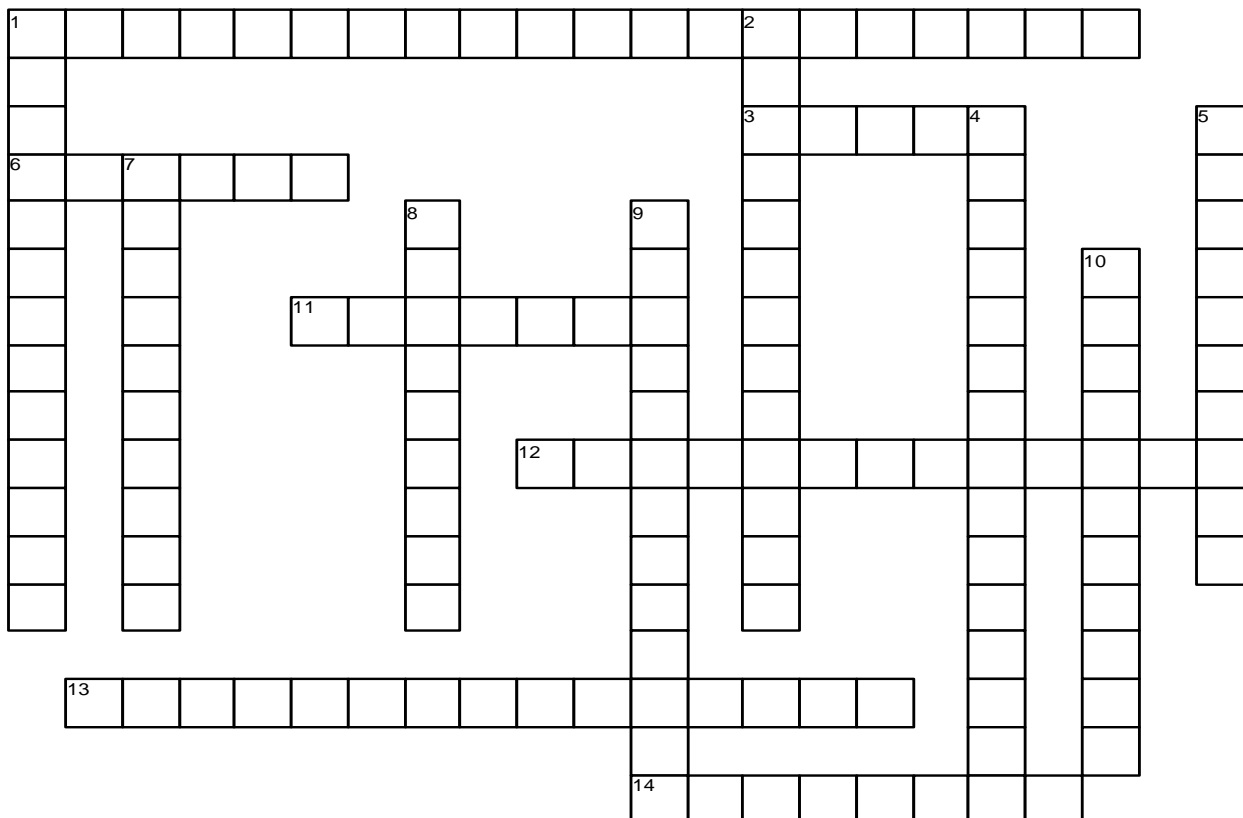


Hydraulic Valves And Switches

Chapter 6



<http://jameshalderman.com>

ACROSS

- 1 A _____ - _____ switch is used on all vehicles built after 1967 with dual master cylinders to warn the driver of a loss of pressure in one of the two separate systems by lighting the dashboard red brake warning indicator lamp.
- 3 Brake engineers refer to the ratio of front to rear brake pressure proportioning as the _____.
- 6 If the button is rubber coated, then you _____.
- 11 If the button is steel, then _____.
- 12 Many vehicles use a proportioning valve that varies the amount of pressure that can be sent to the rear brakes depending on the height of the rear suspension, this type of valve is called a _____ - _____ proportioning valve.
- 13 Many master cylinders, especially systems that are diagonal split, usually use a _____ sensor or switch in the master cylinder reservoir.
- 14 The residual check valve has been eliminated by equipping the wheel cylinder internal spring with a sealing cup _____ to prevent sealing cup lip collapse.

DOWN

- 1 A _____ valve improves brake balance during hard stops by limiting hydraulic pressure to the rear brakes.
- 2 A _____ valve has been used on some drum brake systems to keep a slight amount of pressure, about 5 to 12 PSI, on the entire hydraulic system for drum brakes.
- 4 _____ proportioning in the antilock braking system is accomplished by monitoring front- and rear-wheel speeds, and reducing pressure to the rear brakes as needed using the ABS solenoids when there is a difference in wheel deceleration rates.
- 5 The job of the _____ switch is to turn on the brake lights at the back of the vehicle when the brakes are applied.
- 7 Before proportioning action will begin, brake system hydraulic pressure must reach a minimum level called the _____.
- 8 A metering valve consists of a piston controlled by a strong spring and a _____ controlled by a weak spring.
- 9 A _____ is used on all front-disc, rear-drum-brake-equipped vehicles.
- 10 Most vehicle manufacturers combine the function of a proportioning valve with one or more other valves into one unit called a _____ valve.