#### **Maintenance**

- When in storage for an extended period of time, discharge the battery to 40-50% State of Charge. Use the Lifeline Bluetooth app to verify State of Charge (SOC%)
- Keep batteries stored in cool, dry, and ventilated areas.

#### **Troubleshooting**

If the battery shows 0 volts at the terminal, or the Lifeline Battery App will not connect, the battery has gone into protection mode. Please refer to the following instructions or contact us for assistance.

- If the battery becomes over-discharged and reads less than 5 Volts at the terminal, disconnect the battery from all electrical loads and connect to a compatible lithium charger and charge separately at 14.4 14.6 Volts to reset the BMS.
- If the battery temperature becomes too high during operation and triggers the battery temperature protection, please disconnect the battery from the charging source and let the battery cool down to auto reset.
- If too high of a current passes through the battery and triggers the charge/discharge overcurrent protection, disconnect the battery from all electrical loads and the BMS will automatically reset after a period of time.
- If the battery terminals still show less than 5 volts after following these guidelines, the internal battery fuses or sensors may have been damaged due to severe conditions. Please contact our Technical Support Team for assistance at 1-800-527-3224.

#### Warranty

- Limited Lifetime Warranty: This warranty is extended to the original purchaser or end user and covers defects in materials and workmanship.
- Lifeline Lithium batteries are covered by a 5 Year Pro-rated warranty.
- RV & Marine applications: Within the 1st 12 months of the warranty period, subject to the exclusions listed below, the battery will be replaced at no cost.
- The warranty is invalidated if any of the following occurs, and is not limited to:
  - Failure to follow the guidelines and recommendations in this Owner's Manual
  - Accidental or unreasonable use, misuse, over charging or over loading, or normal wear.
  - Extended storage without recharging
  - Product that has been opened, modified or tampered with.
  - Product that was used for applications other than which it was designed and intended for, including engine starting.
- The warranty does not cover shipping, or any other incidental costs not related to the battery.
- All shipping costs for returns are the responsibility of the owner of the product and are non-refundable.
- For all other applications or technical assistance, please contact our Technical Support team at 1-800-527-3224.

# OWNER'S MANUAL

LITHIUM BATTERIES

...the heart of your system ®

#### **Lifeline Batteries**

292 E Arrow Highway | San Dimas, CA 91773

1-800-527-3224

www.lifelinebatteries.com

### Lifeline Lithium Low Temperature Models

## LL-12V100-24, LL-12V128-GC2, LL-12V300-8DL

# Attention: Please read this manual prior to installation and operation.

Congratulations on the purchase of a new Lifeline Lithium Battery! Lifeline has been the leading name in advanced battery technology including AGM (Absorbed Glass Mat) batteries since 1993.

For the full content of Lifeline's technical recommendations, FAQS and other important information, please visit

https://lifelinebatteries.com/products/lithium-batteries/

If you do not have web access, please contact Lifeline Customer Service Dept. by calling 1-800-527-3224 for additional information.

Before installation scan the QR code to download the Lifeline Lithium Bluetooth Monitor app.



#### Attentions and Warnings:

Per US regulation, Lifeline Lithium batteries are shipped in a 50-60% State of Charge. Please charge batteries to 100% SOC before installation and use.

- This battery is intended for auxiliary use only and not intended for engine starting applications.
- Please consult our Technical Support Team at 1-800-527-3224 prior to installation of batteries in **series**.
- DO NOT open, disassemble, modify, or repair the battery.
- DO NOT puncture, drop, crush, burn, penetrate, shake, or strike the battery.
- DO NOT use a badly damaged battery or operate it with damaged cables or charging adaptors.
- DO NOT permit the battery to freeze. Never charge a frozen battery.
- DO NOT submerge in water. This product is IP65 water resistant which protects against low water pressure only.
- This product contains lithium-on batteries. When it is worn out, dispose of it properly using local laws and regulations.
- In case of skin or eye contact with damaged or exposed battery chemicals, rinse immediately with clean water and seek medical attention.

The following specifications are recommended for maximum battery life for all Lifeline Lithium Low Temperature models only.

Specifications	
Cell Type	LiFePO4
Nominal Voltage	12.8V
Technical Rated Capacity	Varies by Model
Cycle Life (0.2C, 77°F, 25°C)	3500 Cycles (80% DOD)
Terminal Bolt Size	M8
Certifications	UN38.3, CE, UL1642, IEC62133
Shipping Classification	UN3480, Class 9
Charging	
Recommended Charging Current	20% of Rated Capacity
Maximum Charging Current	100% of Rated Capacity
Recommended Charge Voltage	14.4V – 14.6V
BMS Charge Cut-Off Voltage	15.4V
BMS Reset Voltage	12.8 – 14.6V
Balancing Voltage	14.4V - 14.6V
Float Voltage	Not Required
Equalization Voltage	14.4V or Disabled
Temperature Compensation	0 or Disabled
Discharging	
Maximum Continuous Discharge Current	100% of Rated Capacity
Peak Discharge Current	Varies by Model
BMS Discharge Cut-Off Current	Varies by Model
Low Voltage Disconnect	11.0V
BMS Discharge Cut-Off Voltage	8.0V
Reconnect Voltage	>10.0V
Temperature	
Discharge Temperature	-4 ~ 140° F (-20 ~ 60° C)
Charging Temperature	-4 ~ 113° F (-20 ~ 45° C)
Storage Temperature	23 ~ 95° F (-5 ~ 35° C)
BMS High Temperature Cut-Off	149° F (65° C)
Reconnect Temperature	131° F