

Subject:

CONNECTED VEHICLE SYMPTOM TROUBLESHOOTING

Service Alert No.: SA-017/22

Last Issued : 10/10/2022

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-017/22	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 MX-30 2023 CX-50

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 "\".

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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.



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CX-5, CX-9	 TCU has not been initialized, go to SA-004/21
Vehicles built before July 1, 2021 Vehicles built after July 1, 2021	Customer deactivated Connected Services (Opt-Out) eMDCS Warranty Vehicle Inquiry will show Campaign CSP04 Status Open
CX-5, CX-50, CX-9, MX-30 Mazda3, CX-30 built July 1, 2021 and later Connected Services Disabled message appears at engine start up (Connected Services Disabled Emergency call system can still be made while connected services are disabled. Enable Cancel	Connected Services disabled (box unchecked) System Settings Language Gracenote Database Update Use Gracenote Database Album Art Connected Services Software Update System Information Enable Connected Services (box checked) to prevent message appearing at engine start up. System Settings Gracenote Database Album Art Connected Services Software Update System Settings Connected Services Software Update System Settings Connected Services Software Update System Information System Settings Connected Services Software Update System Information Software Update System Information Note: If customer Opted-Out (CSP04), advise customer to keep Connected Services box checked. The vehicle will not transmit data.
Connected Vehicle Maintenance Mode	Connected Vehicle Maintenance Mode enabled. Go to MGSS SERVICE CAUTIONS FOR VEHICLES WITH TELEMATICS COMMUNICATION SYSTEM to disable Maintenance Mode.

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Remote Engine Start Will Not Function under the following conditions

ltem	m 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"		
9	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	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)		

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	Embedded Communications Restricted The embedded communication device and infotainment: display functions have been restricted. After the diagnosis and/or repair is complete, utilize the same procedure used to access this Embedded Communications Restricted mode to exit and return to normal system operation.		
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).		
22	a. Remove the 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.		
24	CSP04 Status Open		

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

ltem	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.	

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REPAIR PROCEDURE

CAUTION:

- Before continuing, confirm that the TCU is at the latest software level. Go to Telematics Communication Unit (TCU) Updates
- 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, CX-50, 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
- 11. Educational Videos
- 12. Resources

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	Connected Vehicle Troubleshooting					
	Symptom	Cause		Actio	n	
			Push Notification	B: 41 Derse, Selencero 12 Profiles Renge Technologies Renge Selencero Selencero Technologies Control Selencero Technologies		Kent light Suit Kent light Suit 2419 ALZAS 2419 ALZ
		Go to the MyMazda App to view the		OS Lock Screen Tap the push notification	Home Tap the alert card	Inbox Detail Tap "check vehicle status"
1	Remote function(s) inoperative. • Engine Start / Stop • Door Lock / Unlock • Lights ON / OFF	to view the reason for remote function failure.	Activity History	Go to the MyMaz ACTIVITY HISTOR remote function f intervention interve	Cda App INBC DRY -> to view ailure.	VX -> W reason for VF reaso
		Troubleshooting needed	 Use MDAF stored. Are D Yes - diagno No - G If applicab to eMDCS Vo Confirm TO using TCU S Mazda CX-30 	RS to ID the vehic DTC(s) stored? Go to MGSS and ostics. So to next step. le, confirm SSPC ehicle Inquiry. CU software version oftware Version C a3 - 10006 or late) - 10006 or later	le and check perform norn 7 or DRW41 on is at the fo check r	for DTC's nal DTC is closed. Go bllowing

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		 CX-5 - 10023 or later CX-9 - 10023 or later MX-30: 10019 or later CX-50: 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.
		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.
	 Aftermarket Remote Engine Start accessory installed. Mazda Remote Engine Start (BCKA- V7-620) accessory installed. 	 Remove the aftermarket accessory. 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	Advise customer to drive the vehicle as normal (at least

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		sleep" mode due to vehicle being parked for a long period.	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).
		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.
2	No One Time Passcode (OTP) (Vehicle infotainment center display does not provide the Authorization Code during the MyMazda App enrollment)	Troubleshooting needed	 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. Confirm TCU software version is at the following using TCU Software Version Check. 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: N/A 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).

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			 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	<text><text><image/><image/></text></text>	No reception	 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. 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. Mazda3 - 10006 or later CX-30 - 10006 or later CX-5 - 10023 or later CX-9 - 10023 or later CX-9 - 10023 or later CX-50: N/A 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. Perform TCU activation. Go to SA-004/21. Is the reception strength signal normal? Yes: Repair complete. No: Go to next step. 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

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			No. Good - Swap Tel antenna No. 1 with known good
			Vehicle Navigation System Inspection P5 Texterning Into Antico III and IIII and IIIIIIIIII
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
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.

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			Go to 09-010/22.
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



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

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

1. Connect MDARS.	Marchane (1944) Image: 1944 Marchane (1944) Image: 1944 Marchane (1944)
 2. Use MDARS to verify if the Telematics Control U > Run > TCU). Is the TCU at the latest software level? Yes: Go to step 3. No: Update TCU software, then go to step 3 	nit (TCU) is at the latest software level (Toolbox > Software Update
3. Select the following: a. Toolbox b. Repair icon c. MAZDA CONNECT d. Activating Remote Control by Smart Phone e. RUN.	House set insure theme setting In account of the sett
 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	

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enabled.	⑦ mazzoa ⑦ 목 MNL 3NZEBRALX004 ② 【四】 第 14.4V ■
d. The pacemaker radio wave interference	🖴 Quick Check 🗴 Toolbox 🖌 Activating R… 🗙
prevention function is enabled.	Activating Remote Control by Smart Phone
	System is checking the correct ECU was installed.
	Process 1 Running 5%
	Next
	⑦ mazoa ④ ♣ VINE 3MZBPALXXV ▲ IIIE 14.6V
	Activating R···×
	Activating Remote Control by Smart Phone
	Activating Remote Control by Smart Phone
	Complete
	System checked the correct ECU was installed.
	Sent new TCU information to a control center.
	Please clear the DTC.
	After clear DTC, quick check will run automatically.
	Please confirm there is no DTC.
	Not
	Mechanic school Mit
	e Quid Crest A Torbus
C Calcat Quick Charle (A) they start the avaira	P
5. Select QUICK Check (A), then start the engine	· · · · · ·
and select the DTC clear con (D).	
CAUTION: If the engine is not started, DTC P2610	40 4.9493 23 14 9975 14 5 12
is stored and cannot be erased.	NOXCOD F NOXCOD F NOX
	с DC 32 07 <mark>02 01 02</mark> 0С
	96 TO TO
	🔜 Ne DTCs 🚾 Communication Diror 🔜 No Communication or Not Equipped 🧧 CTC (s) olds 🔤 DTC Net Supported

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TCU Software Version Check

	CX-5 and CX-9	CX-30, CX-50, Mazda3 and MX- 30	
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.			
2. Select Service Information.	Factory/Service Inspection Diagnostic Test Functional Inspection/Adj Service Information Device Program Update End Diag Mode	n ustment	
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: 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: N/A Is the TCU software version correct? Yes: TCU Software Version Check is complete. 	TCU Linked Information CMU Chip Serial No. TCU TEL Number TCU MEID TCU Software Version Connection Server Flag Information	: A E A I E Q A M F I : 525 62 0 1 32 0 : 357 6 9 1 0 9 9 5 7 2 3 2 : 00010020 (CX-5, CX-9) : 00010004 (Mazda3, CX-30) : Public Server : 1111	

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Educational Videos

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

Resources

SA-019/22 - 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 WBT (30076) MAZDA CONNECT & CONNECTED SERVICES FOCAL POINT (30093FOC) MAZDA CONNECTED SERVICES SMART CARDS MAZDA CONNECTED SERVICES: CUSTOMER OUTREACH

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