

# Fabricated Metal Letter Wiring Instructions Halo Lit with LuxemBright LEDs

## Customer Installation/Tips/Troubleshooting Guide

Enclosed are your fabricated halo lit letters, populated with LumemBright LEDs. Each individual letter has been carefully filled with the proper number of LED modules designed to provide a consistent Lumen output.

## Components Used

All components used are UL Recognized and approved for LED lighting.

### **LuxemBright® LED Systems - UL#E332228.**

UL approved electrical tap connectors - 3M Scotchlok 560B

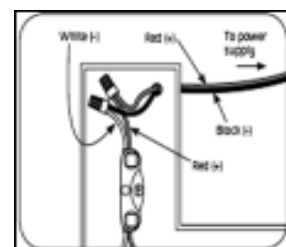
UL approved twist on wire connectors - GB 10-001.

12VDC-Class 2 Power Supply: UL information listed on power supply.



## Electrical Connections

It is recommended that all electrical connections be performed by a licensed electrical contractor. Each Fab Metal letter has been filled with LumenBright LEDs and contain a **Red (+)** and **Black (-)** pigtail wire for connecting letters to a main line and/or LuxemBright Power Supplies (see wiring example).



## Power Supply (PS) Connections

LuxemBright power supplies are designed to illuminate LuxemBright LED systems only. When using this power supply, safeguards are built in to prevent overpowering the LEDs. Do NOT mount (PS) directly into letters.

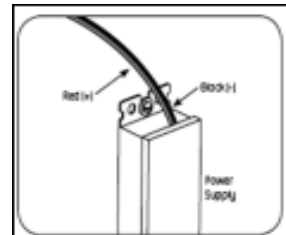
Shown below are the available power supplies along with limitations.

A 40watt, 771-14012 power supply will light a maximum of 110 LuxemBright modules.

A 60watt, 771-16212 power supply will light a maximum of 167 LuxemBright modules.

Both power supplies are rated for input voltage of 110-240, 277 VAC, 12VDC output voltage.

Both power supplies are rated for interior and exterior use. No separate enclosures required.



The maximum remote mounting distance for the Power Supply, with 12AWG wire is 120 ft.

Connect **Red (+)** Lead wires to **Red** main line, in parallel, then to **Red (+)** wire of the power supply.

Connect **Black (-)** Lead wires to **Black** main line, in parallel, then to **Black (-)** wire of the power supply.

Connect power supply to appropriate sized breaker or power cord, in accordance with National Electric Code (NEC) Article 600 and all Local Electrical Codes.

All orders will be supplied with a line drawing that details letter groupings to Power Supplies (PS).

## Power Supply Wiring Example

**SHIE** are powered by one 60watt power supply.

**LDCO1** are powered by one separate 60watt power supply.



**Caution:** Plugging your LEDs direct into 110V will destroy them. Use ONLY Class 2 Power Supplies.

## Other notes

### LED Modules

Individual LED modules have been secured to the LEXAN backs with double faced tape.

Every other module has also been further secured with a plastic support block.

Should you need to reposition or move any LED modules, break off the support block with pliers, reposition modules, re-tape back down and secure with silicone on sides and wires.

## Letter Stand-Off

Halo lit letters are designed to stand-off the mounting surface by using studs and spacers. Adjusting the spacer length or stand-off from the wall will effect the halo lighting effect. Typical stand-offs for optimal halo lighting is around 1-1/2" from the mounting surface.

## LED Troubleshooting Guide

### Blinking LEDs:

\*Blinking LEDs: Too many LEDs connected to a given power supply.  
Reduce the number of letters or modules attached to your power supply.

### LEDs in one or more letters will not light:

\*LEDs will not light: Too many LED modules are connected to a given power supply.  
Reduce the number of letters or modules attached to your power supply.

\*Check letter connections. Make sure pigtails are properly wired to power supply line.  
Make sure all Red (+) wires are connected together and to the Red (+) wire of the power supply.  
Make sure all Black (-) wires are connected together and to the Black (-) wire of the power supply.

\*Check AC input connection and/or check circuit breaker.

### One LED module is Dark (not lit):

\*You may have a bad module. Check lighting of letter with face covered to determine impact of one dark LED. If the face is too dark or visible shadows exist, additional LEDs may have to be added to the letter.

### I see light shadows in the letter face:

\*Ensure that all modules are secured to the backs of the formed channel cans.  
If a module has come loose, press it back down and secure with additional DF tape and/or silicone.

### Some LEDs appear dim:

\*Ensure that the overall length of the LED system does not exceed the maximum load.  
\*Ensure that the length of supply wire is equal to or below the recommended remote distance.  
\*LuxemBright systems are rated for damp location use by UL.

**Caution:** Plugging your LEDs direct into 110V will destroy them. Use ONLY Class 2 Power Supplies.

## Electrical Contractor Required



### **WARNINGS!**

It is recommended that all electrical connections be performed by a licensed electrical contractor.

#### **RISK OF ELECTRIC SHOCK:**

- Turn power **OFF** before inspection, installation or removal.
- Properly ground enclosure if used.
- Shut off power at fuse box or circuit breaker before install.

#### **Prepare Electrical Wiring** (*Electrical Requirements*)

- The grounding and bonding of the LED Driver shall be done in accordance with NEC Article 600.

Always understand and follow all National Electric Codes (NEC) and local electrical codes.

IP68 rated and designed for damp locations.

#### **RISK OF FIRE:**

- Use only UL approved supply wires, minimum 18AWG.
- Follow all NEC and Local Electrical Codes.
- Use only UL approved wire for input connection. Minimum size 1.02mm