## **Manual and Installation Guide**

### "Don't Skip A Beat"



## 12V-100Ah LiFeP04 Battery

# Congratulations on your New Impulse Lithium purchase!

At Impulse Lithium, we took the extra steps to make our batteries compatible with most products using AGM or Lead Acid batteries on the market today. Below are some of the guidelines you should follow while enjoying your new battery. If you are unsure of how to proceed with installation please contact Impulse Lithium for clarification.

## **Battery Features**

Impulse Lithium Batteries come standard with a Battery Management System or (BMS). A BMS is an onboard computer that continuously monitors the parameters of the battery. Below is a list of standard operating conditions that the BMS will monitor. When conditions fall outside of normal operating ranges the BMS will protect the battery and your investment

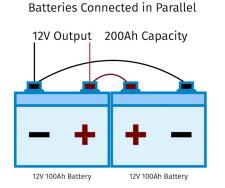
- High Voltage
- Low Voltage
- High Temperature
- Low Temperature
- High Current
- Continuous Amperage Output
- Cell Balancing

## **Installation**

Impulse Lithium Batteries are simple to install, simply connect your positive cables to the positive terminal and your negative cables to the negative terminal. Our batteries work great in either parallel or series configurations (up to 48v). Our batteries come standard with 10mm mounting hardware. Positive terminals are marked with (+)(RED) and Negative terminals are marked with (-)(BLACK)

#### **Parallel Installation**

Impulse Lithium recommends up to (4) batteries for parallel connection. In this configuration, positive leads are connected together and negative leads are connected together. The system voltage remains (12v) but the currents change by the multiple of batteries. Please make sure all of your wiring is sized to accommodate the increased current(s) this includes fuses or circuit breakers. See illustration below

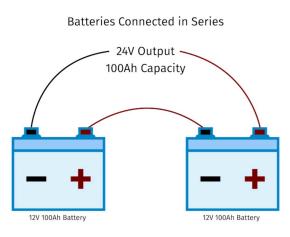


A Parallel connection will double AMP HOURS while VOLTAGE remains constant.

#### **Series Installation**

Impulse Lithium recommends up to (4) batteries for a series configurations. This will increase the voltage of the system up to 48V. Example: A Series connection is when a positive lead on the first battery is connected to the negative lead on the second battery in a two battery configuration. The system will now produce 24v. The positive and negative leads that are opposite the connections are the "power" leads. Simply attach the positive lead to the correct terminal (RED) and the negative to the (BLACK). See illustration below

Impulse Lithium Batteries work great on trolling motor applications with 12/24/36 volt trolling motors. Impulse Lithium recommends using the MinnKota 460 precision charger set on the "AGM" setting for charging. Other chargers may also be compatible



A Series connection will double VOLTAGE while AMP HOURS remain constant.

## **Storage and maintenance**

#### Storage

Storage is simple, Impulse Lithium recommends charging the battery fully then storing in a dry area with a temperature range between 50-80 degrees, however higher or Lower temperatures will not hurt the battery

#### Maintenance

Impulse Lithium Batteries require no maintenance other than charging. If your batteries are not connected to a charger please be sure to charge them once a year so the batteries stay balanced. This is accomplished by simply connecting a charger and letting the internal BMS do the work for you.

## Warranty & Return Policy

If you are having issues with one of our batteries, don't worry, Impulse Lithium has developed a straight forward warranty & return policy as identified below:

- Email Impulselithium@gmail.com for all warranty claims
- Impulse Lithium offers a 5-year non-prorated warranty on all batteries
- Returns of unopened batteries will receive full refunds less a 15% restocking fee
- Impulse Lithium offers a 5 year manufacturers defect warranty from the date of purchase. Impulse Lithium's warranty does not cover negligence or misuse of the battery or normal wear and tear. If it is deemed that the battery was used improperly, customer will be subject to a \$100 an hour repair/inspection charge plus parts and shipping.
- To submit a warranty claim, please contact the original place of purchase. The battery may be required to be shipped back to Impulse Lithium for further inspection.
- 30-day warranty on all accessories, after 30 days customers are to deal with OEM (Original Equipment MFG's) and their applicable warranties
- Warranties can be used for an exchange of a component only once.
- Customer is responsible for costs of shipping for returns or warrantied component inspections. Some battery shipments may require special documentation and packaging, which could encounter extra fees. These requirements are in place to comply with lithium battery shipping regulations. For all return shipping, we recommend using FedEx Ground Services
- If you have any issues with Impulse Lithium Batteries please contact us for technical support. If it is determined the battery needs parts or additional diagnostics we will ask the battery be returned. If the battery requires parts, these components will only be sent after we have received the returned component and finalized an inspection to determine the cause. Impulse Lithium is not responsible for return shipping.
- Any modifications to the batteries or damage due to negligence or abuse are not covered by the warranty.