

2012 - Mazda6 - Engine

DTC P050E:00 [MZI 3.7 V6]

DTC P050E:00	Cold start engine exhaust temperature out of range
DETECTION CONDITION	The PCM calculates the actual catalyst warm up temperature during a cold start. The PCM then compares the actual temperature to the expected catalyst temperature model. The difference between the actual and expected temperatures is a ratio. When this ratio exceeds the calibrated value this DTC is set and the malfunction indicator lamp (MIL) illuminates.
POSSIBLE CAUSE	- Intake air restriction - Vacuum leakage - Throttle body malfunction - Mechanical concern with engine - Exhaust restriction - PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record FREEZE FRAME 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. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.
		No Go to the next step.

3	VERIFY RELATED PENDING CODE OR STORED DTCs - Switch the ignition off then to the ON position (Engine off). - Verify related pending code or stored DTCs. - Is other DTCs present?	Yes	Go to the appropriate DTC troubleshooting. (See DTC TABLE [MZI 3.7 V6] .)
		No	Go to the next step.
4	INSPECT AIR CLEANER ELEMENT - Remove air cleaner element with the engine running. - Is the engine speed increased?	Yes	Replace the air cleaner element, then go to Step 9.
		No	Go to the next step.
5	INSPECT INTAKE AIR SYSTEM FOR EXCESSIVE AIR SUCTION - Visually inspect the hose in intake air system for looseness or damages. - Is there any malfunction?	Yes	Repair or replace the malfunctioning part, then go to Step 9.
		No	Go to the next step.
6	INSPECT THROTTLE BODY PASSAGE Is the throttle body clogged?	Yes	Clean or replace the throttle body passage, then go to Step 9.
		No	Go to the next step.
7	INSPECT ENGINE COMPRESSION - Inspect the engine compression. (See COMPRESSION INSPECTION [MZI 3.7 V6].) - Is the engine compression normal?	Yes	Go to the next step.
		No	Overhaul the engine, then go to Step 9.
8	INSPECT FOR RESTRICTION IN EXHAUST SYSTEM AND TWC Is there any restriction?	Yes	Replace malfunctioning part, then go to the next step.
		No	Go to the next step.
9	VERIFY TROUBLESHOOTING OF DTC P050E:00 HAS BEEN COMPLETED - Verify that all disconnected connectors are reconnected. - Switch the ignition ON (Engine off). - Clear the DTC from the PCM memory	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Go to the next step.

	using the M-MDS. • Cool down the engine and radiator. • Start the engine and warm it up to normal operating temperature. • Retrieve DTCs using the M-MDS. • Is the PENDING CODE for this DTC present?		No	Go to the next step.
10	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)	
		No	Troubleshooting completed.	

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	Has FREEZE FRAME DATA been recorded?	No Record FREEZE FRAME DATA on the repair order, then go to the next step.
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	- Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	If the vehicle is not repaired, go to the next step.
		No Go to the next step.

3	VERIFY RELATED PENDING CODE OR STORED DTCs - Switch the ignition off then to the ON position (Engine off). - Verify related pending code or stored DTCs. - Is other DTCs present?	Yes	Go to the appropriate DTC troubleshooting. (See DTC TABLE [MZI 3.7 V6] .)
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		No	No	Troubleshooting completed.