CLAKE LITE

SOLAR MARINE LIGHTING

**MODEL: LL-BUOY** 



# Solar Powered Regulatory Buoy

Model: LL-BUOY-B

The world's first Solar Powered Silhouette Illuminating Buoys are the safest available. Not only can you see the buoy at night, but, you can actually read the message! The fun doesn't stop there! This unit is equipped with Lake Lites new patent pending magnet technology! Swipe the magnet over the solar panel at night to change between 7 brightness levels for user adjustable brightness and run times. Hold the magnet for 5-seconds and you can change between White, Blue, or Amber illuminating LEDs! That's right a simple swipe and you can adjust the brightness/run time and buoys illuminating color!

The powerful solar panel collects the suns energy during the day. At night the integrated circuit automatically turns on the super bright LED which illuminates the entire body of the buoy. The labels create shadows of the message, logos, and bands, that allow boaters to visibly read the buoys message at night.

LIGHT CHARACTERISTICS	
Light Source	8-Ultra-High intensity LEDs.
Lumens output	35/70/90/120 Lumens *Varies with Color & Power / Brightness Settings
Available LED Colors	WHITE (B, G, A, WW, via Special Order)
Light Mode Options	Constant
Visible Range	1- 2+ Nautical Mile *Varies with LED color & Brightness Settings
Horizontal Output (degrees)	360 Deg.
Vertical Divergence (degrees)	100-180 Deg. Various with Mounting
LED Life Expectancy (hours)	> 100,000 hrs
ELECTRICAL CHARACTERISTICS	
Circuit Protection	Integrated
Nominal Voltage (v)	3.2v
Autonomy (hours)	16-20hrs *On full Charge * Varies With Brightness Settings & Conditions
Temperature Range	-10 to 70 C
SOLAR CHARACTERISTICS	
Solar Module Type	Multicrystalline or Monocrystalline
Power (watts)	2.2w
Solar Module Efficiency (%)	16-17%
POWER SUPPLY	
Battery Type	High Capacity LiFePo4
Battery Size	3pcs Parallel LiFePo4
Battery Capacity (mAh)	3000mA
Nominal Voltage (v)	3.2v
Battery Service Life	3-6 years (Varies with local Environment)
Battery Service Access	Yes: User Changeable / Replaceable
PHYSICAL CHARACTERISTICS	
Body Material	Marine Grade Aluminum + Powder Coat
Lens Material	UV-Stabilized Polycarbonate
External Lens Design	Horizontal Lenticular
Internal Lens design	Vertical Lenticular
Water Proof Rating	IP 68
Mounting	Fits on Pilings or flat surfaces 8" diameter and Larger
Height	106.5mm
Width / Diameter	203mm
Weight	4 lbs
OPTIONS	
Custom Options, Sizes, & Colors	Please Contact
Custom Hardware & Mounting	Please Contact
* Information subject to change without notice	



Lake Lite Inc. 100 Industrial Dr. Avilla, IN 46710

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**Caution! When plugging battery connectors** together, align notches before connecting both permanent damage to the light.

## **Battery Information**

### **LiFePo4 Type Battery:**

Volts: 3.2v Cell Size: 18500 Capacity: 3100mA

**DO NOT USE:** standard 1.2v NiMh or NiCd type Rechargeable

batteries or they will be damaged!



#### **BATTERY MAINTENANCE**

For prolonged storage when not using the product please follow these procedures.

- 1. Charge batteries inside product on sunny day.
- 2. Before nightfall open your light and fully disconnect the battery from the product.
- 3. Store battery and product in warm/dry location.
- 4. **Note:** Batteries can be damaged from sub-zero temperatures when not in use.





CAUTION: PLEASE KEEP OUR ENVIORNMENT CLEAN! BATTERIES MUST BE RECYCLED OR DISPOSED OF PROPERLY.

### Mounting Hardware Suggestions – Not Included

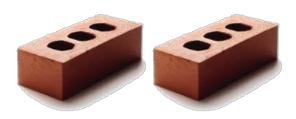
Chain

**Chain Links** 

**2pcs Standard Bricks** 



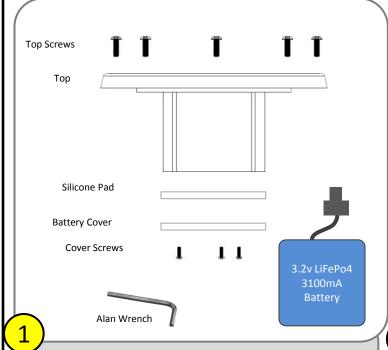




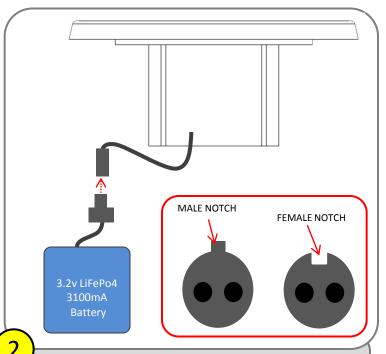


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Use the provided wrench to separate your light: The battery is not connected when shipped.



Connect Battery: Caution! When plugging battery connectors together, align notches before joining both connectors.

Forcing or connecting backwards will damage the light.

Power Setting	* Run Times
100%	6-8 hrs
80%	7-9 hrs
65%	10-12 hrs
50%	13-14 hrs
35%	15-17hrs
20%	17-22 hrs
OFF	OFF
Holding for 5-seconds	Changes LED color

\* Note: Run times will vary significantly based on factors such as; Sun Exposure, Season, Geographic Location, Shading, Installed Location/Position, Battery Condition, Brightness Setting, etc... The following run times should only be used as a general reference and are not guaranteed. Consider your local environment.

#### **CHANGING BRIGHTNESS LEVELS**

Wave the magnet over the solar panel at night until you find the activation area which changes the brightness level.

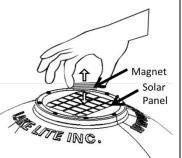
Make a quick up & down motion over this area to change between brightness levels and OFF.

NOTE: moving too slowly may activate the magnet switch multiple times going through multiple levels at once. A quick motion will help!

#### **CHANGING LED COLORS**

Hold the magnet over the activation area for 5 seconds until the LED color changes

NEW MAGNET
SWITCH OPERATION



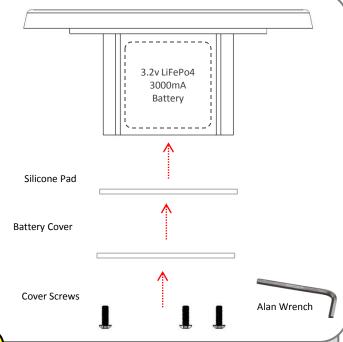
Change brightness/power level at night by waving the magnet over the solar panel

Holding the magnet for 5-seconds in the activation area will change to the next LED color. You may then change between brightness/power levels on that LED color.



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Foam Tape

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- Use the provided wrench and screws to secure the silicone pad and battery cover. Fully tighten screws to ensure the chamber is water proof.
- Use the provided foam tape in the channel around the top of the buoy. Be sure to overlap the two ends slightly.



- Use provided wrench and top screws to attach the light to the buoy top. The seal must be in the correct position before tightening down the top to the base.
- Attach the ballast pole to the bottom of the buoy with the 4 large hex bolts and lock washers.



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### **Required Hardware**

Chain



**4pcs Chain Quick Links** 



**2pcs Standard Bricks** 



Lake Bottom

### **WARNING:**

Be sure to use chain as (rope will wear on the brick and break)



1-Red Brick (Ballast Weight)

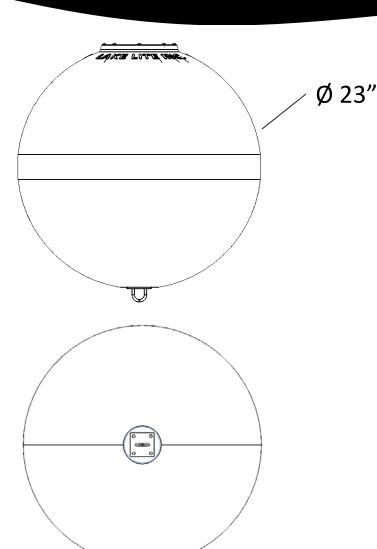
1-Red Brick (Anchor Weight)

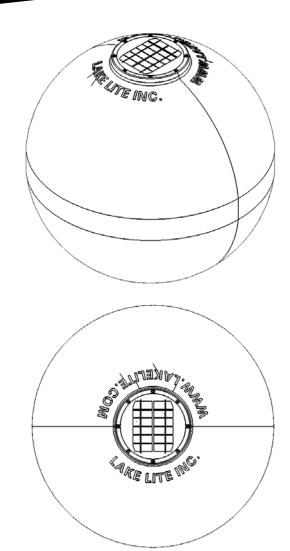


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### Owner Registration Card

Please fill out and affix proper postage and return this owner registration card **within 10 days** to insure that your new Solar Buoy Light is covered by the limited warranty.

Light is covered by the innited w	arranty.
Purchaser's Name	<u>.</u>
Address	<u>.</u>
State	Zip
Purchase Date: N	umber of Lights:
Where Purchased (Store Name):	<u>.</u>
Model No.	LL-BUOY-B
UPC No.	Varies On Different
Models	
Lake L	ite Inc.
100 Indu	strial Dr

Avilla, IN 46710

#### Lake Lite Inc. 1-Year Limited Warranty

The retailer warrants the Solar Lite to be free from defects in workmanship and material present at time of shipment from the factory for a period of one year after the date of purchase by the original purchaser. We agree to correct such defects without charge or at our option replace with a comparable or superior model if the product is returned to the retailer. To obtain warranty service, you must present a copy of the receipt as proof of purchase. All costs of removing and reinstalling the product are you responsibility. Damage to any part such as by accident or misuse or improper installation or by affixing any accessories, is not covered by this warranty. There is no other express warranty. The retailer hereby disclaims any and all warranties, including but not limited to, those of merchantability and fitness for a particular purpose to the extent permitted by law. The duration of any implied warranty, which cannot be disclaimed, is limited to the time period as specified in the express warranty. Some states do no allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. The retailer shall not be liable for incidental, consequential, or special damages arising out of or in connection with product use or performance except as may otherwise be accorded by law. Some states do not allow the exclusion of incidental or consequential damage, so the above exclusion or limitation may apply to you. This warranty gives specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

