

## 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 Conn	nect - GSE Pa	ack v1.6.5.0								>
<b>Aain</b>	BMS	Charger C	ontroller	Analysis		Firmware	POWE	R	_	
			1	Current: Voltage: Femperate	: 0.0 A 0.00 V ure: 0 *F	0%	Total Cycles: Total Energy Use Average Capacity Use	0 ed: 0 sed: N/A	tion	Firmware
		Read	Cycle Data			Reset Cycle Data		Save Histo	ograms	
		Cycle #	Start St	ос	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.

lain	BMS	Charger	Controller	Analysis	Connection	Firmwa	are	
			Current F	irmware: N/	A			
			Step			Attempts	Status	Firmware
01. Initializi	ng							Select a Firmware ~
02. Openin	g CAN Node							Heter
03. Selectin	ng Flash Mem	ory						Relly
04. Erasing	Flash Memor	у						20 🗧
05. Blank-C	Checking Flas	h Memory						
06. Program	mming Flash M	lemory						U venty Flash
07. Verifyin	g Flash Memo	iry						Verify EEPROM
08. Selectin	ng EEPROM							
09. Erasing	EEPROM							
10. Blank-C	Checking EEP	ROM						
11. Program	mming EEPRC	M						(Instate)
12. Verifyin	g EEPROM							opdate
13. Enterin	g to Applicatio	n Mode						<b>F</b>
14. Loading	a the BCM Se	ttinas						Cancel

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

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Main	BMS	Charger	Controller	Analysis	Connection	Firmwa	are	
			Current Firm	nware: 1.19	).97			
			Step			Attempts	Status	Firmware
01. Initializin	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	hecking Flas	h Memory				1	Passed	
06. Program	nming Flash M	lemory				1	Passed	Verify Flash
07. Verifying	g Flash Memo	iry						Verify EEPROM
08. Selectin	g EEPROM					1	Passed	
09. Erasing	EEPROM					1	Running.	
10. Blank-C	hecking EEP	ROM						
11. Program	nming EEPRC	M						•
12. Verifying	EEPROM							Update
13. Entering	to Applicatio	n Mode						
14. Loading	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).

			×	
> · 🛧 📘 > Thi	s PC → OS (C:) → log_data v Ö S	earch log_data	م	
Organize 🔻 New folde	r			Firmware
ConeDrive	Name	Date modified	Type ed	1018097
This DC	LiftPackFirmwareSettings_1918097_18311	1/8/2019 2:29 PM	JSON File ed	Detry
	LiftPackFirmwareSettings_1.18.85_18207i	1/8/2019 10:17 AM	JSON File ed	Reuy
J 3D Objects	LiftPackFirmwareSettings_1.18.85_18268	1/8/2019 10:05 AM	JSON File	20 -
Desktop	LiftPackFirmwareSettings_1.18.85_18301.j	1/8/2019 9:56 AM	JSON File	Verify Flash
Matches prev	ious firmware			Verify EEPROM
			eu	
👌 Music			ed	
Music Pictures			ed ed	
<ul> <li>Music</li> <li>■ Pictures</li> <li>■ Videos</li> </ul>	Matche	es serial numb	ed ed ed	Undate
Music Pictures Videos S (C:)	Matche	es serial numb	ed ed	Update
Music  Pictures Videos  SOS (C:)  Characteristics  DS (\\espacio\	Matche	es serial numb	ed ed ed ed	Update
Music  Pictures Videos  SOS (C:)  Klocketov	< Matche	es serial numb	er ed ed ed ed ed	Update Cancel
Music  Pictures  Videos  C(C)  ENG (\\espacio\ File na	<	es serial numb	er ed	Update Cancel

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.

🛃 Flux Co	nnect - Syste	m Monitor v2.0.0.18								×
Main	BMS	Controller	Analysis	Connection	Tests	Temperature	Admin	Quantum	QA Checklist	Connected to: BCM 1C2
		Setting		Default Value/Thr	eshold			Value		Result
										L48-400-EWS-D M24-400 M24-576
										○ 112 ○ 122
										Factory Settings
										Validate
										Print
										Save As
										Validation Enabled

14.	Then,	hit validate.	Once the	values	load in	ensure	everything	passes	and the	re are i	no i	fail	S
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in	BMS	Controller	Analysis	Connection	Tests	Temperature	Admin	Quantum	QA Checklist		Connected to:
		Setting		Default Value/Thr	reshold			Value		Result ^	M24-576 ~
Pack	age Version			1.0.0.9		M24-576				Pass	Change Bcm Id
CAN	ID			N/A		1C2				Pass	● 1C2 ○ 102
Seria	1#			N/A		19123				Pass	O 112 O 122
Firmw	vare			2.0.3.8		2.0.3.8				Pass	
Board	d Temperatu	re (F)		140		63				Pass	Factory Settings
Pack	Capacity (Al	h)		576		576				Pass	, bettings
Pack	Туре			M24		M24				Pass	Validate
Charg	ger Type			DeltaQ		DeltaQ				Pass	FORGULG
Paras	sitic Drain (m	A)		122		122				Pass	
Max (	Cell Voltage			3.65		3.65				Pass	
Balar	nce Voltage			3.55		3.55				Pass	Print
100%	SOC Cell Vo	oltage		3.47		3.47				Pass	
Warn	ing Cell Volta	age		2.95		2.95				Pass	Save As
0% S	OC Cell Volta	age		2.80		2.80				Pass	A Veldetine Contract
Latch	0 SOC on Lo	ow Voltage		0		0				Pass	Validation Enabled
Sens	or Polarity			Normal		Normal				Pass	
Trans	sducer Value	0		200		200				Pass	
Ignore	e Current Lev	vel (A)		2		2				Pass	
Sleep	Mode			Enabled		Enabled				Pass	
Sleep	Mode Volta	ige		3.20		3.20				Pass	



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