Service Alert

Mazda North American Operations Irvine, CA 92618-2922



Subject:

MAZDA CONNECT SYMPTOM TROUBLESHOOTING [6TH
GENERATION VEHICLES]

Last Issued: 11/16/2021

BULLETIN NOTES

This service alert supersedes the previously issued service alert listed below. The changes are noted in Red text.

Previous Service Alert:	Date(s) Issued:
SA-019/21	09/28/21, 09/01/21, 06/25/21, 04/08/21 and 02/26/21
SA-026/20	06/11/20 and 02/11/20
SA-065/17	08/10/17

APPLICABLE MODEL(S)/VINS

2014-2018 Mazda3	2016-2021 CX-3	2016-2020 CX-9
2016-2021 Mazda6	2016-2020 CX-5	2016-2021 MX-5

DESCRIPTION

Use the symptom troubleshooting tables below to diagnose MAZDA CONNECT concerns.

REPAIR PROCEDURE

Before proceeding:

- Confirm that the Connectivity Master Unit (CMU) is updated to the latest software version. Go to MGSS ->
 Infotainment -> MAZDA CONNECT Updates
- Go to TSB 16-001/20 to view MAZDA CONNECT CMU software fix list.
- Confirm that the customers device is compatible. Go to connect.mazda.com -> Support -> Compatibility.
- Confirm that the customers device is updated to the latest software version.
- Apple Carplay/Android Auto FAQ, go to SA-070/20.
- If you suspect a counterfeit Navi SD card, ask the customer for proof of purchase. It cannot be determined by visually looking at the label. If Mazda Toolbox is used and a counterfeit SD card is detected, the customer VIN may be locked-out.

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NOTE:

- If possible, complete any one of the Microsoft Forms Questionnaires. Go to MGSS -> Infotainment -> MAZDA CONNECT Questionnaire.
- Some customers may complain that on some roads, the speed limit shown in the navigation screen is different from the actual road signs.
 - Every time MAZDA CONNECT starts (boots up when ignition turns ON), the disclaimer notification is shown to notify that there are some difference between the navigation map data and actual road signs.
 - Lead time for updating the navigation map data takes 12 months.

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No. 1 Blank Screen

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Step	Inspection	Result	Action
		Yes	Go to step 2.
1	Is the Rear View Camera displayed?	No	Refer to No. 2. Rear View Camera is not displayed 2016-2017 CX-9 - See 09-034/17
2	Press the "HOME" button. Is the HOME	Yes	Normal Operation
	screen displayed correctly?	No	Go to step 3
3	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis.
<u> </u>	system DTC's stored?	No	Go to step 4.
1	ie mere a action cominente in min oce	Yes	Go to step 5.
T	port?	No	Go to step 6.
	Disconnect the USB device. Does the	Yes	USB device is not compatible.
5	display function properly after USB device is disconnected?	No	Go to step 6.
6	is the confidence for the contain biopidy	Yes	Go to step 7.
	inserted correctly?	No	Insert the connector correctly.
7	Are the connectors for the CMU inserted correctly?	Yes	Go to step 8.
		No	Insert the connectors correctly.
8	Is the center display voltage at 0920-	Yes	Go to step 9.
0	304A terminal 1H, L wire color normal?	No	Go to step 10.
	Swap the Center Display with good	Yes	Check / Replace the Center Display.
9	known vehicle. Is the screen display normal?	No	Go to step 10.
10	Swap the CMU with good known vehicle. Is the screen display normal?	Yes	Retrieve the data log if possible before replacing the CMU Document date and time of the condition
		No	Repair / Replace wiring harness. Go to MGSS View Content -> Wiring Diagram -> Body and Accessories -> Entertainment System.

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No. 2 Rear View Camera is not displayed

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis
<u>'</u>	system DTC's stored?	No	Go to step 2.
2	Is the vehicle equipped with 360 View	Yes	Go to step 3.
	Monitor?	No	Go to step 4.
3	Is the Front Camera and Side Cameras	Yes	Check / Replace the 360 View Monitor control unit.
	displayed normally?	No	Go to step 4.
			Go to step 5.
4	Are images other than the Rear View Camera displayed?	Yes	2014-2018 Mazda3 5-door HB 2016-2019 CX-3 Go to 09-031/20
		No	Go to No. 1 Blank Screen.
5	Is the connector for the Rear View Camera Inserted correctly?	Yes	Go to step 6.
		No	Insert the connector correctly.
6	Is the connector for the Center Display Inserted correctly	Yes	Go to step 7.
		No	Insert the connector correctly
7	Are the connectors for the CMU Inserted correctly	Yes	Go to step 8.
		No	Insert the connectors correctly
	Swap the Rear View Camera with good	Yes	Check / Replace the Rear View Camera
8	known vehicle. Is the screen display normal?	No	Go to Step 9
9	Swap the CMU with good known vehicle. Is the screen display normal?	Yes	Retrieve the data log if possible before replacing the CMU Document date and time of the condition
		No	Go to MGSS, WSM, REAR MOUNT CAMERA IMAGE NOT CLEAR/NO IMAGE ON SCREEN.

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No. 3 Rebooting

Step	Inspection	Result	Action	
1	Using M-MDS, are any infotainment system DTC's	Yes	Go to MGSS for DTC diagnosis	
ı	stored?		Go to step 2.	
		Yes	Go to step 3.	
2	Does the reboot continue after removing the Navigation SD card?	No	Check / Replace the Navigation SD card. Note: See TSB 09-015/20 if applicable	
3	Is there a device connected to the USB port?	Yes	Go to step 4.	
3	is there a device confidence to the OSB port?	No	Go to step 5.	
4	Disconnect the USB device. Does the reboot stop	Yes	USB device is not compatible	
4	after USB device is disconnected?	No	Go to step5.	
		Yes	Go to step 6.	
5	Does the reboot continue after ignition key OFF then back ON?	No	Retrieve the data log if possible before replacing the CMU Document date and time of the condition	
6	Does the reboot continue after vehicle battery disconnect?	Yes	Retrieve the data log if possible before replacing the CMU Document date and time of the condition	
		No	No repair needed.	

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No. 4 Infotainment System Has No Sound

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis
ı	system DTC's stored?		Go to step 2.
2	Is sound normal other than navigation guidance?		Go to step 3.
2			Go to step 4.
3	Can you hear the voice after raising the	Yes	Normal Operation.
3	navigation volume?	No	Go to step 5.
4	Can you hear sound after turning on audio	Yes	Normal Operation.
4	mode?	No	Go to step 6.
		Yes	Complete
	Danlage the Navigation SD Card, Can you		Check / Replace the CMU.
5	Replace the Navigation SD Card. Can you hear voice after Navigation SD Card replacement?	No	 Retrieve the data log if possible before replacing the CMU Document date and time of the condition
	Can you hear sound after raising the	Yes	Normal Operation
6	volume of audio?	No	Go to step 7.
7	<< Source: USB/iPod >> Are there any problems with the media and the music files? << Source: Radio >> Are there any problems with the antenna and the reception? << Source: Bluetooth Audio >> Are there are the reception?	Yes	<< Source: USB/iPod >> Check the media and the compatible files. << Source: Radio >> Check the antenna, the reception, and the Tuner and Amp Unit (TAU) side. << Source: Bluetooth Audio >> Check the Bluetooth connection and the Bluetooth device.
	Are there any problems with Bluetooth?	No	Go to step 8.
			Check / Replace the CMU. Retrieve
8.	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Diagnostic Assist Code "94"	Pass	 Retrieve the data log if possible before replacing the CMU Document date and time of the condition
	Speaker Inspection. Did the Speaker Inspection Pass?	Fail	Go to MGSS NO SOUND OUTPUT IN ALL MODES [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]

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No. 5 Commander Switch Does Not Work

Step	Inspection	Result	Action
1	Journal of the second of the s	Yes	Go to MGSS for DTC diagnosis
ı		No	Go to step 2.
2	Does the Commander Switch work	Yes	Go to step 3.
2	correctly?	No	Go to step 4.
3	Does the Steering Wheel Switch	Yes	Normal Operation.
3	work correctly?	No	Go to step 5.
4	Are fues blown/ missing?	Yes	Blown - Diagnose blown fuse Missing - Install missing fuse
		No	Go to step 5.
	Go to MGSS "DIAGNOSTIC	Pass	Go to step 6.
5	ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Diagnostic Assist Code "65" Commander Switch and Steering Wheel Switch Inspections. Did the Switch Inspections Pass?	Fail	Replaced the failed switch. Go to MGSS: • Steering Wheel Switch Removal/Installation • Commander Switch Removal/Installation
6	Is the connector for the Commander	Yes	Go to step 7.
0	Switch inserted correctly?	No	Insert the connector correctly.
7	Are the CMU connectors inserted	Yes	Go to step 8.
	correctly?	No	Insert the connectors correctly.
	Swap the Commander Switch with	Yes	Check / Replace the Commander Switch.
8	good known vehicle. Does the Commander Switch work correctly?	No	Go to step 9.
9	vehicle. Does the Commander Switch work correctly?	Yes	Check / Replace the CMU. Retrieve the data log if possible before replacing the CMU Document date and time of the condition
		No	Repair/Replace wiring harness. Go to MGSS View Content -> Wiring Diagram -> Body and Accessories -> Entertainment System.

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No. 6 Bluetooth device will not pair

Step	Inspection	Result	Action	
_	Using M-MDS, are any infotainment system	Yes	Go to MGSS for DTC diagnosis	
1	DTC's stored?		Go to step 2.	
2	. 5	Yes	Go to step 3.	
2	Is Bluetooth enabled on the customers device?	No	Enable Bluetooth on the customers device.	
		Yes	Go to step 4.	
3	Is the customers device paired to the vehicle?	No	Pair the customers device to the vehicle. See MGSS Bluetooth® PAIRING NOT POSSIBLE [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]	
	Is the customers device selected in MAZDA	Yes	Go to step 5.	
4	CONNECT settings?	No	Select the customers device from Bluetooth settings.	
	Delete the device from MAZDA CONNECT and	Yes	Normal Operation	
5	then re-pair it. Does Bluetooth work correctly?	No	Go to step 6.	
	Go to http://infotainment.mazdahandsfree.com		Go to step 7.	
6	Web Site. Is the customers device compatible?	No	The customers device is not compatible.	
		Yes	Go to step 8.	
7	Does the same symptom occur on another same model/year vehicle?	No	 Check / Replace the CMU. Document device model, software version and occurrence of the condition. Retrieve the data log if possible before replacing the CMU Document date and time of the condition 	
		Yes	Vehicle operation is normal.	
8	Reboot the customers device. Does Bluetooth work correctly?	No	Check / Replace the CMU. Document device model, software version and occurrence of the condition. Retrieve the data log if possible before replacing the CMU Document date and time of the condition	

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No. 7 Incorrect GPS position

Step	Inspection	Result	Action
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION	Yes	Normal Operation.
1	[CONNECTIVITY MASTER UNIT (US)]" Perform Diagnostic Assist Code "72" GPS information verification. Check GPS Received Level. Does the Navi system show correct vehicle position?	No	Go to step 2.
	Using M-MDS, are any of the following DTC's	Yes	Go to step 4.
2	stored? - B119F:1D, GPS antenna circuit malfunction - B119F:11, GPS antenna circuit malfunction - B119F:13, GPS antenna circuit malfunction - B119F:92, GPS antenna circuit malfunction	No	Go to step 3.
	Is the wheel and tire size correct according to the tire label?	Yes	Go to step 8.
3.		No	Swap wheels/tires with correct size. If issue is fixed, inform the customer.
4	L. II. ODO L	Yes	Go to step 5.
4	Is the GPS antenna connector secured properly?		Insert the connector correctly.
5	Is the GPS wiring harness open or shorted?	Yes	Repair / Replace GPS wiring harness.
	is the GF3 withing harness open of shorted?	No	Go to step 6.
6	Are the CMU connectors secured properly?	Yes	Go to step 7.
	Are the CiMO connectors secured properly?		Insert the connectors correctly.
7	Is the CMU wiring harness open or shorted?	Yes	Repair / Replace CMU wiring harness.
<u> </u>	is the Civio willing harness open of shorted?		Go to step 8.
		Yes	Repair completed.
8	Replace GPS antenna. Does the Navigation system show correct position?	No	Retrieve the data log if possible before replacing the CMU Document date and time of the condition

NOTE: Remove aftermarket GPS devices that may interfere with vehicle GPS antenna. Example: Some radar detectors may emit radio waves that interfere with the vehicle GPS antenna.

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No. 8 Voice Recognition Does Not Work

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's stored?		Go to MGSS for DTC diagnosis
<u>'</u>			Go to step 2.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION	Pass	Go to step 3.
2	[CONNECTIVITY MASTER UNIT (US)]" Perform Diagnostic Assist Code "65" Commander Switch and Steering Wheel Switch Inspections. Did the Steering SW Inspection Pass?	Fail	Go to MGSS STEERING SWITCH INSPECTION.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION		Go to step 4.
3	[CONNECTIVITY MASTER UNIT (US)]" Perform Diagnostic Assist Code "61" Microphone signal input condition Did the Microphone Inspection Pass?	Fail	Go to MGSS MICROPHONE INSPECTION.
			Repair complete
4	Go to MGSS VOICE OPERATION NOT POSSIBLE [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]] Is the vehicle repaired?	No	Retrieve the data log if possible before replacing the CMU Document date and time of the condition

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No. 9 Cannot Make a Hands-Free Call

Step	Inspection	Result	Action
4	Using M-MDS, are any infotainment system	Yes	Go to MGSS for DTC diagnosis
1	DTC's stored?		Go to step 2.
2	la Black all and last and a section of the control	Yes	Go to step 3.
2	Is Bluetooth enabled on the customers device?		Enable Bluetooth on the customers device.
	Is the customers device data service strength	Yes	Go to step 4.
3	good?	No	Move to a location where data service strength is good and retest.
4	Is the customers device paired to the vehicle?	Yes	Go to step 5.
4	is the customers device palied to the vehicle?	No	Pair the customers device to the vehicle.
	Is the customers device selected in MAZDA	Yes	Go to step 6.
5	CONNECT settings?	No	Select the customers device from Bluetooth settings.
	Delete the device from MAZDA CONNECT and	Yes	Normal Operation
6	then re-pair it. Does Bluetooth work correctly?	No	Go to step 7.
_	Go to http://infotainment.mazdahandsfree.com	Yes	Go to step 8.
7	Web Site. Is the customers device compatible?		The customers device is not compatible.
8	Does the same symptom occur on another same model/year vehicle?	Yes	Go to step 9.
		No	Go to step 10.
9	Reboot the customers device. Does Bluetooth	Yes No	Vehicle operation is normal.
	work correctly?		Go to step 10.
10	Is the Bluetooth device in a place where radio waves may be blocked?	Yes	Move the Bluetooth device away from hidden location.
	(Behind or under a sheet, in a box, in a purse/bag, ext.)	No	Go to step 11.
11	Is the Bluetooth device contacting or blocked by metal objects?	Yes	Move the Bluetooth device away from metal objects.
		No	Go to step 12.
12	Is a Bluetooth device and a USB device	Yes	Disconnect other USB device.
12	connected at the same time?		Go to step 13.
13	Does the problem occur in a specific geological location only?	Yes	Move to a different location. This may be caused by electrical interference by radio stations, specific small power radio stations, or amateur radio stations for mobile identification used in industrial, scientific and medical devices.
			Go to step 14.
14	Does the same symptom occur on another	Yes	Go to step 15
	Bluetooth device?		The customers device is not compatible.
15	Does the voice recognition system operate	Yes	Check / Replace the CMU.

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using other functions such as Bluetooth Audio		Document device model, software version and occurrence of the condition. Retrieve the data log if possible before replacing the CMU Document date and time of the condition
	No	Go to No. 8 Voice Recognition Does Not Work

No. 10 Cannot Play Bluetooth Audio

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's stored?	Yes	Go to MGSS for DTC diagnosis
		No	Go to step 2.
2	Is Bluetooth enabled on the customers device?	Yes	Go to step 3.
		No	Enable Bluetooth on the customers device.
	Is the customers device data service strength good?	Yes	Go to step 4.
3		No	Move to a location where data service strength is good and retest.
	Is the customers device battery strength good?	Yes	Go to step 5
4		No	Connect the customers device to a charger or recharge the device, then retest.
5	Is the customers device paired to the vehicle?	Yes	Go to step 6.
		No	Pair the customers device to the vehicle.
6	Is the customers device selected in MAZDA CONNECT settings?	Yes	Go to step 7.
		No	Select the customers device from Bluetooth settings.
	Delete the device from MAZDA CONNECT and then re-pair it. Does Bluetooth work correctly?	Yes	Normal Operation
7		No	Go to step 8.
	Go to http://infotainment.mazdahandsfree.com	Yes	Go to step 9.
8	Web Site. Is the customers device compatible?	No	The customers device is not compatible.
9	Does the same symptom occur on another same model/year vehicle?	Yes	Go to step 10.
9		No	Go to step 11.
10	Reboot the customers device. Does Bluetooth	Yes	Vehicle operation is normal.
	work correctly?	No	Go to step 11.
11	Is the Bluetooth device in a place where radio waves may be blocked?	Yes	Move the Bluetooth device away from hidden location.
	(Behind or under a sheet, in a box, in a purse/bag, ext.)	No	Go to step 12.
12	Is the Bluetooth device contacting or blocked	Yes	Move the Bluetooth device away from metal

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	by metal objects?		objects.
		No	Go to MGSS NO Bluetooth® AUDIO AND INTERNET RADIO SOUND [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]] Go to step 13 if not resolved.
		Yes	Disconnect other USB device.
13	Is a Bluetooth device and a USB device connected at the same time?	No	Check / Replace the CMU. Document device model, software version and occurrence of the condition. Retrieve the data log if possible before replacing the CMU Document date and time of the condition

No. 11 Other symptoms

No. 11 Other symptoms			
	Symptom	Solution	
SiriusXM	Unable to Connect to SiriusXM Radio Check SiriusXM Tuner	Update CMU software version to 74.00.230A or later.	
	Can SiriusXM be added if not equipped?	Go to MT-007/15	
Bluetooth	iPhone incoming SMS Text Message is not displayed	Go to MT-011/18	
	Wrong phone connected	Go to SA-063/17	
	Hot temperature warning message	Go to MT-006/20	
	Rear view monitor is blurry	Go to MT-007/18 Go to 09-031/20 if applicable	
	Touch screen operates by itself (ghost touch)	2014-2016 Mazda3 (Japan and Mexico built) Go to SSPB6	
Center Display		2014-2016 Mazda3 (Japan and Mexico built) Go to SSPB6	
		2016-017 CX-9 Go to SSPB9	
		2017-2018 Mazda3 2018-2019 Mazda6 2016-2018 CX-5 Go to SA-008/18	
		2016-2018 CX-5	

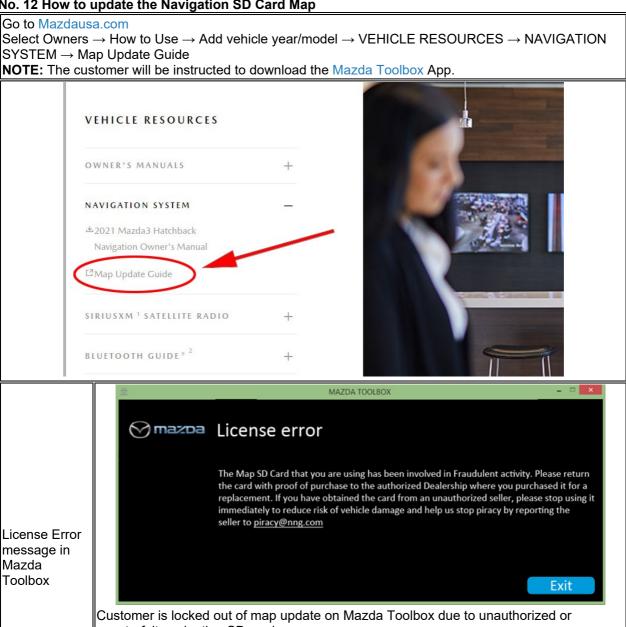
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		2017 MX-5 2016 MX-5 vehicles with VINs lower than JM1ND******119894 (produced before July 4, 2016) Go to 09-018/18
Clock	Clock shows incorrect time	Go to SA-041/20
	How to update maps	Go to Mazda Toolbox
Navigation	Error message "Invalid SD Card"	1. Go to MT-001/18 2. Check VIN Lock
	Navigation is inoperative	1. Go to MT-007/15 2. Go to MGSS MAP IS NOT DISPLAYED [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]
	No Navigation voice guidance	Go to MGSS NO NAVIGATION GUIDANCE VOICE OUTPUT [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]
USB Aux	Smart phone device will not charge	Go to MT-022/15 Go to MT-002/18
	Audio source improper operation when device connected to USB	Go to MT-002/18
	No USB audio sound	Go to MGSS NO USB AUDIO SOUND OUTPUT [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]
	No Aux audio sound	Go to MGSS NO AUX AUDIO SOUND OUTPUT [ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]]

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No. 12 How to update the Navigation SD Card Map



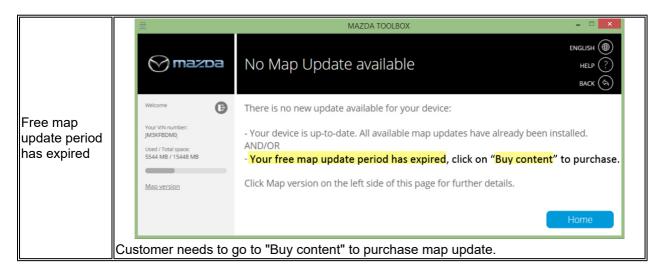
counterfeit navigation SD card.

How to unlock the customer account in Mazda Toolbox

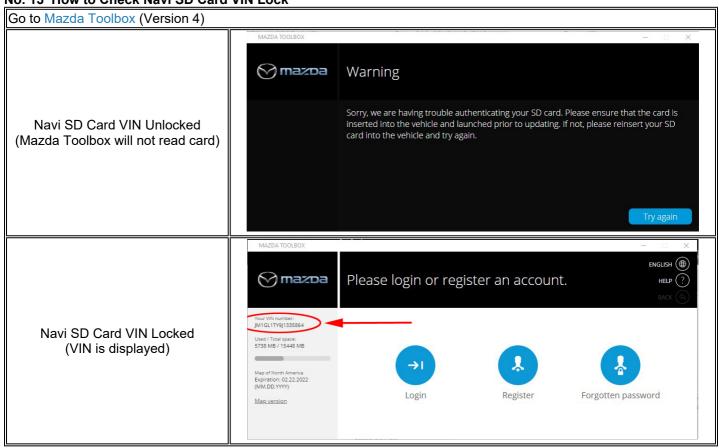
- 1. Purchase a Genuine Mazda Navigation SD card.
- 2. Customer or dealer must contact NNG helpdesk by email at piracy@nng.com and request customer account unlock.

NOTE: NNG may require proof of purchase to unlock the customer account.

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No. 13 How to Check Navi SD Card VIN Lock



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