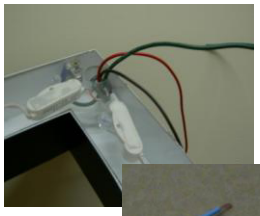
WIRING INSTRUCTIONS FOR HALO LIT SIGNS & LETTERS
Fabricated Metal Letters with LEDS

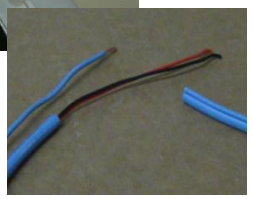
Customer Installation/Tips/Troubleshooting Guide

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

Components Used

All components used are UL approved for LED lighting.
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 LEDs, and contains three 18 gauge lead wires: (+), (-) and ground wire, or a 3-wire Cable, for connecting letters to a main line and/or Power Supplies (see wiring example). When Class 2 wiring circuits are located in a concealed space,such as above a suspended ceiling, or passing through a wall, code requires use of conduit. Longer wires or cables are optional. Please specify length needed for your condition.

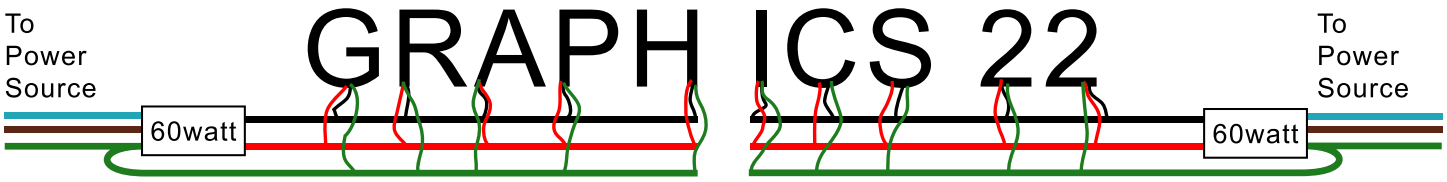
Power Supply (PS) Connections

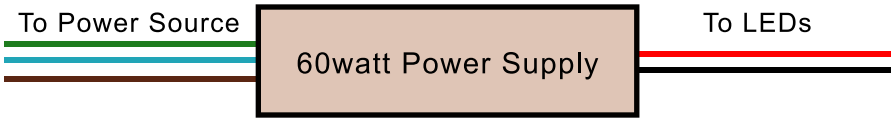
Power Supplies provided are UL, 60watt (Max 5 amp). Do NOT mount power supply directly into letters. Amperage*, voltage and class ratings are listed on the power supply labels. Maximum remote mounting distance for Power Supply, with 18 AWG wire is 30ft. Connect (+) Lead wires to a main line, in parallel, then to the (+) wire of the power supply. Connect (-) Lead wires to a Black main line, in parallel, then to the (-) wire of the power supply. Connect ground wires to main ground wire, then to PS ground or a proper grounding location. Connect power supply to appropriate sized breaker or power cord, in accordance with National Electric Code (NEC) Article 600 and all Local Electrical Codes.
Each PS is equipped with external connection cables containing 3 input wires, for connecting to the power source, and two output wires, for connecting to the LEDs (letters).

Power Supply Wiring - Example

"GRAPH" are powered by one 60 watt power supply.
"ICS 22" are powered by one separate 60 watt power supply.

Caution: Plugging LEDs direct into 110V will destroy them and may cause fire or electrical shock.





Green/Yel Wire-Ground
Blue Wire-Neutral
Brown Wire-Line (Power)
Red Wire-Positive (+)
Black Wire-Negative (-)

*Typical colors, shown and noted
Color may vary, consult product labels

Notes :

Lexan Backs

All UL required components are supplied with weep (drain) holes in the Lexan backs, per UL requirements. Weep holes are used to allow moisture or water to escape.

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 2" and 1 ½" from the mounting surface.

Mounting Surface

When Halo (back) lighting, it is best to install on a non-glossy, lighter colored mounting surfaces.
Dark, Glossy backgrounds will absorb the LED light and may not produce a desirable halo effect.

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.

Caution: Plugging LEDs direct into 110V will destroy them and may cause fire or electrical shock.

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.
1. Check AC input connection and/or check circuit breaker.
2. Check letter connections. Make sure pigtails are properly wired to power supply line.
3. Make sure all (+) wires are connected together and to the (+) wire of the power supply.
4. Make sure all (-) wires are connected togther and to the (-) wire of the power supply.

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.
LED systems should be protected from exposure to moisture.

WARNINGS!

Electrical Contractor Required

It is recommended that all electrical connections be performed by a licensed electrical contractor.
Always follow proper OSHA LOTO (Lockout/Tagout) and NEC practices and procedures.

RISK OF ELECTRIC SHOCK:

Turn power **OFF** before inspection, installation or removal.
- **Properly ground any power supply enclosures.**
- **Shut off power at fuse box or circuit breaker before install.**

Prepare Electrical Wiring (Electrical Requirements)

RISK OF FIRE:

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

• 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