

# **Technical Service Bulletin**

#### SUBJECT: No: TSB-22-54-001REV DISPLAY MESSAGE ERRORS OCCUR IN HEADS UP DATE: April 2024 **DISPLAY DUE TO COMMUNICATION ERROR BETWEEN** MODEL: ADAS-ECU AND FRONT RADAR-REVISED 2022 Outlander CIRCULATE TO: [] GENERAL MANAGER [X] PARTS MANAGER [X] TECHNICIAN [X] SERVICE ADVISOR [X] SERVICE MANAGER [X] WARRANTY PROCESSOR [X] SALES MANAGER

This bulletin supersedes TSB-22-54-001 dated February 2022, to update the affected vehicles, ECU reprogramming and Warranty information. Revisions are italicized and indicated by ◀.

## PURPOSE

This reflash is to correct the ECU software. An inaccurate message may appear in the heads up display when using the Adaptive Cruise Control (ACC) and an inaccurate preset speed may appear in the multi information display. Additionally, a system fault message and DTC: U2752-87/88 and U275F-88 may be present with IG-ON/IG-OFF due to ADAS features being incompatible with the following drive cycles: ACC, LKA (Lane Keep Assist), FCM (Forward Collision Mitigation) or PFCM (Predictive Forward Collision Mitigation). Please perform this flash first, then proceed to diagnosing other codes if they persist.

Please reprogram the ICC/ADAS (Advanced Driver Assist) Module and the Laser/Radar Module with countermeasure software to correct the issues on a customer complaint basis.

## AFFECTED VEHICLES

2022 Outlander (Cut-off VIN JA4J4UA80NZ051046)

## **REPAIR PROCEDURE**

- Confirm your MUT-III SE is updated with the latest reprogramming database.
- Write down all the electrical device settings such as A/C and radio before reprogramming. The settings should be restored after reprogramming.
- Turn off all electrical devices to minimize the vehicle's electrical load. Also use an external power source to ensure that the vehicle battery maintains the specified voltage during reprogramming. If incomplete reprogramming occurs the ECU must be replaced with a new one.
- Make sure the USB cable and MUT-III SE main harness are not damaged.
- Connect the MUT-III SE to an AC power source to prevent internal battery discharge.
- Stay away from the under hood area during reprogramming. If the connection between the engine ECU and ETACS is lost, the cooling fan operates as fail-safe.
- **NOTE:** If an affected vehicle has a Malfunction Indicator Lamp (MIL) illuminated before reprogramming, and DTCs are listed in the ECU memory, save the ALL-DTC results and then erase the codes prior to reprogramming. If hard codes are present that are applicable to the target ECU and won't clear, diagnose and repair these codes first and then proceed with reprogramming.

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## EQUIPMENT

- The following equipment is needed to reprogram the ECU:
- VCI (Vehicle Communication Interface) or VCI Lite MB991824 or MB992744
- MEDIC Laptop/Tablet with A/C power adapter 520924, or FZG1MK2
- MUT III Main Harness "A" (blue connector at the DLC end) MB991910 or MB992745
- USB 2.0 Cable MB991827 or MB992747
- MEDIC 3.5/4 update at **859** or higher
- For Standalone MUT III units, MUT3-SE Reprogramming Database **N231101NR** or higher

## ECU REPROGRAMMING CHART

(For Software : ADAS-ECU)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
284E7W079P	284E7WW00P	284E7WW00P	MI-PILOT ASSIST equipped vehicle
	284E7WW01P	20/571/0100	
284E7W030P	284E7W019P	284670019P	MI-PILOT ASSIST non-equipped vehicle
	284E7WW01P	284E7WW01P	

#### (For Software : Front Radar)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
20/20/0004	284386RR0A	205/222020	-
284380RB8A	284386RR7A	2854777078	-

### REPAIR PROCEDURE

#### SOFTWARE/MEDIC VERSION VERIFICATION

1. Verify that the ECU has not already been updated to the latest S/W number in the table above. If the Engine ECU is at the latest level, reprogramming is not necessary.

**NOTE:** Reprogramming the Engine ECU with the latest database (e.g., **N231101NR**) includes all past and current reprogramming for TSBs of affected vehicles. It is not necessary to reprogram the ECU for each previous TSB.

#### For MEDIC 3.5/4 users only: (MUT-III SEV users go to step 5)

2. Verify the MEDIC 3.5/4 is at version 3.5 and at update **859** or higher.

If your <u>MEDIC 3.5/4 update is at least 859</u>, continue with the Reprogramming Procedure. If your <u>MEDIC 3.5/4 update is below 859</u>, update your MEDIC as follows.



3. Select the MEDIC 3.5/4 Admin tab and click on "Updates".



4. If the MEDIC update screen advises updates are available, click the "Begin" button. After all updates are complete, GO TO THE REPROGRAMMING PROCEDURE.

Administration  COOOOOO	MEDIC UPDATES	
	PROGRESS	
UGER PROFILE DATE & TIME	Updates Found 0 Processing (XX/99) % Total	
	Constraining Estimated Size (CB) Rapsed	
140 SAIREPANIDS	Nacioneo (xe) Special paparola) % Complete	Subnet         255,253,255,0           s frequent:         Gateway         192,168,100,3           0.54         DNS1         208,8682300
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SWITCH TO TEST	Congratulations' Your MEDIC software is up to date.	
		s on 07/16/2023 to 10/13 PM be turned on and connected to the internet in http: updates to complete. If this is not possible, icon to perform a manual update to keep your
	Close	

- STANDALONE MUT-III SE SCAN TOOL VIEWER (STV) ONLY: (MEDIC 3.5 USERS GO TO THE <u>REPROGRAMMING PROCEDURE</u>). Verify that your MUT-III SE has the most current version of the reprogramming database from the MUT-III SE Main Page.
  - a. Press the MUT-III SE STV button.

MUT3-SE	
N	MUULETIII SEE Multi Use Tealer III Second Editor Expert 319 Mandae Addres del Parena La
	STV
What's NEW	Topics
- Mar. 2023 - Diagnostic database is updated (To What's NEW for more detail - Dec. 2022 - Diagnostic database is updated	- VC type and vencle model compatibility.     (Doc. 2022 Update)     - In case that Systems(Options) are not displaye.     - In the use of VC.1     - USB connection for VC.1-Lite.
D.U.TIII Manual	
	Ver.SEW23031-00

b. Confirm the vehicle information displayed is complete/correct and press the reprogramming button.

System select					•
	System (161			Valuicle Information	
ENGINE			DESTIN	MMNA	
TRANSMISSION			MAKER	MITSUBISHI	
SHIFT			TYPE	GM4W	
EPS / DAST 3			CLASS	XTUCL2M	-
CHASSIS CONTROL			MODEL YEAR	2022	
AIR BAG			MODEL	OUTLANDER (GM#)	
HVAC			ENGINE/MOTOR	PR25DD (2.5, D4)	
Load	ing Option Setup		TRANSMISSION	FK25 (CVT)	
METER / M&A	(Not selected)	~ *	Chassis No./VIN	JA4J3VA85NZ081331	Match
			Tink All 28		
L	1		a pit and		
$\Delta$			4		

c. Select "ICC/ADAS 2" in System List.

	System List		1	Vehicle information	
AUDIO AMP.			DESTIN	MMNA	
E-HUD			MAKER	MITSUBISHI	
MULTI AV			TYPE	GM4W	
IVC			CLASS	XTUCL2M	
Wireless charger			MODEL YEAR	2022	
ICC/ADAS 2			MODEL	OUTLANDER (GM#)	
LASER/RADAR			ENGINE/MOTOR	PR25DD (2.5, D4)	
Loa	ang Option Setup		TRANSMISSION	FK25 (CVT)	
METER / M&A	12.3 inch	~ A.	Chassis No /VIN	JA4J3VA85NZ081331	Match
		-	All 🔐	az 🔐	

d. Select "Special Function" button.

	-	-
Diagnostic Trouble Code	Data List	Drive Recorder
Special Function	Configuration	CAUSE OF AUTO-CANCEL I
Special Function		
CAUSE OF AUTO-CANCEL 2	CAUSE OF AUTO-CANCEL 6	FEB OPERATION MILEAGE

e. Press "ECU Information" button.

MAC KEY Writing	ECU Information	Actuator Test
Steering torque calibration	Setting change	Chassis No./VIN Information
Chassis No./VIN Registration		

- f. Confirm that the database number displayed is *N231101NR* or higher.
  - i. If the database number displayed on your MUT-III SE is **859** or greater, continue to the next section.
  - ii. If the reprogramming database number displayed on your MUT-III SE is lower than **859**, then the MUT-III SE database needs to be updated.
  - iii. Once the database number is confirmed, hit the Home button to go back to the System Select screen.

## REPROGRAMMING PROCEDURE

## 

To ensure that the vehicle battery maintains 12V during the procedure, hook- up a battery charger to the vehicle during the procedure.

## NOTE: VCI Stand-alone reprogramming is not available for this procedure. The laptop/tablet and the VCI must remain connected for the entire procedure.

1. Connect the equipment as follows:

**NOTE:** VCI Lite and MEDIC 4.0 Toughpad shown for illustration purposes only.



- Turn the MEDIC PC/tablet on. If the battery indicator in the lower right hand corner of the screen does not show a full charge, it is recommended that either the battery be charged prior to beginning or be used with the A/C power adaptor connected.
- Connect the USB cable to the VCI/VCI Lite. When the laptop/tablet displays the MUT-III SE main screen, connect the USB cable to the device.
- Connect the MUT-III SE main harness with the blue DLC connection to the VCI/VCI Lite. Connect the blue connection of the MUT-III SE main harness to the vehicle's data link connector.
- For VCI only: Turn the VCI power switch ON. Verify that the indicator lamp in the upper right corner of the screen is green.

## 

#### DO NOT DISTURB THE HARNESS CABLES OR CONNECTIONS DURING THE REPROGRAMMING PROCESS AS IT COULD CAUSE THE CONTROL UNIT TO LOSE DATA. IF THE USB CABLE IS DISCONNECTED DURING THIS PROCEDURE, A WARNING MESSAGE WILL DISPLAY.

**NOTE:** Due to limited space it may be easiest to connect battery charger cable onto ground point.



- 2. Turn the ignition switch to the "ON" position.
- 3. Turn on flashers to prevent vehicle from shutting/powering down.
- 4. Press the MUT-III SE STV button.



5. Press the model information display button (car icon) and verify all vehicle information. Look at the label on the passenger side B pillar to identify the appropriate class. (See B pillar label below; class is labeled as "model"). Select the correct class from the Loading Option Setup drop-down list.

System select					4
	System List			Value Information	
ENGINE			DESTIN	MMNA	9
TRANSMISSION			MAKER	MITSUBISHI	
SHIFT			TYPE	GM4W	
EPS / DAST 3			CLASS	XTUCL2M	Ŷ
CHASSIS CONTROL			MODEL YEAR	2022	÷
AIR BAG			MODEL	OUTLANDER (GM#)	ų
HVAC			ENGINE/MOTOR	PR25DD (2.5, D4)	÷
Load	ling Option Setup		TRANSMISSION	FK25 (CVT)	
METER / M&A	(Not selected)		Chassis No./VIN	JA4J3VA85NZ081331	Match
		1	ALL ALL	a 🔐	



a. Select appropriate "Meter / M&A" from Loading Option Setup drop-down.



b. Select "ICC/ADAS 2" from the System List and press the programming button.

Settin subst			_		<
	Sistem Lat			Vertoix Information	
AUDIO AM-			DESTIN	MERINA	-
64-00			WING IS	MITSURIS-0	5
MULTIAN			TYPE	GMWW	
IVC			CLASS	XTUGL2M	
Witwess charger			WODEL YEAR	2622	-
ICG/ADAS 2		_	MODEL	OUTLANDER (GM#)	
LASERBADAR			ENGINEMOTOR	PE25DD (2.5, D4)	
Lond	weiGetas Stells		TRANSMISS ON	FK25 (GVT)	
METER / VISA	12.3 inch	- ×	Charactis No. 3010	JA4J3VA85NZ081001	Maten
			Tel 1 1 1 12	BI A	
4	9				

c. Log into AS2.



d. Press the "Special Function" button.



e. Press the "ECU Information" button.

Actuator rest
Chassis No./VIN Information

f. The current ECU Part Number will be displayed. If the ECU is at the latest level, reprogramming **is not** necessary.

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7. **If reprogramming is necessary**, proceed with the following steps. Return to the "System Select" tab, select ICC/ADAS 2 and press the "ECU reprogramming" button.

System select					
	System List			Vehicle Information	
AUDIO AMP.			DESTIN	MMNA	
E-HUD			MAKEN	MITSUBISHI	
MULTIAV			TYPE	GM4W	
IVC			CLASS	CLASS XTUCL2M MODEL YEAR 2022	
Wireless charger		MOR	MODEL YEAR		
ICC/ADAS 2	MODEL OUTLAND		OUTLANDER (GM#)	GM#) D4)	
LASER/RADAR	R ENGINE/MOTOR PR25DD (2				
Luad	ing Option Setup		TRANSMISSION	FK25 (CVT)	
METER / M&A	12.3 inch	~ *	Chassis No./VIN	JA4J3VA85NZ081331	Mate
			ALL ALL		
			ECU representativity	(int)	

a. Select the "ECU Reprogramming (SDB)" button.

** N410001500 GM4WXTUCL2M 2022			_ =
ECU Reprogramming			4
ECH Dasa America (200)	ene para las	EPII Descention of Line	
ECO ReproChristiand(300)	SOB Data LBr	ECO Replogramming.v.c.ine	
ECU Reprogramming(SDB)			
Data Selection:K-Line	Data List:K-Line		
Ver: SEW23061-02			
Ver: SEW23001.02			

b. Select appropriate "Meter / M&A" if necessary and press the OK button.

N410001501 GM4WXTUCL2M 2022					= ×	a Renounsan GM4WXTUGE2M	20122				
ECU Repagramming(ROB)					< >	COO Reprogramming(SDD)   X		-			-
System Let			Variatie intermetion			is is	Aspeka This.			versale information	
AUTO DRIVE POS		TYPE	GM4W			AUTO DRIVE POS.			TYPE	CMMW	
AUDIO AMP		CLASS	XTUCL2M			AUDIO AMP.			CLASS	XTUCL2M	
E HUD	_	MODEL YEAR	2022			E-HUD.			MODEL YEAR	2022	
MULTI 8V		MODEL	OUTLANDER (GM#)			MULTI AV			MODEL	CUTLANDER (GMM)	
IVC		Chassis No./VIN	JA4J3VA86NZ081331	1.	atch	NC			Chassis No./V/N	JA4J3VA80NZ081331	540
Wilreless charger						Wireless charger					
ICCIADAS 2		Automatic proofs the s	one neurominis data	_		IOGIADAS 2		-	Automatic search the r	oprogramming data	_
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METER / M&A (Not selected)						METER/MBA	12 3 inch	1			
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#:SEW23051-02	_					Ver.SEW23051-02					
							9				
				-				_			

c. Select a modernization type - "Reprogramming (ECU software rewriting)" button and press the OK button.

N406001511	GM4WXTUCL2M 2022	
ECU Reprogram	ning(SDB) x	• • •
	Select modernization type	
	Reprogramming (ECU software rewriting)	
	Programming (program writing to new ECU)	
	Please select a modernization type	
	in reprogramming cannot into the target me anter a named update, select programming,	
Ver.SEW23061-02	2	
VERSION:	4.0 UPDATE #: 946 CURRENT DATE AND TIME: 02/08/2024 10:56:1970/ (2) 📷 📻 (0) 💱 📘	

d. Select the reprogramming data and press the OK button.

Reference

e. Confirm data displayed and confirm reprogramming ECU by selecting the OK button.

selection	Data No	New HW Part No	New SW Part No War	Current HW Part No.	Current SW Part No /Ver	Contents	Class	sification	Date	Reference
	284E7W07 .9PN	284E7W029P	284E7W079P	284E7W029F	284E7W029P	2 OUTLANDER GM4V	VW C	C/SC	20231212	
Select It	ie reprogramm	ning data and p	ress the OK bu	tton	X					

Note: Do not disturb the cable or turn off the ignition during reprogramming to prevent damage to the ECU.

f. Once the reprogramming is initiated the screen (shown below) will indicate the reprogramming progress. It may take up to 15 minutes to complete.



g. Verify that the software version has been updated to the new data number.



#### (For Software : ADAS-ECU)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
284E7W079P	284E7WW00P	284E7WW00P	MI-PILOT ASSIST equipped vehicle
	284E7WW01P	20/574/0100	
284E7W030P	284E7W019P	284E7W019P	MI-PILOT ASSIST non-equipped vehicle
	284E7WW01P	284E7WW01P	

#### (For Software : Front Radar)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
20/20/0004	284386RR0A	205 (222020	-
284386RB8A	284386RR7A	285477707R	-

- 8. Update the front radar.
- 9. After updating the ADAS-ECU and front radar, turn IG-OFF for 10 seconds and then clear all the DTCs in the all ECUs and make sure there are no DTCs remaining.
  - a. Return to the System Select screen. Press "ALL DTC" button to initiate the "Erase and Read all DTCs". IMPORTANT: The "Erase and Read all DTCs" must be performed since DTCs may be generated and stored.



(5379/TSL2112031A)

10. Press OK to initiate erasing all DTCs. When completed, a confirmation message will be displayed. Click the OK Button.

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	5HE1			Michel Wear	2022			12	SHIFT	AN DITOS	2022
1	EPS/DASES	-		Nodel Code	GIMNWXTUCE280			1	EPS / DAST 3	Start Rev MA CITICS	GMARANDET LICE 2M
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11. Using a ball-point pen, enter the appropriate ECU part number, Software Part Number (ROM ID#), this Technical Service Bulletin number, your dealer code, and the current date on the Engine Compartment/Control Module Label (p/n MSSF024G00). The Vendor Code is not applicable. The label is available from your facing PDC.

	AUTHORIZED MODIFICATIONS	These Modifications Have P on Approved as Appropriate by EPA and Charles	AUTHORIZED
THE FOLL	OWING MODIFIC	CATIONS HAY B. EN M. JE:	MITSUBISHI
PART NUMBER	VENDOR	CODE MID#	P/N
1860DXXX	N/A		Vodr Code
TSB	S	A/T	TSB
ENG TSB-20-13-XXX		DEACER CODE	Dir C die
A/T		99332 DATE	Dir G
Engine Compartment Lab		06/25/20	Control Module Label

12. Test drive the vehicle to confirm proper operation and restore all customer presets if necessary.

### SOFTWARE INFORMATION

#### SOFTWARE REPROGRAMMING CHART

#### (For Software : ADAS-ECU)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
284E7W079P	284E7WW00P	284E7WW00P	MI-PILOT ASSIST equipped vehicle
	284E7WW01P	20/571/0100	
284E7W030P	284E7W019P	2846770019P	MI-PILOT ASSIST non-equipped vehicle
	284E7WW01P	284E7WW01P	

#### (For Software : Front Radar)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
	284386RR0A	205 / 222020	-
284386RB8A	284386RR7A	285477707R	-

#### WARRANTY

This bulletin is supplied as technical information only and is not an authorization to repair. If an affected vehicle is reported with the described condition, diagnose the condition, repair as described in this bulletin and submit a normal warranty claim using the information below.

Please also use the Operation Code if you skip ADAS-ECU software update due to the vehicle already having the latest version.

Operation Code	Operation	Quantity	Work Time
542072NU	<i>Software update of ADAS-ECU and Fr</i> <i>Radar</i>	1	0.4h