

Vacuum and Misfire Monitor General Description

MONITOR DTC TABLE

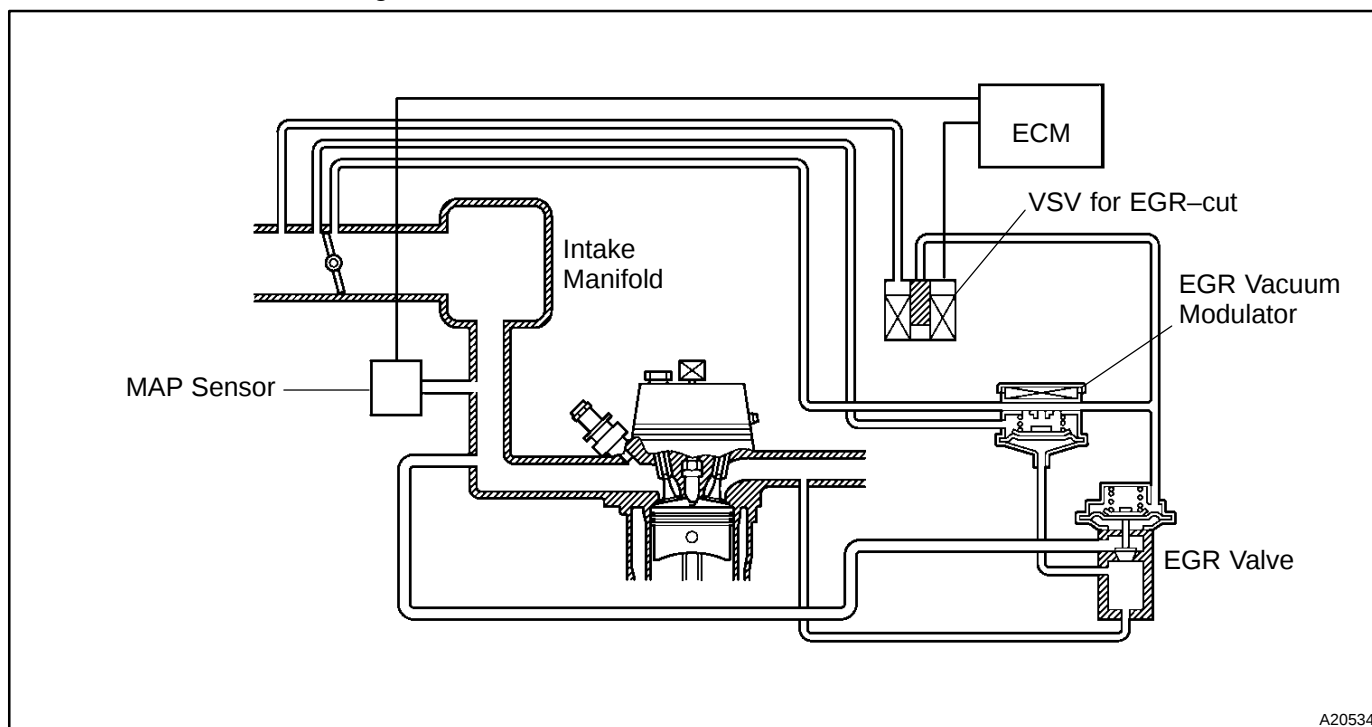
DTC	Document Title	See Page
P0400	EGR Flow Insufficient Monitor Description	Eg-48
P0401		
P0402	EGR Flow Excessive Monitor Description	Eg-50

NOTE:

Some DTCs may have different meanings from those listed above depending upon the EGR Monitoring strategy. To identify which strategy is used on each model, refer to EGR Monitor Summary (See page [Eg-1](#)).

GENERAL DESCRIPTION

The EGR system is used to lower combustion temperatures and thus reduce the quantity of NO_x generated in the combustion process. Without EGR, under high load conditions, the combustion temperature would be high and large quantities of NO_x would be generated. With the EGR system, exhaust gas is “recirculated” by diverting a percentage of the exhaust back into the intake manifold. The recirculated exhaust lowers the combustion temperature and NO_x production is reduced. In some driving conditions, EGR gasses can affect driveability. In these driving conditions, the ECM commands the VSV for EGR-cut to block the engine vacuum source that opens the EGR valve. Blocking the vacuum signal allows the EGR valve to close and stop recirculation of the exhaust gas to the intake manifold.



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1. EGR Flow Insufficient Monitor (DTC P0400 and P0401)

During the ECM's diagnostic test of the EGR system, the VSV for EGR-cut is turned ON and OFF while the intake manifold vacuum is monitored. If the ECM does not detect changes in the intake manifold vacuum, it will conclude that either the EGR valve did not open or the VSV for EGR-cut is malfunctioning. The ECM will illuminate the MIL and set a DTC.

2. EGR Flow Excessive Monitor (DTC P0402)

During the ECM's diagnostic test of the EGR system, the VSV for EGR-cut is turned ON and OFF while the intake manifold vacuum is monitored. If the ECM does not detect changes in the intake manifold vacuum

and there is engine misfire present, the ECM will conclude that the EGR valve did not close properly. The ECM will illuminate the MIL and set a DTC.