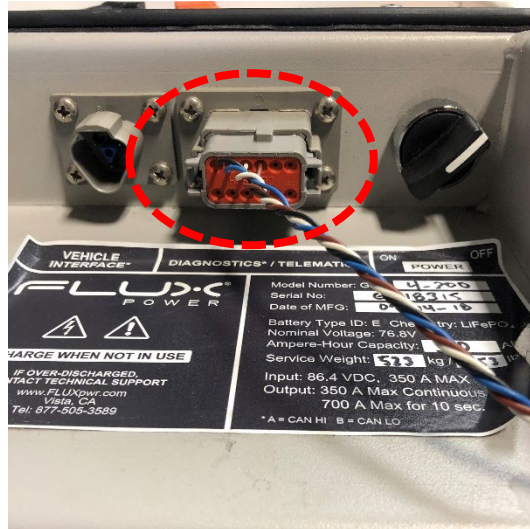# FLUX POWER

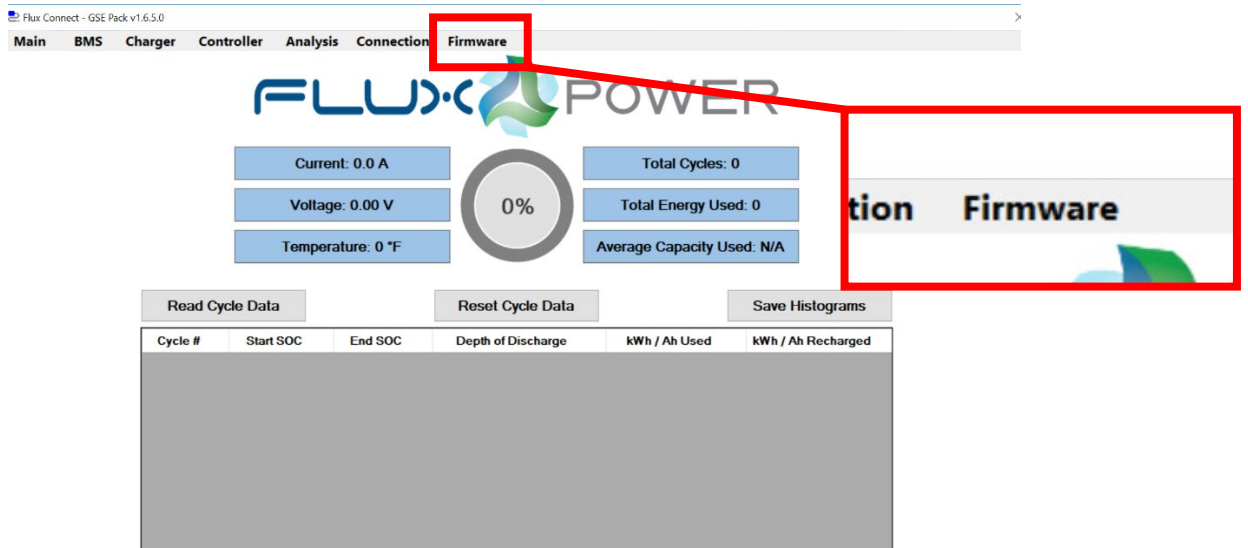## Flux Connect – GSE Pack Firmware Upgrade Guide

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.
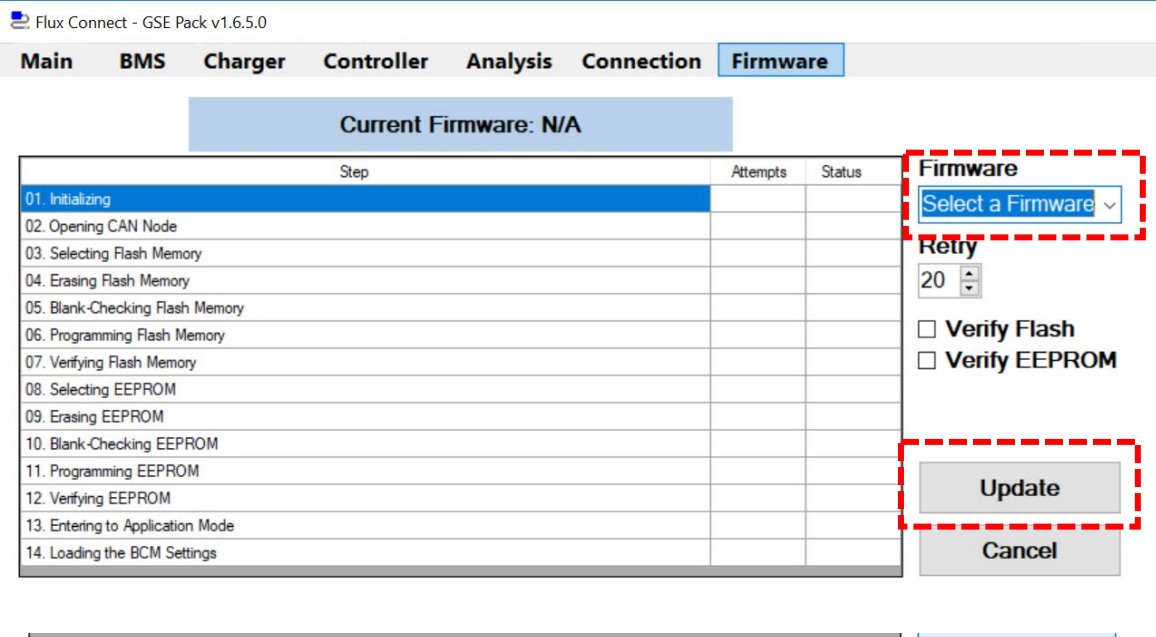
1. Verify you received everything needed to complete the upgrade.
   - Laptop/tablet with **Flux Connect – GSE Pack** installed
       i. To install the software, visit https://www.fluxpower.com/client-support
       ii. Enter password **melrose** when prompted.
   - Tablet/Laptop Charger (if necessary)
   - 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.

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**.
   o **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.

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

Flux Connect - GSE Pack v1.6.5.0

Main   BMS   Charger   Controller   Analysis   Connection   Firmware

Current Firmware: 1.19.97

Step	Attempts	Status
01. Initializing	1	Passed
02. Opening CAN Node	2	Passed
03. Selecting Flash Memory	1	Passed
04. Erasing Flash Memory	1	Passed
05. Blank-Checking Flash Memory	1	Passed
06. Programming Flash Memory	1	Passed
07. Verifying Flash Memory		
08. Selecting EEPROM	1	Passed
09. Erasing EEPROM	1	Running.
10. Blank-Checking EEPROM		
11. Programming EEPROM		
12. Verifying EEPROM		
13. Entering to Application Mode		
14. Loading the BCM Settings		

Firmware
1018097

Retry
20

☐ Verify Flash
☐ Verify EEPROM

Update

Cancel

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

Flux Connect - GSE Pack v1.6.5.0

Main   BMS   Charger   Controller   Analysis   Connection   Firmware

Current Firmware: 1.19.97

Step	Attempts	Status
01. Initializing	1	Passed
02. Opening CAN Node	2	Passed
03. Selecting Flash Memory	1	Passed
04. Erasing Flash Memory	1	Passed
05. Blank-Checking Flash Memory	1	Passed
06. Programming Flash Memory	1	Passed
07. Verifying Flash Memory		
08. Selecting EEPROM	1	Passed
09. Erasing EEPROM		
10. Blank-Checking EEPROM		
11. Programming EEPROM		
12. Verifying EEPROM		
13. Entering to Application Mode		
14. Loading the BCM Settings		

Firmware
1018097

Retry
20

☐ Verify Flash
☐ Verify EEPROM
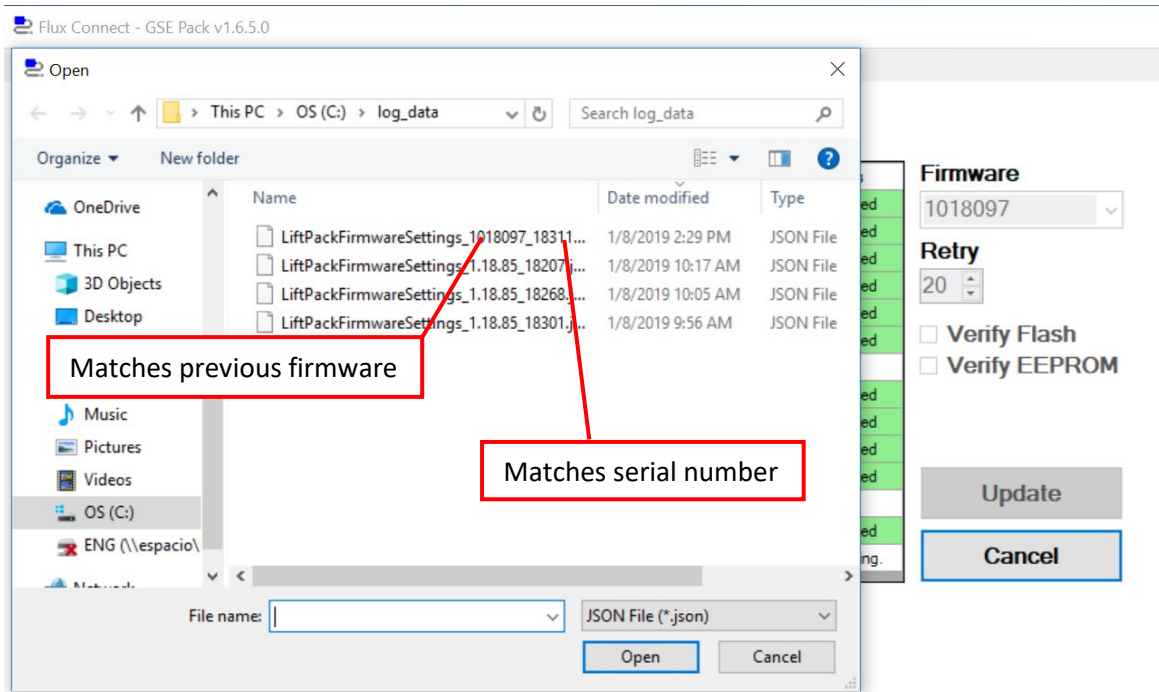
Firmware Update   ✕

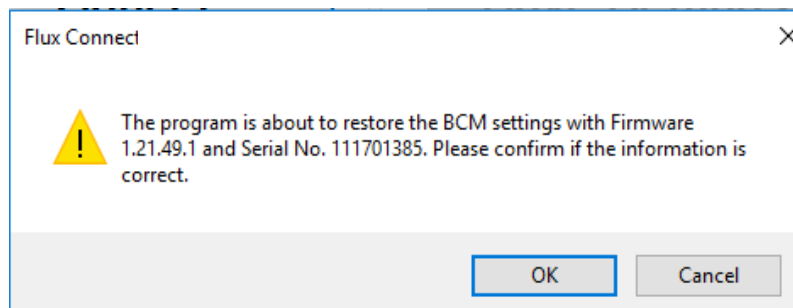ⓘ   Please click OK to provide a Firmware Settings file.

OK

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**.

- o **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).
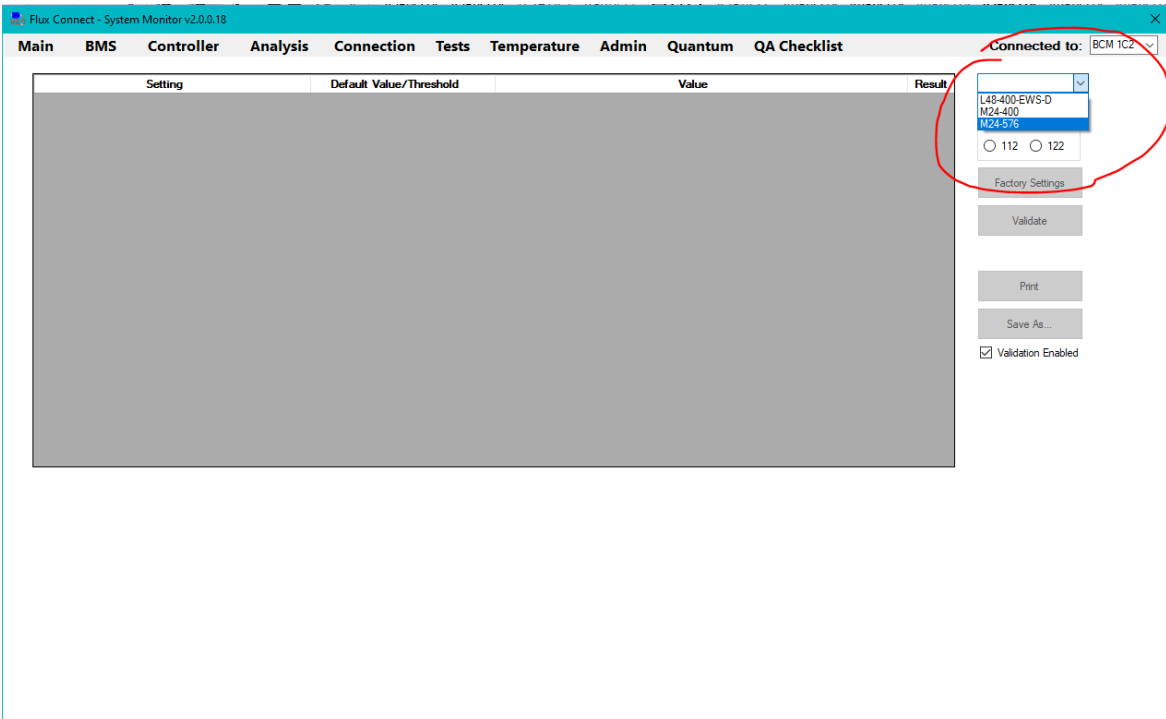

8. A popup will appear prompting you to confirm the information is correct. Verify the firmware and serial number match that of the pack and click **OK**.
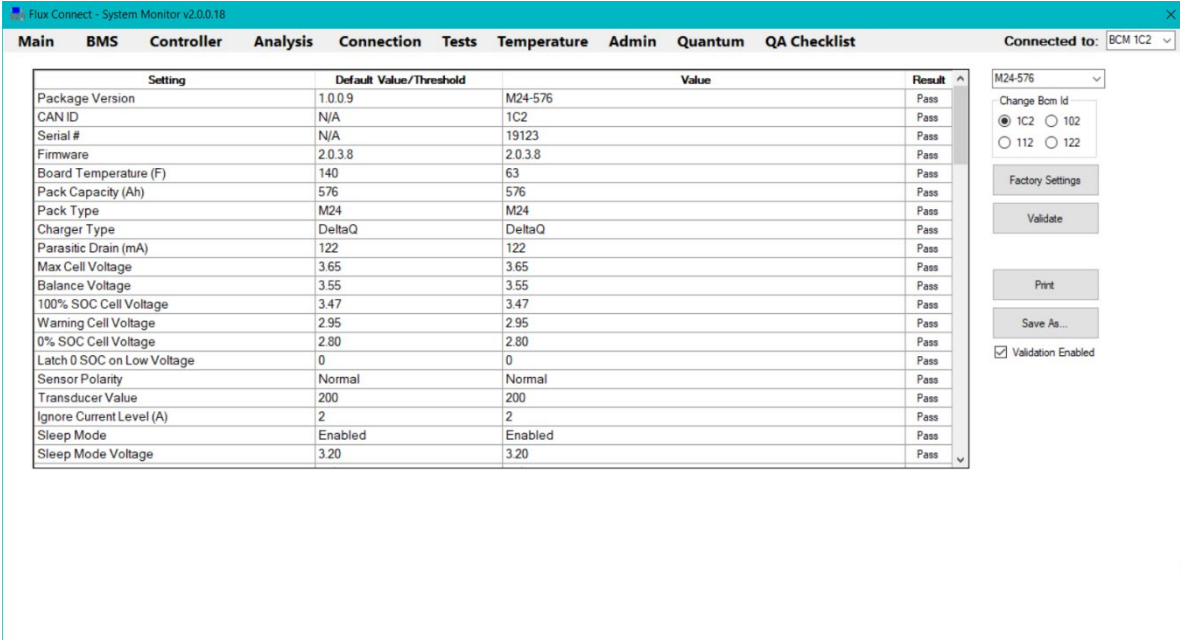

9. Once the update is complete, a window will prompt you to restart the program. Click **OK**.

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.

14. Then, hit validate. Once the values load in ensure everything passes and there are no fails

Setting	Default Value/Threshold	Value	Result
Package Version	1.0.0.9	M24-576	Pass
CAN ID	N/A	1C2	Pass
Serial #	N/A	19123	Pass
Firmware	2.0.3.8	2.0.3.8	Pass
Board Temperature (F)	140	63	Pass
Pack Capacity (Ah)	576	576	Pass
Pack Type	M24	M24	Pass
Charger Type	DeltaQ	DeltaQ	Pass
Parasitic Drain (mA)	122	122	Pass
Max Cell Voltage	3.65	3.65	Pass
Balance Voltage	3.55	3.55	Pass
100% SOC Cell Voltage	3.47	3.47	Pass
Warning Cell Voltage	2.95	2.95	Pass
0% SOC Cell Voltage	2.80	2.80	Pass
Latch 0 SOC on Low Voltage	0	0	Pass
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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Flux Connect – GSE Pack Firmware Upgrade Guide
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Flux Power specifications are subject to change.
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