

## Installation Instructions for the Sure-Lites LPX Combination Exit/Emergency Lights and Exits with Self Diagnostics



### 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.

## 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 use in hazardous locations, or near gas or electric heaters.
- 4 Do not let power supply cords touch hot surfaces.
- 5 Do not use this equipment for other than the intended use.
- 6 Installation is to be performed only by qualified personnel.
- 7 Install in accordance with National Electric Code and local regulatory agency requirements.
- 8 The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- 9 Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- 10 SAVE THESE INSTRUCTIONS

MAX MOUNTING HEIGHT:

17.24 FT

## WALL MOUNT INSTALLATION

- 1 Extend unswitched 24 hour AC supply of rated voltage to junction box (by others). Leave at least 18 inches of slack. Circuit should not be energized at this time.
- 2 Remove the stencil face and lens assembly by applying a screwdriver to the snaps located at the top and bottom of the stencil face.

- 3 Knock out the appropriate mounting pattern and wire pass hole to match junction box. Use the integrated wire hook in the backplate to hold the wires in place so that there is no shadowing on the face of the sign (see Figure 1).
- 4 Connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC/240VAC line to Orange lead or 120V line to Black lead; Neutral or 240V (Common) to white lead (see Schematic). Cap unused line lead.  
**Note:** Connections must be the enclosure rated area of the frame (top left corner) or junction box (see Figure 1).
- 5 Mount to junction box.
- 6 Determine which color sign face is needed. If red is needed, proceed to step 9
- 7 If green is the desired color, remove the red lens from the stencil and replace it with the green lens provided. (Installation is the reverse of removal.)
- 8 On the LED circuit board, locate the red/green jumper (See Schematic). 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.
- 9 If the unit has remote capacity, LED remotes can be connected using the violet (+) and yellow (-) wires. (See Schematic).
- 10 Energize AC supply, LED display will come on.
- 11 Replace the stencil cover assembly.
- 12 Remove EZ Key to connect battery. Battery will not charge with EZ key in place. Allow 24 hours for charging with 120 or 277V input, 48 hours with 240V input.

# Installation Instructions for LPX Combination Exit/Emergency Lights and Exits with Self Diagnostics

## CEILING OR END MOUNT INSTALLATION

- 1 Extend unswitched 24 hour AC supply of rated voltage to junction box (by others). Leave at least 18 inches of slack. Circuit should not be energized at this time.
  - 2 Remove the stencil face and lens assembly by applying a screwdriver to the snaps located at the top and bottom of the stencil face.
  - 3 If mounting the canopy to the top, remove the canopy hole cover plate on the top. If locating the canopy on the side, first remove the left side head by disconnecting the LED lamp wires from the PCB (see Schematic) and gently pulling on the head mount (see Figure 2). The head may now be mounted in one of the 3 locations on the top (see Figure 2). The center top mounting point can be accessed by removing the cover. The left and right top mounting points can be accessed by removing the small knock outs. The left side head can also be moved to the top, to make the fixture symmetric. Cover the unused holes with the canopy hole cover plates.
  - 4 If double face sign is required, convert the single face sign
- supplied. Replace back plate with extra stencil and color sheet supplied with the sign.
- 5 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.
  - 6 Mount mounting strap to junction box by choosing proper slots and using screws supplied with junction box.
  - 7 Feed the wires through the canopy.  
**Note:** Connections must be the enclosure rated area of the frame (top left corner) or junction box (see Figure 1).
  - 8 Connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC/240VAC line to Orange lead or 120V line to Black lead; Neutral or 240V (Common) to white lead. Ground to Green screw on mounting strap. Cap unused line lead.
  - 9 Connect the canopy to the mounting strap using the screws provided.
  - 10 Determine which color sign face is needed. If red is needed, proceed to step 13.

Figure 1

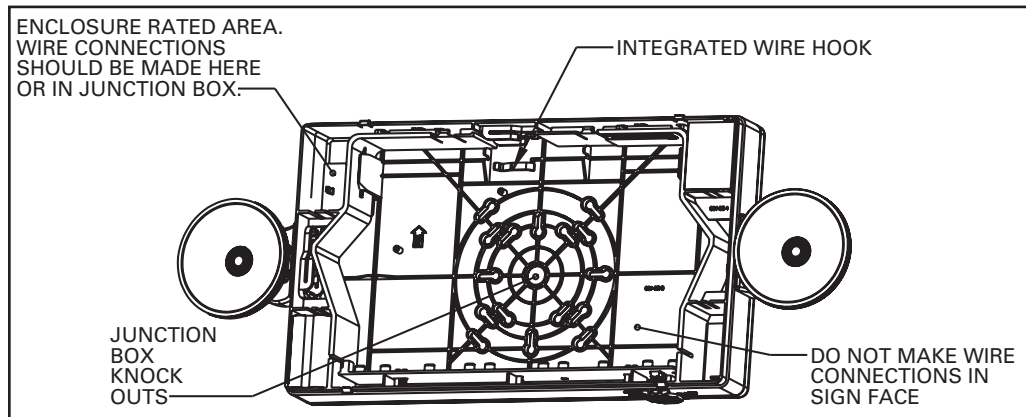
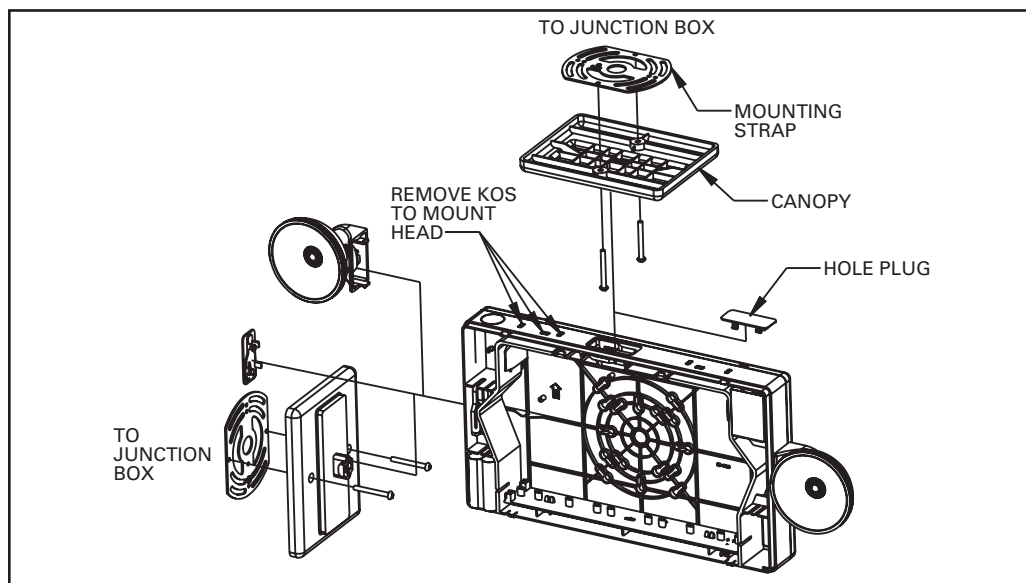


Figure 2



# Installation Instructions for LPX Combination Exit/Emergency Lights and Exits with Self Diagnostics

- 11 If green is the desired color, remove the red lens from the stencil(s) and replace it with the green lens provided. (Installation is the reverse of removal).
- 12 On the LED circuit board, locate the red/green jumper (See Schematic). 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.
- 13 If the unit has remote capacity, LED remotes can be connected using the violet (+) and yellow (-) wires. (See Schematic).
- 14 Energize AC supply, LED display will come on.
- 15 Replace stencil, colored lens.
- 16 Remove EZ Key to connect battery. Battery will not charge with EZ key in place. Allow 24 hours for charging with 120 or 277V input, 48 hours with 240V input.

## ACTIVATING OPTIONAL FLASHER

If the consumer desires the exit sign to flash on and off when in emergency mode, remove the jumper labeled FLASHER/J2 from the circuit board while unit is de-powered. See Schematic.

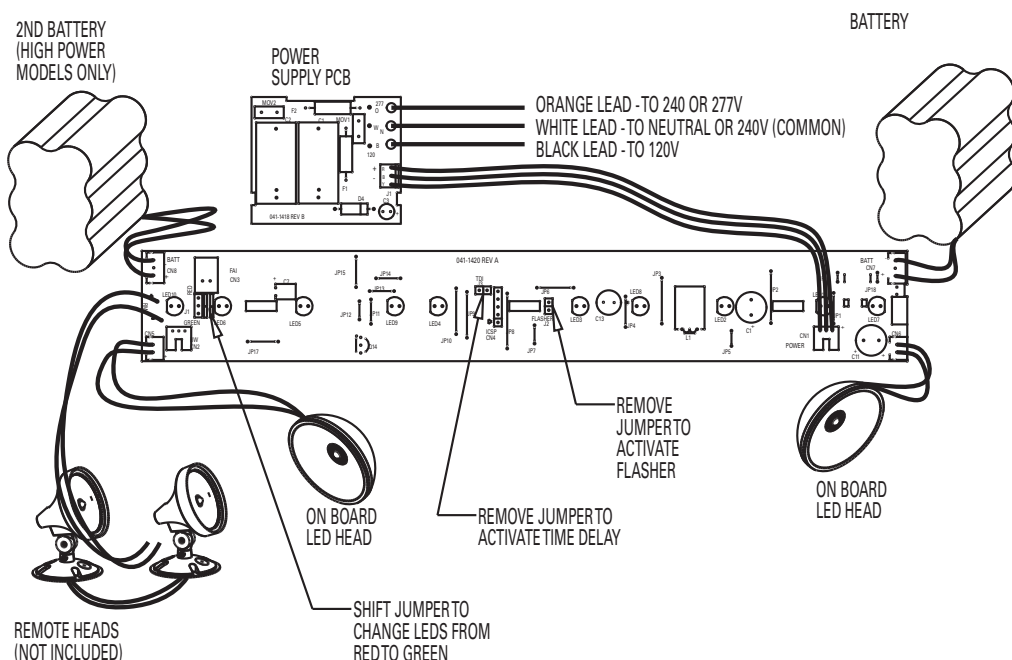
## ACTIVATING TIME DELAY

The LPX Combo has an integrated time delay circuit that allows the heads to remain in emergency mode 15 minutes after power is restored. Remove the jumper on the circuit board labeled TDI/J3 to activate the time delay.

## 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.

## Schematics



**NOTE:** Servicing of any parts should be performed by qualified personnel. Only use replacement parts supplied by Cooper Lighting Solutions.

**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 if connected to 120 or 277V, 48 hours with 240V, 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:

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

If LEDs do not light in emergency mode but Charge indicator LED is on before test:

- Unit is shorted or battery is not connected.
- Battery discharged. Permit unit to charge for 24 hours (120 or 277V) or 48 hours (240V) and then re-test.

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

## WARRANTIES AND LIMITATION OF LIABILITY

Please refer to [www.cooperlighting.com](http://www.cooperlighting.com) for our terms and conditions.

# Installation Instructions for LPX Combination Exit/Emergency Lights and Exits with Self Diagnostics

## USAGE INSTRUCTIONS FOR THE SURE-LITES EAGLE EYE SELF DIAGNOSTICS

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

### 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 LED lamps 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 LED lamps.
- 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).

### Clearing 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 (LED four blink red) 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 50% or more of the sign 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

#### Eagle Eye Self-Diagnostics

	OFF - EMERGENCY MODE / POWER OFF		STEADY BLINK YELLOW - 90 MINUTE TEST
	STEADY BLINK GREEN - FAST CHARGE		2 BLINK RED - BATTERY FAILURE
	STEADY GREEN - FULL / FLOAT CHARGE		3 BLINK RED - CHARGE CIRCUIT FAILURE
	STEADY YELLOW - QUICK TEST		4 BLINK RED - LAMP / LED FAILURE