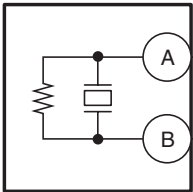


DTC P0328:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]


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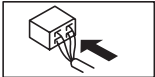
| | |
|------------------------|--|
| DTC P0328:00 | KS circuit high input |
| DETECTION CONDITION | <ul style="list-style-type: none">The PCM monitors input signal from the KS. If the input voltage is above specified value for 5 s, the PCM determines that the KS circuit has a malfunction. <p>Diagnostic support note</p> <ul style="list-style-type: none">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 | <ul style="list-style-type: none">Sets the knocking spark retard correction value of the ignition control to the fixed value. |
| POSSIBLE CAUSE | <ul style="list-style-type: none">KS connector or terminals malfunctionKS malfunctionPCM connector or terminals malfunctionShort to power supply in wiring harness between the following terminals:<ul style="list-style-type: none">KS terminal A—PCM terminal 1HKS terminal B—PCM terminal 1DKS circuits are shorted to each otherOpen circuit in wiring harness between the following terminals:<ul style="list-style-type: none">KS terminal A—PCM terminal 1HKS terminal B—PCM terminal 1DPCM malfunction |

④
KS

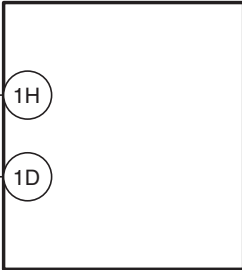


KS
WIRING HARNESS-SIDE
CONNECTOR

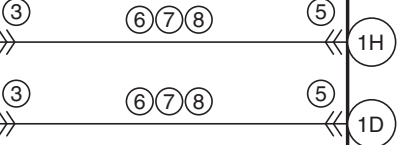




PCM



③③⑥⑦⑧⑥⑦⑧⑤⑤




PCM WIRING HARNESS-SIDE CONNECTOR

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| 1EE | 1EA | 1DW | 1DS | 1DO | 1DK | 1DG |
| 1EF | 1EB | 1DX | 1DT | 1DP | 1DL | 1DH |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1DA | 1CW | 1CS | 1CO | 1CK | 1CG | 1CC | 1BY |
| 1DB | 1CX | 1CT | 1CP | 1CL | 1CH | 1CD | 1BZ |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1BR | 1BM | 1BH | 1BC | 1AX | 1AS | 1AN | 1AI |
| 1BS | 1BN | 1BI | 1BD | 1AY | 1AT | 1AO | 1AJ |
| 1BT | 1BO | 1BJ | 1BE | 1AZ | 1AU | 1AP | 1AK |
| 1BU | 1BP | 1BK | 1BF | 1BA | 1AV | 1AQ | 1AL |
| 1BV | 1BQ | 1BL | 1BG | 1BB | 1AW | 1AR | 1AM |

| | | | | | | |
|-----|-----|----|----|----|----|----|
| 1AD | 1Y | 1T | 1O | 1J | 1E | 1A |
| 1AE | 1Z | 1U | 1P | 1K | 1F | 1B |
| 1AF | 1AA | 1V | 1Q | 1L | 1G | 1C |
| 1AG | 1AB | 1W | 1R | 1M | 1H | 1D |
| 1AH | 1AC | 1X | 1S | 1N | 1I | |



Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|------|--|-----------|--|
| 1 | VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED <ul style="list-style-type: none"> Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded? | Yes No | Go to the next step. 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 <ul style="list-style-type: none"> Verify related Service Information availability. Is any related Service Information available? | Yes | Perform repair or diagnosis according to the available Service Information. |
| | | No | Go to the next step. |
| 3 | INSPECT KS CONNECTOR CONDITION <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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. |
| | | No | (See KNOCK SENSOR (KS) REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to the next step. |
| 5 | INSPECT PCM CONNECTOR CONDITION <ul style="list-style-type: none"> 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. |
| 6 | INSPECT KS CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> Verify that the KS and PCM connectors are disconnected. Switch the ignition ON (engine off). Measure the voltage at the following terminals (wiring harness-side): <ul style="list-style-type: none"> — KS terminal A — KS terminal B Is the voltage 0 V? | Yes | Go to the next step. |
| | | No | Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. |
| 7 | INSPECT KS CIRCUITS FOR SHORT TO EACH OTHER <ul style="list-style-type: none"> Verify that the KS and PCM connectors are disconnected. Switch the ignition off. 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 <ul style="list-style-type: none"> Verify that the KS and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> — 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 <ul style="list-style-type: none"> 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. |
| | | No | • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to the next step. |
| 10 | VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> 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. |
| | | No | (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) DTC troubleshooting completed. |