

Flux Connect – GSE Pack Firmware Upgrade Guide

990937 version 1.0

This guide is intended to help users upgrade firmware on GSE packs using **Flux Connect – GSE Pack**. The process takes 5-10 minutes to complete.

- 1. Verify you received everything needed to complete the upgrade.
 - Laptop/tablet with Flux Connect GSE Pack installed
 - i. To install the software, visit https://www.fluxpower.com/client-support
 - ii. Enter password **melrose** when prompted.
 - Tablet/Laptop Charger (if necessary)
 - PCAN-USB Dongle with Deutsch connector
- 2. Connect PCAN-USB dongle to laptop/tablet and the deutsch connector to the data port .



3. Open the Flux Connect – GSE Pack program on your laptop/tablet. Select Firmware on the top.

Flux Connee	ct - GSE Pac	tk v1.6.5.0								>
1ain	BMS	Charger C		Analysis			POWE	R	_	
				Current: Voltage: Temperate	0.00 V	0%	Total Cycles: Total Energy Use Average Capacity Use	ed: 0	tion	Firmware
		Read	Cycle Data			Reset Cycle Data		Save Histo	grams	
		Cycle #	Start SC	oc	End SOC	Depth of Discharge	kWh / Ah Used	kWh / Ah Re	charged	

- 4. To upgrade the firmware, click on the **Select Firmware** tab. A dropdown menu will appear where you will select the firmware you wish to update the pack with. Once you select the right firmware, click on **Update**.
 - **Important:** Note the firmware and serial number listed under pack information for use in a later step.
- 5. The program will now run through multiple steps to upgrade the firmware.

E Flux Con	nect - GSE P	ack v1.6.5.0						
Main	BMS	Charger	Controller	Analysis	Connection	Firmwa	are	
			Current Fi	rmware: N/	A			
			Step			Attempts	Status	Firmware
01. Initializi	ng							Select a Firmware ~
02. Openin	g CAN Node							
03. Selectin	ng Flash Mem	ory						Retry
04. Erasing	Flash Memory	у						20 ≑
05. Blank-C	Checking Flash	h Memory						
06. Program	nming Flash M	lemory						Verify Flash
07. Verifyin	g Flash Memo	iry						Verify EEPROM
08. Selectir	ng EEPROM							
09. Erasing	EEPROM							
10. Blank-C	hecking EEP	ROM						P
11. Program	nming EEPRO	M						Undata
12. Verifyin	g EEPROM							Update
13. Entering	g to Applicatio	n Mode						••••••
14. Loading	the BCM Set	ttings						Cancel

• **Tip:** While you wait, record the date and time listed on your laptop/tablet.

E Flux Connect - GSE Pack v1.6.5.0

Main	BMS	Charger	Controller	Analysis	Connection	Firmwa	are	
			Current Firr	nware: 1.19	.97			
			Step			Attempts	Status	Firmware
01. Initializir	ng					1	Passed	1018097 ~
02. Opening	g CAN Node					2	Passed	
03. Selectin	ng Flash Mem	ory				1	Passed	Retry
04. Erasing	Flash Memor	у				1	Passed	20 🗘
05. Blank-C	Checking Flas	h Memory				1	Passed	
06. Program	mming Flash M	Memory				1	Passed	Verify Flash
07. Verifying	g Flash Memo	ory						Verify EEPROM
08. Selectin	ng EEPROM					1	Passed	
09. Erasing	EEPROM					1	Running.	
10. Blank-C	Checking EEP	ROM						
11. Program	mming EEPRO	M						•
12. Verifying	g EEPROM							Update
13. Entering	g to Applicatio	on Mode						
14. Loading	g the BCM Se	ttings						Cancel

6. A popup will appear prompting you to provide a firmware setting file. Click **OK**.

Main	BMS	Charger	Controller	Analysis	Connection	Firmwa	are			
			Current Firm	nware: 1.19	.97					
			Step			Attempts	Status	Firmware		
01. Initializir	ng					1	Passed	1018097		
02. Opening	g CAN Node					2	Passed			
3. Selectin	ng Flash Mem	ory				1	Passed	Retry		
)4. Erasing	Flash Memory	/				1	Passed	20 📫		
05. Blank-C	hecking Flash	Memory				1	Passed			
06. Program	nming Flash M	emory				1	Passed	Verify Flash		
7. Verifying	g Flash Memo	ry						Verify EEPROM		
08. Selectin	g EEPROM					1	Passed			
09. Erasing	EEPROM				Firmware U	pdate		×		
10. Blank-C	hecking EEP	ROM								
11. Program	nming EEPRO	M								
12. Verifying	g EEPROM				- I P	lease click Of	K to provide a	Firmware Settings file.		
13. Entering	g to Applicatio	n Mode								
	the BCM Set	tinge								

7. Another popup will appear. Select the JSON file which matches the pack's previous firmware and serial number noted in step 4. Once you select the correct file, click **Open**.

Example: You are updating a pack with previous firmware 1.21.49.1/serial #111701385. The JSON file to select would be named "LiftPackFirmwareSetting_1.21.49.1_11170385.json". This will also be the most recent file in the folder (use the time and date noted from step 5).

Open			×	
> · 🛧 📑 > Thi	s PC → OS (C:) → log_data v Č S	earch log_data	Q	
Organize 🔻 New folde	r	₿== ▼		Firmware
ConeDrive	Name	Date modified	Type ed	1018097
This PC	LiftPackFirmwareSettings_1018097_18311	1/8/2019 2:29 PM	JSON File ed	Detai
-	LiftPackFirmwareSettings_1.18.85_18207i	1/8/2019 10:17 AM	JSON File ed	Retry
3D Objects	LiftPackFirmwareSettings_1.18.85_18268	1/8/2019 10:05 AM	JSON File	20 📫
E Desktop	LiftPackFirmwareSettings_1.18.85_18301.j	1/8/2019 9:56 AM	JSON File	Verify Flash
Matches prev	ious firmware		ed	Verify EEPROM
			eu	
👌 Music			ed	
Music Pictures			ed	
•	Matche	es serial numb	ed	Undate
E Pictures	Matche	es serial numb	er ed	Update
 Pictures Videos 	Matche	es serial numb	er ed ed	Canaal
Pictures Videos OS (C:)		es serial numb	er ed	Canaal
Pictures Videos SC(:) C(:) ENG (\\espacio\	<	es serial numb ISON File (*.json)	er ed ed ng	Canaal

8. A popup will appear prompting you to confirm the information is correct. Verify the firmware and serial number match that of the pack and click **OK**.



- 9. Once the update is complete, a window will prompt you to restart the program. Click OK.
- 10. When the program reopens, click **Run** and verify the firmware matches the one you selected to upgrade the pack with.
- 11. In the GSE GUI go to Controller -> Co-located Current Sensor and ensure the sensor polarity is set to Normal

- 12. Once verified, open the Flux System Monitor 2.0 GUI.
- 13. Apply the current Factory Settings to your pack, hit the factory settings button.

ain BMS	Controller	Analysis	Connection	Tests	Temperature	Admin	Quantum	QA Checklist	Connected to:	BCM 1C2
	Setting		Default Value/Thr	eshold			Value		Result	

14.	Then, hit validate.	Once the values	s load in ensure	everything pass	es and there are no fails
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in BMS Controller And	alysis Connection Tests	Temperature Admin Quantum QA Checklist		Connected to: B
Setting	Default Value/Threshold	Value	Result ^	M24-576 ~
Package Version	1.0.0.9	M24-576	Pass	Change Bcm Id
CANID	N/A	1C2	Pass	● 1C2 ○ 102
Serial #	N/A	19123	Pass	○ 112 ○ 122
Firmware	2.0.3.8	2.0.3.8	Pass	0 112 0 122
Board Temperature (F)	140	63	Pass	Factory Settings
Pack Capacity (Ah)	576	576	Pass	rockery betange
Pack Type	M24	M24	Pass	Validate
Charger Type	DeltaQ	DeltaQ	Pass	Valuate
Parasitic Drain (mA)	122	122	Pass	
Max Cell Voltage	3.65	3.65	Pass	
Balance Voltage	3.55	3.55	Pass	Print
100% SOC Cell Voltage	3.47	3.47	Pass	
Warning Cell Voltage	2.95	2.95	Pass	Save As
0% SOC Cell Voltage	2.80	2.80	Pass	Validation Enabled
Latch 0 SOC on Low Voltage	0	0	Pass	Validation Enabled
Sensor Polarity	Normal	Normal	Pass	
Transducer Value	200	200	Pass	
Ignore Current Level (A)	2	2	Pass	
Sleep Mode	Enabled	Enabled	Pass	
Sleep Mode Voltage	3.20	3.20	Pass	



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