



Random Misfire

P0300 and **P1301 through P1306**
or **P1201 through P1206**

The HDS or the scan tool indicates Diagnostic Trouble Code (DTC) P0300, and some of P1201 - P1206 or some of P1301 - P1306: Random misfire.

Description

Misfire detection is accomplished by monitoring the voltage of the spark plug with the spark plug voltage sensor which is built in to the ignition coil.

If misfiring strong enough to damage the catalyst is detected, the MIL will blink during the time of its occurrence, and DTC P0300, some of DTCs P1201 through P1206 or some of DTCs P1301 through P1306 will be stored. Then, after misfire has ceased, the MIL will come on and stay on whenever the ignition switch is ON (II).

If misfiring that increases emissions is detected during two consecutive driving cycles, the MIL will come on, and DTC P0300, some of DTCs P1201 through P1206 or some of DTCs P1301 through P1306 will be stored.

NOTE: If some of the DTCs listed below are stored at the same time as a misfire DTC, troubleshoot those DTCs first, then troubleshoot the misfire DTC.

P1128, P1129: MAP sensor

P0171, P0172, P0174, P0175: Fuel metering

P0401, P0404, P0406: EGR system

P0345, P0349, P0390, P0394, P1336, P1337, P1386, P1387: CKP/CMP (CKP/CYP) sensor

P0506, P0507: Idle Control System

P0511: IAC valve

Possible Cause

- Fuel pump insufficient fuel pressure, amount of flow
- Fuel line clogging, blockage, leakage
- Fuel filter clogging
- Fuel pressure regulator stuck open
- EGR system malfunction
- Ignition coil wire open, leakage
- Ignition control module malfunction
- IAC valve malfunction
- Fast idle thermo valve malfunction
- Carbon deposits on valves
- Compression low
- Gasoline does not meet Owner's Manual spec., lack of fuel

Troubleshooting

By test-driving, determine the conditions during which misfire occurs. Depending on these conditions, test in the order described in the table below.

Possible cause	EGR system	Ignition Coil and Ignition wires	ICM	Spark plug voltage detection System
Page				
Condition	11-85	section 4	section 4	—
Only low rpm and load	③			
Only accelerating		①	②	
Only high rpm and load		②	③	
Not specification		①	②	⑤

NOTE: If misfire doesn't recur, some possible causes are fuel that doesn't meet owner's manual spec, lack of fuel, carbon deposits on spark plug, etc.