

HULL LIGHT MODEL QL-3294

PARTS AND INSTALLATION INSTRUCTIONS

Model QL-3294 Lights are designed for boats with more pronounced flare in the bow--normally boats with a hull shorter than 25' in length or high performance craft.

Lights may be purchased with an over molded polycarbonate lens or without. Lens cannot be added to a housing without the molded-in lens.

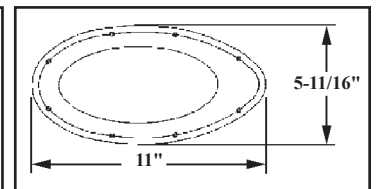
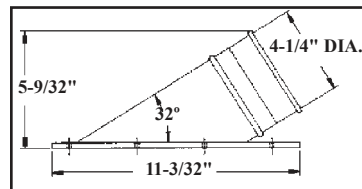
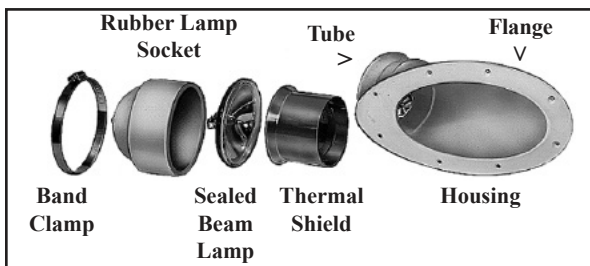
PATENT NOS. 2,966,579 & D-254,634 and patents pending



MODELS AVAILABLE

MODEL NO.	PART NO.	DESCRIPTION	GE LAMP NO.	TOTAL WATTS PER LIGHT	TOTAL BEAM WIDTH IN DEGREES
QL-3294-H7614	8010-160-000	Wide flood lamp less lens	H7614	50 W	70° W x 30° H
QL-3294/L-H7614	8010-180-000	Wide flood lamp with lens	H7614	50 W	70° W x 30° H
QL-3294-H7604	8010-150-000	High candlepower spot lamp less lens	H7604	50 W	7° W x 5° H
QL-3294/L-H7604	8010-170-000	High candlepower spot lamp with lens	H7604	50 W	7° W x 5° H

- Each 12V 50 watt lamp draws 3.91 amps
- Lights are used for docking and intermittent running
- Halogen lamps offer higher output than standard incandescent sealed beam lamps and have a higher "rated average life"
- Model numbers are for a set of two lights



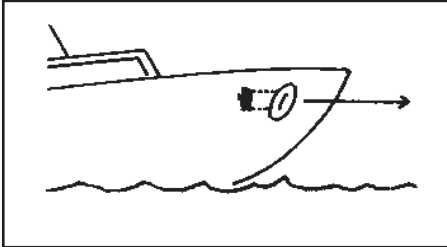
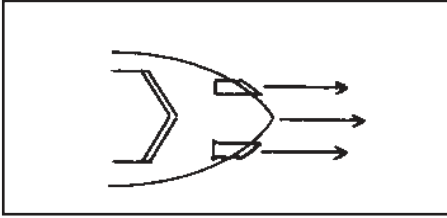
Recommended Fuse and Wire Sizes

2-50 W Lamps 4 AG Fuse or circuit breaker - 12 amp.
THW stranded copper wire - 12 AWG.

COMPONENTS LISTING

PART NO.	DESCRIPTION	QTY.
8010-000-130	Housing - White	1
8010-000-132	Housing - Black	
8010-205-130	Housing - Stainless Steel	
8010-000-140	Housing with Lens - White	
8010-000-115	Lamp Socket	1
8010-000-120	Thermal Shield	1
8010-000-125	Band Clamp	1
8500-000-105	Spot Lamp H7604	1
8500-000-110	Flood Lamp H7614	
8010-150-105	Hardware Package	1
8010-000-106	Mounting Template	1

INSTALLING QL-3294 HULL LIGHTS



INTRODUCTION: (Read carefully before installation)

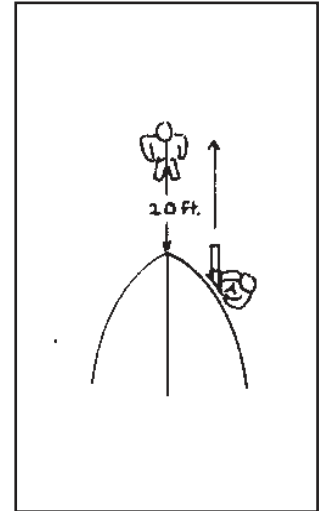
The holes to be cut in the hull to accept the Hull-Light assembly should be as high above the water line and below the deck as is practical. The distance the lights mount back from the bow will vary with bow type and bluntness.

ALIGNMENT (Distance back from bow)

The light assembly should be mounted far enough behind the bow so that the tube points straight ahead.

ELEVATION (Angle of tilt up and down)

The tube should be parallel to the water at the planing or running speed. Use the tube as a level reference point.



INSTALLATION STEPS:

1. Laying out position of the lights on the hull (Template # 8010-000-106)

After reading previous introduction on alignment and elevation, locate approximate position for the oval hole on the sides of the hull. Check inside the hull for any wiring or obstructions before marking hull with template.

2. Marking hull for cutting

- Remove rubber lamp socket with lamp and sealed band clamp from rear of housing.
- Hold flange of housing against hull with tube facing forward.
- Move unit so that it is far enough back from bow so that tube points dead ahead.
- At this point level the tube so it is parallel to the water at running or planing speed. A person 20 ft. in front of boat can sight for correct alignment. Lights will shine in direction the tube is aimed or sighted.
- Circle flange and mark center line holes with grease pencil. Now using template, mark position of hole tube circumference to be cut for light assembly by circling template with pencil.

3. Checking before cutting

- With a tape measure check the height of front and back of each oval layout center line from top of the deck. Make sure measurements are the same for each side of boat. Now measure distances from bow of boat to front of each layout.
- Before cutting oval holes for light assembly, drill a 1/16" test hole in the hull using center line holes of the oval layout. Use care in locating these holes to avoid stringers and deck reinforcing ribs, etc.
- Examine the drilled holes from inside the hull to make sure that there's enough clearance for the tube part of the assembly which extends inside the hull.
- If oval layout should have to be moved, small holes can be plugged.
- The rubber light sockets are slipped on after the light assembly is permanently installed in hull.

4. Cutting through hull

- After final check for placement of oval layout, cut around same through hull with a Sabre or Keyhole saw.

5. Final alignment and fitting

- After cutting holes in hull, file or rasp to dress out for inserting tube end of light housing (with bulb and rubber socket removed).
 - Hole should be dressed large enough so that assembly can be corrected slightly, if needed, for alignment and elevation before drilling mounting holes around flange. The housing flange should fit as close as possible against outside of hull.
 - Do not hammer or attempt to bend flange. Hold assembly tightly in hull to check elevation and alignment.
- ★ Tube part of assembly should be parallel to water line at planing or running speed when marking mounting holes.

6. Locating mounting screws

- Hold the housing firmly against hull and mark mounting holes through flange with pencil or punch.
 - Make sure that the drilled holes are in the center of each hole in the flange.
- ★ Before final installation of Hull-Lights run a bead of clear or white silicon caulking material around inside of flange. Silicon will spread with tightening of screws. Excess should be removed by wiping before it dries.

7. Adjustments

- Alignment of bulbs (regular or fog) from inside of hull is accomplished by swiveling bulbs and sockets on the tube for the QL-3294 (use a silicon lubricant or baby powder on sockets for ease of movement.)
- With tightening bands removed and boat planing or running, adjust beams of light to your requirements.
- Be sure sockets are pushed onto assembly the correct amount before adjusting.
- After proper adjustment tighten band clamp securely around each lamp socket. Make sure that bands are placed forward of rear lip on housings before tightening.
- Replacement bulbs are available at marine supply and auto parts stores. Soak bulb and socket in soapy water a few minutes for easy removal for bulb replacement.

NOTE: We require use of silicon sealant where wires protrude from rear of eyeball socket. If the wires are pulled through the eyeball socket, for changing of lamp, the wire hole in the rear of the eyeball socket must be re-sealed, with silicon sealant, prior to re-assembly.

CAUTION:

High candle power models have light beams up to 1,000 times brighter than "docking lights" with fixed flood bulbs. They are up to 30 times as bright as automobile headlights. Care and consideration for approaching boats must be exercised.

Consult your "Pilot Rules for Inland Waters," U.S. Department of Commerce, Bureau of Marine Inspection and Navigation or the U.S. Coast Guard for specific information about the rules governing bright lights.

ELECTRICAL REQUIREMENTS

Wattage (power consumption) of the model should be checked against battery and generator outputs. Batteries and generators must be in good condition and should be periodically checked. If daylight cruising time does not provide sufficient battery charge to maintain a high powered set of lights, a trickle charger may be used to keep the battery in top shape.



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