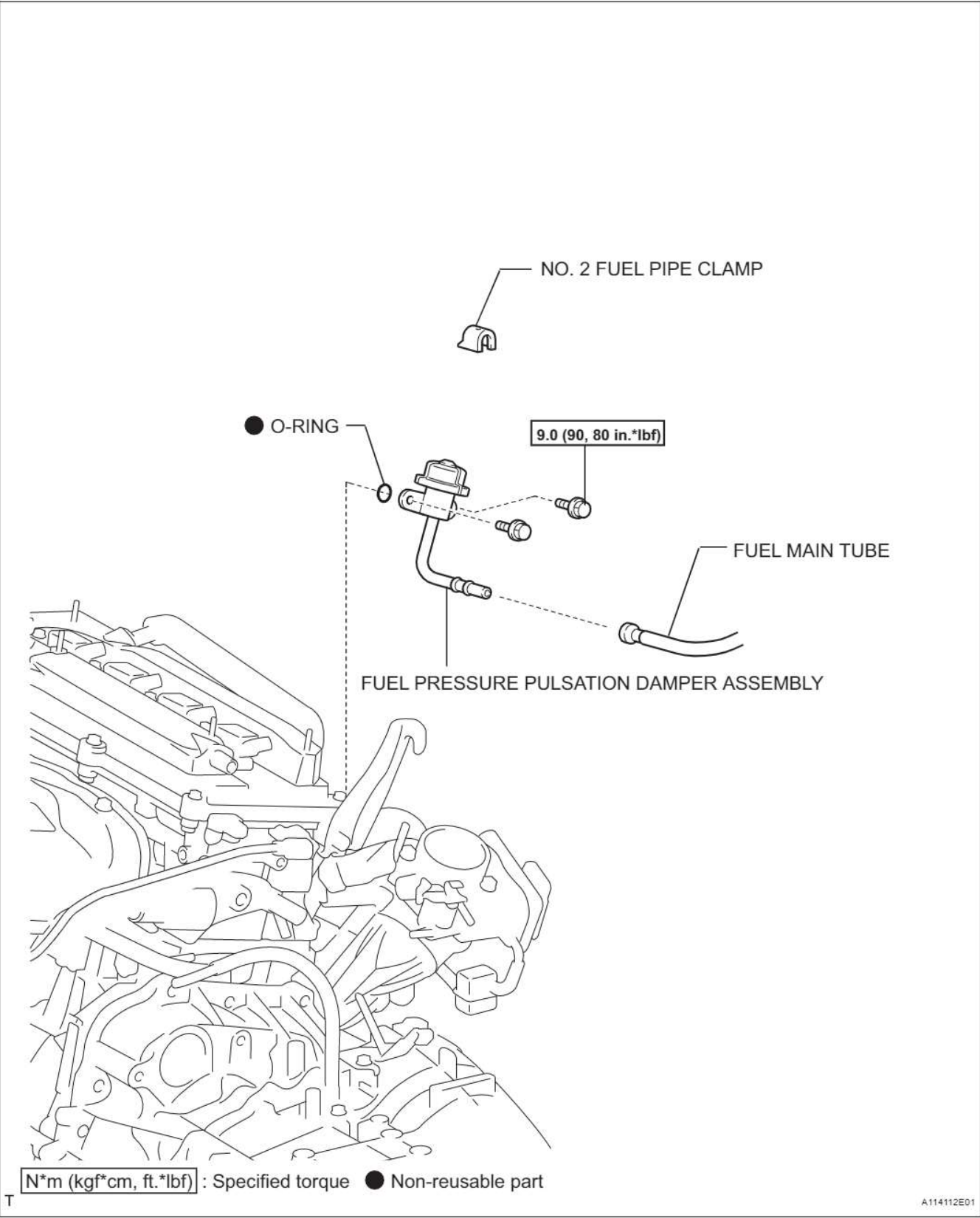
FUEL PRESSURE PULSATION DAMPER
COMPONENTS



FU-14

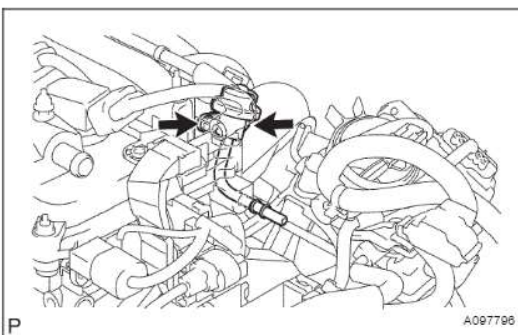
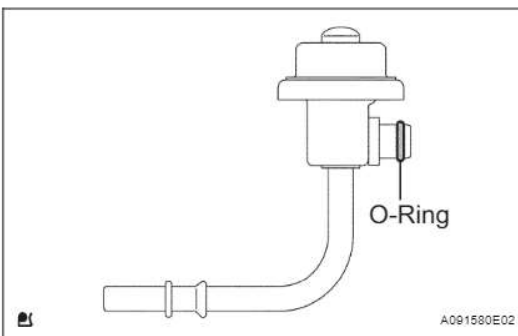
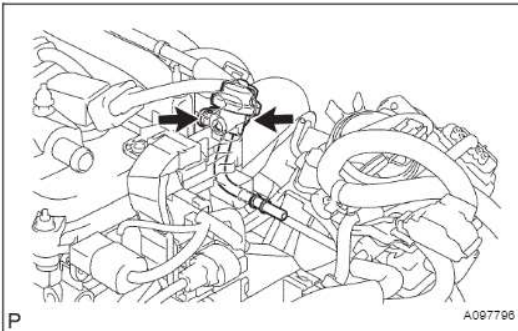
2AZ-FE FUEL – FUEL PRESSURE PULSATION DAMPER

FU



REMOVAL

1. DISCHARGE FUEL SYSTEM PRESSURE (See page [FU-7](#))
2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
3. REMOVE ENGINE COVER SUB-ASSEMBLY (See page [ES-382](#))
4. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-383](#))
5. DISCONNECT FUEL MAIN TUBE (See page [FU-7](#))
6. REMOVE FUEL PRESSURE PULSATION DAMPER ASSEMBLY
 - (a) Remove the 2 bolts, then remove the fuel pulsation damper.



INSTALLATION

1. INSTALL FUEL PRESSURE PULSATION DAMPER ASSEMBLY
 - (a) Apply a light coat of the 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 when installing.
2. INSTALL FUEL MAIN TUBE (See page [FU-11](#))
3. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (See page [ES-387](#))
4. INSTALL ENGINE COVER SUB-ASSEMBLY (See page [ES-389](#))
5. CONNECT CABLE TO BATTERY NEGATIVE TERMINAL
6. CHECK FOR FUEL LEAKS

FU

FU-16**2AZ-FE FUEL – FUEL PRESSURE PULSATION DAMPER**

7. PERFORM INITIALIZATION

- (a) Perform initialization (see page [IN-23](#)).

NOTICE:

Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

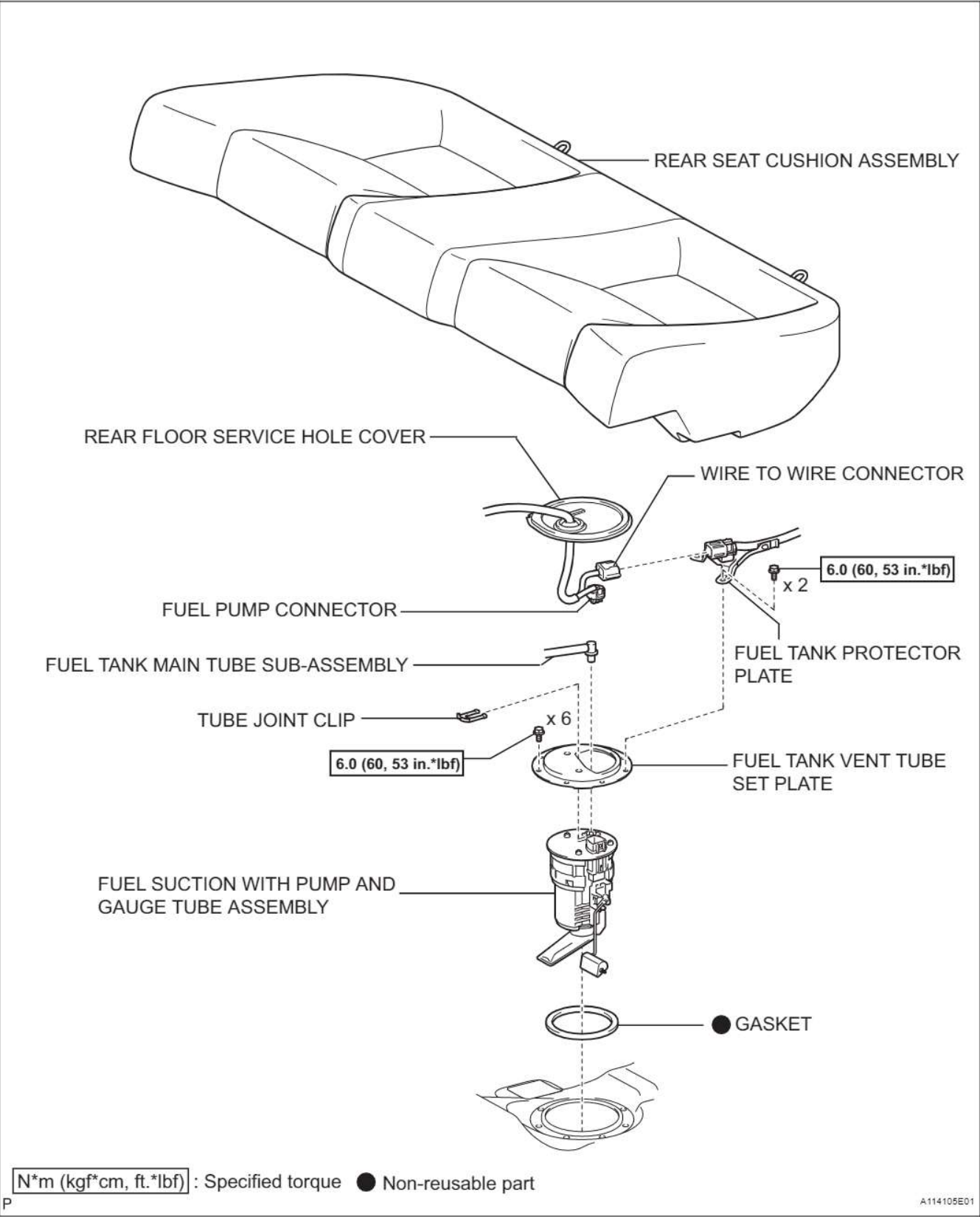
FU

FU-16

2AZ-FE FUEL – FUEL PUMP

FUEL PUMP

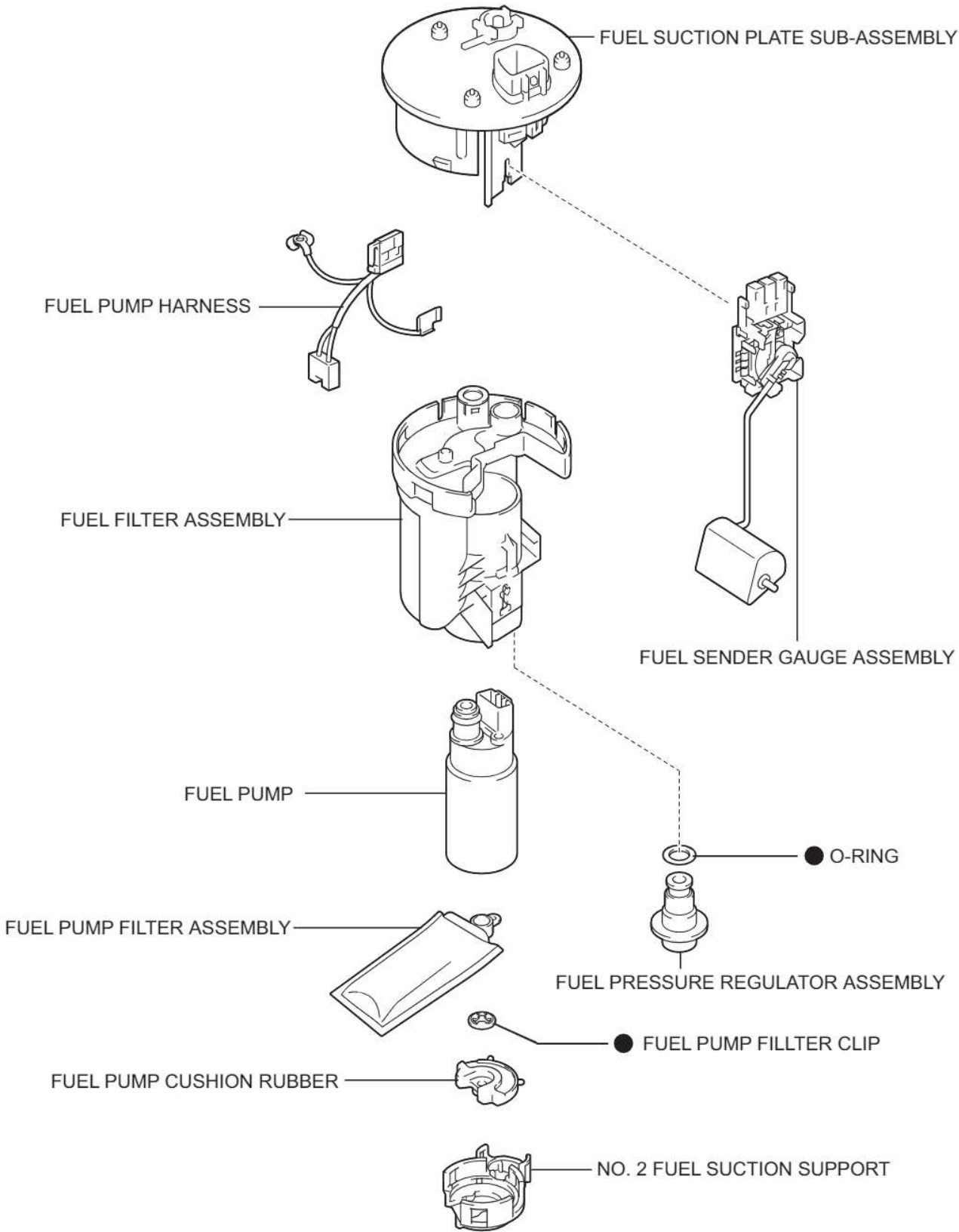
COMPONENTS



2AZ-FE FUEL – FUEL PUMP

FU-17

FU



● Non-reusable part

P

A114108E01

FU-18

2AZ-FE FUEL – FUEL PUMP

REMOVAL

1. REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-17)

2. REMOVE REAR FLOOR SERVICE HOLE COVER

(a) Remove the butyl tape, and remove the rear floor service hole cover.

(b) Disconnect the fuel pump connector.

(c) Discharge the fuel system pressure.

(1) Start the engine.

(2) Turn the ignition switch OFF after the engine stops.

HINT:

DTC P0171 (system too lean) may be present.

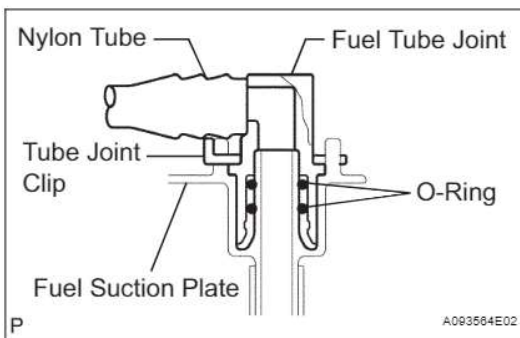
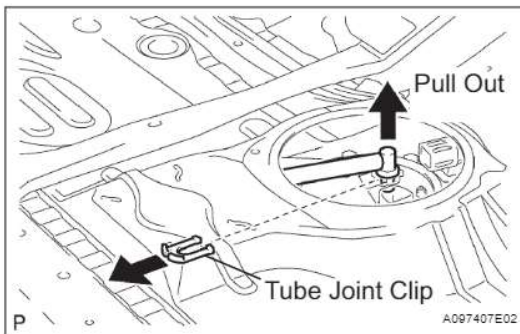
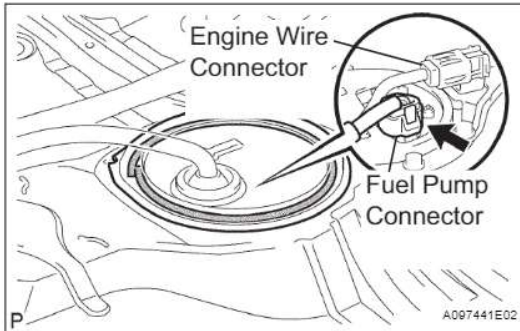
(3) Crank the engine again and check that the engine does not start.

(4) Remove the fuel tank cap, and discharge the pressure in the fuel tank completely.

(d) Disconnect the wire to wire connector.

3. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

4. REMOVE FUEL SUCTION WITH PUMP AND GAUGE TUBE ASSEMBLY



(a) Disconnect the fuel tank main tube.

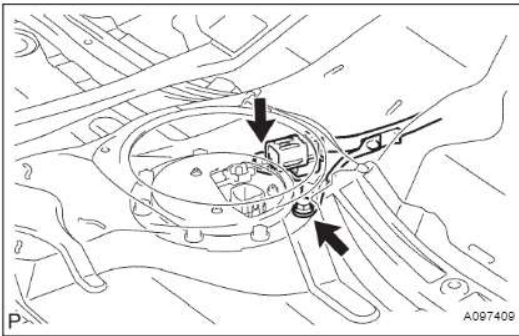
(1) Remove the tube joint clip, and pull the fuel tube joint out of the plug of the fuel suction plate.

NOTICE:

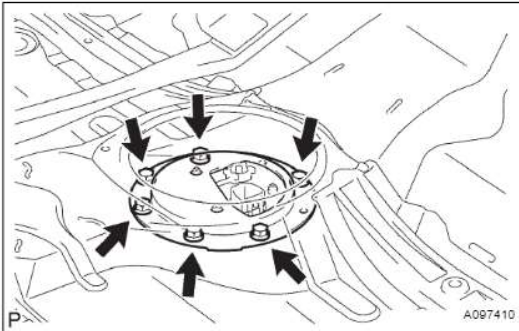
- Remove dirt and foreign objects on the fuel tube joint before performing this work.
- Do not allow any scratches or foreign objects on the parts when disconnecting, as the fuel tube joint has the O-ring that seals the plug.
- Perform this work by hand. Do not use any tools.
- Do not forcibly bend, twist or turn the nylon tube.
- Protect the disconnected part by covering it with a plastic bag and protective tape after disconnecting the fuel tank main tube.

2AZ-FE FUEL – FUEL PUMP

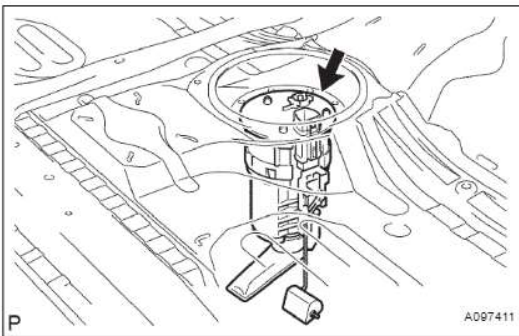
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- (b) Remove the 2 bolts and fuel tank protector plate.



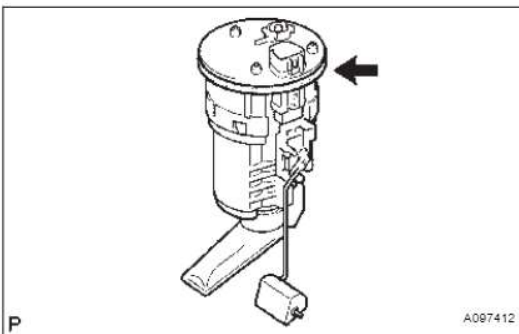
- (c) Remove the 6 bolts and fuel tank vent tube set plate.



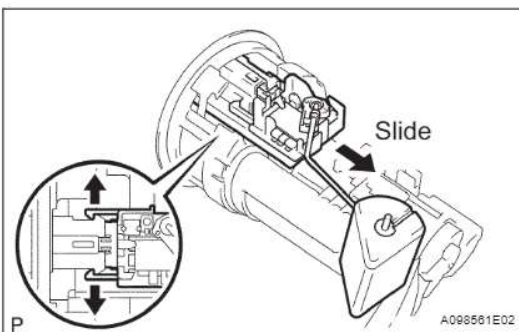
- (d) Remove the fuel suction with pump and gauge tube from the fuel tank.

NOTICE:

- Do not damage the fuel pump filter.
- Make sure that the fuel sender gauge arm does not bend.



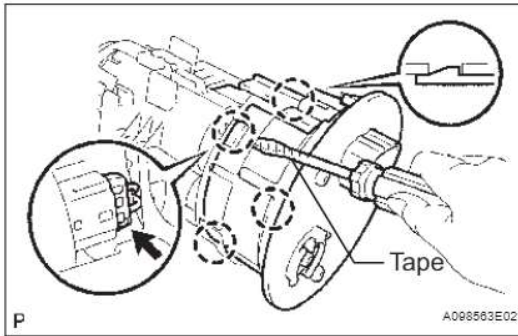
- (e) Remove the gasket from the fuel suction tube with pump and gauge tube.

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

- (a) Separate the 2 claws fittings, then slide the fuel sender gauge to remove it from the fuel filter.

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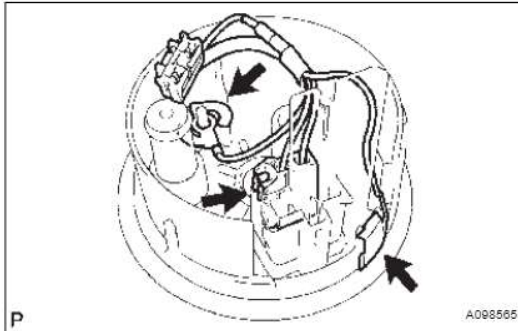
2AZ-FE FUEL – FUEL PUMP

**2. REMOVE FUEL SUCTION PLATE SUB-ASSEMBLY**

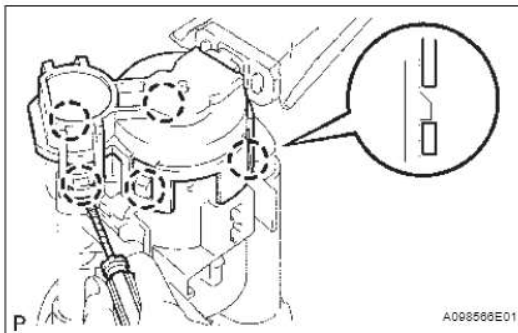
- (a) Disconnect the fuel pump harness connector.
- (b) Using a screwdriver with its tip wrapped in tape, separate the 4 claws fittings. Then remove the fuel suction plate.

NOTICE:

Do not damage the fuel suction plate or fuel tank fuel filter.

**3. REMOVE FUEL PUMP HARNESS**

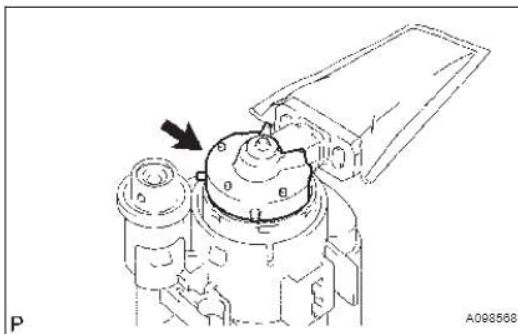
- (a) Remove the 2 pump harness terminals.
- (b) Disconnect the pump harness connector, then remove the fuel pump harness.

**4. REMOVE NO. 2 FUEL SUCTION SUPPORT**

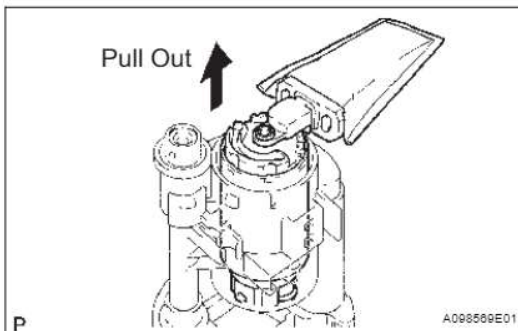
- (a) Using a screwdriver with its tip wrapped in tape, separate the 5 claws fittings. Then remove the fuel suction support.

NOTICE:

Do not damage the fuel suction support or fuel tank fuel filter.

**5. REMOVE FUEL PUMP CUSHION RUBBER**

- (a) Remove the fuel pump cushion rubber from the fuel pump.

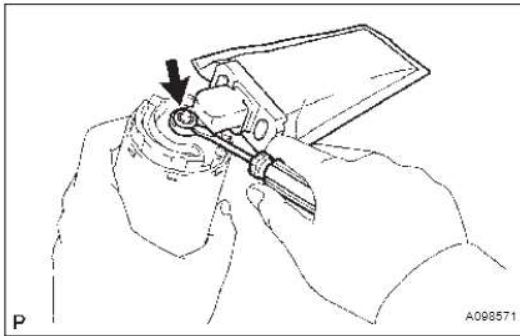
**6. REMOVE FUEL PUMP**

- (a) Pull the fuel pump out of the fuel filter.

FU

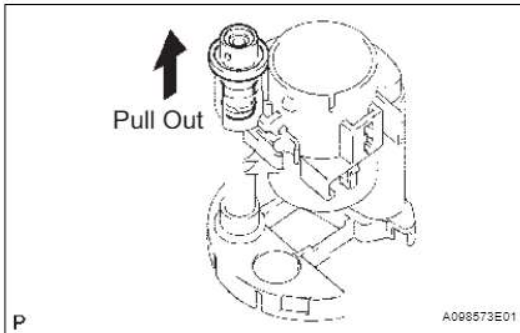
2AZ-FE FUEL – FUEL PUMP

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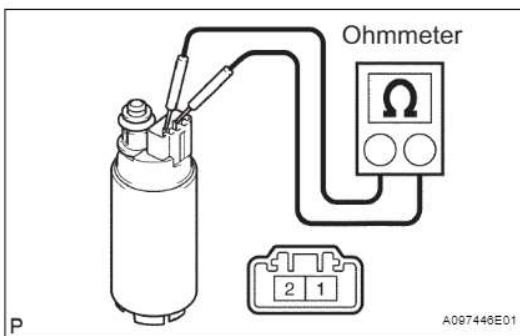
7. REMOVE FUEL PUMP FILTER

- (a) Using a small screwdriver, pry out the clip.
- (b) Remove the fuel pump filter from the fuel pump.



8. REMOVE FUEL PRESSURE REGULATOR ASSEMBLY

- (a) Pull the fuel pressure regulator out of the fuel tank fuel filter.
- (b) Remove the O-ring from the fuel pressure regulator.



INSPECTION

1. INSPECT FUEL PUMP

- (a) Check the fuel pump resistance.
 - (1) Using an ohmmeter, 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:

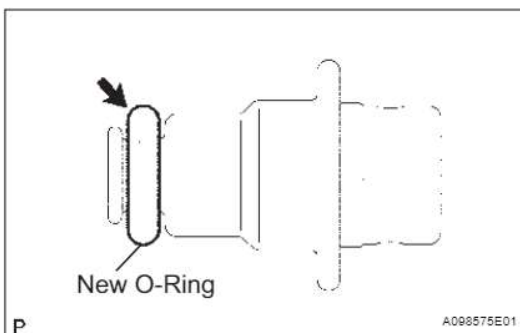
- These tests must be completed within 10 seconds to prevent the coil from burning out.
- Keep the fuel pump as far away from the battery as possible.
- Always turn on and off the voltage on the battery side, not the fuel pump side.

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

REASSEMBLY

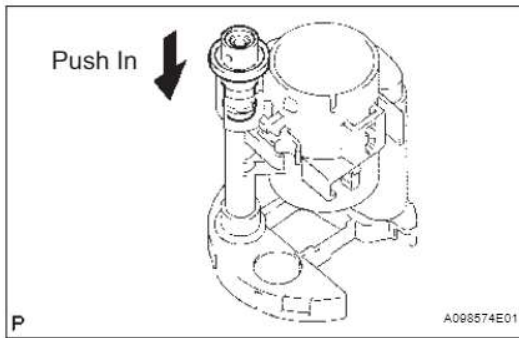
1. INSTALL FUEL PRESSURE REGULATOR ASSEMBLY

- (a) Apply a light coat of gasoline or spindle oil to a new O-ring, then install it onto the fuel pressure regulator.



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2AZ-FE FUEL – FUEL PUMP



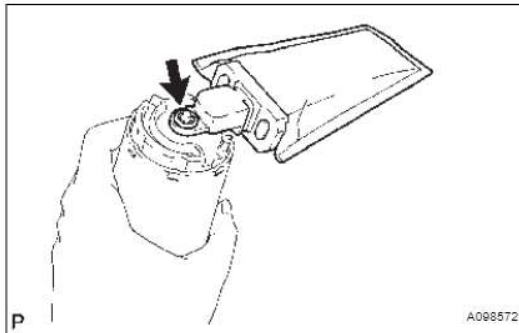
- (b) Apply a light coat of gasoline or spindle oil to the O-ring again, then push the fuel pressure regulator into the fuel tank fuel filter.

NOTICE:

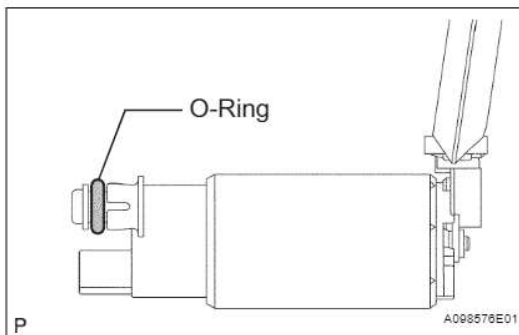
Make sure that the O-ring is not cracked or jammed when installing.

2. INSTALL FUEL PUMP FILTER

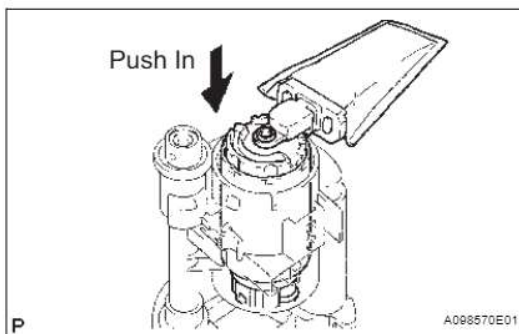
- (a) Install the fuel pump filter onto the fuel pump.



- (b) Install a new clip.

**3. INSTALL FUEL PUMP**

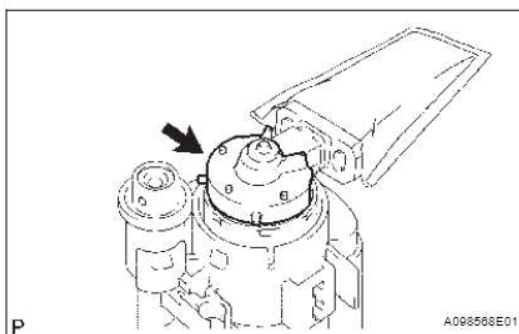
- (a) Apply a light coat of gasoline or spindle oil to the O-ring.



- (b) Push the fuel pump into the fuel tank fuel filter.

NOTICE:

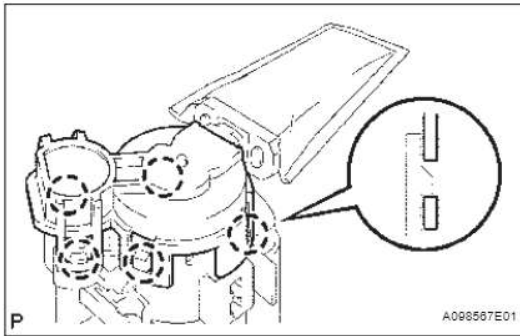
Make sure that the O-ring is not cracked or jammed when installing.

**4. INSTALL FUEL PUMP CUSHION RUBBER**

- (a) Install the fuel pump cushion rubber onto the fuel pump.

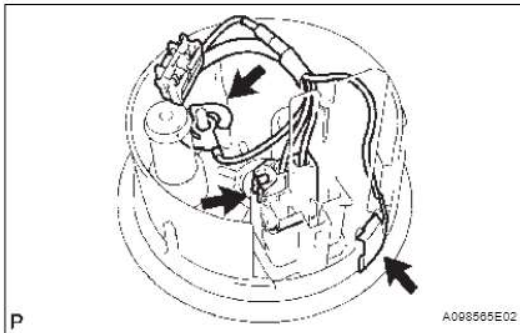
2AZ-FE FUEL – FUEL PUMP

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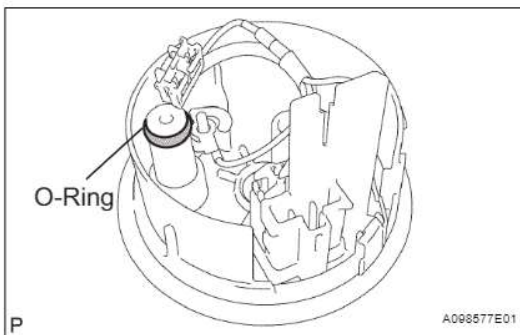
5. INSTALL NO. 2 FUEL SUCTION SUPPORT

- (a) Align the claw positions, then install the fuel suction support onto the fuel filter.



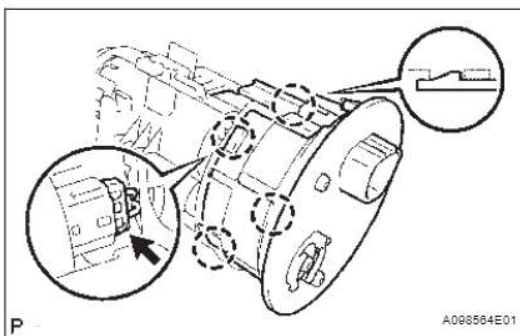
6. INSTALL FUEL PUMP HARNESS

- (a) Connect the pump harness connector.
(b) Install the 2 pump harness terminals.



7. INSTALL FUEL SUCTION PLATE SUB-ASSEMBLY

- (a) Apply a light coat of gasoline or spindle oil to the O-ring of the fuel suction plate.

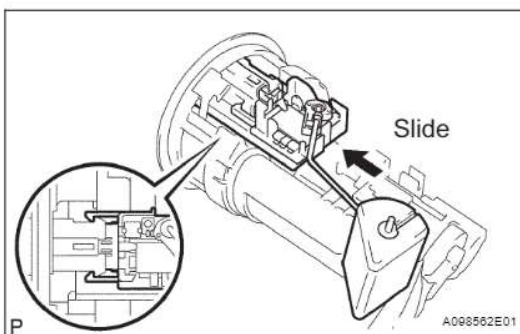


- (b) Align the claw positions, then install the fuel suction plate into the fuel filter.

NOTICE:

Make sure that the O-ring is not cracked or jammed when installing.

- (c) Connect the fuel pump harness connector.



8. INSTALL FUEL SENDER GAUGE ASSEMBLY

- (a) Slide the fuel sender gauge to fit the claws.

FU

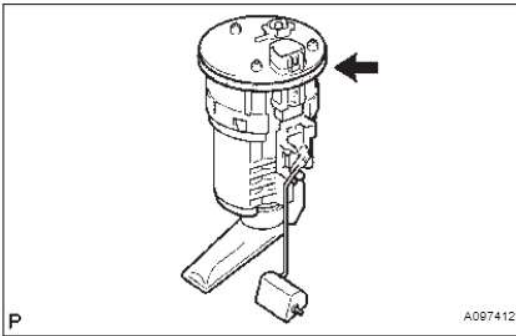
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2AZ-FE FUEL – FUEL PUMP

INSTALLATION

1. INSTALL FUEL SUCTION WITH PUMP AND GAUGE TUBE ASSEMBLY

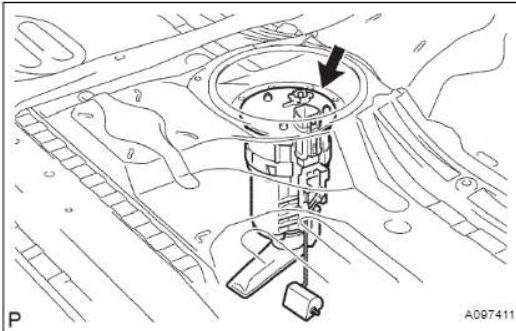
- (a) Install a new gasket onto the fuel suction with pump and gauge tube.



- (b) Install the fuel suction with pump and gauge tube into the fuel tank.

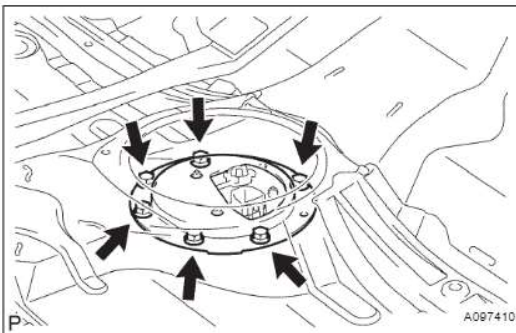
NOTICE:

- Do not damage the fuel pump filter.
- Make sure that the fuel sender gauge arm does not bend.



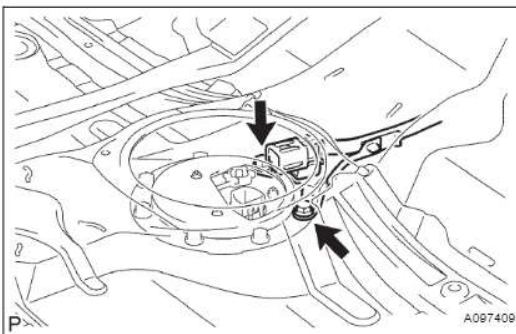
- (c) Install the fuel tank vent tube set plate with the 6 bolts.

Torque: 6.0 N*m (60 kgf*cm, 53 in.*lbf)



- (d) Install the fuel tank protector plate with the 2 bolts.

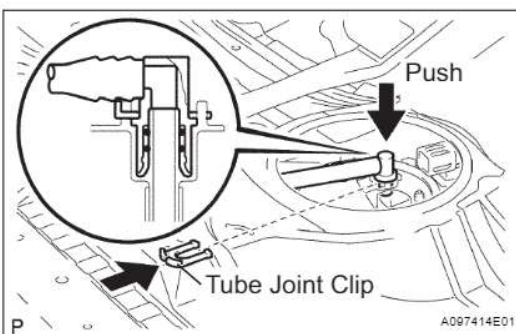
Torque: 6.0 N*m (60 kgf*cm, 53 in.*lbf)



- (e) Connect the fuel tank main tube.

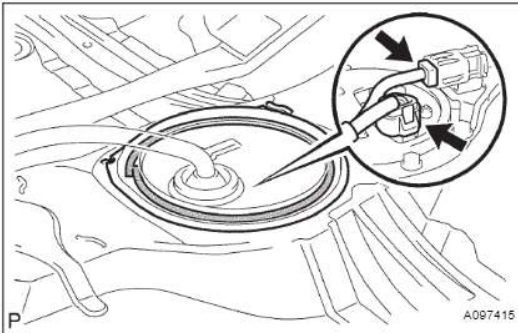
NOTICE:

- Check that there are no scratches or foreign objects around the connected part of the fuel tube joint and plug before performing this work.
- Check that the fuel tube joint is securely inserted to the end.
- Check that the tube joint clip is on the collar of the fuel tube joint.



2AZ-FE FUEL – FUEL PUMP

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- After installing the tube joint clip, check that the fuel tank main tube cannot be pulled out.

2. INSTALL REAR FLOOR SERVICE HOLE COVER

- Attach new butyl tape to the service hole cover.
- Connect the wire to wire connector.
- Connect the fuel pump connector.
- Install the rear floor service hole cover, making sure it is aligned with the 2 convexes of the floor panel.

NOTICE:

Make sure that the rear floor service hole cover does not mount on the convex of the floor panel when installing.

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**4. PERFORM INITIALIZATION**

- Perform initialization (see page [IN-23](#)).

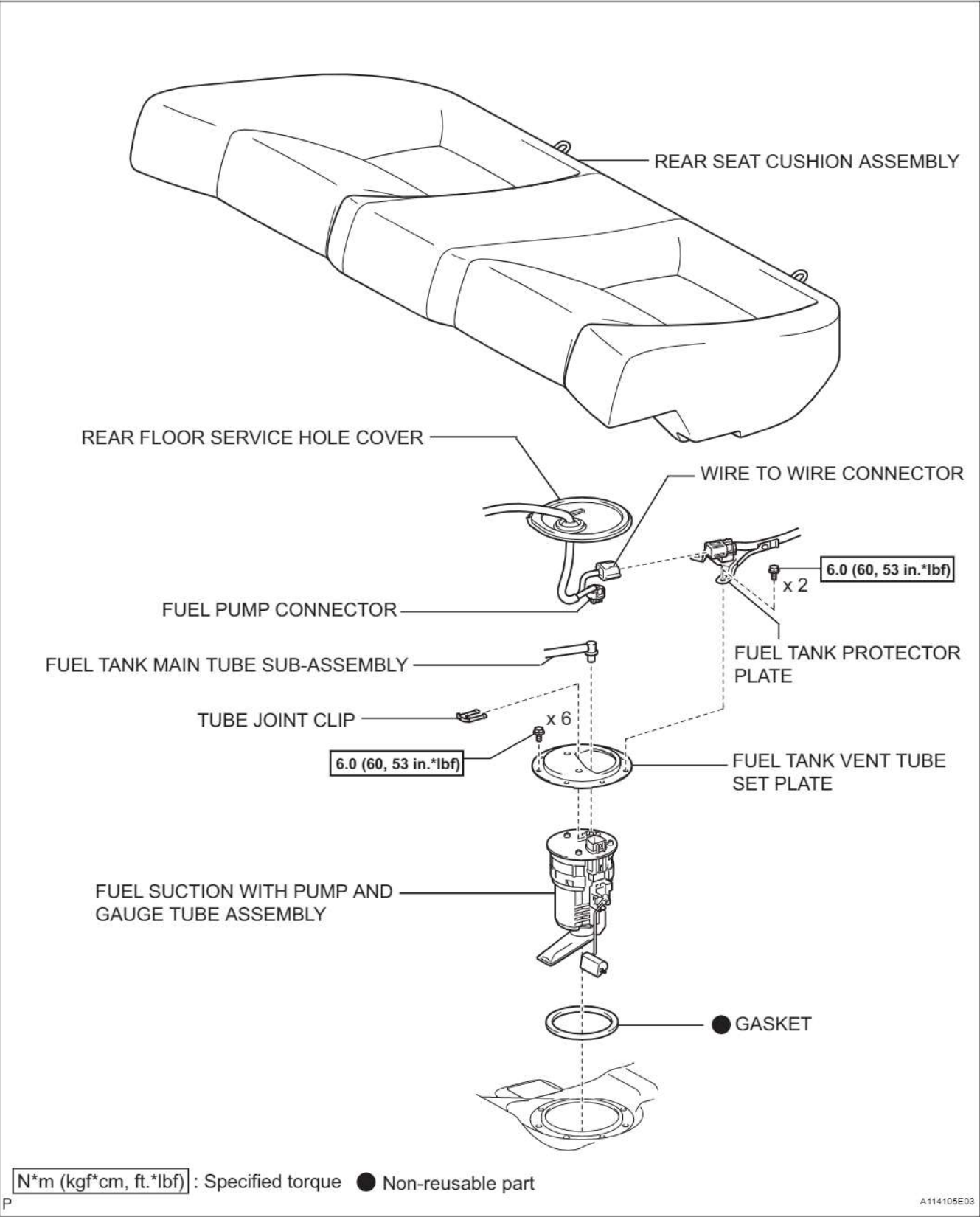
NOTICE:

Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

5. CHECK FOR FUEL LEAKS (See page [FU-2](#))**6. INSTALL REAR SEAT CUSHION ASSEMBLY (See page [SE-29](#))****FU**

FUEL TANK

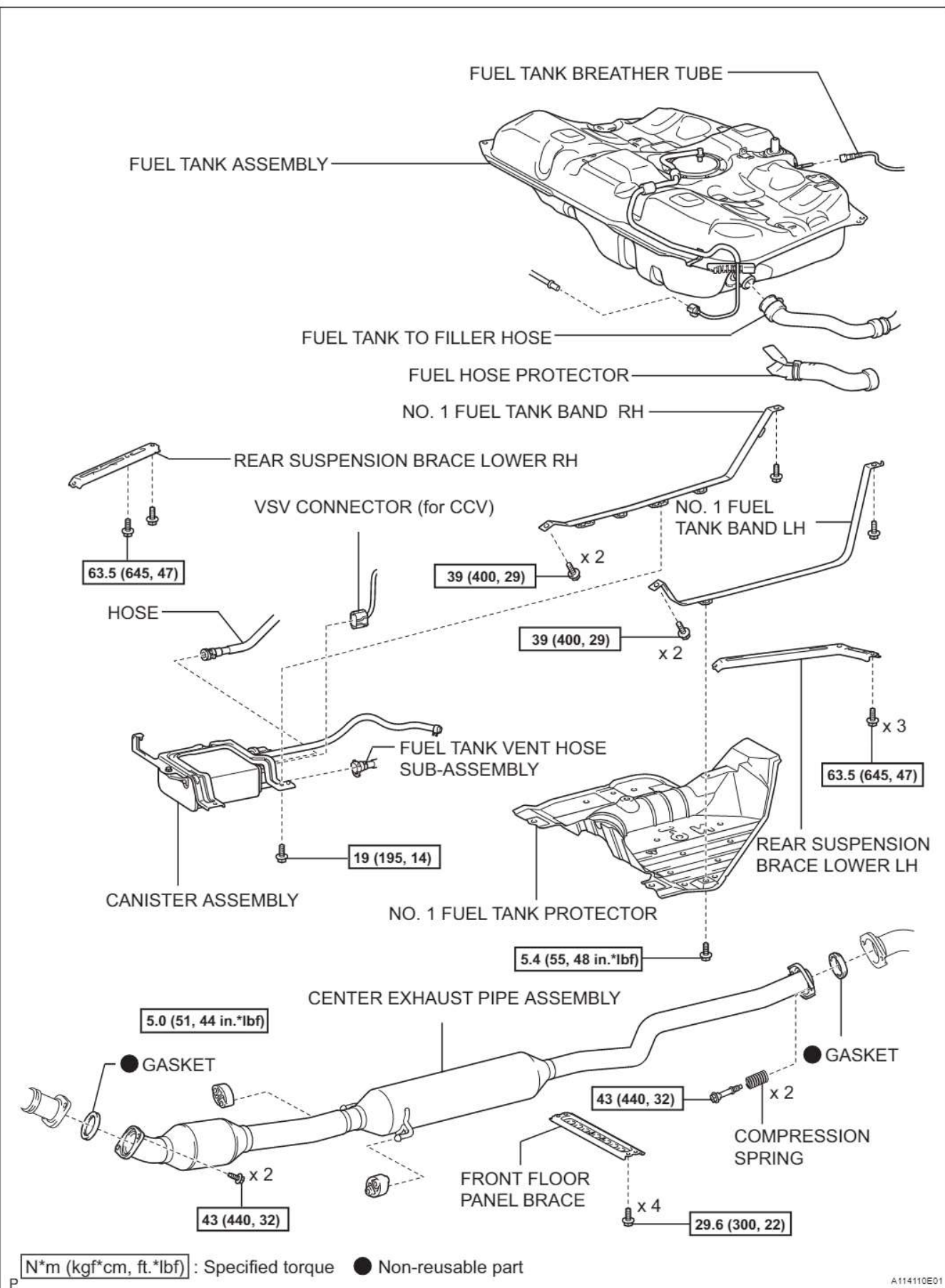
COMPONENTS



2AZ-FE FUEL – FUEL TANK

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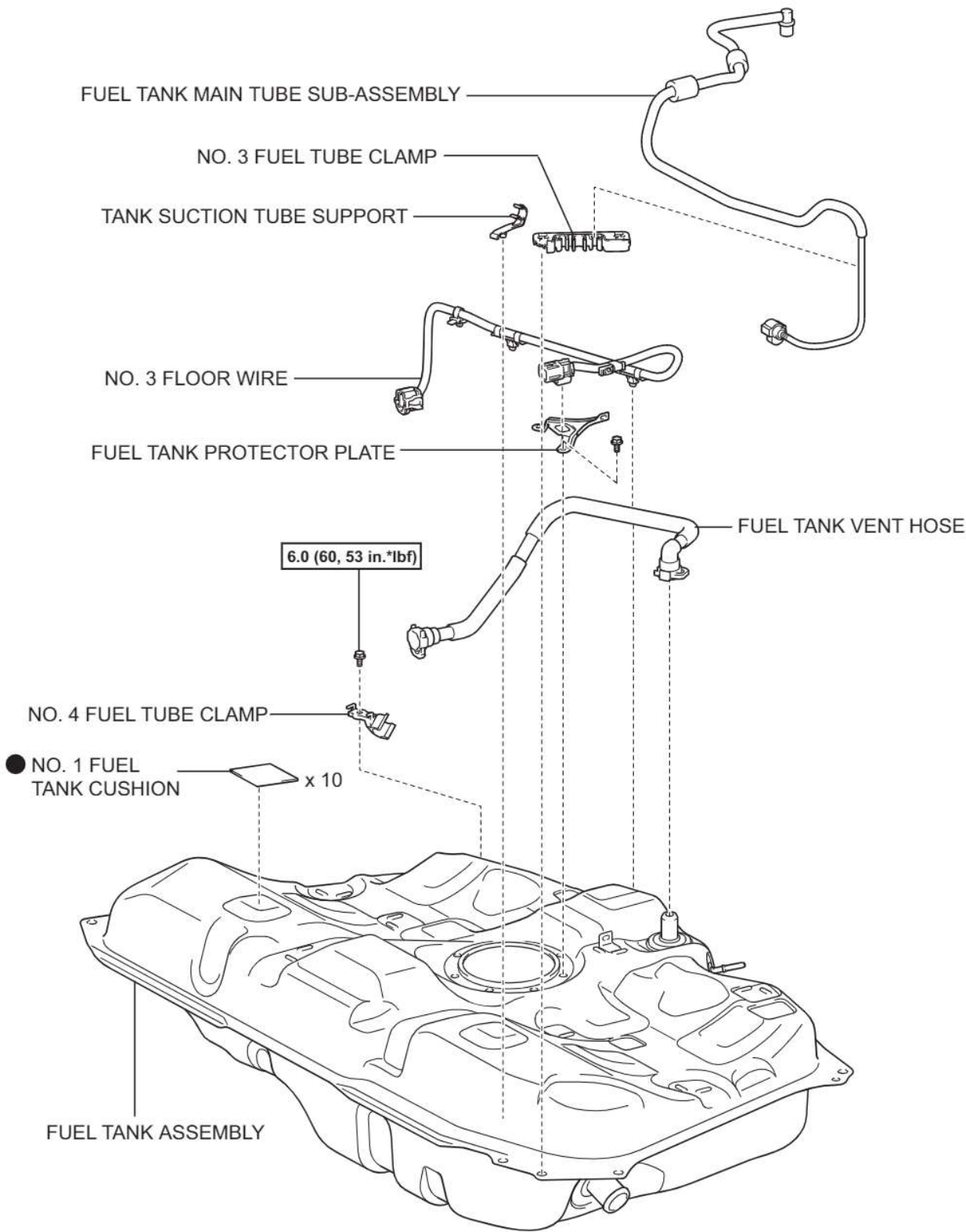
FU



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2AZ-FE FUEL – FUEL TANK

FU



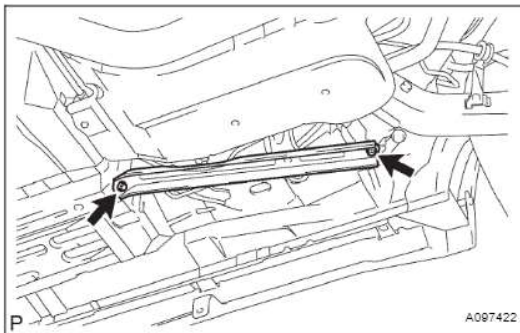
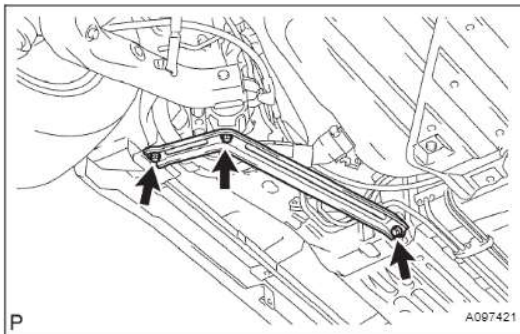
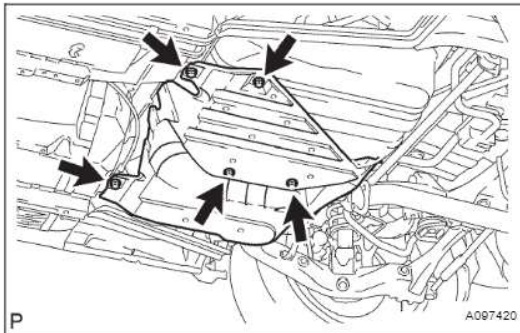
N*m (kgf*cm, ft.*lbf) : Specified torque ● Non-reusable part

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REMOVAL

1. REMOVE REAR SEAT CUSHION ASSEMBLY (See page [SE-17](#))
2. REMOVE REAR FLOOR SERVICE HOLE COVER (See page [FU-18](#))
3. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
CAUTION:
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
4. REMOVE FUEL SUCTION WITH PUMP AND GAUGE TUBE ASSEMBLY (See page [FU-18](#))
5. DRAIN FUEL
6. REMOVE CENTER EXHAUST PIPE ASSEMBLY (See page [EX-2](#))
7. REMOVE NO. 1 FUEL TANK PROTECTOR
(a) Remove the 5 bolts and fuel tank protector.
8. REMOVE CANISTER ASSEMBLY (See page [EC-5](#))

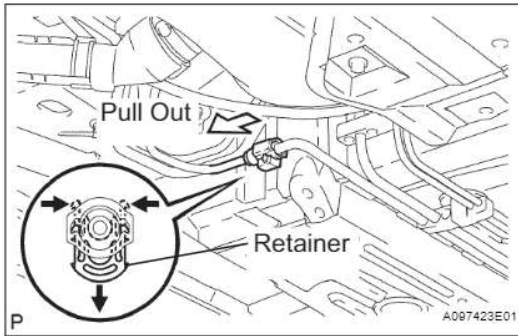


9. REMOVE REAR SUSPENSION BRACE LOWER LH
(a) Remove the 3 bolts and rear suspension brace lower.
10. REMOVE REAR SUSPENSION BRACE LOWER RH
(a) Remove the 2 bolts and rear suspension brace lower.

FU

FU-30

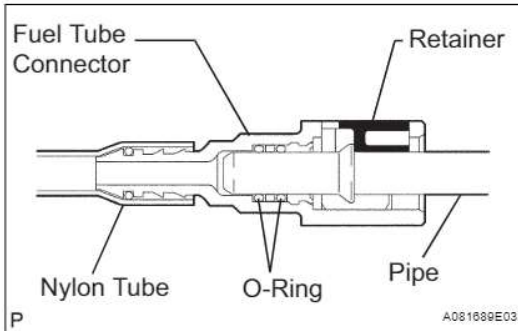
2AZ-FE FUEL – FUEL TANK



11. REMOVE FUEL TANK ASSEMBLY

(a) Disconnect the fuel tank main tube.

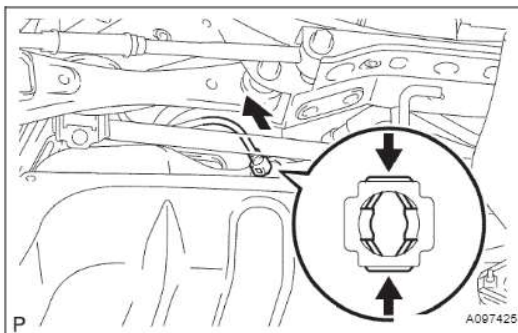
- (1) Pinch the tab of the retainer of the fuel tube connector to remove the lock claws and push it down as shown in the illustration.



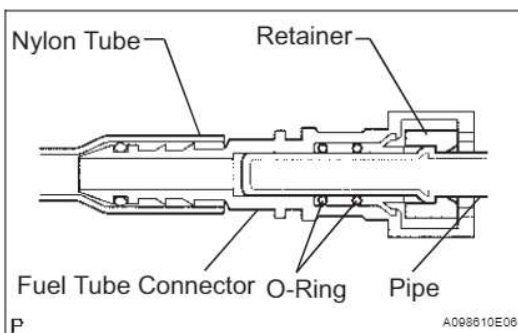
(2) Pull the fuel tank main tube out of the pipe.

NOTICE:

- Remove any dirt and foreign objects on the fuel tube connector before performing this work.
- Do not allow any scratches or foreign objects on the parts when disconnecting, as the fuel tube connector has the O-ring that seals the pipe.
- Perform this work by hand. Do not use any tools.
- Do not forcibly bend, twist or turn the nylon tube.
- Protect the disconnected part by covering it with a plastic bag after disconnecting the fuel tank main tube.
- If the fuel tube connector and pipe are stuck, push and pull to release them.



(b) Disconnect the fuel tank breather tube from the fuel tank.



(1) Pinch the retainer as illustrated, then pull the fuel tube connector out of the pipe.

NOTICE:

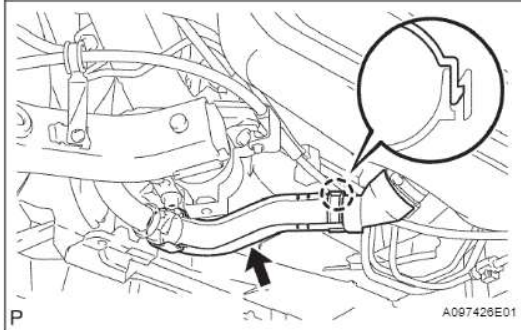
- Remove any dirt and foreign objects on the fuel tube connector before performing this work.
- Do not allow any scratches or foreign objects on the parts when disconnecting, as the fuel tube connector has the O-ring that seals the pipe.
- Perform this work by hand. Do not use any tools.
- Do not forcibly bend, twist or turn the nylon tube.

2AZ-FE FUEL – FUEL TANK

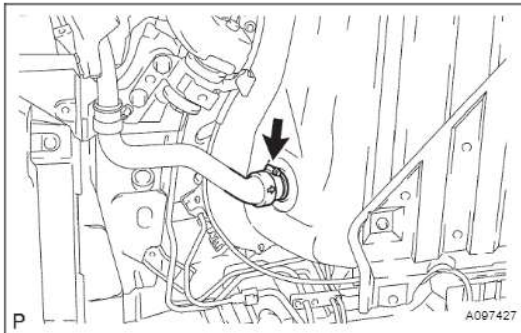
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- **Protect the disconnected part by covering it with a plastic bag after disconnecting the fuel tube.**
- **If the fuel tube connector and pipe are stuck, push and pull to release them.**

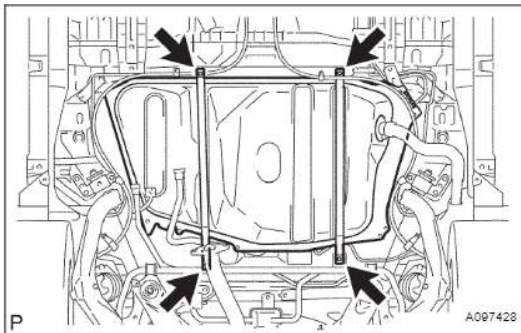
(c) Separate the claw fitting, then remove the fuel hose protector.



(d) Loosen the hose clamp bolt, then disconnect the fuel tank to filler pipe hose.

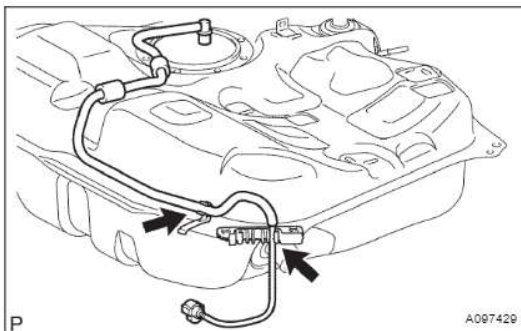


(e) Hold the fuel tank using a transmission jack.



(f) Remove the 4 bolts and 2 fuel tank bands.

(g) Operate the transmission jack, then remove the fuel tank.



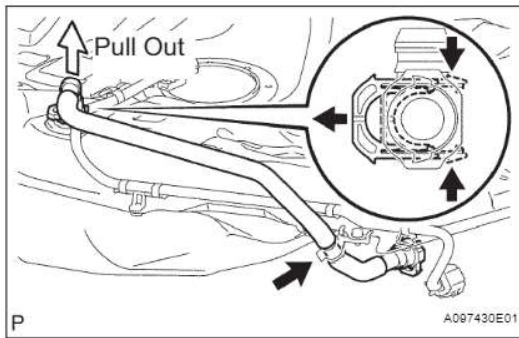
DISASSEMBLY

1. REMOVE FUEL TANK MAIN TUBE SUB-ASSEMBLY

(a) Remove the fuel tank main tube from the fuel tube clamp and tank suction tube support.

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2AZ-FE FUEL – FUEL TANK



2. REMOVE FUEL TANK VENT HOSE

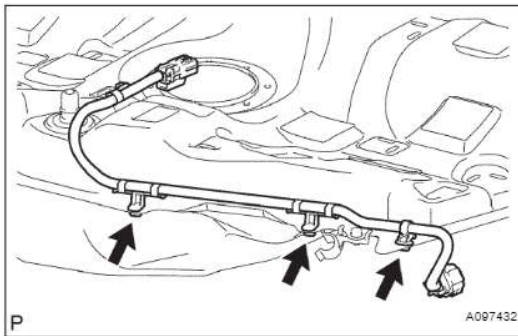
- (a) Remove the hose from the hose clamp.
- (b) Pinch the tab of the retainer of the hose connector to remove the lock claws and slide it as shown in the illustration.
- (c) Pull the fuel tank vent hose out of the pipe.

NOTICE:

- Remove any dirt and foreign objects on the hose connector before performing this work.
- Do not allow any scratches or foreign objects on the parts when disconnecting, as the hose connector has the O-ring that seals the pipe.
- Perform this work by hand. Do not use any tools.
- Do not forcibly bend, twist or turn the nylon tube.
- Protect the disconnected part by covering it with a plastic bag after disconnecting the fuel tank vent hose.
- If the hose connector and pipe are stuck, push and pull to release them.

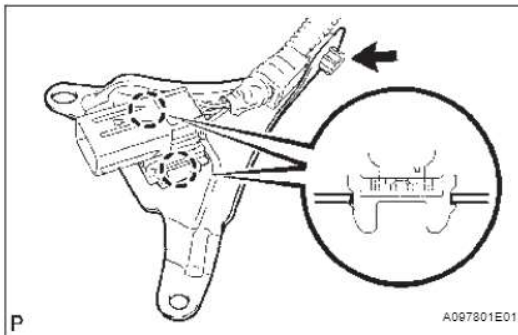
3. REMOVE NO. 3 FLOOR WIRE

- (a) Remove the 3 wire harness clamps and floor wire.



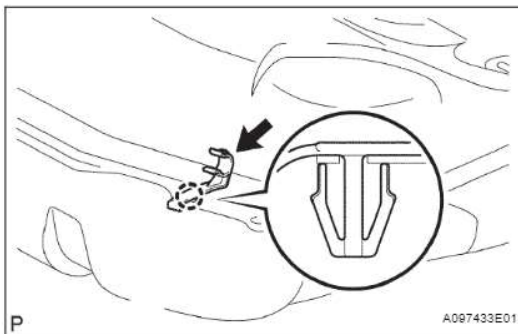
- (b) Remove the wire harness clamp.

- (c) Separate the 2 claws fittings, then remove the fuel tank protector plate.



4. REMOVE TANK SUCTION TUBE SUPPORT

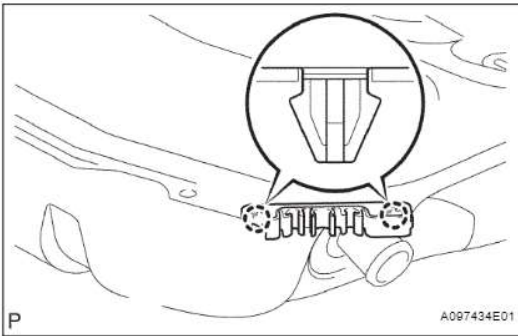
- (a) Separate the clip fittings, then remove the tank suction tube support.



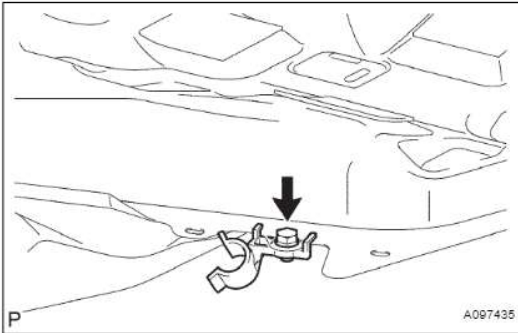
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2AZ-FE FUEL – FUEL TANK

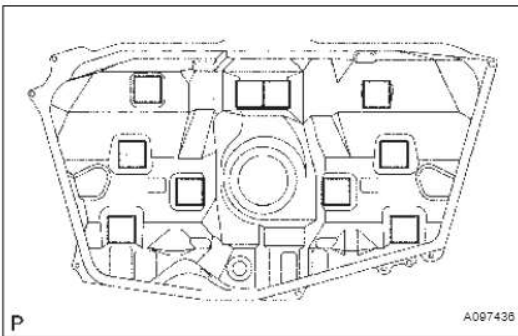
FU-33

**5. REMOVE NO. 3 FUEL TUBE CLAMP**

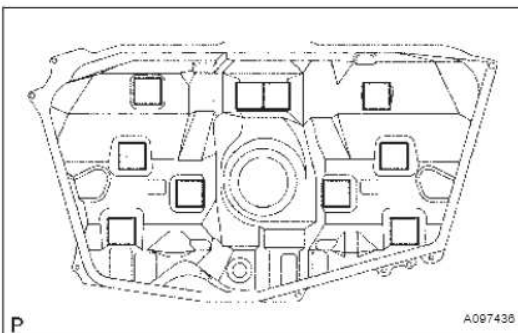
- (a) Separate the 2 clips fittings, then remove the fuel tube clamp.

**6. REMOVE NO. 4 FUEL TUBE CLAMP**

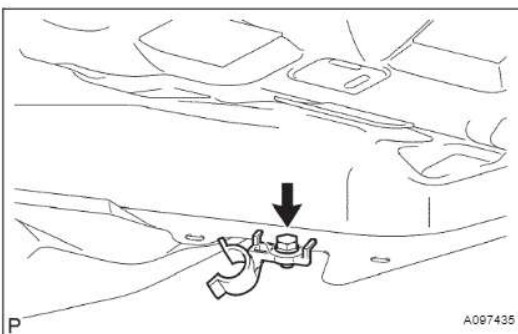
- (a) Remove the bolt and fuel tube clamp.

**7. REMOVE NO. 1 FUEL TANK CUSHION**

- (a) Remove the 10 fuel tank cushions from the fuel tank.

**REASSEMBLY****1. INSTALL NO. 1 FUEL TANK CUSHION**

- (a) Install 10 new fuel tank cushions onto the fuel tank as shown in the illustration.

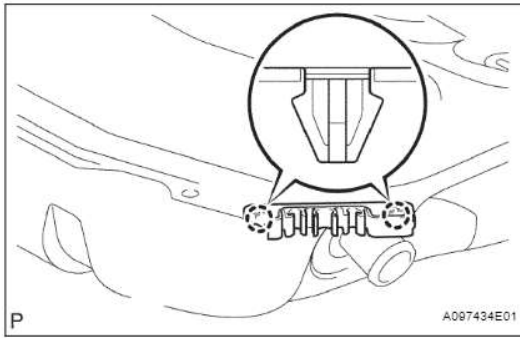
**2. INSTALL NO. 4 FUEL TUBE CLAMP**

- (a) Install the fuel tube clamp with the bolt.
Torque: 6.0 N*m (60 kgf*cm, 53 in.*lbf)

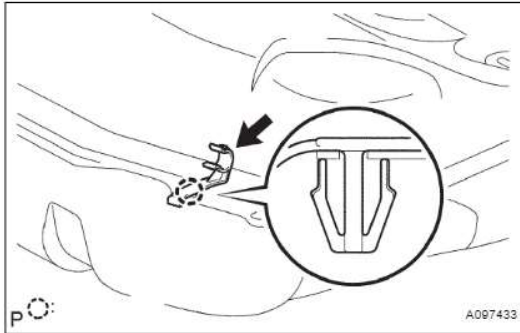
FU

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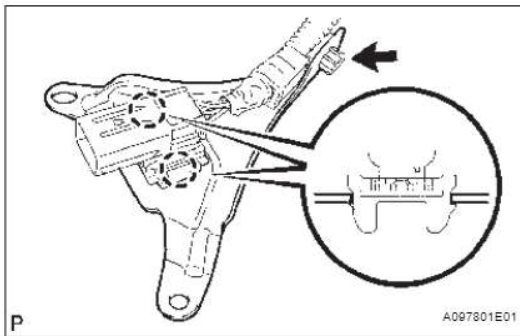
2AZ-FE FUEL – FUEL TANK

**3. INSTALL NO. 3 FUEL TUBE CLAMP**

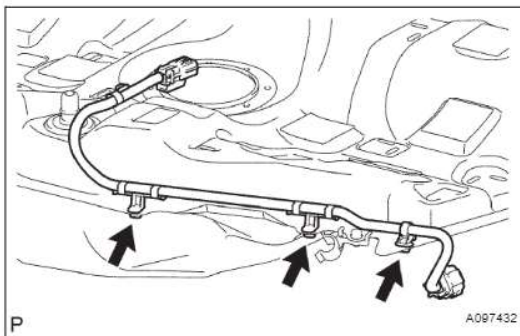
- (a) Align the clip positions, then install the fuel tube clamp.

**4. INSTALL TANK SUCTION TUBE SUPPORT**

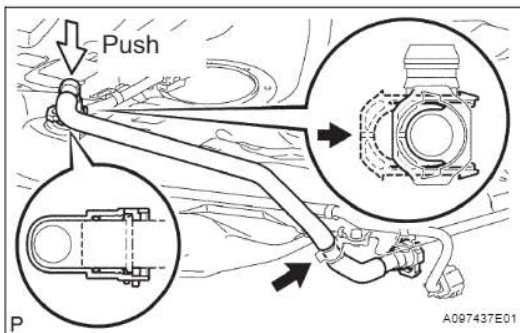
- (a) Align the clip position, then install the tank suction tube support.

**5. INSTALL NO. 3 FLOOR WIRE**

- (a) Align the claws positions, then install the fuel tank protector plate.
(b) Install the wire harness clamp.



- (c) Install the floor wire with the 3 wire harness clamps.

**6. INSTALL FUEL TANK VENT HOSE**

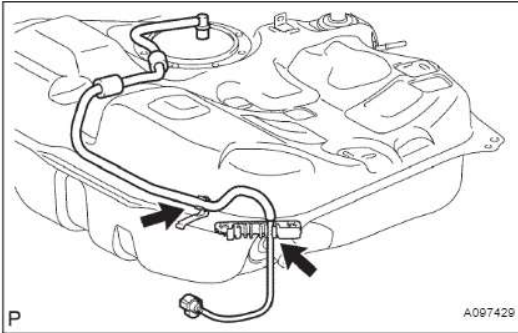
- (a) Align the hose connector with the pipe, then push in the hose connector until it comes into contact with the seat to connect the fuel tank vent hose to the pipe. Then push the retainer up until to the claws lock.

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- (b) Install the hose into the hose clamp.

NOTICE:

- Check that there are no scratches or foreign objects around the connected part of the fuel tube connector and pipe before performing this work.
- After connecting the fuel tank vent hose, check that the fuel tank vent hose is securely connected by pulling the hose connector and pipe.

**7. INSTALL FUEL TANK MAIN TUBE SUB-ASSEMBLY**

- (a) Fit the fuel tank main tube into the fuel tube clamp and tank suction tube support.

FU

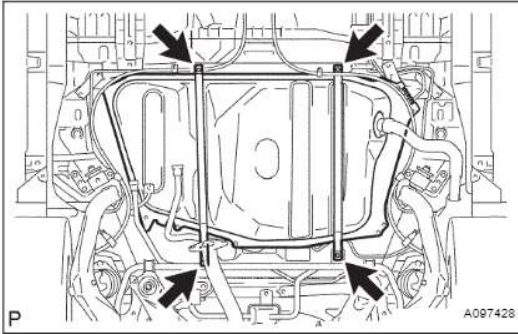
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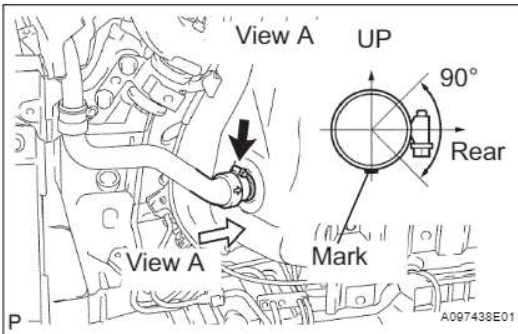
INSTALLATION

1. INSTALL FUEL TANK ASSEMBLY

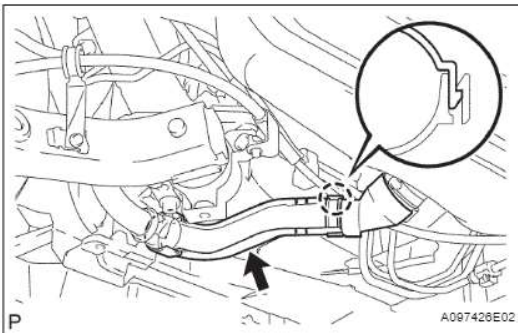
- (a) Set the fuel tank onto a transmission jack.
- (b) Operate the transmission jack, then install the fuel tank into the vehicle.
- (c) Install the 2 fuel tank bands with the 4 bolts.
Torque: 39 N*m (400 kgf*cm, 29 ft.*lbf)



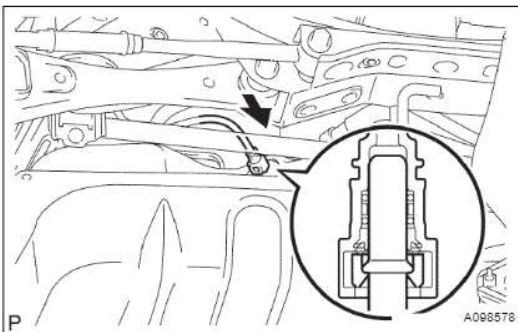
FU



- (d) Connect the fuel tank to filler pipe hose to the fuel tank, then tighten the hose clamp.
NOTICE:
Make sure that the mark and hose clamp are at the correct angle when installing.



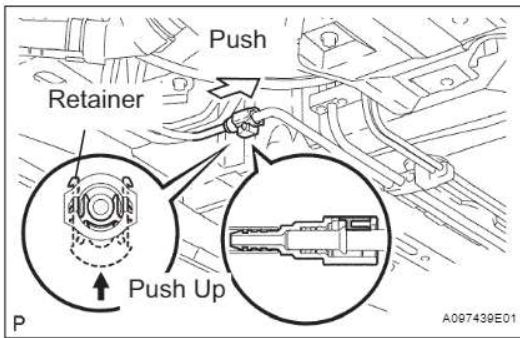
- (e) Install the fuel hose protector.



- (f) Connect the fuel tank breather tube to the fuel tank.
 - (1) Align the fuel tube connector with the pipe, then push the fuel tube connector until the retainer makes a "click" sound to connect the fuel tube breather tube to the pipe.
NOTICE:
 - Check that there are no scratches or foreign objects around the connected part of the fuel tube connector and pipe before performing this work.
 - After connecting the fuel tube connector, check that the fuel tube connector and pipe are securely connected by pulling them.

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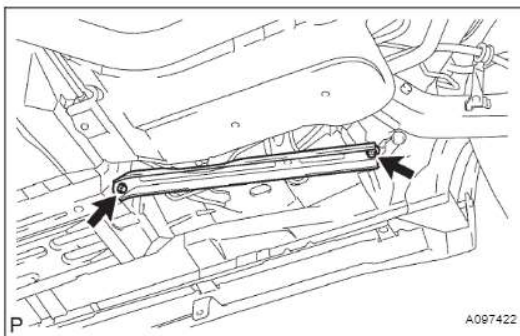


(g) Connect the fuel tank main tube.

- (1) Align the fuel tube connector with the pipe, then push the fuel tube connector until it comes into contact with the seat to connect the fuel tank main tube to the pipe. Then push the retainer up until the claws lock.

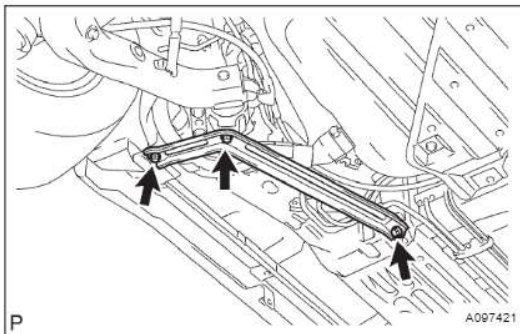
NOTICE:

- Check that there are no scratches or foreign objects around the connected part of the fuel tube connector and pipe before performing this work.
- After connecting the fuel tank main tube, check that the fuel tank main tube is securely connected by pulling the fuel tube connector and pipe.

**2. INSTALL REAR SUSPENSION BRACE LOWER RH**

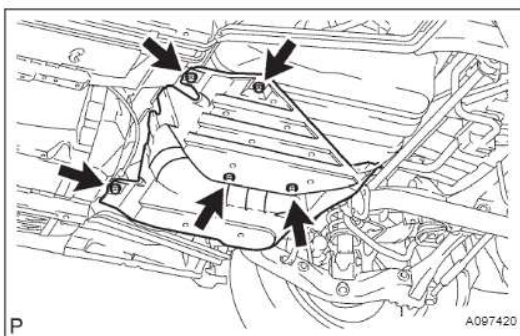
- (a) Install the rear suspension brace lower with the 2 bolts.

Torque: 63.5 N*m (645 kgf*cm, 47 ft.*lbf)

**3. INSTALL REAR SUSPENSION BRACE LOWER LH**

- (a) Install the rear suspension brace lower with the 3 bolts.

Torque: 63.5 N*m (645 kgf*cm, 47 ft.*lbf)

4. INSTALL CANISTER ASSEMBLY (See page EC-8)**5. INSTALL NO. 1 FUEL TANK PROTECTOR**

- (a) Install the No. 1 fuel tank protector with the 5 bolts.

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

6. INSTALL CENTER EXHAUST PIPE ASSEMBLY (See page EX-4)**7. ADD FUEL****8. INSTALL FUEL SUCTION WITH PUMP AND GAUGE TUBE ASSEMBLY (See page FU-24)****9. INSTALL REAR FLOOR SERVICE HOLE COVER (See page FU-25)****10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

FU

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11. PERFORM INITIALIZATION

- (a) Perform initialization (see page [IN-23](#)).

NOTICE:

Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

12. CHECK FOR FUEL LEAKS (See page [FU-2](#))**13. INSTALL REAR SEAT CUSHION ASSEMBLY (See page [SE-29](#))****FU**