



## INSTRUCTIONS IMPORTANT SAFEGUARDS

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

- 1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
2. For Indoor use ONLY.
3. Do not let the power cords touch hot surfaces.
4. Do not install near gas or electric heaters.
5. Use caution when servicing batteries. Battery acid can cause burns to the skin and eyes. If acid is spilled on skin or eyes, flush acid with fresh water and contact a physician immediately.
6. The equipment should be mounted in locations and at heights where unauthorized personnel will not readily subject it to tampering.
7. The use of accessory equipment not recommended by the manufacturer, may cause an unsafe condition, and will void the unit's warranty.
8. Do not use this equipment for other than its intended purpose.
9. Servicing of this equipment should be performed by qualified service personnel.
- 10. SAVE THESE INSTRUCTIONS!**

## INSTALLATION

### WALL MOUNT - SINGLE FACE ONLY:

1. Extend unswitched 24 hour AC supply of rated voltage to a junction box (supplied by others) installed in accordance with all applicable codes and standards. Leave a minimum of 8 inches of slack on the wire. This circuit should NOT be energized/live at this time.
2. Remove the faceplate. Remove and discard the canopy kit located inside the sign cavity (Fig. 1). For installation directly on an electrical junction box, the sign is supplied with universal spider knockouts stamped into the backplate. Alternatively, conduit knockouts are stamped into the top and side for surface wire conduit connection (Fig. 3). Knock out the appropriate holes and bring wires through the hole and outside the sign.
3. Make proper wiring connections (inside the junction box) between the incoming AC supply and the circuit board transformer: RED = Line 347 V or 277 V; BLACK = Line 120 Volts; WHITE = Neutral. BROWN is provided instead of RED for special voltages. Insulate unused wire! Connect the ground to the supplied green ground wire in accordance with local codes. Reassemble all wire connections and connectors. CAUTION! - Failure to insulate unused wire may result in a shock hazard or unsafe condition as well as equipment failure.
4. AC/DC MODELS: Make proper wiring connections between emergency backup DC supply and lead wires from the circuit board. BLUE = (-), YELLOW = (+). 6 to 24VDC. (Fig. 5)
5. SELF-POWERED: Plug battery connectors into the matching battery pins on LED circuit board. (Fig. 5).
6. Mount the sign securely on the junction box (not supplied) using the spider plate adaptor and the mounting screws (the two junction box mounting screws are not supplied - see Fig. 3).
7. Secure all internal wires.
8. Take off protective plastic on the pictogram before installing (Fig. 2).
9. Slide running man pictogram into the sign frame, then insert an angle bar to secure to pictogram.
10. Turn on the AC line voltage supply.

### CEILING/END MOUNT - SINGLE OR DOUBLE FACE:

1. Follow Steps 1 to 3 of Wall Mounting except do not discard the canopy kit located inside the sign.
2. If a double face is required, remove the backplate and install the second faceplate.
3. A single wire pass-thru and a pair of canopy screw knockouts are stamped into the top and also the end of the sign. Knock out the appropriate set of three holes; top holes for ceiling mount or end holes for end wall mount (Fig. 4).
4. Secure the canopy to the sign using the supplied hardware.
5. Feed all wiring outside through the wire pass holes of sign and canopy.
6. Follow steps 4 to 10 of Wall Mounting to complete the installation.
7. NOTE: Mount the sign securely to the wall or ceiling. The hole spacing in the canopy is designed to fit most standard electrical junction boxes. A steel, universal spider plate is supplied to allow the installation to alternate size/type boxes by using the mounting screws (the two junction box mounting screws are not supplied - see Fig. 4).

# OPERATION

## ACDC models:

1. Sign will illuminate when supplied with power.

## Internally Self-Powered models only:

1. To Test, press the TEST Switch. The AC indicator will go out and the LEDs will switch to battery power.
2. Release the TEST Switch. The LEDs will switch back to AC power and the AC indicator will come on.

Figure 1

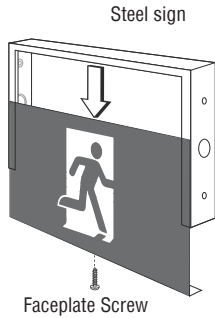


Figure 2



Figure 3

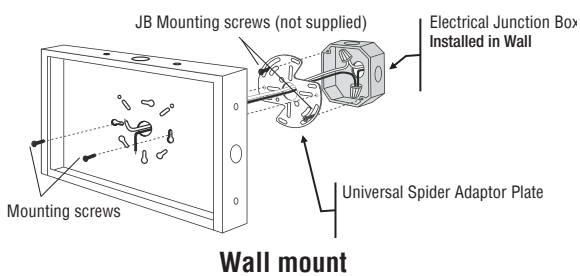


Figure 4

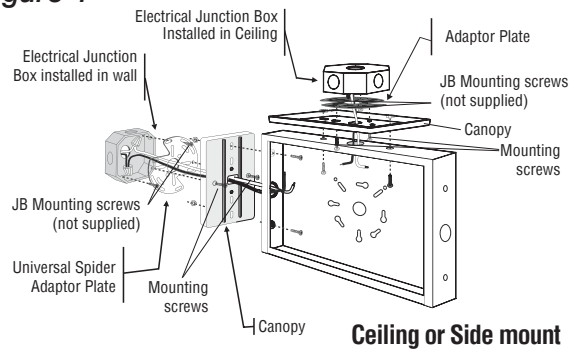
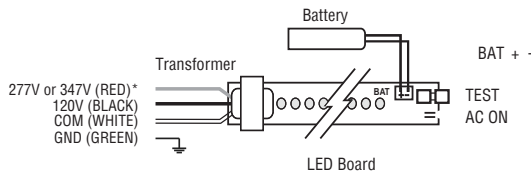


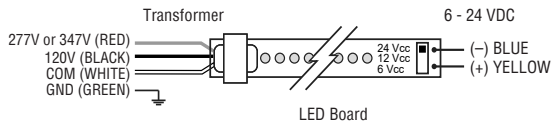
Figure 5

## Self-Powered LED Circuit Board

\* 277 V if applicable



## AC/DC LED Circuit Board



## MAINTENANCE

1. Code requires that the equipment be tested every 30 days for 30 seconds, and that written records be maintained for all test results and repairs. Further, the equipment is to be tested once a year for the required duration as per Code. The battery is to be replaced or the equipment repaired whenever the equipment fails to operate as intended during the duration test. The manufacturer strongly recommends compliance with all Code requirements.
2. Clean face(s) on a regular basis to provide maximum performance in case of an emergency. **NOTE: The servicing of any parts should be performed by qualified service personnel only. The use of replacement parts not furnished by the manufacturer, may cause equipment failure and will void the warranty.**

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## TROUBLESHOOTING HINTS

### **SIGN DOES NOT LIGHT UP / TURN ON AT ALL**

1. Check the AC supply - be sure unit has 24 hour AC supply (unswitched).
2. Check the AC connector. The transformer/capacitor input power assembly is connected to the LED circuit board with a plastic connector. Insure that this connector is firmly plugged into the LED circuit board. The connector will only lock into place when inserted in the correct orientation.
3. Check the AC connections to transformer/capacitor assembly. Insure that the input voltage wiring matches the markings to the transformer/capacitor assembly wires being used.
4. If the AC supply and connections are OK and LEDs fail to light; replace LED Board Assembly.

### **SIGN LEDS DO NOT LIGHT UP / TURN ON WHEN DC POWER APPLIED**

1. Check DC wire connections. Insure that DC input voltage wiring matches the markings on the LED board wires being used and polarity is correct.
2. Insure the DC wires are firmly soldered to the LED circuit board.
3. If the DC supply and connections are OK and LEDs fail to light; replace the LED circuit board.

### **SIGN TURNS ON DIM WHEN AC POWER IS ON**

1. Check the the supply voltage and AC connections. The AC supply must be at least 80% of the nominal (96V on a 120V line) for equipment to function normally. At lower voltages, the LEDs may begin to glow dimly until the source voltage drops below the full batteries turn-on point.
2. Check the AC connections to the transformer/capacitor assembly. Insure that a 120 Volt supply line has not been connected to the 347 Volt transformer/capacitor lead wire.

### **SIGN COMES ON WHEN BATTERY IS FIRST CONNECTED (NO AC)**

This is normal when the battery has enough charge to power the LEDs. The sign will remain lit until the battery is discharged.

### **SIGN COMES ON DIM WHEN TEST BUTTON IS PRESSED**

Internally Self-Powered Signs Only

1. Battery is severely discharged. Allow 24 hours for recharge and then retest. NOTE: This could be the result of a switched AC supply to the unit (which has been turned off at some point), a battery with a shorted cell, an old battery or a battery which has been discharged due to a long power outage and is not yet fully recharged.
2. If LEDs are still dim on test, replace battery.