SUBARU.

QUALITY DRIVEN® SERVICE

SERVICE INFORMATION BULLETIN

APPLICABILITY:	Solterra	**NUMBER:**	14-30-24
		DATE:	03/19/24
SUBJECT:	GTS+ Reprogramming Procedure		

INTRODUCTION

This Service Information Bulletin provides an outline of the reprogramming process using GTS+. The information provided in this bulletin is intended to be used as a guide when preparing and performing reprogramming using .CUW files with GTS+.

CUW FILE IDENTIFICATION INFORMATION

Files with this symbol indicate .CUW reprogramming files. These file types require the GTS+ program. ALWAYS confirm GTS+ software is available, the software status is up to date, and a valid login/credential is provided prior to attempting any reprogramming using GTS+.

SERVICE PROCEDURE / INFORMATION

IMPORTANT: STABILIZE VEHICLE 12 VOLT BATTERY VOLTAGE

Turn off vehicle electrical systems to reduce electrical load.

- **Turn off all electrical accessories (i.e. climate control, audio-navigation system, etc.)**

- **Set headlamp switch to the "OFF" position.**

- **Set windshield wiper switch to the "OFF" position.**

- **Set driver easy exit (power easy access system) seat slide function to the "OFF" position.**

Inspect the vehicle 12 Volt auxiliary battery condition. Push the power switch **without** pressing the brake pedal (Power-ON), wait for 1 minute, then check if the battery voltage is at least 12.0 Volts. If the battery is below 12.0 Volts, it will require charging prior to performing any reprogramming.

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Connect the 12 Volt auxiliary battery to Midtronics DCA-8000. Set the charger to "Power Supply Mode" with the voltage set to 13.5 Volts.
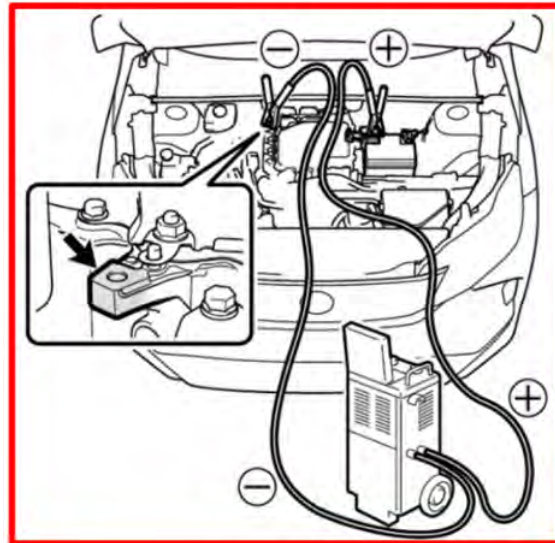
ALWAYS CONNECT AN AUXILIARY POWER SUPPLY DURING REPROGRAMMING.

ECU damage may occur if the battery voltage is not properly maintained during the procedure. If the battery condition is weakened to a state of which it cannot maintain voltage above 12.0 Volts even with connection to an auxiliary power supply, charge the 12 Volt battery until its normal condition before performing ECU reprogramming.

1) The Vehicle should be in a safe working area. Connect the Vehicle to an external Power Supply (i.e. Midtronics DCA-8000) to the vehicle and utilize the Power Supply Mode feature anytime a vehicle control module is being reprogrammed.

2) Confirm the Diagnostic computer has a stable power supply.

3) Connect the DST-010 or DST-i to the computer using a known good USB cable and DLC connecter to the vehicle, turn the vehicle ignition to the on position.

4) Click the GTS+ icon to start the GTS+ application.

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5) The GTS+ browser will open. Set the GTS+ application region to "United States" and set the lower box to "USA" then click the Server Login link.

NOTE: In some instances, a user may have logged in previously. In these cases, if the PC has not been restarted, the screen below may appear when clicking on the GTS+ icon (Step 5). This is normal operation. Click the "GuestUser" link to directly login to GTS+.
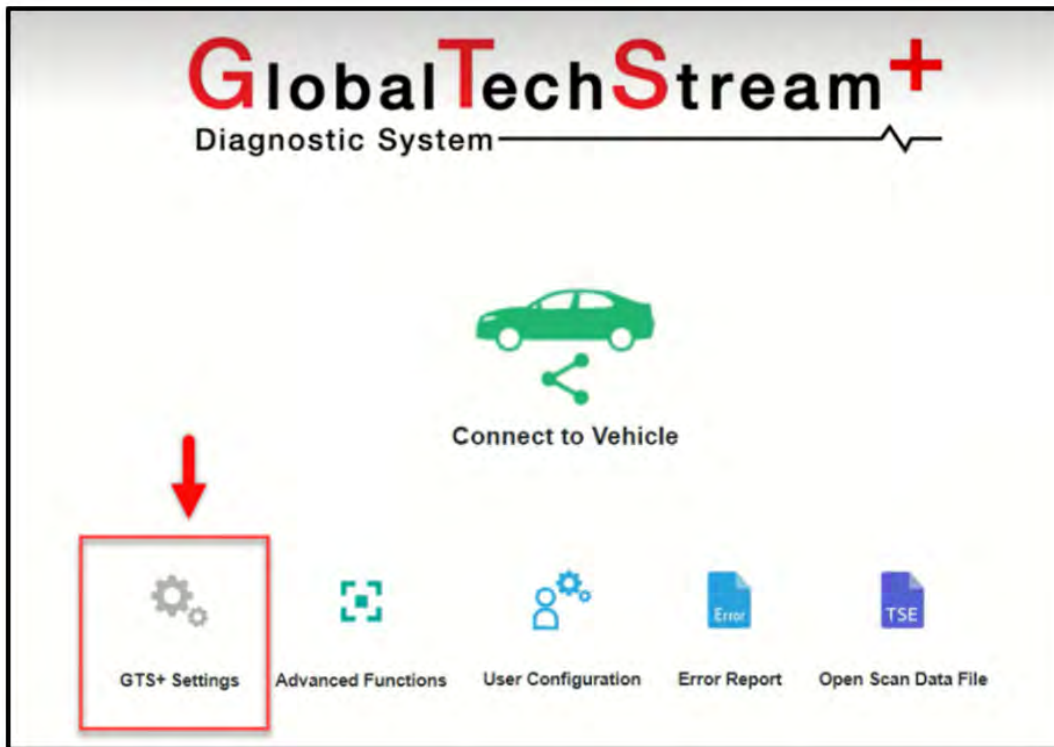

6) A second window will open to the Subaru Single Sign on (SS0) page. Enter your Subaru username and password (Hint: Same as SubaruNet credentials). Click the "Login" button to continue.
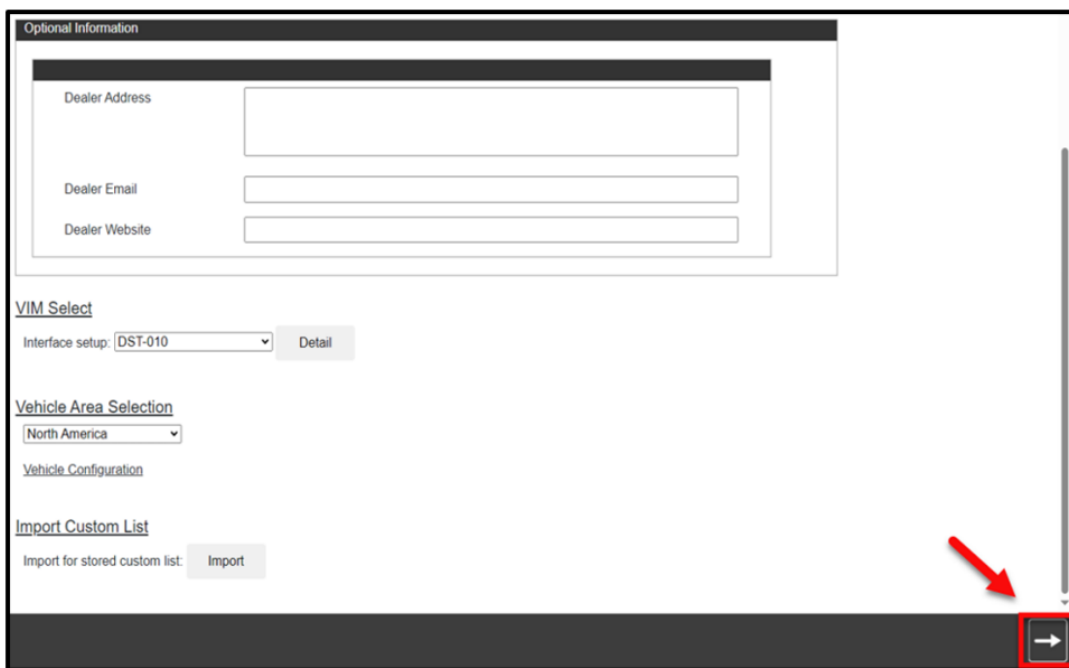

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7) Turn the power/ignition switch to the "ON" position **WITHOUT** depressing the brake pedal. Click the "GTS+ Setting button.
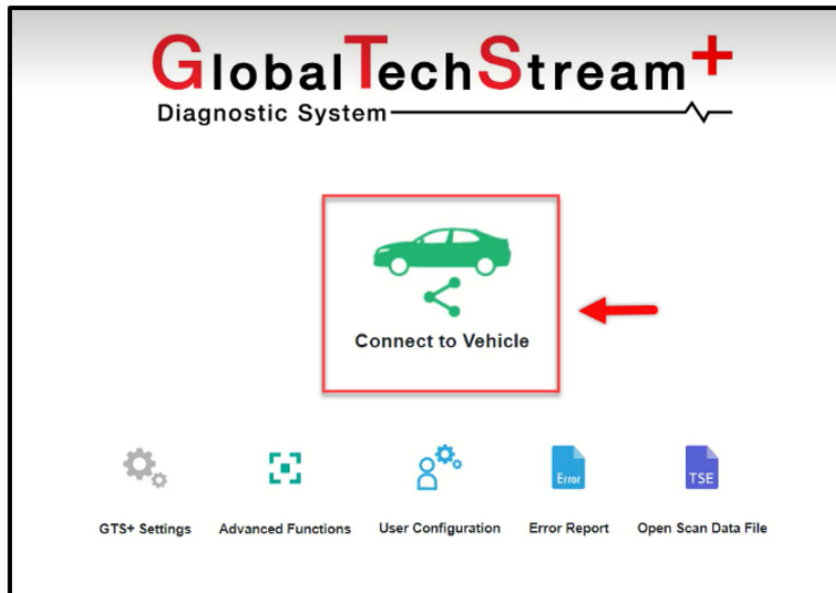

8) In the lower portion of the GTS+ Settings page, select the appropriate Vehicle Interface Module (VIM) such as DTS-I or DST-010. Set the "Vehicle Area" selection to "North America." Click the arrow in the right corner when complete.
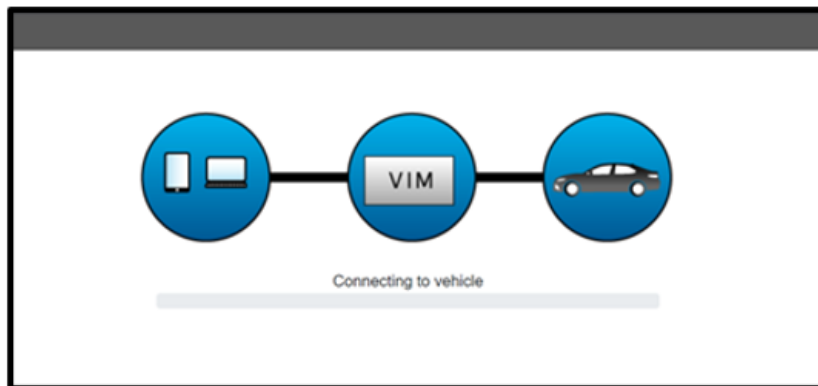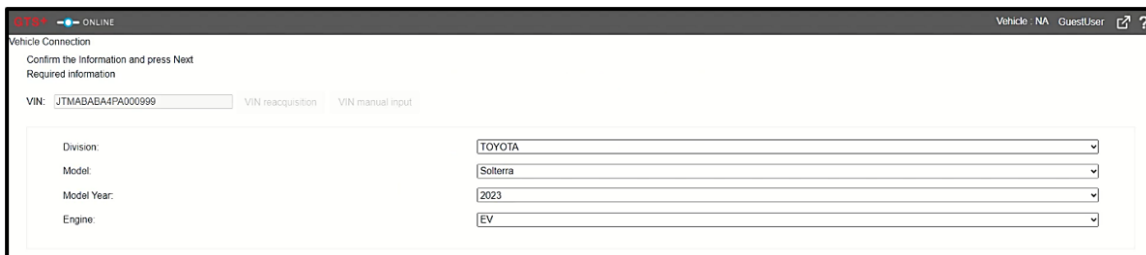

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9) Click the "Connect to Vehicle" button. Confirm the target VIN information and continue by clicking the "Next" button.
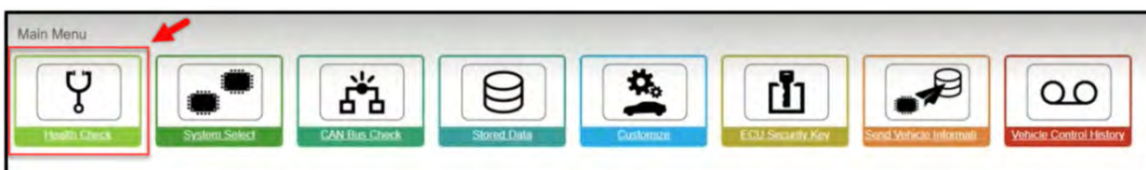

10) The "Connecting to Vehicle" screen will appear.

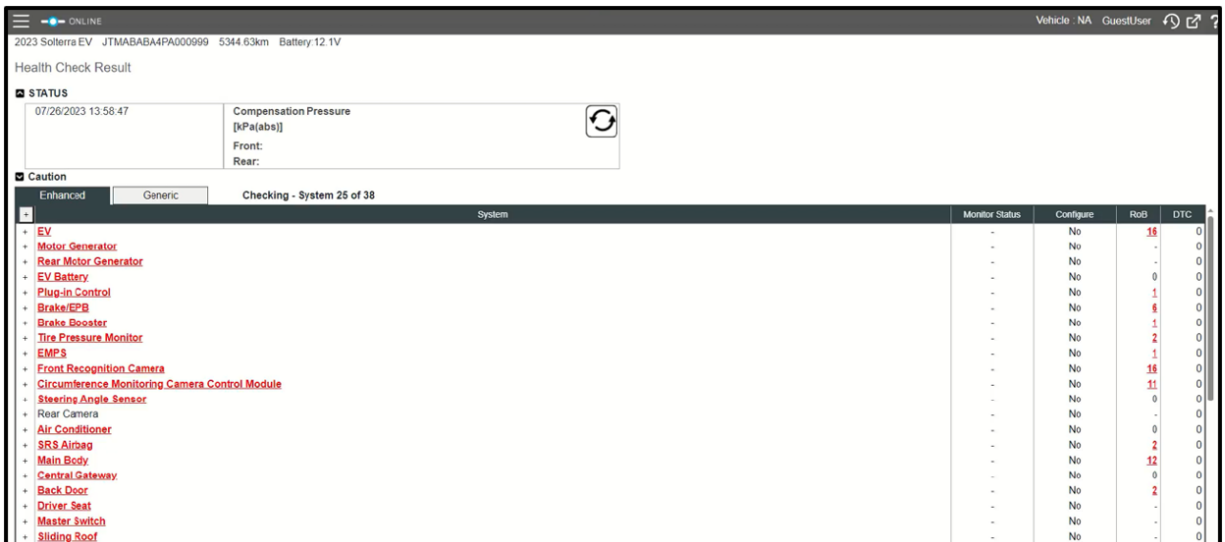11) Confirm the vehicle from the VIN information. Continue by clicking the "Next" button.

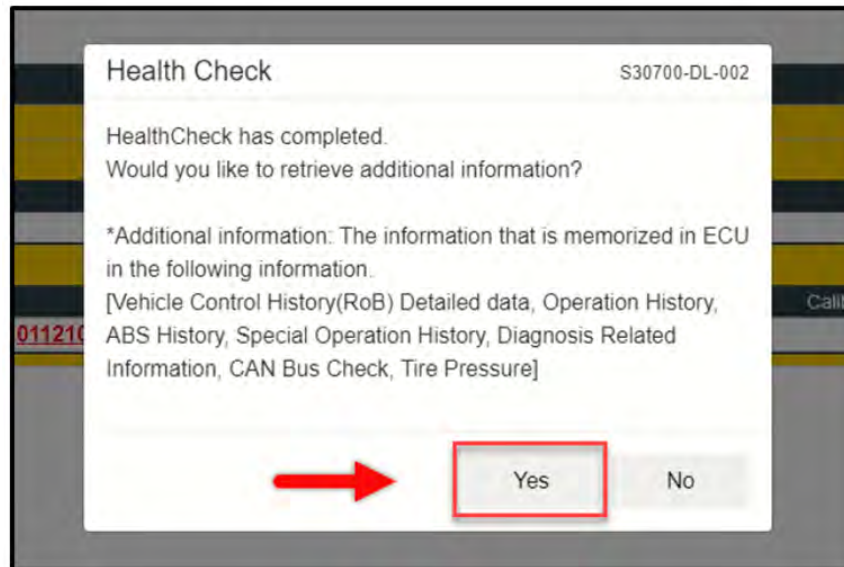12) Click the "Health Check" button located in the Main Menu.
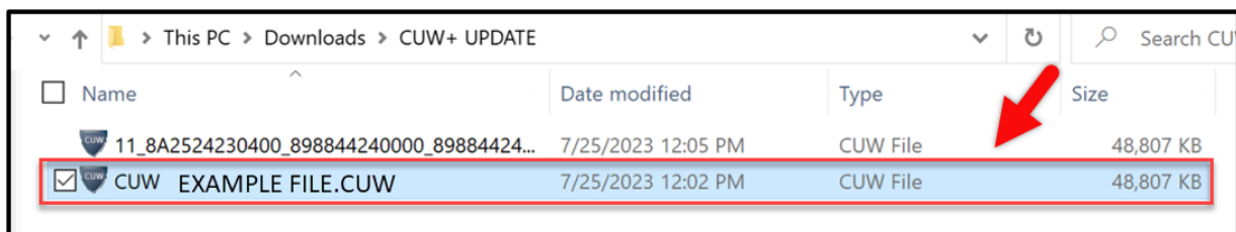

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13) Allow time for the Health Check to start.

14) While the Health Check is being performed, a pop-up will be displayed asking if you would like additional information retrieved. Click the "Yes" button to continue.
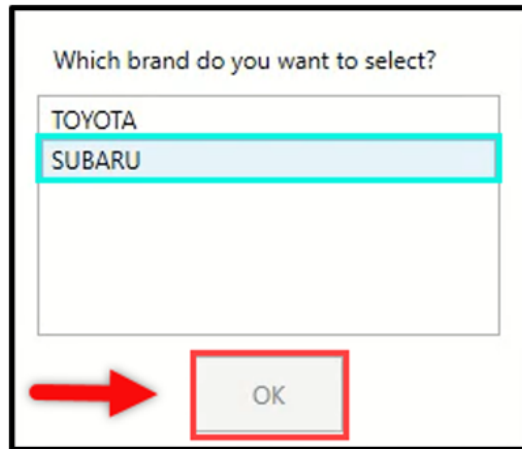

15) Select the Subaru Desktop from the lower taskbar. Select the TechStream Files icon. Open the specified CUW file.
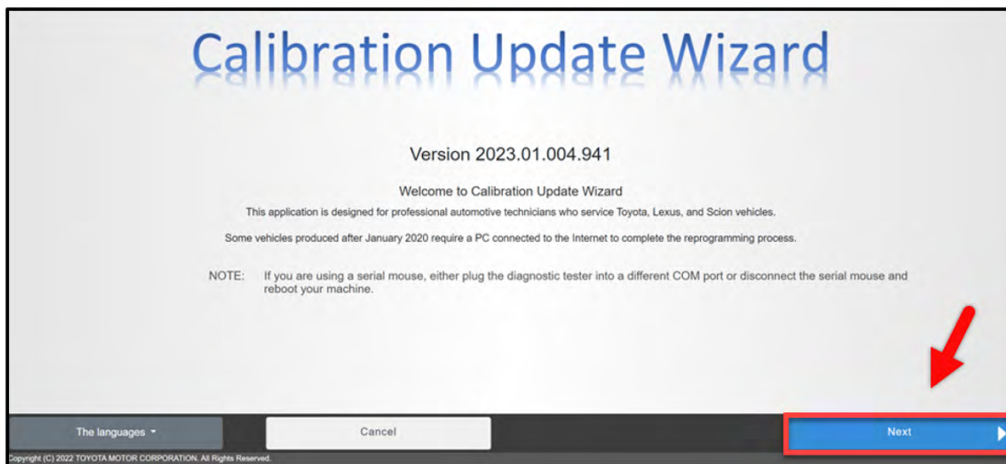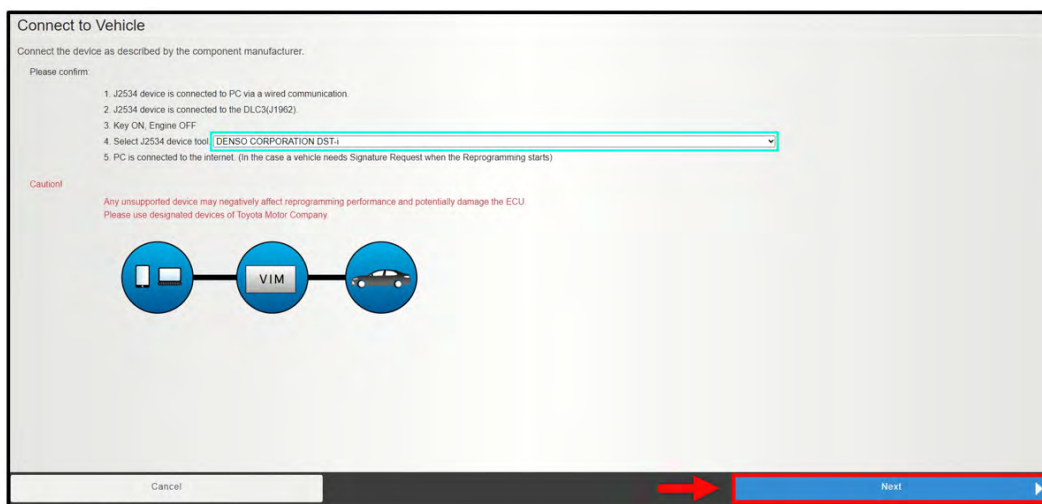
16) Click on the update file after downloading. Select "Subaru" and click the "OK" button to continue.

17) The Calibration Update Wizard will open in a new Browser Window. To proceed, click the "Next" button.
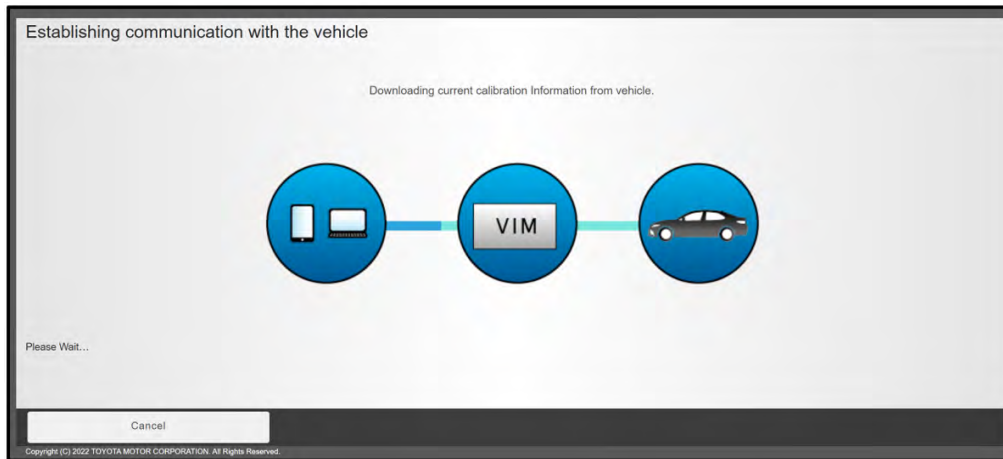

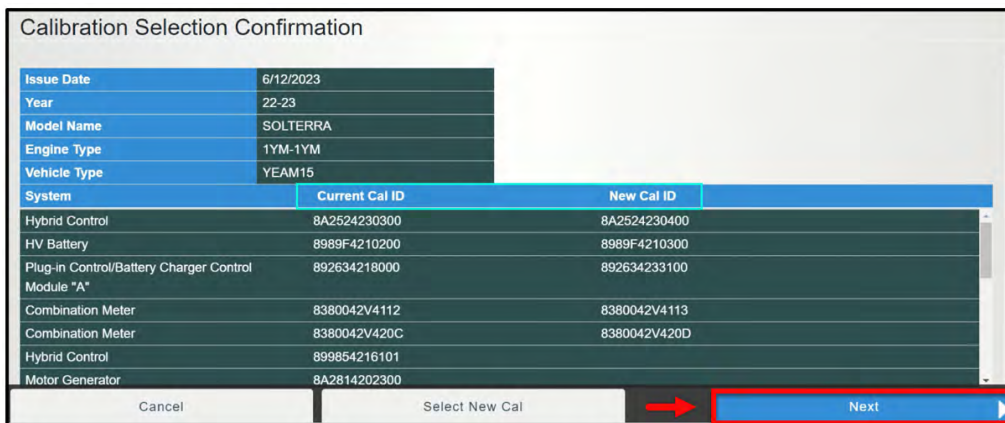**18)** Confirm the Interface device and all your connections and that the battery is charging.

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19) A progress bar will be displayed. DO NOT operate the power/ignition switch while the bar is shown.
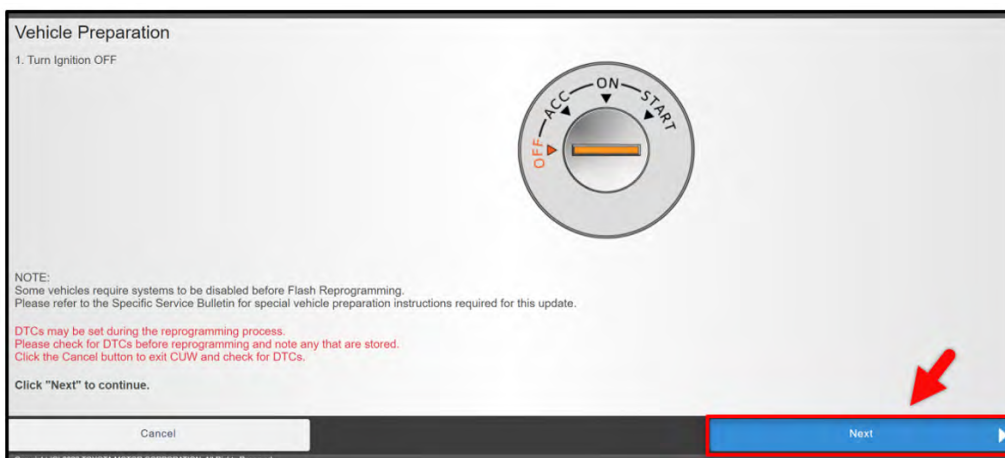

20) The Calibration Selection Confirmation window will appear. Confirm the applicable Current Cal ID and the New Cal ID match the desired calibrations.

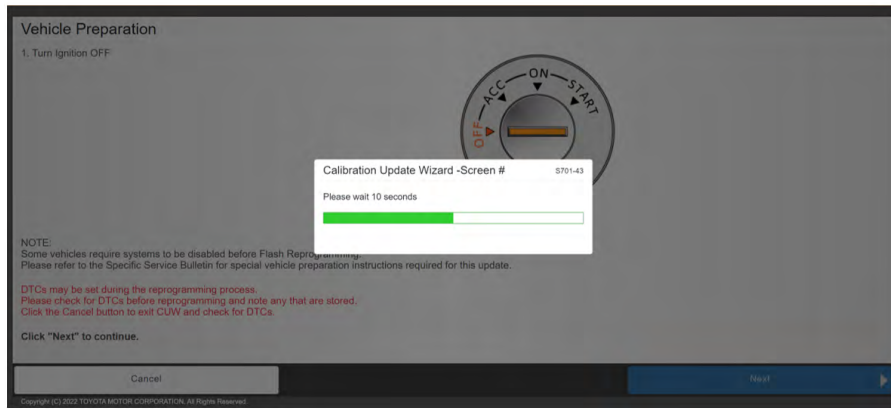

21) Turn the power/ignition switch to "OFF," then click the "Next" button.

NOTE: VEHCILE MAY BEEP AND SHOW ERRORS ON THE DASH DURING REPROGRAMMING, THIS IS NORMAL, DO NOT CANCEL REPROGRAMMING,


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22) The update wizard will be displayed.

23) Turn the power/ignition switch "ON."

NOTE: Keeping battery voltage up is critical to prevent control module Failure on Solterra EV, Battery voltage will fall quickly in the Solterra if not being supplied with adequate power and will cause failures. YOU MUST KEEP VOLTAGE ABOVE 12.5 VOLTS.
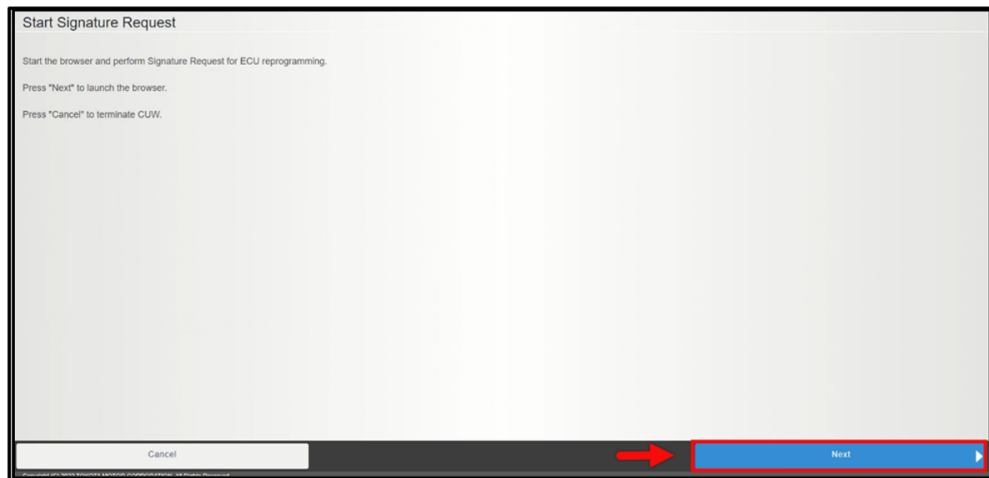
24) Click the "Start" button to continue.
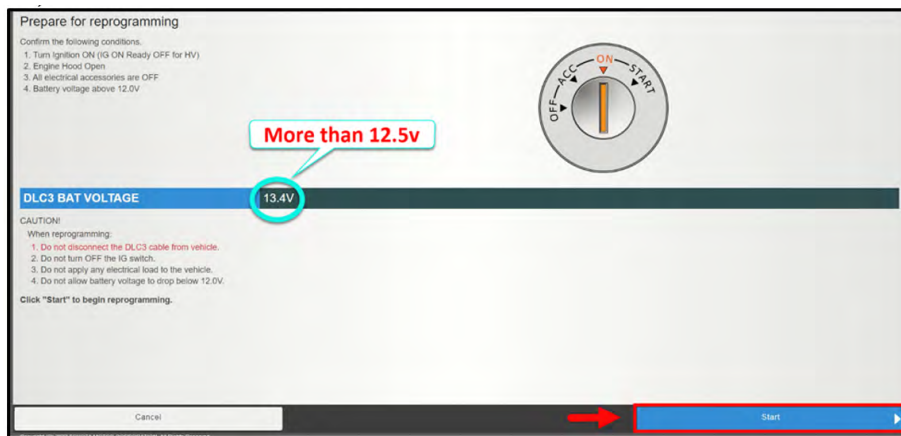
25) The calibration update progress screen will now be displayed, this will provide the remaining time for the update and show progress on the progress bar. Depending on the files, authentication(s) using a Signature Request(s) will be required during an update. ALWAYS MONITOR THE REPROGRAMMING PROGRESS.
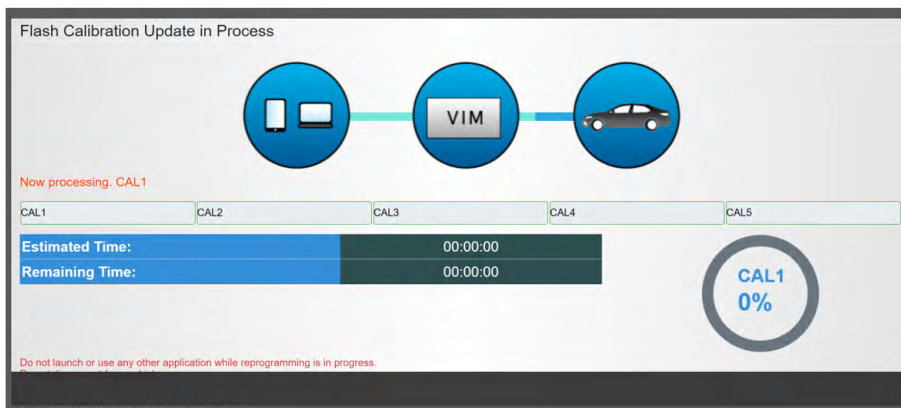
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26) In a new Window, the Signature Request Page will appear once you click the "Next" button.

27) Click the "OK" button to continue.
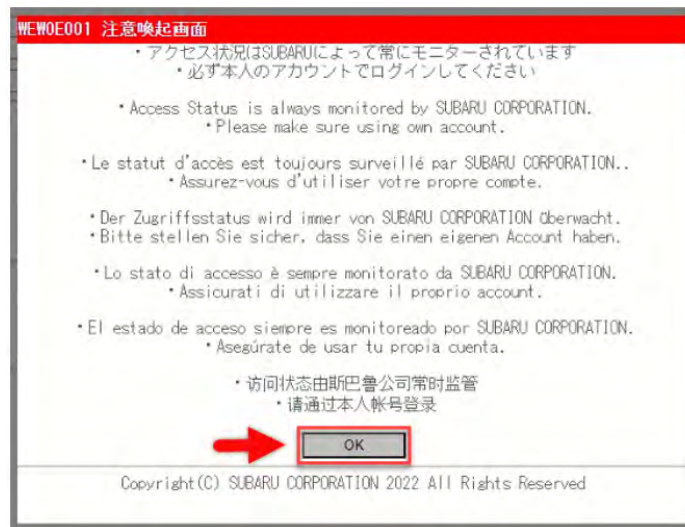
28) Click "Request Signature" button, wait for the signature to appear, then copy the signature into the other Browser window. DO NOT CLOSE ANY WINDOWS WHILE DOING REPOGRAMMING.
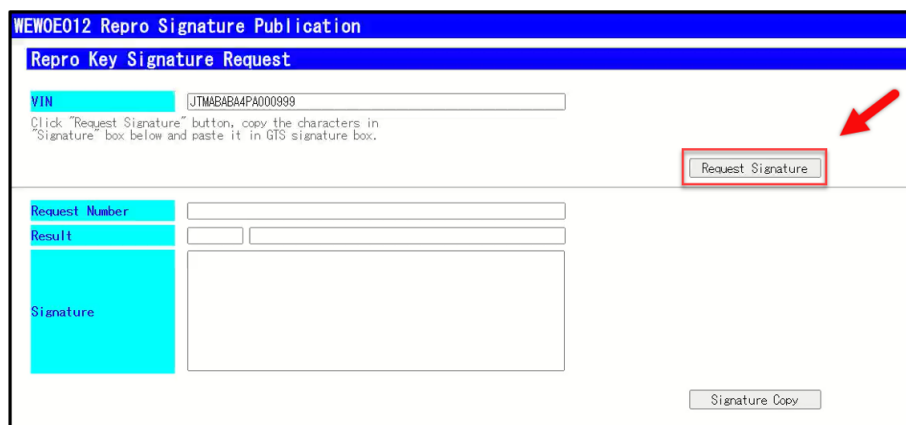
NOTE: If an error warning "Could Not Acquire Signature" is displayed, please click the "Request Signature" button again.

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29) Return to "Calibration Update Wizard" display. Paste the signature using the right click method or using Ctrl+V on the keyboard. Once the signature is successfully pasted, click the "Next" **button to continue.**
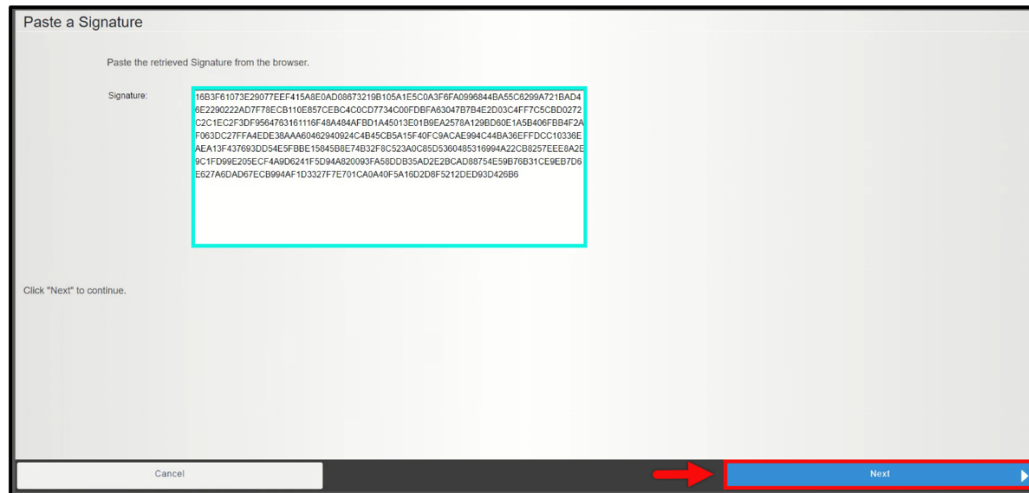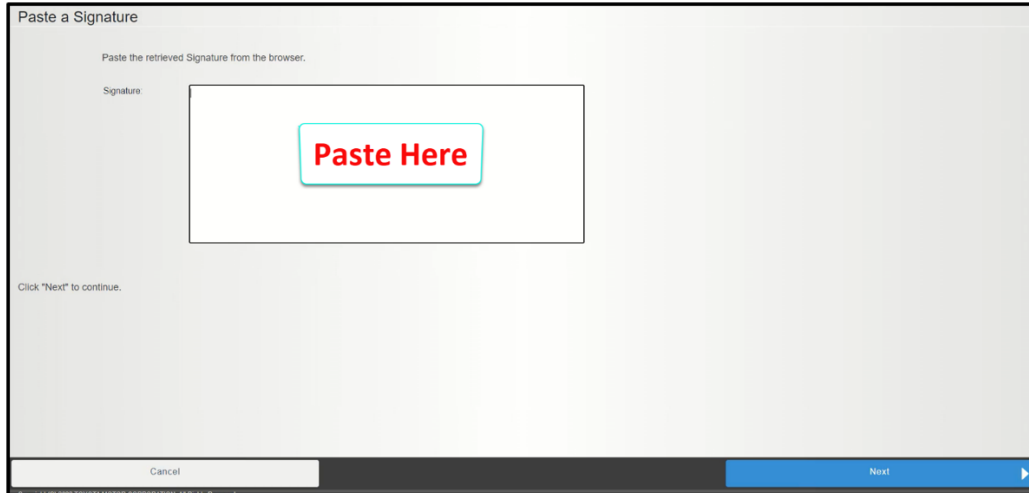

30) The reprogramming process will begin. While the vehicle is reprogramming, the progress window is displayed. ALWAYS remain near the vehicle during reprogramming in order to monitor the progress.
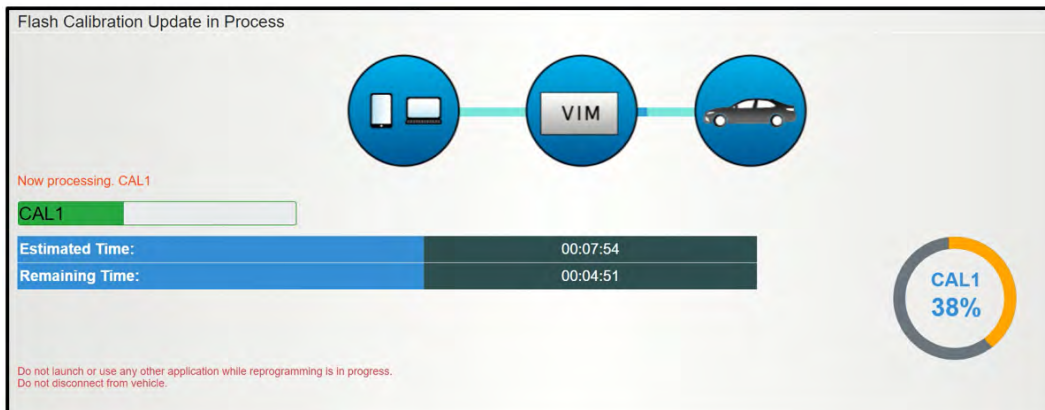
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31) Turn the power/ignition switch "OFF" and click the "Next" button to continue.
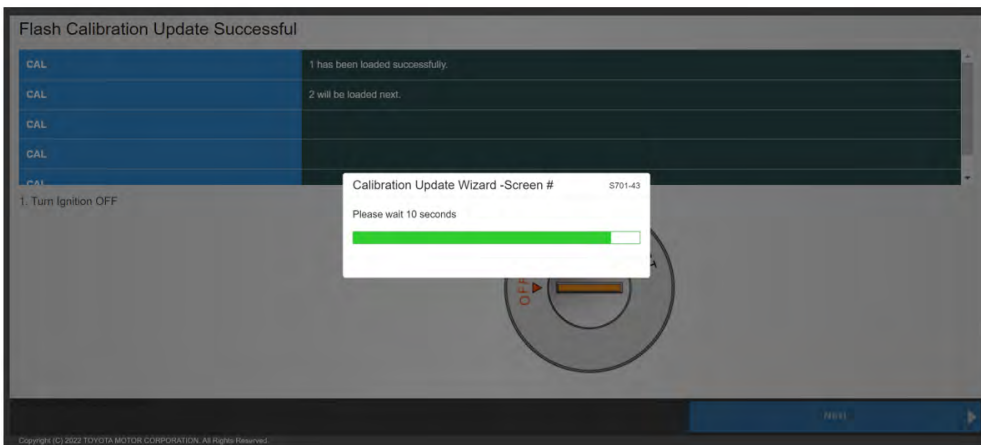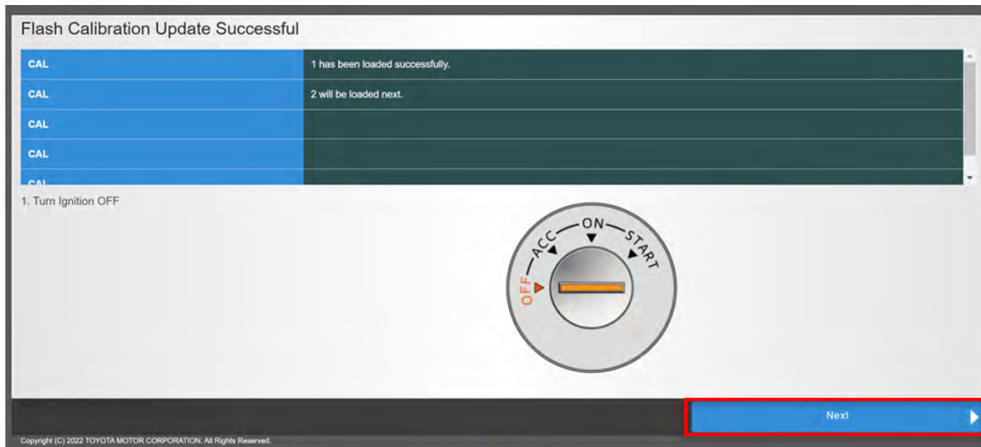
32) Turn the power/ignition switch "ON" and click the "Next" button to continue.

IMPORTANT: Depending on the reprogramming file(s), the request signature process and file installation will be repeated for each module calibration. If required, repeat the process for each calibration in the reprograming process.

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33) Once the calibration(s) is finished, you will see the green progress bar show all the way across the screen.

34) When the reprogramming procedure is successfully completed, the "Finish widow will be displayed. Press any key to continue.

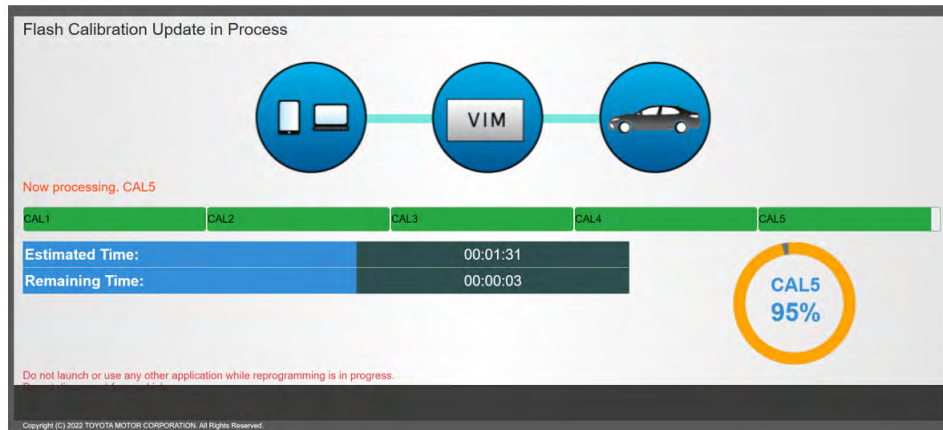**IMPORTANT NOTE:** If the reprogramming procedure is unsuccessful, an error window is displayed. If no error window is displayed, proceed to Step 36.

- DO NOT press the cancel button.

- DO NOT close the CUW+ window.

Attempt to restart the reprogramming procedure by clicking the "Retry" button, after the following prerequisites are met:

- Inspect the USB cables and connections and confirm they are in working condition.

- Confirm the 12V battery has sufficient charge.

- Confirm the battery charger is operating as desired.

- Confirm the battery cables are securely connected.

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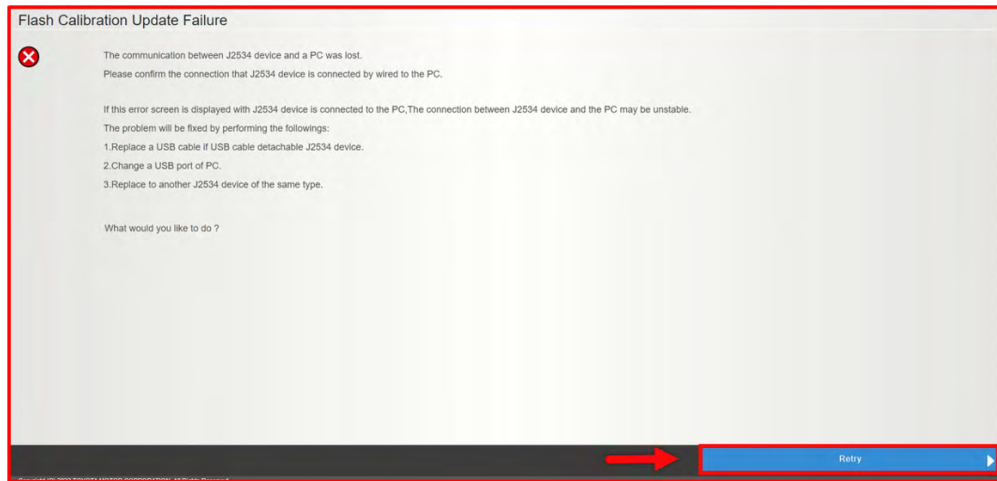
Cycle the power switch as per the GTS+ and click the "Retry" button to continue.
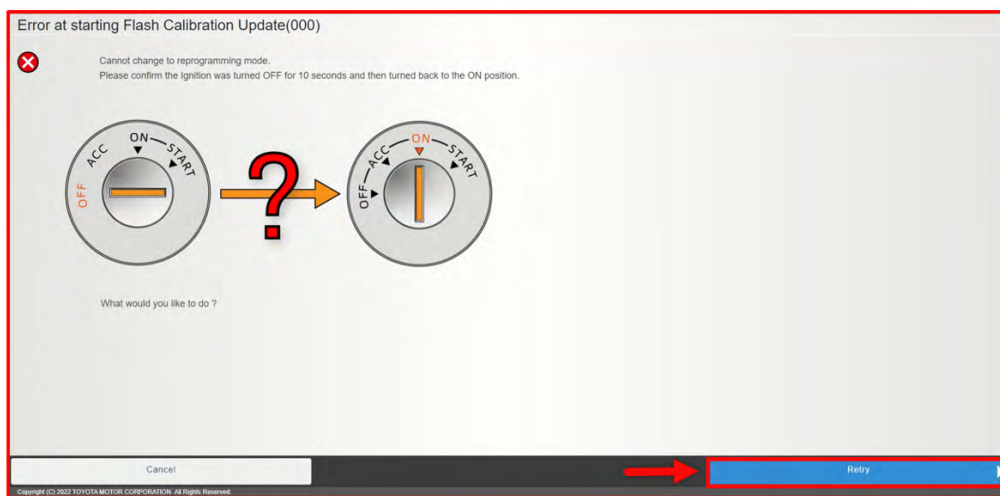
35) The "Flash Calibration Update Successful" window will display. Turn the power switch to the OFF position. Click the "Next" button to continue.
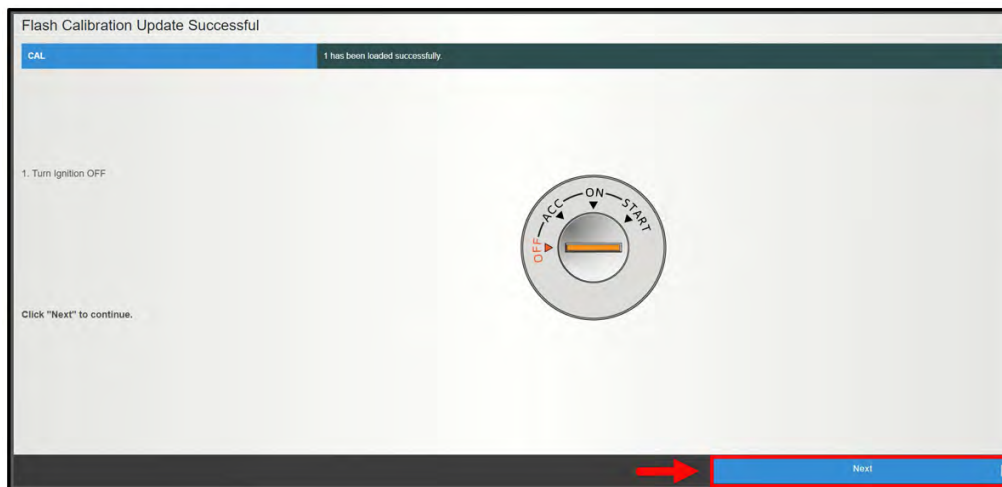
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NOTE: A Progress bar will be displayed. DO NOT operate the power switch while the bar is shown.
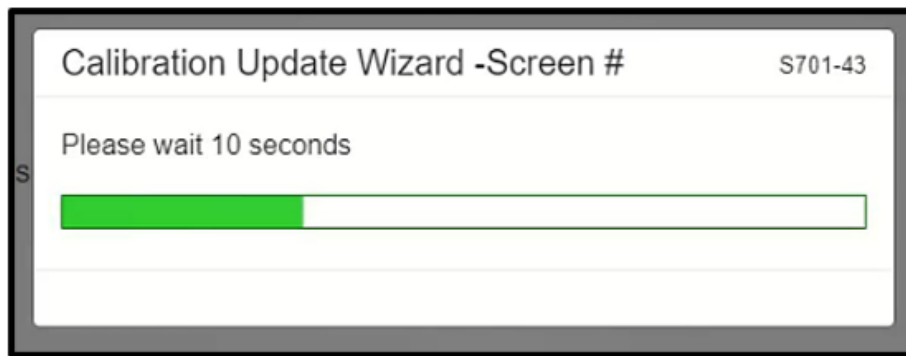
36) Follow the on-screen instruction. Turn the power switch to the ON position. Select the "Next" button to continue.

NOTE: A Progress bar will be displayed. DO NOT operate the power switch while the bar is shown.
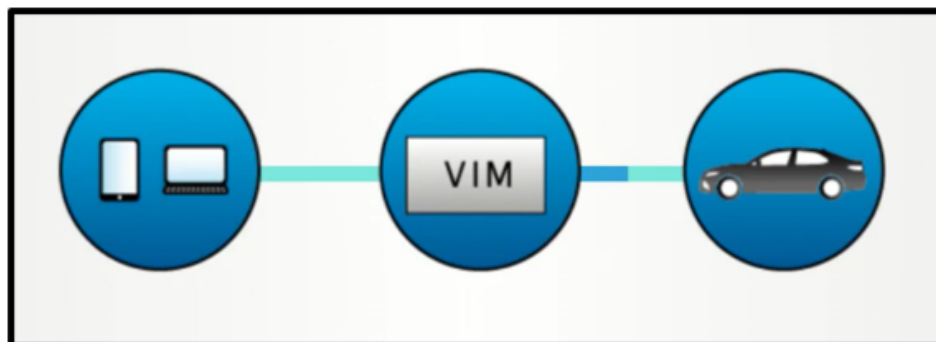
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37) Confirm the "AFTER UPDATE" calibration ID(s) matches the desired NEW calibration ID number(s). Click the "Finish" button.
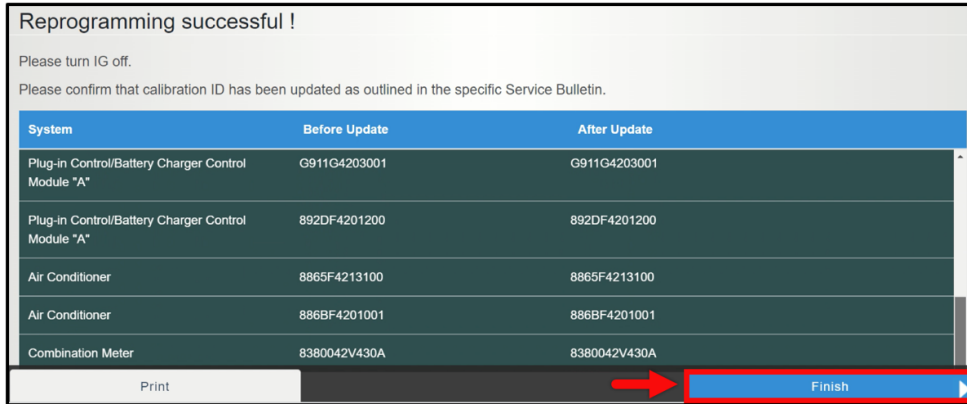
38) Return to the GTS+ window. Perform the "Health Check" by selecting the button in the lower right corner of the Stared Data tab window.

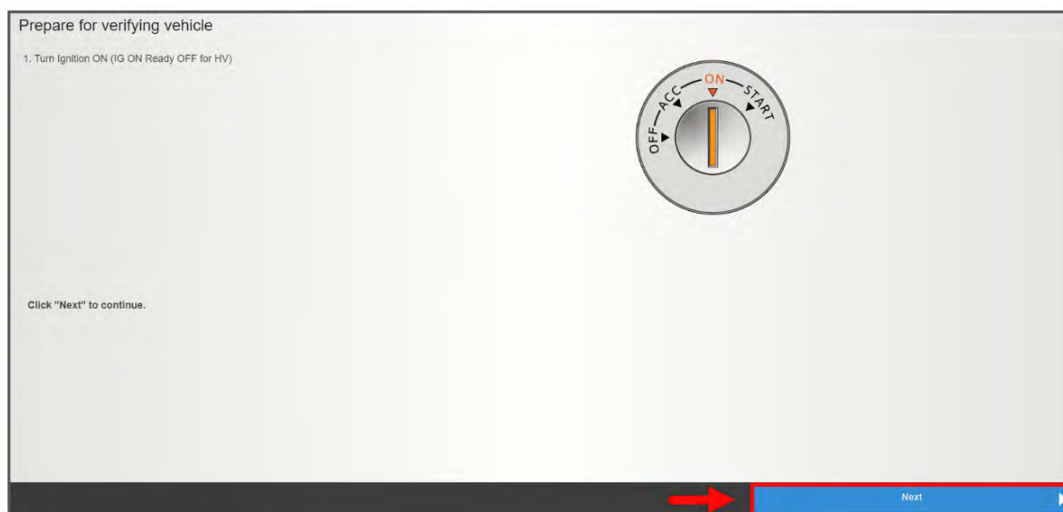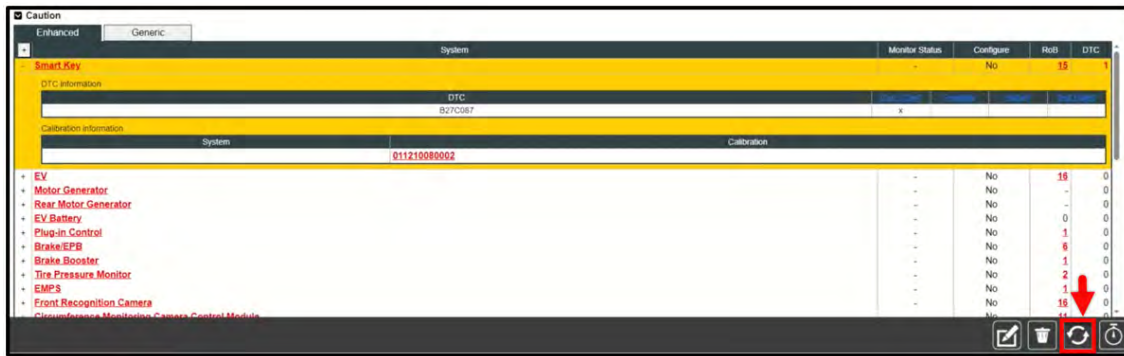While the Health Check is being performed, a pop-up will be displayed asking if you would like additional information retrieved. Click the "No" button to continue.
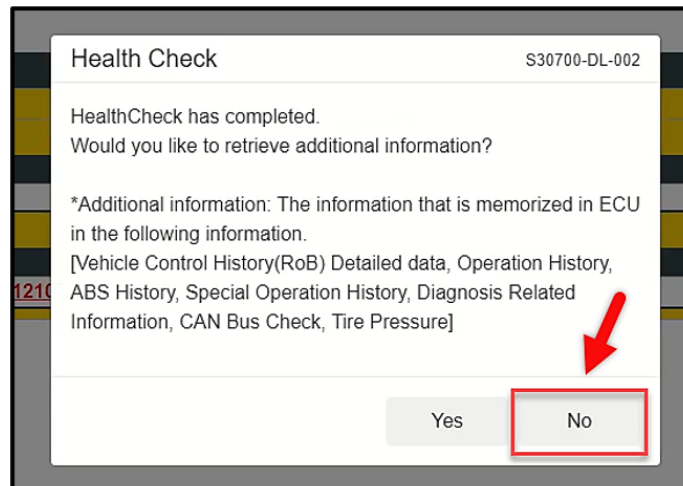
39) Clear any DTC(s) that may have been detected during reprogramming. If no DTC(s) are detected, the procedure is complete.

FINISH

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BATTERY CHARGER NOTES:

Subaru of America, Inc. (SOA) highly recommends utilizing either the Subaru Midtronics DCA8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle in the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Once the Midtronics charger is connected to the vehicle, if the battery is fully charged, it will take less than three (3) minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

NOTES:

- For instructions on using the Power Supply Mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging on STIS.

- Select the correct battery type (Enhanced Flooded, Flooded, Gel, AGM or AGM Spiral).

- Input the CCA which matches the vehicle's battery.

- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 Volts.

- DO NOT connect the GTS+ until the Power Supply mode function has completed its battery test mode and the Charging Voltage has dropped to and shows a steady 13.5 Volts on the display.

- Once Power Supply Mode reaches a steady 13.5 Volts, connect the GTS+ to the OBD connector and proceed with initiating the normal reprogramming process.

- Amperage will fluctuate based upon the vehicle's demand for power. **NOTE:** If the voltage rises beyond 14 Volts while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming is made.

- ALWAYS set the power supply voltage to 13.5 Volts when using Power Supply Mode. NEVER turn the ignition switch on when charging at voltages 15 Volts or higher.

- Control module failures resulting from battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.

REMINDER: If the DCA-8000 indicates the vehicle's battery must be charged, charge the battery fully before proceeding to reprogram the vehicle while using the Power Supply Mode.

IMPORTANT: Always note the original Calibration ID the vehicle came in with on the repair order **before** reprogramming and, make sure to list the **NEW** Calibration ID for any newly installed programming (as confirmed from the actual control module **AFTER** installation). The **NEW** Calibration ID must also be noted on the repair order as this information is required for entry in the Miscellaneous Detail field during claim submission.