# <u>GMLighting</u>

# NeoVision120™ TopFlex and SideFlex 120 VAC Tape Installation Guide

#### **BENDING PRECAUTION**

Familiarize yourself with the proper bend direction of TopFlex and SideFlex options. DO NOT TWIST TAPE OR ATTEMPT TO BEND IN ANY OTHER DIRECTION OTHER THAN WHAT IS SHOWN HERE.

## NeoVision120™ TopFlex NV120T Series

Create bends and dips that are oriented vertically as shown.

# NeoVision120™ SideFlex NV120S Series

Create bends and dips that are oriented horizontally as shown.

#### **Before You Start:**

- WARNING SHOCK HAZARD: TURN OFF POWER BEFORE INSTALLING OR WORKING ON CONNECTIONS.
- A qualified and licensed electrician should be used to install this product.
- · Check local Electrical code requirements before beginning
- · Make sure to use properly rated wire

#### **Notes:**

- DO NOT CUT, PUNCTURE, MODIFY OR DISASSEMBLE THE TAPE LIGHT OR CABLE. Modifying or using this product in unapproved ways will void the warranty for this product. NeoVision is not joinable to other tape sections.
- DO NOT HANG, SUSPEND OR INSTALL THROUGH BUILDING STRUCTURES/WALLS.
- DO NOT SUBMERGE IN WATER. This product is IP65 rated for indoor and outdoor, wet applications.
- Do not install in an environment where excessive heat may exist (ex. close proximity to fireplace, etc.) Operate within ambient Temperature range. -4°F to +113°F (-20°C to +45°C)
- The NeoVision120 light source itself does not have replaceable parts.
- The fuses can be replaced. (See hardwire and pug-in installation details)
- Do not connect the Neon tape to the power supply while it is in the package or wound onto a reel.



See Next Page (FIG. 1) for Bend Tolerances

- Avoid scrapes, twisting and irregular bends of tape during installation which can cause permanent damage. Unroll the tape to keep it from twisting.
- Do not step on or put material on top of tape to avoid damage.
- The NeoVision120 light source does not have replaceable parts.
- All system parts are compatible. Use only parts specified for each product family. Do not attempt to use with other manufacturers products.
- Insure that the wall switch and wiring compartment are grounded and wired in accordance with NEC (NFPA70) and local electrical codes.
- DO NOT BEND TIGHTLY OR FOLD. See bending limitations on next page (FIG.1). Follow guidelines to prevent damage.



## <u>GMLighting</u><sup>®</sup>

# INSTALLATION INSTRUCTIONS NEOVISION120 VAC TOP FLEX and SIDE FLEX TAPE MODELS: NV120-T (TOP FLEX) / NV-120-S (SIDE FLEX)

#### **REVIEWING YOUR PRE-CONFIGURED NEOVISION120:**

Make sure that you have the correct tape type and length before starting installation. Determine your layout and placement of LED tape. Your NeoVision120 system was custom configured to fit your application. All configurations and seals are done at the factory. **DO NOT CUT IN FIELD.** See the specification sheet for details.

Your NV120 order took into account tape length and type of feed. To review: End, back, side-left or side-right options allow for the best fit possible. Locate power feed in close proximity to the junction box or outlet box.

IMPORTANT TIPS: The NV120 tape must be mounted first to the building with electrical connections done after tape is secured. Clean surface where you are applying tape to make sure it is free of dust and any debris. Mark locations for mounting clips or channel options. Install channel or mounting clips as needed. DO NOT ATTEMPT TO EXCEED BEND TOLERANCES (FIG. 1).

#### **BEFORE MOUNTING NEOVISION120 TOP FLEX (NV120-T)**

1A. Plan out shape path for mounting channel. Both Rigid and Flexible Channels should run along full length of NV120-T Tape. Leave up to 3/8" space between end cap or power feeds and end of channel or clips (FIG. 2).

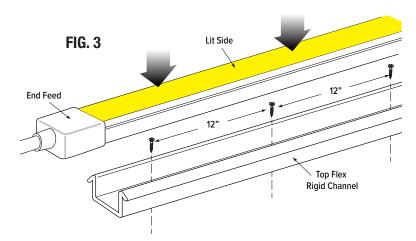
1B. Clean surface area that you will be mounting NeoVision120 onto.

**1C.** Use 1 of 4 mounting options in Sections 2 to 5 to secure the NV120T tape to building surfaces.

#### TOP FLEX MOUNTING OPTIONS

#### 2A. RIGID MOUNT: USING NV120T-CHL-AX:

The Rigid Mount Channel comes in either 4' (-A4) or 8' (-A8) lengths. Plan to cut channel to fit with miter saw and blade for aluminum. Attach flexible mount to surface with 1 screw at each end. Additionally, screw to surface at least every 12 inches (FIG. 3).



#### 2B. INSERT NEOVISION120 TAPE INTO CHANNEL:

Working from one end and insuring that there is a 3/8" gap between end of Rigid Mount Channel and End Feed firmly press the tape into the channel. Channel should be long enough to reach 3/8" short of the End Cap (FIG. 2).

#### PARTS/TOOLS NEEDED:

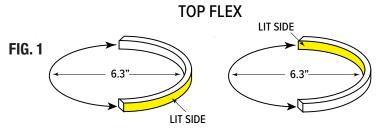
- Phillips screwdriver
- Tape measure
- · Marking pen / pencil
- Wire strippers
- Miter saw and fine-tooth blade for aluminum

FIG. 2

- · Tin snips
- Wire connectors
- Wall anchors

#### PARTS INCLUDED:

- Pre-configured NeoVision120 on Reel
- Plug-in option includes built-in surge suppressor and fuse
- Hard-wire option includes separate surge suppressor, fuse, cord grip.
- \* Accessories ordered separately may include channels or mounting clips.



# LIT SIDE LIT SIDE 4.72" 4.72"

OVERHEAD VIEW OF NV120 TOP FLEX POSITION OF END CAP AND POWER FEED

SIDE FLEX

# TopFlex Channel TopFlex (to Power) TopWerl TopFlex (to Power) TopFlex (to Power)

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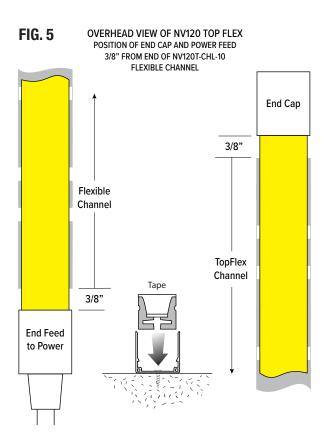
#### **TOP FLEX MOUNTING OPTIONS (Cont.)**

#### 3A. FLEXIBLE MOUNT: USING NV120T-FLEX-CHL-10:

The Flexible Mount Channel comes in a 10' length that can be cut to accommodate the NeoVision120 tape. Cut channel to size using tin snips to cut between channel sections. Attach flexible mount to surface with 1 screw at each end. Additionally, screw to surface at least every 6 inches (FIG. 4). CAUTION: CUT EDGES CAN BE SHARP.

#### 3B. INSERT NEOVISION120 TAPE INTO CHANNEL:

By working from powered end to non-powered end while insuring that there is a gap between end of Flexible Channel and End Feed firmly press the tape into the channel. Channel should be long enough to reach 3/8" short of the End Cap (FIG. 5)



#### 4A. MOUNTING WITH BACK CLIPS (NV120T-MC-A):

The first and last clip used to anchor NeoVision120 should be installed 3/8" from the Power Feed and End Cap.

**4B.** Beginning with the Power Feed end, screw in a mounting clip every 6" - 12" along the tape and at the non-powered end of the tape. **(FIG. 6)**.

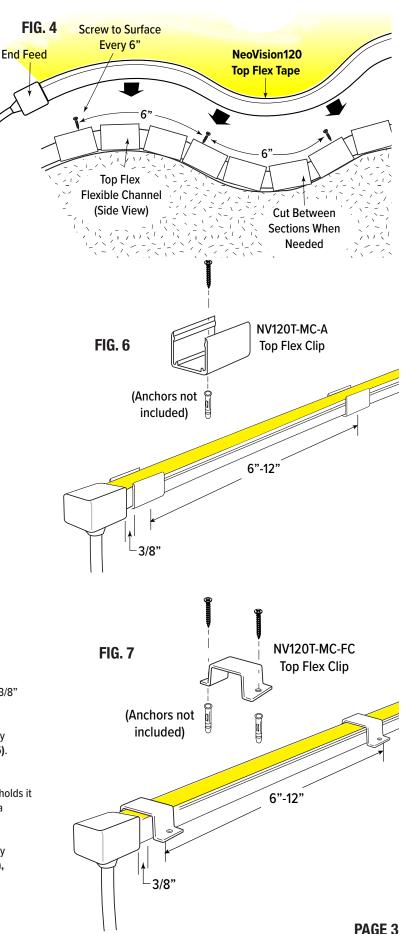
#### 5A. FRONT MOUNTING CLIP (NV120T-MC-FC):

This clip is mounted over the NeoVision tape. It captures the tape and holds it securely to the surface. Beginning with the Power Feed end, screw in a mounting clip.

**5B.** Beginning with the Power Feed end, screw in a mounting clip every 6" - 12" along the tape and at the non-powered end of the tape (**FIG. 7**),

#### **CONNECTING NEOVISION120 TO POWER:**

Proceed to page 5 for instructions.



#### SIDE FLEX MOUNTING OPTIONS

#### **BEFORE MOUNTING NEOVISION 120 SIDE FLEX (NV120-S):**

**6A.** Plan out shape path for mounting channel. Both Rigid and Flexible Channels should run along full length of NV120-T tape. Leave up to 3/8" space between end cap or ower feeds and end of channel or clips **(FIG. 9)**.

6B. Clean surface area that you will be mounting NeoVision120 onto.

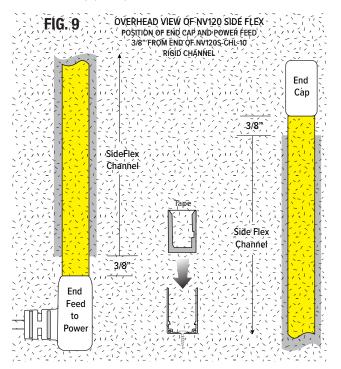
**6C.** Use 1 of 4 mounting oetions in Sections 7 to 10 to secure the NV120-S tape to building surfaces.

#### 7A. RIGID MOUNT: USING NV120S-CHL-AX:

The Rigid Mount Channel comes in either 4' (-A4) or 8' (-A8) lengths. Plan to cut channel to fit with miter saw and blade for aluminum. Attach flexible mount to surface with 1 screw at each end. Additionally, screw to surface at least every 12 inches (FIG. 8).

#### **7B. INSERT NEOVISION120 TAPE INTO CHANNEL:**

Working from one end and insuring that there is a 3/8" gap between end of Rigid Mount Channel and End Feed firmly press the tape into the channel. Channel should be long enough to reach 3/8" short of the End Cap (FIG. 9).

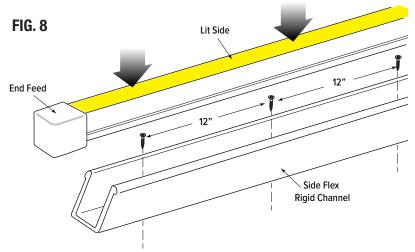


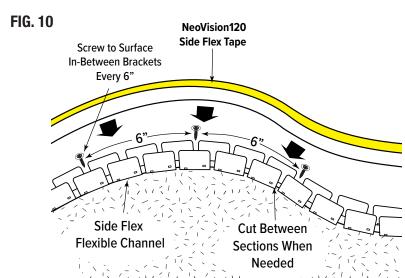
#### **8A. FLEXIBLE MOUNT: USING NV120SFLEX-CHL-10:**

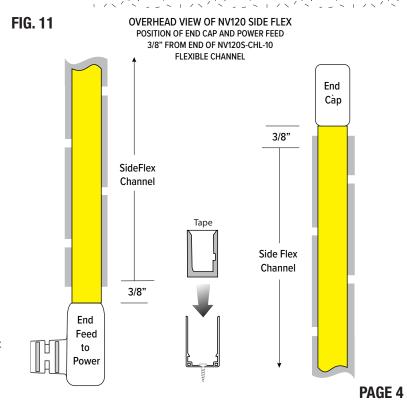
The Flexible Mount Channel comes in a 10' length that can be cut to accommodate the NeoVision120 tape . Cut channel to size using tin snips to cut between channel sections. Attach flexible mount to surface with 1 screw at each end. Place screw between bracket sections, and screw down into surface material, capturing two brackets with one screw. Additionally, screw to surface at least every 6 inches (FIG. 10). CAUTION: CUT EDGES CAN BE SHARP.

#### **8B. INSERT NEOVISION120 TAPE INTO CHANNEL:**

By working from powered end to non-powered end while insuring that there is a gap between end of Flexible Channel and End Feed firmly press the tape into the channel. Channel should be long enough to reach 3/8" short of the End Cap (FIG. 11)







#### 9A. MOUNTING WITH BACK CLIPS (NV120S-MC-A):

The first and last clip used to anchor NeoVision120 should be installed 3/8" from the Power Feed and End Cap.

**9B.** Beginning with the Power Feed end, screw in a mounting clip every 6" - 12" along the tape and at the non-powered end of the tape. (**FIG. 12**).

#### 10A. FRONT MOUNTING CLIP (NV120S-MC-FC):

This clip is mounted over the NeoVision tape. It captures the tape and holds it securely to the surface. Beginning with the Power Feed end, screw in a mounting clip.

**10B.** Beginning with the Power Feed end, screw in a mounting clip every 6" - 12" along the tape and at the non-powered end of the tape (**FIG. 13**).

#### 11A. POWER FEED:

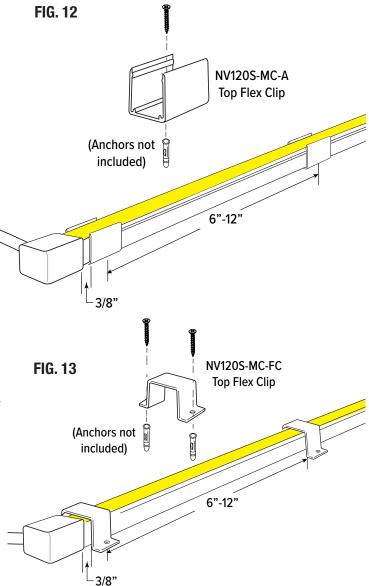
NeoVision 120 operates at 120VAC 60Hz and has a Class II insulation system for protection. There is no need for a ground wire. The system can be ordered for either plug-in for wall outlets, or hard-wired power feeds. Make sure that original inline 8 amp fuse is used for both plug-in and hard-wired options. A surge suppressor is included for long life and must be used for hard-wired and plug-in applications. Failure to install fuse or surge suppressor properly will void the warranty. See below for hard-wired or plug-in wiring options.

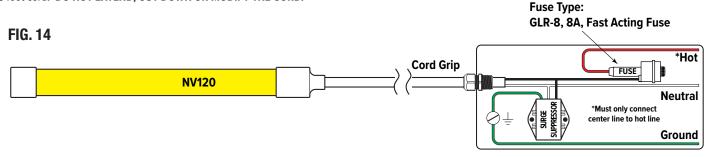
#### 12A. HARDWIRE INSTALLATION:

For hard-wired applications, use proper wet location junction box (by others) if used outside. Indoor installations may use damp location rated junction boxes and fittings. Connect NV120 leads to the surge suppressor and inline fuse inside of the junction box. Consult local codes required for GFCI, AFCI and circuit breaker protection on this circuit. The fuse and surge suppressor are replaceable. Consult factory for ordering information. For outdoor applications, use an outdoor rated cord grip to seal the cord to the junction box. The junction box should be near the power feed end of the NV120 tape and allow use of the included 8 foot cord. DO NOT EXTEND THE CORD. Cord may be cut down for best fit, but must have at least 12 inches of cord left (FIG. 14).

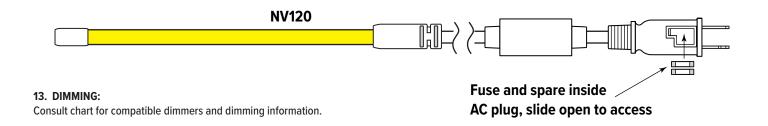
#### 12B. PLUG-IN INSTALLATION:

For plug-in applications, use proper junction boxes by others. Indoor applications can use damp location rated outlets. Outdoor applications must have outdoor rated, in-use covers and junction boxes. Consult local codes for required GFCI, AFCI and circuit breaker protection on receptacles used. The NV120 plug-in cord has a built-in surge suppressor and fuse. The fuse is replaceable. Consult factory for ordering information. Connect the NV120 leads to the surge suppressor and inline fuse inside of the junction box (FIG. 15 - next page). The receptacle outlet should be near the power feed end of the NV120 tape and allow use of the included 8 foot cord. DO NOT EXTEND, CUT DOWN OR MODIFY THE CORD.





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#### **Pick Control Options**

Lutron Dimmers	Family	Phase Dimming Operation	Trim Adjustments*	Smart Switch
Lutron PD-SNE	Casetta	Reverse Phase (ELV, use this setting only)	High & Low End Trim	Yes
Lutron DVELV	Diva	Reverse Phase (ELV)	-	-
Lutron DVRP	Diva	Reverse Phase (ELV)	-	-
Lutron MA-PRO	Maestro	Reverse Phase (ELV, recommended setting)	High & Low End Trim	-
Lutron RRD-PRO RadioRA2	Radio RA	Auto (recommended setting)	Low End Trim	Yes

<b>Leviton Dimmers</b>	Family	Phase Dimming Operation	Trim Adjustments*	Smart Switch
Leviton DSE06-10Z	Decora	Reverse Phase (ELV)	-	-
Leviton DDL06-1LZ	Decora	Forward Phase (TRIAC)	-	-

Legrand Dimmers	Family	Phase Dimming Operation	Trim Adjustments*	Smart Switch
Legrand RH703PTU	Radiant Harmony	Forward Phase (TRIAC, use this setting only)	High & Low End Trim	-

Notes: All dimmers operate at 120VAC, 60Hz

All dimmers will operate NV120 to below 20% dimming level.

Adjust trim levels for best performance.

See local electrical distributor or home center for dimmers.

