

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922



Subject: DOOR OUTER HANDLE TOUCH SENSOR DOES NOT LOCK AND/OR UNLOCK	Bulletin No.: 09-039/21
	Last Issued : 12/20/2021

BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted in Red.

Previous TSBs:	Date(s) Issued:
09-016/20	04/17/20

APPLICABLE MODEL(S)/VINS

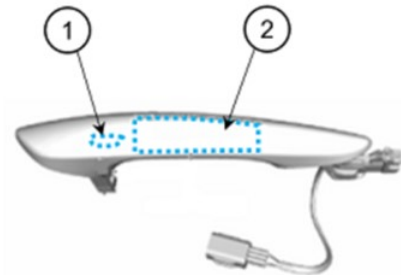
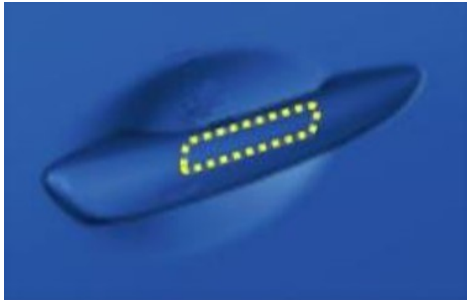
2019-2021 Mazda3
2020-2021 CX-30

DESCRIPTION

Some customers may experience one or both of the following symptoms while locking and unlocking the doors works fine using the remote transmitter.

- Symptom 1: The touch sensor of the front door outer handle does not lock the doors after **rain and/or** car washing, even though unlocking is possible.
- **Symptom 2:** The touch sensor of the front door outer handle does not unlock the doors.

Door outer handle touch sensor for locking (1) / unlocking (2)



Cause 1 (for Symptom 1): Water may accumulate around the touch sensor in the outer handle, resulting in temporary lower sensitivity of the capacitive sensor. Also, if car wash foam gets inside the outer handle while washing the vehicle, the foam may disturb the touch sensor detection. Mazda is still working on a mass production change for this concern.

Cause 2 (for Symptom 2): Improper soldering in the production process may disturb the touch sensor detection. To eliminate this concern, the production process has been modified.

Customers having this concern should have their vehicle repaired using the following repair procedure.

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REPAIR PROCEDURE

1. Verify customer concern.
2. Repair the vehicle depending on the experienced symptom(s).
 - **Symptom 1 experienced:** Follow the "Procedure to waterproof a touch sensor" below to make the touch sensor waterproof.
 - **Symptom 2 experienced:** Replace the front outer handle with a modified one according to the instructions on MGSS.
 - Mazda3 (FRONT OUTER HANDLE REMOVAL/INSTALLATION)
 - CX-30 (FRONT OUTER HANDLE REMOVAL/INSTALLATION)
 - **Both Symptoms experienced:** Replace the front outer handle with a modified one and follow the "Procedure to waterproof a touch sensor" below to make the touch sensor waterproof.

NOTE: DO NOT repair the other front outer handle for the vehicle if it is not experiencing any problems.

3. Verify the repair by checking if the new outer handle locks/unlocks the door correctly.

Procedure to waterproof a touch sensor

Materials needed:

- Adhesive: Threebond 1533C (available from Mazda)
- Butyl tape: Thickness 1/16 inch (1.5mm) x 2 inches wide

NOTE: If you cannot find the appropriate size of butyl tape, layer strips of waterproof tape to 1/16 inch (1.5mm). Butyl tape 3M Part # 06395 (repairs approximately 176 door handles) available from:

- NAPA online: <https://www.napaonline.com/en/p/MMM06395?impressionRank=1>
- eBAY: <https://www.ebay.com/itm/113667313429>
- O'Reilly Auto Parts: <https://www.oreillyauto.com/detail/c/3m/tools---equipment/tapes/foam-mounting-tape/c9b4729e478c/3m-automotive-acrylic-plus-attachment-tape/mmm0/06395>

1. Remove the affected front outer handle(s), referring to the instructions on MGSS.

- Mazda3 (FRONT OUTER HANDLE REMOVAL/INSTALLATION)
- CX-30 (FRONT OUTER HANDLE REMOVAL/INSTALLATION)

NOTE: The images shown below are of the RH side.

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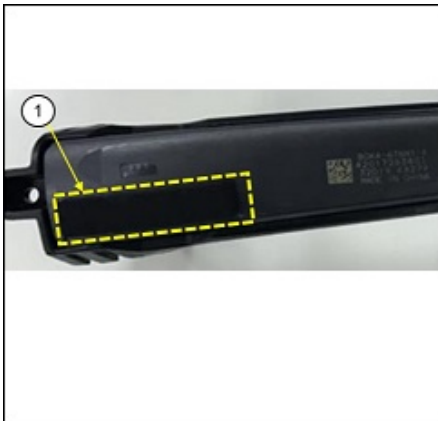
2. Remove the two screws and disassemble the outer handle.



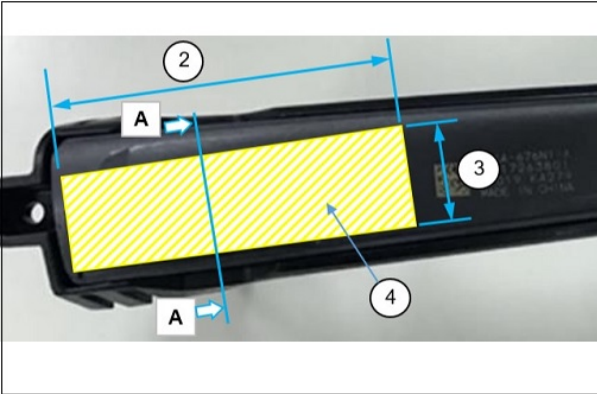
3. If rubber sheet is installed, remove the rubber sheet (1) from the sensor and then apply the butyl tape (4), aligning the bottom edge (5) of the butyl tape (4) to the edge of the sensor.

NOTE:

- Location and size of the applying area are as follows.
- Peel off the release paper on the butyl tape just before assembling to the front outer handle.
- DO NOT let the butyl tape stick out beyond the edge (6).
- DO NOT leave a gap (7).

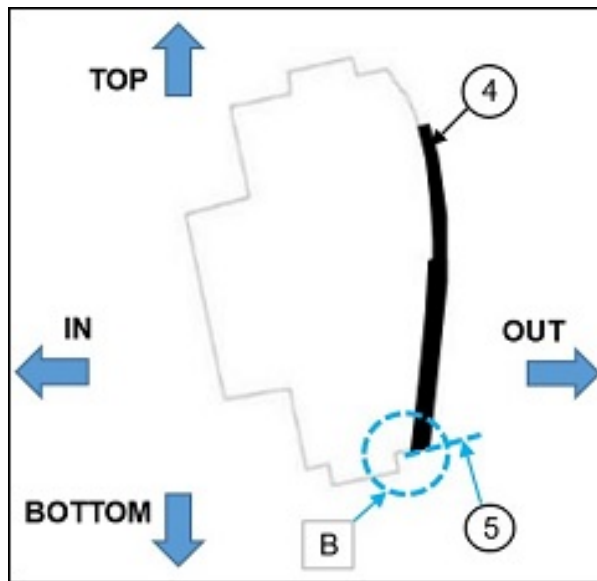


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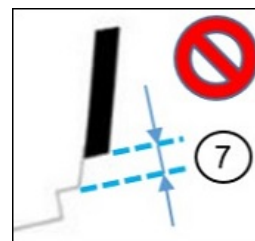
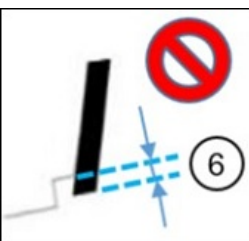


- (2) 2 inches (55mm)
- (3) 0.63inch (16mm)
- (4) Butyl tape: 1/16inch (1.5mm) thickness

Section A-A



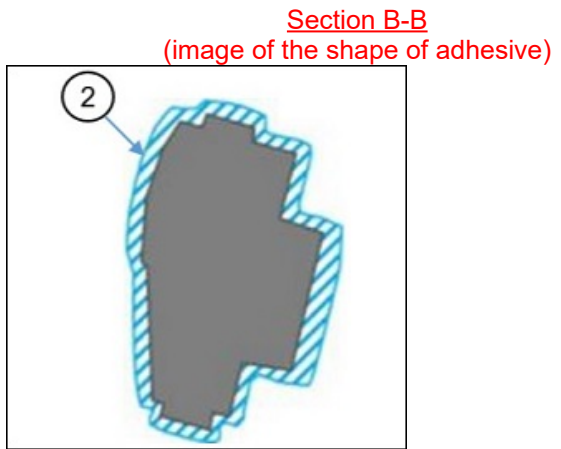
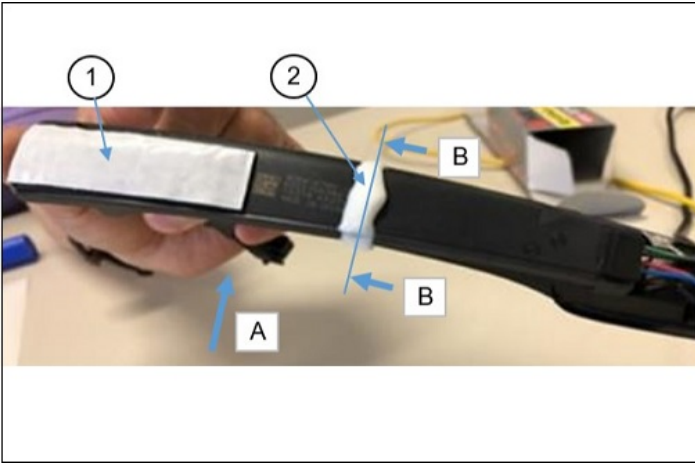
Detail B



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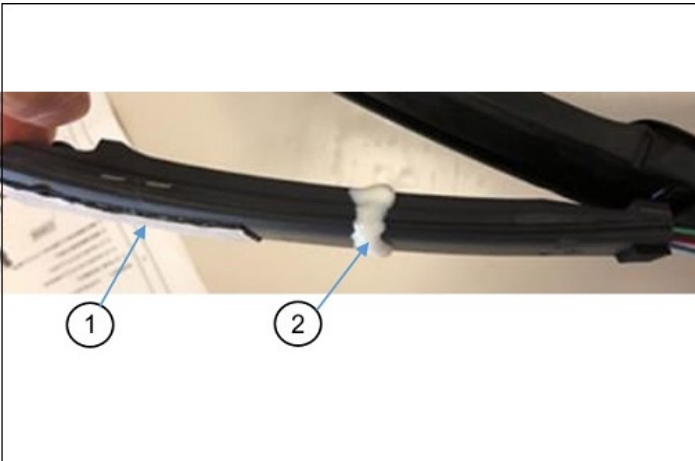
4. Waterproof the outer handle and the touch sensor by applying adhesive to the touch sensor.

NOTE: White adhesive and a transparent touch-cover are used in the picture below to show the shape of adhesive clearly.



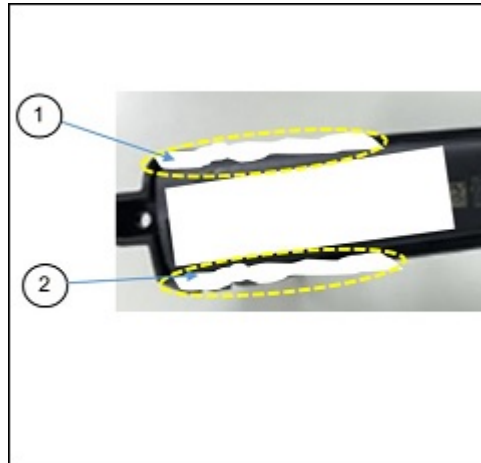
- (1) Butyl tape
- (2) Adhesive: Apply the adhesive around the touch sensor

View A



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5. Apply the adhesive between the side cover and the sensor.



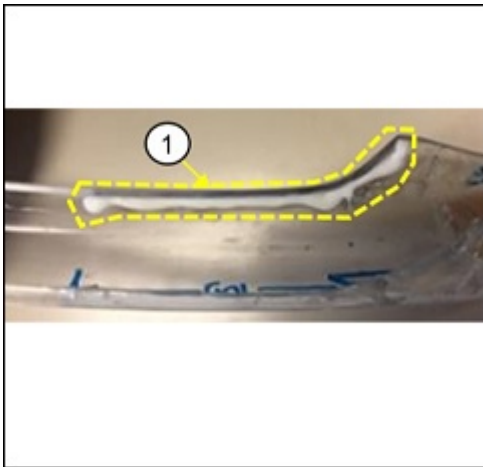
(1) Upper side



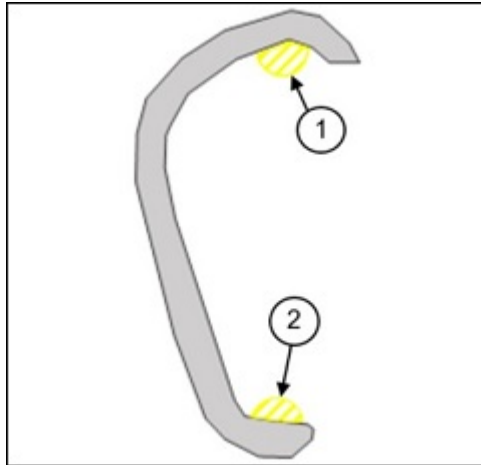
(2) Lower side

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6. Apply the adhesive between the outer cover and the touch sensor.
ATTENTION: Make sure not to break the adhesive line when applying.
Upper side

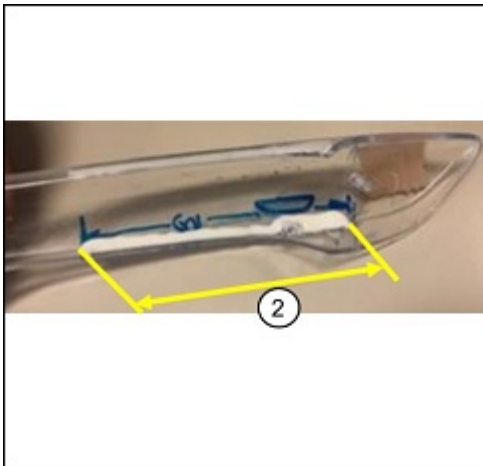


(1) Apply the adhesive along the edge of the cover



Adhesive application
Width: 1/5 inch (5mm)
Height: 1/13inch (2mm)

Lower side

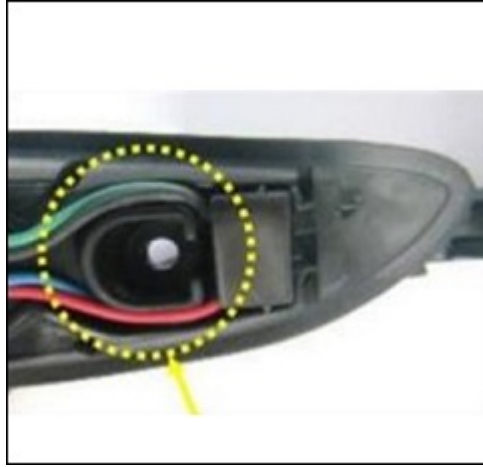
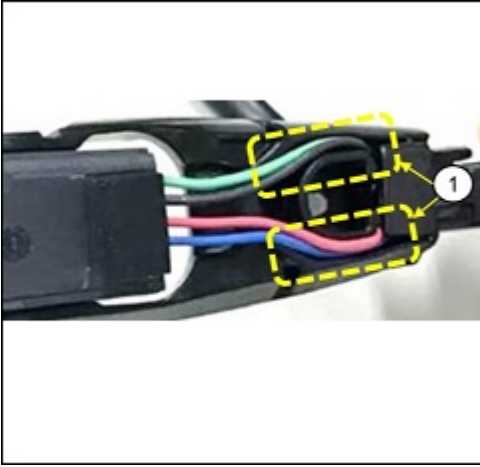


(2) Apply the adhesive straight for about 4 inches (100mm)

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7. Assemble the outer handle with two screws so that the wire harnesses are not pinched.

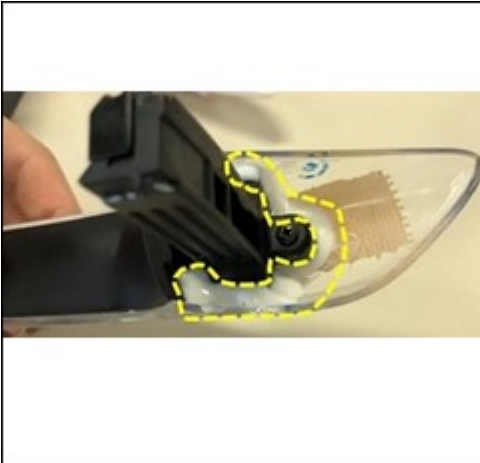
NOTE: Before assembling the outer cover, peel off the release paper on the butyl tape.



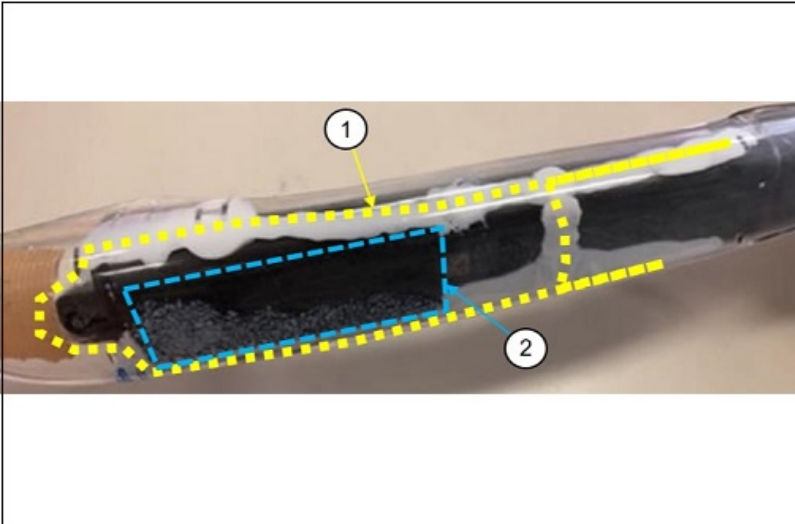
(1) Verify the wires are not outside the grooves

8. Fill the adhesive from the back of the outer cover.

9. Let the adhesive dry for 2 hours, keeping the position of the outer cover so that the adhesive on the back of it does not drip.



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- (1) Image of the adhesive application location
- (2) Butyl tape

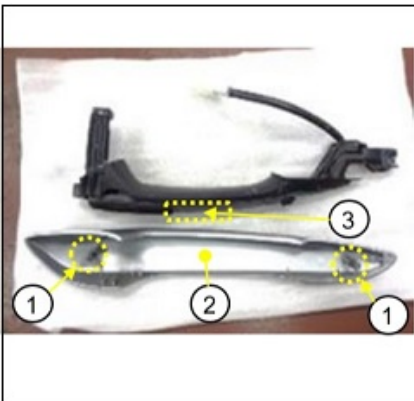
10. Verify repair.

ATTENTION: DO NOT wash the vehicle for 2 days after the repair.

PARTS INFORMATION

Order parts only if Symptom 2 or Both Symptoms are experienced.

NOTE: Though the part numbers have not been changed for the modification, the modified parts can be distinguished by the serial number on the front outer handle.



- (1) Remove the 2 screws
- (2) Remove the outer cover
- (3) Check the serial number

(4) (Detail of (3)) The serial number is in NNNYY format (N NN: day of year, YY: year).

- If the serial number on the front outer handle is "072 20" (72th day of 2020) or later, it is a modified part.

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Part Number	Description	Qty.	Notes
BDGG-58-410H-**	Lever (R), Outer Handle	1	Mazda3 (Japan built)
BDGG-59-410H-**	Lever (L), Outer Handle	1	Mazda3 (Japan built)
BDTV-58-410E-**	Lever (R), Outer Handle	1	Mazda3 (Mexico built) and CX-30
BDTV-59-410E-**	Lever (L), Outer Handle	1	Mazda3 (Mexico built) and CX-30
0000-TB-1533-C0	Threebond 1533C	1	1 tube will repair 8 door handles

NOTE: ** is the color code. Refer to GEPC.

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

Making the touch sensor waterproof (Symptom 1 experienced)

Warranty Type	A
Symptom Code	42
Damage Code	9H
Part Number Main Cause	***-58-410* ** or ****-59-410* **
Quantity	0
Operation Number / Labor Hours:	XXT4DBAX / 0.7 Hrs (Driver's side only) XXT4DDAX / 0.6 Hrs (Passenger's side only) XXT4DEAX / 1.3 Hrs (Both sides)

NOTE: One tube of Threebond 1533C can repair 8 door handles. Claim the butyl tape and adhesive as related part only at the time of the first repair.

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Replacement of the front outer handle(s) (Symptom 2 experienced)

Warranty Type	A
Symptom Code	41
Damage Code	9W
Part Number Main Cause	****-58-410* ** or ****-59-410* **
Quantity	1
Operation Number / Labor Hours:	XXT4EARX / 0.7 Hrs (Driver's side only) XXT4ECRX / 0.6 Hrs (Passenger's side only) XXT4EERX / 1.3 Hrs (Both sides)

NOTE: Claim the other side of the outer handle as related parts if replaced.

Replacement of the front outer handle(s) and making the touch sensor waterproof (Both Symptoms experienced)

Warranty Type	A
Symptom Code	42
Damage Code	9W
Part Number Main Cause	***-58-410* ** or ****-59-410* **
Quantity	1
Operation Number / Labor Hours:	XXT4FARX / 0.7 Hrs (Driver's side only) XXT4FCRX / 0.6 Hrs (Passenger's side only) XXT4FFRX / 1.3 Hrs (Both sides)

NOTE: One tube of Threebond 1533C can repair 8 door handles. Claim the other side of the outer handle as related parts if replaced and claim the butyl tape and adhesive as related part only at the time of the first repair.

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