

1996 to 2004 MY Oxygen Sensor Heater Monitor

To return to monitor description, see page [Ho-5](#).

MONITOR STRATEGY

Required sensors/Components	Main	Oxygen sensor heater
	Sub	Crankshaft position sensor and Vehicle speed sensor
Frequency of operation	Continuous	
Duration	12 sec. x 10 times	Heater current is low
	10 sec.	Heater current is high
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	
Battery voltage	10.5 V	16 V
Time after engine start	250 sec.	—
Vehicle speed	40 km/h (25 mph)	90 km/h (56 mph)
Misfire	Not detected	

TYPICAL MALFUNCTION THRESHOLDS

Detection Criteria	Threshold
Case 1: Heater current is low	
Heater current while heater ON	Less than 0.25 A (when battery voltage is 11.5 V or more)
Case 2: Heater current is high	
Heater current while heater OFF	• More than 3.5 A (2002 MY 2ZZ-GE, 2003 MY 1NZ-FE and 1ZZ-FE) • More than 2.0 A (Others)

COMPONENT OPERATING RANGE

Parameter	Standard Value
Heater current	Between 0.4 and 1.0 A (idling, engine warmed-up and battery voltage 11 to 14 V)

OBD MONITOR DRIVE PATTERNS

See page [In-13](#)

MODE 06 DATA (MONITOR RESULT)

- Checking monitor status (See page [In-43](#))
- Detecting Mode 06 data (See page [In-44](#))