

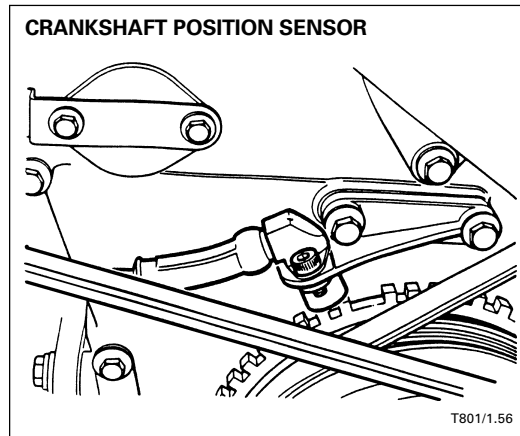
Engine Misfire

Misfire Monitoring for OBD II

Engine misfire may cause catalytic converter damage and/or cause a vehicle to fail an emission inspection.

The ECM monitors the engine for misfire via the crankshaft position sensor (CKPS). The steel teeth on the crankshaft timing ring are used as a rotor for the sensor. The rotor has 60 tooth positions set at 6 degree intervals with one tooth missing. The gap identifies the TDC position of cylinders 1 and 6 during one complete engine cycle (two crankshaft revolutions). The ECM uses the gap as a position reference.

At each cylinder firing, the crankshaft momentarily accelerates. The ECM records and compares the time intervals between cylinder firings and the rotor gap to detect a misfire.



If a persistent misfire occurs, the ECM will identify the cylinder and switch off the fuel injector.

NOTE: The CHECK ENGINE MIL will not be activated for misfire monitoring faults on 1995 model year vehicles, however, a DTC will be flagged by the ECM.

There are two levels of misfire that may be detected:

- Level 1** If the misfire is not severe, the fault must occur on two consecutive trips before a DTC is flagged.
- Level 2** If the misfire is severe enough that catalyst damage may occur, the DTC is flagged immediately.

NOTES