

Subject:

MAZDA CONNECT SYMPTOM TROUBLESHOOTING (7th GENERATION VEHICLES)

Service Alert No.: SA-042/19

Last Issued: 09/25/2019

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:

- 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.
T	is the real view cathera displayed?	No	Refer to No. 2. Rear View Camera is not displayed

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2	Press and hold the Power Button. Is the		Normal Operation	
Z	screen displayed correctly?	No	Go to step 3.	
3			Normal Operation	
2			Go to step 4.	
4	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis	
4	system DTC's stored?	No	Go to step 5.	
5	Is the connector for the Center Display	Yes	Go to step 6.	
5	inserted correctly	No	Insert the connector correctly.	
6	Are the connectors for the CMU	Yes	Go to step 7.	
0	inserted correctly?	No	Insert the connectors correctly.	
			Go to step 8.	
7	OUT (0920-101A Terminal 1S SB wire) of the CMU normal?	No	Go to step 9.	
	Swap the Center Display with good	Yes	Check / Replace the Center Display.	
8	known vehicle. Is the screen display normal?	No	Go to step 9.	
		Yes	Check / Replace the CMU. (Retrieve the data log if possible before replacing the CMU.)	
9	Swap the CMU with good known vehicle. Is the screen display normal?		Repair / Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.	

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
T	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			Check / Replace the 360 View Monitor control unit.
3			Go to step 4.
4	Are images other than the Rear View	Yes	Go to step 5.
4	Camera displayed?	No	Go to No. 1 Blank Screen.
F	Is the connector for the Rear View	Yes	Go to step 6.
5	Camera Inserted correctly?	No	Insert the connector correctly.
6		Yes	Go to step 7.

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	ls the connector for the Center 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	VAC	Check / Replace the Rear View Camera See TSB 09-021/19
	display normal?	No	Go to Step 9
	Swan the CNUL with good known		Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
9	Swap the CMU with good known vehicle. Is the screen display normal?		Repair / Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.

No. 3 Rebooting

Step	Inspection	Result	Action	
1	Using M-MDS, are any infotainment	Yes	Go to MGSS for DTC diagnosis	
Ţ	system DTC's stored?	No	Go to step 2.	
2	Does the reboot continue after removing	Yes	Go to step 3.	
Z	the Navigation SD card?	Check / Replace the Navigation SD card.		
		Yes	Go to step 4.	
3	Does the reboot continue after ignition key OFF then back ON?	No	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.	
4		Yes	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.	
	battery disconnect?	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
Ţ	DTC's stored?	No	Go to step 2.
n	Is sound normal other than navigation Yes	Go to step 3.	
Z	guidance?	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.

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	Can you hear sound after turning on audio	Yes	Normal Operation.
4	mode?	No	Go to step 6.
	Replace the Navigation SD Card. Can you	Yes	Complete
5	hear voice after Navigation SD Card replacement?	No	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
6	Can you hear sound after raising the volume	Yes	Normal Operation
0	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.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]"	Pass	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
8	Perform Functional Inspection/Adjustment - Active Speaker Check Function - Speaker Inspection. Did the Speaker Inspection Pass?	Go to step 9.	
0	Is the connector for the Speaker(s) that Ye		Go to step 10.
9	failed inserted correctly?	No	Insert the connector correctly.
10	Is the connector for the amplifier inserted	Yes	Go to step 11.
10	correctly?	No	Insert the connector correctly.
11	Are the CMU connectors inserted correctly?	Yes	Go to step 12.
		No	Insert the connectors correctly.
12		Yes	Check / Replace the speakers.
12		No	Go to step 13.
13	Swap the Amplifier from known good	Yes	Check / Replace the Amplifier.
	vehicle. Can you hear sound?	No	Go to step 14.
	Swap the CMU from known good vehicle.	Yes	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
14	Can you hear sound?	No	Repair/Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.

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No. 5 Commander Switch Does Not Work

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system	Yes	Go to MGSS for DTC diagnosis
1	DTC's stored?	No	Go to step 2.
2	Does the Commander Switch work correctly?	Yes	Go to step 3.
2	bles the commander Switch work correctly:	No	Go to step 4.
I ≺	Does the Steering Wheel Switch work	Yes	Normal Operation.
5	correctly?	No	Go to step 5.
4	Is fuse F13 missing?	Yes	Go to SA-025/19.
- T	15 105C 1 15 11155116.	No	Go to step 8.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION	Pass	Go to step 6.
5	[CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Steering SW Inspection - Did the Steering SW Inspection Pass?	Fail	Go to MGSS STEERING SWITCH INSPECTION.
6	Is the connector for the CMU inserted	Yes	Go to step 7.
0	correctly?	No	Insert the connector correctly.
	Swap the CMU from known good vehicle. Does	Yes	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
/	the Steering Wheel Switch work correctly?	No	Repair/Replace wiring harness. Go to MGSS View Content - Wiring Diagram - Body and Accessories - Entertainment System.
	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]"	Pass	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
8	Perform Functional Inspection/Adjustment - Touch Pad/Commander Inspection - Commander switch inspection. Did the Commander switch inspection Pass?	Fail	Go to step 9.
9	Is the connector for the Commander Switch inserted correctly?	Yes	Go to step 10.
9		No	Insert the connector correctly.
10	Are the CMU connectors inserted correctly?	Yes	Go to step 11.
10	Are the CMU connectors inserted correctly?	No	Insert the connectors correctly.
	Swap the Commander Switch with good known	Yes	Check / Replace the Commander Switch.
	vehicle. Does the Commander Switch work correctly?	No	Go to step 12.
12	Swap the CMU from known good vehicle. Does the Commander Switch work correctly?	Yes	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.

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	Repair/Replace wiring harness. Go to N No View Content - Wiring Diagram - Body Accessories - Entertainment System.	
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No. 6 Bluetooth device will not pair

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's		Go to MGSS for DTC diagnosis
1	stored?	No	Go to step 2.
		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.
	Is the customers device selected in MAZDA	Yes	Go to step 5.
4	CONNECT settings?	No	Select the customers device from Bluetooth settings.
		Yes	Normal Operation
5	re-pair it. Does Bluetooth work correctly?		Go to step 6.
	Go to http://infotainment.mazdahandsfree.com	Yes	Go to step 7.
6	Web Site. Is the customers device compatible?		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. Retrieve CMU data log if possible before replacing CMU. Document device model, software version and occurrence condition.
		Yes	Vehicle operation is normal.
8	Reboot the customers device. Does Bluetooth work correctly?	No	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU. Document device model, software version and occurrence condition.

No. 7 Incorrect GPS position

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Step	Inspection	Result	Action
	Go to MAZDA CONNECT - Navi menu, Travel Information - Where Am I? - Settings - GPS information - Check Available Satellites.	Yes	Normal Operation.
1	Or Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Navi System Inspection - 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 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 GPS antenna connector secured property?		Insert the connector correctly.
4	Is the GPS wiring harness open or shorted?		Repair / Replace GPS wiring harness.
		No	Go to step 5.
5	Are the CMU connectors secured properly?		Go to step 6.
5		No	Insert the connectors correctly.
6	Is the CMU wiring harness open or shorted?	Yes	Repair / Replace CMU wiring harness.
			Go to step 7.
		Yes	Repair completed.
/	Replace GPS antenna. Does the Navigation system show correct position?		Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
8	Using M-MDS, is DTC B119F:49 stored?	Yes	Go to step 9.
0	(Communication error with GNSS)	No	Go to step 11.
9	Are the CMU connectors secured properly?		Go to step 10.
			Insert the connectors correctly.
10	Is the CMU wiring harness open or shorted?	Yes	Repair / Replace CMU wiring harness.

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		No	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.
	Check / Replace the CMU. Retrieve CMU data log if	Yes	Repair completed.
11	possible before replacing CMU. Did DTC B119F:49 clear?	No	Repair / Replace GPS antenna.
	FE: Remove aftermarket GPS devices that may interfere v nple: Some radar detectors may emit radio waves that ir		

No. 8 Voice Recognition Does Not Work

Step	Inspection	Result	Action
1		Yes	Go to MGSS for DTC diagnosis
		No	Go to step 2.
2	Go to MGSS "DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)]" Perform Functional Inspection/Adjustment - Steering SW Inspection - Did the Steering SW Inspection Pass?	Pass	Go to step 3.
		Fail	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. Retrieve CMU data log if possible before replacing CMU.
		Fail	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 DTC's stored?	Yes	Go to MGSS for DTC diagnosis
		No	Go to step 2.
	Is Bluetooth enabled on the customers device?	Yes	Go to step 3.
2		No	Enable Bluetooth on the customers device.
	Is the customers device data service strength	Yes	Go to step 4.
≺		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		No	Pair the customers device to the vehicle.

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		Yes	Go to step 6.
5	Is the customers device selected in MAZDA 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 Web Site. Is the customers device compatible?	Yes	Go to step 8.
7		No	The customers device is not compatible.
8		Yes	Go to step 9.
0		No	Go to step 10.
9	Reboot the customers device. Does Bluetooth	Yes	Vehicle operation is normal.
	work correctly?	No	Go to step 10.
10	waves may be blocked? (Behind or under a sheet, in a box, in a	Yes	Move the Bluetooth device away from hidden location.
		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 connected at the same time?	Yes	Disconnect other USB device.
12		No	Go to step 13.
13	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.
		No	Go to step 14.
14	Does the same symptom occur on another	Yes	Go to step 15
14	Bluetooth device?	No	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. Retrieve CMU data log if possible before replacing CMU. Document device model, software version and occurrence condition.
		No	Go to No. 8 Voice Recognition Does Not Work

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No. 10 Cannot Play Bluetooth Audio

Step	Inspection	Result	Action
1	Using M-MDS, are any infotainment system DTC's	Yes	Go to MGSS for DTC diagnosis
1		No	Go to step 2.
	Is Bluetooth enabled on the customers device?	Yes	Go to step 3.
2		No	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.
		Yes	Go to step 5
4	Is the customers device battery strength good?	No	Connect the customers device to a charger or recharge the device, then retest.
	Is the customers device paired to the vehicle?	Yes	Go to step 6.
5		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.
	Delete the device from MAZDA CONNECT and then	Yes	Normal Operation
7	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.
9	Does the same symptom occur on another same model/year vehicle?	Yes	Go to step 10.
9		No	Go to step 11.
10	.1.2	Yes	Vehicle operation is normal.
10		No	Go to step 11.
11	may be blocked? (Behind or under a sheet, in a box, in a purse/bag,	Yes	Move the Bluetooth device away from hidden location.
		No	Go to step 12.
12	metal objects?	Yes	Move the Bluetooth device away from metal objects.
		No	Go to step 13.

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	Yes	Disconnect other USB device.
Is a Bluetooth device and a USB device connected at the same time?	No	Check / Replace the CMU. Retrieve CMU data log if possible before replacing CMU.

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