

2012 - Mazda6 - Body and Accessories

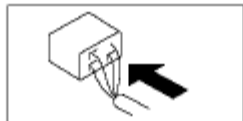
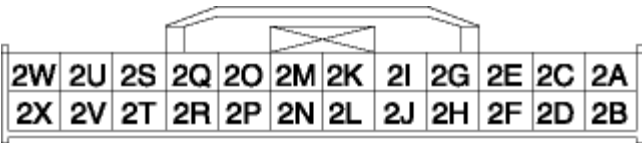
NO. 4 MIL ILLUMINATES [INSTRUMENT CLUSTER (WITH MALFUNCTION WARNING LIGHT)]

4	MIL illuminates
POSSIBLE CAUSE	• PCM malfunction • PCM stores DTC • Instrument cluster malfunction • Connector or pin malfunction • Short circuit in wiring harness between CAN-L, CAN-H and ground • Open circuit in CAN wiring harness (CAN-L, CAN-H) • CAN wiring harness (CAN-L, CAN-H) short each other

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Start the engine. • Does the MIL turn off?	Yes Troubleshooting completed. (The system is normal.)
		No Go to the next step.
2	• Start the engine. • Inspect the condition of the warning lights and indicator lights. • Do two or more lights illuminate at the same time.	Yes Go to Step 5.
		No Go to the next step.
3	• Retrieve the DTC related to the PCM using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) (See ON-BOARD DIAGNOSTIC TEST [MZI 3.7 V6].)	Yes Go to applicable troubleshooting procedure.
		(See DTC TABLE [MZR 2.5].) (See DTC TABLE [MZI 3.7 V6].) No Go to the next step.

	Is there any DTC retrieved?		
4	- Turn off the MIL using the M-MDS instrument cluster active command modes WL+IL. (See ACTIVE COMMAND MODES TABLE [INSTRUMENT CLUSTER].) - Does the MIL turn off according to the active command modes?	Yes	Verify that the PCM connector is connected securely. If the PCM connector is poorly connection: - Connect the PCM connector securely. If a malfunction is in the PCM connector: - Replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZR 2.5].) (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) If a malfunction is in the vehicle side connector: - Repair or replace the malfunctioning part.
		No	Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)
5	- Retrieve the DTC related to the instrument cluster using the M-MDS. (See DTC INSPECTION [INSTRUMENT CLUSTER].) - Is there any DTC retrieved?	Yes	Go to applicable DTC inspection. (See DTC TABLE [INSTRUMENT CLUSTER].)
		No	Go to the next step.
6	- Disconnect the negative battery cable. - Measure the resistance between the DLC-2 terminals F and E. - Is there resistance below 60 ohms?	Yes	Go to next step.
		No	Go to step 8.
7	- Inspect the DLC-2 terminals F and E for short to power supply or ground. - Is there any malfunction?	Yes	- Inspect the wiring harness and CAN system-related module - Repair or replace the malfunctioning part.

		No	Replace the instrument cluster.
8	• Switch the ignition to off. • Inspect the instrument cluster connector terminals for poor connection (such as damaged/pulled-out pins, and corrosion). • Are the resistance normal?	Yes	Go to the next step.
		No	Repair or replace the terminal.
9	• Disconnect the negative battery cable. • Measure the resistance between the instrument cluster connector terminals 2X and 2W. • Is the resistance 114—126 ohms? 	Yes	• Inspect the wiring harness and CAN system-related module. • Repair or Replace the malfunctioning part.
		No	Replace the instrument cluster.

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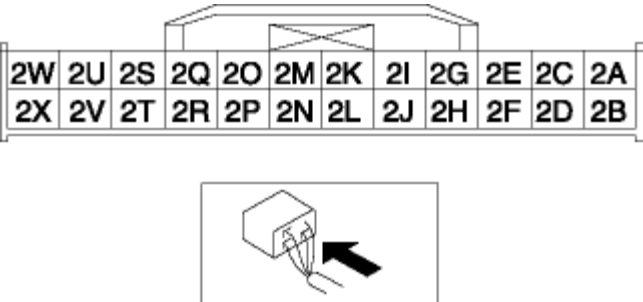
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	Is there any DTC retrieved?		
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		No	Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)
5	- Retrieve the DTC related to the instrument cluster using the M-MDS. (See DTC INSPECTION [INSTRUMENT CLUSTER].) - Is there any DTC retrieved?	Yes	Go to applicable DTC inspection. (See DTC TABLE [INSTRUMENT CLUSTER].)
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9	• Disconnect the negative battery cable. • Measure the resistance between the instrument cluster connector terminals 2X and 2W. • Is the resistance 114—126 ohms? 	Yes	• Inspect the wiring harness and CAN system-related module. • Repair or Replace the malfunctioning part.	
		No	Replace the instrument cluster.	(See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)