

## 17.Brake Vacuum Pump

### A: REMOVAL

#### 1. BRAKE VACUUM PUMP

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.

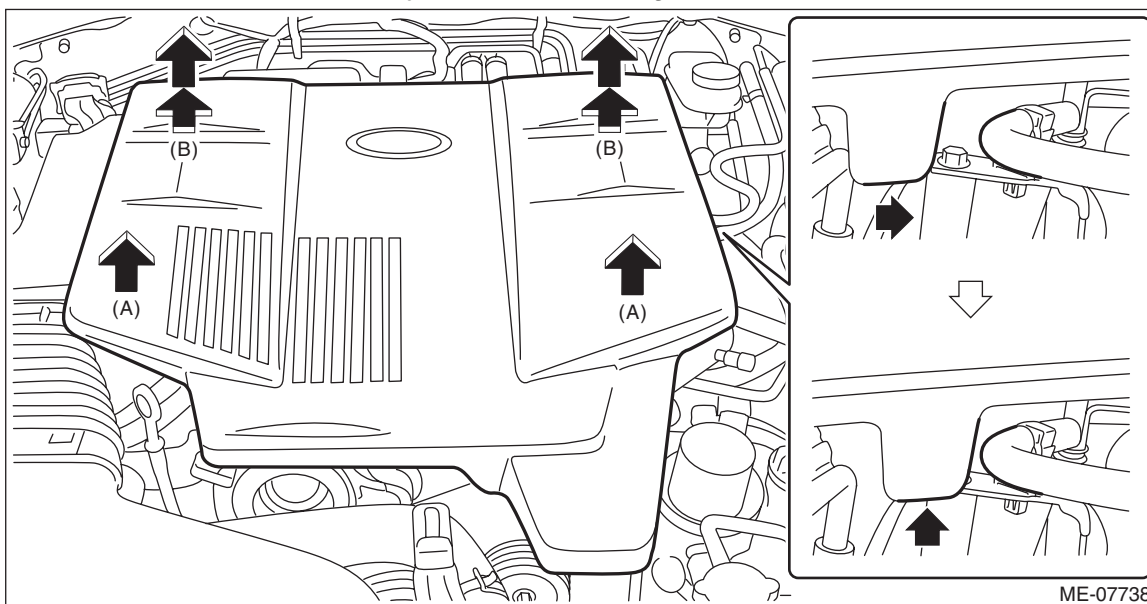
2) Remove the collector cover. (HEV model)

(1) Carefully pull up the front of collector cover at two positions (A).

(2) Carefully pull up the rear of collector cover at two positions (B) while moving it backward.

NOTE:

Be careful not to contact the fuel delivery tube when moving the collector cover rearward.



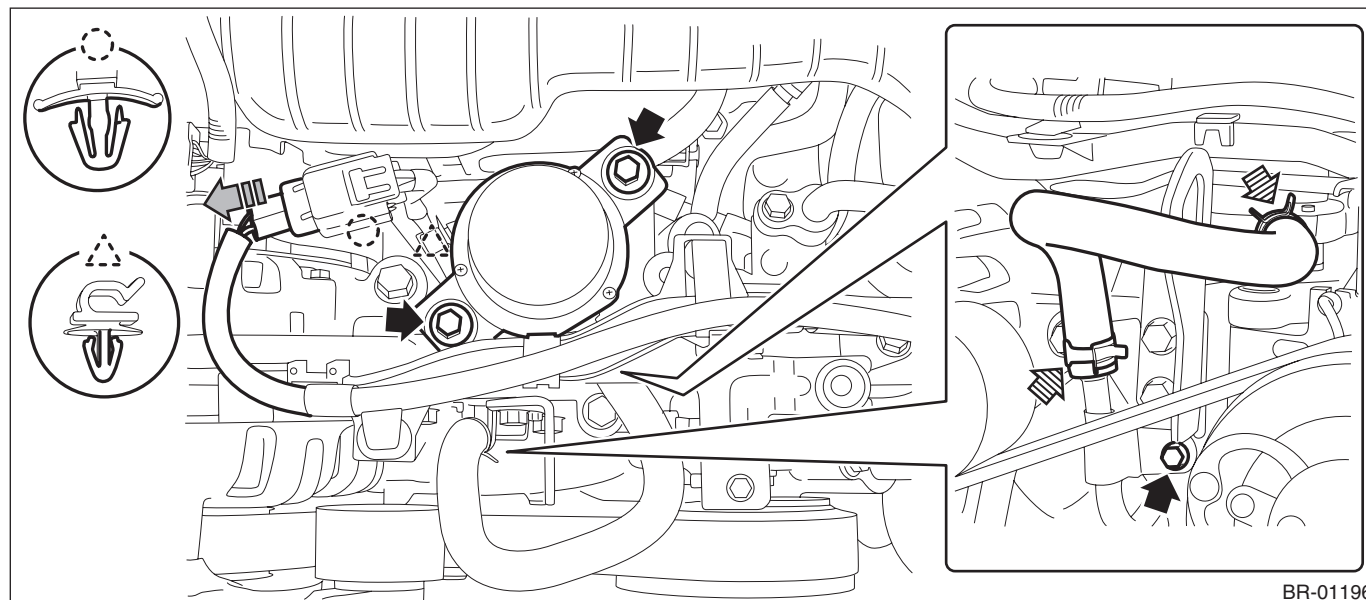
3) Remove the brake vacuum pump.

(1) Remove the clamp and remove the vacuum hose.

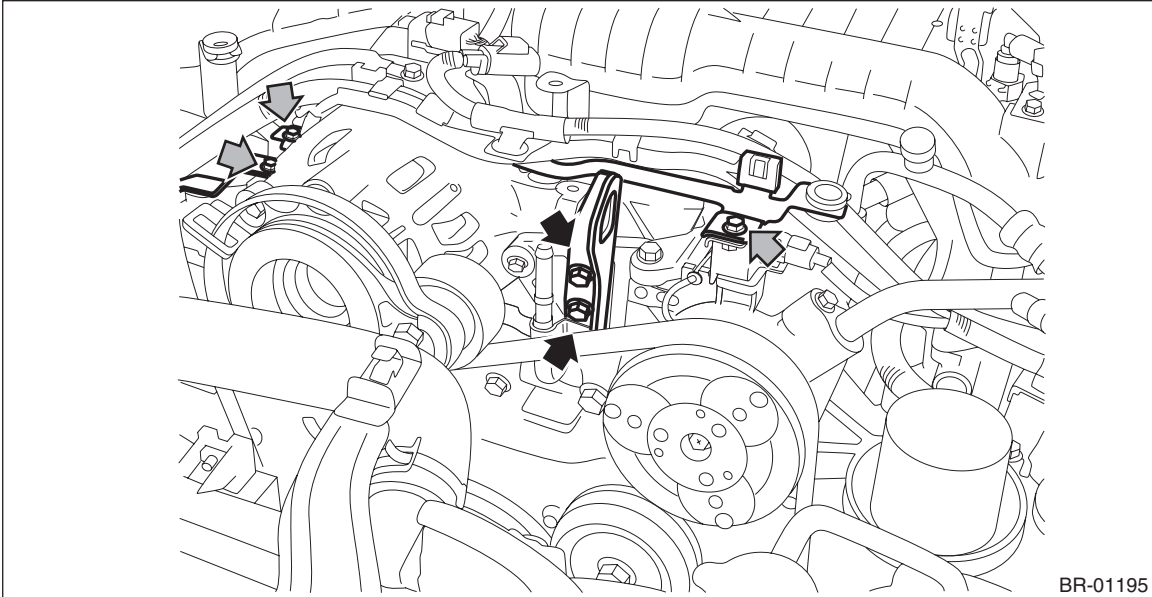
(2) Remove the connector and the connector clip, and then remove the harness from the harness clip.

(3) Remove the brake vacuum pipe bracket bolts which are installed to the engine hanger.

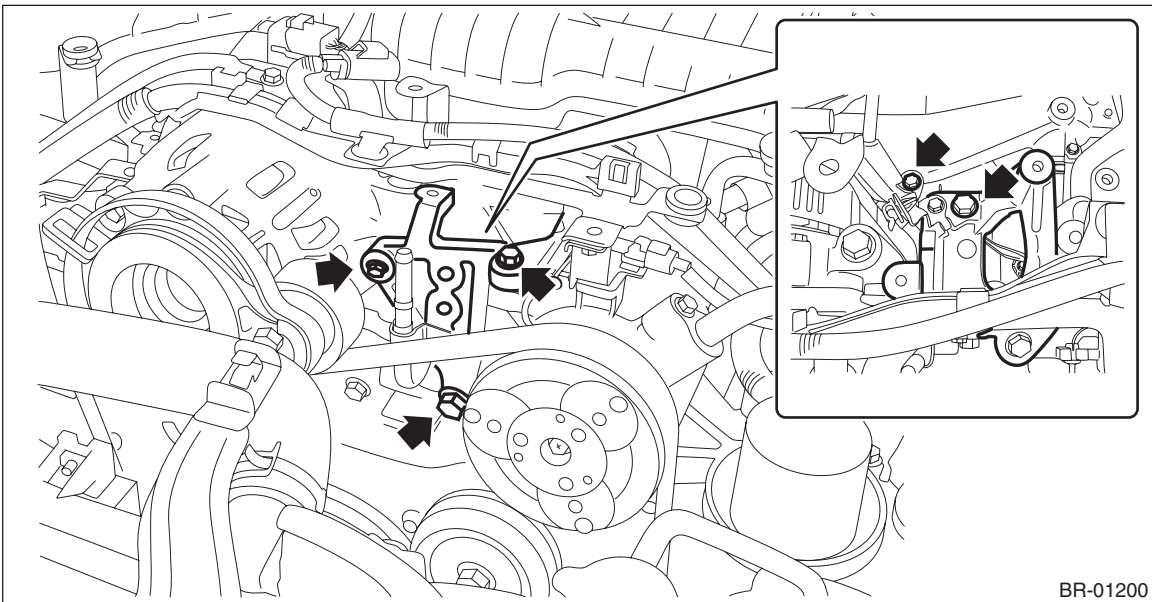
(4) Remove the bolt, and remove the brake vacuum pump.



- 4) Remove the bolts, and remove the engine hanger.
- 5) Remove the bolts, and make a clearance between the harness bracket and the brake vacuum pump bracket.



- 6) Remove the bolt, and remove the brake vacuum pump bracket.



## 2. BRAKE VACUUM PIPE AND HOSE

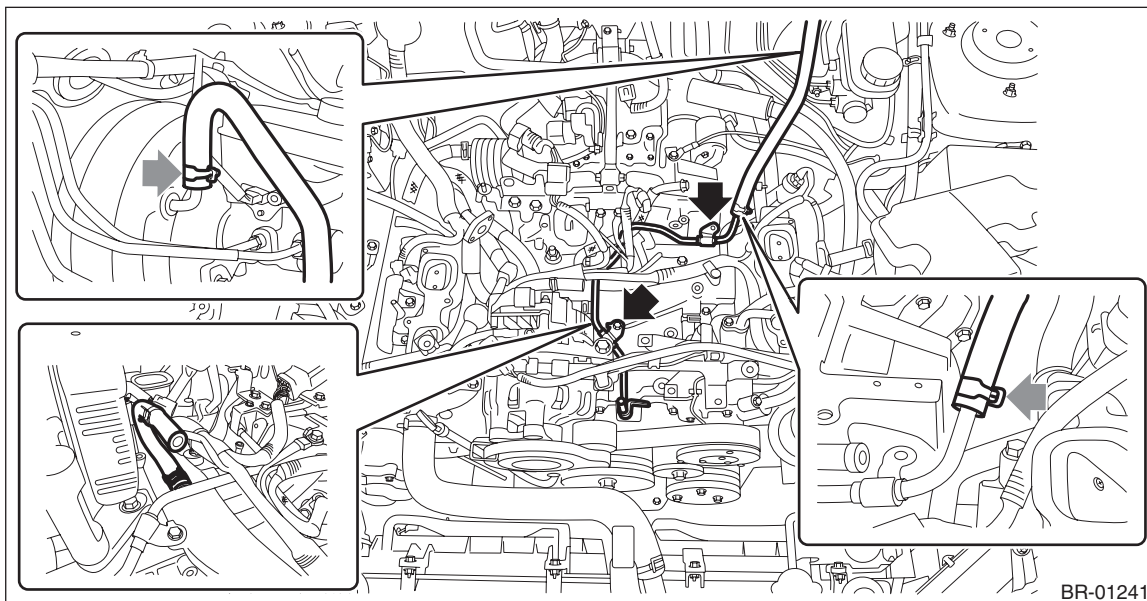
- 1) Remove the brake vacuum pump. <Ref. to BR-80, BRAKE VACUUM PUMP, REMOVAL, Brake Vacuum Pump.>
- 2) Remove the intake manifold. <Ref. to FU(H4DO(HEV))-19, REMOVAL, Intake Manifold.>
- 3) Remove the brake vacuum pipe.

### CAUTION:

**Be careful not to damage the engine harness.**

- (1) Remove the clamp, and then remove the brake vacuum hose.

(2) Remove the bolt, and remove the brake vacuum pipe.



## B: INSTALLATION

### 1. BRAKE VACUUM PUMP

#### CAUTION:

If the brake vacuum pump is reused, clean the vacuum hose mounting section of the pump before installation. If it is not cleaned, a malfunction of pump or disconnection of hose may result.

Install each part in the reverse order of removal.

#### Tightening torque:

Refer to “COMPONENT” of “General Description”. <Ref. to BR-14, BRAKE VACUUM PUMP, COMPONENT, General Description.>

### 2. BRAKE VACUUM PIPE AND HOSE

Install each part in the reverse order of removal.

#### Tightening torque:

Refer to “COMPONENT” of “General Description”. <Ref. to BR-14, BRAKE VACUUM PUMP, COMPONENT, General Description.>

## C: INSPECTION

### 1. BRAKE VACUUM PUMP

Refer to “Read Diagnostic Trouble Code (DTC)” of “BRAKE VACUUM CONTROL”. <Ref. to HEV(diag)-24, OPERATION, Read Diagnostic Trouble Code (DTC).>

### 2. BRAKE VACUUM PIPE AND HOSE

- Check the pipe for cracks or damage. Replace the brake vacuum pipe if it is found defective.
- Check to see that air only flows in one direction, when air is blown into or sucked from the hose. Replace the brake vacuum hose if it is found defective.
- Make sure that there is no foreign matter inside the pipe and hose.