



# Technical Service Bulletin

SUBJECT:			No: <b>TSB-20-55-001</b>
<b>REDUCED CABIN HEATER PERFORMANCE DURING IDLE AND LOW VEHICLE SPEED</b>			DATE: <b>December 2020</b>
			MODEL: <b>2018-2020 Eclipse Cross</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 type="checkbox"/> SALES MANAGER

## PURPOSE

Customers may notice a reduction in heater output temperature while idling or during low vehicle speeds. When ambient temperatures are extremely low, the coolant temperature may remain low, affecting heater performance. Both issues may be caused by improper programming of the ECU.

This TSB instructs dealers to reprogram the A/C ECU with updated software to address the issue upon customer complaint basis.

## AFFECTED VEHICLES

2018 - 2020 Eclipse Cross vehicles

## REPAIRPROCEDURE

- Confirm your MUT-III SE is updated with the latest reprogramming database.
- Write down all of 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, diagnose and repair those DTCs per the service manual before reprogramming. DO NOT reprogram the ECU until the reason(s) for other DTCs being set has been corrected.

**IMPORTANT:** The countermeasure software for this reflash is included with the software previously provided for TSB-20-13-002. If a vehicle has already been flashed for either the ignition key or P0014 concerns described in TSB-20-13-002, there is no need to flash again.

## 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 **661** or higher.
- For Standalone MUT III units, MUT3-SE Reprogramming Database **N201001** or higher.

## ECU REPROGRAMMING CHART

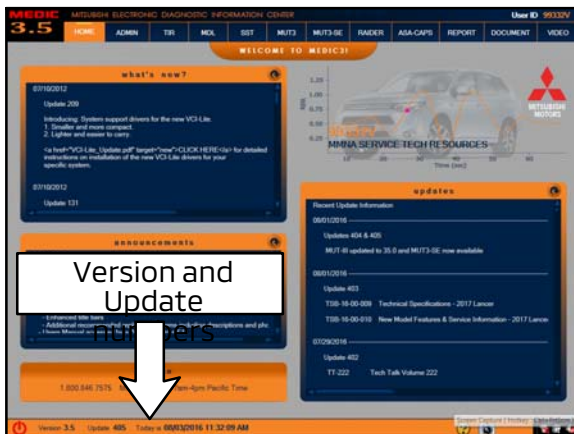
Model	ECU Part Number	Data Number	Software Part Number	
			Previous	New
18MY Eclipse Cross	1860D116	1862D147	1860D11605/B42529	1860D11605/B42531
			1860D11603/B42528	
			1860D11602/B42527	
			1860D11601/B42526	
			1860D11600/B42525	
19MY Eclipse Cross	1860D402	1862D148	1860D40202/B49806	1860D40203/B49808
			1860D40201/B49805	
			1860D40200/B49804	
20MY Eclipse Cross	1860D573	1862D149	1860D57300/B56105	1860D57301/B56107

## 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.

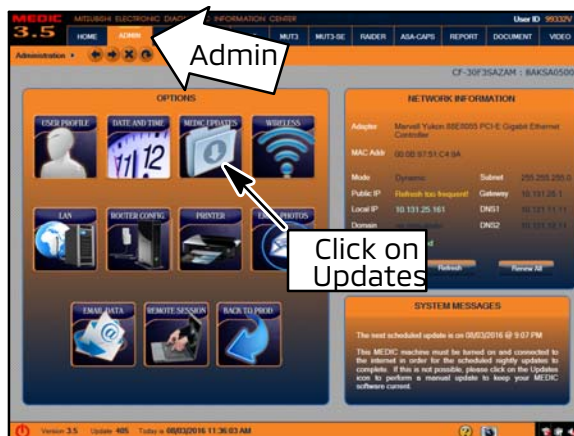
**NOTE:** Reprogramming the Engine ECU with the latest database (e.g., **N201001**) includes all past and current reprogramming for TSBs of affected vehicles. It is not necessary to reprogram the ECU for each previous TSB.



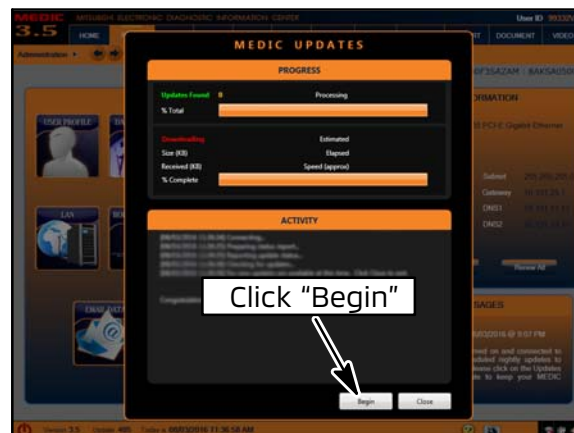
**For MEDIC 3.5/4 users only: (MUT-III SE STV users go to step 5)**

2. Verify the MEDIC 3.5/4 is at version 3.5 and at update **661** or higher.

If your **MEDIC 3.5/4 update is at least 661**, continue with the Reprogramming Procedure. If your **MEDIC 3.5/4 update is below 661**, update your MEDIC as follows.



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

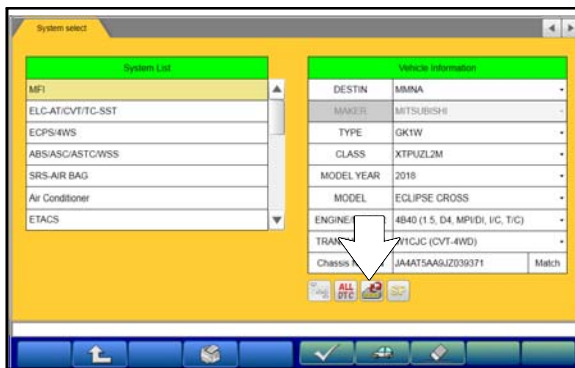


4. If the MEDIC update screen advises updates are available, click the "Begin" button. After all updates are complete, **GO TO THE REPROGRAMMING PROCEDURE.**



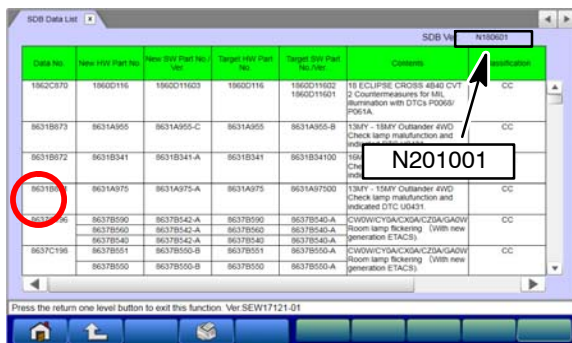
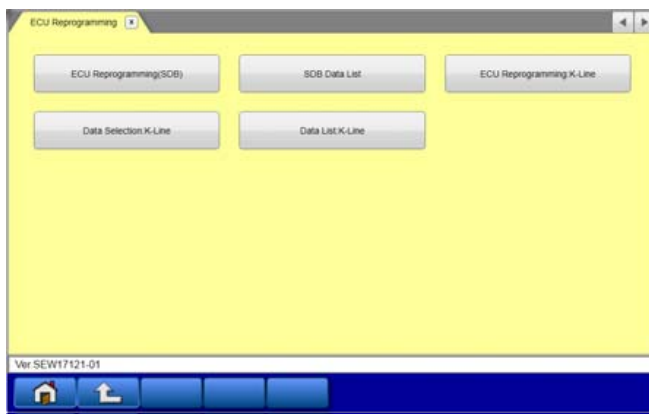
5. STANDALONE MUT-III SE SCAN TOOL VIEWER (STV) ONLY: (MEDIC 3.5 USERS - GO TO THE REPROGRAMMING PROCEDURE). Verify that your MUT3-SE has the most current version of the reprogramming database: From the MUT3-SE Main Page:

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 **N201001 or higher**

- If the database number displayed on your MUT3-SE is **N201001** or greater, continue to the next section.
- If the reprogramming database number displayed on your MUT3-SE is **lower** than **N201001**, then the MUT3-SE database needs to be updated.

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

## REPROGRAMMING PROCEDURE

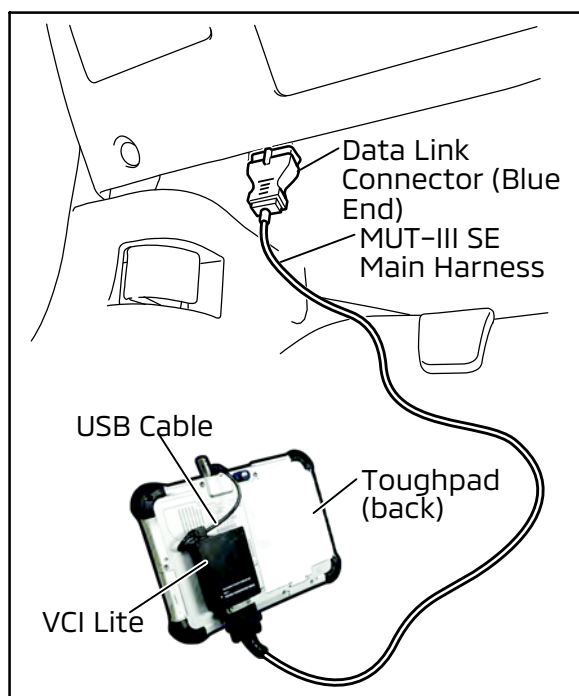
**CAUTION**

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

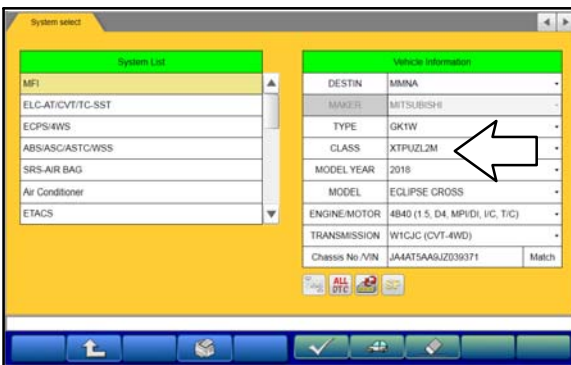
**CAUTION**

**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.**

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



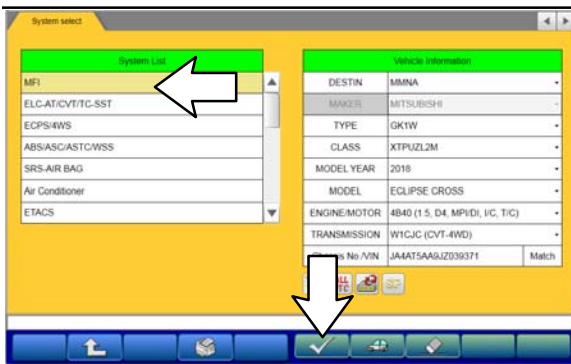
- Using MEDIC, from the main page, click the "MUT3-SE" icon at the top center of the screen to open MUT-III SE. Click the STV button.



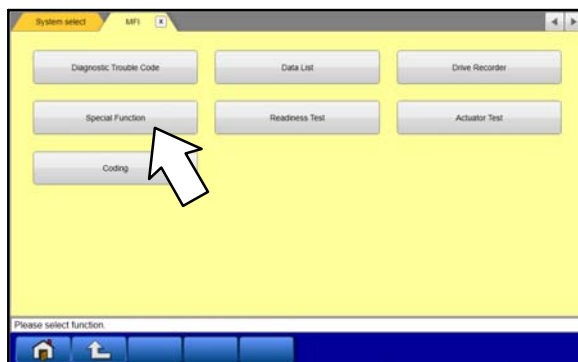
- The System Select screen opens and populates with some basic information from the vehicle. Look at the label on the passenger side B pillar to identify the appropriate class. (See B pillar label below; class is labeled as "model"). If necessary, select the correct class from the drop-down list.



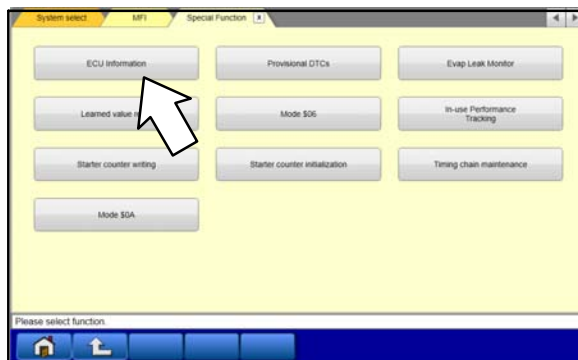
- Verify that the ECU has not already been updated to the latest S/W number shown in the **"ECU Reprogramming Chart"** in this TSB. If the ECU is at the latest level, reprogramming is not necessary.



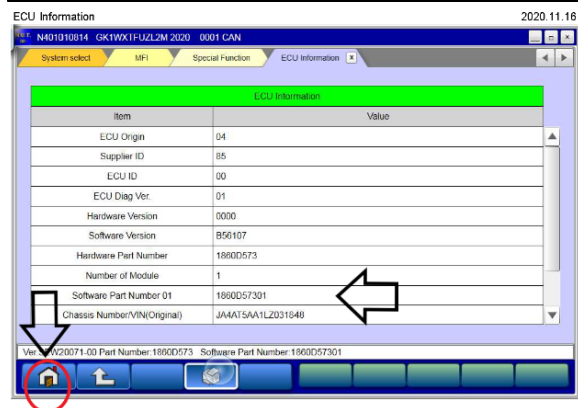
- Select "MFI" from the System List, then click on the check mark at the bottom of the screen.



b. Select "Special Function."



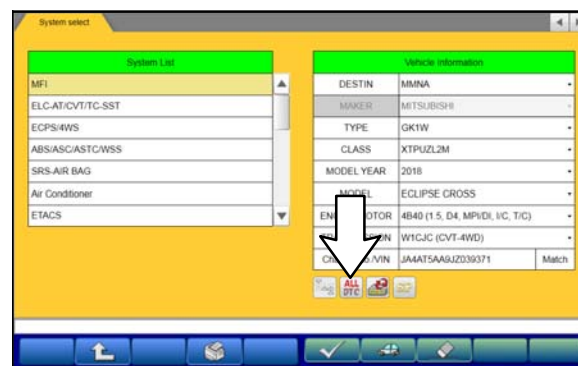
c. Select "ECU Information."



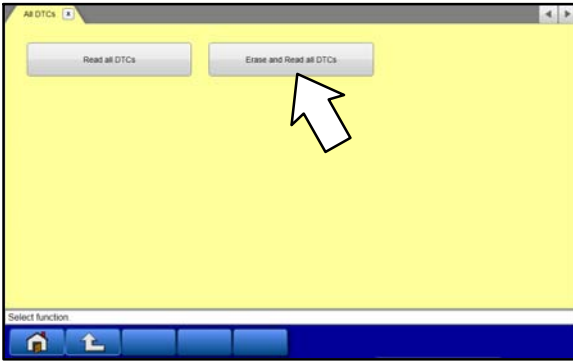
d. If the Software Part Number listed is **not** at the latest level (shown in the **"ECU Reprogramming Chart"** in this TSB), proceed with the next step. Click the Home button to return to the System Select screen.

If the Software Part Number **is** at the latest level, then reprogramming is not necessary.

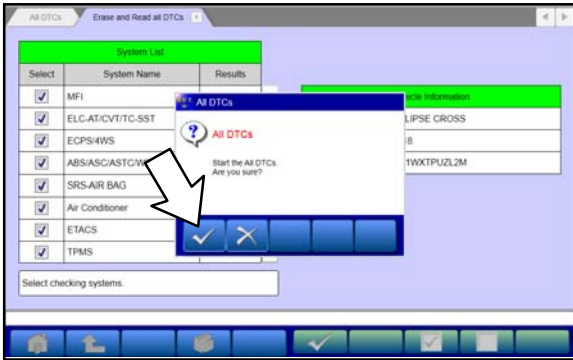
6. Before reprogramming, perform an "Erase and Read All DTCs" to clear any DTCs that may have set.



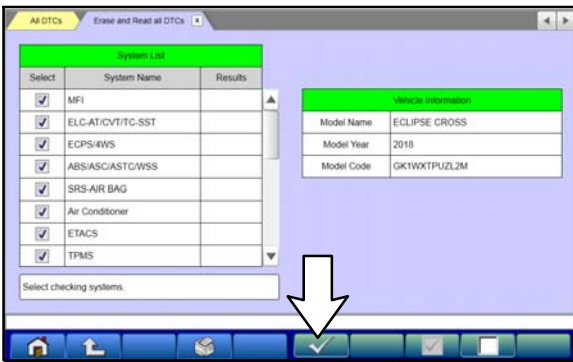
a. On the System Select screen click the "ALL DTC" button.



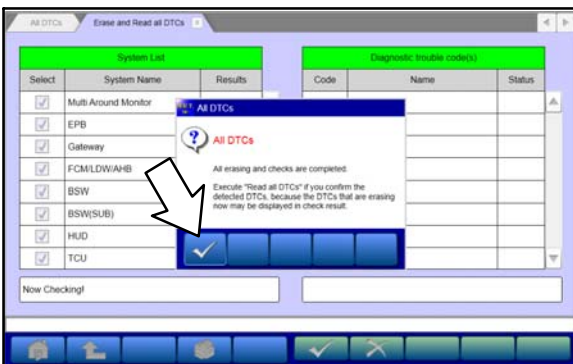
b. Select "Erase and Read All DTCs."



c. A window will pop up asking you to confirm DTC erasing. Click the check mark in the dialog box for DTC erasing and reading to begin.



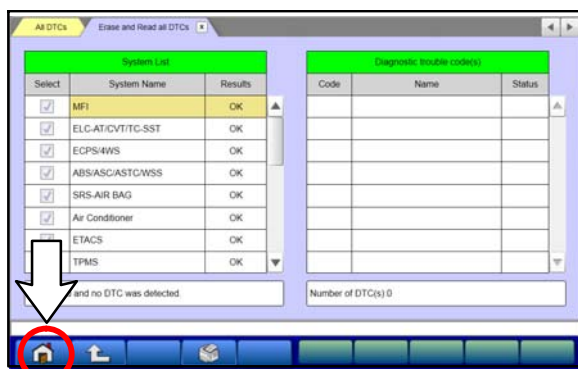
d. The "System List" on the left side of the screen will have all selections checked. Do not change these selections.  
e. Click the check mark to continue.



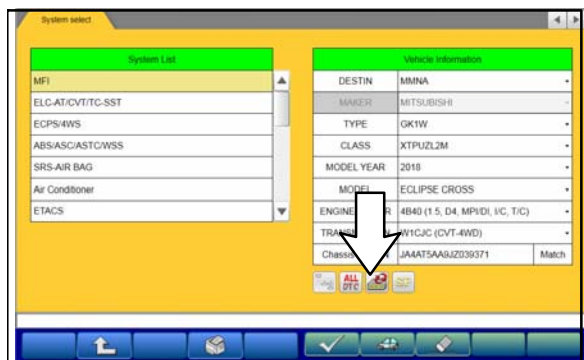
7. When DTC erasing is completed, click the check mark in the pop-up message that reads "All erasing and checks are completed."

a. If any DTCs return after erasing is completed, click the check mark to clear the window. Diagnose and repair per the Service Manual.



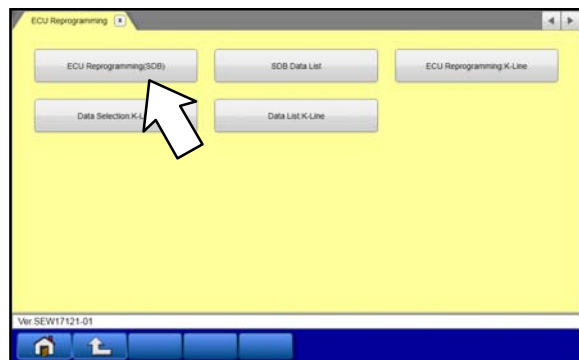


b. If DTCs do not return, click the check mark to clear the window, then click the Home icon in the lower left to return to the System Select menu.

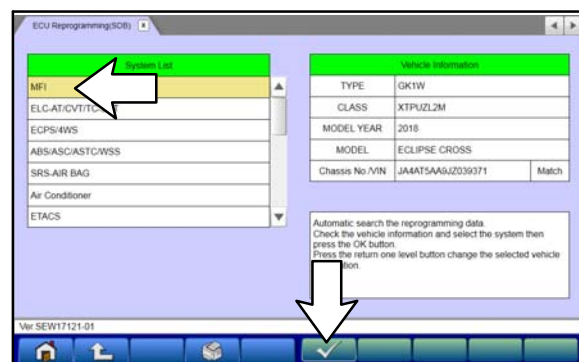


8. Reprogram the ECU following the steps below.

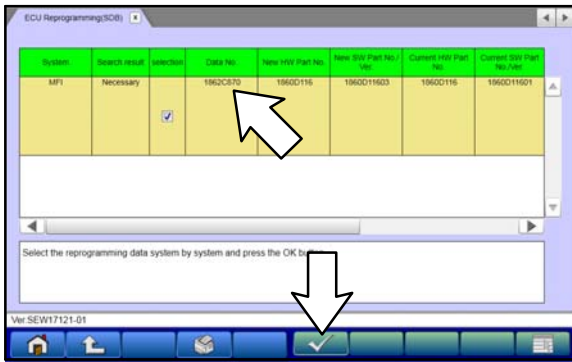
a. On the System Select page, click on the Reprogram button.



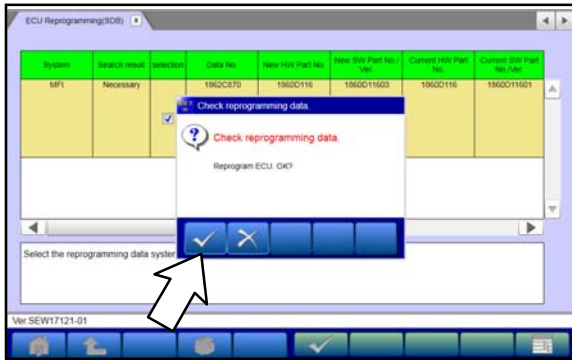
b. Select "ECU Reprogramming (SDB)."



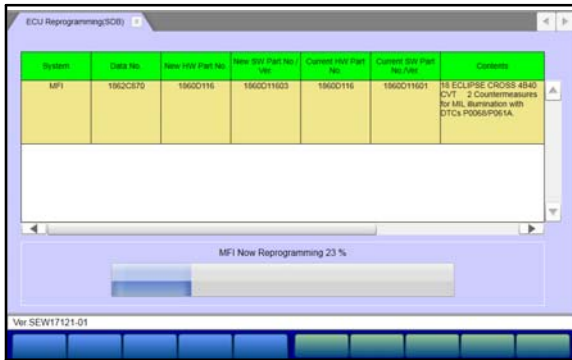
c. Select "MFI" in the System List, then click the check mark.



- d. Verify that the correct data file listed in the table matches the one in the **"ECU Reprogramming Chart."**
- e. Click the check mark at the bottom of the page to initiate reprogramming.

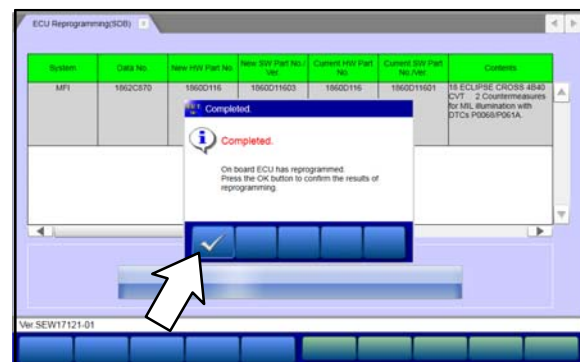


- f. Click the check mark in the "Check reprogramming data" dialog box.

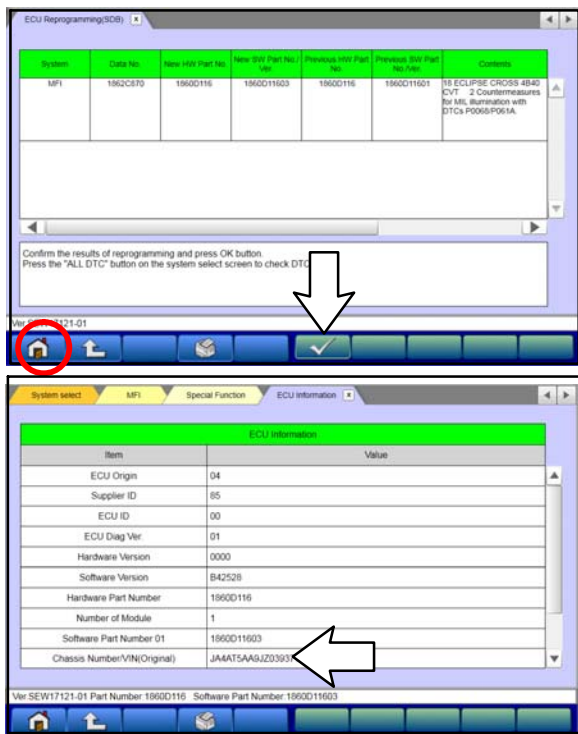


- g. Once the reprogramming is initiated, the screen shown will indicate the reprogramming progress.

**NOTE: Do NOT disturb the cables or turn off the ignition during reprogramming.**



- h. Once reprogramming is completed, click the check mark in the "Completed" dialog box.

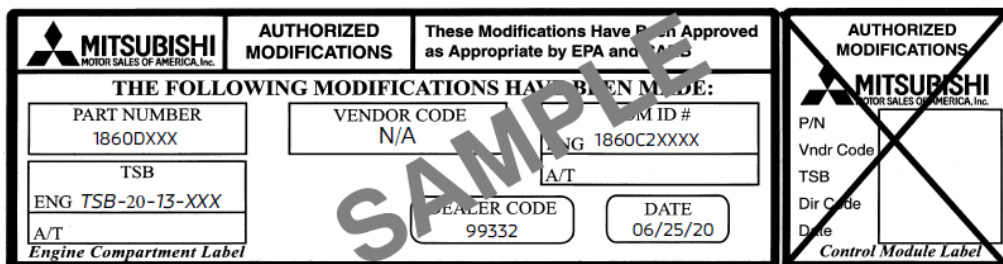


- i. Verify the correct information is listed in the table. Click the check mark at the bottom of the page, then click the Home button to return to the System Select screen.
- 9. Perform an "Erase and Read All DTCs" again to clear any DTCs that may have set. **For instructions, refer to steps 6 and 7 in this TSB.**
- 10. Confirm the software version has been updated. **For instructions, refer to step 5 in this TSB.**

Confirm "Software Part Number" now matches the NEW one shown in the **"ECU Reprogramming Chart"** in this TSB.

- 11. Turn off the ignition switch and disconnect the MUT-III SE. Turn off and disconnect battery charger.

- 12. 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.



- 13. Test drive the vehicle to confirm proper operation.

### WARRANTY INFORMATION

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.

Operation	Labor Operation Code	Nature Code	Cause Code	Time Allowance
Reprogram Engine ECU	138501DM	59L	605	0.3 hrs.

**\*Do not submit a warranty claim on this if the Engine-ECU reprogramming was performed according to TSB-20-13-002.**