



# Thermoplastic Battery Unit for Emergency lighting

**6 volt**

**WARNING:**  
Risk of Shock.  
Disconnect Power before Installation.

## 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 use outdoors.
3. Do not let power supply cords touch hot surfaces.
4. Do not mount near gas or electric heaters.
5. Use caution when handling batteries. Avoid possible shorting.
6. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
7. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
8. Do not use this equipment for other than intended use.

## SAVE THESE INSTRUCTIONS

### Installation Instructions

1. Turn off AC power.
2. Route AC unswitched circuit of rated voltage into junction box and leave 6" of wire length.
3. Remove the backplate by pressing on the tabs (see fig. 2) with a screwdriver.
4. Locate the AC connector (if applicable) and attach to the AC circuit (or to the line cord for units with such an option). Refer to step 7.
5. Determine the desired position of the test switch (see fig. 5) before mounting the backplate.
6. Choose the proper mounting solution below and continue to step 7.

NOTE: For units with a safety wire, install the safety wire (see figure 1), after installing the back plate, as a means to support the unit while making connections. Insert one of the screws, used for fixing the backplate to the mounting surface or junction box, through the lug on the end of the safety wire before screwing it in place.

**Important:** all AC or DC connections must be done in individual external junction boxes.

#### a. Junction box mounting

Knock out the proper hole pattern in the back cover to mount to a standard junction box. Route the AC supply leads or connector through the large knockout and mount the backplate to the junction box (see fig. 3a).

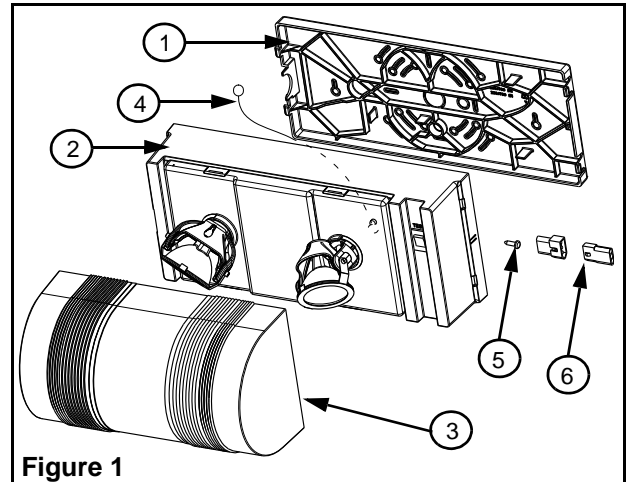
#### b. Ceiling mount

**Caution!** DO NOT install unit to the ceiling unless its model number includes the suffix "CM".

For installation instructions refer to the addendum for ceiling mount.

#### c. Flexible conduit entry mounting

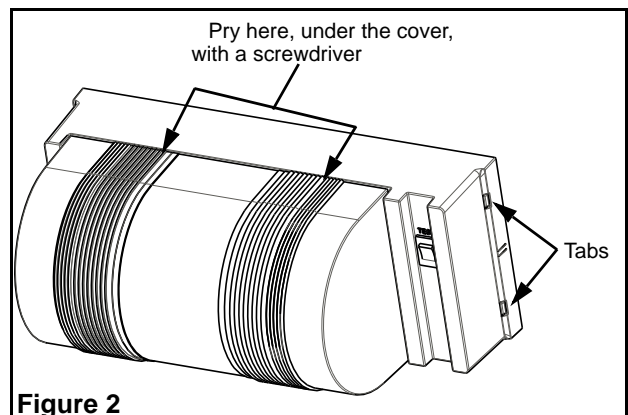
For conduit entry, mount the backplate to the wall. Break out the conduit hole on the housing (see fig. 3c). Assemble the conduit to the backplate.



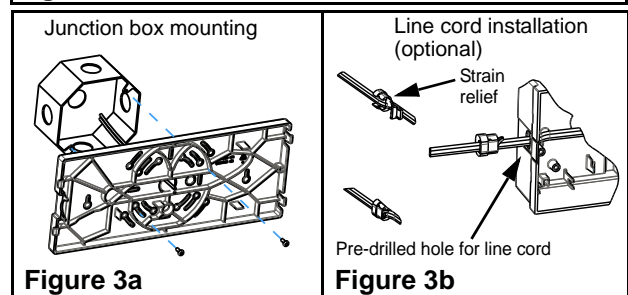
**Figure 1**

#### Parts List

- |  |   |
|--|---|
| 1. Backplate                                 | 5. Securement screw(ceiling mount)            |
| 2. Housing                                   | 6. AC connector (not available for all units) |
| 3. Clear lens                                |   |
| 4. Safety wire (not available for all units) |   |

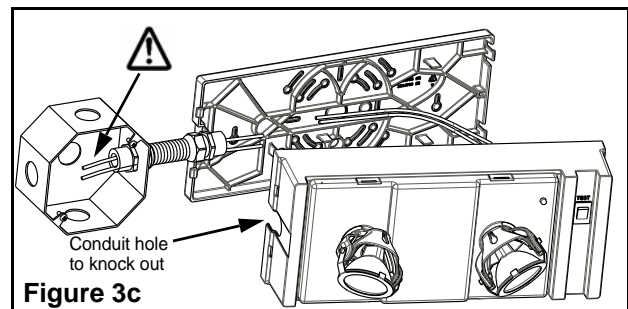


**Figure 2**



**Figure 3a**

**Figure 3b**



**Figure 3c**

### d. Line cord installation (option)

Mount the backplate to the wall. Install the strain relief (see fig. 3b). Using pliers, crimp strain relief onto the line cord. Keeping pressure on the pliers, insert the strain relief into the pre-drilled hole on the housing.

7. Make the proper connections. The system can accept input voltages of 120/347VAC or 120/277 VAC (optional) (see fig. 4).

**120 VAC** — Connect the black (120 VAC) and white (neutral) leads to the building utility. Insulate the unused wire.

**120 VAC with line cord (optional)** — Before making the connections, follow the line cord installation instruction in section 6e. Make the proper connections. Connect the wire with the smooth side from the line cord to the black (120 VAC) on the unit and the ridged wire from the line cord to the white (neutral) on the unit. Insulate the unused wire. Connect the green wire on the transformer (if applicable) or insulate the unused green wire from the line cord.

**347 VAC or 277 VAC (optional)** — Connect the red (347VAC) or orange (277 VAC) and white (neutral) leads to the building utility. Insulate the black wire.

**!** Route entry wires to avoid contact with the transformer, battery terminals and charger PCBA. Refer to figure 4.

8. Connecting external lamps: pass external DC wires into the unit and connect to internal lamp wires or directly to the PCBA depending on the model.
9. When ready to energize AC circuit, connect the battery.
10. Slide the housing over the tabs; conduit side on housing over conduit side on backplate (see fig. 5). Assemble the conduit side first, then align the tabs on the other side of the housing and of the backplate. Press together until it snaps.
11. Remove the clear lens by prying with a screwdriver, where indicated (see fig. 2).
12. Rotate heads to desired position and replace clear lens.
13. Energize AC. The AC pilot indicator, located under the cover, will illuminate (see fig. 5).

### Vandal resistant (option)

Units with vandal resistant option: there are three vandal resistant screws. Two are securing the cover, and the other one secures the housing and the backplate (see fig. 6).

## Unit testing

### Manual testing

Press test switch (see fig. 5). The emergency lamps will illuminate. When switch is released, lamps will go off. Allow unit to charge for 24 hours before initial testing.

### Automatic testing and diagnostics

The automatic testing and diagnostic function includes a micro-controller which self-tests the unit on a monthly basis and identifies as well displays failures of the electrical components: battery, battery charger, lamps.

#### Self-test

The self-test is performed every month for 1 minute, every 6 months for 10 minutes, and annually for 30 minutes.

#### Diagnostic function

- For diagnostic function, refer to “User Manual for AD”
- For Nexus models, refer to “Nexus addendum”

## Maintenance

None required.

If AC supply to the unit is to be disconnected for 2 months or more, the battery must be disconnected.

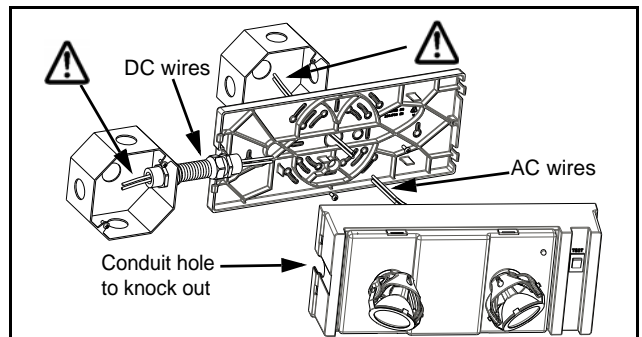


Figure 3d

**!** Important: all AC or DC connections must be done in individual external junction boxes.

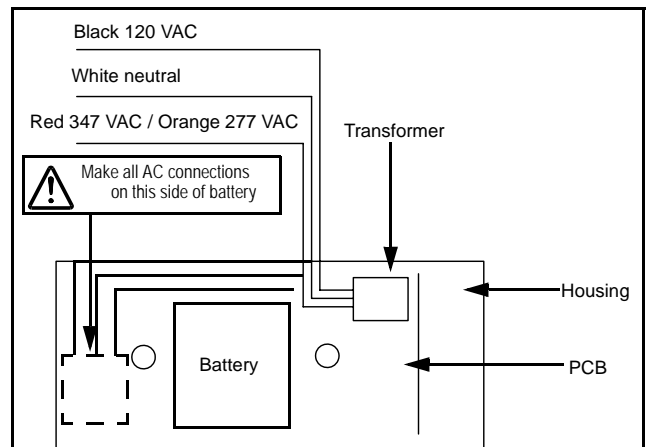


Figure 4

**!** Unused primary wire must be insulated to prevent shorting.

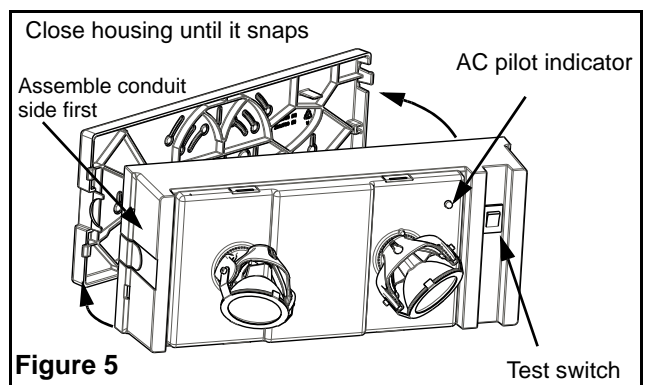


Figure 5

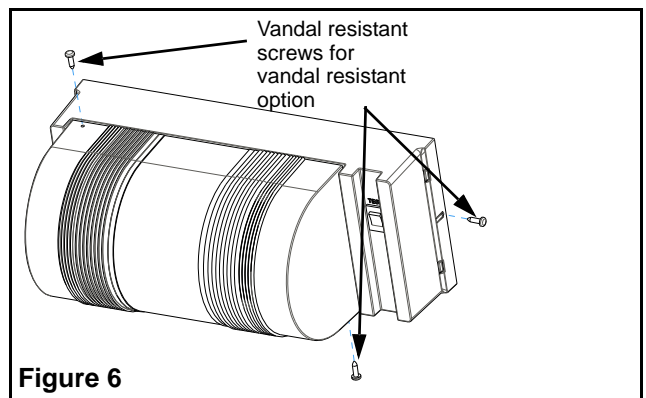


Figure 6



## Addendum

### Thermoplastic Battery Unit Ceiling mount

#### Installation Instructions

1. Knock-out the proper hole pattern in the backplate to mount to a standard junction box according to the required orientation. To do so, it is recommended to place the unit on a flat solid surface with the back of the housing facing the surface. Prop up the unit on a roll of tape or other solid means to facilitate the removal of the knock-outs. Place the tip of a flat head screwdriver in the groove and knock out each detail with the help of a hammer (See Fig. 2).
2. Install means to anchor unit in line with "Ceiling anchoring points" (see Fig. 2). This is recommended for a more secure installation.
3. Install junction box screws until they protrude 1" minimum from the ceiling.
4. Feed the AC supply leads.
5. Mount backplate to the junction box (if applicable).
6. Secure the backplate to the ceiling at the ceiling anchoring points using ceiling mount screws (not supplied).

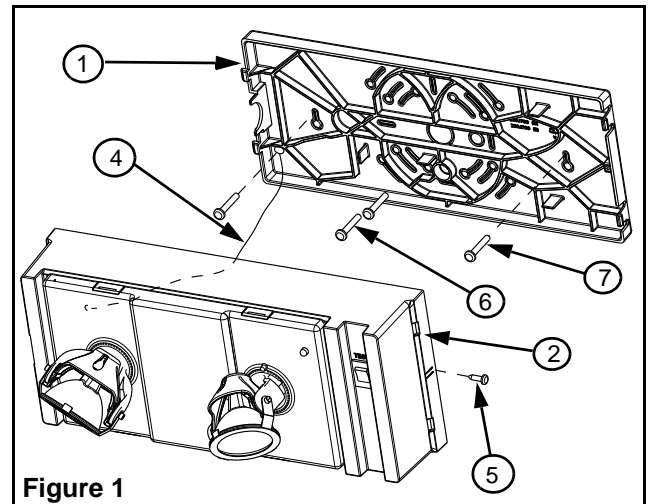


Figure 1

#### Parts List

- |                |   |
|----------------|---|
| 1. Backplate   | 5. Securement screw                       |
| 2. Housing     | 6. Junction box screw (2)(not supplied)   |
| 3. Clear lens  | 7. Ceiling mount screws (2)(not supplied) |
| 4. Safety wire |   |



**Caution: Failure to install using the ceiling anchor points can lead to permature deformation of the unit.**

7. Remove one junction box screw or the left ceiling mount screw, insert the screw through the lug on the end of the safety wire and tighten the screw back onto the junction box or mounting hole (see fig.2).
8. For wiring and assembly information refer to the instruction sheet provided with the unit.



**Caution! For ceiling mount units it is critical to screw in the securment screw (6) to the side of the unit and ensure the safety wire (5) is attached. Failure to do so can cause serious injury.**

For parts not shown see instruction sheet provided with unit.

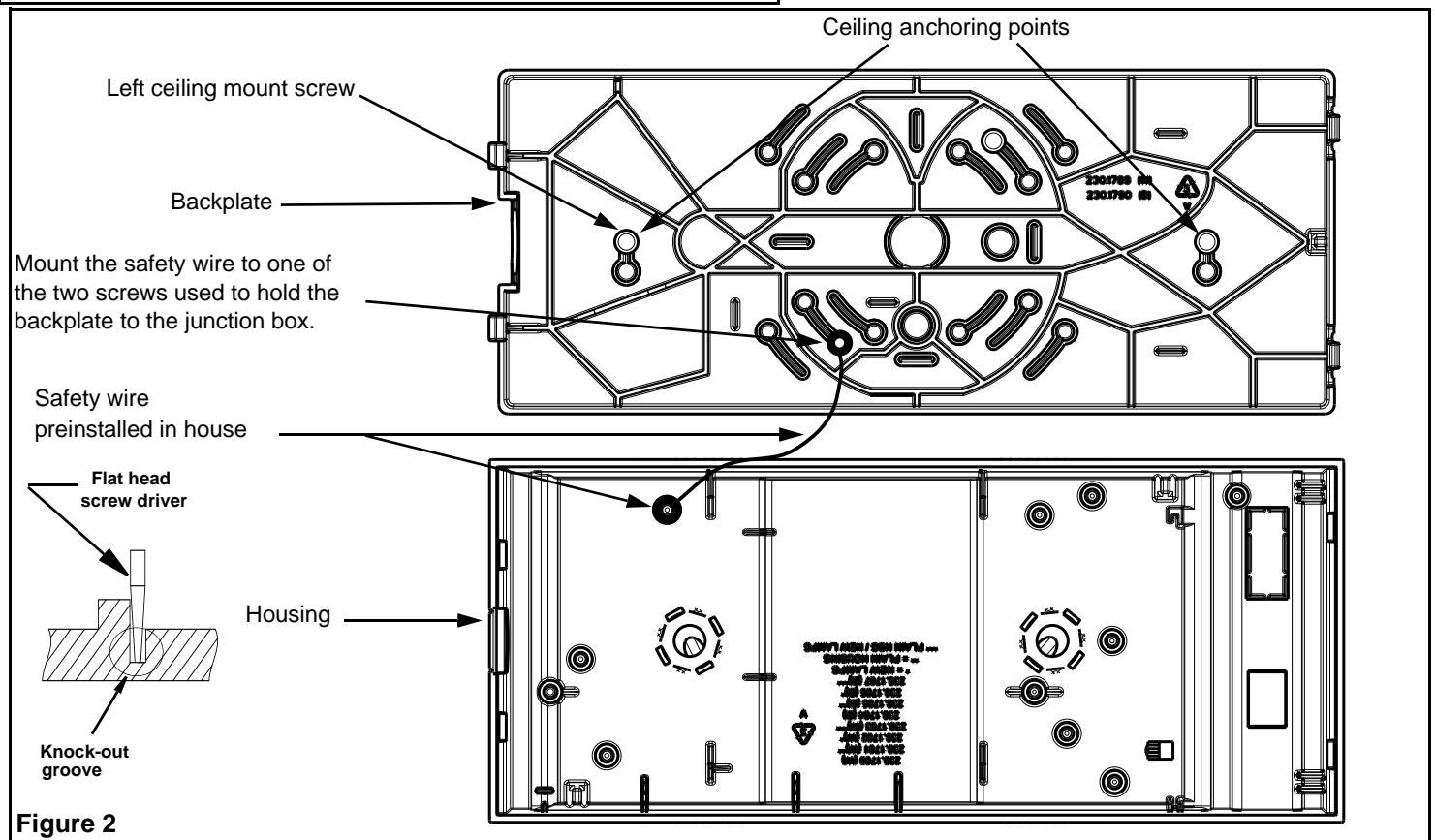


Figure 2