BRAKES

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REMOVAL AND INSTALLATION

BRAKE BOOSTER – RHD DIESEL

REMOVAL

(1) Open hood and disconnect the negative battery cable

NOTE: Pump the brake pedal several times to relieve vacuum in the brake booster. This will prevent booster from sucking any contaminants when master cylinder is removed.

(2) Remove the short brake lines leading from the master cylinder to the combination valve (Fig. 1).

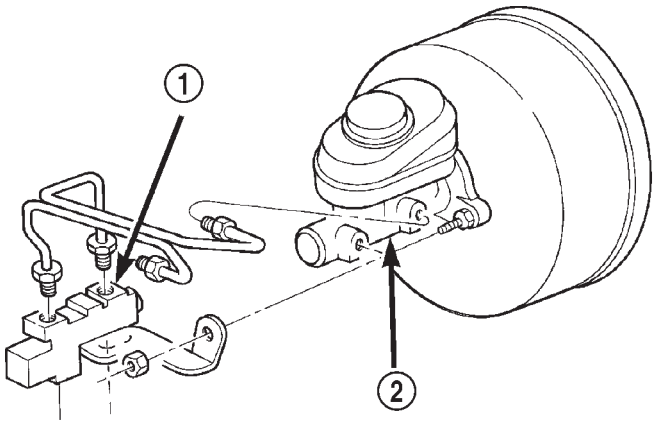

Fig. 1 Brake Line Orientation

1 – COMBINATION VALVE
2 – MASTER CYLINDER

(3) Disconnect differential pressure switch wire from the combination valve. Lift the release tab on the underside of the electrical connector and pull straight off (Fig. 2).

(4) Remove the combination valve support bracket retaining nuts and remove the valve and bracket assembly from the vehicle.

(5) Remove the master cylinder retaining nuts (Fig. 8) and remove the master cylinder from the brake booster by sliding straight off mounting studs.

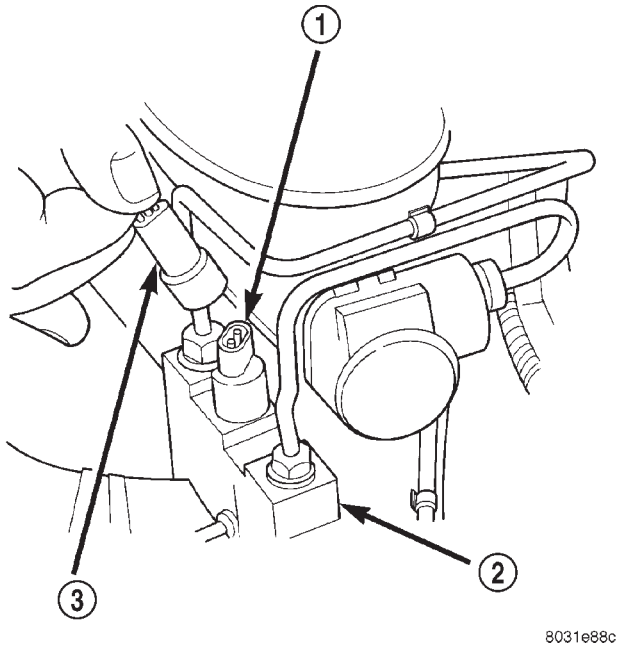

Fig. 2 Differential Pressure Switch Electrical

1 – SWITCH TERMINAL
2 – COMBINATION VALVE
3 – WIRE HARNESS CONNECTOR

(6) Disconnect the vacuum supply hose from the brake booster.

(7) Disconnect the coolant level switch electrical connector. Located on the side of the coolant reservoir.

NOTE: It is not necessary to drain the cooling system to perform this procedure.

(8) Remove the coolant reservoir retaining screws so reservoir can be positioned out of the way.

(9) Working inside the vehicle, remove the hood release cable handle retaining screws from the underside of the instrument panel.

(10) Remove the plastic and steel knee blockers from the vehicle. Refer to Group 23, Body for the procedure.

REMOVAL AND INSTALLATION (Continued)

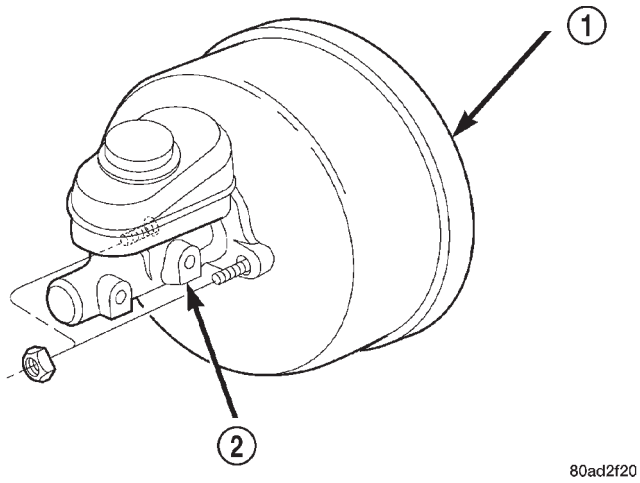

Fig. 3 Master Cylinder

1 – BOOSTER
2 – MASTER CYLINDER

(11) Remove the retaining clip that secures the booster push rod to the brake pedal (Fig. 4).

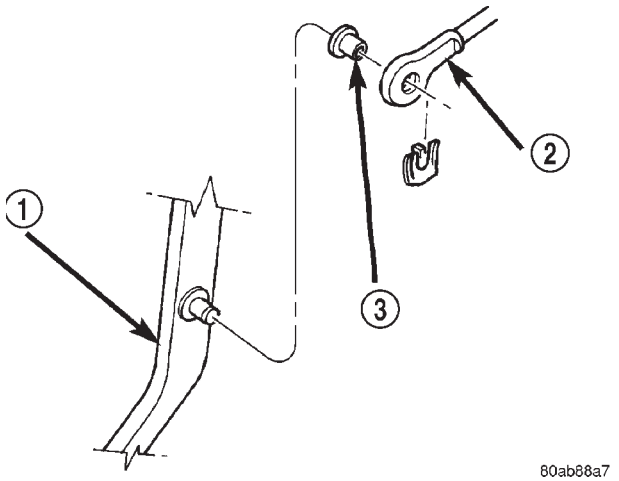

Fig. 4 Booster Push Rod

1 – BRAKE PEDAL
2 – BOOSTER ROD
3 – BUSHING

(12) Remove nuts attaching booster to passenger compartment side of dash panel (Fig. 5).

(13) Working inside the engine compartment, position the coolant reservoir out of the way and remove the brake booster by pulling straight out.

INSTALLATION

NOTE: Be certain rubber o-ring vacuum seal is installed in the master cylinder mounting flange prior to installation.

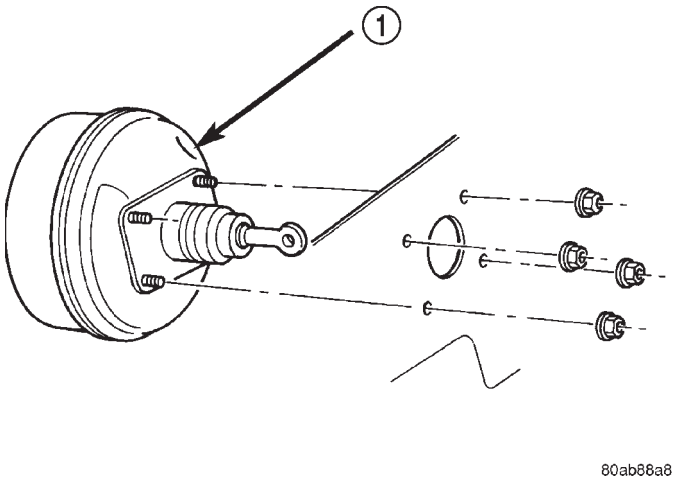

Fig. 5 Booster Mounting

1 – BOOSTER

NOTE: If a new master cylinder is being installed, cylinder must be bench bleed prior to installation.

(1) Install the brake booster on the bulkhead, be certain dash seal is installed on booster studs prior to installation.

(2) From under the instrument panel, install booster mounting nuts. Tighten nuts just enough to hold booster in place.

NOTE: Lubricate the pedal pin and bushing with Mopar multi-mileage grease before installation.

(3) Slide booster push rod onto the brake pedal pin. Then secure push rod to pedal pin with retaining clip.

(4) Torque booster mounting nuts to 39 N·m (29 ft. lbs.).

(5) Install the steel and plastic knee blocker in the vehicle. Refer to Group 23, Body for the procedure.

(6) Install the hood release cable handle.

(7) Install the coolant reservoir bottle retaining screws and connect the coolant level switch.

(8) Connect the vacuum supply hose on the brake booster.

(9) Install master cylinder on brake booster and install retaining nuts. Torque the nuts to 17.5 N·m (155 in. lbs.).

(10) Install combination valve/bracket and retaining nuts.

(11) Install brake lines on cylinder and valve. Torque brake lines to 19 N·m (170 in. lbs.).

(12) Connect differential pressure switch wire on the combination valve.

(13) Fill and bleed the brake system. Refer to the procedure in this group.

(14) Connect the negative battery cable.

REMOVAL AND INSTALLATION (Continued)

(15) Adjust the brake lamp switch. Refer to the procedure in this group.

WARNING: Be certain a firm brake pedal is achieved prior to attempting to operate the vehicle.

MASTER CYLINDER – RHD DIESEL

REMOVAL

(1) Open hood and disconnect the negative battery cable

NOTE: Pump the brake pedal several times to relieve vacuum in the brake booster. This will prevent booster from sucking any contaminants when master cylinder is removed.

(2) Remove the short brake lines leading from the master cylinder to the combination valve (Fig. 6).

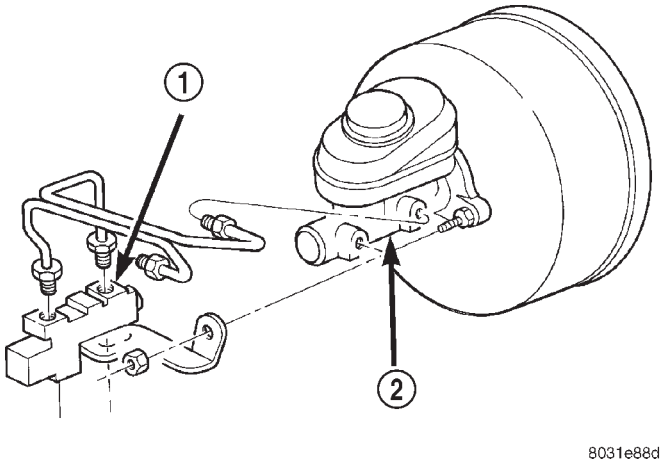

Fig. 6 Brake Line Orientation

1 – COMBINATION VALVE
2 – MASTER CYLINDER

(3) Disconnect differential pressure switch wire from the combination valve. Lift the release tab on the underside of the electrical connector and pull straight off (Fig. 7).

(4) Remove the combination valve support bracket retaining nuts and remove the valve and bracket assembly from the vehicle.

(5) Remove the master cylinder retaining nuts (Fig. 8) and remove the master cylinder from the brake booster by sliding straight off mounting studs.

INSTALLATION

NOTE: Be certain rubber o-ring vacuum seal is installed in the master cylinder mounting flange prior to installation.

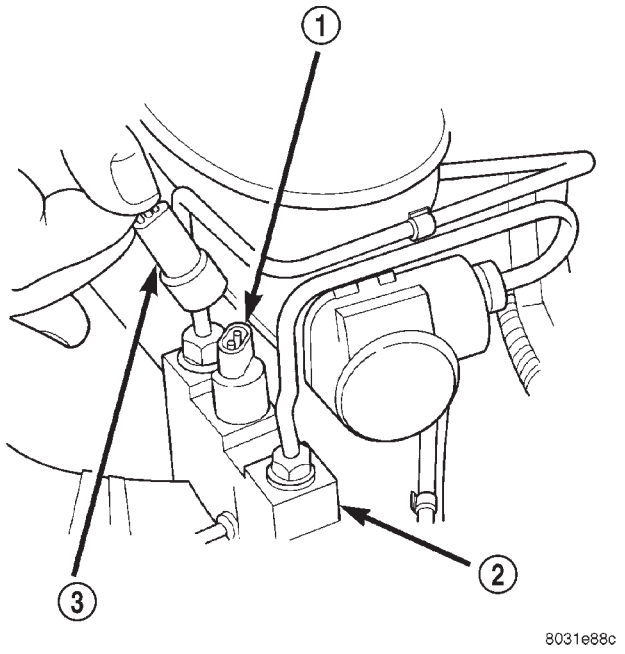

Fig. 7 Differential Pressure Switch Electrical

1 – SWITCH TERMINAL
2 – COMBINATION VALVE
3 – WIRE HARNESS CONNECTOR

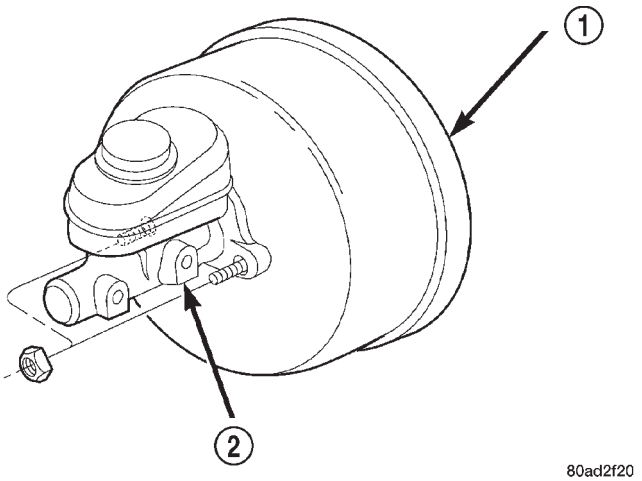

Fig. 8 Master Cylinder

1 – BOOSTER
2 – MASTER CYLINDER

NOTE: If a new master cylinder is being installed, cylinder must be bench bleed prior to installation.

(1) If equipped, remove protective sleeve from primary piston shank on new master cylinder.

(2) Clean cylinder mounting surface of brake booster.

(3) Install master cylinder on brake booster and install retaining nuts. Torque the nuts to 17.5 N·m (155 in. lbs.).

REMOVAL AND INSTALLATION (Continued)

(4) Install combination valve/bracket and retaining nuts.

(5) Install brake lines on cylinder and valve. Torque brake lines to 19 N·m (170 in. lbs.).

(6) Connect differential pressure switch wire on the combination valve.

(7) Fill and bleed the brake system. Refer to the procedure in this group.

(8) Connect the negative battery cable.

(9) Adjust the brake lamp switch. Refer to the procedure in this group.

WARNING: Be certain a firm brake pedal is achieved prior to attempting to operate the vehicle.

SPECIFICATIONS

TORQUE SPECIFICATIONS

DESCRIPTION	TORQUE
Brake Booster to Cowl Panel	
Nuts	39 N·m (29 ft. lbs.)
Brake Lines at Master Cylinder and Combination Valve	
Tube Nuts	19 N·m (170 in. lbs.)
Master Cylinder to Vacuum Booster	
Nuts	17.5 N·m (155 in. lbs.)