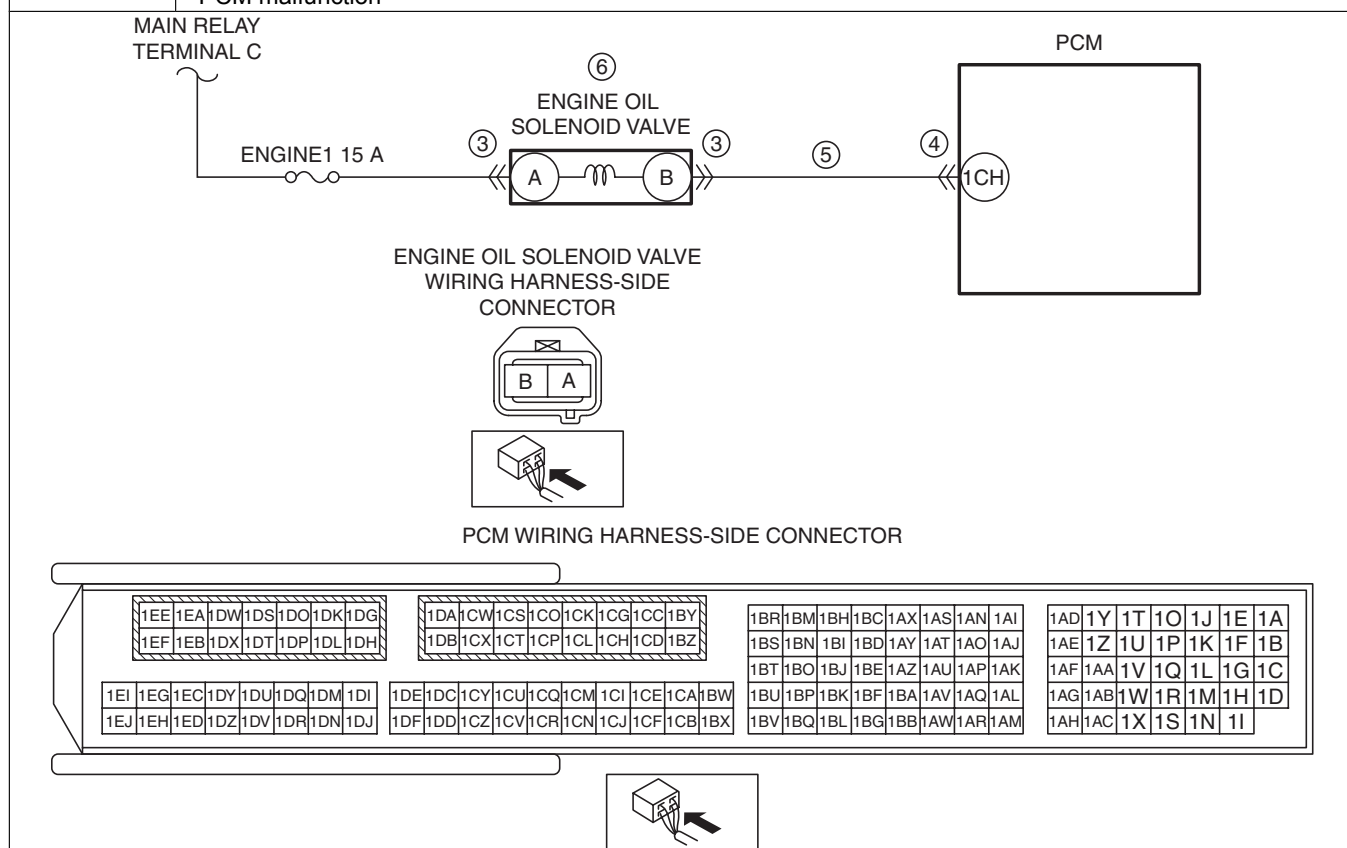


# DTC P06DC:00 [SKYACTIV-D 2.2]

id0102s4214000

<b>DTC P06DC:00</b>	<b>Engine oil solenoid valve control circuit high input</b>
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>If the PCM detects that the engine oil solenoid valve current at the PCM terminal 1CH is <b>5.9 A or more</b> for <b>1 s</b> with the following condition met, the PCM determines that the engine oil solenoid valve circuit voltage is high.</li> </ul> <p><b>MONITORING CONDITIONS</b></p> <ul style="list-style-type: none"> <li>Battery voltage: <b>6.6—16 V</b></li> </ul> <p><b>Diagnostic support note</b></p> <ul style="list-style-type: none"> <li>This is a continuous monitor (CCM).</li> <li>The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle.</li> <li>FREEZE FRAME DATA (Mode 2)/Snapshot data is available.</li> <li>DTC is stored in the PCM memory.</li> </ul>
<b>FAIL-SAFE FUNCTION</b>	<ul style="list-style-type: none"> <li>The fast idle up correction for the idle speed control is inhibited.</li> <li>Inhibits engine-stop by operating the i-stop function.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Engine oil solenoid valve connector or terminals malfunction</li> <li>PCM connector or terminals malfunction</li> <li>Short to power supply in wiring harness between engine oil solenoid valve terminal B and PCM terminal 1CH</li> <li>Engine oil solenoid valve malfunction</li> <li>PCM malfunction</li> </ul>



## Diagnostic Procedure

STEP	INSPECTION		ACTION
1	<b>VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED</b> • 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	<b>VERIFY RELATED SERVICE INFORMATION AVAILABILITY</b> • 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.

STEP	INSPECTION		ACTION
3	<b>INSPECT ENGINE OIL SOLENOID VALVE CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Switch the ignition off.</li> <li>• Disconnect the engine oil solenoid valve connector.</li> <li>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>	Yes	Repair or replace the connector and/or terminals, then go to Step 7.
		No	Go to the next step.
4	<b>INSPECT PCM CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Disconnect the PCM connector.</li> <li>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>	Yes	Repair or replace the connector and/or terminals, then go to Step 7.
		No	Go to the next step.
5	<b>INSPECT ENGINE OIL SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY</b> <ul style="list-style-type: none"> <li>• Verify that the engine oil solenoid valve and PCM connectors are disconnected.</li> <li>• Switch the ignition ON (engine off).</li> <li>• Measure the voltage at the engine oil solenoid valve terminal B (wiring harness-side).</li> <li>• Is the voltage <b>0 V</b>?</li> </ul>	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 7.
6	<b>INSPECT ENGINE OIL SOLENOID VALVE</b> <ul style="list-style-type: none"> <li>• Inspect the engine oil solenoid valve. (See ENGINE OIL SOLENOID VALVE INSPECTION [SKYACTIV-D 2.2].)</li> <li>• Is there any malfunction?</li> </ul>	Yes	Replace the engine oil solenoid valve, then go to the next step. (See ENGINE OIL SOLENOID VALVE REMOVAL/ INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
7	<b>VERIFY DTC TROUBLESHOOTING COMPLETED</b> <ul style="list-style-type: none"> <li>• Always reconnect all disconnected connectors.</li> <li>• Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].)</li> <li>• Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-D 2.2].)</li> <li>• Is the same DTC present?</li> </ul>	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to the next step.
		No	Go to the next step.
8	<b>VERIFY AFTER REPAIR PROCEDURE</b> <ul style="list-style-type: none"> <li>• Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].)</li> <li>• Are any DTCs present?</li> </ul>	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.