

# savi™

## BORDER LIGHT INSTALLATION INSTRUCTIONS & OWNERS MANUAL



**NEXXUS™**  
LIGHTING

## INTRODUCTION

Congratulations on your purchase of the SAVI Border Light product. The SAVI Border Light was developed to replace neon lighting products, allowing the effect of neon without the upfront costs and uses less energy, resulting in a savings from beginning to end.

Unlike neon, this product retains its color in broad daylight whether energized or not. Border Light is a Low Voltage (12 Volt DC) product designed for years of trouble free operation. The tube and track are constructed of durable Acrylic DR, making it both tough and naturally UV resistant. Powered by Light Emitting Diodes (LED's), the bright colors will last for years and look good day or night. This product is UL listed.

**This installation manual is not to be construed to intend warranty or fitness of use of this product, or provide safety instruction for those who will install the product.**

The following instructions will assist you to install this product and promote trouble free performance. The product is divided into several components, these include;

1. Track
2. Colored Border Tube
3. Power Supplies & Enclosures

**Note:**

8ft sections ( 96.5") require 8 mounting screws (Standard Length)

4ft sections ( 48.5") require 4 mounting screws (Standard Length)

Custom lengths can be ordered on lengths up to 10Ft.

## I. TRACK

Black Border Light Track is sold foot for foot with the Color Tube, and installed as follows;

Once the building or application has been surveyed and measured accurately, from any corner (see section on corner installation; A Chalk line will serve as the best method to insure a straight and level installation. Border Light is designed for Straight surfaces, and is not intended for radius applications. Once the location is measured the corners installed, and the proper line snapped for installation the track installation can begin.

The track is secured into position by the use of industry standard hardware, including #8 Tech and Tap-Con® screws through a variety of building surfaces, including; Brick, Stucco, concrete wood or metal Fascia, but may include all conventional building surfaces. Please select an appropriate and approved fastener for your application. Local building codes may require specific fasteners. It is recommended that each screw be fitted with the appropriate sized flat washer, to spread the load against the track material.

When installing the track, please use the recommended numbers of fastening points to insure a positive connection to the building surface. All mounting slots are pre-cut into the Track material; each point should have a fastener installed in it to provide for security. Failure to apply a fastener per hole COULD result in warpage over time.

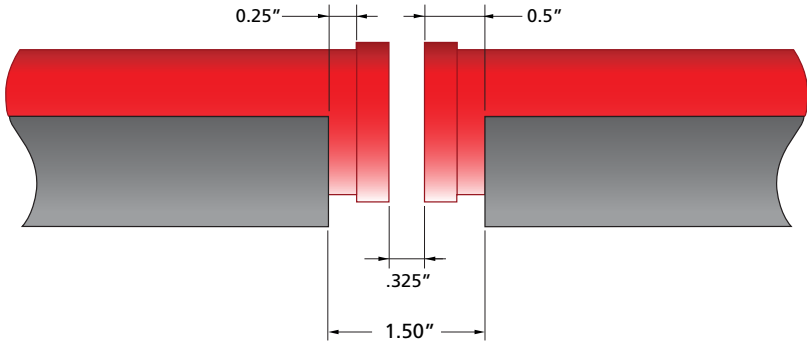
### Helpful hints;

Starting from the center of the track, begin to secure the track against the building or wall surface using either Tech 8 Self drilling/tapping screw (in wood, sheet metal) or Tap-Con ® screws (in Cement or Concrete block) Holding the track on the pre-established Chalk line, and leaving a 7/8ths inch gap between the end on the track and the end of the tube run or wall.

**IMPORTANT: Acrylic Dr material is subject to expansion and contraction over a wide range of temperatures, because of this the Track MUST be allowed to move with these changes in temperature. When installing the Track Mounting Screws it is IMPORTANT to not bottom out the mounting screws in the base of the track. The screws should secure the track solidly to the surface , yet allow for a minimal movement with expansion. This can be accomplished by setting the screw into place, but allowing a ¼ turn relief (back out) the mounting screw. The expansion /contraction of the product can be controlled by securing the centermost hole in the section of the track, solidly and then forcing the expansion/contraction to move equally left/right of center. This is accomplished by running a single screw through the track at the center of the run, fixing that point to the building. The slotted fasteners will then expand and contract in a linear fashion.**

In some applications the surfaces will not be straight, plum or level. In this event you will need to support the tube from behind using a suitable shim material. The mounting screw should pass through the shims securing both the track as well as the shims in place.

After the first section of Track is installed, and a screw is set in EVERY pre-punched hole, allow a 1.5-inch gap between the first section of track and the beginning of the second track section. This gap will allow for tube expansion, as well as provide clearance for the molded end-caps found on the end of each pre-assembled Border Light Tube. Continue this pattern of along the entire length of the installation. Upon completion of this section, the Black Track will be mounted straight, level and present 1.5-inch gaps between track sections. Installation of the track and preplanning for the Power supply locations is the most complicated part of the entire installation.



## II. COLORED BORDER TUBE

Border Light Tube sections are shipped Pre-Assembled in Specific Lengths, although sold as 4', and 8' sections they are physically longer than this nomenclature describes, 4ft=49 1/2" & 8ft=97 1/2",. The track sections are exactly 1 inch shorter than the tubes Assemblies, minus the end caps at 4ft=48" & 8ft=96". This is done to allow for expansion and contraction. Allowing a .500 inch gap between end caps/sections and 1.5 inches between track sections. This will allow for Expansion/contraction over a Change in ambient temp.

### WARNING



Note before you snap the tube into the track, make sure you apply a bead of silicon along the surface of the Border Tube, this will insure proper mating of the two parts.

### III. POWER SUPPLIES

Wiring of Power supplies to 120VAC systems must be performed by a Qualified Electrician, and meet all State, County, City and Local Electrical Codes.

Nu Power Associates Inc. Class 2 Power Supply Model SLD60-112V-FC

High Perfection Technology Co. Class 2 Power Supply Model LP1060-12-GG-290

Advance "Xitanium" LED120A0012V50F Class 2 Power Supplies are not rated for Wet Locations and must be installed into a NEMA 3R approved enclosure or mounted out of the weather/water.

Pre-positioning the power supplies is the key to a successful installation: There are limitations on the Number of feet of Border Light Tube that a given Power supply can energize. These limitations are in the Power Supply itself (wattage), the wiring (current Limitation, and wire resistance).

Red, Orange, Yellow, and Amber LED's consume around 1.7 Watts/ft therefore no more than (36feet) can be attached to a single 60 Watt supply.

White, Blue and Green, these circuits draw 2.5 Watts/ft therefore no more than (24feet) can be attached to a single 60 Watt supply.

Due to the current limitation on the power connectors located inside the Border Tubes the following installation guide lines must be followed:

- 16 continuous feet max. (Red, Orange, Yellow and Amber) connected in series.
- 10 continuous feet max. (White, Blue and Green) connected in series.
- Maximum distance from the power Supply and the first LED strip is 30 feet.

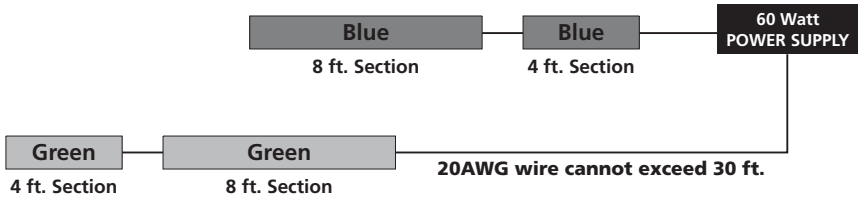
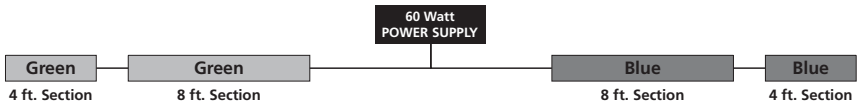
## POWER SUPPLIES/ENCLOSURE (CONTINUED):

### Wiring Examples:

Red, Orange, Yellow and Amber **do not exceed 36 linear feet** on a given 60 Watt power supply



White, Blue and Green, **do not exceed 24 linear feet** on a given 60 Watt power supply



Plan your lay out and the placement of the power supplies so as to minimize the number of intrusions through the building surface.

*Nexus Lighting, Inc. Use High Brightness LED's in our products as the source of illumination. These products are purchased from Quality manufacturers around the world. Although LED manufacturers estimate LED's to achieve life from 60,000 to 100,000 hours average mean time between failures, (AMTBF) based on Manufacturers data. This is not an accurate reflection of the total products performance. This estimate is for total output failure similar to that used to measure conventional lamps. As LED's can continue to produce light over an extended period of time, the AMTBF, does not completely define the useful life of LED products. LED's will by their nature begin to depreciate in lumen output over time. The rate of light loss experienced by LED's is effected by several factors, including, environmental (Ambient temperature, Humidity, Ventilation) and electrical, (Forward Current, internal thermal temperatures) and physical properties (Mechanical bonding, substrate heat transference component height to the board)*

*NEXXUS LIGHTING products are engineered to achieve extended life for the products, if operated under predefined conditions. Ambient temperature -4 degrees F. (-20C) to +104 degrees F (40C) and Humidity between 0 and 93%, and non-condensing, allowing adequate ventilation, nonrestrictive air flow. Operation of product out side of these parameters, or extended usage within the upper tolerances ranges will increase the rate of degradation for the LED's, or cause complete failure of internal components.*



## **LIMITED WARRANTY**

Nexxus Lighting, Inc. warrants its products, excluding lamps, to be free from defects in material and/or workmanship, under normal condition, use and service, for a period of two (2) years from the original invoice date (Five (5) Years for Red, Amber and Orange FlexLED and Border Light LED products and one (1) Year for Non-UL Listed Power Supplies). If proof of purchase is provided, Nexxus Lighting will warranty the product for two (2) years from date of the purchase (Five (5) Years for Red, Amber and Orange FlexLED and Border Light products and one (1) Year for Non-UL Listed Power Supplies).

### **TERMS AND CONDITIONS:**

This warranty only applies when Nexxus Lighting products are properly wired and installed together as a system; and operated within the electrical values shown on the Nexxus Lighting specification sheets; used in lighting equipment designed and approved for the application and environmental conditions (temperature, humidity) within the normal specified operating range of the system. This warranty does not apply to any abnormal use in violation of any applicable standard, code or instructions for use in installations including those contained in the latest National Electrical Code (NEC), the Standards for Safety of Underwriters Laboratory, Inc. (UL), Standards for the American National Standards Institute (ANSI), in Canada, the Canadian Standards Association (CSA), Europe (CE), Australia (C-Tick). This warranty will not apply in the event of conditions demonstrating abnormal use or stress, including under/over voltage conditions, excessive switching cycles, excessive operating hours, alterations, accident, theft, misuse, abuse and damaged caused by negligent installation, improper maintenance or where adequate care has not been taken to prevent damage to the lighting system. Replacement of Nexxus Lighting components with any other manufacturer will void the entire warranty.

### **WARRANTY SERVICE CLAIMS:**

Nexxus Lighting must issue a Return Material Authorization (RMA) number for all requests for warranty review. To expedite service, please contact Nexxus Lighting Customer Representative: 407-857-9900. If you are unsure whether a situation exists that is covered by this warranty, please contact Nexxus Lighting Customer Service for assistance. In the event of a defect in material or workmanship during the warranty period, Nexxus Lighting will repair or replace (at its own discretion) its products under the conditions of the warranty.

### **RETURN OF DEFECTIVE PRODUCT:**

After contacting Nexxus Lighting, Inc. and receiving the RMA#, the purchaser / user shall promptly return the product after receiving instructions regarding if, when and where to ship product. Product must be returned within 30 days of receiving RMA#. Shipping box must be clearly marked with RMA#. Failure to follow this procedure shall void this warranty. Nexxus Lighting will cover expenses for material but will not cover shipping costs. Products returned without an RMA# will be refused and returned to sender at the senders expense.

### **REPLACEMENT OF PRODUCT, LIMITS OF LIABILITY:**

The foregoing shall constitute the exclusive remedy of the purchaser and the sole liability of Nexxus Lighting, Inc. regarding its products and component warranty. **NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED.** In no event shall Nexxus Lighting, Inc. be liable for any other costs or damages including labor charges, lost profits or revenues, incidental, special or consequential damages. Total liability shall not exceed the total extended purchase price for the product. Nexxus Lighting, Inc. reserves the right to examine all failed Nexxus Lighting, Inc. products and components to determine the cause of failure and patterns of usage and reserves the right to be the sole judge as to whether any product or component is defective and covered under this warranty.

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