

LIFEPOWER4 48V AUTOMATIC UPDATER GUIDE

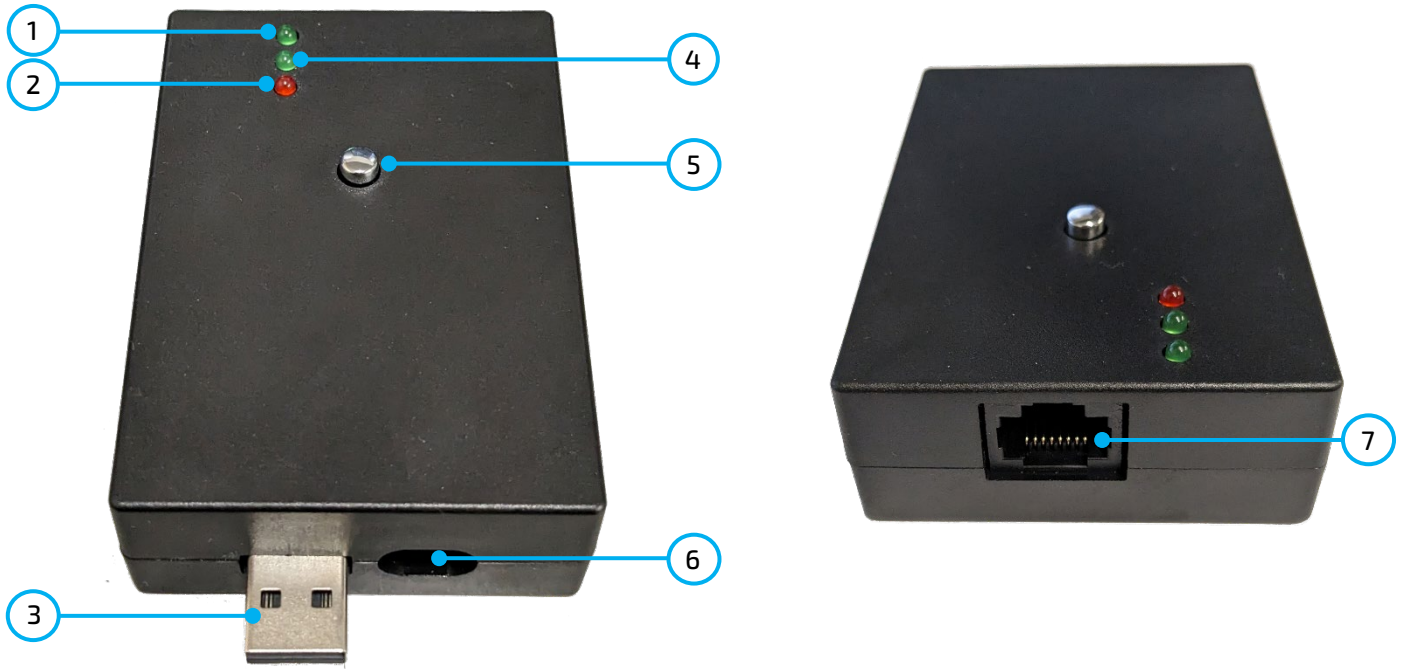


PLEASE NOTE! *Actual product may vary, however the functionality of the product will remain the same.*

Utilizing this device allows the end-user to easily perform firmware updates on their EG4 LifePower4 48V batteries. By utilizing this device and following the steps listed below, the end-user will be able to perform battery firmware updates with ease.

Please read the guide thoroughly before attempting to perform the update and only perform the update on ONE battery at a time.

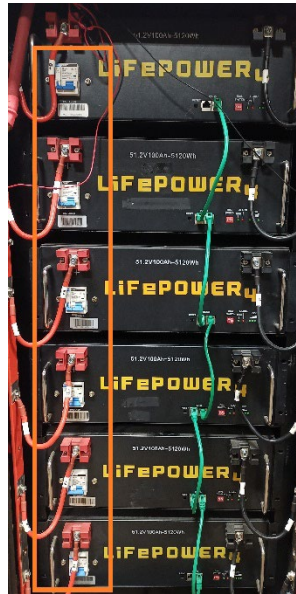
Device Overview



Callout	Definition
1	(G1) Green LED 1
2	Red LED
3	USB-A male
4	(G2) Green LED 2
5	Chrome button
6	USB-C female
7	RJ45 port

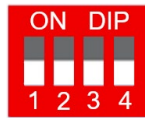
UPDATE STEPS:

1. Begin by powering off the batteries receiving the update via the circuit breaker on the front of the unit.



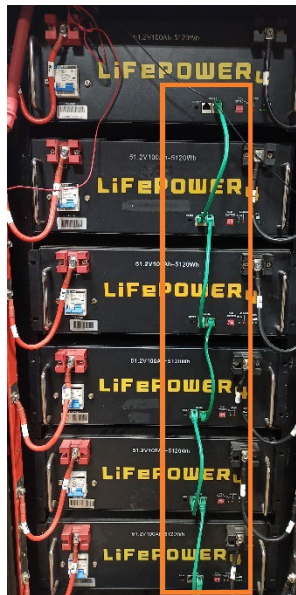
Battery circuit breakers OFF

2. Adjust the battery DIP switches to address 0 (all DIPs down, see image below).



DIP switch address 0

3. Remove all inter-battery communication cables from the batteries in parallel and set one to the side for the update.

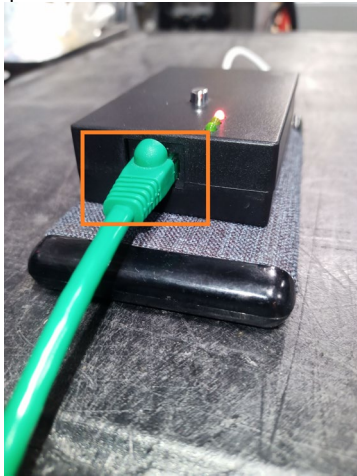


Battery parallel communication cables

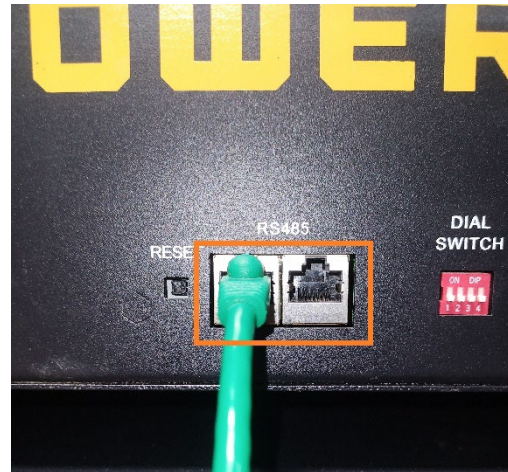


NOTE: Ensure all communication cables, *aside from the update cable*, are disconnected from the battery receiving the update!

- When the battery requiring the update's parallel cables are disconnected and independent from the rest of the batteries, plug in the 1 ft. battery to battery communication cable included with the battery (standard CAT5) to the device's RJ45 port and connect the other end into either RS485 port on the front of the battery.



1-foot CAT5 cable plugged into device's RJ45 port



1-foot CAT5 cable plugged into battery RJ45 port

- Identify the device's USB-C female port and plug the included power supply cable's USB-C male connector into the device's USB-C port and plug the USB-A male connector of the power cable into a steady source of power such as a mobile device charging base, mobile power bank, laptop, or a PC. Once the device is powered on, all three LEDs should be in an ON state.



NOTE: Some mobile power banks may not provide an adequate power source for the dongle. If attempting the update with a power bank, ensure the dongle stays powered with the power bank for at least 5 minutes with no connections to the battery before attempting the update!



Dongle being powered by a mobile power bank

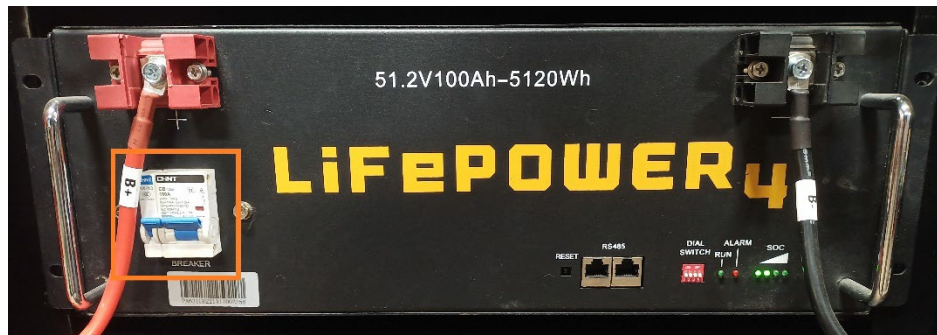


3 solid LEDs on dongle



NOTE: The dongle's USB-A male connector can also be utilized as a power source for the dongle. Ensure the dongle is physically stabilized before attempting the update when using this power source.

- Once all connections are secure and power is provided to the updating device, power on the battery receiving the update by turning the circuit breaker ON.

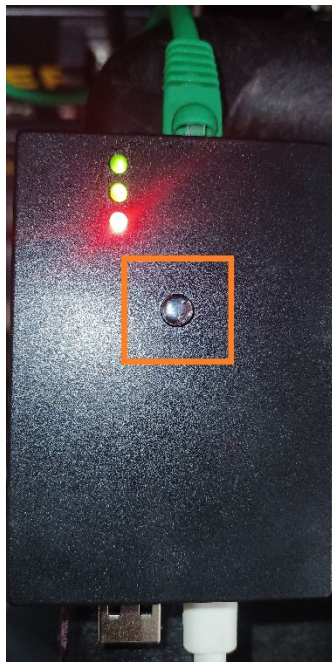


Battery circuit breaker ON



NOTE: If the device's red LED illuminates during the process, please refer to the table at the end of the document for troubleshooting steps.

- Press and hold the chrome button for ≈ 3 seconds on the device and release to begin the update. Once the update has begun, the device's G2 LED will blink and the battery will have all LEDs in an ON state. The update takes ≈ 60 seconds. Once the update is complete, the G1 & G2 LEDs on the updating device will be in an ON state and the battery LEDs will return to their previous state with the "RUN" light flashing.



Update Initiator Button

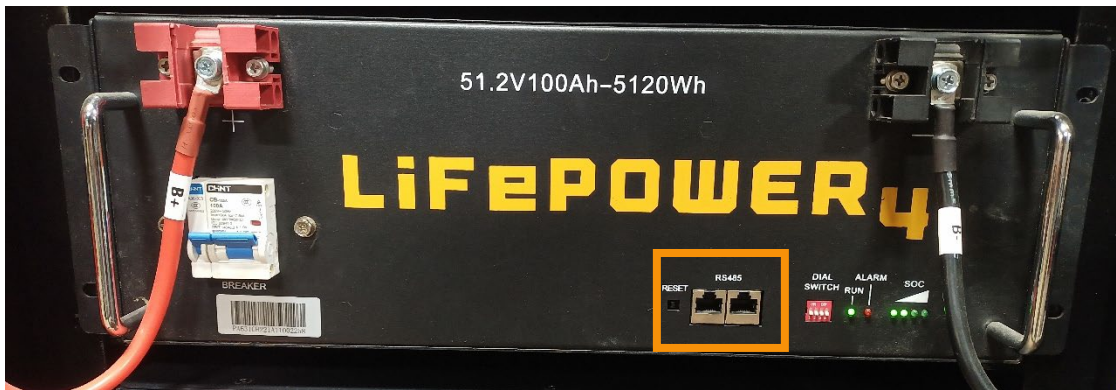


LifePower4 LED Status after successful update



Battery Update in Progress

- Disconnect the 1 ft. communication cable from the battery's RS485 port and set the battery DIP switches back to their original address.



Empty RJ45 ports

- Power off the battery via the circuit breaker on the front of the unit.



Battery circuit
breaker OFF

- Repeat the steps above for each battery requiring an update.



NOTE: If the device's red LED illuminates during the process, please refer to the following table for troubleshooting steps.

LED SEQUENCE OVERVIEW

Status	Light Sequence	Possible Issues	Potential Fixes
Firmware Update Complete	G1 & G2 LED in ON state	-	-
Update in progress	G2 LED flashing	-	-
Failed to read the battery address	Red LED in ON state	1. Battery DIP address incorrect 2. Faulty network cable 3. Faulty RJ45 port	Ensure the battery's address is set to 0 and reset the battery BMS before attempting the update again
Update Failure	Red LED in ON state	1. Incorrect firmware version 2. Faulty RJ45 port 3. Faulty update device	Contact the distributor for the latest firmware files
Battery software up to date	Red flash followed by green flash alternating	Battery firmware is up to date	-

SOFT-BRICKED BATTERY

In the event that a soft-brick occurs, the battery will have all LEDs illuminated upon resetting the battery breaker after performing the update. This means the BMS is in a protected state due to the update failure and will need to be recovered. Ensure the updating device has a steady source of power before attempting the update again, and follow the steps listed below for recovery.

RECOVERY STEPS:

1. Reset the LifePower4 battery by turning off the circuit breaker and then back on.
2. Reset the updating device by removing the power source from the device. Wait ≈ 5 seconds, and then plug the device back into the power supply. Confirm all 3 LEDs on the dongle are in an ON state before proceeding.
3. Upon confirmation, repeat the listed steps 6 through 8 in the "UPDATE STEPS" section to recover the battery.



IMPORTANT: Un-bricking the battery using the dongle may take upwards of 2-3 minutes to complete the update. Best practice is to give the device ≈ 4 minutes to ensure the update has pushed through successfully. To verify, the lights on the battery and the automatic updating device will return to a default state upon completion. If encountering difficulties recovering the battery, please contact the battery distributor.