



# Technical Service Bulletin

<b>SUBJECT:</b>  <b>A/C VENT TEMPERATURE INCREASES FOR SEVERAL SECONDS WHEN USING BRAKE PEDAL FOR DECELERATION</b>			No: <b>TSB-24-55-002</b>
			DATE: <b>November 2024</b>
			MODEL: <b>Outlander</b>
<b>CIRCULATE TO:</b>	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input checked="" type="checkbox"/> SALES MANAGER

## PURPOSE

When decelerating using the brake pedal, the Engine ECU will cut off the A/C operation, securing negative pressure. After cut off, the A/C amplifier will control the A/C compressor capacity gradually returning to the original capacity and as a result, the A/C vent temperature rises.

The countermeasure in this bulletin will:

- Change the Engine ECU program to decrease frequency of A/C cut off when decelerating with the brake pedal.
- Change the A/C Amplifier Control program to recover the A/C compressor capacity immediately after A/C cut off.

## AFFECTED VEHICLES

2022-2024 Outlander

Destination	Part	Part Number	Effective Date	Effective VIN
U.S.A., Puerto Rico	A/C amplifier	27760W027P	Apr. 3, 2024	JA4J3UA88RZ060960
		27760W028P	Jan. 25, 2024	JA4J4VA88RZ046656
		27760W029P	Feb. 12, 2024	JA4J4VA8XRZ620478
	Engine ECU		T.B.D.	T.B.D.

## REPAIR PROCEDURE

Based on customer complaint, please:

- Follow the steps below to determine the procedure method required
- Refer to the Part Information section in this bulletin
- Reference TSB-22-55-002REV4 for A/C Amplifier replacement along with the Service Manual

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1. A/C Amplifier

Confirm ECU part number from the ECU information of the A/C Amplifier (Display on MUT-3SE: HVAC) by using MUT-3SE.

Using the chart below, follow the appropriate method that corresponds with the confirmed ECU part number.

ECU part number	Method
27760W000P, 27760W001P, 27760W002P 27760W006P, 27760W007P, 27760W008P 27531W003P, 27531W004P, 27531W007P, 27531W008P	(A) Replace A/C Amplifier *For replacement procedure, refer to the Service Manual then perform configuration of A/C Amplifier ( <b>Display on MUT-3SE: HVAC</b> ) and self-diagnosis by using MUT-3SE.
27760W018P, 27760W019P, 27760W020P	(B) Reprogram Engine ECU software (Unnecessary to replace A/C Amplifier) ( <b>Display on MUT-3SE: Engine</b> )

- For A/C Amplifier replacement procedure, please also reference TSB-22-55-002REV3 in addition to the Service Manual.

2. Engine ECU

For Method B, reprogram Engine ECU software (**Display on MUT-3SE: Engine**) Version SDBN 240801NR.

3. Part Information

Model	Part Name	Amplifier Part Number		Qty	Remarks	
		<New>	<Old>			
Outlander	AMPLIFIER, HVAC	27760W024P	27760W000P*1 27760W006P*2	1	DUAL A/C, without seat heating	Check ECU label on the vehicle to identify corresponding new part number.
		27760W025P	27760W001P*3 27760W007P*4	1	DUAL A/C, with seat heating	
		27760W026P	27760W002P*5 27760W008P*6	1	TRIPLE A/C, with seat heating	

Reference the chart above and information below to ensure the correct new part is ordered.

- \*1:(ECU part number: 27760W000P/27531W003P/27531W007P)
- \*2:(ECU part number: 27760W006P/27531W003P/27531W007P)
- \*3:(ECU part number: 27760W001P/27531W003P/27531W007P)
- \*4:(ECU part number: 27760W007P/27531W003P/27531W007P)
- \*5:(ECU part number: 27760W002P/27531W004P/27531W008P)
- \*6:(ECU part number: 27760W008P/27531W004P/27531W008P)

**Note:** Select the correct ECU part number according to old AMPLIFIER part number and whether or not seat heating is installed. Location of part number:



## WORK PROCEDURE

### Software for AC Amplifier

Model	Data No. (PDX File Name)	New HW Part No.	New SW Part No./Ver.	Target HW Part No.	Target SW Part No./Ver.
Outlander	27531W02.3PN	-	27531W023P	-	27760W018P 27760W019P
	27531W02.4PN	-	27531W023P	-	27760W020P

### Software for Engine ECU

Destination	HW Part No.	Data No. (PDX File Name)	SW Part No./Ver.		Remarks
			New	Target	
U.S.A. & Puerto Rico	237036RA3A	237616VN.4BN	237616VN4B	237614PN4C 237614PN4D 237614PN4E 237616VN4A	22MY 2WD CRUISE CONTROL
		237616VN.0BN	237616VN0B	237614PN0C 237614PN0D 237614PN0E 237616VN0A	22MY 2WD ADAPTIVE CRUISE CONTROL
		237616VN.1BN	237616VN1B	237614PN1C 237614PN1D 237614PN1E 237616VN1A	22MY 2WD ADAPTIVE CRUISE CONTROL WITH CURVE
	237034PM2A	237616VN.5BN	237616VN5B	237614PN5C 237614PN5D 237614PN5E 237616VN5A	22MY 4WD CRUISE CONTROL
		237616VN.2BN	237616VN2B	237614PN2C 237614PN2D 237614PN2E 237616VN2A	22MY 4WD ADAPTIVE CRUISE CONTROL
		237616VN.3BN	237616VN3B	237614PN3C 237614PN3D 237614PN3E 237616VN3A	22MY 4WD ADAPTIVE CRUISE CONTROL WITH CURVE
	237036RA3A	237616VM.4CN	237616VM4C	237616VM4A 237616VM4B	23MY 2WD CRUISE CONTROL
		237616VM.5CN	237616VM5C	237616VM5A 237616VM5B	23MY 2WD ADAPTIVE CRUISE CONTROL
		237616VM.6CN	237616VM6C	237616VM6A 237616VM6B	23MY 2WD ADAPTIVE CRUISE CONTROL WITH CURVE

## Software for Engine ECU (Continued)

Destination	HW Part No.	Data No. (PDX File Name)	SW Part No./Ver.		Remarks
			New	Target	
U.S.A. & Puerto Rico	237034PM2A	237616VM.7CN	237616VM7C	237616VM7A 237616VM7B	23MY 4WD CRUISE CONTROL
		237616VM.8CN	237616VM8C	237616VM8A 237616VM8B	23MY 4WD ADAPTIVE CRUISE CONTROL
		237616VM.9CN	237616VM9C	237616VM9A 237616VM9B	23MY 4WD ADAPTIVE CRUISE CONTROL WITH CURVE
	237036RA5A	237616VL.8CN	237616VL8C	237616VL8B	24MY 2WD CRUISE CONTROL
		237616VL.9CN	237616VL9C	237616VL9B	24MY 2WD ADAPTIVE CRUISE CONTROL
		237616VN.6CN	237616VN6C	237616VN6B	24MY 2WD ADAPTIVE CRUISE CONTROL WITH CURVE
		237616VN.7CN	237616VN7C	237616VN7B	24MY 4WD CRUISE CONTROL
		237616VN.8CN	237616VN8C	237616VN8B	24MY 4WD ADAPTIVE CRUISE CONTROL
		237616VN.9CN	237616VN9C	237616VN9B	24MY 4WD ADAPTIVE CRUISE CONTROL WITH CURVE

## WORK PROCEDURE

### Caution during programming:

- 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 programming.  
The low voltage of the auxiliary battery may cause the incompleteness of programming and once it happens, ECU must be replaced to brand new one.
- Write down all the customer's electrical device settings such as A/C and radio before programming and restore them after programming.
- Connect the MUT3-SE to an AC power source to prevent internal battery discharge.
- Before using, make sure the USB cable and MUT3-SE main harness are not damaged.
- Do not perform maintenance work in the engine room during programming.  
The cooling fan may operate while programming.
- Check the All DTC after programming and erase them if any.

## 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 **894** or higher
- For Standalone MUT III units, MUT3-SE Reprogramming Database **SDBN 240301NR** or higher

## 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., **SDBN 240301NR**) 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 **894** or higher.

If your **MEDIC 3.5/4 update is at least 894**, continue with the Reprogramming Procedure.  
If your **MEDIC 3.5/4 update is below 894**, 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.**

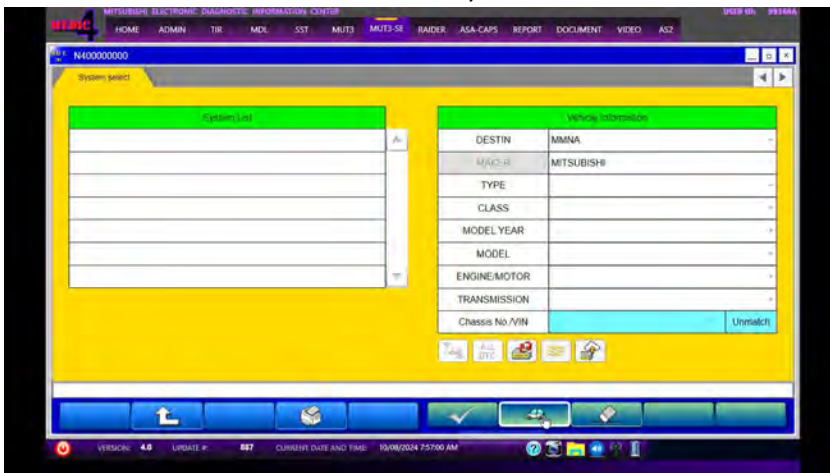


5. STANDALONE MUT-III SE SCAN TOOL VIEWER (STV) ONLY: (MEDIC 3.5 USERS – GO TO THE REPROGRAMMING PROCEDURE). Verify that your MUT-III SE has the most current version of the reprogramming database from the MUT-III SE Main Page.

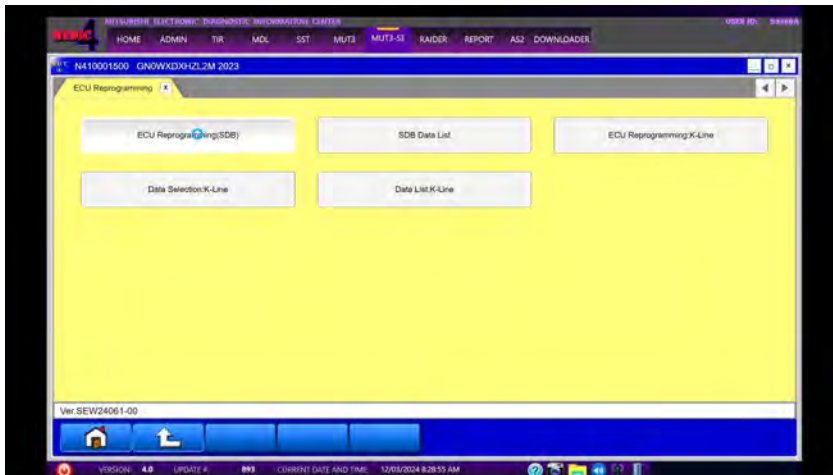
- a. Press the MUT-III SE STV button.



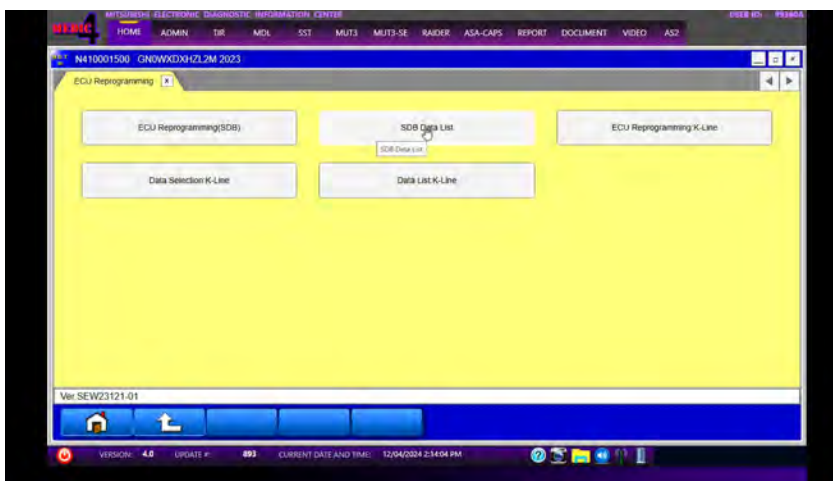
- b. Push the "car icon" for Chassis No/VIN read out.



- c. Confirm the vehicle information displayed is complete/correct, after selecting the appropriate class. The class can be found on the B pillar. Next, press the "ECU reprogramming button".



- d. Select "SDB Data List button", verify software information according to the chart in this bulletin and the SBDN Version number at the top right is **N240301NR** or higher.
  - i. If the database number displayed on your MUT-III SE is **N240301NR** or greater, continue to the next section.
  - ii. If the reprogramming database number displayed on your MUT-III SE is lower than **N240301NR**, 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

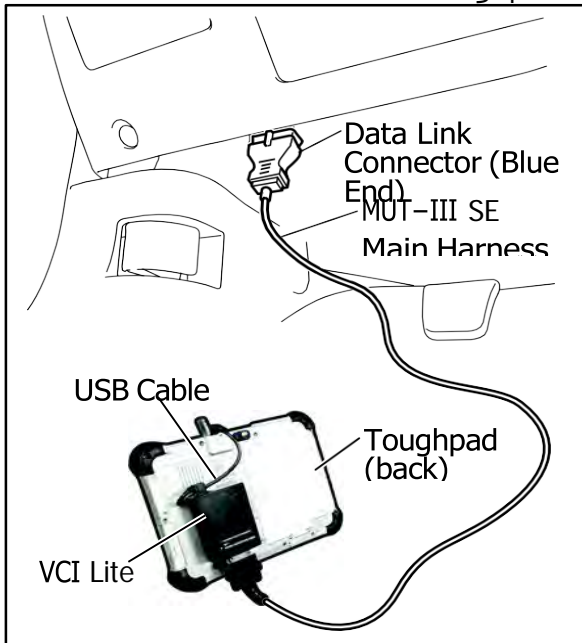
### ⚠ CAUTION

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.**



- 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.

### ⚠ 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 battery charger cable onto ground point.

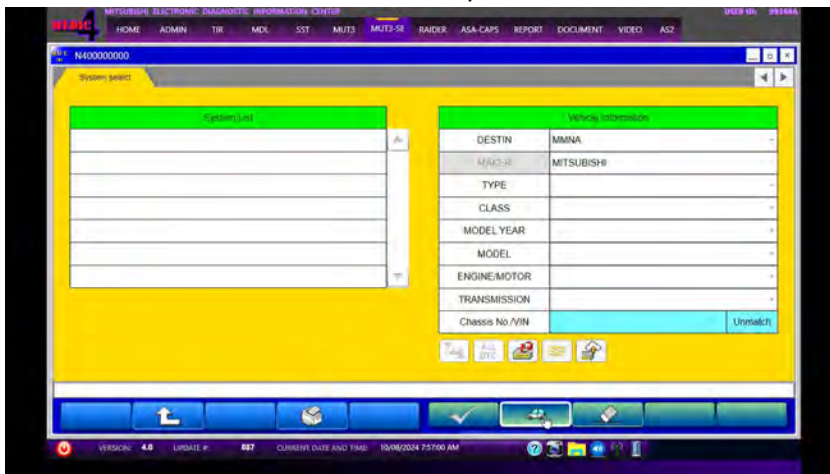


**Note: Do not disturb the cable or turn off the ignition during reprogramming to prevent damage to the ECU.**

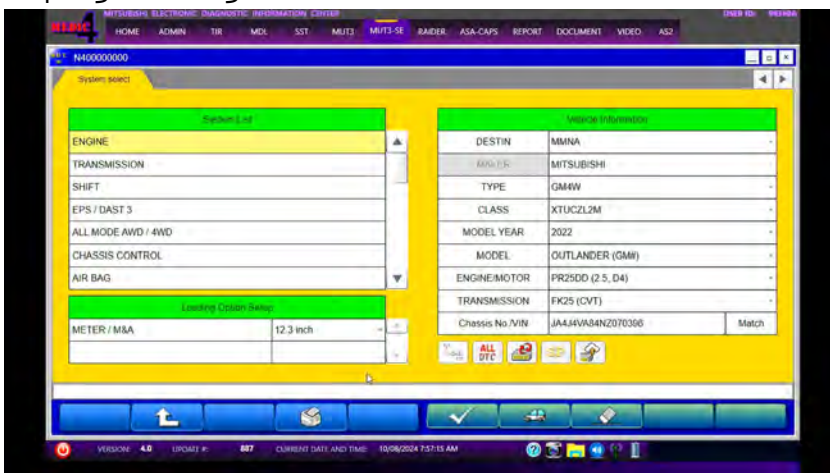
2. Turn the ignition switch to the "ON" position.
3. Turn on flashers to prevent vehicle from shutting/powering down.
4. Press the "MUT-III SE STV" button.



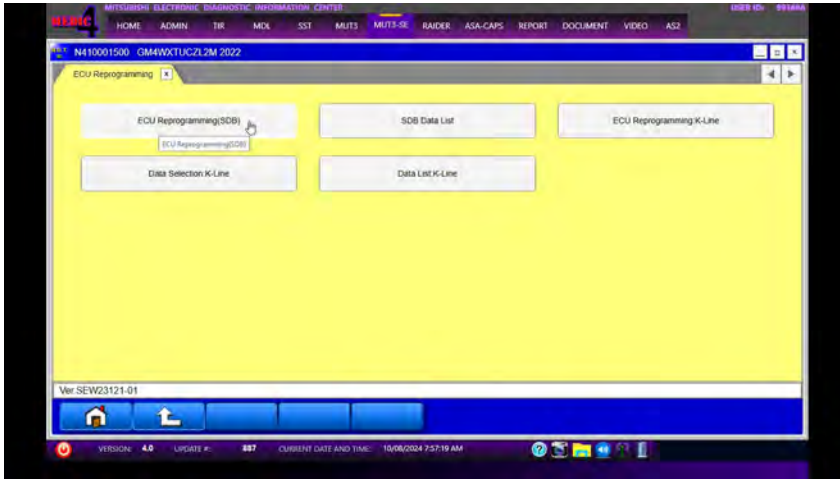
- a. Push the "car icon" for Chassis No/VIN read out.



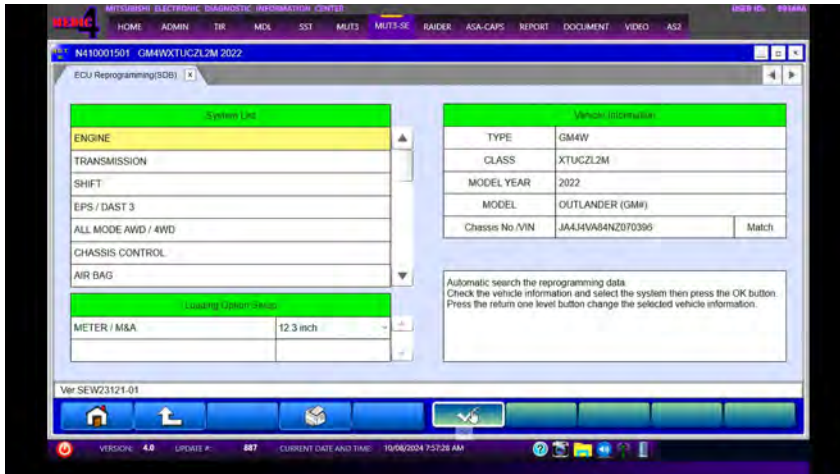
- b. Confirm the vehicle information displayed is complete/correct, after selecting the appropriate class. The class can be found on the B pillar. Next, press the "ECU reprogramming button".



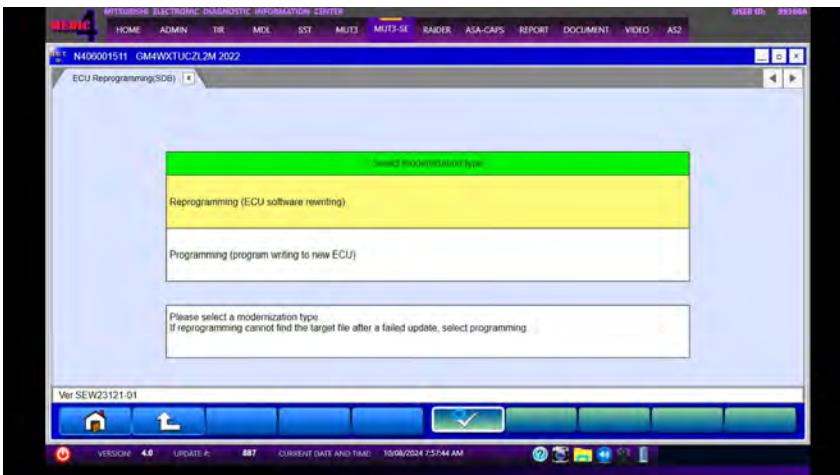
c. Press the "ECU Reprogramming (SDB)" button.



d. Select "ENGINE" from the System List and press "OK".



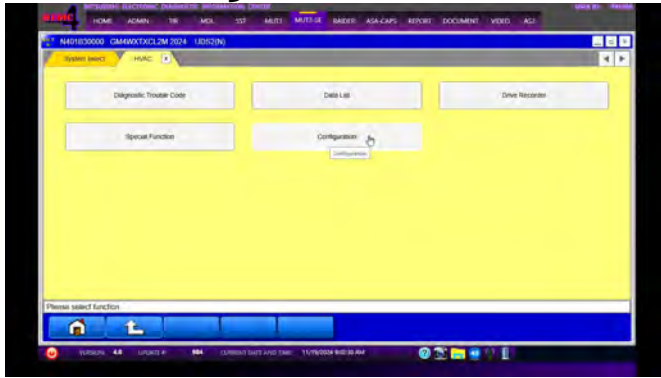
e. Select "Reprogramming (ECU software rewriting)" from the modernization type and press "OK".



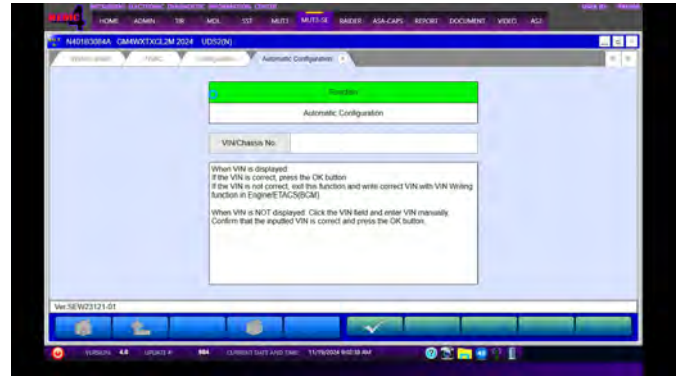
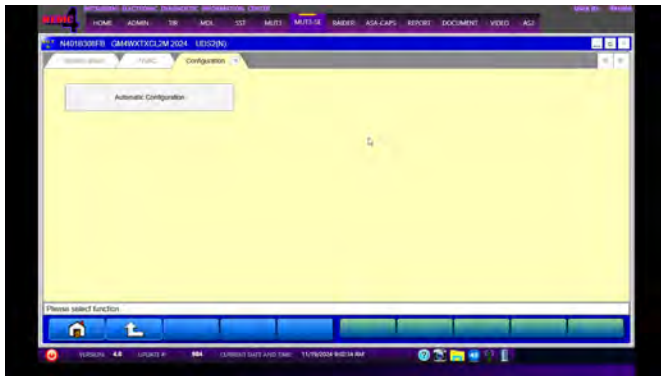




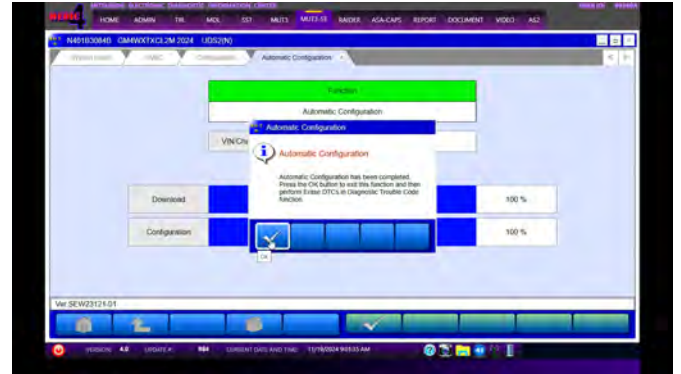
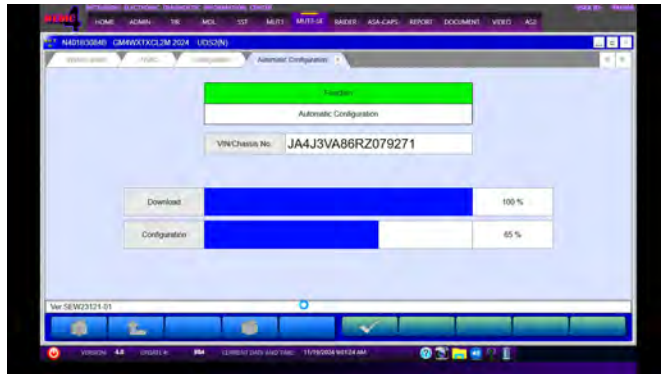
b. Press the "Configuration" button.



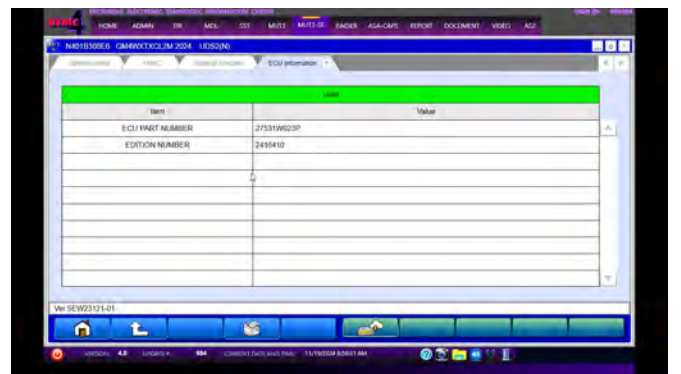
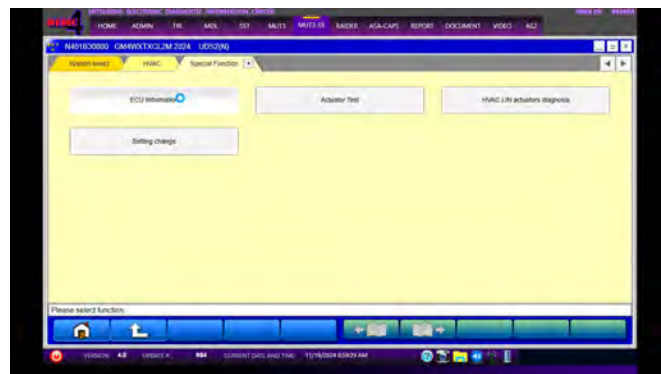
c. Press the "Automatic Configuration" button, verify the VIN is displayed properly and press the "OK" button.



d. Progress of download and configuration will be shown followed by a completion notification. Press the "OK" button.

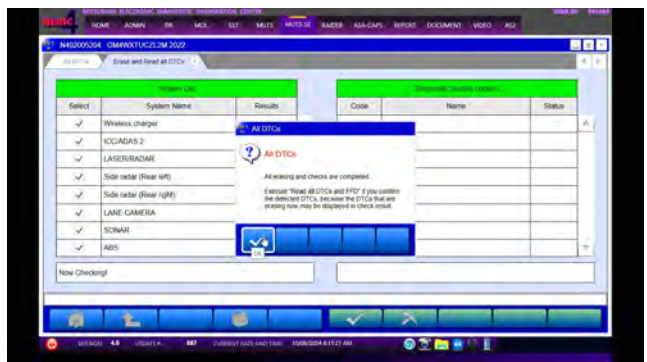
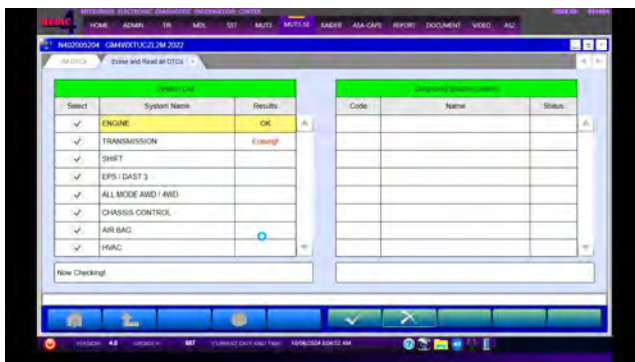
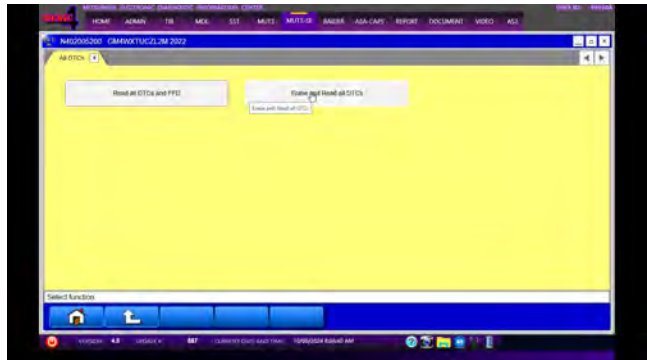
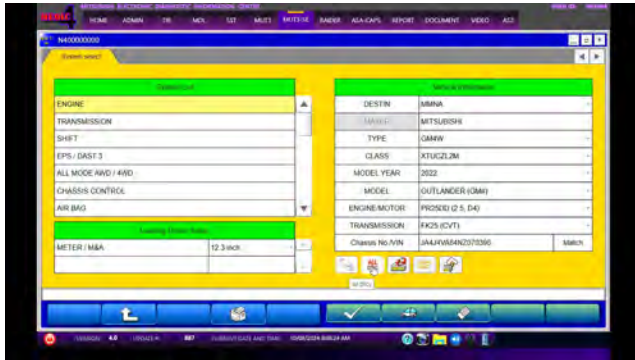


e. Press the "ECU Information" button. Verify the ECU Part number.



f. Turn the ignition switch to the "OFF" position for 10 seconds. Then turn the ignition switch back to the "ON" position.

g. Press the "ALL DTCs" button followed by the "Erase and Read all DTCs" button.



**NOTE:** If DTCs are detected for the HVAC, please repeat the process to Erase and Read All DTCs.

7. 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.



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

## 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.

### (A) Replacing A/C amplifier

Operation Code	Operation	Quantity	Work Time
558500TK	Replace A/C amplifier and perform configuration	1	1.1h

### (B) Only reprogramming software

Operation Code	Operation	Quantity	Work Time
558500NM	Reprogramming of Engine ECU	1	0.5h