M-Tips

Mazda North American Operations Irvine, CA 92618-2922



Subject:

SMART CITY BRAKE SUPPORT (SCBS) UNINTENTIONAL OPERATION

M-Tips No.: MT-019/17

Last Issued: 11/22/2017

BULLETIN NOTES

This M-Tip supersedes the previously issued M-Tip(s) listed below: The changes are noted in Red.

Previous M-Tip(s):	Date(s) Issued:
MT-013/16	06/20/2016



DO NOT PERFORM OPERATIONAL TESTING OF THE SMART CITY BRAKE SUPPORT (SCBS) SYSTEM

If the warning indicator light is not illuminated and there are no codes stored in the system, the system is operating properly, and Mazda cannot perform any additional testing of the system. Dealers and customers should never attempt to test or recreate crash scenarios under any circumstances because that could lead to an accident and injuries.

NOTE: This article only applies to the applicable vehicles below equipped with SCBS system that uses a Laser Sensor. This article does not apply to newer vehicles equipped with SCBS system that uses a Forward Sensing Camera (FSC).

APPLICABLE MODEL(S)/VINS

2014- <mark>2016</mark> Mazda3	2016- <mark>2017</mark> CX-3	2016- <mark>2017</mark> CX-9
2014-2016 Mazda6	2014- <mark>2016</mark> CX-5	

DESCRIPTION

In certain conditions, Smart City Brake Support (SCBS) may operate unintentionally. The Owner's Manual provides 7 examples:

- 1. Objects on the road at the entrance to a curve.
- 2. Vehicles passing in the opposite lane while making a curve.
- 3. Metal objects, bumps, or protruding objects on the road.
- 4. When passing through a toll gate.
- 5. When passing under a vinyl curtain or flag.

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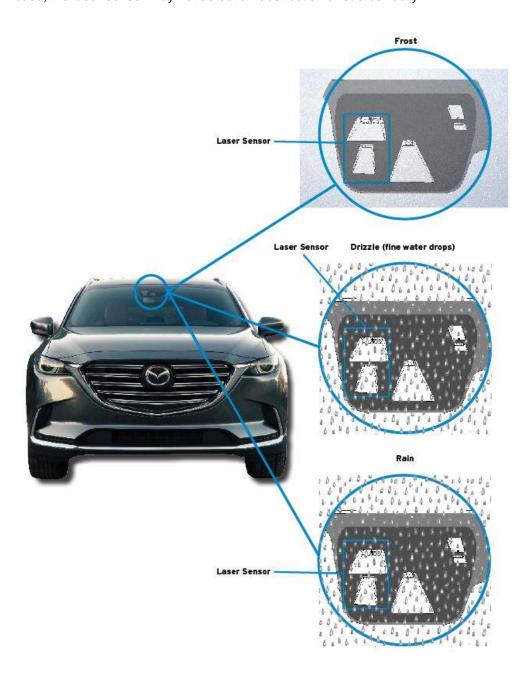
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- 6. Plastic objects such as pylons.
- 7. Two-wheeled vehicles, pedestrians, animals or standing trees.

This M-Tip article provides 1 additional example:

There is/are frost/water drops on the outer surface of the windshield around the black printing portion at the upper center (where the near infrared laser beam is emitted).

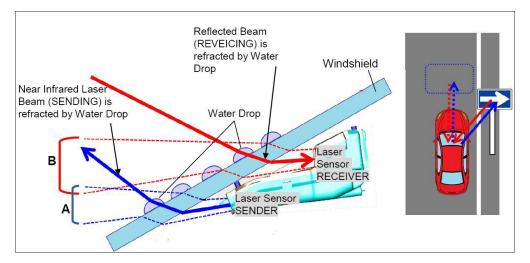
The laser sensor light beam may be refracted by waterdrops or foreign material on the windshield. In this case, the laser sensor may not detect an obstruction ahead correctly.



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The near infrared laser beam (SENDING) emitted from the laser sensor (SENDER) is refracted by water drop on the windshield and reflects an object (a traffic sign in the figure) outside the normal sending range. The reflected beam (RECEIVING) by the traffic sign is also refracted by water drop and received by the laser sensor (RECEIVER). Thus, the system may detect an object outside the normal detection range as a vehicle and the SCBS operates unintentionally.



A: Normal Sending Range of Near Infrared Laser Beam B: Normal Receiving Range of Near Infrared Laser Beam Preventive Measures:

- 1. In case frost and/or water drops is/are on the outer surface of the windshield;
 - Operate the wiper system to remove the frost/water drops on the windshield.
 - Advise the customer to properly clean the windshield. Present oil films may cause rain drops to stick on the windshield.
- 2. If the customer is unable to perform the preventive measures above, advise the customer to turn OFF the SCBS operation temporarily.
 - Go to Owner's Manual > Personalization Features > Smart City Brake Support (SCBS).

CAUTION:

- If the SCBS system operation is turned off, the Smart Brake Support (SBS) system operation is turned off simultaneously.
- When the engine is restarted, the systems become operational again.

Object examples that SCBS may detect unintentionally due to foreign material like water drop/frost on windshield.

The laser sensor may unintentionally detect reflectors or shop/traffic signs including reflector on the right side of or above the road ahead or vehicles parking on the right side of the road ahead.

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