

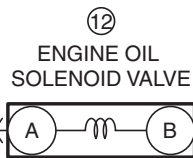
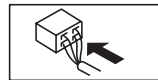
DTC P06DE:00 [SKYACTIV-D 2.2]

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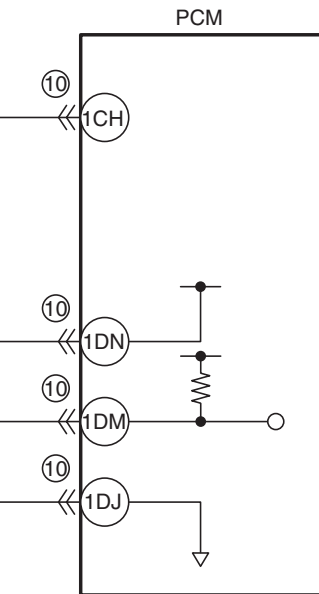
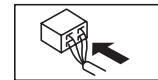
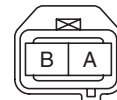
DTC P06DE:00	Engine oil pressure switch control circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> • When the following condition is met, the engine oil pressure is 250 kPa {2.55 kgf/cm², 36.3 psi} or less: MONITORING CONDITIONS <ul style="list-style-type: none"> — During high hydraulic pressure control (during engine oil solenoid valve operation) — Engine speed is specified value or more. <ul style="list-style-type: none"> • Idle speed or more when engine oil temperature is 40 °C {104 °F} or less (when cold) • 1,800 rpm or more when engine oil temperature is 90 °C {194 °F} (when hot) • 4,000 rpm or more when engine oil temperature is 135 °C {275 °F} or more (when hot) Diagnostic support note <ul style="list-style-type: none"> • This is a continuous monitor (other). • The check engine light does not illuminate. • FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	Not applicable
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Engine oil leakage • Improper engine oil level • Engine oil solenoid valve connector or terminals malfunction • Engine oil temperature sensor/engine oil pressure sensor connector or terminals malfunction • Short to ground or open circuit in engine oil solenoid valve power supply circuit <ul style="list-style-type: none"> — Short to ground in wiring harness between ENGINE1 15 A fuse and engine oil solenoid valve terminal A — ENGINE1 15 A fuse malfunction — Open circuit in wiring harness between main relay terminal C and engine oil solenoid valve terminal A • Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> — Engine oil solenoid valve terminal B—PCM terminal 1CH — 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 the following terminals: <ul style="list-style-type: none"> — Engine oil solenoid valve terminal B—PCM terminal 1CH — Engine oil temperature sensor/engine oil pressure sensor terminal A—PCM terminal 1DN • Engine oil solenoid valve malfunction • Engine oil pressure sensor malfunction • Oil pump malfunction • PCM malfunction

**DTC P06DE:
00****Engine oil pressure switch control circuit low input**MAIN RELAY
TERMINAL C

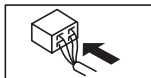
ENGINE1 15 A

ENGINE OIL PRESSURE SENSOR
(ENGINE OIL TEMPERATURE SENSOR/
ENGINE OIL PRESSURE SENSOR)ENGINE OIL TEMPERATURE SENSOR/
ENGINE OIL PRESSURE SENSOR
WIRING HARNESS-SIDE
CONNECTOR

PCM WIRING HARNESS-SIDE CONNECTOR

ENGINE OIL SOLENOID VALVE
WIRING HARNESS-SIDE
CONNECTOR

1EE 1EA 1DW 1DS 1DO 1DK 1DG 1EF 1EB 1DX 1DT 1DP 1DL 1DH	1DA 1CW 1CS 1CO 1CK 1CG 1CC 1BY 1DB 1CX 1CT 1CP 1CL 1CH 1CD 1BZ	1BR 1BM 1BH 1BC 1AX 1AS 1AN 1AI 1BS 1BN 1BI 1BD 1AY 1AT 1AO 1AJ 1BT 1BO 1BJ 1BE 1AZ 1AU 1AP 1AK 1BU 1BP 1BK 1BF 1BA 1AV 1AQ 1AL 1BV 1BQ 1BL 1BG 1BB 1AW 1AR 1AM	1AD 1Y 1T 1O 1J 1E 1A 1AE 1Z 1U 1P 1K 1F 1B 1AF 1AA 1V 1Q 1L 1G 1C 1AG 1AB 1W 1R 1M 1H 1D 1AH 1AC 1X 1S 1N 1I
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**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.

STEP	INSPECTION	ACTION	
3	VERIFY RELATED PENDING CODE AND/OR DTC <ul style="list-style-type: none"> 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.
4	INSPECT ENGINE OIL LEAKAGE <ul style="list-style-type: none"> 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 14.
		No	Go to the next step.
5	INSPECT ENGINE OIL LEVEL <ul style="list-style-type: none"> 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 SOLENOID VALVE CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition off. Disconnect the engine oil solenoid valve 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 14.
		No	Go to the next step.
7	INSPECT ENGINE OIL TEMPERATURE SENSOR/ENGINE OIL PRESSURE SENSOR CONNECTOR CONDITION <ul style="list-style-type: none"> 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 14.
		No	Go to the next step.
8	INSPECT ENGINE OIL SOLENOID VALVE POWER SUPPLY CIRCUIT FOR SHORT TO GROUND OR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the engine oil solenoid valve and engine oil temperature sensor/engine oil pressure sensor connectors are disconnected. Switch the ignition ON (engine off). Measure the voltage at the engine oil solenoid valve terminal A (wiring harness-side). Is the voltage B+? 	Yes	Go to the next step.
		No	Inspect the ENGINE1 15 A fuse. <ul style="list-style-type: none"> If the fuse is blown: <ul style="list-style-type: none"> Repair or replace the wiring harness for a possible short to ground. Replace the fuse. If the fuse is deteriorated: <ul style="list-style-type: none"> Replace the fuse. If the fuse is normal: <ul style="list-style-type: none"> Repair or replace the wiring harness for a possible open circuit. Go to Step 14.
9	INSPECT ENGINE OIL SOLENOID VALVE CIRCUIT AND ENGINE OIL PRESSURE SENSOR CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the engine oil solenoid valve and engine oil temperature sensor/engine oil pressure sensor connectors are disconnected. Switch the ignition off. Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> Engine oil solenoid valve terminal B 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to Step 14.
		No	Go to the next step.

STEP	INSPECTION		ACTION
10	INSPECT PCM CONNECTOR CONDITION <ul style="list-style-type: none"> • 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 14.
		No	Go to the next step.
11	INSPECT ENGINE OIL SOLENOID VALVE CIRCUIT AND ENGINE OIL PRESSURE SENSOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Verify that the engine oil solenoid valve and engine oil temperature sensor/engine oil pressure sensor and PCM connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> — Engine oil solenoid valve terminal B—PCM terminal 1CH — Engine oil temperature sensor/engine oil pressure sensor terminal A—PCM terminal 1DN • 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 14.
12	INSPECT ENGINE OIL SOLENOID VALVE <ul style="list-style-type: none"> • Inspect the engine oil solenoid valve. (See ENGINE OIL SOLENOID VALVE INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction? 	Yes	Replace the engine oil solenoid valve, then go to Step 14. (See ENGINE OIL SOLENOID VALVE REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
13	INSPECT ENGINE OIL PRESSURE SENSOR <ul style="list-style-type: none"> • 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].)
14	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • 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. <p>Caution</p> <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> • 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.
15	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • 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.