

1973 AMERICAN MOTORS & JEEP EXHAUST GAS RECIRCULATION (EGR) SYSTEM

DESCRIPTION

The Exhaust Gas Recirculation (EGR) System is designed to lower burning temperatures of gases in combustion chambers, thereby reducing the formation of nitrogen oxides (NOx). Metered amounts of exhaust gas dilutes the fresh air intake, cooling the burning gas temperatures. The system consists of an EGR Valve, Coolant Temperature Override Switch, Low Temperature Vacuum Signal Modulator (Exc. V8 with Man. Trans.) & High Temperature Vacuum Signal Modulator.

OPERATION

When EGR Valve (mounted on intake manifold) receives a vacuum signal from the Coolant Temperature Override Switch, the valve opens, metering gases from exhaust crossover passage into intake manifold. *NOTE - Coolant Temperature Override Switch is located at coolant passage of intake manifold (V8), or left side of block (6 cyl.), and should not be confused with similar switch mounted on thermostat housing of V8 engines: this switch is part of Transmission Controlled Spark (TCS) System.* At 115°F (160°F on 304 CID W/Man. Trans.), or higher, center and lower ports of Coolant Temp. Override Switch open (top port is unconnected and not used) and vacuum signal reaches EGR Valve. Signals are further regulated by High and Low Temperature Vacuum Signal Modulators. Below 60°F (ambient temp.) the Low Temp. Vacuum Signal Modulator opens, causing a decrease in amounts of exhaust gases being recycled, or if underhood air temp. reaches 115°F, High Temperature Vacuum Signal Modulator opens, and reduction of recirculated exhaust gases also occurs.

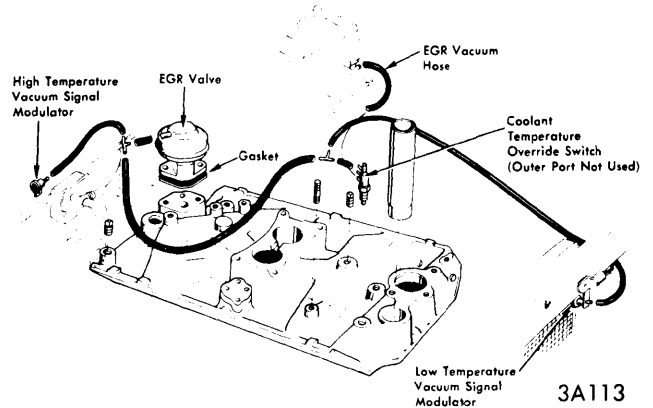
MAINTENANCE

Inspection of EGR System is required at every even 10,000 mile interval. If leaded fuel is used, clean EGR Valve and EGR Discharge Port each time system is inspected. If unleaded fuel is used, cleaning is required every 25,000 miles. Remove EGR Valve at each service interval. Inspect valve for proper operation by pressing valve pintle down. If valve does not return to full closed position when released, then valve should be replaced. Clean all lead and carbon deposits with wire brush. Ensure that all exhaust passages are clear. Use new gasket when reinstalling EGR Valve.

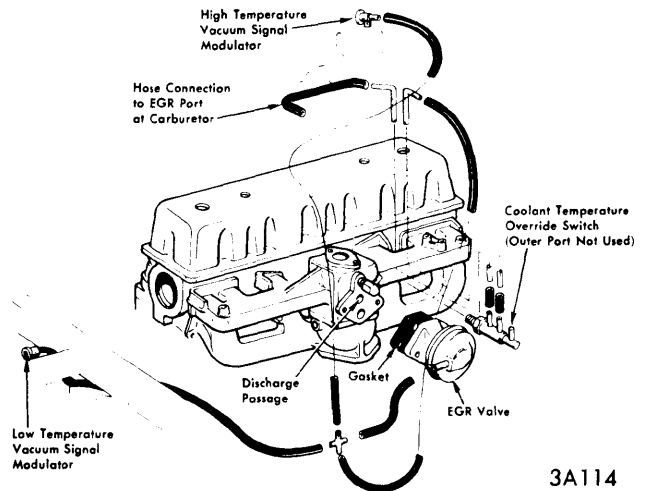
TROUBLE SHOOTING

Improper Combustion and/or faulty emission levels may be caused by any or all of the following:

- 1) EGR System components inoperative or malfunctioning.
- 2) EGR Exhaust ports restricted or blocked.
- 3) EGR Vacuum hoses disconnected, crimped, or improperly routed.



1973 EGR SYSTEM - V8 ENGINES



1973 EGR SYSTEM - 6 CYLINDER ENGINES