## DTC P0524:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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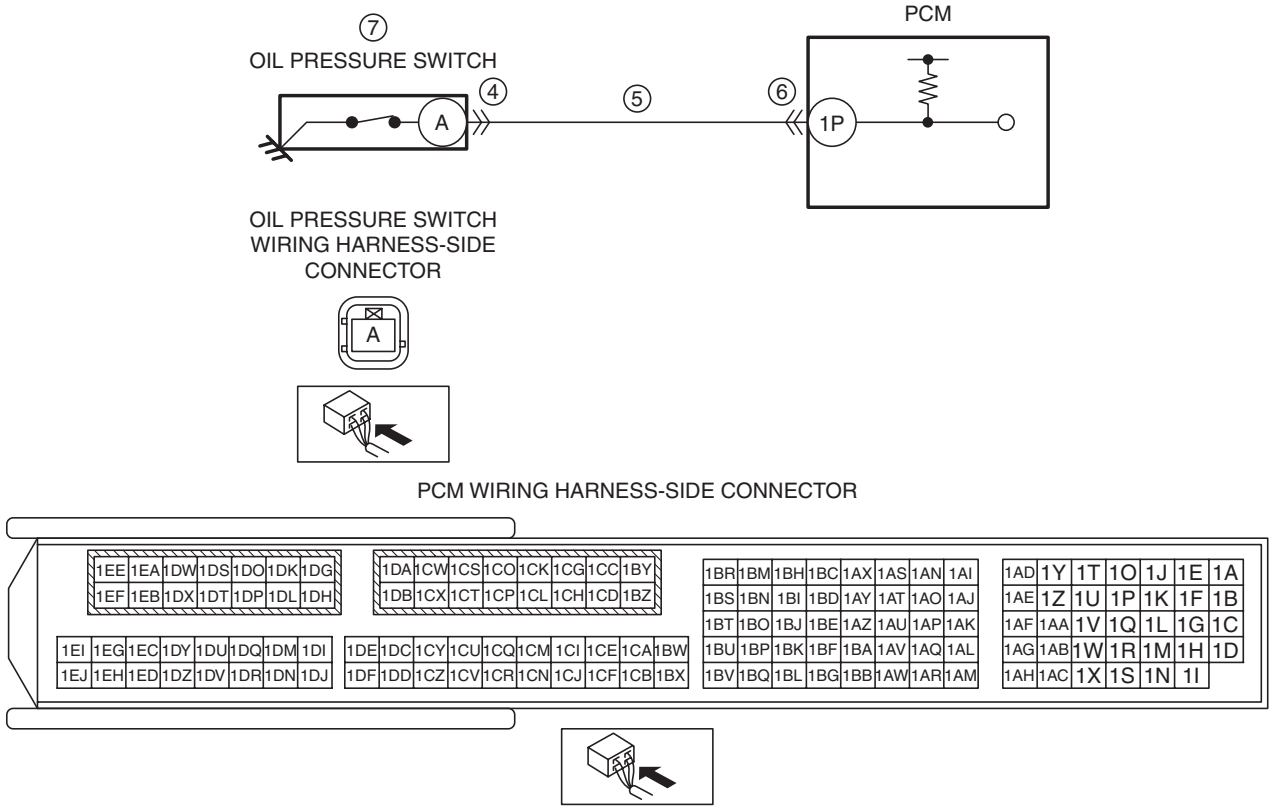
|---|---|
| **DTC P0524:00** | **Engine oil pressure too low** |
| **DETECTION CONDITION** | • The oil pressure switch is on for a continuous **5 s** with the following condition met: (engine oil warning light illuminates when **1 s** has elapsed)<br>— When engine speed is **above 650 rpm** and engine coolant temperature is **30 °C {86 °F} or less**<br>— When engine speed is **above 1,500 rpm** and engine coolant temperature is **68 °C {154 °F} or less**<br>— When engine speed is **above 2,500 rpm** and engine coolant temperature is **68 °C {154 °F} or more**<br>**Diagnostic support note**<br>• This is a continuous monitor (other).<br>• The check engine light does not illuminate.<br>• FREEZE FRAME DATA (Mode 2)/Snapshot data is not available.<br>• DTC is stored in the PCM memory. |
| **FAIL-SAFE FUNCTION** | Not applicable |
| **POSSIBLE CAUSE** | • Engine oil leakage<br>• Improper engine oil level<br>• Oil pressure switch connector or terminals malfunction<br>• Short to ground in wiring harness between oil pressure switch terminal A and PCM terminal 1P<br>• PCM connector or terminals malfunction<br>• Oil pressure switch malfunction<br>• Oil pump malfunction<br>• PCM malfunction |




### Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 1 | **VERIFY RELATED SERVICE INFORMATION AVAILABILITY**<br>• Verify related Service Information availability.<br>• Is any related Service Information available? | Yes | Perform repair or diagnosis according to the available Service Information.<br>• If the vehicle is not repaired, go to the next step. |
| | | No | Go to the next step. |
| 2 | **INSPECT ENGINE OIL LEAKAGE**<br>• Start the engine.<br>• Verify that there is no engine oil leakage in the hydraulic circuit.<br>• Is there any leakage? | Yes | Repair or replace the malfunctioning part according to the inspection results, then add genuine motor oil.<br>Go to Step 8. |
| | | No | Go to the next step. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 3 | **INSPECT ENGINE OIL LEVEL**<br>• Inspect the engine oil level.<br>(See ENGINE OIL LEVEL INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>• Is the engine oil level sufficient? | Yes | Go to the next step. |
| | | No | Add genuine motor oil, then go to the next step.<br>(See ENGINE OIL REPLACEMENT [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| 4 | **INSPECT OIL PRESSURE SWITCH CONNECTOR CONDITION**<br>• Switch the ignition off.<br>• Disconnect the oil pressure switch connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• Is there any malfunction? | Yes | Repair or replace the connector and/or terminals, then go to Step 8. |
| | | No | Go to the next step. |
| 5 | **INSPECT OIL PRESSURE SWITCH CONTROL CIRCUIT FOR SHORT TO GROUND**<br>• Verify that the oil pressure switch connector is disconnected.<br>• Inspect for continuity between oil pressure switch terminal A (wiring harness-side) and body ground.<br>• Is there continuity? | Yes | If the short to ground circuit could be detected in the wiring harness:<br>• Repair or replace the wiring harness for a possible short to ground.<br>If the short to ground circuit could not be detected in the wiring harness:<br>• Replace the PCM (short to ground in the PCM internal circuit).<br>(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>Go to Step 8. |
| | | No | Go to the next step. |
| 6 | **INSPECT PCM CONNECTOR CONDITION**<br>• Disconnect the PCM connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• Is there any malfunction? | Yes | Repair or replace the connector and/or terminals, then go to Step 8. |
| | | No | Go to the next step. |
| 7 | **INSPECT ENGINE OIL PRESSURE**<br>• Inspect the engine oil pressure.<br>(See OIL PRESSURE INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>• Is there any malfunction? | Yes | Replace the oil pump, then go to the next step.<br>(See OIL PUMP REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| | | No | Replace the oil pressure switch, then go to the next step.<br>(See ENGINE OIL SOLENOID VALVE REMOVAL/ INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| 8 | **VERIFY DTC TROUBLESHOOTING COMPLETED**<br>• Always reconnect all disconnected connectors.<br>• Clear the DTC from the PCM memory using the M-MDS.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>• Drive the vehicle under the following conditions for **5 s**.<br>— Engine speed: **above 2,500 rpm**<br>• Perform the DTC Reading Procedure.<br>(See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>• Is the same DTC present? | Yes | Repeat the inspection from Step 1.<br>• If the malfunction recurs, replace the PCM.<br>(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>Go to the next step. |
| | | No | Go to the next step. |
| 9 | **VERIFY AFTER REPAIR PROCEDURE**<br>• Perform the “AFTER REPAIR PROCEDURE”.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)<br>• Are any DTCs present? | Yes | Go to the applicable DTC inspection.<br>(See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) |
| | | No | DTC troubleshooting completed. |