

## OPERATION

### Automatic Tests

The unit will automatically initiate a self-test/self-diagnostic cycle based on the following table:

Testing Period	Duration of Test
Once a month	1 minute
Once every 6 months	Alternating: 30 minutes or 60 minutes

### Manual Tests

Using the unit test switch, users can initiate different duration test cycles based on the following table:

Initiating Action	Test Cycle
Press test switch once	1 minute
Press test switch twice	90 minutes

Pressing the test switch any time after a 90 minute test cycle has begun cancels the remainder of the 90 minute test and returns the unit to normal operation.

### LED Status Indicator:

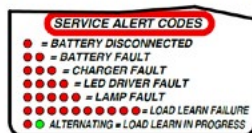
A green/red LED is provided on the control pane of all models equipped with the Spectron option.

### Green Operating Status LED:

The green Operating Status LED serves as both an AC power and self-test indicator. During normal operation, the green Operating Status LED will be illuminated, indicating the presence of AC power. During all automatic or manual self-test cycles, the green Operating Status LED will blink "twice" per second for the 30 / 60 / 90 minute test.

### Red Service Alert LED:

Under normal operating conditions, the red Service Alert LED indicator will remain off. If the Spectron controller detects a malfunction, the red Service Alert LED will blink in the pattern listed on the label around the test button.



## Service/Maintenance

### Maintenance

This emergency lighting unit should be tested and maintained in accordance with National Electrical Code and NFPA 101 Life Safety Code requirements. It is recommended that emergency light fixtures be tested for 30 seconds once a month and for 90 minutes once a year.

### Taking A Unit Out Of Service

If a unit is to be deliberately taken out of service for an extended period, the battery lead connector should be disconnected from the charger circuit board and insulated so that the battery will go into storage in a fully charged condition.

### Replacing The Battery

1. De-energize the AC power.
2. Remove the cover.
3. Disengage the battery harness from the charger PCB harness.
4. Disconnect the battery strap and remove battery pack.
5. Replace with new battery (see unit model label or battery label for correct p/n) and repeat steps above in reverse.

### Replacing LED Lamps

The LED lamps inside the unit are not replaceable or field serviceable. Please see dual-lite.com for further assistance.

### Troubleshooting

#### Emergency circuit does not work

- Batteries are shipped uncharged and disconnected. Connect battery leads and charge 24 hours before testing.
- Make sure the charger board and test button/light pipe are properly seated and aligned.
- Check wiring connections



### RECYCLING INFORMATION

All steel, aluminum and thermoplastic parts are recyclable. NOTICE: Emergency units contain rechargeable batteries which must be recycled or disposed of properly.



# EVCHL Series

Architectural LED Combination Exit/Emergency Light Standard, Remote, and Spectron® Equipped Models  
Installation, Operation, and Service Instructions



## IMPORTANT SAFEGUARDS

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

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Do not let power supply cords touch hot surfaces.
2. Do not mount near gas or electric heaters.
3. Equipment should be mounted in locations and at heights where it will not readily be subject to tampering by unauthorized personnel.
4. The use of accessory equipment not authorized by the manufacturer may cause an unsafe condition.
5. Do not use this equipment for other than its intended purpose.
6. Servicing of this equipment should be performed by qualified service personnel.
7. Test cycling: the Life Safety Code (NFPA 101) requires testing of emergency lighting units once a month for a minimum of 30 seconds, and once a year for a minimum of 90 minutes.

### INSTALLER:

- SEE UNIT LABEL FOR ADDITIONAL MODEL SPECIFICATIONS
- SAVE THESE INSTRUCTIONS FOR USE BY OWNER/OCCUPANT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

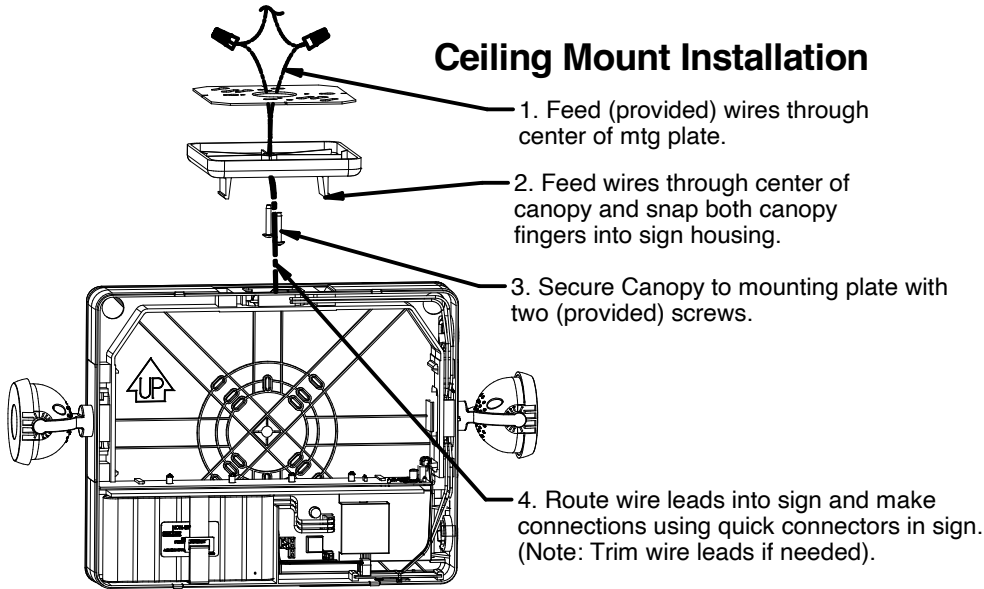
**WARNING** – This product contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm. Thoroughly wash hands after installing, handling, cleaning, or otherwise touching this product.

### Emergency Lighting Equipment For Use in Damp Locations

Damp location listed exits are suitable for installation in:

1. Interior locations subject to moderate degrees of moisture, such as some basements, some barns, some cold storage warehouses, and the like.
2. Partially protected locations under canopies, marquees, roofed open porches and the like.

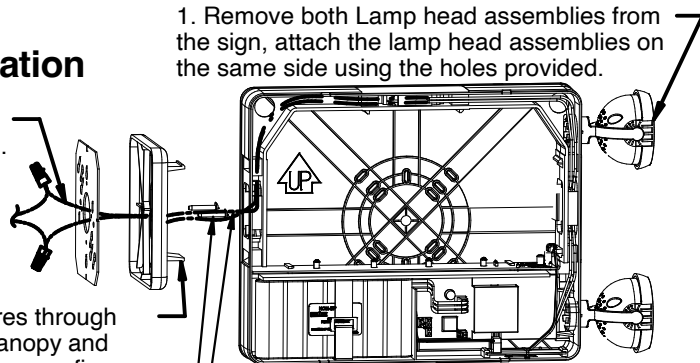
### Ceiling Mount Installation



1. Feed (provided) wires through center of mtg plate.
2. Feed wires through center of canopy and snap both canopy fingers into sign housing.
3. Secure Canopy to mounting plate with two (provided) screws.
4. Route wire leads into sign and make connections using quick connectors in sign. (Note: Trim wire leads if needed).

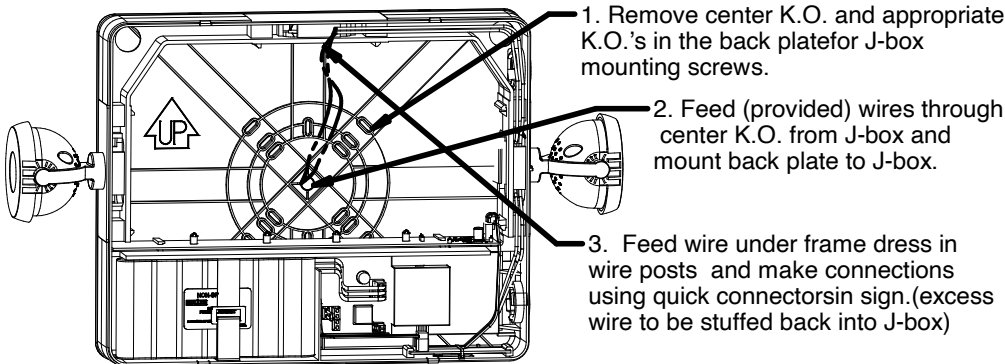
### End Mount Installation

2. Feed (provided) wires through center of mtg plate.



3. Feed wires through center of canopy and snap both canopy fingers into sign housing.
4. Secure Canopy to mounting plate with two (provided) screws.
5. Route wire leads into sign and make connections using quick connectors in sign. (Note: Trim wire leads if needed).

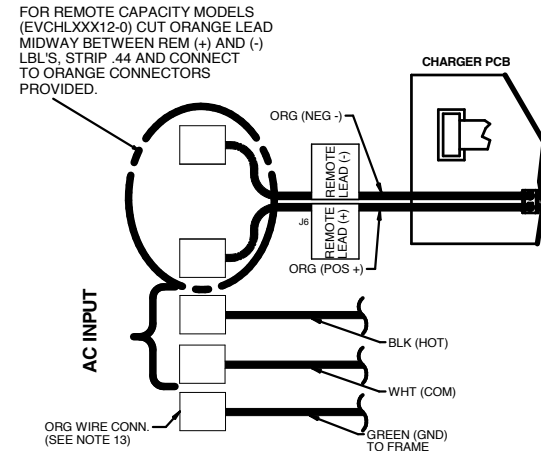
### Wall Mount Installation



1. Remove center K.O. and appropriate K.O.'s in the back plate for J-box mounting screws.
2. Feed (provided) wires through center K.O. from J-box and mount back plate to J-box.
3. Feed wire under frame dress in wire posts and make connections using quick connectors in sign. (excess wire to be stuffed back into J-box)

### REMOTE CAPACITY AND -0 OPTION MODELS

Note: if using a double lamp head remote fixture it should be wired in series before connecting remote lamp head positive lead to pos (+) exit remote lead and remote lamp head negative lead to neg (-) exit remote lead exit orange connectors.



### INITIAL INSTALLATION REQUIREMENTS

#### Load Learn Process

Once the green "AC ON" LED is illuminated and AC power is present, run a load learn process on all EVCHL units to include units with remotes. Run this test after the unit has been installed and any remote connections have been made. Once completed, the load value will be retained in memory for lamp load comparison.

1. Press and hold the test button for at least 5 seconds
2. Once the test button is released, the test button LED should flash red/green until the lamp load is detected
3. Once the Load Learn test is complete, the unit LED should go to steady green. If not, repeat step 1  
Note: If 10 red flash Load Learn fault is displayed load learn process has failed. Check LED Lamp circuit wiring for proper polarity and continuity and repeat step 1.
4. Run a 1 minute test to ensure the unit is serviceable, the unit should display a blinking green LED, and go to a constant green LED after the test is complete.

#### Special Unit Information

This unit includes SPECTRON Self-Diagnostic/Self-Diagnostic Circuitry  
This circuitry includes visual indication of the following unit faults:

- Battery Disconnected
- Battery Fault
- Charger Fault
- LED-Driver Fault
- Lamp Fault and Load Learn Failure

#### Additional Features

- \***Brownout Protection;** Unit automatically transfers to emergency operation upon detection of low AC power (approx. 80% of nominal line).
- \*Time Delay Retransfer; upon return of normal AC power, unit will remain in emergency mode for an additional 15 minutes to allow AC power to stabilize.
- \***AC Lockout Circuit;** prevents the emergency lights from illuminating when the battery is connected and no AC power is present.
- \*Low Voltage Disconnect Circuit: prevents damage to the battery from deep discharge during prolonged emergency operation.

**NOTE:** Batteries are often shipped in a discharged state - this is normal. The battery will require charging. Allow 24 hours of charging before testing the unit for a long duration.