

The above lights are designed for use on sail or power driven vessels under 20 meters (65.6 ft.) in length operating on a nominal 12 volt system. In order to comply with '72 COLREGS and the U.S. Inland Rules, the following must be adhered to:

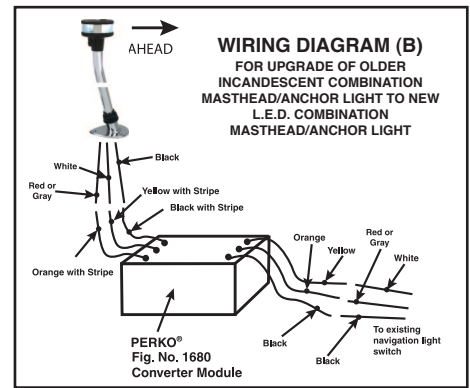
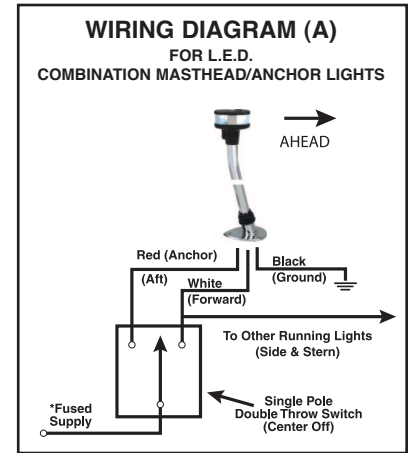
### MOUNTING INFORMATION

Read all instructions before proceeding.

- These instructions show the orientation of each light. For proper light selection, positioning and configuration, refer to A.B.Y.C. Standard A-16\*, the '72 COLREGS and the U.S. Inland Navigation Rules\*. These lights are supplied complete with 12 volt L.E.D.'s. L.E.D. lights have no user serviceable parts.
- These lights are designed to be mounted on a horizontal, vertical or angled surface. Adhere to instruction #8 below, while selecting the appropriate mounting surface.
- For 1681 Series: Draw a 3 inch long reference line through the center of the selected mounting location and parallel to the vertical plane through the fore-aft centerline of the boat.
  - For 1684 Series: Draw a 4 inch long reference line through the center of the selected mounting location and parallel to the vertical plane through the fore-aft centerline of the boat.
- Cut out the appropriate mounting template below. Tape it on to the mounting surface such that the reference line (drawn above) is directly underneath the reference line marked on the template.
- Drill indicated holes through the template to accommodate #8 pan head mounting screws and electrical supply as required.
- IMPORTANT:** If wiring light into a new installation (or an installation with a new switching arrangement), use wiring diagram (A). If replacing a similar two compartment light (incandescent combination masthead/anchor) light, use wiring diagram (B) with Perko Cat. No. 1680DP012V 12 volt converter module or rewire the navigation lights to match wiring diagram (A). Direct wire to wire replacement of an older style incandescent light with this new style L.E.D. light will not work.



Fig. 1681  
Fig. 1684



Attach supply connections to the light making sure to wire in accordance with both A.B.Y.C. Standard E4\* and U.S. Coast Guard Safety Standards for Boat Electrical Systems (33 CFR 183)\*. The supply leads are coded as follows:

- WHITE: Forward compartment only (masthead light) positive lead supply.
- GRAY or RED: Forward compartment and aft compartment (anchor light) positive lead supply.
- BLACK: Negative lead supply.

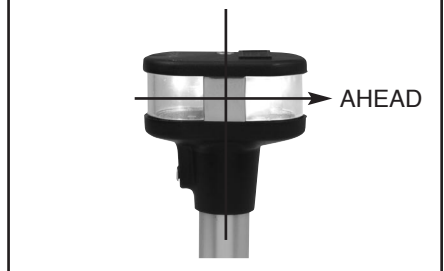
Electrical connections are to be made such that only the forward compartment (masthead light) is energized with the other running lights (sidelights, stern lights etc.) while underway. Both compartments are energized simultaneously by themselves to create the all-round (anchor) light.

- Mount the light in accordance with the template. A plastic mounting spacer is supplied with Cat. Nos. 1681000CHR and 1681DPOCHR (only) for use when mounting against an uneven surface.
- Make sure the top of the light is vertical during operation (see illustration), the arrow on the top cover points ahead (not astern), and the reference marks are parallel to the fore-aft centerline of the boat.

\* The above referenced standards can be obtained from:

- American Boat & Yacht Council, Inc.  
613 Third Street, Suite 10  
Annapolis, MD 21403
- U.S. Coast Guard  
Washington, D.C. 20593  
(or your local C.G. office)

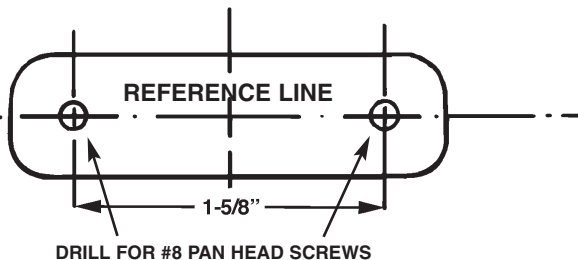
**NOTE: TOP OF LIGHT MUST BE VERTICAL DURING OPERATION**



### MOUNTING TEMPLATES

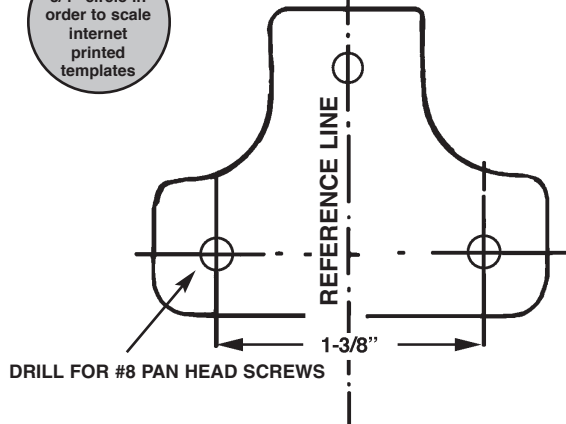
This is a 3/4" circle in order to scale internet printed templates

CAT NOS. 1684000CHR  
1684DPOCHR



This is a 3/4" circle in order to scale internet printed templates

CAT NOS. 1681000CHR  
1681DPOCHR



CUT ALONG BROKEN LINE