PERKO FIG. 1693 LIGHTSHIP 100 SERIES HIGH PERFORMANCE LED FLOOD/SPOT LIGHTS INSTALLATION INSTRUCTIONS

- **Reduced Glare in Fog, Rain, Snow**
- **Efficient Amber LED Light**
- **Direct Replacement for Sodium Vapor Lights**
- **Less Amperage Use than Sodium Vapor**
- **10 Year LED / Light Engine Limited Warranty**
- **IP68 Rated**

READ ALL DIRECTIONS BEFORE PROCEEDING

1). Examine mounting template, and choose appropriate mounting location.

2). Orient the template so that desired illumination is achieved, then use the template to drill mounting and wiring holes.

3). This is a DC light. You should only power it directly using a DC source. The light will auto detect the DC voltage.

4). Connect:
a. White wire to Positive (+) supply.
b. Black wire to Negative (-) supply.

5). All wire connections including the open end of the cable jacket MUST BE protected from water intrusion. Otherwise, damage due to water ingress, short circuits, or corrosion will not be covered by the warranty.

A Note on Cable Length:

- If you operate at 12V, the current draw will be approximately 9A. The 6ft cable that comes out of the light (i.e. the pigtail) is AWG14 and if you also plan to use AWG14, your total cable run **MUST NOT** exceed 15ft. This is to minimize voltage drop to the light. If your light looks dim or if it flickers, the most likely cause is an insufficient cable gauge or the cable run is too long. (See A.B.Y.C. Standard E-9*)
- If you plan to do a longer cable run, we recommend you to first run the pigtail to a waterproof junction box close to the light, then run AWG10 to your DC power source.
- If you are operating on 24V, the same AWG14 gauge should suffice for an entire 30ft run.

6). Make electrical supply connections in accordance with A.B.Y.C. Standard E-9* and U.S. Coast Guard Safety Standards for Boat Electrical Systems*.

7). Fasten to deck with 1/2” and/or 3/8” bolts as shown in the diagram.

* The above referenced standards can be obtained from:

(1) American Boat & Yacht Council, Inc.
613 Third Street, Suite 10
Annapolis, MD 21403

(2). U.S. Coast Guard
Washington, D.C. 20593
(or your local C.G. office)

WARNING!!
USE 12/24V DC Power input Only
Plugging AC power to light directly will destroy the driver and will NOT be covered by the warranty.

OPTIONAL
120-240 Volt Installation

1). Order PERKO Cat. No. **1679100** 24V POWER SUPPLY (120/240 VAC 50/60 Hz INPUT) for Lightship 100.

2). Use one 1679100 for each Lightship 100 light.

3). Connect:
a. Red wire on the Output side of the Power Supply to Positive (+) white wire on the light.
b. Black wire on the Output side of the Power Supply to Negative (-) black wire on the light.

4). All wire connections including the open end of the cable jacket MUST BE protected from water intrusion. Otherwise, damage due to water ingress, short circuits, or corrosion will not be covered by the warranty.

5). Make connection on the Input side of the Power Supply according to the National Electrical Code or equivalent in your country. The Power Supply can be powered by either 120VAC or 240VAC 50/60 Hz.

OPTICAL & ELECTRICAL CHARACTERISTICS

(All ratings are at 77°F unless otherwise specified)

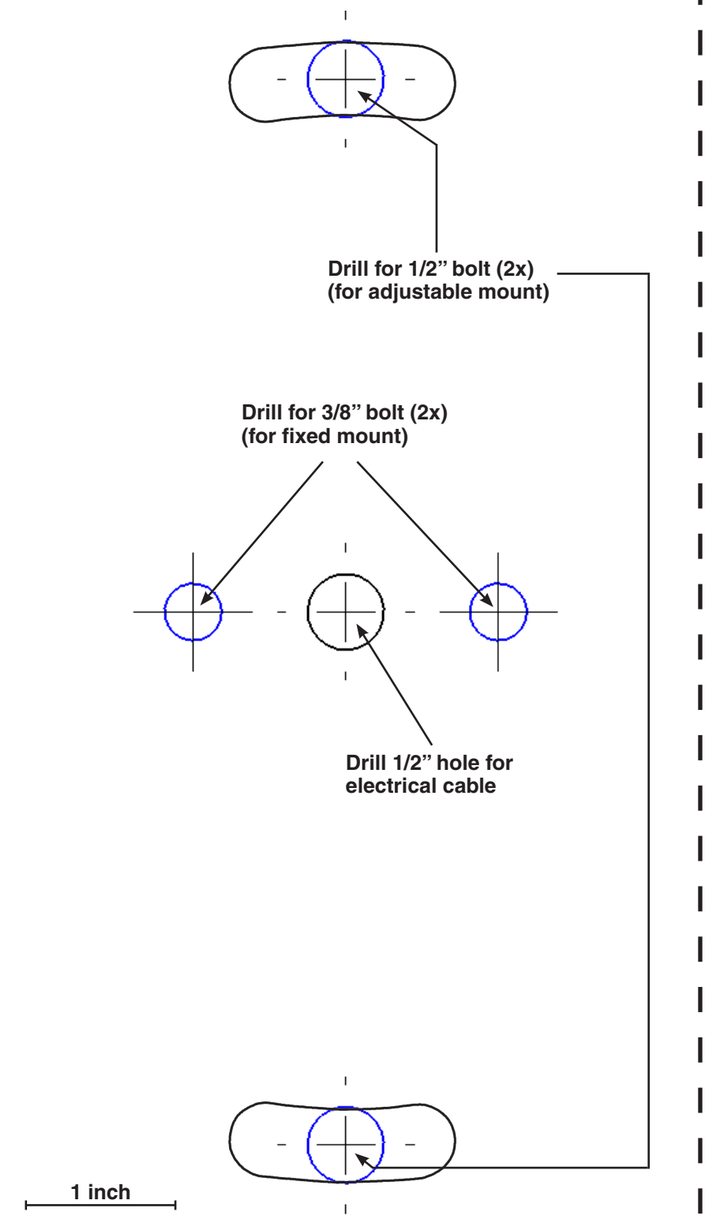
LED Color, CCT	Typical = 2700K (Amber)
Brightness	16,670 lm at 24VDC & 32VDC 13,300 lm at 12VDC
Beam Angle	25 deg (Spot) 76 deg (Flood)
Operating Voltage	Auto detect 12VDC, 24VDC, 32VDC *Most efficiently operated at 24VDC with max brightness
Current Draw	Approx. 4.4A at 32VDC Approx. 5.7A at 24VDC Approx. 8.8A at 12VDC
Total Power Consumption	140W at 24VDC & 32VDC 110W at 12VDC

Mechanical Characteristics

Water Resistance	IP68 (submerged to 4.5 ft water for 30min)
Moisture Resistance	149°F / 95% RH Mil-Std-883 TM 1004.7
Salt Spray / Corrosion Resistance	240 hrs 95°F ASTM B 117-09 / ASTM D1654-08
Temperature Range	-40°F to 130°F Mil-Std-883 TM1010.8
Mechanical Shock	30G, 11ms Half Sine, 3-axes (+ve/ -ve) Mil-Std-202 TM213B
Vibration Resistance	100,000 cycles, 3-axes ANSI C136.31

MOUNTING BRACKET HOLE TEMPLATE (TO SCALE)

Note: Tighten bolts to 45 foot pounds after installation. Use spring washers to reduce vibration. Keep the Nylon washer in place between bracket and light to better resist bracket corrosion.



See reverse side for cut out mounting template

PERKO Limited Warranty
FIVE YEAR LIMITED WARRANTY

PERKO, INC. (PERKO) warrants to the original consumer-purchaser that PERKO'S consumer products will be free from defective materials or workmanship, and that the PERKOPLATE/PERKO•KOTE Finish will remain corrosion-free under normal use and service, for a period of **five (5) years** from the original purchase date. Products installed as original equipment by a boat builder or manufacturer are limited to one (1) year or the duration of the manufacturer's general accessory warranty, whichever is longer.

ALL IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, ARE ALSO LIMITED IN DURATION TO THE FIVE YEAR PERIOD FROM THE ORIGINAL PURCHASE DATE.

PERKO SHALL NOT BE LIABLE FOR LOSS OF USE OF ANY OF ITS CONSUMER PRODUCTS, NOR FOR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE ORIGINAL CONSUMER-PURCHASER OR BY ANY OTHER PERSON.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY OR MAY NOT APPLY TO YOU. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY OR MAY NOT APPLY TO YOU.

This warranty is void if the consumer product warranted has been damaged by accident or unreasonable use, neglect, improper service or other cause not arising out of defects in material or workmanship. Excluded from this warranty are Electric Light Bulbs (lamps), Sealed Beam Units and Fuses.

During the warranty period, your PERKO product will either be repaired or it will be replaced with a like product (at PERKO's option) without charge to the original consumer-purchaser, when returned prepaid and insured, with proof-of-purchase date to PERKO at the address shown below. In the event of replacement, the replacement product will continue the warranty of the original product, or ninety (90) days, whichever is longer.

PERKO does not authorize any person or company to create for it any other obligation or liability in connection with any of its products.

PERKO, INC. • 16490 N.W. 13TH AVENUE • MIAMI, FL 33169-5707

PERKO Warranty Terms: Light Engine

This product is covered by Durabrite's **10 Year Limited Warranty** against material and manufacturing defects. However, it does not cover application and conditions that are outside of the product design parameters, abuse, and wear-and-tear. Further details can be found on their website at: https://durabritelights.com/pages/warranty

Any product branded DURABRITE should be handled directly by Durabrite at:
https://durabritelights.com/pages/repair-request-form

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PERKO®
LIGHTSHIP SERIES

PERKO®
We Make it Right, Right Here!!®
MADE IN THE USA

PERKO®
LIGHTSHIP SERIES

FogMaster™

LIGHTSHIP - 100™
High Performance LED Flood/Spot Lights
Installation Instructions



Fig. 1693 Lightship 100 Series
Cat. Numbers:

Flood Light	Spot Light
• 1693100F0B	• 1693100S0B
• 1693100F0W	• 1693100S0W

AMBER LED

WARNING!!
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