

2012 - Mazda6 - Transmission/ Transaxle

DTC P0741:00 [FS5A-EL]

DTC P0741:00	TCC stuck off
DETECTION CONDITION	• The TCM detects that difference between the engine revolution and turbine revolution is 100 rpm or more for 5 s when the following conditions are met. ▪ 4GR or 5GR ▪ Vehicle speed: 60—100 km/h {38.0—62.1 mph} ▪ TCC operation: On ▪ Shift solenoid A duty ratio: 99.2 % or more Diagnostic support note • The MIL does not illuminate. • The AT warning light illuminates. • 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 • Solenoid valve malfunction ▪ Pressure control solenoid A ▪ Shift solenoid A ▪ Shift solenoid B ▪ Shift solenoid C ▪ Shift solenoid D ▪ Shift solenoid E • Line pressure malfunction • Primary control valve body malfunction

- 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 7. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL] .)
3	INSPECT ATF LEVEL • 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 7. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FS5A-EL] .)
4	INSPECT SOLENOID VALVE • Inspect the following solenoid valves: (See SOLENOID VALVE INSPECTION [FS5A-EL].) ▪ Pressure control solenoid A ▪ Shift solenoid A ▪ Shift solenoid B ▪ Shift solenoid C ▪ Shift solenoid D ▪ Shift solenoid E • Is there any malfunction?	Yes Replace the solenoid valve, then go to Step 7. (See SOLENOID VALVE REMOVAL/ INSTALLATION [FS5A-EL] .)
		No Go to the next step.
5	INSPECT LINE PRESSURE • Perform the "Line Pressures Test".	Yes Repair or replace malfunctioning part according to test result, then go to Step 7.

	(See MECHANICAL SYSTEM TEST [FS5A-EL] .) • Is there any malfunction?	No	Go to the next step.
6	INSPECT PRIMARY CONTROL VALVE BODY • Remove the primary control valve body. (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [FS5A-EL] .) • Disassemble the primary control valve body. • Inspect the following parts: ▪ Shift valve ▪ Return spring ▪ Hydraulic passage • Is there any malfunction?	Yes	Repair or replace malfunctioning part according to inspection result, then go to next step.
		No	Replace the transaxle, then go to the next step.
			(See AUTOMATIC TRANSAXLE REMOVAL/ INSTALLATION [FS5A-EL] .)
7	VERIFY TROUBLESHOOTING OF DTC P0741:00 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 under the following conditions for 5 s or more. ▪ 4GR or 5GR ▪ Vehicle speed: 60—100 km/h {38.0—62.1 mph} ▪ TCC operation: On • 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.
8	VERIFY NO DTCs ARE PRESENT • Perform the “Reading DTCs Procedure”. (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [FS5A-EL] .)	Yes	Go to the applicable DTC inspection.
			(See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .)

	• Are any DTCs present?		No DTC troubleshooting completed.
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		No Go to the next step.
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		No Go to the next step.
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	(See MECHANICAL SYSTEM TEST [FS5A-EL] .) • Is there any malfunction?	No	Go to the next step.
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		No	Replace the transaxle, then go to the next step.
			(See AUTOMATIC TRANSAXLE REMOVAL/ INSTALLATION [FS5A-EL] .)
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			(See TCM REMOVAL/ INSTALLATION [FS5A-EL] .)
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