

Installing Underwater Lights on a Bayliner 32xx

I have wanted to add underwater lights for awhile now and finally got the opportunity during a hull out for new bottom paint (did the bottom paint myself over a 4 day hull out. That's a different story. Next time I will have it done for me). I researched the different types of lights including those available on ebay, the major retailers and factory direct. I ended up choosing Lumitec Lighting's Sea Blaze 3 product. I went with the Sea Blazer 3 lights based upon a number of factors including:

- Good feedback from existing customers,
- Made in the USA,
- Glass lenses,
- Surface mount,
- Aluminum housing,
- Only a small hole in transom needed for install,
- Fully self contained unit with no external power supply needed
- and the price.

They come in 4 different color options: green, blue, white, and a combo blue/white. I went with the combo blue/white. This allows you to toggle between white only, blue only, and blue and white at the same time. There are 8 total LEDs in each light. With the combo option, 4 are white and 4 are blue. So when in blue or white only mode only 4 LEDs light up. I purchased 4 lights via a retailer off ebay because it was the best price I could find anywhere. I installed the lights 10 inches below the waterline between the prop pockets. The manufacturer recommends installing the lights on a flat non-running surface 8-12 inches below the waterline. Installation was a 3 on a scale of 1-10, 10 being very difficult. Installation was simple:

1. First sand all bottom paint off the transom where the lights will be installed. The lights have an aluminum housing so they WILL react to any paint containing copper. And since most bottom paints have copper I made sure all paint was removed a good 4 inches from the mounting surface.
2. Next I used the supplied template and taped it to the areas for mounting. I made sure there was nothing in the way behind the transom in the engine room to interfere with the 1/2 inch hole that needed to be drilled.
3. Next I drilled the main 1/2 inch holes and the small 1/4 in hole for the 3 mounting screws for each light. The good news was that the transom core was completely dry. No rot found. I was very nervous about this being a 28 year old boat.
4. I then used Trilux 33 bottom paint on the area where the lights will be installed. The Trilux 33 is an aluminum safe paint. I put on 2 coats.
5. I then used plenty of 3m 4200 sealant in the holes and on the back of the lights. Let that setup for a bit then mounted the lights. As suggested by the manufacturer I used a good amount of

4200 on the inside of the transom to completely seal the hole where the wire comes through the transom.

6. I then painted the bezels of the lights with 2 coats of Trilux 33 bottom paint as well.
7. I purchased 22 feet of 14 gauge Fourplex wire from west marine. I used one wire for each hot and I tied all the commons together for the fourth wire. I soldered each wire and used heat shrink to seal the wires. I ran the wire past the fuel tanks on the starboard side thru the cave up to the helm. Then installed 4 inline 5 amp fuse to each hot again using solder and heat shrink.
8. I then installed a new 4 switch panel so I can control each light separating. I installed the new panel under the lower helm to the flat surface on the right. The power source for the new Panel comes directly from the 4 group 32 AGMs I have installed under the v-berth. I used 22 feet of 6 gage battery cable to connect the new panel. That's over kill but I may want to draw additional source from this feed at a later time. Currently the 4 batteries only supply power to the fridge, the toilet and the inverter. Each light draws 2.5 amps, so that 10 amps total.

Take a look at the pictures. The lights work as expected. GREAT

The total costs was as follows:

4 Sea Blaze 3 lights - 243.00 each = \$972.00

22 feet of Fourplex wire 1.70 a foot = \$37.40

4 inline 5 amp fuses = 3.50 each = \$14.00

2 tubes of 3M 4200 15.00 each = \$30.00

1 new 4 switch panel = \$40.00

22 feet of Red 8 gage battery cable - 2.00 a foot = \$44.00

22 feet of Black 8 gage battery cable - 2.00 a foot = \$44.00

1 quart of Trilux 33 bottom paint = \$57.00

for a grand total of **\$1238.40**



Transom as it came out of the water



Sanded area and drilled holes. Ready for bottom paint



Lights installed



Close up of light



The lights look great and this is very mercy water. Here they reach about 25 feet out.