DTC P0327:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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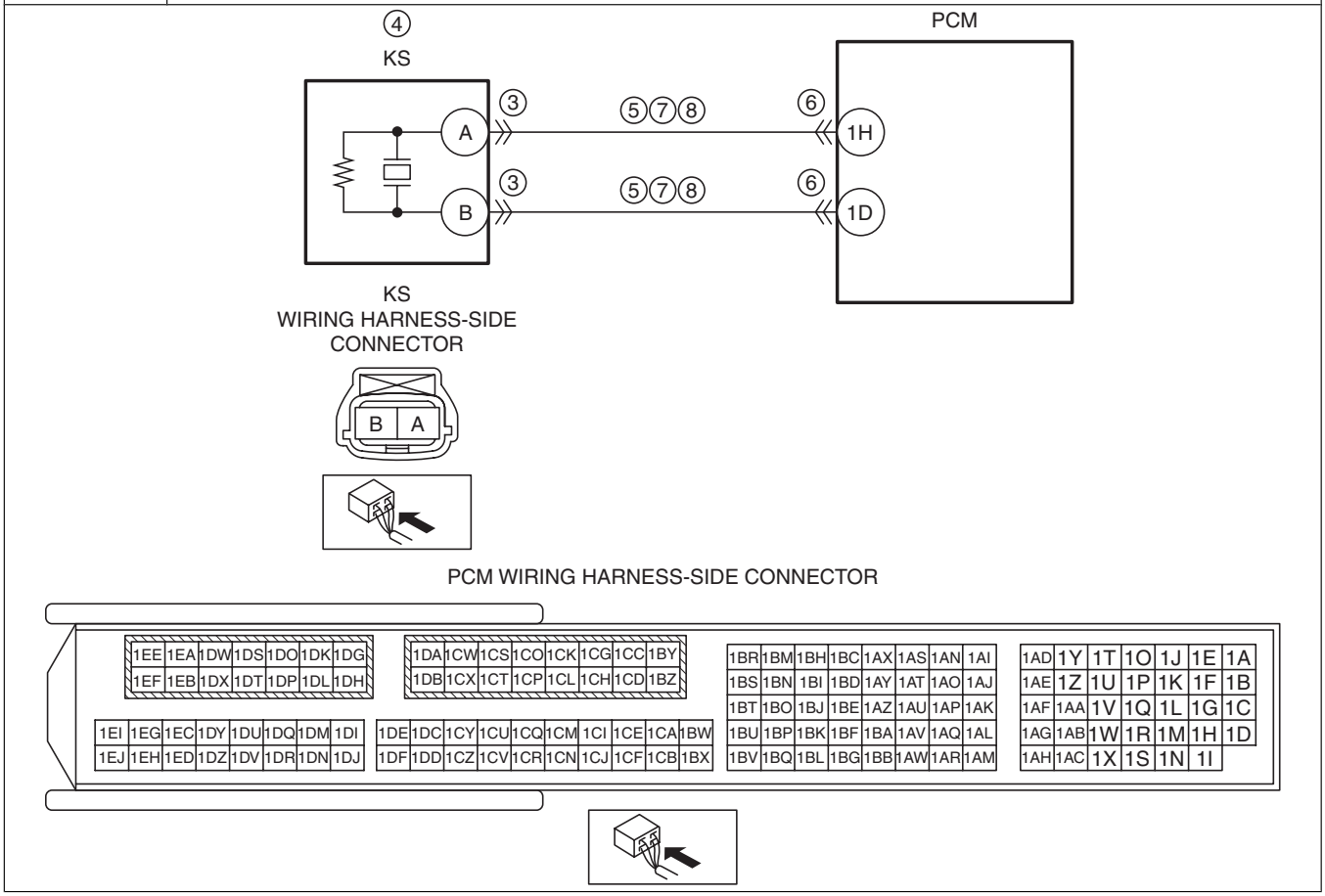
DTC P0327:00	KS circuit low input
DETECTION CONDITION	• The PCM monitors input signal from the KS. If the input voltage is below specified value for **5 s**, the PCM determines that the KS circuit has a malfunction. **Diagnostic support note** • This is a continuous monitor (CCM). • The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	• Sets the knocking spark retard correction value of the ignition control to the fixed value.
POSSIBLE CAUSE	• KS connector or terminals malfunction • KS malfunction • Short to ground in wiring harness between the following terminals: — KS terminal A—PCM terminal 1H — KS terminal B—PCM terminal 1D • PCM connector or terminals malfunction • KS circuits are shorted to each other • Open circuit in wiring harness between the following terminals: — KS terminal A—PCM terminal 1H — KS terminal B—PCM terminal 1D • PCM malfunction



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED** • Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.

STEP	INSPECTION		ACTION
2	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • Verify related Service Information availability. • Is any related Service Information available?	Yes	Perform repair or diagnosis according to the available Service Information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT KS CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the KS connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
4	**INSPECT KS** • Inspect the KS. (See KNOCK SENSOR (KS) INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is there any malfunction?	Yes	Replace the KS, then go to Step 9. (See KNOCK SENSOR (KS) REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.
5	**INSPECT KS CIRCUIT FOR SHORT TO GROUND** • Verify that the KS connector is disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — KS terminal A — KS terminal B • Is there continuity?	Yes	If the short to ground circuit could be detected in the wiring harness: • Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected in the wiring harness: • Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to Step 9.
		No	Go to the next step.
6	**INSPECT PCM CONNECTOR CONDITION** • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
7	**INSPECT KS CIRCUITS FOR SHORT TO EACH OTHER** • Verify that the KS and PCM connectors are disconnected. • Inspect for continuity between KS terminals A and B (wiring harness-side). • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to each other, then go to Step 9.
		No	Go to the next step.
8	**INSPECT KS CIRCUIT FOR OPEN CIRCUIT** • Verify that the KS and PCM connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side): — KS terminal A—PCM terminal 1H — KS terminal B—PCM terminal 1D • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
9	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Start the engine. • Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to the next step.
		No	Go to the next step.

STEP	INSPECTION		ACTION
10	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	DTC troubleshooting completed.