## DTC P06DA:00 [SKYACTIV-G 2.0]

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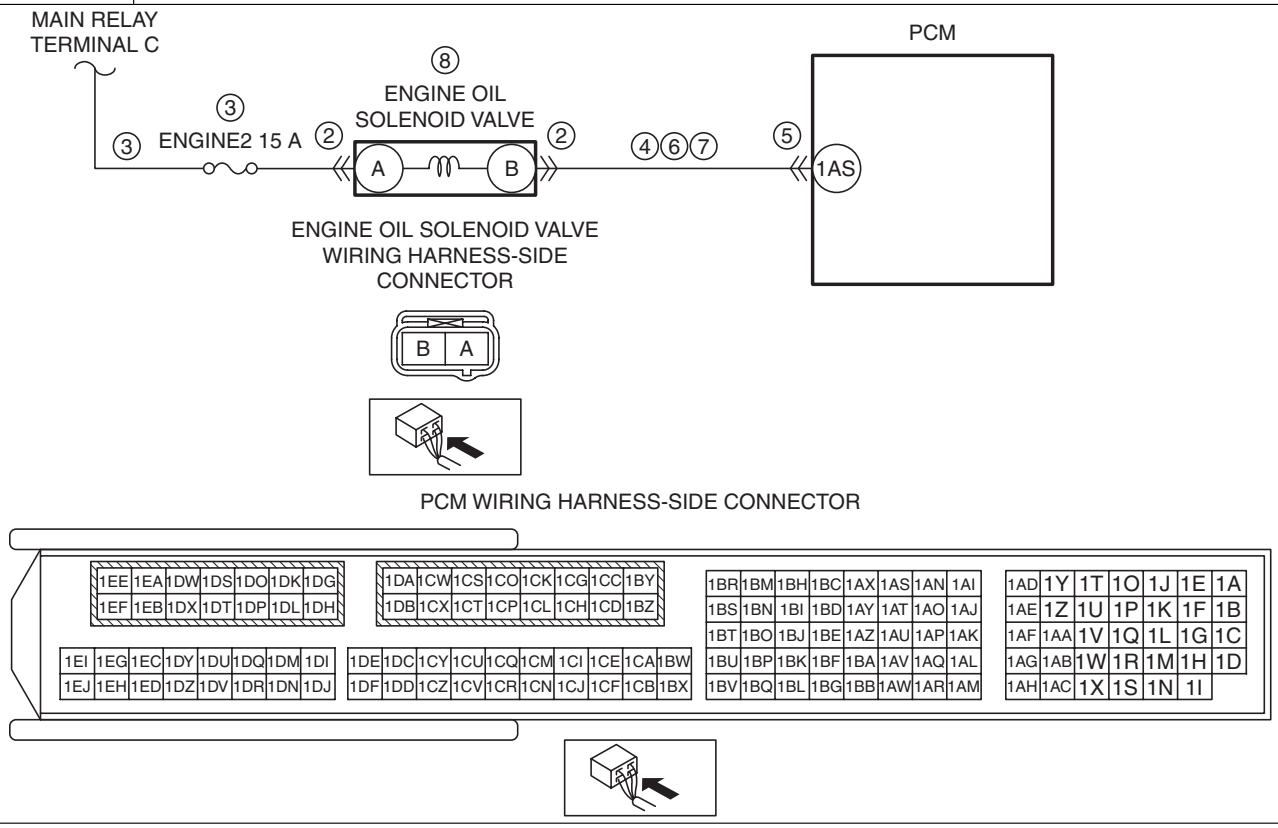
| DTC P06DA:00 | Engine oil solenoid valve circuit problem |
|---|---|
| DETECTION CONDITION | • The engine oil solenoid valve control current exceeds the specification or the control voltage at the PCM terminal 1AS is less than the specification relative to the PCM control condition.<br>**Diagnostic 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>• The DTC is stored in the PCM memory. |
| FAIL-SAFE FUNCTION | — |
| POSSIBLE CAUSE | • Engine oil solenoid valve connector or terminals malfunction<br>• Short to ground or open circuit in engine oil solenoid valve power supply circuit<br>— Short to ground in wiring harness between ENGINE2 15 A fuse and engine oil solenoid valve terminal A<br>— ENGINE2 15 A fuse malfunction<br>— Open circuit in wiring harness between main relay terminal C and engine oil solenoid valve terminal A<br>• Short to ground in wiring harness between engine oil solenoid valve terminal B and PCM terminal 1AS<br>• PCM connector or terminals malfunction<br>• Short to power supply in wiring harness between engine oil solenoid valve terminal B and PCM terminal 1AS<br>• Open circuit in wiring harness between engine oil solenoid valve terminal B and PCM terminal 1AS<br>• Engine oil solenoid valve 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. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 2 | **INSPECT ENGINE OIL SOLENOID VALVE CONNECTOR CONDITION**<br>• Switch the ignition to off.<br>• Disconnect the engine oil solenoid valve 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 9. |
| | | No | Go to the next step. |
| 3 | **INSPECT ENGINE OIL SOLENOID VALVE POWER SUPPLY CIRCUIT FOR SHORT TO GROUND OR OPEN CIRCUIT**<br>• Verify that the engine oil solenoid valve connector is disconnected.<br>• Switch the ignition ON (engine off or on).<br>• Measure the voltage at the engine oil solenoid valve terminal A (wiring harness-side).<br>• Is the voltage **B+**? | Yes | Go to the next step. |
| | | No | Inspect the ENGINE2 15 A fuse.<br>• If the fuse is blown:<br>— Repair or replace the wiring harness for a possible short to ground.<br>— Replace the fuse.<br>• If the fuse is deteriorated:<br>— Replace the fuse.<br>• If the fuse is normal:<br>— Repair or replace the wiring harness for a possible open circuit.<br>Go to Step 9. |
| 4 | **INSPECT ENGINE OIL SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO GROUND**<br>• Verify that the engine oil solenoid valve connector is disconnected.<br>• Switch the ignition to off.<br>• Inspect for continuity between engine oil solenoid valve terminal B (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].)<br>Go to Step 9. |
| | | No | Go to the next step. |
| 5 | **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 9. |
| | | No | Go to the next step. |
| 6 | **INSPECT ENGINE OIL SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY**<br>• Verify that the engine oil solenoid valve and PCM connectors are disconnected.<br>• Switch the ignition ON (engine off or on).<br>• Measure the voltage at the engine oil solenoid valve terminal B (wiring harness-side).<br>• 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 9. |
| 7 | **INSPECT ENGINE OIL SOLENOID VALVE CONTROL CIRCUIT FOR OPEN CIRCUIT**<br>• Verify that the engine oil solenoid valve and PCM connectors are disconnected.<br>• Switch the ignition to off.<br>• Inspect for continuity between engine oil solenoid valve terminal B (wiring harness-side) and PCM terminal 1AS (wiring harness-side).<br>• 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 9. |
| 8 | **INSPECT ENGINE OIL SOLENOID VALVE**<br>• Inspect the engine oil solenoid valve.<br>(See ENGINE OIL SOLENOID VALVE INSPECTION [SKYACTIV-G 2.0].)<br>• Is there any malfunction? | Yes | Replace the engine oil solenoid valve, then go to the next step.<br>(See ENGINE OIL SOLENOID VALVE REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].) |
| | | No | Go to the next step. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 9 | **VERIFY DTC TROUBLESHOOTING COMPLETED**<br>• Make sure to 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].)<br>• Perform the KOER self test.<br>(See KOEO/KOER SELF TEST [SKYACTIV-G 2.0].)<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].)<br>Go to the next step. |
| | | No | Go to the next step. |
| 10 | **VERIFY AFTER REPAIR PROCEDURE**<br>• Perform the “AFTER REPAIR PROCEDURE”.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].)<br>• Are any DTCs present? | Yes | Go to the applicable DTC inspection.<br>(See DTC TABLE [SKYACTIV-G 2.0].) |
| | | No | DTC troubleshooting completed. |