



surelight

NE-FP

# USER MANUAL

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



ARTIST OF LIGHT

LED NEON FLEX RIBBON



Version No. : V2.0

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# 03

## Unpacking

### White Box Packaging



1



2



3



4



5



6



7

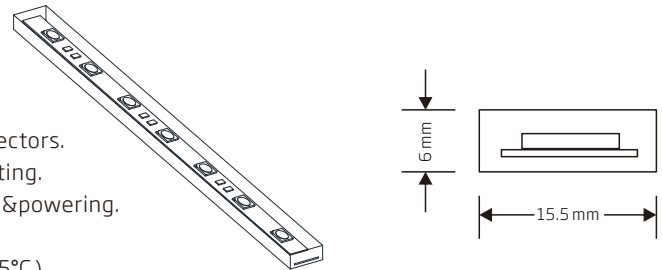


8



# Basic Parameters

1. Dimension: 15.5\*6mm
2. Min. bend diameter: 50mm
3. Protection rate: IP67/IP40
4. The product IP rate is ultimately in line with properly applied IP rated connectors.  
Connector termination required after cutting to achieve appropriate IP Rating.
5. Easy to use, with a range of accessories for joining, terminating, mounting&powering.
6. Long lifetime: 5 years.
7. Environmental Working Temperature: -20°C~45°C (High Voltage: -20°C~35°C).
8. Environmental Installation Temperature: 0°C~45°C(High Voltage: 0°C~35°C).



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

## Light Type: NE-FP

	Light Color	Appearance of Cover*	LED Qty/mtr	Working Voltage	Rated Power/m	LED Spacing	Min.Cutting Length	Max.Running Length
A	RGB	TT/DD/WW	30LEDs	D24CV	6W	33.3mm	200mm(6LEDs)	15m for single end feed 30m for double ends feed
	RGB	TT/DD/WW	60LEDs	D24CV	12W	16.7mm	100mm(6LEDs)	10m for single end feed 20m for double ends feed
B	R/A	TT/DD/WW	30LEDs	D24CV	4W	33.3mm	333mm(10LEDs)	18m for single end feed 36m for double ends feed
	G/B/W	TT/DD/WW	30LEDs	D24CV	6W	33.3mm	200mm(6LEDs)	15m for single end feed 30m for double ends feed
B	R/A	TT/DD/WW	60LEDs	D24CV/CC	7.2W	16.7mm	167mm(10LEDs)	15m for single end feed 30m for double ends feed
	G/B/W	TT/DD/WW	60LEDs	D24CV/CC	12W	16.7mm	100mm(6LEDs)	10m for single end feed 20m for double ends feed
	R/A/G/B/	TT	84LEDs	Ac120	6W	11.9mm	500mm(42LEDs)	40m for single end feed
D	WWW+W	TT	144LEDs	D24CV	12W	13.89mm	83.3mm(12LEDs)	10m for single end feed 20m for double ends feed
E	RGBW	TT/DD/WW	60LEDs	D24CV	15W	16.7mm	100mm(6LEDs)	5m for single end feed 10m for double ends feed
S (IC:2903)	R/A/G/B/W/RGB	TT/DD/WW	56LEDs	D24CC	12W	17.8mm	125mm(7LEDs)	10m for single end feed 20m for double ends feed
S (IC:2904)	RGBW	TT/DD/WW	56LEDs	D24CC	15W	17.8mm	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 colour is the light colour except from the light-emitting surface.

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

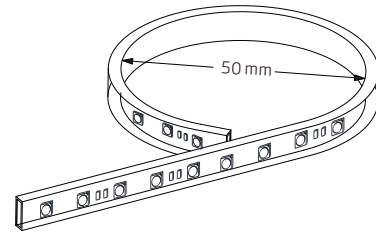
### NOTE:Max.Running Length\*

Note 3: The max continuous lengths of pixel LED Light is defined under the situation of static full loading.

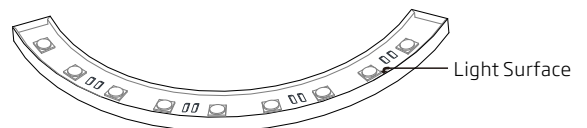
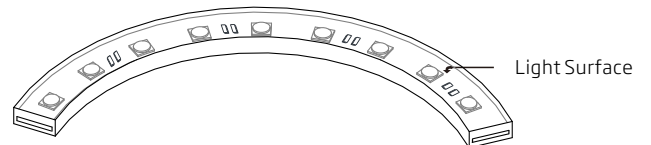
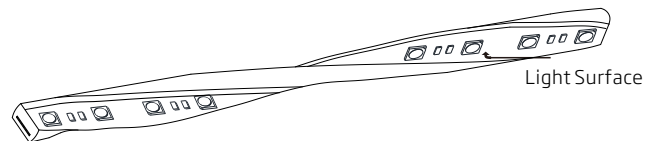
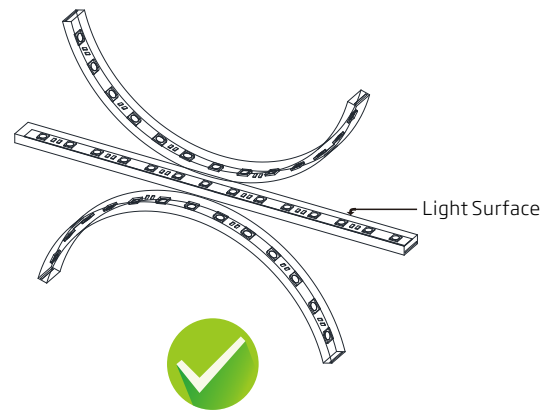
If the neon continually be used in the model of dynamic operating or single colour, the max continuous length can be 5 meters by one end feed, and 10 meters by both ends feed.

# Cautions

1. 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 simultaneously.



Do not bend smaller than allowed minimum bend diameter 50mm.

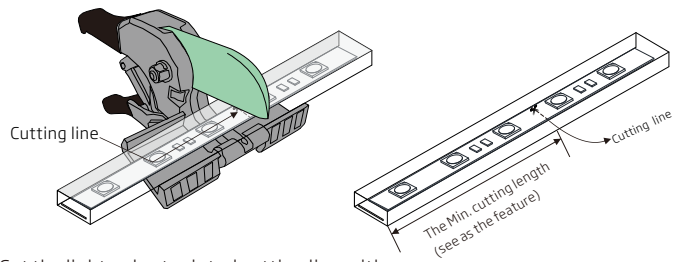


**WARNING:** The above wrong approaches will damage the light.

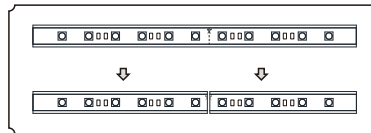


# 06

# Instructions for light cutting



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

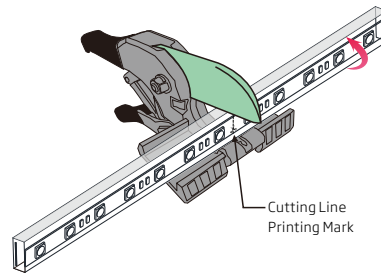


The cutting surface must be flush and smooth.

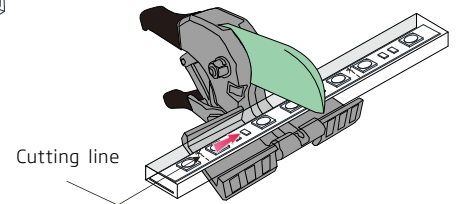


Note:

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

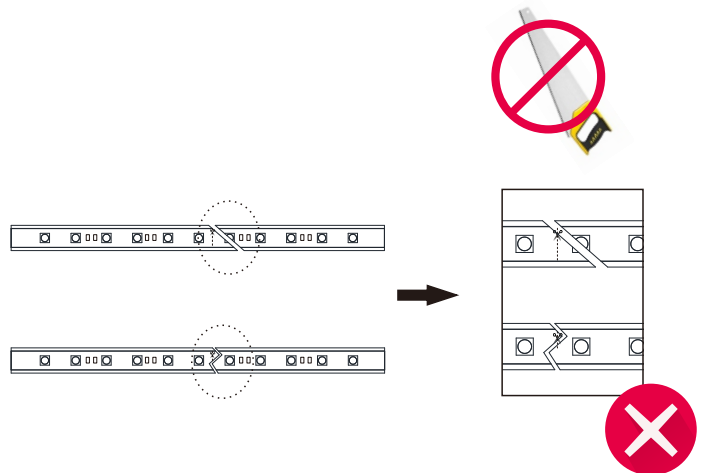


Cutting can only be made at the printed cutting line



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.**



# 07

# 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.

## 1. Components of Front Connector

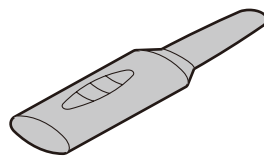
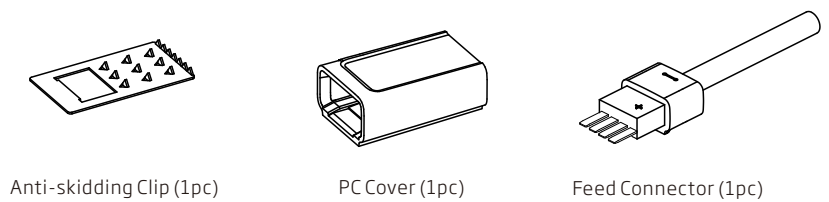
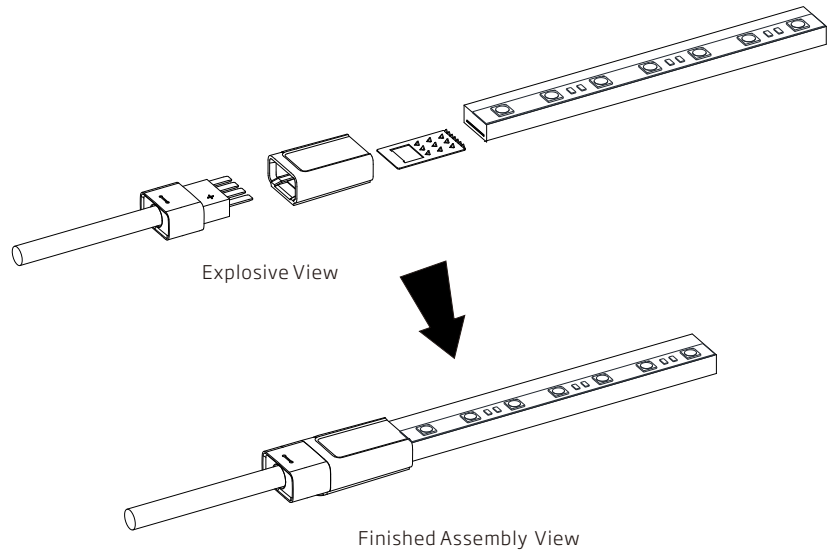
Note:

The light ends are marked with either an O1 or an O2. Always make sure to use an identically labeled connector for the appropriate direction.

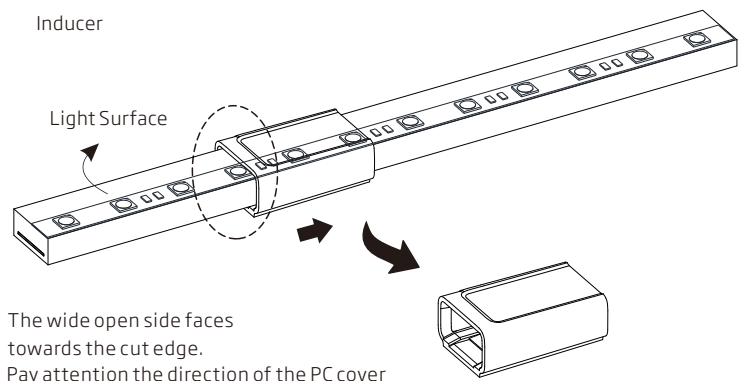
## 2. Tools

## 3. Installation Steps

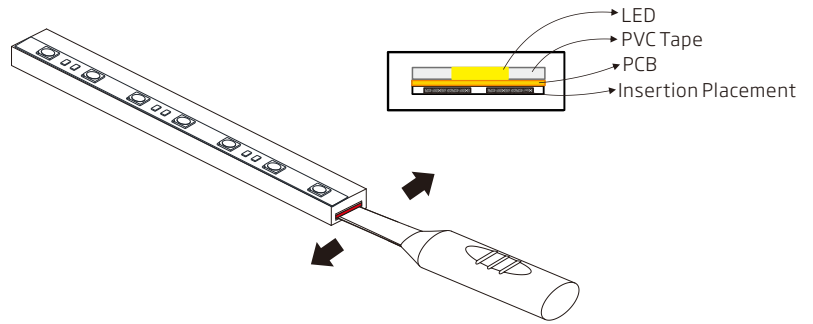
### 3.1 Placing PC Cover



Inducer

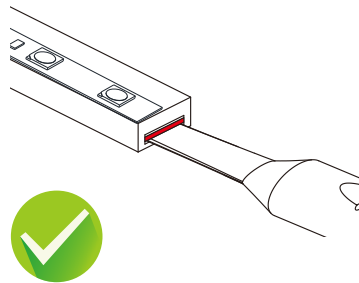


## 3.2 Inducing a Cavity for Feed Connector

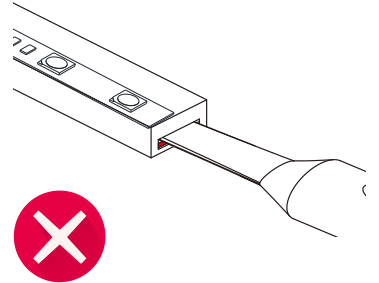


**NEVER insert into the front side (LED side) of the PCB**

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



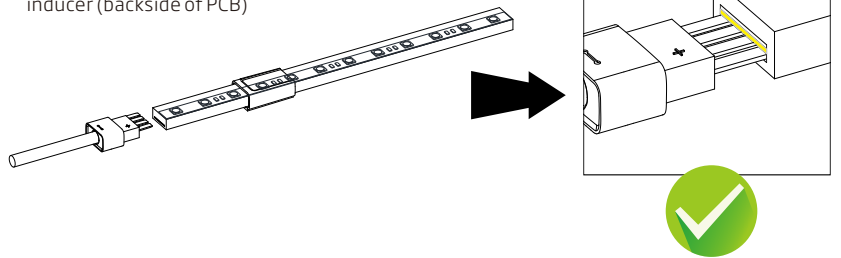
Insert the inducer into the backside of PCB



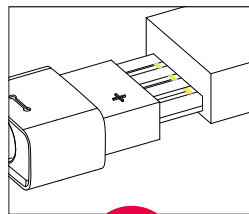
It will damage the light if insert into the front of PCB

## 3.3 Insert the Feed Connector

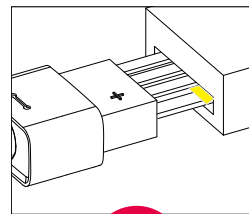
Insert the feed connector pins into the cavity that you created with the inducer (backside of PCB)



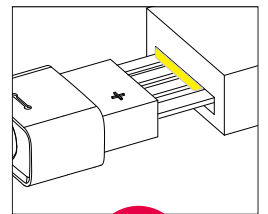
The following operations are prohibited:



Insert into the front side of the PCB



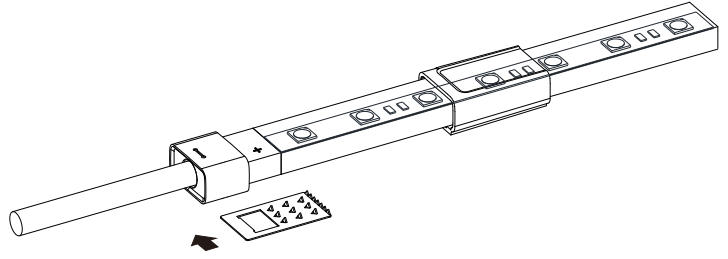
Insert crosswise into the PCB



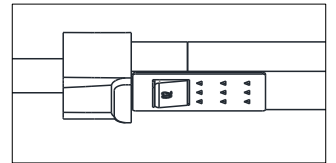
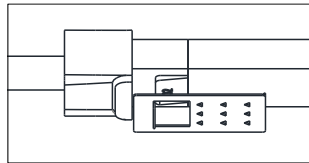
Insert crosswise into the PCB



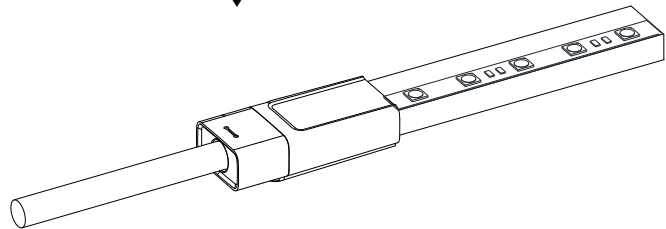
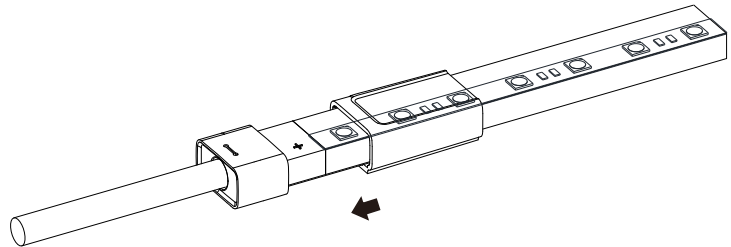
## 3.4 Installation of Anti-Skidding Clip



Place the anti-skidding clips to the feed connector with toothed side towards light.



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



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

# 10

## Sleeve End Cap

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

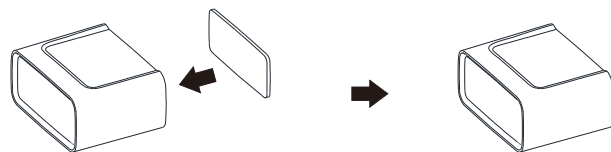
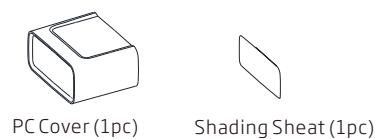
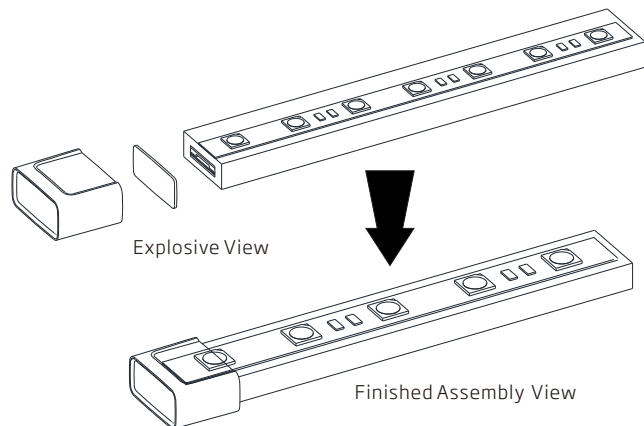
Note:

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.

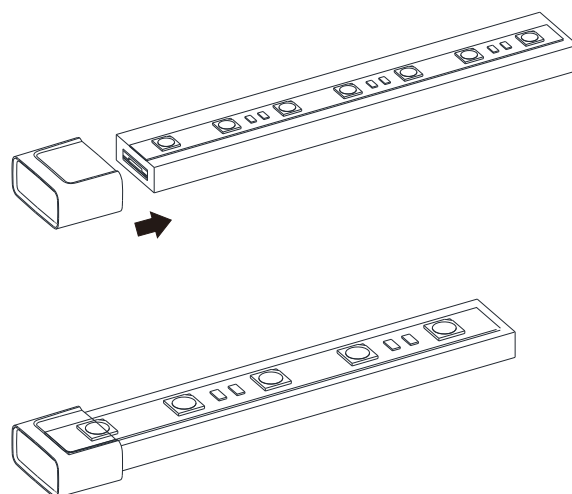
### 1. Components of End Cap

### 2. Installation Steps

#### 2.1 Placing Shading Sheat



#### 2.2 Insert the PC Cover



Please check its OK

# 11

## Snap Front Connector

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

Note:

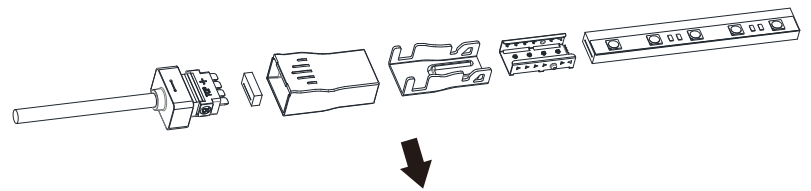
1. Never wet the assembly units or assemble with wet hands.
2. Please use the tools correctly.
3. Please pay attention to personal security when using tools.
4. Repeated assembly or reuse of the connector may result in waterproof failure.

### 1. Components of Front Connector

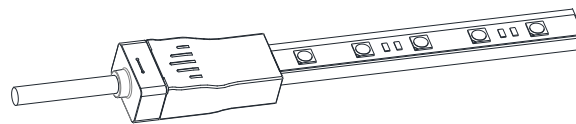
Note:

The light ends are marked with either an O1 or an O2. Always make sure to use an identically labeled connector for the appropriate direction.

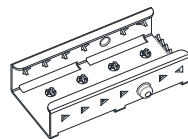
### 2. Tools



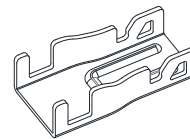
Explosive View



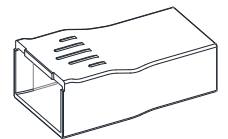
Finished Assembly View



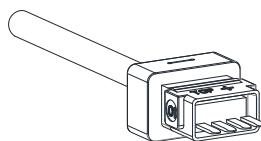
Anti-skidding Clip (1pc)



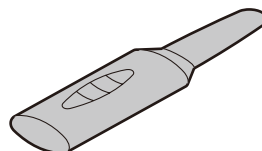
U Steel Plate (1pc)



PC Cover (1pc)



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

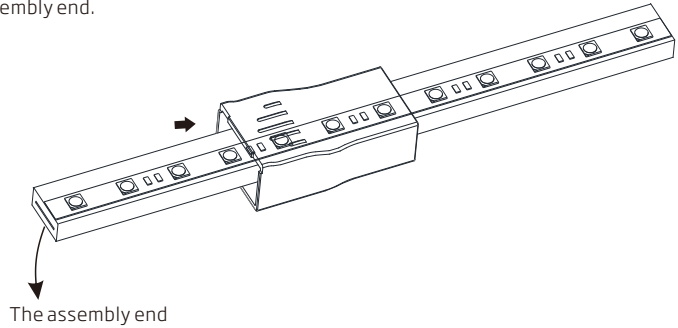


Inducer

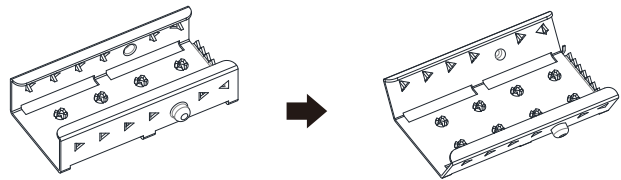
## 3. Installation Steps

### 3.1 Placing PC Cover

Pay attention to the direction marked on the bottom of PC cover. The wide open side faces towards the assembly end.

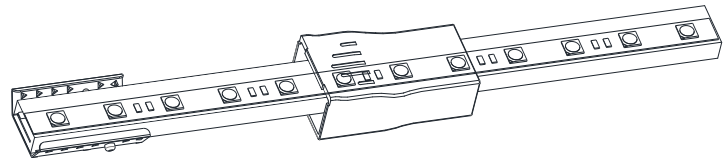


### 3.2 Treatment of Anti-skidding Clip

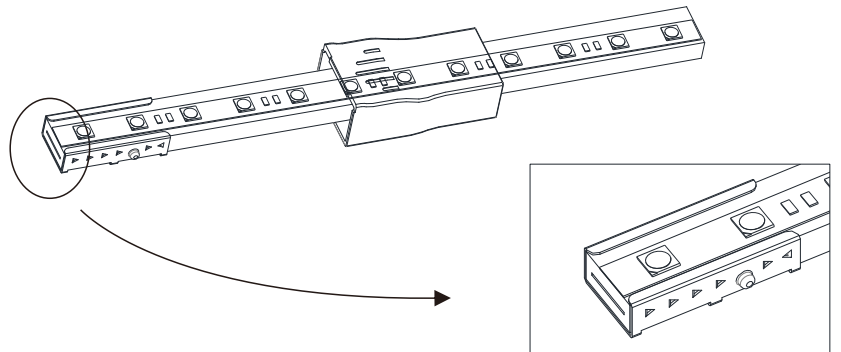


Unfold the anti-skidding clip about 20 degrees on both sides.

### 3.3 Installation of Anti-Skidding Clip

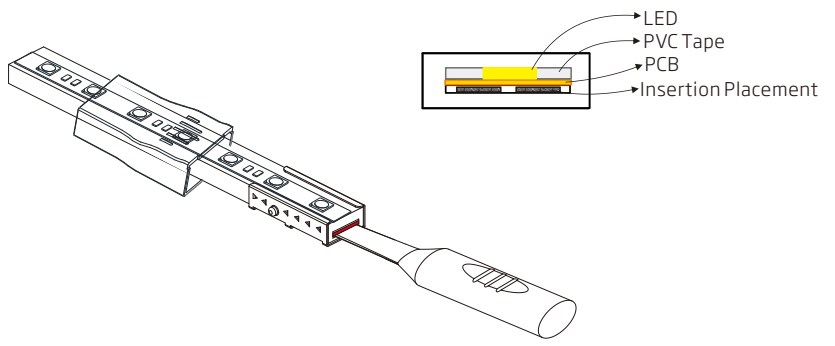


Place the anti-skidding clip onto the assembly end of the light. Pay attention to its direction



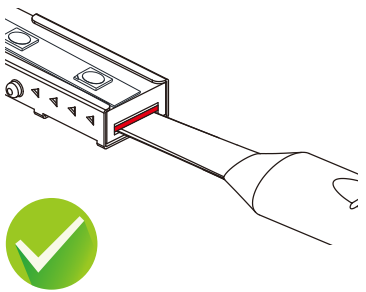
Fit the anti-skidding clip to the end of the light so that it wraps tightly and its brim is aligned with the cut edge on both sides.

## 3.4 Inducing a Cavity for Feed Connector

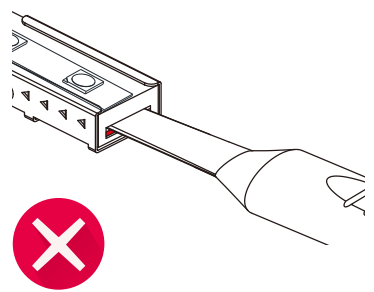


**NEVER insert into the front side (LED side) of the PCB**

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



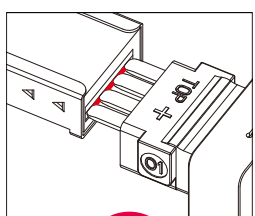
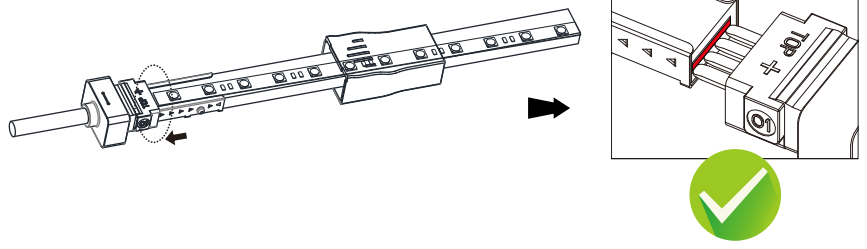
Insert the inducer into the backside of PCB



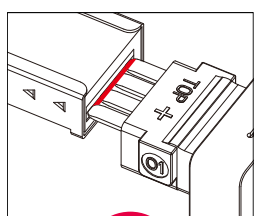
It will damage the light if insert into front side of PCB

## 3.5 Inserting the Feed Connector

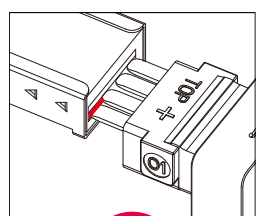
Insert the assembly end wrapped with anti-skidding clip into the cavity of the feed connector.



Insert into the front side of the PCB

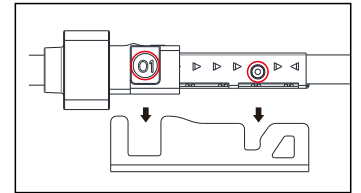
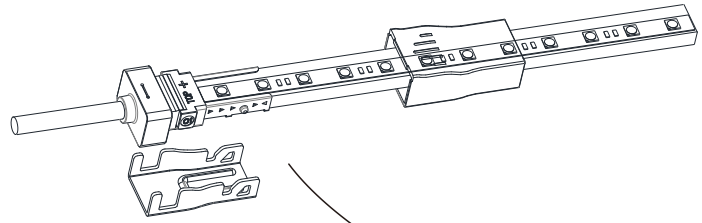


Insert crosswise into the PCB

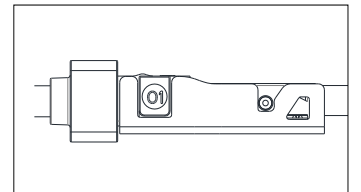
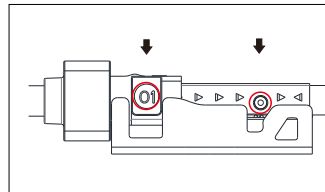
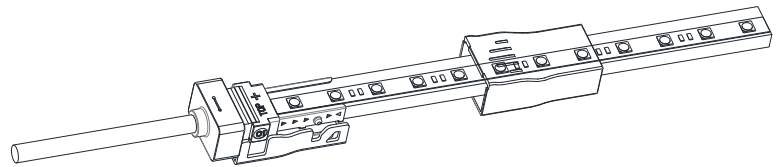


Insert crosswise into the PCB

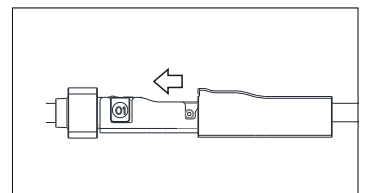
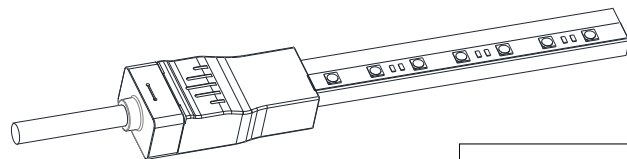
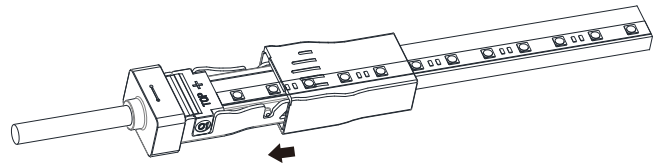
## 3.6 Installation of U Steel Plate and PC Cover



Align the feed connector and anti-skidding clip with the U steel plate.



Press the feed connector and light downwards at the same time till bottom.



Slide back the PC cover till it snaps in the feed connector.

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

# 15

## Snap End Cap

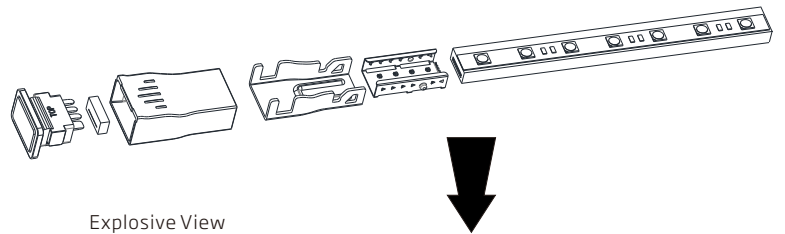
Please ignore these steps if the End Cap has been assembled before delivery.

### Note

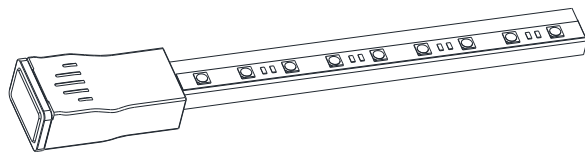
1.Repeated assembly or reuse of the connector may result in waterproof failure.

### 1. Components of End Cap

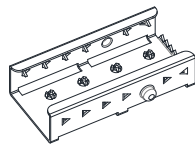
### 2. Tools



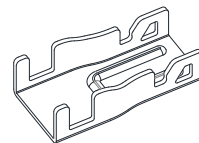
Explosive View



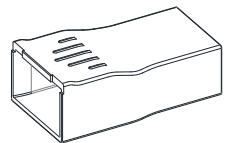
Finished Assembly View



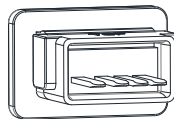
Anti-skidding Clip (1pc)



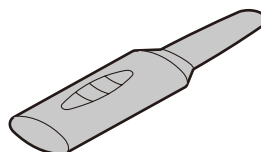
U Steel Plate (1pc)



PC Cover (1pc)



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

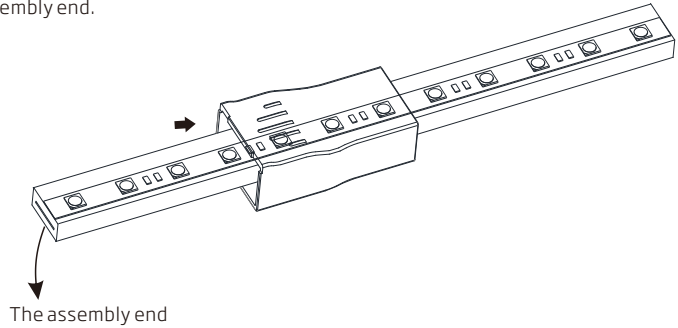


Inducer

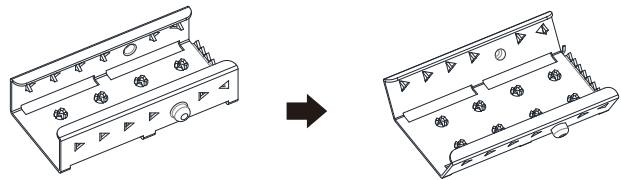
## 3. Installation Steps

### 3.1 Placing PC Cover

Pay attention to the direction marked on the bottom of PC cover. The wide open side faces towards the assembly end.

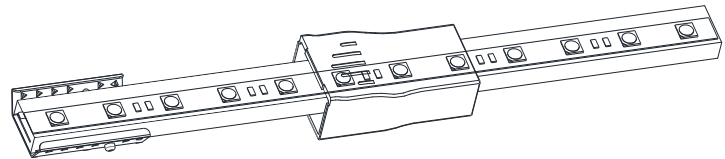


### 3.2 Treatment of Anti-skidding Clip

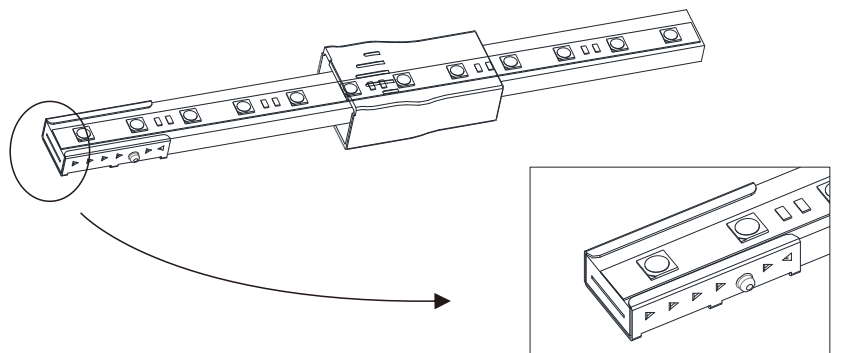


Unfold the anti-skidding clip about 20 degrees on both sides.

### 3.3 Installation of Anti-Skidding Clip



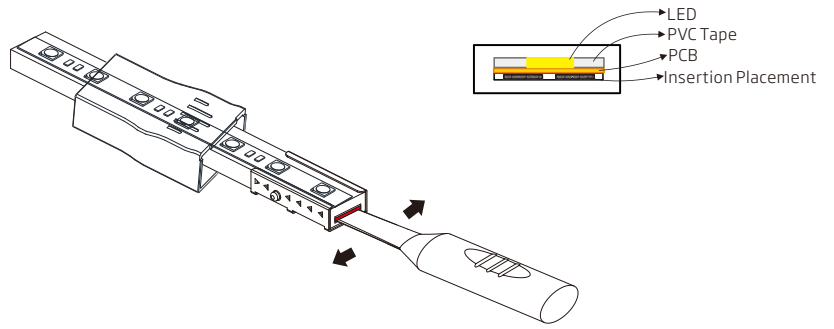
Place the anti-skidding clip onto the assembly end of the light. Pay attention to its direction



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.

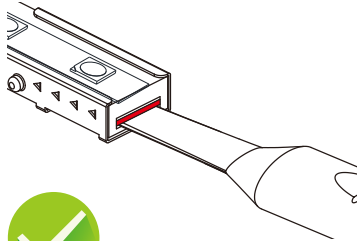


## 3.4 Inducing a Cavity for Tail Plug

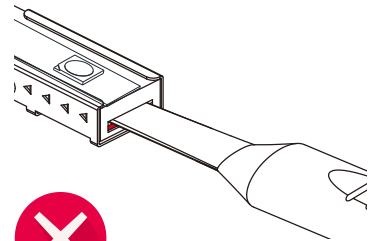


**NEVER insert into the front side (LED side) of the PCB**

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



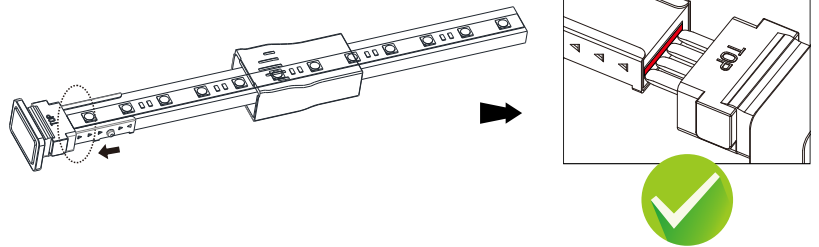
Insert the inducer into the backside of PCB



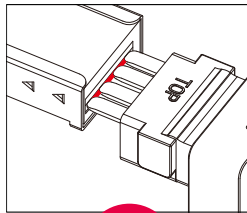
It will damage the light if insert into front side of PCB

## 3.5 Inserting the Tail Plug

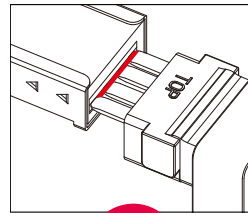
Insert the assembly end wrapped with anti-skidding clip into the cavity of the tail plug.



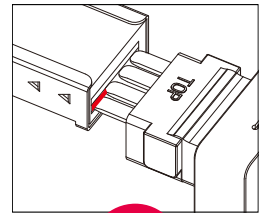
The following operations are prohibited:



Insert into the front side of the PCB

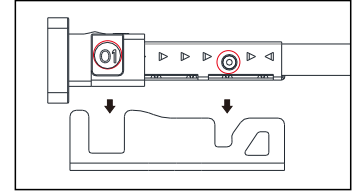
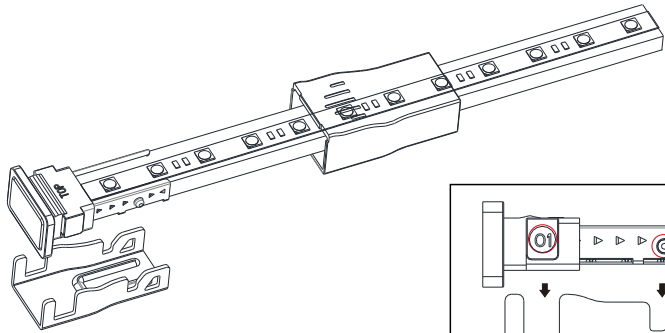


Insert crosswise into the PCB

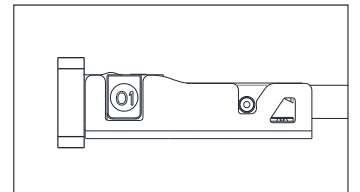
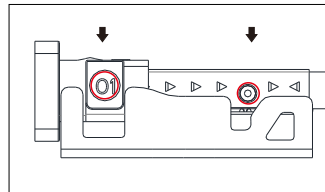
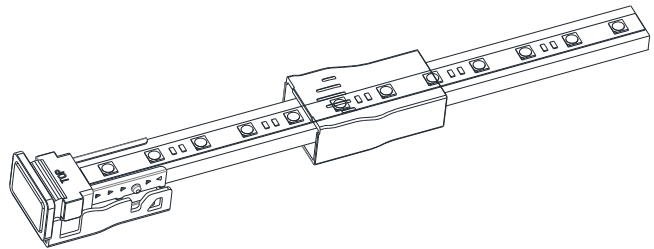


Insert crosswise into the PCB

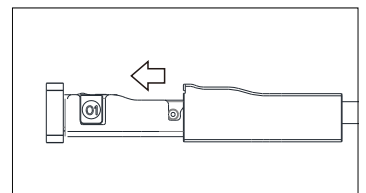
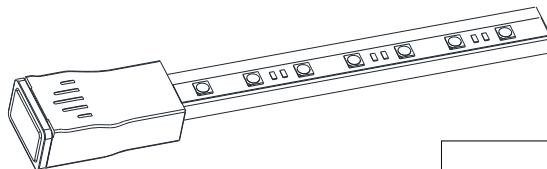
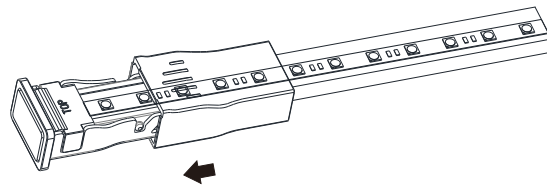
## 3.6 Installation of U Steel Plate and PC Cover



Align the tail plug and anti-skidding clip with the U steel plate.



Press the tail plug and light downwards at the same time till bottom.



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

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

# Diagram of Light Wiring

## 1. 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.

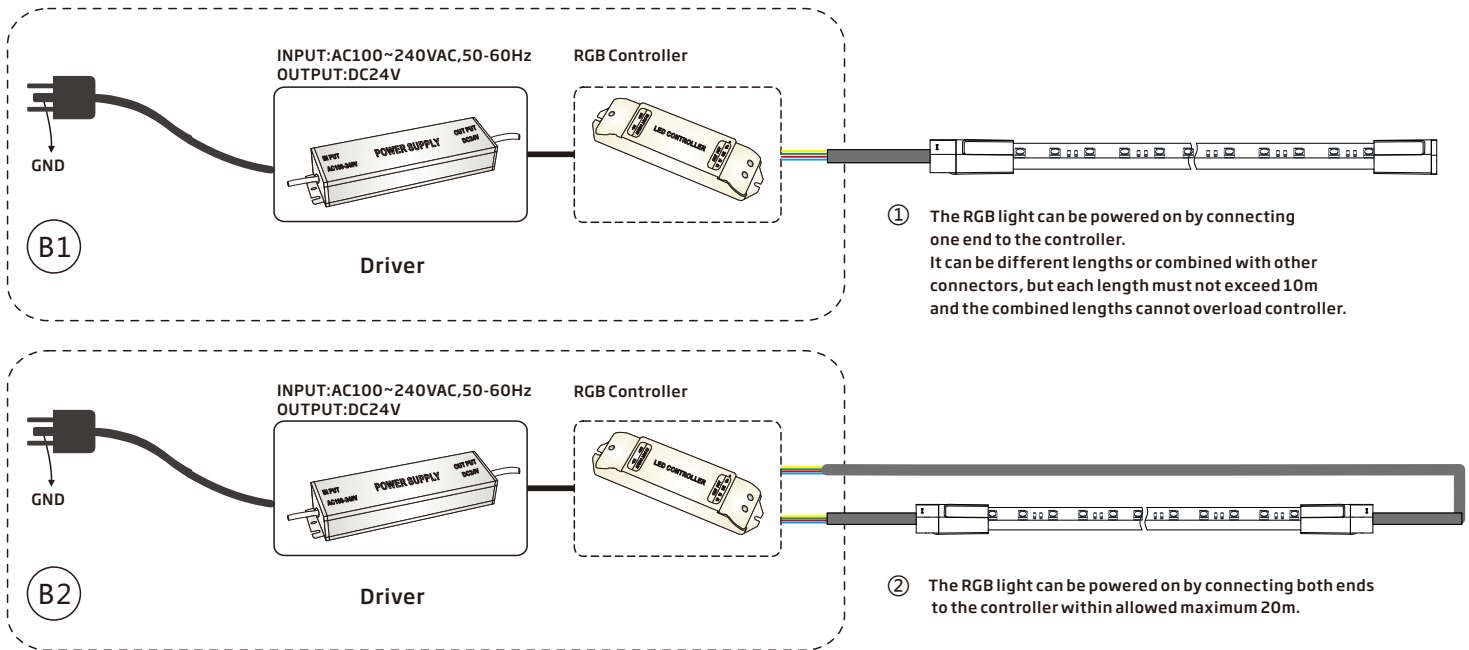
Instructions of RGB Light Wiring:

Yellow Wire Connects to Anode(+).

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

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

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



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

## 2. 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:

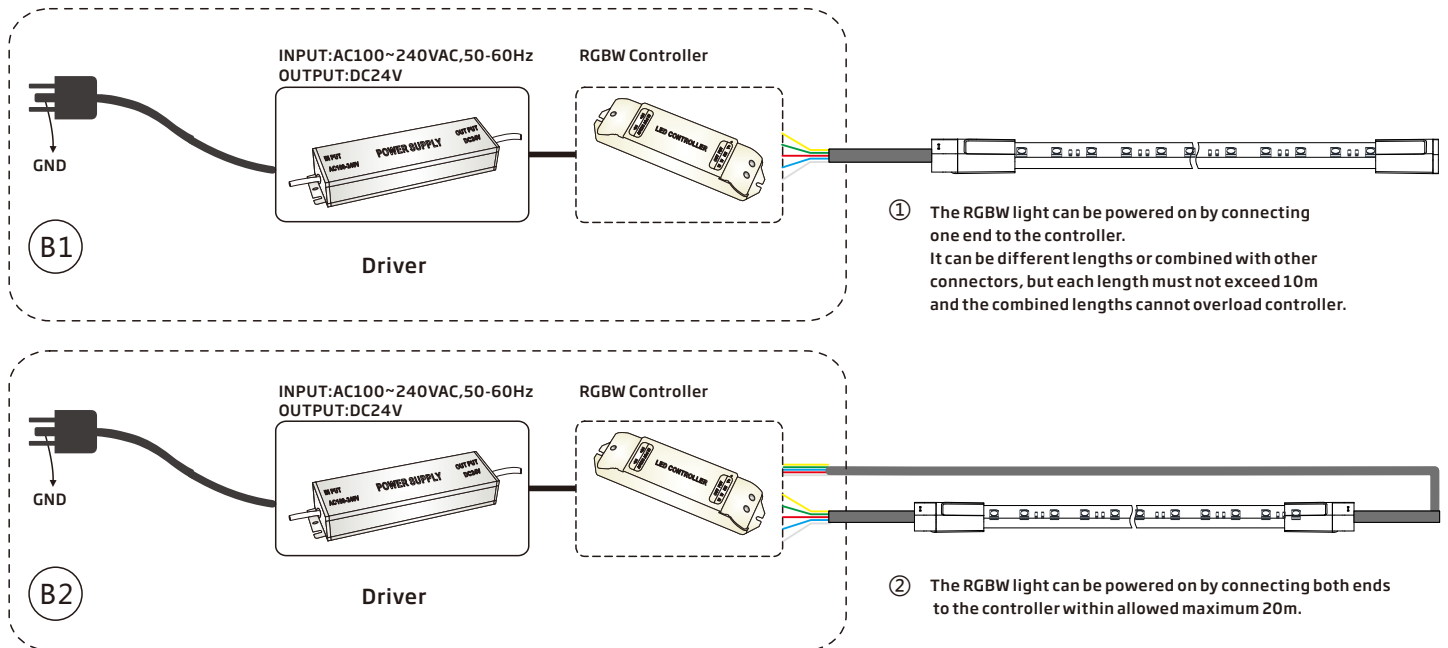
Yellow Wire Connects to Anode(+).

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(-).



Max. Continuous Length	Article No.	Single End Feed	Double Ends Feed
	NE-FP	5m	10m

## 3. Chasing Light Wiring

Note :

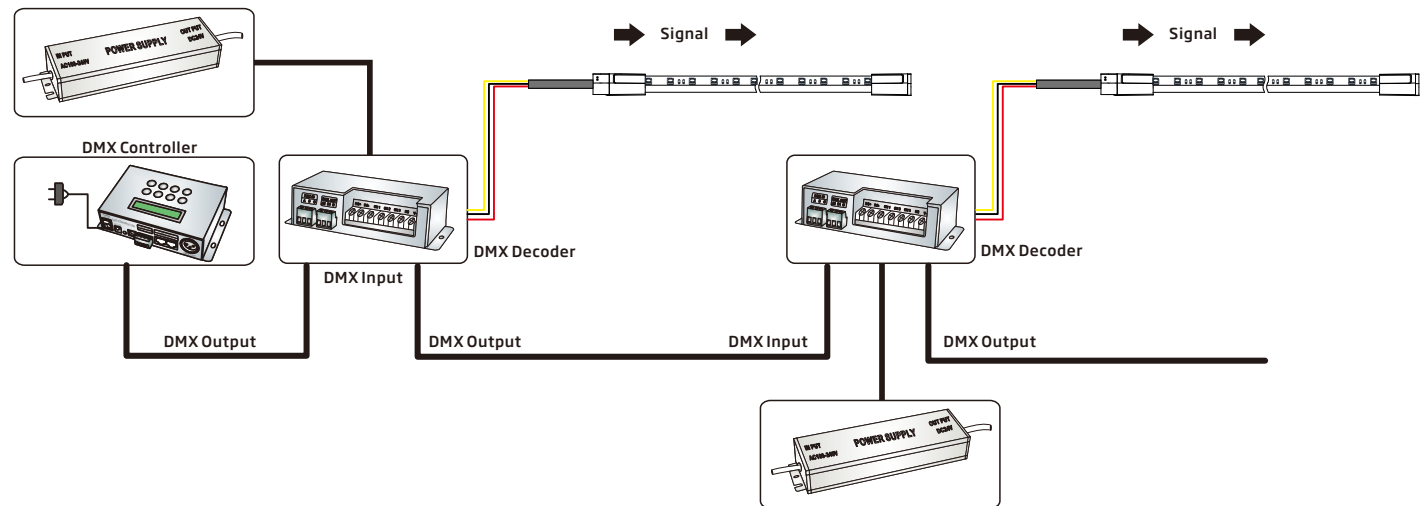
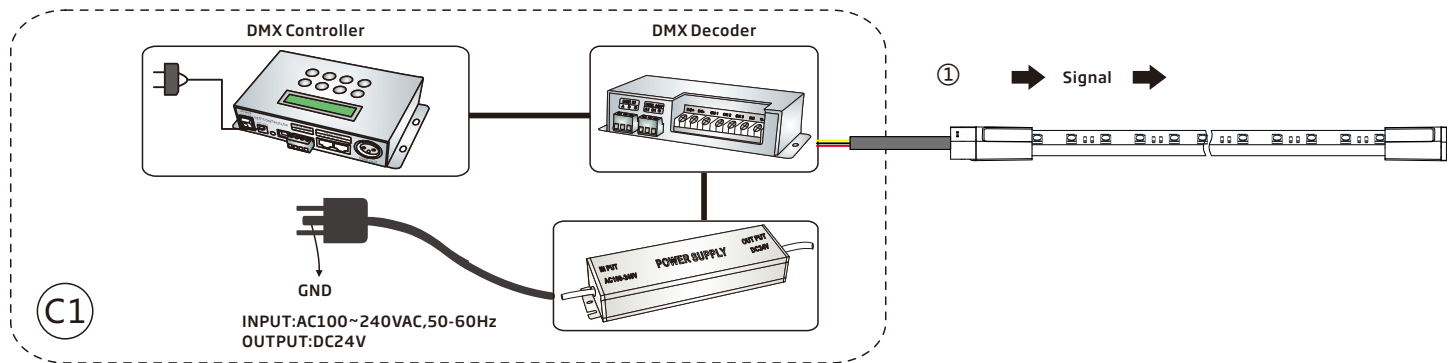
1. This LED Neon Flex Ribbon must be used in conjunction with a DC24V power supply and IC-UCS2903 compatible controller or decoder.
2. Polarity symbols, GND, signal line connection should match on each component properly.
3. Ensure to add 20% buffer when sizing power supply.
4. Ensure that the power 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.

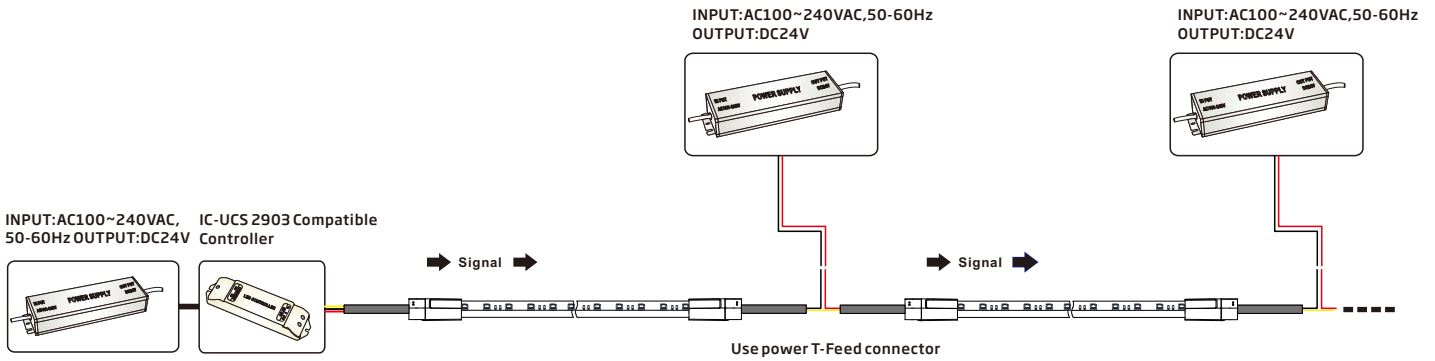
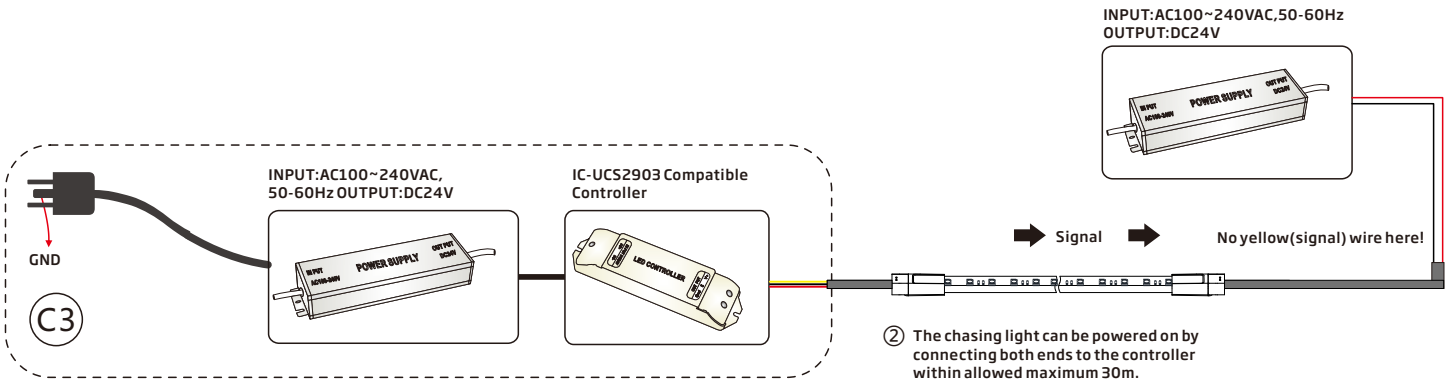
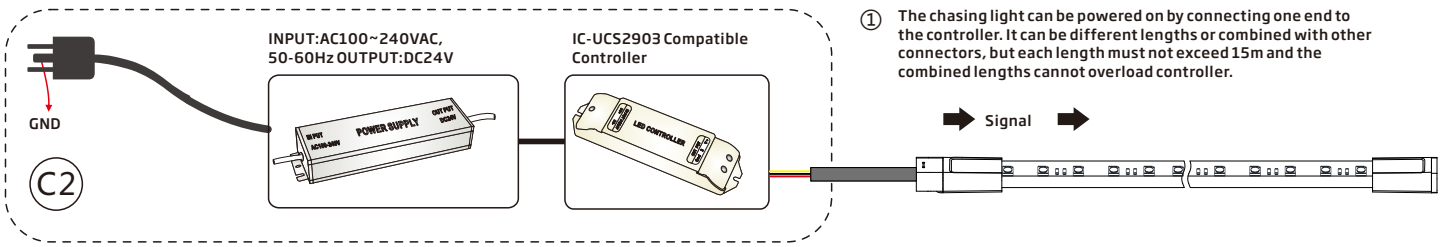
Black Wire Connects to the "GND" or Cathode(-) Terminal



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 team for more details.



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

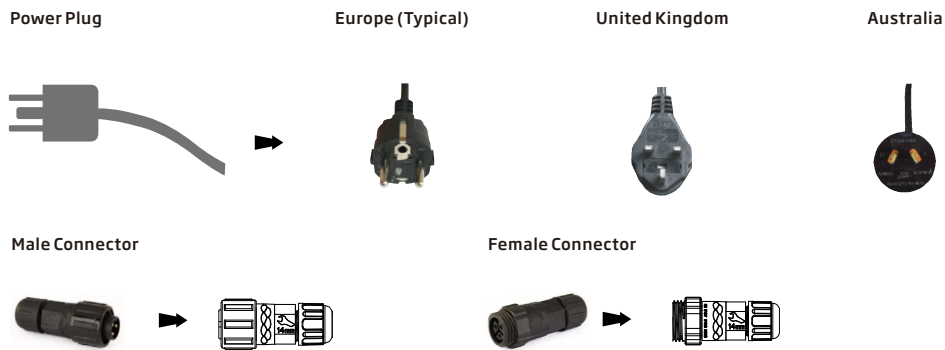
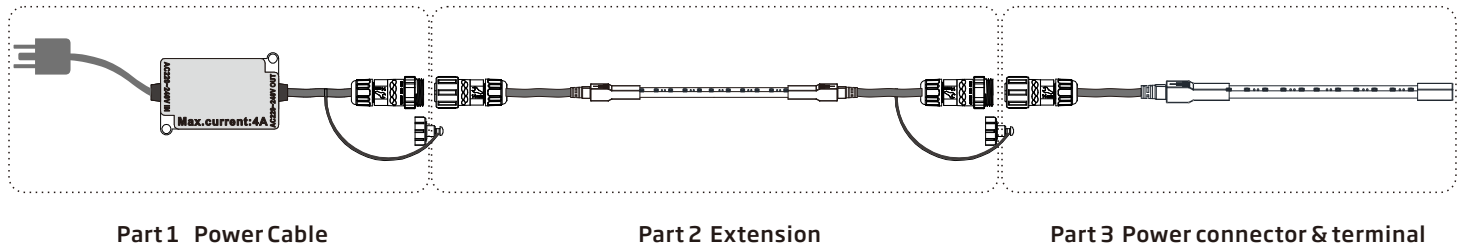
Max.Continuous Length	Article No.	Single End Feed	Double Ends Feed
	NE-FP	15m(Dynamic Operating)	30m(Dynamic Operating)
	NE-FP-8	15m(Dynamic Operating)	30m(Dynamic Operating)
	NE-FP-21	10m(Dynamic Operating)	20m(Dynamic Operating)

**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 team for more details.

## 4. High Voltage Light Wiring



### 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

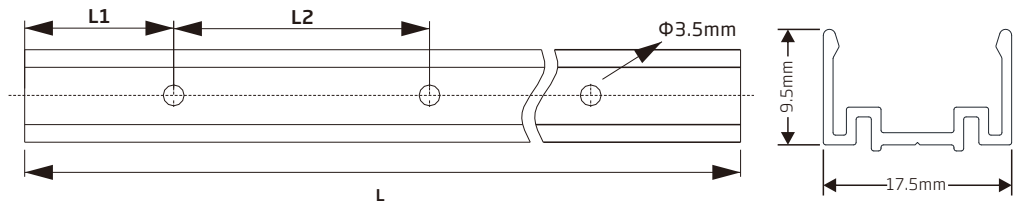
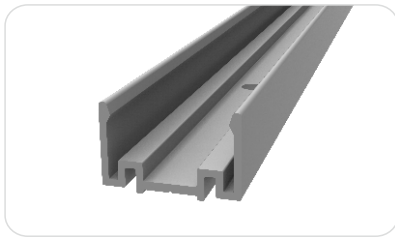
Connect with Part 1 directly.

Max.Continuous Length	Article No.	Single End Feed
	NE-FP	80m

# 24

# Mounting Profile Options

## 1. Standard Aluminum Profile

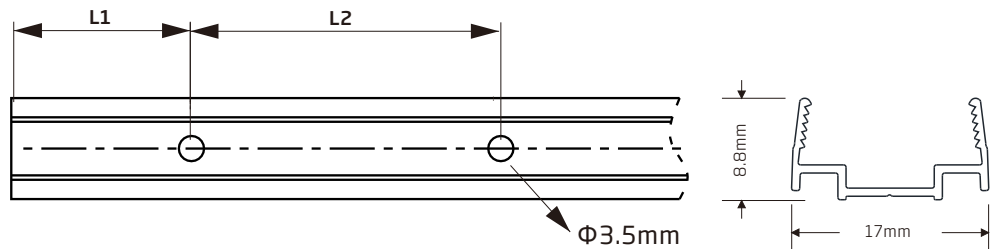
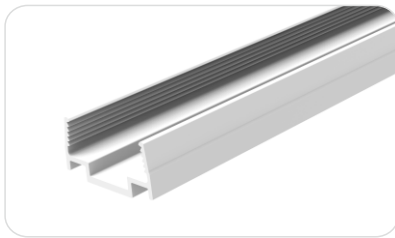


Note: Unless otherwise stated, the tolerance of the profile is  $\pm 0.5\text{mm}$ .

### Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	Screw Hole(mm)	Hole Number	For Product
NE-FP-CH	17.5*9.5	500	50	200	$\Phi 3.5$	3	FP
		1000	100	200	$\Phi 3.5$	5	FP
		2000	100	200	$\Phi 3.5$	10	FP

## 2. Plastic Profile



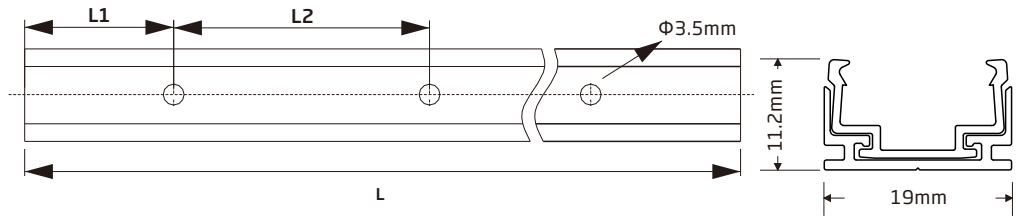
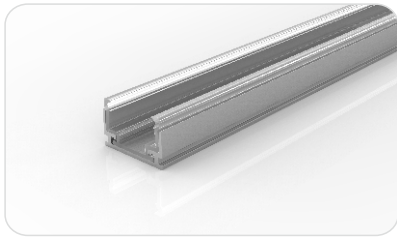
Note: Unless otherwise stated, the tolerance of the profile is  $\pm 0.5\text{mm}$ .

### Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	Screw Hole(mm)	Hole Number	For Product
NE-FP-CH	17*8.8	300	50	200	$\Phi 3.5$	2	FP
		500	50	200	$\Phi 3.5$	3	FP
		1000	100	200	$\Phi 3.5$	5	FP
		2000	100	200	$\Phi 3.5$	10	FP



## 3. Plastic & Aluminum Combination Profile

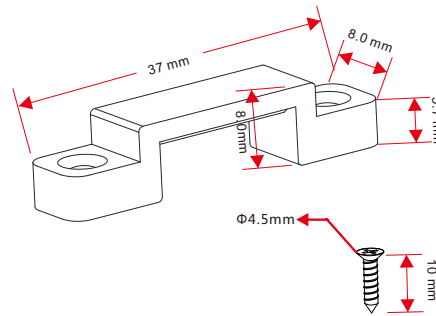
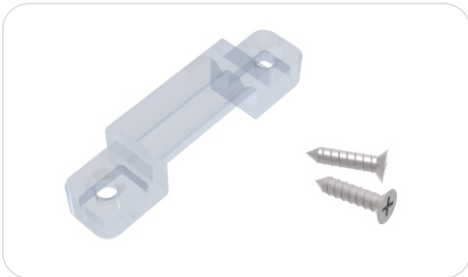


Note: Unless otherwise stated, the tolerance of the profile is  $\pm 0.5\text{mm}$ .

### Dimensions:

Model	W*H(mm)	Length(mm)	L1(mm)	L2(mm)	Screw Hole(mm)	Hole Number	For Product
NE-FP-CH	11.2*19	35	17.5	/	$\Phi 3.5$	1	FP
		500	50	200	$\Phi 3.5$	3	FP
		1000	100	200	$\Phi 3.5$	5	FP
		2000	100	200	$\Phi 3.5$	10	FP

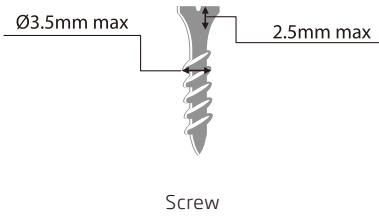
## 4. Plastic Clip



Note: Unless otherwise stated, the tolerance of the clip is  $\pm 0.5\text{mm}$ .

## 5. Installation Guide

### 5.1 Prepare for Installation



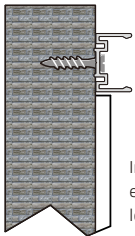
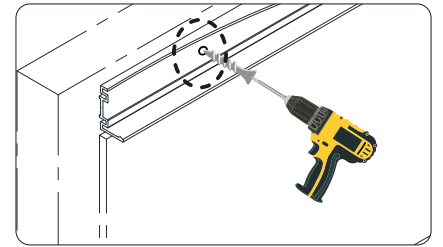
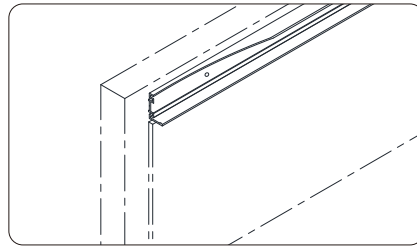
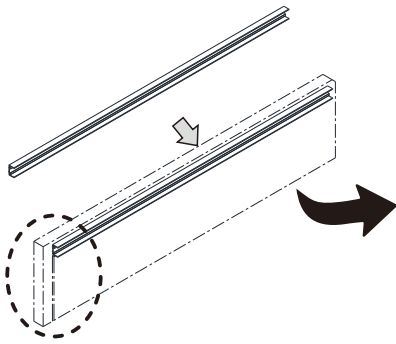
Screwdriver

or

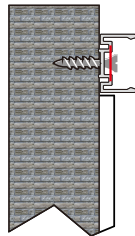


Electric Screwdriver

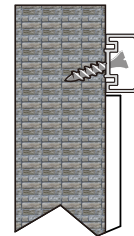
### 5.2 Correct Installation of Standard Aluminum Profile



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



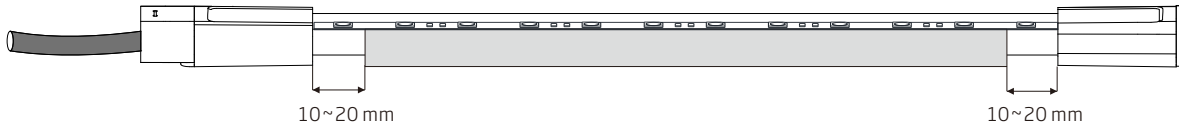
Screw head above to the base of aluminum profile.



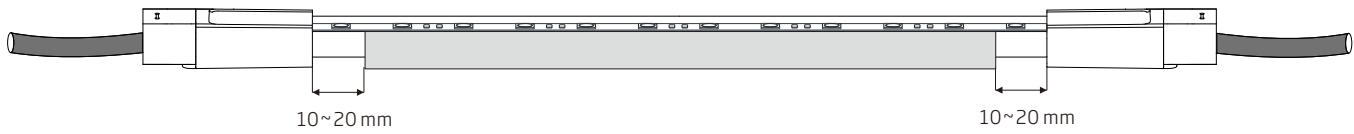
Gradient installing of screw.

## 6. Requirements and Cautions for Installation of Mounting Profile

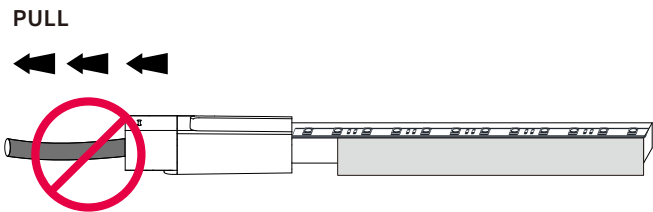
### 6.1 For Light with Sleeve Connector Fittings ( Snap Connector also refer to the following cautions)



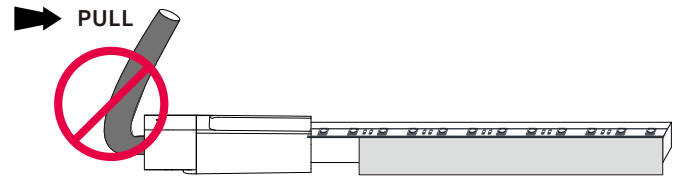
Ensure the supply cord is not subject to mechanical stress.  
Keep 10-20mm distance between the connector and the end of aluminum profile.



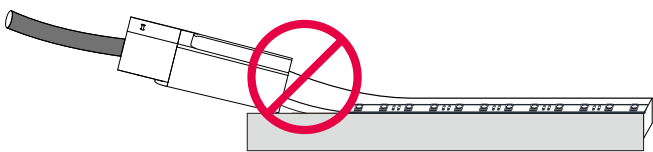
Mechanical stress on front connector cable shall be avoided.



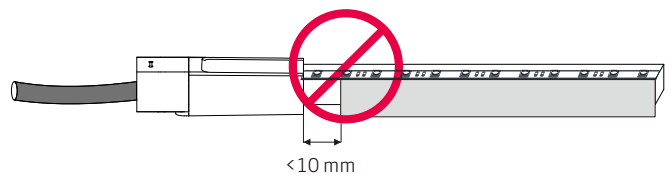
It is forbidden to curl or pull the front connector cable with excessive force.



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



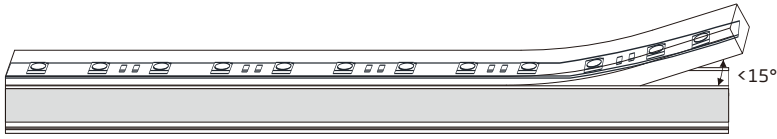
The space between the connector and aluminum profile less than 10mm is forbidden.



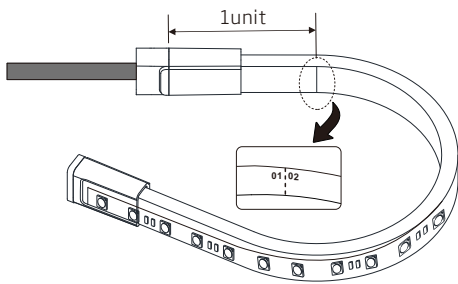
Install light in one direction. Don't let it choke in middle.



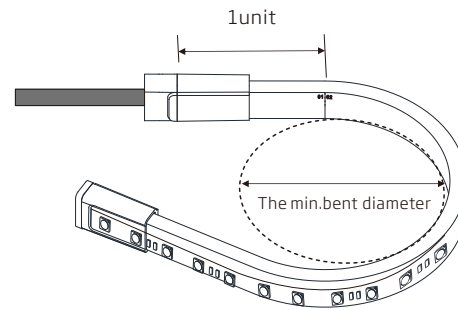
## 6.3 Bending in the Process of Installation



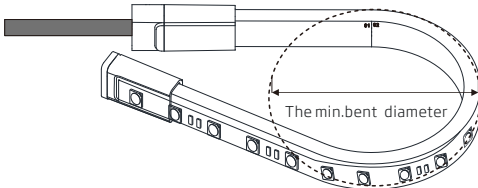
Installing angle should be less than 15 degree when pressing the light to the aluminum profile by hand.



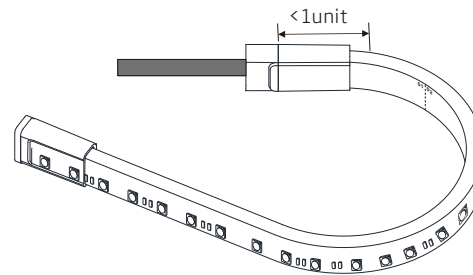
Please avoid bending at the first unit of the light.



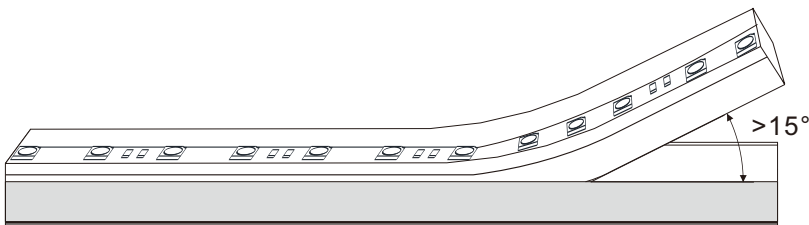
The light can bend in defined min. bending diameter or larger.



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.

# 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 3FR

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. For purpose of clarify, "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 purchaser 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 or 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. 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 Duv and tolerance
2700K	2725 ± 145	0.000 ± 0.006
3000K	3045 ± 175	0.000 ± 0.006
3500K	3465 ± 245	0.000 ± 0.006
4000K	3985 ± 275	0.001 ± 0.006
4500K	4503 ± 243	0.001 ± 0.006
5000K	5028 ± 283	0.002 ± 0.006
5700K	5665 ± 355	0.002 ± 0.006
6500K	6530 ± 510	0.003 ± 0.006
<b>Flexible CCT (2700-6500K)</b>	<b>T<sup>2)</sup>+ΔT<sup>3)</sup></b>	<b>DUVT<sup>4)</sup>±0.006</b>

fluorescent lamp specification 2700K,3000K(Warm White),3500K(White),4100K(Cool White),5000K and 6500K(Daylight),respectively.

- 2). T is chosen to be at 100K steps (2800,2900,...,6400K), excluding, hose eight nominal CCTs listed in Table 1.
- 3). ΔT is given by  $\Delta T = 0.0000108 \times T^2 + 0.0262 \times T + 8$ .
- 4). Duv is given by  $Duv = 57700 \times (1/T) - 244.6 \times (1/T) + 0.0085$

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



This chart only applicable to input voltage of 24V DC

WattS of Light	22AWG/0.34mm <sup>2</sup>	20AWG/0.53mm <sup>2</sup>	18AWG/0.82mm <sup>2</sup>	17AWG/1.04mm <sup>2</sup>	16AWG/1.38mm <sup>2</sup>	14AWG/2.07mm <sup>2</sup>	12AWG/3.29mm <sup>2</sup>	10AWG/5.62mm <sup>2</sup>
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	0m	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.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													
		35w	60w	75w	80w	100w	120w	150w	100w	120w	150w	185w	240w	320w	
F16	4w	7m	12m	15m	16m				20m	24m	30m	36m			
	6w	4.5m	8m	10m	10.5m	13m			16m	20m	24.5m	30m			
	7.2w/8w	3.5m	6m	7.5m	8m	10m	12m	15m				18.5m	24m	30m	
	12w	2m	4m	5m	5m	6.5m	8m	10m				12m	16m	20m	
	15w	1.5m	3m	4m	4m	5m				6m	7m	10m			
Energizing Way		DC input 							DC input  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 5m light (12w/m) by energizing the light one end.  
 3. The above parameters apply only to low voltage series product, not apply to high voltage (like AC120V) products.