ATTENTION: GENERAL MANAGER INFORMATION IN

SERVICE INFORMATION BULLETIN

APPLICABILITY: Solterra

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

CUW

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.

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

ISO 14001 Compliant ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

Subaru of America, Inc. is



QUALITY DRIVEN® SERVICE

NUMBER: 14-30-24

DATE: 03/19/24

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.





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.

SUBARU	
Welcome	
Please login using your Subaru username and password. SOA employees should use their network credentials.	
Username	
Password	
Reset Password	
If you have questions, contact the Subaru Helpdesk at 1-800-SOA-STAR (1-800-762-7827).	
Looking for information about Subaru vehicles and products? Visit subaru.com.	

Continued...

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

G	lobal mostic Syste	lechS	trea	am +
1	c	Connect to Vehic	le	
۵.	8	8°°°	Enor	TSE
GTS+ Settings	Advanced Functions	User Configuration	Error Report	Open Scan Data File

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.

Optional Information	
Dealer Address	
Dealer Email	
Dealer Website	
VIM Select Interface setup: DST-010 Detail	
Vehicle Area Selection North America	
Import Custom List Import for stored custom list: Import	

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.

GTS+	-ONLINE	Vehicle : NA G	GuestUser	₫?
Vehicle Co	onnection			
Confir Requi	m the information and press Next red information			
VIN:	JTMABABA4PA000999 VIN reacquisition VIN manual input			
	Division:	ΤΟΥΟΤΑ	~	
	Model:	Solterra	~	
	Model Year:	2023	~	
	Engine:	EV	~	

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



13) Allow time for the Health Check to start.

		Vehicle : NA Gu	testUser 🦸	92?
2023 Solterra EV JTMABABA4PA000999 5344.63km Battery 12.1V				
Health Check Result				
STATUS				
07/26/2023 13 58 47 Compensation Pressure [V#2alab9] Front: Rear:				
C Caution				/
Enhanced Generic Checking - System 25 of 38				/
System	Monitor Status	Configure	RoB	DTC
+ EY	-	No	16	0
+ Motor Generator	-	No	-	0
+ Rear Motor Generator	-	No	-	0
+ EV Battery	-	No	0	0
+ Plug-in Control	-	No	1	0
+ Brake/EPB	-	No	6	0
+ Brake Booster	-	No	1	0
+ Tire Pressure Monitor	-	No	2	0
+ EMPS	-	No	1	0
+ Front Recognition Camera	-	No	16	0
+ Circumference Monitoring Camera Control Module	-	No	11	0
+ Steering Angle Sensor		No	0	0
+ Rear Camera	-	No	-	0
+ Air Conditioner	-	No	0	0
+ SRS Airbag	-	No	2	0
+ Main Body	-	No	12	0
+ Central Gateway		No	0	0
+ Back Door	-	No	2	0
+ Driver Seat	-	No		0
+ Master Switch	-	No		0
+ Sliding Roof	-	No	-	0

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.

HealthCheck has completed. Would you like to retrieve additional information? *Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related	HealthCheck has completed. Would you like to retrieve additional information? *Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related Information, CAN Bus Check, Tire Pressure]	Health Check		S30700-DL-002
Would you like to retrieve additional information? *Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related	Would you like to retrieve additional information? *Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related Information, CAN Bus Check, Tire Pressure]	HealthCheck has completed.		
*Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related	*Additional information: The information that is memorized in ECU in the following information. [Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related Information, CAN Bus Check, Tire Pressure]	Would you like to retrieve additional info	ormation?	
[Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related	[Vehicle Control History(RoB) Detailed data, Operation History, ABS History, Special Operation History, Diagnosis Related Information, CAN Bus Check, Tire Pressure]	*Additional information: The information in the following information.	that is me	emorized in ECU
ABS History Special Operation History, Diagnosis Related	ABS History, Special Operation History, Diagnosis Related Information, CAN Bus Check, Tire Pressure]	[Vehicle Control History(RoB) Detailed of	data, Ope	ration History,
Information, CAN Bus Check, Tire Pressure]		ABS History, Special Operation History, Information, CAN Bus Check, Tire Press	Diagnosi: sure]	s Related
			Yes	No

15) Select the Subaru Desktop from the lower taskbar. Select the TechStream Files icon. Open the specified CUW file.

		~	ũ	✓ Search CU [*]
□ Name	Date modified	Туре		Size
11_8A2524230400_898844240000_89884424	7/25/2023 12:05 PM	CUW File		48,807 KB
CUW EXAMPLE FILE.CUW	7/25/2023 12:02 PM	CUW File		48,807 KB

16) Click on the update file after downloading. Select "Subaru" and click the "OK" button to continue.

Which brand	do you want t	o select?
TOYOTA		
SUBARU		
	OK	

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

Ca	libration Upda	ate Wizard	
	Version 2023.01.004.	941	
Som	Welcome to Calibration Update This application is designed for professional automotive technicians who s vehicles produced after January 2020 require a PC connected to the Int	Wizard service Toyota, Lexus, and Scion vehicles. ternet to complete the reprogramming process.	
NOTE:	If you are using a serial mouse, either plug the diagnostic test reboot your machine.	er into a different COM port or disconnect the serial mo	use and
The languages -	Cancel		Next

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

Connect to	Vehicle		
Connect the dev	ice as described by the component manufacturer.		
Please confirm			
	1. J2534 device is connected to PC via a wired communication.		
	2. J2534 device is connected to the DLC3(J1962).		
	3. Key ON, Engine OFF		
	4. Select J2534 device tool DENSO CORPORATION DST-I		
	5. PC is connected to the internet. (In the case a vehicle needs Signature Request when the Reprogramming starts)		
Caution			
	Any unsupported device may negatively affect reprogramming performance and potentially damage the ECU		
	Please use designated devices of Toyota Motor Company.		
	Cancel	Next	•

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

Establishing communication with the vehicle Downloading current calibration Information from vehicle.	
Please Wait	
Cancel Cognight (c) 2027 TOYOTA MOTOR CORPORATION, All Rights Reserved.	

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

Issue Date	6/12/2023		
Year	22-23		
Model Name	SOLTERRA		
Engine Type	1YM-1YM		
Vehicle Type	YEAM15		
System	Current Cal ID	New Cal ID	
Hybrid Control	8A2524230300	8A2524230400	
HV Battery	8989F4210200	8989F4210300	
Plug-in Control/Battery Charger Control Module "A"	892634218000	892634233100	
Combination Meter	8380042V4112	8380042V4113	
Combination Meter	8380042V420C	8380042V420D	
Hybrid Control	899854216101		
Motor Generator	8A2814202300		

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,

Vehicle Preparation	
1. Turn Ignition OFF	
NOTE: Some volicies require systems to be disabled before Flash Reprogramming. Please refer to the Specific Service Bulletin for special vehicle preparation instructions required for this update.	
DTCs may be set during the reprogramming process. Please check for DTCs before reprogramming and note any that are stored. Click the Cancel button to exit CUW and check for DTCs.	
Click "Next" to continue.	× 1
Cancel	Next
Converse ICL 2022 TOYOTA MOTOR CORPORATION All Rights Reserved	

22) The update wizard will be displayed.

Vehicle Preparation 1. Turn Ignition OFF NOTE Some whicles require systems to be disabled before Flash Please refer for the Specific Service Buildein for special vehi DTGs may be ast during the reprogramming and role an Oick the Cancel builton to exit CUV and check for DTCs. Elick "Next" to continue.	Calibration Update Wizard -Screen # 5761-63 Please wait 10 seconds Representation instructions required for this update. (that are stored.	
Cancel		

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.

Prepare for reprogramming			
Conferm the following conditions. 1. Turn bysite of IG ON Ready CPF for HV) 2. Engine Hood Open 3. All electrical accomposes are OFF 4. Battery voltage above 12.0V	More than 12.5v		
DLC3 BAT VOLTAGE	(13.4V)		
CAUTION! When reprogramming: 1. Do not disconnect the DLC3 cable from vehicle. 2. Do not turn OFF the IG switch. 3. Do not apply any electrical load to the vehicle. 4. Do not allow battery vehicles to drop below 12.0V.	0		
Click "Start" to begin reprogramming.			
Cancel			•

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.



26) In a new Window, the Signature Request Page will appear once you click the "Next" button.



27) Click the "OK" button to continue.

001 注意喚起 ・アク	画面 ^セス状況はSUBARUによって常にモニターされています
	・必ず本人のアカウントでロクインしてくたさい
 Access 	 Status is always monitored by SUBARU CORPORATION. * Please make sure using own account.
•Le statut	d'accès est toujours surveillé par SUBARU CORPORATION Assurez-vous d'utiliser votre propre compte.
•Der Zugri •Bitte ste	ffsstatus wird immer von SUBARU CORPORATION Oberwacht. Hen Sie sicher, dass Sie einen eigenen Account haben.
·Lo stato	di accesso è sempre monitorato da SUBARU CORPORATION. Assicurati di utilizzare il proprio account.
•El estado o	de acceso siempre es monitoreado por SUBARU CORPORATION. • Asegúrate de usar tu propia cuenta.
	・访问状态由斯巴鲁公司常时监管 ・请通过本人帐号登录
	ок
Copyria	sht(C) SUBARU CORPORATION 2022 All Rights Reserved

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.

epro Key	Signature Request	
IN lick "Request∶ Signature" box	[JTMABABA4PA000999 Signature" button, copy the characters in c below and paste it in GTS signature box.	Request Signature
equest Number esult		
ignature		

NOTE: If an error warning "Could Not Acquire Signature" is displayed, please click the "Request Signature" button again.

Continued...

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.**

Paste a Signature			
Paste the retrieved Signature from the	a browser.		
Signature:	Paste Here		
Click "Next" to continue.			
Cancel		N	ext 🕨
Paste a Signature			
Paste the redneved signature eron in Signature: MB37460726007 C2-CEC275074 P0050227FFAEL ACA1947976000 BC15076262556C1 E827A60A07EC	e brower. 77EEF4445626000871218910541ESC0A5F9FA00980448A55C359647216AD4 17EEF4445826E04002077340097D6FA4520478744E20024F7C5C8D0272 6478316110F484A48E01A450132018862A3784128D026F1A551038E 053A4064245902404565854154767620A269642643038F7D021038E 05482598E154568E7483276252340425655549164226042574258275EE8426 F440629415590440209564580053450222602087545689780515268E8706 054825988420327F7E70142044953160208552120E093042988		
Cilick "Next" 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.



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.

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.



Cycle the power switch as per the GTS+ and click the "Retry" button to continue.

Error at s	tarting Flash Calibration Update(000) Cannot change to reprogramming mode. Please confirm the ignition was turned OFF for 10 seconds and then turned back to the ON position.	
	What would you like to do ?	
	Cancel	Retry

35) The "Flash Calibration Update Successful" window will display. Turn the power switch to the OFF position. Click the "Next" button to continue.

Flash Calibration Update Succe	sful	
CAL	1 has been loaded successfully.	
1. Turn Ignition OFF	N SARA	
Click "Next" to continue.		
	Ned	Þ

NOTE: A Progress bar will be displayed. DO NOT operate the power switch while the bar is shown.

Calibration Upd	ate Wizard -Screen #	S701-43
Please wait 10 seco	onds	

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.



37) Confirm the "AFTER UPDATE" calibration ID(s) matches the desired NEW calibration ID number(s). Click the "Finish" button.

Reprogramming successful	ul !		
Please turn IG off.			
Please confirm that calibration ID has be	en updated as outlined in the	specific Service Bulletin.	
System	Before Update	After Update	
Plug-in Control/Battery Charger Control Module "A"	G911G4203001	G911G4203001	
Plug-in Control/Battery Charger Control Module "A"	892DF4201200	892DF4201200	
Air Conditioner	8865F4213100	8865F4213100	
Air Conditioner	886BF4201001	886BF4201001	
Combination Meter	8380042V430A	8380042V430A	
Print			Finish

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

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.