# **Service Alert**

Mazda North American Operations Irvine, CA 92618-2922



Subject:

# MAZDA CONNECT SYMPTOM TROUBLESHOOTING (7TH GENERATION VEHICLES)

Service Alert No.: SA-027/20

Last Issued: 02/11/2020

#### **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-042/19	12/12/19 and 09/25/19

#### **APPLICABLE MODEL(S)/VINS**

2019-2020 Mazda3 2020 CX-30

#### **DESCRIPTION**

Customers having MAZDA CONNECT concerns should have their vehicle repaired using the following repair procedure.

#### REPAIR PROCEDURE

#### **NOTE:** Before proceeding:

- Document the vehicle current CMU software version.
- Confirm that the Connectivity Master Unit (CMU) is updated to the latest software version.
  - Go to MGSS Infotainment MAZDA CONNECT Updates
- Confirm that the customers device is updated to the latest software version.
- Apple Carplay/Android Auto FAQ, go to SA-001/19.

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# No. 1 Blank Screen

Step	Inspection	Result	Action
1	Is the Rear View Camera displayed?	Yes	Go to step 2.
1	is the Real View Camera displayed:	No	Refer to No. 2. Rear View Camera is not displayed
2	Press and hold the Power Button. Is the	Yes	Normal Operation
_	screen displayed correctly?	No	Go to step 3.
3	Press the "HOME" button. Is the HOME	Yes	Normal Operation
,	screen displayed correctly?	No	Go to step 4.
1/1	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis
7	system DTC's stored?	No	Go to step 5.
15	Is there a device connected to the USB	Yes	Go to step 6.
,	port?	No	Go to step 7.
	Disconnect the USB device. Does the	Yes	USB device is not compatible
	display function properly after USB device is disconnected?	No	Go to step 7.
7	Is the connector for the Center Display	Yes	Go to step 8.
/	inserted correctly	No	Insert the connector correctly.
8	Are the connectors for the CMU inserted	Yes	Go to step 9.
0	correctly?	No	Insert the connectors correctly.
	Is the voltage at the CMU, PWR CTRL	Yes	Go to step 10.
	OUT (0920-101A Terminal 1S SB wire) of the CMU normal?	No	Go to step 11.
	Swap the Center Display with good	Yes	Check / Replace the Center Display.
	known vehicle. Is the screen display normal?	No	Go to step 11.
11	Swap the CMU with good known vehicle. Is the screen display normal?	Yes	Check / Replace the CMU.  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition

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	1	
		Repair / Replace wiring harness. Go to MGSS View
	No	Content - Wiring Diagram - Body and Accessories -

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Entertainment System.

# No. 2 Rear View Camera is not displayed

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Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis
1	system DTC's stored?	No	Go to step 2.
2	Is the vehicle equipped with 360 View	Yes	Go to step 3.
2	Monitor?	No	Go to step 4.
2	Is the Front Camera and Side Cameras	Yes	Check / Replace the 360 View Monitor control unit.
5	displayed normally?	No	Go to step 4.
1	Are images other than the Rear View	Yes	Go to step 5.
4	Camera displayed?	No	Go to No. 1 Blank Screen.
Г	Is the connector for the Rear View	Yes	Go to step 6.
J	Camera Inserted correctly?	No	Insert the connector correctly.
6	Is the connector for the Center	Yes	Go to step 7.
U	Display Inserted correctly	No	Insert the connector correctly
7	Are the connectors for the CMU	Yes	Go to step 8.
,	Inserted correctly	No	Insert the connectors correctly
8	Swap the Rear View Camera with good known vehicle. Is the screen	Yes	Check / Replace the Rear View Camera See TSB 09-021/19
	display normal?	No	Go to Step 9
114 11	Swap the CMU with good known vehicle. Is the screen display normal?	Yes	Check / Replace the CMU.  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition
		No	Repair / Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.

# No. 3 Rebooting

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

# No. 4 Infotainment System Has No Sound

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system	Yes	Go to MGSS for DTC diagnosis
	DTC's stored?	No	Go to step 2.
II /	is sound normal other than havigation	Yes	Go to step 3.
		No	Go to step 4.
2	Can you hear the voice after raising the	Yes	Normal Operation.
3	navigation volume?	No	Go to step 5.
4		Yes	Normal Operation.

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	Can you hear sound after turning on audio mode?	No	Go to step 6.
		Yes	Complete
5	Replace the Navigation SD Card. Can you hear voice after Navigation SD Card replacement?	No	Check / Replace the CMU. Retrieve  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition
_	Can you hear sound after raising the volume	Yes	Normal Operation
6	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	Yes	Source: USB/iPod Check the media and the compatible files. Source: Radio Check the antenna, the reception, and the Remote Tuner side. Source: Bluetooth Audio Check the Bluetooth connection and the Bluetooth device.
	Are there any problems with Bluetooth?	No	Go to step 8.
8	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Active Speaker Check Function - Speaker Inspection.	Pass	Check / Replace the CMU. Retrieve  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition
	Did the Speaker Inspection Pass?	Fail	Go to step 9.
9	Is the connector for the Speaker(s) that	Yes	Go to step 10.
	failed inserted correctly?	No	Insert the connector correctly.
10	Is the connector for the amplifier inserted correctly?	Yes	Go to step 11.
10		No	Insert the connector correctly.
11	Are the CMU connectors inserted correctly?	Yes	Go to step 12.
11	Are the civio connectors inserted correctly?	No	Insert the connectors correctly.
12	Swap speakers from good known vehicle.	Yes	Check / Replace the speakers.
12	Can you hear sound?	No	Go to step 13.
13	Swap the Amplifier from known good	Yes	Check / Replace the Amplifier.
1.5	vehicle. Can you hear sound?		Go to step 14.

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			Check / Replace the CMU.
14	Swap the CMU from known good vehicle.  Can you hear sound?	Yes	<ol> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>
		No	Repair/Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.

#### No. 5 Commander Switch Does Not Work

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's stored?	Yes	Go to MGSS for DTC diagnosis
1		No	Go to step 2.
2	Does the Commander Switch work correctly?	Yes	Go to step 3.
_	boes the commander switch work correctly:	No	Go to step 4.
2	Does the Steering Wheel Switch work	Yes	Normal Operation.
3	correctly?	No	Go to step 5.
4	la fina F12 missing?	Yes	Go to SA-025/19.
4	Is fuse F13 missing?	No	Go to step 8.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION	Pass	Go to step 6.
	[CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Steering SW Inspection - Did the Steering SW Inspection Pass?	Fail	Go to MGSS STEERING SWITCH INSPECTION.
(	Is the connector for the CMU inserted correctly?	Yes	Go to step 7.
6		No	Insert the connector correctly.
/	Swap the CMU from known good vehicle. Does the Steering Wheel Switch work correctly?	Yes	<ol> <li>Check / Replace the CMU.</li> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>
		No	Repair/Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.

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8	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Touch Pad/Commander Inspection - Commander switch inspection. Did the Commander switch inspection Pass?	Pass Fail	Check / Replace the CMU.  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition  Go to step 9.
9	Is the connector for the Commander Switch		Go to step 10.
	inserted correctly?	No	Insert the connector correctly.
10	Are the CMU connectors inserted correctly?	Yes	Go to step 11.
10		No	Insert the connectors correctly.
H	Swap the Commander Switch with good known	Yes	Check / Replace the Commander Switch.
11	vehicle. Does the Commander Switch work correctly?		Go to step 12.
12	Swap the CMU from known good vehicle. Does the Commander Switch work correctly?	Yes	<ol> <li>Check / Replace the CMU.</li> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol> Repair/Replace wiring harness. Go to MGSS
			View Content - Wiring Diagram - Body and Accessories - Entertainment System.

# No. 6 Bluetooth device will not pair

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's stored?		Go to MGSS for DTC diagnosis
1			Go to step 2.
	Yes		Go to step 3.
2	Is Bluetooth enabled on the customers device?	Nο	Enable Bluetooth on the customers device.
		Yes	Go to step 4.
3	Is the customers device paired to the vehicle?		Pair the customers device to the vehicle.
4		Yes	Go to step 5.

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	Is the customers device selected in MAZDA CONNECT settings?	No	Select the customers device from Bluetooth settings.
	Delete the device from MAZDA CONNECT and then	Yes	Normal Operation
5	re-pair it. Does Bluetooth work correctly?	No	Go to step 6.
	Go to http://infotainment.mazdahandsfree.com	Yes	Go to step 7.
6			The customers device is not compatible.
		Yes	Go to step 8.
7	Does the same symptom occur on another same model/year vehicle?	No	<ol> <li>Check / Replace the CMU.</li> <li>Document device model, software version and occurrence of the condition.</li> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>
		Yes	Vehicle operation is normal.
8	Reboot the customers device. Does Bluetooth work correctly?	No	<ol> <li>Check / Replace the CMU.</li> <li>Document device model, software version and occurrence of the condition.</li> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>

# No. 7 Incorrect GPS position

Step	Inspection	Result	Action
	Go to MAZDA CONNECT - Navi menu, Travel Information -	Yes	Normal Operation.
1	Where Am I? - Settings - GPS information - Check Available Satellites.  Or  Go to MGSS "DIAGNOSTIC ASSIST FUNCTION	No	Go to step 2.

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П	II		1
	[CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Navi System		
	Inspection - Check GPS Received Level.		
	Does the Navi system show correct vehicle position?		
	Using M-MDS, are any of the following DTC's stored?	Yes	Go to step 3.
2	- B119F:13, GPS antenna signal circuit malfunction (short to power or open circuit) - B119F:2B, GPS antenna signal circuit malfunction (short to ground)	No	Go to step 8.
3	Is the GPS antenna connector secured properly?	Yes	Go to step 4.
5	is the GP3 antenna connector secured property:	No	Insert the connector correctly.
4	Is the GPS wiring harness open or shorted?	Yes	Repair / Replace GPS wiring harness.
		No	Go to step 5.
5	Are the CMII connectors secured properly?	Yes	Go to step 6.
5	Are the CMU connectors secured properly?	No	Insert the connectors correctly.
6	Is the CMU wiring harness open or shorted?	Yes	Repair / Replace CMU wiring harness.
		No	Go to step 7.
		Yes	Repair completed.
7	Replace GPS antenna. Does the Navigation system show correct position?	No	Check / Replace the CMU.  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition
8	Using M-MDS, is DTC B119F:49 stored?	Yes	Go to step 9.
٥	(Communication error with GNSS)	No	Go to step 11.
9	Are the CMII connectors secured properly?	Yes	Go to step 10.
9	Are the CMU connectors secured properly?		Insert the connectors correctly.
10	Is the CMU wiring harness open or shorted?	Yes	Repair / Replace CMU wiring harness.

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			Check / Replace the CMU.
		No	<ol> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>
	Check / Replace the CMU. Retrieve CMU data log if possible	Yes	Repair completed.
11	11 before replacing CMU. Did DTC B119F:49 clear?		Repair / Replace GPS antenna.

**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.

# No. 8 Voice Recognition Does Not Work

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's stored?	Yes	Go to MGSS for DTC diagnosis
1	osing ivi-ivids, are any inforantificity system dic s stored?		Go to step 2.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Steering SW Inspection - Did the Steering SW Inspection Pass?		Go to step 3.
2			Go to MGSS STEERING SWITCH INSPECTION.
3	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Microphone Inspection - Did the Microphone Inspection Pass?	Pass	Check / Replace the CMU.  1. Retrieve the data log if possible before replacing the CMU  2. Document date and time of the condition  Go to MGSS MICROPHONE INSPECTION.

#### No. 9 Cannot Make a Hands-Free Call

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system	Yes	Go to MGSS for DTC diagnosis
	DTC's stored?		Go to step 2.
2	Is Bluetooth enabled on the customers device?	Yes	Go to step 3.

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			Enable Bluetooth on the customers
		No	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.
4	Is the sustamers device paired to the vehicle?	Yes	Go to step 5.
4	Is the customers device paired 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?	No	The customers device is not compatible.
8	Does the same symptom occur on another same	Yes	Go to step 9.
0	model/year vehicle?	No	Go to step 10.
IIO II	eboot the customers device. Does Bluetooth	Yes	Vehicle operation is normal.
	work correctly?		Go to step 10.
waves may be blocked?	Yes	Move the Bluetooth device away from hidden location.	
10	(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	Yes	Move the Bluetooth device away from metal objects.
	metal objects?	No	Go to step 12.
12	Is a Bluetooth device and a USB device	Yes	Disconnect other USB device.
14	connected at the same time?	No	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.

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14	Does the same symptom occur on another	Yes	Go to step 15	
14	Bluetooth device?		The customers device is not compatible.	
15	Does the voice recognition system operate using other functions such as Bluetooth Audio?	Yes	Check / Replace the CMU.  1. Document device model, software version and occurrence of the condition.  2. Retrieve the data log if possible before replacing the CMU  3. Document date and time of the condition  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		Go to MGSS for DTC diagnosis
	stored?	No	Go to step 2.
		Yes	Go to step 3.
2	Is Bluetooth enabled on the customers device?		Enable Bluetooth on the customers device.
		Yes	Go to step 4.
3	Is the customers device data service strength good?	No	Move to a location where data service strength is good and retest.
4	Is the customers device battery strength good?	Yes	Go to step 5
		No	Connect the customers device to a charger or recharge the device, then retest.
		Yes	Go to step 6.
5	Is the customers device paired to the vehicle?	No	Pair the customers device to the vehicle.
	Is the customers device selected in MAZDA CONNECT settings?	Yes	Go to step 7.
6		No	Select the customers device from Bluetooth settings.
7		Yes	Normal Operation

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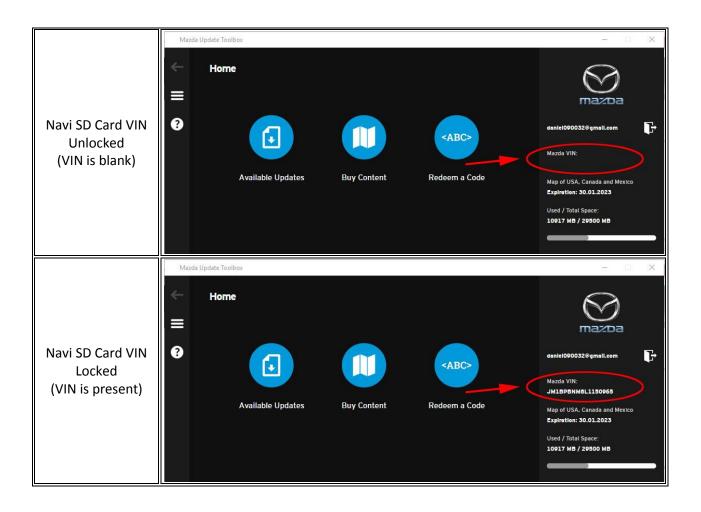
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	Delete the device from MAZDA CONNECT and then re-pair it. Does Bluetooth work correctly?	No	Go to step 8.	
Go to http://infotainment.mazdahandsfree.com	Yes	Go to step 9.		
8	Web Site. Is the customers device compatible?	No	The customers device is not compatible.	
Q	Does the same symptom occur on another same	Yes	Go to step 10.	
9	model/year vehicle?	No	Go to step 11.	
10	Reboot the customers device. Does Bluetooth work	Yes	Vehicle operation is normal.	
		No	Go to step 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	12 Is the Bluetooth device contacting or blocked by		Move the Bluetooth device away from metal objects.	
	metal objects?	No	Go to step 13.	
		Yes Disconnect of	Disconnect other USB device.	
13	Is a Bluetooth device and a USB device connected at the same time?	No	<ol> <li>Check / Replace the CMU.</li> <li>Document device model, software version and occurrence of the condition.</li> <li>Retrieve the data log if possible before replacing the CMU</li> <li>Document date and time of the condition</li> </ol>	

### No. 11 How to Check Navi SD Card VIN Lock

Go to Mazda Toolbox (Version 5)		

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