

EGR Gas Temperature and Misfire Monitor General Description

MONITOR DTC TABLE

DTC	Document Title	See Page
P0401	EGR Flow Insufficient Monitor Description	Eg-15
P0402	EGR Flow Excessive Monitor Description	Eg-25

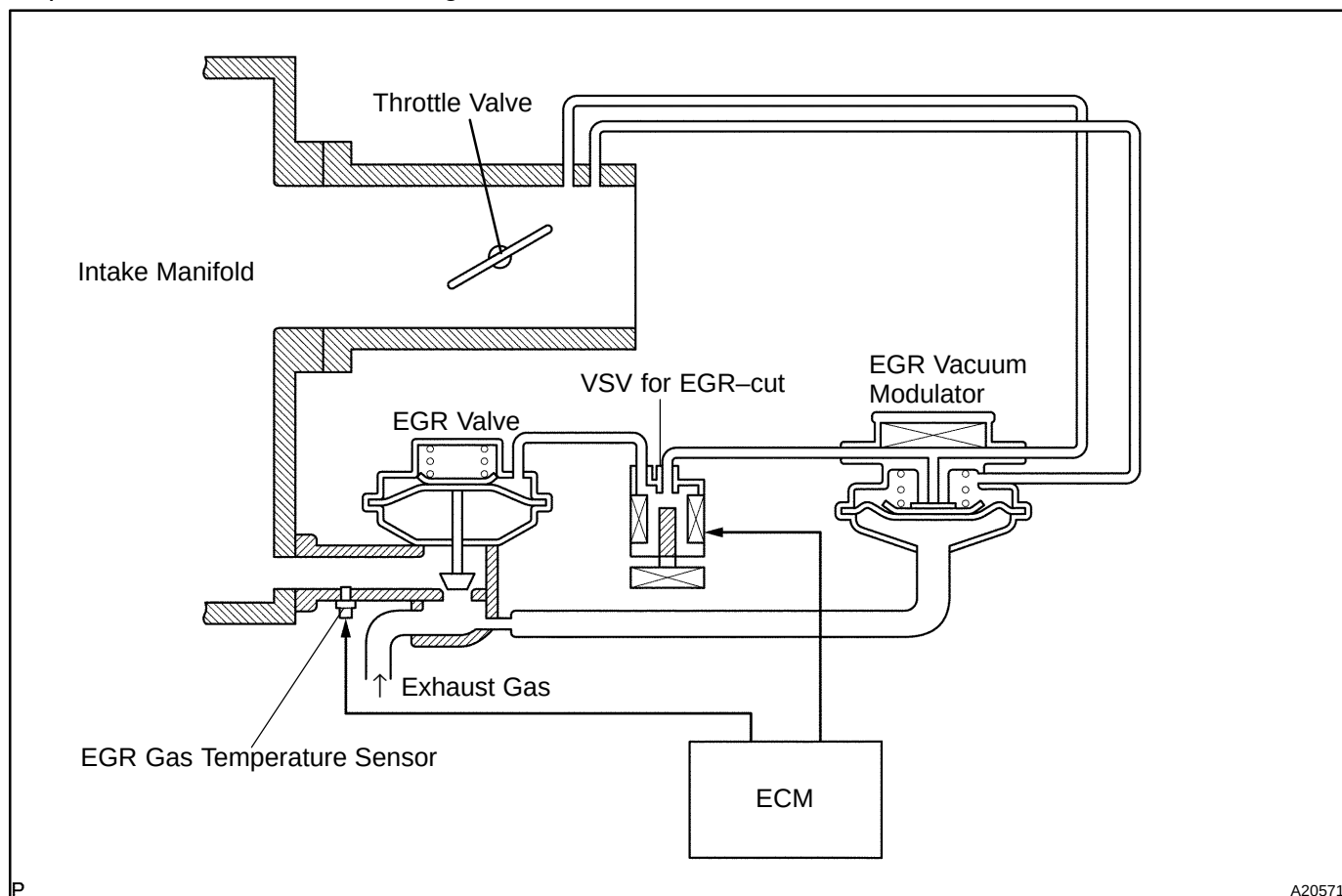
NOTE:

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 ECM senses the opening of the EGR valve using the EGR gas temperature sensor. If there is low variation in the temperature of the EGR gas flow, the ECM will conclude that there is a fault in either the EGR valve or the EGR gas temperature sensor. This will cause ECM to illuminate the MIL and set a DTC.

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



1. EGR Flow Insufficient Monitor (DTC P0401)

The ECM senses the opening of the EGR valve using the EGR gas temperature sensor. When conditions for EGR flow are met, the ECM monitors the EGR gas for temperature variation. If there is low variation in the temperature of the EGR gas flow, the ECM will determine whether the EGR valve is not opened or the EGR gas temperature sensor is malfunctioning. The ECM will illuminate the MIL and set a DTC.

2. EGR Flow Excessive Monitor (DTC P0402)

The ECM senses the closing of the EGR valve using the EGR temperature sensor. When conditions for closing the EGR valve are met, the ECM monitors the EGR gas for temperature variation. If there is low variation in the temperature of the EGR gas flow and an engine misfire is present, the ECM will conclude that the EGR valve is not closed. The ECM will illuminate the MIL and set a DTC.