1975-79 EXHAUST EMISSION SYSTEMS
General Motors Deceleration Valve

1979 General Motors

NOTE: This article includes information which is applicable to 1980 Buick Skylark, Chevrolet Citation, Oldsmobile Omega and Pontiac Phoenix.

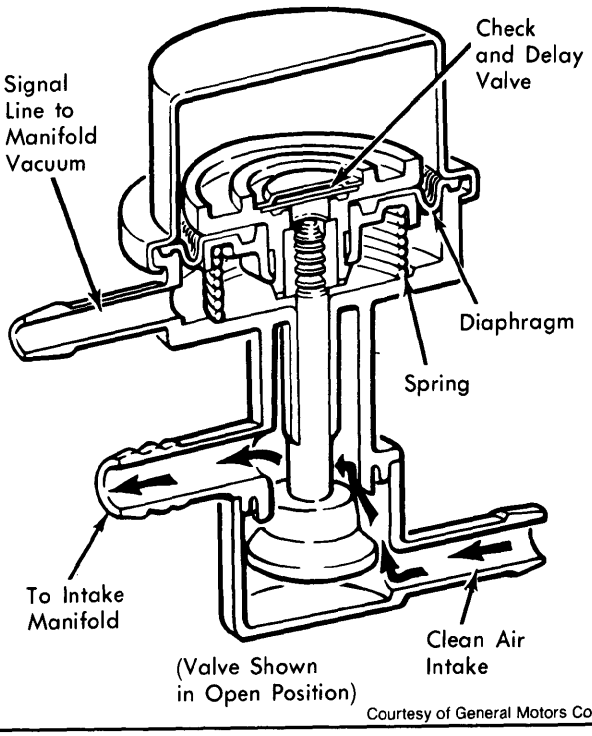
DESCRIPTION

The deceleration valve is used on all 1980 engines to prevent backfiring in the exhaust system during deceleration. Valve is normally closed, but opens when sudden deceleration increases vacuum to a point which overcomes the internal spring pressure. This opening allows additional air into the intake manifold to prevent overly rich mixtures from reaching the combustion chambers.

Air trapped in chamber above vacuum diaphragm will bleed through delay valve inside deceleration valve in order to reduce vacuum signal acting on the diaphragm. When vacuum load on diaphragm and spring load are equal, valve assembly closes, shutting off air to intake manifold. *See Fig. 1.*

Check valve portion of check and delay valve assembly, provides quick balancing of chamber pressure when sudden decrease in vacuum is caused by acceleration rather than deceleration.

NOTE: Refer to GENERAL MOTORS VACUUM DIAGRAMS in this section for valve location and hose routing.



Courtesy of General Motors Corp.

Fig. 1: Sectional View of Deceleration Valve