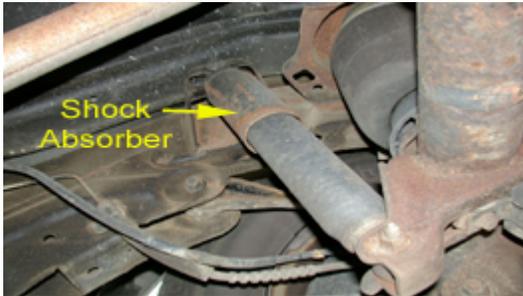




## Steering & Suspension: Shocks



**Description:** Shock absorbers or shocks are usually used on cars and light trucks with standard suspension systems. Shocks may also be used on the rear of some cars front-wheel-drive cars that use McPherson strut suspension in front. Shocks provide resistance by forcing hydraulic fluid (oil) through valves in the piston as it moves up and down. Because the oil cannot be compressed, only a certain amount of fluid can be forced through these valves, which creates resistance to vehicle movement. Premium shocks are superior to regular hydraulic shocks because air in the shock is replaced by pressurized nitrogen gas. This prevents bubbles from forming in the hydraulic fluid. These bubbles, called foaming, reduce the ability of shocks to provide resistance and prevent bounce. Gas shocks also quicken the response of a shock's movement, thereby increasing comfort and control.

**Purpose:** Shock absorbers dampen movement of the vehicle's springs as they compress and rebound during vehicle travel. Without shocks, a vehicle would continually bounce, making control difficult. Shock absorbers have a strong influence on vehicle control and handling and hold the tires to the road.

**Maintenance Tips/Suggestions:** Your vehicle's shocks should be checked once a year, usually in conjunction with a wheel alignment. Under normal conditions, shocks wear out gradually and you may not notice incremental losses in ride quality, handling and control. Some signs that your vehicle may have worn shocks include excessive bouncing, rocking back and forth, drifting or nose-diving while braking, swaying, or cupping wear on the tires. For a complete check of your vehicle's suspension system, have it thoroughly inspected by a qualified service technician. If an inspection reveals the need for new shocks, consider premium shocks made especially for your driving habits. If you're a pick-up or SUV owner, upgrading your shocks can bring a big improvement in overall ride quality and handling.