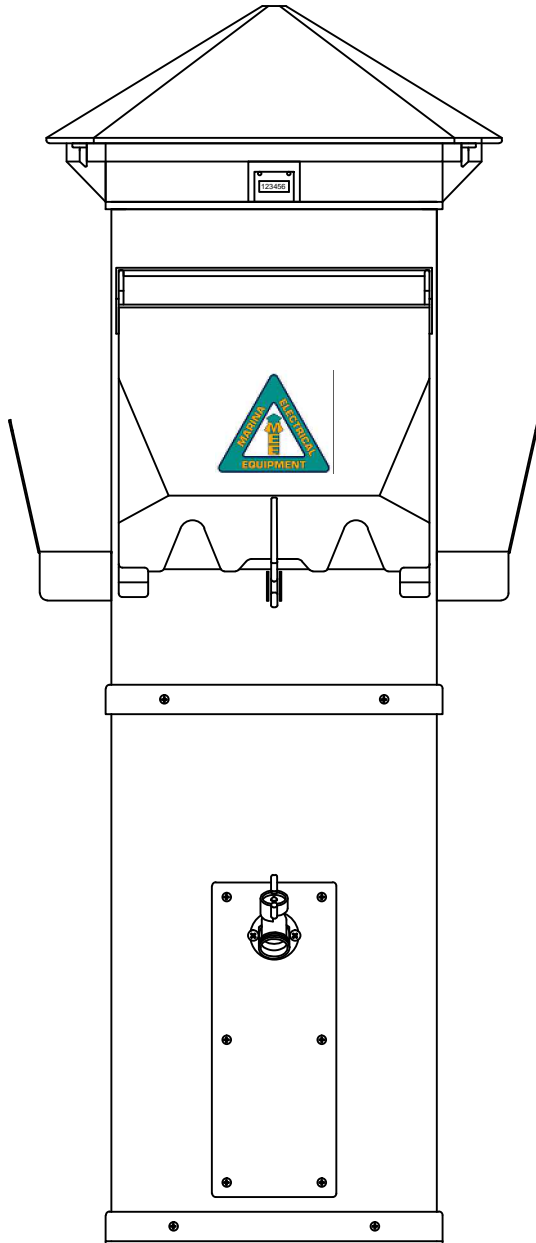


Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual



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Intertek

4005786

CONFORMS TO STD. ANSI/UL231
CERT. TO CAN/CSA STAD.C22.2
NO 29

Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

INTRODUCTION:

PRODUCT DESCRIPTION:

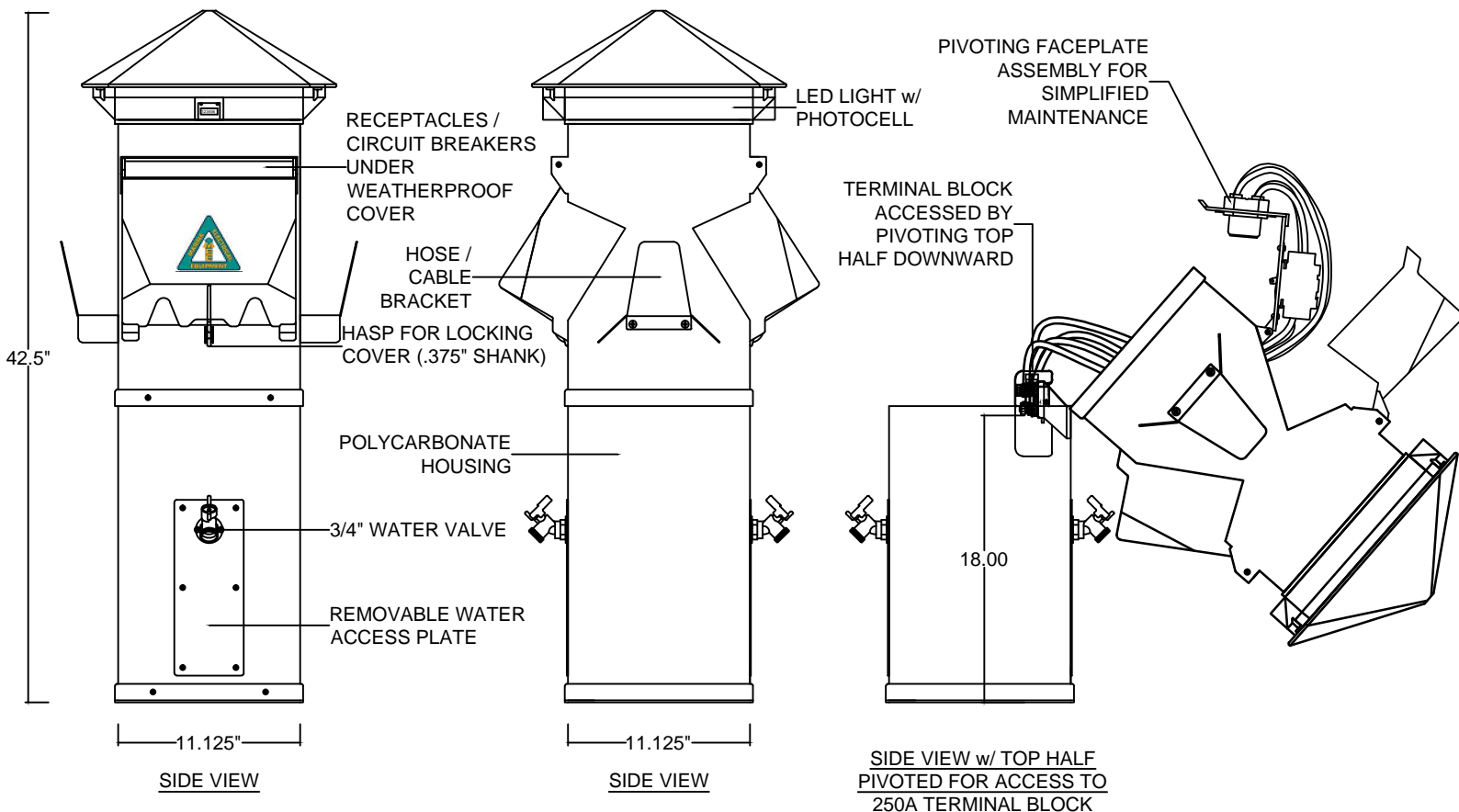
The power outlet shall be listed and marked, tested and certified to conform to Standard ANSI/UL® 231 entitled "Power Outlets" and CAN/CSA Standard C22.2 No. 29 entitled "Panelboards and Enclosed Panelboards." It is designed as a rainproof NEMA type 3R enclosure for outdoor locations such as marinas, and boatyards where power is required to operate portable, mobile, or temporarily installed equipment to supply shore power to vessels.

Power outlet may contain NEMA and / or IEC receptacles, circuit breakers, fuses, and watt-hour monitors for submetering electricity.

WARNING: Disconnect power before servicing. Marina Electrical Equipment, Inc. recommends that only qualified personnel or an electrician, familiar with the operation of this power outlet equipment, should install or service this power outlet. This product must be installed in accordance with the National Electrical Code (NEC) or the Canadian Standards Association (CSA) and any other applicable local codes. Before installing equipment, check with your local electrical inspector for specific requirements and information for your area.

NOTE: ELECTRICAL CONNECTIONS PER NEC 555.9 - All electrical connections shall be located at least 12 inches above the deck of a floating pier, but not below the electrical datum plane.

CAUTION: Marina Electrical Equipment, Inc. will not assume any responsibility for property damage or personal injury resulting from misuse of the information in this manual.



Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

INSTALLATION:

IMPORTANT: The Harbor Light is thoroughly painted on the bottom and the mounting base plate is specially designed to protect the bottom of the pedestal from direct contact with the dock surface to inhibit the corrosive effects of treated deck board lumber and/or concrete. Please handle the pedestal with care while mounting so as not to scrape or damage the paint on the bottom, which could lead to corrosion problems and a cancellation of the factory warranty.

Step 1: Securing the Base Plate to Mount the Harbor Light:

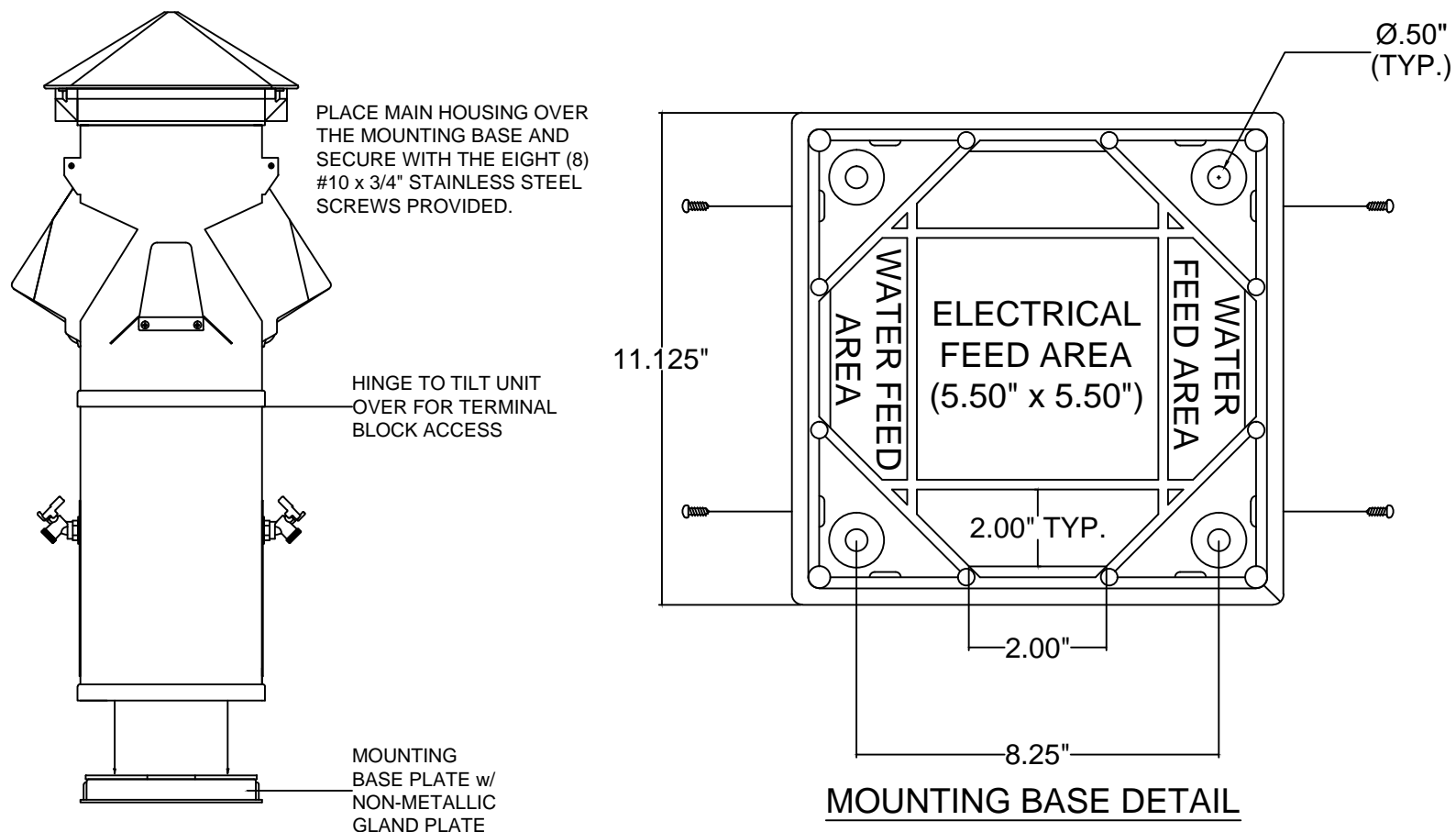
Note: The pedestal mounting surface must be flat and level for proper mounting. Warped decking or uneven concrete surfaces can be shimmed with stainless steel washers to provide a level surface for mounting base installation.

On Wooden Docks: At each corner, fit the mounting base plate to the dock surface with one (1) 3/8" stainless steel bolt and washer for through-bolting, or (1) 3/8" stainless steel lag bolt and washer for surface mounting.

On Concrete Docks: At each corner, fit the mounting base plate to the dock surface with one (1) 3/8" stainless steel compression bolt or 3/8" stainless steel threaded rod cast in concrete on 8-1/4" centers.

Step 2: Mounting the Harbor Light:

Place the Harbor Light over the mounting base and secure with the included four (4) #10 X 3/4" stainless steel screws (see figure below).



Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

Step 3: Using the Non-Metallic Gland Plate:

The Harbor Light mounting base includes a non-metallic gland plate designed to prevent the intrusion of water and other items into the unit after installation. The installer should cut the necessary holes for cable, wire, water, and/or communication connections into the gland plate. Following the installation of all utilities, all holes should be sealed with water-tight cable grip, water-tight grommets, and/or RTV silicone-based sealants. **THE FACTORY WARRANTY WILL BE VOIDED IF THE NON-METALLIC GLAND PLATE IS REMOVED OR NOT INSTALLED TO THE METHODS LISTED ABOVE.**

Step 4: Connecting the Power Lines to the Terminal Block:

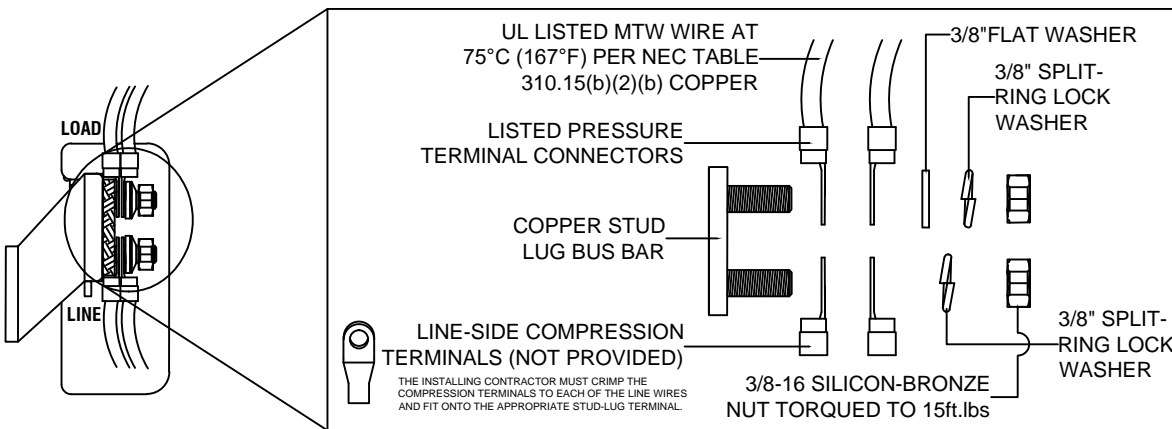
The Harbor Light power pedestal contains a 3/8" stud-lug compression type terminal block within the housing interior. Remove the four (4) stainless steel screws on the outside corners of the pedestal and hinge the top half of the unit over to expose the terminal block assembly. Termination of the lines shall be made by means of compression terminals to place on the 3/8" stud-lug terminal block as directed by the wiring diagram instructions located inside the housing (see figure below). The terminated lines shall be secured by means of one (1) stainless steel split-ring lock washer and (1) silicon-bronze hex nut, which are all provided for each of the incoming lines. These connections shall be torqued to **15 foot-pounds**.

CAUTION: NEVER PLACE ANY HARDWARE BETWEEN THE TERMINAL/BUS BAR CONNECTION. THIS CREATES A HIGH-RESISTANCE CONNECTION THAT COULD CAUSE OVERHEATING/FIRE.

WARNING: DO NOT ALTER FACTORY-SIDE CONNECTIONS. FACTORY WARRANTY WILL BE VOIDED.

WARNING: FACTORY WARRANTY WILL BE VOIDED IF ALUMINUM MECHANICAL LUGS ARE USED FOR LINE SIDE WIRING.

IMPORTANT: Contractor shall mount line side feeders per the diagram below. Heat shrink tubing shall be used when uninsulated copper terminal extend below bus bar insulation divider to keep proper spacing between live and grounded conductors, per NEC spacing requirements.

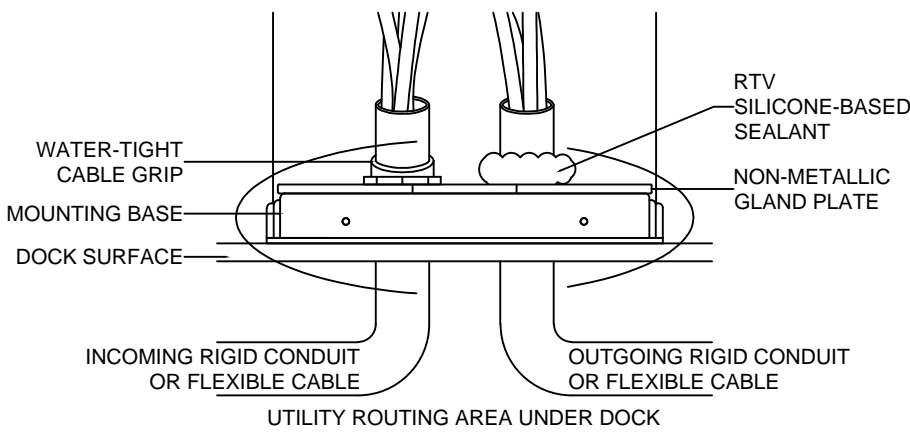


USE ONLY 75°C (167°F) COPPER CONDUCTORS ONLY ON ALL FIELD INSTALLED LINE, LOAD TERMINATIONS INTENDED FOR USE WITH TERMINATED CONDUCTORS.

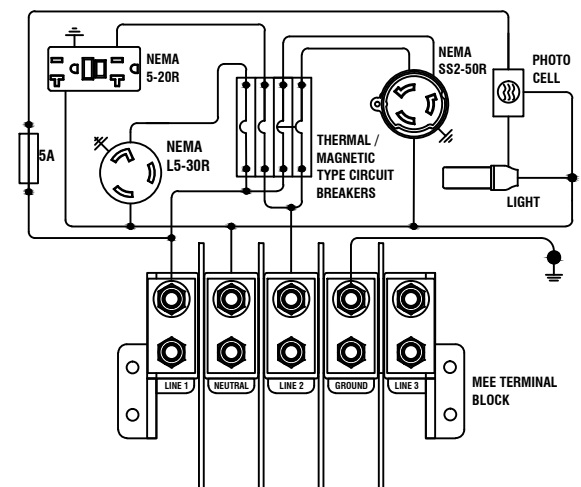
CAUTION: BONDING BETWEEN CONDUIT CONNECTIONS IS NOT AUTOMATIC AND MUST BE PROVIDED AS PART OF THE INSTALLATION.

CAUTION: NONMETALLIC ENCLOSURE DOES NOT PROVIDE GROUNDING BETWEEN CONDUIT CONNECTIONS, USE GROUNDING TYPE BUSHINGS AND JUMPER WIRES.

BUS BAR ASSEMBLY - EXPLODED VIEW



BASE ENTRY DETAIL



TYPICAL WIRING DIAGRAM*

*Varies based on receptacle and circuit breaker selection

Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

Step 5: Water Connection:

Remove the water access panel to access the back side of the 3/4" female ball valve (see figure below). Remove the water access filler cap(s) from the non-metallic gland plate. Feed the piping through the bottom of the water compartment and plumb into the ball valve. Marina Electrical Equipment recommends using a 90° street elbow or a Pex to male-threaded elbow (for flexible piping). After plumbing, guide the assembly back into the water compartment and mount the water access panel back onto the pedestal, repeat on opposite side if necessary.

Step 6: Phone (RJ-11), Cable TV (F), Ethernet (RJ-45) Connections:

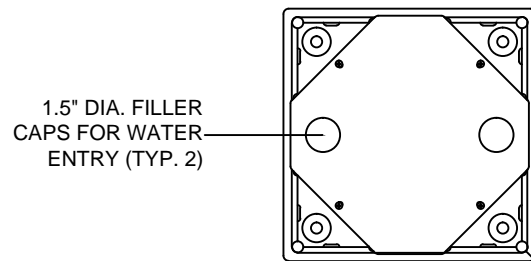
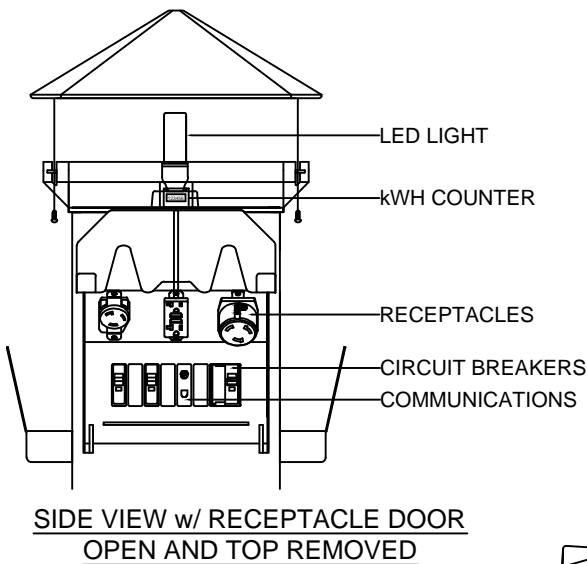
THE STEPS LISTED BELOW ARE THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR

The Harbor Light contains an innovative, patented pivoting faceplate assembly to simplify telecommunications installation. Simply remove the four screws fastening the breaker plate and faceplate to the pedestal and pivot the entire assembly outward. This will allow for full access to the telecommunications jacks for installation.

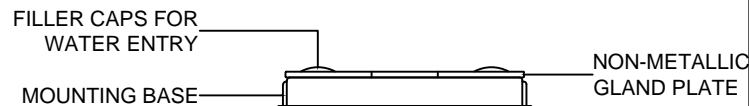
- Through non-metallic tubing extending to the base of the unit, pull the phone, CATV, and/or Ethernet line(s) to the location of the corresponding jacks within the pedestal / utility center.
- Carefully guide heat-shrink tubing over the lines and make the appropriate terminations into the back of each of the connections.
- Shrink the tubing around the connections and carefully guide the lines back into the housing. Re-fasten the pivoting receptacle/breaker/communications plate assembly back to the main housing.

Step 7: Changing the LED Bulb:

Unscrew the four (4) screws underneath the top to remove the top and expose the lamp holder and bulb. Replace the bulb and top (see figure below).



BASE DETAIL - TOP VIEW w/ GLAND PLATE



BASE DETAIL - SIDE VIEW w/ GLAND PLATE

PIVOTING FACEPLATE ASSEMBLY
w/ ACCESS TO RECEPTACLES,
CIRCUIT BREAKERS, AND
COMMUNICATIONS FOR EASY
INSTALLATION AND MAINTENANCE

WATER ASSEMBLY w/ PEX TO
MALE-THREADED ELBOW FOR
FLEXIBLE PIPING (ELBOW NOT
INCLUDED)

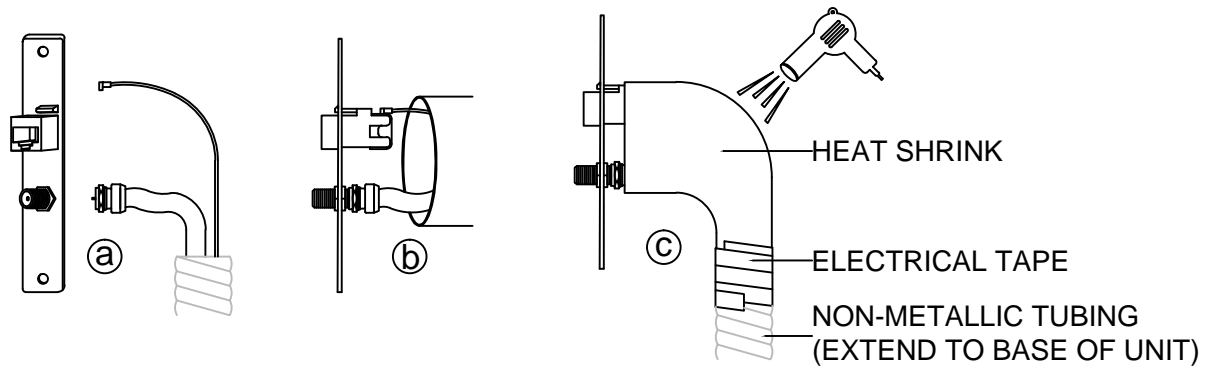
WATER ASSEMBLY w/ 90°
ELBOW STREET
(ELBOW NOT INCLUDED)

REMOVABLE WATER
ACCESS PLATE

WATER / FACEPLATE DETAIL

Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual



COMMUNICATIONS CONNECTIONS (SEE STEP 6 ON PREVIOUS PAGE)

EXTERIOR MAINTENANCE:

Dirt, grime, bird droppings and insect residue can be removed by use of a mild degreasing solution mixture of one teaspoon per gallon of warm water. Gently scrub the housing exterior and rinse clean. Spiders and other insects can be controlled by use of a **WATER-BASED** insect spray.

WARNING: DO NOT use any petroleum or solvent-based insect spray or corrosion inhibiting products on any part of the power pedestal. These solvents will compromise the structural integrity of the polycarbonate material and cause stress cracking and material failure. Use of any such solvents will void the manufacturer's warranty.

TOUCH UP DAMAGED PAINT:

- 1) Scuff the area well with wet and dry 220-grit sandpaper.
- 2) Clean the area (dishwashing detergent and water) and allow to dry.
- 3) Spray or brush even wet coats of basecoat. Two wet coats should be sufficient. Allow each coat to dry 20 minutes before recoating. Note small areas can be touched up by brushing, while large areas will require a spray kit.

INTERIOR MAINTENANCE:

WARNING: Turn off or disconnect the power supplying this equipment before beginning work. This might require you to contact your local utility to disconnect the power to an existing panel board or disconnect. The line side of the main breaker in a panel board is energized unless power is disconnected upstream. Marina Electrical Equipment, Inc. will not assume any responsibility for property damage or personal injury resulting from misuse of the information in this manual.

1. Annual Terminal Block Maintenance:

Loosen the eight (8) stainless steel screws holding the electrical access panel to the pedestal. Remove the panel to expose the **de-energized** terminal block assembly. The terminal block should then be thoroughly examined for signs of excessive heating, loose and/or corroded connections, and any other sign of damage or wear. All loose or damaged connections need to be tightened or replaced.

Thoroughly examine the copper wire to pressure terminal connections for signs of corrosion. If any corrosion is found, simply remove the copper wire, clean the wire, coat with **synthetic** anti-corrosion grease and reinstall the wire.

2. Annual Receptacle and Circuit Breaker Maintenance:

The receptacles and circuit breakers should be examined on an annual basis. If any sign of heating or corrosion is evident, the component should be replaced. The Harbor Light contains an innovative, patented pivoting faceplate assembly to simplify field maintenance. Simply remove the four screws fastening the breaker plate and faceplate to the pedestal and pivot the entire assembly outward. This will allow for full access to the receptacles and circuit breakers for maintenance or replacement.

Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

3. Annual Water Assembly Maintenance:

In colder climates, water supply lines should be blown-out with compressed air as part of the winterization process to prevent damage from freezing. The 3/4" ball valve should be worked opened and closed, and then left open to allow any water to escape and avoid damage to the valve from freezing temperatures.

4. Annual Light Fixture Maintenance:

The light fixture can be tested by covering the photocell for 2-4 minutes to simulate darkness. The photocell should close the circuit to illuminate the bulb. Should the bulb not illuminate, unscrew the four (4) screws underneath the top to remove the top and expose the lamp holder and bulb. Check the 5A protective inline fuse and replace if necessary. Replace the bulb and re-fasten the top.

OPERATION:

1. Connect Shore Power Cord to Vessel:

Insert the female end of the shore power cord into the vessel's power inlet connection. Twist the plug to lock on and tighten the locking plug retainer nut until the cord set is snug to the vessel.

2. Connect Shore Power Cord to Power Pedestal:

With the circuit breakers in the OFF position, insert the shore power cord into the receptacle and twist the plug clockwise until it locks onto the receptacle.

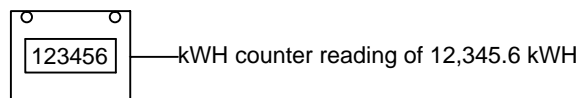
3. Turn the Circuit Breaker ON:

With both connections secured, turn the circuit breaker to the ON position. Check to see that the power indicator light on the vessel indicates a successful attachment of the shore power cord. A circuit breaker which trips under load indicates an issue with the vessel wiring and or equipment. Short circuits, overload and/or ground faults (if the power outlet panel is equipped with ground fault protective circuit breakers) will cause circuit breakers to trip, requiring the vessel's electrical system to be examined and repaired by a qualified electrician before the vessel can reconnect to the power pedestal.

For power outlet panels equipped with optional ground fault circuit breakers: if the breaker immediately trips upon inserting the shore power cord, the grounded (neutral) conductor and the equipment ground conductor are improperly bonded on the vessel. A qualified electrician must repair this faulty wiring/equipment before the vessel can reconnect to the power pedestal.

4. Reading the Kilowatt-Hour (kWH) Counter:

Power outlet panels equipped with kWH Meters provide an electromechanical odometer output with six (6) digits. The far right digit on this counter represents tenths of a kWH. For example, a kWH counter reading of " 1 2 3 4 5 6" would indicate 12,345.6 kWH. The previous reading would be deducted from this reading to determine the kWH used between readings. For example, a previous reading of 9,688.2 kWH: $12,345.6 - 9,688.2 = \underline{2,657.4}$ kWH used between readings. This usage would be multiplied by the kWH rate for billing.



Specifications Subject to Change Without Notice

Harbor Light Model HL30100

Installation, Maintenance, and Operation Manual

WARRANTY POLICY

Housings:

Marina Electrical Equipment, Inc. (MEE) warrants that the main housing and attached parts (top, lens, doors, receptacle faceplates, circuit breaker plates, and mounting base plate) will be free from failure resulting from defects in material and/or workmanship, and are covered by a limited warranty of one (1) year. Should any of the above parts fail to comply with the above-mentioned warranty, MEE will either repair or replace the defective part(s), or credit the purchaser for the purchase price of the part. This warranty is voided if any petroleum-based solvent is used anywhere on or near any of the polycarbonate parts. These parts include, but may not be limited to: the top, lens, doors, receptacle faceplates, circuit breaker plates, terminal block, and the mounting base plate.

Internal Components:

MEE warrants that all internal electrical components shall be covered by a limited warranty of one (1) year. Items covered include: receptacles, circuit breakers, photocells, lamp holders, coil transformers, counters and wiring harnesses. Should any of the above parts fail to comply with this warranty policy, MEE will coordinate the repair or replacement of the defective part(s) with the respective supplier.

Solid-State Electric kWh Monitors:

MEE warrants that the International Intelligent Meter (IIM) solid-state electric kWh monitors will be free from failure resulting from defects in material and/or workmanship, and are covered for one (1) year. Although the IIM meters contain integrated surge protection, MEE and IIM will not warrant the product against severe over-voltage conditions such as lightning strikes or abnormal utility surges. Should an electric monitor fail to comply with the above-mentioned warranty, MEE will either repair or replace the defective part(s)/components, or credit the purchaser for the purchase price of the part. This warranty is voided if the damage to any or all of the components is the result of abuse, misuse, or Force Majeure. This warranty is voided if the factory seal is broken or manipulated.

This warranty policy does not cover damage or failure resulting from abuse, misuse, negligence or Force Majeure. All warranty claims must be made in writing and all defective products shall be returned to MEE for evaluation unless stated otherwise by MEE. MEE will not be responsible for reimbursing the purchaser for any sort of expense incurred by the purchaser as a result of the repair or replacement of a warranty claim.

Send all warranty claims to:

Marina Electrical Equipment, Inc.
1715 Merrimac Trail
Williamsburg, VA 23185
Toll Free: 1-855-258-3939
Fax: 757-258-3988

Specifications Subject to Change Without Notice

END OF SECTION