

# EPOCH BATTERIES

USER MANUAL | HEATED BLUETOOTH DEEP-CYCLE LIFEP04 BATTERY

## 12V 300Ah Heated Bluetooth LiFePO4 Battery

**Model / SKU: 12300A-H**

Essential Series | Deep Cycle | Bluetooth | Internal Heating | Group 31 | IP54



Product photo shown for identification. Actual labels, accessories, and supplied hardware may vary by production revision.

<b>Nominal Voltage</b>	12.8V
<b>Capacity</b>	300Ah
<b>Stored Energy</b>	3.84kWh
<b>Continuous Output</b>	200A
<b>Peak Current</b>	400A @ 3 seconds

Revised: 2026-06-20

**Read this manual completely before installing, charging, operating, storing, or servicing the battery.**

# Legal Provisions and Important Notice

## Purpose and importance of this manual

This manual provides instructions for safe handling, installation, charging, operation, storage, maintenance, troubleshooting, and warranty support for the Epoch 12300A-H heated Bluetooth LiFePO4 battery. It is intended to help users and installers reduce risk, protect connected equipment, and obtain reliable battery performance.

## Qualified installation

Battery systems can deliver very high current. Installation and service should be performed by persons who understand DC electrical systems, lithium battery charging, overcurrent protection, conductor sizing, terminal torque, and safe work practices. When the installation is part of a boat, RV, vehicle, trailer, cabin, or building system, comply with all applicable codes and equipment manufacturer requirements.

## Product changes

Specifications, accessories, firmware, labels, and documentation may change without notice. Use the latest Epoch Batteries documentation and product labeling for installation, operation, and service.

## Warranty and compliance

Failure to follow this manual, using incompatible chargers or accessories, modifying the battery, improper installation, abuse, water intrusion beyond the product rating, incorrect polarity, overcurrent events, or operation outside specified limits may void warranty coverage and may create safety hazards.

**WARNING:** Incorrect installation or use can cause fire, electric shock, severe injury, death, or damage to the battery and connected equipment. Stop and contact Epoch Batteries support if any instruction is unclear.

## Safety Signal Words

This manual uses the following signal words to identify the severity of a hazard or instruction.

<b>DANGER</b>	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
<b>WARNING</b>	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
<b>CAUTION</b>	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	Indicates practices that can damage the battery, connected equipment, or property.

## General safety rules

- Read all instructions before use.
- Keep the battery away from children and pets.
- Do not open, drill, crush, puncture, drop, burn, or modify the battery.
- Do not short the terminals or allow tools, jewelry, or conductive objects to bridge the terminals.
- Use insulated tools and appropriate personal protective equipment.
- Confirm polarity before connecting chargers, loads, DC-to-DC chargers, solar controllers, inverters, or series/parallel wiring.
- Stop using the battery immediately if it becomes unusually hot, emits odor, smokes, leaks, swells, makes unusual sounds, or is physically damaged.

**DANGER:** Do not connect the positive and negative terminals together. A short circuit can release extremely high current and may cause arcing, burns, fire, or equipment damage.

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## 1. Introduction

Thank you for choosing Epoch Batteries. The Epoch 12300A-H is a 12.8V, 300Ah, 3.84kWh heated Bluetooth LiFePO4 battery designed for high-capacity 12V deep-cycle energy systems.

This manual explains how to use the battery safely in RV, marine house-power, solar, off-grid, backup, van, camper, travel trailer, and auxiliary 12V applications where the system requirements match the battery specifications.

### Who should use this manual

- End users who need basic safety, charging, Bluetooth, and storage guidance.
- Installers who need model-specific electrical limits, terminal information, and battery bank considerations.
- Dealers, support teams, and service technicians who need a consistent troubleshooting and warranty reference.

### Important compatibility note

The 12300A-H is a lithium deep-cycle battery and is not a drop-in replacement for every lead-acid installation. Before installation, verify tray fitment, terminal clearance, cable size, overcurrent protection, charger profile, charging source compatibility, and load requirements.

**NOTICE:** This model is designed as a heated Bluetooth deep-cycle LiFePO4 battery. For engine starting or cranking applications, use a cranking-rated battery or confirm system compatibility directly with Epoch before installation.

## 2. Product Overview

The Epoch 12300A-H combines LiFePO<sub>4</sub> chemistry, internal heating, Bluetooth monitoring, BMS protection, and an IP54 enclosure in a high-capacity Group 31 package.

### Primary uses

- RV, camper, travel trailer, and motorhome 12V house-power systems.
- Van, overland, and mobile auxiliary power systems.
- Marine house battery systems for electronics and accessories, within current limits.
- Solar charge controller, inverter charger, converter, and DC-to-DC charging systems programmed for LiFePO<sub>4</sub>.
- Backup power for compatible 12V equipment and high-capacity energy-storage systems.
- Auxiliary 12V applications where voltage, current, space, and mounting requirements match.

### Key features

<b>LiFePO<sub>4</sub> chemistry</b>	Stable lithium iron phosphate chemistry for long cycle life and reliable deep-cycle operation.
<b>300Ah capacity</b>	Stores approximately 3.84kWh of energy in a high-capacity Group 31 footprint.
<b>Internal heating</b>	Supports charging in cold conditions when used with compatible charging equipment.
<b>Bluetooth monitoring</b>	Works with compatible Epoch Li-Ion apps for iOS and Android monitoring.
<b>Advanced BMS</b>	Helps protect against overcharge, over-discharge, over-current, short circuit, and temperature extremes.
<b>IP54 enclosure</b>	Dust-protected and splash-resistant for everyday mobile, RV, marine, and outdoor use; not submersible.
<b>Maintenance-free</b>	No watering, acid maintenance, or routine lead-acid service required.

**NOTICE:** IP54 weather resistance does not mean waterproof. Do not submerge, pressure wash, or install the battery where standing water can collect around the case or terminals.

## 3. Specifications

### General and electrical specifications

<b>Brand</b>	Epoch Batteries
<b>Model / SKU</b>	12300A-H
<b>Series</b>	Essential Series
<b>Battery Type</b>	Heated Bluetooth deep-cycle LiFePO <sub>4</sub> battery
<b>Battery Group Size</b>	Group 31
<b>Chemistry</b>	LiFePO <sub>4</sub> / lithium iron phosphate
<b>Cell Type</b>	LiFePO <sub>4</sub> cells
<b>Cell Configuration</b>	4S1P

<b>Nominal Voltage</b>	12.8V
<b>Nominal Capacity</b>	300Ah
<b>Stored Energy</b>	3.84kWh / 3,840Wh
<b>Operating Voltage Range</b>	10.0V to 14.6V
<b>Maximum Charge Voltage</b>	14.6V
<b>Internal Resistance</b>	<=30 milliohms
<b>Inverter / Load Cutoff</b>	11.2V
<b>Low-Temperature Charge Protection</b>	Yes

## Current, temperature, and mechanical specifications

<b>Max Continuous Discharge</b>	200A
<b>Max Continuous Charge Current</b>	200A
<b>Recommended Charge Current</b>	50A
<b>Recommended Discharge Current</b>	100A
<b>Max Discharge Peak Current</b>	400A @ 3 seconds
<b>Short-Circuit Protection</b>	800A @ 500 microseconds
<b>Low-Voltage Disconnect</b>	10.0V
<b>Reconnect Voltage</b>	12.0V
<b>Series Connections</b>	Max 4 batteries in series, up to 48V system class
<b>Parallel Connections</b>	Max 4 batteries in parallel, plug-and-play bank capability
<b>Maximum Configuration</b>	4S4P
<b>Charge Temperature Range</b>	-20 C to 55 C / -4 F to 131 F, with heating
<b>Discharge Temperature Range</b>	-20 C to 60 C / -4 F to 140 F
<b>Recommended Storage Temperature</b>	0 C to 35 C / 32 F to 95 F
<b>Operational Altitude</b>	<3000m
<b>Self-Discharge Rate</b>	<=3% per month
<b>Dimensions</b>	13.75 in L x 7.63 in W x 10.0 in H; 15.5 in length with handles and 10.5 in height with terminal bolts
<b>Weight</b>	58 lb / approx. 26.3 kg
<b>Case Material</b>	ABS and PC blend, UL94-V0 flame rating
<b>Enclosure Protection</b>	IP54
<b>Terminal Type and Torque</b>	M8 bolt   8-12 Nm (71-106 in-lb)
<b>Bluetooth</b>	Yes - compatible with iOS and Android apps
<b>Bluetooth Security PIN</b>	PIN located on the top of the battery for app pairing
<b>Internal Heating</b>	Yes
<b>Cycle Life</b>	4,000+ cycles
<b>Warranty</b>	11-year manufacturer warranty

## Recommended charging settings

<b>Maximum Continuous Charge Current</b>	200A
<b>Bulk / Absorption Voltage</b>	14.2V to 14.4V
<b>Absorption End Condition</b>	Stop when charge current $\leq C/20$ or 15 minutes max
<b>Float Voltage</b>	Disabled preferred, or 13.3V to 13.6V
<b>Re-Bulk Voltage</b>	13.2V
<b>Temperature Compensation</b>	0mV/C / none
<b>Equalization</b>	Disabled
<b>Charger Temperature Setting</b>	0 C to 55 C / 32 F to 131 F unless charger has approved cold-charge logic
<b>BMS High Voltage Cutoff</b>	14.6V
<b>SOC Recalibration Voltage</b>	14.6V

## BMS protection and compliance

<b>BMS Protection</b>	Overcharge, over-discharge, over-current, short-circuit, high temperature, and low temperature disconnects
<b>Cell / Product Compliance</b>	UL 1642 cells, UL 9540A cells, IEC 62619:2022, CE, RoHS
<b>Shipping Classification</b>	UN 38.3, Class 9

## 4. Safety Guidelines

Safe use depends on correct equipment, proper wiring, clean connections, compatible chargers, correct terminal torque, and operation within temperature and current limits.

### Do not

- Do not mix this battery with lead-acid batteries in the same battery bank.
- Do not mix different battery models, capacities, ages, or chemistries in a series or parallel bank.
- Do not connect to a charger, alternator system, converter, inverter charger, solar controller, or DC-to-DC charger that cannot be configured for LiFePO4.
- Do not use lead-acid equalization, desulfation, or repair modes.
- Do not exceed 200A continuous charge current.
- Do not exceed 200A continuous discharge current.
- Do not exceed 400a @ 3 seconds.
- Do not install without properly sized DC overcurrent protection.
- Do not submerge, pressure wash, or expose the battery to standing water.
- Do not continue use after a severe impact, fire event, water intrusion, or visible case damage.

### Emergency conditions

If the battery smokes, becomes unusually hot, emits odor, leaks, swells, or behaves abnormally, stop use immediately. If safe, disconnect chargers and loads. Move people away from the battery and contact emergency services when fire, smoke, chemical exposure, or injury is possible. Follow the product SDS and emergency responder instructions.

**WARNING:** Do not use water directly on a damaged or burning lithium battery unless directed by emergency responders. Use an appropriate extinguisher and follow local emergency procedures.

## 5. Pre-Installation Checklist

Complete this checklist before connecting the battery. Most installation problems can be prevented before the first cable is attached.

Check	Item
<input type="checkbox"/>	Battery case is undamaged and terminals are clean.
<input type="checkbox"/>	Battery model, voltage, capacity, and application requirements have been confirmed.
<input type="checkbox"/>	Battery tray or mounting location fits the 13.75 in L x 7.63 in W x 10.0 in H; 15.5 in length with handles and 10.5 in height with terminal bolts case with cable clearance.
<input type="checkbox"/>	Charger, inverter charger, converter, solar controller, or DC-to-DC charger is configured for LiFePO4.
<input type="checkbox"/>	All batteries in a bank are the same model, age, capacity, and state of charge.
<input type="checkbox"/>	Main fuse or circuit breaker is selected for the wire, load, and system voltage.
<input type="checkbox"/>	Cables and lugs are sized for current, length, voltage drop, and installation environment.

[ ]	Polarity has been verified before making final connections.
[ ]	Terminal hardware and torque wrench are available for 8-12 Nm tightening.
[ ]	Bluetooth app is installed if monitoring will be used during commissioning.

## 6. Installation Guide

### Location

- Install in a clean, dry, accessible location protected from accidental impact.
- Allow airflow around the battery and connected equipment.
- Keep away from heat sources, sparks, open flames, fuel, and flammable materials.
- Avoid prolonged direct sunlight and locations that exceed the temperature limits.
- Do not install where standing water can collect around the battery case or terminals.

### Mounting and orientation

Secure the battery so it cannot slide, tip, or impact nearby equipment during operation, vehicle motion, trailer motion, vessel motion, or transport. Use a tray, strap, bracket, or enclosure appropriate for the application and battery weight.

Install in an upright position unless Epoch product documentation for this exact model allows another orientation. Ensure the top terminals and wiring remain protected from accidental contact.

### Environmental protection

The IP54 enclosure is dust-protected and splash-resistant for many everyday mobile, RV, marine house-power, and outdoor environments. It is not designed for submersion, pressure washing, bilge flooding, or continuous water exposure.

**NOTICE:** Leave enough clearance above the terminals for cable bend radius, terminal boots, and inspection. Do not force cables to bend sharply at the terminal posts.

## 7. Electrical Connection Guide

### Polarity

Connect positive (+) to positive and negative (-) to negative. Reverse polarity can damage the battery, charger, inverter, electronics, or connected loads.

**DANGER:** Before tightening the final connection, use a multimeter to confirm system polarity and voltage. Never rely only on cable color or assumptions.

### Terminal connection procedure

1. Turn off chargers, inverters, loads, and DC disconnects before wiring.
2. Remove jewelry and use insulated tools.
3. Keep terminal caps or covers in place until each terminal is being wired.
4. Use clean, properly crimped lugs with flat contact surfaces.
5. Connect and tighten the positive terminal, then connect and tighten the negative terminal.
6. Tighten M8 terminal hardware to 8-12 Nm (71-106 in-lb). Do not over-tighten.
7. Install terminal boots or protective covers after final torque is confirmed.

### Cable and protection requirements

<b>Cable Size</b>	Size conductors for maximum current, circuit length, voltage drop, ambient temperature, and applicable code requirements.
<b>Main Protection</b>	Install a fuse or DC-rated circuit breaker as close as practical to the battery positive terminal.
<b>Voltage Rating</b>	Protection devices and switches must be rated for the maximum system voltage, especially in series banks.
<b>Wire Ampacity</b>	The fuse or breaker must protect the smallest conductor in the circuit.
<b>Lug Stack</b>	Keep the terminal stack flat and secure. Use a busbar if multiple conductors must connect to one battery terminal.
<b>Cable Routing</b>	Route cables away from sharp edges, heat sources, moving parts, and wet areas.

### Recommended disconnect sequence

To disconnect the battery from a system, turn off all chargers and loads, open the DC disconnect or breaker, remove the negative cable, then remove the positive cable. Cap or cover terminals immediately after disconnection.

## 8. Series and Parallel Battery Banks

The 12300A-H supports up to 4 batteries in series and up to 4 batteries in parallel, with a maximum 4S4P configuration. Use only matched 12300A-H batteries with similar age, condition, firmware, and state of charge.

### Series connections

Series wiring increases voltage while amp-hour capacity remains the same. Use a charger and loads designed for the resulting system voltage.

Batteries in Series	System Class	Nominal Voltage	Capacity	Energy
1S	12V	12.8V	300Ah	3.84kWh
2S	24V	25.6V	300Ah	7.68kWh
3S	36V	38.4V	300Ah	11.52kWh
4S	48V	51.2V	300Ah	15.36kWh

**WARNING:** Series banks can exceed touch-safe voltages and require equipment rated for the complete pack voltage. Do not exceed 4 batteries in series.

## Parallel connections

Parallel wiring increases amp-hour capacity and runtime while voltage remains the same. Use balanced wiring so each battery sees similar resistance during charging and discharging.

Batteries in Parallel	System Class	Nominal Voltage	Capacity	Energy
1P	12V	12.8V	300Ah	3.84kWh
2P	12V	12.8V	600Ah	7.68kWh
3P	12V	12.8V	900Ah	11.52kWh
4P	12V	12.8V	1,200Ah	15.36kWh

## Balanced wiring practices

- Charge each battery fully before connecting batteries into a bank.
- Use identical cable lengths and gauges for each battery in a parallel bank whenever practical.
- Connect loads and chargers through properly rated positive and negative busbars for larger banks.
- Fuse each battery or string when required by system design and applicable standards.
- Do not daisy-chain large banks when unequal cable resistance could cause uneven charging or discharging.

## Maximum 4S4P configuration

A 4S4P bank uses up to 16 matched batteries for a 48V system class with up to 1,200Ah capacity and approximately 61.44kWh of stored energy. This configuration requires equipment rated for the full system voltage and current, properly sized overcurrent protection, and balanced wiring.

## 9. Deep-Cycle Application Guide

### RV, van, and camper systems

Use the 12300A-H as a house-power battery for compatible 12V DC loads and power systems. Confirm that converters, inverter chargers, alternator charging equipment, and DC-to-DC chargers are programmed within the LiFePO<sub>4</sub> charging settings in this manual.

### Marine house-power systems

Use this battery for onboard electronics and accessory loads where the continuous and peak current demands are within specification. Protect the battery from bilge water, salt spray, unsecured tools, and direct terminal exposure.

### Solar and off-grid systems

Program solar charge controllers for LiFePO<sub>4</sub>. Disable equalization and temperature compensation unless the charging equipment specifically requires a setting of 0mV/C. Confirm that open-circuit solar voltage and controller output are appropriate for the battery bank voltage.

### Backup and standby systems

For standby use, test the system periodically under load and confirm that the charger maintains the battery within the recommended voltage range. Do not leave parasitic loads connected for long periods without a maintenance charge schedule.

### Engine starting notice

**NOTICE:** This model is not marketed as a cranking-rated battery. Use a cranking-rated battery for engine starting unless Epoch confirms compatibility for the specific engine and installation.

## 10. Charging Guide

Use lithium-compatible charging equipment programmed for LiFePO<sub>4</sub> batteries. Compatible equipment may include an AC charger, converter, inverter charger, solar charge controller, or DC-to-DC charger.

### Charging profile

<b>Bulk / Absorption</b>	14.2V to 14.4V
<b>Maximum Charge Voltage</b>	14.6V
<b>Maximum Continuous Charge Current</b>	200A
<b>Absorption End</b>	Stop when charge current $\leq C/20$ or 15 minutes max
<b>Float</b>	Disabled preferred, or 13.3V to 13.6V
<b>Re-Bulk</b>	13.2V
<b>Temperature Compensation</b>	Disabled / 0mV/C
<b>Equalization</b>	Disabled

### First charge

Before first use, fully charge the battery with a compatible LiFePO<sub>4</sub> charger unless the battery is already at the required state of charge for the application. Confirm charger voltage, current, and polarity before connecting.

## Cold-weather charging and internal heating

The battery includes internal heating to support charging in cold conditions. Use compatible charging equipment and allow the battery BMS and heater system to manage cold-charge protection. Do not bypass the BMS, force charge a protected battery, or apply lead-acid repair or equalization modes.

## Charging environment

- Charge in a ventilated area away from flammable materials.
- Keep terminals clean and protected from accidental short circuit.
- Do not charge a battery that is swollen, leaking, smoking, unusually hot, or physically damaged.
- Disconnect or stop charging if the charger, cables, fuse, or battery behaves abnormally.

## 11. Bluetooth Monitoring

Bluetooth monitoring provides convenient access to battery status through compatible Epoch Li-Ion apps for iOS and Android. App screens and available data may vary by app version and battery firmware.

### App setup

1. Install the Epoch Li-Ion app from the Apple App Store or Google Play.
2. Enable Bluetooth on the mobile device.
3. Allow Bluetooth permissions when prompted.
4. For Android devices, enable location services if required by the operating system for Bluetooth scanning.
5. Open the app near the battery and select the battery from the available device list.
6. Enter the Bluetooth security PIN located on the top of the battery when prompted.

### Bluetooth security PIN

This battery includes a security PIN for the mobile app when first connecting via Bluetooth. The PIN is located on the top of the battery and is intended to prevent unauthorized Bluetooth connections and protect battery configuration and system parameters.

**NOTICE:** Record or photograph the Bluetooth security PIN during installation. The PIN is tied to the battery for the life of the product.

### Recommended monitoring checks

<b>Before Installation</b>	Confirm resting voltage, state of charge, and absence of active faults.
<b>During First Charge</b>	Monitor voltage, current, temperature, and charge status.
<b>During Heavy Loads</b>	Confirm current draw remains within continuous and peak limits.
<b>During Storage</b>	Check state of charge periodically and recharge when needed.
<b>After Faults</b>	Record app data and fault messages before contacting support.

**NOTICE:** Bluetooth data is a monitoring aid and does not replace proper wiring, overcurrent protection, compatible charging equipment, or safe installation practices.

## 12. Operation and Storage

### Operating limits

<b>Continuous Discharge Limit</b>	200A
<b>Peak Discharge Limit</b>	400A @ 3 seconds
<b>Continuous Charge Limit</b>	200A
<b>Operating Voltage Range</b>	10.0V to 14.6V
<b>Discharge Temperature Range</b>	-20 C to 60 C / -4 F to 140 F
<b>Charge Temperature Range</b>	-20 C to 55 C / -4 F to 131 F, with heating

## Depth of discharge

LiFePO<sub>4</sub> batteries can provide more usable energy than lead-acid batteries, but routine operation at moderate depth of discharge can improve long-term service life. Avoid leaving the battery fully depleted.

## Storage

- Store in a clean, dry location within 0 C to 35 C / 32 F to 95 F whenever practical.
- For long-term storage, charge to approximately 50% state of charge or higher.
- Disconnect loads and chargers during storage unless the system is specifically designed for standby maintenance.
- Check voltage or app state of charge every 3 to 6 months and recharge if needed.
- Protect terminals from accidental short circuit while the battery is stored or transported.

**CAUTION:** A battery stored at very low state of charge can enter low-voltage protection and may not be recoverable if left discharged for an extended period.

# 13. Maintenance

The 12300A-H is maintenance-free compared with lead-acid batteries. It does not require watering or acid service. Routine inspections help maintain safe operation.

## Maintenance schedule

Interval	Action
Before Each Trip or Use	Inspect case, terminals, cables, fuses, disconnects, and mounting hardware.
Monthly During Active Use	Check terminal tightness, cable condition, app status, and resting voltage.
Every 3 to 6 Months	Check state of charge during storage and recharge if needed.
Annually	Inspect torque, wiring layout, protection devices, battery tray, ventilation, and charger settings.
After Any Fault or Impact	Stop use, inspect for damage, record app data, and contact support as needed.

## Terminal maintenance

- Turn off and disconnect chargers and loads before maintenance.
- Keep terminals clean and dry.
- Use a soft brush or dry cloth to remove dust and debris.
- Do not use solvents, abrasive cleaners, or pressure washing on the battery.
- Confirm M8 terminal hardware is tightened to 8-12 Nm (71-106 in-lb).
- Replace damaged lugs, cables, boots, or hardware before returning the battery to service.

## Voltage checks

Use a reliable multimeter to compare terminal voltage with app readings. Resting voltage changes slowly on LiFePO<sub>4</sub> batteries, so use app state of charge and load testing when a more complete health check is needed.

## 14. Troubleshooting

Use the table below to identify common causes and corrective actions. Stop testing if there is smoke, heat, odor, swelling, liquid, arcing, or visible damage.

Symptom	Likely Causes	Corrective Actions
<b>Battery will not charge</b>	Charger off, reverse polarity, incompatible profile, BMS protection, low-temperature condition, blown fuse.	Confirm charger settings and polarity. Check fuses and disconnects. Warm the battery or allow heating logic to operate. Monitor app faults.
<b>Battery voltage is low</b>	Battery discharged, parasitic load, BMS low-voltage protection.	Disconnect loads. Charge with a compatible LiFePO4 charger. Check for parasitic draws before storage.
<b>Bluetooth not found</b>	Phone Bluetooth off, permissions not granted, out of range, incorrect PIN, battery asleep, app version issue.	Enable Bluetooth and required permissions. Move closer. Confirm the PIN on the top label. Refresh the app. Cycle charger/load to wake the battery if needed.
<b>Low runtime</b>	Higher load than expected, battery not fully charged, cold temperature, capacity imbalance in bank.	Fully charge. Measure load current. Check wiring balance. Test one battery at a time if in a bank.
<b>Fuse or breaker trips</b>	Short circuit, overload, inrush current, undersized protection, damaged cable.	Disconnect loads. Inspect wiring. Confirm load current and protection rating. Replace damaged parts.
<b>Battery becomes hot</b>	High ambient temperature, excessive current, poor ventilation, charger fault.	Reduce load or charge current. Improve ventilation. Confirm charger settings and stop use if abnormal.
<b>App shows fault</b>	BMS detected voltage, current, temperature, or short-circuit protection condition.	Record fault information. Remove load or charger. Allow protection to reset when conditions return to normal.

**WARNING:** Do not repeatedly reset a fuse, breaker, charger, or BMS fault without identifying the cause. Repeated faults can indicate unsafe wiring or equipment mismatch.

## 15. Warranty and Support

### Warranty coverage

The battery is accompanied by an 11-year manufacturer warranty. Warranty coverage applies to qualifying manufacturing defects under normal use and is subject to Epoch Batteries warranty terms and claim procedures.

### Warranty exclusions

- Misuse, abuse, neglect, improper handling, or improper maintenance.
- Incorrect polarity, short circuit, overcurrent, or incompatible charging equipment.
- Use outside specified voltage, current, temperature, or environmental limits.
- Unauthorized modification, disassembly, repair, or tampering.
- Water intrusion, submersion, pressure washing, impact damage, fire, flood, or other external causes.
- Use with non-approved or incompatible accessories, chargers, or system components.
- Mixing with different battery models, capacities, ages, or chemistries in a battery bank.

### Warranty claim procedure

1. Gather proof of purchase, model number, serial number, installation date, and a description of the issue.
2. Record photos of the installation, cables, fuses, charger settings, and any visible damage.
3. Record Bluetooth app data or fault messages if available.
4. Contact Epoch Batteries support for troubleshooting and claim instructions.
5. Do not ship or return a battery unless instructed by Epoch Batteries support.

### Support contact

<b>Phone</b>	1-888-501-1846
<b>Email</b>	support@epochbatteries.com
<b>Website</b>	EpochBatteries.com

## 16. Commissioning and Maintenance Records

Use these records for installation, support, maintenance, and warranty documentation.

### Commissioning record

<b>Battery Model / SKU</b>	
<b>Serial Number</b>	
<b>Purchase Date</b>	
<b>Installation Date</b>	
<b>Installer / Owner</b>	
<b>Application</b>	
<b>System Voltage</b>	
<b>Number of Batteries</b>	
<b>Initial Resting Voltage</b>	
<b>Initial State of Charge</b>	

<b>Charger Model and Settings</b>	
<b>Main Fuse / Breaker Rating</b>	
<b>Cable Gauge and Length</b>	
<b>Terminal Torque Confirmed (8-12 Nm)</b>	
<b>Bluetooth App Connected</b>	
<b>Bluetooth Security PIN Recorded</b>	

### Maintenance log

<b>Date</b>	<b>Voltage / SOC</b>	<b>Inspection Notes</b>	<b>Action Taken</b>

**End of manual.**