

## DTC P0335 [LF]

B3E010201085W05

| DTC P0335                                | CKP sensor circuit problem   |
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| <b>DETECTION CONDITION</b>               | <ul style="list-style-type: none"> <li>If the PCM does not receive input voltage from the CKP sensor for <b>4.2 s</b> while MAF is <b>2.0 g/s {0.26 lb/min}</b> or above, the PCM determines that the CKP sensor circuit has malfunction.</li> </ul> <b>Diagnostic support note</b> <ul style="list-style-type: none"> <li>This is a continuous monitor (CCM).</li> <li>MIL illuminates if PCM detects the above malfunction conditions during first drive cycle.</li> <li>PENDING CODE is available if PCM detects the above malfunction condition.</li> <li>FREEZE FRAME DATA is available.</li> <li>DTC is stored in the PCM memory.</li> </ul>   |
| <b>POSSIBLE CAUSE</b>                    | <ul style="list-style-type: none"> <li>CKP sensor malfunction</li> <li>Connector or terminal malfunction</li> <li>CKP sensor is dirty</li> <li>Short to power supply in wiring harness between CKP sensor terminal A to PCM terminal 2Y</li> <li>Short to power supply in wiring harness between CKP sensor terminal B to PCM terminal 2Z</li> <li>Short to ground in wiring harness between CKP sensor terminal A to PCM terminal 2Y</li> <li>Short to ground in wiring harness between CKP sensor terminal B to PCM terminal 2Z</li> <li>Open circuit in wiring harness between CKP sensor terminal A to PCM terminal 2Y</li> <li>Open circuit in wiring harness between CKP sensor terminal B to PCM terminal 2Z</li> <li>CKP sensor pulse wheel malfunction</li> <li>Both CKP sensor wires are shorted each other</li> </ul> |
| <div style="text-align: center;"> </div> |  |

### Diagnostic procedure

| STEP | INSPECTION                   | ACTION |
|------|------------------------------|--------|
|      | VERIFY FREEZE FRAME DATA HAS |        |

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| 1 | <b>BEEN RECORDED</b><br>• Has FREEZE FRAME DATA been recorded?   | Yes | Go to the next step.   |
|   |  | No  | Record the FREEZE FRAME DATA on repair order, then go to the next step.  |
| 2 | <b>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</b><br>• Verify related service repair information availability.<br>• Is any related repair information available?   | Yes | Perform repair or diagnosis according to available repair information.<br>• If the vehicle is not repaired, go to the next step. |
|   |  | No  | Go to the next step.   |
| 3 | <b>VERIFY CKP SENSOR VOLTAGE</b><br>• Disconnect the CKP sensor connector.<br>• Connect voltmeter between CKP sensor terminals A and B (sensor-side).<br>• Inspect the voltage in AC range while cranking the engine.<br>• Is any voltage reading?   | Yes | Go to the next step.   |
|   |  | No  | Go to Step 10.   |
| 4 | <b>INSPECT POOR CONNECTION OF CKP SENSOR CONNECTOR</b><br>• Verify that the CKP sensor connector is connected securely.<br>• Is the connector normal?  | Yes | Go to the next step.   |
|   |  | No  | Reconnect the connector, then go to Step 11.   |
| 5 | <b>INSPECT CKP CIRCUIT FOR SHORT TO POWER</b><br>• Turn the ignition switch to off.<br>• Disconnect the CKP sensor connector.<br>• Turn the ignition switch to the ON position (Engine off).<br>• Measure the voltage between following terminals<br><br>- CKP sensor terminal A<br>- CKP sensor terminal B<br><br>• Is any voltage reading? | Yes | Repair or replace the wiring harness, then go to Step 11.  |
|   |  | No  | Go to the next step.   |
| 6 | <b>INSPECT CKP CIRCUIT FOR SHORT TO GROUND</b><br>• Inspect for continuity between following terminal and body ground:<br><br>- CKP sensor terminal A (wiring harness-side)<br>- CKP sensor terminal B (wiring harness-side)<br><br>• Is there continuity?   | Yes | Repair or replace the wiring harness, then go to Step 11.  |
|   |  | No  | Go to the next step.   |
| 7 | <b>INSPECT CKP CIRCUITS FOR SHORTS</b><br>• Inspect for continuity between CKP sensor terminals A and B (wiring harness-side).<br>• Is there continuity?   | Yes | Repair or replace the wiring harness, then go to Step 11.  |
|   |  | No  | Go to the next step.   |
| 8 | <b>INSPECT POOR CONNECTION OF PCM CONNECTOR</b><br>• Disconnect the PCM connector.<br>• Inspect for poor connection (such as damaged/pulled-out pins, corrosion).<br>• Is there any malfunction?   | Yes | Repair the terminal, then go to Step 11.   |
|   |  | No  | Go to the next step.   |
|   | <b>INSPECT CKP CIRCUIT FOR OPEN CIRCUIT</b><br>• Inspect for continuity between following terminals:   | Yes | Go to Step 11.   |
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|    |  |     |  |
|----|--|-----|--|
| 9  | <ul style="list-style-type: none"> <li>- CKP sensor terminal A (wiring harness-side) and PCM terminal 2Y (wiring harness-side)</li> <li>- CKP sensor terminal B (wiring harness-side) and PCM terminal 2Z (wiring harness-side)</li> </ul> <ul style="list-style-type: none"> <li>• Is there continuity?</li> </ul>  | No  | Repair or replace the suspected wiring harness, then go to Step 11.  |
| 10 | <b>INSPECT CKP SENSOR</b> <ul style="list-style-type: none"> <li>• Turn the ignition switch off.</li> <li>• Perform CKP sensor inspection. (See <a href="#">CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [LF]</a>)</li> <li>• Is CKP sensor normal?</li> </ul>  | Yes | Go to the next step.   |
|    |  | No  | Inspect the CKP sensor pulse wheel for damage. Replace the CKP sensor pulse wheel and go to the next step. |
| 11 | <b>VERIFY TROUBLESHOOTING OF DTC P0335 COMPLETED</b> <ul style="list-style-type: none"> <li>• Make sure to reconnect all disconnected connectors.</li> <li>• Turn the ignition switch to the ON position (Engine off).</li> <li>• Clear the DTC from the PCM memory using the WDS or equivalent.</li> <li>• Start engine.</li> <li>• Access MAF PID using the WDS or equivalent.</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• MAF PID should indicate <b>2.0 g/s {0.26 lb/min} or above</b> during this test</li> </ul> <ul style="list-style-type: none"> <li>• Is the same DTC present?</li> </ul> | Yes | Replace the PCM, then go to the next step. (See <a href="#">PCM REMOVAL/INSTALLATION [LF]</a> .)           |
|    |  | No  | Go to the next step.   |
| 12 | <b>VERIFY AFTER REPAIR PROCEDURE</b> <ul style="list-style-type: none"> <li>• Perform the "After Repair Procedure". (See <a href="#">AFTER REPAIR PROCEDURE [LF]</a>.)</li> <li>• Are any DTC present?</li> </ul>  | Yes | Go to the applicable DTC troubleshooting. (See <a href="#">DTC TABLE [LF]</a> .)                           |
|    |  | No  | Troubleshooting completed.   |