

# Brake Pressure Modulator Valve Assembly Replacement (LHD)

## Removal Procedure

**Caution:** Refer to [Brake Fluid Caution](#) in the Preface section.

**Caution:** Refer to [Brake Fluid Irritant Caution](#) in the Preface section.

**Notice:** Refer to [Adding Fluid to the Brake System Notice](#) in the Preface section.

**Notice:** Refer to [Brake Fluid Effects on Paint and Electrical Components Notice](#) in the Preface section.

**Caution:** For safety reasons, the brake pressure modulator valve assembly must not be repaired, the complete unit must be replaced. With the exception of the EBCM, no screws on the brake pressure modulator valve assembly may be loosened. If screws are loosened, it will not be possible to get the brake circuits leak-tight and personal injury may result.

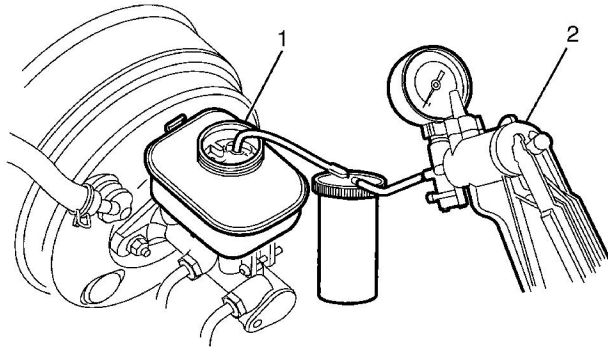
**Important:** If the electronic brake control module (EBCM) or brake pressure modulator valve (BPMV) is to be replaced under manufacturer's warranty, do not disassemble the EBCM/BPMV assembly. If the EBCM or BPMV is faulty, replace the EBCM/BPMV assembly.

**Important:** The BPMV is not a separate serviceable component. If the BPMV is faulty, replace the EBCM/BPMV as an assembly.

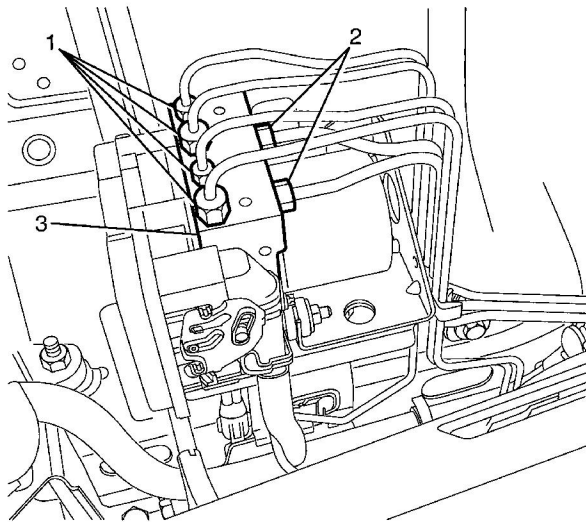
1. Turn the key to the ignition OFF position.

**Important:** The area around the EBCM/BPMV assembly must be free from loose dirt to prevent contamination of disassembled ABS components.

2. Clean the BPMV and brake pipes.
3. Place a clean suitable container under the BPMV.
4. Remove the master cylinder reservoir cap.



5. Siphon the brake fluid out of the master cylinder reservoir (1) using a hand vacuum pump (2).



**Important:** Record the location of all brake pipes to the EBCM/BPMV assembly as an aid during installation.

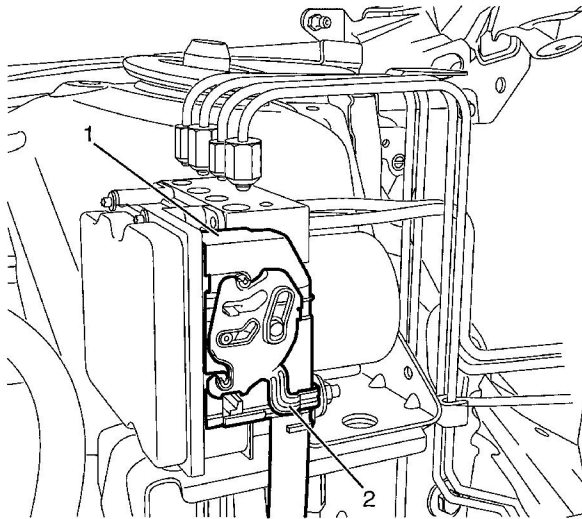
6. Remove the two master cylinder brake pipes (3) from the BPMV (1).

**Important:** Install a rubber cap or plug to the master cylinder brake pipes (3) in order to prevent fluid loss and contamination.

7. Plug the master cylinder brake pipes (3).
8. Remove the four wheel brake pipes (2) from the BPMV (1).

**Important:** Install a rubber cap or plug to the wheel brake pipes (2) in order to prevent fluid loss and contamination.

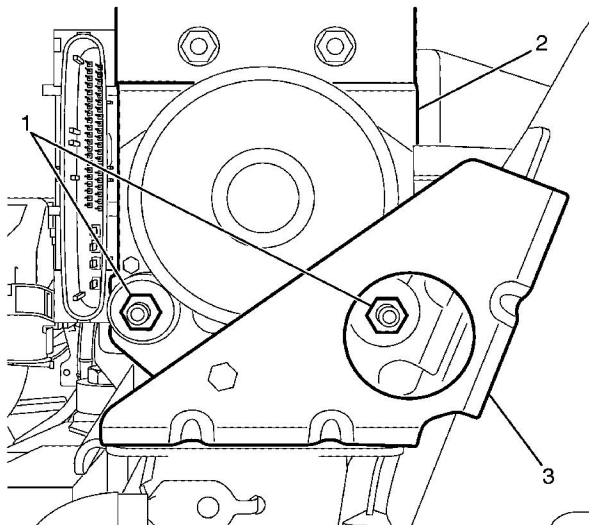
9. Plug the wheel brake pipes (2).
10. Clean any brake fluid spillage from the BPMV (1).



11. Rotate the EBCM connector tab (2) up to the unlocked position.

**Notice:** To prevent equipment damage, never connect or disconnect the wiring harness connection from the EBCM with the ignition switch in the ON position.

12. Disconnect the EBCM electrical connector (1) and position out of the way.



13. Remove the EBCM/BPMV assembly to EBCM/BPMV assembly bracket retaining nuts (1).
14. Remove the EBCM/BPMV assembly (2) from the EBCM/BPMV assembly bracket (3).

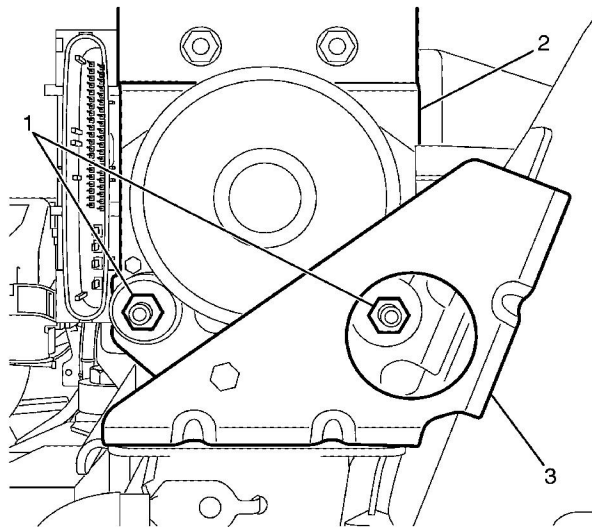
## Installation Procedure

**Caution:** Refer to [Brake Fluid Caution](#) in the Preface section.

**Caution:** Refer to [Brake Fluid Irritant Caution](#) in the Preface section.

**Notice:** Refer to [Adding Fluid to the Brake System Notice](#) in the Preface section.

**Notice:** Refer to [Brake Fluid Effects on Paint and Electrical Components Notice](#) in the Preface section.



**Caution:** For safety reasons, the brake pressure modulator valve assembly must not be repaired, the complete unit must be replaced. With the exception of the EBCM, no screws on the brake pressure modulator valve assembly may be loosened. If screws are loosened, it will not be possible to get the brake circuits leak-tight and personal injury may result.

**Important:** Make sure that the rubber isolators are installed on the EBCM/BPMV assembly (2). The isolators protect the EBCM/BPMV assembly (2) from vehicle vibrations.

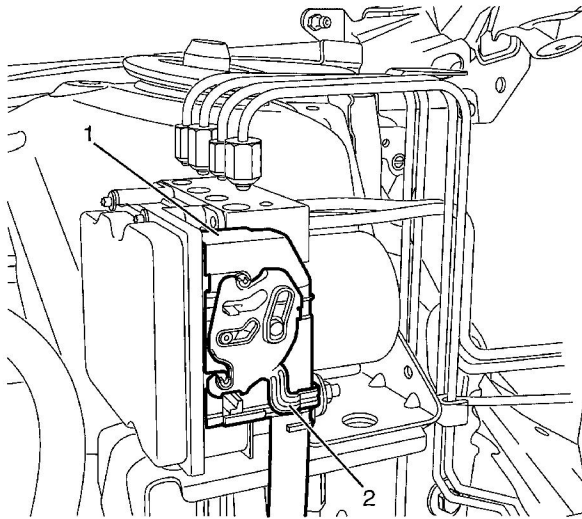
1. Install the EBCM/BPMV assembly (2) to the EBCM/BPMV assembly bracket (1).

**Notice:** Refer to [Fastener Notice](#) in the Preface section.

2. Install the EBCM/BPMV assembly to EBCM/BPMV assembly bracket retaining nuts (2).

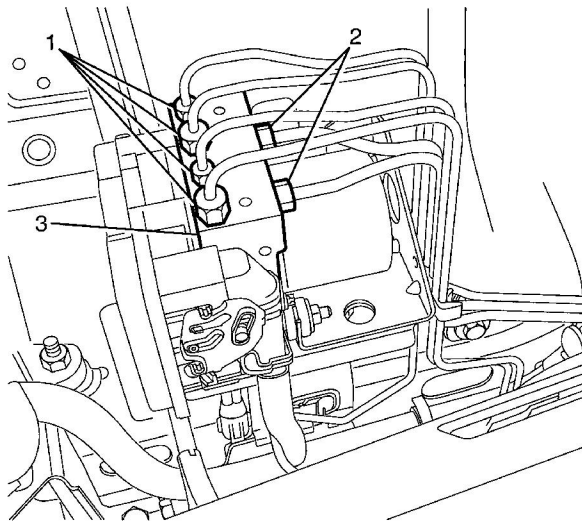
### Tighten

Tighten the nuts to 8 N·m (71 lb in).



**Notice:** To prevent equipment damage, never connect or disconnect the wiring harness connection from the EBCM with the ignition switch in the ON position.

3. Connect the EBCM electrical connector (1) to the EBCM (3).
4. Rotate the EBCM connector tab (2) to the locked position.



**Caution:** The brake pipes must be fully installed to the brake pipe mounting retainers on the frame. Failure to properly retain the brake pipes may cause the pipes to contact the frame and/or the transmission resulting in possible loss of brake fluid and personal injury.

**Caution:** Make sure brake pipes are correctly connected to BPMV. If brake pipes are switched by mistake Inlet vs. Outlet, wheel lockup will occur and personal injury may result.

**Important:** If a new BPMV is being installed, remove the shipping plugs from the valve openings.

5. Remove the cap or plug from the wheel brake pipes (2) and install the wheel brake pipes (2) to the BPMV (1) using the locations recorded during the removal procedure.

**Tighten**

Tighten the wheel brake pipes to 15 Nm (11 lb ft).

6. Remove the cap or plug from the master cylinder brake pipes (3) and install the two master cylinder brake pipes (3) to the BPMV (1) using the locations recorded during the removal procedure.

**Tighten**

Tighten the master cylinder brake pipes to 15 Nm (11 lb ft).

7. Fill and bleed the hydraulic brake system. Refer to [Master Cylinder Reservoir Filling](#) and [Hydraulic Brake System Bleeding](#) .
8. Perform the Auto Bleed Procedure. Refer to [Antilock Brake System Automated Bleed Procedure](#) .
9. Perform the System Check-Vehicle. Refer to [Diagnostic System Check - Vehicle](#) .