BigBattery

Your Source For Power

24V & 48V EAGLE 2
USER MANUAL

APPLIES TO:

24V EAGLE 2
(FEAGL-24016-G2-0CH)

48V EAGLE 2
(FEAGL-48016-G2-0CH)

Version 1.1

VERSION HISTORY

Edition	Date	Chapters	Reason for Change
01	12/26/2023	All	Manual development

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Table of Content

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1. Definition of Terms

- AWG – American Wire Gauge
- A — Amp(s)
- Ah — Amp hour(s)
- AC — Alternating Current
- Battery Module — Single battery
- Battery System — Two or more battery modules connected to a controller box
- BMS — Battery Management System
- Capacity — Measure of stored energy, typically in Ah or mAh
- Controller Box — Master BMS Unit
- Cell Balancing — Process of ensuring uniform charge among cells in a battery
- Cycle Life — Total charge-discharge cycles before capacity decline
- C-rating — Charging/discharging rate relative to battery capacity
- DC — Direct Current
- DOD – Depth of Discharge
- ESS – Energy Storage System
- kW — Kilowatt
- kWh — Kilowatt-hour
- LFP — Lithium Iron Phosphate or LiFePO4
- mm — Millimeter(s)
- mV — Millivolt(s)
- Overcharge — Charging beyond recommended voltage limits
- PPE — Personal Protective Equipment
- PV — Photovoltaic
- Self-Discharge — Natural battery discharge over time
- State of Charge (SOC) — Battery's remaining charge as a percentage
- State of Health (SOH) — Overall battery condition and performance
- Thermal Runaway — Dangerous overheating with potential battery damage
- V — Volt(s)

2. Safety Instructions

Before you start working, make sure to read and follow all safety instructions for handling the battery. When installing it, be sure to meet all the rules and regulations in your area. Ask your local authority for the right permits and approvals before you install it.

Lithium Iron Phosphate (LiFePO4) batteries are an inherently safe chemistry. However, safety measures should always be taken as consideration before, during, and after installation and during ongoing use and maintenance. The following safety notices are crucial for both the installer and end users when operating this product normally.

Improper installation could result in harm to the installer, the operator, or others, as well as damage to the battery or connected equipment.

WARNING:

- Do not make any connections or disconnections to the system when the batteries are in operation. Working with active batteries can lead to system component damage or pose a risk of electrical shock.
- Do not charge with a charge voltage above the specified on section 5.1.
- Do not charge nor discharge battery when ambient temperature is above **55** °C (**131** °F).
- Do not install battery where it may contact conductive materials, water, seawater, strong oxidizers, nor strong acids.
- Do not install battery in a location exposed to direct sun, hot surfaces, nor hot locations. Do not install batteries in a tight clearance compartment, overheating may result.
- Keep any flammable/combustible material (e.g. paper, cloth, plastic, etc.) that may be ignited by heat, sparks, flames, or any other heat source at a minimum distance of two feet away from the batteries.
- Disconnect batteries immediately if, during operation or charging, they emit an unusual smell, develop heat, or behave abnormally.
- Have a Class ABC or Class BC fire extinguisher on the premises.
- Never short-circuit DC inputs: may result in a risk of electric shock or fire.
- Do not disassemble the battery: Contact BigBattery for proper handling instructions. Incorrect servicing or re-assembly may result in a risk of electric shock or fire and voiding the warranty

PRECAUTION:

- ⚠ Qualified personnel must handle all product work to reduce the risk of electric shock.
- ⚠ Follow local and national electrical standards for installation and confirm utility provider and local authorities requirements before grid connection.
- ⚠ Maintain visibility of warning labels and nameplates.
- ⚠ Choose battery placement with future user safety in mind.
- ⚠ Keep children away from the battery and systems.
- ⚠ Use team lift technique due to battery weight.
- ⚠ Use batteries as directed; do not open or modify.
- ⚠ Avoid inserting foreign objects into battery terminals.
- ⚠ Handle batteries and/or battery-powered devices cautiously when using metal tools or when around the system. Risk of electrical arcs or short-circuits can cause serious harm, death, and equipment damage.
- ⚠ Do not charge or discharge the battery if ambient temperature is below **-20** °C (**-4** °F).
- ⚠ Beware of the battery current: Please ensure that the battery is “off” before installing or working on the battery. Use a voltmeter to confirm there is no voltage present.
- ⚠ Always wear protective gear when handling batteries (PPE).
- ⚠ Handle batteries carefully to prevent damage; avoid pulling, dragging, or mishandling.
- ⚠ Inspect batteries before use; don't use damaged or swollen ones; contact BigBattery immediately.
- ⚠ Don't paint any part of the batteries, inside or out.
- ⚠ Make sure all cable connections are properly tightened and secured, and to prevent any accident caused by improper installation.
- ⚠ Install and remove batteries using the handles provided.
- ⚠ Do not place any objects on top of batteries.
- ⚠ Before storing battery for more than 6 months, fully charge the battery and disconnect batteries from your system.

Disclaimer:

BigBattery, Inc has the authority to modify the content here without prior notice. To access the latest manual version, please visit our website at www.bigbattery.com.

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3. Introduction

Introducing BigBattery's EAGLE 2! These revolutionary lithium battery systems designed to push the boundaries of efficiency, flexibility, and reliability in energy management are the BEST Batteries Money can Buy. The EAGLE 2 represents a leap forward in energy storage technology, offering a compact and scalable solution for mobile, industrial and off-grid applications. With its cutting-edge features and intelligent design, this advanced lithium battery system promises to empower individuals and organizations to take control of their energy usage like never before. Equipped with one of our EAGLE 2 battery systems from BigBattery, you'll stay powered and prepared!

This User Manual is designed to provide you with an understanding of the specs, features, capabilities, and installation of these batteries. Read and take note of all safety information prior to installing or operating your battery. This document applies to the 24V (FEAGL-24016-G2-00H and FEAGL-24016-G2-0CH) and 48V (FEAGL-48016-G2-0CH) EAGLE battery systems.

3.1 Product Description

The 24V and 48V 1.63 kWh EAGLE 2 battery systems are ideal for low-voltage applications and for your golf carts, RV's, industrial equipment, off-grid power systems, emergency power supplies, and more. The EAGLE 2 is designed to be a drop-in replacement for traditional lead-acid or lithium batteries. Each single battery module is 1.63 kWh and it can be expanded to 16.3 kWh when connecting up to 10 in parallel. These batteries utilize lithium iron phosphate (LiFePO4 or LFP) cells, renowned for their top-notch safety.

They are waterproof and equipped with an intelligent Battery Management System (BMS) that continuously monitors and records cell voltage, along with real-time data on current, voltage, and temperature for the module. The BMS features a passive balance function and an advanced battery control method, which collectively enhance battery pack performance. Furthermore, the battery includes built-in fire-extinguishing modules for added safety. It has built-in heating elements so the battery can be charged in freezing environments temperatures.The battery utilizes a standard M8 bolt connection, which easily and safely secures power to your battery unit. Designed to endure, the EAGLE 2 has a lifespan of over 10 years and is engineered to withstand more than 4000 - 6000 cycles at 80% Depth of Discharge (DOD) at a rate of 0.5C.

You can always monitor the batteries' remaining capacity with the led meter.

3.2 Features & Applications

Applications:

- **Golf carts**
- **Electric-Powered Vehicles**
- **Electric Industrial Equipment**
- **RVs**
- **Boats**
- **Backup Power**
- **Home**
- **Off-Grid Cabin**

Features:

- Advanced BMS (Battery Management System)
- Lithium-Ion LiFePO4/LFP Chemistry
- Easy connection to a larger power system
- Expandable system with easy parallel connections
- Multiple layers of safety and battery protection
- Built-in heating system
- Built-in fire suppression system
- Impact Resistant
- Waterproof
- Good insulation performance
- High quality & durable ABS construction
- Utilizes standardized M8-bolt connector for battery power source.
- CAN bus Parallel Communication (FEAGL-24016-G2-0CH and FEAGL-48016-G2-0CH only)
- LED SOC Meter

4. Packed Components

4.1 24V EAGLE 2 - No Coms

(X1) 24V 1.63 kWh EAGLE 2
(FEAGL-24016-G2-00H)

(X1)Battery Handles

(X1)Ring Terminal
Rubber Covers

ADD UPS

(X1) Capacity Battery Meter
(MTR105)

(X1) 4AWG Black and Red Ring
Terminal Cables [3 feet]
(CBL015)

4.2 24V EAGLE 2 - Coms

(X1) 24V 1.63 kWh EAGLE 2
(FEAGL-24016-G2-0CH)

(X1) Battery Handles

(X1) Ring Terminal
Rubber Covers

ADD UPS

(X1) EAGLE2 SOC Battery
Meter

(X1) 4AWG Black and Red Ring
Terminal Cables [3 feet]
(CBL015)

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4.3 48V EAGLE 2

(X1) 48V 1.63 kWh EAGLE 2
(FEAGL-48016-G2-0CH)

(X1) Battery Handles

(X1) Ring Terminal
Rubber Covers

ADD UPS

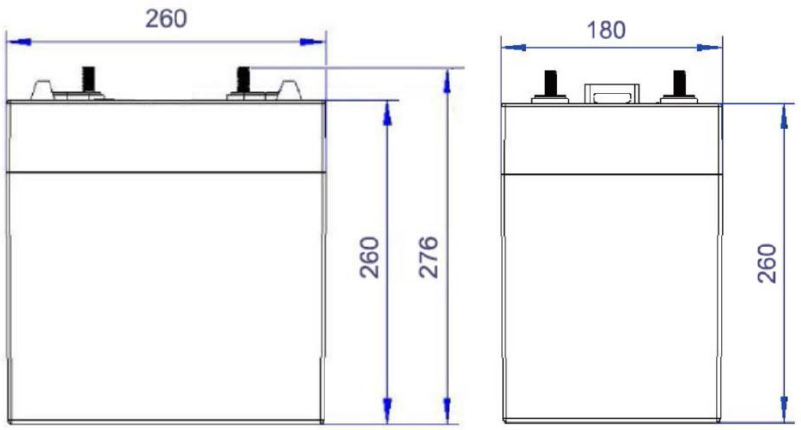
(X1) EAGLE2 SOC Battery
Meter

(X1) 4AWG Black and Red Ring
Terminal Cables [3 feet]
(CBL015)

5. Product Specifications

5.1 Battery Overview

Figure 1: **EAGLE 2 Battery Overview**



Before handling the battery, always switch it off and verify there is no voltage with a voltmeter to prevent accidental contact with live terminals. Failure to do so could lead to severe injury or fatality.

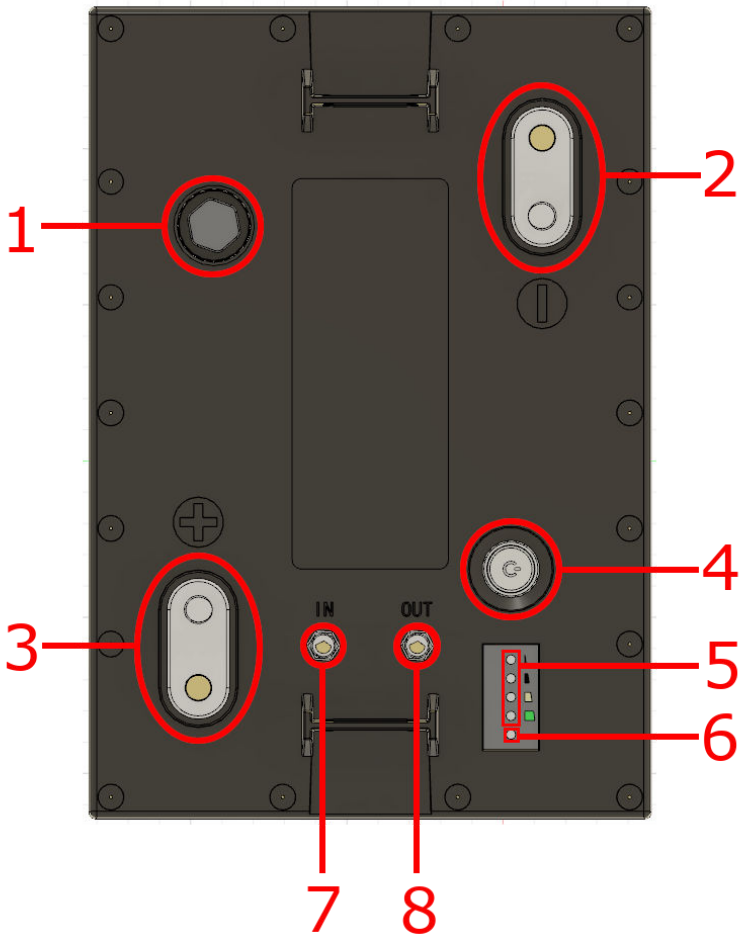
5.2 Battery Specs

BATTERY SPECIFICATIONS

SKU	FEAGL-24016-G2-00H	FEAGL-24016-G2-0CH	FEAGL-48016-G2-0CH
System Voltage	24V	24V	48V
Nominal Voltage	25.6V	25.6V	51.2V
Chemistry	LiFePO4	LiFePO4	LiFePO4
kWh Capacity	1.63 kWh	1.63 kWh	1.63 kWh
Ah Capacity	64	64	32
Charging Voltage Range	27.8V - 29V	27.8V - 29V	55.6V - 58V
Max Charge Voltage	29.2V	29.2V	58.4V
Operating Voltage Range	24V - 28.8V	24V - 28.8V	48V - 58.8V
Suggested Low Voltage Cutoff	24V - 25.4V	24V - 25.4V	48V - 50.8V
BMS Cutoff Range	21V - 23.5V	21V - 23.5V	42V - 47V
Cell Configuration	8S	8S	16S
Max Cont. Discharge Current	100A	100A	60A
Max Continuous Power	2560W	2560W	3072W
Max Discharge Peak Current	200A (Max 5 seconds)	200A (Max 5 seconds)	200A (Max 3 seconds)
Max Charge Current	64A	64A	30A
Charge Temperature Range	-4°F - 131°F (-20°C - 55°C)	-4°F - 131°F (-20°C - 55°C)	-4°F - 131°F (-20°C - 55°C)
Discharge Temperature Range	-4°F - 140°F (-20°C - 60°C)	-4°F - 140°F (-20°C - 60°C)	-4°F - 140°F (-20°C - 60°C)
Optimal Discharge Temp. Range	59°F - 95°F (15°C - 35°C)	59°F - 95°F (15°C - 35°C)	59°F - 95°F (15°C - 35°C)
Storage Temp. Range (SoC >50%)	23°F - 95°F (-5°C - 35°C) (Max 3 months) 32°F - 77°F (0°C - 25°C) (Max 12 months)	23°F - 95°F (-5°C - 35°C) (Max 3 months) 32°F - 77°F (0°C - 25°C) (Max 12 months)	23°F - 95°F (-5°C - 35°C) (Max 3 months) 32°F - 77°F (0°C - 25°C) (Max 12 months)
Dimensions (DxWxH)	7.1 x 10.24 x 9.8 in (180 x 260 x 249 mm)	7.1 x 10.24 x 9.8 in (180 x 260 x 249 mm)	7.1 x 10.24 x 9.8 in (180 x 260 x 249 mm)
Weight	33 lbs (15 kg)	33 lbs (15 kg)	33 lbs (15 kg)
Max Connections	Up to (10) Parallel	Up to (10) Parallel	Up to (10) Parallel
Protection Rating	IP67	IP67	IP67
Communications	No	CANBus	CANBus
Heating Function	Yes	Yes	Yes

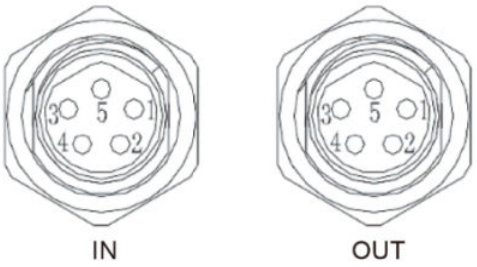
5.3 Battery Diagram

Figure 2: **EAGLE 2 Battery Diagram**



Item	Name	Description	Details
1	Vent		
2	BAT-	Negative Battery Terminal	M8 Screw
3	BAT+	Positive Battery Terminal	M8 Screw
4	On/Off Button	Button Switch On/Off the BMS	
5	SOC	Battery State of Charge LED Indicators	4 LEDS On = 75-100% 3 LEDS On = 50-75% 2 LEDS On = 25-50% 1 LED On = 0-25%
6	Alarm	Alarm LED Indicator	
7	CAN bus in	Input communication port	M6-5P
8	CAN bus out	Output communication port	M6-5P

5.4 Battery Communication Ports



Pin	CAN INPUT	CAN OUTPUT
1	Reserve	Reserve
2	CAN Address in	CAN Address out
3	CAN-H	CAN-H
4	CAN-L	CAN-L
5	P- (Battery Negative)	P- (Battery Negative)

5.5 Battery LED Indicators

5.5.1 Display During Discharging or Idle

SOC	LED 1	LED 2	LED 3	LED 4	LED 5
75~100%	On	On	On	On	Off
50~75%	On	On	On	Off	Off
25~50%	On	On	Off	Off	Off
0~25%	On	Off	Off	Off	Off

5.5.2 Display During Charging

SOC	LED 1	LED 2	LED 3	LED 4	LED 5
75~100%	On	On	On	Flashing 2	Off
50~75%	On	On	Flashing 2	Off	Off
25~50%	On	Flashing 2	Off	Off	Off
0~25%	Flashing 2	Off	Off	Off	Off

5.5.3 Display During Error or Protection State

Error or Protection	LED 1	LED 2	LED 3	LED 4	LED 5
Address Error in Parallel	/	/	/	/	Red On and Orange On
Short Circuit Protection	/	/	/	/	Red On
Over Current (discharge) Protection	/	/	/	/	Red Flashing 1
Over Current (charge) Protection	/	/	/	/	Red Flashing 3
Temperature Protection	/	/	/	/	Orange On
Over Voltage Protection	On	On	On	On	Red Flashing 4
Under Voltage Protection	Flashing 4	Off	Off	Off	Off
Failure Protection	/	/	/	/	Orange Flashing 4

5.5.4 LED Flashing Mode

Item	On	Off
Flashing 1	0.25S	3.75S
Flashing 2	0.5S	0.5S
Flashing 3	0.5S	1.5S
Flashing 4	0.25S	0.25S

5.6 Battery modes of operation

Mode of operation	Description
Power off mode	All LEDs will be off. To turn on the battery, hold the power button for 5 seconds until the LEDs start to light up. To turn off the battery tap the power button once and then hold it for 5 seconds until the red alarm LED turns on.
Standby mode	The SOC LEDs will be on but the battery does not detect a discharge current greater than 0.8A or a charge current greater than 0.5A. If currents above these values are detected then the battery enters Operation mode. If left in this state for 72 hours, then the battery enters Sleep mode.
Operation mode	Normal operation while the battery is discharging or charging.
Sleep mode	All LEDs will be off. The battery will allow voltage to the terminals for 1 minute every 10 minutes, or when the power button is tapped. If a discharge current greater than 0.8A or a charge current greater than 0.5A is detected in the turn-on time period then it will enter Operation mode. Turning the battery off then on will put it into Standby mode and start the 72 hour count over. If the communication cables are utilized, then the batteries can keep themselves on.
Protection mode	See section 5.5.3 for details on the LEDs. If the battery is in an under voltage protection mode then the battery will allow voltage to the terminals for one minute every ten minutes or when the power button is tapped twice, the turn off period will increase by ten minutes every 24 hours. If a charge current greater than 0.5A is detected in the turn-on time period then it will enter Operation mode.

6. Installation

⚠ WARNING: Before installing, make sure to review all warnings and precautions in Section 2, as well as the installation safety guidelines in Section 6.1 below.

6.1 Installation Safety Guidelines

- Inspect batteries upon receipt for any signs of damage before use. In case of battery damage, reach out to BigBattery for repair or replacement. Avoid using a defective battery as it may result in incorrect battery voltage that could potentially ruin your appliances. Damaged batteries have the potential to cause fire hazards.
- Check to ensure that all cables are in good condition.
- Be sure your battery packs are powered "**OFF**" before making/removing any connections.
- It is crucial to never create a short circuit on the external battery terminals. When attaching the battery, ensure that each cable is properly connected to the correct terminal. There should be no conductive material between the terminals that could cause a short circuit.
- Use a screwdriver with a rubber coated handle.
- **Do not put the EAGLE 2 batteries in series.** The BMS and internal components are not designed to handle this setup, which could cause the modules to fail.
- Always mount the battery in an upright position.

6.2 Battery Installation

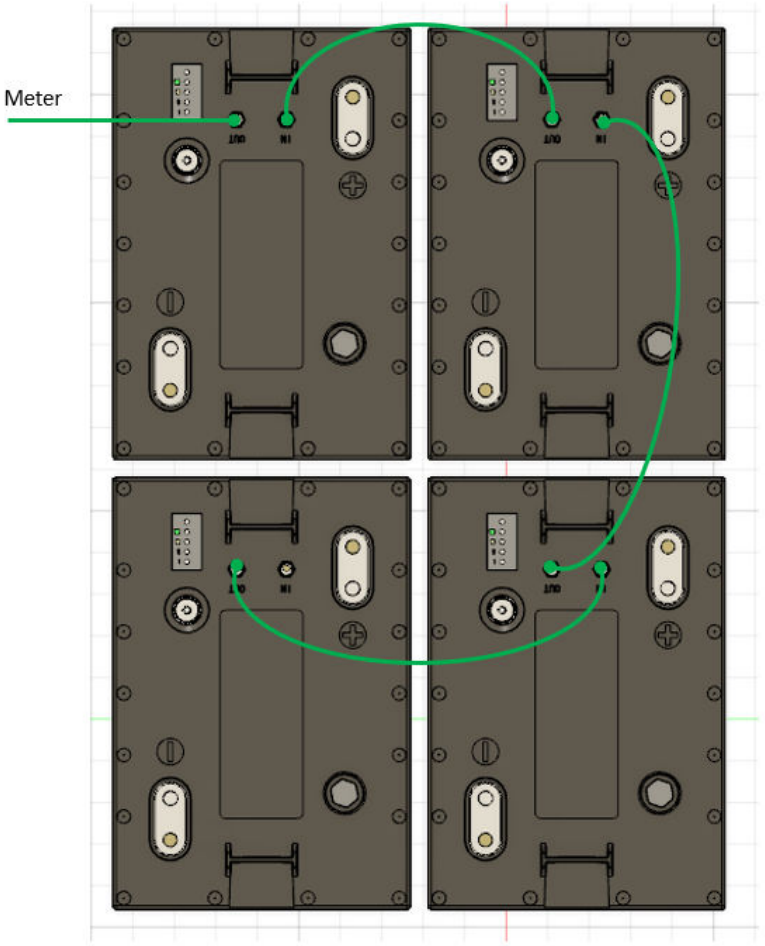
①

Place the battery on a flat floor or shelf.

②

Connect the communications ports of all the batteries in a daisy chain using the provided communication cables as shown in Figure 3. The final battery in the daisy chain will be the master battery and its communication output will connect to the meter.

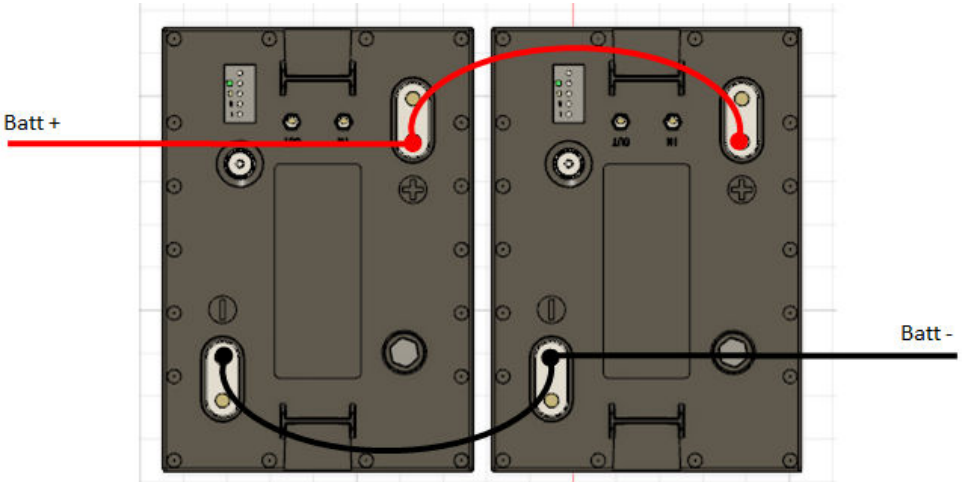
Figure 3: **EAGLE 2 Comm Cable Connection Diagram**



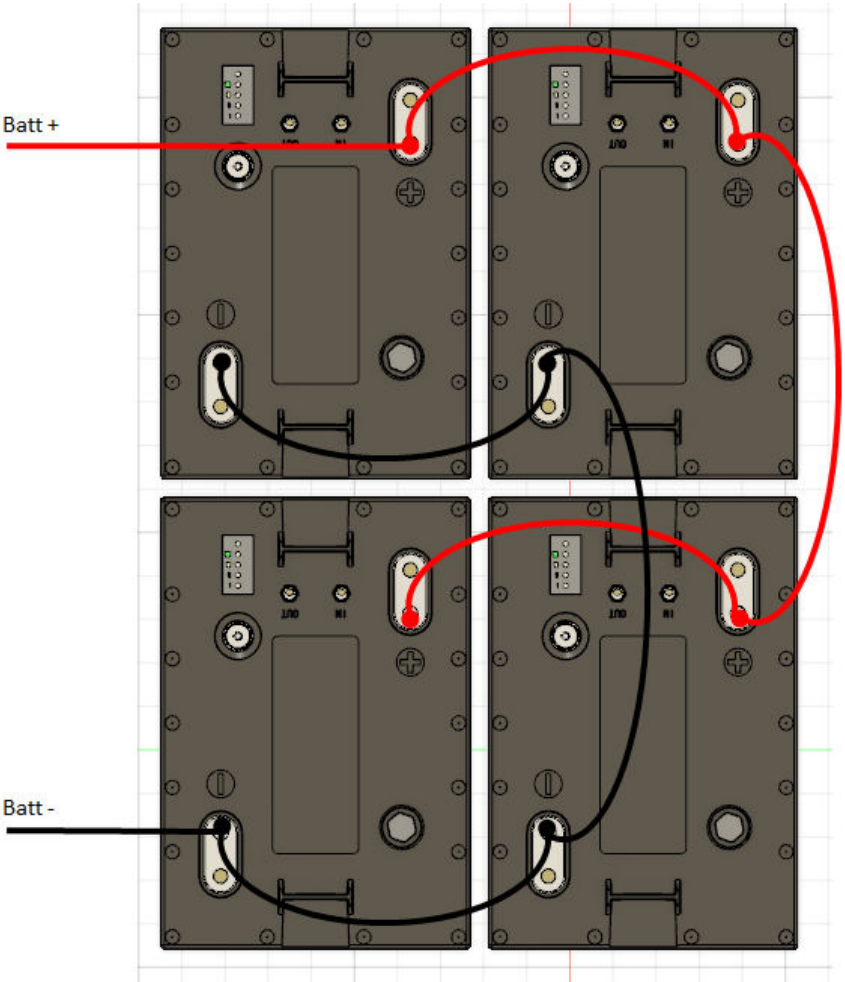
③

Connect the power cables in parallel. In other words, using the battery power ring terminal cables, connect all the positive terminals to each other and all the negative terminals to each other, as shown in figure 4.

Figure 4: **EAGLE 2 Power Cable Connection Diagram**



2 battery system



4 battery system

④

Connect the final battery positive and negative terminal to your system. (Golf cart, EV, ect). When charging the battery system use these same terminals for the positive and negative leads on the charger. If the battery's LEDs are off, hold the power button on each battery for 5 seconds until all the LEDs turn on.

7. Battery Operation Guide

⚠ WARNING: Before installing, make sure to review all the parameters listed on chapter 5.2.

7.1 Charging

- During the initial charging, monitor the battery's charge voltage to ensure it is within appropriate voltage limits.
- Only use the battery charger provided by BigBattery, or the inverter charging settings listed on section 5.2. Using non-recommended chargers may cause improper charging and damage the battery's capacity.
- The battery can be charged in freezing temperatures (-20 °C / -4 °F) thanks to a heating element. When charging is detected, the heating will start until the battery temperature is above 0°C / 32°F and then the charging will start.
- Use LiFePO4 batteries for "opportunity charging." Charge them whenever you can but do it with small amounts of energy. It's better to do this than using fast chargers. Fast charging can make the battery's life shorter.
- It is suggested to charge the battery when it has a minimum of 10-20% SOC. Deep discharge won't harm the battery's health, but the BMS requires some voltage to function properly.
- The Bulk/Absorb Voltage of an LFP battery is the same as the charging voltage. BigBattery products do not need Float Voltage, Equalize voltage or absorption time.

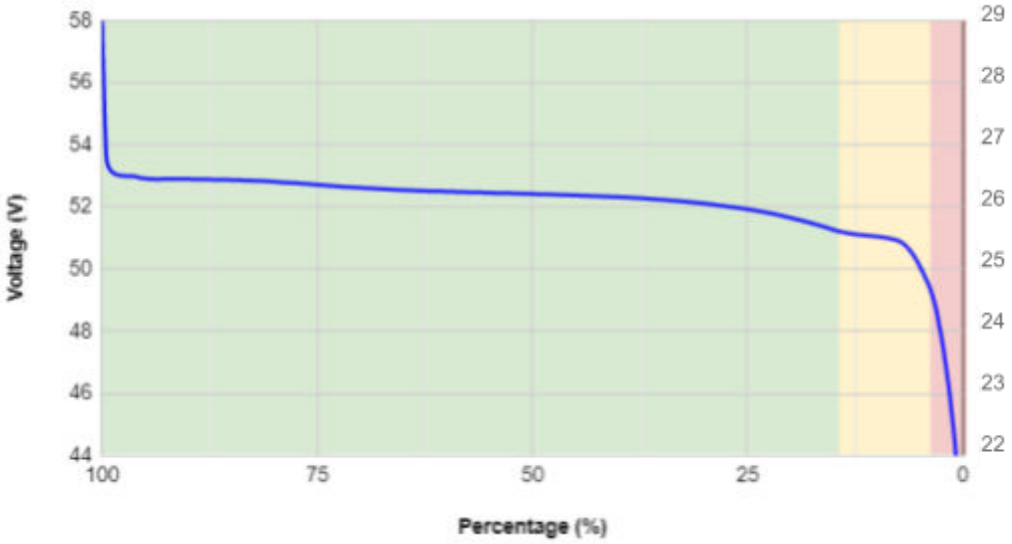
7.2 Discharging

- The battery can be fully discharged. Unlike lead-acid batteries, the Voltage of a lithium battery stays very constant during discharge, delivering the same amount of power and energy from 100% to 0% SOC.
- LFP batteries handle discharging to 0% safely, but shallower cycles offer benefits. Opting for 20% SOC, instead of 0%, extends the battery's lifespan to more than 6000 cycles.

- Do not discharge if the temperature is above 55 °C / 131 °F.
- You will see an apparent loss of capacity when discharging at below-freezing temperatures that reverses when the battery gets above freezing.
- The BMS will automatically shut down when the battery reaches a low voltage, so there's no need for manual intervention. Avoid over discharging by removing the load when the battery's discharge is done.

7.3 State of Charge

This is the Depth of Discharge of the EAGLE 2 family batteries:



	Cycling in this zone will ensure a reasonable life expentancy
	Ocassionally this zone is OK
	Dropping into this zone can lock the battery. Could reduce lifespan.

7.3 Storage

- LFP batteries have an extremely low self-discharge rate, which makes long-term storage convenient. Storing a lithium battery for up to a year is not an issue, as long as it has some charge remaining before being placed in storage.
- Before storing lithium-ion batteries, charge them to at least 50% charging level. Do not store batteries that are fully discharged. In the case of a fully charged battery, it should be discharged to 80% before it is stored.

- If you need to store batteries for longer periods, be sure to simply disconnect all wires from them. That way there can not be any stray loads that slowly discharge the batteries.
- Make sure that you store the battery within the temperatures listed on section 5.2. Storing them at low temperatures is certainly much better than storage at high temperatures. The electrolyte in LiFePO4 cells does not contain any water, so even when it freezes it does not expand, and does not damage the cells. Just let the battery warm up a bit before you start discharging it again, which is OK at -4 °F (-20 °C).

This is the storage temperature that the batteries should be stored, and the charging intervals and methods to do so.

Storage Temperature	Charging Interval	Charging Method	Model
≤20℃	Once / 9M	28V 50A CC/CV Charging to 28V, cut-off current：5A	24V EAGLE 2
20℃～30℃	Once / 6M		
30℃～40℃	Once / 3M		
≤20℃	Once / 9M	56V 30A CC/CV Charging to 56V, cut-off current：5A	48V EAGLE 2
20℃～30℃	Once / 6M		
30℃～40℃	Once / 3M		

7.4 Extend the life of your Battery

THe EAGLE 2 Battery is designed 10 years or more when used correctly. To ensure a proper battery operation, you must follow the previous listed instructions and battery parameters. In order to extend the lifespan of your battery, follow these recommendations.

- Avoid discharging the battery more than 80% Depth of Discharge (DOD) unless it is truly necessary.
- Keep the battery temperature under 95 °F (35 °C) and above 59 °F (15 °C)
- Keep battery charge and discharge current under 0.5 of the Capacity (C-rating)
- Never disassemble the battery, unless our tech support guides you. If the battery has any problems, contact us for assistance.
- Keep the battery away from excessive physical shocks or vibration. These can damage the battery's internal structure and hamper its operation.

- Dirty battery terminals can lead to improper flow of current during operation. Therefore, it is recommended that you clean the terminals while installing the battery pack.

8. Service

8.1 Troubleshooting

No.	Error	Description	Solution
1	No DC output	Battery is off or low voltage	Turn ON or charge the battery
2	Power supply time is too short	Battery capacity lack or not fully charged	Fully Charge the battery. Maintenance or replacement
3	Battery can't be charged fully	Power system DC output voltage falls below the minimum charge voltage	Regulating DC output voltage of power supply to battery suitable charging voltage
4	ALM LED always lights	Power line connection short circuit	Disconnect the power cable and check all cables
5	The battery output voltage is unstable	Battery management system do not operate normally	Press the switch to restart the battery
6	The charge and discharge capacity is insufficient	Unbalance voltage with cell	Examine/balance the cell
7	Unable to charge and discharge	BMS or cell/temperature sensor damaged	Maintenance or replacement
8	Different SOC value of batteries in parallel	Normal phenomenon	No operation
9	Alarm is ON	Current Protection	Charging or Discharging Current is too high and needs to be reduced.
10	Alarm is ON	Over Temperature	Turn off the battery and cool down location.
11	Alarm is ON	End-Off Voltage	Double tap power button to charge the battery

8.2 Maintenance

Item	Maintenance	Maintenance Intervals
Power Cables	Check whether there is mechanical damage to the power cable and whether the terminal insulation sleeve has fallen off; if there is such a phenomenon, please turn off the machine and carry out maintenance or replacement	Once every 6 months
	check whether the power cable is loose; if there is any sign of looseness, please use a standard torque wrench to tighten it	
	check the system for loose screws or discoloration of the copper bus bar; if the screws are loose, please tighten them with a standard torque wrench; if the copper bus bar is discolored, please contact the manufacturer for after-sales replacement	
Comm Cables	check whether the parallel communication cable terminal is loose, if it is loose, re-tighten it	Once a year
	check whether the color of the communication cable has obvious discoloration, if discoloration, please shut down the machine to replace the communication cable	
Cabinet	Check the cleanliness of the front door, back door and battery module inside the cabinet, if there is obvious dusty, please clean up in time.	Once 6-12 months
System Running Status	check if all parameters are normal when the system is running (voltage, current, temperature, etc.)	Once every 6 months
	check whether the main core components of the system are normal, including system switches, contactors, etc. are normal	
	check whether the system air inlet and outlet, air ducts are normal, if there is blockage and congestion, need to clean up in time	
Charge and Discharge Maintenance	Use light load and shallow charge/discharge to check whether the SOC, SOH status of the battery is normal (using the upper computer software to read); it is recommended that the depth of discharge and charge/discharge power should not exceed 20% of the rated value	Once every 6 months

9. Recycling

Lithium iron phosphate batteries are potentially dangerous and shouldn't be tossed in the trash. Many websites and organizations can recycle them for free. If you're in the U.S. or anywhere globally, search for "Lithium Battery Disposal Near Me" online. Numerous places can safely dispose of these batteries. Make sure to call first to confirm they're open.

If you can't find a safe disposal option, contact our customer service team instead of improperly disposing of the battery. We can take care of recycling your batteries for you.

10. Warranty & Returns

In the unlikely event you are having an issue with one of our batteries we have developed a straightforward warranty & return policy which includes the following:

- For all returns or warranty claims contact support@bigbattery.com.
- 30-day money back guarantee. Returns of undamaged batteries unrelated to warranty claims may be issued full refunds less a 20% restocking fee.
- We have a 10-year warranty on all new batteries. For more information, visit the Policies page at BigBattery.com.
- We offer a 30-day warranty on all cells, accessories & complimentary products (Anderson connectors, wires, chargers, etc.).
- Warranty only applies to original owner (non-transferable).
- Warranties can be used for an exchange of a component only once per component.
- Operating the battery outside of acceptable parameters, according to our listed battery specs (ref. Section 5.2) will void your warranty.
    - Example: Using an incorrect charger may exceed max. charging voltage specifications.
    - WARNING: Make sure to use the appropriate charger for your battery.
- Customer pays return shipping on returns or warrantied component inspections initiated after the first 30 days of ownership. Please note some battery returns may require special documentation and packaging, and these instances will encounter extra fees. This is to correctly comply with lithium battery shipping regulations.
- If you have a quality issue with a product, please contact our support team to help properly diagnose the problem. If the product you receive does not meet our rigorous quality standards, then we will issue you a replacement component or fix the original at no additional cost. Replacement batteries or components will only be sent after we have received your returned battery or component and finished an inspection to determine the cause of any problems. BigBattery is not responsible for return shipping.

- DIY modifications or damage due to gross negligence or abuse are not covered by the warranty.

Please visit www.bigbattery.com to review the latest policy.

For all returns, please mail your package in a traceable method to the address below. Include a note with your name, your order number and describing your situation and/or request.

BigBattery Inc.
Technical Support Team
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