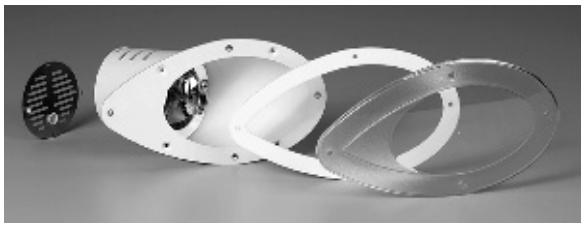
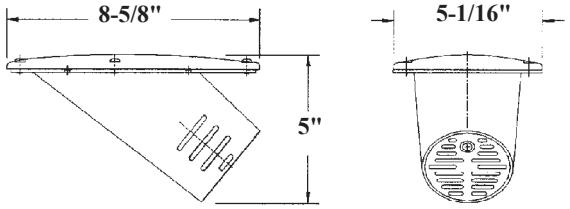
Barnegat Light® Hull Light
Model MHL
Parts and Installation Instructions

Barnegat® Light

8012PM1

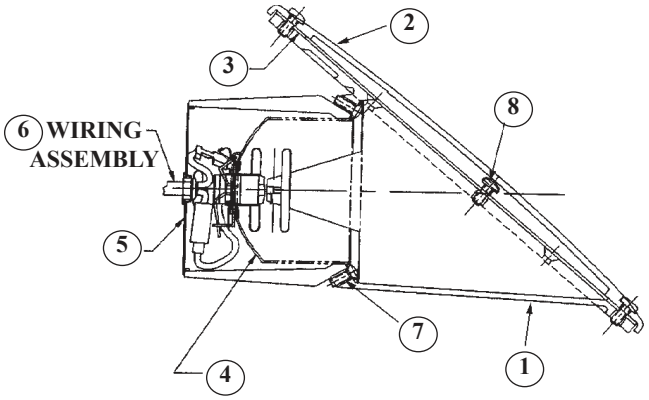
REV. 2-8-06





New, smaller and advanced version of our popular QL-32 Hull Light. Sleek and elegant, enhancing the appearance of any size boat. Ideal for bass boats, flat boats and trailer boats.

- 55 watt Halogen bulb
- Illumination up to 42,000 candle power
- 21º Horizontal spread
- Easy bulb replacement; can be done from inside or outside the boat
- Housing and lens of polycarbonate plastic
- Low current draw (4.3 amps) with a bulb output of 1450 lumens



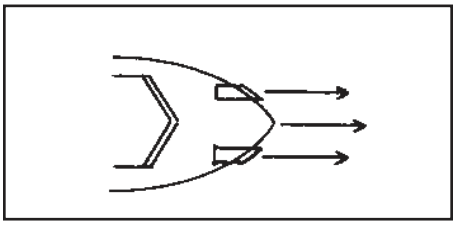
ELECTRICAL REQUIREMENTS

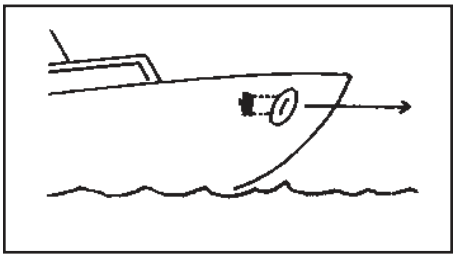
Wattage (power consumption) of the model should be checked against battery and generator outputs. Batteries and generators must be in good condition and should be periodically checked. If daylight cruising time does not provide sufficient battery charge to maintain a high powered set of lights, a trickle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

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	8012-105-101	Housing	1
2	8012-105-102	Lens	1
3	8012-105-103	Gasket	1
4	8012-105-104	Reflector Assembly incl:	
4-a	8012-105-105	Reflector	1
4-b	8012-105-106	Bulb Retainer	1
4-c	8012-105-107	Bail	1
4-d	8012-105-108	Bulb & Lead Wire	1
5	8012-105-109	Cap Assembly incl:	
5-a	8012-105-110	Cap	1
5-b	8012-105-111	Bushing	1
6	8012-105-112	Wiring Assembly incl:	
6-a		18 Ga. Wh wire 9.75"L	1
6-b		18 Ga. Bl wire 9.75"L	1
6-c		Terminals	2
6-d		Terminal Sleeves	2
6-e		Wire Cable Tie	1
6-f		Insulated Tubing 7"L	1
7	8012-105-113	6-32 x 1/2"L Oval Hd Scr	2
8	8012-105-114	8-32 x 3/8"L Pan Hd Scr	4
10	8012-105-117	Paper Template	1

Recommended Fuse and Wire Sizes

2-55 W Bulbs	4 AG Fuse or circuit breaker - 12 amp. THW stranded tinned copper wire - 12 AWG.



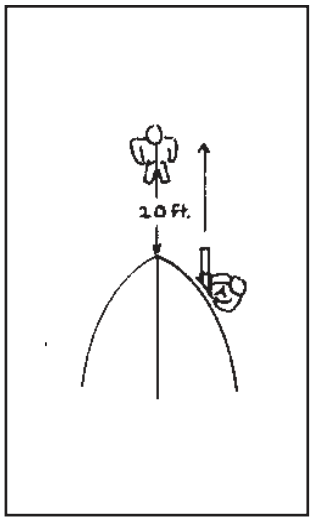


INSTALLING MHL HULL LIGHTS

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. Keep this in mind when installing in dry dock or with boat on trailer.



VENTILATION: Adequate space should be left behind the light for proper ventilation and heat dissipation.

OPTIONAL REAR ACCESS: Bulb may be replaced from the rear of the light by removing the cap assembly (5), unclamping the bail (4-c), and removing the bulb and lead wire (4-d). See page 4.

INSTALLATION STEPS:

1. Laying out position of the lights on the hull

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 (Template # 8012-105-117)

- 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 feet in front of the boat can sight for correct alignment. Lights will shine in the direction the tube is aimed or sighted.
- Circle the flange and mark center line holes with grease pencil. Now using the template, mark position of hole tube circumference to be cut for light assembly by circling the template with the 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 the boat. Now measure distances from bow of boat to front of each layout.

3. Checking before cutting (continued)

- 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 need to be moved, small holes can be plugged.

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.
- 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 the flange. Hold assembly tightly in hull to check elevation and alignment. Overtightening could cause the assembly to split.

  ★ 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. On wooden boats paint edges of drilled holes to prevent rotting.

  ★ Before final installation of Hull-Lights, run a small bead of clear or white silicon caulking material around inside of flange in the ring provided on the housing. The silicon will spread with tightening of screws. Excess should be removed by wiping before it dries. To prevent caulking from entering the threaded lens cover holes, temporarily screw the 8-32 x 3/8" pan head screws into the holes until they are flush with the inside edge of the housing. Remove after tightening the housing to the hull.

  Do Not Overtighten
  Hand Tighten Only
  No Pneumatic or Power Tools

- Place gasket (3) on the housing (1) before attaching the lens (2). Hand tighten 8-32 x 3/8 pan head screws (8) and then stagger tightening of the screws.

CHANGING THE BULB (make sure power is "off" to the lights prior to changing):

1. From the rear of the light

- Remove cap assembly (5).
- Unfasten double projections on the bail (4-c) and pull out the bulb assembly (4-d), which is a short length of wire attached to the socket with bulb.
- Slide back the insulation sleeve to expose the electrical connection.
- Disconnect wire and replace bulb assembly.
- Slide insulation sleeve back in place.
- Place the bulb socket back into the reflector. Note: the bulb socket will only go in one way (flat slot on one side and rounded slot on the opposite side).
- Fasten double projections on the bail (4-c).
- Carefully replace the cap assembly (5) without pinching the wires.

2. From the front of the light

- Remove the four 8-32 x 3/8" pan head screws (8) from the lens (2).
- Remove the gasket (3).
- Remove the two #6 x 1/2 oval head screws (7) from the front of the reflector (4-a).
- Pull reflector assembly (4) out of the housing (1).
- Unfasten double clips on the bail (4-c) and pull out the bulb assembly (4-d) which is a short length of wire attached to the socket with bulb.
- Slide back the insulation sleeve to expose the electrical connection.
- Disconnect wire and replace bulb assembly.
- Slide insulation back in place.
- Place the bulb socket back into the reflector. Note: the bulb socket will only go in one way (flat slot on one side and rounded slot on the opposite side).
- Fasten double projections on the bail (4-c).
- Carefully slide the reflector assembly (4) back into the housing (1) without pinching the wires and secure in place with the two #6 x 1/2 oval head screws (7).
- Place gasket (3) and lens (2) back onto the housing and secure in place with four 8-32 x 3/8" pan head screws (8).

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

Barnegat Light® marine products

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