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Heated Oxygen Sensor 2

FUNCTIONS WITHIN THE SYSTEM

Heated oxygen sensor 2 detects the oxygen concentration in the exhaust gases, converts it to a voltage signal, and transmits the signal to the ECM. Heated oxygen sensor 2 contains a heater for maintaining its activation.

INDIVIDUAL FUNCTION WITHIN THE SYSTEM

Heated Oxygen Sensor 2

Under normal conditions, heated oxygen sensor 2 is not used for engine control. When A/F sensor 1 is malfunctioning, the signal from heated oxygen sensor 2 is used to control the A/F ratio to the stoichiometric ratio.

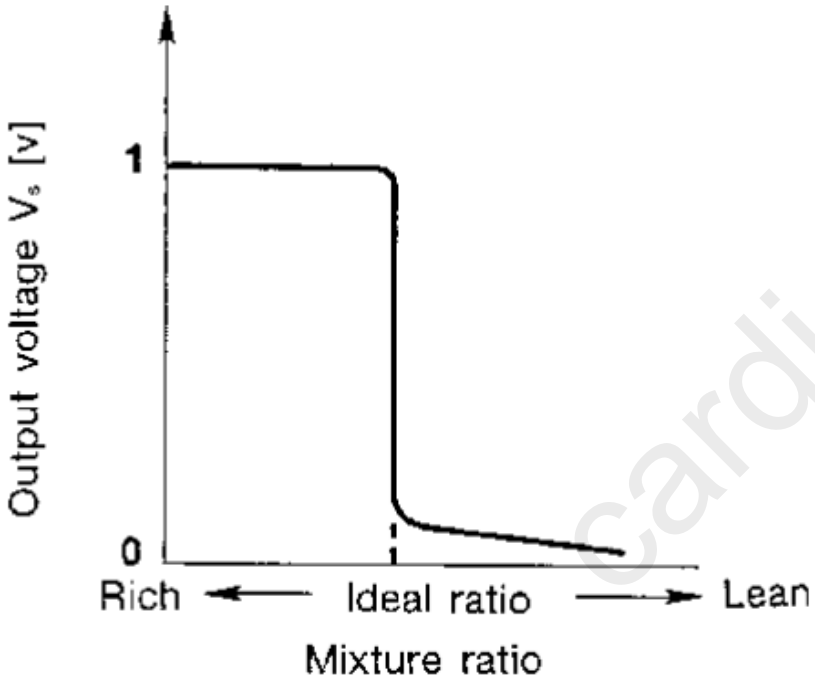
Heated Oxygen Sensor 2 Heater

The heated oxygen sensor 2 heater activates heated oxygen sensor 2.

INDIVIDUAL OPERATION

Heated Oxygen Sensor 2

Heated oxygen sensor 2 is composed of a zirconia element in a test tube shape, and is exposed to the atmosphere on the inside and the exhaust gases on the outside. When there is a difference in the oxygen concentration between the inside and outside, electromotive force is generated. When the A/F ratio is leaner than the stoichiometric ratio, the voltage is approximately 0 V. When it is richer, the voltage is approximately 1 V.



Heated Oxygen Sensor 2 Heater

The ECM performs ON/OFF control of the heated oxygen sensor 2 heater corresponding to the engine speed, amount of intake air and engine coolant temperature.

Engine speed	Heated oxygen sensor 2 heater
Above 3,600 rpm	OFF
Below 3,600 rpm after the following conditions are met. • Engine: After warming up • Keeping the engine speed between 3,500 and 4,000 rpm for 1 minute and at idle for 1 minute under no load	ON

COMPONENT PARTS LOCATION

The heated oxygen sensor 2 is installed on the downstream side of three way catalyst (manifold).