# **SURE-LITES**

# Installation Instructions For Self Powered Self-Diagnostic L.E.D. Exit Signs, CX Series

## IMPORTANT SAFEGUARDS

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE OBSERVED INCLUDING THE FOLLOWING:

## 1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- 2. Do not use outdoors
- 3. Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- 5. The use of accessory equipment not recommended by Sure-Lites may cause an unsafe condition.
- 6. Do not use this equipment for other than its intended purpose.

## 7. SAVE THESE INSTRUCTIONS

## BEFORE INSTALLING, DETERMINE ARROW POSITION REQUIREMENTS:

- Step 1. Open the exit door and remove the colored exit lens by prying up the four retaining clips.
- Step 2. Before knocking out desired arrows, place the exit door frame down on wood blocks 1/2" from arrows, taking care to protect the door face finish.
- Step 3. Re-install the colored exit lens with the gloss side facing towards the LED's.
- Step 4. Tap the four retaining clips back into place.

#### FOR DOUBLE FACE UNITS:

- Step 1. On housing, knock out desired arrows per Step 2 above.
- Step 2. Install the extra colored exit lens with the gloss side facing towards the LED's.
- Step 3. Secure using four retaining clips supplied.

**MAINTENANCE:** None required. The unit is self-testing and self-diagnostic. It will automatically test itself and indicate if the battery or circuit board needs to be replaced. Accurate monthly records of the status of the diagnostic LED indicator should be kept.

NOTE: Servicing of any parts should be performed by qualified service personnel. ONLY use replacement parts supplied by

Sure-Lites. For replacement transformer, battery, or LED display PC board, see the fixture label.

OPERATION:

The diagnostic LED indicator near the test switch indicates the status of the unit. If the unit is operating under battery power

(either in the emergency mode or a battery capacity test) the indicator will turn off. When the unit is fully charged and in a float charge condition, the indicator will be on steady. If the unit is fast charging the LED will blink. If the battery has failed a capacity test by becoming over discharged during the test, or if the battery is not connected after 15 minutes of operation, the LED will double blink then repeat the double blink.

The unit will automatically test the battery capacity every thirty days for 30 seconds. It will perform a full battery capacity test for 90 minutes, randomly within each 6 month period. The unit continuously monitors the LED display and the condition of the circuit board. If a circuit failure occurs that turns off the EXIT display, or the battery charger circuit fails, then a circuit failure will be indicated by the indicator blinking three times. If 50% or more of the lamps in the EXIT display fail, the diagnostic LED will indicate a lamp failure by blinking four times.

When the unit is first turned on under AC power, the unit will fast charge for the first 24 hours. The emergency mode can be manually tested for 30 seconds by momentarily pressing the test switch. Operation under battery power can be tested in this way at any time, however, it is recommended that the test be performed only when the unit is in the float charge condition. While the battery power will be used when the test button is pressed, it will only test the battery capacity when it is fully charged in the float condition. This feature prevents the unit from indicating a false battery capacity failure which could happen if the battery is not fully charged and its capacity is tested.

**CAUTION:** 

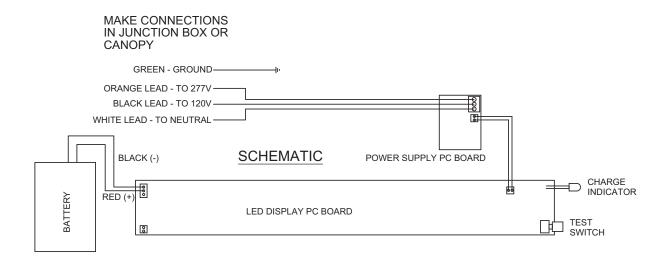
This equipment is furnished with a sophisticated low voltage battery dropout circuit to protect battery from over discharge after its useful output has been used. Allow 24 hour recharge time after installation or power failure for testing.

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#### TROUBLE SHOOTING HINTS: LED DISPLAY DOES NOT COME ON OR DIAGNOSTIC INDICATOR OUT BEFORE TEST:

- 1. Check AC supply be sure unit has 24 hour AC supply.
- 2. Unit is shorted or battery is not connected. Note: If battery was disconnected and unit is indicating battery failure, you will need to disconnect the battery connector and AC supply to reset the unit.
- 3. Battery discharged, permit unit to charge for 24 hours and then re-test.

If following the above trouble shooting hints does not solve your problem, contact your local Sure-Lites Representative or the factory for assistance.



#### **BATTERY REPLACEMENT:**

- Step 1. When a failed battery is replaced, first turn off AC supply to the unit.
- Step 2. Remove bracket by removing 2 screws (see figures showing ceiling and end mount installations).
- Step 3. Replace the battery, bracket and 2 screws.
- Step 4. Plug the new battery into the LED display PC board.
- Step 5. Energize AC supply, LED display will come on.

### WALL MOUNTING INSTALLATION:

- Step 1. Extend unswitched 24 hour AC supply of rated voltage to junction box (by others). Circuit should not be energized at this time.
- Step 2. Knock out wire access hole and the appropriate mounting pattern to fit junction box being used.
- Step 3. Dress wires through wire access hole. Secure wires inside housing by positioning cable tie mounting pad near wire access hole and secure with cable tie.
- Step 4. Connect AC supply wires and ground wire in accordance with local codes. Wirenut any unused supply wire. 120V-BLACK, 277V-ORANGE, NEUTRAL-WHITE, GROUND-GREEN. Dress wires and push into junction box.
- Step 5. Mount housing to junction box with 2 screws (by others).
- Step 6. Connect the battery lead connector to the LED display board.
- Step 7. Energize AC supply, LED display will come on.

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#### **CEILING OR END MOUNT INSTALLATION:**

- Step 1. Extend unswitched 24 hour AC supply of rated voltage to junction box (by others). Circuit should not be energized at this time.
- **Step 2.** Screw 3" long threaded nipple approximately 1-1/4" into mounting plate, Attach mounting plate to junction box with 2 screws (by others). Dress wires through large slots.
- Step 3. Unscrew bracket from housing by removing 2 screws.
- **Step 4.** Remove three 5/8" diameter knockouts (top or sides as required). Support each knockout within 1/2" on two sides before removing.
- **Step 5.** Fasten canopy to housing by using 3/4" long threaded nipple and 2 hex nuts.
- Step 6. Relocate wires on bracket towards canopy location being used. Dress wires through small hole into canopy.
- Step 7. Connect AC supply wires and ground wire in accordance with local codes. Wirenut any unused supply wire. 120V-BLACK, 277V-ORANGE, NEUTRAL-WHITE, GROUND-GREEN.
- **Step 8.** Mount housing/canopy by sliding 3" long threaded nipple on mounting plate through center hole in canopy and securing with hex nut.
- **Step 9.** Screw bracket back into housing. Take care on end mount installation to dress wires through slots on sides of bracket.
- Step 10. Connect the battery lead connector to the LED display board.
- Step 11. Energize AC supply, LED display will come on.

