

2012 - Mazda6 - Engine

DTC P0461:00 [MZR 2.5]

DTC P0461:00	Fuel gauge sender unit circuit range/performance problem
DETECTION CONDITION	- The PCM monitors the fuel tank level difference before and after the PCM-calculated fuel consumption has reached more than 25 L { 6.6 US gal, 5.5 Imp gal} . If the difference is less than 5 % , the PCM determines that there is a fuel gauge sender unit 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 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 the first drive cycle. - FREEZE FRAME DATA (Mode 2)/Snapshot data is available. - The DTC is stored in the PCM memory.
POSSIBLE CAUSE	- Fuel gauge sender unit malfunction - Instrument cluster 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?		If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	INSPECT FUEL GAUGE SENDER UNIT - Inspect the fuel gauge sender unit. (See FUEL GAUGE SENDER UNIT INSPECTION.) - Is there any malfunction?	Yes	Replace the fuel gauge sender unit, then go to Step 5. (See FUEL GAUGE SENDER UNIT REMOVAL/ INSTALLATION.)
		No	Go to the next step.
4	INSPECT INSTRUMENT CLUSTER - Inspect the instrument cluster. (See INSTRUMENT CLUSTER INSPECTION.) - Is there any malfunction?	Yes	Replace the instrument cluster, then go to the next step. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)
		No	Go to the next step.
5	VERIFY DTC TROUBLESHOOTING COMPLETED - Make sure to reconnect all disconnected connectors. - 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. - Drive the vehicle under the FREEZE FRAME DATA (Mode 2) condition. - Perform the Pending Trouble Code Access Procedure. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Is the PENDING CODE for this DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZR 2.5].) Go to the next step.
		No	Go to the next step.
6	VERIFY AFTER REPAIR PROCEDURE Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZR 2.5])	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5].)
		No	DTC troubleshooting completed.

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- Are any DTCs present?

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