

12 LED On-Hull SeaLite®

User Manual Rev. 11/10/09



Congratulations on the purchase of your 12 LED On-Hull SeaLite®! DeepSea Power & Light has been supplying underwater lights for industrial and research applications for over 25 years, and our line of SeaLite® products have set the standard for durability and performance in every industry where they are used. Your 12 LED On-Hull SeaLite® has been rigorously tested, and the quality and performance of your light comes with the full confidence and backing of DeepSea Power & Light.

READ BEFORE USING

- 12 LED On-Hull SeaLite® is designed for installation on fiberglass and wooden transoms only.
- 12 LED On-Hull SeaLite® should never be installed on a vessel while the vessel is in the water.
- Only qualified technicians should install the 12 LED On-Hull SeaLite®.
- BEFORE drilling any holes in the transom, energize the light using the intended 10-32 VDC power source to ensure proper operation.

INSTALLATION & OPERATING INSTRUCTIONS



Caution! For hulls constructed with Divinycell® or similar foam cores, please consult the boat manufacturer for specific procedures to use when installing hull-penetrating fixtures. In general, the exposed surfaces of the internal core must be protected using a fiberglass resin or an epoxy compatible with the hull material to form a solid, sealed surface from the outside to the inside of the hull.



Caution! If the cable needs to be stripped, automatic wire strippers should be used to avoid nicking the conductors inside. If automatic wire strippers are not available, excess cable can be coiled into a service loop. Attempting to cut with regular wire strippers is DIFFICULT.

1. The 12 LED On-Hull SeaLite® should be mounted on a flat portion of the transom with the center of the housing approximately 8" (203 mm) below the waterline. The light should not extend beyond the flat surface on which it will be mounted. The 12 LED On-Hull SeaLite® can operate out of the water, so turning it off while underway is not necessary.
2. Before drilling the power cable hole, ensure that there is adequate clearance on the inside of the hull, inboard of the hole.
3. Drill a 1/2" (13mm) hole 3/4" (19 mm) into the hull for the cable support. Then, in the center of this hole, drill a 1/4" (7 mm) hole through the hull for the power cable.
4. Run the cable from outside the boat, through the drilled hole, into the boat. Be sure the cable support is seated properly in the hole.
5. With the 12 LED On-Hull SeaLite® held flush against the transom in the desired location and using the mounting holes of the light as a guide, mark the pilot hole locations on the transom with a pen.
6. Drill pilot holes into the transom for the 6 mounting screws. Screws provided may not fit all applications. Shorter length screws may be necessary to ensure they do not go all the way through the hull.
7. Coat the back of the light with 3M® 5200 sealant or equivalent. Also fill the cable hole and screw holes in the boat hull with 3M® 5200 sealant or equivalent.
8. Press the 12 LED On-Hull SeaLite® into place on the exterior of the transom and secure to the hull with the 6 mounting screws. Remove any sealant covering the exposed metal cooling surface inside the cover plate.
9. On the inside of the hull, seal the area around the cable hole with 3M® 5200 sealant or equivalent.
10. Allow the sealant to dry (according to its instructions) and remove any excess.
11. Verify that the voltage available on the vessel is compatible with the light. Ensure that the DC power is turned off. Refer to the wiring diagram below and connect the power cable to a properly sized in-line fuse or circuit breaker. Consult a professional marine electrician.



WARNING! DO NOT connect the 12 LED On-Hull SeaLite® to AC mains voltage.



NOTE: A control kit is available from DeepSea Power & Light that includes a toggle switch, potentiometer, and 5V regulator that can control the dimming and strobing features of up to 4 lights.

12. For the strobe feature, refer to the wiring diagram and connect the light to a sealed DPDT switch (not supplied) (Mouser p/n 633-S7A-RO & 608-1131/26). When activated, the light will strobe at a frequency of 5 Hz.
13. For the dimming feature, refer to the wiring diagram and connect the light to a 5K ohm 1 turn potentiometer (not supplied) (Mouser p/n 785-53C35K, 608-N9030 X 1/4, & 45KNo13-GRX) and a 5V regulator (not supplied) (Mouser p/n 511-L7805ABP). The potentiometer can be used to adjust the light output.



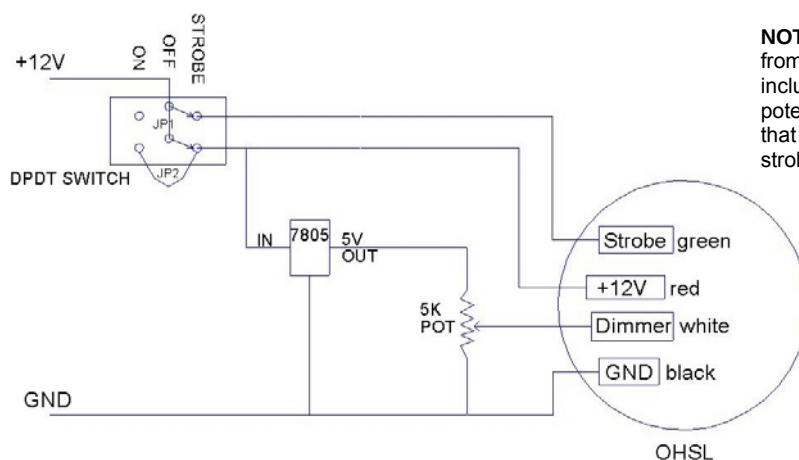
NOTE: If either the strobe feature or dimming feature is not used, tape off the wire to ensure it does not short to anything.

14. At this point, the 12 LED On-Hull SeaLite® can be tested by energizing the light.
15. Once the boat is back in the water, marine growth should be periodically removed from the 12 LED On-Hull SeaLites® port and cooling surface with a soft brush and/or low pressure spray (garden hose) at line pressure.



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WIRING DIAGRAM



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SPECIFICATIONS

MECHANICAL

Housing Material:	High performance polymer
Pressure Tested To:	25 PSI
Size:	
Thickness:	0.64 in. (1.63 cm)
Diameter:	4.99 in. (12.67 cm)
Weight (cable not included):	0.55 lb. (0.25 kg)
Lens:	High performance polymer
Cable Length:	15' (4.57 m)
Hole size through transom for cable:	1/2 in. (13 mm)

LAMP

Type:	LED (White, Blue, or Green)
Rated Average Life:	50,000 hours
Color Temperature:	5,000° K
Typical Lumens in the water*:	1,300 (White version)
Beam Angle:	30 °

OPERATING

Warm Up / Re-strike Time:	Instantaneous
Minimum Operating Temperature:	-22° F (-30° C)
Strobe Feature Frequency / Duty Cycle:	5 Hz / 70%

ELECTRICAL

Input Voltage:	10-32 VDC
Input Current:	2.0A at 12 VDC Typical
Input Power:	27 Watts Maximum
Strobe Input:	Active ≥2.0 VDC In-active ≤0.3 VDC
Dimming Input:	5K ohm 1 turn potentiometer

*True amount of light leaving the fixture, as measured with a calibrated integrating sphere.

WARRANTY AND REPAIR INFORMATION

Full warranty information can be found at www.deepsee.com. For warranty and non-warranty repairs, please contact DeepSea Power & Light for an RMA number prior to returning your item. Please have your light serial number and any other pertinent information and a description of the problem at hand when you call, or include them in a fax or email. When shipping your item, be sure the freight is pre-paid (CODs will not be accepted) and that the RMA number is clearly printed on the outside of the box.



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