

# Module 37

## Oxygen (O2) Sensor Heater Monitor

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Last Update: April 2000

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### 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

### 37 Oxygen Sensor Heater Monitor

<b>Run:</b>	Once-Per-Trip
<b>Enable Criteria:</b>	The oxygen (O2) sensor heaters are checked right after engine start up.
<b>DTC</b>	<p>A diagnostic trouble codes (DTC) generated from this monitor is stored on the first malfunction.</p> <p>All DTCs set from this monitor are standard priority within the freeze frame writing strategy. A freeze frame written by one of these DTCs can only be over written by a high priority DTC, not another standard priority DTC.</p>
<b>MIL Info</b>	<p><b>Illumination</b> The malfunction indicator light (MIL) is illuminated when the first malfunction is recorded.</p> <p><b>Extinguishing</b> The MIL is extinguished after three trips without a malfunction reoccurring.</p>
<b>General Info:</b>	OBD-II regulations require that both the pre-catalyst and post-catalyst O2 sensor heaters be checked once-per-trip. Shortly after initial start up, the O2 sensor heater circuits are checked for proper voltage drop and current flow.

<i>DTCs Generated by the Oxygen Sensor Heater Monitor</i>			
<b>OBD Code</b>	<b>MIL Flash</b>	<b>Trips</b>	<b>Description</b>
P0135	41	1	Primary HO2S Heater - Circuit Malfunction
P1166	41	1	Primary HO2S Heater - System Electrical Problem
P1167	41	1	Primary HO2S Heater - System Malfunction
P0141	65	1	Secondary HO2S Heater - Circuit Malfunction