Positive Crankcase Ventilation (PCV) System Monitor

The PCV system monitor consists of a modified PCV system design. The PCV system is designed to prevent accidental disconnection. High retention force molded plastic lines are used from the valve cover to the intake manifold. The diameter of the lines and the intake manifold entry fitting are increased so that disconnection of the lines may cause an engine to stall. In the event the vehicle does not stall if the line between the intake manifold and PCV system is disconnected, the vehicle has a large vacuum leak that causes the vehicle to run lean at idle. The lean condition illuminates the malfunction indicator lamp (MIL) and stores a lean bank 1 or bank 2 DTC.

The PCV monitor sets a DTC if the PCV vacuum hose is disconnected, or if a large air leak between the throttle body and intake valves is present. An idle speed symptom may be present when the DTC is set.

The PCV system on some vehicles will include a crankcase pressure sensor to detect a disconnection of the fresh air hose. A disconnection of the fresh air hose would allow the discharge of crankcase vapor into the atmosphere while the engine was under boost. The fresh air hose connects the intake air system to the valve cover, with the crankcase pressure sensor mounted in the fresh air hose. The PCV monitor will detect a fresh air hose disconnection at the intake air system or the valve cover, by monitoring crankcase pressure sensor changes during engine cranking, and driving with higher intake airflow.

For additional PCV information, refer to Positive Crankcase Ventilation (PCV) System in this section.