

184208

# Brake Pressure Modulator Valve Replacement

# **Removal Procedure**

Caution: Refer to Battery Disconnect Caution in Cautions and Notices.

- 1. Disconnect the negative battery cable.
- Remove the two fuse block mounting bolts from the EBCM bracket.
- 3. Disconnect the electrical connector from the combination valve (12).
- Remove the front and rear brake pipes (from master cylinder) from the combination valve.
- 5. Remove the right front, left front and rear brake pipes from the tube adapters (6).
- Remove the four 10 mm bolts (9) that fasten the EHCU bracket (7) to the vehicle mounting bracket.
- Lift the EHCU partially out or the engine compartment.
- 8. Disconnect the four electrical connectors from EBCM (2).
- 9. Fully remove the EHCU from the vehicle.
- 10. Remove the three Allen bolts (11) from the combination valve (12).
- 11. Remove the combination valve (12).

**Important:** Do not reuse the transfer tubes. Always install new transfer tubes.

- Remove the two transfer tubes (13).
- Remove the three 13 mm bolts (9) that fasten the bracket to the BPMV.
- 14. Remove the four T-25 Torx® bolts (1) from the EBCM.

**Important:** Do not use a tool to pry the EBCM or the BPMV. Excessive force will damage the EBCM.

Remove the EBCM (2) from the BPMV (4).
Removal may require a light amount of force.

# Installation Procedure

- 1. Install the new transfer tubes (13) into the combination valve into the combination valve (9).
- 2. Install the combination valve onto the BPMV (4).

**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

3. Install the three Allen bolts (11) that fasten the combination valve (12) to the BPMV (4).

### **Tighten**

Tighten the three Allen bolts to 8 N·m (6 lb ft), then to 16 N·m (12 lb ft).

**Important:** Do not reuse the old EBCM mounting bolts. Always install new mounting bolts with the new EBCM.

**Important:** Do not use RTV or any other type of sealant on the EBCM gasket or mating surfaces.

- 4. Install the EBCM gasket (3) onto the BPMV (4).
- 5. Ensure gasket alignment is correct.
- 6. Install EBCM (2) onto BPMV (4).
- 7. Install the four new EBCM bolts (1).

### **Tighten**

Tighten the four bolts to 5 N·m (39 lb. in.) in an X-pattern.

- 8. Install EHCU (4) to bracket.
- 9. Install the three BPMV (4) to bracket retaining bolts.

### **Tighten**

Tighten the three bolts to 9 N·m (7 lb ft).

- Connect the four electrical connectors to the EBCM.
- 11. Install the EHCU to the vehicle frame.

#### Tighten

Tighten the three bolts to 25 N·m (20 lb ft).

12. Install the right front, left front and rear brake pipes to the tube adapters.

#### Tighten

Tighten the three brake pipe fittings to 29 N·m (22 lb ft).

13. Install the front and rear brake pipes (from master cylinder) to the combination valve.

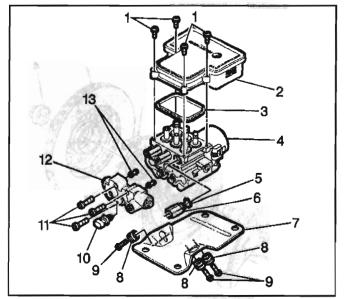
#### Tighten

Tighten the three brake pipe fittings to  $29 \text{ N} \cdot \text{m}$  (22 lb ft).

- Connect the electrical connector to the combination valve.
- Install the two fuse block mounting bolts from the EBCM bracket.
- 16. Connect the negative battery cable.

**Important:** Verify that the combination valve metering rod is depressed during bleeding.

- 17. Bleed the brake system. Refer to ABS Bleed Procedure.
- 18. Return to Diagnostic System Check.



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