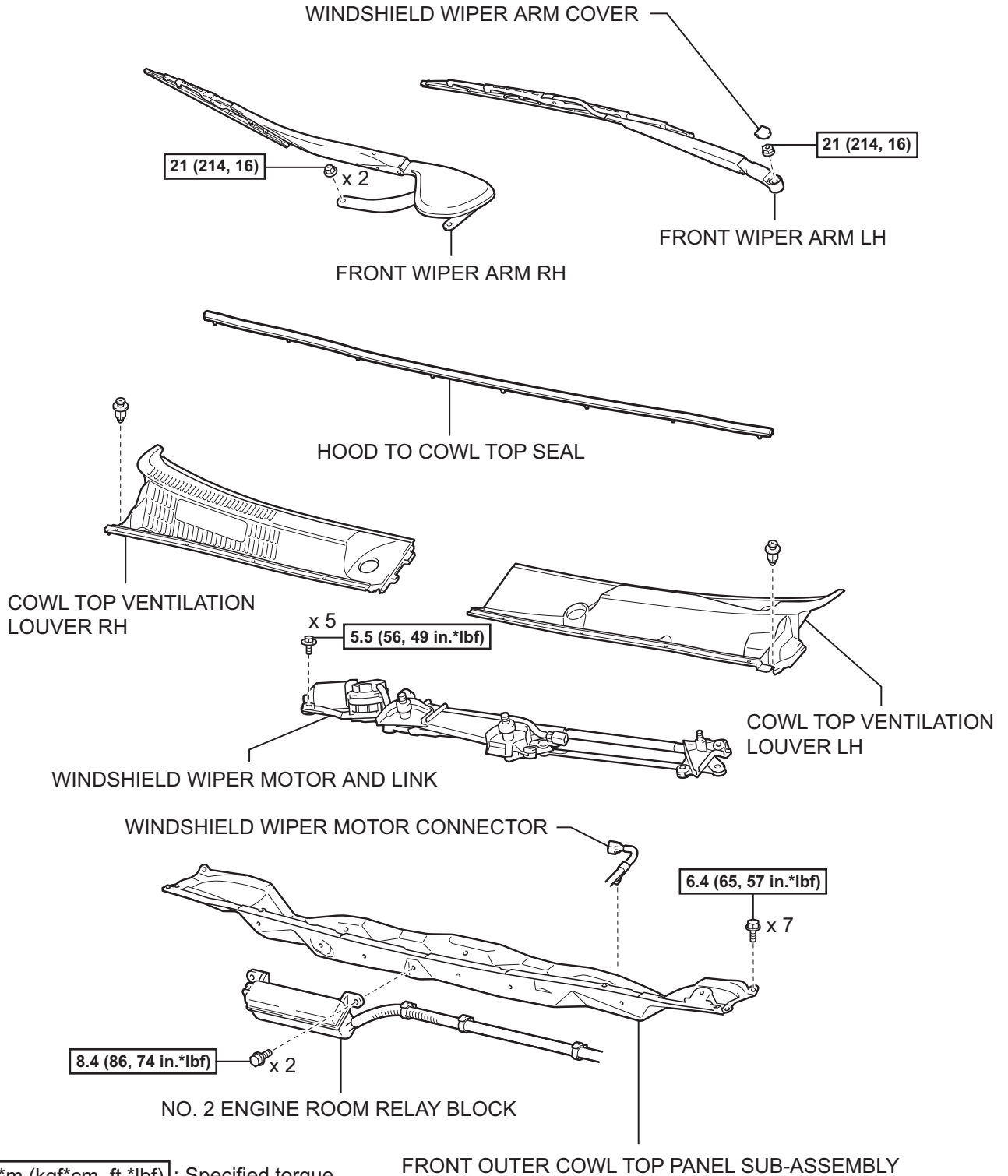


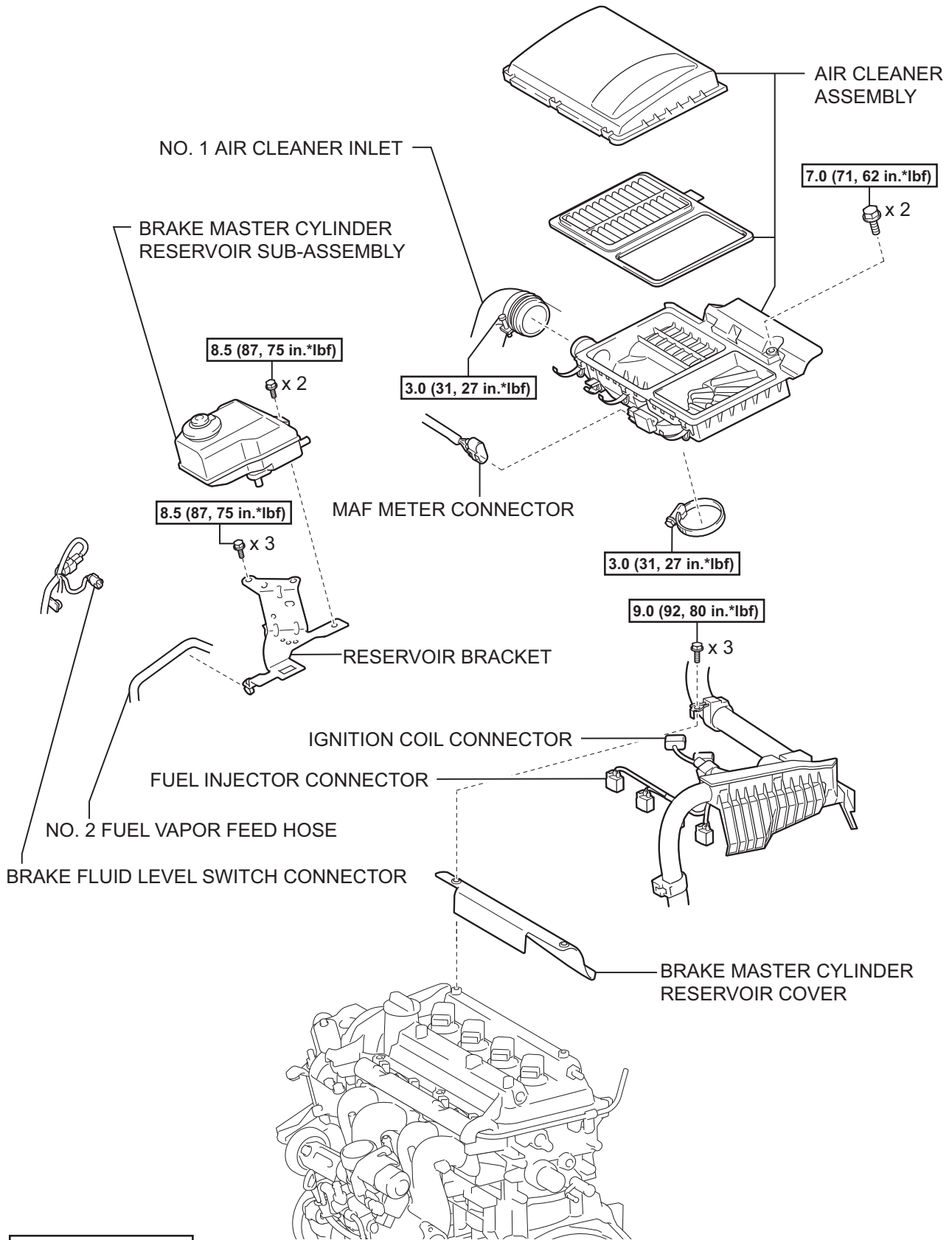
# FUEL INJECTOR COMPONENTS

FU



**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

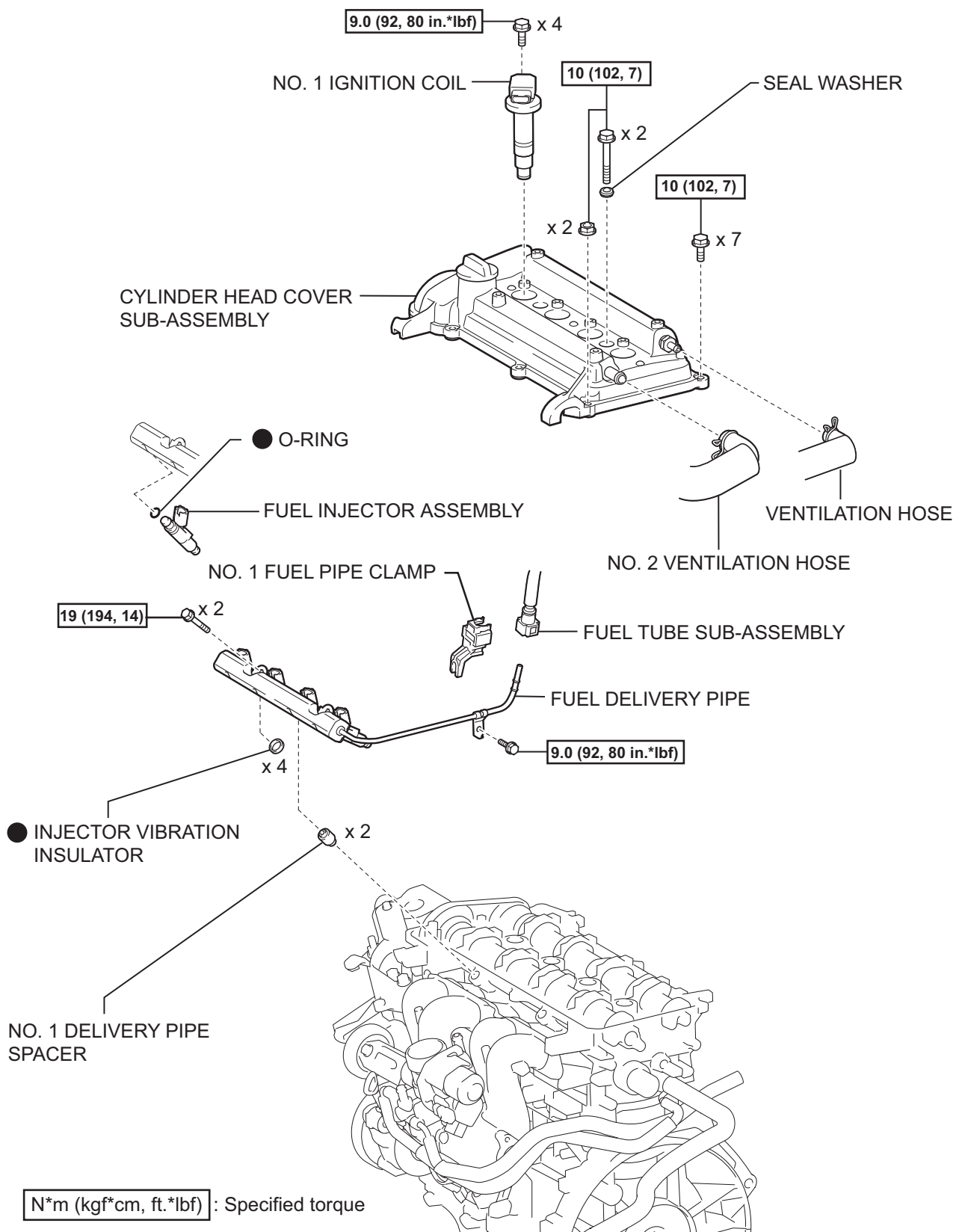
FU



N\*m (kgf\*cm, ft.\*lbf) : Specified torque

● Non-reusable part

FU



**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

● Non-reusable part

## REMOVAL

### 1. DISCHARGE FUEL SYSTEM PRESSURE

#### CAUTION:

- **DISCHARGE FUEL SYSTEM PRESSURE** procedures must be performed before disconnecting any part of the fuel system.
- After performing the **DISCHARGE FUEL SYSTEM PRESSURE** procedures, pressure will remain in the fuel line. When disconnecting the fuel line, place a cloth or equivalent over fittings to reduce the risk of fuel spray.

- (a) Remove the integration relay (unit C: C/OPN relay) from the engine room junction block.
- (b) Start the engine. After the engine has stopped, turn the power switch OFF.

#### HINT:

DTC P0171 (system too lean) may be set.

- (c) Check that the engine does not start.
- (d) Remove the fuel tank cap, and let the air out of the fuel tank.
- (e) Disconnect the cable from the 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.**

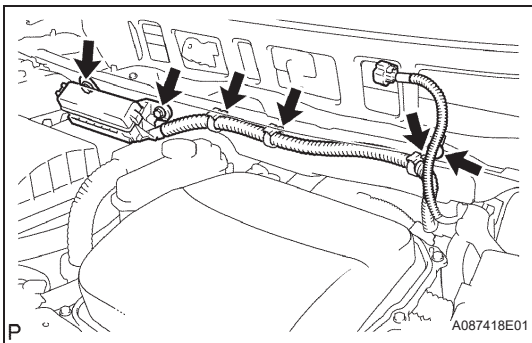
- (f) Install the integration relay (unit C: C/OPN relay) to the engine room junction block.

### 2. REMOVE WINDSHIELD WIPER MOTOR AND LINK

- (a) Remove the windshield wiper motor and link (see page [WW-13](#)).

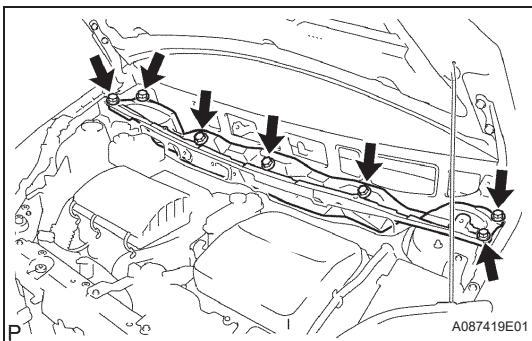
### 3. REMOVE FRONT OUTER COWL TOP PANEL SUB-ASSEMBLY

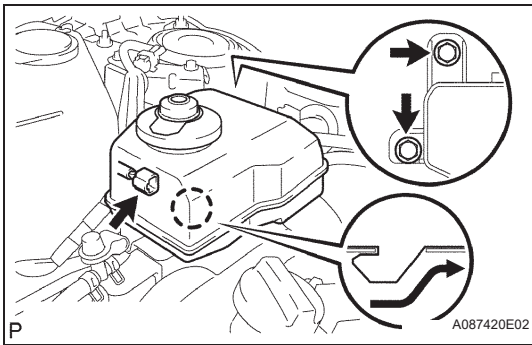
- (a) Remove the 2 bolts and disconnect the No. 2 engine room relay block.
- (b) Remove the 4 wire harness clamps.



- (c) Remove the 7 bolts and panel.

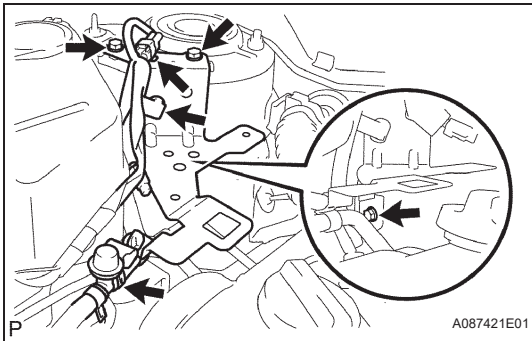
### 4. REMOVE AIR CLEANER ASSEMBLY (See page [ES-450](#))





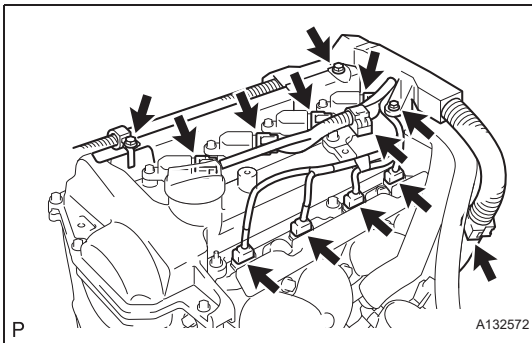
#### 5. REMOVE BRAKE MASTER CYLINDER RESERVOIR SUB-ASSEMBLY

- Disconnect the brake fluid level switch connector.
- Remove the 2 bolts.
- Disconnect the claw fitting, then remove the brake master cylinder reservoir.



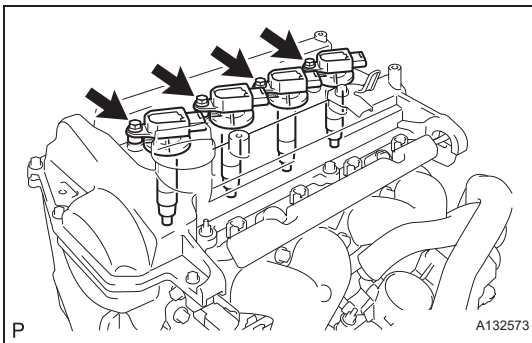
#### 6. REMOVE RESERVOIR BRACKET

- Remove the No. 2 fuel vapor feed hose from the hose clamp.
- Remove the connector clamp.
- Remove the wire harness clamp.
- Remove the 3 bolts and reservoir bracket.

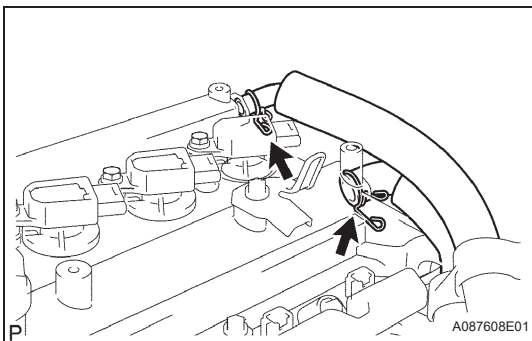


#### 7. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

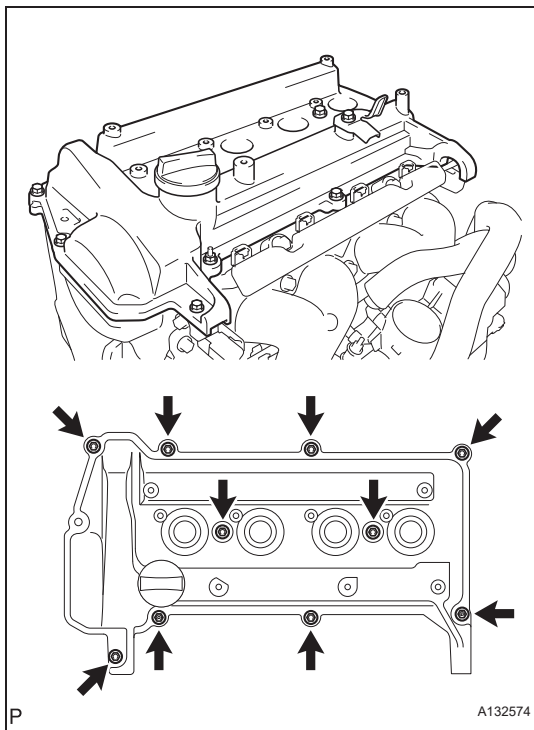
- Remove the 2 wire harness clamps.
- Disconnect the 4 fuel injector connectors.
- Disconnect the 4 ignition coil connectors.
- Remove the 3 bolts, then remove the engine wire and brake master cylinder reservoir cover.



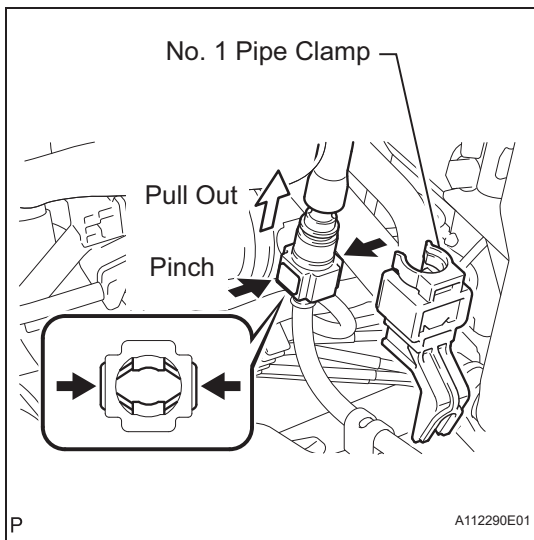
- Remove the 4 bolts and 4 ignition coils.



- Disconnect the ventilation hose from the ventilation valve.
- Disconnect the No. 2 ventilation hose from the cylinder head cover.

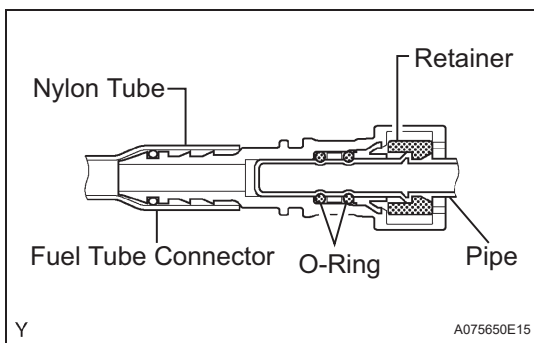


- (h) Remove the 9 bolts, 2 seal washers, 2 nuts and cylinder head cover.



## 8. REMOVE FUEL DELIVERY PIPE

- (a) Disconnect the fuel tube from the fuel delivery pipe.  
 (1) Remove the No. 1 fuel pipe clamp.

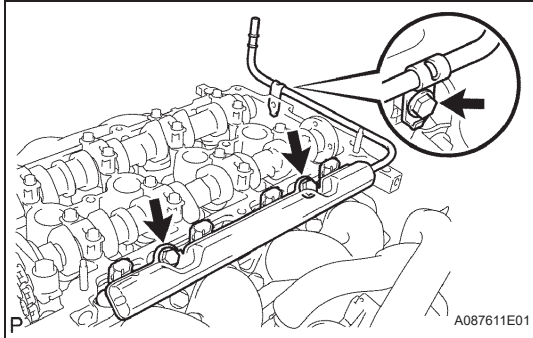


- (2) Pinch the retainer of the fuel tube connector, and then pull out the fuel tube connector to disconnect the fuel tube from the fuel delivery pipe.

### NOTICE:

- Remove dirt or foreign objects on the fuel tube connector before this procedure.
- Do not allow any scratches or foreign objects on the parts when disconnecting them, 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.

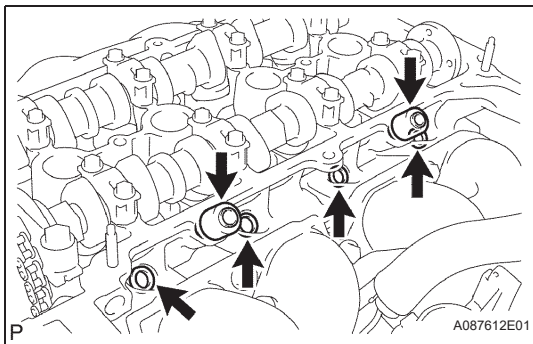
- Protect the connecting part by covering it with a plastic bag after disconnecting the fuel tube.
- If the fuel tube connector and pipe are stuck, push and pull them to release them.



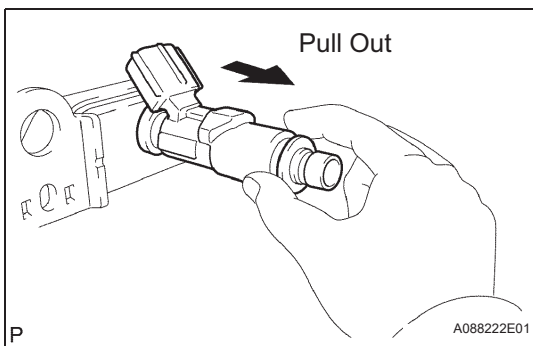
- (b) Remove the 3 bolts and fuel delivery pipe together with the 4 fuel injectors.

**NOTICE:**

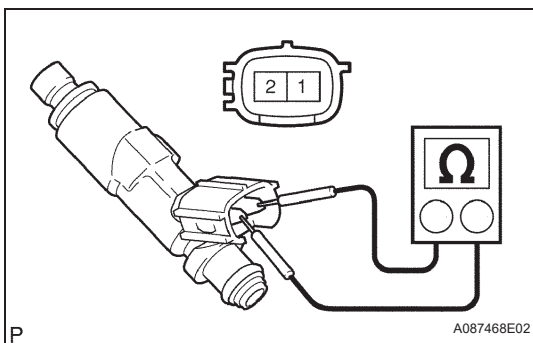
Do not drop the fuel injectors when removing the fuel delivery pipe.



- (c) Remove the 2 No. 1 delivery pipe spacers from the cylinder head.  
 (d) Remove the 4 insulators from the cylinder head.

**9. REMOVE FUEL INJECTOR ASSEMBLY**

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

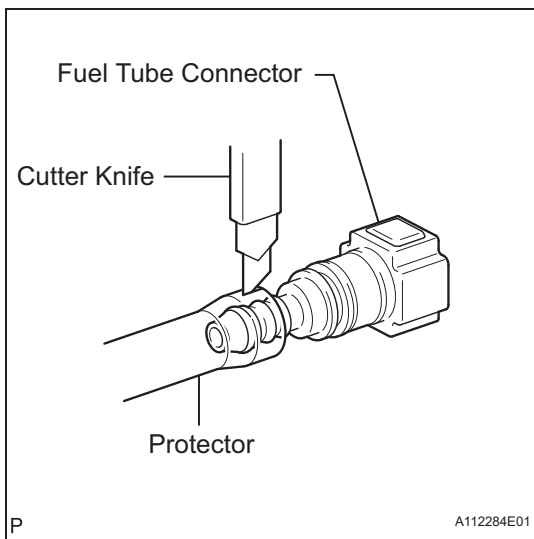
**INSPECTION****1. INSPECT FUEL INJECTOR ASSEMBLY**

- (a) Measure the resistance between the terminals.

**Standard resistance:**

**13.45 to 14.15  $\Omega$  at 21°C (68°F)**

If the resistance is not as specified, replace the fuel injector assembly.



- (b) Inspect the injection volume.

**CAUTION:**

**Perform the test in a well-ventilated area away from flames.**

**NOTICE:**

**Carefully handle the fuel tube connector.**

- (1) Prepare a new fuel tube.

**HINT:**

Part No. 23901-21081

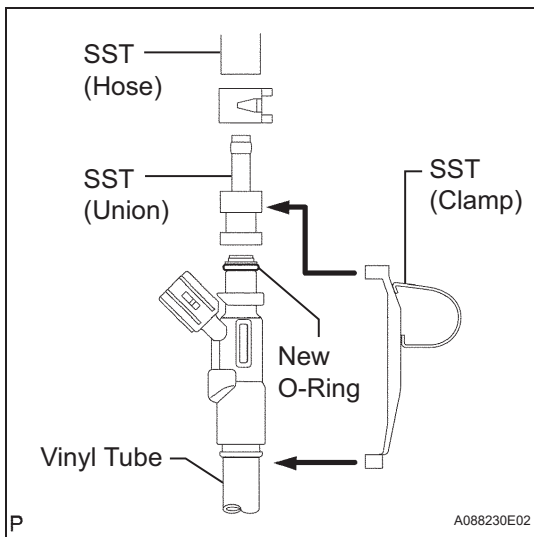
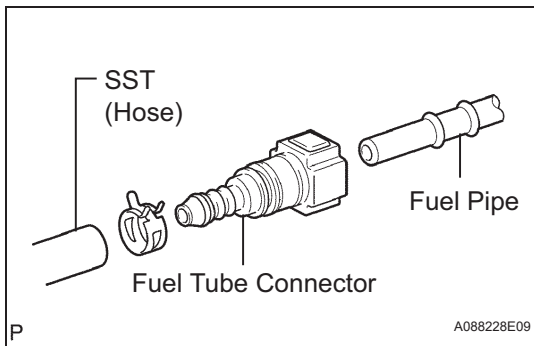
- (2) Using a cutter knife, cut off the protector of the fuel tube as illustrated. Tear off the protector by hand, then remove the fuel tube connector.

**NOTICE:**

**If the protector is cut too deeply using the cutter, the O-ring of the fuel tube connector will be damaged.**

- (3) Install SST to the fuel tube connector, and connect the fuel tube connector to the fuel pipe (the vehicle side).

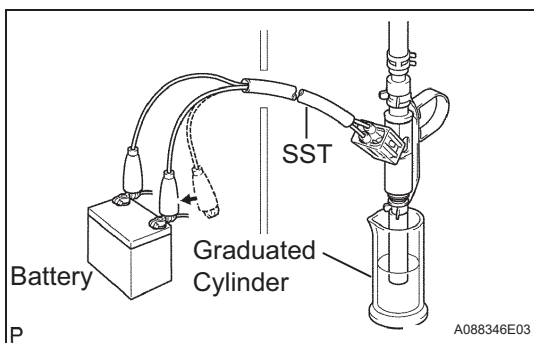
**SST 09268-41047 (95336-08070)**



- (4) Install a new O-ring to the fuel injector.

- (5) Install SST and the vinyl tube to the fuel injector.

**SST 09268-41047 (09268-41110, 09268-41300)**



- (6) Set the fuel injector to a graduated cylinder.

- (7) Actuate the fuel pump (see page [FU-7](#)).

- (8) Install SST to the fuel injector.

**SST 09842-30080**



- (9) Connect SST to the battery, then measure the injection volume for 15 seconds. Perform the inspection 2 or 3 times, then calculate the average.

#### Standard injection volume

Injection Volume	Difference between each fuel injector
36 to 46 cm <sup>3</sup> (2.1 to 2.8 cu in.)	10 cm <sup>3</sup> (0.6 cu in.) or less

#### NOTICE:

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

If the injection volume is not as specified, replace the fuel injector assembly.

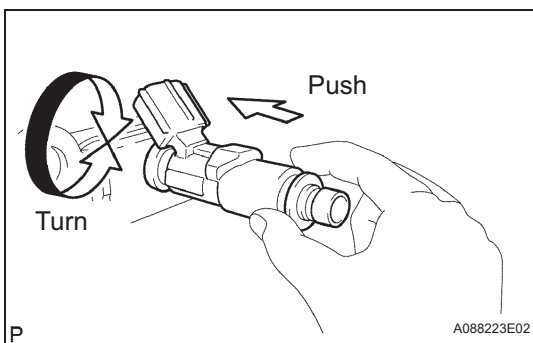
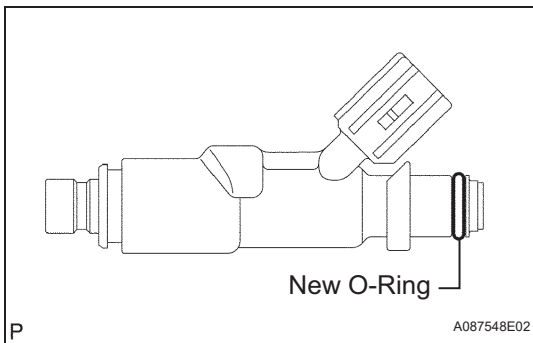
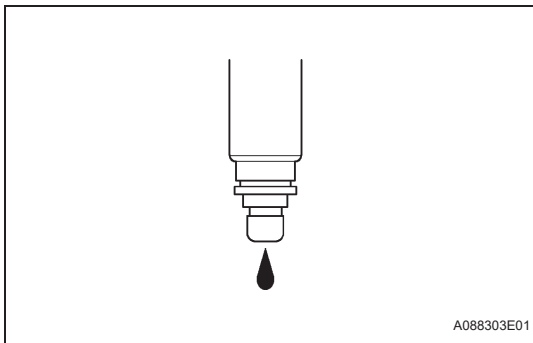
- (c) Inspect the leakage.
- (1) In the condition that the injection volume was inspected, remove SST from the battery. Inspect the fuel leakage from the fuel injector.

#### Standard fuel drop:

**1 drop or less per 12 minutes**

If the fuel leakage is not as specified, replace the fuel injector assembly.

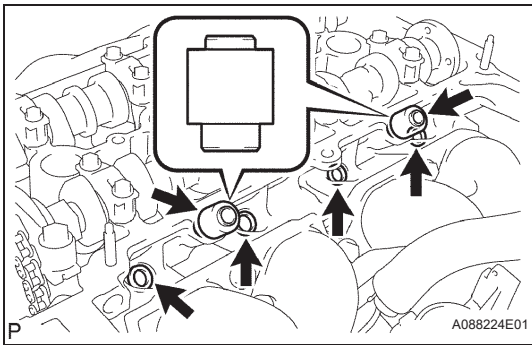
FU



## INSTALLATION

### 1. INSTALL FUEL INJECTOR ASSEMBLY

- (a) Apply a light coat of spindle oil or gasoline to a new O-ring, then install it to each fuel injector.
- (b) Apply a light coat of spindle oil or gasoline to the surface of the fuel delivery pipe which contacts the O-ring of the fuel injector.
- (c) Apply a light coat of spindle oil or gasoline to the O-ring again, and install the fuel injector by turning it right and left while pushing it onto the fuel delivery pipe.
- NOTICE:**  
**Be careful that the O-ring is not cracked or jammed when installing it.**
- (d) Check that the fuel injector rotates smoothly. If the fuel injector does not rotate, replace the O-ring.

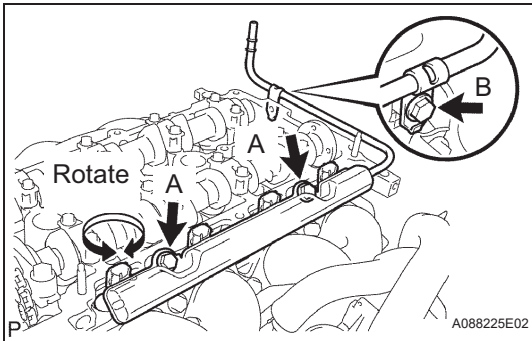


## 2. INSTALL FUEL DELIVERY PIPE

- (a) Install 4 new insulators to the cylinder head.
- (b) Install the 2 No. 1 delivery pipe spacers to the cylinder head.

**NOTICE:**

**Be careful of the installation direction of the delivery pipe spacer.**



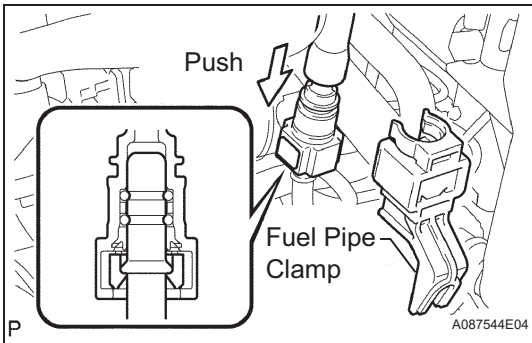
- (c) Install the fuel delivery pipe together with the 4 fuel injectors, and then temporarily tighten the 3 bolts.

**NOTICE:**

**Do not drop the fuel injectors when installing the fuel delivery pipe.**

- (d) Check that the fuel injectors rotate smoothly. If the fuel injectors do not rotate, replace the O-ring.
- (e) Retighten the 3 bolts to the specified torque.

**Torque: 19 N\*m (194 kgf\*cm, 14 ft.\*lbf) for bolt A  
9.0 N\*m (92 kgf\*cm, 80 in.\*lbf) for bolt B**



- (f) Connect the fuel tube to the fuel delivery pipe.
  - (1) Align the fuel tube connector with the pipe, then push in the fuel tube connector until the retainer makes a "click" sound to connect the fuel tube to the fuel delivery pipe.

**NOTICE:**

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

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

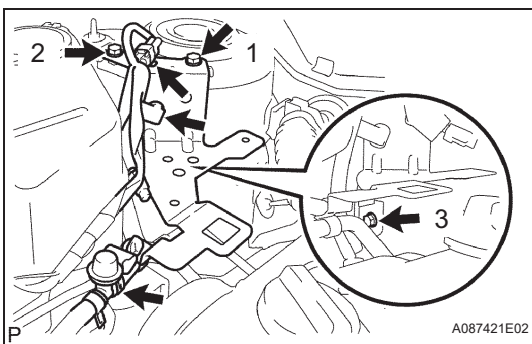
## 3. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY (See page EM-39)

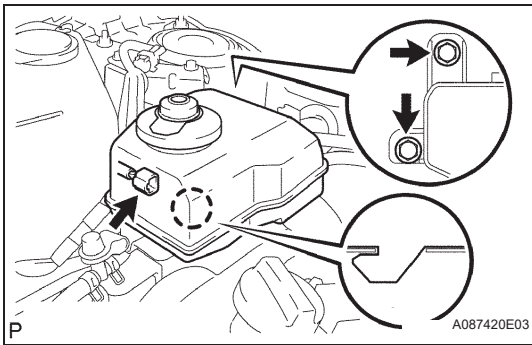
## 4. INSTALL RESERVOIR BRACKET

- (a) Temporarily install the reservoir bracket with the bolt labeled 1 in the illustration.
- (b) Tighten the 3 bolts to the specified torque in the sequence shown in the illustration.

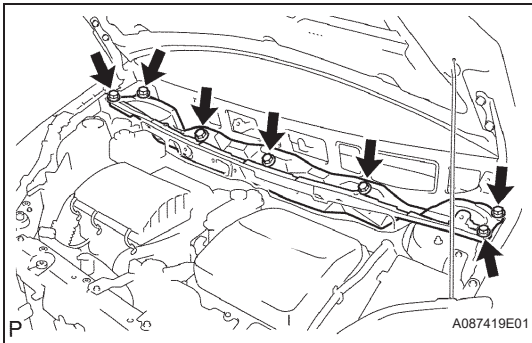
**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf)**

- (c) Install the connector clamp.
- (d) Install the wire harness clamp.
- (e) Install the No. 2 fuel vapor feed hose to the hose clamp.

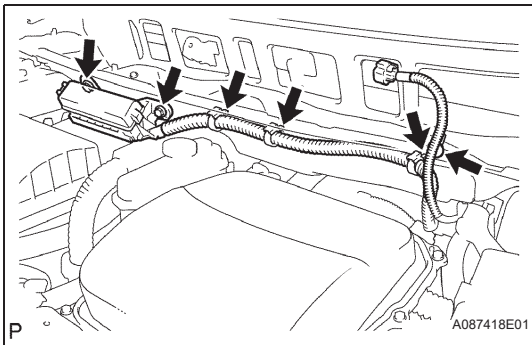


**5. INSTALL BRAKE MASTER CYLINDER RESERVOIR**

- (a) Install the reservoir with the 2 bolts.  
**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf)**
- (b) Connect the switch connector.

**6. INSTALL AIR CLEANER ASSEMBLY (See page ES-453)****7. INSTALL FRONT OUTER COWL TOP PANEL SUB-ASSEMBLY**

- (a) Install the panel with the 7 bolts.  
**Torque: 6.4 N\*m (65 kgf\*cm, 57 in.\*lbf)**



- (b) Connect the 4 wire harness clamps.
- (c) Install the No. 2 engine room relay block with the 2 bolts.

**Torque: 8.4 N\*m (86 kgf\*cm, 74 in.\*lbf)**

**8. INSTALL WINDSHIELD WIPER MOTOR AND LINK**

- (a) Install the windshield wiper motor and link (see page WW-15).

**9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL****10. CHECK FOR FUEL LEAKS (See page FU-8)****11. PERFORM INITIALIZATION**

- (a) Perform initialization (see page IN-32).

**NOTICE:**

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