

2012 - Mazda6 - Engine

DTC P0638:00 [MZR 2.5]

DTC P0638:00	Throttle valve actuator control circuit range/performance problem
DETECTION CONDITION	- The PCM compares the actual TP with the target TP when the engine is running. If the difference is more than the specification, the PCM determines that there is a throttle valve actuator control circuit range/performance problem. Diagnostic support note - This is a continuous monitor (CCM). - The MIL illuminates if the PCM detects the above malfunction condition in the first drive cycle. - FREEZE FRAME DATA (Mode 2)/Snapshot data is available. - The DTC is stored in the PCM memory.
POSSIBLE CAUSE	- Throttle valve actuator malfunction - 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	Yes Perform repair or diagnosis according to the available repair information.
	- Verify related Service Bulletins and/or on-line repair information availability. - Is any related repair information available?	No Go to the next step.

3	VERIFY RELATED PENDING AND STORED DTC - Switch the ignition to off, then to ON (engine off). - Verify pending and stored DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Are any other DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5].)
		No	Go to the next step.
4	INSPECT THROTTLE VALVE ACTUATOR - Inspect the throttle valve actuator. (See THROTTLE BODY INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Replace the throttle body, then go to the next step. (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZR 2.5].)
		No	Go to the next step.
5	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 DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Is the same 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.
6	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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	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	Yes Perform repair or diagnosis according to the available repair information.
	- Verify related Service Bulletins and/or on-line repair information availability. - Is any related repair information available?	If the vehicle is not repaired, go to the next step. No Go to the next step.

3	VERIFY RELATED PENDING AND STORED DTC - Switch the ignition to off, then to ON (engine off). - Verify pending and stored DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Are any other DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5].)
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		No	DTC troubleshooting completed.