

2003 MY Front Heated Oxygen Sensor Slow Response Monitor (P0133, P0153)

To return to monitor description, see page [Ho-9](#).

MONITOR STRATEGY

Required sensors/Components	Main	Front heated oxygen sensor
	Sub	Crankshaft position sensor and Vehicle speed sensor
Frequency of operation	Once per driving cycles	
Duration	Within 60 sec.	
MIL operation	2 driving cycles	
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

Item	Specification	
	Minimum	Maximum
The monitor will run whenever the following DTCs are not present	See page In-39	
Fuel system status	Closed Loop	
Time after engine start	120 sec.	–
Time after following conditions is met	20 sec.	–
Engine RPM	900 rpm	–
Vehicle speed	40 km/h (25 mph)	–
Idling condition:		
Engine RPM	Idle speed	
Vehicle speed	–	0 km/h (0 mph)
Cruising condition:		
Engine RPM	1,000 rpm	3,500 rpm
Throttle valve	Open (idle OFF)	

TYPICAL MALFUNCTION THRESHOLDS

Detection Criteria	Threshold
Time that output voltage of front heated oxygen sensor increase from 0.35 V to 0.45 V and that they decrease from 0.45 V to 0.35 V	• 0.6 sec. or more x 3 times (1ZZ-FE) • 1 sec. or more x 3 times (Others)

COMPONENT OPERATING RANGE

When normal, voltages output from the oxygen sensor produce a waveform alternating between 0 V and 1 V.

OBD MONITOR DRIVE PATTERNS

See page [In-13](#)