

2012 - Mazda6 - Body and Accessories

NO. 5 BRAKE SYSTEM WARNING LIGHT ILLUMINATES [INSTRUMENT CLUSTER (WITH MALFUNCTION WARNING LIGHT)]

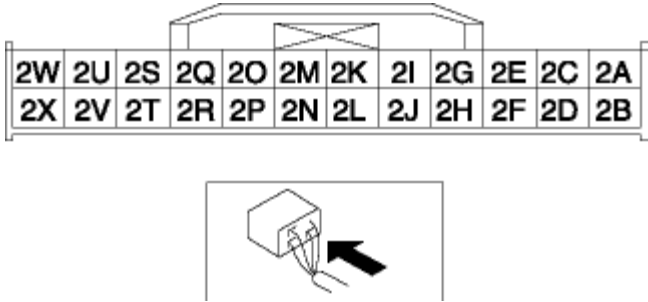
5	Brake system warning light illuminates
POSSIBLE CAUSE	• Instrument cluster and DSC HU/CM configuration data do not coincide • Instrument cluster configuration incomplete or in error • BCM malfunction • DSC HU/CM malfunction • DSC HU/CM stores DTC • Brake fluid level sensor malfunction (BCM) • Parking brake switch malfunction (BCM) • 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 • Malfunction in brake switch signal input to PCM

Diagnostic procedure

STEP	INSPECTION		ACTION
1	• Start the engine. • Release the parking brake. • Does the brake system warning light turn off?	Yes	Troubleshooting completed. (The system is normal.)
		No	Go to next step.
2	• Does the brake fluid need replenishment?	Yes	• Inspect brake line for leakage. • Repair or replace if

			necessary. • Add brake fluid.
		No	MZR 2.5 Go to the next step. MZI 3.7 V6 Go to Step 4.
3	• Inspect followings: (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) ▪ Brake fluid level sensor or connector (See BRAKE FLUID LEVEL SENSOR INSPECTION.) ▪ Parking brake switch or connector (See PARKING BRAKE SWITCH INSPECTION.) ▪ Wiring harness between brake fluid level sensor and BCM terminal 1Q ▪ Wiring harness between parking brake switch and BCM terminal 8A • Is there any malfunction?	Yes	Repair or replace malfunctioning part.
		No	 <

		No	Go to the next step.
6	- Turn off the ABS warning light using the M-MDS instrument cluster active command modes WL+IL. (See ACTIVE COMMAND MODES TABLE [INSTRUMENT CLUSTER].) - Does the ABS warning light turn off according to the active command modes?	Yes	Verify that the DSC HU/CM connector is connected securely. If the DSC HU/ CM connector is poorly connected: - Connect the DSC HU/CM connector securely. If a malfunction is in the DSC HU/ CM connector: - Replace the DSC HU/CM. (See DSC HU/ CM REMOVAL/ INSTALLATION.) If a malfunction is in the vehicle side connector: - Repair or replace malfunctioning part.
		No	Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)
7	- 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 the applicable DTC inspection. (See DTC TABLE [INSTRUMENT CLUSTER].)
		No	Go to the next step.
8	- Inspect the brake fluid level sensor, parking brake switch or connectors. - Is there any malfunction?	Yes	Repair or replace the malfunctioning part.
		No	Go to the next step.
9	- Disconnect the negative battery cable. - Measure the resistance between the DLC-2 terminals F and E. - Is the resistance below 60 ohms?	Yes	Go to the next step.
		No	Go to Step 12.
10	- Disconnect the negative battery cable. - Inspect the DLC-2 terminals F and E for short to power supply or ground.	Yes	- Inspect the wiring harness and CAN system-related module. - Repair or replace the

	Is there any malfunction?		malfunctioning part.
		No	Replace the instrument cluster.
11	- Switch the ignition to off. - Inspect the instrument cluster connector terminals for poor connection (such as damaged/pulled-out pins, and corrosion). - Are the terminals normal?	Yes	Go to the next step.
		No	Repair or replace the terminal.
12	- 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.)

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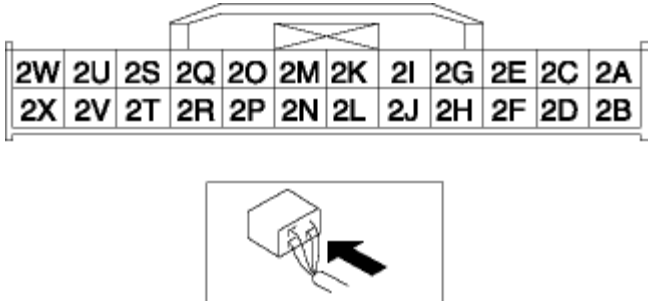
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4	• Start the engine. • Verify that the warning lights and indicator lights condition. • Do two or more lights illuminate at the same time.	Yes No	Go to Step 7. Go to the next step.
5	• Retrieve the DTC of DSC HU/CM and BCM using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) (See DTC INSPECTION [BCM].) • Is there any DTC retrieved?	Yes	Go to the applicable troubleshooting procedure. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) (See DTC TABLE [BCM].)

		No	Go to the next step.
6	- Turn off the ABS warning light using the M-MDS instrument cluster active command modes WL+IL. (See ACTIVE COMMAND MODES TABLE [INSTRUMENT CLUSTER].) - Does the ABS warning light turn off according to the active command modes?	Yes	Verify that the DSC HU/CM connector is connected securely. If the DSC HU/ CM connector is poorly connected: - Connect the DSC HU/CM connector securely. If a malfunction is in the DSC HU/ CM connector: - Replace the DSC HU/CM. (See DSC HU/ CM REMOVAL/ INSTALLATION.) If a malfunction is in the vehicle side connector: - Repair or replace malfunctioning part.
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8	- Inspect the brake fluid level sensor, parking brake switch or connectors. - Is there any malfunction?	Yes	Repair or replace the malfunctioning part.
		No	Go to the next step.
9	- Disconnect the negative battery cable. - Measure the resistance between the DLC-2 terminals F and E. - Is the resistance below 60 ohms?	Yes	Go to the next step.
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		No	Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)