

2012 - Mazda6 - Body and Accessories

NO.6 BSM INDICATOR LIGHT FLASHES WHILE NOT UNDER BSM INDICATOR LIGHT-FLASHING CONDITIONS (NO COMBINATION SWITCH OPERATION (TURN SIGNAL SWITCH)) [BLIND SPOT MONITORING (BSM)]

6	BSM indicator light flashes while not under BSM indicator light-flashing conditions (no combination switch operation (turn signal switch))
DESCRIPTION	• The BSM indicator light flashes despite not satisfying the BSM indicator light flashing conditions (vehicle speed above 32 km/ h { 20 mph} or more, turn signal on, and vehicle in warning zone) • The BSM indicator light flashes, but the turn signals are off.
Possible Causes	NOTE: • This malfunction symptom is basically the same as symptom “No.4 BSM indicator light while not under BSM indicator light-illumination conditions”. • BSM control module recognizes a vehicle as being inside the warning zone when it is actually outside of it. ▪ Radar (BSM control module integrated) is emitted outside of warning zone (deviates from 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 ▪ 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 above 32 km/ h { 20 mph} or more ▪ PCM communication error with BSM control module

	Malfunction in ABS wheel-speed sensor related parts - BSM control module mistakenly recognizes that turn signals have been operated - Short to ground circuit in wiring harness between combination switch (turn signal switch) and BCM - Communication error between BCM and BSM control module - BSM control module malfunction
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Diagnostic Procedure

Step	Inspection	Action
1	VERIFY MALFUNCTION SYMPTOM BSM indicator light illuminates while under light-off conditions.	Yes Go to the symptom troubleshooting procedure, "No.4 BSM indicator light illuminates while not under BSM indicator light-off conditions". (See NO.4 BSM INDICATOR LIGHT ILLUMINATES WHILE NOT UNDER LIGHT-ILLUMINATION CONDITIONS [BLIND SPOT MONITORING (BSM)] .)
		No Go to the next step.
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	Yes Replace the BSM control module.

	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 - Are the monitoring values normal?		(See BLIND SPOT MONITORING (BSM) CONTROL MODULE REMOVAL/ INSTALLATION.)
		No	Go to the next step.
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) (See LIGHT SWITCH INSPECTION.) - Wiring harness between combination switch (turn signal switch) and BCM for short to ground circuit - 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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