

## Installation Instructions for the Sure-Lites ACE Self Powered Architectural 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 outdoors
3. Do not use 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. 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. Install in accordance with National Electric Code and local regulatory agency requirements Installation is to be performed only by qualified personnel.
9. DO NOT EXCEED TOTAL OUTPUT RATING of source power equipment

### SAVE THESE INSTRUCTIONS

## Wall Mount Installation

1. Extend un-switched 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. Open the ACE by removing the stencil face and lens assembly. Place a flat blade screwdriver in the slots at the top and bottom of the stencil face and gently twist. (See Figure 1)
3. Knock out the appropriate mounting pattern and wire pass hole on the back-plate to match junction box.
4. Connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC line to Orange lead or 120VAC line to Black lead; Neutral to White lead. Ground to Green wire; Cap unused line lead (see Schematic on next page). Connections must be in the enclosure rated area of the frame (See Figure 2) 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. Two wire hooks are molded into the back-plate to aid in securing the wires. (See Figure 2).
5. Snap the stencil face assembly back into place.
6. Energize AC supply, LED display will illuminate.
7. Remove EZ Key to connect battery. Battery will not charge with EZ key in place. Allow 24 hours for charging.

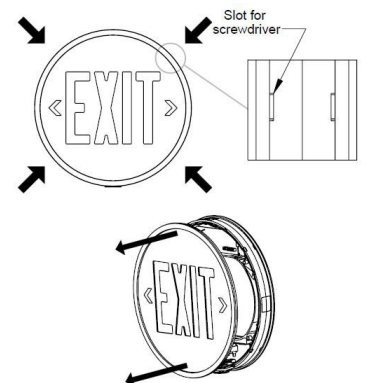


FIGURE 1

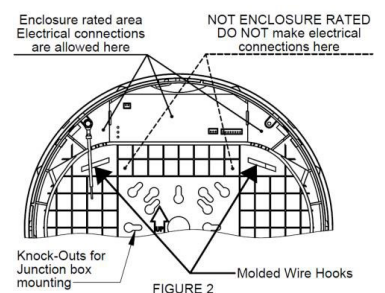


FIGURE 2

## Ceiling or End Mount Installation

1. Extend un-switched 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. Open the ACE by removing the stencil face and lens assembly. Place a flat blade screwdriver in the slots at the top and bottom of the stencil face and gently twist. (See Figure 1)
3. Remove the back-plate by prying back the 4 snaps retaining it. (See Figure 3).
4. Remove the appropriate canopy hole cover for the intended mounting.
5. Determine whether the sign will be single or double face, and snap the appropriate decorative back-plate provided to the back of the fixture. (See Figure 4)
6. 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 the snap engages the canopy nose preventing any motion back out of the hole.
7. Mount mounting strap to junction box by choosing proper slots and using screws supplied with parts bag.

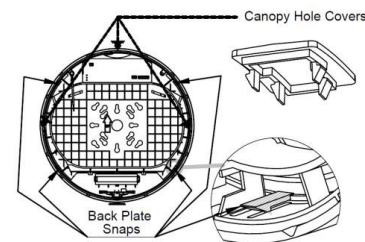


FIGURE 3

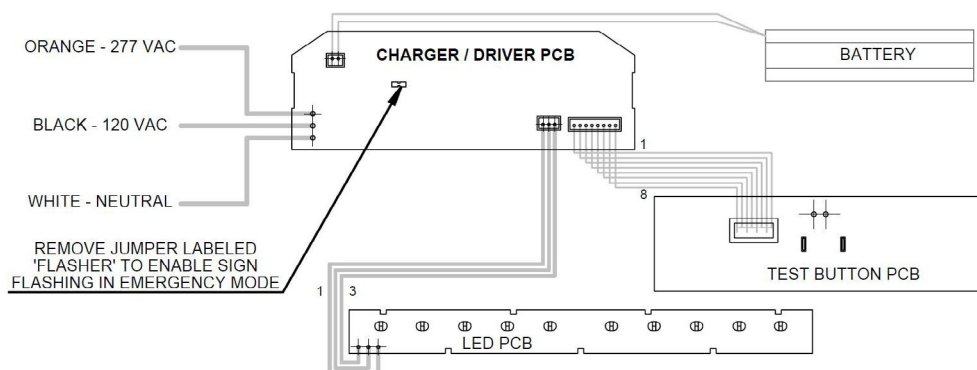


FIGURE 4

**NOTE:** When mounting the ACE, it is necessary to consider the weight of the fixture, approximately 6 pounds. The junction box should be mounted with suitable anchors.

8. Feed the wires through the canopy and connect power supply and ground in accordance with local codes. Wire connections as follows: 277VAC line to Orange lead or 120VAC line to Black lead; Neutral to White lead. Ground to Green wire; Cap unused lead. Connections must be in the enclosure rated area of the frame (See Figure 2) 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.
9. Snap the stencil face assembly back into place.
10. Energize AC supply, LED display will illuminate.
11. Remove the EZ Key to connect battery. Battery will not charge with EZ key in place. Allow 24 hours for charging.

## Schematic



### 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 277VAC, 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 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.

# Instructions for 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 blinking 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 Blink -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.

