

9-4 BRAKES

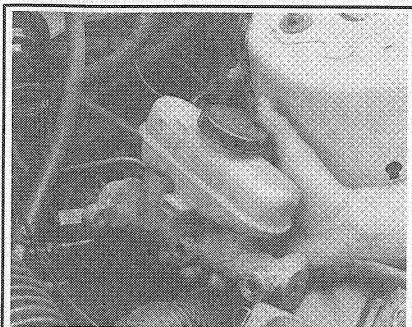


Fig. 4 . . . slide the master cylinder assembly forward and upward from the vehicle

10. Mount the master cylinder over the booster pushrod and onto the two studs on the power brake booster assembly.

11. Install the retaining nuts, then tighten them to 16–21 ft. lbs. (21–29 Nm).

12. Attach the brake fluid lines to the master cylinder and the brake pressure control valve ports.

13. For vehicles equipped with ABS, install the HCU supply hose to the master cylinder fitting, then secure it with the hose clamp.

14. Connect the brake warning light wire.

15. Fill the brake master cylinder with DOT 3 brake fluid to 0.16 in. (4.0mm) below the MAX lines on the side of the reservoir.

16. Connect the negative battery cable, then bleed the brake system. For details, please refer to the procedure located later in this section.

17. Operate the brakes several times, then check for external hydraulic leaks.

1995–00 Vehicles

1. Disconnect the negative battery cable.

2. Depress the brake pedal several times to exhaust all vacuum in the power brake booster.

3. Remove and plug the brake lines from the primary and secondary outlet ports of the master cylinder.

4. Detach the brake warning indicator switch connector.

5. If equipped with ABS and traction assist, remove 2 bolts retaining the proportioning valve bracket to the master cylinder. Secure the proportioning valve and brake lines in a position to prevent damage or loss of brake fluid.

6. Remove 2 nuts retaining the brake master cylinder to the power brake booster assembly.

7. Slide the master cylinder forward and upward from the vehicle and remove.

To install:

8. If replacing the brake master cylinder, bench bleed the master cylinder before installation.

9. Install the brake master cylinder to the power brake booster mounting studs and install 2 retaining nuts. Torque the nuts to 16–21 ft. lbs. (21–29 Nm).

10. If equipped with ABS and traction assist, place the proportioning valve bracket in position and install 2 retaining bolts. Torque the bolts to 14–19 ft. lbs. (19–26 Nm).

11. Unplug and install the primary and sec-

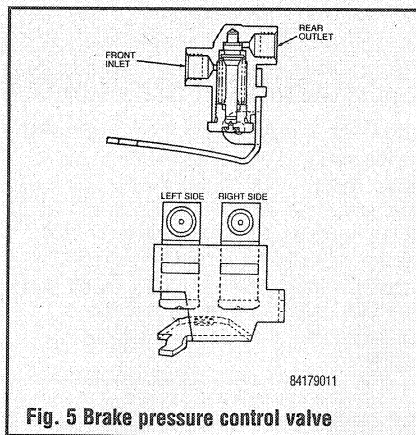


Fig. 5 Brake pressure control valve

ondary brake lines to the brake master cylinder outlet ports. Torque the brake line fittings to 10–15 ft. lbs. (14–20 Nm).

12. Reconnect the brake warning indicator switch connector.

13. Properly bleed the brake system using clean DOT 3 or equivalent, brake fluid from a closed container.

*** CAUTION

If raising the vehicle for brake bleeding and the vehicle is equipped with air suspension, the air suspension switch, located on the right-hand side of the luggage compartment, must be turned to the OFF position before raising the vehicle.

14. Fill the master cylinder reservoir to the proper level.

15. Operate the brakes several times, then check for external hydraulic leaks.

16. Reconnect the negative battery cable.

17. If equipped with air suspension, turn the air suspension switch to the **ON** position, if disabled.

18. Road test the vehicle and check the brake system for proper operation.

Brake Pressure Control Valve

REMOVAL & INSTALLATION

♦ See Figure 5

1. Disconnect the brake inlet lines and the rear lines from the brake control valve assembly.

2. Remove the screw retaining the control valve assembly to the frame and remove the brake control valve.

To install:

3. Position the control valve on the frame and secure with the retaining screw.

4. Connect the rear brake outlet lines to the control valve assembly and tighten the line nuts to 10–18 ft. lbs. (14–24 Nm).

5. Connect the inlet lines to the control valve assembly and tighten the line nuts to 10–18 ft. lbs. (14–24 Nm).

6. Bleed the brake system.

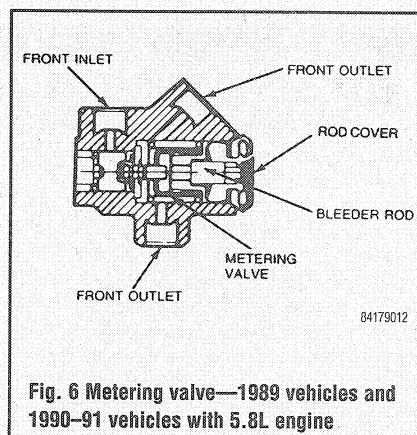


Fig. 6 Metering valve—1989 vehicles and 1990–91 vehicles with 5.8L engine

Metering Valve

REMOVAL & INSTALLATION

♦ See Figure 6

1. Disconnect the front brake system inlet line and the left and right front brake outlet lines from the metering valve.

2. Remove the screw retaining the metering valve to the frame and remove the metering valve from the vehicle.

To install:

3. Position the metering valve on the frame and secure with the retaining screw. Tighten the screw to 7–11 ft. lbs. (10–14 Nm).

4. Connect the front brake outlet lines to the metering valve assembly and tighten the line nuts to 10–18 ft. lbs. (14–24 Nm).

5. Connect the front brake inlet line to the metering valve assembly and tighten the line nut to 10–18 ft. lbs. (14–24 Nm).

6. Bleed the brake system.

⇒ If the brake system is pressure bled, the metering valve bleeder rod must be pushed in.

Bleeding the Brake System

♦ See Figures 7, 8, 9 and 10

When any part of the hydraulic system has been disconnected for repair or replacement, air may get into the lines and cause spongy pedal action (because air can be compressed and brake fluid cannot). To correct this condition, it is necessary to bleed the hydraulic system so to be sure all air is purged.

When bleeding the brake system, bleed one brake cylinder at a time, beginning at the cylinder with the longest hydraulic line (farthest from the master cylinder) first. ALWAYS keep the master cylinder reservoir filled with brake fluid during the bleeding operation. Never use brake fluid that has been drained from the hydraulic system, no matter how clean it is.

The primary and secondary hydraulic brake systems are separate and are bled independently. During the bleeding operation, do not allow the