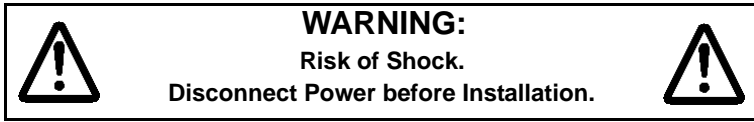


## Nema 4X pictogram panel Sign



### 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. All unused wires must be insulated to prevent shorting.
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.
9. Unit to be installed only as per configuration described in this instruction manual.

### SAVE THESE INSTRUCTIONS

#### Installation Instructions

1. Turn off AC power.

##### Canopy Mount

- a. Remove canopy assembly from carton. Remove canopy back plate from canopy and retain securement screw.
- b. Route AC circuit of rated voltage into the junction box and leave 6" of wire length.
- c. Remove proper knockouts in canopy backplate for desired mounting position.
- d. Feed AC wires through large hole in canopy back plate.
- e. Make sure the securement screw is accessible (see Figure 1 part # 13). Use existing screws in junction box to secure canopy backplate to the junction box.
- f. Remove lens on the front of the unit (use the supplied bit to remove the tamper-proof screws).
- g. In order to access the knockouts of the frame, remove the 4 screw(s) holding the frame insert to the frame and separate them (see Figure 2).

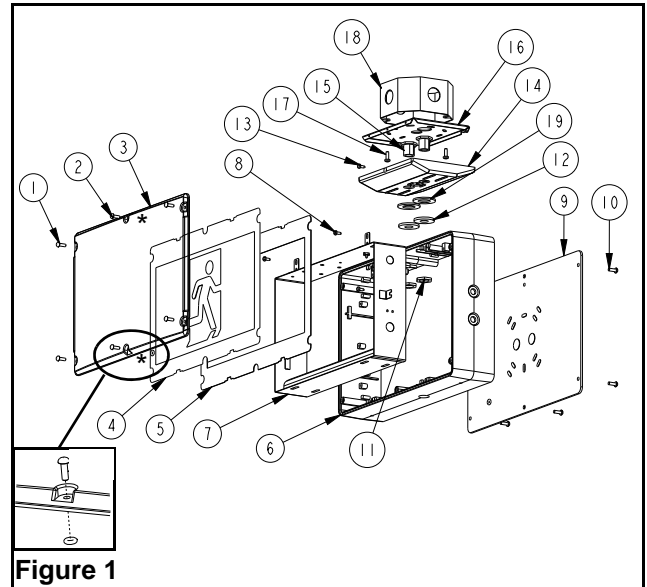


Figure 1

\*Note: Install o-rings on the screw between the lens and the frame.

#### Parts List

- |   |  |
|---|--|
| 1. Tamper-proof screws                    | 11. Lock-nuts                            |
| 2. Tamper-proof screws with o-ring inside | 12. Gasket washer                        |
| 3. Lens                                   | 13. Canopy securement screw              |
| 4. Pictogram panels                       | 14. Canopy                               |
| 5. Opal panel                             | 15. Nipple assembly                      |
| 6. Frame                                  | 16. Canopy backplate                     |
| 7. Frame insert                           | 17. Junction box screws (not supplied)   |
| 8. Frame insert mounting screws (4)       | 18. Junction box (not supplied)          |
| 9. Backplate (single face sign)           | 19. Nylon washer (for wall mount)        |
| 10. Backplate tamper-proof screws         | 20. Junction box gasket (for wall mount) |

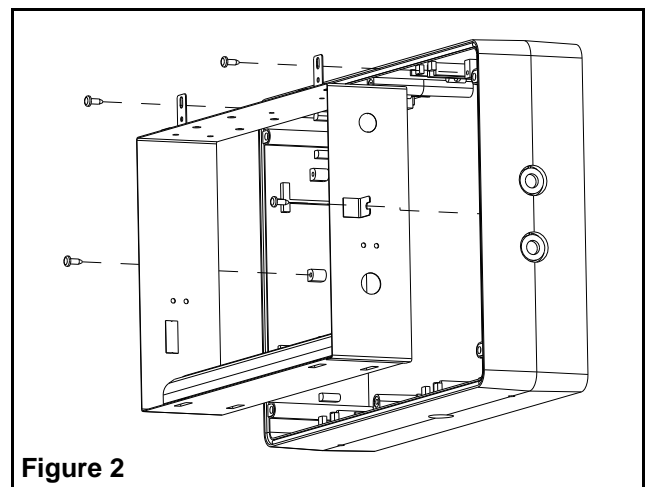


Figure 2

- h. Determine which holes in the frame will be used for mounting (see Figure 1 & Figure 3). Support frame with two blocks of wood, maximum one inch apart. Strike knockouts with a hammer and screwdriver. Clear holes of burrs to allow proper assembly of nipple/wire assembly.
- i. Secure canopy to the frame by threading the provided nipple/wire assembly through the canopy and frame. Make sure the gasket washers are between the canopy and frame, and that the locknuts are inside the unit (see Figure 3).
- j. Reassemble the frame insert inside the frame.

### Wall Mount (Single Face Model Only)

- a. Remove the backplate from the packaging. Determine the proper knockouts to remove for mounting to a junction box (see Figure 4).
  - b. Support area around knockouts with two blocks of wood. Strike knockouts from the inside with a hammer and a screwdriver.
  - c. Mount parts 11, 12, 15, 17 & 19 to backplate, as shown in Figure 4, and reinstall the back plate to the frame using the 6 tamper-proof screws (use the supplied bit).
2. **Electrical connections:** Using the sealed AC nipple/wire assembly (3 wires), connect one end to the leads inside the enclosure, and the other end, to AC line voltage inside the junction box. Connect the green ground wire to the ground of the junction box. Connect the white lead to neutral and the purple lead to AC line voltage (the input is universal 110 to 347 VAC) (see Figure 5).

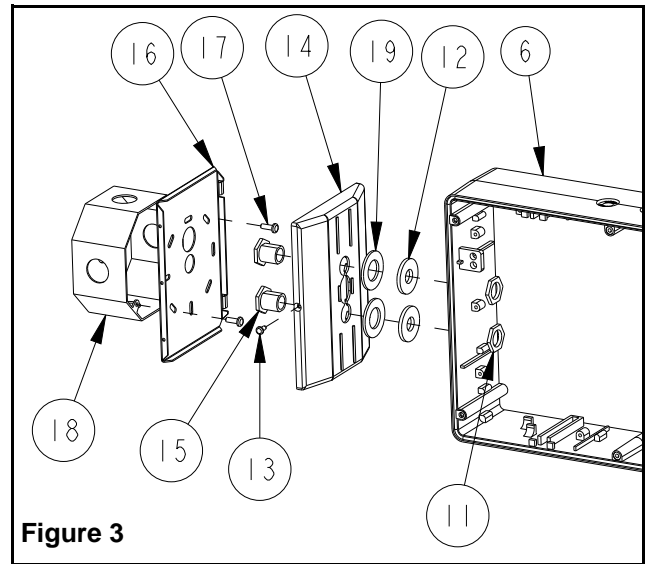


Figure 3

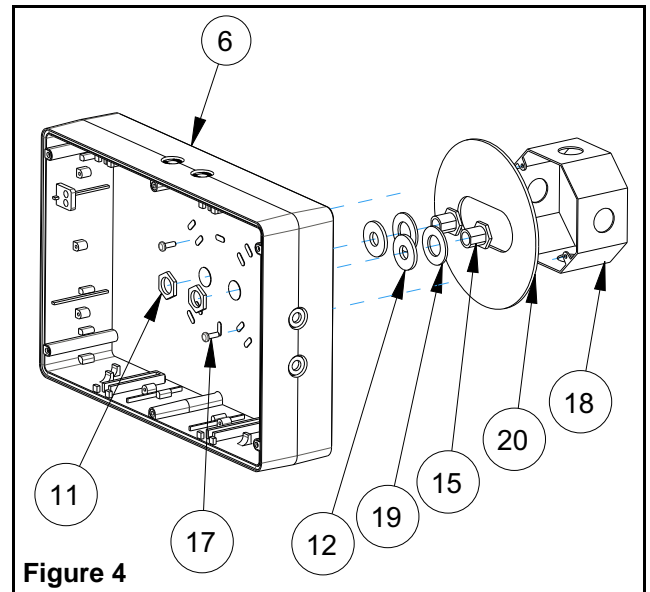


Figure 4

**⚠ IMPORTANT:** For self-powered units. The battery must be connected to the LED strip.

**Optional:** For AC models used with DC remote power, the sealed DC nipple/wire assembly (2 wires) will also need to be installed. One end connects to the LED-STRIP leads, inside the enclosure, and the other end to DC input inside the junction box. Connect the red lead to positive, and the blue lead to the negative of the remote DC input (see Figure 5).

3. **For canopy mount:** Mount the frame and canopy assembly to canopy backplate by using the provided securement screw.
- For wall mount:** Attach the frame to the junction box, using the junction box supplied screws.
4. Select the desired pictogram panel and install it with the opal diffuser behind. The pictogram panel without arrow shall be installed facing right (see Figure 7).
5. Install the lens by using the 6 tamper-proof screws. The o-rings must be installed on the screw between the lens and the frame as shown in Figure 11.  
**The tamper-proof screws should be equally torqued to approximately 10 - 15 in-lbs (1.1 - 1.7 N-m).**
6. Energize AC. The sign will illuminate.

### Manual Testing (Self-Powered Models)

Operate the magnetic "test switch" by holding the provided magnet underneath the unit where indicated on the frame. The AC pilot lamp will turn off, the legend will flicker, but remain lit. Remove the magnet. The AC pilot light will turn on, the legend will flicker again.

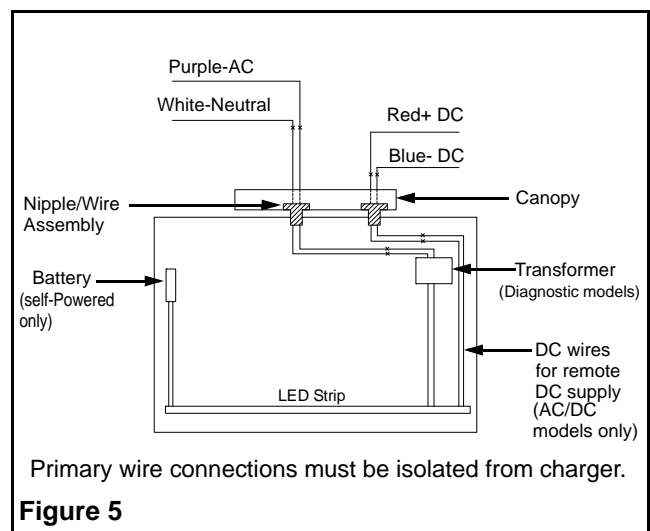


Figure 5

## Automatic testing and diagnostic (optional)

The models with the automatic testing and diagnostic option include a micro-controller which self-tests the unit on a monthly basis and identifies as well displays eventual failures of the electrical components: battery, battery charger and LEDs.

### Self-test

The self-test is performed every 30 days for 1 minute, every 6 months for 30 minutes, and annually for 90 minutes.

## Diagnostic function

The diagnostic function uses a bi-color pilot LED indicator. Service is required if the LED turns red indicating that an alarm condition is detected (see Figure 6).

o	Green	Steady On	AC On
-o	Green	One Blink	In Test
o	Red	Steady On	Battery Disconnect
-o	Red	One Blink	Battery Failure
o-o	Red	Two Blinks	Charger Failure
o-o-o-o	Red	Four Blinks	LED Strip Failure

## Maintenance (All Models)

None required. For battery-operated units: if AC supply to the unit is to be disconnected for 2 months or more, the battery must be disconnected.

**Note** NiCd (Nickel Cadmium) batteries are shipped discharged and may require 10 minutes of connection to AC supply before start-up test procedure, and 96 hours to reach full charge.

**Warranty:** For the complete warranty information, please refer to the landing page of our website (<http://www.tnb.ca/en/products/emergency-lighting/>).

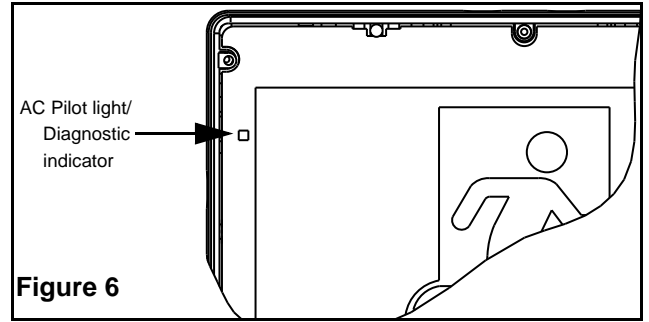


Figure 6

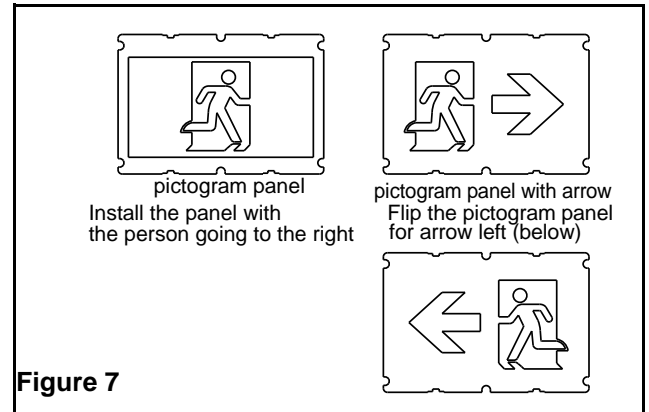




Figure 7



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



## Double Face Installation

### Conversion from single-face to double-face.

1. Turn off AC power.
2. Remove backplate by unscrewing the six tamper-proof screws holding the backplate to the frame (see Figure 8)
3. Install the four back panel retention screws (see Figure 9)  
*Note: The four screws may already be installed.*
4. Select the desired panel and install. Snap the top edges under the two top retention screws and then snap the bottom edges under the two bottom retention screws (see Figure 10).
5. Install the lens by using the 6 tamper-proof screws. The o-rings must be installed on the screws between the lens and the frame as shown in figure 11.  
***The tamper-proof screws should be equally torqued to approximately 10 - 15 in-lbs (1.1 - 1.7 N-m).***
6. Energize AC.

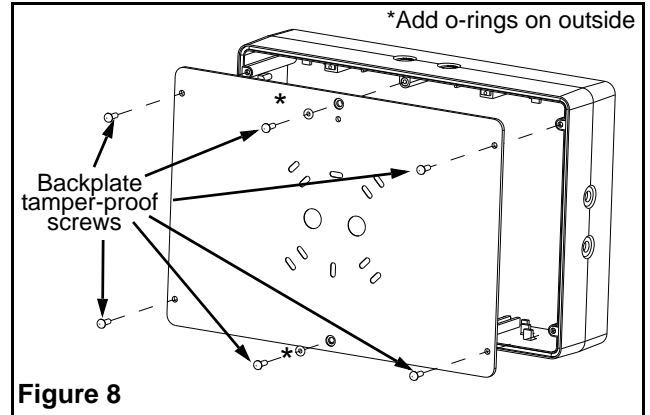


Figure 8

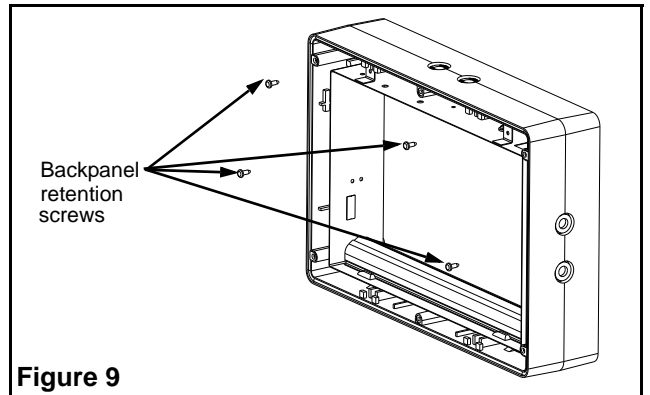


Figure 9

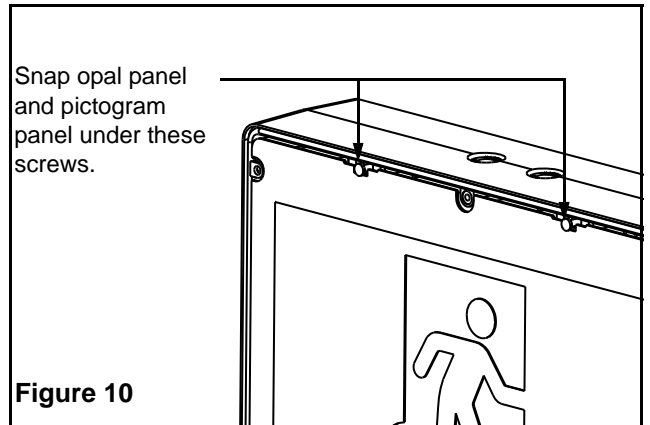


Figure 10

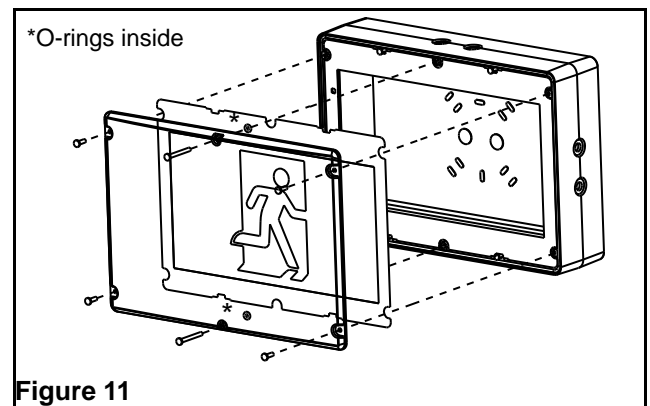


Figure 11

# Nexus Addendum Pictogram and Exit Sign

## (Nema 4X: Hazardous locations)

### Installation instruction

Turn OFF the AC power. All electrical installations should be performed by a qualified electrician.

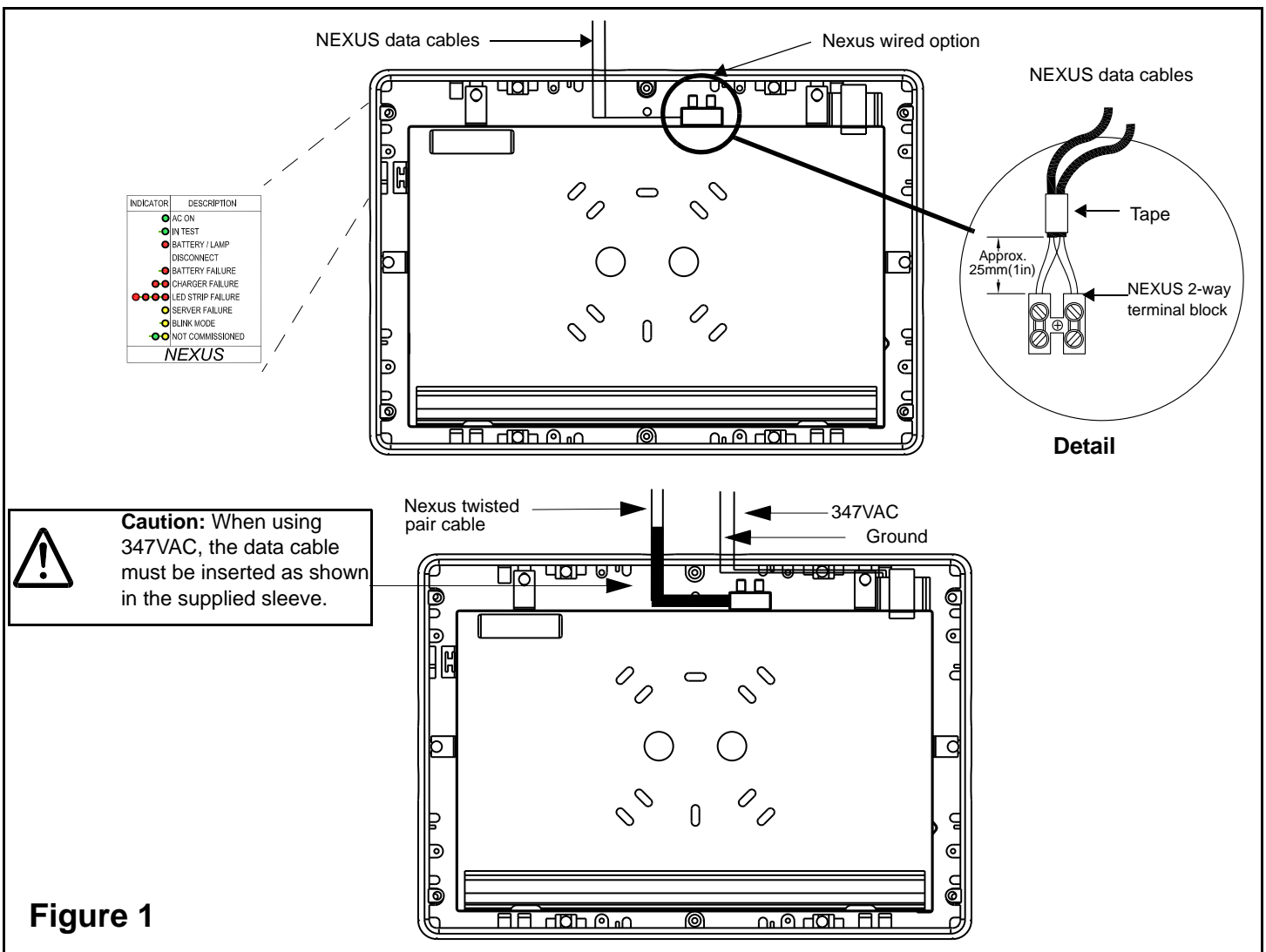
1. Mount unit in desired location. Refer to installation instructions specific to the unit to be installed.
2. See caution for 347VAC. Route the Nexus data cables in the unit and strip 25mm(1in) of the double insulation (see detail in figure 1). The two cables are identical and both contain 2 wires of different colors: "color A" and "color B". Gather the "color A" wire from each cable, and connect them to the same pole on the terminal block. Gather the "color B" wire from each cable, and connect them to the other pole on the terminal block. The result must be 2 wires of the same color in each pole on the terminal block (see detail in figure 1).

Leave a minimum of one inch between the live voltage cabling and the unsheathed low voltage data cabling.

**Important:** Leave a minimum of 25mm(1in) between the live voltage cabling and the unsheathed low voltage data cabling.











3. Connect the battery female connector to the male connector on the charger module.
4. For instructions on connecting to the AC power line refer to installation instructions specific to the unit to be installed.
5. Turn on the AC power. The AC ON pilot light will light up.
6. After the unit has been operating for at least 30 seconds depress test switch. The emergency lights shall turn on. Wait 10 seconds and press the test switch again to turn the emergency lights off (or allow the unit to turn off automatically after 1 minute).
7. All units are equipped with a low voltage battery protection circuit. This "LVD" disconnects the lamp load when the battery is discharged 87.5% of its nominal voltage.

**Reset the system whenever you add or change lamp loads.**  
To reset the system, see the "Lamp filament detection section".



**Figure 1**

### Status LED

	LABEL	INDICATOR ACTIVITY	MEANING
	AC ON	Steady green	AC on
	IN TEST	Blinking green	Testing in progress
	BATTERY / LAMP DISCONNECT	Steady red	Battery disconnected and/or load disconnected
	BATTERY FAILURE	1 red blink, then a 5-second pause	Battery failure
	CHARGER FAILURE	2 red blinks, then a 4-second pause	Charger failure
	LAMP FAILURE	3 red blinks, then a 3-second pause	Lamp failure
	LED STRIP FAILURE	4 red blinks, then a 2-second pause	LED strip failure (exit & combo versions only)
	SERVER FAILURE	Steady yellow	Server failure
	BLINK MODE	Blinking yellow	Wink mode
	NOT COMMISSIONED	Alternating yellow and green blinks	Unit not commissioned

### Magnetic test switch

To activate the transfer, holding the provided magnet where indicated near the LED display. A one minute transfer will be initiated. To abort the transfer, hold the magnet over the indicated place again. If you hold the magnet in place for at least 5 seconds, the charger will reset.

### Electrical specifications

#### Power requirements

Standard 120/277V 60 Hz or 120/347V 60 Hz  
Other AC voltage and frequency (50 Hz) available on request.

#### Output (maximum): Fused output circuit

Refer to electrical specifications provided on the unit label.

### Transfer

Dust-tight relay automatically and instantaneously energizes lamp load upon failure of AC supply.

### Lamp Filament Detection

Resolution is 10% of the full-load circuit or 5.4 watts of a 54 watt load (i.e.: one lamp out of ten).

Load sampling and testing takes place only with a relatively charged battery. When the unit is in test mode for the first time after installation, current samples are taken from the lamps that are used as a reference for when the lamps are checked in the following test modes. The lamps are re-sampled annually if no lamp failure was detected.

To reset the lamp testing after a load change, the battery and the AC line have to be disconnected at the same time or the test magnet must be applied and maintained for at least 5 seconds.

Reconnect the battery and the AC supply if necessary.

### LVD

Low voltage battery disconnect automatically shuts down lamp load and circuitry when battery reaches 87.5% of nominal battery voltage preventing deep discharge and permanent damage to the battery.

### Lockout

Labour saving feature that automatically connects battery only after AC circuit is activated.

### Brownout

Close tolerance feature that initiates a transfer when input line voltage dips below 70-80% of nominal voltage.

### Charger

The charger is current limited, temperature compensated and short-circuit proof. The equipment is capable of full recharge in compliance with UL standards 924 specifications, and CSA C22.2 no. 141.

### Controls

One magnetic test switch.

### Diagnostic functions

Please refer to the Nexus Operating System for full details on diagnostic functions.

### CAUTION:

In the event that the Nexus system is disconnected, this unit will automatically come back to auto-test mode.