

## 12. Leak Check Valve Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

NOTE:

For the 12 volt engine restart battery, disconnect the ground terminal from 12V engine restart battery sensor.

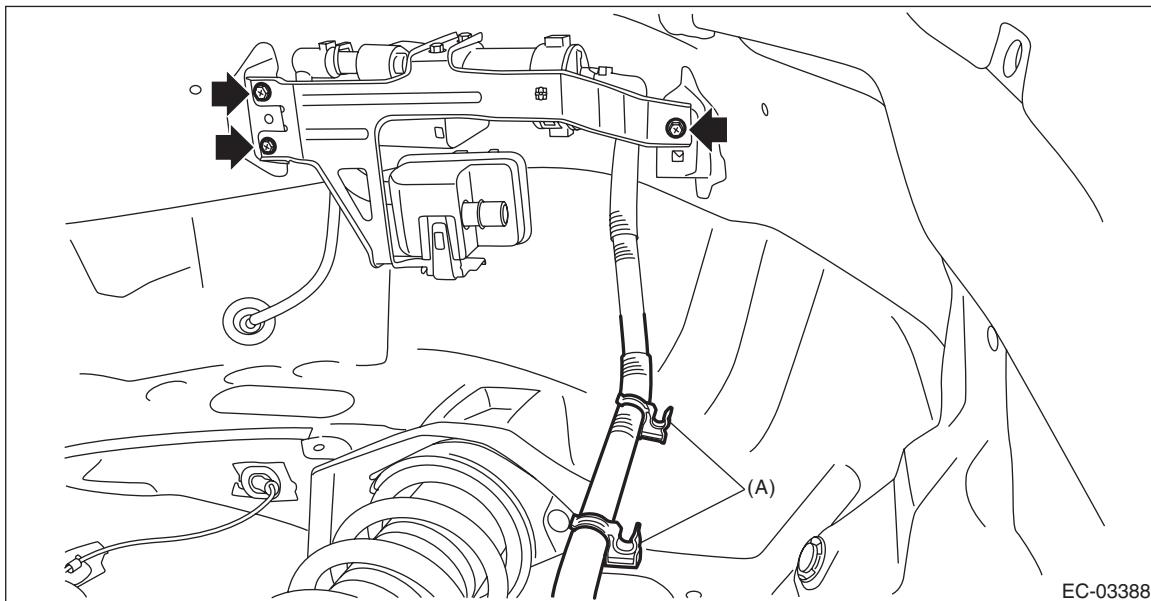
- 2) Remove the rear wheel LH.

- 3) Lift up the vehicle.

- 4) Remove the rear mud guard LH. <Ref. to EI-33, REMOVAL, Mud Guard.>

- 5) Remove the drain tube B from the tube clamp (A).

- 6) Hold the leak check valve assembly, and remove the bolts securing the leak check valve assembly.



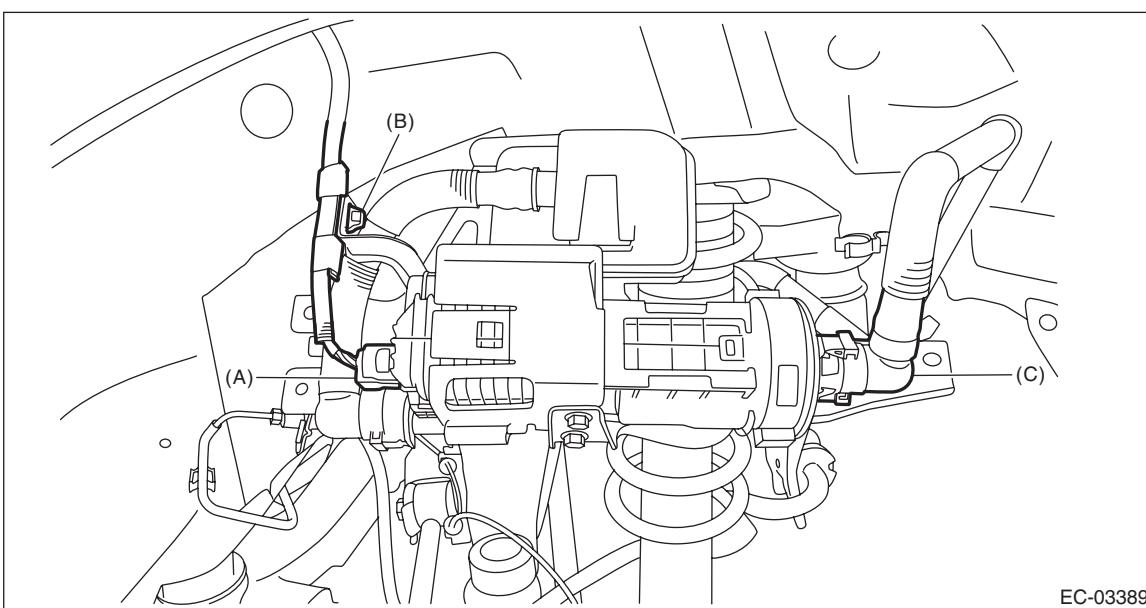
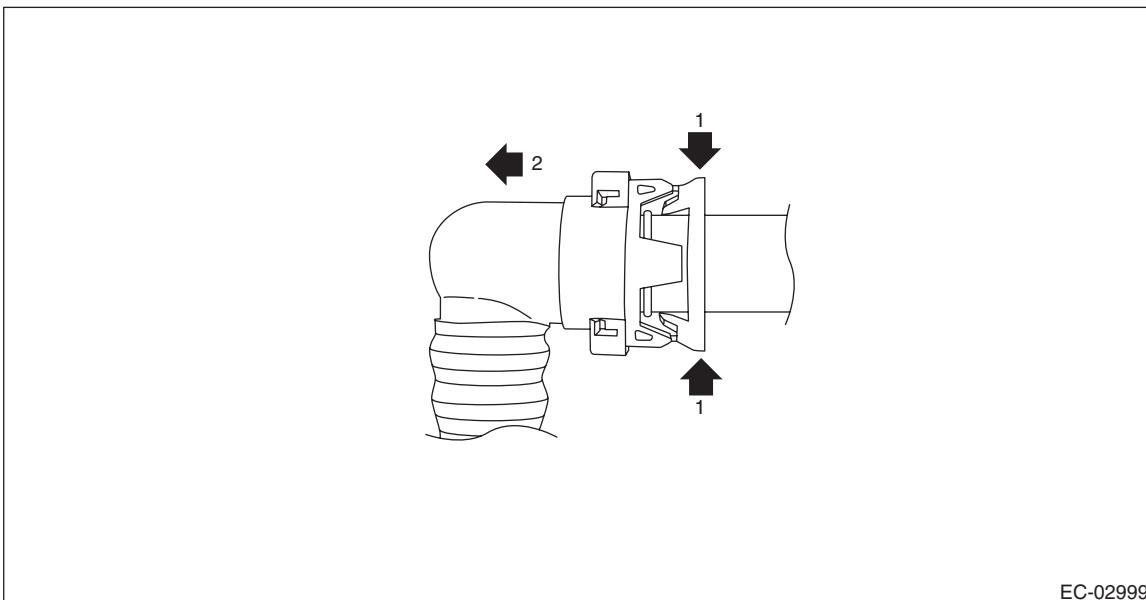
## Leak Check Valve Assembly

### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

- 7) Disconnect the connector (A) from the leak check valve assembly, and remove the clip (B) securing the harness.
- 8) Disconnect the drain tube B (C) from the leak check valve assembly.

NOTE:

Disconnect the quick connector as shown in the figure.



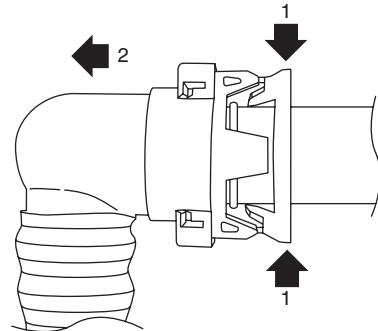
## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

9) Disconnect the drain tube A (A) from the drain tube B (B).

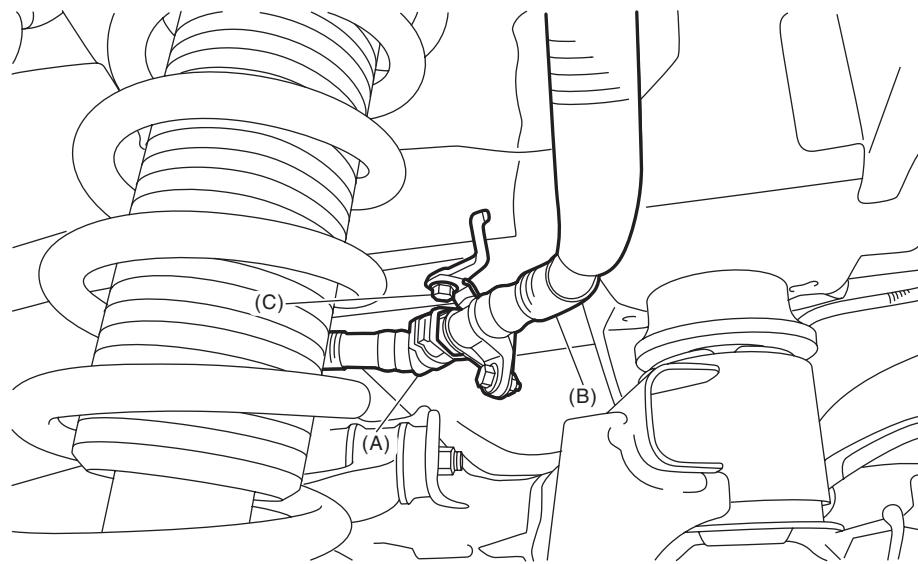
NOTE:

Disconnect the quick connector as shown in the figure.



EC-02999

10) Remove the bolt (C) which secures to the vehicle, and remove the drain tube B (B).



EC-03390

# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## B: INSTALLATION

1) Install the drain tube B (B) to the vehicle using the bolt (C).

### **Tightening torque:**

**7.5 N·m (0.8 kgf·m, 5.5 ft-lb)**

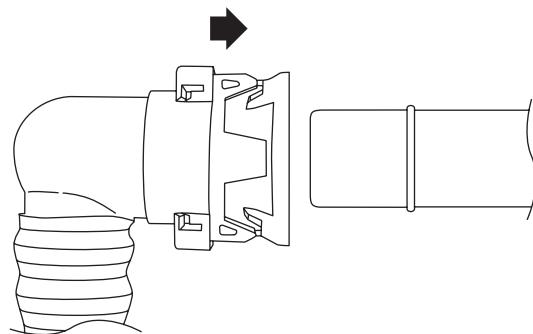
2) Connect the drain tube A (A) to the drain tube B (B).

### **CAUTION:**

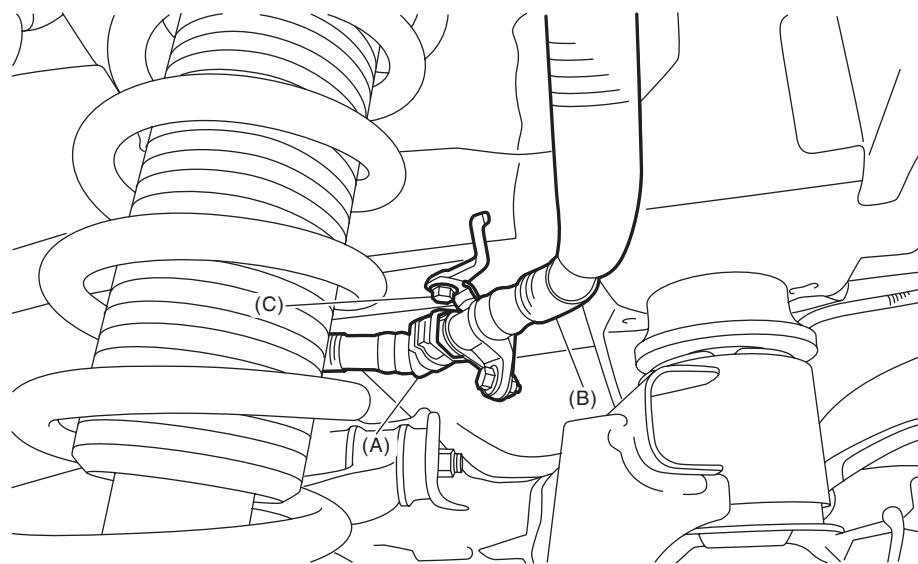
- Check that there is no damage or dust on the quick connector. If necessary, clean the seal surface of the pipe.
- Make sure that the quick connector is securely connected.

### **NOTE:**

Connect the quick connector as shown in the figure.



EC-03000



EC-03390

## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

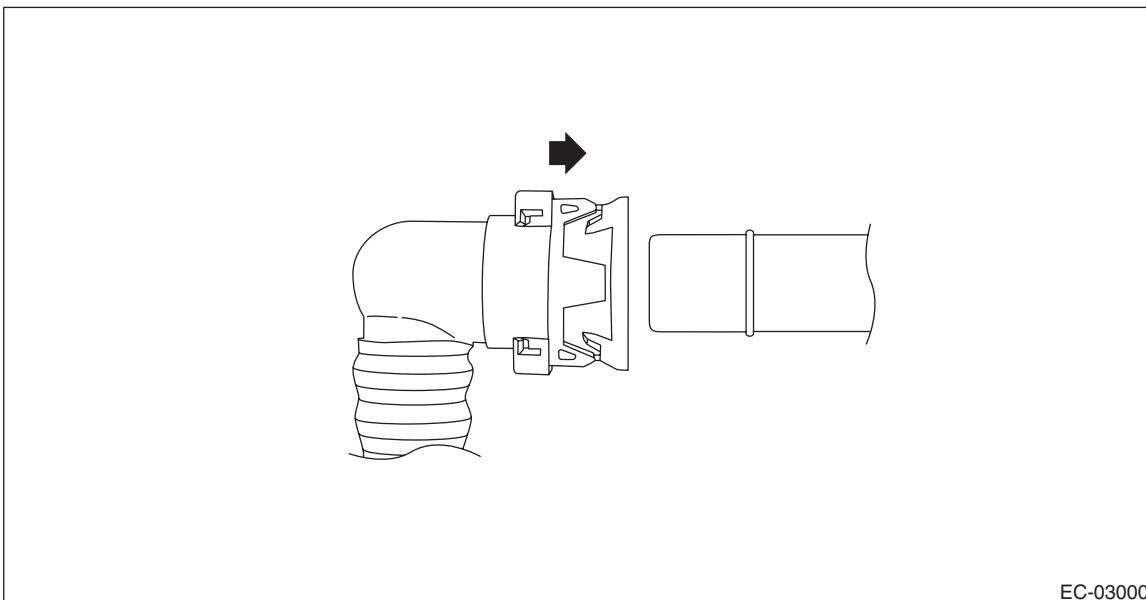
- 3) Connect the connector (A) to the leak check valve assembly, and install the clip (B) securing the harness.
- 4) Connect the drain tube B (C) to the leak check valve assembly.

**CAUTION:**

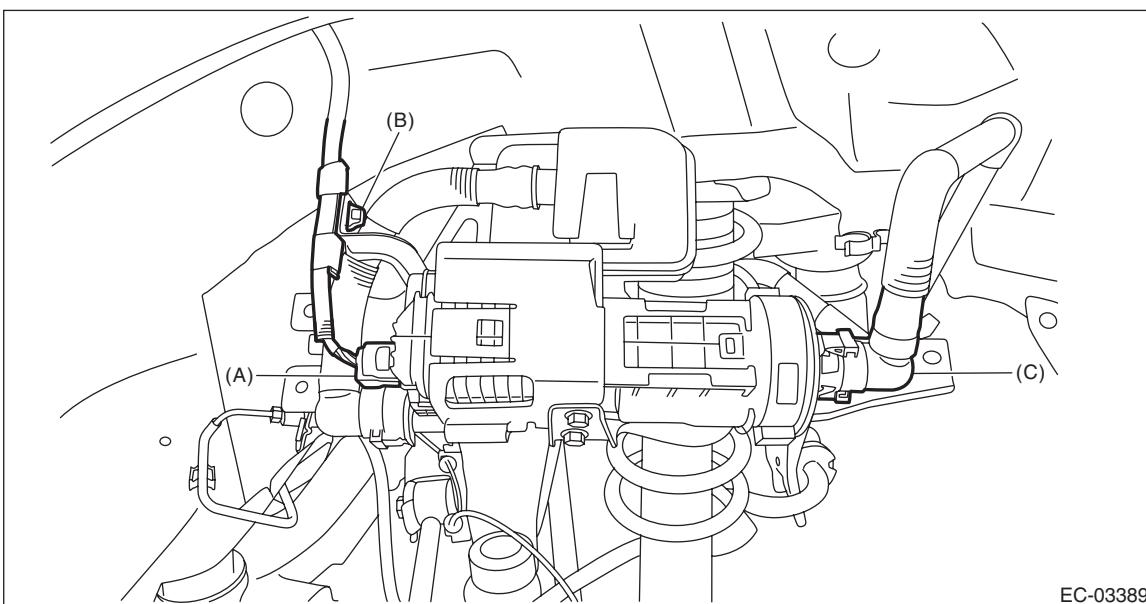
- Check that there is no damage or dust on the quick connector. If necessary, clean the seal surface of the pipe.
- Make sure that the quick connector is securely connected.

**NOTE:**

Connect the quick connector as shown in the figure.



EC-03000



EC-03389

- 5) Install the leak check valve assembly to the vehicle.

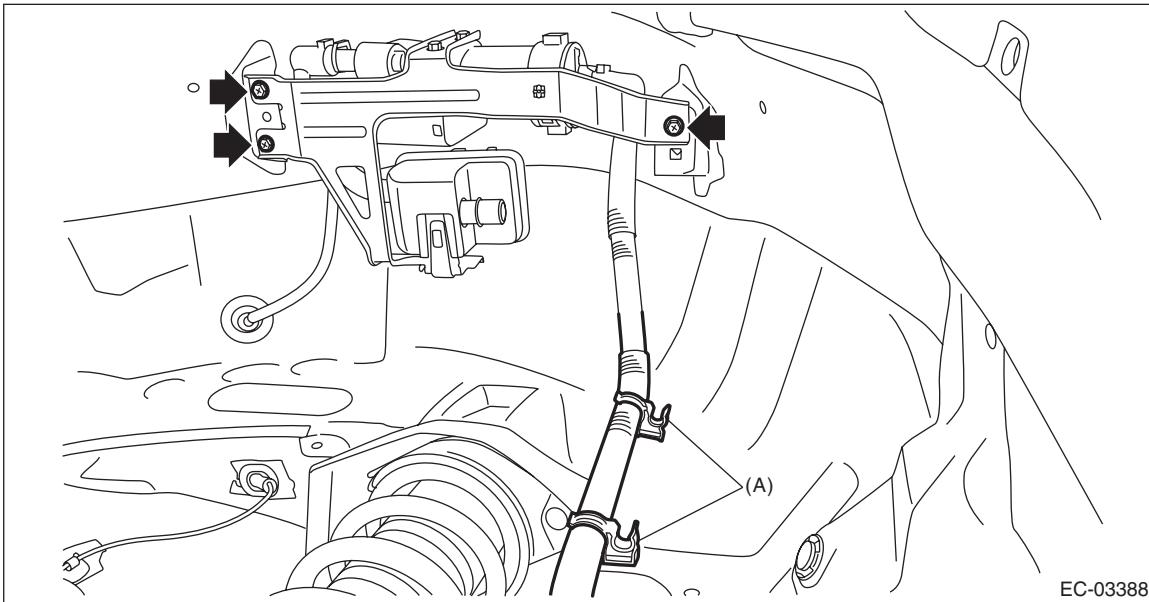
***Tightening torque:***

**7.5 N·m (0.8 kgf·m, 5.5 ft-lb)**

## Leak Check Valve Assembly

### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

- 6) Install the drain tube B to the tube clamp (A).



- 7) Install the rear mud guard LH. <Ref. to EI-33, INSTALLATION, Mud Guard.>
- 8) Lower the vehicle.
- 9) Install the rear wheel LH.
- 10) Connect the battery ground terminal. <Ref. to NT-5, BATTERY, NOTE, Note.>

# Leak Check Valve Assembly

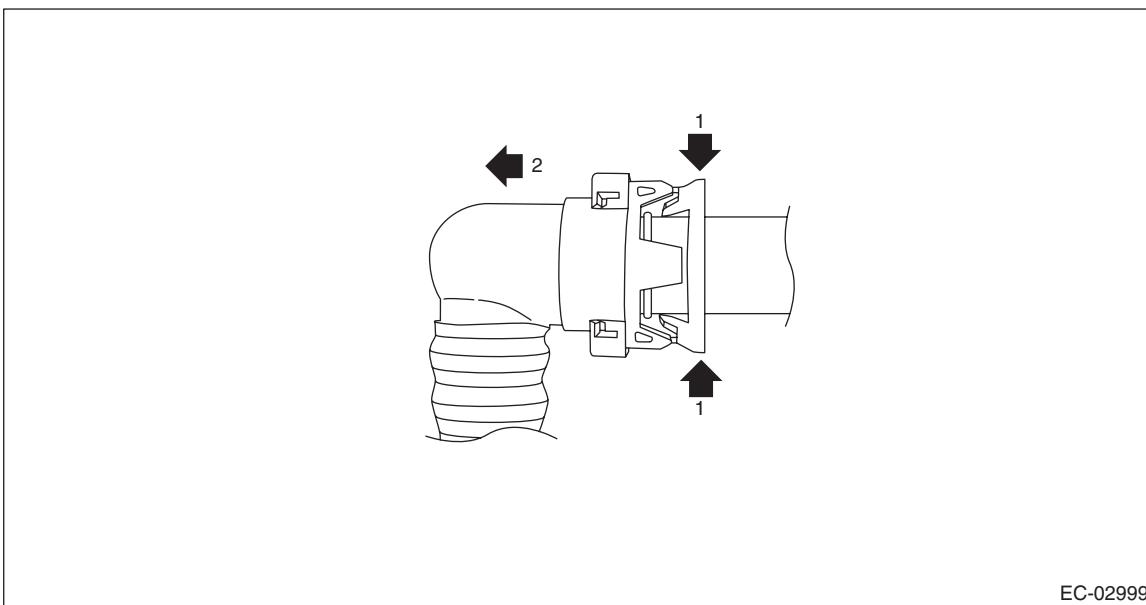
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## C: DISASSEMBLY

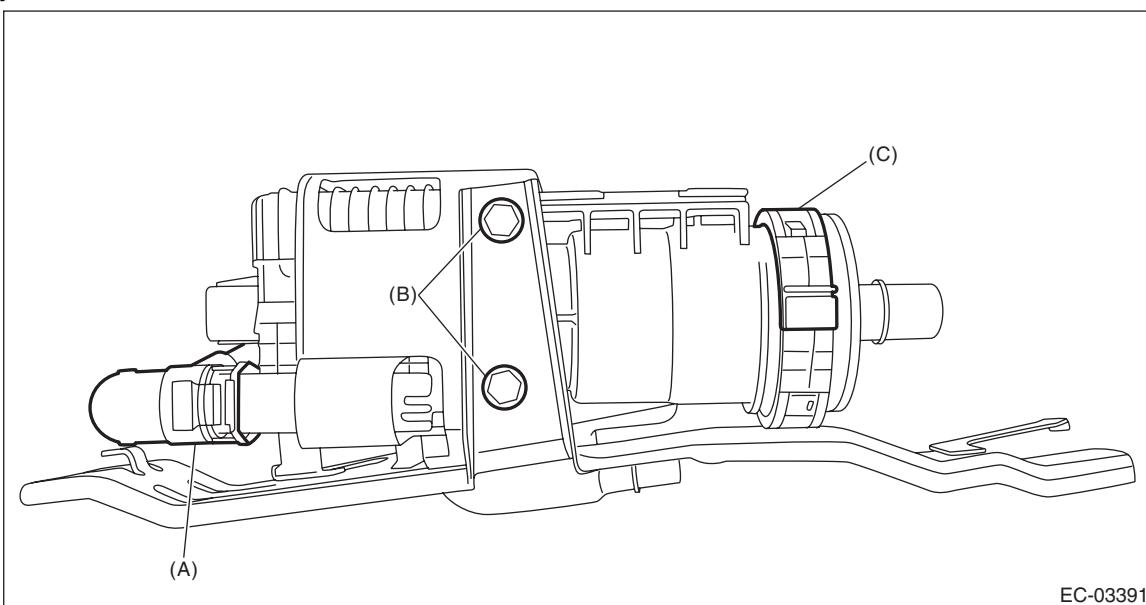
- 1) Disconnect the drain tube (A) from the leak check valve assembly.

NOTE:

Disconnect the quick connector as shown in the figure.



- 2) Remove the bolt (B) securing the leak check valve assembly to the drain bracket.
- 3) Remove the clamp B (C) which secures the leak check valve assembly, and remove the leak check valve assembly.



# Leak Check Valve Assembly

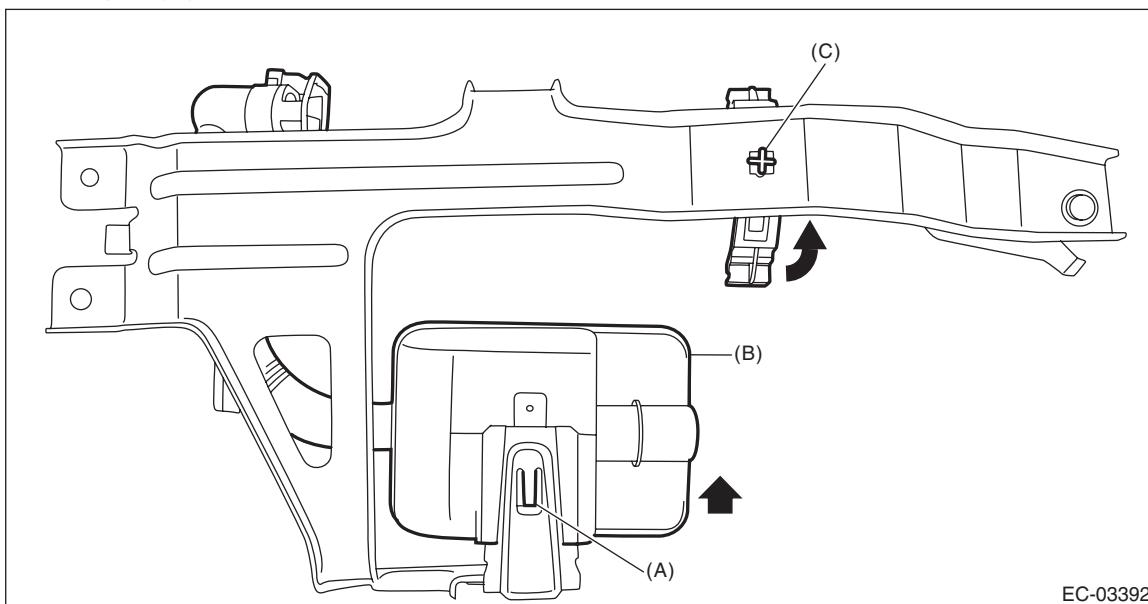
## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

4) Release the claw (A), and slide the drain filter (B) from the drain bracket in the direction of the arrow to remove.

**NOTE:**

When removing the drain filter from the drain bracket, use the new drain bracket and drain filter to install.

5) Turn the clamp A (C) from the drain bracket in the direction of arrow to remove.



## D: ASSEMBLY

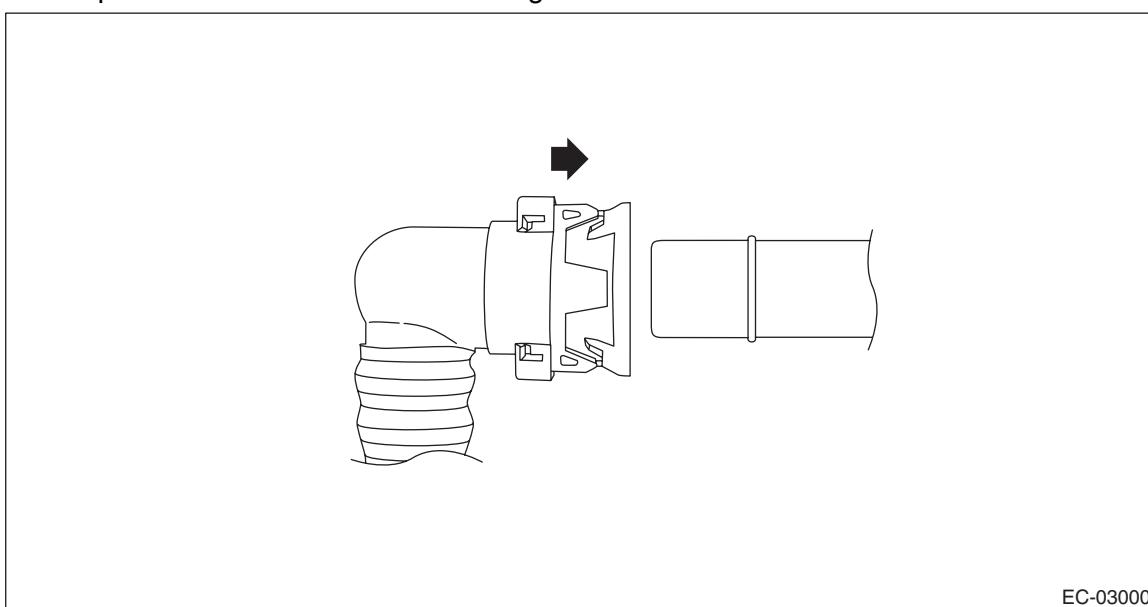
Assemble in the reverse order of disassembly.

**CAUTION:**

- Check that there is no damage or dust on the quick connector. If necessary, clean the seal surface of the pipe.
- Make sure that the quick connector is securely connected.

**NOTE:**

- Use a new drain bracket and drain filter.
- Connect the quick connector as shown in the figure.



**Tightening torque:**

5.4 N·m (0.6 kgf·m, 4.0 ft-lb)

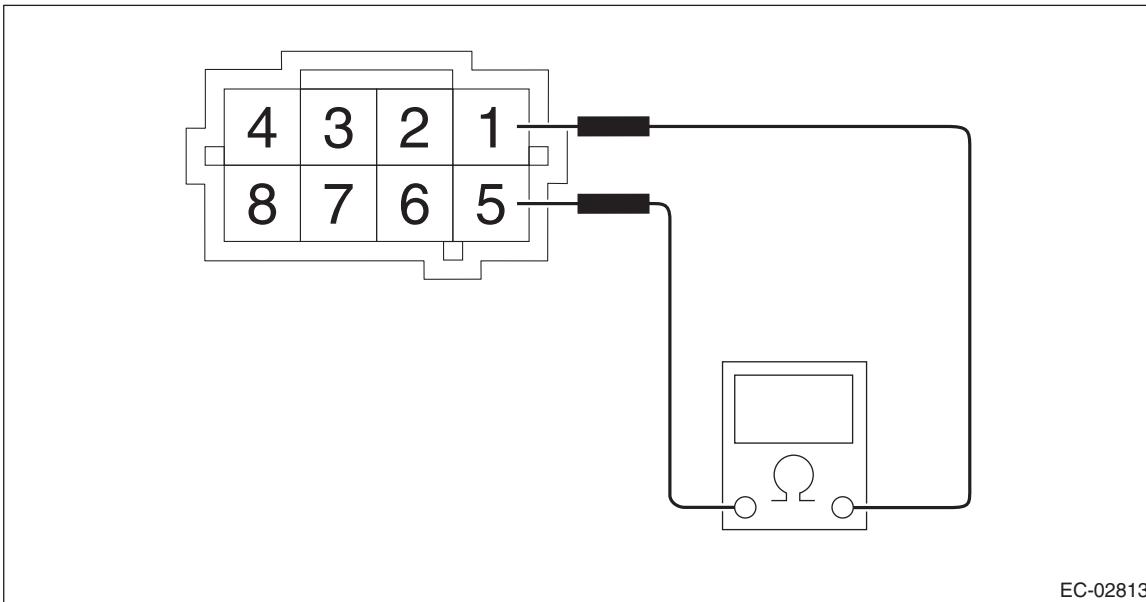
# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## E: INSPECTION

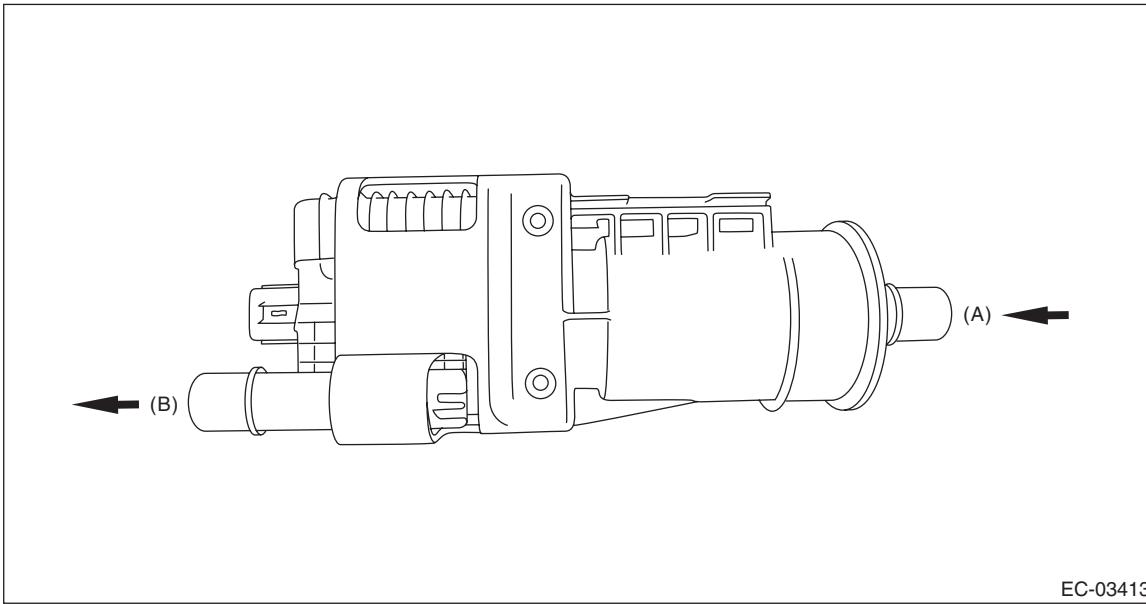
### 1. CHECK SWITCHING VALVE

1) Check the resistance between switching valve terminals.



Terminal No.	Standard
1 and 5	$27^{+3} -_2 \Omega$ (when 20°C (68°F))
	$31 \pm 4 \Omega$ (60°C (140°F))

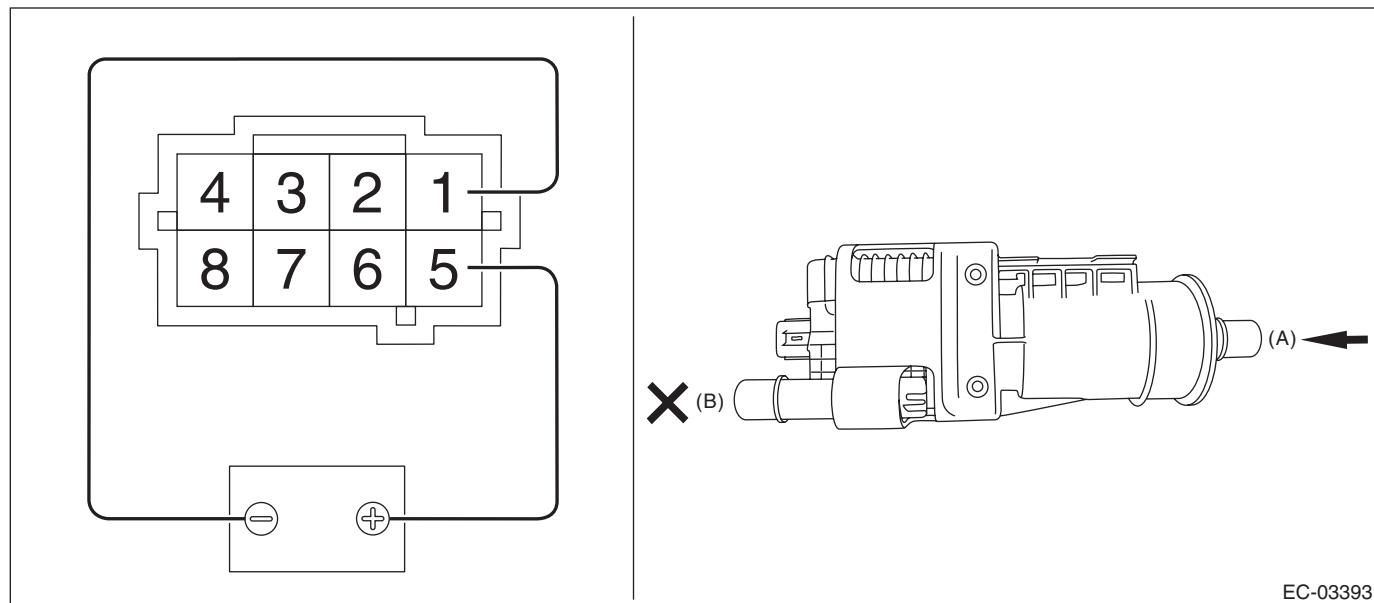
2) Check that air is discharged from (B) when air is blown into (A).



## Leak Check Valve Assembly

### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

3) Connect the battery positive terminal to the terminal No. 5 and the battery negative terminal to the terminal No. 1. Check that air does not come out from (B) when air is blown into (A).

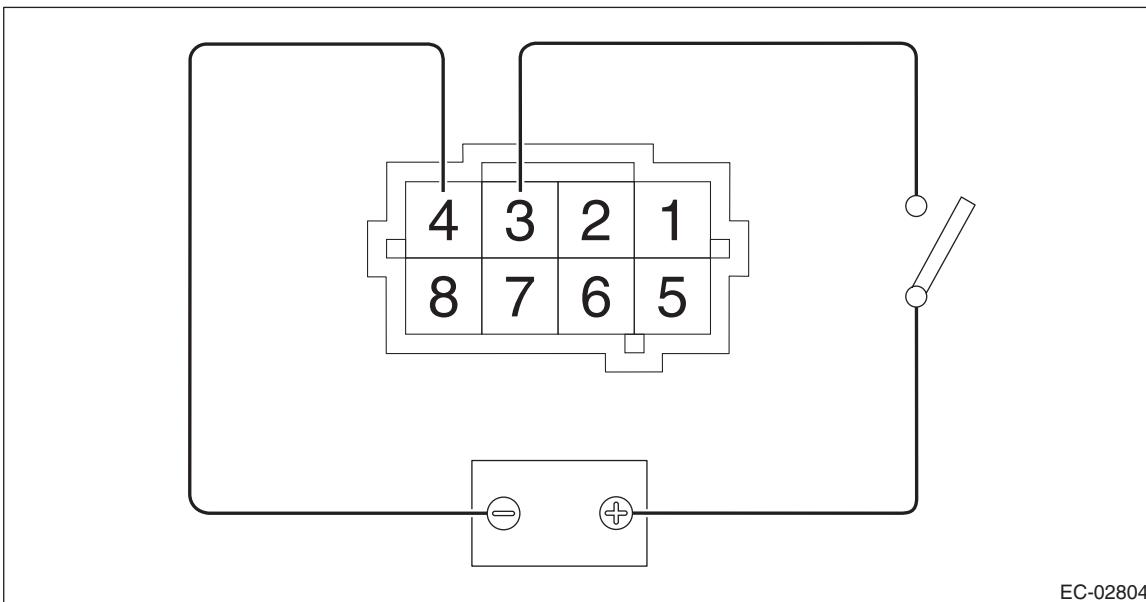


## 2. CHECK VACUUM PUMP

1) Connect the battery positive terminal to terminal No. 3 and the battery ground terminal to terminal No. 4, and inspect the vacuum pump operation.

### CAUTION:

Do not operate the vacuum pump for 5 minutes or more.



# Leak Check Valve Assembly

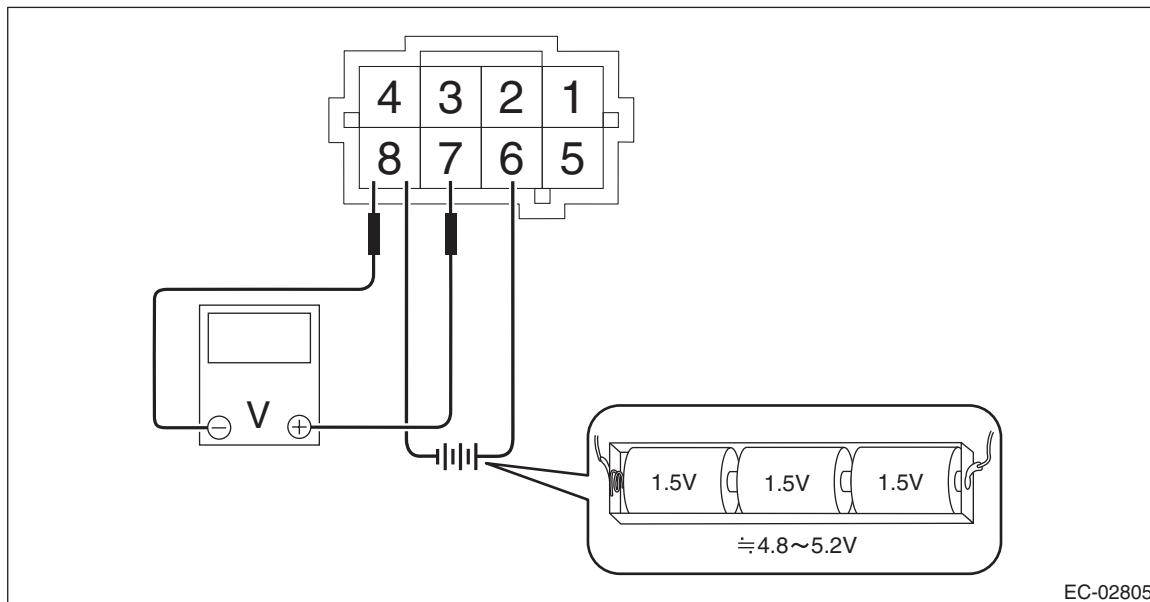
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## 3. CHECK PRESSURE SENSOR

1) Connect dry-cell battery positive terminal to terminal No. 6 and dry-cell battery ground terminal to terminal No. 8, circuit tester positive terminal to terminal No. 7 and the circuit tester negative terminal to terminal No. 8.

NOTE:

- Use new dry-cell batteries.
- Using circuit tester, check the voltage of a single dry-cell battery is 1.6 V or more. And also check the voltage of three batteries in series is between 4.8 V and 5.2 V.
- For power supply, 5 V DC voltage source can also be used.



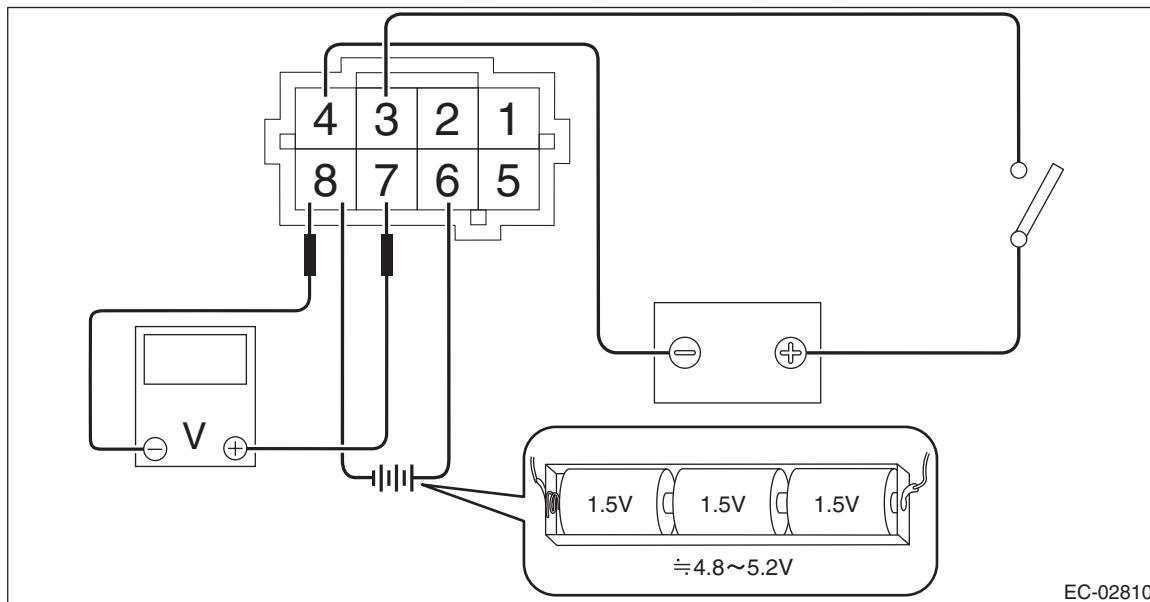
2) Check the voltage at a normal atmospheric pressure.

NOTE:

The atmospheric pressure at higher altitude is lower than normal. Therefore, the voltage is lower than the standard value.

Terminal No.	Standard
7 (+) and 8 (-)	Approx. 3.5 V (when 25°C (77°F))

3) Connect the battery positive terminal to terminal No. 3 and the battery ground terminal to terminal No. 4, and check that there is a voltage drop from the voltage measured in step 2) when the vacuum pump is operated.



## **Leak Check Valve Assembly**

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

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### **4. OTHER INSPECTIONS**

- 1) Check that the leak check valve assembly has no deformation, cracks or other damages.
- 2) Check that the tube has no cracks, damage or loose part.