SURE-LITES

INSTALLATION INSTRUCTIONS –

For LPX Self Diagnostic Combination Exit/Emergency lights and Exits with Remote Capacity

IMPORTANT SAFEGUARDS

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

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS
2. Dry location only. Do not use outdoors.
3. Do not use in hazardous locations, or near gas or electric heaters.
4. Do not let power supply cords touch hot surfaces.
5. Use caution when servicing batteries. Battery acid can cause burns to skin and eyes. If acid is spilled on skin or in eyes, flush acid with fresh water and contact a physician immediately.
6. Do not use this equipment for other than the intended use.
7. Installation is to be performed only by qualified personnel.
8. Install in accordance with National Electric Code and local regulatory agency requirements.
9. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
10. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
11. Caution: Halogen cycle lamps may be used in this equipment. To avoid shattering: Do not operate lamp in excess of rated voltage, protect lamp against abrasion and scratches and against liquids when lamp is operating, dispose of lamp with care.
12. Halogen cycle lamps operate at high temperatures. Do not store or place flammable materials near lamp.

13. SAVE THESE INSTRUCTIONS

⚠ **WARNING**

Risk of Fire/Electric Shock

If not qualified, consult an electrician.

⚠ **WARNING**

Risk of Electric Shock

Disconnect power at fuse or circuit breaker before installing or servicing.

WALL MOUNT INSTALLATION

DETERMINE CONFIGURATION / COLOR

Step 1. The LPX Combination Exit/Emergency lights (LPX-DH) can be configured for wall, ceiling, or end mounting. The mounting method will determine where the heads can be mounted. The LPX Exits with Remote Capacity (LPXH) have no heads attached.
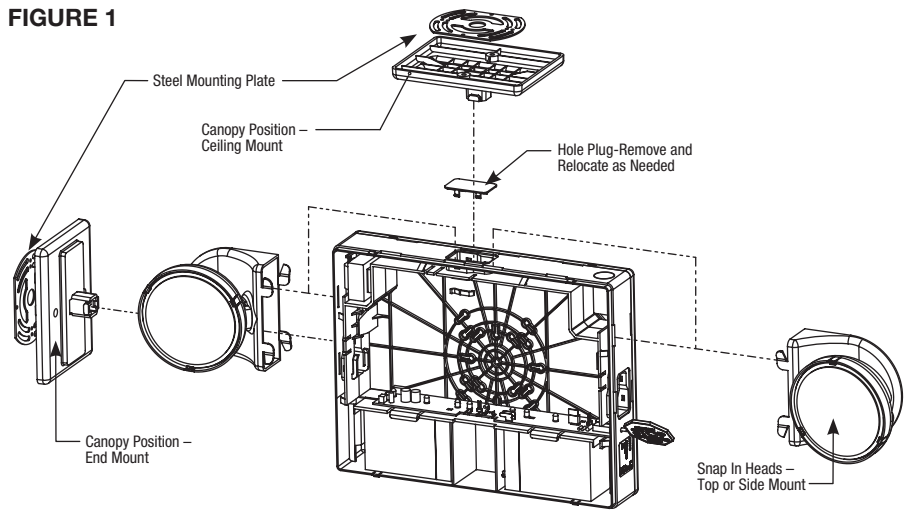
Step 2. The LPX-DH ships with the heads on the sides, appropriate for wall or ceiling mounting. If end mounting is desired, one or both heads will need to be relocated. See (Figure 1).

Step 3. To relocate the heads, remove the exit sign stencil and backplate from the exit frame, to access the inside of the exit sign. Disconnect the black and white lamp leads from the PCB. Unsnap the heads from the sides using a screwdriver to bend the snaps. Remove the hole plug from the top, and relocate it to the now empty hole on the side. Snap the head into the mouting slots at the top of the fixture, and reroute the wires through the hole and wire channel, back to the PCB. Connect lamp wires, black to L+, white to L-.

Step 4. Determine which color is needed. If red is needed, take no further action.

Step 5. If green is the desired color, remove the red lens from the stencil, and replace it with the green lens provided. If a double face installation is desired, replace both red lenses with green lenses.

FIGURE 1

- Steel Mounting Plate
- Canopy Position – Ceiling Mount
- Hole Plug-Remove and Relocate as Needed
- Canopy Position – End Mount
- Snap In Heads – Top or Side Mount

SURE-LITES

Step 6. On the LED circuit board, locate the red/green jumper (Figure 2).

Step 7. The jumper should be in the red position per the silk screen printing on the board. Pull gently upward on the jumper, then shift it one pin over to activate the green LEDS.

Step 8. The fixture is now ready to operate.

WALL MOUNT INSTALLATION

Step 1. De-energize the circuit at the junction box (J-box) where the exit sign is to be installed.

Step 2. Drill out the appropriate mounting pattern and the wire pass hole in the EXIT backplate to fit the J-box being used.

Step 3. Feed the orange, black, and white wires through the center hole.

Step 4. Connect the J-box wires to the EXIT power supply wires using the wire nuts provided. Connect the white wire to neutral. If using 120V, connect the black wire to the hot lead. If using 277V, connect the orange wire to the hot lead. Cap the unused lead. Press the wires into the J-box.

Step 5. Secure the EXIT to the wall and/or junction box using installer supplied hardware.
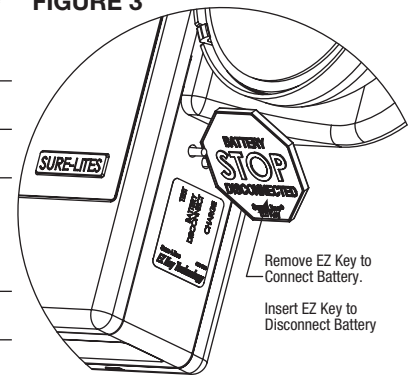
Step 6. Snap the EXIT stencil onto the frame.

Step 7. Remove the Sure-Lites EZ Key to connect the battery. The battery will remain disconnected until the EZ Key battery disconnect is removed. See (Figure 3). LEDs and lamps should come on under battery power.

Step 8. Energize AC supply, LED display will come on. Heads will illuminate briefly.
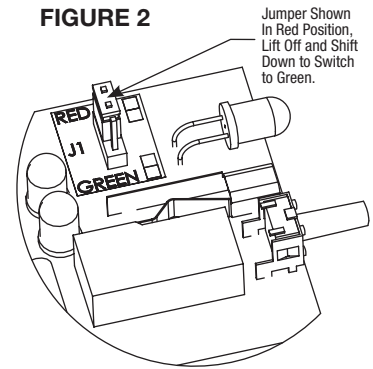
CEILING OR END MOUNT INSTALLATION

Step 1. De-energize the circuit at the junction box (J-box) where the exit sign is to be installed.

Step 2. Attach the steel mounting plate to the junction box.

Step 3. Place the provided screws in the canopy screw holes. Tabs inside the holes will prevent the screws from falling out during installation.

Step 4. If ceiling or end mounting, remove the appropriate hole plug, and snap in the canopy by sliding it in the keyhole opening. Place the canopy nose through the mounting hole until the side of the frame touches the canopy. Lock the frame onto the canopy by sliding the frame in a direction parallel to the canopy length toward the narrow end of the mounting hole. Slide the frame until both snaps engage the canopy nose preventing any motion back out of the hole. See (Figure 1).

Step 5. Feed the orange, black, and white wires through the canopy nose.

Step 6. Feed the wires from the J-box through the steel mounting plate, and then attach the mounting plate to the J-box with installer provided hardware.

Step 7. Connect the J-box wires to the EXIT power supply wires using the wire nuts provided. Connect the white wire to neutral. If using 120V, connect the black wire to the hot lead. If using 277V, connect the orange wire to the hot lead. Cap the unused lead. Press the wires into the J-box.

Step 8. Secure the EXIT canopy to the steel mounting plate using the screws placed in the canopy in Step 3.

Step 9. Snap the EXIT stencil onto the frame.

Step 10. Remove the Sure-Lites EZ Key to connect the battery. The battery will remain disconnected until the EZ Key battery disconnect is removed. See (Figure 3). LEDs and lamps should come on under battery power.

Step 11. Energize AC supply, LED display will come on. Heads will illuminate briefly.

FIGURE 2

Jumper Shown In Red Position, Lift Off and Shift Down to Switch to Green.

FIGURE 3

Remove EZ Key to Connect Battery.

Insert EZ Key to Disconnect Battery

COOPER Lighting

ACTIVATING OPTIONAL FEATURES TIME DELAY

If the consumer desires the emergency light to remain on for an additional 15 minutes after normal power is restored. To activate, remove the jumper labeled TDI from the circuit board. See (Figure 4).

FLASHER

If the consumer desires the exit sign to flash on and off when in emergency mode. To activate, remove the jumper labeled FLASHER from the circuit board. See (Figure 4).

SELF POWERED OPERATION

The Sure-Lites Eagle Eye Self Diagnostics is continuously monitoring your emergency fixture, and will signal any failure through the 3 color indicator LED.

FIGURE 4

Remove Jumper to Activate Time Delay Function (Shown Removed)

Remove Jumper to Activate Flasher Function (Shown Removed)

INITIAL OPERATION

When the unit is first powered up, it will go into a 24 hour fast charge, indicated by the indicator LED pulsing green. Once the unit has fully charged, it will perform a self calibration, after which the LED will change to steady green, indicating the unit is fully charged and float charging the battery to maintain readiness.

AUTOMATIC TESTING

The unit will perform a battery capacity, lamp/LED, and charge circuit test every 30 days for 30 seconds. During this time, the indicator LED will change to a steady yellow. It will perform a full battery capacity (90 minute) test once per year. During this time, the indicator LED will change to a blinking yellow.

MANUAL TESTING

- 10 Second "Installation" test – Press and release the test button once during fast charge (blinking green) to initiate a 10 second quick test. The sign and heads will switch to emergency mode for 10 seconds allowing the installer to verify proper installation of the unit, and the LED indicator will turn solid yellow.
- 30 Second Test - Press and release the test button once during float charge (steady green). The indicator LED will turn steady yellow to indicate the unit is performing a 30 second test of the batteries and lamps/LEDs.
- 90 Minute Test - Press and release the test button a second time during a 30 second test (steady yellow) to change to a 90 minute test. During this test, the LED indicator will change to blinking yellow, and the circuit will perform a full battery capacity, charge circuit, and LED test.
- Canceling Test – Press and release the test button during the 90 minute test (flashing yellow) to return the fixture to its original state (fast charge or float charge)

CLEARNING FAILURE CODES

- A battery failure (LED two blink red) can be cleared by replacing the battery. Disconnecting the battery and AC power, or performing a full 90 minute discharge, will reset the error code, however, it will return if the battery is faulty.
- Charge Circuit (LED three blink red) and lamp/LED failure will clear when the unit successfully passes a manual or automatic 30 second test.

INDICATORS

- LED Off - No power to unit, emergency mode.
- LED Steady Green - Unit is fully charged and is float charging the battery to maintain readiness.
- LED Green Pulse - Unit is in a 24 hour fast charge of the battery.
- LED Two Blink Red - Battery has failed a capacity test, or the battery is disconnected. See "Clearing Failure Codes" above.
- LED Three Blink Red - Battery charge circuit has failed. See "Clearing Failure Codes" above.
- LED Four Blink Red - Lamps have burned out, or on an EXIT/Combo, 50% or more of the LEDs have failed. See "Clearing Failure Codes" above.
- LED Steady Yellow - 30 second test or 10 second quick test (Fast Charge only).
- LED Blinking Yellow - 90 minute test.
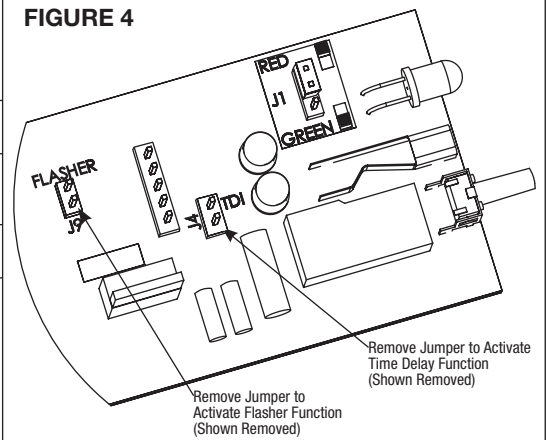
SURE-LITES

<table>
<tr><td rowspan="6">**SURE-LITES**

Eagle Eye
Self Diagnostics</td><td>○</td><td>OFF - EMERGENCY MODE / POWER OFF</td><td>⦿ (yellow)</td><td>STEADY BLINK YELLOW - 90 MINUTE TEST</td></tr>
<tr><td>⦿ (green)</td><td>STEADY BLINK GREEN - FAST CHARGE</td><td>⦿ ⦿ (red)</td><td>2 BLINK RED - BATTERY FAILURE</td></tr>
<tr><td>● (green)</td><td>STEADY GREEN - FULL / FLOAT CHARGE</td><td>⦿ ⦿ ⦿ (red)</td><td>3 BLINK RED - CHARGE CIRCUIT FAILURE</td></tr>
<tr><td>● (yellow)</td><td>STEADY YELLOW - QUICK TEST</td><td>⦿ ⦿ ⦿ ⦿ (red)</td><td>4 BLINK RED - LAMP/ LED FAILURE</td></tr>
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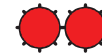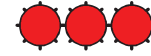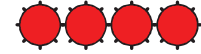
MAINTENANCE: None required. Replace the batteries as needed according to ambient conditions. However, we recommend that the equipment be tested regularly in accordance with local codes.
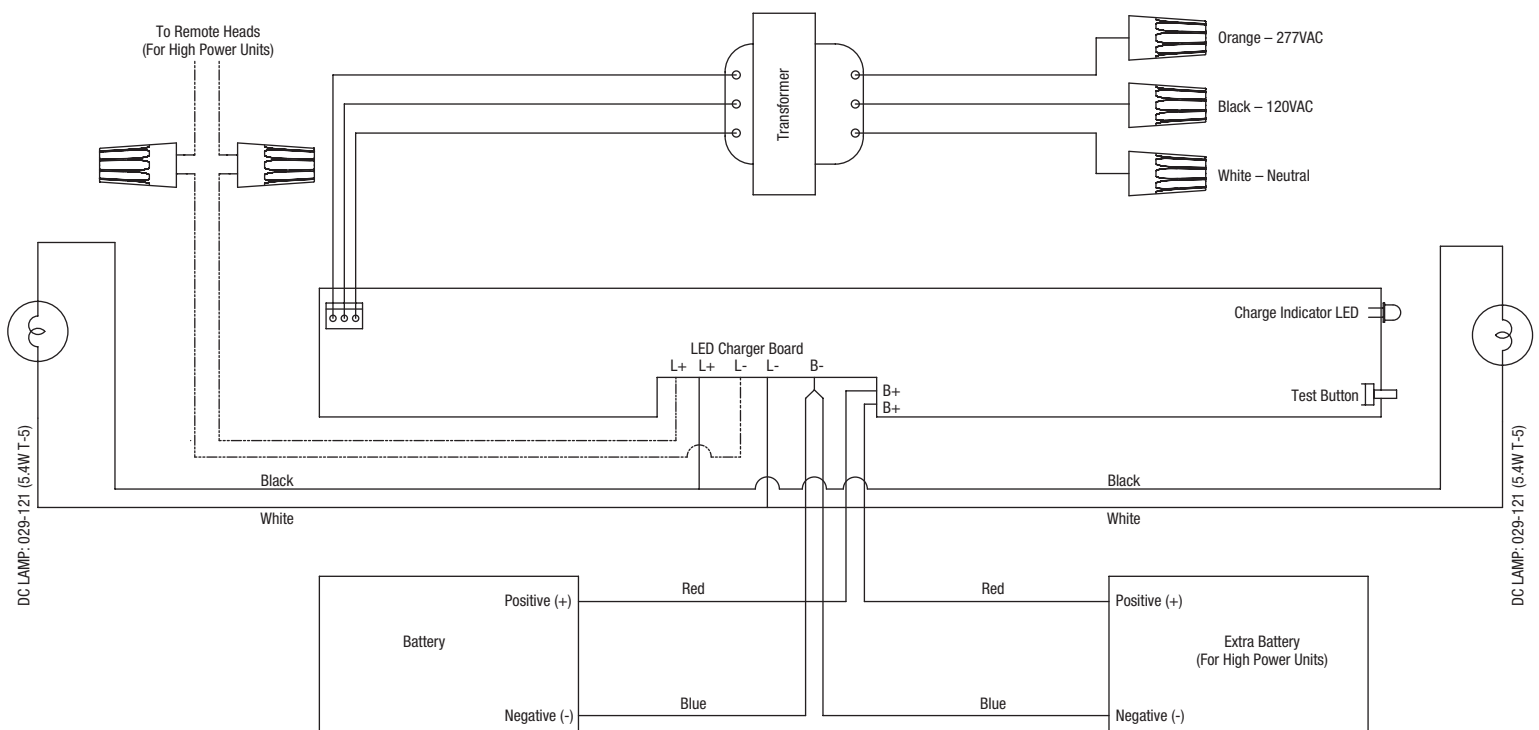
NOTE: Servicing of any parts should be performed by qualified personnel. Only use replacement parts supplied by Cooper Lighting.

CAUTION: This equipment is furnished with a sophisticated low voltage battery dropout circuit to protect the battery from over discharge after its useful output has been used. Allow 24 hours recharge time after installation or power failure for 90 minute testing.

TROUBLE SHOOTING GUIDE

If LED display or charge indicator LED does not illuminate, check the following:

1. Check AC supply – verify that unit has 24 hour AC supply.

2. Unit is shorted or battery is not connected.

3. Battery discharged. Permit unit to charge for 24 hours and then re-test.

4. If following the above trouble shooting hints does not solve your problem, contact your local Cooper Lighting representative for assistance.

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