Service Alert

Mazda North American Operations
Irvine, CA 92618-2922

Subject:	
CONNECTED VEHICLE SYMPTOM TROUBLESHOOTING	**Service Alert No.: SA-013/21**
	Last Issued : 12/22/2021

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-013/21	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

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

DESCRIPTION

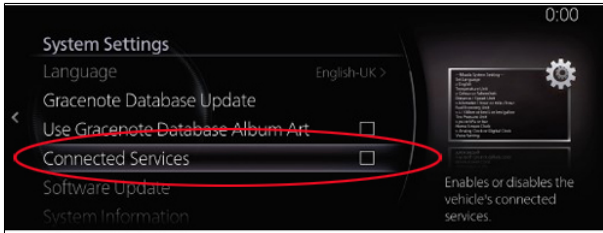Some customers may complain about any of the following:

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

Confirm the customer's phone and vehicle have good to strong reception during the concern as shown in the table below.

- 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 the Repair Procedure.

Indication	Explanation
Mazda3, CX-30, MX-30	Radio waves are not being received. Move to a location with good reception.
	Weak reception.
	Good Receptioin
	Strong reception.
	Currently conducting an operation check of the communication unit. If this condition continues, consult an Authorized Mazda Dealer.
	Currently conducting an operation check of the onboard communication unit. **NOTE:** Communication is not possible during this display.
CX-5, CX-9	The communication function is temporarily disabled due to infotainment system setting.
Mazda3, CX-30, MX-30 CX-5, CX-9	• Connected Service contract has ended (Subscription expired) • Customer deactivated Connected Services (Opt-Out) ◦ eMDCS Warranty Vehicle Inquiry will show Campaign CSP04 Status Closed • TCU has not been initialized, go to SA-004/21

01/03/2022 04:26 PM cciz

Remote Engine Start <u>Will Not</u> 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 and CX-30: Vehicle's electrical control area network (CAN) is in "Sleep Mode"
9	A registered key is detected in the vehicle
10	Brake pedal switch detects brake application
11	Low fuel warning message
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	After 10 second maximum cranking time
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)
19	Vehicle is parked (stored) for approximately 1 week or longer or in deep sleep mode. Drive the vehicle for a few miles to recover.
20	DTC Stored
21	Aftermarket Remote Engine Start accessory installed.

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

23	First remote control attempt fails, second attempt works fine. Go to TSB 16-002/20.

Remote Engine Start Function <u>Will</u> turn engine OFF under the following conditions

Item	Condition

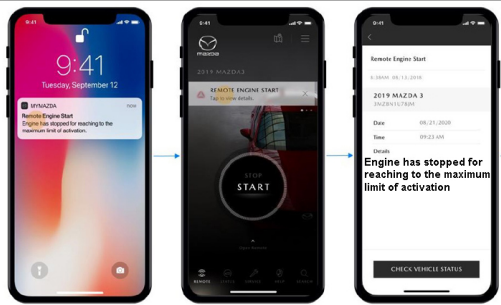|	
1	Vehicle door(s) opened
2	Vehicle trunk opened
3	Vehicle hood opened
4	Ignition switch push button "ON" detected
5	Remote engine STOP request
6	Brake pedal switch detects brake application
7	DTC Stored
8	Engine will stop running automatically after 15 minutes for safety, security and emissions.

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.
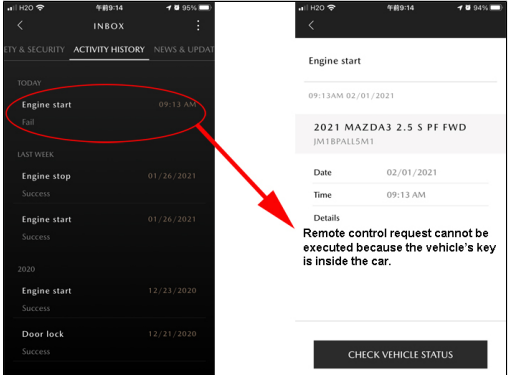
NOTE: Vehicles stored for long periods may loose GPS clock sychronization. If the vehicle is stored for a long period, test drive the vehicle to give the GPS clock time to sychronize before enrolling or testing connected vehicle functions.
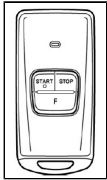
Index
1. Remote function(s) inoperative
2. Unable to enroll into connected services
3. Connected vehicle reception strength icon shows "X" or "\"
4. MyMazda App displays incorrect tire pressures (Except CX-5 and CX-9)
5. Unable to activate Connected Services (2019 Mazda3)
6. Software Update Error (2020 Mazda3)
7. Functions inoperative (2021-> CX-30, Mazda3 and MX-30)
8. First remote control attempt fails, second attempt works fine
9. Engine turns off when opening door
10. Low Tire pressure will not clear after correcting tire pressue

Connected Vehicle Troubleshooting			
	Symptom	Cause	Action
1	Remote function(s) inoperative. • Engine Start / Stop • Door Lock / Unlock • Lights ON / OFF	Go to the MyMazda App to view the reason for remote function failure.	**Push Notification** **OS Lock Screen** Tap the push / **Home** Tap the alert card / **Inbox Detail** Tap "check

01/03/2022 04:26 PM cciz

			notification		vehicle status"
		Activity History	Go to the MyMazda App INBOX -> ACTIVITY HISTORY -> to view reason for remote function failure.		
		Troubleshooting needed	1. Use MDARS to ID the vehicle and check for DTC's stored. Are DTC(s) stored? • Yes - Go to MGSS and perform normal DTC diagnostics. • No - Go to next step. 2. If applicable, confirm SSPC7 or DRW41 is closed. Go to eMDCS Vehicle Inquiry. 3. Confirm TCU software version is at the following using TCU Software Version Check • CX-5 and CX-9 - 10020 or later • CX-30 and Mazda3 - 10004 or later • MX-30: N/A 4. 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. 5. Perform one of the following: • **Customer:** Un-enroll Connected Services, then re-enroll into Connected Services as a new primary user. • **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. 6. Contact Hotline for additional technical support if		

01/03/2022 04:26 PM cciz

			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 Start accessory installed. 2. Mazda Remote Engine Start (BCKA-V7-620) accessory installed.	1. Remove the aftermarket accessory. 2. The customer can use either the Mazda Remote 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).
2	Unable to enroll into connected services. (Vehicle center display does not provide the Authorization Code during the MyMazda App enrollment)	Customer deactivate Connected Services (Opt-	Go to eMDCS Vehicle Inquiry. Does eMDCS show CSP04 status closed?

01/03/2022 04:26 PM cciz

		Out))	• Yes - Customer opt-out. No action needed. • No - CSP04 is not shown. Go to next Action below.
		Troubleshooting needed	1. Use MDARS to ID the vehicle and check for DTC's stored. Are DTC(s) stored? • Yes - Go to MGSS and perform normal DTC diagnostics. • No - Perform ODR Data Collection Procedure, then go to step 2. 2. Confirm TCU software version is at the following using TCU Software Version Check. • CX-5 and CX-9: 10020 or later • CX-30 and Mazda3: 10004 or later • MX-30: N/A 3. Retrieve MAZDA CONNECT CMU log data. Go to MGSS -> Infotainment -> MAZDA CONNECT CMU Data Retrieval 4. Perform "Activating Remote Control by Smart Phone" (links TCU to BCM) 5. Clear DTC(s). **NOTE:** If DTC 2050:55 is stored, go to SA-003/20 to clear DTC. 6. Perform KAM reset. **NOTE:** Test drive vehicle after a KAM reset to allow the GPS clock to sychronize before retrying Authorization Code. 7. Contact Hotline for additional technical support if needed.
3	MAZDA CONNECT connected vehicle reception strength icon shows "X" or "\". Mazda3, CX-30, MX-30 CX-5, CX-9	No reception	1. 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 step. 2. Check for DTCs. Are there any DTC's stored? • Yes: Go to MGSS for normal DTC diagnosis. • No: Go to next step. 3. Confirm TCU software version is at the following using TCU Software Version Check. • CX-5 and CX-9: 10020 or later • CX-30 and Mazda3: 10004 or later

01/03/2022 04:26 PM cciz

• MX-30: N/A

4. Disconnect battery terminal for 30 seconds, then 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?

- Yes: Repair complete.
- No: Go to next step.

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
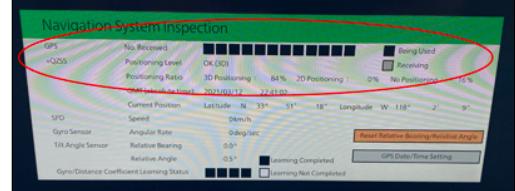
No Good - Swap Tel antenna No. 1 with known good vehicle
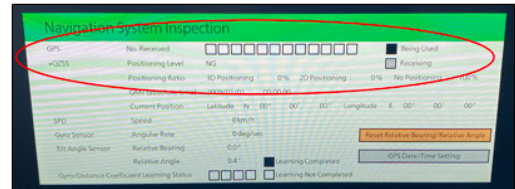
| 4 | Except CX-5 and CX-9
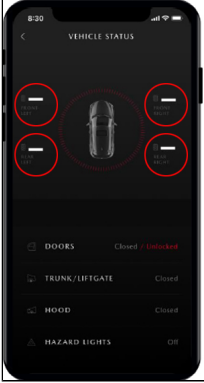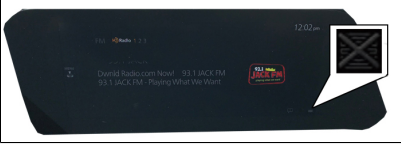
MAZDA CONNECT and/or MyMazda App displays incorrect tire pressures after battery disconnect and/or infotainment CMU software update. | Incorrect calendar entry (month/day/year) after a battery disconnect or infotainment system software update. | Go to SA-002/21 |

01/03/2022 04:26 PM cciz

5	**2019 Mazda3 only** • The customer is not able to activate Connected Services via the MyMazda app after CSP06 completion. • MAZDA CONNECT connected vehicle reception strength icon is missing or shows unsubscribed after CSP06 completion. 	Improper telematics communication unit (TCU) software.	Go to CSP07 Repair instructions.
6	**2020 Mazda3 only** • Infotainment center display does not provide the Authorization Code • Infotainment center display "Software Update Error" message 	Enrollment error	Go to SSPC1

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01/03/2022 04:26 PM cciz

7	2021 Mazda3, CX-30 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 SA-005/21.
8	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.
9	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.
10	• 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.

ODR Data Collection Procedure

1. ID the vehicle using MDARS	---

01/03/2022 04:26 PM cciz

2. Select "Toolbox"	
3. Select Vehicle Icon	

01/03/2022 04:26 PM cciz

4. Expand "Collect Diagnostic Information"	
5. Select Collecting diagnostic information "Run".	
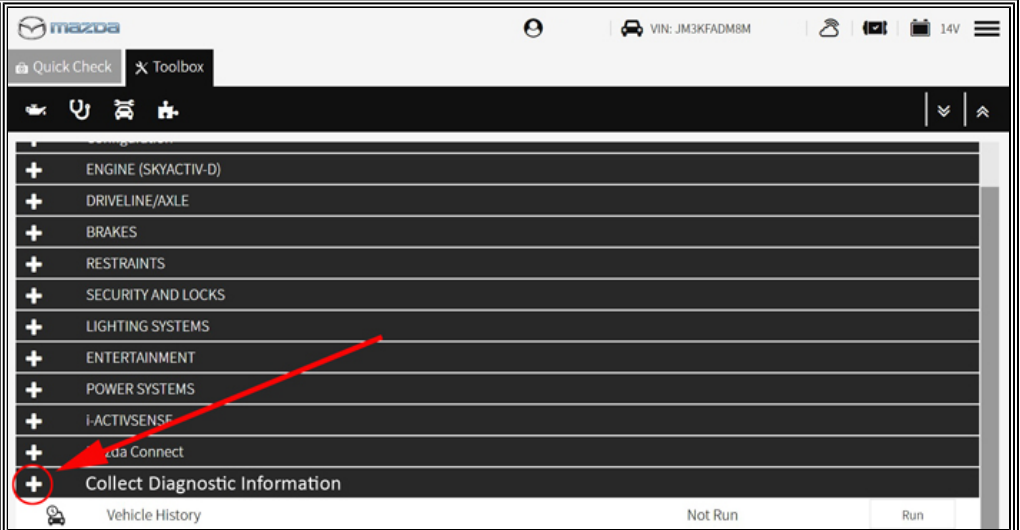
01/03/2022 04:26 PM cciz

6. Turn the ignition ON, then select "Next"	
7. Wait for collection to complete.	
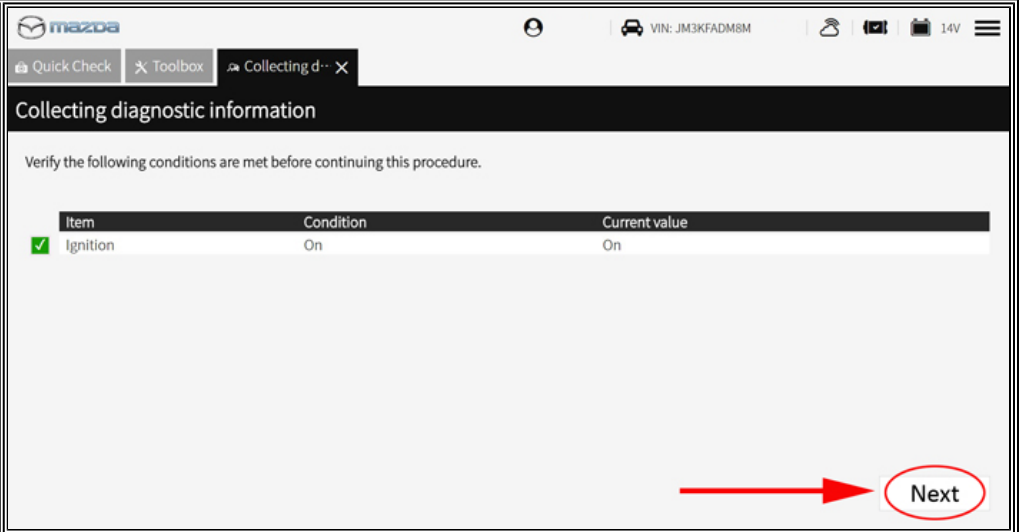
01/03/2022 04:26 PM cciz

8. Confirm that the ODR collection has been successful. Select "Next" to exit.

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.

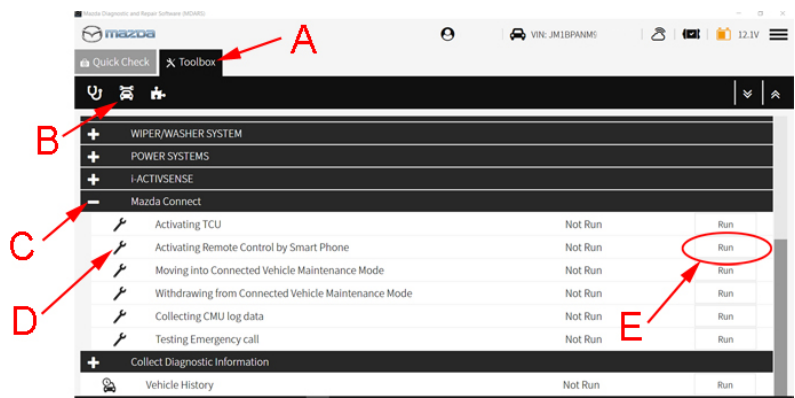|	
1. Connect MDARS.	

2. Use MDARS to verify if the Telematics Control Unit (TCU) is at the latest software level (Toolbox > Software Update > Run > TCU).
Is the TCU at the latest software level?
 	
   • **Yes:** Go to step 3.
   • **No:** Update TCU software, then go to step 3.	

3. Select the following: a. Toolbox b. Repair icon c. MAZDA CONNECT d. Activating Remote Control by Smart Phone e. RUN.	
4. Follow the on-screen instructions and wait for process to complete. **NOTE:** If the Activating Remote Control by Smart Phone shows "Incomplete", the possible causes are:	

a. The advanced key is not in the vehicle.
b. The connected Vehicle Maintenance Mode is enabled.
c. The Key transmitter power saving function is enabled.
d. The pacemaker radio wave interference prevention function is enabled.
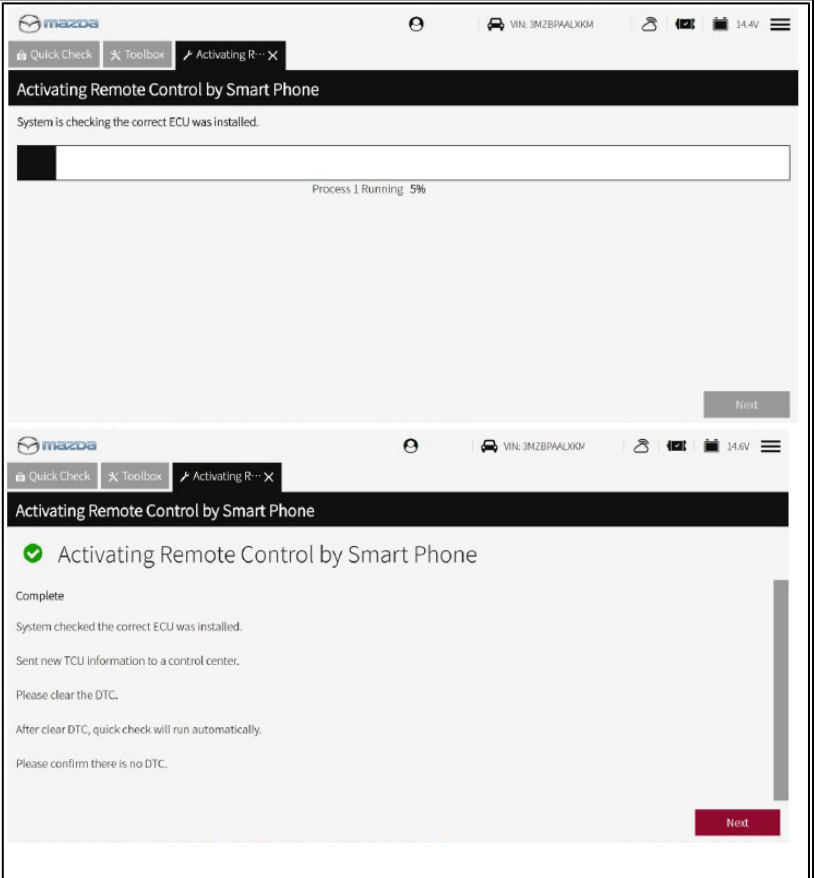
5. Select Quick Check (A), then start the engine and select the DTC Clear icon (B).

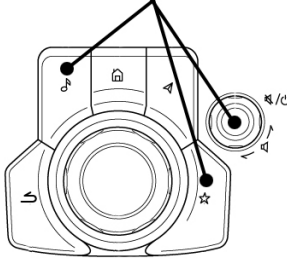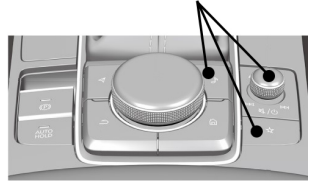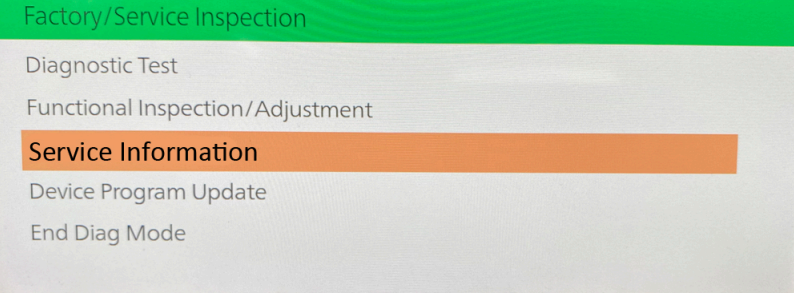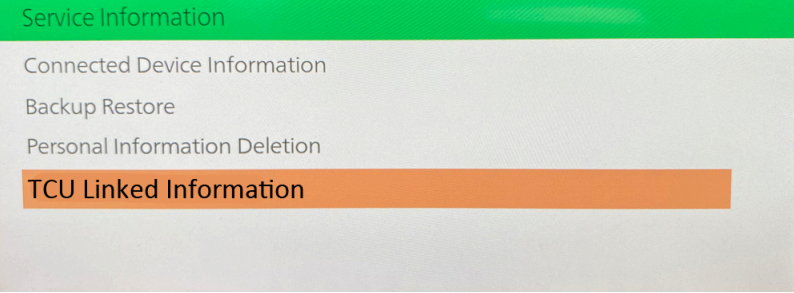**CAUTION:** If the engine is not started, DTC P2610 is stored and cannot be erased.
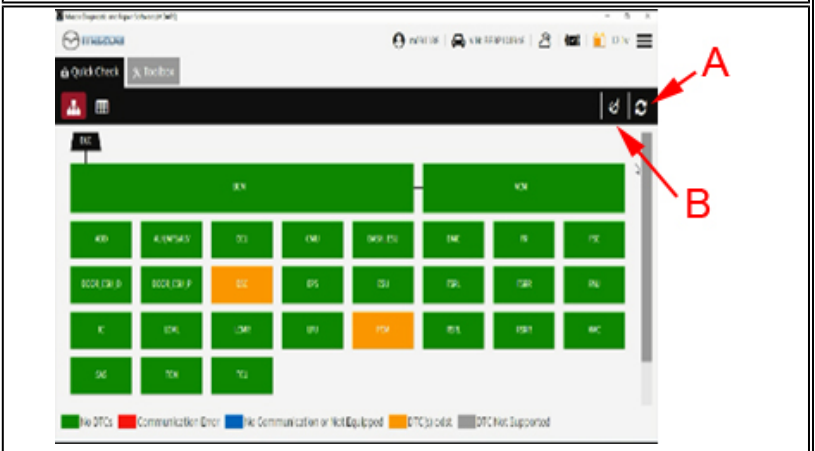
TCU Software Version Check

| 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. | **CX-5 and CX-9** | **CX-30, Mazda3 and MX-30** |

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2. Select Service Information.	**Factory/Service Inspection** Diagnostic Test Functional Inspection/Adjustment **Service Information** Device Program Update End Diag Mode	
3. Select TCU Linked information.	**Service Information** Connected Device Information Backup Restore Personal Information Deletion **TCU Linked Information**	
4. Scroll down to TCU Software Version and confirm the software version is at: • 10020 or later for CX-5 and CX-9 • 100004 or later for CX-30 and Mazda3 • MX-30: N/A **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 A M F 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 S e r v e r Flag Information : 1 1 1 1	

01/03/2022 04:26 PM cciz