

2012 - Mazda6 - Engine

DTC P0685:00 [MZR 2.5]

DTC P0685:00	Main relay control circuit open
DETECTION CONDITION	- This DTC sets when the ignition switch position run circuit indicates the key is in the off, ACC, or LOCK position, and the amount of time the PCM remains powered through the PCM power relay exceeds a predetermined amount of time. Diagnostic support note - This is a continuous monitor (CCM). - The MIL illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. - PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle. - FREEZE FRAME DATA (Mode 2)/Snapshot data is available. - The DTC is stored in the PCM memory.
POSSIBLE CAUSE	PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2) / SNAPSHOT DATA HAS BEEN RECORDED	Yes Go to the next step.
	Has the FREEZE FRAME DATA (Mode 2)/snapshot data been recorded?	No Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY Verify related Service Bulletins and/or on-line repair information availability.	Yes Perform repair or diagnosis according to the available repair information. If the vehicle is not repaired, go to the next step.

	Is any related repair information available?	No	Go to the next step.
3	VERIFY DTC TROUBLESHOOTING COMPLETED - Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [MZR 2.5].) - Start the engine and warm it up completely. - Perform the Pending Trouble Code Access Procedure. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Is the PENDING CODE for this DTC present?	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/ INSTALLATION [MZR 2.5] .)
		No	Go to the next step.
4	VERIFY AFTER REPAIR PROCEDURE - Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZR 2.5].) - Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	DTC troubleshooting completed.

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POSSIBLE CAUSE	PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED	Yes Go to the next step.
	Has the FREEZE FRAME DATA (Mode 2)/snapshot data been recorded?	No Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.
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	Is any related repair information available?	No	Go to the next step.
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		No	Go to the next step.
4	VERIFY AFTER REPAIR PROCEDURE - Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZR 2.5].) - Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	DTC troubleshooting completed.