

# LED Camray LED - Emergency Lighting



## IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. All servicing should be performed by qualified service personnel.
2. Do not let power supply cords touch hot surfaces.
3. Do not mount near gas or electric heaters.
4. Use caution when handling batteries. Avoid possible shorting.
5. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
6. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
7. Do not use this equipment for other than intended use.
8. Unit to be installed only as per configuration described in this instruction manual.

## SAVE THESE INSTRUCTIONS

### Installation Instructions

1. Turn off the building emergency circuit and the breaker of the AC circuit for normal lighting.
2. Remove the back plate from the package.
3. Open the inside cover by turning it. Identify the wires by using the labels attached to them.
4. Choose the proper mounting below and continue to step 5.

#### Junction box mounting (Figure 1)

Knockout the desired holes in the back plate. Make the electrical connections as shown in point 5. Route the wire connectors through the large knockout and mount the back plate to the junction box.

#### Conduit entry mounting (Figure 2)

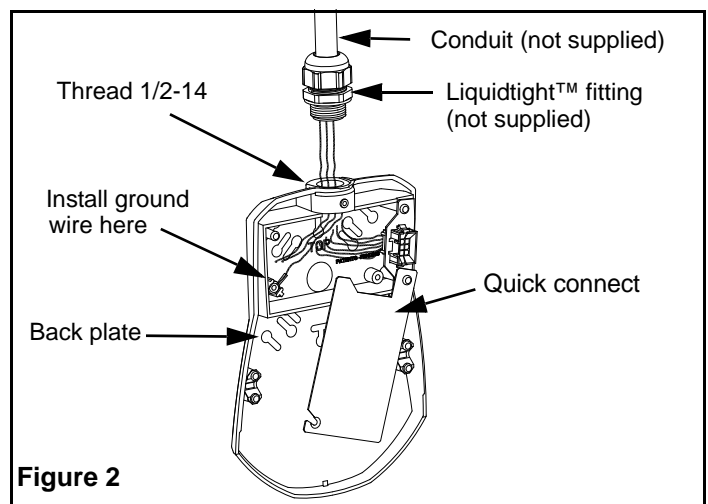
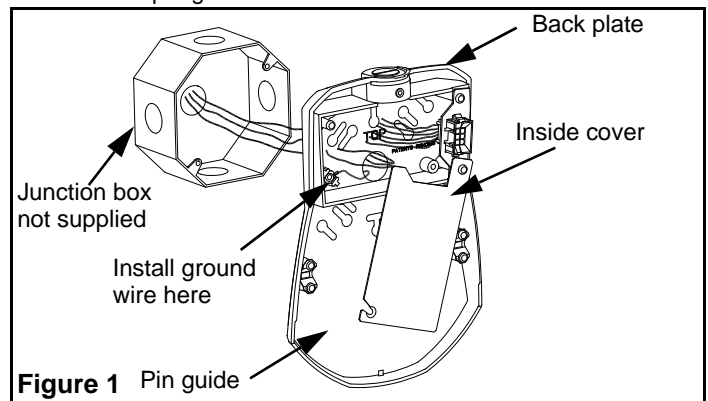
Remove plug on the back plate and knock out the desired holes in the back plate to secure the unit on the wall. Install the conduit and supply wires. For wet location: install a liquidtight™ fitting with teflon tape. Use wire nuts provided with the unit. Bigger wire nuts might interfere with internal components.

### 5. Electrical connections

Depending on the model of equipment selected, the electrical connections may require one or two independent power supply circuits, as described further on.

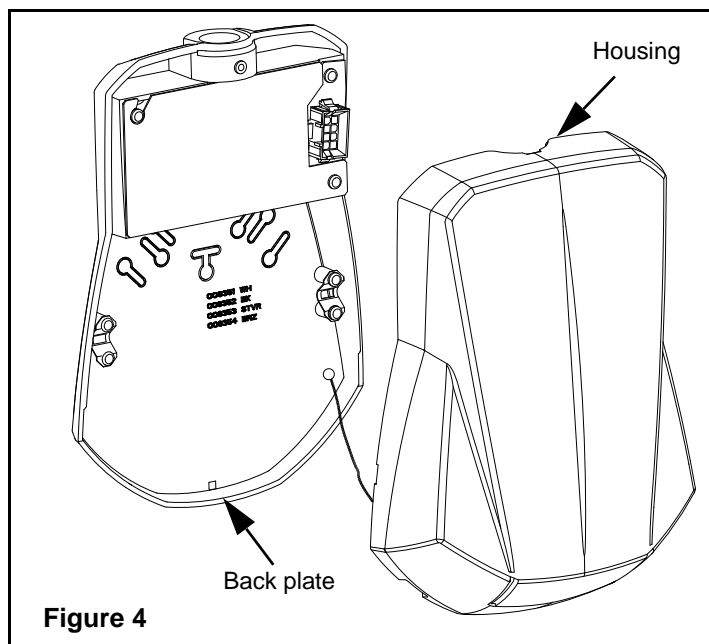
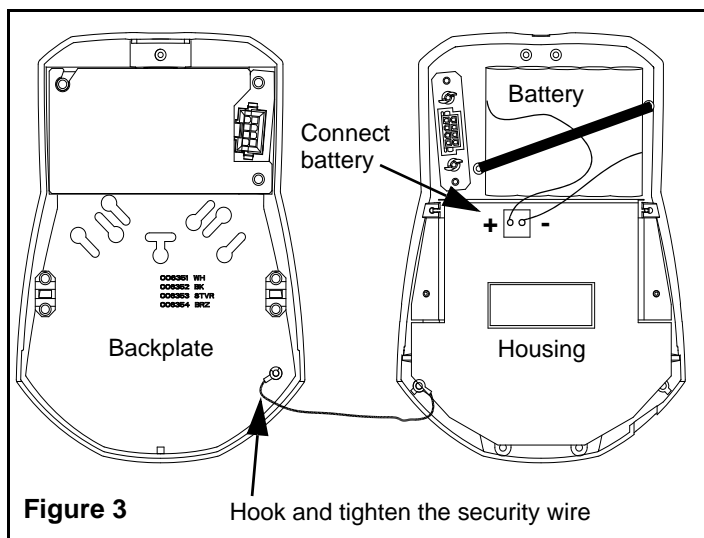
- a. Battery-operated (self-powered) and AC-only units: connect the wire input marked "emergency lighting" to the unswitched AC line. Install the ground wire on the back plate. Connect the neutral (white) wire. For 120Vac connect black wire; for 277Vac connect orange wire.  
**Cap the unused wire with a wire connector.**
- b. Battery unit for cold weather (option: -CW) has separate wire inputs for the battery charger and the heating circuit. Connect the ground wires. Connect together the white wires (neutral). Connect together the line voltage wires: either black (120V) or orange (277V) wires. **Cap the unused wires separately with wire connectors.**
- c. Units for normal lighting: connect the wire input marked "normal lighting" to the AC line. Identify the wires by color as above. **Cap the unused wire with a wire connector.**
- d. DC-remote units: connect the wire input "6-12 VDC" to the DC remote wires. The building emergency circuit must provide 6-volt or 12-volt maximum. Connect red wire to the positive and blue wire to the negative of the DC emergency line.
- e. Units with dual-mode lighting: normal and emergency self-powered: follow instructions a-b.
- f. Units with dual-mode lighting: normal and emergency DC-remote: follow instructions b-c.
- g. Units with dual AC circuit: both primary and secondary circuits must have the same voltage value: 120/120Vac or 277/277Vac. Follow instructions a-b.

**DO NOT** cap together the unused wires.



6. Close the inside cover and tighten the screw.
7. Remove the unit housing from the package. Units with DC-remote power: go to step 8 (see figure 3).
  - a. Units with battery back-up: plug the battery connector in the slot. The connector is polarized, do not force-fit . Correct installation has the positive red wire at the left (see figure 3).
  - b. Units with dual AC circuit: connect the orange wire labeled "VOLTAGE SELECTOR" to one of the two wires labeled AC VOLTAGE (black: 120V; orange: 277V).

**Cap the unused wire with a wire connector.**
8. Hook the security wire to the backplate and tighten the screw (see figure 3).
9. Align the unit housing over the back plate and press until it snaps in place (see figure 4).
10. Energize the circuits. Units with battery back-up will have the test button illuminated.



## Testing the emergency lights

Allow the unit to charge for 24 hours before testing. Press the test button. The unit will light in emergency mode for one minute. To abandon the test press the test button again.

## Testing the normal lighting

Turn the AC power on: the unit will light.

Units equipped with photo-switch: mask the small circular window with the finger: the unit will light. Uncover the window: when exposed to ambient light the unit will turn off.

## Maintenance

None required.

**WARNING:** Hold the housing in your hand and open the unit with a flat head screwdriver. When replacing the housing assembly **ALWAYS hook and tighten the security wire.**

Disconnect the battery if the emergency power supply is disabled for two months or more.

## Self-diagnostics / self-test (battery units)

1. Once supplied with power the unit will automatically initiate self-diagnostic routines and a self-test calendar as follows:
  - a. Verifies battery connection, battery failure, charger board failure and lamps failure.
  - b. Executes one-minute monthly self-test.
  - c. Executes a 30-minute self-test every 6th month.
  - d. Executes a 90-minute self-test every 12th month.
2. The LED pilot light is bi-color and indicates the following status:
  - a. Green color: AC-on / self-test
  - b. Red color: Service alert (see figure 5)
3. Transfer time delay (TD option)

This function acts when the AC power was restored: it keeps the emergency lights "on" for a period of: 5, 10 or 15 minutes (factory-set). If the battery depletes before the end of the time delay, the lamps turn off and the unit goes in stand-by mode.

O green	Steady	AC on
O green	Blinking	Testing Mode
O red	Steady on	Battery Disconnect
O red	One Blink	Battery Failure
O O red	Two Blinks	Charger Failure
O O O red	Three Blinks	Lamp Failure

**Figure 5**