

I have been houseboating on Lake Powell in Southern Utah for many years. It was 2008 when we saw our way with a good group of other investors to purchase a new 75' Destination Yachts houseboat. This houseboat came equipped with all the conveniences of home. The houseboat is powered by a 12.5 KW generator and a 800 amp hour set of batteries coupled with an Inverter/Charger. Of utmost importance was the dual residential refrigerators that have enabled us to keep well fed large groups of family and friends during our weekly visits to the lake. Lake Powell is in one of the most remote areas of the United States so it is important to go fully provisioned and have a reliable houseboat for our weekly visits.

During the Summer months of 2010 and 2011 our original 800 amp hour Gel batteries were showing a significant reduction in capacity. The most important thing has always been the ability to keep the dual refrigerators powered through the night while we were sleeping. With the Inverter shutting down halfway through the night due to low voltage we came to the realization that we had to purchase a new set of batteries. After much research we decided to replace the GEL batteries with two Lithionics 12V 200AEG-GC2-E batteries, protected and monitored by an external BMS (battery management system).

In 2012 large amperage Lithium batteries were just beginning to emerge in the market place. Because of the reported advantages of Lithium batteries we decided to take a chance and spend the extra money on this new technology. After an initial problem with one of the 200 amp hour batteries, Lithionics was excellent to work with and replaced the two batteries with a single 12V 400-8D Lithium battery.

Since then this 400 amp hour battery has performed well, as advertised, with no problems. We installed the Lithium battery and basically forgot about it for six years. Recently we have begun to notice a decrease in capacity and after our previous good experience with a Lithium battery made the decision to upgrade to a new Lithionics 600 amp hour system.

I have been pleased with how the Lithium technology has performed. Lake Powell is a rough environment for batteries with very hot temperatures and multiple operators using a lot of electricity on the house boat. I figure that each day the battery goes through at least two complete charge/discharge cycles. With full use of the boat for at least 6 months each year this equates to about 360 charge/discharge cycles per year or a little over 2,000 cycles for the past six years. This experience has lined up with what we have seen on lab testing reports for Lithium battery life. During that same time period we would have had to replace GEL batteries at least 2-3 times with the problems of sagging voltage during each replacement cycle.

I am confident that with the new 600 amp hour battery replacement and 50% more capacity we will go beyond our last six years of use and enjoy a more robust electrical power system for the houseboat.

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