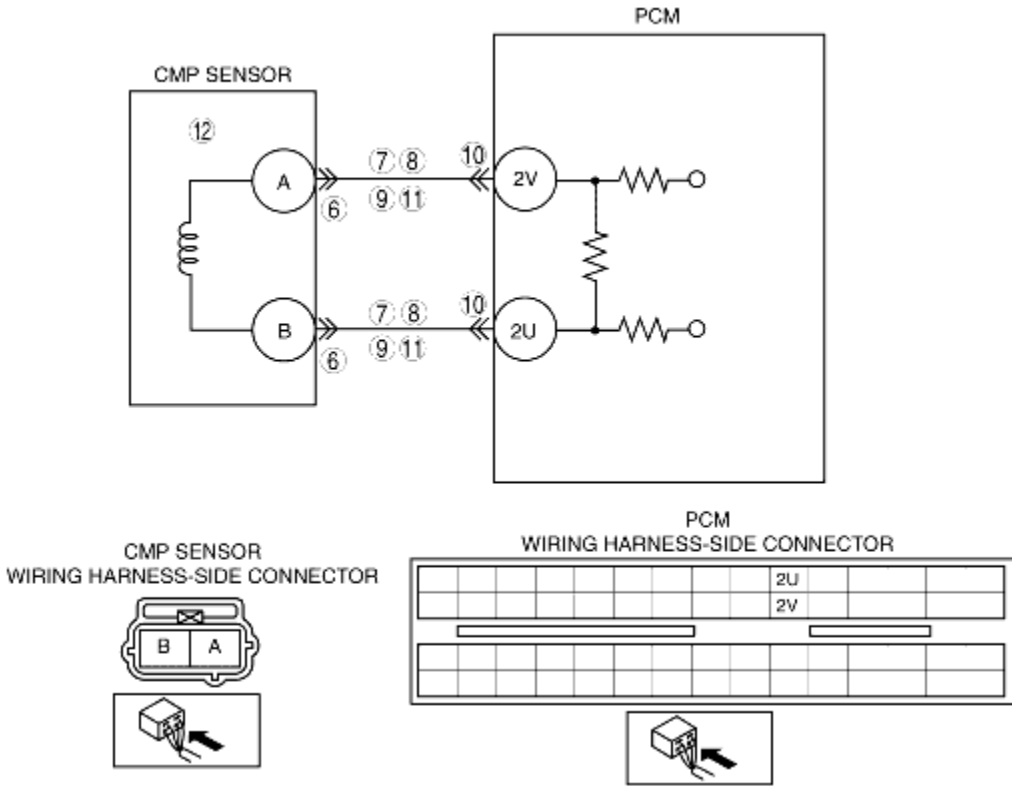


## DTC P0340 [LF]

B3E010201085W06

DTC P0340	CMP sensor circuit problem
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>The PCM monitors input voltage from CMP sensor when engine is running. If the PCM does not receive input voltage from CMP sensor while the PCM receives input signal from CKP sensor, PCM determines that CMP circuit has malfunction.</li> <li><b>Diagnostic support note</b></li> <li>This is a continuous monitor (CCM).</li> <li>The MIL illuminates if the PCM detects the above malfunction condition during first drive cycle.</li> <li>PENDING CODE is available if the 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>CMP sensor malfunction</li> <li>Connector or terminal malfunction</li> <li>CMP sensor is dirty</li> <li>Short to power supply in wiring harness between CMP sensor terminal A and PCM terminal 2V</li> <li>Short to power supply in wiring harness between CMP sensor terminal B and PCM terminal 2U</li> <li>Short to ground in wiring harness between CMP sensor terminal A and PCM terminal 2V</li> <li>Short to ground in wiring harness between CMP sensor terminal B and PCM terminal 2U</li> <li>Open circuit in wiring harness between CMP sensor terminal A and PCM terminal 2V</li> <li>Open circuit in wiring harness between CMP sensor terminal B and PCM terminal 2U</li> <li>CKP sensor pulse wheel malfunction</li> <li>Both CMP sensor wires are shorted each other</li> </ul>
<div style="text-align: center;">  <p>The diagram illustrates the electrical connection between the CMP sensor and the PCM. The CMP sensor has two terminals, A and B. Terminal A is connected to PCM terminal 2V, and terminal B is connected to PCM terminal 2U. Both PCM terminals have pull-up resistors to ground. The diagram also shows the wiring harness-side connectors for the CMP sensor and PCM.</p> </div>	

### Diagnostic procedure

STEP	INSPECTION	ACTION
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1	<b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> • 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> • Verify related service repair information availability. • Is any related repair information available?	Yes	Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	<b>VERIFY CMP SENSOR VOLTAGE</b> • Disconnect the CMP sensor connector. • Connect voltmeter between CMP sensor terminals A and B (sensor-side). • Inspect the voltage in AC range while cranking the engine. • Is any voltage reading?	Yes	Go to the next step.
		No	Go to step 10.
4	<b>INSPECT POOR CONNECTION OF CMP SENSOR CONNECTOR</b> • Verify that the CMP sensor connector is connected securely. • Is the connector normal?	Yes	Go to the next step.
		No	Reconnect the connector, then go to Step 11.
5	<b>INSPECT CMP CIRCUIT FOR SHORT TO POWER</b> • Turn the ignition switch to off. • Disconnect the CMP sensor connector. • Turn the ignition switch to the ON position (Engine off). • Measure the voltage at CMP sensor terminals A and B. • 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 CMP CIRCUIT FOR SHORT TO GROUND</b> • Inspect for continuity between following terminal and body ground:  - CMP sensor terminal A (wiring harness-side) - CMP sensor terminal B (wiring harness-side)  • Is there continuity?	Yes	Repair or replace the suspected wiring harness, then go to Step 11.
		No	Go to the next step.
7	<b>INSPECT CMP CIRCUIT FOR SHORT</b> • Inspect continuity between CMP sensor terminals A and B (wiring harness-side). • 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> • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair the terminal, then go to Step 11.
		No	Go to the next step.
9	<b>INSPECT CMP CIRCUIT FOR OPEN CIRCUIT</b> • Inspect for continuity between following terminals:  - CMP sensor terminal A (wiring harness-side) and PCM terminal 2V (wiring harness-side) - CMP sensor terminal B (wiring	Yes	Go to Step 11.
		No	Repair or replace the suspected wiring harness,

	harness-side) and PCM terminal 2U (wiring harness-side)		then go to Step 11.
	• Is there continuity?		
10	<b>INSPECT CMP SENSOR</b> • Turn the ignition switch off. • Perform CMP sensor inspection. (See <a href="#">CAMSHAFT POSITION (CMP) SENSOR INSPECTION [LF]</a> .) • Is the CMP sensor normal?	Yes	Go to the next step.
		No	Inspect the CMP sensor pulse wheel for damage. Replace CMP sensor pulse wheel and go to step 10.
11	<b>VERIFY TROUBLESHOOTING OF DTC P0340 COMPLETED</b> • Make sure to reconnect all disconnected connectors. • Turn the ignition switch to the ON position (Engine off). • Clear the DTC from the PCM memory using the WDS or equivalent. • Start engine. • Access MAF PID using the WDS or equivalent.  <b>Note</b>  • MAF PID should indicate <b>1.95 g/s {0.25 lb/min} or above</b> during this test.  • Is the same DTC present?	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> • Perform the "After Repair Procedure". (See <a href="#">AFTER REPAIR PROCEDURE [LF]</a> .) • Are any DTC present?	Yes	Go to the applicable DTC troubleshooting. (See <a href="#">DTC TABLE [LF]</a> .)
		No	Troubleshooting completed.