Module 35
Misfire Monitor

Author: Grant Swaim

E-mail: sureseal@nr.infi.net

URL: www.tech2tech.net

Phone: (336) 632-9882

Fax: (336) 632-9688

Postal Address: Tech-2-Tech Website
PO Box 18443
Greensboro, NC 27419

Physical Address: 220-4 Swing Rd
Greensboro, NC 27409

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Tech-2-Tech offers the following training modules in printed manual, CD-ROM, and on-line formats.

PGMFI Training Modules

- The PGMFI System Overview—Part 1
- The PGMFI System Overview—Part 2
- PGMFI Flash Type DTCs
- Inputs / Outputs—Part 1
- Inputs / Outputs—Part 2
- Engine Control Module
- Air Flow / MAP Sensor—Base Inj Pulse Width
- Fuel Delivery System
- Closed Loop Strategies—Theory
- Closed Loop Strategies—Case Studies
- Thermistor Inputs
- Throttle Position Sensor
- EGR Valve Lift Sensor
- MAP / BARO Sensor
- Ignition Inputs
- Vehicle Speed Sensor
- Oxygen Sensor
- Lean Air Fuel Sensor
- Miscellaneous Input Signals
- Fuel Injectors—Multi-Port Injection
- Fuel Injectors—Dual Point Injection
- Ignition System—Outputs
- Idle Air Control Valve

OBD-II Training Modules

- On Board Diagnostics—General Overview
- Diagnostic Trouble Codes
- MIL / Freeze Frame
- Scan Tool
- Scan Tool—Advanced
- Monitor Tests—Overview
- Comprehensive Component Monitor
- Catalyst Monitor
- EGR Monitor
- Evaporative Monitor
- Fuel System Monitor
- Misfire Monitor
- Oxygen Sensor Monitor
- Oxygen Sensor Heater Monitor
- "P" Codes

Miscellaneous Training Material

- Glossary of Terms

35 Misfire Monitor

Run:	Continuously
Enable Criteria:	The misfire monitor does not have to be turned on until a specified amount of time has elapsed since start-up or under extreme low temperatures. After this initial period, the monitor runs under most normal conditions. Expanded misfire monitoring is being phased in, with full misfire monitoring required on all cars by the year 2002.
DTC Info	A diagnostic trouble codes (DTC) generated from this monitor is stored on the second malfunction in a consecutive trip. If a second malfunction occurs under similar conditions within 80 trips it will also store a DTC. All DTCs set from this monitor are high priority within the freeze frame writing strategy. They will overwrite a freeze frame written by a standard priority DTC but not another high priority DTC.
MIL Info	**Illumination** The malfunction indicator light (MIL) is illuminated then a DTC is stored. The MIL will also flash during periods of misfire that would damage the catalyst (even if only a pending DTC is set). **Extinguishing** The MIL is extinguished after three trips in which the engine conditions are similar, without the misfire reoccurring.
General Info:	The engine control module (ECM) senses fluctuations in the crankshaft speed by monitoring either a crankshaft fluctuation (CKF) sensor or other existing ignition signals. On direct ignition models, the spark plug voltage and ignition coil capacitance is monitored to detect misfires. Upon detecting a misfire, many manufacturers program their ECMs to go into a back-up program to reduce the misfire or catalyst damage. Many will disable a fuel injector on a cylinder that a misfire has been detected. From field observations it appears that Honda does not cut off injectors on cylinders that are experiencing a misfire; however, do not be surprised if you do see this feature on some current or future models.

DTCs Generated by the Misfire Monitor Note: Not Every DTC is Used on All Hondas			
OBD Code	**MIL Flash**	**Trips**	**Description**
P0300	N/A	2	Random Misfire
P1300	N/A	2	Random Misfire
P0301	71	2	Cylinder 1 Misfire
P0302	72	2	Cylinder 2 Misfire
P0303	73	2	Cylinder 3 Misfire
P0304	74	2	Cylinder 4 Misfire
P0305	75	2	Cylinder 5 Misfire
P0306	76	2	Cylinder 6 Misfire