

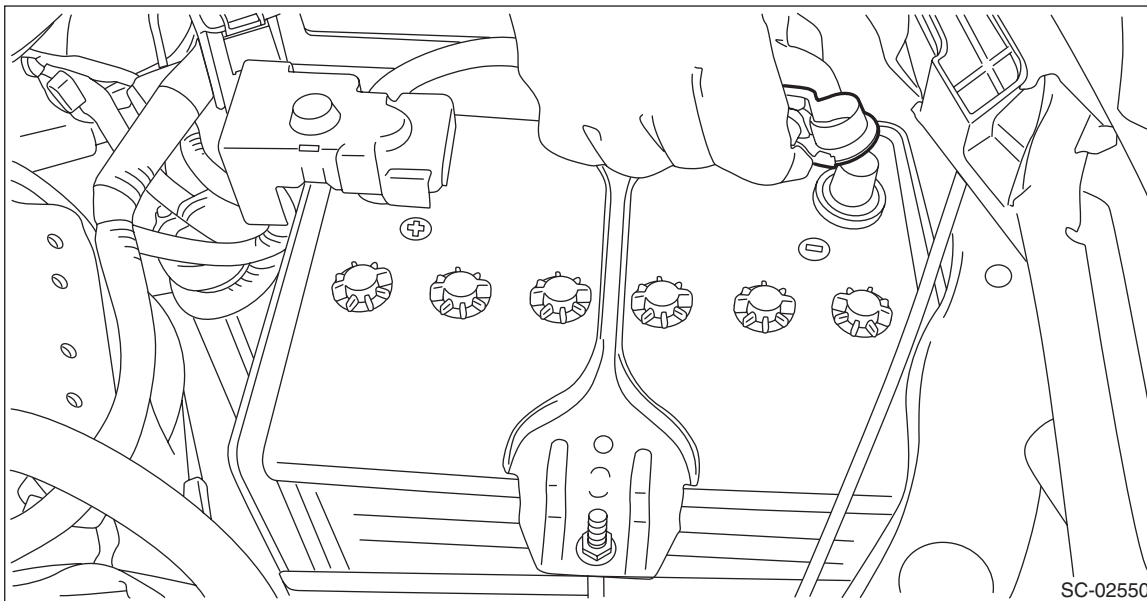
# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

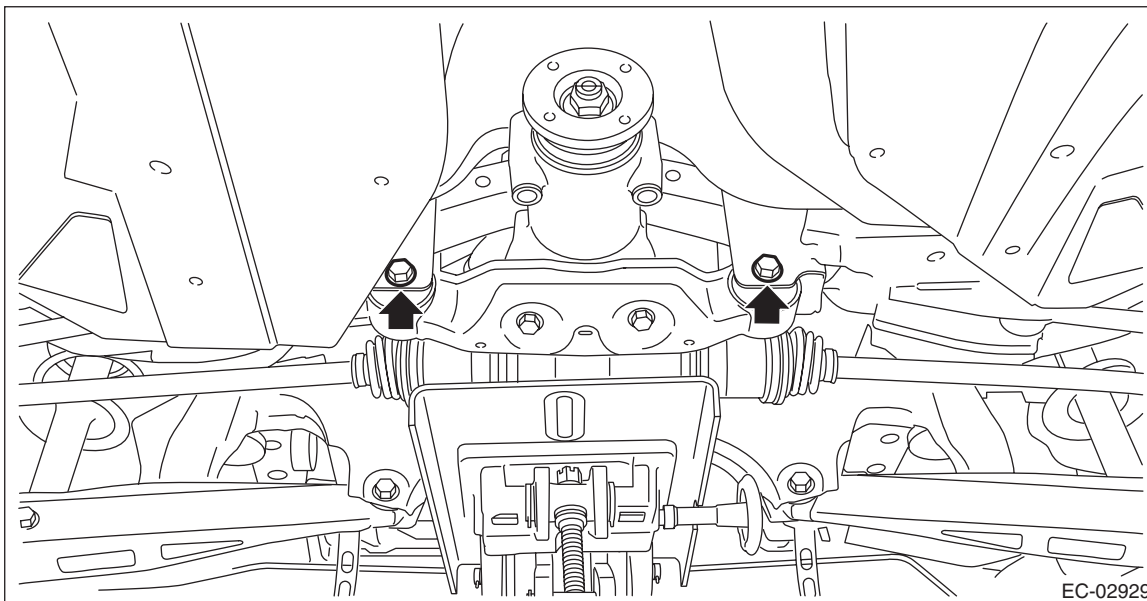
## 11. Leak Check Valve Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from battery.



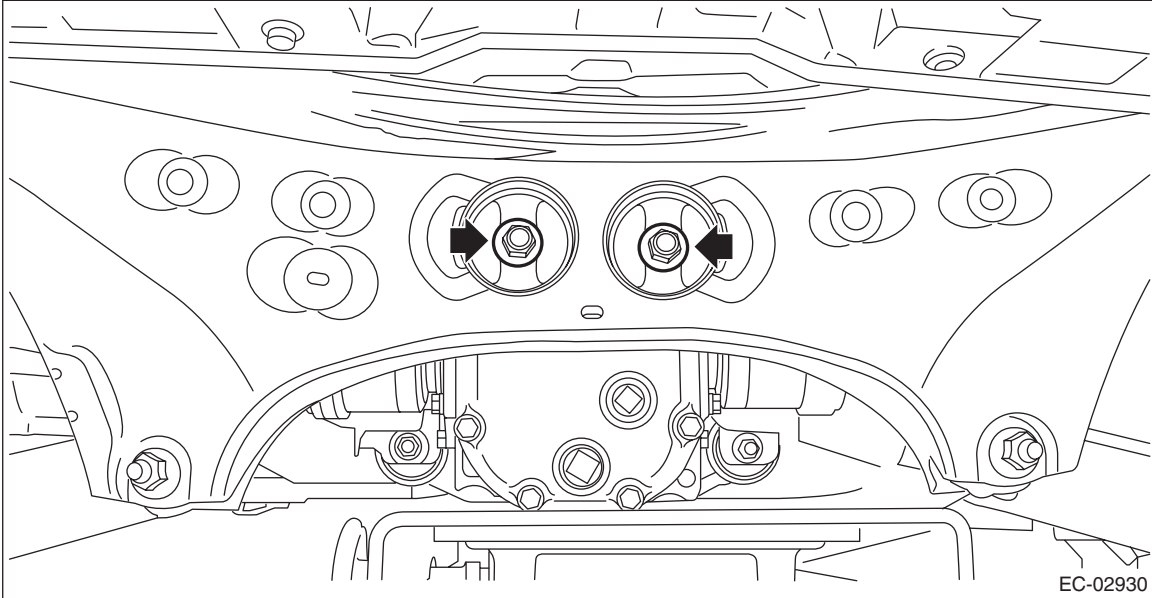
- 2) Lift up the vehicle.
- 3) Remove the propeller shaft. <Ref. to DS-12, REMOVAL, Propeller Shaft.>
- 4) Support the rear differential with the transmission jack.
- 5) Remove the bolts which hold the rear differential front crossmember from the rear crossmember.



## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

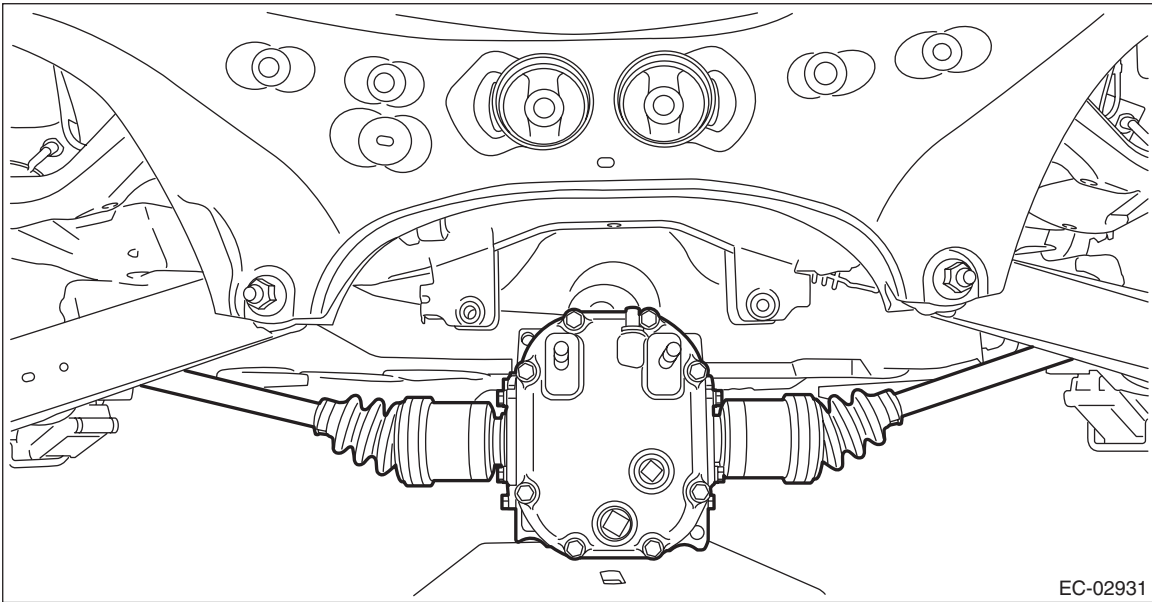
6) Remove the self-lock nuts which hold the rear differential to the rear crossmember.



7) Lower the rear differential.

NOTE:

Be careful not to apply excessive force to the drive shaft.



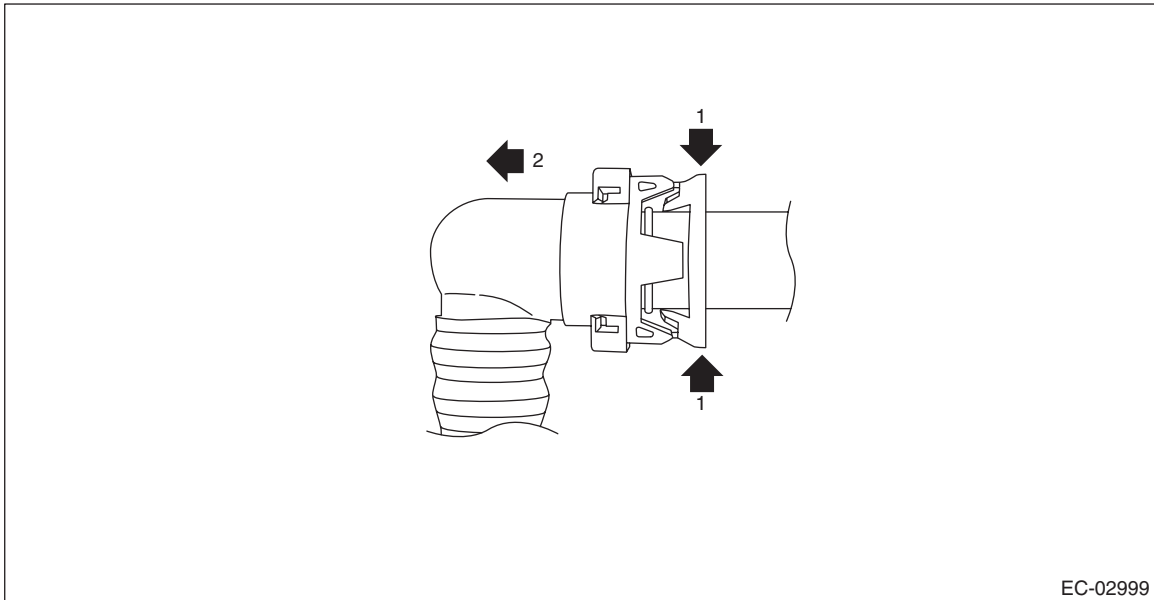
## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

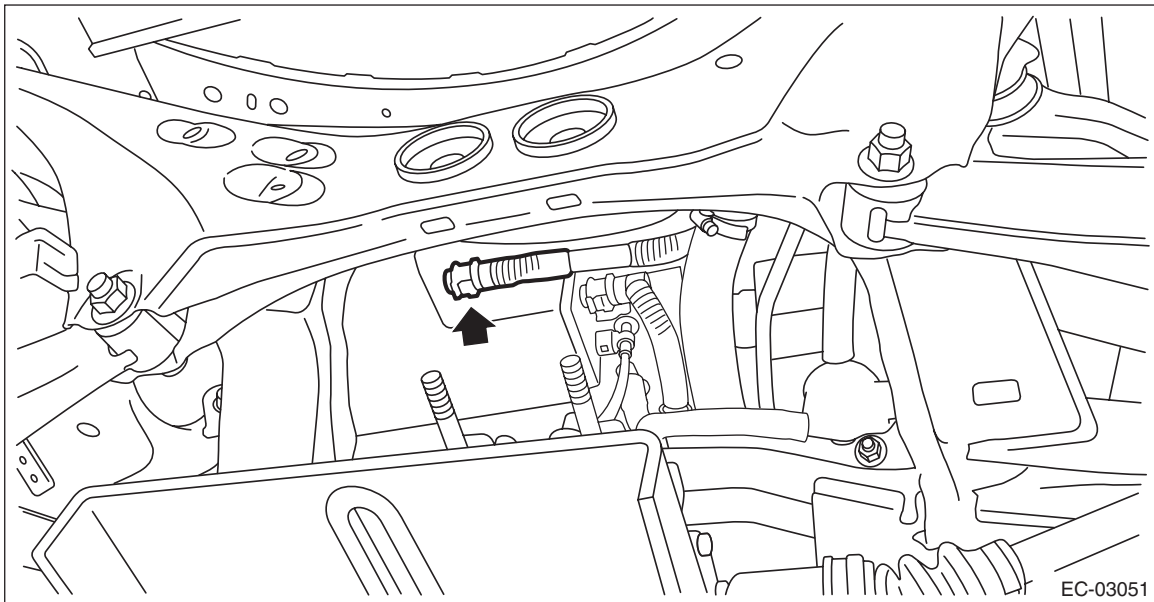
8) Disconnect the drain tube from the canister.

NOTE:

Disconnect the quick connector as shown in the figure.



EC-02999



EC-03051

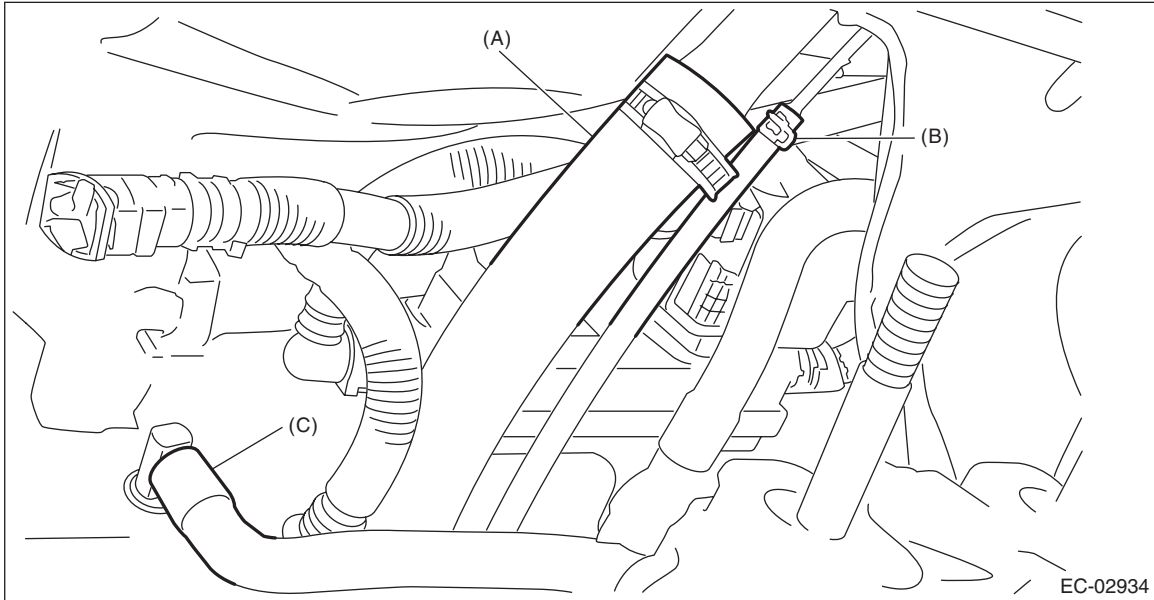
9) Disconnect the fuel filler hose (A) and evaporation hose (B).

## Leak Check Valve Assembly

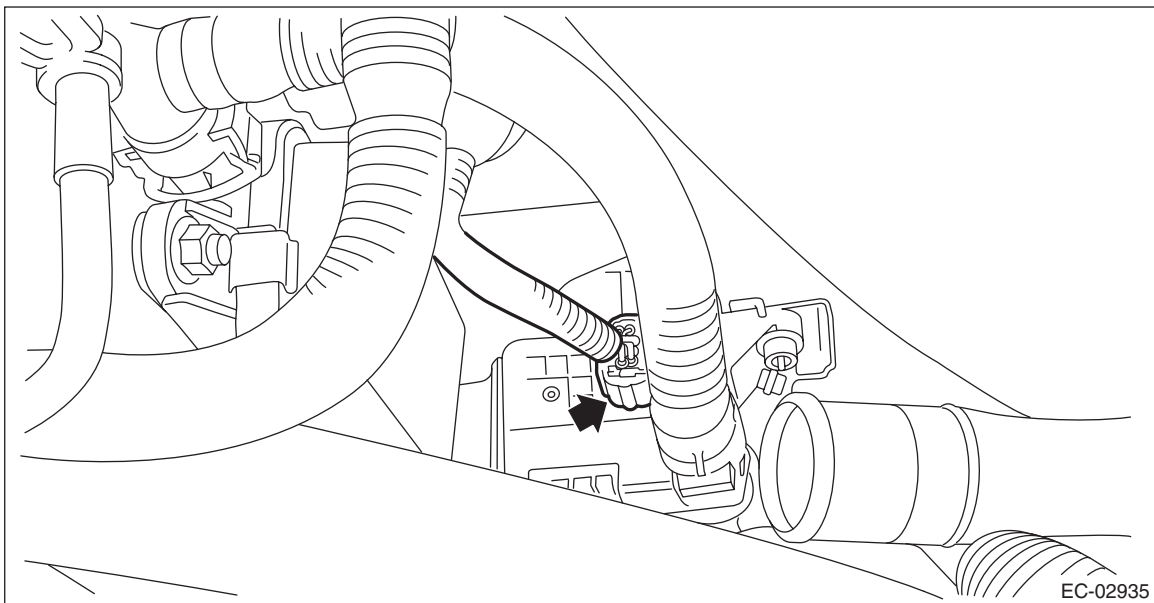
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

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10) Disconnect the intake hose (C) from the connector.



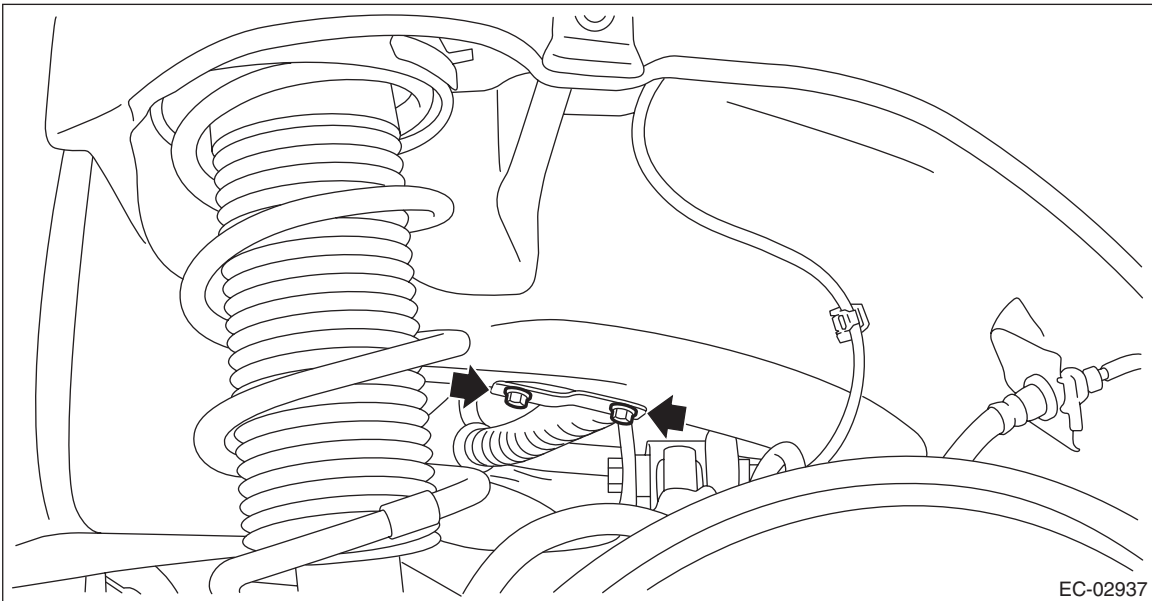
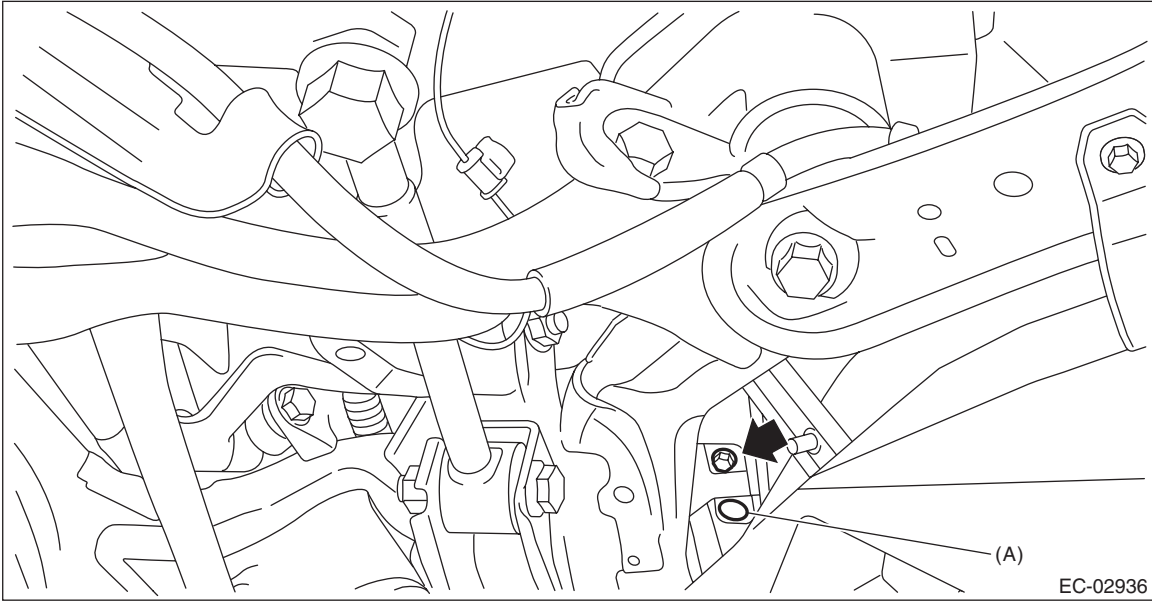
11) Disconnect the connector from the leak check valve assembly.



## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

12) Remove the bolt and clip (A) which secure the leak check valve assembly to the vehicle, and remove the leak check valve assembly.



# Leak Check Valve Assembly

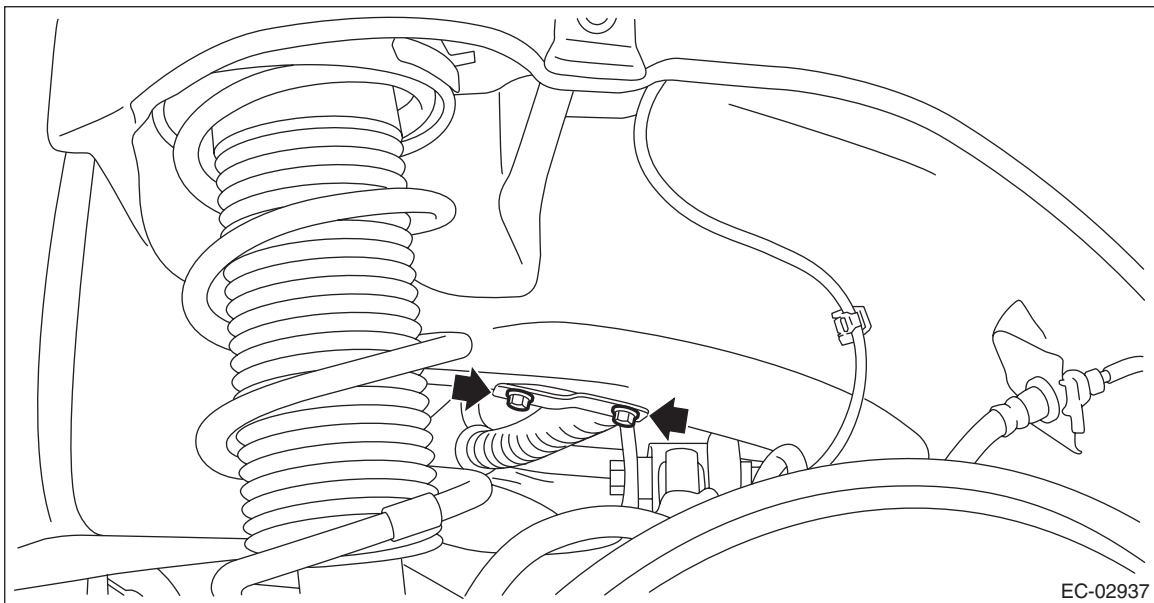
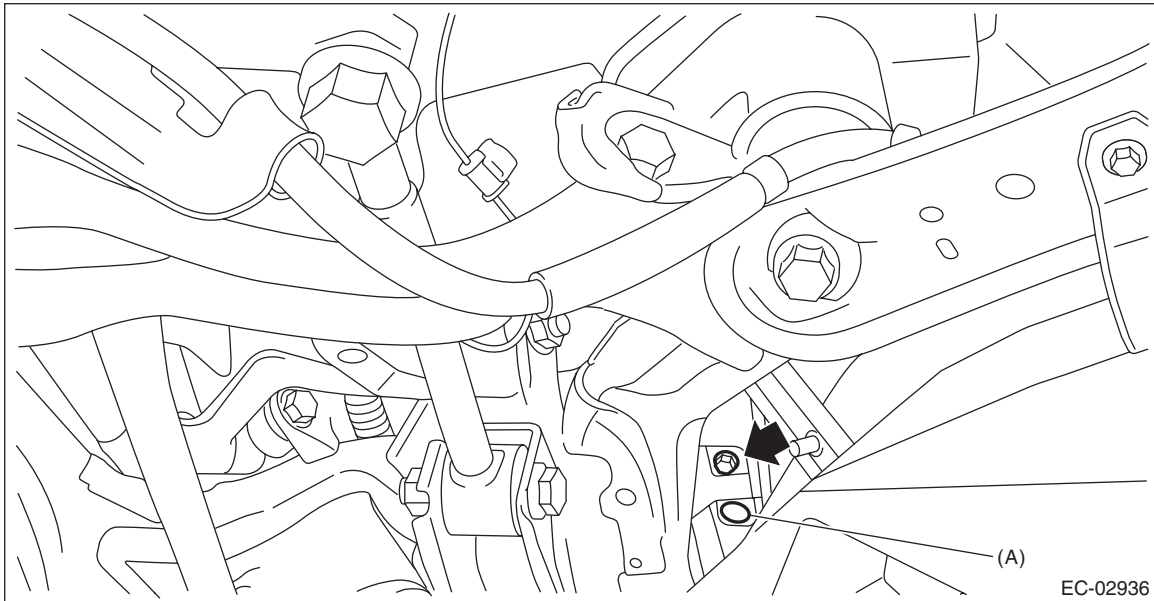
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## B: INSTALLATION

1) Install the leak check valve assembly to the vehicle with the bolt and clip (A).

**Tightening torque:**

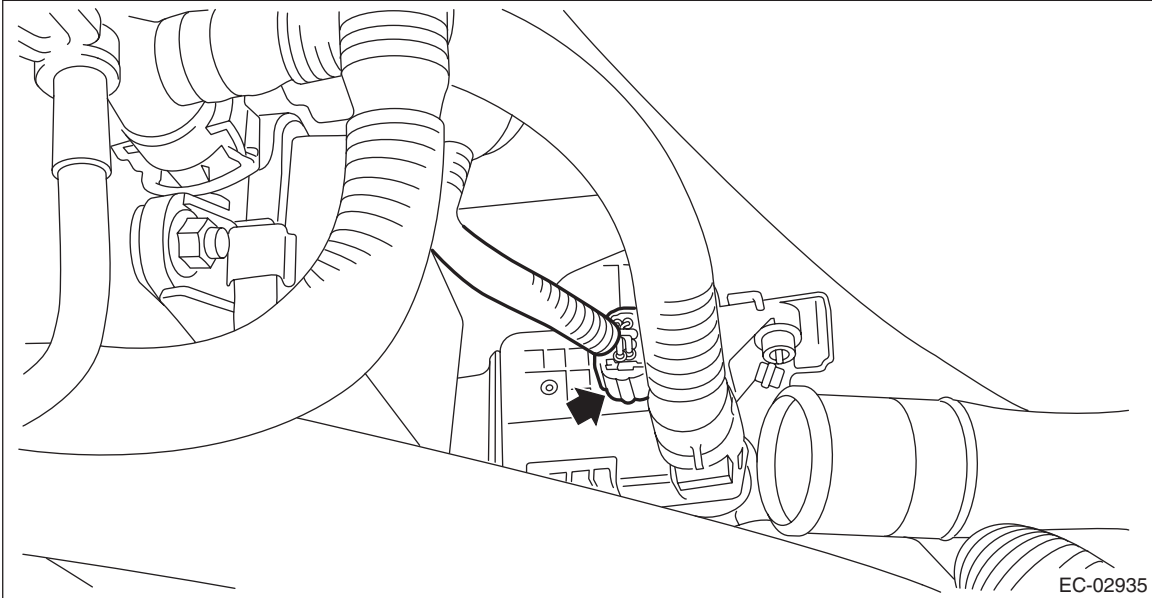
**7.5 N·m (0.8 kgf·m, 5.5 ft·lb)**



## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

2) Connect the connector to the leak check valve assembly.



3) Connect the intake hose (C) to the connector.

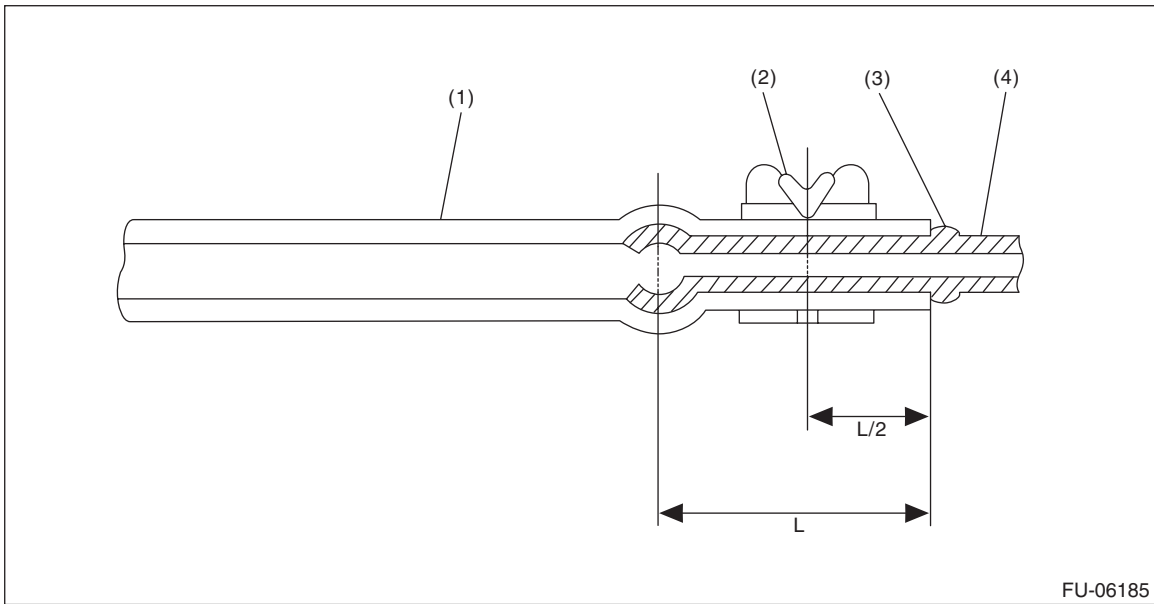
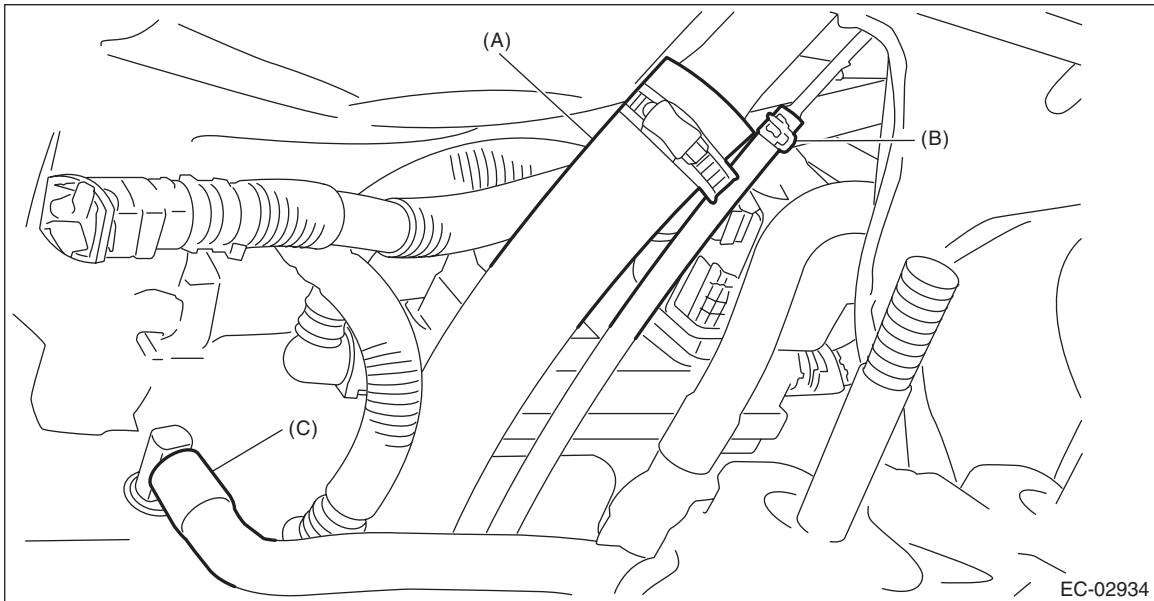
# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

4) Securely insert the fuel filler hose (A) and evaporation hose (B) until the hose end contacts the spool, then attach the clamp and clip as shown in the figure.

**Tightening torque:**

**2.5 N·m (0.3 kgf·m, 1.8 ft·lb)**



- (1) Hose
- (2) Clamp and clip
- (3) Spool
- (4) Pipe



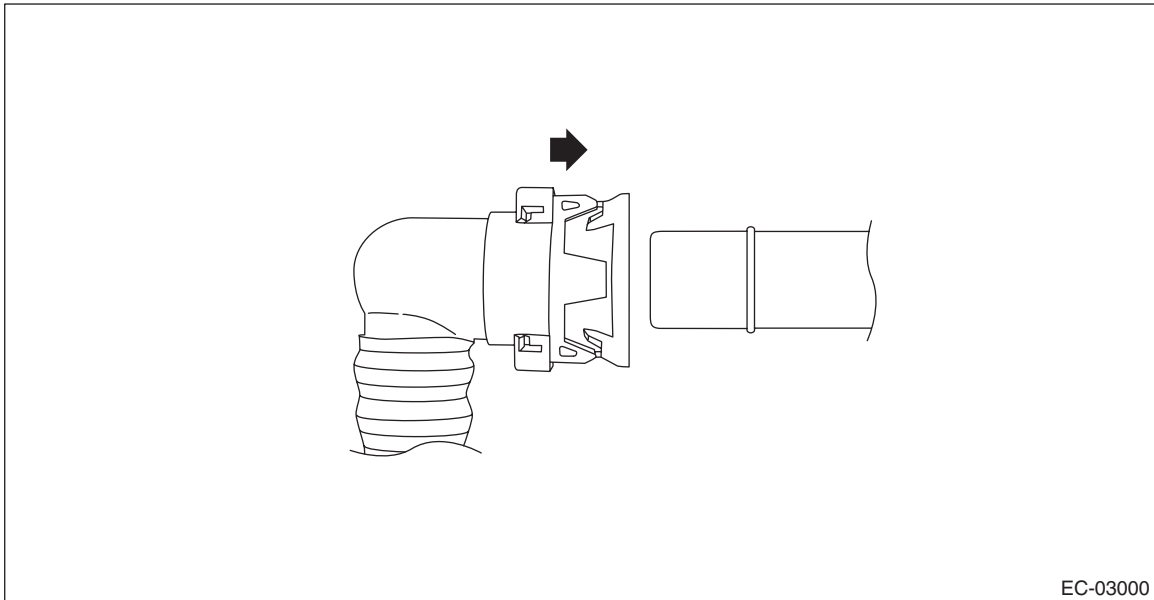
# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

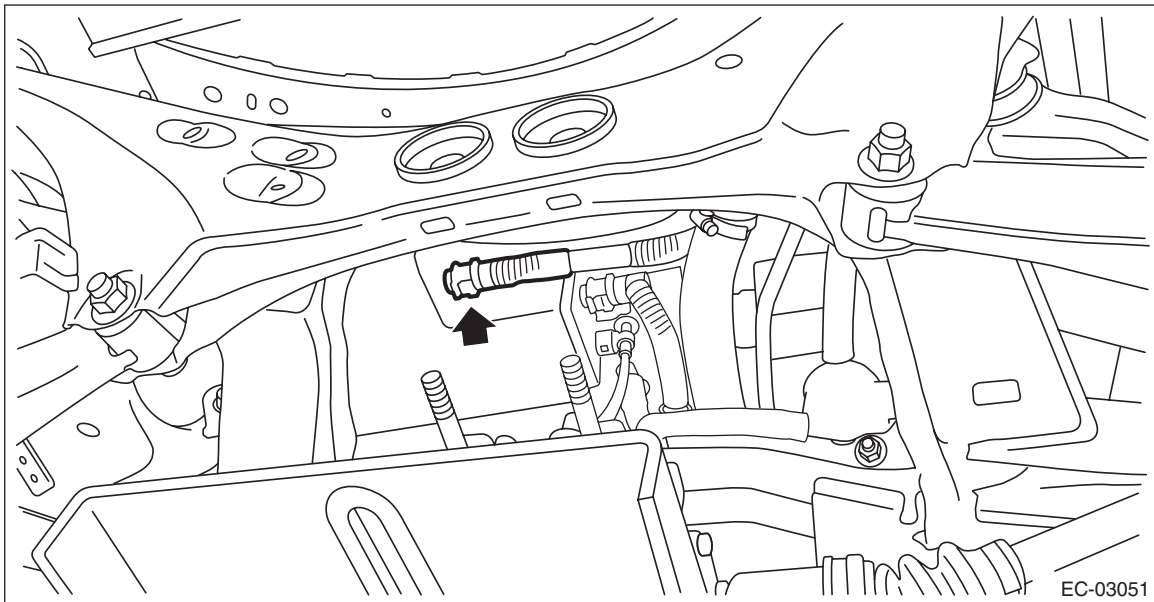
5) Connect the drain tube to the canister.

NOTE:

Connect the quick connector as shown in the figure.



EC-03000



EC-03051

## Leak Check Valve Assembly

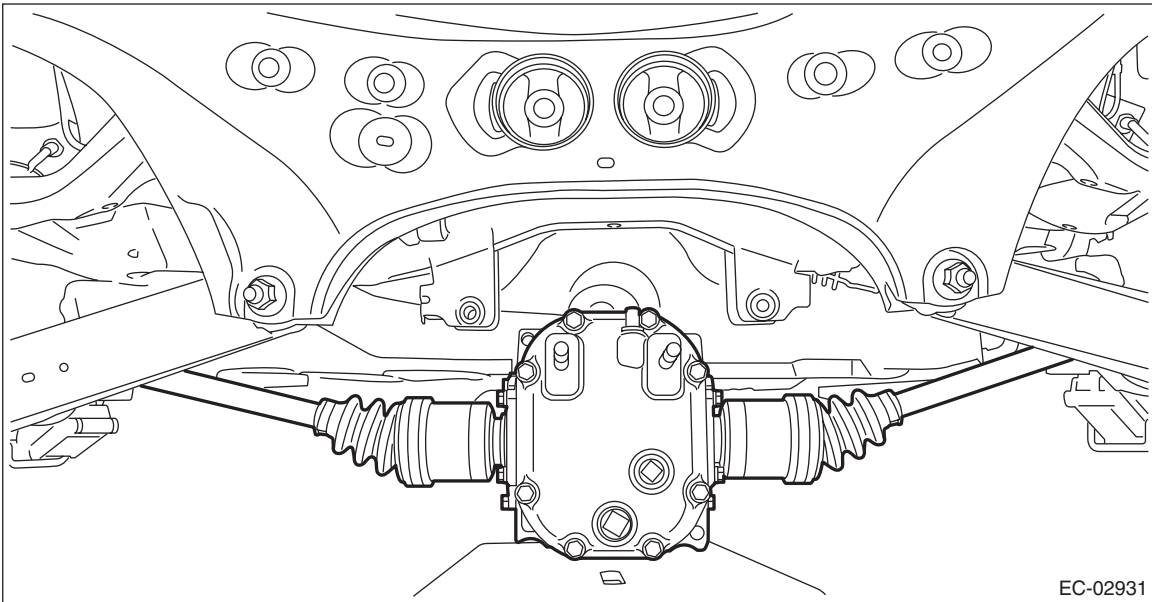
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

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6) Raise the rear differential with transmission jack.

NOTE:

Be careful not to apply excessive force to the drive shaft.



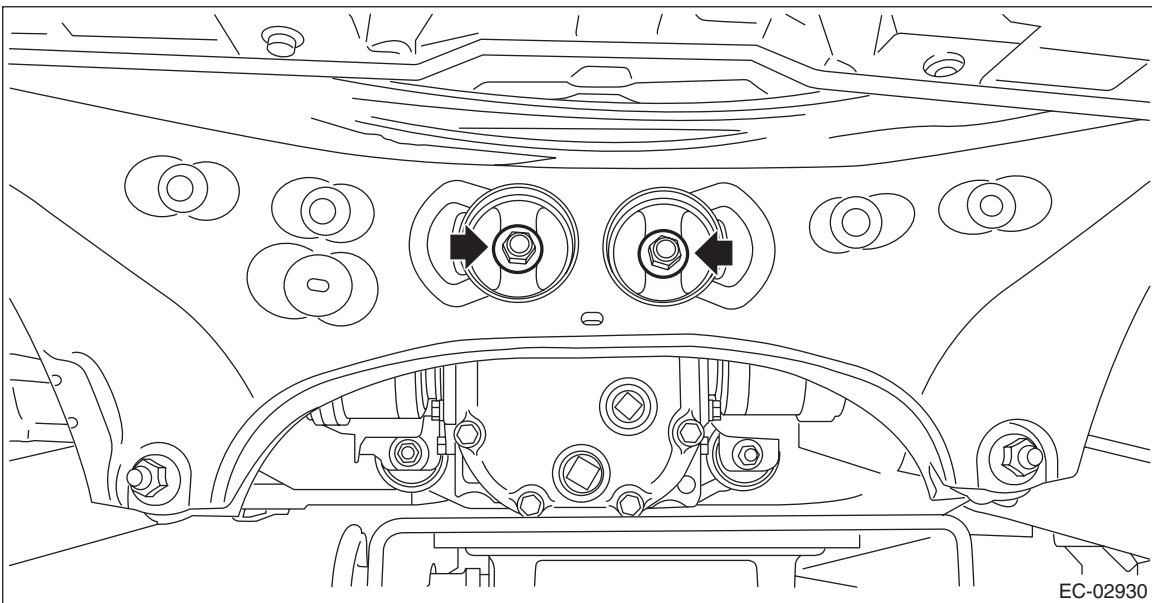
7) Install the rear differential to the rear crossmember.

NOTE:

Use a new self-locking nut.

**Tightening torque:**

**70 N·m (7.1 kgf-m, 51.6 ft-lb)**



## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

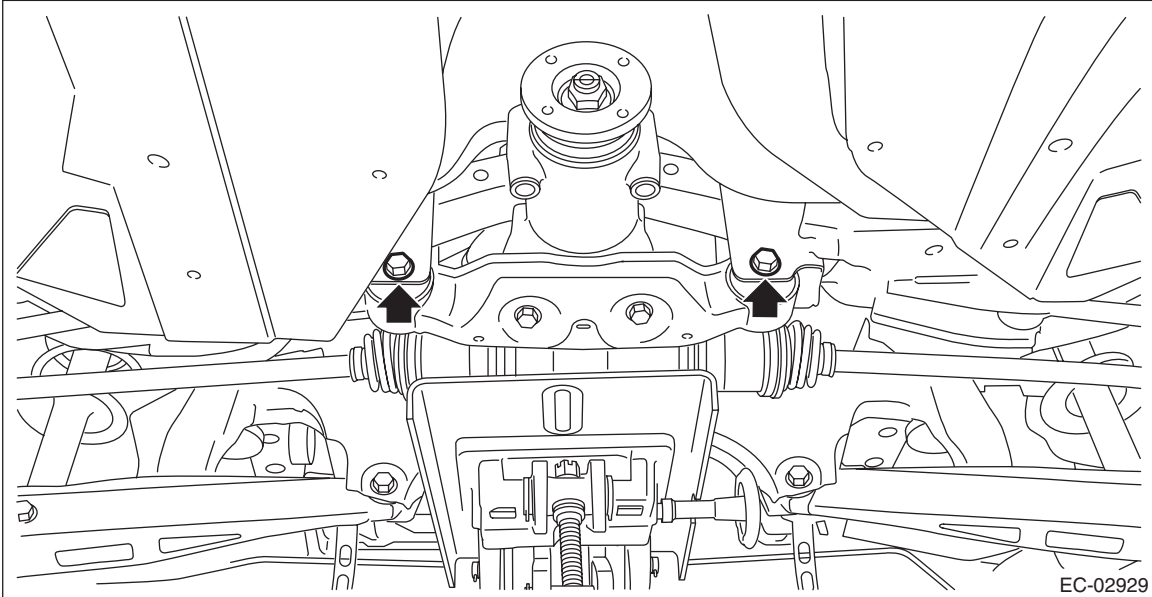
8) Install the rear differential front crossmember to the rear crossmember.

NOTE:

Use a new self-locking nut.

**Tightening torque:**

**110 N·m (11.2 kgf-m, 81.1 ft-lb)**

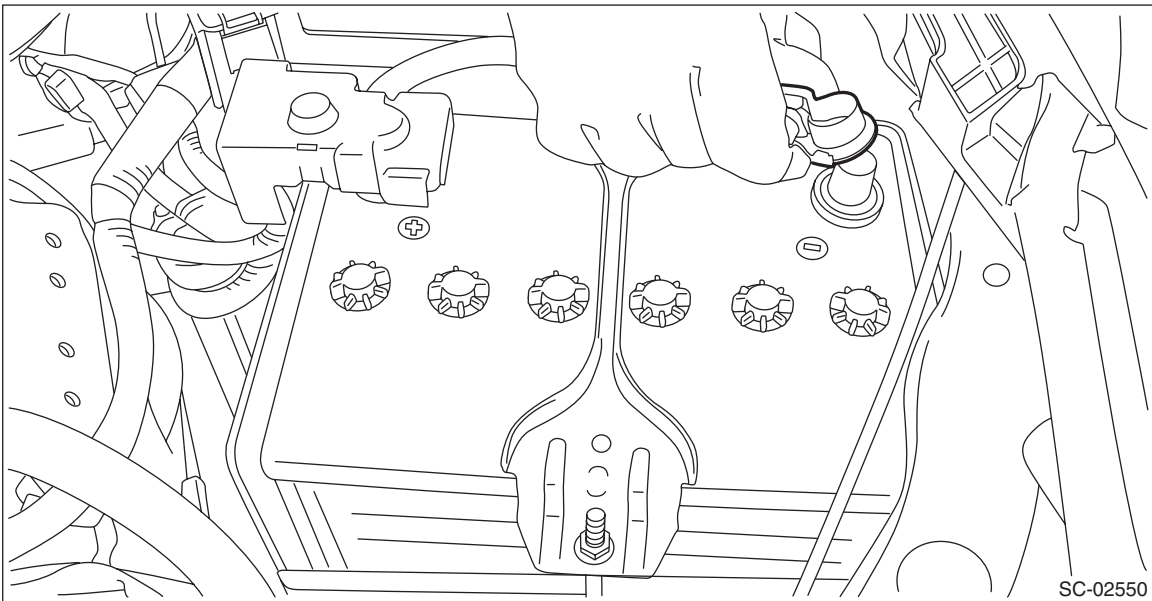


9) Remove the transmission jack from the rear differential.

10) Install the propeller shaft. <Ref. to DS-13, INSTALLATION, Propeller Shaft.>

11) Lower the vehicle.

12) Connect the battery ground terminal.



# Leak Check Valve Assembly

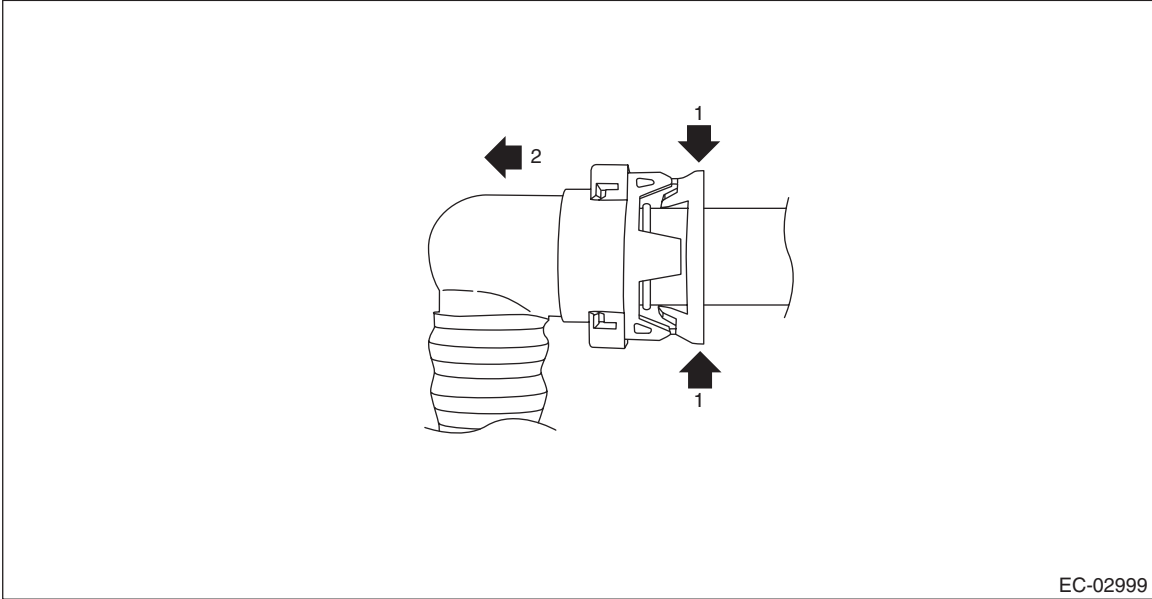
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## C: DISASSEMBLY

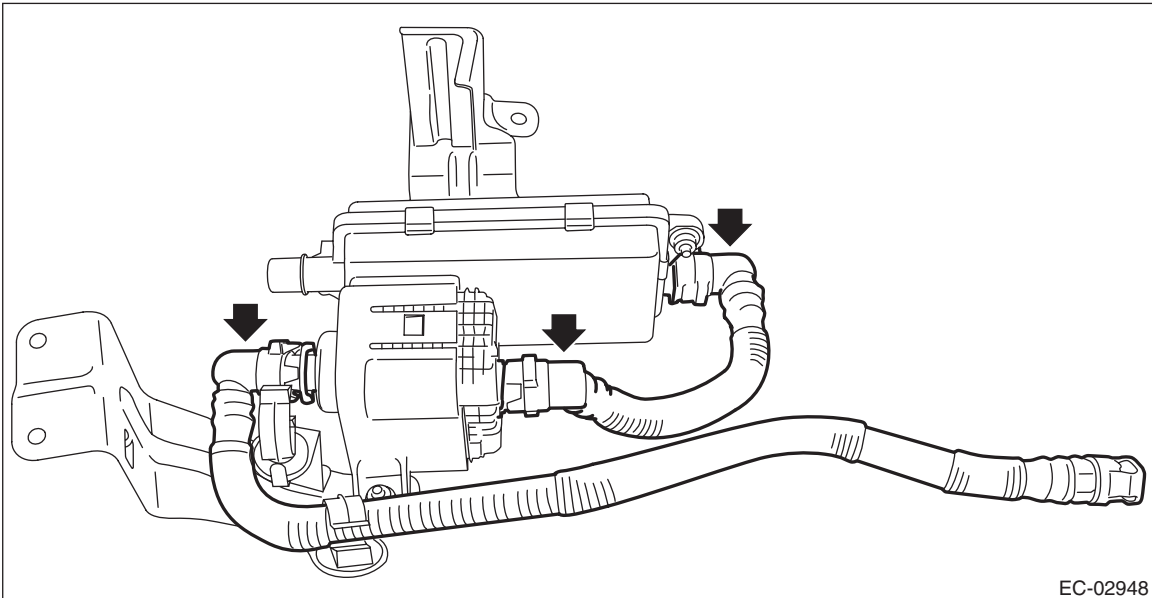
- 1) Remove the drain separator from the leak check valve assembly. <Ref. to EC(H4DO)-52, REMOVAL, Drain Separator.>
- 2) Disconnect the drain tube from the leak check valve assembly.

### NOTE:

Disconnect the quick connector as shown in the figure.



EC-02999

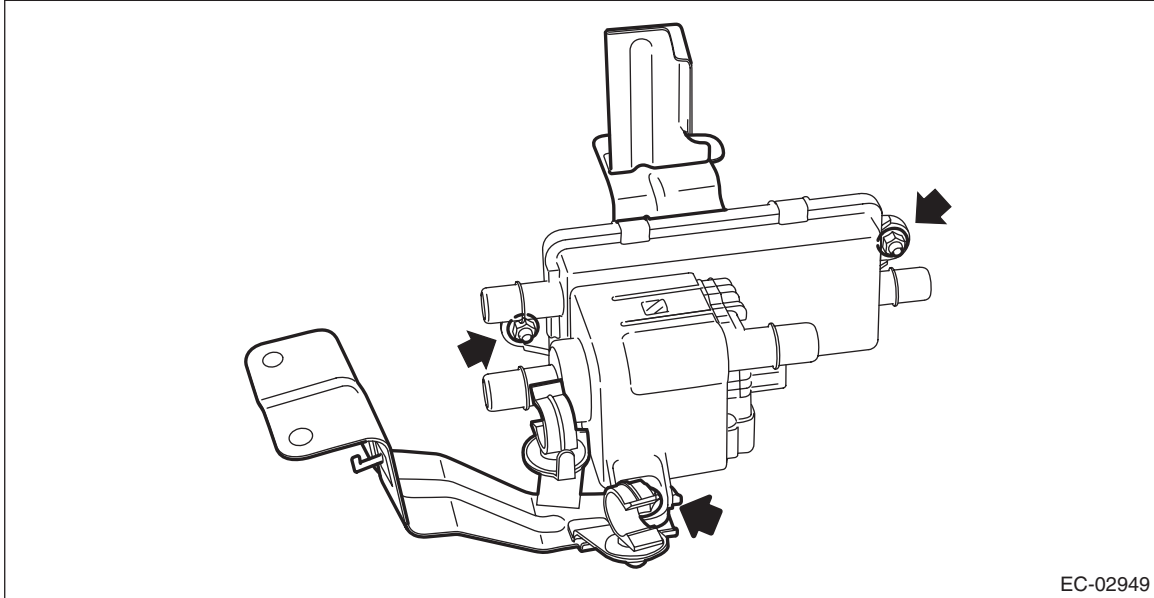


EC-02948

# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

3) Remove the bracket from the leak check valve assembly.

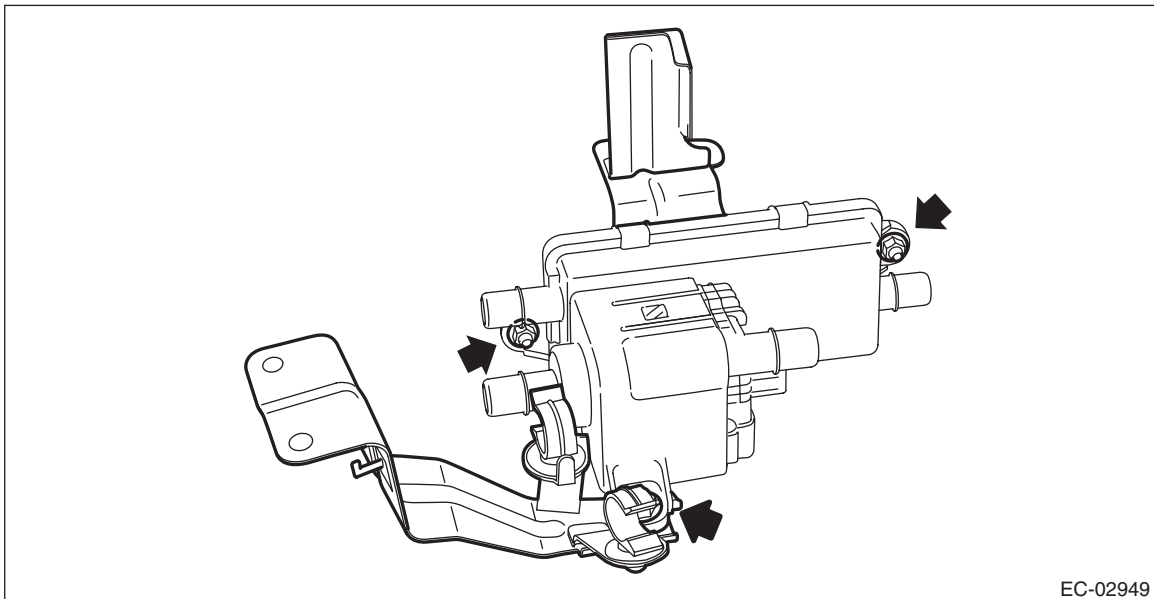


## D: ASSEMBLY

1) Install the bracket to the leak check valve assembly.

**Tightening torque:**

**18 N·m (1.8 kgf·m, 13.3 ft·lb)**



## Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

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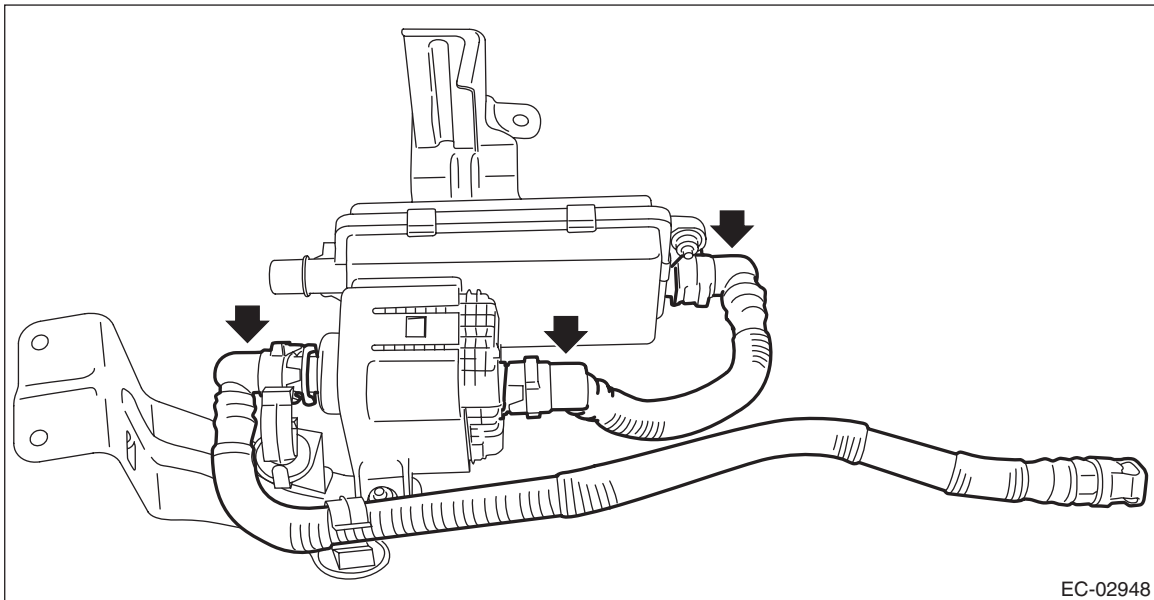
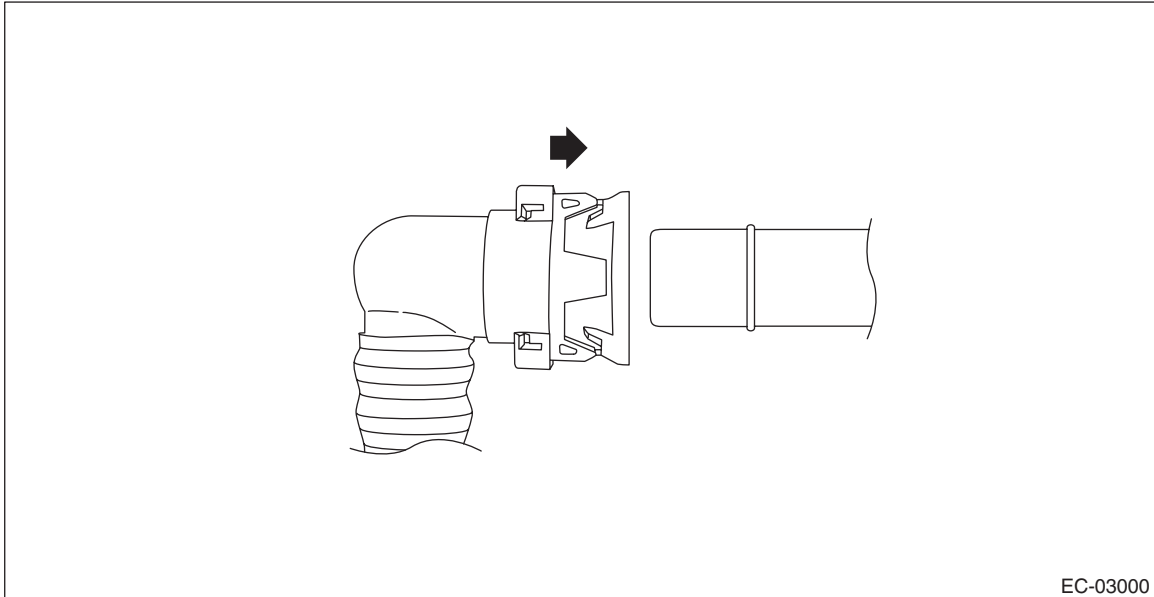
2) Install the drain tube to the leak check valve assembly.

**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.



3) Install the drain separator to the leak check valve assembly. <Ref. to EC(H4DO)-52, INSTALLATION, Drain Separator.>

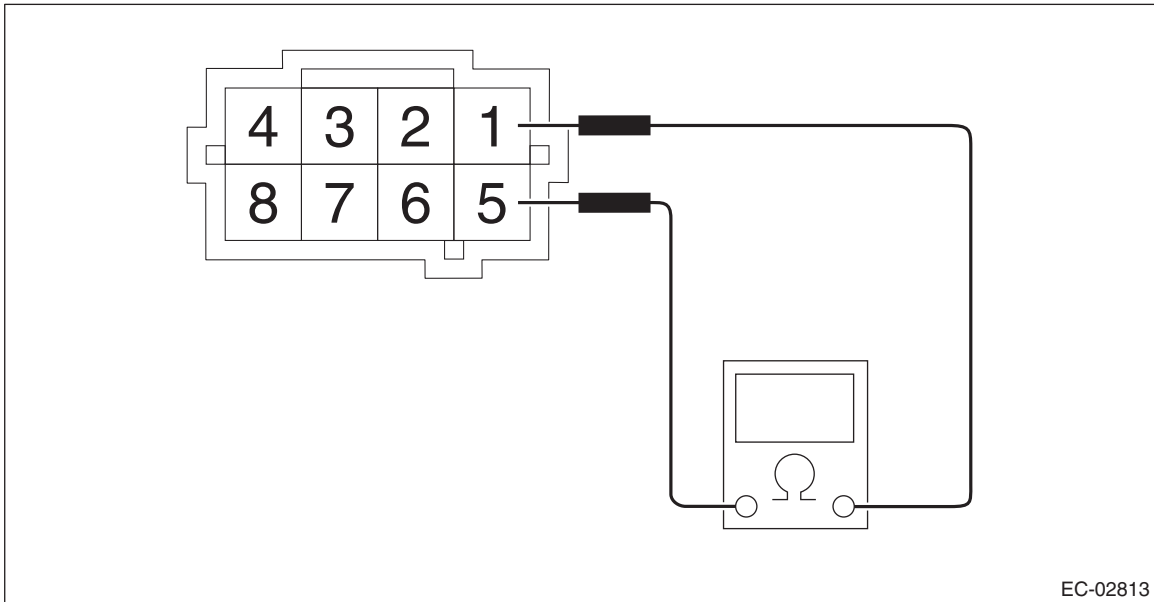
# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

## E: INSPECTION

### 1. CHECK SWITCHING VALVE

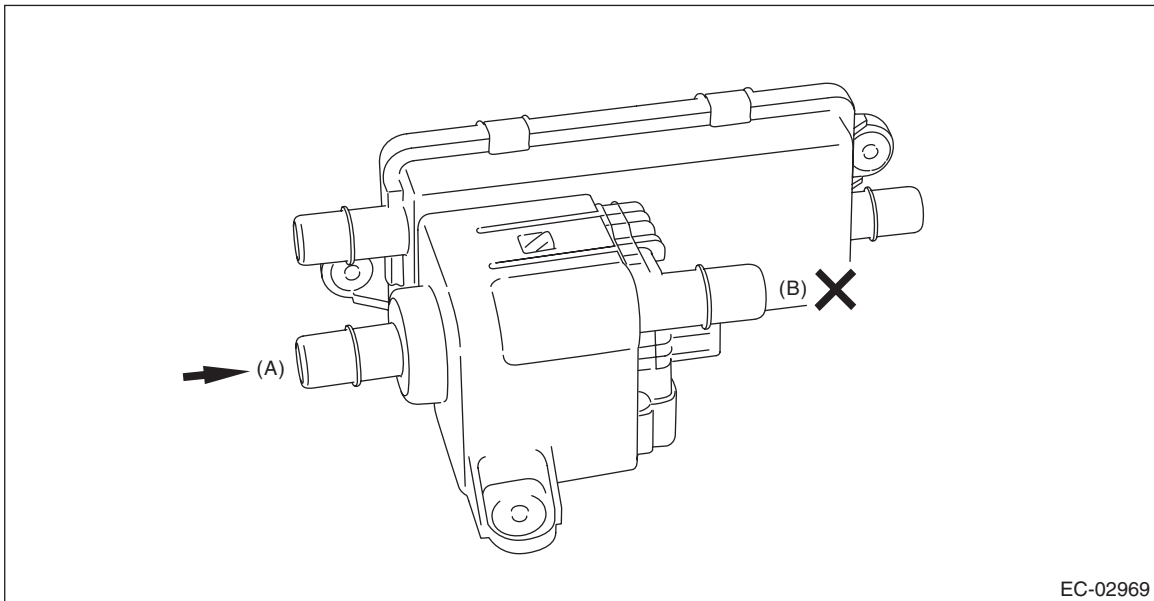
1) Check the resistance between switching valve terminals.



EC-02813

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 does not come out from (B) when air is blown into (A).

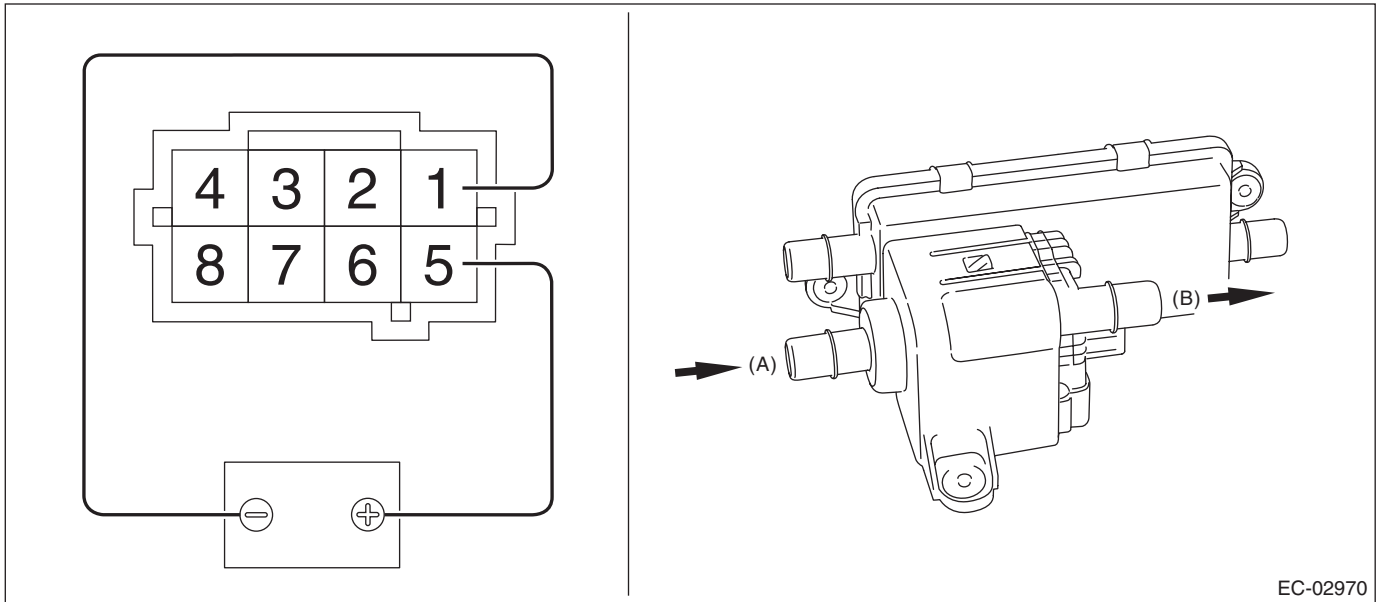


EC-02969

# 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 is discharged from (B), when supplying air to (A).

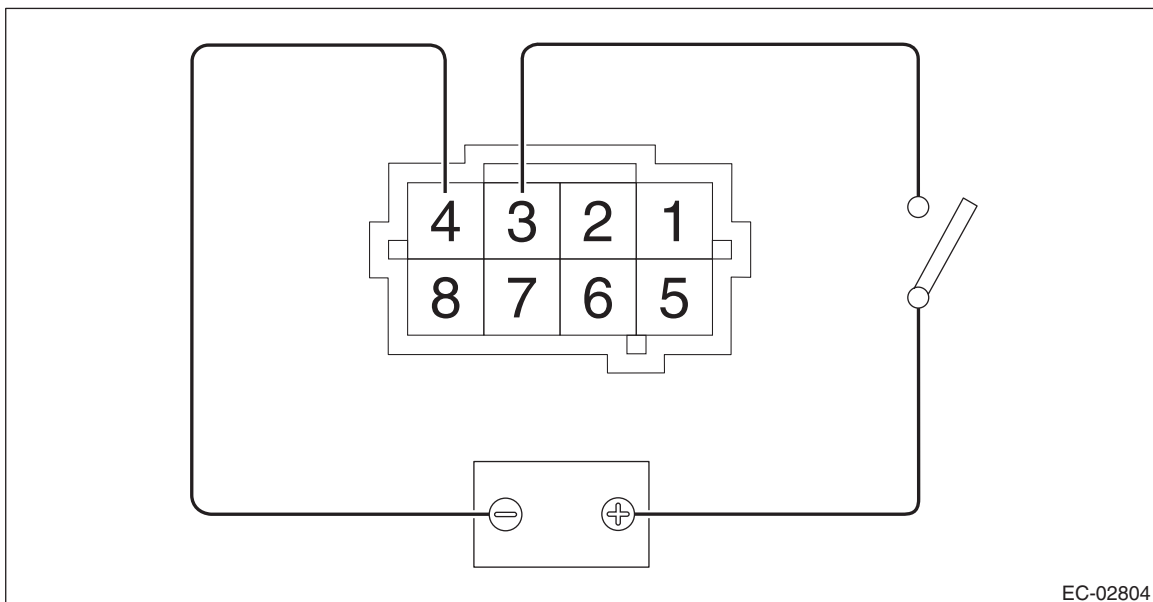


## 2. CHECK VACUUM PUMP

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.



## 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:

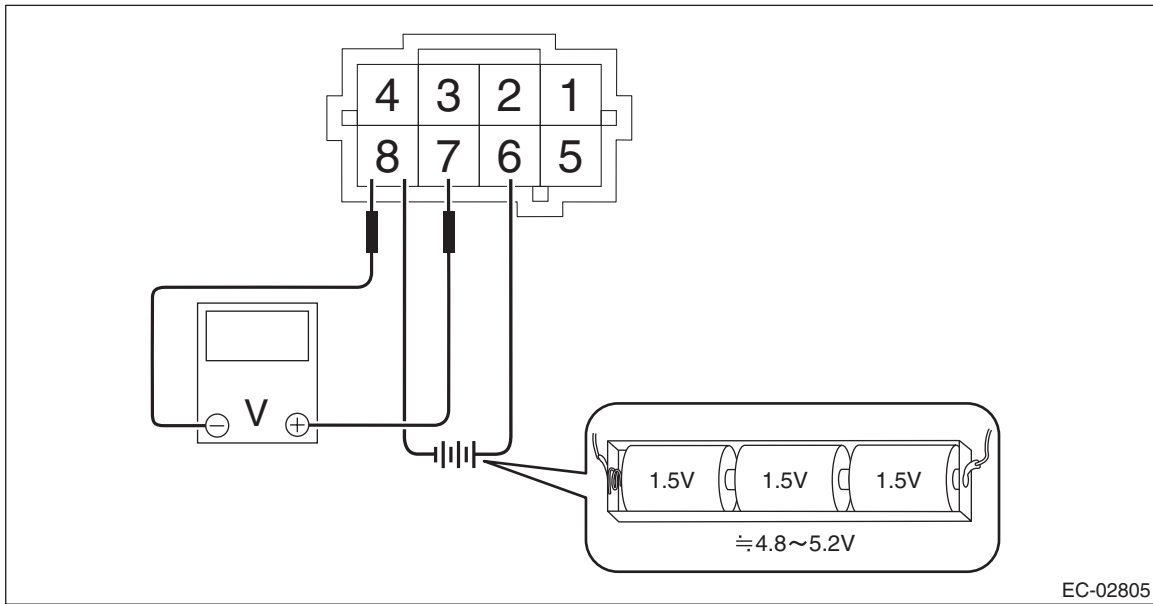
- Use new dry-cell batteries.



# Leak Check Valve Assembly

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

- 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.



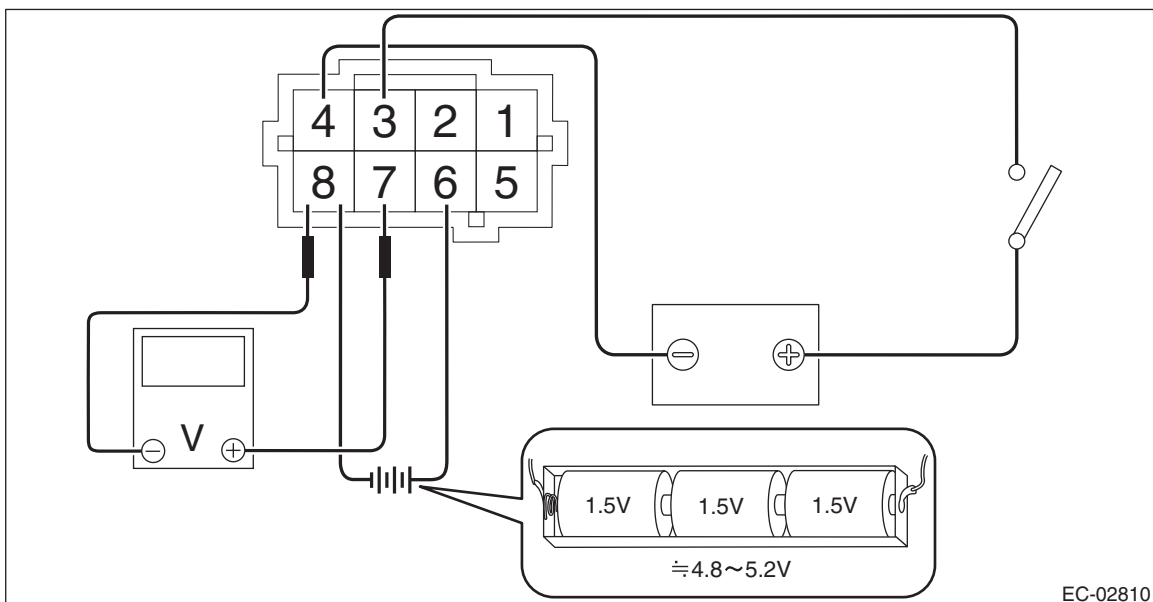
2) Check the voltage at a normal atmospheric pressure.

## 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.



## 4. OTHER INSPECTIONS

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