

Accelerator Pedal Position Sensor

Ce00S-01

Accelerator Pedal Position Sensor Monitor Description

MONITOR SUMMARY

Contact type

The accelerator pedal position sensor is equipped with 2 measuring elements: one is for engine control (VPA1) and the other is for malfunction detection in the sensor itself (VPA2). These elements vary their resistance according to how much the accelerator pedal is depressed. The ECM applies a regulated reference voltage to the throttle position sensor “+” terminal and calculates the amount of the accelerator pedal depression based on the voltages present at the throttle position sensor “signal” terminals. When the amount of the accelerator pedal depression is small, the output voltages of these elements are low. When it is large, the output voltages are high.

If the ECM detects that the output voltage of the element(s) is out of the normal range, the ECM will determine that the accelerator pedal position sensor is malfunctioning and set a DTC.

Non-contact type (Some 2003 and later models)

The accelerator pedal position sensor is equipped with 2 measuring elements: one is for engine control (VPA1) and the other is for malfunction detection (VPA2). Each portion of the accelerator position sensor contains a Hall-effect element and magnets. The magnets rotate with the movement of the accelerator pedal. As the magnets approach the Hall-effect element, the resistance of the element changes and the signal voltage returned to the ECM changes. When the amount of the accelerator pedal depression is small, the output voltages of these elements are low. When it is large, the output voltages are high.

If the ECM detects that the output voltage of either elements is out of the normal range, the ECM will determine that the accelerator pedal position sensor is malfunctioning and set a DTC.

RELATED DTC

Previous code:

Related DTCs	P1120	Accelerator pedal position sensor circuit is open/shorted
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Extended code:

Related DTCs	P2120	VPA1 circuit is open/shorted
	P2122	VPA1 is low output
	P2123	VPA1 is high output
	P2125	VPA2 circuit is open/shorted
	P2127	VPA2 is low output
	P2128	VPA2 is high output
	P2138	• Short circuit between VPA1 and VPA2 • No power source to accelerator pedal position sensor

MODEL YEAR CHART

Model Year	See Page
1998 to 2001	Ce-57
2002	Ce-58
2003 and 2004	Ce-59