# Service Alert

### Mazda North American Operations Irvine, CA 92618-2922



Subject:

CONNECTED VEHICLE SYMPTOM TROUBLESHOOTING

Service Alert No.: SA-009/23

Last Issued: 07/05/2023

### **BULLETIN NOTES**

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

Previous TSBs:	Date(s) Issued:
SA-009/23	06/12/23, 05/24/23, 04/25/23, 03/28/23, 03/01/23 and 02/06/23
SA-017/22	12/13/22, 10/10/22, 08/25/22, 05/06/22, 04/04/22
SA-013/21	12/22/21, 10/13/21, 09/14/21, 05/11/21, 04/27/21, 03/15/21, 02/22/21, 02/08/21 and 02/02/2021
SA-031/20	12/09/20,11/30/20, 11/06/20, 10/28/20, 06/16/20, 06/05/20, 06/01/20, 05/18/20, 04/14/2020, 04/02/20, 03/11/20 and 02/27/20

### APPLICABLE MODEL(S)/VINS:

2019-2023 Mazda3 2020-2023 CX-30 2021-2023 CX-5 2021-2023 CX-9 2022-2023 MX-30

2023 CX-50

2024 CX-90

### **DESCRIPTION**

Some customers may complain about any of the following:

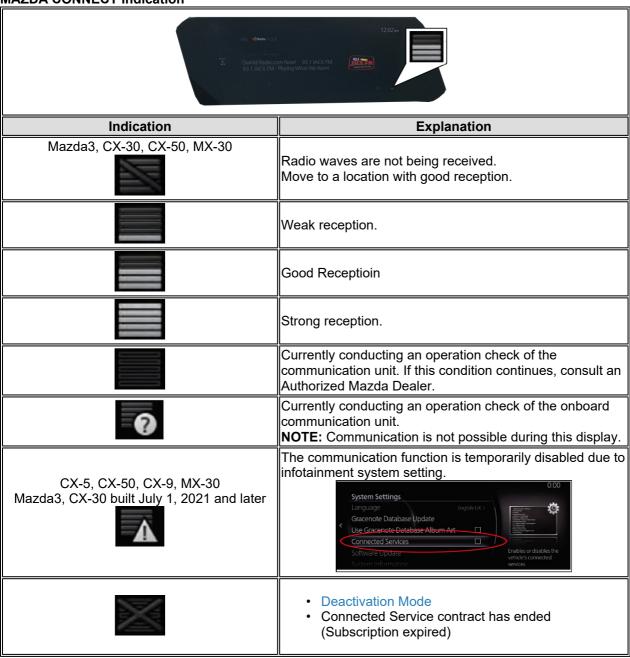
- 1. Infotainment Center Display does not provide the Authorization Code (OTP) during the MyMazda App Connected Vehicle enrollment.
- 2. Remote function(s) inoperative.
  - Engine Start / Stop
  - Door Lock / Unlock
  - Lights ON / OFF
- 3. MAZDA CONNECT connected vehicle reception strength icon shows "X" or "\".

Page 1 of 26

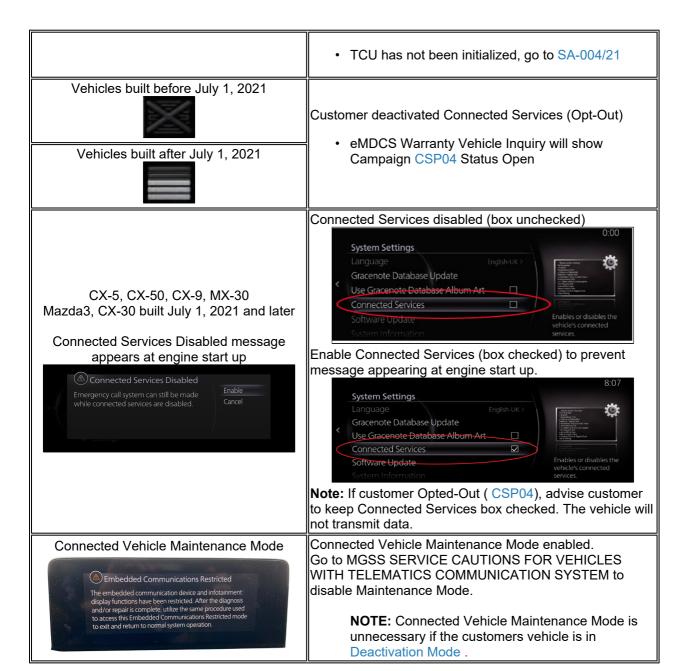
### Index

- MAZDA CONNECT Indication
- Remote Engine Start Will Not Function
- · Remote Engine Start Function Will turn engine OFF
- · Deactivation Mode

### **MAZDA CONNECT Indication**



Page 2 of 26



Page 3 of 26

## Remote Engine Start Will Not Function under the following conditions

Item	Condition	
1	Vehicle battery voltage low	
2	Automatic Transmission shift position except "P"	
3	Vehicles equipped with manual transmission	
4	Vehicle speed above 3 mi/h (5 km/h)	
5	Brake pedal switch malfunction	
6	Engine has been running by remote engine start function	
7	Engine started by remote engine start more than 2 consecutive times while the vehicle is not driven. The vehicle must be driven 1-mile or 24-hours must pass from the last successful Remote Engine Start for the use count to reset.	
8	2021 Mazda3, 2021 CX-30, CX-50, MX-30: Vehicle's electrical control area network (CAN) is in "Sleep Mode"  Low Battery Risk Start Vehicle to Charge 12V Battery  Or  Or	
	A registered key is detected in the vehicle	
10	Brake pedal switch detects brake application	
11	Low fuel warning	
12	Engine starts, then turns OFF due to abnormal high engine rpm detected. (Engine rotation over 3000 rpm continued for more than 0.2[s])	
13	No engine rpm detected after sending engine start request. (Engine rotation 0 rpm continued for more than 0.2[s])	
14	When the CAN data signal for engine shut off is present (e.g.: door ajar signal)	
15		
16	Burglar alarm status is "Alarm" and "Alarm stand by" (CAUTION - DO NOT enable, see Theft- Deterrent System section in SA-012/20)	
17	Room fuse blown/missing	
18	Connected Vehicle Maintenance Mode enabled (Restricted Transmitting Mode in MDARS)	

Page 4 of 26



Vehicle is parked (stored) for approximately 1 week or longer or in deep sleep mode.

Drive the vehicle for a few miles to recover.

**DTC Stored** 

20



21 Aftermarket Remote Engine Start accessory installed.

Mazda Remote Engine Start (BCKA-V7-620) accessory installed (No MyMazda app remote engine start function).

- 22 Mazda Remote Engine Start (RES) Removal
  - a. Remove the Mazda Remote Engine Start (RES) accessory module.
  - b. Deactivate and activate Advanced Key(s). Refer to MGSS IMMOBILIZER SYSTEM-RELATED PARTS PROGRAMMING [(US)]
- First remote control attempt fails, second attempt works fine. Go to TSB 16-002/20.
- 24 CSP04 Status Open

Remote Engine Start Function Will turn engine OFF under the following conditions

Item	Condition	
1	Vehicle door(s) opened	
2	Vehicle trunk opened	
3	Vehicle hood opened	
4	Ignition switch push button "ON" detected	
5	Remote engine STOP request	
6	Brake pedal switch detects brake application	
7	DTC Stored	
8	Engine will stop running automatically after 15 minutes for safety, security and emissions.	

Page 5 of 26

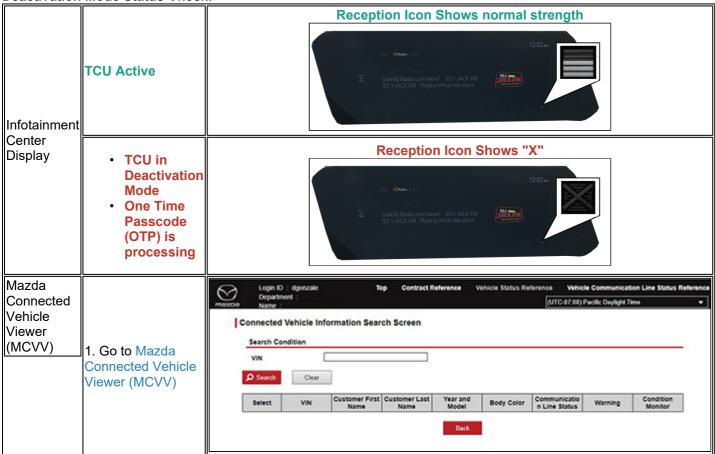
### **Deactivation Mode**

- Deactivation Mode Temporary Suspension 6/16/2023 (6/11/2023 retail date and later)
- Vehicles retailed before 6/11/2023 and in Deactivation Mode will remain in Deactivation mode.

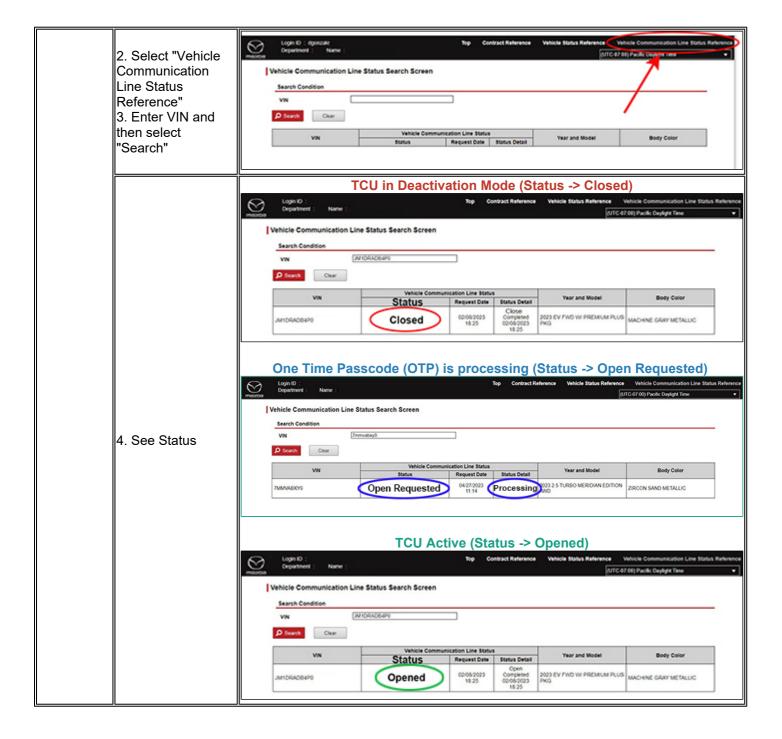
### NOTE:

- Customer/Dealer can activate CV services anytime via MyMazda app (there just might be a slight delay in making the backend connection since it was temporarily deactivated).
- When TCU is in Deactivation Mode, infotainment Over-the-Air (OTA) Connectivity Master Unit (CMU) software update is not possible (disabled).
- Prior to Retail Date, the TCU is active.

### **Deactivation Mode Status Check:**



Page 6 of 26



### **REPAIR PROCEDURE**

**CAUTION:** DO NOT swap TCU with another vehicle as the TCU is VIN locked after activation. A TCU swap with another vehicle will disable Connected Services on both vehicles.

Page 7 of 26

### PREPARATION:

- 1. Confirm that the TCU is at the latest software level. Go to Telematics Communication Unit (TCU) Updates
- Go to eMDCS Vehicle Inquiry and confirm the following campains are not shown or closed:
  - CSP06
  - CSP07
  - SSPC7
  - DRW41
- 3. Go to eMDCS Vehicle Inquiry and confirm CSP04 is not shown.
- 4. Confirm the customer's phone and vehicle have good to strong reception during the concern as shown in the table below.



• If the reception icon shows "X", the vehicle is possibly is in Deactivation Mode.



- Customer/Dealer can activate CV services anytime via MyMazda app (there just might be a slight delay in making the backend connection since it was temporarily deactivated).
- If the reception is weak, move the vehicle to a location where the reception is good to strong as shown in the table, then try to get the Authorization Code and/or operate the remote functions before proceeding to the Repair Procedure if there is still an issue.
- If the reception is good to strong, proceed to Connected Vehicle Troubleshooting below.

**NOTE:** Vehicles stored for long periods may loose GPS clock sychronization. If the vehicle is stored for a long period, test drive the vehicle to give the GPS clock time to sychronize before enrolling or testing connected vehicle functions.

### Index

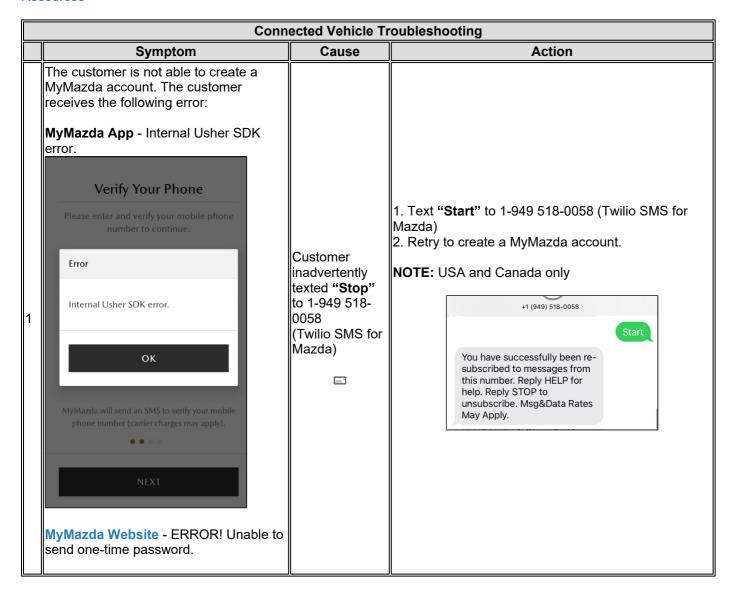
- 1. Unable to create a MyMazda account
- 2. Remote function(s) inoperative
- 3. No One Time Pass Code (OTP)
- 4. Connected vehicle reception strength icon shows "X" or "\"
- 5. MyMazda App displays incorrect tire pressures (Except CX-5 and CX-9)
- 6. Unable to activate Connected Services (2019 Mazda3)
- 7. Software Update Error (2020 Mazda3)

Page 8 of 26

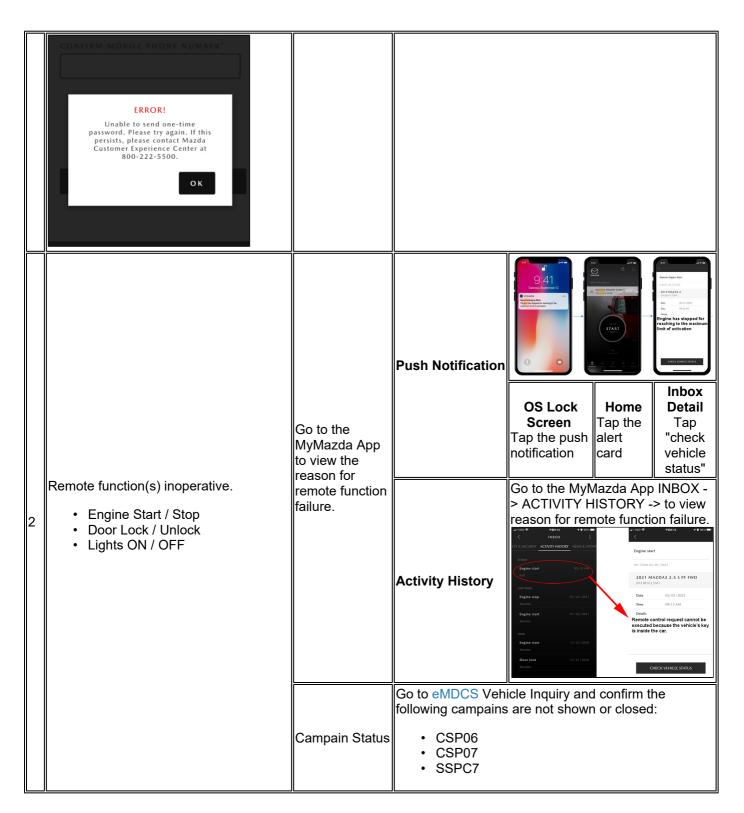
- 8. Functions inoperative (2021-> CX-30, CX-50, Mazda3 and MX-30)
- 9. First remote control attempt fails, second attempt works fine
- 10. Engine turns off when opening door
- 11. Low Tire pressure will not clear after correcting tire pressue
- 12. MyMazda App does not display tire air pressures (CX-5, CX-9)

**Educational Videos** 

Resources



Page 9 of 26



Page 10 of 26

Service Alert No.: SA-009/23	Last Issued : 07/05/2023
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		• DRW41
		Use MDARS to ID the vehicle and check for DTC's stored. Are DTC(s) stored?
		<ul> <li>Yes - Go to MGSS and perform normal DTC diagnostics.</li> <li>No - Go to next step.</li> </ul>
		Confirm TCU software version is at the following using TCU Software Version Check
		<ul> <li>Mazda3 - 10006 or later</li> <li>CX-30 - 10006 or later</li> <li>CX-5 - 10023 or later</li> <li>CX-9 - 10023 or later</li> <li>MX-30: 10019 or later</li> <li>CX-50: 10003 or later</li> <li>3. Disconnect battery for 30 seconds and then reconnect (KAM reset).  NOTE: Test drive vehicle after battery disconnect to allow the GPS clock to sychronize before retrying Authorization Code.</li> <li>4. Perform one of the following:</li> <li>Customer: Un-enroll Connected Services, then re-enroll into Connected Services as a new primary user.</li> </ul>
		Dealer: Perform customer take-over enrollment for test confirmation, then at customer pick-up, inform customer to re-enroll into Connected Services as a new primary user.
		Contact Hotline for additional technical support if needed.
	Only a single remote request can be made per 60-second period	Customer needs to wait 60 seconds for the initial request cycle to be completed to make the second request.
	Remote Transmitter Key(s) in the vehicle	Do not leave keys in vehicle.
	1. Aftermarket Remote Engine	Remove the aftermarket accessory.     The customer can use either the Mazda Remote

Page 11 of 26

		installed. 2. Mazda	Engine Start accessory or the MyMazda app function. Cannot use both.  Mazda Remote Engine Start (RES) Removal a. Remove the Mazda Remote Engine Start (RES) accessory module. b. Deactivate and activate Advanced Key(s). Refer to MGSS IMMOBILIZER SYSTEM-RELATED PARTS PROGRAMMING [(US)].
		TCU in "deep sleep" mode due to vehicle being parked for a long period.	Advise customer to drive the vehicle as normal (at least several miles) and the Connected Services should start working again.
		Low fuel	Advise customer that Remote Engine Start may start vehicle temporarily, but vehicle will turn off automatically when the fuel level is low to conserve the remaining fuel.
		Vehicle is equipped with Manual Transmission	Advise customer that vehicles with a manual transmission do not have the Remote Engine Start/Stop function capability.
		Engine started with key transmitter instead of MyMazda App.	Advise customer they will see an error message when attempting to make a Remote Engine Off request if they initially turned on vehicle with a physical key (instead of through their MyMazda app).
3	No One Time Passcode (OTP) (Vehicle infotainment center display does not provide the Authorization Code during the MyMazda App enrollment)	Deactivation Mode	1. Check the reception level strength on the mobile device and vehicle. If weak, move to a location with good strength and retry.  2. If the vehicle reception strength icon shows "X", the vehicle may be in Deactivation Mode.  • Wait 30 minutes to an hour until the reception
			icon shows normal reception.

Page 12 of 26

		Depart Redoccor New 93.1 JACKIM 93.1
	Campain Status	Go to eMDCS Vehicle Inquiry and confirm the following campains are not shown or closed:  CSP06 CSP07 SSPC7 DRW41
	Customer deactivate Connected Services (Opt- Out))	Go to eMDCS Vehicle Inquiry. Does eMDCS show CSP04 status closed?  • Yes - Customer opt-out. No action needed. • No - CSP04 is not shown. Go to next Action below.
		<ol> <li>Use MDARS to ID the vehicle and check for DTC's stored. Are DTC(s) stored?</li> <li>Yes - Go to MGSS and perform normal DTC diagnostics.</li> <li>No - Perform ODR Data Collection Procedure, then go to step 2.</li> <li>Confirm TCU software version is at the following using TCU Software Version Check.</li> <li>Mazda3 - 10006 or later</li> <li>CX-30 - 10006 or later</li> <li>CX-5 - 10023 or later</li> <li>CX-9 - 10023 or later</li> <li>MX-30: 10019 or later</li> <li>CX-50: 10003 or later</li> <li>CX-50: 10003 or later</li> <li>A Retrieve MAZDA CONNECT CMU log data. Go to MGSS -&gt; Infotainment -&gt; MAZDA CONNECT CMU Data Retrieval</li> <li>Perform "Activating Remote Control by Smart Phone" (links TCU to BCM)</li> <li>Clear DTC(s).</li> </ol>

Page 13 of 26

			NOTE: If DTC 2050:55 is stored, go to SA-003/20 to clear DTC.  7. Check TCU Remote Service Flag Information  • Remote Service Flag Information 1101 go to step 8.  • Remote Service Flag Information 0000 go to step 9.  8. Disconnect 12V battery for 1 hour, then retry connected vehicle enrollment.  NOTE: Test drive vehicle after battery disconnect to allow the GPS clock to sychronize before retrying Authorization Code.  9. Contact Hotline for additional technical support if needed.
4	MAZDA CONNECT connected vehicle reception strength icon shows "X" or "\".  Mazda3, CX-30, CX-50, MX-30  CX-5, CX-9	Deactivation Mode ■	Customer/Dealer can activate CV services anytime via MyMazda app (there just might be a slight delay in making the backend connection since it was temporarily deactivated). The reception icon will switch to normal reception after enrollment.  Go to eMDCS Vehicle Inquiry and confirm the following campains are not shown or closed:
		Campain Status	• CSP06 • CSP07 • SSPC7 • DRW41
		Customer deactivate Connected Services (Opt- Out))	Go to eMDCS Vehicle Inquiry. Does eMDCS show CSP04 status closed?  • Yes - Customer opt-out. No action needed. • No - CSP04 is not shown. Go to next Action below.
		No reception	Check for DTCs. Are there any DTC's stored?     Yes: Go to MGSS for normal DTC diagnosis.     No: Go to next step.      Confirm TCU software version is at the following using TCU Software Version Check.

Last Issued: 07/05/2023

Service Alert No.: SA-009/23

Page **14** of **26** 

<u> </u>
<ul> <li>Mazda3 - 10006 or later</li> <li>CX-30 - 10006 or later</li> <li>CX-5 - 10023 or later</li> <li>CX-9 - 10023 or later</li> <li>MX-30: 10019 or later</li> <li>CX-50: 10003 or later</li> <li>3. 2019 Mazda3 Only - Confirm CMU software version is at 11012 or later.</li> <li>Disconnect battery terminal for 30 seconds, then</li> </ul>
test drive the vehicle. Is the reception strength signal normal?  • Yes: Repair complete.
No: Go to next step.  5. Perform TCU activation. Go to SA-004/21. Is the
reception strength signal normal?
<ul><li>Yes: Repair complete.</li><li>No: Go to next step.</li></ul>
6. Compare Tel antenna No. 1 signal strength with good known vehicle near by. Go to DIAGNOSTIC ASSIST FUNCTION [CONNECTIVITY MASTER UNIT (US)] Functional Inspection / Adjustment -> Navigation System Inspection
Good - Contact Hotline for technical support
Navigation-System Inspection  Or No. Record - Positioning tests  OD Discourage Tests  OD Disc
<b>No Good</b> - Swap Tel antenna No. 1 with known good vehicle
Navigables System inspection  OS:  No Received  -ODS:  Pouldoning lated NG  Pouldoning lated NG  Pouldoning lated NG  Pouldoning lated NG  DO Personing OS:  OS Pouldoning OS:  OS Pould

Last Issued: 07/05/2023

Service Alert No.: SA-009/23

Except CX-5 and CX-9

MAZDA CONNECT and/or MyMazda

App displays incorrect tire pressures

after battery disconnect and/or

Page **15** of **26** 

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Incorrect calendar entry

(month/day/

year) after a

battery

Go to SA-002/21

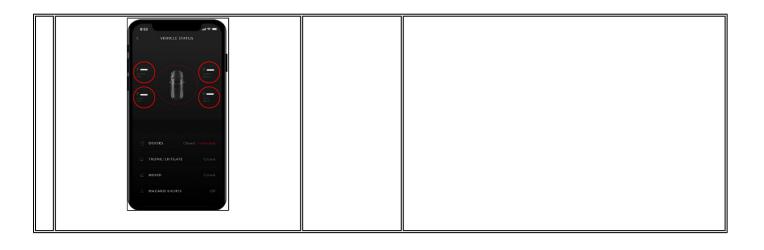
Last Issued: 07/05/2023

Service Alert No.: SA-009/23

Page 16 of 26

8	2021 Mazda3, CX-30, CX-50, and MX-30 functions inoperative  • Vehicle Status Alert • Remote Engine Start / Stop • Remote Door Lock / Unlock • Remote Hazard Lights ON / OFF • Vehicle Finder (vehicle location mapping function is available)	Vehicle's electrical control area network (CAN) is in "Sleep Mode"	No dealer visit is required. Sleep Mode can be reset by starting the engine and idling or driving for 5 minutes or longer.  Go to 09-010/22.
9	First remote control attempt fails, second attempt works fine.  • Engine Start / Stop • Door Lock / Unlock • Lights ON / OFF	Improper telematics communication unit (TCU) software.	Go to TSB 16-002/20.
1	Engine turns off when customer opens vehicle door.	Normal Operation	Advise that, for customer's safety and security, vehicle is designed to shut-off automatically when the vehicle door is opened.
1	Low Tire pressure will not clear after correcting tire pressue.     Vehicle status is inaccurate.	MyMazda App is not real time.	Customer must go to MyMazda app's Inbox and read/open all the messages related to the low tire pressure alert, then the "Low tire pressure" alert will clear from MyMazda app's Health Report     Message will clear after next drive cycle.
1	CX-5, CX-9 The MyMazda App does not display tire air pressures	CX-5 and CX-9 Normal Operation	No action Needed

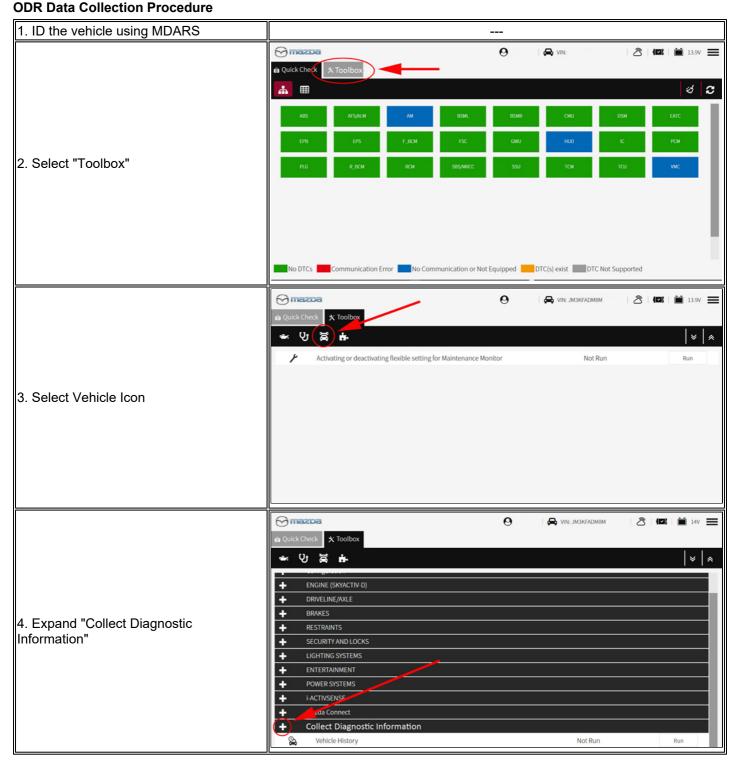
Page 17 of 26



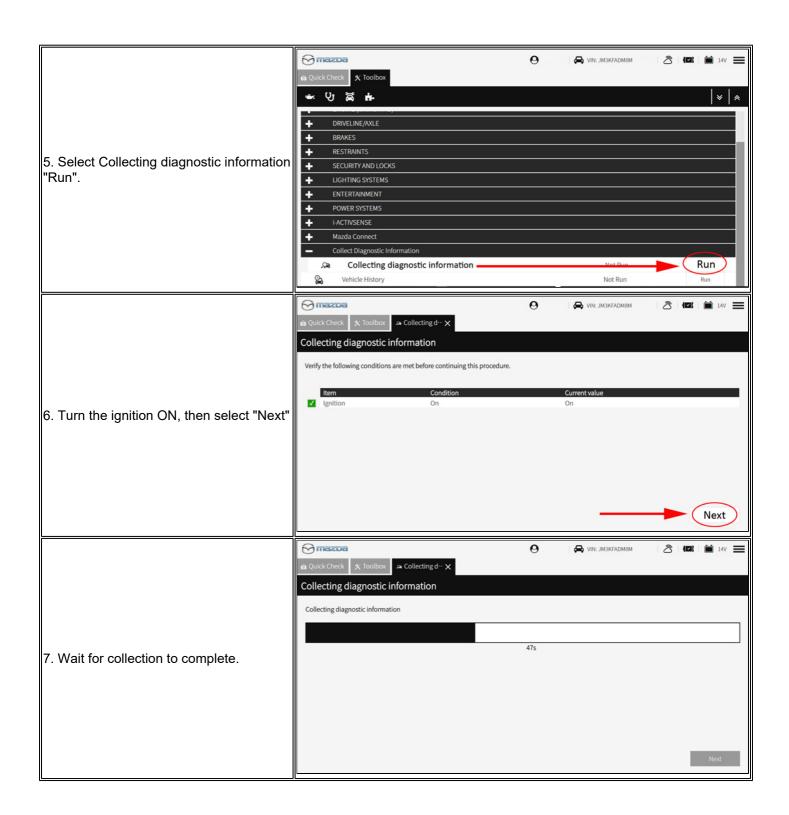
Page 18 of 26

Last Issued : 07/05/2023

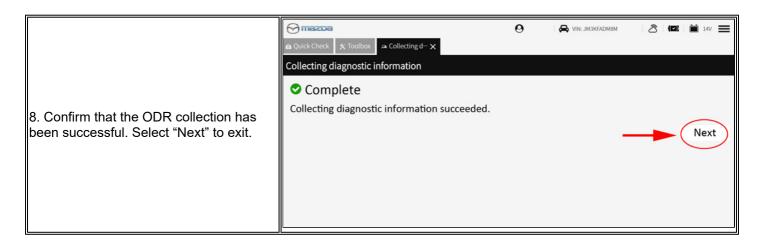
Service Alert No.: SA-009/23



Page 19 of 26

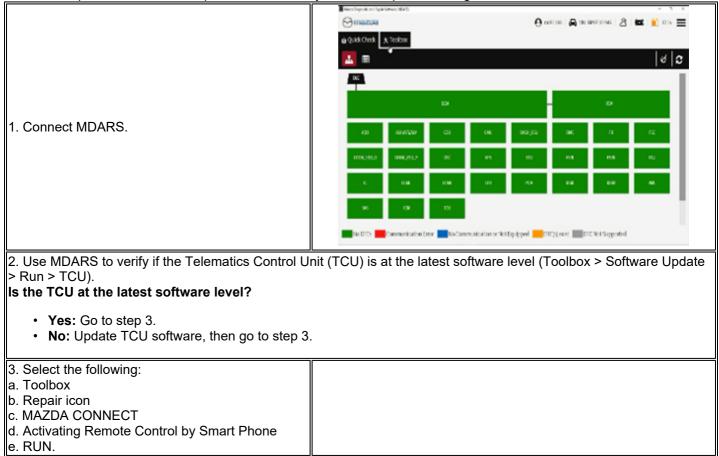


Page 20 of 26

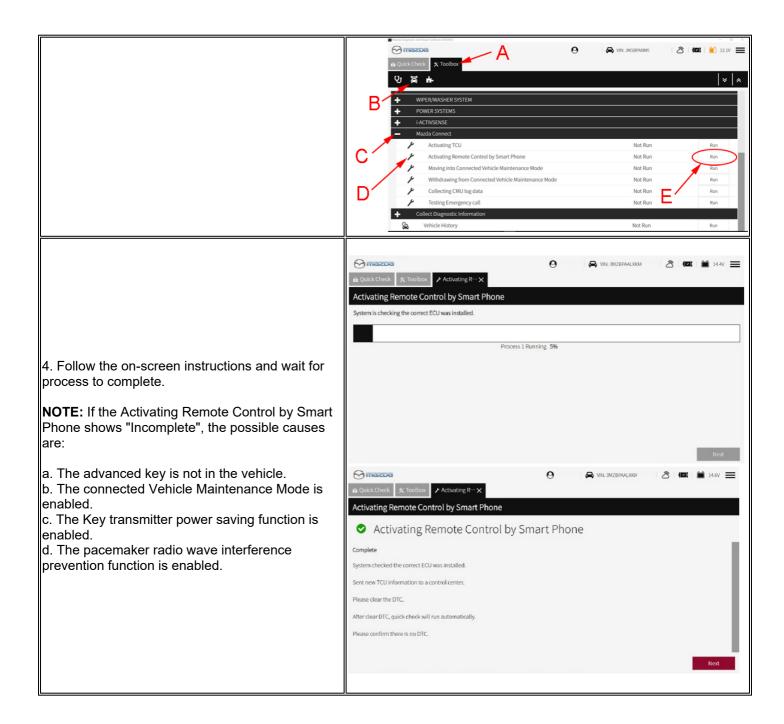


### Activating Remote Control by Smart Phone (links TCU to BCM)

NOTE: This procedure cannot be performed if the key transmitter power saving function is enabled. See SA-040/20.



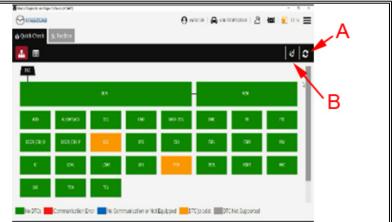
Page **21** of **26** 



Page 22 of 26

5. Select Quick Check (A), then start the engine and select the DTC Clear icon (B).

CAUTION: If the engine is not started, DTC P2610



### **TCU Software Version Check**

is stored and cannot be erased.

CX-5 and CX-9 Except CX-5 and CX-9 1. Press and hold the Volume knob, then press and hold the Entertainment and Favorite buttons at the same time for 3-5 seconds and the Factory/ Service Inspection screen will appear. Diagnostic Test Functional Inspection/Adjustment Select Service Information. Service Information Device Program Update End Diag Mode Connected Device Information Backup Restore Select TCU Linked information. Personal Information Deletion **TCU Linked Information** 4. Scroll down to TCU Software Version and

Page 23 of 26

### confirm the software version is at:

Service Alert No.: SA-009/23

- Mazda3 10006 or later
- CX-30 10006 or later
- CX-5 10023 or later
- CX-9 10023 or later
- MX-30: 10019 or later
  CX-50: 10003 or later

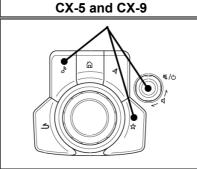
# Is the TCU software version correct?

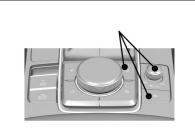
- Yes: TCU Software Version Check is complete.
- No: Go to Telematics Communication Unit (TCU) Updates to update the TCU software version.

# TCU Linked Information CMU Chip Serial No. : A E A I E Q AMF I TCU TEL Number : 5 2 5 6 2 0 1 3 2 0 TCU MEID : 3 5 7 6 9 1 0 9 9 5 7 2 3 2 TCU Software Version : 00010020 (CX-5, CX-9) : 00010004 (Mazda3, CX-30) Connection Server : P u b l i c Server Flag Information : 1 1 1 1

### **TCU Remote Service Flag Information Check**

1. Press and hold the Volume knob, then press and hold the Entertainment and Favorite buttons at the same time for 3-5 seconds and the Factory/Service Inspection screen will appear.





**Except CX-5 and CX-9** 

Select Service Information.

Diagnostic Test
Functional Inspection/Adjustment

Service Information

Device Program Update
End Diag Mode

Page **24** of **26** 

Connected Device Information Backup Restore Personal Information Deletion 3. Select TCU Linked information. TCU Linked Information TCU Linked Information TCU MEID TCU Software Version Connection Server Public Server Scroll down to Remote Service Flag Information. Flag Information Remote Service Flag Information: 1101 - 1111 - 1111 - 1111 Is the Remote Service Flag Information 1101... : 11 or 0000...? or • 1101... - Disconnect 12V battery for 1 hour, then retry connected vehicle TCU Linked Information enrollment. • 0000... - Contact Hotline for technical 00010001 TCU Software Version support. Public Server 0000 Flag Information Remote Service Flag Information: 0000 - 0000 - 0000 - 0000 00

### **Educational Videos**

Overview
Using MyMazda App
In-car Wi-Fi hotspot
MyMazda remote
Notifications
Saftey features

### Resources

SA-015/23 - MAZDA CONNECTED SERVICES - FREQUENTLY ASKED QUESTIONS (FAQ)

Connected Services Owner's Manual

MAZDA CONNECT and MAZDA CONNECTED SERVICES USER GUIDE

MAZDA CONNECTED VEHICLE VIEWER (MCVV) USER GUIDE

MAZDA CONNECT ESSENTIALS (30076WBT)

MAZDA CONNECT & CONNECTED SERVICES FOCAL POINT (30093FOC)

MAZDA CONNECTED SERVICES SMART CARDS

Page **25** of **26** 

Service Alert No.: SA-009/23	Last Issued : 07/05/2023
Service Alert No.: SA-009/23	Last Issued : 07/05/2023

MAZDA CONNECTED SERVICES: CUSTOMER OUTREACH

Page **26** of **26**