DTC P055F:00 [SKYACTIV-D 2.2]

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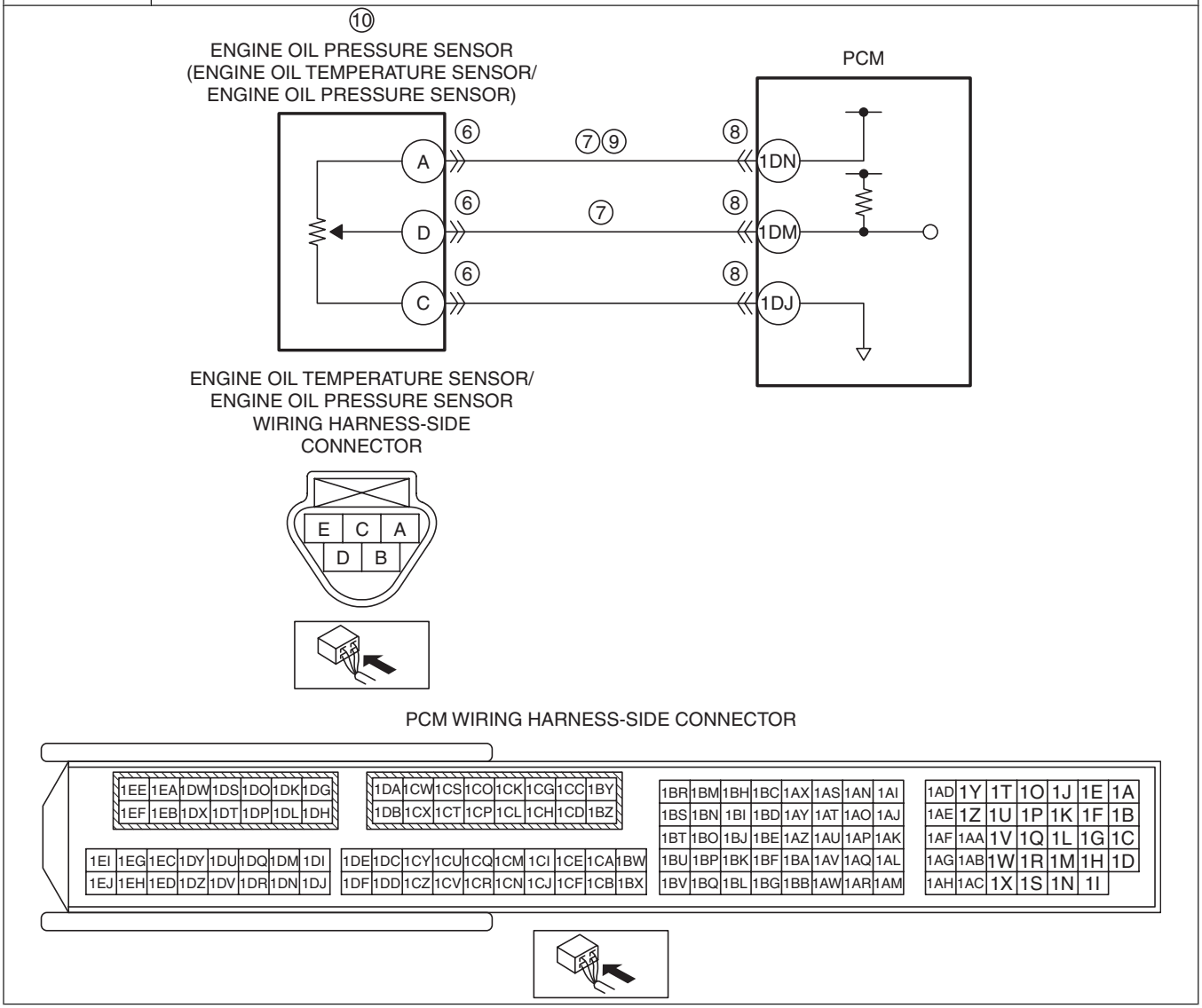
DTC P055F: 00	Engine oil pressure control circuit low oil pressure
DETECTION CONDITION	• The engine oil pressure is the specified value or less after the specified time has elapsed since the engine was started. — Engine speed is **2,000 rpm or less**: **80 kPa {0.82 kgf/cm^2, 12 psi}** — Engine speed is **2,000 to 3,500 rpm**: **120 kPa {1.22 kgf/cm^2, 17.4 psi}** — Engine speed is **3,500 rpm or more**: **180 kPa {1.84 kgf/cm^2, 26.1 psi}** **Diagnostic support note** • This is a continuous monitor (CCM). • The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	• PCM restricts engine torque. • The fast idle up correction for the idle speed control is inhibited.
POSSIBLE CAUSE	• Engine oil leakage • Improper engine oil level • Engine oil temperature sensor/engine oil pressure sensor connector or terminals malfunction • Short to ground in wiring harness between the following terminals: — Engine oil temperature sensor/engine oil pressure sensor terminal A—PCM terminal 1DN — Engine oil temperature sensor/engine oil pressure sensor terminal D—PCM terminal 1DM • PCM connector or terminals malfunction • Open circuit in wiring harness between engine oil temperature sensor/engine oil pressure sensor terminal A and PCM terminal 1DN • Engine oil pressure sensor malfunction • Oil pump malfunction • PCM malfunction

DTC P055F: 00	Engine oil pressure control circuit low oil pressure



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED** • 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	**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.
3	**VERIFY RELATED PENDING CODE AND/OR DTC** • Switch the ignition off, then ON (engine off). • Perform the Pending Trouble Code Access Procedure and DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) • Are any other PENDING CODEs and/or DTCs present?	Yes	Go to the applicable PENDING CODE or DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	Go to the next step.

STEP	INSPECTION		ACTION
4	**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 11.
		No	Go to the next step.
5	**INSPECT ENGINE OIL LEVEL** • Inspect the engine oil level. (See ENGINE OIL LEVEL INSPECTION [SKYACTIV-D 2.2].) • 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-D 2.2].)
6	**INSPECT ENGINE OIL TEMPERATURE SENSOR/ENGINE OIL PRESSURE SENSOR CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the engine oil temperature sensor/ engine oil pressure sensor 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 11.
		No	Go to the next step.
7	**INSPECT ENGINE OIL PRESSURE SENSOR CIRCUIT FOR SHORT TO GROUND** • Verify that the engine oil temperature sensor/ engine oil pressure sensor connector is disconnected. • Switch the ignition off. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Engine oil temperature sensor/engine oil pressure sensor terminal A — Engine oil temperature sensor/engine oil pressure sensor terminal D • 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-D 2.2].) Go to Step 11.
		No	Go to the next step.
8	**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 11.
		No	Go to the next step.
9	**INSPECT ENGINE OIL PRESSURE SENSOR CIRCUIT FOR OPEN CIRCUIT** • Verify that the engine oil temperature sensor/ engine oil pressure sensor and PCM connectors are disconnected. • Inspect for continuity between engine oil temperature sensor/engine oil pressure sensor terminal A (wiring harness-side) and PCM terminal 1DN (wiring harness-side). • 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 11.
10	**INSPECT ENGINE OIL PRESSURE SENSOR** • Reconnect all disconnected connectors. • Inspect the engine oil pressure sensor. (See ENGINE OIL PRESSURE SENSOR INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the engine oil temperature sensor/engine oil pressure sensor, then go to the next step. (See ENGINE OIL TEMPERATURE SENSOR/ENGINE OIL PRESSURE SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Replace the oil pump, then go to the next step. (See OIL PUMP REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)

STEP	INSPECTION		ACTION
11	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Start the engine and warm it up completely. **Caution** **• While performing this step, always operate the vehicle in a safe and lawful manner.** **• When the M-MDS is used to observe monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later.** • Drive the vehicle under the FREEZE FRAME DATA (Mode 2)/snapshot data condition. • Perform the DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) • Is the same DTC present?	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.
12	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.