EVAP Leak Monitor Description

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MONITOR SUMMARY

The ECM uses the vapor pressure sensor to detect malfunctions in the evaporative emissions (EVAP) system. This diagnostics check the function of the EVAP VSV, canister closed valve (CCV) and VSV for bypass valve, and the integrity of these components and the fuel tank from the standpoint of fuel vapor emissions. This test will run once per driving cycle provided the ECM detects relatively stable vapor pressure in the fuel tank. While the vehicle is being operated on rough or winding roads, the movement of the fuel in the tank will cause unstable fuel tank vapor pressures and the diagnostic test will not executed.

The ECM performs the following steps;

(a) The canister closed valve (CCV) is closed.

(b) The fuel tank pressure stability is checked. The diagnostic is disabled if the pressure change is more than specified value.

(c) The EVAP VSV is opened. This introduces a negative pressure (vacuum) from the intake manifold to the tank.

(d) The EVAP VSV is closed and the negative pressure (vacuum) is sealed in the fuel tank.

(e) The ECM monitors the increase in fuel tank pressure for:

(1) Rapid increase in the internal pressure (loss of vacuum) i.e. a large leak: 0.040” or more.

(2) Higher than excepted increase internal pressure (loss of vacuum) i.e. a small leak: 0.020”.

If the ECM detects either of these conditions, it will interpret this a a leak in the EVAP system.

The ECM will illuminate the MIL (2–trip detection logic) and set a DTC.

RELATED DTC

Previous code:

Related DTCs	P0440	0.040” EVAP leak
	P0442	0.020” EVAP leak

Extended code:

Related DTCs	P0442	0.040” EVAP leak
	P0456	0.020” EVAP leak

MODEL YEAR CHART

Model Year	See Page
2000	Ev–51
2001	Ev–53
2002	Ev–55
2003	Ev–57