



NE-SD

USER MANUAL

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION. LEAVE A COPY FOR THE END USER/MAINTENANCE ENGINEER FOR FUTURE REFERENCE.













Version No.: V2.0

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Unpacking

White Box Packaging

















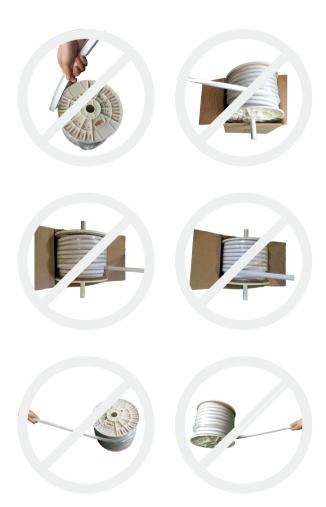




Unpacking

Reel Packaging

Note: Two people are needed to uncoil the light.





1



2



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4



5

Unpacking





Uncoiling Roller



Uncoiling Roller (Optional Device)



Put the light on the middle of uncoiling roller



Rotate the roller edge to uncoil the light with another hand



Use recommended cutter to cut the light vertically



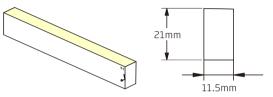
Roll up the rest of the light



Protect the light end and fix it

Basic Parameters

- 1. Dimension: 11.5*21mm 2. Min. bend diameter: 120mm
- 3. Protection rate: IP68/IP67/IP65/IP40/IP20
- 4. IP68 protection rate: Protected against dust and submersion in water (1 meter above).
- 5. The product IP rate is ultimately in line with properly applied IP rated connectors. Connector termination required after cutting to achieve appropriate IP Rating.
- 6. Easy to use, with a range of accessories for joining, terminating, mounting&powering.
- 7. Long lifetime: 5 years.
- 8. Environmental Working Temperature: -20°C~45°C (High Voltage: -20°C~35°C).
- 9. Environmental Installation Temperature: 0°C~45°C(High Voltage: 0°C~35°C).



Note: Unless otherwise stated, the tolerance of the light is ± 0.3 mm.

Light Type: NE-SD

	Light Color	Appearance of Cover*	LED Qty/mtr	Working Voltage	Rated Power/m	LED Spacing	Min.Cutting Length	Max.Running Length
А	RGB	WM	60LEDs	D24CV	12W	16.67mm	100mm(6LEDs)	10m for single end feed
								20m for double ends feed
В	R/A/O	WM	60LEDs	D24CV	7.2W	16.67mm	166.7mm(10LEDs)	15m for single end feed
								30m for double ends feed
	G/B/W	WM	60LEDs	D24CV	12W	16.67mm	100mm(6LEDs)	10m for single end feed
								20m for double ends feed
	R/A/0	WM	72LEDs	D24CC	7.2W	13.89mm	125mm(9LEDs)	15m for single end feed
								30m for double ends feed
	G/B/W	WM	72LEDs	D24CC	12W	13.89mm	83.3mm(6LEDs)	10m for single end feed
								20m for double ends feed
	R	RR(WR)	72LEDs	D24CC	7.2W	13.89mm	125mm(10LEDs)	15m for single end feed
								30m for double ends feed
	G/B/Y574/Y578/Y582	GG/BB/YY(WG/WB/WY)	72LEDs	D24CC	12W	13.89mm	83.3mm(6LEDs)	10m for single end feed
								20m for double ends feed
	R/A/G/B/W	WM	72LEDs	AC230	12W	13.89mm	1000mm(72LEDs)	80m for single end feed
	R/G/B/Y574/Y578/Y582	RR/GG/BB/YY(WR/WG/WB/WY)						
D	WW+W	WM	144LEDs	D24CV	12W	13.89mm	83.3mm(12LEDs)	10m for single end feed
								20m for double ends feed
Е	RGBW	WM	60LEDs	D24CV	15W	16.67mm	100mm(6LEDs)	5m for single end feed
								10m for double ends feed
S (IC:2903)	RGB/R/G/B/A/W	WM	56LEDs	D24CV	12W	17.86mm	125mm(7LEDs)	10m for single end feed
								20m for double ends feed
S (IC:2903)	WW+W	WM	60+60LEDs	D24CV	12W	16.67mm	100mm(12LEDs)	10m for single end feed
								20m for double ends feed
S (IC:2904)	RGBW	WM	56LEDs	D24CV	15W	17.86mm	125mm(7LEDs)	5m for single end feed
								10m for double ends feed

NOTE: Appearance of Cover*

WM=White PVC Housing1+Milky Light-emitting Surface2

Note 1: Housing color is the light color except from the light-emitting surface.

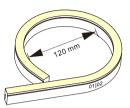
Note 2: Light-emitting surface color is the color without light up.

NOTE: Max. Running Length*

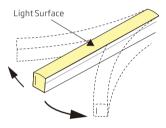
Note 3: The max continuous lengths of pixel LED Light is defined under the situation of static full loading. If the neon continually be used in the model of dynamic operating or single colour, the max continuous length can be 5 meters by one end feed, and 10 meters by both ends feed.

Cautions

- Before making any cuts, installation, maintenance or connection, be sure the mains is disconnected!
- 2. Note: All connectors should be properly installed to achieve the appropriate level of IP, IP rating can NOT be achieved without connector termination.
- 3. Please operate this flex light by instructions, and confirm the work voltage, it must be matched with product requirements.
- 4. Please confirm the polarity of connector before insertion front connection cable.
- 5. Connect and cut this product correctly. Any wrong operation will damage this product.
- 6. Using qualified DC power supply.
- 7. Please correctly use and bend this flex ribbon light, see the figures on the right.
- 8.Do not operate light when ambient temperature exceeds the range of specified temperature in User Manual.
- 9.Do not energize the light over 30 minutes in coil packaging.
- 10.Do not mix the four colors (R,G,B,W) in full load simultaneoursly.

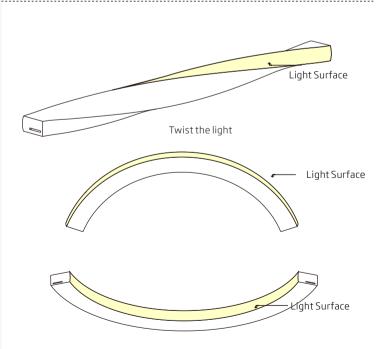


Do not bend smaller than allowed minimum bend diameter 120mm.



(HB)Horizontal Bending

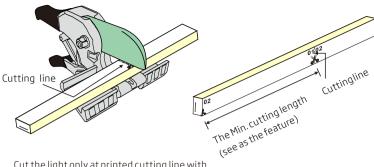




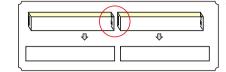
WARNING: The above wrong approaches will damage the light.



Instructions for light cutting



Cut the light only at printed cutting line with printing mark face upwards

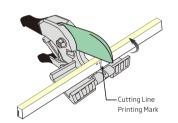


The cutting surface must be flush and smooth.



Note:

- 1. Place the light horizontally when cutting it.
- 2. Use only factory-recommended cutter.
- 3. Cut the light according to the following instructions. Incorrect operation will damage the light





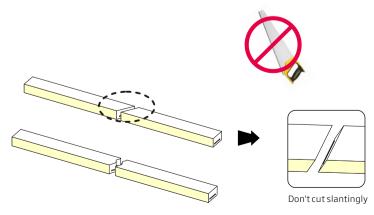
Printing mark should be faced upwards

Cutting can only be made at the printed cutting line



Please use a smooth and sharp cutter for cutting when the dedicated cutter is not available, any rusty or jagged cutter is prohibited.

Note: Waterproof may not achieved with the following situations.





Screw front connector

Please ignore these steps if the front connector has been assembled before delivery.

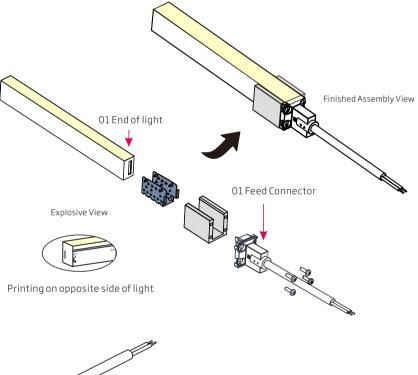
Note:

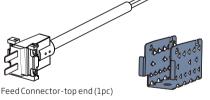
- 1. Never wet the assembly units or assemble with wet hands
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.

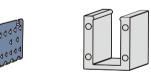
1. Components of Front Connector

Note:

The light ends are marked with either an 01 or an 02. Always make sure to use an identically labeled connector for the appropriate direction.









[Contain Silicone Gasket (1pc)] Anti-skidding Clip (1pc) Al

Aluminum Mounting Piece (1pc)

Screws (4pcs)



2. Tools:



3. Installation Steps

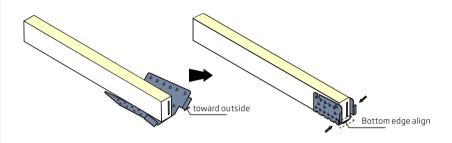
3.1 Treatment of Anti-Skidding Clip



Unfold the anti-skidding clip about 20 degrees on both sides.

3.2 Installation of Anti-Skidding Clip

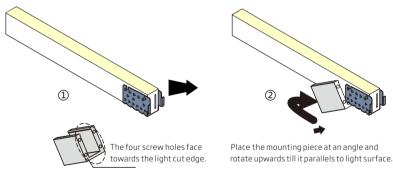
Prepare the light, and the end surface should be flush and smooth.

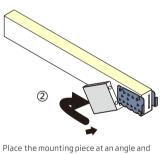


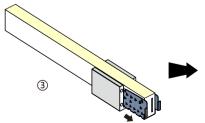
Place the anti-skidding clip onto the end of the light.

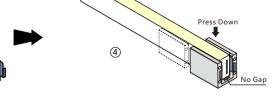
Fit the anti-skidding clip to the end of the light so that it wraps tightly and its brim is aligned with the bottom cut edge of the light.

3.3 Installation of Aluminum Mount Piece





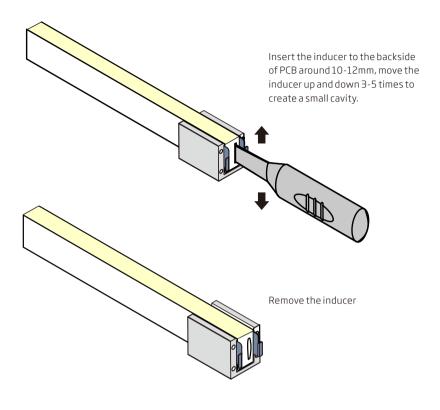




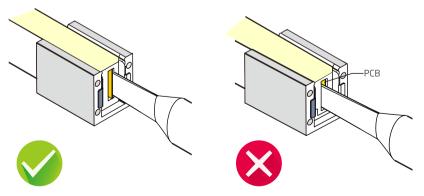
Pinch the anti-skidding clip edges and slide the mounting piece onto the anti-skidding clip straightly till end.

Press the light down and make sure the bottom of light, anti-skidding clip and the mounting piece are attached tightly.

3.4 Inducing a Cavity for Feed Connector



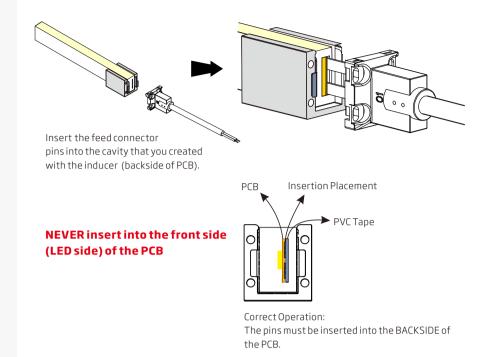




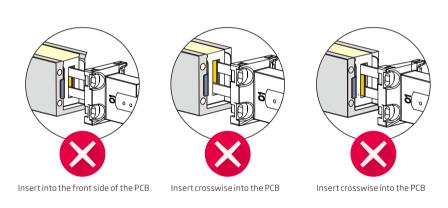
Insert the inducer into the backside of PCB

It will damage the light if insert into front side of PCB.

3.5 Inserting the Feed Connector

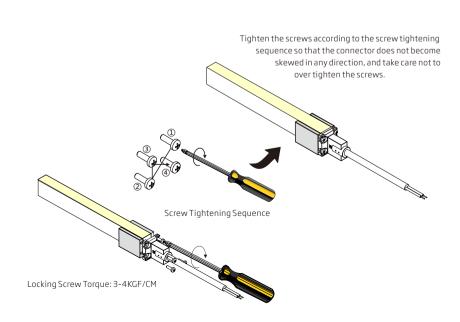


The operations on the right are prohibited:



3.6 Screws Fixation for Front Connector

Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.



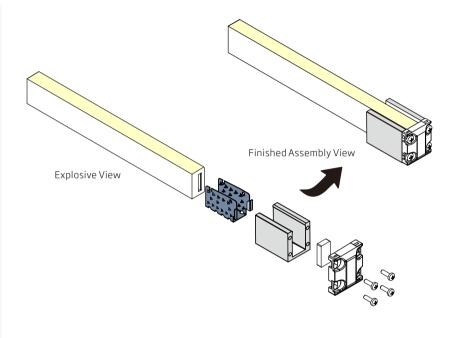
Screw End Cap

Please ignore these steps if the end cap has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4.Repeated assembly or reuse of the connector may result in waterproof failure.

1. Components of End Cap





The Tail Plug (1pc)



Silicone Gasket (1pc)



Anti-skidding Clip (1pc)



Aluminum Mounting Piece (1pc)



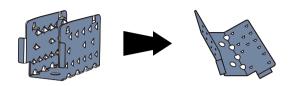
Screws (4pcs)

2.Tools



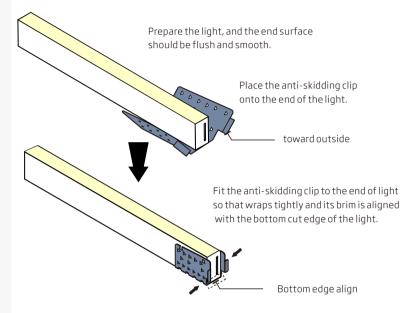
3.Installation Steps:

3.1 Treatment of Anti-Skidding Clip

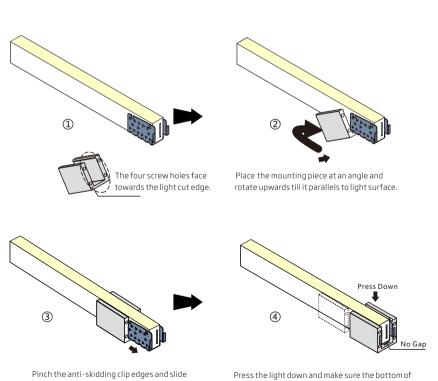


Unfold the anti-skidding clip about 20 degrees on both sides.

3.2 Installation of Anti-Skidding Clip



3.3 Installation of Aluminum Mount Piece



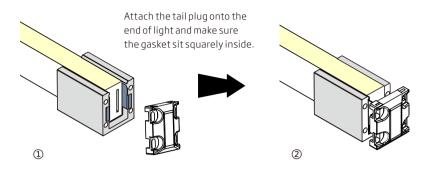
the mounting piece onto the anti-skidding

clip straightly till end.

attached tightly.

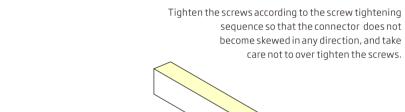
light, anti-skidding clip and the mounting piece are

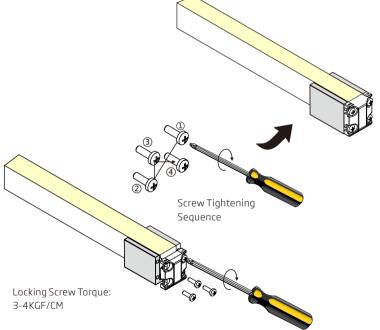
3.4 Screw Fixation for End Cap



The silicone gasket is attached on the tail plug.

3.5 Screw Fixation for End Cap





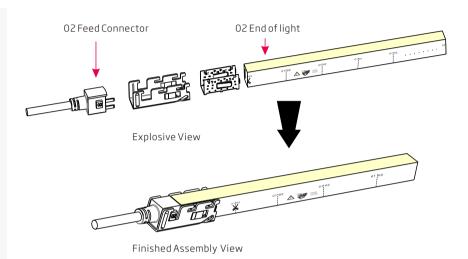
Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.

Clasp Front Connector

Please ignore these steps if the front connector has been assembled before delivery.

Note

- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.



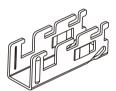
1.Components of Front Connector

Note:

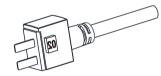
The light ends are marked with either an 01 or an 02. Always make sure to use an identically labeled connector for the appropriate direction.



Anti-skidding Clip (1pc)

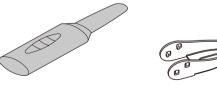


U Steel Plate (1pc)



Feed Connector (1pc)
[Contain Silicone Gasket(1pc)]

2.Tools



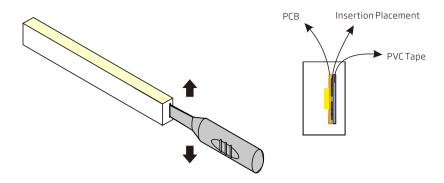
Inducer



Gripper

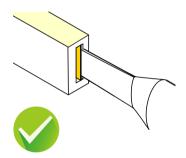
3.Installation Steps

3.1 Inducing a Cavity for Feed Connector

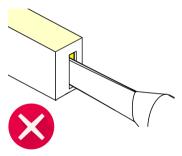


NEVER insert into the front side (LED side) of the PCB

Insert the inducer to the backside of PCB around 10^{-12} mm, move the inducer up and down 3^{-5} times gently to create a small cavity.

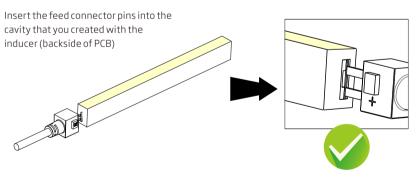




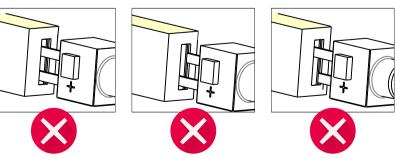


It will damage the light if insert into front side of PCB

3.2 Insert the Feed Connector

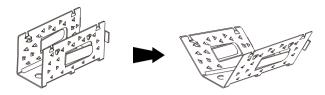


The following operations are prohibited:

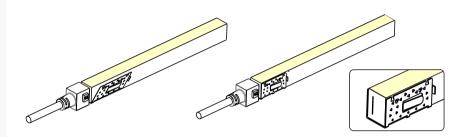


Insert crosswise into the PCB

3.3 Treatment of Anti-skidding Clip



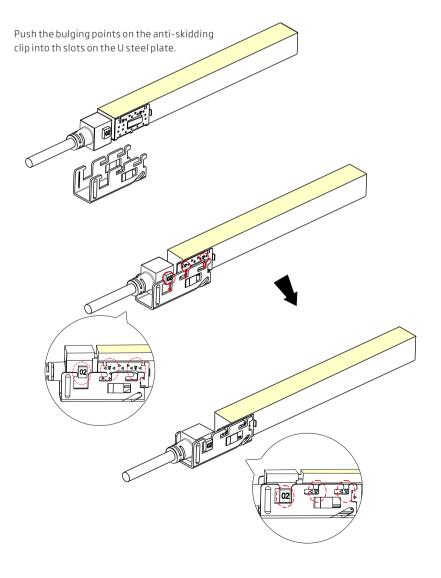
Unfold the anti-skidding clip about 20 degrees on both sides.



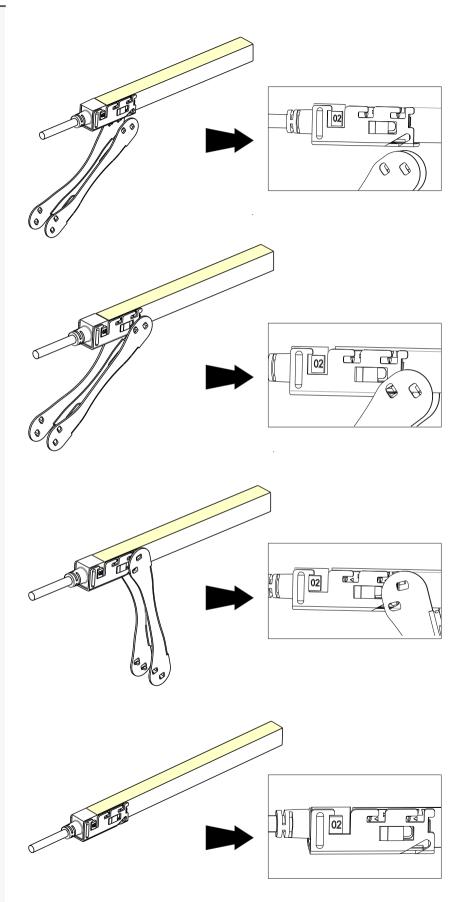
Place the anti-skidding clip onto the end of the light. Notice its installation direction.

Fit the anti-skidding clip to the end of the light tightly and align with the light end edge.

3.4 Installation fo U Steel Plate



3.5 Push the anti-skidding clip to the end until the two hook splinters on each side pop out to lock the U steel plate. Use the gripper to help tighten the piece.



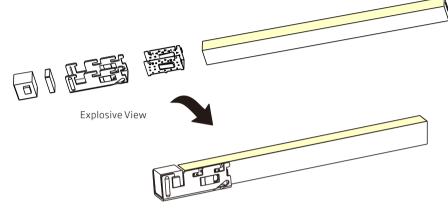
Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.

Clasp End Cap

Please ignore these steps if the end cap has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.



Finished Assembly View

1. Components of End Cap



Anti-skidding Clip (1pc)



U Steel Plate (1pc)



Silicone Gasket(1pc)



Tail Plug (1pc)





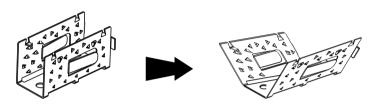
Gripper

3.Installation Steps

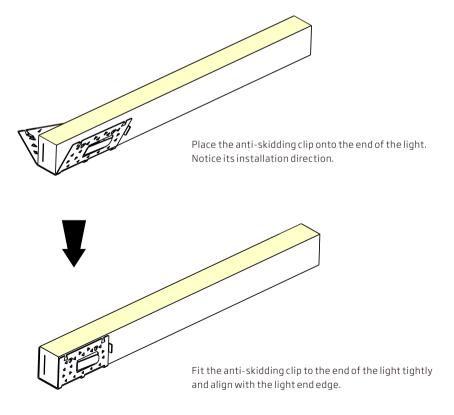
3.1 Place the tail plug into the U steel plate

The silicone gasket is attached on the tail plug.

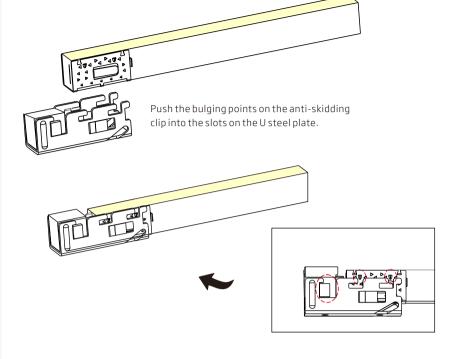
3.2 Treatment of Anti-Skidding Clip



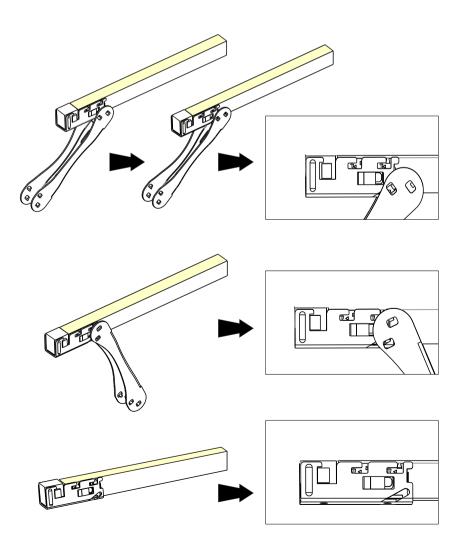
Unfold the anti-skidding clip about 20 degrees on both sides.



3.3. Installation of Tail Plug



3.4 Push the anti-skidding clip to the end until the two hook splinters on each side pop out to lock the U steel plate. Use the gripper to help tighten the piece.



Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.

Sleeve Front Connector

Please ignore these steps if the front connector has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.

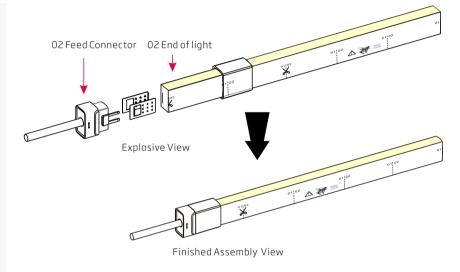


Note

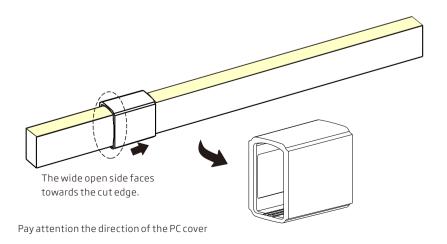
The light ends are marked with either an 01 or an 02. Always make sure to use an identically abeled connector for the appropriate direction.



2.1 Placing PC Cover

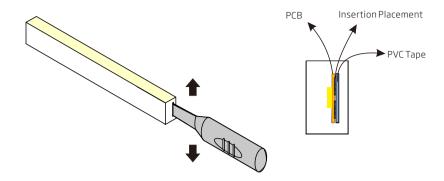






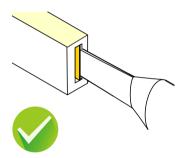
3.Installation Steps

3.1 Inducing a Cavity for Feed Connector

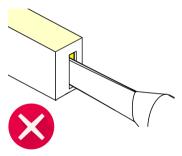


NEVER insert into the front side (LED side) of the PCB

Insert the inducer to the backside of PCB around 10~12mm, move the inducer up and down 3~5 times gently to create a small cavity.

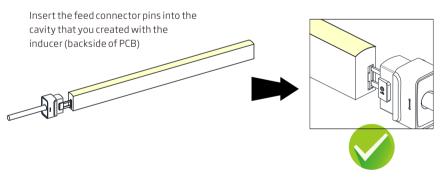




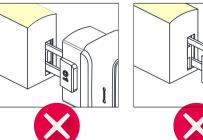


It will damage the light if insert into the front of PCB

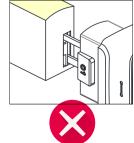
3.2 Insert the Feed Connector



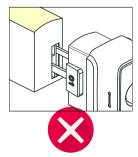
The following operations are prohibited:



Insert into the front side of the PCB

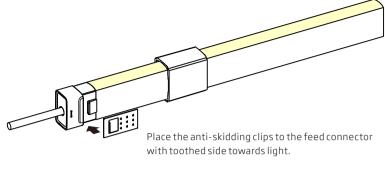


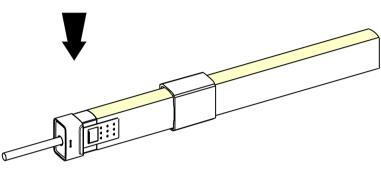
Insert crosswise into the PCB



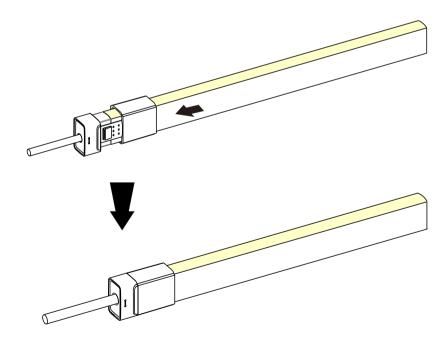
Insert crosswise into the PCB

3.3 Installation of Anti-Skidding Clip





3.4 Slide back the PC Cover to cover the anti-skidding clip completely.



Please energize the light to check its functionality after connector assembly.

Sleeve End Cap

Please ignore these steps if the end cap has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.

1. Components of End Cap

Note:

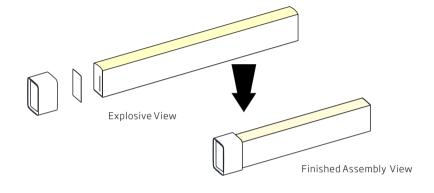
The light ends are marked with either an 01 or an 02. Always make sure to use an identically abeled connector for the appropriate direction.

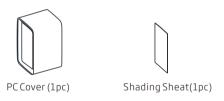
2. Installation Steps

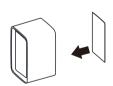
2.1 Placing Shading Sheat

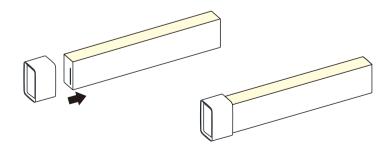
2.2 Insert the PC Cover

Please checkits OK









Snap Front Connector

Please ignore these steps if the front connector has been assembled before delivery.

Note:

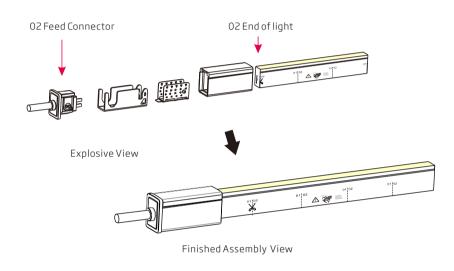
- 1. Never wet the assembly units or assemble with wet hands.
- 2. Please use the tools correctly.
- 3. Please pay attention to personal security when using tools.
- 4. Repeated assembly or reuse of the connector may result in waterproof failure.

1. Components of Front Connector

2. Tools

The light ends are marked with either an 01 or an 02. Always make sure to use an identically abeled

connector for the appropriate direction.





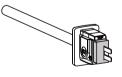
Anti-skidding Clip (1pc)



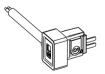
U Steel Plate (1pc)



PC Cover (1pc)



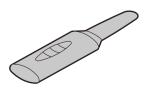
Feed Connector-top end (1pc) Feed Connector-side (1pc) [Contain Silicone Gasket (1pc)] [Contain Silicone Gasket (1pc)]





Feed Connector-bottom (1pc) [Contain Silicone Gasket (1pc)]

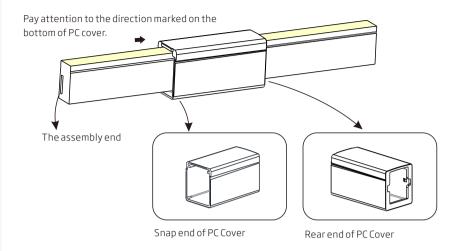




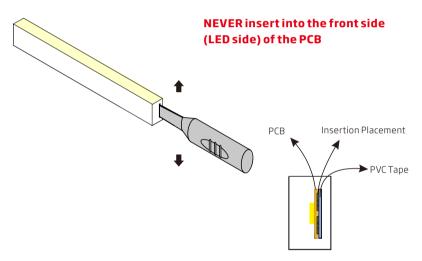
Inducer

3. Installation Steps

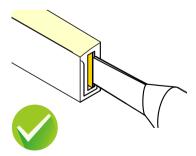
3.1 Placing PC Cover



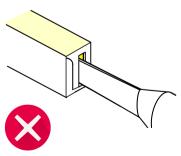
3.2 Inducing a Cavity for Feed Connector



Insert the inducer to the backside of PCB around $10 \sim 12$ mm, move the inducer up and down $3 \sim 5$ times gently to create a small cavity.

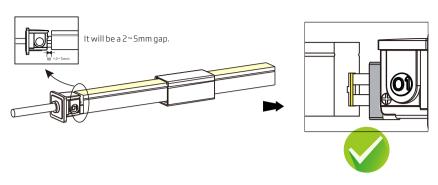


Insert the inducer into the backside of PCB

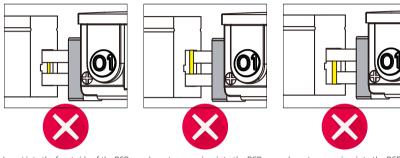


It will damage the light if insert into front side of PCB

3.3 Inserting the Feed Connector



The following operations are prohibited:

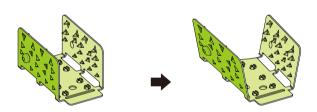


Insert into the front side of the PCB

Insert crosswise into the PCB

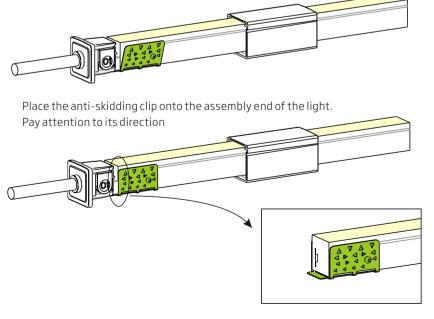
Insert crosswise into the PCB

3.4 Treatment of Anti-skidding Clip



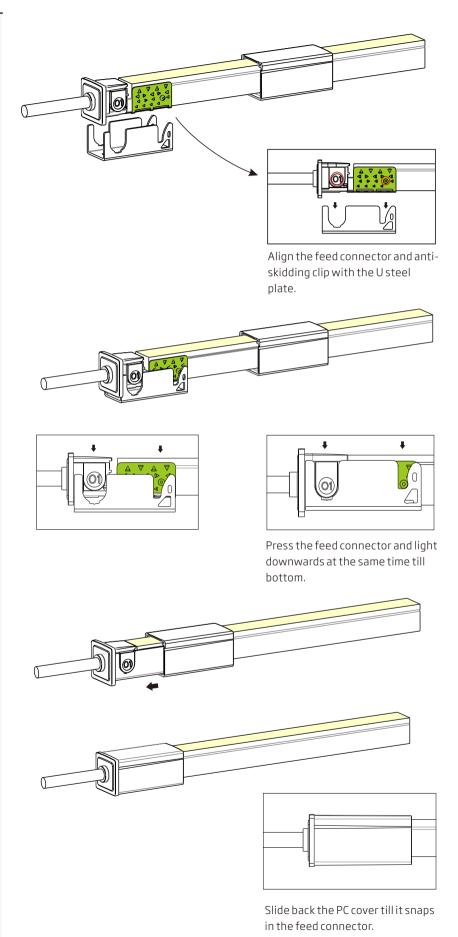
Unfold the anti-skidding clip about 20 degrees on both sides.

3.5 Installation of Anti-Skidding Clip



Fit the anti-skidding clip to the end of the light so that it wraps tightly and its brim is aligned with the cut edge on both sides.

3.6 Installation of U Steel Plate and PC Cover



Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.

Snap End Cap

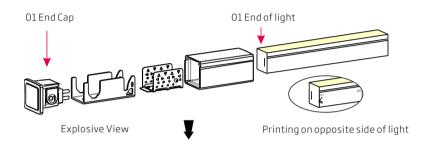
Please ignore these steps if the End Cap has been assembled before delivery.

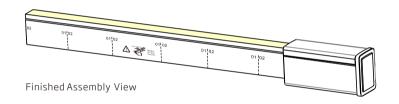
Note

1. Repeated assembly or reuse of the connector may result in waterproof failure.

1. Components of End Cap

2. Tools

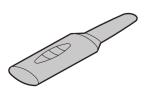








Tail Plug (1pc) [Contain Silicone Gasket (1pc)]



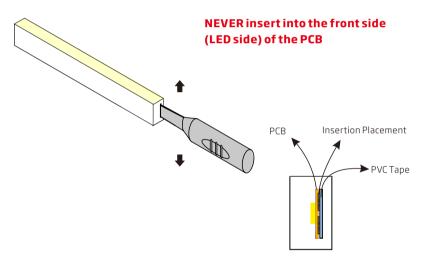
Inducer

3. Installation Steps

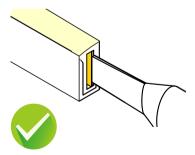
3.1 Placing PC Cover

Pay attention to the direction marked on the bottom of PC cover. The assembly end Snap end of PC Cover Rear end of PC Cover

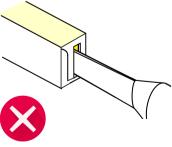
3.2 Inducing a Cavity for Tail Plug



Insert the inducer to the backside of PCB around $10 \sim 12$ mm, move the inducer up and down $3 \sim 5$ times gently to create a small cavity.

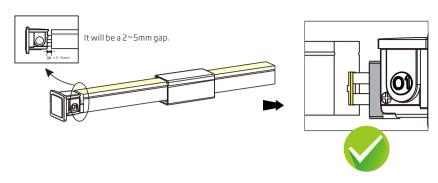


Insert the inducer into the backside of PCB

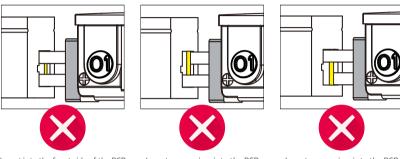


It will damage the light if insert into front side of PCB

3.3 Inserting the Feed Connector



The following operations are prohibited:

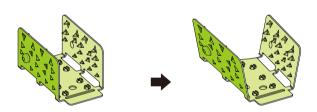


Insert into the front side of the PCB

Insert crosswise into the PCB

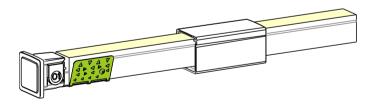
Insert crosswise into the PCB

3.4 Treatment of Anti-skidding Clip

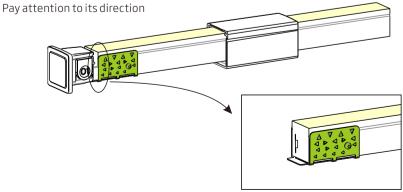


Unfold the anti-skidding clip about 20 degrees on both sides.

3.5 Installation of Anti-Skidding Clip

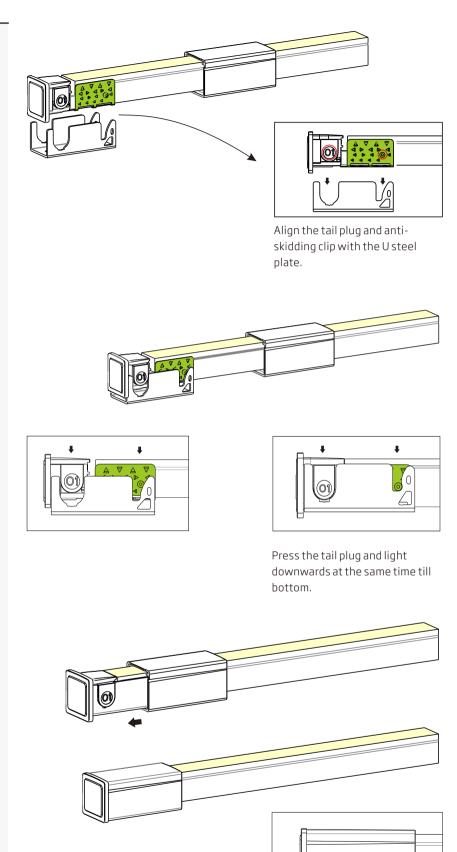


Place the anti-skidding clip onto the assembly end of the light.



Fit the anti-skidding clip to the end of so that it wraps tightly and its brim is aligned with the cut edge on both sides.

3.6 Installation of U Steel Plate and PC Cover



Please energize the light to check its functionality and do waterproof reliablity testing (refer to "waterproof reliability testing instruction" video) after connector assembly.

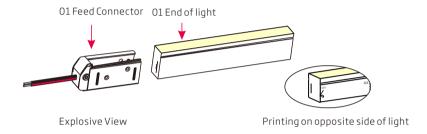
Slide back the PC cover till it snaps in the tail plug.

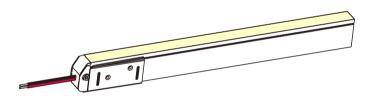
Swivel Front Connector

Please ignore these steps if the front connector has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands;
- 2. Please use the tools correctly;
- 3. Please pay attentions to personal security when using tools.
- 4. Failure to properly seal and assemble as instructed may void warranty.
- 5. Repeated assembly or reuse of the connector may result in waterproof failure.



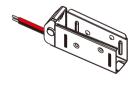


Finished Assembly View

1.Components of Front Connector

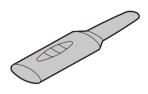
Note:

The light ends are marked with either an 01 or an 02. Alays make sure to use an identically labeled connector for the appropriate direction.



Feed Connector-top end (1pc)
[U Steel Plate (1pc)]

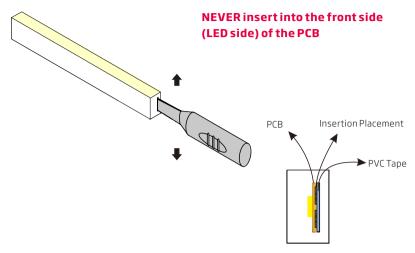
2. Tools



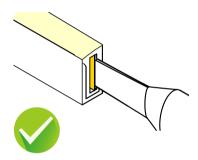
Inducer

2.Installation Steps

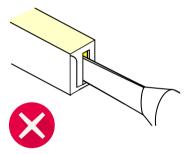
2.1 Inducing a Cavity for Feed Connector



Insert the inducer to the backside of PCB around $10\sim12$ mm, move the inducer up and down $3\sim5$ times gently to create a small cavity.



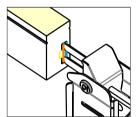
Insert the inducer into the backside of PCB



It will damage the light if insert into front side of PCB

2.2 Inserting the Feed Connector

Rotate the feed connector pin to make its orientation vertical and insert it into the backside of PCB tightly.

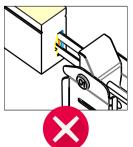


Insert the feed connector pins into the cavity that you created with the inducer (backside of PCB)



The silicone gasket is attached on the feed connector.

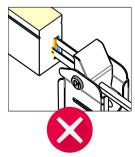
The following operations are prohibited:



Insert into the front side of the PCB



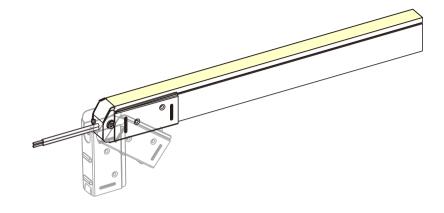
Insert crosswise into the PCB



Insert crosswise into the PCB

2.3 Rotate back till the light seat into the steel plate tightly

Apply power to test light after assembly

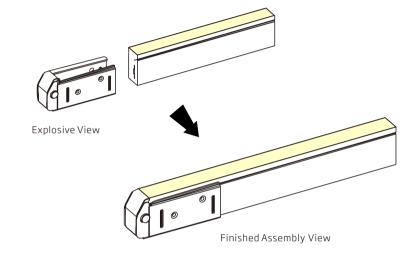


Swivel End Cap

Please ignore these steps if the end cap has been assembled before delivery.

Note:

- 1. Never wet the assembly units or assemble with wet hands;
- 2. Please use the tools correctly;
- 3. Please pay attentions to personal security when using tools.
- 4. Failure to properly seal and assemble as instructed may void warranty.
- 5. Repeated assembly or reuse of the connector may result in waterproof failure.



1. Components of End Cap



Tail Plug (1pc)
[U Steel Plate (1pc)]

2.Installation Steps

2.1 Rotate the end cap clockwise by 90 degrees.



Put the light end and end cap together and rotate it to seat into the steel plate horizontally. Slide the light to the end cap and make sure they are attached tightly.

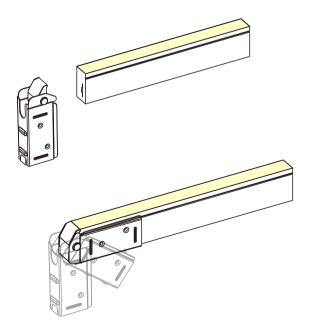
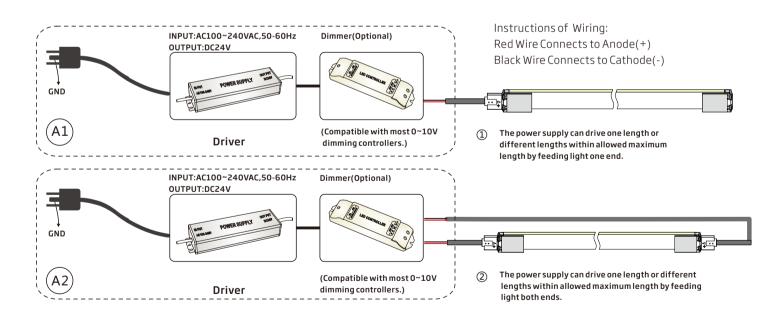


Diagram of Light Wiring

1. Monochrome Light Wiring

Note:

- 1. This LED Neon Flex Ribbon must be used in conjunction with DC24V power supply.
- 2. Always observe proper polarity.
- 3.Ensure to add 20% buffer when sizing power supply.
- 4. Ensure that the power cable carried current is no greater than 80% of its capacity.
- 5.To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of LED Neon Flex Ribbon and keep the power line as short as possible.



Max.Continuous Length	Article No.	Single End Feed Red/Amber	Single End Feed Green/Blue/White	Double Ends Feed Red/Amber	Double Ends Feed Green/Blue/White
	NE-SD-CV	15m	10m	30m	20m
	NE-SD-CC	15m	10m	30m	20m
	NE-SD-PRO	15m	10m	30m	20m

2. RGB Light Wiring

Note:

- 1. This LED Neon Flex Ribbon must be used in conjunction with DC24V power supply.
- 2. Always observe proper polarity. Polarity symbols should match on each component.
- 3. Ensure to add 20% buffer when sizing power supply.
- 4. Ensure that the power cable carried current is no greater than 80% of its capacity.
- 5. To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of LED Neon Flex Ribbon and keep the power line as short as possible.
- 6. Compatible with RGB controller and DMX control.

Instructions of RGB Light Wiring:

Yellow Wire Connects to Anode(+).

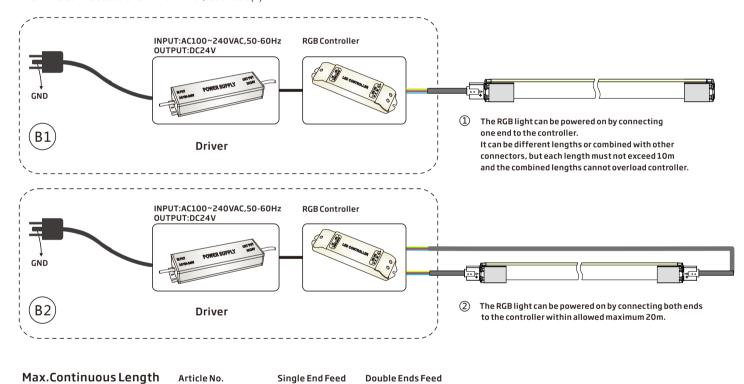
Red Wire Connects to the "R" Terminal, Cathode(-).

Green Wire Connects to the "G"Terminal, Cathode(-).

NE-SD-CV

10m

Blue Wire Connects to the "B" Terminal, Cathode(-).



20m

3. Dynamic Light Wiring

Note:

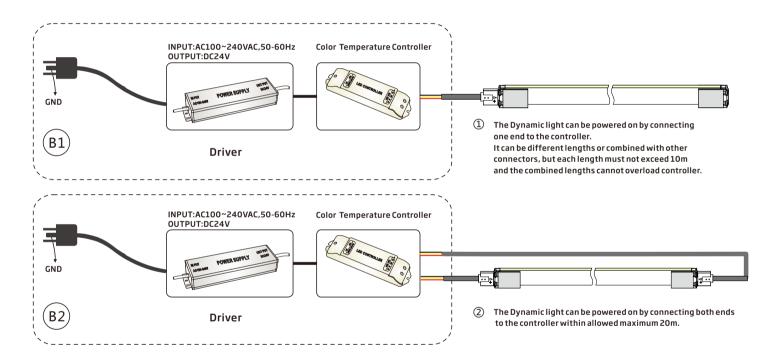
- 1. This LED Neon Flex Ribbon must be used in conjunction with DC24V power supply.
- 2. Always observe proper polarity. Polarity symbols should match on each component.
- 3. Ensure to add 20% buffer when sizing power supply.
- 4. Ensure that the power cable carried current is no greater than 80% of its capacity.
- 5. To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of LED Neon Flex Ribbon and keep the power line as short as possible.
- 6. Compatible with RGB controller and DMX control.

Instructions of Dynamic Light Wiring:

Red Wire Connects to Anode(+).

Yellow Wire Connects to Low Color Temperature Connection, Cathode(-).

Black Wire Connects to High Color Temperature Connection, Cathode(-).



Max.Continuous Length	Article No.	Single End Feed	Double Ends Feed
	NE-SD-CV	10m	20m
	NE-SD-PRO	10m	20m

4. RGBW Light Wiring

Note:

- 1. This LED Neon Flex Ribbon must be used in conjunction with DC24V power supply.
- 2. Always observe proper polarity. Polarity symbols should match on each component.
- 3. Ensure to add 20% buffer when sizing power supply.
- 4. Ensure that the power cable carried current is no greater than 80% of its capacity.
- 5. To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of LED Neon Flex Ribbon and keep the power line as short as possible.
- 6. Compatible with RGBW controller and DMX control.

Instructions of RGBW Light Wiring:

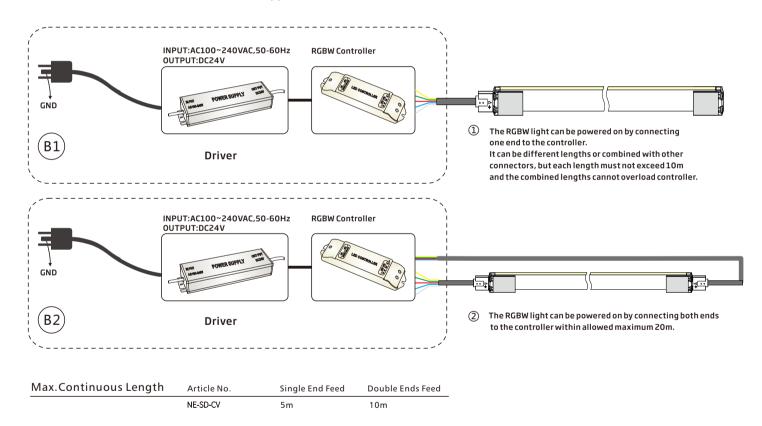
Yellow Wire Connects to Anode(+).

Red Wire Connects to the "R" Terminal, Cathode(-).

Green Wire Connects to the "G"Terminal, Cathode(-).

Blue Wire Connects to the "B" Terminal, Cathode(-).

White Wire Connects to the "W" Terminal, Cathode(-).



5. Chasing Light Wiring

Note:

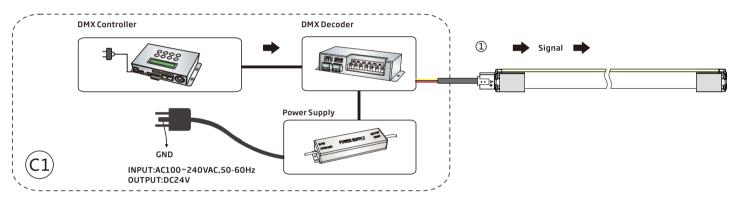
- 1. This LED Neon Flex Ribbon must be used in conjunction with a DC24V power supply and IC-UCS2903(2904) compatible controller or decoder.
- 2.Polarity symbols, GND, signal line connection should match on each component properly.
- 3.Ensure to add 20% buffer when sizing power supply.
- 4. Ensure that the power cable carried current is no greater than 80% of its capacity.
- 5.To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of LED Neon Flex Ribbon and keep the power line as short as possible.
- 6. This Chasing Ribbon Light is one directional. The signal input direction is always indicated by an arrow marked on the side of light.

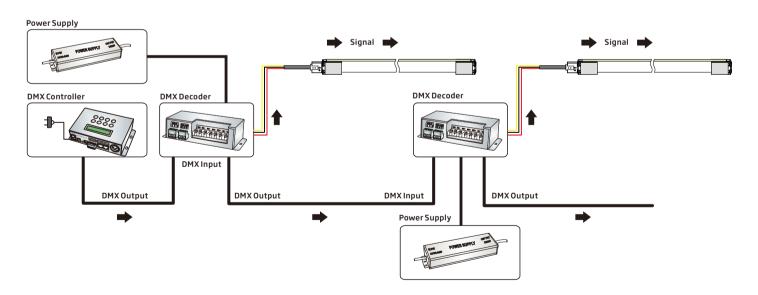
Instructions for Chasing Light Wiring:

Red Wire Connects to the "VCC" or Anode (+) Terminal

Yellow Wire Connects to the "Signal" Terminal.

Black Wire Connects to the "GND" or Cathode (-) Terminal

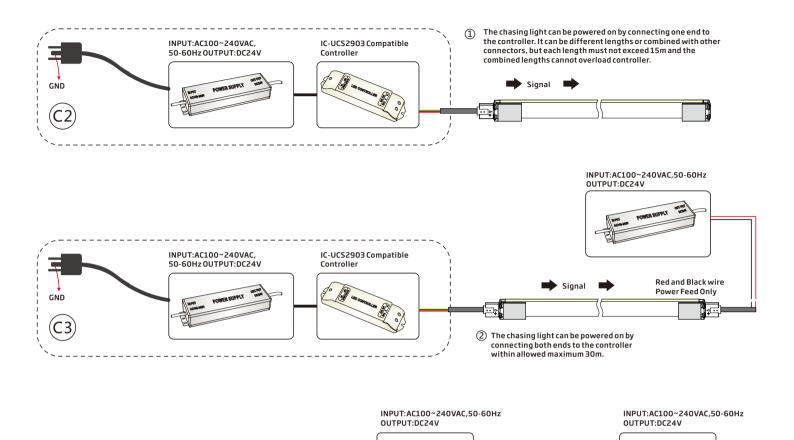




Note:

The Pixel Addressable Light series allows precise control of every cutting increment. To ensure IC chips receive strong control signals, please adhere to the parameters listed below.

- 1) To ensure strong signal the 3-wire signal cable should not exceed 10m.
- 2) For cable lengths longer than 10m, a signal amplifier must be used for strong signal transmission. Please ask our technical teamfor more details.



3 The chasing light can be powered on by series connecting to the controller within allowed maximum length.

Signal

INPUT:AC100~240VAC, IC-UCS 2903 Compatible 50-60Hz OUTPUT:DC24V Controller

Max.Continuous Length	Article No.	Single End Feed	Double Ends Feed
	NE-SD-CV	15m(Dynamic Operating)	30m(Dynamic Operating)
	NE-SD-CV-8	15m(Dynamic Operating)	30m(Dynamic Operating)
	NE-SD-CV-21	10m(Dynamic Operating)	20m(Dynamic Operating)

Note:

The Pixel Addressable Light series allows precise control of every cutting increment. To ensure IC chips receive strong control signals, please adhere to the parameters listed below.

- 1) To ensure strong signal the 3-wire signal cable should not exceed 10m.
- 2) For cable lengths longer than 10m, a signal amplifier must be used for strong signal transmission. Please ask our technical teamfor more details.

Signal 📫

Use power T-Feed connector

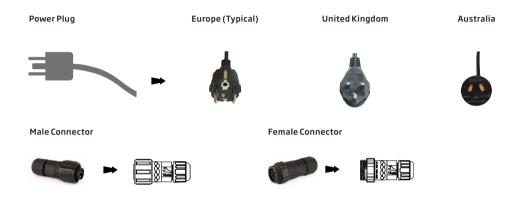
6. High Voltage Light Wiring



Part 1 Power Cable

Part 2 Extension

Part 3 Power connector & terminal



Part 1: Power Cable

High voltage power supply with fuse box for not UL listed light

 $Note: Please \ select \ the \ plug \ type \ based \ on \ your \ country \ electricity \ standard.$

Part 1 can power Part 2 or Part 3 directly.

Part 2: Extension

 $With injection-moulded \, connectors \, on \, both \, ends, \, Part \, 2 \, can \, be \, used \, for \, light \, extension.$

Part 3: Power connector & terminal

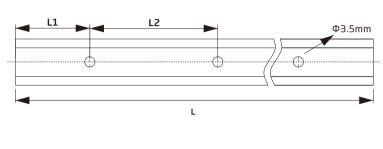
Connect with Part 1 directly.

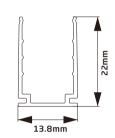
Max.Continuous Length	Article No.	Single End Feed
	NF-SD	80m

Mounting Profile Options

1.1 Standard Aluminum Profile







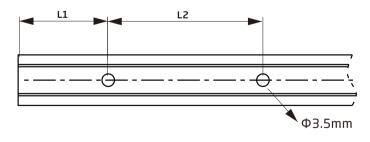
Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

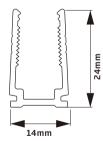
Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	Screw Hole(mm)	Hole Number	For Product
NE-SD-CH	13.8*22	35	17.5	/	Ф3.5	1	SD/XL
		500	50	200	Ф3.5	3	SD/XL
		1000	100	200	Ф3.5	5	SD/XL
		2000	100	200	Ф3.5	10	SD/XL

1.2 Plastic Profile



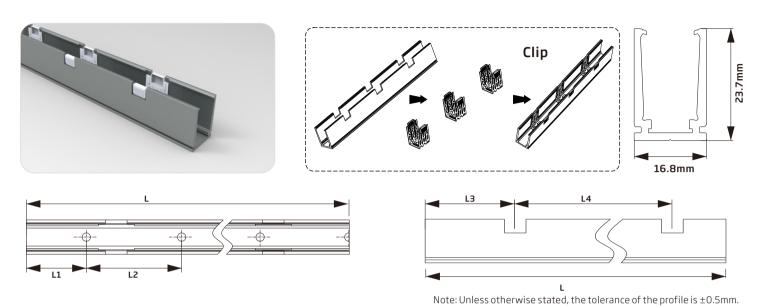




Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	Screw Hole(mm)	Hole Number	For Product
NE-SD-CH	14*24	500	50	200	Ф3.5	3	SD/XL
		1000	100	200	Ф3.5	5	SD/XL
		2000	100	200	Ф3.5	10	SD/XL

1.3 Self-locking Aluminum Profile Ver 1.0 (Using with the clip)

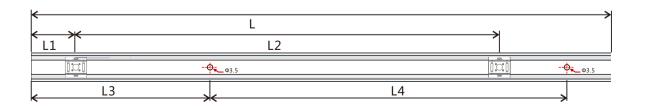


Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	L3(mm)	L4(mm)	Screw Hole(mm)	Hole Number	Clip Number	For Product
NE-SD-CH	16.8*23.7	35	17.5	/	5	/	Ф3.5	2	1	SD/XL
		500	50	200	75	350	Ф3.5	3	2	SD/XL
		1000	100	200	150	350	Ф3.5	5	3	SD/XL
		2000	100	200	125	350	Ф3.5	10	6	SD/XL

1.4 Self-locking Aluminum Profile Ver 2.0 (Using with the Clip)

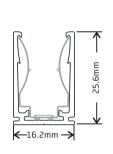


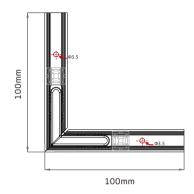


Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	L3(mm)	L4(mm)	Hole Screw(mm)	Hole Number	Clip Number
NE-SD-CH 1		35	17.5	/	5	25	Ф3.5	2	1
	16 2*25 6	500	25	225	50	200	Ф3.5	3	3
INE-SD-CH	16.2*25.6	1000	25	237.5	100	200	Ф3.5	5	5
		2000	25	243.8	100	200	Φ3.5	10	9

1.5 L Shape Self-locking Aluminum Profile Ver. 2 (Using with the Clip)





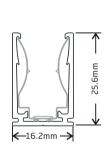


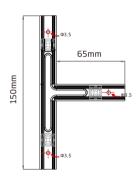
Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.6 T Shape Self-locking Aluminum Profile Ver. 2 (Using with the Clip)



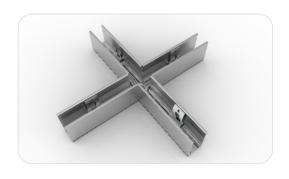


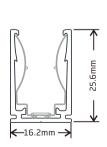


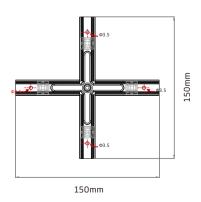
Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.7 X Shape Self-locking Aluminum Profile Ver. 2 (Using with the Clip)



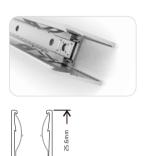




Model: NE-SD-CH

1.8 Self-locking Aluminum Profile Ver. 2, Bottom Feed (Using with the Clip)





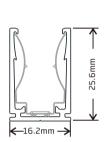


Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.9 Self-locking Aluminum Profile Ver. 2, Middle Feed (Using with the Clip)





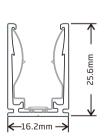


Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.10 Self-locking Aluminum Profile Ver. 2, Side Feed From Left (Using with the Clip)



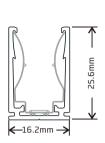


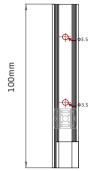


Model: NE-SD-CH

1.11 Self-locking Aluminum Profile Ver. 2, Side Feed From Right (Using with the Clip)





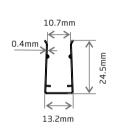


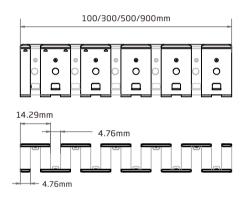
Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.12 Curve Stainless Steel Profile





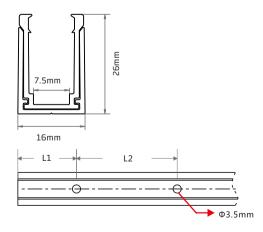


Model: NE-SD-CH

Note: Unless otherwise stated, the tolerance of the profile is ± 0.5 mm.

1.13 Plastic & Aluminum Combination Profile





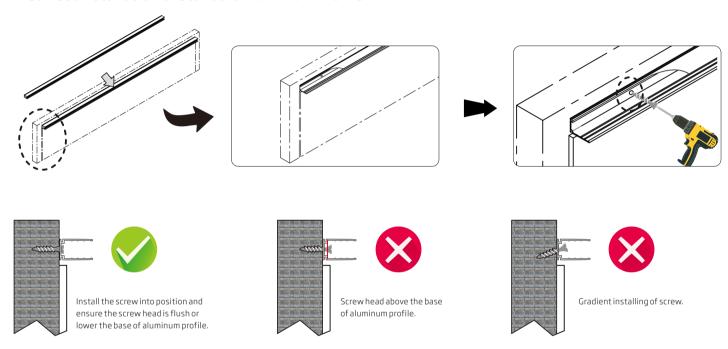
Model	W*H(mm)	Standard Length (mm)	L1 (mm)	L2 (mm)	Screw Hole (mm)	Hole Number	For Product
		35	17.5	/	Ф3.5	1	SD/XL
NE-SD-CH	16*26	500	50	200	Ф3.5	3	SD/XL
		1000	100	200	Ф3.5	5	SD/XL
		2000	100	200	Ф3.5	10	SD/XL

2. Installation Guide

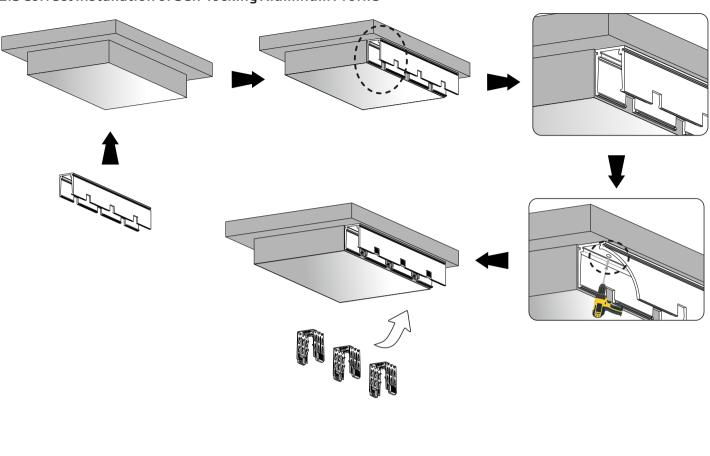
2.1 Prepare for Installation

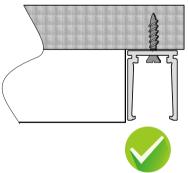


2.2 Correct Installation of Standard Aluminum Profile

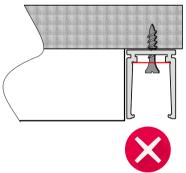


2.3 Correct Installation of Self-locking Aluminum Profile





Install the screw into position and ensure the screw head is flush or lower the base of aluminum profile.



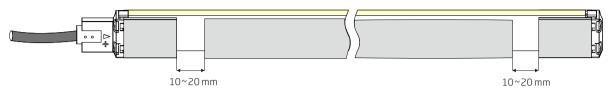
Screw head above to the base of aluminum profile.



Gradient installing of screw.

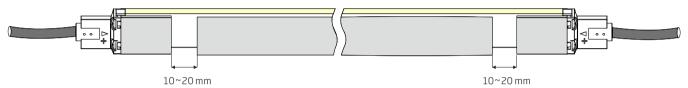
3. Requirements and Cautions for Installation of Mounting Profile

3.1 For Light with Screw Connector Fittings (Clasp Connector and Sleeve Connector also refer to the following cautions)



Ensure the supply cord is not subject to mechanical stress.

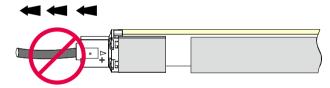
Keep 10-20mm distance between the end of aluminum profile and that of aluminum mounting piece.





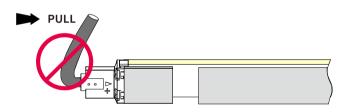
Mechanical stress on front connector cable shall be avoided.



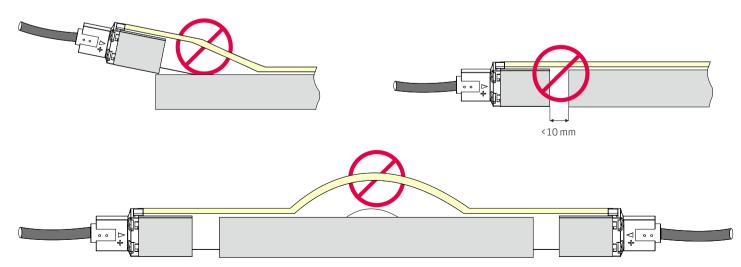


It is forbidden to let any connector aluminum mounting piece on the aluminum profile and make light deformation.

It is forbidden to curl or pull the front connector cable with excessive force.



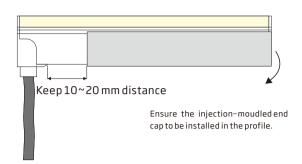
The space between aluminum profile and aluminum mounting piece less than 10mm is forbidden.

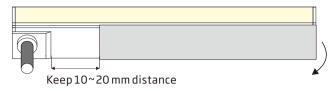


Install light in one direction. Don't let it choke in middle.



3.2 For Light with Injection-molded Connector Fittings





Ensure the injection-moudled end cap to be installed in the profile.

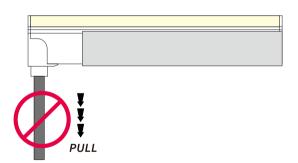
Ensure the power cable is not subject to mechanical stress at the beginning.



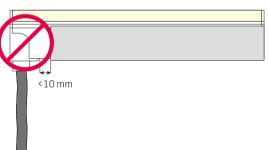
Ensure the injection–moudled front connector (top end) and end cap to be installed in the profile.



Mechanical stress on front connector cable shall be avoided.



The space between connector and mounting profile less than 10mm is forbidden.



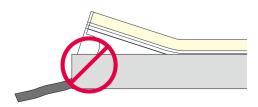
It is forbidden to curl or pull the front connector cable with excessive force.

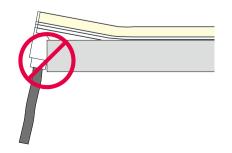


It is forbidden to curl or pull the front connector cable $% \left(1\right) =\left(1\right) \left(1\right) =\left(1\right) \left(1\right) \left$



It is forbidden to force the injection-moulded end to fit into the mounting profile and make light deformation.

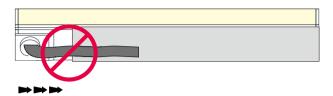


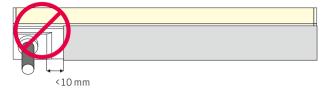




It is forbidden to curl or pull the front connector cable with excessive force.

The space between connector and mounting profile less than 10mm is forbidden.

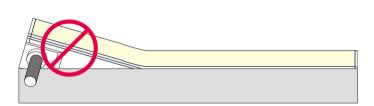


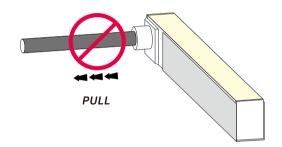


PULL

It is forbidden to force the injection-moulded end to fit into the mounting profile and make light deformation.

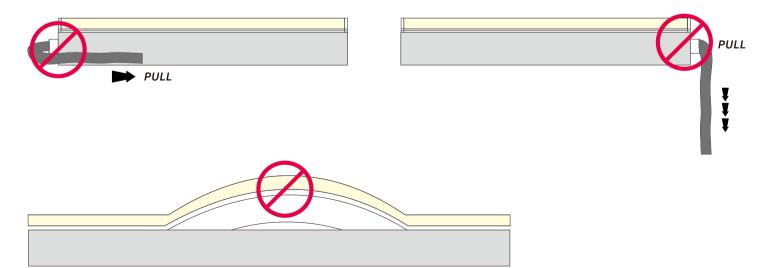
Mechanical stress on front connector cable shall be avoided.





It is forbidden to curl or pull the front connector cable with excessive force.

Mechanical stress on front connector cable shall be avoided.

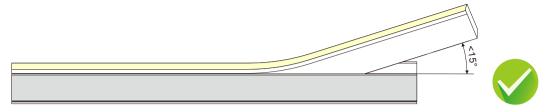


Install the light in one direction, no matter what kind of connector used . Don't let it choke in middle.

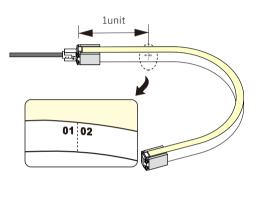


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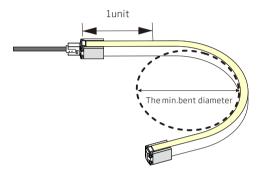
3.3 Bending in the Process of Installation



Installing angle should be less than 15 degree when pressing the light to the aluminum profile by hand.

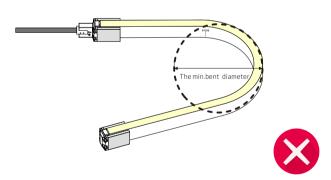


Please avoid bending at the first unit of the light.

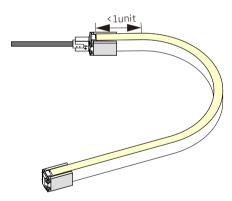


The light can bend in defined min. bending diameter or larger.

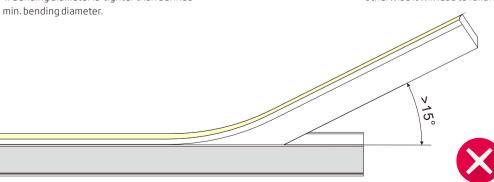




The circuit board and LEDs could be damaged if bending diameter is tighter than defined min, bending diameter.



Do not bend against the first or last unit of the light, otherwise it will lead to failure of connector waterproof.



The circuit board could be damaged if installing angle larger than 15 degree.

Troubleshooting

The whole light doesn't work.

Check power supply is plugged in, switched on and receiving power.

Check all light, dimmer or controller connections connection from the power supply to LED Neon Flex Ribbon.

Check polarity of all wire connections.

Make sure power supply output voltage is 24V DC.

Check front connector is inserted into backside of PCB and properly assembled.

Light emitting appear dim or dull at one end.

Check whether the output voltage of the power supply is lower than that of light.

Adjust the dimming level to the maximum.

Power from both ends or shorten lighting length to prevent voltage drop.

Light emitting appear excessive brightness.

Check whether the output voltage of power supply is higher than that of light.

Check whether the power grid is stable.

If the first segment doesn't work.

Cut not in indicated cutting line or not in a straight line. Cut out and remove the first segment.

Damage caused to the first LED when inserting the front connector to the right side of PCB. Cut out the first segment and properly assemble connector.

Water ingress due to poor connector assembly could cause a short circuit of first segment. Replace length with a new one.

 $External\ impact\ damage\ inside\ LEDs.\ Only\ use\ your\ hands\ to\ install\ LED\ Neon\ Flex\ Ribbon\ into\ aluminum\ profile.$

LED Neon Flex Ribbon is flashing on and off.

Check the power supply to ensure it supports the length you are using. Select the appropriate strength or install an additional power supply to support your installation.

Check power supply output voltage is stable.

Check front connector is properly installed with good contact with the copper PCB.

Check proper controller is connected for light working.

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Limited Warranty

Surelight Ltd hereby warrants, to the original purchaser, Surelight Ltd finished products to be free of manufacturing defects in material and workmanship for a standard period of 3 Years unless otherwise stated from the date of purchase, with an extended warranty available upon request. This warranty shall be valid only if the product is purchased from Surelight Ltd. During the warranty period, you are entitled to have the products repaired or replaced if the products fail to be of acceptable quality and damage under normal use. It is the owner's responsibility to establish the date and warranty terms by acceptable evidence, at the time service is sought.

Warranty is applied by the Surelight Ltd in England. Surelight Ltd retains the right to review the justification of the claim. The limited warranty is subjected to the following additional conditions:

a. The product is properly handled, installed and maintained according to official latest instructions or manual of Surelight Ltd and applicable regulations and standards.

b. Purchaser must notify Surelight Ltd in writing of 8D CORRECTIVE ACTION REPORT to specially state the defect in question no later than 15 days after they were detected. Acceptance of the product shall not be denied on the grounds of insignificant defects. Claims for defects notified belatedly are excluded.

c.A copy of the purchase invoice of the concerned products must be attached to submit to Surelight Ltd.

d.The concerned products sample shall be returned back as required quantity to Surelight Ltd for inspection upon request, and sent to the following address:

Surelight Ltd

Unit 37

Venture One Business Park

Long Acre Close

Holbrook Industrial Estate

Sheffield

S20 3FF

This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. Parts not covered by this warranty include: fuses, external power supplies, third party items not manufactures by Surelight Ltd. During the period specified above, if any product covered by this limited warranty, Surelight Ltd determines to its satisfaction that such product failed to satisfy this warranty, Surelight Ltd will, at its own discretion, repair or replace the product or the defective part thereof does not include any removal or reinstallation costs or expenses, including, without limitation, any labor costs or expense, shipping costs to return non-confirming products or any damages that may occur during the return of product to Surelight Ltd. A refund will not be provided for any warranty claim. but the purchase may, at its discretion, require deducting the original purchase price of defective product or part from future purchase orders.

If Surelight Ltd chooses to replace the product and is not able to do so because it has been discontinued or is not available, Surelight Ltd may replace it with a comparable product. Surelight Ltd reserves the right to use new, reconditioned, refurbished, repaired, or remanufactured products or parts in the repair of replacement of any product covered by this limited warranty. All products covered by this warranty were manufactured after January 1, 2012, and bear identifying code to that effect.

Surelight Ltd reserves the right to make changes in design and/or improvements upon its products and accessories without any obligation to include these changes in any products theretofore manufactured.

Exclusion of Warranty:

- a. Warranty period has expired.
- $b. Legal\ proof-of-purchase\ invoice\ or\ PO\ numbers\ are\ not\ provided, or\ are\ reasonably\ believed\ to\ have\ been\ forged\ or\ tampered\ with.$
- c. Damage caused by improper installation, wiring, storage, transportation, incorrect use, bending or operation not in accordance with the official latest instructions or manual.
- d. Damage caused by unauthorized modification, dissection, soldering, or any deliberate damage or losses.
- e. Damaged caused by the carrier in-transit, which will be handled under separate terms (Purchaser's designated consignee is responsible for all eight claims; Surelight Ltd will be available to assist in such matters if proving forward service).
- $f. \ \ Accessories \ or \ attachments \ to \ the \ product \ that \ are \ not \ supplied \ or \ approved \ by \ Surelight \ Ltd \ and \ led \ to \ the \ damage.$
- g. The product is not used for the purpose for which designed or if any repairs, alterations or maintenances are made by any person not authorized by Surelight Ltd.
- $h. Product silk\ printed\ serial\ numbers,\ crimped\ waterproof\ ring\ show\ signs\ of\ tampering\ or\ removal.$
- i. Conditions demonstrating misapplication, under/over voltage situations, extreme environmental conditions beyond those defined in the product specification.
- j. Abrasions and natural appearance variations (i.e. dusty, fouling, etc.) that do not affect the function of the product.
- $k. \, \text{Direct or indirect losses caused by force majeure (i.e. \, vandalism, natural \, disaster, warfare, acts of \, terrorism, \, riots, \, fire, \, explosion, \, etc.).}$

Freight

Transportation cost for return product will be carriage paid (at the cost of the claimant). If the product was found to be defective after inspection, Surelight Ltd will reimburse the freight cost by deducting it from future order and bear the cost of replacement or repaired product delivery (Surelight Ltd will, at its own dissection, select the shipping way); if the product was found not to be defective or exclusion of warranty, the claimant shall bear all the return expenditures and need to re-purchase the product if requires replacement.

This warranty is the only written warranty applicable to Surelight Ltd Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

Appendix

1.Correlated Color Temperature (CCT)

ANSI STANDARD

Nominal CCT Categories

Nominal CCT	Target CCT and tolerance(K)	Target D _{uv}	D _{uv} Tolerance Range
2200K	2238 ±102	0.0000	Tx:CCT of the source
2500K	2460±120	0.0000	For Tx < 2870K
2700K	2725 ±145	0.0000	0.000±0.0060
3000K	3045±175	0.0001	For Tx≥2870K
3500K	3465±245	0.0005	Duv(Tx)±0.0060
4000K	3985±275	0.0010	where
4500K	4503±243	0.0015	Duv(Tx) = 57700 x (1/Tx)2
5000K	5029±283	0.0020	-44.6 x (1/Tx)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	
Flexible CCT	$T_F^{1)} \pm \Delta T^{2)}$	D _{uv} T _F ³⁾	

- 1) T_F is chosen to be at 100K steps (2300,2400,....,6400K),excluding the ten nominal CCTs listed in Table 1.
- 2) $\Delta T = 1.1900 \times 10^8 \times T^3$ -1.5434x10⁴xT²+0.7168xT-902.55
- 3) Same as in the $D_{\mbox{\tiny uv}}$ Tolerance Range.

Flexible CCT (2200-6500K) $T_{\epsilon}^{1)} \pm \Delta T^{2)}$

This chart only applicable to input voltage of 24V DC

WattS of Light	22AWG/0. 34mm ²	20AWG/0. 53mm ²	18AWG/0. 82mm ²	17AWG/1. 04mm ²	16AWG/1. 38mm ²	14AWG/2. 07mm ²	12AWG/3. 29mm ²	10AWG/5. 62mm ²
10W	36m	60m	100m	120m	140m	240m	400m	600m
20W	18m	30m	50m	60m	70m	120m	200m	300m
30W	12m	20m	30m	38m	45m	80m	130m	200m
40W	8m	15m	22m	28m	35m	60m	95m	140m
50W	6m	12m	18m	22m	28m	48m	75m	105m
60W	5m	10m	15m	18m	22m	36m	60m	88m
70W	/	8m	12m	14m	18m	30m	50m	72m
80W	/	6m	10m	11m	14m	24m	40m	58m
90W	/	4m	7m	8m	10m	18m	30m	45m
100W	/	/	5m	6m	7m	12m	22m	32m
110W	/	/	3m	4m	5m	8m	15m	22m
120W	/	/	2m	2.5m	3m	Om	8m	12m

Note:

1.Please adhere to parameters in below chart, feed cable length longer than what specified here will create voltage drop and eventually affect the lumen output of light.

2. Chart of Recommended Feed Cable Length According to Power Consumption

- 2.The 0.3m feed cable length attached to front connector is not included in this cart
- 3. Feed cable length over 10m is NOT recommended unless special circumstances, especially for pixel addressable lights.

3. Loading Chart

Type. Rated Power /mtr		Power Supply											
туре.		35w	60w	75w	80w	100w	120w	150w	120w	150w	185w	240w	320w
	6.5w/7.2w/8w	3m	6m	7.5m	8m	10m	12m	15m			18m	24m	30m
F15	10.6w/11w/12w	2m	3.5m	4.5m	5m	6m	7m	10m			12m	14m	20m
	15w	2m	3m	4m	4.2m	5m			6m	8m	10m		
Energizing Way DC input 01/02				DC input	01	(02	DC input					

Note: 1. These are the light maximum recommended running length subject to selected power supply.

2. For example: it is recommended to use one 80W power supply loading maximum 8m light (7.2w/m) or maximum 5m light (12w/m) by energizing the light one end.