Technical Service Bulletin

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

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

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.
- 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.

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 **720** or higher
- For Standalone MUT III units, MUT3-SE Reprogramming Database **N211201** or higher

ECU REPROGRAMMING CHART

(For Software : ADAS-ECU)

New SW Part No.	Target HW Part No.	Target SW Part No.	Remarks
284E7W029P	284E7WW00P	284E7WW00P	MI–PILOT ASSIST equipped vehicle
84E7W030P	284E7WW01P	284E7W019P	MI–PILOT ASSIST non-equipped vehicle
	284E7W019P		
	284E7WW01P	284E7WW01P	

(For Software : Front Radar)

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

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., **N211201**) 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 **720** or higher.

   If your **MEDIC 3.5/4 update is at least 720**, continue with the Reprogramming Procedure. If your **MEDIC 3.5/4 update is below 720**, update your MEDIC as follows.
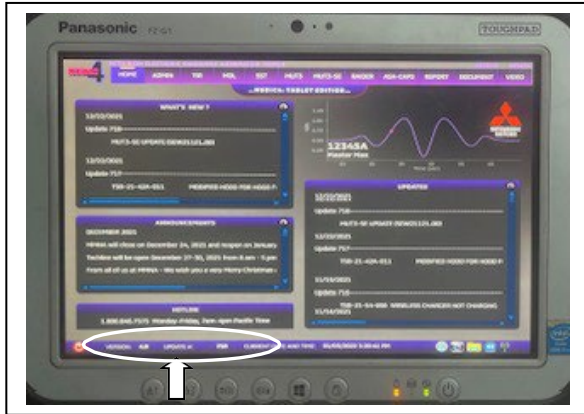
3. Select the MEDIC 3.5/4 Admin tab and click on "Updates".

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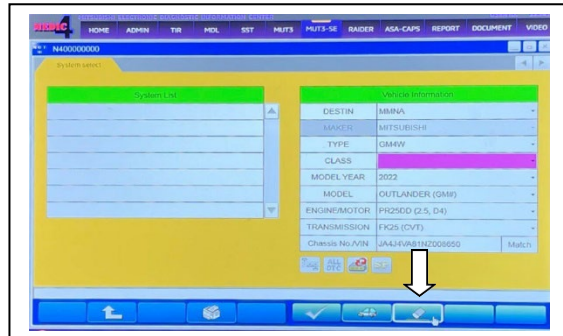

5. STANDALONE MUT-III SE SCAN TOOL VIEWER (STV) ONLY: <u>(MEDIC 3.5 USERS – GO TO THE REPROGRAMMING PROCEDURE)</u>. Verify that your MUT3-SE has the most current version of the reprogramming database from the MUT3-SE Main Page.

a. Click "STV".

b. Click the "ECU Reprogramming" button.

c. Click "SDB Data List, select the reprogramming data system and press the OK button".

d. Confirm that the database number displayed in the upper right above the chart is **N211201** or higher

   i. If the database number displayed on your MUT3-SE is **N211201** or greater, continue to the next section.
   ii. If the reprogramming database number displayed on your MUT3-SE is lower than **N211201**, then the MUT3-SE database needs to be updated.

e. Once the database number is confirmed, hit the Home button to go back to the System Select screen.

REPROGRAMMING PROCEDURE

⚠️ **CAUTION**   **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.

Data Link Connector (Blue End)
MUT–III SE Main Harness
USB Cable
Toughpad (back)
VCI Lite
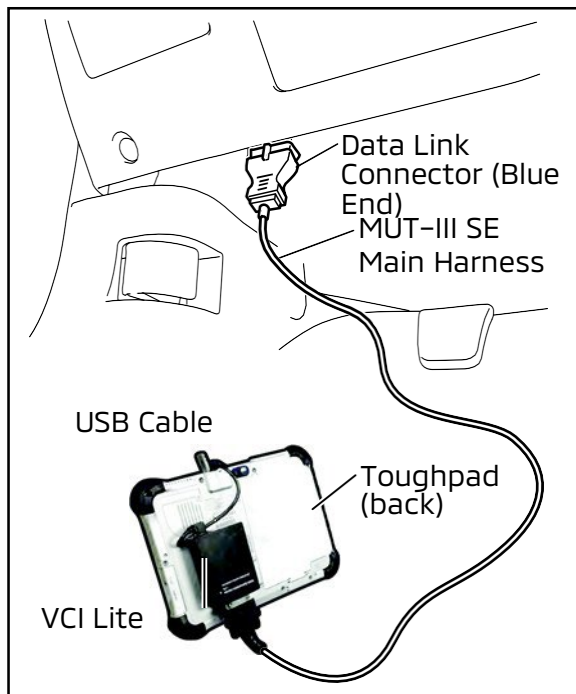
- Turn the MEDIC PC/tablet on. If the battery indicator in the lower right hand corner of the screen does not show a full charge, it is recommended that either the battery be charged prior to beginning or be used with the A/C power adaptor connected.

- 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 (p/n MB991824): Turn the VCI power switch ON. Verify that the indicator lamp in the upper right corner of the screen is green.

⚠️ **CAUTION**

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 cable onto negative ground post and ground strap as shown below.
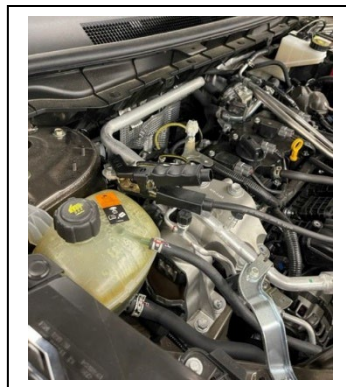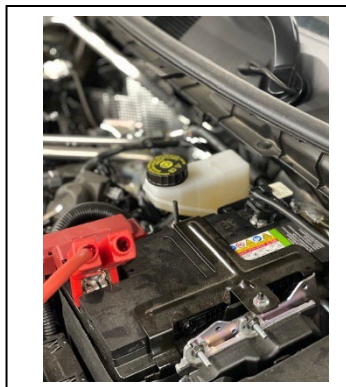

2. Turn the ignition switch to the "ON" position.

3. Using MEDIC, from the main page, click the "MUT3-SE" icon at the top center of the screen.

4. The System Select screen opens and populates with some basic information from the vehicle. 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"). If necessary, select the correct class from the drop-downlist.
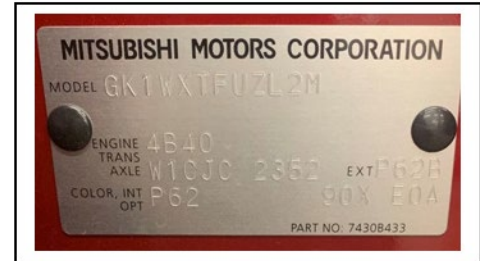

5. Verify that the ECU has not already been updated to the latest S/W number shown in the **"ECU Reprogramming Chart"** in this TSB. If the ECU is at the latest level, reprogramming **is not** necessary. If reprogramming **is** necessary, proceed with the following steps.

    a. Select ECU Reprogramming(SDB).
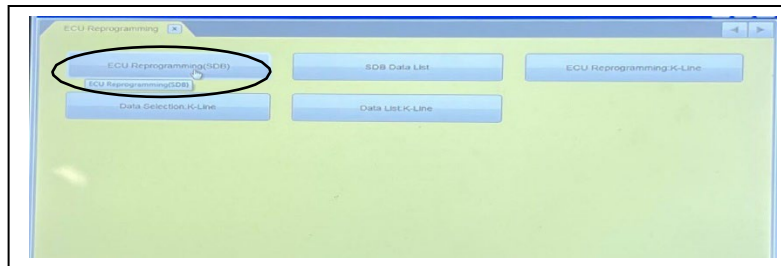
b. Select ICC/ADAS 2 and press the programming button.
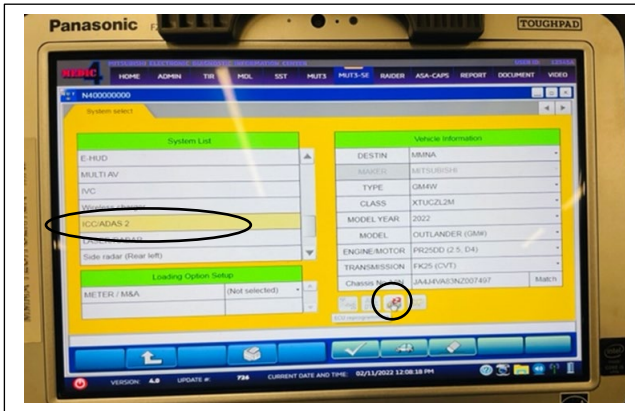
c. Click "ECU Reprogramming (SDB) and press the OK button".
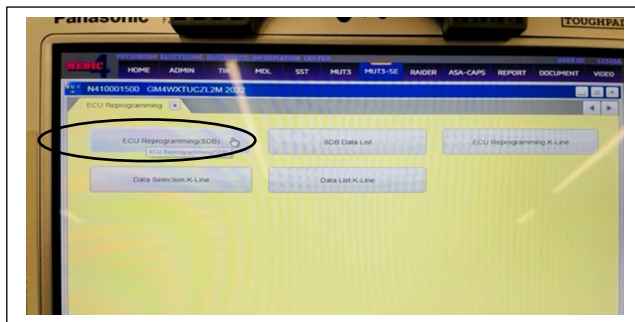
d. Click **ICC/ADAS 2** and press the OK button.
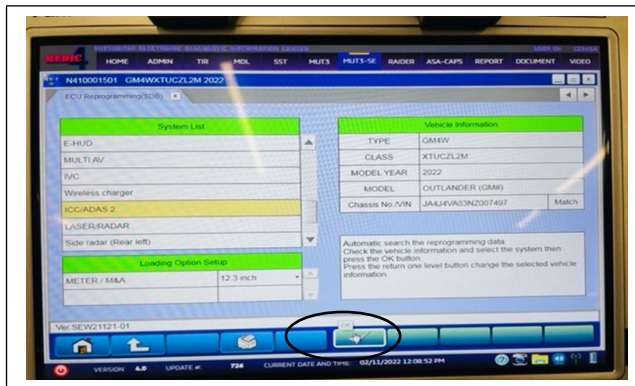
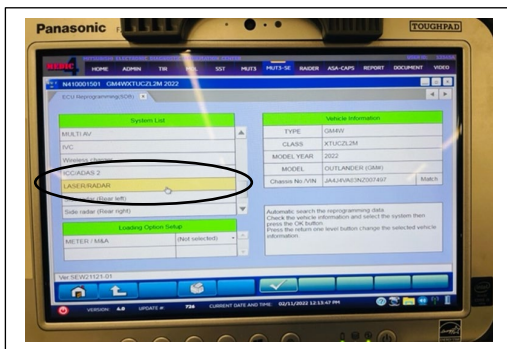e. Click to select and press and on the next screen press OK.
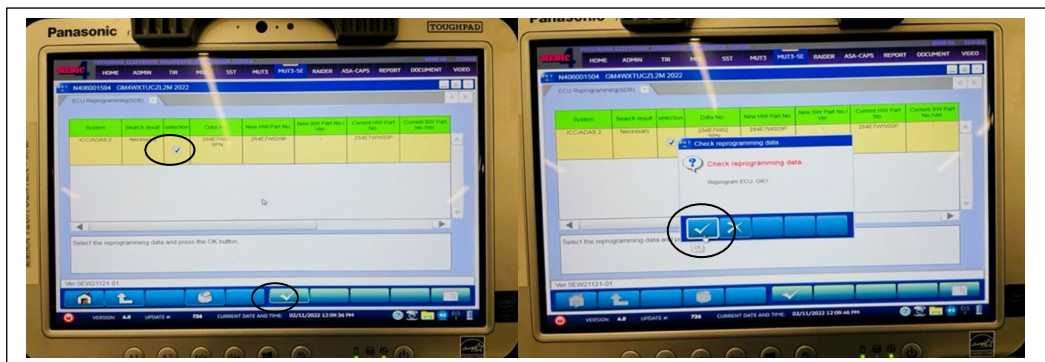
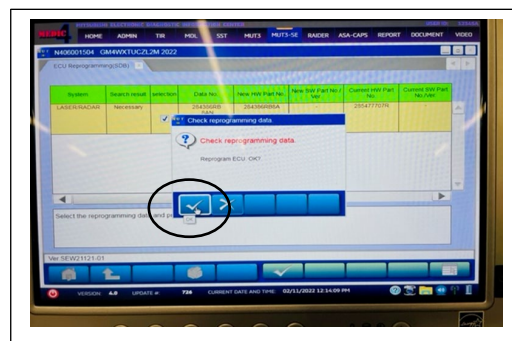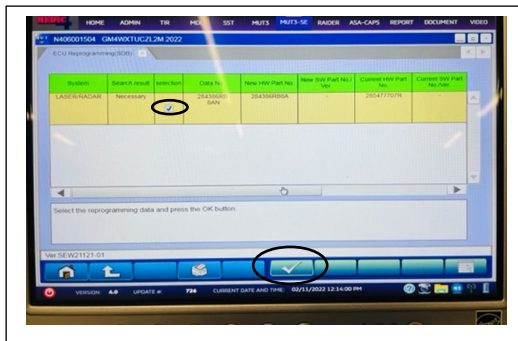f. The reprogramming will begin, and a notification will appear upon completion.
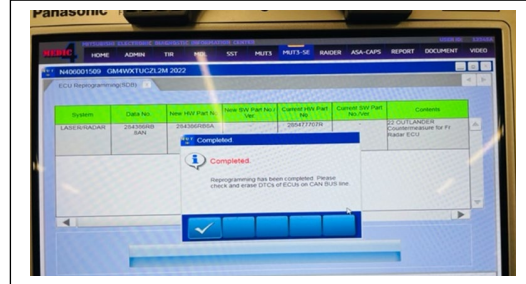
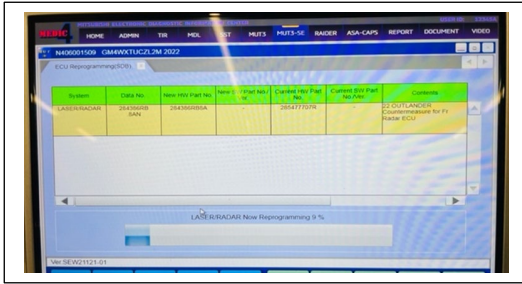g. Go back to ECU Reprogramming (SDB) and select it.
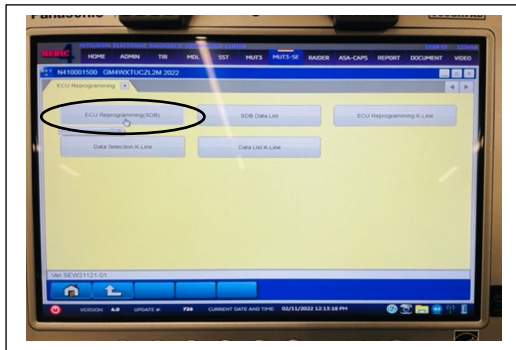
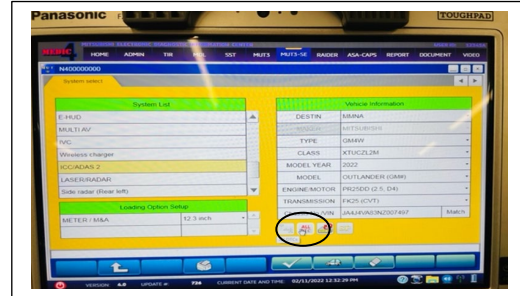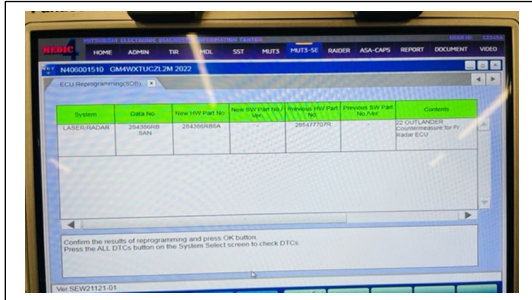h. Choose **Laser/Radar** in the System List.
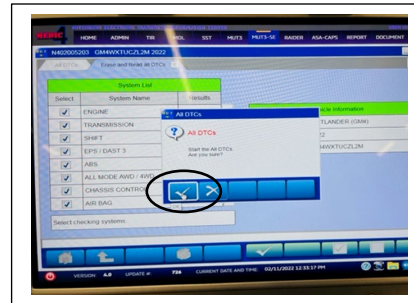

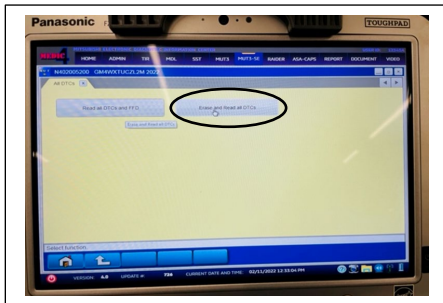i. Click the selection and press the OK button.

j. The reprogramming will begin, and a notification will appear upon completion.
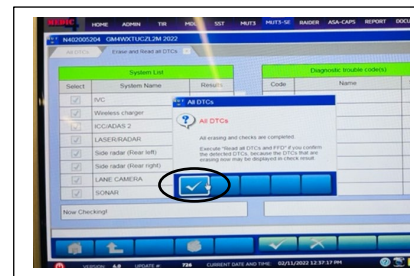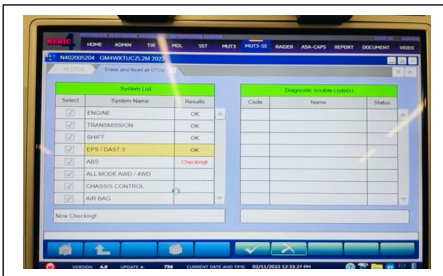

k. Confirm the results then click the ALL DTCs button on the System Select screen to check DTCs.

l. Select Erase and Read all DTCs, then click the OK to begin checking all DTCs.

m. Once the DTCs have been checked and erased, click OK.

6. Using a ball-point pen, enter the appropriate ECU part number, Software Part   Number (ROMID#), 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.

7. Test drive the vehicle to confirm proper operation.

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 use the following code if you skip ADAS-ECU software update due to the vehicle already having the latest version.

Operation Code	Operation	Nature Code	Cause Code	Time Allowance
542072FS	Software update of ADAS-ECU and Front Radar	1		0.4h