

Oxygen Sensor

Ho006-01

Front Heated Oxygen Sensor Monitor Description

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MONITOR SUMMARY

The engine control module (ECM) uses the oxygen sensor information to regulate the air/fuel ratio close to a stoichiometric ratio. This maximizes the catalytic converter's ability to purify the exhaust gases. The sensor detects oxygen levels in the exhaust gas and sends this signal to the ECM.

The inner surface of the sensor element is exposed to outside air. The outer surface of the sensor element is exposed to exhaust gas. The sensor element is made of platinum coated zirconia and includes an integrated heating element. The oxygen sensor has the characteristic whereby its output voltage change suddenly in the vicinity of the stoichiometric air-fuel ratio. The heated oxygen sensor generates output voltages between 0 V and 1 V in response to the oxygen concentration in exhaust gas. When the output voltage of the heated oxygen sensor is 0.55 V or more, the ECM judges that the air/fuel ratio is RICH. When it is 0.40 V or less, the ECM judges that the air/fuel ratio is LEAN.

If the oxygen sensor cannot output enough voltage to reach the minimum specification, the ECM interprets this as a malfunction in the oxygen sensor and sets a DTC.

RELATED DTC

Previous code:

Related DTCs	P0130 (Bank 1)	Front heated oxygen sensor voltage is constant
	P0150 (Bank 2)	

Extended code:

Related DTCs	P2195 (Bank 1)	Front heated oxygen sensor voltage is constant at LEAN side
	P2197 (Bank 2)	
	P2196 (Bank 1)	Front heated oxygen sensor voltage is constant at RICH side
	P2198 (Bank 2)	
	P0130 (Bank 1)	Front heated oxygen sensor voltage is constant
	P0150 (Bank 2)	

MODEL YEAR CHART

Model Year	See Page
1996 to 2003	Ho-8