

SOLAR REGULATORY BUOY

MODEL: LL-BUOY-P



120
Lumens

Solar Powered Regulatory Buoy

Model: LL-BUOY-P

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 Lite's 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 buoy's illuminating color!

The powerful solar panel collects the sun's 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 buoy's message at night.

LIGHT CHARACTERISTICS

Light Source	24-Ultra-High intensity LEDs. (8-White, 8-Blue, 8-Amber)
Lumens output	35/70/90/120 Lumens *Varies with Color & Power / Brightness Settings
Available LED Colors	WHITE, AMBER & BLUE
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	ASA Composite
Lens Material	UV-Stabilized Polycarbonate
External Lens Design	Horizontal Lenticular
Internal Lens design	Vertical Lenticular
Water Proof Rating	IP 68
Height	52"
Width / Diameter	10"
Weight	28 lbs

* Information subject to change without notice



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Caution! When plugging battery connectors together, align notches before connecting both connectors. Failure to do so could result in 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 ENVIRONMENT CLEAN! BATTERIES MUST BE RECYCLED OR DISPOSED OF PROPERLY.

Mounting Hardware Suggestions – Not Included

Chain



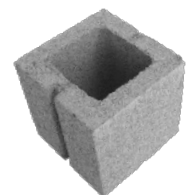
Chain Links



Full Cinder Block



Half Cinder Block



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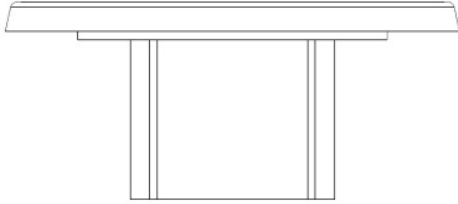
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Top Screws



Top



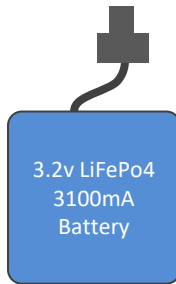
Silicone Pad



Battery Cover

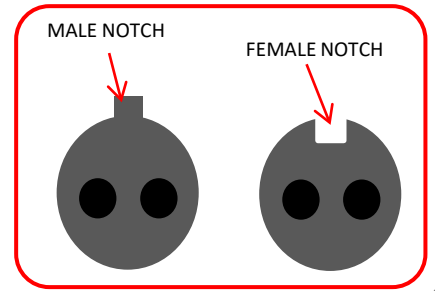
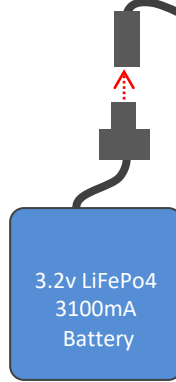
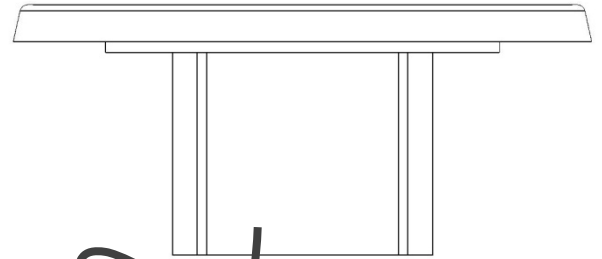


Cover Screws



1

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



2

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

3

* **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

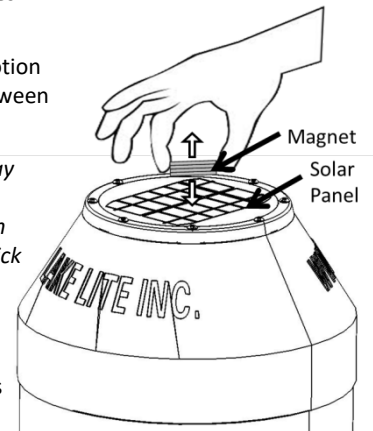
Make a quick up & down motion over this area to change between brightness levels & OFF

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 3 seconds until the LED color changes

NEW MAGNET SWITCH OPERATION



4

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

Holding the magnet for 3-seconds in the activation area will change to the next LED color. You may then change between brightness/power levels on that LED color.

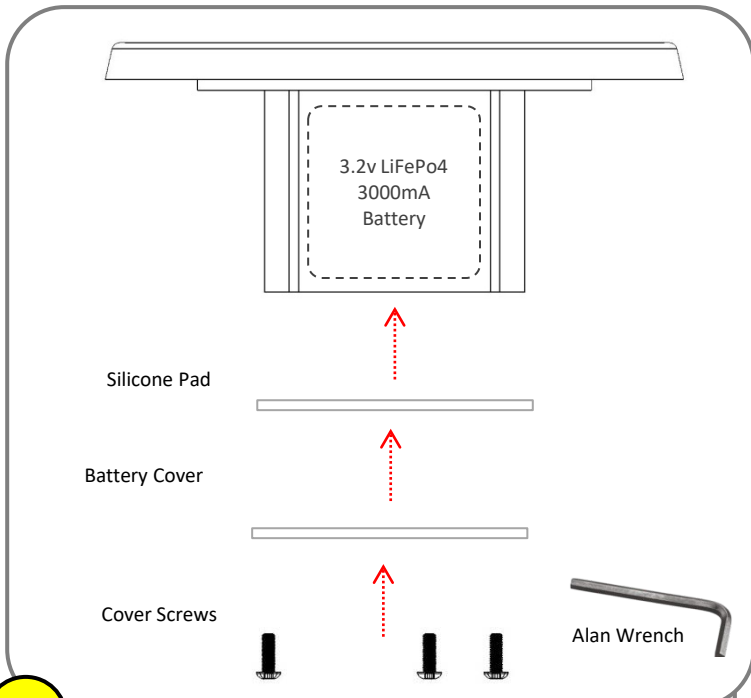


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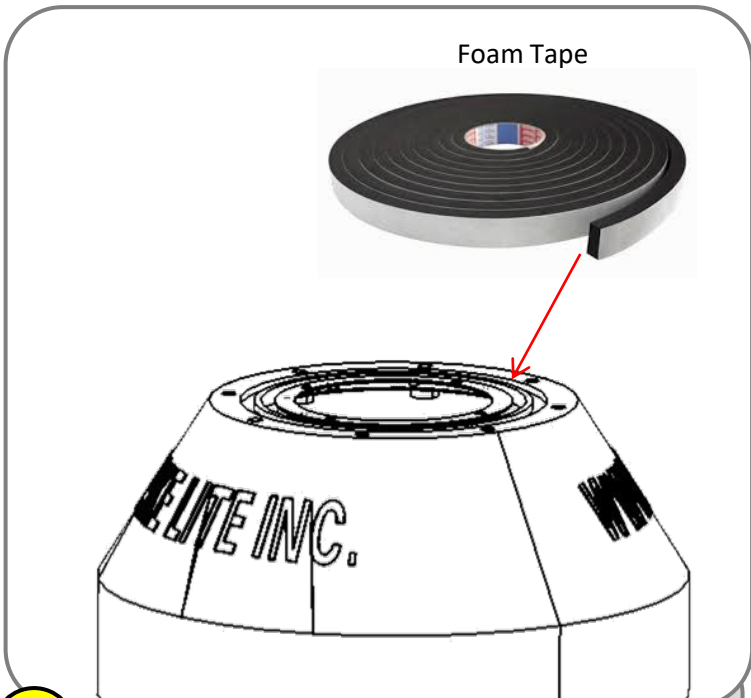
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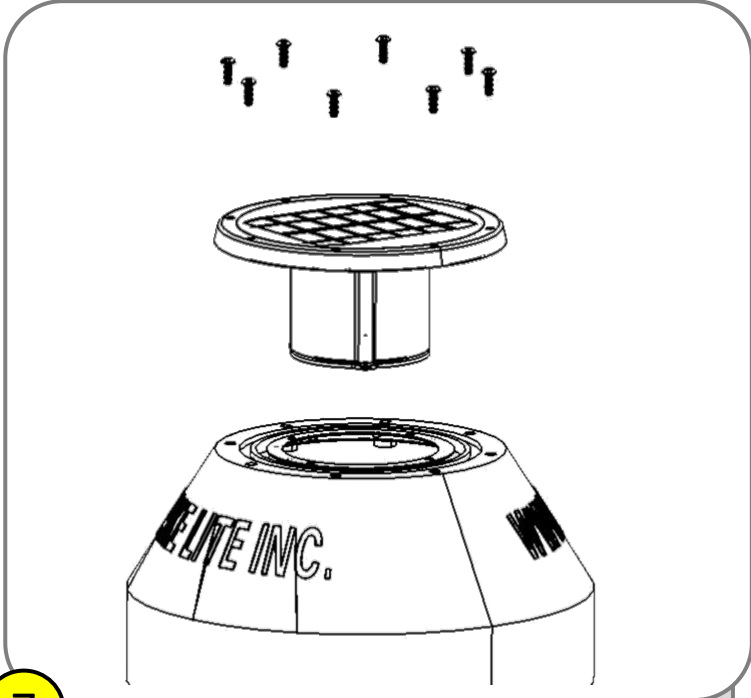
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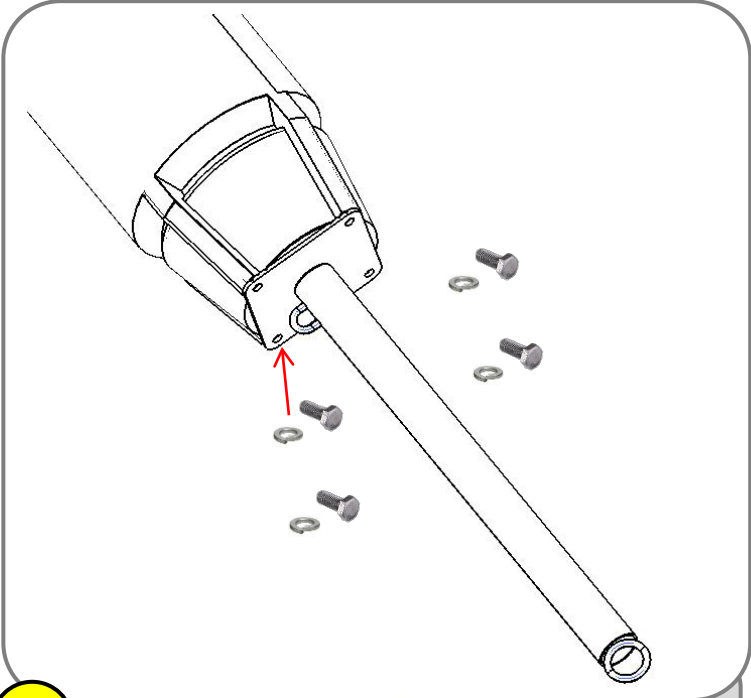
5 Use the provided wrench and screws to secure the silicone pad and battery cover. Fully tighten screws to ensure the chamber is waterproof.



6 Use the provided foam tape in the channel around the top of the buoy. Be sure to overlap the two ends slightly.



7 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.



8 Attach the ballast pole to the bottom of the buoy with the 4 large hex bolts and lock washers.



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NOTE: The Ballast Pole is designed to flex and absorb light forces differences between the buoy and the directional change of the ballast weight. This "helps" prevent damage from LIGHT impact and or wave forces present on the buoy. The BUOY IS NOT warranted against impacts!



Required Hardware

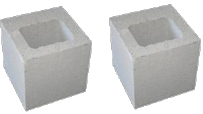
Chain



4pcs Chain Quick Links



2pcs Half Cinder Blocks



Anchor Weight at bottom
1- Cinder block
25-28kg (55-60 lbs)



Drift Chain

Spring Flex Ballast Pole
Absorbs light forces

WARNING:

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

Weight Chain

Ballast Weight
½ Cinder Block
13kg (25-30lbs)

Lake Bottom

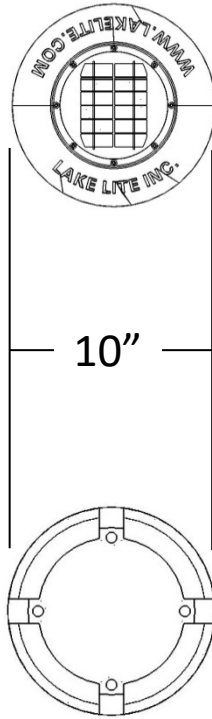
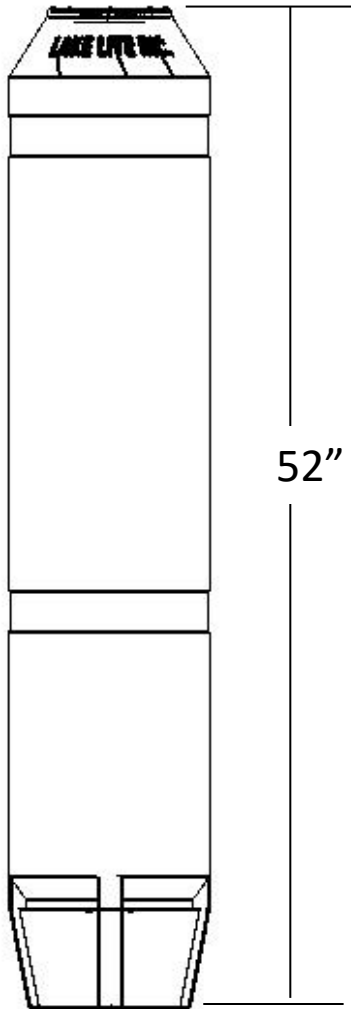


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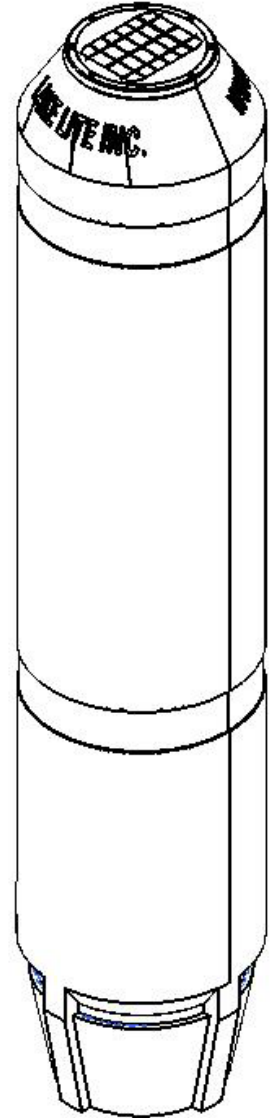
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TOP

BOTTOM



Owner Registration Card

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

Purchaser's Name _____

Address _____

State _____ Zip _____

Purchase Date: _____ Number of Lights: _____

Where Purchased (Store Name): _____

Model No. _____ LL-BUOY-P
UPC No. _____ Varies On Different
Models

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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 your 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 not 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.



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