

# V Series – Severe

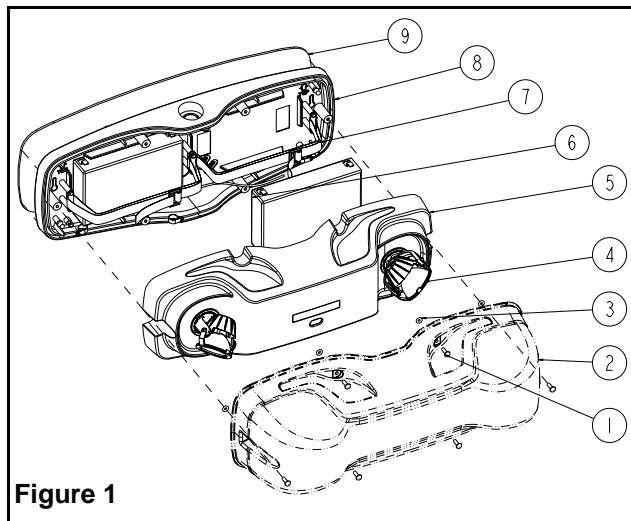
## Emergency Light Unit

### 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. Caution: If optional Halogen cycle lamp(s), symbol (H—), are used in this equipment, to avoid shattering: do not operate lamp in excess of rated voltage, protect lamp against abrasion and scratches and against liquids when lamp is operating, dispose of lamp with care.
8. Halogen cycle lamps operate at high temperatures. Do not store or place flammable materials near lamp.
9. Do not use this equipment for other than intended use.



**Figure 1**

#### Part List

- |                             |                                 |
|-----------------------------|---------------------------------|
| 1. Tamper-proof screws (6)  | 9. Gasket                       |
| 2. Clear cover              | 10. AC harness                  |
| 3. Screw gasket             | 11. Ground wire                 |
| 4. Lamps                    | 12. Wire nut                    |
| 5. Electronic module        | 13. J-box (not supplied)        |
| 6. Battery                  | 14. J-box screws (not supplied) |
| 7. Battery strap or bracket | 15. Screw cover                 |
| 8. Backplate                |                                 |

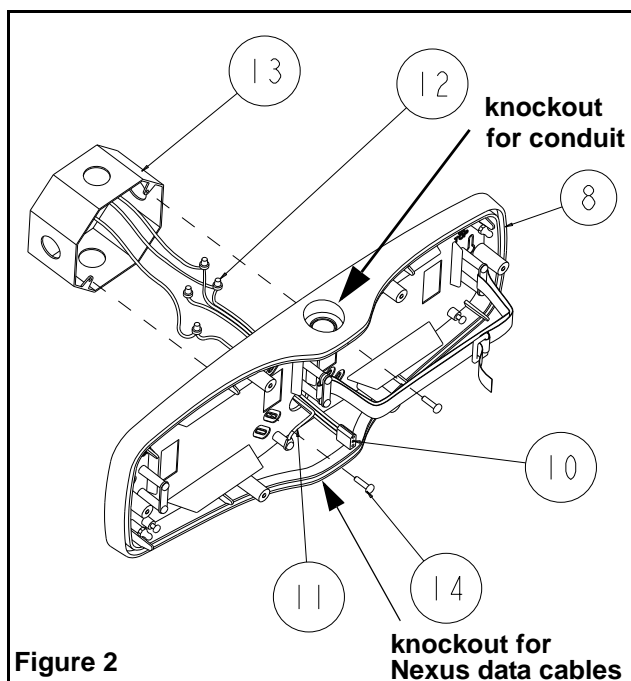
### SAVE THESE INSTRUCTIONS

#### Installation Instructions

1. Turn off unswitched AC power.
2. Open clear cover by removing the screws making sure not to loose the screw gaskets. Remove lamp protectors.
3. Remove the electronic module. Pull on the cover until snapping features disengage or use a screw driver by inserting it into the slots shown in figure 12 and prying the cover open.
4. Remove the battery in order to access the knockouts (k'out).
5. Install back plate:

##### Wall mounting on a junction (figure 2)

- a. Route unswitched AC circuit wires into the junction box and leave 6" of wire length.
- b. Remove the k'outs needed to mount back plate. Considering the weight of the unit, it's recommended to use key hole for additional securing(see fig.4). For Nexus wired option, install the liquidtight fitting, provided with the unit. Use the k'out located on the bottom of the unit.



**Figure 2**

- c. Remove AC harness from electronic module. Wire to AC circuit wires using wire nuts (see figure 2). Refer to hookup instructions on page 2.
- d. Install the gasket on the back plate. Feed AC harness and the ground through the large hole in the backplate (see figure 2). Mount to J-box using the J-box screws (not provided). J-box should be properly secured directly to a stud.  
 Note: When back mounting the unit on uneven surface such as brick, silicone caulk should be used to prevent water from seeping in between the unit and the J-box.

**Wall mounting with conduit**

- a. Remove k'out on top of the backplate for conduit entry and key hole k'out to fix the backplate to the wall. For Nexus wired option, install the two holes liquid tight fitting, provided with the unit, on the bottom of the back plate. Don't route data cables with AC wires.
- b. Install a liquid tight conduit fitting on the backplate. Conduit size: 1/2" NPT (not provided).
- c. Install the unit on the wall using screws (not provided).
- d. Connect the conduit to fitting and route unswitched AC circuit wires in the unit.
- e. Remove AC harness from electronic module. Wire to AC circuit wires using wire nuts. Refer to hookup instructions..

**Pole or I-beam mounting (Option)**

- a. Universal bracket (part 16 on figure 4) is an accessory and needs to be ordered separately. Remove knockouts on top of the backplate for conduit entry.
  - b. Install a liquidtight conduit fitting on the backplate. Conduit size: 1/2" NPT.
  - c. Install the universal bracket as shown in figure 4. Don't install the gasket (9). Note: this type of installation is not NSF certified for food processing areas.
  - d. Unit can be installed using steel banding for routing around the poles and I-beam. Standard banding 3/4" in width or less can be used (not provided). It can also be mounted on Superstrut® metal framing (1 5/8" channel series) using 1/4" bolt (not provided). Holes are placed at 9" apart horizontally.
  - e. Connect the conduit to fitting and route unswitched AC circuit wires in the unit.
  - f. Remove AC harness from electronic module. Wire to AC circuit wires using wire nuts. Refer to hookup instructions.
6. Complete electrical connection:

**Standard product:**

- a. Re-install batteries and electronic module as shown on figure 5. See figure 6 for batteries wiring diagram.
- b. Connect transformer harness to AC harness.

**Cold weather option:**

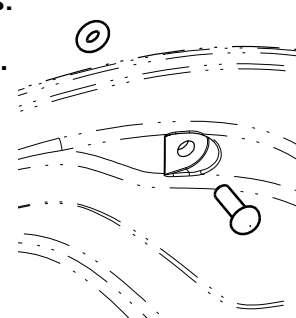
- a. Connect battery heater (18) to thermostat (19) and to AC harness (10) (see figure 7).

### INSTRUCTIONS - HOOKUP

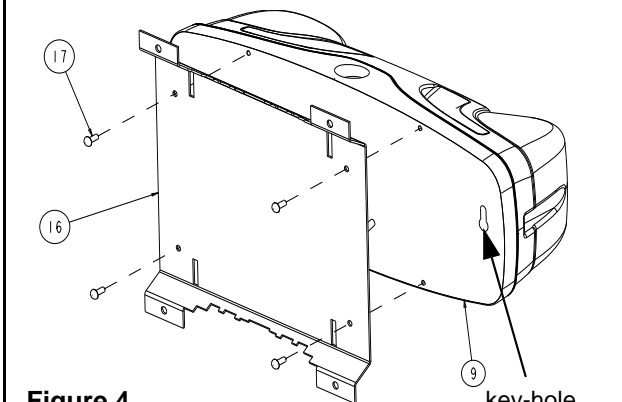
<p><b>- 120 VAC OPERATION -</b></p> <p>White wire - Common          Black wire - 120V Line          Green wire - Ground</p>	<p><b>-277 VAC OPERATION-</b></p> <p>White wire - Common          Orange wire - 277V Line          Green wire - Ground</p>
<p>Unused primary wire must be insulated to prevent shorting</p>	

**To ensure watertightness: install the screw gaskets inside the unit, as shown.**

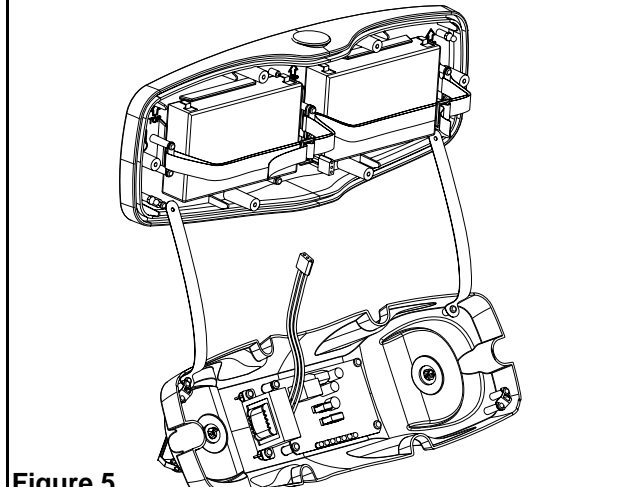
**Put the screw in the lens hole and then install the screw gasket.**



**Figure 3**



**Figure 4**



**Figure 5**

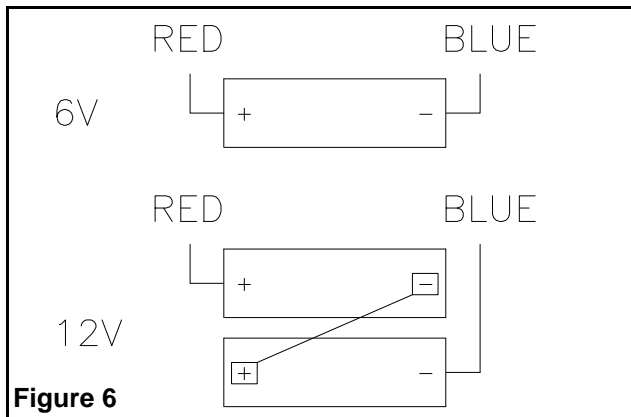
- b. Refer to figure 8 for 120VAC input voltage and to figure 9 for 277VAC . Use wire taps provided with the hardware kit to connect battery heater. Unused wires must be insulated to prevent shorting.
  - c. Re-install the batteries. Battery heater is placed between the battery and the backplate. See figure 6 for battery wiring diagram. Re-install the electronic module as shown on figure 5.
  - d. Connect transformer harness to AC harness.
7. For unit with remote capacity, connect remote heads to terminal L+ and L- (see figure 11).

Calculation of total allowable remote capacity of unit:  
 Maximum remote lamp power = unit capacity minus the total power of lamps included with unit.

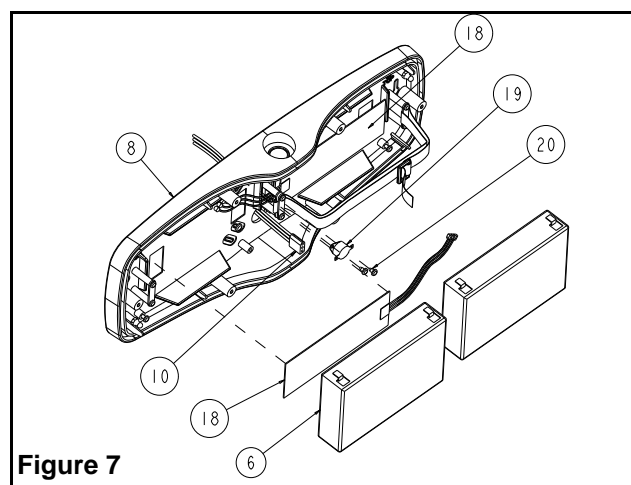
- 8. Snap electronic module on backplate.
- 9. Adjust lamp aiming.
- 10. Install the lens by using the 6 tamper-proof screws (1). To insure water tightness, gasket screws (x6) have to be installed from the inside (see figure 3). Tighten the screws approximately 5 Lb.-Ft. **DO NOT OVER TIGHTEN.**
- 11. For food processing areas, in order to avoid food accumulation, screw caps have to be installed (provided with the hardware kit).
- 12. Energize AC. Lamps will turn on for few minutes.
- 13. See page 4 for testing procedure.

**Nexus:**

For connections related to Nexus system, refer to Nexus Addendum.

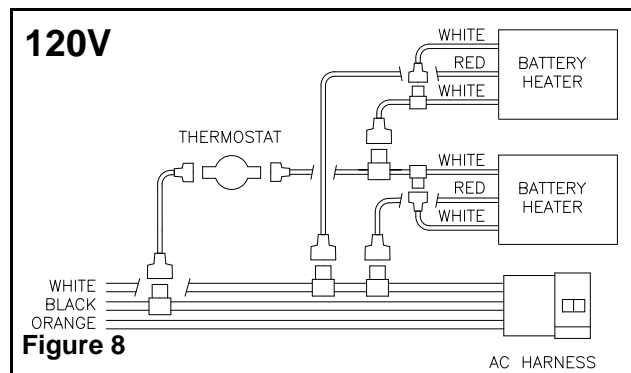


**Figure 6**

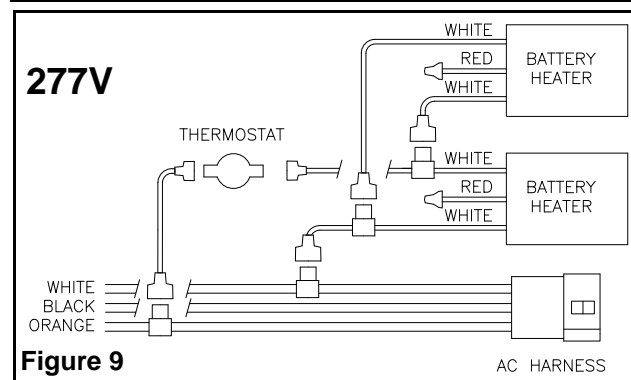


**Figure 7**

FOR COLD WEATHER OPTION ONLY



**Figure 8**



**Figure 9**

## Unit testing

### Manual Testing

Operate the magnetic test switch by holding the provided magnet near the status LED, where indicated. This will initiate a one minute test and the lamps will illuminate. At the end of the test, the unit will automatically return to stand by mode. Test can be cancelled by holding the magnet near the test switch again.

### 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 and lamps.

#### Self-test

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

#### Diagnostic function

The diagnostic function uses an external red LED indicator. Service is required if the red LED is present indicating that an alarm condition is detected (See fig. 10).

o	Green	Steady On	AC On
o	Red	Steady On	Battery Disconnect
-o	Red	Blinking	Battery Failure
o-o	Red	Two Blinks	Charger Failure
o-o-o	Red	Three Blinks	Lamp Failure

For Nexus models, refer to “Nexus addendum” and for additional information about the Nexus system, go to “[www.nexus-system.com](http://www.nexus-system.com)”.

For more information about the AD function, please consult the web site for this user manual:

“AD with Single LED Status User Manual”

### Food processing facilities

Screw covers are available in the hardware kit. These covers have to be installed on screws to avoid any food accumulation. Note: some detergent used in food processing industry can affect durability of Polycarbonate lens. Install unit on even wall surface to insure watertightness and avoid any gaps between the gasket and the wall.

### Maintenance (All Models)

None required. If AC supply to the unit is to be disconnected for 2 months or more, the battery must be disconnected.

