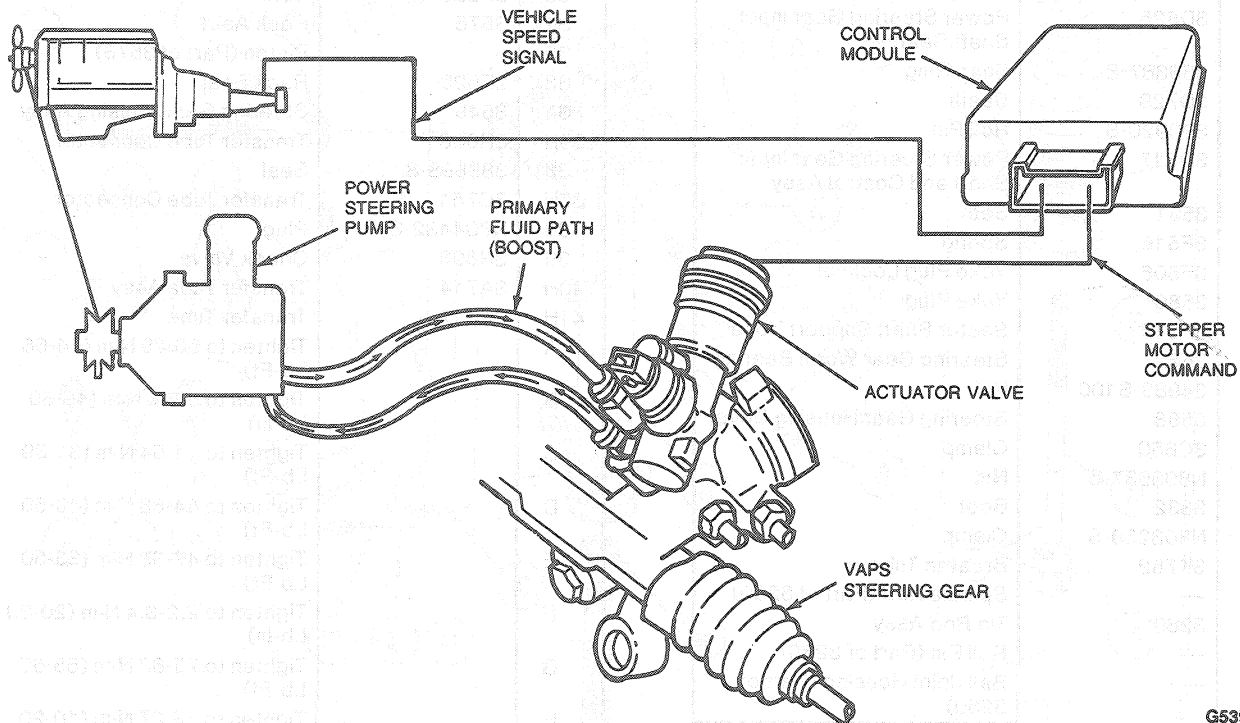


DESCRIPTION (Continued)

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Variable Assist Power Steering (VAPS)

The variable assist power steering (VAPS) system consists of a microprocessor-based module, a power rack-and-pinion steering gear, an actuator valve assembly, hose assemblies, and a high efficiency power steering pump for Taurus LX and Sable 3.0L and 3.8L.



G5395-A

The system uses a modified rotary valve in the gear with two independent hydraulic circuits called the primary and secondary circuits. During parking and low speed operation, the flow from the pump is routed to the primary circuit by an electrically controlled actuator valve assembly. As vehicle speed increases, the actuator valve gradually opens, diverting an increasing amount of fluid to the secondary circuit.

The actuator valve is a pressure-balanced variable orifice valve, controlled by a stepper motor-driven linear spool. The VAPS module receives inputs from a vehicle speed sensor, and signals the stepper motor-driven spool to adjust the opening of the actuator valve.

The VAPS module is programmed to perform a self-diagnostic check every 16 milliseconds. If a concern is detected, the module microprocessor deactivates its outputs.

The VAPS module is programmed to perform a service diagnostic procedure when activated by the service technician.