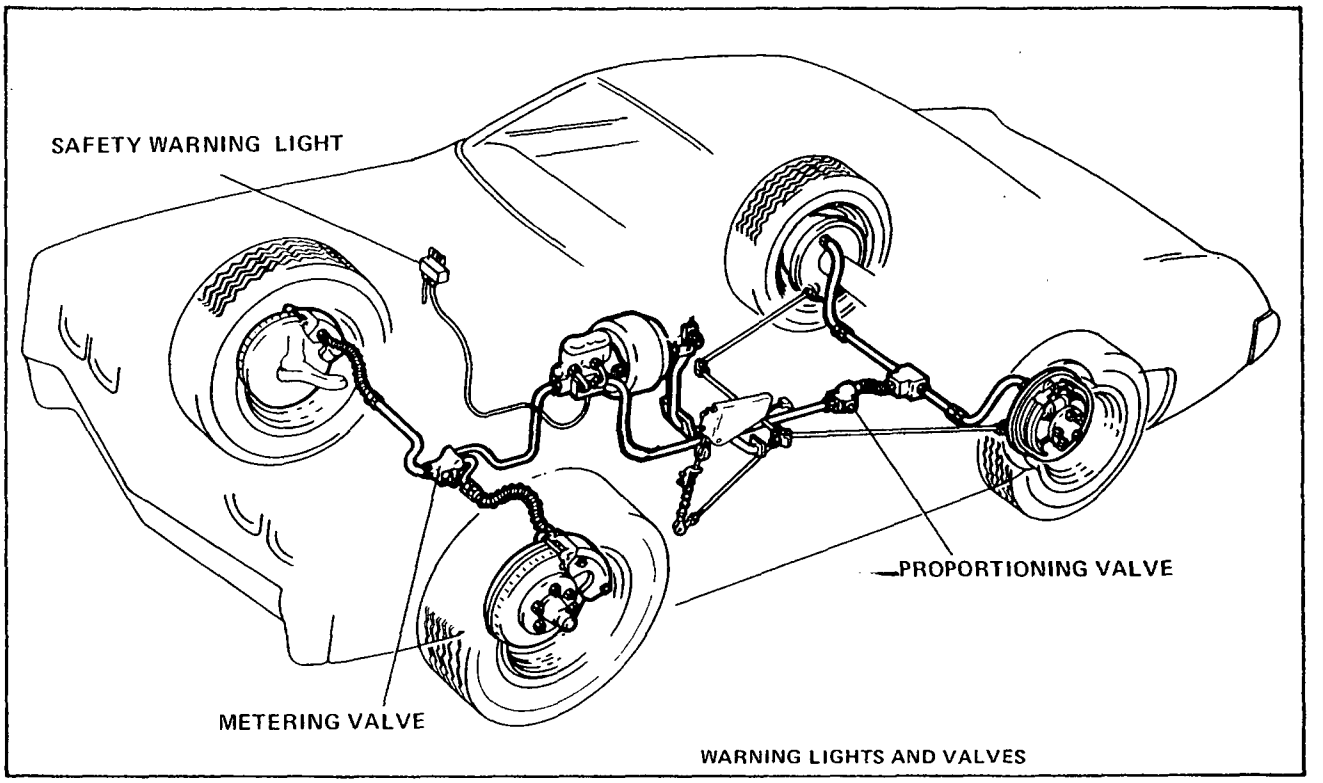
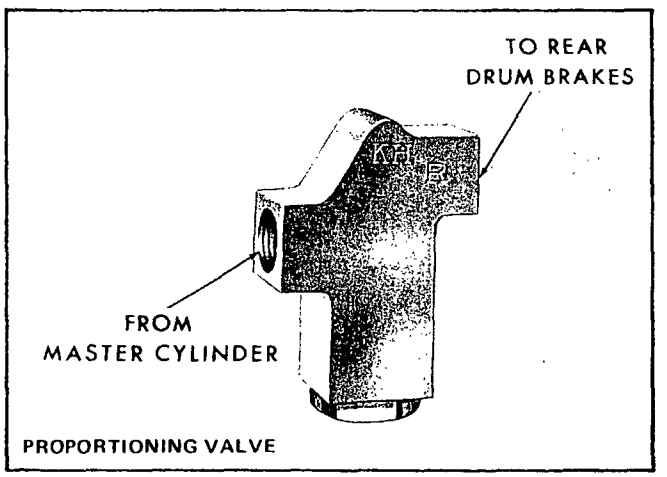
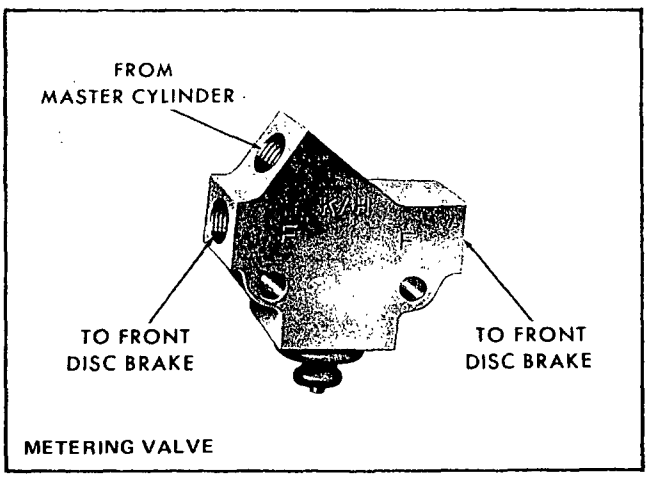
Warning Lights and Valves



WARNING LIGHTS AND VALVES



PROPORTIONING VALVE



METERING VALVE

Introduced in 1967, and required by federal law since 1968, a warning light switch is used with the dual master cylinder. The switch is designed to light a brake warning light on the dash panel if a failure occurs in either the front or rear hydraulic system. This light may also indicate that the parking brake is applied. It is wired into the started circuit to advise the driver of a brake warning light failure. The warning light switch consists of a normally centered shuttle. Upon failure in either half of the system, a brake application results in greater pressure on one end of the shuttle, forcing it to shift, making a contact completing the electrical circuit.

When vehicles are equipped with disc brakes, there may be two additional valves in the system. One is called a proportioning valve, which reduces pressure to the rear drum brakes during braking. Since disc brakes require a higher hydraulic line pressure, it is necessary to have a proportioning valve to maintain the correct balance between the line pressures to the front and rear brakes.

On some vehicles a metering valve is also used. This valve acts to delay pressure buildup to the front disc brakes on application. Its purpose is to reduce front brake pressure until rear brake pressure overcomes the shoe return springs. In this way, a balanced brake system is achieved.