



A Division of Gow Industries, Inc.

Phone: 605.542.4444 concealite.com

Installation Instructions

HL Hydro-Lite

Please Save These Instructions



Important Safeguards

Read and Follow All Safety Instructions

- ✓ To reduce the risk of electric shock always disconnect both normal and emergency power supplies. Disconnect all circuits before installation.
- ✓ Universal Input 120/277 VAC.
- ✓ Make sure all connections are in accordance with the National Electrical Code, and any local regulations.
- ✓ Emergency fixtures should be maintained in accordance with NFPA 101 Life Safety Code requirements. It is recommended that emergency lighting units be tested for 30 seconds once a month, and for 90 minutes once a year.
- ✓ This product not for use in hazardous locations.
- ✓ Do not install near gas or electric heaters.
- ✓ The lamp heads and door actuator are factory installed and shall not be modified by unauthorized personnel. Do not store or place flammable materials near lamps.
- ✓ Halogen lamps operate at high temperatures, so use caution and allow to cool completely before replacing any faulty lamps. Use only manufacturer specified lamps (BiPin GY 6.35 Base 12v).
- ✓ Use of accessory or supplemental equipment not recommended by the manufacturer may cause an unsafe condition, and will void product warranty.
- ✓ Do not use this product for other than intended use.
- ✓ Servicing should be performed by qualified service personnel. Contact Concealite for information on service.



Series: HL Hydro Lite
Surface Mount & Semi-Recessed Option

Model: HL-I & HL-II
Wet Location/NEMA 4X

Index

- 1 Important Safeguards
- 2 Surface Mount Installation
- 3 Semi-Recessed Installation
- 4 Wiring Installation/Operation

Limited Warranty

All Concealite fixtures are tested and are guaranteed to be free from defective materials and workmanship for a period of three years from date of shipment under normal operations and proper use. Correction of all defects shall be by replacement or repair (at our discretion) and shall constitute fulfillment of all manufacturer's obligations. We will not allow any charge for labor, materials, etc. that does not have our written approval before the work is begun. Damage incurring in handling or in transit are not covered by this guarantee. Any other warranty, expressed or implied, is hereby void. Modifications to the product or failure to follow installation instructions will void the warranty.



Failure to follow published installation instructions or any modifications to the product may damage the unit and will void the warranty.

Provide each unit with an approved metal or PVC conduit, and wiring for your lighting in the area to be protected. The wiring should be a permanent installation.

*This unit is designed for surface mounting in wet location NEMA-4x / NEMA-12 environments designed for wall mounting (A kit is available for semi-recessed mounting – see page 3). Locate unit within area to best maximize lighted area under anticipated conditions. Do not mount units where exposure to temperature will exceed 140 degrees Fahrenheit. Exceeding 140 degrees Fahrenheit may void warranty. Verify primary input voltage as either 120VAC or 277VAC. **Note:** The BLACK and ORANGE wires are NEVER used together in the same application. Always cap the unused wire. Provide each unit with a single unswitched supply from (normal power) 120VAC/277VAC branch circuit used for normal lighting in the area to be illuminated. The wiring should be permanent installation using waterproof UL recognized fittings at each entrance into the units back box area.*

NOTE: All entrances and mounting hardware penetrations into back box area must be made with UL listed watertight components to maintain enclosure enclosure rating as designed. Concealite light fixtures marked as “HL REM” are designed for wet location NEMA 12 installations in accordance with UL Article 1571 and CSA C22.2 NO. 141, Special Purpose Type 2 enclosures. C22.2 NO. 94.

HL Hydro-Lite INSTALLATION INSTRUCTIONS

SURFACE MOUNTING



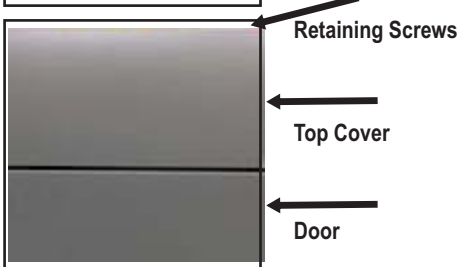
[1] Remove and discard the packaging materials. Provide a location on the wall for mounting of the unit. The unit requires a clear space for surface mounting. Reference dimensions sheet *to be sure your wiring is in the correct place, and that the mounting holes hit a stud (if mounting on a framed wall).* Drill pilot holes for mounting.



[2] Remove the top cover of the HL Hydro-Lite by removing retaining screws located on the top portion of the enclosure.

[3] Loosen two screws on waterproof junction box cover. Open cover.

[4] Pull wiring through the back of the junction box, and into the waterproof box. UL listed watertight conduit fittings and conduit must be utilized. (See wiring diagram on page 4 for proper connection procedure).



[5] Fasten to the wall using the pilot holes you drilled earlier. Securely fasten back box to the wall at the desired location with corrosion resistant mounting hardware.

[6] Close the cover on the interior waterproof junction box. Tighten screws.

[7] Replace the top cover.



Failure to follow published installation instructions or any modifications to the product may damage the unit and will void the warranty.

Provide each unit with an approved metal or PVC conduit, and wiring for your lighting in the area to be protected. The wiring should be a permanent installation.

HL-I Dimensions:

15 1/2" H. x 12 1/4" W. x 9 1/4" D. (39.37 cm H. x 36.1 cm W. x 23.40 cm D.)

HL-I Semi-Recessed (SR) Dimensions:

One (1) Inch Wide Front (2.50 cm) By One (1) Inch Wide Depth (2.59 cm)

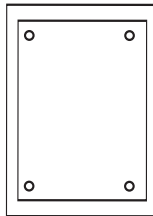
HL -II Dimensions:

19 1/2" H. x 16 1/2" W. x 9 1/4" D. (49.53 cm H. x 41.91 cm W. x 23.49 cm D.)

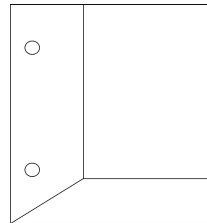
HL-II Semi-Recessed (SR) Dimensions:

One (1) Inch Frame (2.59 cm), One Inch Depth (2.59 cm)

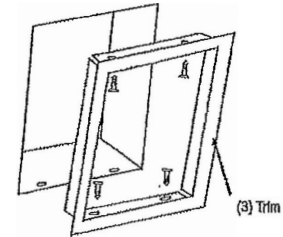
Semi-Recessed Installation



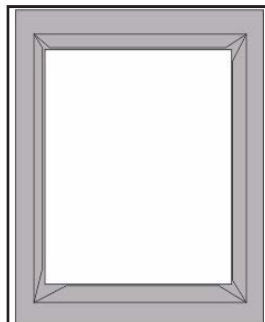
[1] Reference dimensions for positioning.



[2] Cut opening in wall area



[3] Install trim ring



Semi-Recessed
Mounting Trim
Kit Option (SR)



Retaining Screws

Top Cover

Door

[1] Remove and discard the packaging materials. Provide a location on the wall for mounting of the unit. The unit requires a clear space for mounting. Reference dimensions sheet for positioning.

[2] Cut out wall covering, and header off the opening (weight of unit will be held by these headers).

[3] Install trim ring in the opening.

[4] Mark position for drilling the pilot holes for the four mounting holes located in the back of the fixture. Insure that the fasteners allow for the secure installation and properly support the fixture.

[5] Remove the top cover of the HL Hydro-Lite by removing retaining screws located on the top portion of the enclosure.

[6] Loosen two screws on waterproof junction box cover. Open cover.

[7] Pull wiring through the back of the junction box, and into the waterproof box. UL listed watertight conduit fittings and conduit must be utilized. See wiring diagram for proper connection procedure.

[8] Fasten to the wall using the pilot holes you drilled earlier. Securely fasten the HL to the wall at the desired location with corrosion resistant mounting hardware.

[9] Close the cover on the interior waterproof junction box. Tighten screws.

[10] Replace the top cover.





Failure to follow published installation instructions or any modifications to the product may damage the unit and will void the warranty.

Provide each unit with an approved metal or PVC conduit, and wiring for your lighting in the area to be protected. The wiring should be a permanent installation.

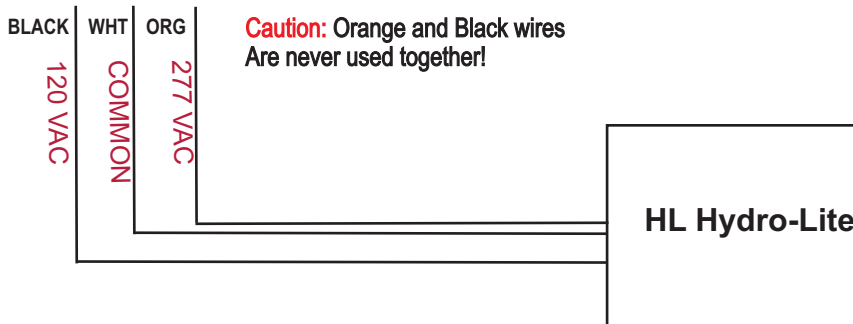
HL Hydro-Lite WIRING INSTRUCTIONS



WARNING: to avoid fire, shock/electrocution, or injury – **TURN OFF POWER** at circuit breaker or fuse and test to ensure that power is off before wiring. Remove and discard the packaging materials.

MODEL	VOLTS	WATTS
HL-I	12v DC	100 (MAX)
HL-II	12v DC	200 (MAX)

Dual Input Normal Power 120VAC OR 277VAC



CARE & WARRANTY

Routine Care

The HL Hydro-Lite fixture should be inspected monthly to ensure that it is clean and operational.

Test Cycling (Emergency Use Only)

Every month, if there has been no power failure, test the HL Hydro-Lite fixture by activating the emergency power source for 15 minutes.

Conditioning Cycles (This Applies to the Emergency Power Source)

Once a year, if power failures have been infrequent or non-existent, perform a full battery conditioning cycle. De-energize the AC circuit to which the unit is connected and let the emergency lights operate for the period of operation the unit is listed for, then restore AC power. This puts the battery through a discharge/recharge cycle over its full-intended range, and also provides a rigorous test of over-all unit operation.

Limited Warranty

All Concealite fixtures are tested and are guaranteed to be free from defective materials and workmanship for a period of three years from date of shipment under normal operations and proper use. Correction of all defects shall be by replacement or repair (at our discretion) and shall constitute fulfillment of all manufacturer's obligations. We will not allow any charge for labor, materials, etc. that does not have our written approval before the work is begun. Damage incurring in handling or in transit are not covered by this guarantee. Any other warranty, expressed or implied, is hereby void. Modifications to the product, or failure to follow installation instructions, will void the warranty.

Self Diagnostic Option Features

The SD (Self-Diagnostic) option makes routine maintenance as effortless as looking at the diagnostic panel. The SD option automatically provides battery exercise and extended testing. The LED panel indicates specific component status.

The self-diagnostic option provides the following features:

- Monthly battery exercise
- Battery monitoring
- Charger monitoring
- Replacement battery indication
- LED lamp status

The SD self-diagnostic option allows maintenance personnel to monitor system status at a glance.

This SD option automatically cycles the unit every 24-30 days. While it is cycling, the monitoring circuits check the battery to ensure that it will deliver the power needed to maintain the load for a 12/x hours. The SD option does not use the lamps to test the battery; rather there is a predetermined resistive load within the option, thus avoiding lamp life reduction.

The SD option also recognizes problems while the unit is in a standby mode. During this period, the monitoring circuits check the charger voltage to see if an overcharge or undercharge is occurring. If either an overcharge or undercharge exists, the fault indicator will illuminate.

The yellow LED indicates cycling and will only illuminate if the unit is self-testing. The LED stays lit for the duration of the test cycle, normally 15-20 minutes.

The red LED indicates a fault condition. The LED will come on and flash when a fault condition exists. The unit does not have to go through a cycle test to indicate a fault. The circuits are monitoring the charger at all times.

The green LED indicates charge and utility power. This LED is on during the standby mode.

The test switch is used to test the unit at any time. When a fault condition occurs, the indicator will flash. Once the problem is corrected, the test switch is used to reset the SD circuit.

Concealite Self-Diagnostic (SD) System Operation and Troubleshooting Guide

The Self Diagnostic (SD) system automatically monitors both battery performance and electronic functions of an emergency lighting unit. Not using the emergency lights during this test greatly improves lamp life, thus increasing the possibility of proper lamp operation.

1. SD System Operation (Refer to Chart 1 for LED Description)

- a) Upon initial power up, the SD system will indicate a bad or unconnected battery termination. A flashing fault LED will remind the installer to connect the battery.
- b) During normal operation of the emergency lighting unit, the SD system will monitor the battery charger for proper operation. An over or under charge will be indicated by a flashing fault LED.
- c) The SD system automatically exercises the battery every 24 - 30 days. This test is indicated by having the "RX Mode" LED "on". A ten minute discharge is performed by using a "Dummy Load". This exercise assures that the battery is performing properly. A fault LED will indicate if a battery is weak or dead.

2. Trouble Shooting Aid. The following is a guide to determine the cause of a flashing fault LED. The steps must be followed in sequence to properly determine cause.

Note: After each step, depress the test switch for approximately two seconds to reset the SD system. If fault LED stays "off" the problem has been corrected. If not, proceed to the next step.

- a) Make sure battery connections are connected and free of corrosion; clean terminal if necessary.
- b) Measure battery voltage. It should be within the following limits:

Battery Volts	12V
Low	9.60 +/- .10
High	14.40 +/- .10

If not within the limits.

- a) Make sure that the charge LED is "on". If not, make sure that power is available to the unit.
- b) If the battery voltage is low and charge LED is "on", replace the charger board.
- c) If the battery voltage is high, consult factory to determine if charger is out of tolerance or charger board is defective.

Reset SD system before performing this test. Fault LED must be "off". Discharge unit between ten to ninety minutes by removing AC input. If during this test the fault LED flashes, the battery is weak. Replace battery and repeat test.

Chart 1

Yellow LED	SD Mode	Steady "on" when self-testing
Red LED	Fault	Flashing when fault is determined
Green LED	Charge	"ON" when charger is charging
	Test Switch	To test & reset SD Board

