

Lithium Iron (LIFEP04) Battery Package

- **How many Lithium Batteries will I receive?**
 - You will receive a total of (6) house batteries @ 100 AH each. The house battery system is designed to run all 12-volt devices on the boat such as the refrigeration, lighting, electronics and more.
- **Why do I need the Lithium Iron battery package when I select “dockside air conditioning?”**
 - If you want to be able to use your air conditioning system, electric BBQ, electric stove and other high-power appliances away from the dock, you will need this option.
 - Keep in mind, if you do not need or want to run the AC away from shore power, the Air conditioning will operate as a normal air conditioning system while plugged into 30 amp power.
- **How long can I run the Air Conditioning when I am not connected to shore power?**
 - Like anything, this all depends on your power management. Traditional batteries whether that is lead acid or AGM do not like to be run below 50% power. The main issue with lead acid and AGM batteries is once you have a high load against them, they will decrease voltage which in turn increases the amp draw on the device you are running. The numbers I will provide you below would be with the AC running and no other draw on the batteries.
 - With the Lithium Iron Package, you will be able to discharge these batteries to a much lower state of charge allowing for more power consumption. If you figure in a 90% discharge, this would leave you with approximately 540AH of use. With our air conditioning systems, they can draw between 65-75 amps per hour. With the higher output AC unit, this would allow you right around 7 hours of run time before your batteries were discharged. Keep in mind, this would be with no other charging coming into the boat such as solar power or running the engine.
 - Now, if you are running the engine, the alternator output will be anywhere between 35-50 amps. If you figure the incoming charge with the numbers above, this would give you anywhere between 13-21 hours while under way before you would discharge your batteries.
- **What precautions have we taken to ensure safe charging and operation?**
 - There are a lot of concerns out there about Lithium “Ion” batteries. We use a Lithium “Iron” phosphate battery which is a much safer battery. Also known as (LIFEP04)
 - We have designed the electrical system to operate just as the battery manufacturer would require. We use what is called a DC to DC charger which will help regulate the current coming from the engine alternator and solar panel to stay within the limits of the charging voltage required by the battery manufacturer. These DC to DC chargers will allow up to a maximum of 50 amps of charge which is the limit of the battery. To read more about the type of battery we are installing, please follow this link. [Dakota Lithium 12v 100Ah Deep Cycle Marine & Solar Battery](#)
 - In addition to this, we install a smart start unit on the air conditioning system which will help reduce the startup load against the batteries and Inverter.
 - We also install a smart battery monitor system which will allow you to see the remaining run time on the batteries with the current load you are running.
 - Just to make your experience better, we upgrade the battery charger from a 20amp to 60amp charger for quicker recharge times when you get back to the dock and hook to shore power.
- **How long will my Lithium Iron Batteries last?**
 - The standard lead acid or AGM batteries can last between 3 and 5 years depending on the number of cycles the batteries have had. The typical Lithium Iron battery can last up to 4X longer than your traditional battery, charge 5X faster and provide 2X the power from your conventional battery. Not to mention, they are ½ the weight of your traditional lead acid or AGM battery.

What is the warranty on the Dakota Lithium Iron batteries?

- Here is the information right from the website.
- In the unlikely event you are having an issue with one of our batteries we have developed a straight forward warranty & return policy:
 - For all returns or warranty claims contact support@dakotalithium.com
 - World beating / best in class **11 year warranty** on all batteries.
 - It's simple. Dakota Lithium batteries are built to last. We stand by our craftsmanship. If we made a mistake in building your battery we'll fix it or replace it.
 - Dakota Lithium offers a 11 year manufacturers defect warranty from the date of purchase [[fine print available here](#)]. The average lifespan of a Dakota Lithium Iron Phosphate battery is 2,000 recharge cycles, or roughly 5 – 10 years with regular use that is appropriate to what the battery is designed for (see the specifications of the battery). This 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, you will be subject to a \$150 an hour repair 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 us (Dakota Lithium) for further inspection.
 - 1 year warranty on all accessories & complimentary products (chargers, powerbox cases, volt meter, etc).
 - Free lifetime technical support & free battery analysis.
 - Warranty only applies to original owner (non-transferable).
 - Warranties can be used for an exchange of a component only once.
 - Customer pays return shipping on returns or warranted component inspections. Please note some battery returns may require special documentation and packaging, and these instances will encounter extra fees. This is in order to correctly comply with lithium battery shipping regulations. For all return shipping we recommend using a local shipping service like FedEx office or the UPS Store.
 - If you have a quality issue with a product please [contact support](#) to help diagnose the problem. If a product does not meet our high quality standards, then we will issue you a replacement component or fix the original at no additional cost. Replacement components will only be sent after we have received your returned component and finished an inspection to determine the cause of any problems. Dakota Lithium is not responsible for return shipping.
 - Do-It-Yourself modifications or damage due to gross negligence or abuse are not covered by the warranty.