

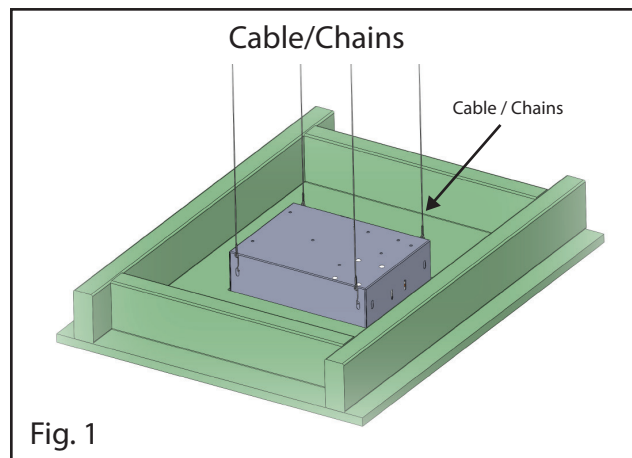
## IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

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

- **DISCONNECT AC POWER SUPPLY BEFORE SERVICING.**
- Installation and servicing of this equipment should be performed by qualified service personnel only.
- Ensure that the electrical wiring conforms to the National Electrical Code NEC® and local regulations if applicable.
- Do not mount near gas or electrical heaters.
- Do not use outdoors.
- Equipment should be mounted in locations and at heights where it will not be readily subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Any modification or use of non-original components will void the warranty and product liability.
- Do not use this equipment for other than intended use.
- Allow battery to charge for 24 hours before first use.

## SAVE THESE INSTRUCTIONS!

1. Trace and cut an 8 1/8" x 10 3/4" rectangular hole in the ceiling.
2. Knockout the appropriate mounting holes and wire pass-through hole.
3. Insert back box inside rectangular cutout and secure in place using cables/chains and the appropriate hardware for the application. (supplied by others) (Fig.1).



4. All electrical connections should be made inside the junction box (supplied by others).

**120VAC**

White - Common  
Black - 120V  
Green - Ground

**277VAC**

White - Common  
Orange - 277V  
Green - Ground

**CAUTION!** Failure to cap unused wires may result in a shock hazard or unsafe condition as well as equipment failure.

5. Connect the red (+) positive wire to the (+) positive terminal on the battery. Connect the black (-) negative wire to the (-) negative terminal on battery **only after continuous AC power can be provided to the unit.**
6. Replace the cover by inserting the two torsion springs into the space provided inside the back box. (Fig. 2)
7. To set the lamp heads for best lighting distribution; loosen the set screw and manually rotate or twist the heads to the desired position, then retighten the set screw to lock into place.
8. Energize un-switched AC power to the unit.
9. Verify charge indicator LED is illuminated.
10. Press the test button and verify the lamps turn on.

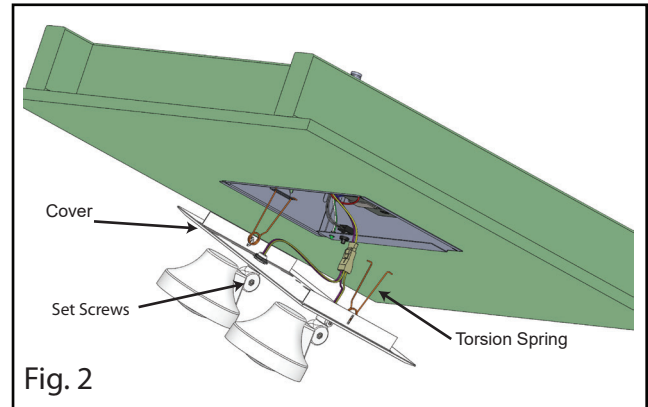


Fig. 2

- Note:** If lamps do not illuminate, allow the unit to charge for 30 minutes.
11. Leave AC connected for 24 hours prior to performing any full-length test.
  12. Refer to the **Self-test/Self-diagnostics** section for units equipped with G2.

### SELF-TEST/SELF-DIAGNOSTICS - Operation

#### Setup & Standard Operation

1. To Reset/Initiate: disconnect batteries and turn off AC power supply for 10 seconds. Reconnect batteries and turn on AC power. The system will automatically test unit operation. It will also reset and start all counters for automated operations.
2. When AC fails, the DC lamps will turn on with a 3-second delay.
3. After AC resumes, the DC lamps will turn off and the CHARGE LED will turn on.
4. A steady green CHARGE indicator indicates a high charge rate. After the battery has reached a full charge, the indicator LED will turn off. Under normal operation, the charge indicator will turn on and off intermittently while in standby mode (normal AC present).
5. A flashing green DIAGNOSTIC LED indicates there has been a power failure/loss of AC in the past 48 hours. The 90 minutes Manual Test will not be allowed during this period. The 90 minutes Auto-Test will be initiated after 48 hours and then the indicator will turn back to steady green.

### TROUBLESHOOTING - RESET CHARGER BOARD

1. To clear any unit failures or problems from being indicated by the DIAGNOSTIC LED, disconnect batteries and turn off the AC power supply for 10 seconds to RESET the charger board. Reconnect battery and resume AC.

### Manual Testing

Multiple durations can be selected as follows:

- Instant Test: Press and hold Test Switch for more than 3 seconds
- 5 Minutes Test: Press Test Switch 2 times within 3 seconds.
- 90 Minutes Test: Press Test Switch 3 times within 3 seconds.
- Momentary Test: Useful during installation, connect battery only (without AC connected), press and hold Test Switch.
- To CANCEL any Manual Test: Press and hold Test Switch for 5 seconds.

### Battery or Charger Diagnostics

#### Charger:

During normal operation, the onboard microcontroller constantly monitors the charger performance. Should the charger output vary from design parameter values, the DIAGNOSTIC LED will indicate a flashing red condition.

#### Transfer:

A failure of the unit to transfer to battery power during a power outage will cause the DIAGNOSTIC LED to flash red.

#### Battery:

Disconnection of the batteries from the charger will cause the DIAGNOSTIC LED to flash red. If the battery voltage drops too low or the unit fails to provide battery power for the required duration during a manual/automated test, the DIAGNOSTIC LED will display steady red.

**To prevent battery damage:** Do not connect the battery until constant AC power can be supplied to the unit.

### Self-test/Self-diagnostics (G2)

#### Automated Testing:

The Auto-Test scheduling counter will start when both AC and battery are first applied. When automatic testing is in progress the DIAGNOSTIC LED will flash yellow. A steady green DIAGNOSTIC LED indicates normal operation.

### Automated Diagnostic Routine

The Auto-Test automatically initiates a five-minute discharge/diagnostic test every month with two 90-minute discharge/diagnostic tests every 6 months.

Twenty-four hours following the first 6-month test, the unit will retest again to ensure that the charger has completely recharged the battery. The lamps will be activated during these tests. The tests exercise the battery to optimize its capacity and analyze the unit's emergency operation. Any malfunction of the transfer circuit, batteries or emergency lamps will cause the multi-color DIAGNOSTIC LED on the unit to indicate the fault. The DIAGNOSTIC indications will remain latched (stay on) in the system until corrected or reset.

#### Diagnostics Display

The Auto-test/Self-diagnostics provides a visual indication of unit status via a multi-colored LED. The LED may indicate just one or any combination of the various conditions as follows:

- Steady Green: Normal Operation
- Flashing Green: AC Interruption in Last 48 Hours
- Steady Yellow: Lamp Circuit Malfunction
- Flashing Yellow: Auto-Test or Manual Test in Progress
- Steady Red: Battery Failed Testing
- Flashing Red: Battery Disconnected or Charger Malfunction

Battery Unit LEDs  
and Test Switch  
Configuration

