

2012 - Mazda6 - Body and Accessories

NO.7 BSM INDICATOR LIGHT DOES NOT FLASH WHILE UNDER BSM INDICATOR LIGHT-FLASHING CONDITIONS (WITH COMBINATION SWITCH OPERATION (TURN SIGNAL SWITCH)) [BLIND SPOT MONITORING (BSM)]

7	BSM indicator light does not flash while under BSM indicator light-flashing conditions (with combination switch operation (turn signal switch))
DESCRIPTION	- The BSM indicator light does not flash or illuminate continuously, but the conditions to flash the BSM indicator light are satisfied (vehicle speed above 32 km/ h { 20 mph} or more, turn signal on, and vehicle in warning zone). - BSM indicator light does not flash or illuminate continuously, but turn signals are off.
	NOTE: - This malfunction symptom is basically the same as symptom “No.5 BSM indicator light does not illuminate while under BSM indicator light-illumination conditions”. - The BSM control module mistakenly recognizes a vehicle as being outside of the warning zone when it is actually inside of it. - Radar (BSM control module integrated) is not emitted inside of warning zone (unable to emit radar inside warning zone) - Damage, deformity or looseness to installation bracket or vehicle frame (including moderate impacts) - Malfunction in steering angle signal (communication error between BCM and BSM control module, or steering angle sensor malfunction) - Problem with rear bumper such as soiling to radar emitting/receiving area, application of stickers (including transparent types), repairs using putty application - BSM control module does not receive echo-back correctly - BSM control module (radar) malfunction

Possible Causes

- Problem with rear bumper such as soiling to radar emitting/receiving area, application of stickers (including transparent types), repairs using putty application

NOTE:

- Rear bumper problems such defective installation of rear bumper, excessive soiling on radar emitting/receiving area, sticker adhesion (including transparent types), repairs to rear bumper using putty
- Non-genuine bumper or paint, or installation of after-market parts negatively affecting radar echo-back ability
 - After-market electrical parts interfere with BSM system
- BSM control module does not recognize vehicle speed correctly (BSM control module mistakenly recognizes vehicle speed as being within **32 km/ h { 20 mph} or more**
 - PCM communication error with BSM control module
 - Malfunction in ABS wheel-speed sensor related parts
- Malfunction in BSM indicator light related parts
 - Open circuit in wiring harness between BSM indicator light and BSM control module
 - Open circuit in wiring harness or poor ground between BSM control module and ground
 - BSM indicator light malfunction
- Signal is not input for turn signal
 - Combination switch (turn signal switch) malfunction
 - Open circuit in wiring harness between combination switch (turn signal switch) and BCM
 - Communication error between BCM and BSM control module
 - BSM control module malfunction

Diagnostic Procedure

Step	Inspection	Action	
1	VERIFY MALFUNCTION SYMPTOM BSM indicator light illuminates while under light-off conditions.	Yes	Go to the next step.
		No	Go to the symptom troubleshooting procedure, "No.5 BSM indicator light does not illuminate while under BSM indicator light-illumination conditions". (See NO.5 BSM INDICATOR LIGHT DOES NOT ILLUMINATE WHILE UNDER BSM INDICATOR LIGHT-ILLUMINATION CONDITIONS [BLIND SPOT MONITORING (BSM)] .)
2	VERIFY DTCs - Retrieve DTCs from the BSM control module, BCM, PCM, and TCM using the M-MDS. (See DTC INSPECTION [BLIND SPOT MONITORING (BSM)].) (See DTC INSPECTION [BCM].) (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) (See ON-BOARD DIAGNOSTIC TEST [MZI 3.7 V6].) (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL].) (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [AY6A-EL].) - Are any DTCs displayed?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [BLIND SPOT MONITORING (BSM)] .) (See DTC TABLE [BCM] .) (See DTC TABLE [MZR 2.5] .) (See DTC TABLE [MZI 3.7 V6] .) (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .) (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [AY6A-EL] .)
		No	Go to the next step.
3	INSPECT IF MALFUNCTION IS IN BCM INPUT SIGNAL OR BSM - Monitor the following PIDs on the suspected side of the BSM control module using the M-MDS. (See PID/ DATA MONITOR INSPECTION [BLIND SPOT MONITORING (BSM)].) - TURN_SW_L - TURN_SW_R	Yes	Replace the BSM control module. (See BLIND SPOT MONITORING (BSM) CONTROL MODULE REMOVAL/ INSTALLATION .)
		No	Go to the next step.

	Are the monitoring values normal?		
4	INSPECT TURN SIGNAL SWITCH SIGNAL - Monitor the following BCM PIDs using the M-MDS: (See PID/ DATA MONITOR INSPECTION [BCM].) - TURN_SW_L - TURN_SW_R - Are the monitoring values normal?	Yes	Replace the BSM control module. (See BLIND SPOT MONITORING (BSM) CONTROL MODULE REMOVAL/ INSTALLATION.)
		No	- Inspect the following: - Combination switch (turn signal switch) - Wiring harness between combination switch (turn signal switch) and BCM for short to ground circuit (See LIGHT SWITCH INSPECTION.) - If a malfunction is detected, repair or replace the malfunctioning part. - If a malfunction is not detected, replace the BCM. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.)

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		No	Go to the next step.

	• Are the monitoring values normal?		
4	INSPECT TURN SIGNAL SWITCH SIGNAL • Monitor the following BCM PIDs using the M-MDS: (See PID/ DATA MONITOR INSPECTION [BCM].) ▪ TURN_SW_L ▪ TURN_SW_R • Are the monitoring values normal?	Yes	Replace the BSM control module. (See BLIND SPOT MONITORING (BSM) CONTROL MODULE REMOVAL/ INSTALLATION.)
		No	• Inspect the following: ▪ Combination switch (turn signal switch) ▪ Wiring harness between combination switch (turn signal switch) and BCM for short to ground circuit (See LIGHT SWITCH INSPECTION.) • If a malfunction is detected, repair or replace the malfunctioning part. • If a malfunction is not detected, replace the BCM. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.)