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REPAIR GUIDES

See what's wrong and find out how to fix it.

Viewing Service History for

1986 CHEVROLET TRUCK S10 BLAZER 2WD 2.5L TBI OHV 4CYL

Est. Milage
0 MILES

Edit Details

BRAKES

Change Section

Select a chapter below to view repair info.

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NEED HELP?

6. Rear Drum Brakes

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BRAKE OPERATING SYSTEM:
6.1 Combination Valve

See Figure 1

The combination valve is located in the engine compartment, directly under the master cylinder. It is usually mounted to a bracket which shares the master cylinder mounting studs on the brake booster. The valve consists of three sections: the metering valve, the warning switch and the proportioning valve.

The metering section limits the pressure to the front disc brakes until a predetermined front input pressure is reached. The specific pressure is enough to overcome the rear shoe retractor springs. Under 3 psi (2 kPa) on vehicles through 191 or under 30 psi (20 kPa) on 192-93 vehicles, there are no restrictions of the inlet pressures; this way pressures are allowed to equalize during the no brake period.

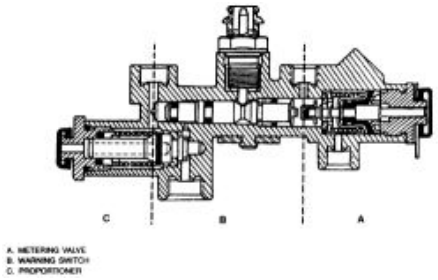

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Fig. Fig. 1: Cross-sectional view of a combination valve assembly

The proportioning section controls the outlet pressure to the rear brakes after a predetermined rear input pressure has been reached; this feature is provided for vehicles with light loads, to help prevent rear wheel lock-up. The by-pass feature of this valve assures full system pressure to the rear brakes in the event of a front brake system malfunction. Also, full front pressure is retained if the rear system malfunctions.

The pressure differential warning switch is designed to constantly compare the front and the rear brake pressures; if one circuit should malfunction, the warning light (on the dash) will turn On. The valve and switch are designed to lock in the warning position once the malfunction has occurred. The only way the light can be turned Off is to repair the malfunction and apply a brake line force of 450 psi (3100 kPa).

REMOVAL & INSTALLATION

See Figures 2, 3 and 4

Disconnect the negative battery cable.

Disconnect the hydraulic lines from the combination valve one at a time. Immediately plug all openings to prevent system contamination or excessive fluid loss.

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Disengage the electrical connector from the combination valve pressure switch.

If equipped with Rear Wheel Anti-Lock (RWAL) brakes, disengage the RWAL pressure valve connector.

On most vehicles, remove the master cylinder/combination valve-to-bracket retaining nuts, then remove the valve from the vehicle. On some early model vehicles the combination valve may be removed from the bracket by removing the retaining bolt. If desired, remove the bolt and valve leaving the bracket and master cylinder secured to the booster.

If used, remove the RWAL pressure valve.

The combination valve is not repairable and must be replaced as a complete assembly.

To install:

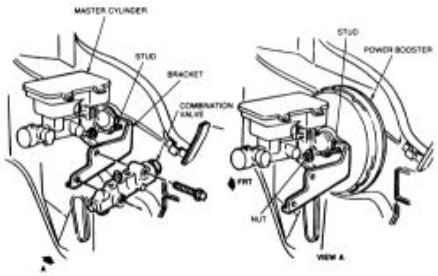

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Fig. Fig. 2: Early model combination valve mounting

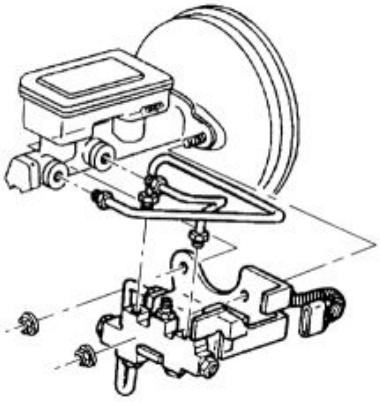

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Fig. Fig. 3: Late model combination valve mounting - vehicles with rear anti-lock brakes

NEED HELP?

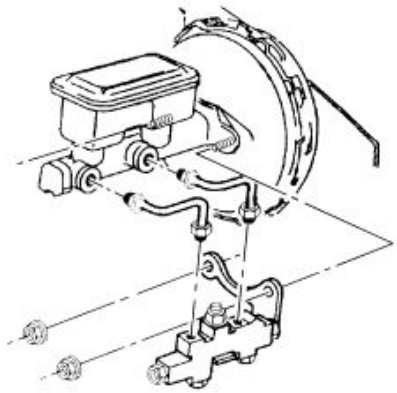

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Fig. Fig. 4: Late model combination valve mounting - vehicles with 4-wheel anti-lock brakes

If applicable, install the RWAL pressure valve.

Install the combination valve and bracket assembly, then install and tighten the master cylinder/valve bracket retaining nuts to specification. For details, please refer to the master cylinder procedure located earlier in this section. If on early model vehicles only the valve was removed from the bracket, install the valve using the retaining bolt and tighten to 12 ft. lbs. (17 Nm).

If used, engage the RWAL pressure valve connector.

Engage the pressure switch electrical connector.

Remove the caps (one at a time) and connect the brake lines to the combination valve, then tighten the fittings.

Check and refill the master cylinder reservoir, then properly bleed the hydraulic brake system.

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