

GENERAL MOTORS ELECTRONIC VARIABLE ORIFICE (EVO) STEERING SYSTEM

MOTION CONTROL

YSTEMS

The **Electronic Variable Orifice Steering System (EVO)** was first introduced by General Motors. To properly function, this system required proper operation of the EVO solenoid (see below), control module and vehicle speed sensor. A malfunction in the EVO solenoid can result in loss of regulated assist or even complete loss of power assist. These conditions are commonly perceived to be a defective power steering pump. The vehicle computer monitors vehicle speed and steering wheel action to activate and deactivate the solenoid located on the steering pump, controlling fluid flow to the steering gear. At slow speeds, the EVO solenoid is fully open making steering assist easier. At higher speed, the EVO solenoid closes, restricting fluid flow, resulting in firmer steering assist. Due to inconsistent steering assist, GM developed a by-pass kit to remove the EVO solenoid from the back of the pump.

EVO SOLENOID BY-PASS TUBE

The EVO solenoid by-pass kit packaged with the PWR pump utilizes an adapter tube that will enable the existing high-pressure hose to be connected directly to the back of the pump <u>after</u> the EVO solenoid has been removed (see below). This only applies when replacing the pump. If you are replacing only the EVO valve and not the pump, you will need to order OEM GM Kit # 19168825

Use of this kit will allow the pump to function as a normal steering system would. This will make the steering feel "sportier" than it felt with the original EVO system. This pump, with the by-pass kit installed, will install the same as the OE unit and function as a standard steering system would.

