

DG: Knock Sensor (KS) [DG: Introduction](#)**DG1 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs)**

Are DTCs P0325, P0326, P0330, or P0331 present?

Yes	No
For KOER and continuous memory DTCs P0325, P0326, P0330 and P0331, GO to DG2 .	For all others, GO to Section 4, Diagnostic Trouble Code (DTC) Charts and Descriptions .

DG2 KOER AND CONTINUOUS MEMORY DTCs P0325, P0326, P0330 AND P0331: CHECK THE INTERNAL RESISTANCE OF THE KS

- KS connector disconnected.
- Measure the resistance between:

(+) KS Connector, Component Side	(-) KS Connector, Component Side
Suspect KS+	Suspect KS-

Is the resistance between 4.39 - 5.35 Mohms?

Yes	No
GO to DG3 .	INSTALL a new KS. REFER to the Workshop Manual Section 303-14, Electronic Engine Controls. CLEAR the DTCs. REPEAT the self-test.

DG3 CHECK THE KS+ CIRCUIT FOR AN OPEN IN THE HARNESS

- Ignition OFF.
- PCM connector disconnected.
- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS+	Suspect KS+

Is the resistance less than 5 ohms?

Yes	No
GO to DG4 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

DG4 CHECK THE KS- CIRCUIT FOR AN OPEN IN THE HARNESS

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS-	Suspect KS-

Is the resistance less than 5 ohms?

Yes	No
GO to DG5 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

DG5 CHECK THE KS+ CIRCUIT FOR A SHORT TO GROUND IN THE HARNESS

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) Vehicle Battery
Suspect KS+	Negative terminal

Is the resistance greater than 10K ohms?

Yes	No
GO to DG6 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DG6 CHECK THE KS- CIRCUIT FOR A SHORT TO GROUND IN THE HARNESS

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) Vehicle Battery
Suspect KS-	Negative terminal

Is the resistance greater than 10K ohms?

Yes	No
GO to DG7 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DG7 CHECK THE KS+ CIRCUIT FOR A SHORT TO VOLTAGE IN THE HARNESS

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS+	VPWR
Suspect KS+	VREF

Are the resistances greater than 10K ohms?

Yes	No
GO to DG8 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DG8 CHECK THE KS- CIRCUIT FOR A SHORT TO VOLTAGE IN THE HARNESS

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS-	VREF
Suspect KS-	VPWR

Are the resistances greater than 10K ohms?

Yes	No
GO to DG9 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DG9 CHECK THE KS+ CIRCUIT FOR INTERMITTENT CONCERNS

Note: Carefully wiggle all accessible wiring and connectors associated with the KS circuit.

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS+	Suspect KS+

Is the resistance less than 5 ohms?

Yes	No
GO to DG10 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

DG10 CHECK THE KS- CIRCUIT FOR INTERMITTENT CONCERNS

Note: Carefully wiggle all accessible wiring and connectors associated with the KS circuit.

- Measure the resistance between:

(+) KS Connector, Harness Side	(-) PCM Connector, Harness Side
Suspect KS-	Suspect KS-

Is the resistance less than 5 ohms?

Yes	No
GO to DG11 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

DG11 CHECK FOR CORRECT PCM OPERATION

- Disconnect all the PCM connectors.
- Visually inspect for:

- pushed out pins
- corrosion
- Connect all the PCM connectors and make sure they seat correctly.
- Carry out the PCM self-test and verify the concern is still present.

Is the concern still present?

Yes	No
INSTALL a new PCM. REFER to Section 2, Flash Electrically Erasable Programmable Read Only Memory (EEPROM) , Programming the VID Block for a Replacement PCM.	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.
