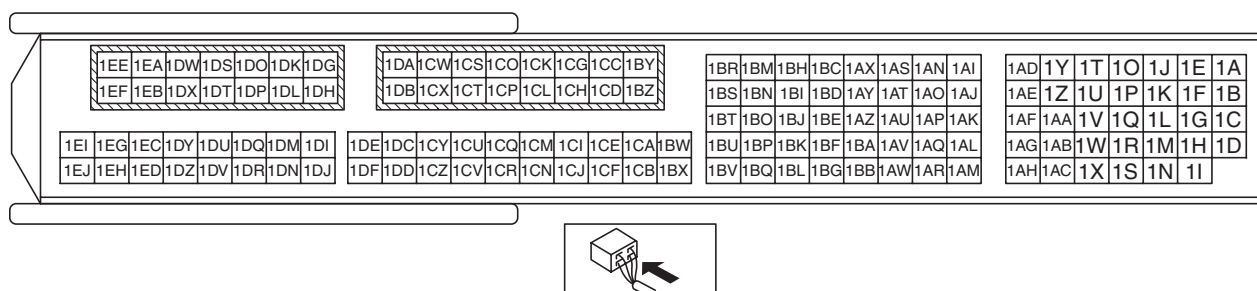
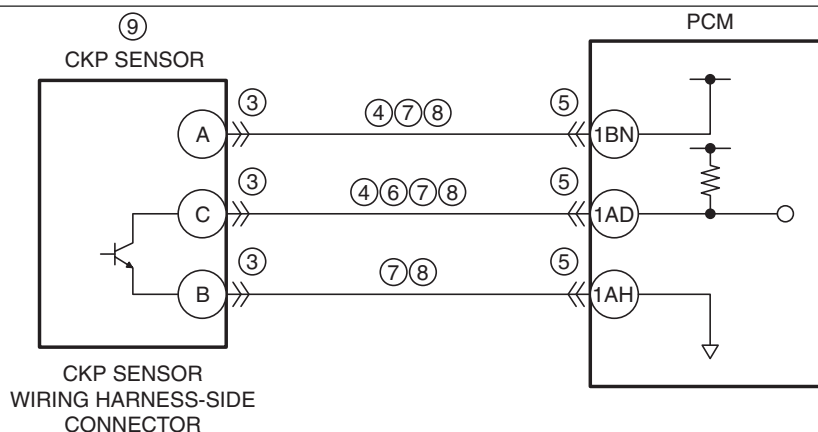


| | |
|--------------------------------|---|
| DTC P0335:00 | CKP sensor circuit problem |
| DETECTION CONDITION | <ul style="list-style-type: none"> There is no CKP sensor signal input while the exhaust camshaft rotates 5 times. CKP sensor input signal pattern, received while crankshaft rotates 10 times, is incorrect. <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"> Stops fuel injection Stops ignition |
| POSSIBLE CAUSE | <ul style="list-style-type: none"> CKP sensor connector or terminals malfunction Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> CKP sensor terminal A—PCM terminal 1BN CKP sensor terminal C—PCM terminal 1AD PCM connector or terminals malfunction Short to power supply in wiring harness between CKP sensor terminal C and PCM terminal 1AD CKP sensor circuits are shorted to each other Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> CKP sensor terminal A—PCM terminal 1BN CKP sensor terminal C—PCM terminal 1AD CKP sensor terminal B—PCM terminal 1AH CKP sensor malfunction <ul style="list-style-type: none"> CKP sensor is dirty CKP sensor pulse wheel malfunction PCM malfunction |



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 | 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. |
| 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. • If the vehicle is not repaired, go to the next step. |
| | | No | Go to the next step. |
| 3 | INSPECT CKP SENSOR CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition off. Disconnect the CKP sensor 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 10. |
| | | No | Go to the next step. |
| 4 | INSPECT CKP SENSOR CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the CKP sensor connector is disconnected. Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> CKP sensor terminal A CKP sensor terminal C Is there continuity? | Yes | If the short to ground circuit could be detected in the wiring harness: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 10. |
| | | No | 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 10. |
| | | No | Go to the next step. |
| 6 | INSPECT CKP SENSOR SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> Verify that the CKP sensor and PCM connectors are disconnected. Switch the ignition ON (engine off). Measure the voltage at the CKP sensor terminal C (wiring harness-side). 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 10. |
| 7 | INSPECT CKP SENSOR CIRCUITS FOR SHORT TO EACH OTHER <ul style="list-style-type: none"> Verify that the CKP sensor and PCM connectors are disconnected. Switch the ignition off. Inspect for continuity between CKP sensor terminals A, C 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 10. |
| | | No | Go to the next step. |
| 8 | INSPECT CKP SENSOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the CKP sensor and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> CKP sensor terminal A—PCM terminal 1BN CKP sensor terminal C—PCM terminal 1AD CKP sensor terminal B—PCM terminal 1AH Is there continuity? | Yes | Go to the next step. |
| | | No | Repair or replace the wiring harness for a possible open circuit, then go to Step 10. |

| STEP | INSPECTION | ACTION | |
|------|--|--------|---|
| 9 | INSPECT CKP SENSOR <ul style="list-style-type: none"> Inspect the CKP sensor. (See CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Is there any malfunction? | Yes | Replace the CKP sensor, then go to the next step. (See CRANKSHAFT POSITION (CKP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| | | No | Go to the next step. |
| 10 | 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 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. |
| 11 | 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. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| | | No | DTC troubleshooting completed. |