

INSTALLATION INSTRUCTIONS

Marine/HAZ Floodlight

IMPORTANT:

Read carefully before installing. All work should be performed by a qualified Electrician. These instructions may not provide directions to cover every variation and detail. To obtain additional information, consult your vendor or contact the factory directly for assistance before attempting anything with uncertainty. Improper installation and/or utilization may void manufacturer's warranty.

This fixture must be grounded in accordance with local codes and the NATIONAL ELECTRIC CODE. Failure to do so may result in serious personal injury. HID luminaires should be operated on grounded systems only.

Ungrounded power distribution systems may carry high transient voltages which can cause failure of any type electrical equipment. Use of this equipment on ungrounded systems will **VOID THE WARRANTY**.

CAUTION:

Make sure all power is turned off while installing or servicing unit. Do not turn power on until fixture is completely installed. Turn power off at the circuit breaker.

GENERAL:

Upon receipt, inspect for any freight damage, which should be brought to the attention of the delivering carrier. Compare the catalog description listed on the packing slip with the label on the carton to assure you have received the correct material.

This floodlight is designed for applications in hazardous location environments (UL844), Class I, Division II, Groups A, B, C and D. Each floodlight is marked with the maximum internal temperature to permit matching to atmospheric temperatures.

Where non-hazardous corrosive atmospheres are present, the floodlight is

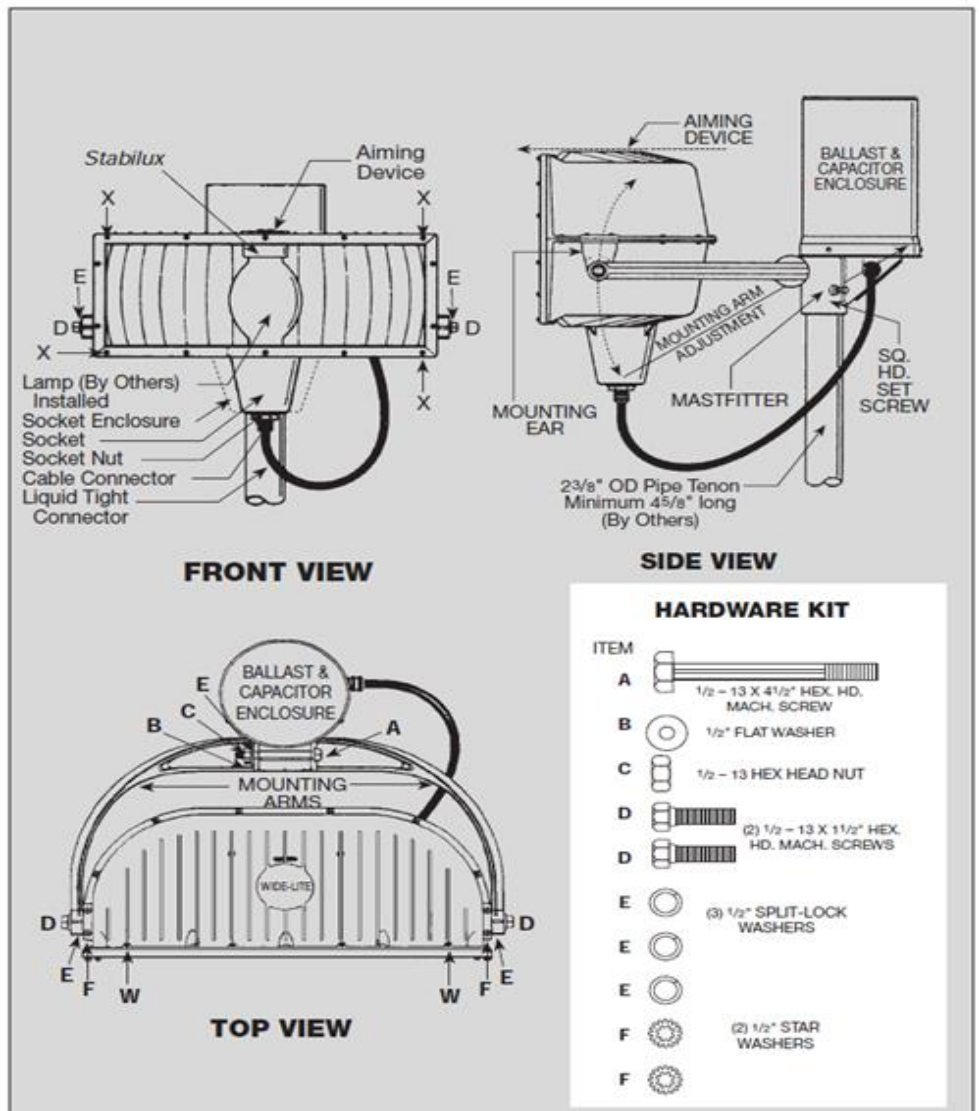
also UL598 listed (marine type) and meet US Coast Guard specifications for marine type applications they are constructed of low copper content alloy (less than .2%) for corrosion control.

DANGER: Check the operating temperature limits appearing on the floodlight nameplate prior to installation to be sure it conforms to the temperature restrictions and National Electric Code Classifications. See chart figure Temperature Data Chart.

IMPORTANT: The classification of an area as to class, division, and group; and the use of UL844 fixtures in such areas is solely the judgement of the owner, insurance carrier and the authority



having jurisdiction.



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They are provided with the socket housing assembly factory wired and shipped with the ballast. The optical assembly is separately packed. They are provided with an integral mast fitter for mounting on a vertical 2-3/8" OD tenon x 4-1/2" tall. **WARNING:** In no case mount this floodlight to either a horizontal tenon or vertical tenon.

After un-cartoning, inspect for any damage. If damage is noted, see "Damage and Shortage Claims Form" (yellow) for proper steps in filing claims with the carrier. **NOTE:** Illustration depict a 400 watt fixture. Assembly and installation procedures are the same for 1000 watt fixtures.

FIXTURE AND BALLAST ASSEMBLY

STEP 1 – Attach fixture mounting arms to ballast/mastfitter assembly with the 4-1/2" long machine bolt, 1/2" flat washer, 1/2" split-lock washer, and 1/2-13 hex head nut (provided in fixture hardware kit). Arms should be set in their proper aiming position. Tighten the 1/2-13 hex nut slightly (See **FIGURE 1**).

STEP 2 – Position the fixture head between the two mounting arms and attach with the two 1-1/2" long machine bolts and 1/2" split-lock washers (provided in fixture hardware kit). Tighten the bolts slightly (See **FIGURE 1**).

LAMPING

STEP 3 – Prior to installing lamp into socket, check to make sure it is the correct type and wattage. **CAUTION:** Observe lamp manufacturer's recommendations and restrictions on lamp operation, particularly regarding ballast type and burning position.

STABILUX LAMP SOCKET

STEP 4 – The fixture series floodlight have a stabilux lamp socket in the upper

casting that grips the top of the lamp which holds the lamp in alignment and offers protection against breakage when the fixture is subjected to vibration. Before inserting lamp into the fixture you will need to determine the correct stabilux holder required for the particular lamp purchased. This determination is dependent on the lamp shape. "BT", "ED", or "E" shaped (See **FIGURE 2**).

BT SHAPED LAMPS

Install lamp into socket. Attach socket housing assembly to the fixture, making sure the end of the lamp securely engages the fiberglass tape-lined stabilux (split collar). Be sure the socket housing gasket is seated properly, then tighten the screws securely.

E OR ED SHAPED LAMPS

This lamp is primarily found in 400 watt size lamps. The "BT" stabilux must be removed before installing an "E" or "ED" shaped lamp. This is accomplished by compressing the "BT" (split collar) by hand and removing from the fixture. Inside the stabilux cavity of the fixture there is an "E" lamp stabilux (found on 400 watt floodlights only). Pull the "E" stabilux (fiberglass tape-covered cone) down into the fixture. Install lamp into socket. Attach socket housing assembly to fixture, making sure the "E" stabilux cone firmly engages the lamp dimple. Be sure socket housing gasket is seated properly, and then tighten the screws securely.

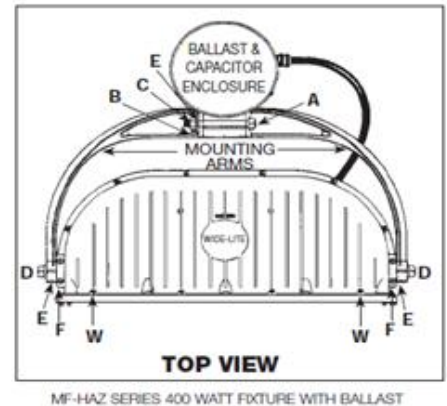


FIGURE 1

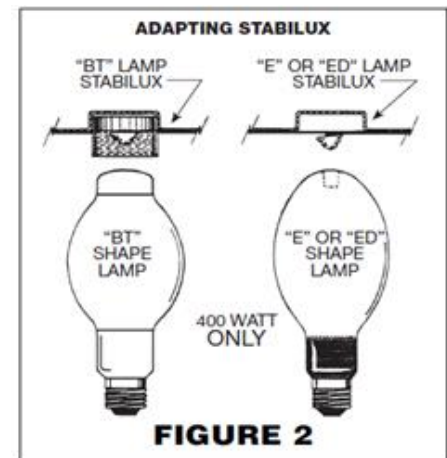
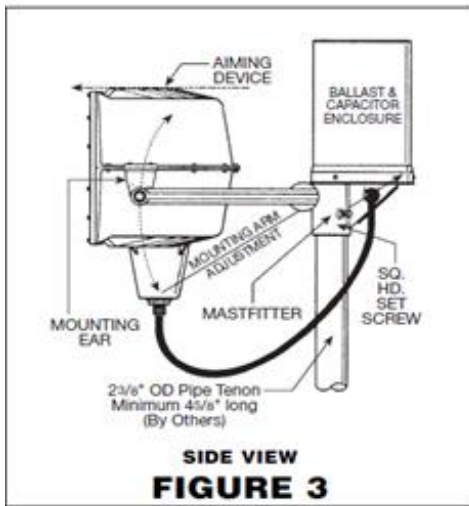


FIGURE 2

STEP 5 – Fixtures at this stage may be set at the proper vertical aiming angle by using the degree markings on the mounting ears. (Aiming angle may also be set after the fixture and ballast assembly are mounted to the pole or 2-3/8" OD vertical tenon). If proper aiming angle has been set, tighten the two 1-1/2" long machine bolts securely, then tighten the 1/2-13 hex head nut on mast fitter to 25 ft.-lbs. (See **FIGURE 3**).

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FIXTURE WIRING

This fixture must be wired in accordance with the NEC and applicable local codes. Use approved connectors for all electrical connections.

WARNING: Proper grounding is required to insure personal safety.

STEP 6 – Remove inspection plate and gasket from back of mast fitter by removing the six screws (see **FIGURE 4**). Mount fixture/ballast assembly to 2-3/8" square head set screws on the side of the mast fitter against the pipe tenon to 8 ft.-lbs. **NOTE: Due to UL requirements, branch circuit lead wires can not be routed up through the mast fitter as UL requires this area to be sealed in order to meet UL844 standards. Therefore, branch circuit lead wires must be terminated.** In that ballast wiring compartment by removing the 1/2" pipe plug from the mast fitter and attaching approved connectors and cable (by user) such as flexible liquid type conduit if local code allows. See **FIGURE 5**. For approved wiring methods see Article 501-4 (b) of the National Electric Code.

STEP 7 – Make proper electrical connections as indicated on wiring diagram located on the ballast enclosure. Connect line lead to black lead, neutral lead to white and ground lead to the green grounding screw inside the mast

fitter splice compartment. On 120 volt and 277 volt systems, connect the voltage supply lead to the ballast lead marked with the voltage marker. Connect the neutral supply lead to the ballast lead marked COM. On other voltage systems, connect one supply lead to the ballast lead marked with the proper voltage and the other supply lead to the ballast lead marked COM.

WARNING: On quad voltage ballast (QV), leads not required should always

Catalog Number	Measured Max. Internal Operating Temperature	Measured Max. External Surface Temperature*	T Rating
1000 Watt Metal Halide/Mercury Vapor MFM-1000-()-(Volt)-HAZ	339°C	163°C	350°C
400 Watt Metal Halide/Mercury Vapor MFM-400-()-(Volt)-HAZ	316°C	131°C	325°C
1000 Watt High Pressure Sodium MFS-1000-()-(Volt)-HAZ	373°C	123°C	T1
100 Watt High Pressure Sodium MFS-400-()-(Volt)-HAZ	374°C	110°C	T1

remain with the insulated connector intact.

STEP 8 – Before closing the mast fitter splice compartment, check to be sure proper voltage leads have been selected to match the supply voltage before energizing. Improper wiring may result in ballast failure and void warranty. Insure wires in pole are strain-relieved. Place connected wires into the mast fitter splice compartment and replace inspection plate and gasket. Tighten the six screws securely to 1 ft.-lbs.

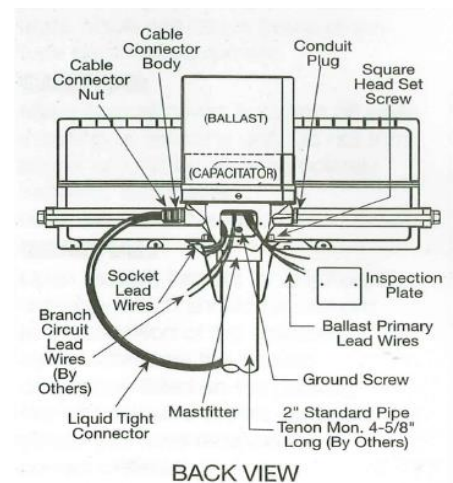


FIGURE 4

AIMING

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STEP 9 – If fixture was not aimed during assembly, to vertical aim loosen the two 1-1/2" long machine bolts on mounting ears. Set fixture to proper aiming angle by using the degree markings on the mounting ears or the built-in aiming site on top of fixture. Re-tighten bolts securely. For horizontal aiming, loosen the two 3/8" square head bolts at the mast fitter, set fixture in the proper aiming direction and re-tighten the 3/8" square head bolts.

MAINTENANCE AND CLEANING

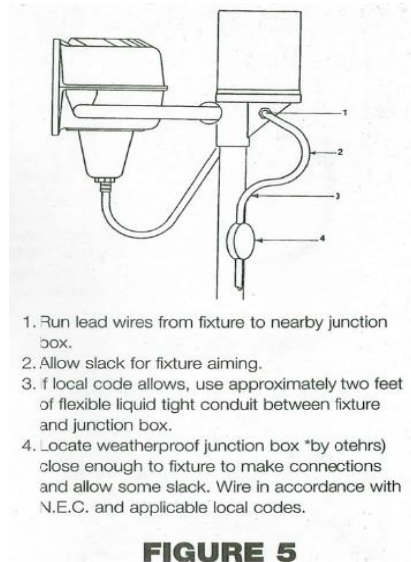
Your floodlight is designed for years of trouble-free operation. It will occasionally be necessary to clean the outside of the fixture lens to maintain the light level. The frequency of cleaning will depend upon the ambient dirt level. The lens should be cleaned with any suitable non-abrasive cleaning solution, soap, or detergent and rinsed with clean water. **CAUTION: Never perform maintenance while fixture is energized.**

TROUBLE SHOOTING

In the event fixture fails to operate properly first check:

- 1) That the proper lamp is installed.
- 2) The lamp is not faulty.
- 3) The line voltage at the fixture is correct.
- 4) The fixture is properly wired.
- 5) The fixture is properly grounded.

If fixture still fails to operate after the above trouble shooting, contact your distributor or representative.



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