

1974-79 EXHAUST EMISSION SYSTEMS

Austin & MG Exhaust Gas Recirculation

Austin: 1974-75 Marina
MG: All Models

DESCRIPTION

The Exhaust Gas Recirculation (EGR) system is designed to reduce the formation of oxides of nitrogen (NOx). This is accomplished by recirculating a metered amount of exhaust gases back into the intake manifold to lower combustion temperatures, thereby reducing NOx emissions. The system consists of an EGR control valve, various connecting hoses and pipes and a fuel trap to prevent fuel from entering the EGR valve.

OPERATION

The EGR valve, mounted on the exhaust manifold, controls the flow of exhaust gases from the exhaust manifold to the intake manifold. The vacuum signal which controls the EGR valve is taken from a throttle edge tapping which gives no recirculation at idle speed or at full throttle, but gives a varying amount of recirculation between these two extremes depending on vacuum signal and metering profile of the valve. A fuel trap is installed in the vacuum line to the EGR valve to prevent liquid fuel from entering the valve.

TESTING

- 1) Check condition of all lines and connections. Start and run engine until normal operating temperature is reached. While observing EGR valve, open and close throttle several times.
- 2) The EGR valve should open and close with RPM change, and close immediately when throttle is closed. Using a hand-held vacuum pump, apply vacuum to EGR valve. Valve diaphragm must retain vacuum when open. If not, clean or replace EGR valve as necessary.

MAINTENANCE

- 1) Remove EGR valve and clean base of valve with a wire brush. Using a spark plug cleaner, clean valve seat and metering valve by holding the diaphragm upward. Blast valve at 30 second intervals until clean.

- 2) Remove all traces of carbon and cleaning compound (from spark plug cleaner) using compressed air. Inspect ports in manifold for carbon build-up. Light deposits are acceptable.
- 3) If heavy deposits have accumulated, the manifold must be removed for cleaning. Install EGR valve and bring engine to normal operating temperature. Repeat EGR test.

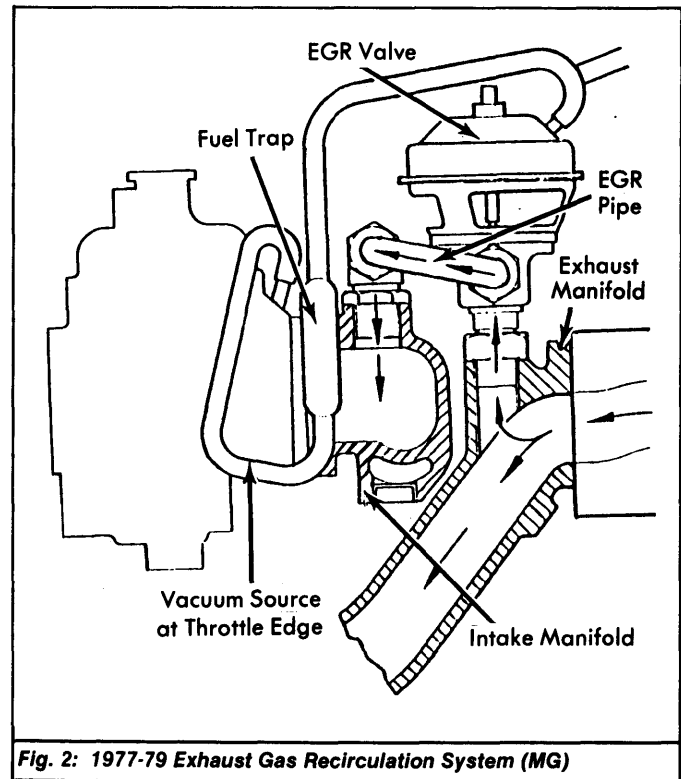


Fig. 2: 1977-79 Exhaust Gas Recirculation System (MG)

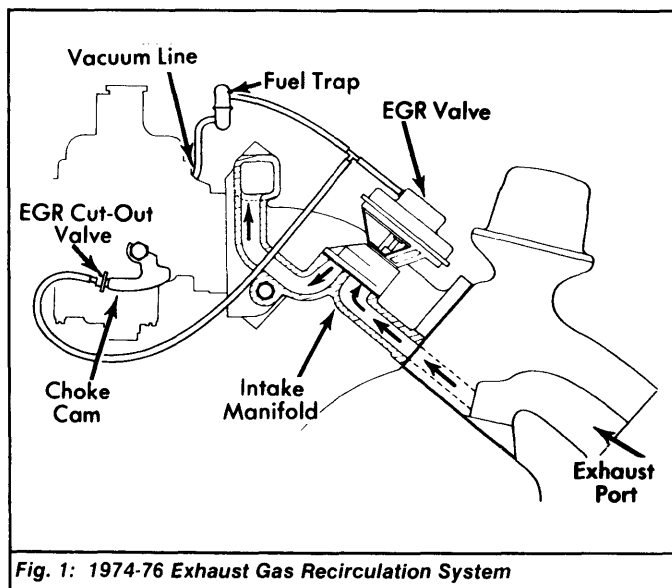


Fig. 1: 1974-76 Exhaust Gas Recirculation System