

RIGID LED  
**VIBRALINE**  
LED SIMULATED NEON



**VIBRALINE**  
INSTALLATION GUIDE



**918.622.4978**  
[www.lektroninc.com](http://www.lektroninc.com)  
[sales@lektroninc.com](mailto:sales@lektroninc.com)

Following these few simple steps will ensure a successful installation each time. **Remember: No more than 48 ft. (24 Lamp) or 64 ft. (20 Lamp) per power supply.**

1. Read ALL instructions, before starting installation.
2. Inspect the boxes for damage and check the parts against the supplied parts list.

**NOTE: Report damaged parts or shortages immediately to prevent job slowdown/stoppage to 918-622-4978**

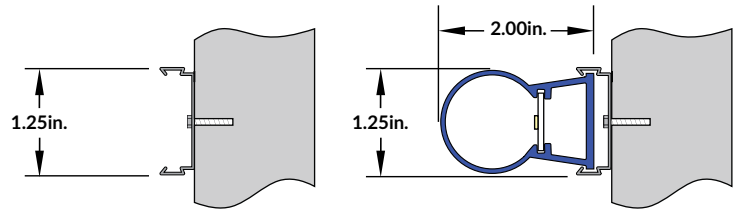
3. Layout your job on paper, making note of power supply placement.

Power supplies can be placed at the end of runs or side by side to power allowable linear footage in each direction.

**NOTE: If job measurements do not match original layout, call Lektron immediately at 918-622-4978.**

## Getting Started, Component Identification & Required Tools

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# COMPONENT IDENTIFICATION & REQUIRED TOOLS

## DETAILS

Input.....	120-277 VAC
Output.....	24 VDC (Philips Advance)
Max. Load Footage .....	64 Lineal ft. 20 Lamp 48 Lineal ft. 24 Lamp
Watts per Foot .....	1.50 (if 20 Lamp)
Dimming Capable .....	Yes
Bending Parameters .....	None
Limited Warranty Terms .....	5 Years
Materials.....	Sign Grade Acrylic
Dimensions.....	2.00 x 1.25
Certification.....	cURus, cULus E499000

The LEDs come pre-installed in the Lektron-assembled VibraLine systems.

**Check that your incoming primary voltage matches the power supply's rated voltage.**

## ACCESSORIES:

<p>8' VIBRALINE ASSEMBLY / TRACK</p>	<p>185-0154 NEMA 3R UL LISTED JBOX CLASS 2</p>	<p>185-0030 STRAIN RELIEF</p>	<p>185-2105 Philips Advance 100W 24V LOW VOLTAGE POWER SUPPLY CLASS 2 XI100C410V024FNS1</p>	<p>185-0114-M MALE END CAP ASSEMBLY</p>
<p>185-5046 8' MOUNTING CHANNEL</p>	<p>#6-1/2" PAN HEAD SELF TAPPING SCREW</p>	<p>185-0007 PLTC CABLE</p>	<p>12" SMD BOARDS 20 Lamp 24 Lamp</p>	<p>3.00" 6L BREAK-APART BOARD</p>
<p>185-5009 #10-16 x 3/4" TEK SCREW W/ NEOPRENE WASHER</p>	<p>185-5049 #10 x 3" PAN HEAD SCREW</p>	<p>185-2714 CONNECTORS</p>	<p>185-0114-F FEMALE END CAP ASSEMBLY</p>	

## REQUIRED TOOLS:

- 25' Measuring Tape
- 100' Measuring Tape
- Framing Square
- Square - (1')
- Portable Rechargeable Drill 5/16" Hexbit and unibit Masonry bits (if brick wall)
- Extension Cord
- Sawzall or Compound Saw
- Carpenter Pencil
- Caulk Gun
- Box Knife
- Wire Strippers
- Wire Snips
- Laser Tool or Chalk Line
- Substitute Fasteners for the Application if Applicable

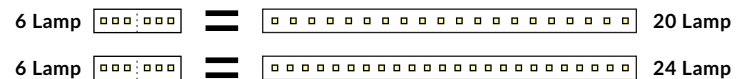
## SPECIFICATIONS

Part No./ Color	Max. feet per Power Supply	Wattage per foot	Lumens per foot	Number of LEDs/ft.
190-4250 Red	64	0.86	-	20
190-4353 Orange	64	0.72	-	20
190-4354 Golden Rod	64	0.66	-	20
190-4251 Green	48	1.45	-	24
190-4252 Blue	48	1.40	-	24
190-4355 White	48	1.33	134	24

\*Systems based on Philips Advance 100W, 24V Output LED Driver XI100C410V024FNS1

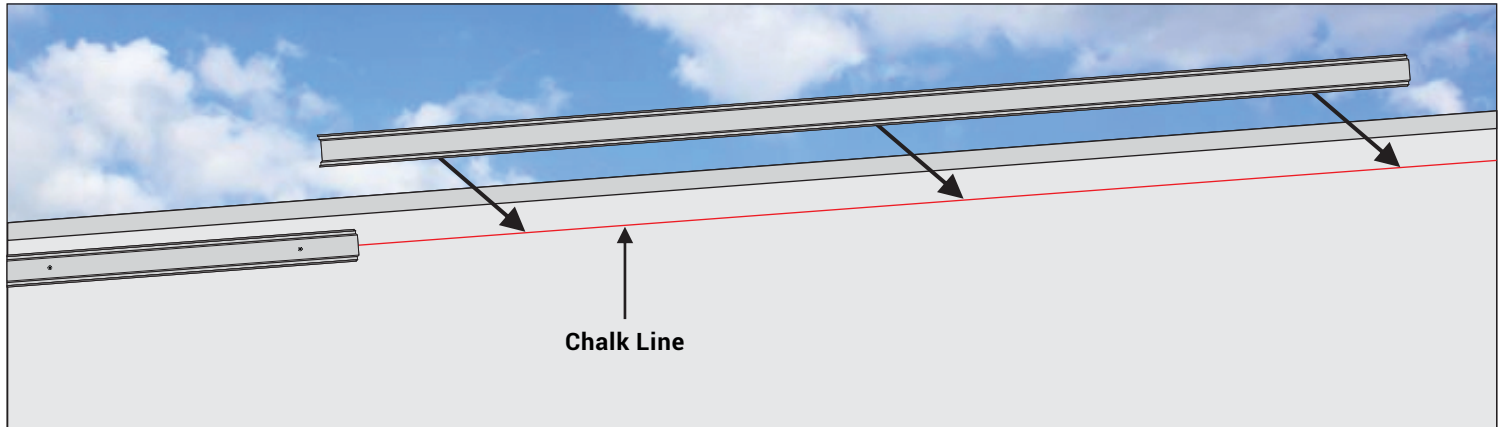
## LED SPECIFICATIONS

**12" LED boards pull close to the same voltage as shorter break-apart boards. Maximum of three 3" boards per circuit. No more than 48 ft. (24 Lamp) or 64 ft. (20 Lamp) on a circuit. Do not connect more than one power supply per circuit.**

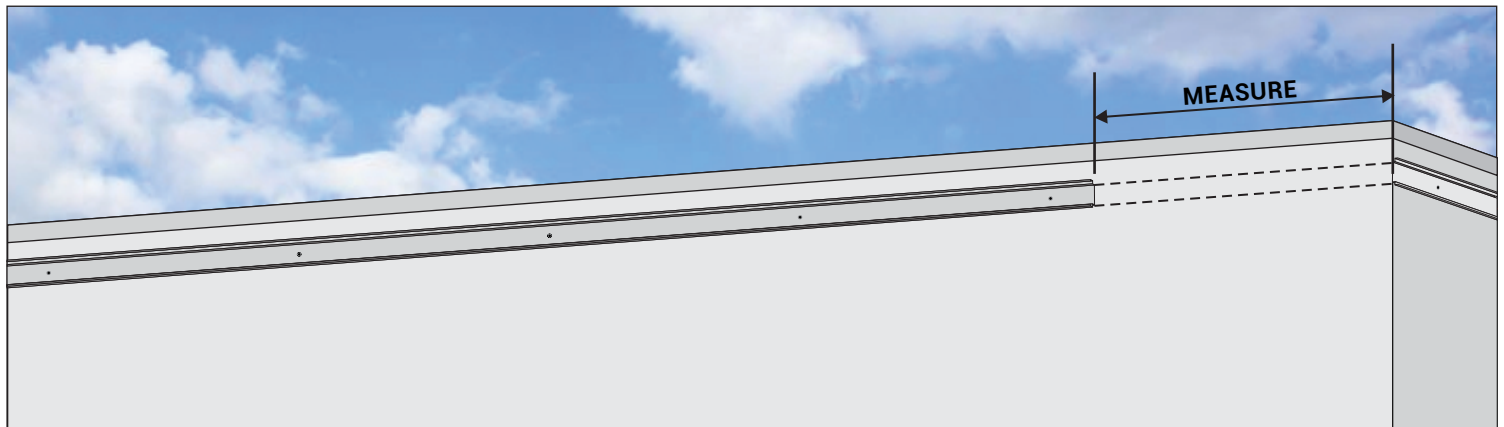


# SEC. 1 MOUNTING CHANNEL INSTALLATION

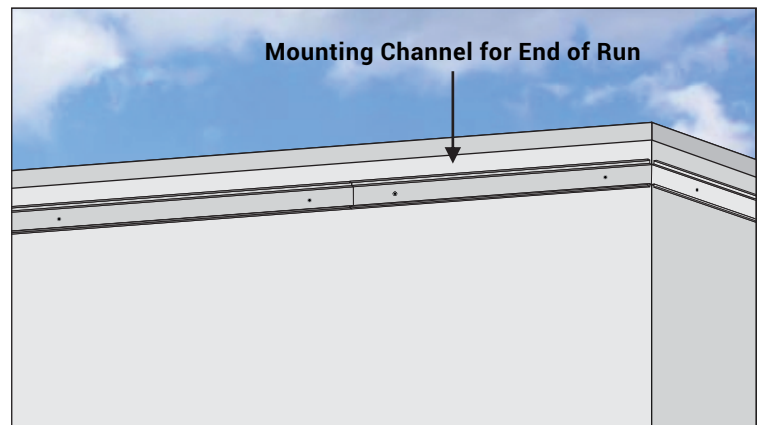
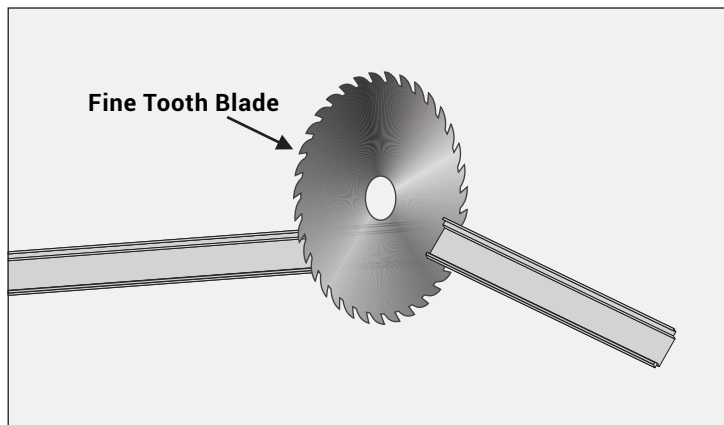
1. Using a chalk line, laser level, or other means to be certain run is straight, marking locations for mounting channels.
2. Install the 8' mounting channels starting from one end to the other. Use at least 5 screws for a full 8' section.



3. Measure the remaining space at the end of a run.

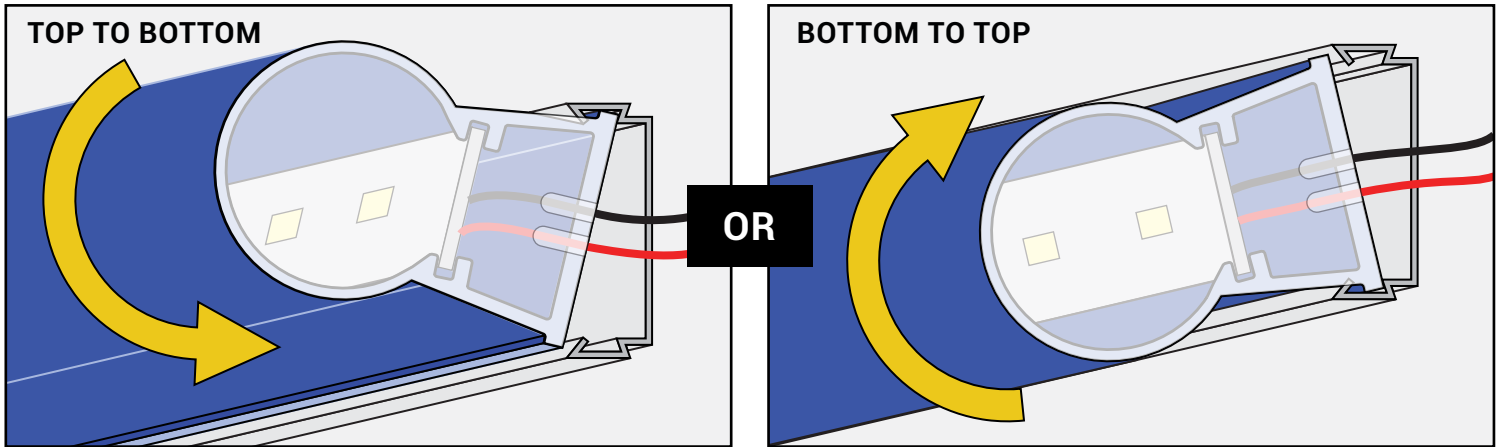


4. Using a fine cut blade, cut a mounting channel to the size needed.
5. Install the end of run mounting channel using 1 screw every foot.



# SEC. 2 INSTALLING TRACK INTO MOUNTING CHANNELS

1. Roll the track into the mounting channel.



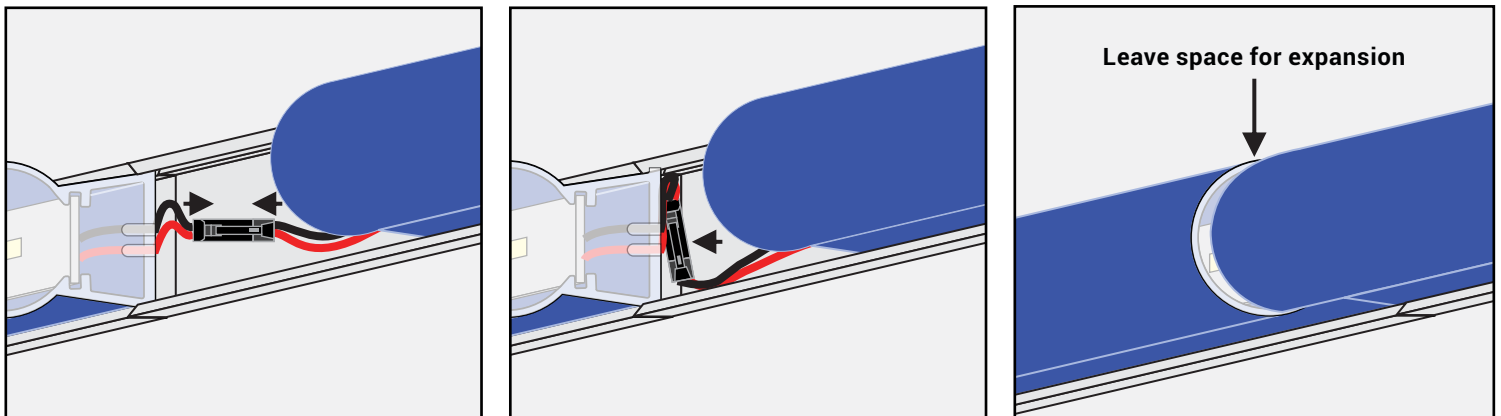
2. Connect wires from one section to another using pre-installed connectors provided.

3. Conceal connectors underneath the track in the open area below.

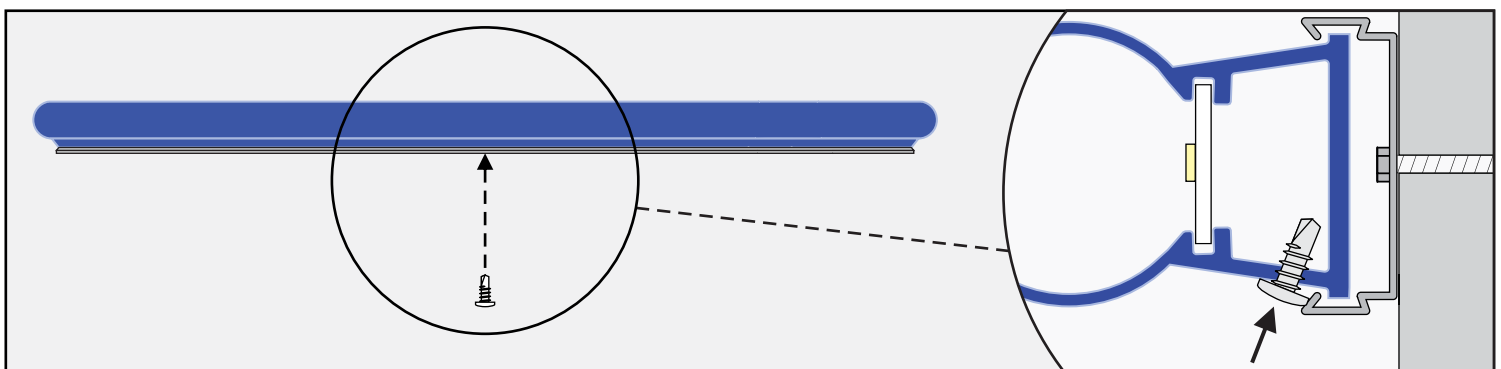
4. Slide track together covering the connectors. Refer to thermal expansion chart for proper gapping.

## THERMAL EXPANSION CHART

Temperature on Day of Installation	0°F	10°F	20°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F
Space Required Between Each Track	3/4"	3/4"	5/8"	5/8"	1/2"	1/2"	3/8"	3/8"	1/4"	1/4"	1/8"	1/8"



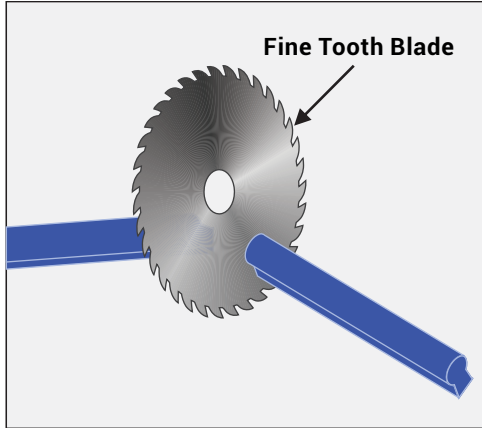
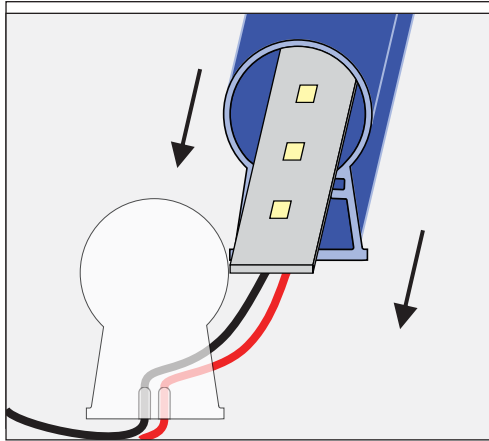
5. Install a screw at the bottom of the channel. Put at the middle of the track and wedged between the track and mounting channel.



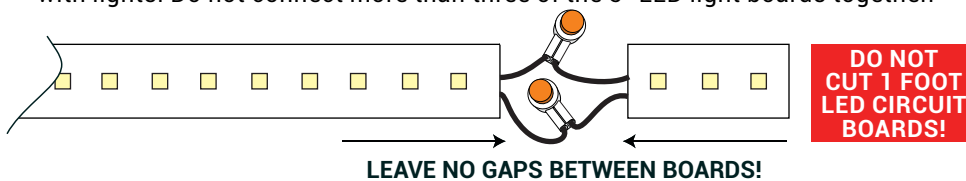
# SEC. 3 CUSTOM CUT TO FIT END OF RUNS & CORNERS

## CUT TO FIT END OF RUNS

1. Remove end caps and remove LEDs before cutting the track, by sliding boards out one end.
2. Measure, mark and cut track to required length. Use a fine a blade.



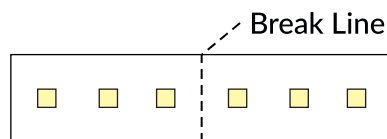
3. Reinstall full 12" LED boards until less than 12" of space remains. Make-up remaining space with 3" break-apart boards.
4. Trim LED light board length at wire connections only. Leave the longest wire length possible.
5. Connect 3" boards with connectors when less than one foot is needed to fill housing with lights. Do not connect more than three of the 3" LED light boards together.



**NOTE: 3" boards can be broken in half at the break-line to make a 1-1/2" board. Discard the half that has no wires.**

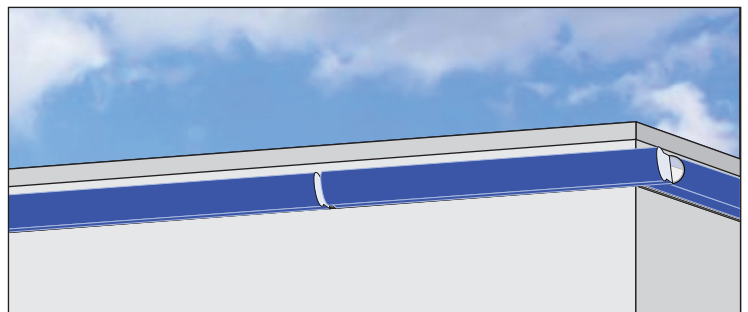
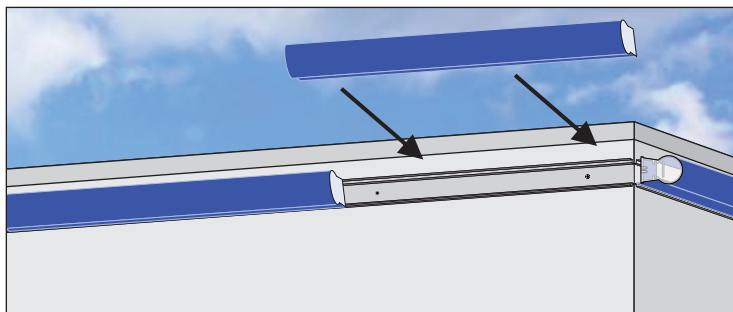
### VERY IMPORTANT:

Insulate or remove unused wires at end of run to prevent shorting. Do not connect wires together or to next circuit.



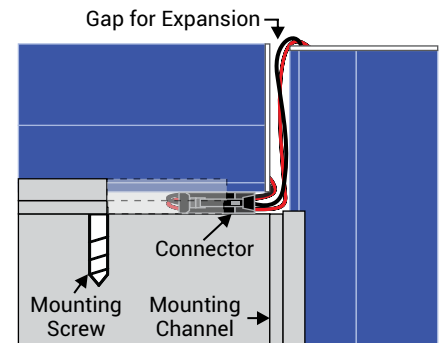
**NOTE: No incoming power from 3" boards. Feed from other end.**

6. Slide LEDs back into the track and seal with End Cap. Use double sided tape provided for end caps.
7. Shortened Track is now ready for installation.

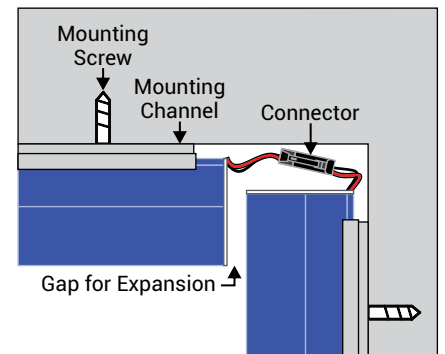


## CORNERS

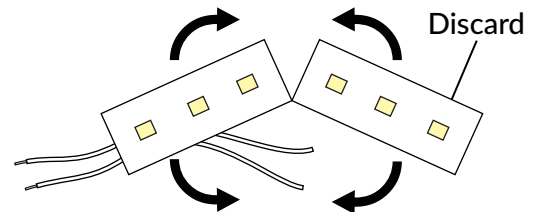
### OUTSIDE CORNER



### INSIDE CORNER



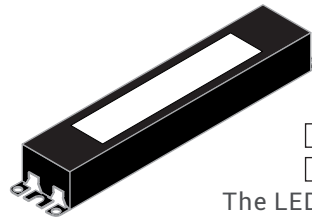
**These corners are square cut and overlap slightly to give a continuous look at a distance and allow for thermal expansion.**



# SEC. 4 CONNECTING POWER SUPPLIES



**VERY IMPORTANT:**  
Make sure you are using the correct power supply and LED configuration! Connecting boards to the wrong power supply could result in damage.



**185-2105  
Philips Advance  
100W 24V LOW VOLTAGE  
POWER SUPPLY**



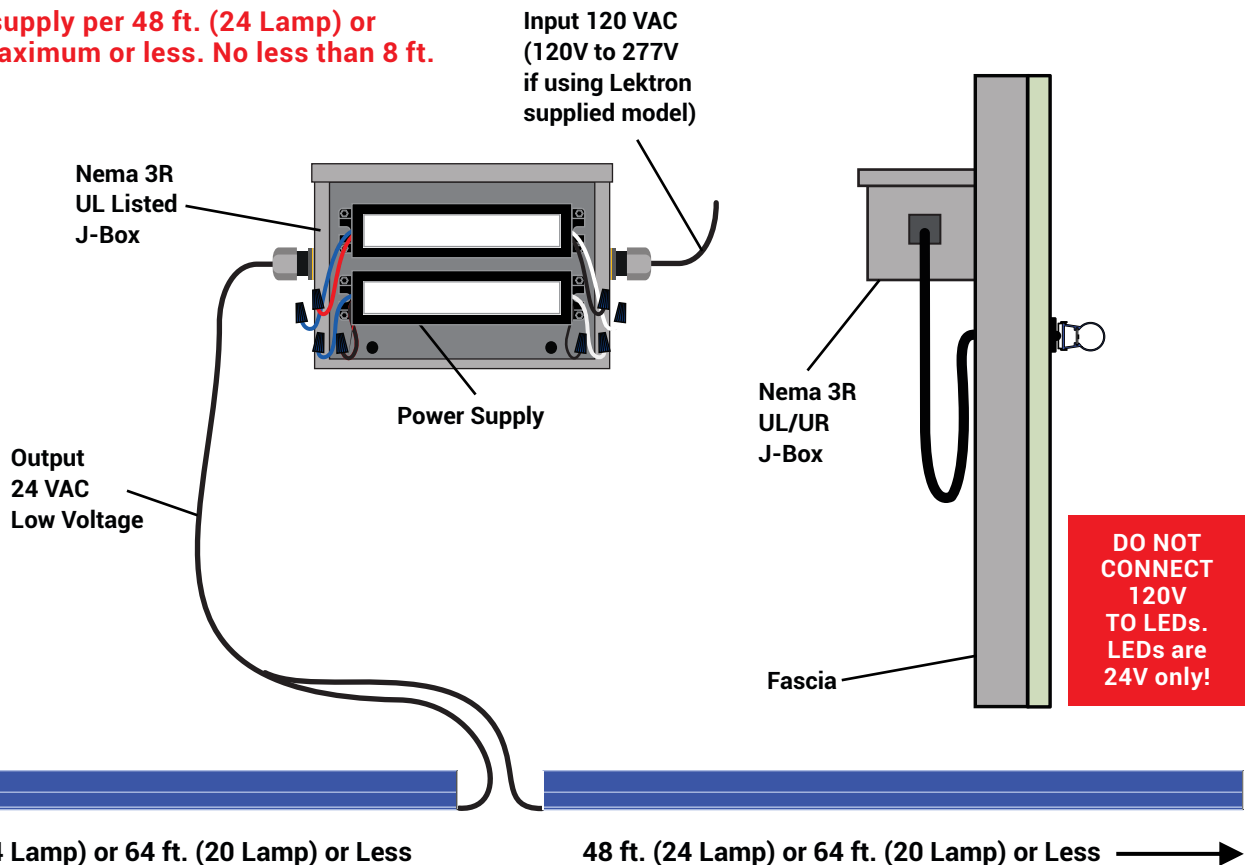
The LED Configuration is for the 24L and 20L

## POWER SUPPLY WIRING

**NOTE: Any primary voltage supply greater than 120, "STOP" call Lektron at 918-622-4978**

1. Attach J-Boxes to available support member.
2. Attach Power Supplies inside of J-Boxes.
3. Install Strain Relief for low voltage wire.
4. Drill 1/2" hole through the fascia. A conduit fitting can be installed so that conduit can be used.
5. Insert low voltage wire into the hole and connect to LED. Fill hole with silicone sealant.

**NOTE: One power supply per 48 ft. (24 Lamp) or 64 ft. (20 Lamp) maximum or less. No less than 8 ft. per power supply.**



**VERY IMPORTANT: KEEP LOW VOLTAGE CIRCUITS ELECTRICALLY SEPARATE, DO NOT CONNECT POWER SUPPLIES OR LEDs FROM DIFFERENT BOARD CIRCUITS OR CONNECT MORE THAN 48 FT. (24 LAMP) OR 64 FT. (20 LAMP) TO A POWER SUPPLY!**

# SEC. 5 TESTING EACH SECTION



**IMPORTANT: DO NOT SKIP THIS STEP! ALWAYS CHECK ALL LED LIGHTS BEFORE CONTINUING.**

## TESTING EACH SECTION

1. Using the installed power supplies, supply power to the LED light chains turning on 120V connection to the input wires on the power supply.

**REMEMBER: INPUT SIDE OF LED DRIVER ARE FOR 120-277V POWER IN THE OUTPUT SIDE IS FOR THE CONNECTION TO THE LEDS.**

2. Check to see if all LEDs are lit and working correcting.
3. If a board or section does not light up, is damaged, etc., Please contact Lektron at 918-622-4978

