Installation Instructions for the Sure-Lites UX Self Powered Exit Sign 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 near gas or electric heaters.

3. Do not use this equipment for other than the intended use.

4. Installation is to be performed only by qualified personnel.

5. Install in accordance with National Electric Code and local regulatory agency requirements.

6. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

7. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

8. SAVE THESE INSTRUCTIONS

WALL MOUNT INSTALLATION – NON HAZARDOUS LOCATIONS

1. Extend unswitched 24 hour AC supply of rated voltage to junction box or conduit (provided by others). Leave at least 18 inches of slack. Circuit should not be energized at this time.

2. Remove the weather shield by removing the 4 screws in the corners (See Figure 1). Due to the airtight nature of the fixture, the weather shield may be held on by a slight vacuum. If this occurs, carefully pry the corners of the shield with a flat head screwdriver.

3. Remove the stencil face by prying the snap fits on the side up, by placing a flat head screw driver in the slots and lifting (See Figure 1).

4. If the fixture will be mounted on a junction box, knock out the appropriate mounting pattern and wire pass hole to match junction box. Apply the full foam gasket the back of the fixture before mounting. Only remove the gasket holes needed for installation.

5. If the fixture will be conduit mounted, knock out the appropriate conduit knock out. Connect conduit using a ½" liquid tight fitting. Knock out the two round knock outs at the far left and right of the backplate, and apply foam gasket to the back of the fixture. Use these holes to attach the UX to the wall. Only remove the gasket holes needed for installation.

NOTE: When mounting the UX, it is necessary to consider the weight of the fixture, about 7 pounds. A suitable anchor is recommended, or mounting directly to a stud, for the unit itself, or for the junction box the fixture is mounted to.

NOTE: The foam gasket is suitable for smooth surfaces, but for rough surface mounting, silicone caulk should be used to prevent water from entering the fixture.

6. After the backplate and frame are secured to the wall, the stencil can be hung for "hands free" wiring using the Sure-Lites EZ Hang system (See Figure 2).

7. Connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC line to Orange lead or 120V line to Black lead; Neutral to white lead. Ground to Green Screw; Cap unused line lead (see Schematic). Connections must be in the enclosure rated area of the frame (See Figure 3) or junction box, not in the sign face. Make sure wires are routed so they do not create shadows on the face of the exit.

8. Determine which color sign face is needed. If red is needed, proceed to step 11.

9. If green is the desired color, remove the red lens from the stencil by removing the white vinyl caps holding the lens in place and replace it with the green lens provided. Replace the white vinyl caps.

10. 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.

11. Connect the battery leads to the PCB (see Schematic).

12. Replace the stencil cover assembly, and weather shield. To insure a water tight fit, make sure the gasket and weather shield edge are clean and free of debris.

13. Energize AC supply, LED display will come on.

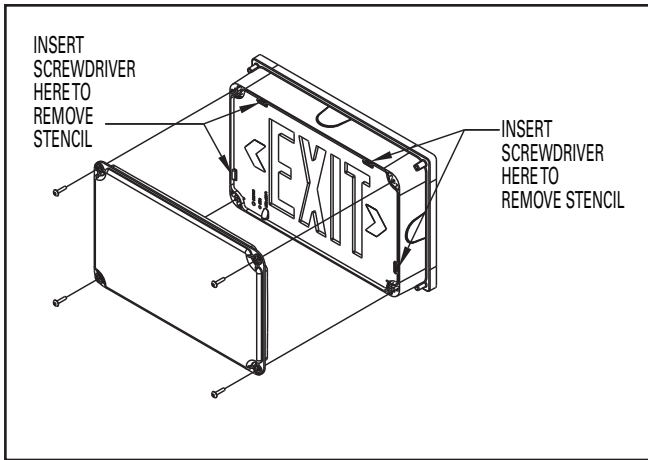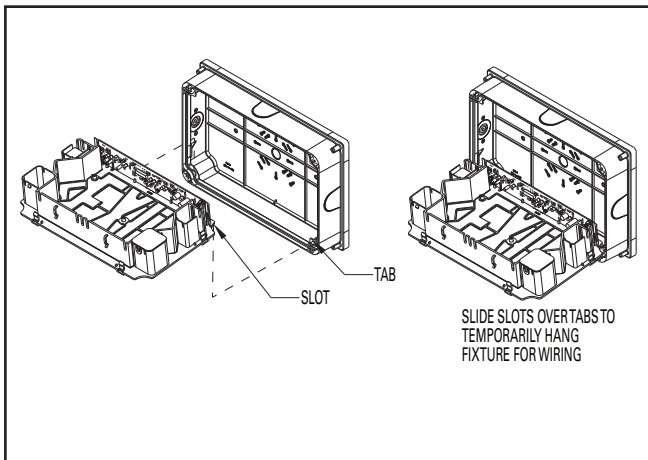**◑ COOPER**
Lighting Solutions

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Figure 1

INSERT SCREWDRIVER HERE TO REMOVE STENCIL

INSERT SCREWDRIVER HERE TO REMOVE STENCIL

Figure 2

TAB

SLOT

SLIDE SLOTS OVER TABS TO TEMPORARILY HANG FIXTURE FOR WIRING

Figure 3

WIRE CONNECTIONS ALLOWED IN ENCLOSURE AREAS

WIRE CONNECTIONS ALLOWED IN ENCLOSURE AREAS

NO WIRE CONNECTIONS ALLOWED IN SIGN FACE

Figure 4

SQUARE GASKET

BRACKET

CANOPY

O-RINGS

8-32 SCREWS

RECTANGULAR GASKETS

DRILL 1/4" HOLE

FRAME

KNOCK OUT

¼-20 SCREWS

Figure 5

WATER TIGHT CONDUIT HUB

KNOCKOUT (REMOVE AS NEEDED)

CONDUIT HUB NUT
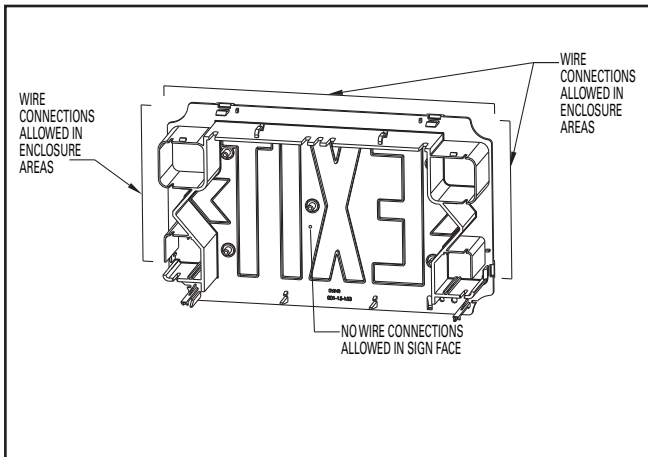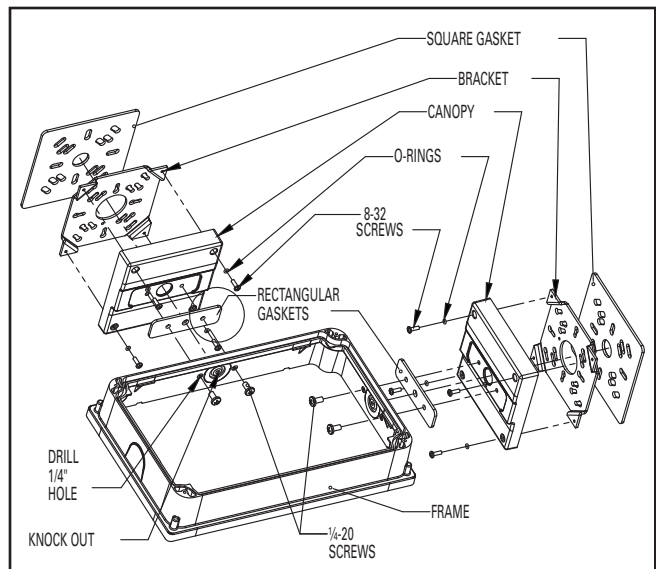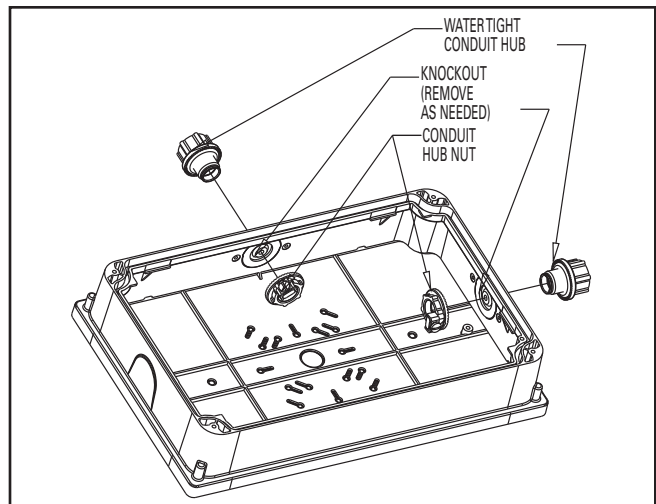
CEILING OR END MOUNT INSTALLATION – NON HAZARDOUS LOCATIONS

1. Extend unswitched 24 hour AC supply of rated voltage to junction box (provided by others). Leave at least 18 inches of slack. Circuit should not be energized at this time.

2. Remove the weather shield by removing the 4 screws in the corners (See Figure 1). Due to the airtight nature of the fixture, the weather shield may be held on by a slight vacuum. If this occurs, carefully pry the corners of the shield with a flat head screwdriver.

3. Remove the stencil face by prying the snap fits on the side up, by placing a flat head screw driver in the slots and lifting (See Figure 1).

4. Choose the appropriate knock out for the mounting (left side, right side, or top), and knock it out using a hammer and flat blade screwdriver.

5. Drill out the two screw holes on either side of the knock out, using a ¼" drill bit.

6. Apply the small rectangular foam gasket to the canopy (see figure 3). Only remove the gasket holes needed for installation.

7. Feed the ¼-20 screws through the drilled holes. Screw the ¼-20 screws to the canopy (See Figure 4).

8. Apply the larger square foam gasket to the steel bracket, and secure it to the junction box (See Figure 4). Only remove the gasket holes needed for installation.

9. Place the black o-rings on the smaller 8-32 screws in the parts bag (See Figure 4).

10. Feed the 24 hour AC power wires through the bracket and canopy, and into the exit sign (See Figure 4).

11. Connect the canopy to the bracket using the small screws with o-rings. (See Figure 4).

NOTE: When mounting the UX, it is necessary to consider the weight of the fixture, about 7 pounds. A suitable anchor is recommended, or mounting directly to a stud for the junction box the fixture is mounted to.

NOTE: The foam gasket is suitable for smooth surfaces, but for rough surface mounting, silicone caulk should be used to prevent water from entering the fixture.

12. After the frame is securely mounted, the stencil can be hung for "hands free" wiring using the Sure-Lites EZ Hang system. (See figure 2).

13. Connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC line to Orange lead or 120V line to Black lead; Neutral to white lead. Ground to Green Screw; Cap unused line lead (see Schematic). Connections must be in the enclosure rated area of the frame (See Figure 3) or junction box, not in the sign face. Make sure wires are routed so they do not create shadows on the face of the exit.

14. Determine which color sign face is needed. If red is needed, proceed to step 17.

15. If green is the desired color, remove the red lens from the stencil by removing the white vinyl caps holding the lens in place and replace it with the green lens provided. Replace the white vinyl caps.

16. 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.

17. Replace the stencil cover assembly, and weather shield. To insure a water tight fit, make sure the gasket and weather shield edge are clean and free of debris.

18. Energize AC supply, LED display will come on.

ACTIVATING OPTIONAL FLASHER

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

MAINTENANCE

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 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, after installation or power failure for 90 minute testing.

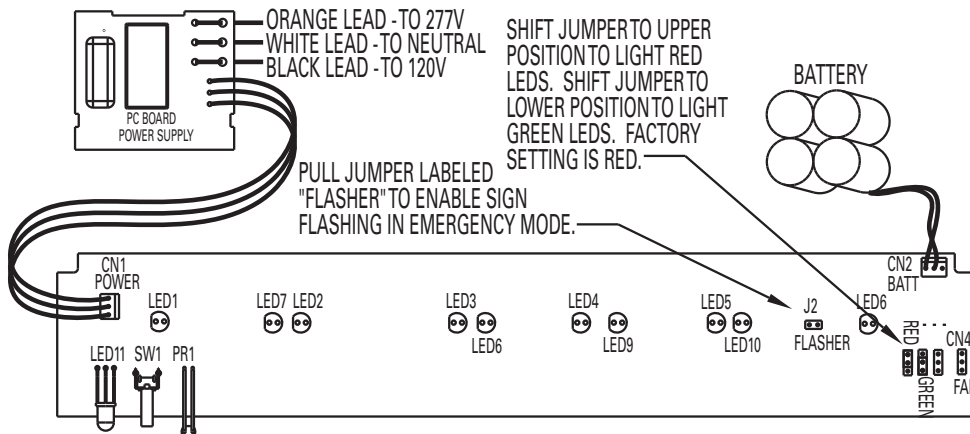## TROUBLE SHOOTING GUIDE

If LED display 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.

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

SCHEMATICS

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). The light will switch to emergency mode for 10 seconds illuminating the emergency lights allowing the installer to verify proper installation of the unit. During testing the LED indicator will turn steady 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 testing the LED indicator will change to blinking yellow and the circuit will perform a full battery capacity, charge circuit and LED test for 90 minutes.

- Canceling Test – Press and release the test button during the 90 minute test (steady blink 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, the error code 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 or in 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 - One or more of the lamps has 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

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.

SURE-LITES			
Eagle Eye **Self-Diagnostics**	○ OFF - EMERGENCY MODE / POWER OFF	● STEADY BLINK GREEN - FAST CHARGE	● STEADY GREEN - FULL / FLOAT CHARGE	● STEADY YELLOW - QUICK TEST
	● STEADY BLINK YELLOW - 90 MINUTE TEST	●● 2 BLINK RED - BATTERY FAILURE	●●● 3 BLINK RED - CHARGE CIRCUIT FAILURE	●●●● 4 BLINK RED - LAMP / LED FAILURE

WARRANTIES AND LIMITATION OF LIABILITY

Please refer to **www.cooperlighting.com** for our terms and conditions.