DTC P0524:00 [SKYACTIV-G 2.0]

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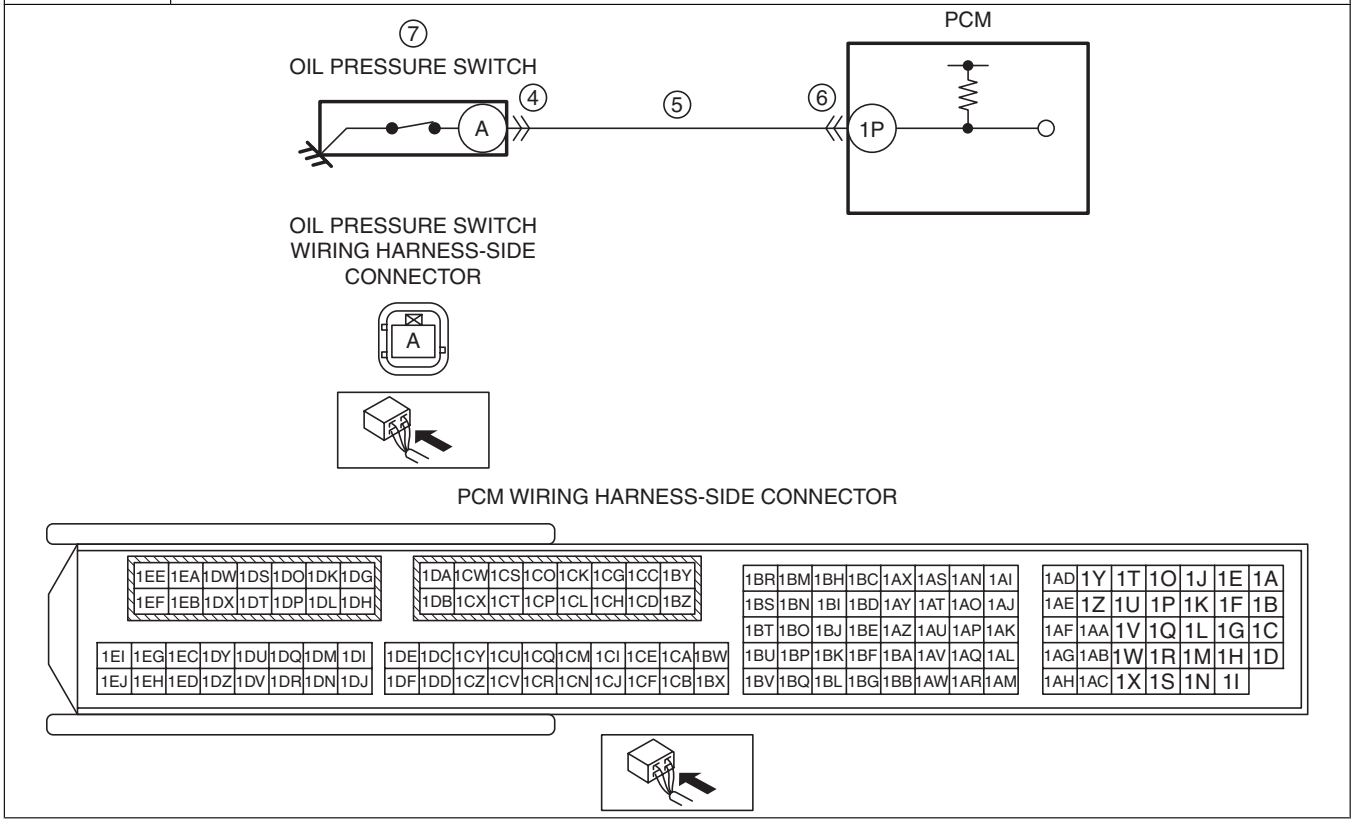
DTC P0524:00	Engine oil pressure too low
DETECTION CONDITION	• The oil pressure switch is on for a continuous **5 s** with the following condition met: (engine oil pressure warning light illuminates when **1 s** has elapsed) — When engine coolant temperature is **30 °C {86 °F} or less** and engine speed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



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • 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.
2	**INSPECT ENGINE OIL LEAKAGE** • Start the engine. • Verify that there is no engine oil leakage in the hydraulic circuit. • Is there any leakage?	Yes	Repair or replace the malfunctioning part according to the inspection results, then add genuine motor oil. Go to Step 8.
		No	Go to the next step.

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