HEATED OXYGEN SENSOR (HO2S) HEATER CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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Caution

Vehicle specifications differ depending on the vehicle identification number (VIN).

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Type A VIN:

JM0 KE****** 100001-

JM6 KE****** 100001-

JM7 KE****** 100001-

JM8 KE****** 100001-

JMZ KE****** 100001-

KE10** 100001-

Type B VIN:

JM0 KE****** 200001-

JM6 KE****** 200001-

JM8 KE****** 200001-

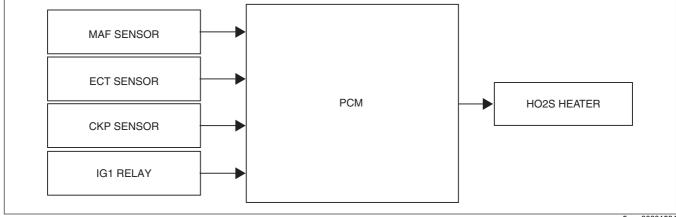
JMZ KE****** 200001-

KE10** 200001-
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Outline

- Based on the control of the HO2S heater, a stabilized oxygen concentration is detected even at low exhaust temperatures, and feedback control of fuel injection even at cold engine start is made possible for improved cold temperature exhaust emission performance.
- Both emission performance and sensor protection have been improved by duty control of the heater according to engine operation conditions (exhaust gas temperature)

Block Diagram



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Operation (Type A VIN)

• The PCM operates the HO2S heater based on the following control conditions.

Output duty ratio	Control condition
0%	 Engine stopped Fuel cut injection control is in engine start zone Engine coolant temperature is -10 °C {14 °F}or less Other than battery voltage of 10—16 V Within a fixed period of time after engine start (varies according to engine coolant temperature)
30%	HO2S not activated
0—100% (Determined by engine speed and charging efficiency)	Other than the above

Operation (Type B VIN)

• The PCM operates the HO2S heater based on the following control conditions.

Output duty ratio	Control condition
0%	 Engine stopped Fuel cut injection control is in engine start zone Engine coolant temperature is -10 °C {14 °F}or less Other than battery voltage of 10—16 V Within a fixed period of time after engine start (varies according to engine coolant temperature)
30—50%	HO2S not activated
30—70%	When engine is stop by i-stop control
0—100%	Other than the above
(Determined by engine speed and charging efficiency)	