

# M2 Channel Letter Installation Manual

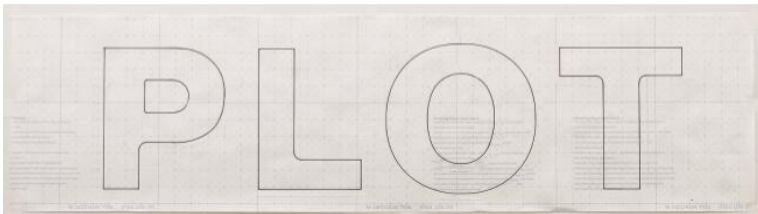
Enclosed are illuminated channel letters populated with 12VDC LEDs. Each individual letters has been carefully filled with LED modules aligned to provide a consistent output of Lumens, and tested workable in 6 hours.

Please use our power supply to test all the channel letters as soon as you get the parcels and test by the following guide!

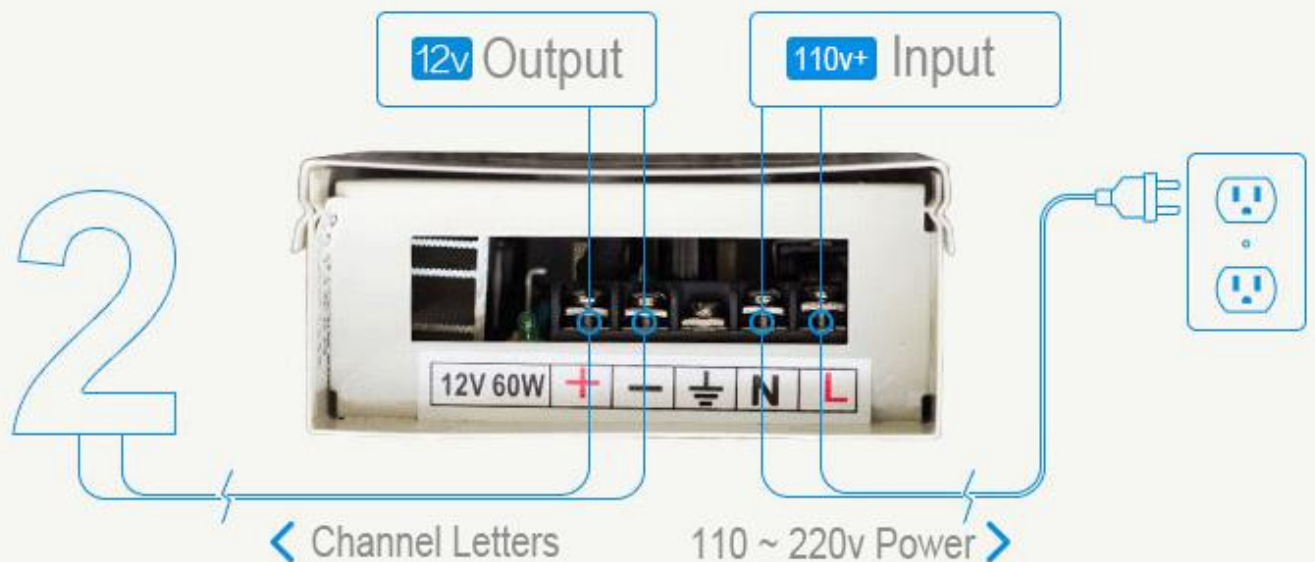
**Caution:** Plugging LEDs direct Wiring Diagram Example into 110V ~ 240v will destroy them. Use ONLY Class 2 Power Supplies!

1. Test all the channel letters before installation.
2. Electrical & Power Supply Connections. (See cable connection)
3. Fix the Drawing & Install Template, and install the letter on site (see bracket installation and/ or mounting stud installation).

\*Drawing & Install Template: Full size plot drawing from the plant, showing actual style and size desired by customer.

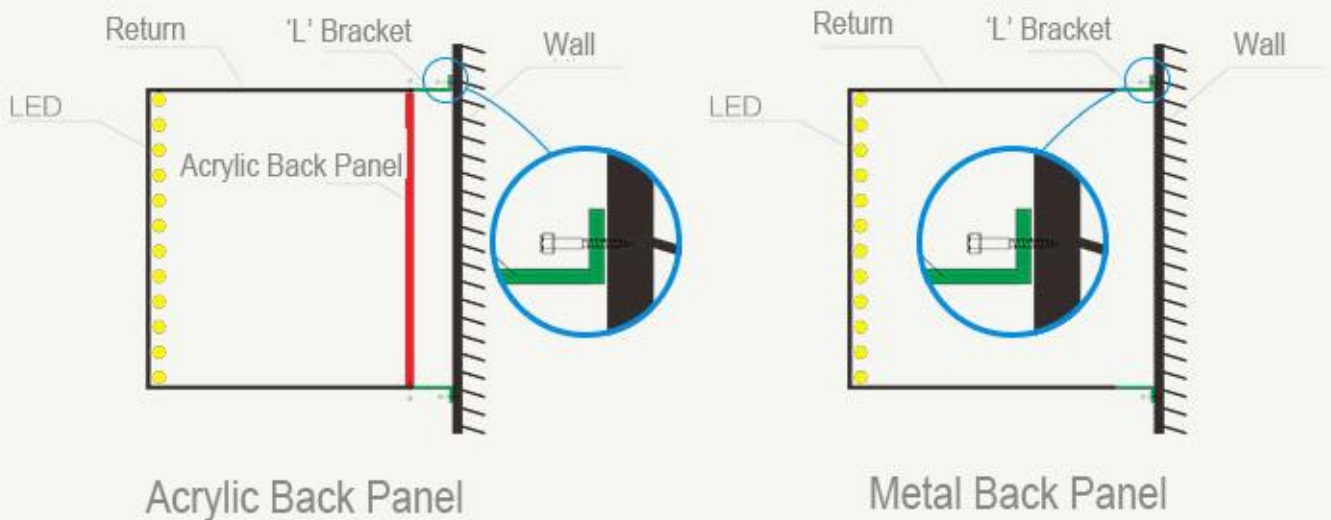


## Cable Connection

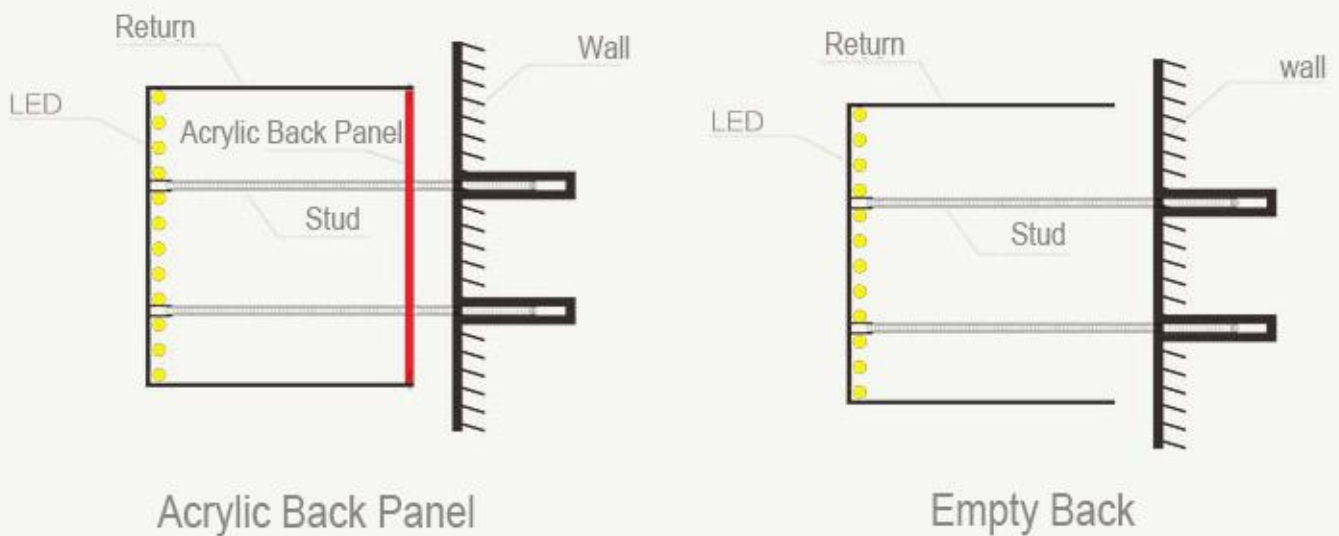


NOTE: Please do not plug the channel letters to 110 ~ 240v Power directly, or it may damage the power supply & LED Module.

## Bracket Installation



## Mounting Stud Installation



### NOTE

#### Electrical Contractor Required

It is recommended that all electrical connections be performed by a licensed electrical contractor. Always follow proper OSHA LOTO (Lockout/Tag out) 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.

#### RISK OF FIRE

- Use only UL/ CE/ CCC approved supply wires, minimum 18 AWG.

- Follow all NEC and Local Electrical Codes.
- Use only UL/ CE/ CCC approved wire for input connection. Minimum size 1.02mm

#### 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.
- All power supplies must be wet location rated, Class 2 rated with UL/CE /FCC/CCC listed letters.

If more than one power supply is being used, disconnect ALL power supplies before servicing.

#### Mounting Letters to Raceway or wall

Letters can be mounted direct to raceways with self-tapping sheet metal screws.

Pre-drill a small pilot hole first through the back of the can to prevent cracking the plastic.

Letters, such as a C, E, or F, may require additional support in areas not touching the raceway.

If mounting letters direct onto the wall, use wall anchors. Always follow NEC codes.

#### LED Modules

Each LED module has been secured inside the cans with double faced tape.

Approx. 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.

#### **LED Troubleshooting Guide Caution:**

##### 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 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.