

ELM4L & ELM6L

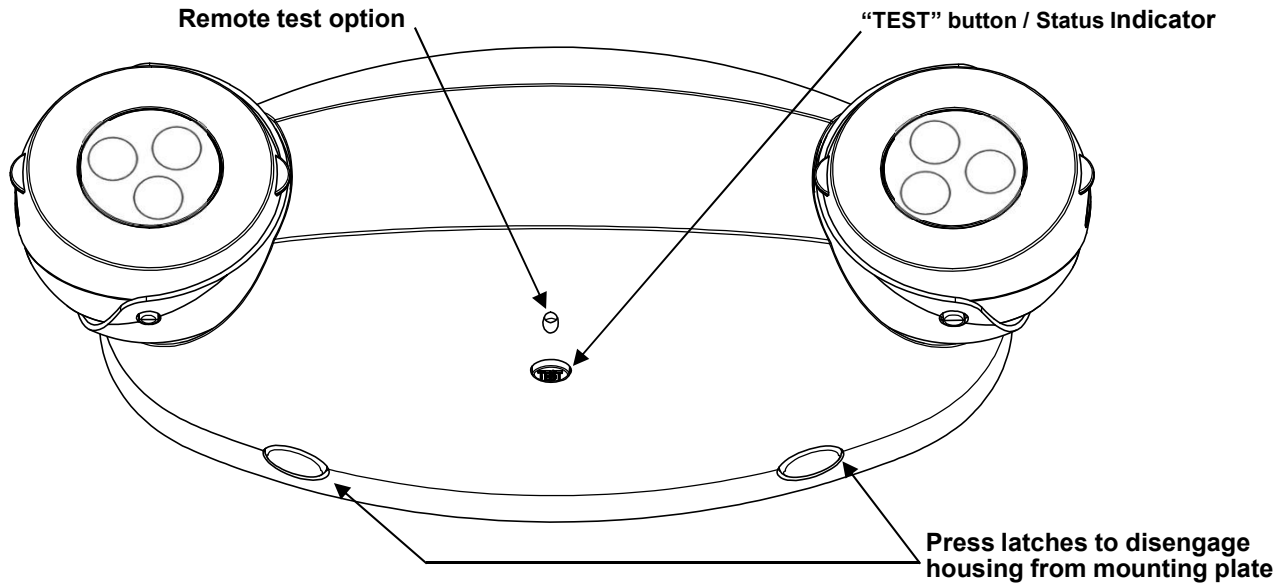
EMERGENCY LIGHTING UNIT



Installation and wiring P. 2-3

Testing and maintenance P. 4-5

NOTE: Product versions that comply with CA Title 20 are marked (BC) on the product label.



IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- WARNING:** FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS MAY RESULT IN DEATH, SERIOUS INJURY OR SIGNIFICANT PROPERTY DAMAGE - For your protection, read and follow these warnings and instructions carefully before installing or maintaining this equipment. These instructions do not attempt to cover all installation and maintenance situations. If you do not understand these instructions or additional information is required, contact Lithonia Lighting or your local Lithonia Lighting distributor.
- WARNING:** RISK OF ELECTRIC SHOCK – NEVER CONNECT TO, DISCONNECT FROM OR SERVICE WHILE EQUIPMENT IS ENERGIZED.
- WARNING:** DO NOT USE ABRASIVE MATERIALS OR SOLVENTS. USE OF THESE SUBSTANCES MAY DAMAGE FIXTURE, WHICH MAY RESULT IN PERSONAL INJURY.
- WARNING:** RISK OF PERSONAL INJURY – This product may have sharp edges. Wear gloves to prevent cuts or abrasions when removing from carton, handling, installing and maintaining this product.
- WARNING:** The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble, heat above 70° C (158° F), or incinerate. Replace battery only as directed on the battery label and page 5 of these instructions. Use of unauthorized battery voids warranty and UL listing of this product, and may present a risk of fire or explosion.

- Disconnect A.C. power before servicing.
- All servicing should be performed by qualified personnel.
- Consult your local building code for approved wiring and installation.
- Do not use outdoors unless used with Acuity Brands accessories appropriate to the application.
- Do not mount near gas or electric heater.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.

**SAVE THESE INSTRUCTIONS
AND DELIVER TO OWNER AFTER INSTALLATION**

IMPORTANT: Provide each unit with a single-phase AC un-switched power supply from a circuit used for normal lighting. “UVOLT” product versions operate from 120 volts through 347 volts. All other versions operate from 120 volts through 277 volts. **PRODUCT DAMAGE WILL OCCUR IF THE RATED INPUT VOLTAGE IS EXCEEDED.**

NOTE: The battery must be connected to the charger board prior to applying AC power to the unit. Battery damage may occur if the battery is connected longer than 24 hours without continuous AC power provided. See also “**Important Battery Information**”, page 4.

NOTE: To meet the minimum illumination requirements of NFPA 101 (current Life Safety Code), the maximum mounting height from ground of ELM4L is 26.3 feet, and of ELM6L is 32.9 feet.

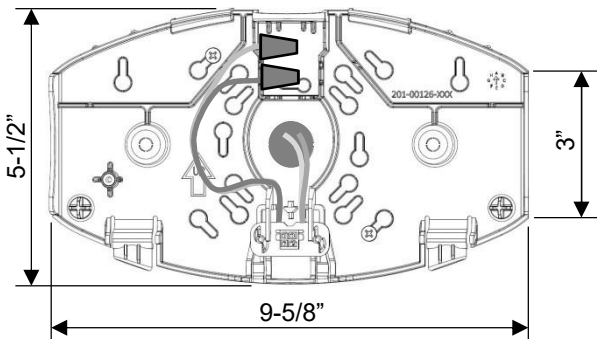
NOTE: Do not connect battery or power unit until remote units (if applicable) are fully connected and wires are isolated from other potentials (i.e. remote wires shall be isolated from earth ground).

JUNCTION BOX MOUNTING

-Some details shown below may vary-

- 1 On the mounting plate, remove the round center knockout and the desired pair of keyhole junction box knockouts.

Mounting Plate:

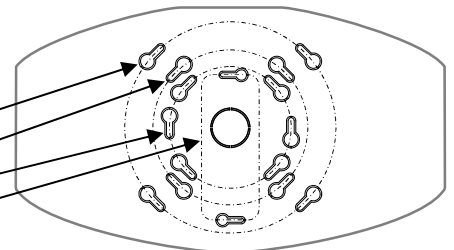


- 2 Route leads through the center opening and use code-approved connectors to make the connections. (See Wiring Diagram, page 3). Dress wires and connectors inside junction box. **Units with Remote Lamp Wires:** If no remote lamps are connected, remote lamp leads (+ and - low voltage DC) should be left capped and dressed in mounting plate as shown.

Junction boxes accommodated:

- 4" Square
- 4" Octagon
- 3-1/2" Round or Octagon
- Single Gang Box

- 3 Taking care not to pinch wires or connectors dressed inside junction box, secure mounting plate to junction box screws. **NOTE:** To ensure proper engagement of the mounting plate latches to the housing, **DO NOT OVER-TIGHTEN THE SCREWS.**



CONDUIT SURFACE MOUNTING

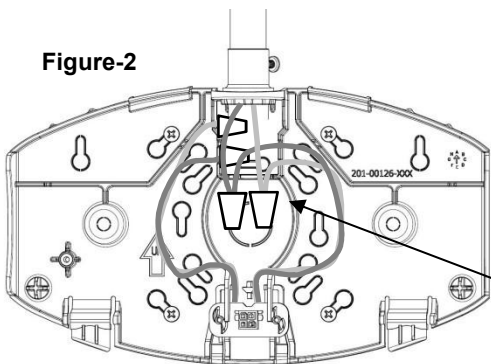
NOTE: to avoid interference with components in the housing, use the most compact wire connectors appropriate to the wire gauge.

- 1 At upper center of the mounting plate, remove the conduit connection knockout. Also remove at least three keyhole knockouts. Attach conduit and secure mounting plate to wall surface using fasteners with a minimum pullout rating of 30 lbs. each.

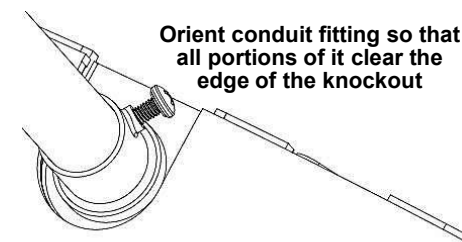
- 2 See Wiring Diagram, page 3. Make code-approved wire connections to the AC power supply, and remote lamps (if applicable). Dress wires into slots so that the connectors are secured as shown in Figure 2 or Figure 3.

- 3 Remove U-shaped knockout from top center of housing. **Hint:** Use a pair of wire cutters first to start a cut in the thick portion at each side of the knockout, then finish breaking it out with pliers.

Figure-2



Orient conduit fitting so that all portions of it clear the edge of the knockout



Secure wire connectors near the center or near the upper latches

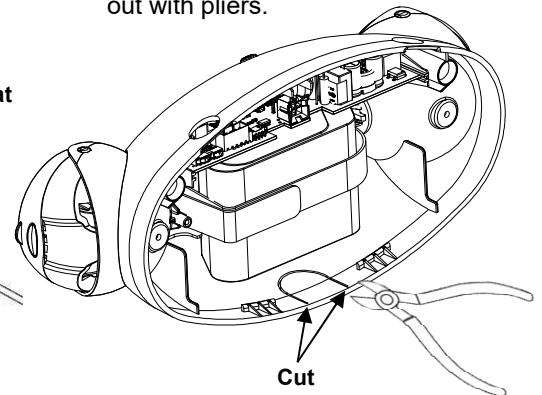
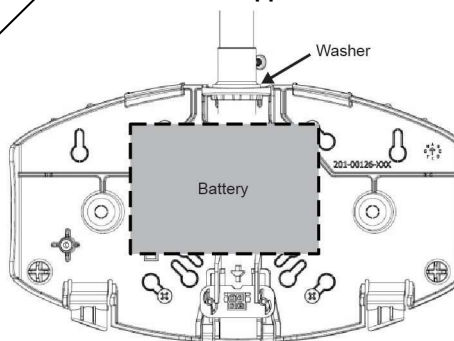
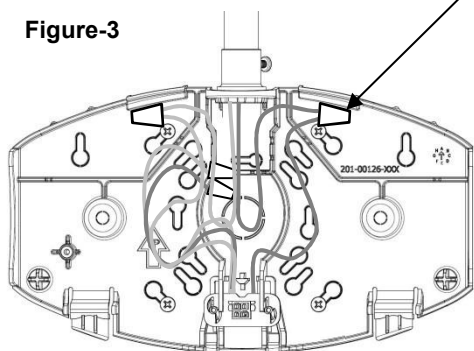
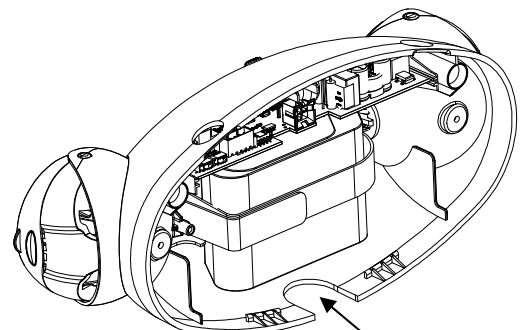


Figure-3



Use washer (Grainger #4DAX6) between conduit fitting and rear housing if conduit fitting interferes with battery.



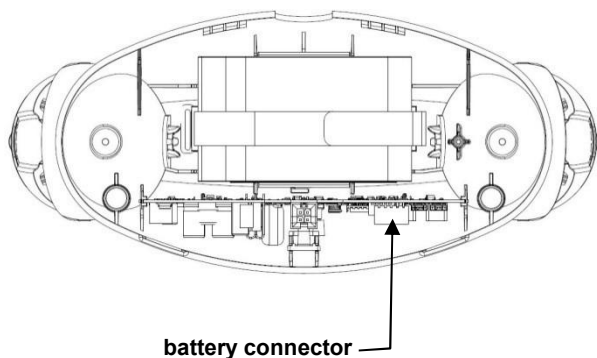
After knockout removal

FINAL ASSEMBLY

4 Connect the polarized battery plug to the charger board. Make certain that the battery cable is routed to avoid interference with the AC input connector or other components.

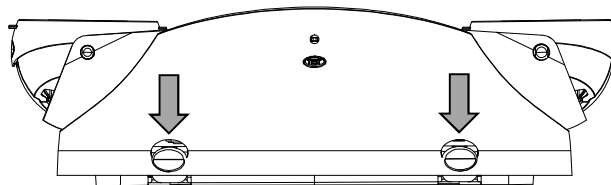
Battery Connection

Note: some details may vary



5 **Housing attachment to mounting plate:** Make certain all wires and connectors are routed to avoid interference with other components. Align latch openings on underside of housing with latch buttons on mounting plate. Firmly push housing straight onto mounting plate, making certain all four latches are fully engaged, and the housing is closely aligned to the mounting surface.

Federal Communications Commission (FCC) Requirements: This device complies with Part 15 of the FCC Rules. This device may not cause harmful interference.

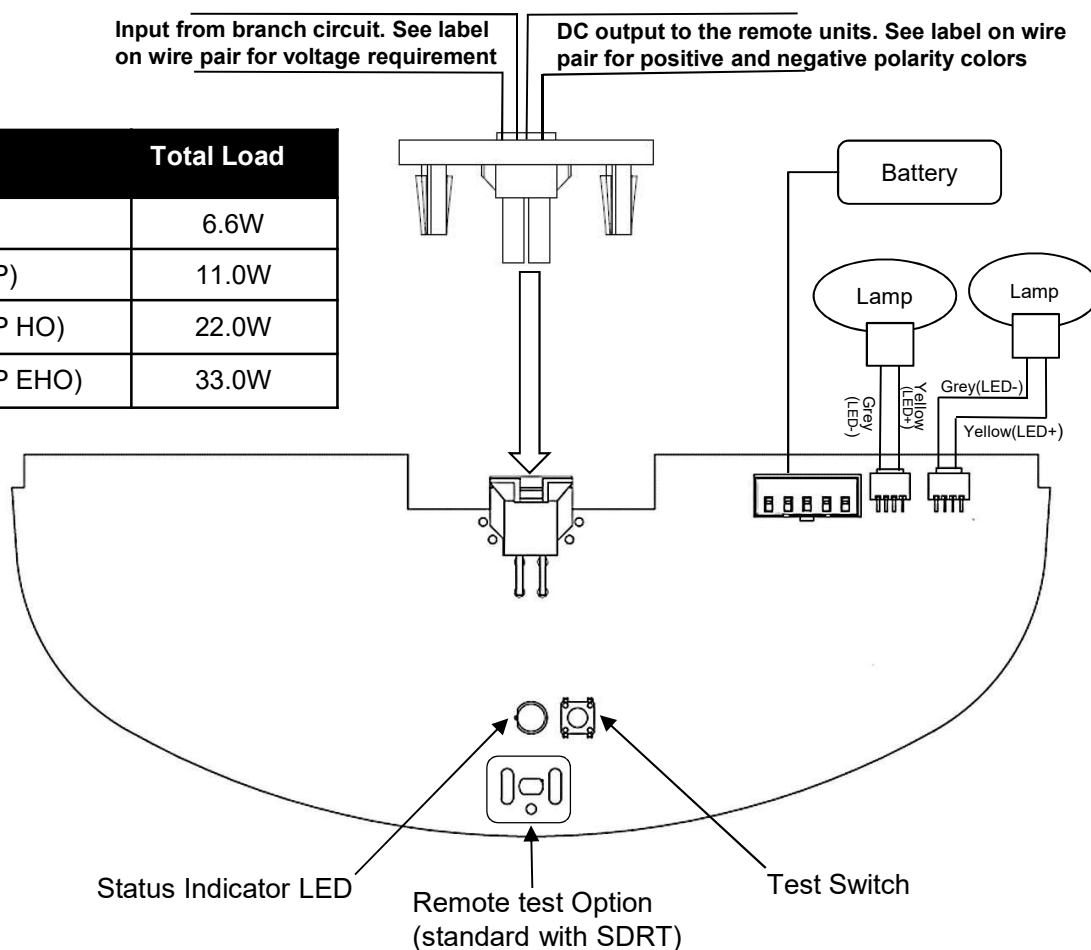


WIRING DIAGRAM

Input from branch circuit. See label on wire pair for voltage requirement

DC output to the remote units. See label on wire pair for positive and negative polarity colors

Battery Type	Total Load
NiCd	6.6W
LiFePO4 (LTP)	11.0W
LiFePO4 (LTP HO)	22.0W
LiFePO4 (LTP EHO)	33.0W



NOTE: Emergency lighting systems should be tested in accordance with NFPA 101 or as often as local codes require, to ascertain that all components are operational.

NOTE: Allow batteries to charge for 24 hours before initial testing.

Manual testing:

If the batteries are sufficiently charged, either press and release the “TEST” button or use the ELA LRT (remote tester accessory for SDRT units only) on the bottom of the unit to activate a 30-second test, during which the lamps will turn on. After a unit’s first 30-second test is complete, a test in progress may be cancelled at any time by pressing and releasing the “TEST” button again.

Self-Diagnostics (SDRT feature)

Units with this option automatically perform a 5-minute self-diagnostic test of the charging electronics, battery, and lamps every 30 days, and a 90-minute test every year, indicating system status as shown in the table at right. First self test occurs after 15 days of continuous AC Power.

Postponing a self-test:

If an automatic self-test occurs at a time when it is not desirable for the unit lamps to be on, it can be postponed for 8 hours either by pressing and releasing the “TEST” button or by using ELA LRT (remote tester accessory).

Cancelling emergency operation:

Press and hold the “TEST” button for several seconds or activate using the ELA LRT (remote tester accessory), during which the status indicator will flash until the lamps turn off. This restores the AC Reset state in which the unit is shipped.

Load-Learning feature:

Self-Diagnostic units automatically ‘learn’ their total connected lamp load during the first scheduled self-test (~15 days). The load-learning function can also be initiated manually by pressing and holding the “TEST” button for 7 seconds (count flashes), during this period the lamps will turn on. After 7 seconds, release the button, the lamps will turn off within 2 seconds indicating load learn complete. If lamps stay on longer, load learn was not successful. This manual load-learning feature should be initiated whenever the total connected lamp load of the unit is changed, or a lamp is replaced.

NOTE: Manual load-learning functions cannot be initiated if there is inadequate charge in the batteries. If this is so, wait until the unit indicates full battery charge (solid green status indication) before initiating the manual load-learning function.

Clearing a failure indication:

After a failure condition has been corrected and power is restored to the unit, clear the failure indication either by pressing the “TEST” button once or by activating remote Test option once.

Time Delay (TD Option):

With TD option, the lamps will stay on for 20 minutes after AC power is restored to the unit from the emergency mode, or until the batteries reach the Low Voltage Disconnect level. Time Delay operation can be cancelled at any time during this 20-minute period by pressing the test switch once.

IMPORTANT BATTERY INFORMATION:

Batteries are perishable items. For best results, it is recommended that the batteries receive an initial charge within the first six months of the manufacture date of the fixture. The manufacture date can be found on the outside of the unit packaging and on the product label as part of the Date Code / Series. The first two digits in the date code represent the year and the second two digits represent the month. In many cases, batteries beyond the initial charge recommendation time frame will recover if fully charged soon after installation. If such a battery does not recover after a full initial charge, it should be replaced.

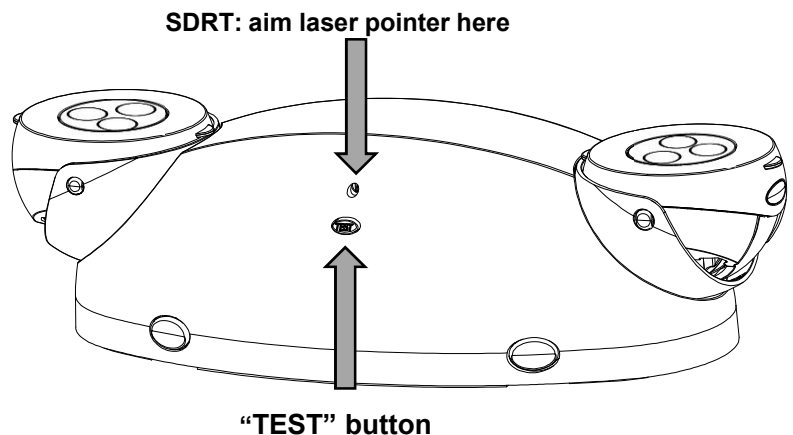
Unit Status Indications

The “TEST” button illuminates to indicate the following conditions:

Indication:	Status:
Off	Unit is off
Flashing green	Unit is in Emergency operation or Test
Solid amber	Battery is charging
Solid green	Battery is fully charged
Flashing R / G	Manual test, battery not fully charged (SDRT only)
1x red flashing	Battery failure (SDRT only)
2x red flashing	Lamp failure (SDRT only)
3x red flashing	Charger / electronics failure (SDRT only)
Flashing R/Amber	Unable to charge
Solid Red	Battery is disconnected

Remote Test (SDRT): (ELA LRT sold separately)

Units with the self-diagnostics/remote test feature allows manual test activation using a laser pointer. Aim the laser beam straight onto the circular area labeled near the “TEST” button for a few moments to activate a 30-second test. (See also “Manual testing”) A test in progress may be cancelled by aiming the beam at the test area again. **NOTE: The remote tester should not be used to initiate the Load Learning feature.**



BATTERY REPLACEMENT

Unit features and battery details shown may vary. See also "Battery Connection", page 3.

- 1 Disconnect battery from charger board.
Release battery strap.

- 2 Replace battery, secure the strap snugly, and reconnect to the charger board.

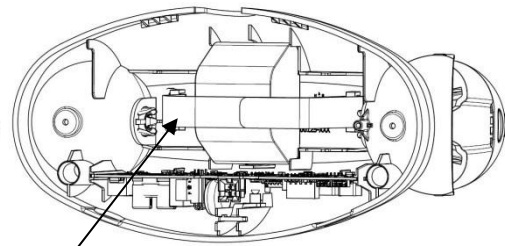
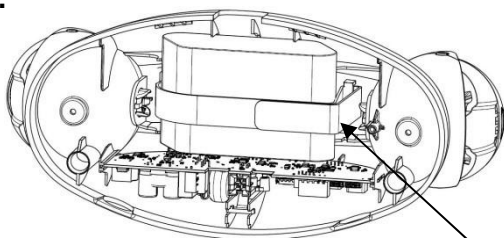
- 3 Re-assemble the unit (see also step 5, page 3).

BATTERY HANDLING WARNINGS:

- Dispose of used batteries promptly.
- Keep away from children.
- Do not disassemble.
- Do not dispose of in fire.

LiFePO4 Battery (LTP, HO, EHO)

NiCd Battery (standard)



Battery Strap

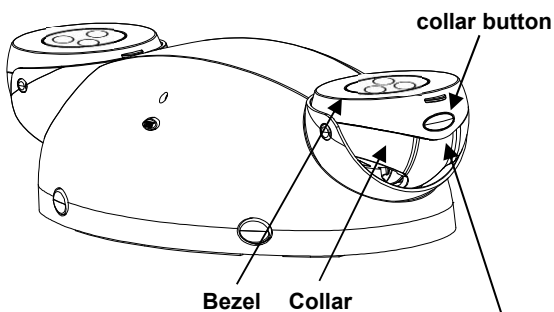
For Velcro strap: Release and reuse

LAMP REPLACEMENT

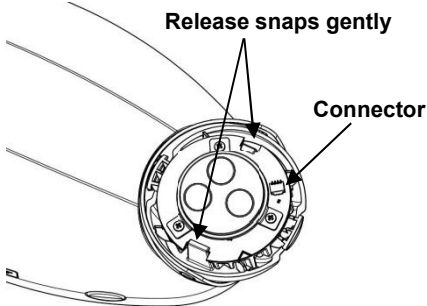
- 1 Remove lamp bezel as shown below.

- 2 Gently bend the snap at each side of the collar to release the lamp assembly. Unplug the connector from the lamp assembly.

- 3 Route the lamp wires through one of the center spaces under the new lamp assembly, and replace it firmly under the snaps on the collar, making sure the wires are not pinched. Plug the lamp connector and replace the bezel.



Carefully flex this edge free from collar button

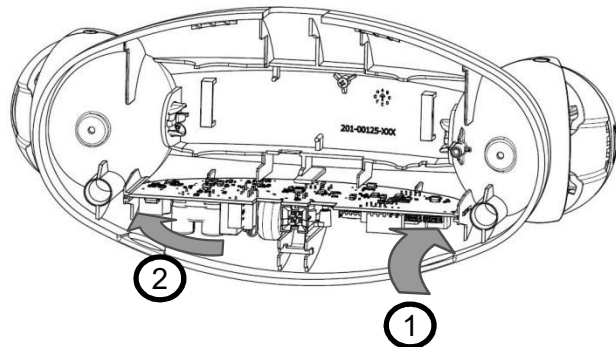
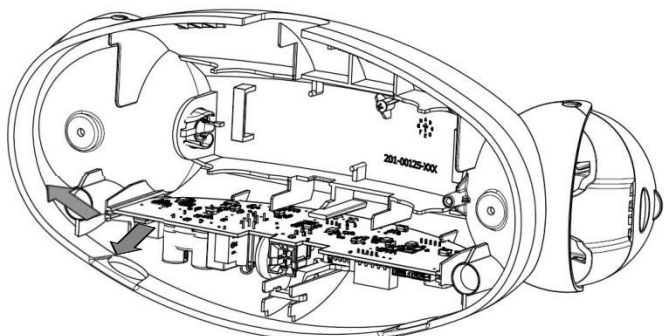


CHARGER BOARD REPLACEMENT

- 1 With the unit oriented as in the below view, flex the channel at the left end of the charger board outward to release and remove it. Unplug the battery, lamps, and other connections.

- 2 Re-connect all components to the new charger board, routing wires as before. For insertion of PCB, insert right side of PCB first, followed by left side (click should be heard).

- 3 Make sure all wires are routed so as not to interfere with proper assembly of the housing onto the mounting plate. Re-assemble the unit (see also step 5, page 3).





 **LITHONIA LIGHTING**[®]
An **Acuity** Brands Company

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TEL: 800-334-8694 www.lithonia.com

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