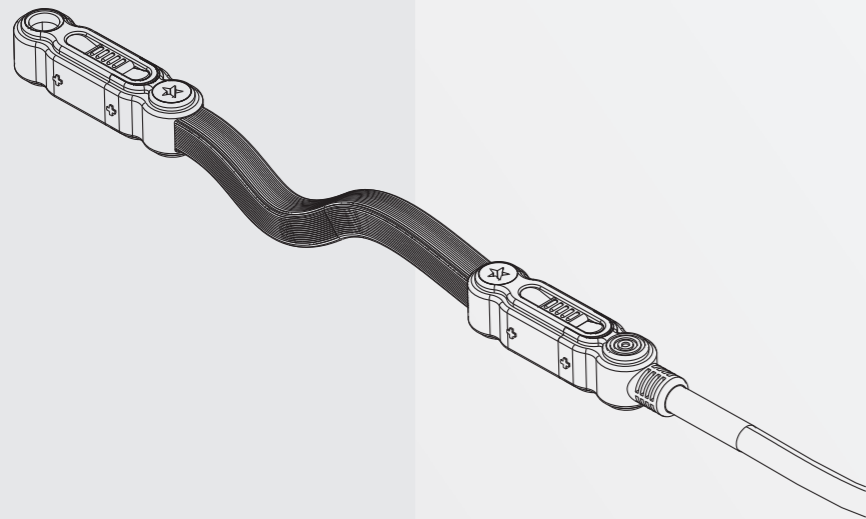




Micro LED Light Strip™ 10 x 10 MLS 12 VOLT Series



IMPORTANT SAFETY, USE AND INSTALLATION INSTRUCTIONS

Product Information

Flexible Light maximum length not to exceed 50FT per LED Driver.

LED Driver Input 120 VAC, 60 Hz; Output 12 VDC. 5 amps maximum.

Flexible Light input 12VDC, current rating:

0.092 amps/FT for color CW/WW/WH/BL/PG/GR

0.0552 amps/FT for color AM/YG/RD

Use only extension segment Models MLS series manufactured by National Specialty Lighting Inc.

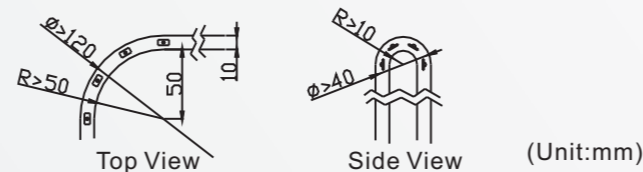


Indoor and Outdoor UL 2388 Standards

Note: PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Warning & Cautions

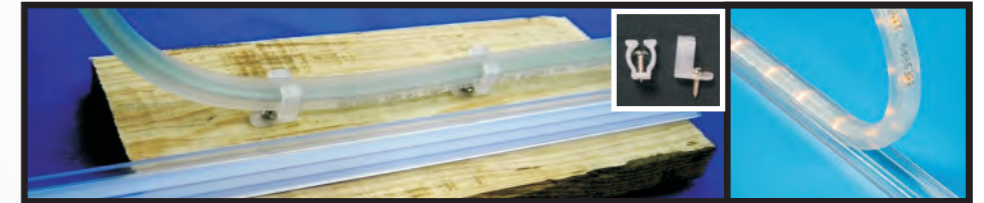
- A) Do not operate with the flexible light tightly coiled.
- B) During installation, make sure flexible light isn't plugged into receptacle or receiving electricity in any manner.
- C) Make sure the voltage marked on your light strip matches the power supply. Do not interconnect light strip of different voltages. Not for use with dimmers.
- D) Do not cover this product as the covering may cause the flexible light to overheat and melt or ignite.
- E) Do not puncture, cut, shorten, or splice the flexible lighting.
- F) Do not route the cord or flexible lighting through walls, doors, windows or any like part of the building structure.
- G) Do not use if there is any damage to the light or cord insulation. Inspect periodically.
- H) Do not submerge flexible light in liquids, or use the product in the vicinity of standing water or other liquids.
- I) Secure this flexible light using only the hangers or clips provided. Do not secure this product or its cord with staples, nails, or like means that may damage the insulation.
- J) Do not subject flexible lighting to continuous flexing.
- K) Do not Exceed The Length in Feet Permitted By The Marking.
- L) Make sure to disconnect the power before adding segments.
- M) Only use extension segments provided with the entire set of product.
- N) To preclude the entry of water, make sure that all connections between section segments provided with the entire set of product.
- O) Do not bend the MLS in the incorrect direction or exceed certain degrees of angle (Refer to the following diagram).



- P) Do not subject flexible light to over 35 lbs of tensile force.
- Q) When connecting the flexible light with connectors, step cord, and the power supply (LED driver), make sure the polarity markings are correctly matched.
- R) When using outdoor use portable lighting products, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:
Read All instruction.
- S) Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuits or outlet to be used for the outdoor use of flexible lighting product. Receptacles are available having Built-in GFCI protection for this measure of safety.
- T) Use only outdoor extension cords, such as type SW, SOW, STW, STOW, SJW, SJOW, SJTW, or SJTOW. This designation is marked on the wire of the extension cord.
- U) Do not overlap this product as the overlapping may cause the flexible light to overheat and melt or ignite.
- V) This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
WARNING - Improper connection of the equipment-grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product-If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Mounting Flexible Lighting:

- Every packaged section of flexible light comes with enough mounting clips for one clip at each end of the section, plus one clip for every two feet of product.
- Based on length of entire run, locate and mark location of mounting clips. Position one clip on each end of the run, and one clip every 2 feet in between ends.
- Secure clips to mounting surface with the screw provided with each clip.
- Firmly press the flexible light into the opening in each clip.

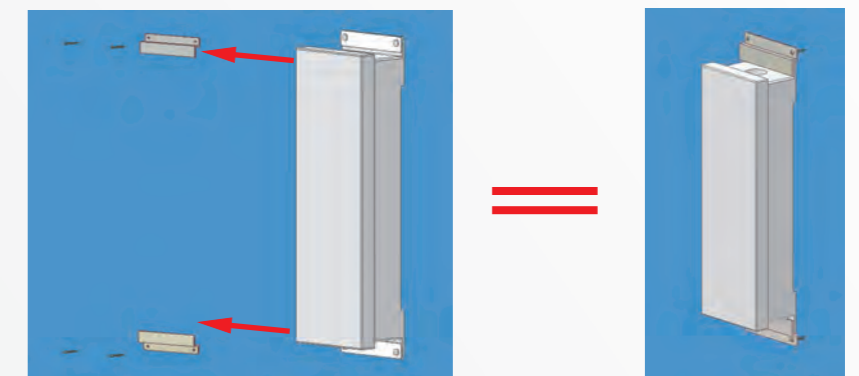


In addition to the clips included in every package, the product will fit perfectly into our specific channels (Note: Connectors does not fit into channel and require a cut in the channel to fit).

Mounting the power supply:



- Screw/secure the power supply mounting clips within 60 inches of appropriate 120 VAC receptacle.
- Slip the power supply into the mounting clips from right to left.



- The power supply (LED Driver) can be easily removed without a tool.
- Please mount LED Driver vertically.

Power Supply:

- 60 Watt, Class 2 LED Driver (NSL Model No. MLS12-60W) that plugs into 120 VAC is required. Maximum footage per MLS12-60W LED Driver refer to the table below.

Micro LED Light Strip™ - MLS 12 VOLT series				
Dimension: 10 x 10 mm, LED Spacing: 1" (2.54cm) on Center				
Voltage of MLS	Series Length	LED Number per Foot	Power Consumption per Foot	Max. Length per 60W LED Driver
LED color: Amber/Yellow Green/Red (Color Code: AM/YG/RD)				
12VDC	5 inches	12	0.662 Watt	50 FT
LED color: Cool White/Warm White/White/Blue/Pure Green (Color Code: CW/WW/WH/BL/PG/GR)				
12VDC	3 inches	12	1.104 Watt	50 FT
Model No. MLS12 - XXX - YY (12V MLS) - (Total Length in feet) - (Color Code)				

For Model MLS12 series. add the current of each extension segment together for a total of 5 amperes or less. (Do not exceed 5 amperes.)

Caution: Not For Use With Dimmers.

Step Cord (Optional):

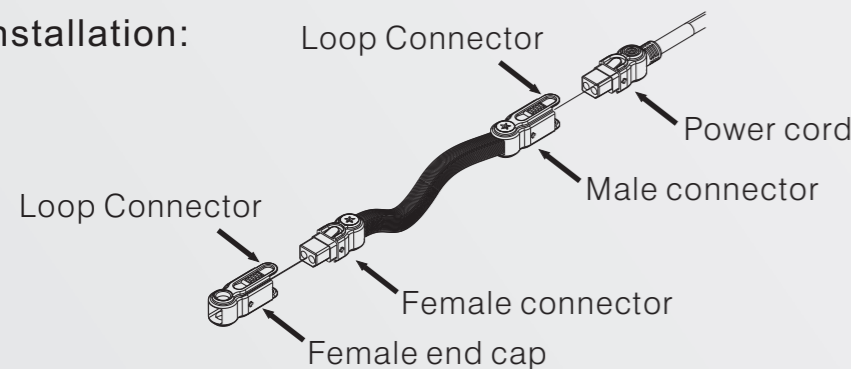
- Flexible extension cord between light sections and power supply, or step cord between light sections for stair or stage or similar applications.



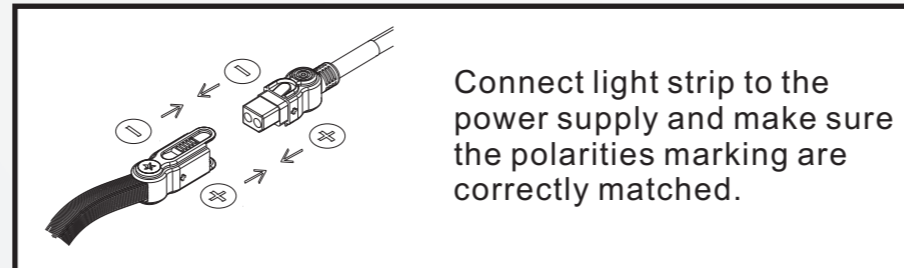
Replacement parts:

- Use only appropriate replacement parts, including female end cap, flexible light, Class 2 Power Supply, mounting clips or channel, and step cord provided by National Specialty Lighting, Inc. Use of parts from other sources will void the UL listing of the product and may cause certain safety risks.

Installation:



	Power cord and male Connector connection.
	Male connector and female connector connection.
	Female connector and female end cap connection.



Attention

- While connecting MLS with the connectors, step cord and power supply please make sure the positive and negative polarities are correctly matched.

Detaching for replacing parts or extending flexible light: MLS Connector & End Cap - Partition Installation Guide

Male & Female Connector Dismantle Procedure	
	1 Insert the flat blade screwdriver into the power cord loop connector. Once inserted lift the screwdriver upwards until you reach the angle of 15°.
	2 Repeat above procedure with opposite loop connector.
	3 Then carefully pull out the female power cord connector.

	4 Apply the same procedure of step 1 & 2 on the connection of MLS's male and female connectors.
	5 Connect the new MLS's male connector with the old power cord female connector.
	6 Slightly push the old MLS male loop connector into its original horizontal position.
	7 MLS Male connector's original horizontal position.
	8 Join the MLS male connector with the new MLS's female connector to complete the fabrication.

Note:

- Do not exceed a 15° lift of screwdriver to prevent deformation of loop connector. °
- Use a small flat blade screwdriver.
- When replacing the MLS and its connector, make sure all power supply is switched off.
- If you break loop connector, entire replacement of that article of product will be required. Do not continue use of product to prevent electric shock.

SAVE THESE INSTRUCTIONS

Patent Notice

US Patent No. US 6880955 B2 US Patent No. US 6682205 B2
 US Patent No. US 6866398 B2 US Patent No. US 6761587 B2
 US Patent No. US 7211967 B2 US Patent No. US 7140751 B2