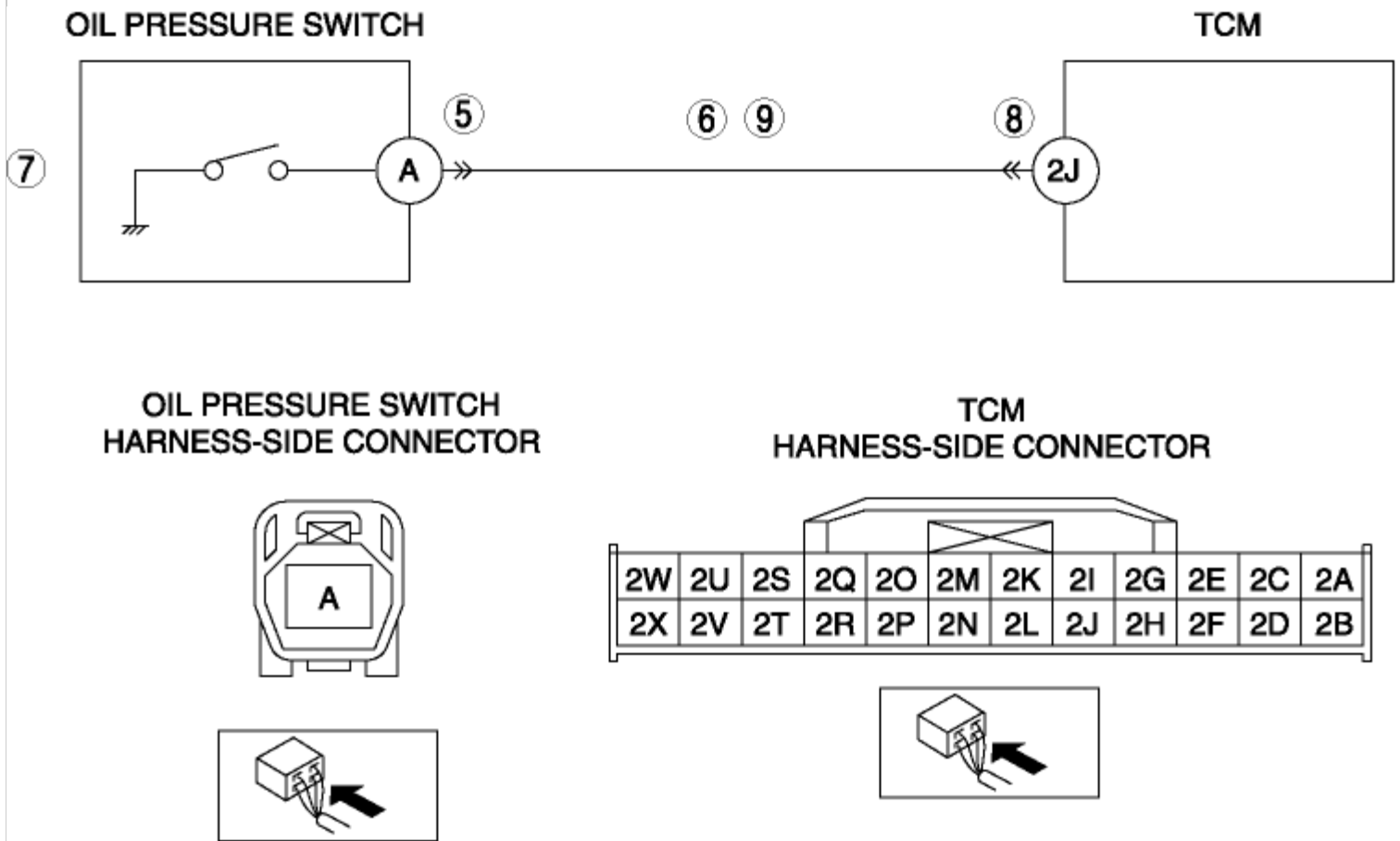


2012 - Mazda6 - Transmission/ Transaxle

DTC P0841:00 [FS5A-EL]

DTC P0841:00	Oil pressure switch circuit malfunction
DETECTION CONDITION	• The TCM detects no signal from the oil pressure switch when the following conditions are met. ▪ 1GR, 2GR or 3GR ▪ Revolution ratio of the input revolution to output revolution: 0.91—3.0785 • The TCM detects input signal from the oil pressure switch when the following conditions are met. ▪ 4GR or 5GR ▪ Revolution ratio of the input revolution to output revolution: 0.605—0.785 Diagnostic support note • The MIL does not illuminate. • The AT warning light does not illuminate. • PENDING CODE is not available. • FREEZE FRAME DATA is not available. • The DTC is stored in the TCM memory.
POSSIBLE CAUSE	• Deteriorated ATF • ATF level low • Line pressure malfunction • Oil pressure switch connector or terminal malfunction • Short to GND in wiring harness between oil pressure switch terminal A and TCM terminal 2J • Oil pressure switch malfunction • TCM connector or terminal malfunction • Open circuit in wiring harness between oil pressure switch terminal A and TCM terminal 2J

- TCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available?	Yes Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step. No Go to the next step.
2	INSPECT ATF CONDITION • Inspect the ATF condition. (See AUTOMATIC TRANSAXLE FLUID (ATF) INSPECTION [FS5A-EL] .) • Is it normal?	Yes Go to the next step. No Replace the ATF, then go to Step 10. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL] .)
	INSPECT ATF LEVEL	

3	- Inspect the ATF level. (See AUTOMATIC TRANSAXLE FLUID (ATF) INSPECTION [FS5A-EL].) - Is it normal?	Yes	Go to the next step.
		No	Add ATF to the specified level, then go to Step 10. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL] .)
4	INSPECT LINE PRESSURE - Perform the "Line Pressures Test". (See MECHANICAL SYSTEM TEST [FS5A-EL].) - Is there any malfunction?	Yes	Repair or replace malfunctioning part according to test result, then go to Step 10.
		No	Go to the next step.
5	INSPECT OIL PRESSURE SWITCH CONNECTOR FOR POOR CONNECTION - Switch the ignition 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 terminal, then go to Step 10.
		No	Go to the next step.
6	INSPECT OIL PRESSURE SWITCH CIRCUIT FOR SHORT TO GND - Switch the ignition off. - Inspect for continuity between oil pressure switch terminal A (wiring harness-side) and body GND. - Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to GND, then go to Step 10.
		No	Go to the next step.
7	INSPECT OIL PRESSURE SWITCH - Inspect the oil pressure switch. (See OIL PRESSURE SWITCH INSPECTION [FS5A-EL].) - Is there any malfunction?	Yes	Replace the oil pressure switch, then go to Step 10. (See OIL PRESSURE SWITCH REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
8	INSPECT TCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the TCM connector. - Inspect for poor connection (such as damaged/pulled-out pins, corrosion) - Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 10.
		No	Go to the next step.
9	INSPECT OIL PRESSURE SWITCH CIRCUIT FOR OPEN CIRCUIT	Yes	Go to the next step.

	• Switch the ignition off. • Inspect for continuity between oil pressure switch terminal A (wiring harness-side) and TCM terminal 2J (wiring harness-side). • Is there continuity?	No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0841:00 COMPLETED • Make sure to reconnect all the disconnected connectors. • Clear the DTC using the M-MDS. • Perform the following procedure to ensure that the DTC has been resolved: ◦ Drive the vehicle in 1GR. ◦ Drive the vehicle in 2GR. ◦ Drive the vehicle in 3GR. ◦ Drive the vehicle in 4GR. ◦ Drive the vehicle in 5GR. • Is the same DTC present?	Yes	Replace the TCM, then go to the next step. (See TCM REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
11	VERIFY NO DTCs ARE PRESENT • Perform the "Reading DTCs Procedure". (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [FS5A-EL] .) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .)
		No	DTC troubleshooting completed.

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DTC P0841:00 [FS5A-EL]

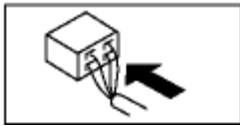
DTC P0841:00	Oil pressure switch circuit malfunction
DETECTION CONDITION	• The TCM detects no signal from the oil pressure switch when the following conditions are met. ▪ 1GR, 2GR or 3GR ▪ Revolution ratio of the input revolution to output revolution: 0.91—3.0785 • The TCM detects input signal from the oil pressure switch when the following conditions are met. ▪ 4GR or 5GR ▪ Revolution ratio of the input revolution to output revolution: 0.605—0.785 Diagnostic support note • The MIL does not illuminate. • The AT warning light does not illuminate. • PENDING CODE is not available. • FREEZE FRAME DATA is not available. • The DTC is stored in the TCM memory.
POSSIBLE CAUSE	• Deteriorated ATF • ATF level low • Line pressure malfunction • Oil pressure switch connector or terminal malfunction • Short to GND in wiring harness between oil pressure switch terminal A and TCM terminal 2J • Oil pressure switch malfunction • TCM connector or terminal malfunction • Open circuit in wiring harness between oil pressure switch terminal A and TCM terminal 2J

- TCM malfunction

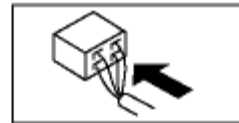
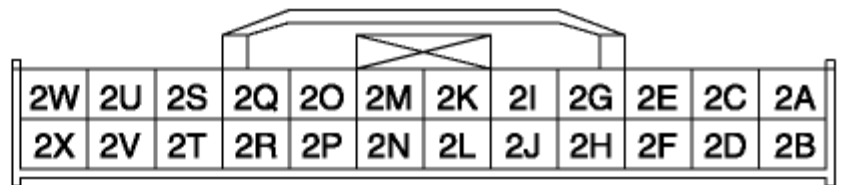
OIL PRESSURE SWITCH



OIL PRESSURE SWITCH HARNESS-SIDE CONNECTOR



TCM HARNESS-SIDE CONNECTOR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available?	Yes Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step. No Go to the next step.
2	INSPECT ATF CONDITION • Inspect the ATF condition. (See AUTOMATIC TRANSAXLE FLUID (ATF) INSPECTION [FS5A-EL].) • Is it normal?	Yes Go to the next step. No Replace the ATF, then go to Step 10. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL].)
	INSPECT ATF LEVEL	

3	- Inspect the ATF level. (See AUTOMATIC TRANSAXLE FLUID (ATF) INSPECTION [FS5A-EL].) - Is it normal?	Yes	Go to the next step.
		No	Add ATF to the specified level, then go to Step 10. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL] .)
4	INSPECT LINE PRESSURE - Perform the "Line Pressures Test". (See MECHANICAL SYSTEM TEST [FS5A-EL].) - Is there any malfunction?	Yes	Repair or replace malfunctioning part according to test result, then go to Step 10.
		No	Go to the next step.
5	INSPECT OIL PRESSURE SWITCH CONNECTOR FOR POOR CONNECTION - Switch the ignition 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 terminal, then go to Step 10.
		No	Go to the next step.
6	INSPECT OIL PRESSURE SWITCH CIRCUIT FOR SHORT TO GND - Switch the ignition off. - Inspect for continuity between oil pressure switch terminal A (wiring harness-side) and body GND. - Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to GND, then go to Step 10.
		No	Go to the next step.
7	INSPECT OIL PRESSURE SWITCH - Inspect the oil pressure switch. (See OIL PRESSURE SWITCH INSPECTION [FS5A-EL].) - Is there any malfunction?	Yes	Replace the oil pressure switch, then go to Step 10. (See OIL PRESSURE SWITCH REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
8	INSPECT TCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the TCM connector. - Inspect for poor connection (such as damaged/pulled-out pins, corrosion) - Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 10.
		No	Go to the next step.
9	INSPECT OIL PRESSURE SWITCH CIRCUIT FOR OPEN CIRCUIT	Yes	Go to the next step.

	• Switch the ignition off. • Inspect for continuity between oil pressure switch terminal A (wiring harness-side) and TCM terminal 2J (wiring harness-side). • Is there continuity?	No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0841:00 COMPLETED • Make sure to reconnect all the disconnected connectors. • Clear the DTC using the M-MDS. • Perform the following procedure to ensure that the DTC has been resolved: ◦ Drive the vehicle in 1GR. ◦ Drive the vehicle in 2GR. ◦ Drive the vehicle in 3GR. ◦ Drive the vehicle in 4GR. ◦ Drive the vehicle in 5GR. • Is the same DTC present?	Yes	Replace the TCM, then go to the next step. (See TCM REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
11	VERIFY NO DTCs ARE PRESENT • Perform the "Reading DTCs Procedure". (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [FS5A-EL] .) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .)
		No	DTC troubleshooting completed.