



PLEASE ENSURE ALL OF THE FOLLOWING INSTRUCTIONS ARE READ PRIOR TO THE INSTALLATION OF THE PRODUCT.

1. Inspect all components for damage prior to installation.
2. Do not use if there is any damage to the unit or to the wiring/insulation. Inspect periodically.
3. Recommended load for power supplies is 80% of listed power supply capacity.
4. To avoid voltage drop, ensure proper gauge wires are installed between Power Supplies, Controls & LED product to avoid voltage drop.
5. Consult "Low Voltage Wire Gauge chart" below for recommended wire gauges.

WARNINGS

- Note: all connectors must be assembled correct to achieve IP67 rating.
- Fixture's rated voltage must match that of the power supply.
- Power supply must be constant voltage.
- Do not power the light for over 30 minutes in coil packaging.
- Do not bend past the minimum diameter (Fig. 1) or twist this fixture (Fig. 3, 5). Doing so will result in damaging the internal circuit board.
- Do not bend the fixture in the opposite direction of its specified bending direction (Fig. 2, 4). Doing so will damage the internal circuit board.
- Do not put undue stress or pull excessively on the cables or injection connectors. This can cause the connectors to detach or fail. (see Fig. 5)
- To extend the life of your fixtures, do not operate lights in daylight temperatures exceeding 140°F (60°C). Doing so will decrease the lifespan of the LEDs.
- Warning: Operating all channels of color changing fixtures at full capacity simultaneously at full extended time will reduce fixture rated life.
- Warning: Expansion and Contraction of fixtures up to 0.5% for PVC & 0.05% for Silicone.

A: Minimum bend radius varies depending on model, refer below to model.*

Dome Neon - 2.36"

Mini Square Neon - 1.95"

Square Neon - 5.90"

Dome Neon DS98 - 0.98"

Square Neon ST63 - 2.36"

Mini Square Neon ST49 - 1.16"

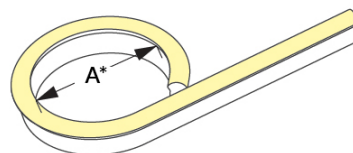


Fig. 1

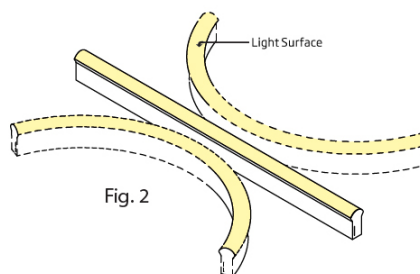


Fig. 2

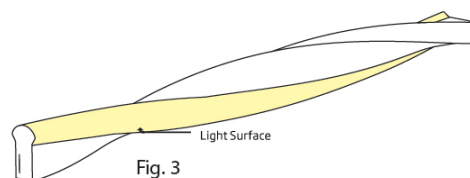


Fig. 3

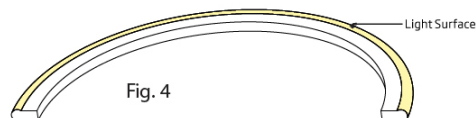


Fig. 4

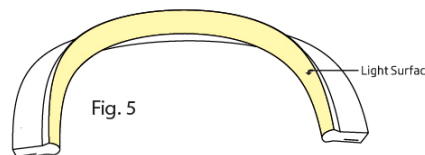


Fig. 5



LOW VOLTAGE WIRE GAUGE CHART

24V DC VOLTAGE DROP AND WIRE LENGTH (FT.) DISTANCE CHART

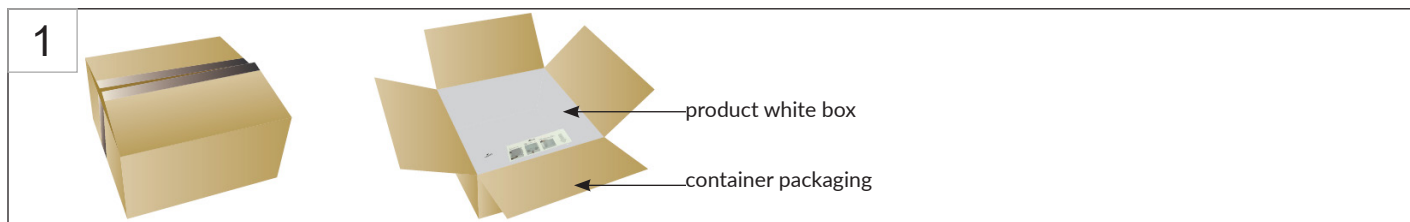
POWER (W)		10W	20W	30W	40W	50W	60W	70W	80W	90W	100W	110W	120W
WIRE GAUGE (AWG)	#10	1969'	985'	657'	460'	245'	289'	166'	191'	148'	105'	73'	40'
	#12	1313'	657'	427'	312'	247'	197'	165'	132'	133'	73'	49'	27'
	#14	788'	394'	263'	197'	158'	119'	99'	79'	60'	40'	27"	/
	#16	460'	229'	148'	115'	92'	73'	60'	46'	33'	23'	17'	10'
	#17	394'	197'	125'	92'	73'	60'	46'	37'	24'	20'	14'	9'
	#18	329'	165'	99'	73'	60'	50'	40'	33'	23'	17'	10'	7'
	#20	197'	99'	66'	50'	40'	33'	27'	20'	14'	/	/	/
	#22	119'	60'	40'	27'	20'	17'	/	/	/	/	/	/

CORRELATED COLOR TEMPERATURE (CCT)

NOMINAL CCT	TARGET CCT AND TOLERANCE (K)
2700K	2725 ± 145
3000K	3045 ± 175
3500K	3465 ± 245
4000K	3985 ± 275
4500K	4503 ± 243
5000K	5028 ± 283
5700K	5665 ± 355
6500K	6530 ± 510

UNPACKING

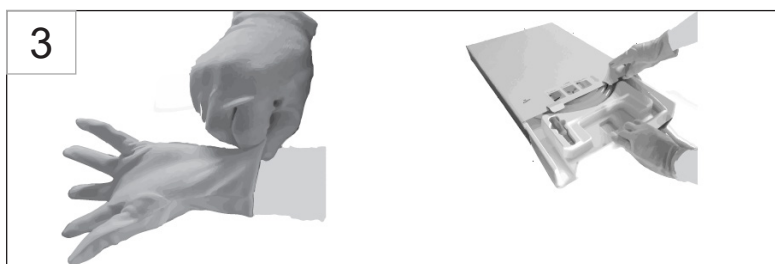
PRODUCT WHITE BOX - CUSTOM FIXTURES 50FT (15M) OR LESS



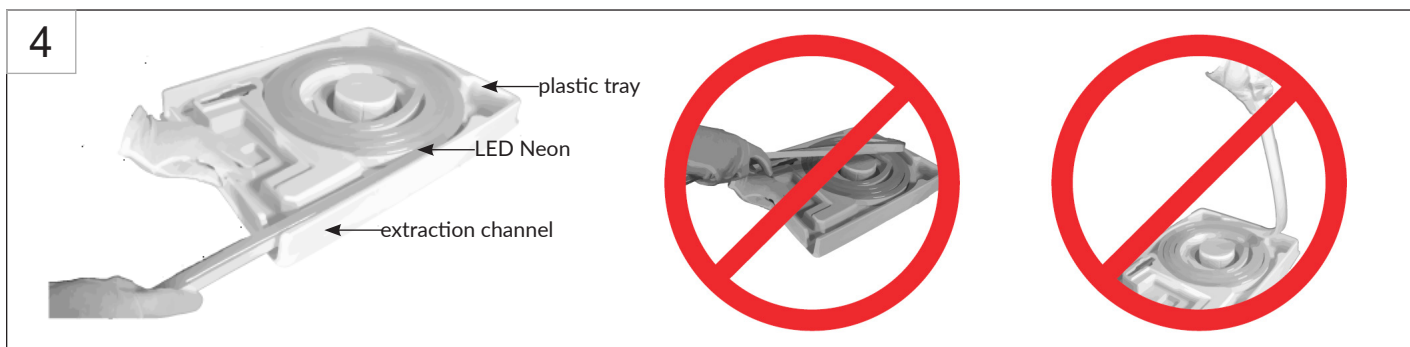
Carefully remove the product white box from the main container packaging



Slide the plastic tray out of the product white box



Use the provided gloves to avoid any smudging to the LED Neon.

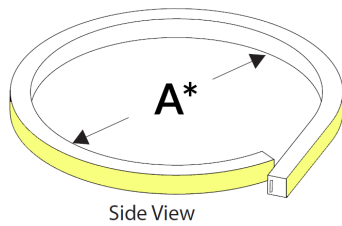


Use the plastic tray as a LED Neon dispenser as shown above, DO NOT Attempt to remove the LED Neon from the white plastic tray without using the channel. Additional information on page 5 "REMOVING THE LED NEON FROM THE PLASTIC TRAY FOR INSTALLATION".

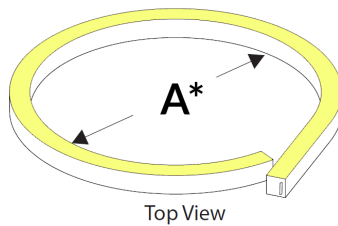


UNPACKING

- Operating temperature: -13°F ~ 113°F (-25°C ~ 60°C)
- Installation (bending) temperature: 32°F ~ 140°F (0°C ~ 60°C)
- Top Bend or Side Bend profile (A*), reference chart below for actual bend radius depending on model.
- For full details and specs please refer to the product Spec Sheet



Side View



Top View

A*: Minimum bend radius varies depending on model

Dome Neon - 2.36"

Mini Square Neon - 1.95"

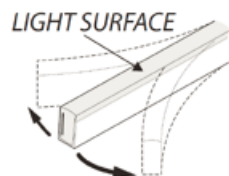
Square Neon - 5.90"

Dome Neon DS98 - 0.98"

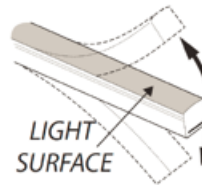
Square Neon ST63 - 2.36"

Mini Square Neon ST49 - 1.16"

HANDLING



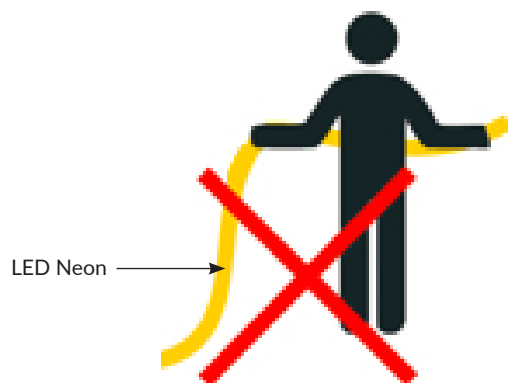
FRAGILE
Only Bend
Horizontally



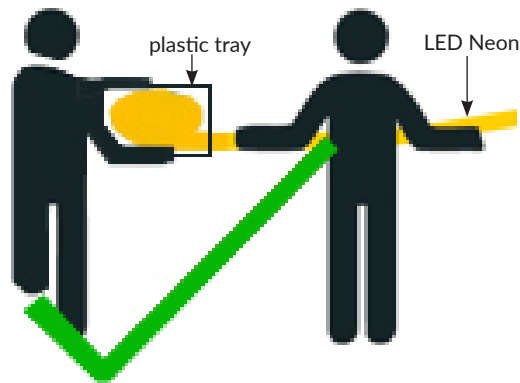
FRAGILE
Only Bend
Vertically



- Bend LED Neon only as specified



LED Neon



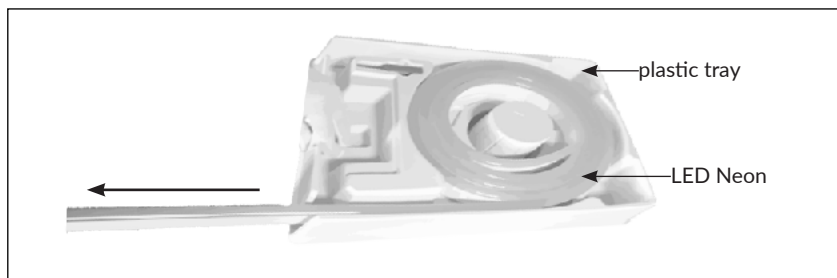
plastic tray

LED Neon

- 2 People recommended when handling this LED Neon.

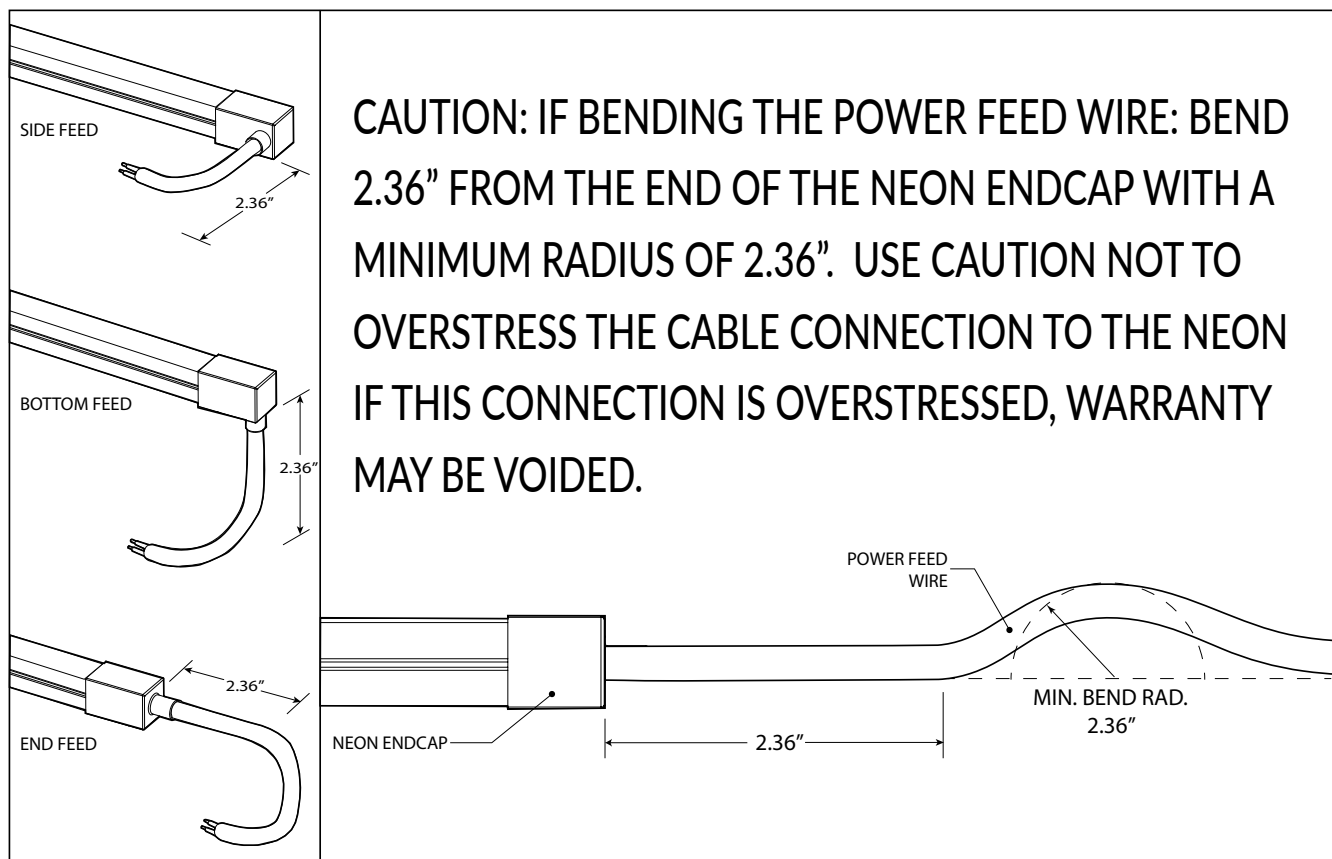


REMOVING THE LED NEON FROM THE PLASTIC TRAY FOR INSTALLATION



While one person is holding the plastic tray, the other person carefully slides the LED Neon out. Then continues to carefully install onto a channel or mounting brackets.

CORRECT POWER FEED BENDING DURING INSTALLATION

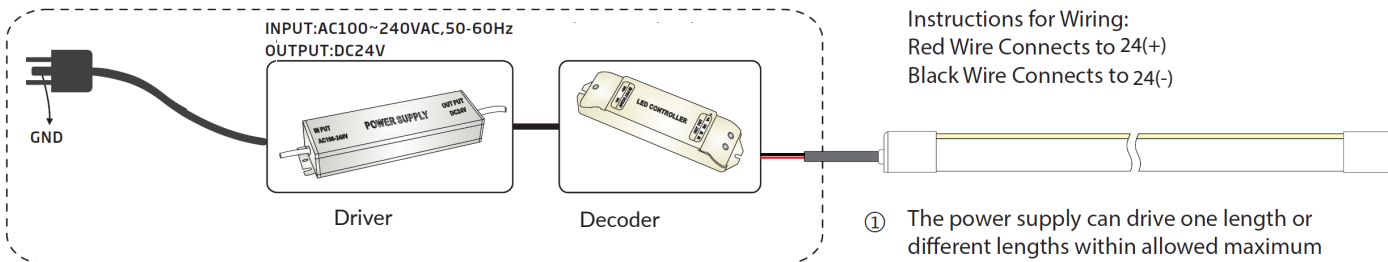




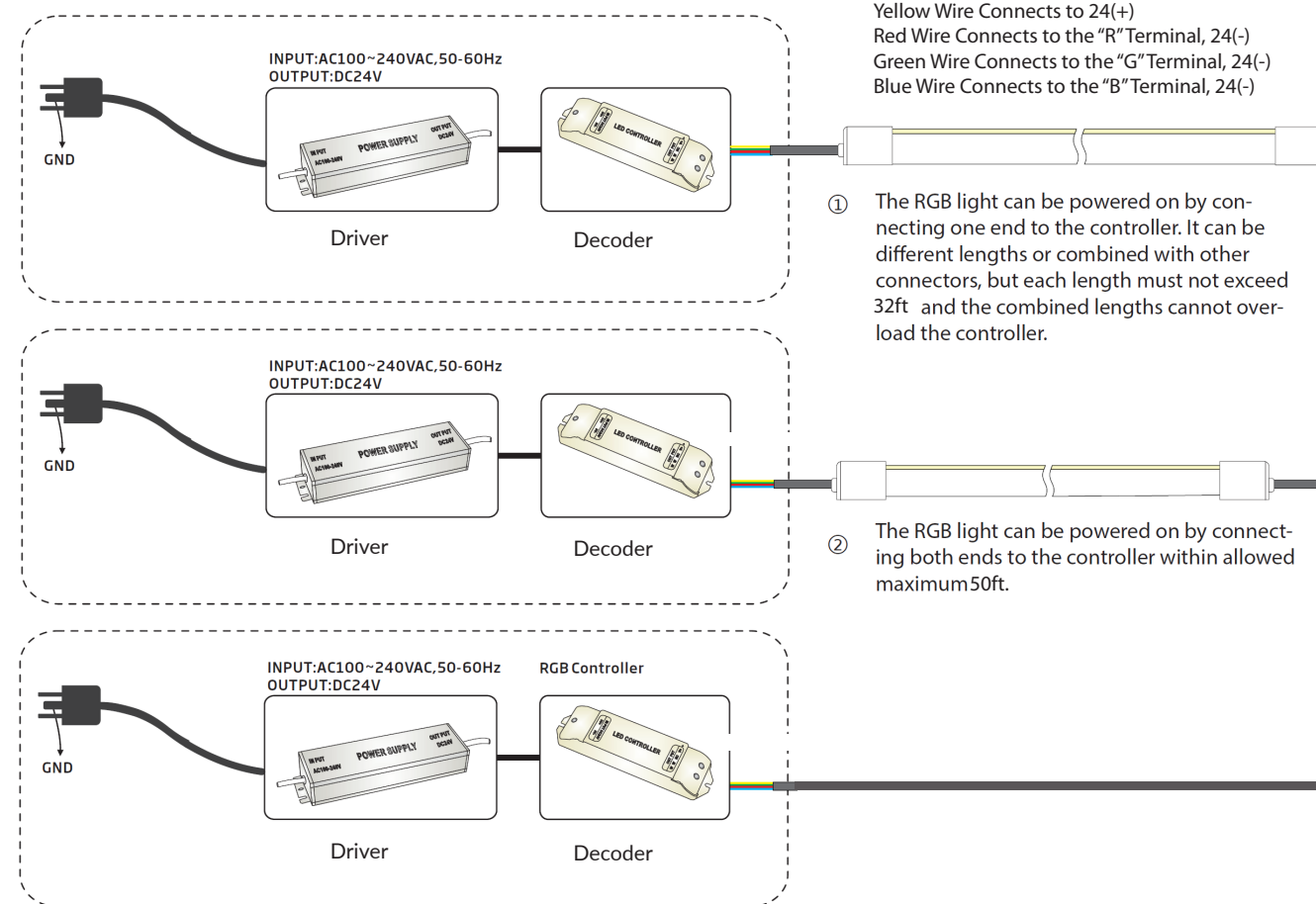
WIRING DIAGRAMS

- This LED Neon Flex Fixture is only compatible with a 24V power supply.
- Always observe proper polarity.
- Recommended load for power supplies is 80% of listed power supply capacity.
- To minimize the voltage drop and maintain light consistency, do not use excessive lengths of wire between the power supply and light fixture.

WHITE/STATIC COLOR



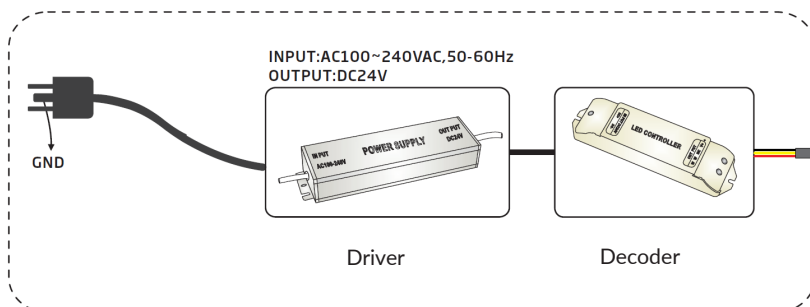
COLOR CHANGING RGB





WIRING DIAGRAMS (CONT'D)

VARIABLE WHITE



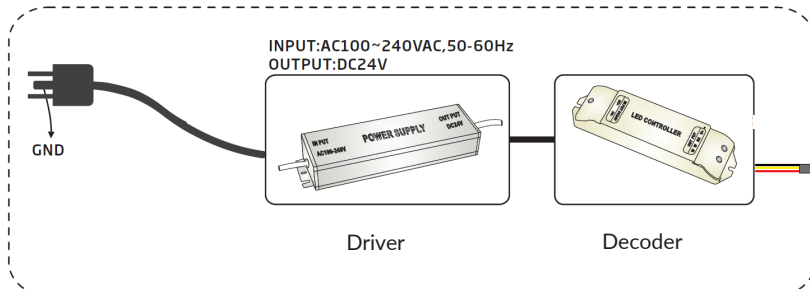
Instructions for Wiring:

Red Wire Connects to 24 (+)

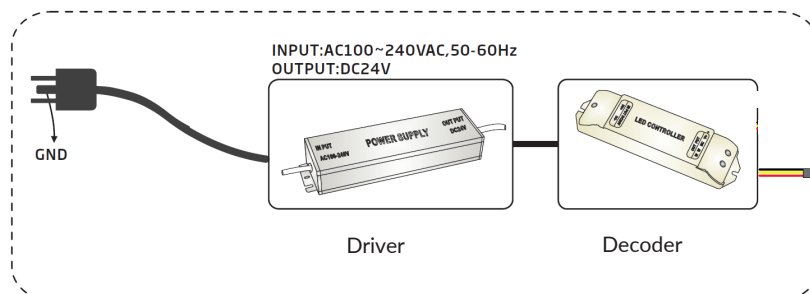
Yellow Wire Connects to Warm Color Temperature Connection 24 (-)

Black Wire Connects to Cool Color Temperature Connection 24 (-)

- ① Variable White light can be powered on by connecting one end to the controller. It can be different lengths or combined with other connectors, but each length must not exceed 32ft and the combined lengths cannot overload the controller.



- ② Variable White light can be powered on by connecting both ends to the controller within allowed maximum 50ft

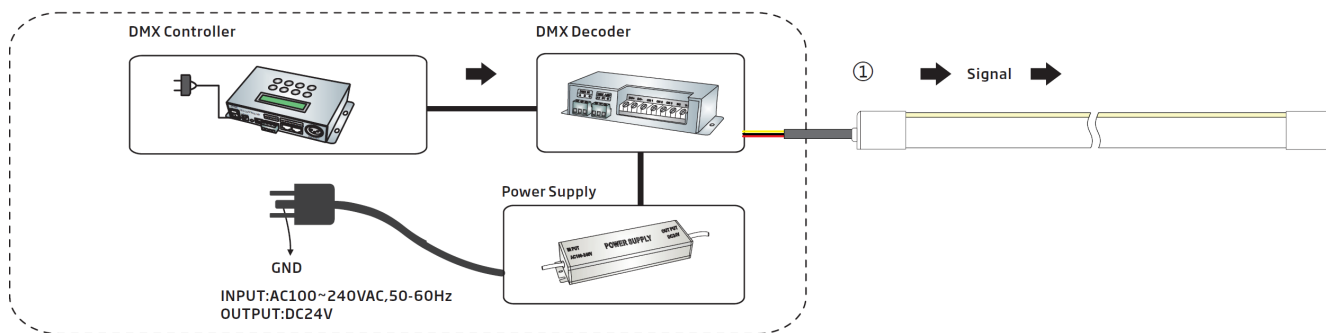




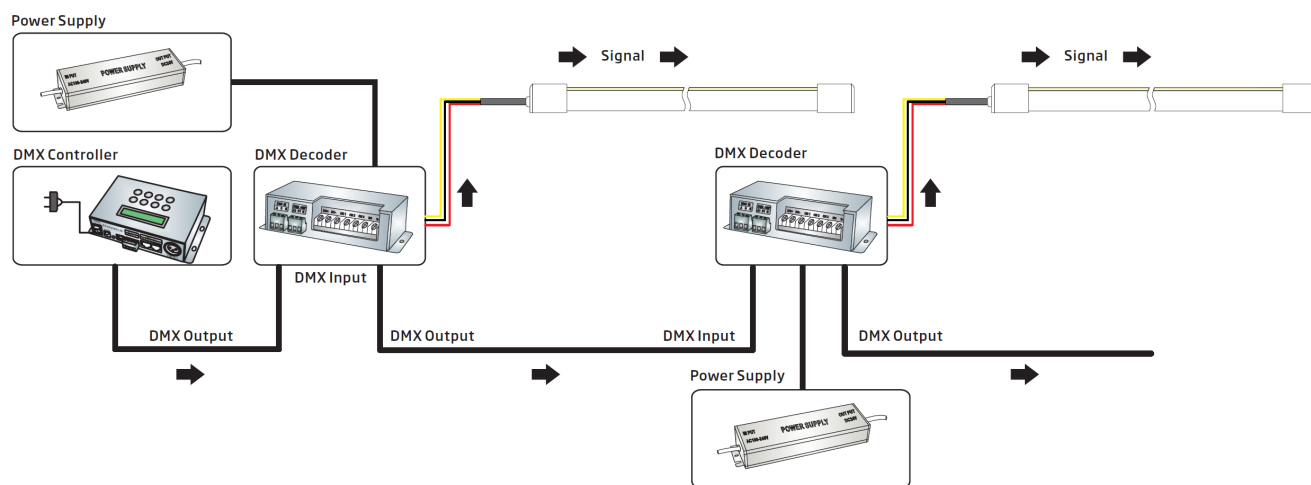
WIRING DIAGRAMS (CONTD)

PIXEL RGB/RGBW

- This LED Neon Flex Fixture must be operated with a 24V power supply and IC-UCS2903 compatible controller or decoder.
- Polarity symbols, GND, signal line connection should match on each component properly. Recommended load for power supplies is 80% of listed power supply capacity.
- Recommended load for power supplies is 80% of listed power supply capacity.
- Ensure that the power cable drawing current is no more than 80% of its current capacity.
- To minimize the voltage drop and maintain light consistency, do not use excessive lengths of wire between the power supply and light fixture.
- Accepts PWM input. Compatible with DMX decoders.
- Pixel Neon is one directional. The signal input direction is always indicated by an arrow marked on the side of light.



Important: Never touch the red and yellow wires together.



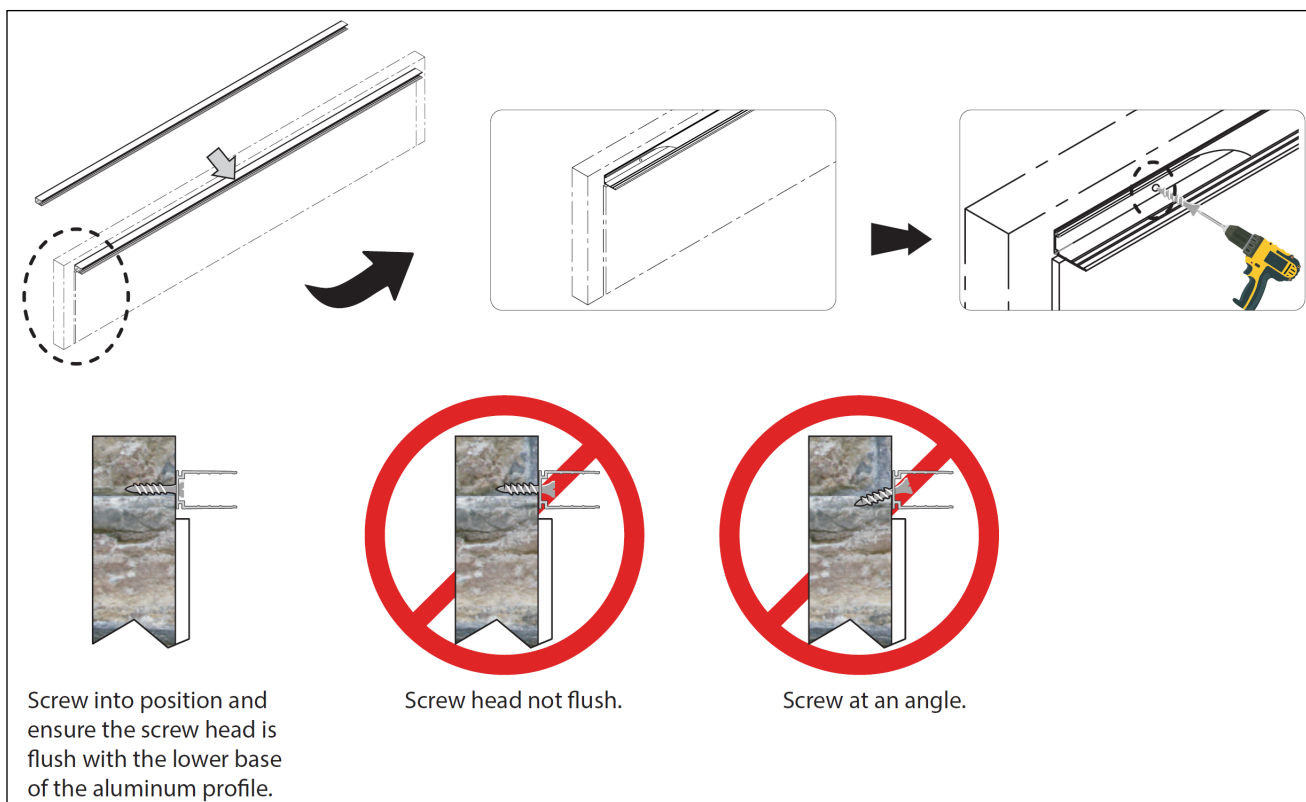


MOUNTING CHANNELS - STANDARD, PLASTIC & ALUMINUM, & SPRING CLIP CHANNEL

TOOLS FOR INSTALLATION:



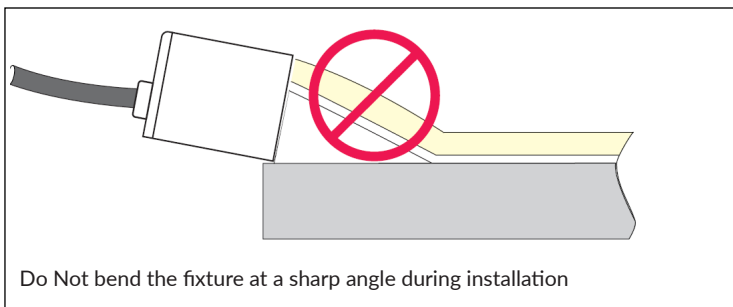
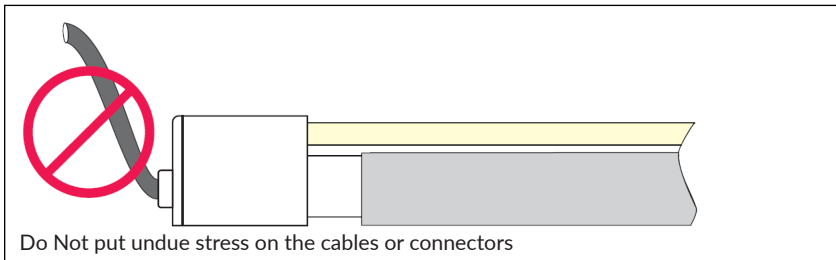
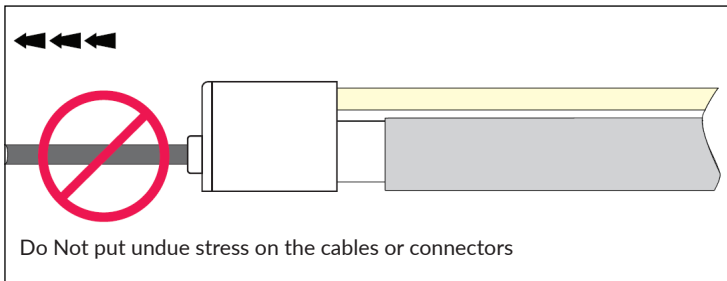
CORRECT INSTALLATION OF STANDARD ALUMINUM CHANNEL





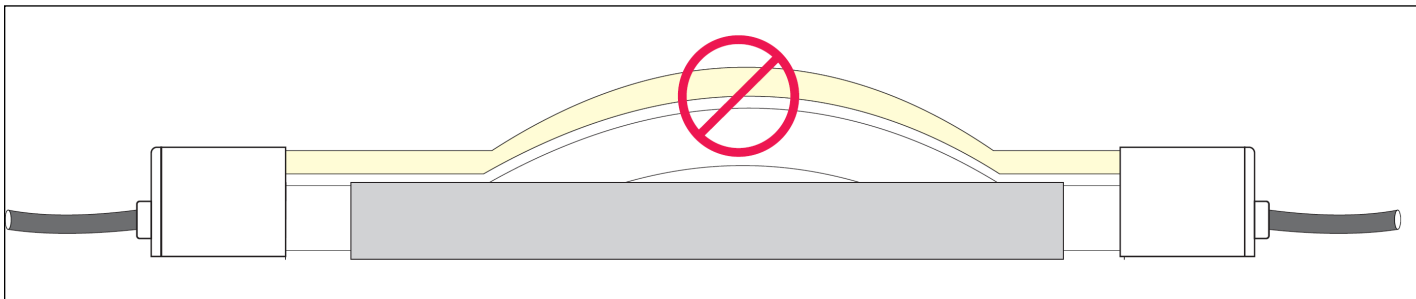
MOUNTING CHANNEL GUIDELINES

INCORRECT INSTALLATION METHODS:





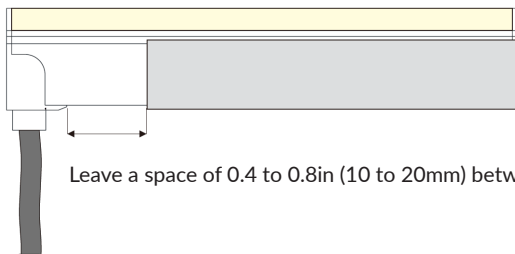
MOUNTING CHANNEL GUIDELINES



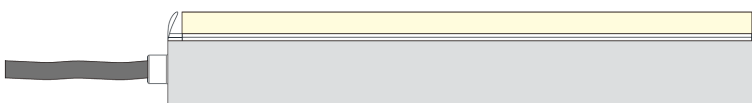
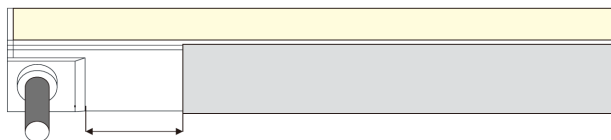
To avoid warping in the center, only install the fixture from one end to the other.

CONNECTORS AND ENDS

Do Not put undue stress on the cables or connectors



Leave a space of 0.4 to 0.8in (10 to 20mm) between the end of the channel and the Side or Bottom Exit connector.



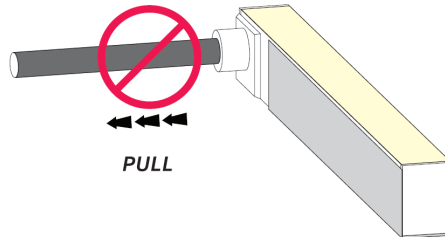
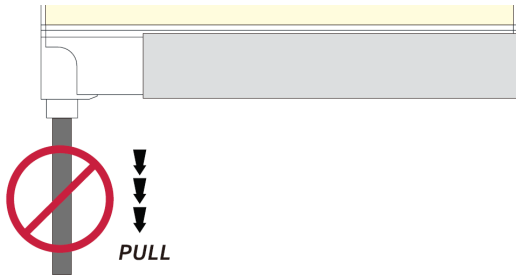
For End Exit connectors, make sure the end of the fixture is flush with the channel.



INCORRECT INSTALLATION METHODS

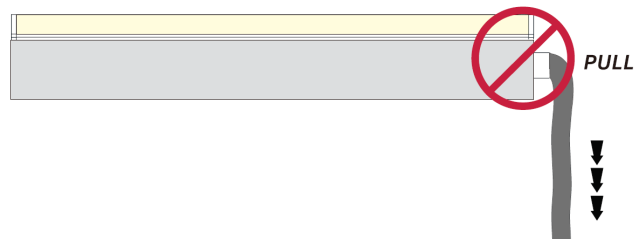
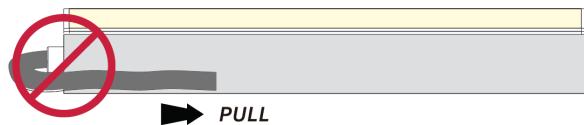
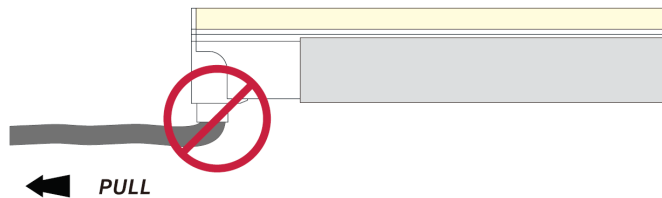
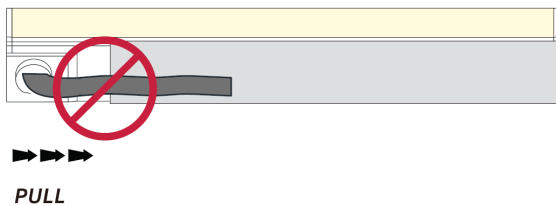
Do not put undue stress on the cables or connectors.

Do Not put undue stress on the cables or connectors



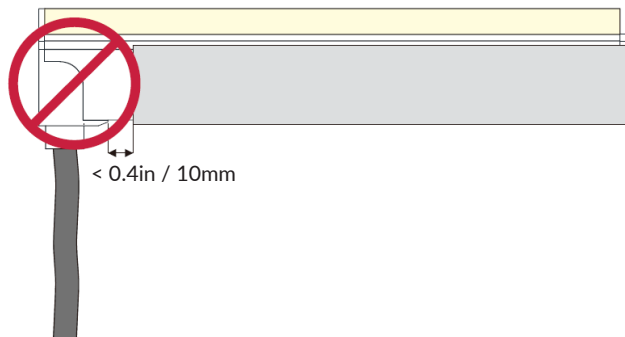
Do not curl or pull the cable with excessive force.

Do not curl or pull the cable with excessive force.

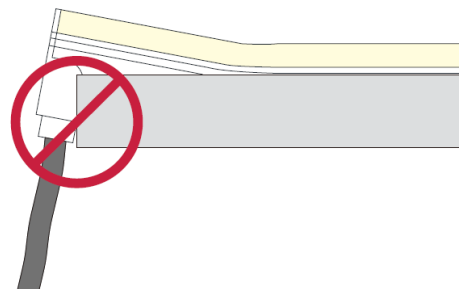
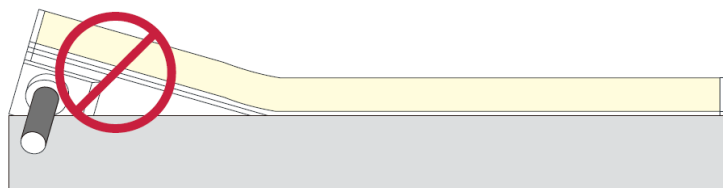




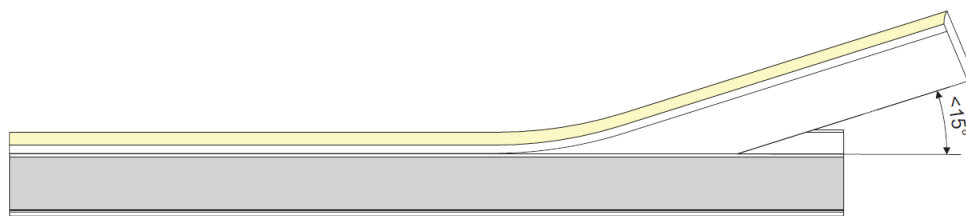
INCORRECT INSTALLATION METHODS



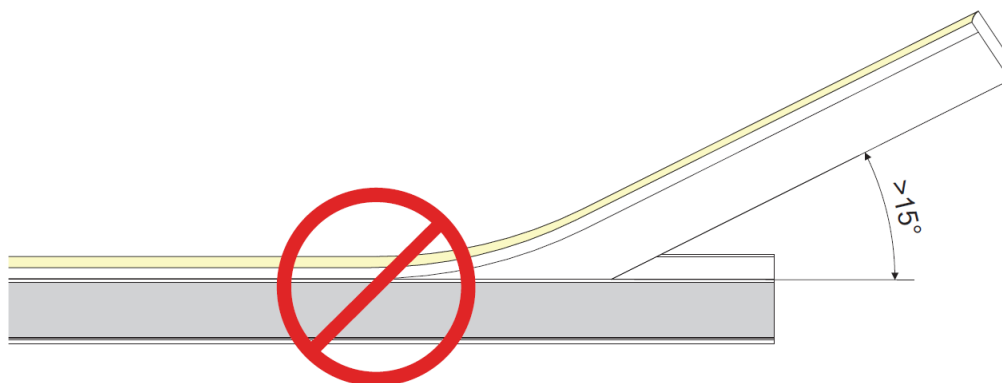
Do not force the connectors to fit into the mounting channel.



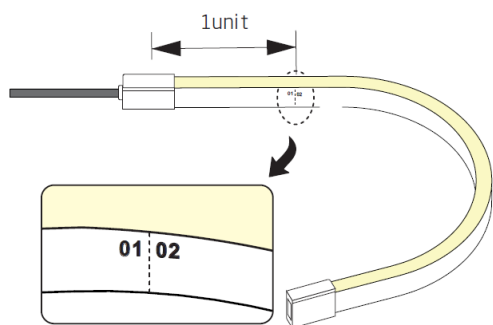
CORRECT BENDING DURING INSTALLATION



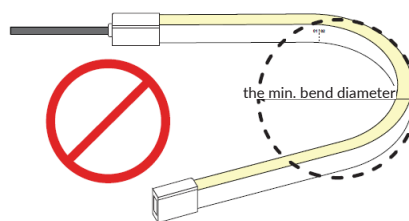
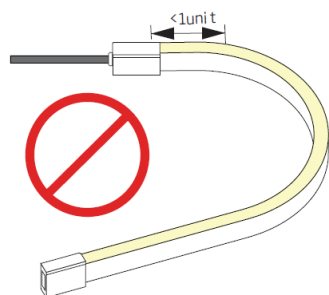
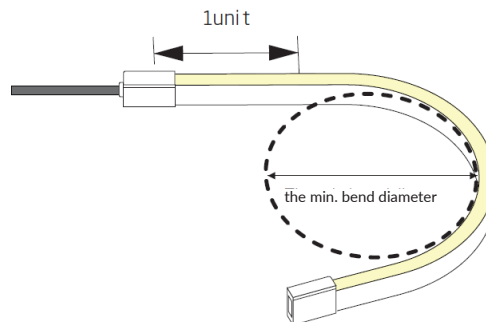
When pressing the fixture into the channel, do not bend the fixture at an angle greater than 15 degrees.



Avoid bending the light at the first cutting unit.



Do not push the fixture to bend smaller than the minimum bending diameter.





Installing Neon into raceway channel (only applicable for LED Neon Square models)

1

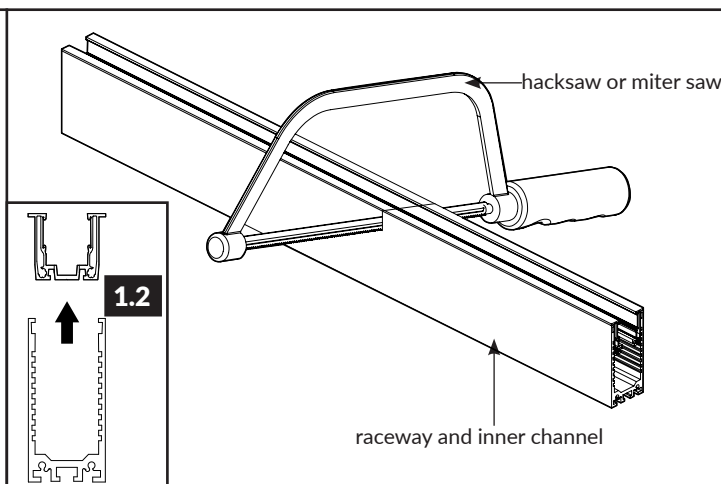
INSTALLATION NOTES:

- Review all parts and quantities to confirm if all necessary parts are available.
- Dryfit the Square LED Neon with the channel prior to routing/cutting out the mounting surface.

CAUTION: Use proper safety equipment when making any modification to parts.

1.1 If necessary, channels can be cut on-site, using the proper equipment that cuts aluminum. Carefully cut to the desired length followed by cleaning off any material left after the cut.

1.2 Remove the inner channel from inside the raceway channel, followed by cleaning the inside of the channel from any debris.

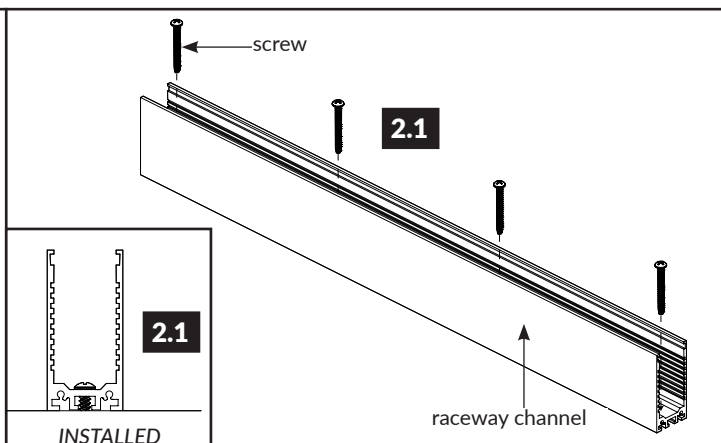


2

INSTALLATION NOTES:

- Raceway channel include pre-drilled slots, to help ease the installation.
- For longer runs make a centerline throughout the complete run, to use as a guide later during installation.

2.1 Align the raceway channel to the installation surface Followed by securing to the surface with the appropriate hardware.

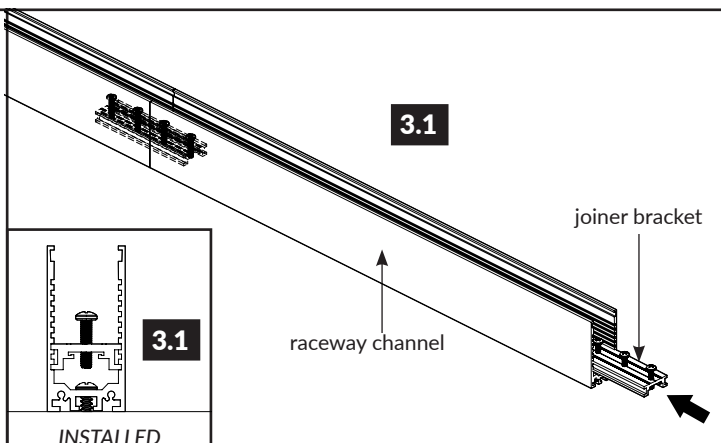


3

INSTALLATION NOTES:

- Multiple raceway channel can be installed next to each other for longer runs.

3.1 Feed the joiner bracket into the raceway channel. Then slide the joiner bracket inbetween the 2 joining raceway channels. Then tighten the screws on the joiner bracket to secure. Repeat this step if adding additional channel.





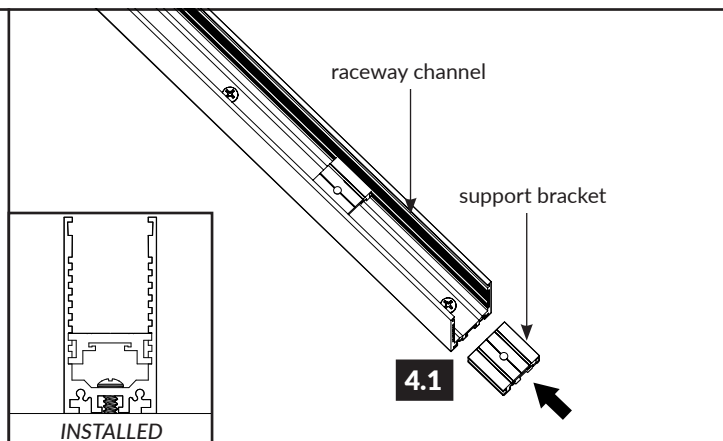
Installing Neon into raceway channel (only applicable for LED Neon Square models)

4

INSTALLATION NOTES:

- Lay the inner channel into the raceway channel, then mark the pre-drilled location to use as reference during installation

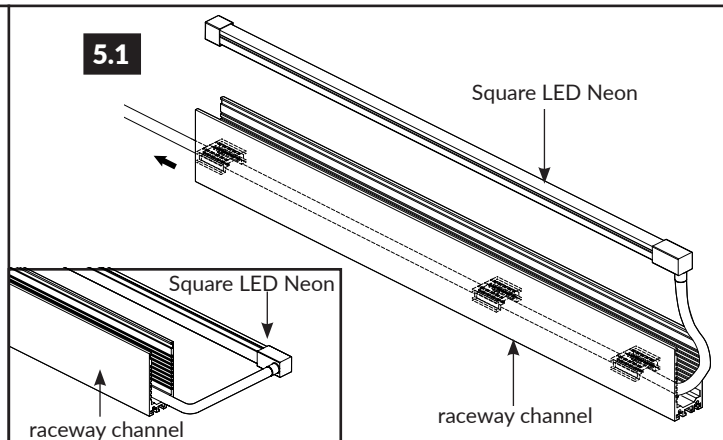
4.1 Feed the support bracket into the raceway channel. Line up the support bracket to the marked locations.



5

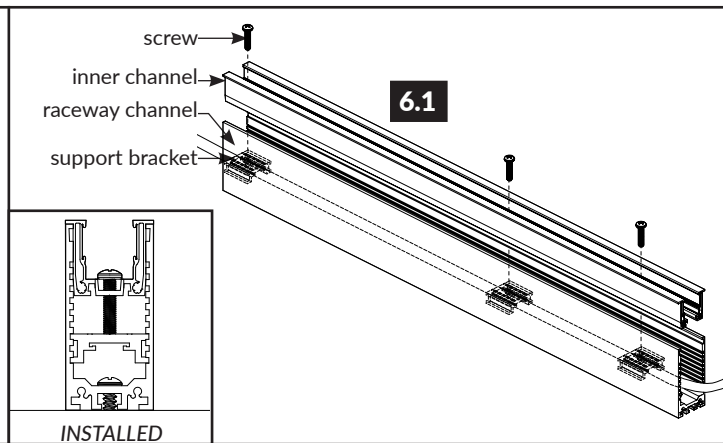
5.1 Run the Square LED Neon powerfeed cables through the raceway channel, under the support brackets, to the 24V DC power supply. For additional information reference the power supply instruction.

5.2 Place the Square LED Neon next to the raceway channel, leaving the cables inside, to continue the installation.



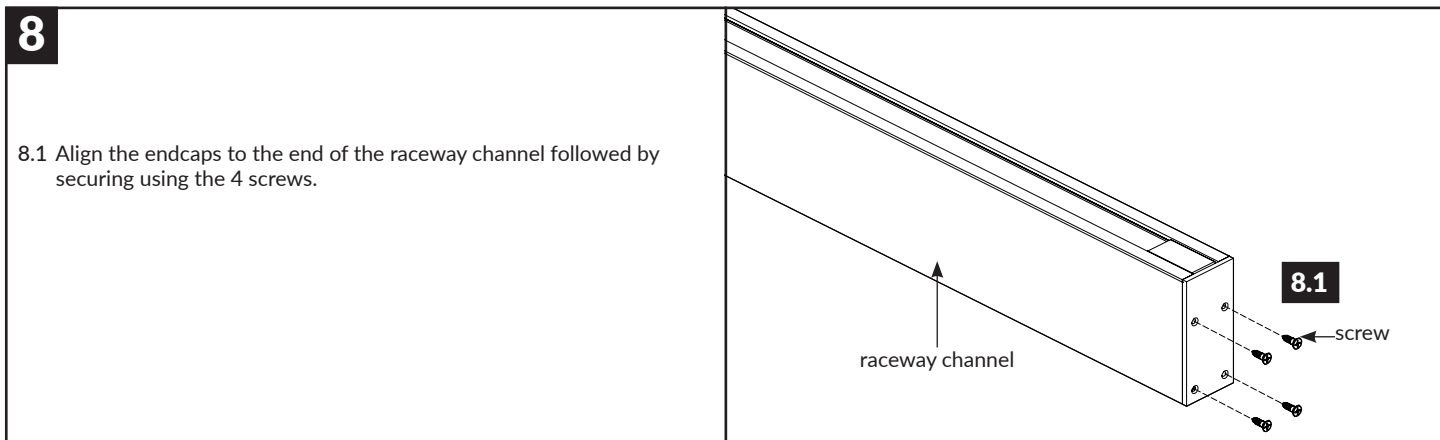
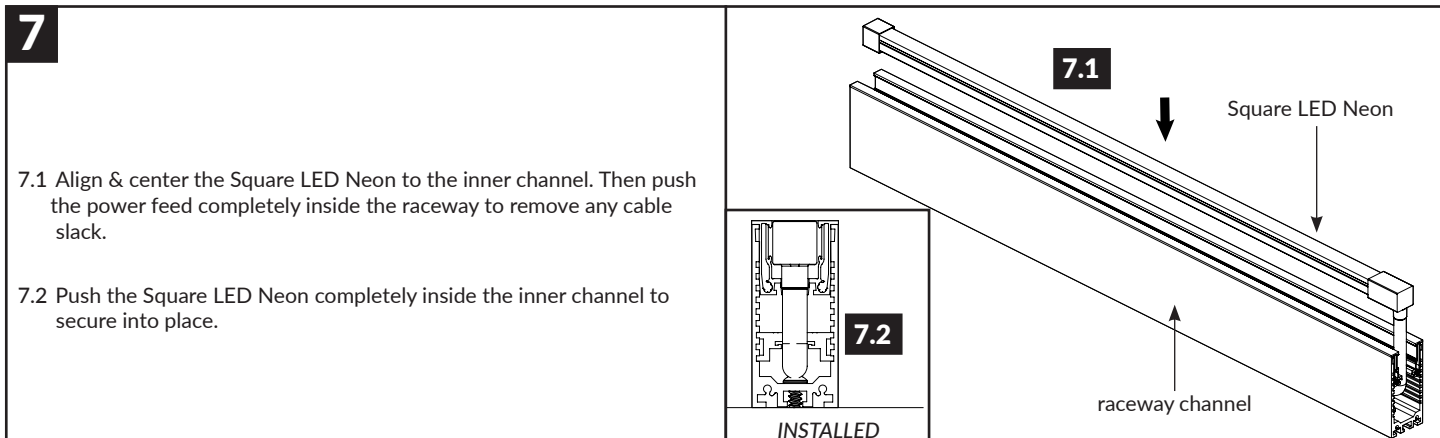
6

6.1 Insert the inner channel into the raceway channel, make sure to align the pre-drilled slots to the support brackets. Followed by securing to each other by securing with the provided screw.





Installing Neon into raceway channel (only applicable for LED Neon Square models)





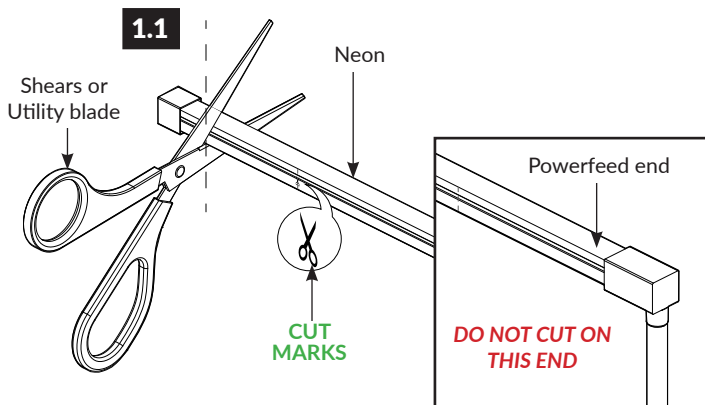
Applying Glue-On endcaps & silicon (only applicable for Field Cuttable LED Neon model)

1

1.1 After the Neon's overall length has been determined. Using a sharp set of shears cut the Neon's leftover length along the marked cutting lines noted on the sides of the Neon's body.

INSTALLATION NOTES:

- LED Neon is only recommended to be cut on the non-power feed end of the Neon. If cut along the powerfeed end would void LLIA Lighting Warranty.

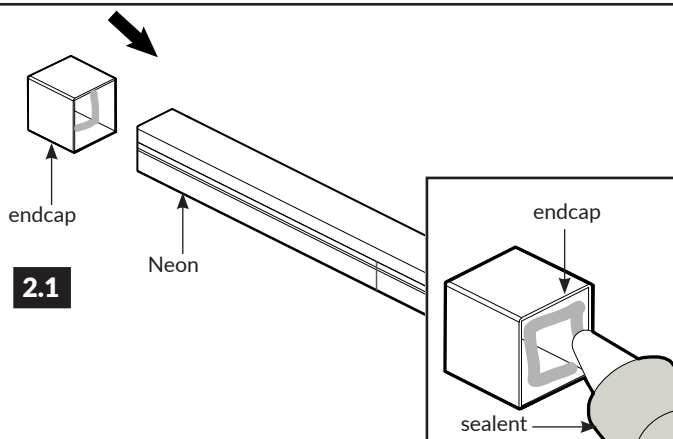


2

2.1 Using the provided endcap & sealant, apply the sealant into the insides of the endcap. Followed by inserting the endcap completely onto the Neons cut end. Gently apply some pressure to the endcap, then let sit until completely dry.

INSTALLATION NOTES:

- The Neon installation can now continue just be careful not to pull off the newly sealed endcap.





TROUBLESHOOTING

ENTIRE FIXTURE DOESN'T WORK

- Check that the power supply is plugged in, switched on and receiving power.
- Check all light, dimmer or controller connections, connecting from the power supply to the fixture.
- Check polarity of all wire connections
- Make sure power supply output voltage is 24V DC.
- Make sure your power supply is CV (Constant Voltage)

LLI ARCHITECTURAL LIGHTING LLC - WARRANTY AND RETURNS

LLI Architectural Lighting LLC, along with its affiliated parties (collectively, "LLI"), warrants to the original Buyer of Product ("Buyer") that at the date of sale, the Product a) conforms to LLI's specification and (b) is free from defects in material or workmanship. This warranty expires 5 years from the date of sale for indoor/dry location rated products, excluding color or color changing products. This warranty expires 3 years from the date of sale for damp or wet location rated products as well as for any color or color changing products. For LED tapelight product sold by the reel, warranty applies to defects in material only and expires 3 years from the date of sale.

This warranty is non-transferable.

Claims for defective product must be submitted in writing to LLI's Customer Service via email cs@llialighting.com and must be made within the warranty period. Buyer will be requested to provide its original bill of sale or such other evidence showing the date of purchase and the identity of Buyer, which LLI at its sole discretion may accept or reject. Once LLI determines that the Product is eligible for warranty, LLI will first issue a Return Merchandise Authorization ("RMA") number and further instructions. Buyer will be required to deliver the affected Product along with bill of sale to LLI with its RMA number. Buyer shall prepay all freight, transportation or insurance costs required for the return delivery.

If Product is determined to be eligible under this warranty, LLI will correct any failure of the Product or any defect in material or workmanship, with either new or used replacement parts, within a reasonable period of time. Such repair of the Product will be performed at LLI's expense, at a location specified by LLI, and LLI may choose to retain title to all returned parts or Product. If Product is determined to be eligible under this warranty, LLI will credit back to the Buyer all freight or transportation costs required for the return delivery. If LLI is unable to repair the Product to conform to the warranty after a reasonable number of attempts, LLI will provide, at its option, a replacement Product or a prorated refund of the purchase price. Any such proration will be based upon the remaining warranty period (based on the date of sale). All replacement or repaired Product(s) are warranted only for the remainder of the original warranty period.

This warranty does not apply to Products that have been modified, improperly installed, or used in conditions or for purposes other than which are intended. LLI does not warrant (a) any product, components or parts not manufactured by or distributed by LLI; (b) defects caused by failure to provide a suitable installation and environment for the Product; (c) damage caused by the use of the Product for purposes other than those for which it was intended; (d) damage caused by the unauthorized attachment or modification to the Product; (e) damage caused by the removal or installation of the Product; (f) damage caused by the authorized repair or attempted repair of the Product; (g) damage caused during shipping; (h) damage caused by acts of God such as fire, flood, wind or lightning; (i) damage caused by force majeure such as, war, pollution, earth movement, flood, or nuclear hazard; (j) damage caused by improper installation; (k) damage caused by the misuse of the Product; or (l) product used in wet locations or harsh conditions without factory sealed connections.

In no event will LLI be liable for any special, incidental, or consequential damages based on breach of warranty, breach of contract, negligence, strict tort or any other legal theories. Damages that LLI will not be responsible for include, but are not limited to: Loss of profits; loss of facilities or services; labor charges; downtime; the claims of third parties, including buyer; and / or the injury to person or property.

LLI reserves the right to provide warranty replacement with suitable substitutes that do not adversely affect the soundness or quality of the product.

This warranty is understood to be the complete and exclusive warranty, superseding all oral or written prior representations or warranties and all other communications. No employee or agent of LLI or any other party is authorized to make any warranty in addition to those made in this warranty.

To the fullest extent of applicable law, the foregoing warranties are in lieu of all other warranties, express or implied, including but not limited to the implied warranties or merchantability and fitness for a particular purpose. In no event does this warranty apply to sales of original equipment or components not manufactured or provided by LLI.



LLI ARCHITECTURAL LIGHTING LLC - REPAIR/RETURN POLICY

Product is not returnable without the written consent of LLI. Returned goods require a RMA number. Unless defective, returns are subject to a minimum restocking charge of 25%. Unsaleable Product will not be accepted for return. Custom Products or Products deemed to be unsaleable may not be returned. Shipping and handling charges are non-refundable.

All returned goods must be received by LLI in excellent, resalable condition and packaged in the original packaging with all inside packing intact. LLI is not responsible for damages incurred during shipping. Products will be inspected upon return and any service or repair needed to place them to resalable condition will be charged and added to the restocking charge. The 25% restocking charge on Product will be deducted from all credits issued on authorized Product returns. Returns are for credit or exchange only.

A Buyer must contact LLI and submit a completed RMA request form within thirty (30) days from the date of sale. RMA request forms are available from customer service. Completed RMA request forms must be sent via email to cs@lialighting.com. LLI will not accept returns without prior authorization and the appropriate RMA number. Product returned without authorization may be refused or returned at shipper's expense. Note that no returns on custom orders or discontinued items are accepted.

Once issued, RMA numbers are valid for thirty (30) days within which time returned Products must be received by LLI. The RMA number must be prominently displayed on the shipping label for the returned product. The Buyer must send LLI a copy of the invoice marked "Returned for Credit".

Except for cases when the return is due to a manufacturer's defect, the Buyer is responsible for shipping the product to LLI and covering the shipping costs. All freight, transportation or insurance costs required for the return delivery must be prepaid. These costs are non-refundable in most cases. If the return of goods is made necessary through any fault of LLI and written permission is granted for its return, LLI will give credit including transportation charges if returned per instructions on the RGA.

Product refunds will appear as a credit on your billing statement.

All replacements for defective units will be billed. Credit for defective units will be given only if defective units are 1) returned to LLI within 30 days of receipt of replacements and 2) inspected and approved as defective by LLI.

Any dispute concerning LLI shall be governed by and construed in accordance with the laws of the State of Illinois. If mediation fails to resolve any dispute, the parties expressly agree that any lawsuit shall be filed only in the Circuit Court of Cook County, Illinois or the United States District Court for the Northern District of Illinois.