



## OWNER'S MANUAL

Congratulations on the purchase of a new Lifeline battery! Lifeline has been the leading name in AGM (Absorbed Glass Mat) batteries for the marine and RV industry since 1993. The quality and durability of the Lifeline battery series has been proven again and again in military and commercial applications worldwide.

### The AGM difference:

- 20% faster recharge than a conventional vented battery
- 100% maintenance free  
Classified as NONSPILLABLE
- Tested to stringent military shock and vibration standards
- Designed not to outgas under normal charging conditions

### Sizing a battery bank:

It is always good to have twice the battery capacity that an application requires. This will promote long battery life and also reduce the amount of recharge time.

## Battery Charging:

The following charging voltages are recommended for maximum battery life for all Lifeline models.

### 3 Stage Chargers

|            |                   |
|------------|-------------------|
| Bulk       | 14.2 – 14.4 volts |
| Acceptance | 14.2 – 14.4 volts |
| Float      | 13.2 – 13.3 volts |

### 2 Stage Charger

|       |                   |
|-------|-------------------|
| Bulk  | 14.2 – 14.4 volts |
| Float | 13.2 – 13.3 volts |

### Single Stage Charger

|      |                   |
|------|-------------------|
| Bulk | 14.2 – 14.4 volts |
|------|-------------------|

Once the battery is fully charged, remove it from charger.

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## Equalizing:

15.5 volts for 8 hours

Equalizing should only be done when the battery is showing symptoms of capacity loss. In the event equalization is necessary, make sure to go through the normal charge cycle. Once the battery is fully charged, equalizing may begin.

*Note: For 24 volt battery banks, simply take the charge voltages as provided above and multiply by 2.*

For maximum battery life, a battery must be recharged to 100% capacity. Recharging less than 100% may result in premature battery failure. Lifeline batteries are not covered under warranty if they are not recharged properly. For more information, please refer to our warranty policy.

## **For Inverter/Charger applications:**

Refer to the Inverter/Charger manual to ensure the correct voltages have been set.

## **Knowing when to recharge:**

For maximum battery life in deep cycle applications, do not discharge the battery bank below 50%. Continually discharging the bank 100% will shorten the battery life. The open circuit voltages listed below approximate the various States of Charge (SOC).

|          |                        |
|----------|------------------------|
| 100% SOC | 12.80 volts or greater |
| 75% SOC  | 12.55 volts            |
| 50% SOC  | 12.20 volts            |
| 25% SOC  | 11.75 volts            |
| 0% SOC   | 10.50 volts            |

## **Multiple Batteries:**

If there is more than one battery in the battery bank, the following guidelines should be used:

- Always use batteries of identical make, model and with the same manufacturing date.
- Make sure the battery cable is not undersized for the battery system.
- Make sure the battery cables are connected to the terminals correctly. If unsure, professional assistance is recommended.

## **Storage:**

The following recommendations may be helpful if the battery is to be stored:

- When storing the battery in a vehicle or vessel, it is not necessary to leave it on charge. Disconnect the negative battery cable. This will prevent inadvertent discharging of the battery that may lead to a complete discharge.
- Fully charge the battery before putting it in storage and store in a cool place.
- Boost charge the battery every 90 days to ensure maximum battery life.

## **Warranty:**

Lifeline batteries have a 5 year pro-rated warranty with a 1 year free replacement period when installed in Marine or RV applications. Applications other than Marine or RV, Lifeline batteries are pro-rated for 3 years. The warranty period starts at the time of purchase. If the original receipt is lost, the warranty will be based on the battery date code. The warranty covers failure due to defects in material or workmanship. It does not cover failure caused by abuse, neglect or breakage. The warranty does not cover consequential damage or injury, discharged batteries, rental, freight, labor or administrative costs. Replacement batteries will be provided at the time the warranty is requested and approved. Lifeline Inc. can not issue monetary credit and a claim cannot be made against the previous purchase of a new battery at regular price. For answers to warranty questions, please contact Lifeline Inc. at (800) 527-3224.