

2012 - Mazda6 - Body and Accessories

DTC C0051:04 [BCM]

DESCRIPTION	Steering angle sensor internal malfunction
DETECTION CONDITION	• Z phase is abnormal. • Detected steering angle exceeds the specified value.
POSSIBLE CAUSE	• Steering wheel is off-center • Improper installation or positioning of the steering angle sensor • Steering angle sensor malfunction • BCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	PERFORM DTC INSPECTION • Clear the DTC from the BCM memory using the M-MDS. (See CLEARING DTC [BCM] .) • Perform the BCM DTC inspection using the M-MDS with the steering angle sensor connected. (See DTC INSPECTION [BCM] .) • Is the same DTC present?	Yes Go to the next step.
		No Go to Step 6.
2	INSPECT STEERING WHEEL FOR OFF-CENTER • Drive the vehicle and inspect the steering wheel position while driving in a straight line. • Is the steering wheel off-center?	Yes Inspect and adjust the front wheel alignment to correct the steering wheel alignment, then go to Step 5. (See FRONT WHEEL ALIGNMENT .)
		No Go to the next step.

3	INSPECT FOR IMPROPER INSTALLATION OF STEERING ANGLE SENSOR Is the installation normal?	Yes	Go to the next step.
		No	Repair installation or replace the steering angle sensor, then go to Step 5. (See COMBINATION SWITCH REMOVAL/ INSTALLATION .)
4	INSPECT STEERING ANGLE SENSOR - Inspect the steering angle sensor. (See STEERING ANGLE SENSOR INSPECTION.) - Is there any malfunction?	Yes	Replace the steering angle sensor, then go to the next step. (See COMBINATION SWITCH REMOVAL/ INSTALLATION .)
		No	Go to the next step.
5	VERIFY TROUBLESHOOTING COMPLETED - Make sure to reconnect all disconnected connectors. - Clear the DTC from the BCM memory using the M-MDS. (See CLEARING DTC [BCM].) - Start the engine and drive the vehicle at 10 km/ h { 6.2 mph } or more. - Perform the BCM DTC inspection using the M-MDS. (See DTC INSPECTION [BCM].) - Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the BCM, then go to the next step. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION .)
		No	Go to the next step.
6	VERIFY THAT NO OTHER DTCs ARE PRESENT Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [BCM] .)
		No	DTC troubleshooting completed.

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