



# Technical Service Bulletin

SUBJECT: <b>QUICK CHARGING OR READY MODE NOT POSSIBLE: DTC P101B &amp; P101C</b>			No: <b>TSB-18-54-007</b>
			DATE: <b>August 2018</b>
			MODEL: <b>2016 i-MiEV</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

Affected vehicles may experience difficulties using a quick/fast/level 3 charging device or switching to "Ready" mode after charging, along with DTCs P101B and P101C setting in the EV ECU (in a stored state). In addition, DTCs P1B02 and/or P1B03 may possibly be set.

If these DTCs are in an active state, please proceed to diagnosis using the service manual.

This condition might be caused by one of the following operations:

- The charge connector was removed while vehicle was quick charging.
- The charging device powered off by activation of the circuit breaker or experienced a power outage while quick charging.
- The data communication between vehicle and quick charging device was interrupted by a bump or strike to the charge connector.

This TSB provides instructions for reprogramming the EV-ECU with countermeasure software.

## AFFECTED VEHICLES

2016 i-MiEV vehicles built **before** August 2015

## REQUIRED OPERATIONS

1. Confirm your MUT-III is updated with the latest reprogramming database.
2. Reprogram the ECU with the new software. Refer to the "ECU Reprogramming Chart" for new software information.

Repairs must be completed by a certified i-MiEV technician. Please ensure the Main Drive battery's charge is properly maintained while the vehicle is not being serviced.

## SPECIAL EQUIPMENT

If necessary, the following equipment is needed to reprogram the EV-ECU.

- VCI (Vehicle Communication Interface) or VCI Lite - MB991824 or MB992744V.
- MEDIC Laptop/Tablet with A/C power adapter - MIT540031, or FZG1MK2.
- MUT-III main harness 'A' (blue connector at the DLC end) - MB992745V
- USB 2.0 cable - RRAR1MBR-108GL
- MEDIC 3.5/4 update at **532** or higher.
- For Standalone MUT-III units, MUT3 SE Reprogramming Database **N180601** or higher.

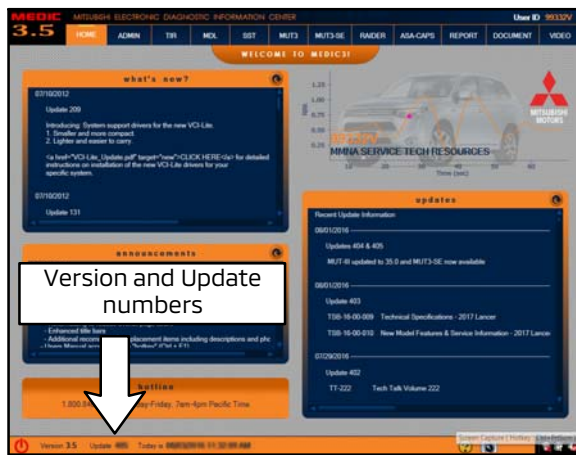
## EV-ECU REPROGRAMMING CHART

Model	ECU Part Number	Data Number	Software Part Number	
			Previous	NEW
2016 i-MiEV	9486A013	9486A259	9486A013 9486A01301	9486A01303

## 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.

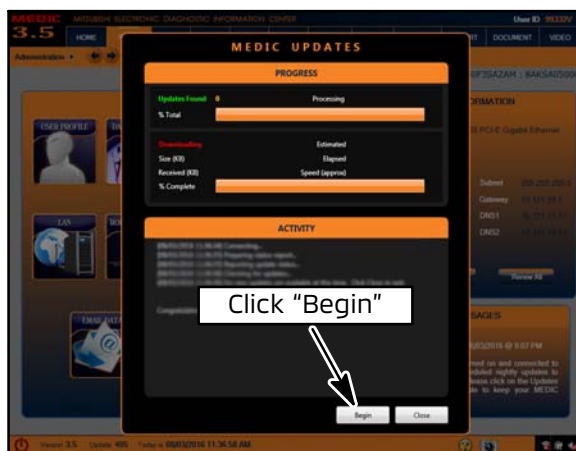


**For MEDIC 3.5/4 users only: (MUT-III STV users go to step 5)**

2. Verify the MEDIC 3.5/4 is at version 3.5 and at update **532** or higher.

If your **MEDIC 3.5/4 update is at least 532**, continue with the Reprogramming Procedure on page 4.

If your **MEDIC 3.5/4 update is below 532**, update your MEDIC as follows.

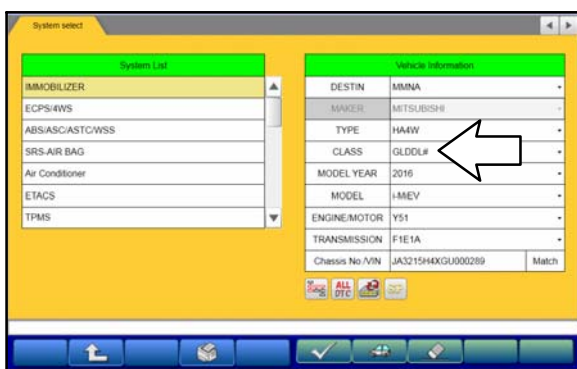


3. If the MEDIC update screen advises updates are available, click the "Begin" button. After all updates are complete, **GO TO THE REPROGRAMMING PROCEDURE.**



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

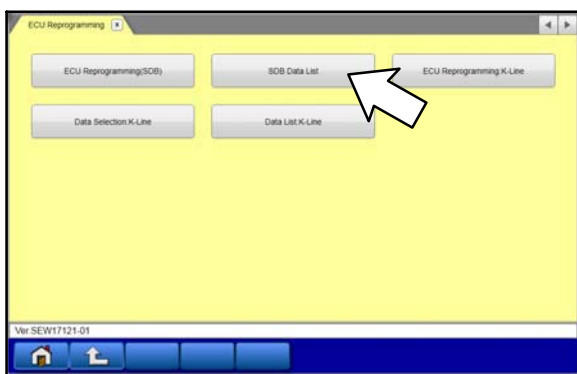
Click the "STV" button.



5. The System Select screen opens and populates with some basic information from the vehicle.

If the class has to be chosen from the drop down menu, then please look at the label on the passenger side B pillar to identify the appropriate class.

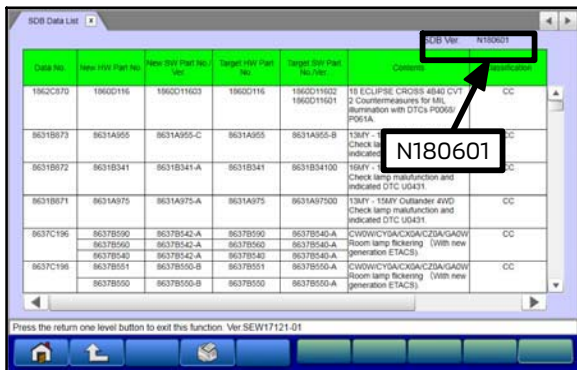
Then select the correct class from the drop-down list.



6. The System Select screen opens and populates with some basic information from the vehicle.

If the class has to be chosen from the drop down menu, then please look at the label on the passenger side B pillar to identify the appropriate class.

Then select the correct class from the drop-down list.



7. The System Select screen opens and populates with some basic information from the vehicle.

If the class has to be chosen from the drop down menu, then please look at the label on the passenger side B pillar to identify the appropriate class.

Then select the correct class from the drop-down list.

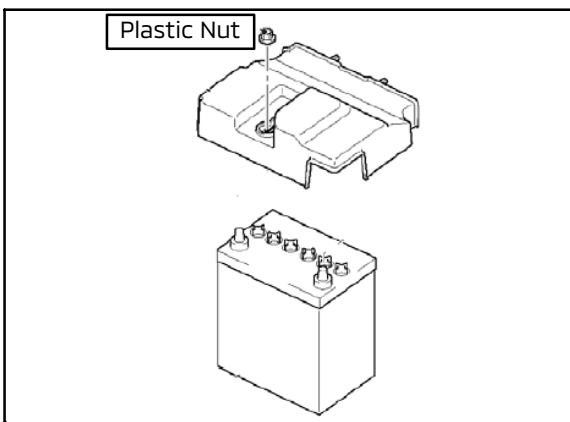
## REPROGRAMMING PROCEDURE

**IN ORDER TO REPROGRAM THE EV-ECU, A BATTERY CHARGER (WITH A CHARGING RATE NOT TO EXCEED 10 AMPS) MUST BE CONNECTED TO THE VEHICLE'S 12V AUXILIARY BATTERY DURING THE REPROGRAMMING PROCEDURE. DO NOT ALLOW THE BATTERY CHARGE TO TIME OUT. CONNECT THE BATTERY CHARGER WHEN INSTRUCTED.**

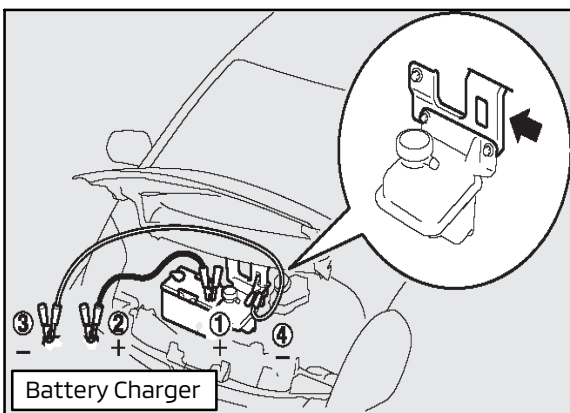
### CAUTION

**WHEN BATTERIES ARE BEING CHARGED, AN EXPLOSIVE GAS FORMS BENEATH THE COVER OF EACH CELL. DO NOT SMOKE NEAR BATTERIES ON CHARGE OR WHICH HAVE RECENTLY BEEN CHARGED. DO NOT BREAK LIVE CIRCUITS AT THE TERMINALS OF THE BATTERIES ON CHARGE. A SPARK WILL OCCUR WHERE THE LIVE CIRCUIT IS BROKEN. KEEP ALL OPEN FLAMES AWAY FROM THE BATTERY.**

**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. With the vehicle parked, set the parking brake and open the hood.
2. Remove the 12V auxiliary battery cover. Unscrew the plastic nut (pull up while turning).



3. Attach the battery charge (with a charging rate not to exceed 10 amps) to the 12V auxiliary battery.  
**NOTE: Ensure battery charger does not time out during this procedure.**

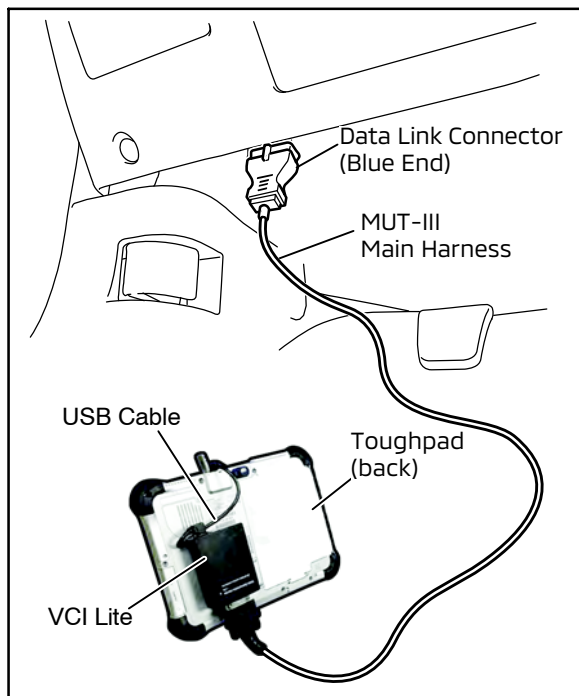
**NOTE: Connect the positive (+) terminal of the 12V auxiliary battery (1) to the positive (+) battery charger cable (2). Connect the negative (-) battery charger cable (3) to the designated ground location (4).**

**CAUTION**

To ensure that the vehicle battery maintains 12V during the procedure, hook-up a battery charger to the vehicle during the 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 MEDIC main screen, connect the USB cable to the device.
- Connect the MUT-III main harness with the blue DLC connection to the VCI/VCI Lite.
- Connect the blue connection of the MUT-III main harness to the vehicle's data link connector.
- For VCI only (P/N MP991824): Turn the VCI power switch ON. Verify that the indicator lamp in the upper right corner of the screen is green.

**CAUTION**

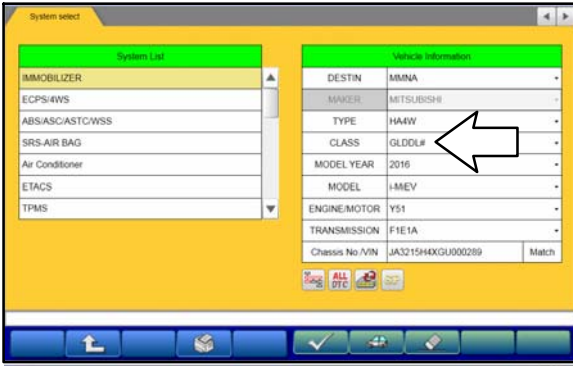
**DO NOT DISTURB THE HARNESS CABLES OR CONNECTIONS DURING THE REPROGRAMMING PROCESS AS IT COULD CAUSE THE CONTROL UNIT TO LOSE DATA. IF THE USB CABLE IS DISCONNECTED DURING THIS PROCEDURE, A WARNING MESSAGE WILL DISPLAY.**

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



3. 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.



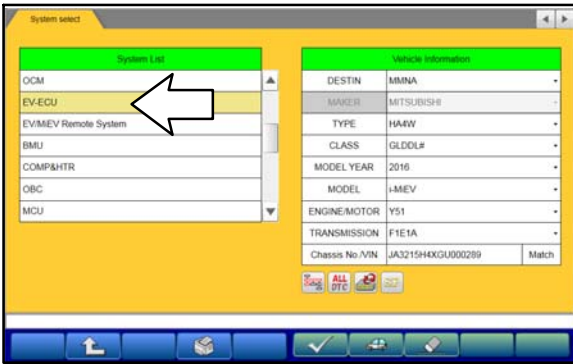
4. The System Select screen opens and populates with some basic information from the vehicle.

If the class has to be chosen from the drop down menu, then please look at the label on the passenger side B pillar to identify the appropriate class.

Then select the correct class from the drop-down list.

5. Verify that the EV-ECU has not already been updated to the latest S/W number in the table above.

If the EV-ECU is at the latest level, reprogramming is not necessary.



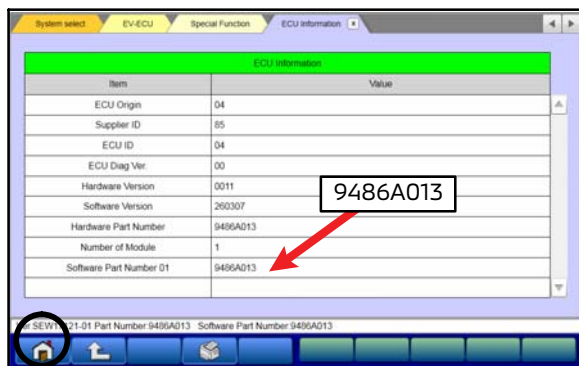
a. Select "EV-ECU" from the System List, then click on the check mark at the bottom of the screen.



b. Select "Special Function."



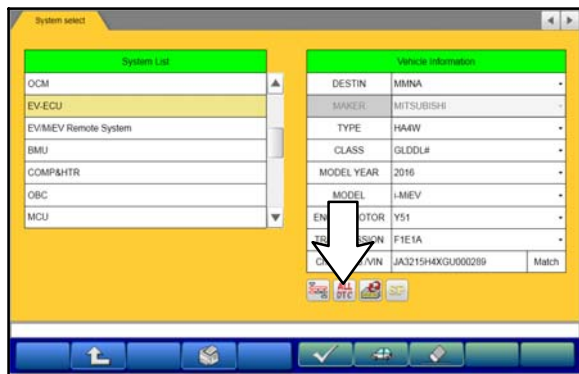
c. Select "ECU Information."



- b. If the Software Part Number listed is **not** at the latest level (shown in the "**EV-ECU Reprogramming Chart**"), proceed with the next steps.

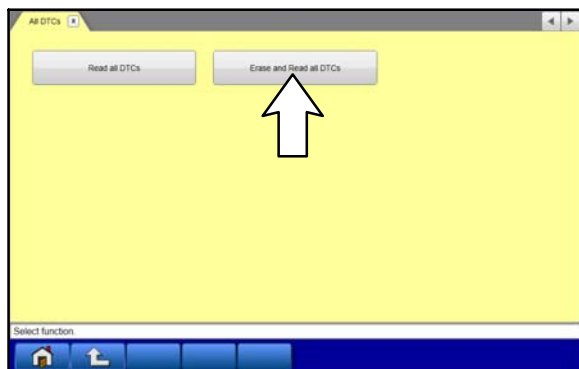
If the Software Part Number is **9486A01303**, then reprogramming is not necessary.

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

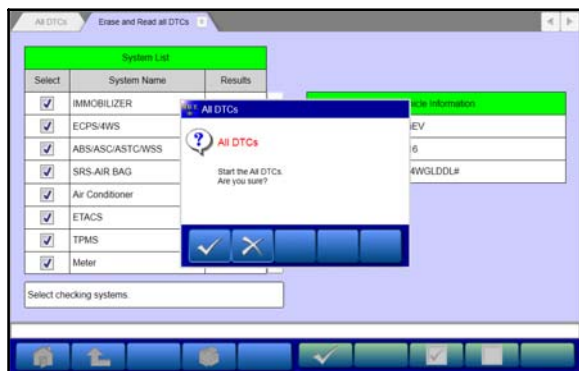


- a. Click on the home button to go back to the System Select screen.

Click the "ALL DTC" button.

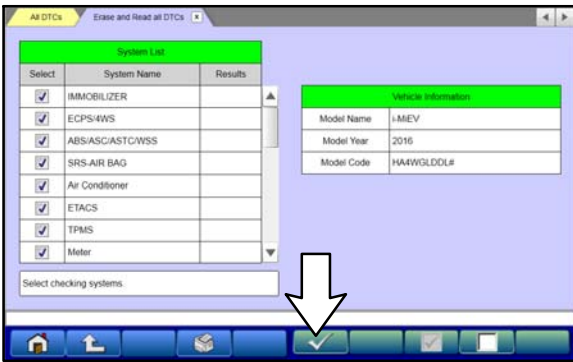


- b. Select "Erase and Read all DTCs."



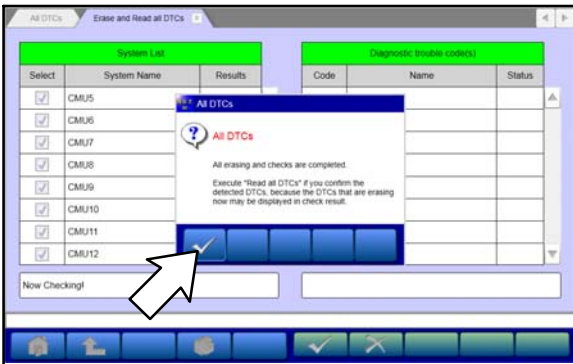
- c. A window will pop up asking you to confirm DTC erasing. Click the check mark in the dialog box for DTC erasing and reading to begin.





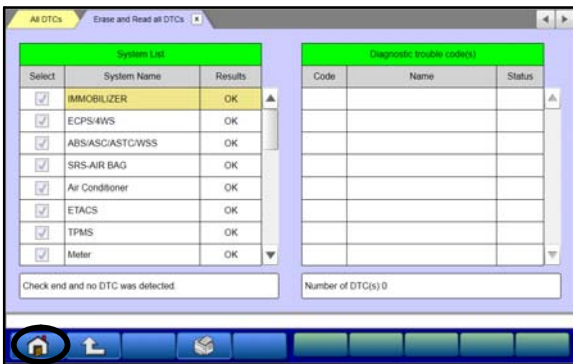
d. The "System List" on the left side of the screen will have all selections checked. **Do not** change these selections.

e. Click the check mark at the bottom of the page to continue.



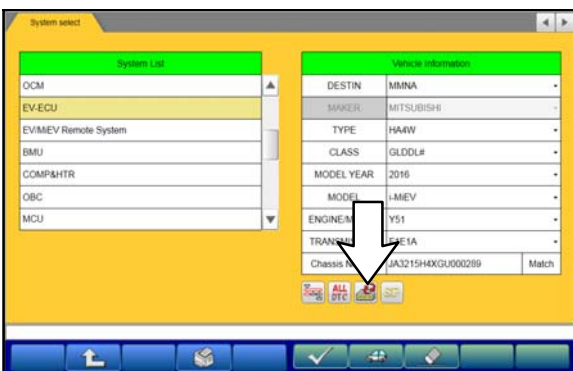
7. When DTC erasing is completed, click the check mark in the pop-up message that read "All erasing and checks are complete."

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



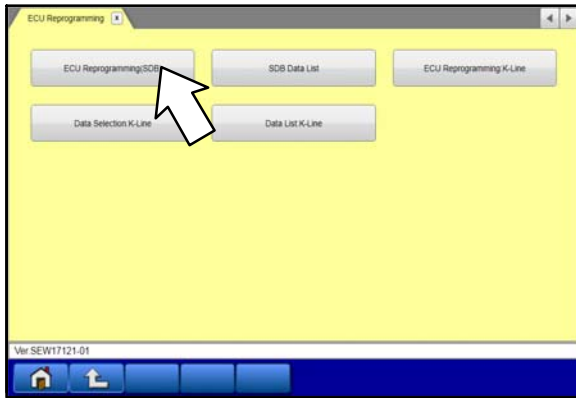
b. If DTCs do not return, click the check mark to clear the window, then click the Home icon in the lower left to return to the System Select menu.

8. Reprogram the EV-ECU following the steps below.

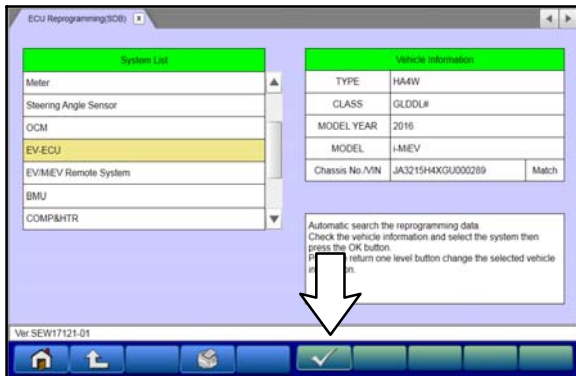


a. Click on the Reprogram button.

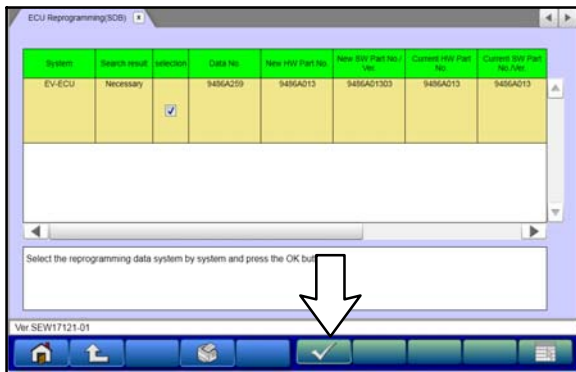




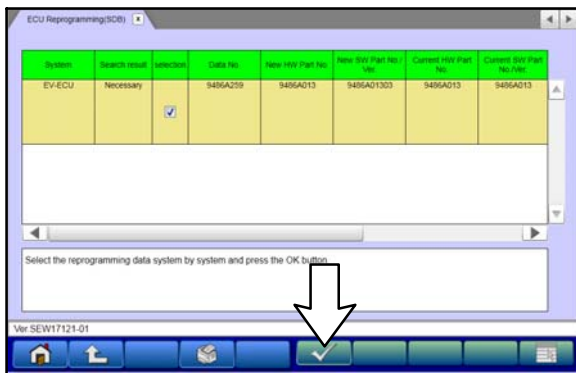
b. Select "ECU Reprogramming (SDB)."



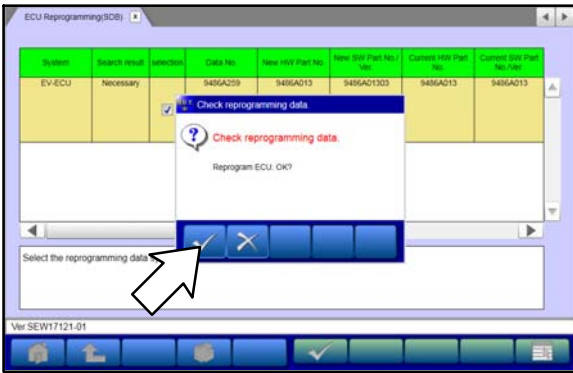
c. Verify the "EV-ECU" is selected in the System List, then click the check mark at the bottom of the page.



d. Verify the correct Data No. is listed in the **ECU Reprogramming Chart**.



e. Click the check mark at the bottom of the page to initiate reprogramming.

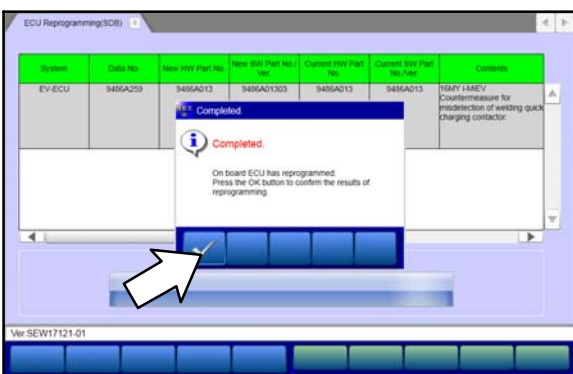


f. Click the check mark in the "Check reprogramming data" dialog box.

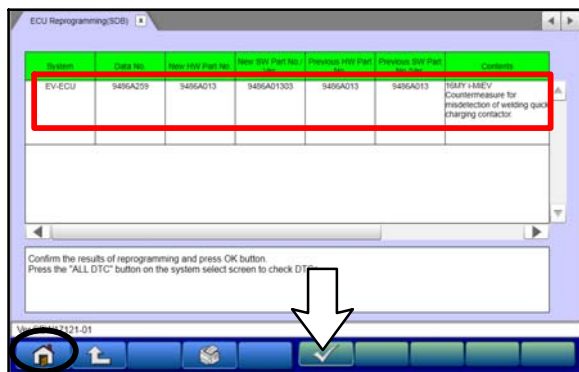


g. Once the reprogramming is initiated, the screen shown will indicate the reprogramming progress.

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

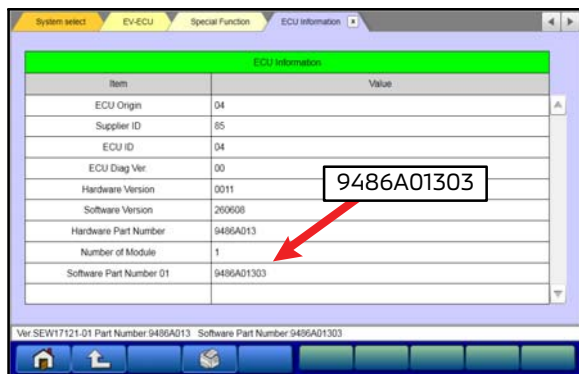


h. Click the check mark in the "Completed" dialog box.



- 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.
- j. Click the home icon on the bottom of the page.

- 9. Turn ignition switch "OFF" **for at least 20 seconds**.
- 10. Turn ignition switch to the "ON" position.
- 11. 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.**
  - a. Erase the following DTCs if stored: P101B, P101C, P1B02 and P1B03.
  - b. If any other DTCs appear, troubleshoot per the applicable Service Manual.



- 12. Verify that the software Part Number is now at the latest number listed in the "EV-ECU Reprogramming Chart" in this TSB. **For instructions, refer to step 5 in this TSB.**

- 13. Turn off the ignition switch and disconnect the MUT-III. Turn off and disconnect the battery charger.
- 14. Plug the vehicle in and begin quick charging.
- 15. Remove the charge connector plug while vehicle is quick charging.
- 16. Test drive the vehicle to confirm proper operation.
- 17. Print a copy of the **Disconnecting EV Charging Cable Instructions** on page 12 and provide it to the customer.

## DISCONNECTING EV CHARGING CABLE INSTRUCTIONS

- **DO NOT touch or remove the quick charge connector while the vehicle is charging.**
- To properly stop the charging process, deactivate the charging device.
- Before touching/removing the connector, confirm charging has stopped completely by verifying one of the following displays:
  - a. Charging indicator has turned to OFF on instrument panel display
  - b. Charging device's screen display indicates charging is complete
  - c. LED lamp has turned OFF on the connector
- If power supply is interrupted or shut off during charging, **this can cause a malfunction of the vehicle or the charging device.**
- For further details, refer to the individual manual of the quick charger device.

## 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 following information.

Operation	Labor Operation Code	Nature Code	Cause Code	Time Allowance
Reprogram EV ECU	13850113	605	630	0.3 hrs.