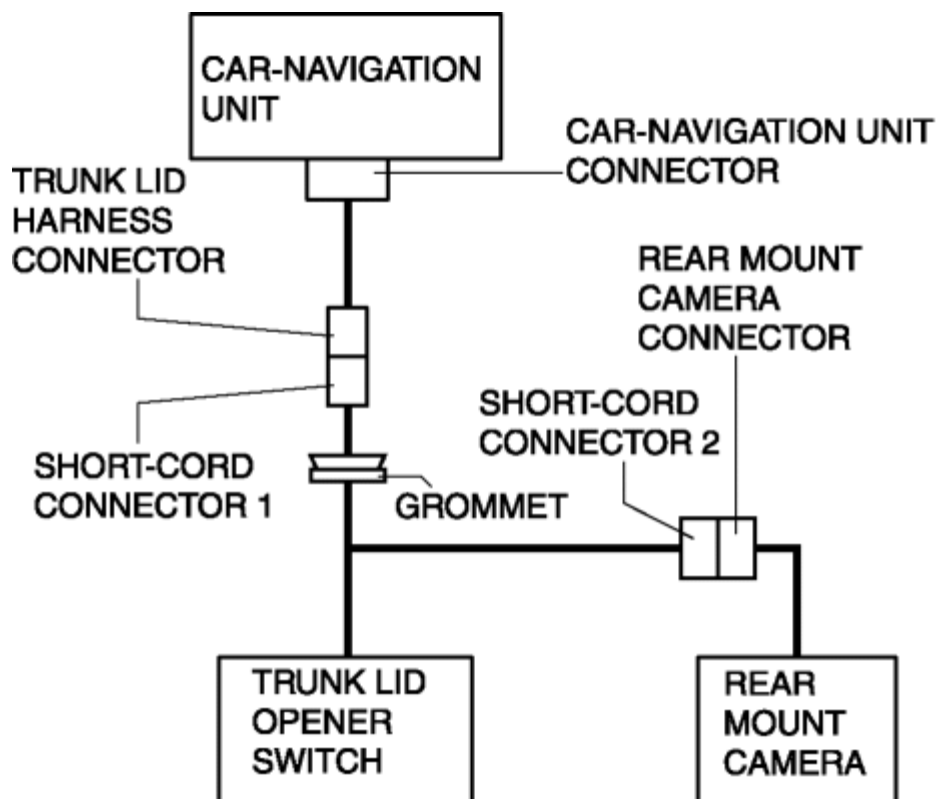


2012 - Mazda6 - Body and Accessories

NO.9 DISPLAY DOES NOT CHANGE TO THE REAR MOUNT CAMERA IMAGE [CAR-NAVIGATION SYSTEM]

9	Display does not change to the rear mount camera image
POSSIBLE CAUSE	• Rear mount camera malfunction • Poor connection of the rear mount camera connector, terminal damage • CAN system malfunction • Car-navigation unit malfunction • TR switch (ATX)/Back-up light switch (MTX) malfunction • Open or short circuit in wiring harness between TR switch (ATX)/Back-up light switch (MTX) and BCM • Poor connection of the short-cord connector, terminal damage • Open or short circuit in wiring harness in short-cord • Poor connection of the car-navigation unit connector, terminal damage • Open or short circuit in wiring harness between car-navigation unit and the short-cord connector 1



Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Is the lens of the rear mount camera dirty or view is obstructed?	Yes	Clean the lens of the rear mount camera or remove the obstruction.
		No	Go to the next step.
2	Does the lens of the rear mount camera have a crack and damage?	Yes	Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION .)
		No	Go to the next step.
3	Retrieve the DTC related to the car-navigation system using the BCM, INSTRUMENT CLUSTER and car-navigation unit. (See DTC INSPECTION [BCM].) (See DTC INSPECTION [INSTRUMENT CLUSTER].) (See STARTING PROCEDURE FOR ON-BOARD DIAGNOSTIC TEST MODE [CAR-NAVIGATION SYSTEM].)	Yes	Go to the applicable troubleshooting procedure. (See DTC TABLE [BCM] .) (See DTC TABLE [INSTRUMENT CLUSTER] .) (See DTC TABLE [CAR-NAVIGATION SYSTEM] .)
		No	Go to the next step.

	Is there any DTC retrieved?		
4	- Perform "DIAGNOSTIC CHECK" for car-navigation unit. (See DIAGNOSTIC CHECK [CAR-NAVIGATION SYSTEM].) - Is ON displayed for "REV" with the "Vehicle Signal Check" when the selector lever (ATX)/shift lever (MTX) is in the R position?	Yes	Go to Step 6.
		No	Go to the next step.
5	- Monitor the following PIDs for the BCM using the M-MDS: - R_GEAR_SW. (See PID/ DATA MONITOR TABLE [BCM].) - Does the value displayed on the M-MDS correspond to the selector lever (ATX)/shift lever (MTX) condition?	Yes	Replace the car-navigation unit.
		No	Inspect and repair the wiring harness between the TR switch (ATX)/Back-up light switch (MTX) and BCM.
6	- Switch the ignition to off. - Remove the short-cord. - Inspect the connection of the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin) - Disconnect the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Inspect both the short-cord connector 1 and connector 2 terminal for poor connection (such as damaged/pulled-out pins, corrosion). - Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of the short-cord connector: - Securely connect the short-cord connector. If the short-cord connector is wrong: - Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
7	- Switch the ignition to off. - Remove the car-navigation unit. - Inspect the connection of the car-navigation unit connector (4-pin). - Disconnect the car-navigation unit connector (4-pin). - Inspect both the car-navigation unit connector terminal for poor connection	Yes	Go to the next step.
		No	If poor connection of car-navigation unit connector: Securely connect the car-navigation unit connector. If the car-navigation unit connector is

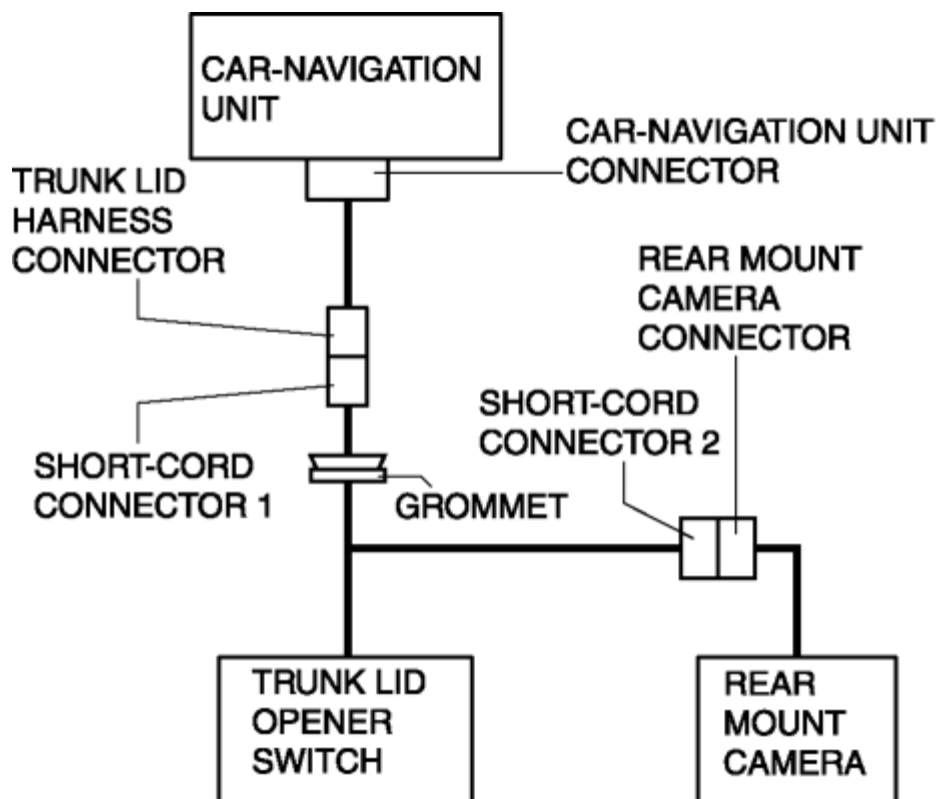
	(such as damaged/pulled-out pins, corrosion). • Are all the pins normal?		wrong: • Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
8	• Inspect the following wiring harnesses between the car-navigation unit and trunk lid harness connector. ▪ Terminal 5A (4-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal 5B (4-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal 5C (4-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal 5D (4-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) • Is there open or short circuit?	Yes	Repair or replace the wiring harnesses between car-navigation unit and the short-cord connector 1.
		No	Go to the next step.
9	• Switch the ignition to off. • Remove the rear mount camera. • Inspect the connection of the rear mount camera connector (6-pin). • Inspect both the rear mount camera and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of rear mount camera connector: • Securely connect the rear mount camera connector. If the rear mount camera connector is wrong: • Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)

10	- Verify that there is no open or short circuit between the short-cord connector 2 and short-cord connector 1. - Terminal A (6-pin, POWER)—terminal A (8-pin, POWER) - Terminal F (6-pin, P-GND)—terminal H (8-pin, P-GND) - Terminal C (6-pin, V-GND)—terminal G (8-pin, V-GND) - Terminal D (6-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) - Is there open or short circuit?	Yes	Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
		No	Repair the rear mount camera, then go to the next step. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
11	Has the malfunction symptom been eliminated?	Yes	Troubleshooting completed (rear mount camera malfunction).
		No	Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)

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NO.9 DISPLAY DOES NOT CHANGE TO THE REAR MOUNT CAMERA IMAGE [CAR-NAVIGATION SYSTEM]

9	Display does not change to the rear mount camera image
POSSIBLE CAUSE	• Rear mount camera malfunction • Poor connection of the rear mount camera connector, terminal damage • CAN system malfunction • Car-navigation unit malfunction • TR switch (ATX)/Back-up light switch (MTX) malfunction • Open or short circuit in wiring harness between TR switch (ATX)/Back-up light switch (MTX) and BCM • Poor connection of the short-cord connector, terminal damage • Open or short circuit in wiring harness in short-cord • Poor connection of the car-navigation unit connector, terminal damage • Open or short circuit in wiring harness between car-navigation unit and the short-cord connector 1



Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Is the lens of the rear mount camera dirty or view is obstructed?	Yes	Clean the lens of the rear mount camera or remove the obstruction.
		No	Go to the next step.
2	Does the lens of the rear mount camera have a crack and damage?	Yes	Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION .)
		No	Go to the next step.
3	Retrieve the DTC related to the car-navigation system using the BCM, INSTRUMENT CLUSTER and car-navigation unit. (See DTC INSPECTION [BCM].) (See DTC INSPECTION [INSTRUMENT CLUSTER].) (See STARTING PROCEDURE FOR ON-BOARD DIAGNOSTIC TEST MODE [CAR-NAVIGATION SYSTEM].)	Yes	Go to the applicable troubleshooting procedure. (See DTC TABLE [BCM] .) (See DTC TABLE [INSTRUMENT CLUSTER] .) (See DTC TABLE [CAR-NAVIGATION SYSTEM] .)
		No	Go to the next step.

	Is there any DTC retrieved?		
4	- Perform "DIAGNOSTIC CHECK" for car-navigation unit. (See DIAGNOSTIC CHECK [CAR-NAVIGATION SYSTEM].) - Is ON displayed for "REV" with the "Vehicle Signal Check" when the selector lever (ATX)/shift lever (MTX) is in the R position?	Yes	Go to Step 6.
		No	Go to the next step.
5	- Monitor the following PIDs for the BCM using the M-MDS: - R_GEAR_SW. (See PID/ DATA MONITOR TABLE [BCM].) - Does the value displayed on the M-MDS correspond to the selector lever (ATX)/shift lever (MTX) condition?	Yes	Replace the car-navigation unit.
		No	Inspect and repair the wiring harness between the TR switch (ATX)/Back-up light switch (MTX) and BCM.
6	- Switch the ignition to off. - Remove the short-cord. - Inspect the connection of the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin) - Disconnect the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Inspect both the short-cord connector 1 and connector 2 terminal for poor connection (such as damaged/pulled-out pins, corrosion). - Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of the short-cord connector: - Securely connect the short-cord connector. If the short-cord connector is wrong: - Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
7	- Switch the ignition to off. - Remove the car-navigation unit. - Inspect the connection of the car-navigation unit connector (4-pin). - Disconnect the car-navigation unit connector (4-pin). - Inspect both the car-navigation unit connector terminal for poor connection	Yes	Go to the next step.
		No	If poor connection of car-navigation unit connector: Securely connect the car-navigation unit connector. If the car-navigation unit connector is

	(such as damaged/pulled-out pins, corrosion). • Are all the pins normal?		wrong: • Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
8	• Inspect the following wiring harnesses between the car-navigation unit and trunk lid harness connector. ▪ Terminal 5A (4-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal 5B (4-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal 5C (4-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal 5D (4-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) • Is there open or short circuit?	Yes	Repair or replace the wiring harnesses between car-navigation unit and the short-cord connector 1.
		No	Go to the next step.
9	• Switch the ignition to off. • Remove the rear mount camera. • Inspect the connection of the rear mount camera connector (6-pin). • Inspect both the rear mount camera and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of rear mount camera connector: • Securely connect the rear mount camera connector. If the rear mount camera connector is wrong: • Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)

10	• Verify that there is no open or short circuit between the short-cord connector 2 and short-cord connector 1. ▪ Terminal A (6-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal F (6-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal C (6-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal D (6-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) • Is there open or short circuit?		YesRepair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.) NoRepair the rear mount camera, then go to the next step. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
11	Has the malfunction symptom been eliminated?		YesTroubleshooting completed (rear mount camera malfunction). No • Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)