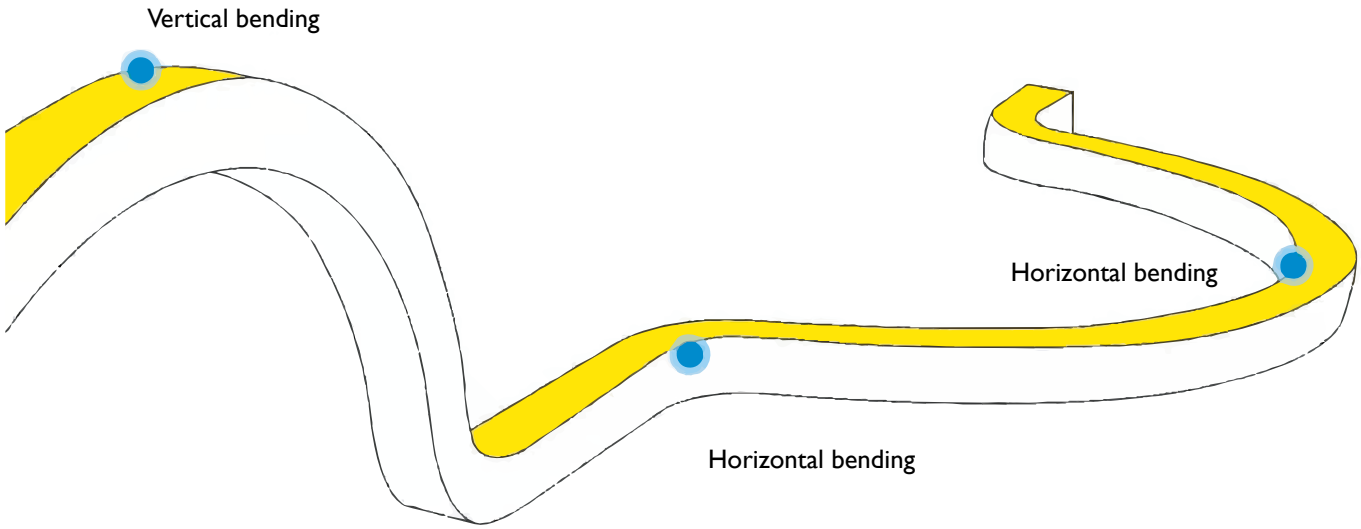
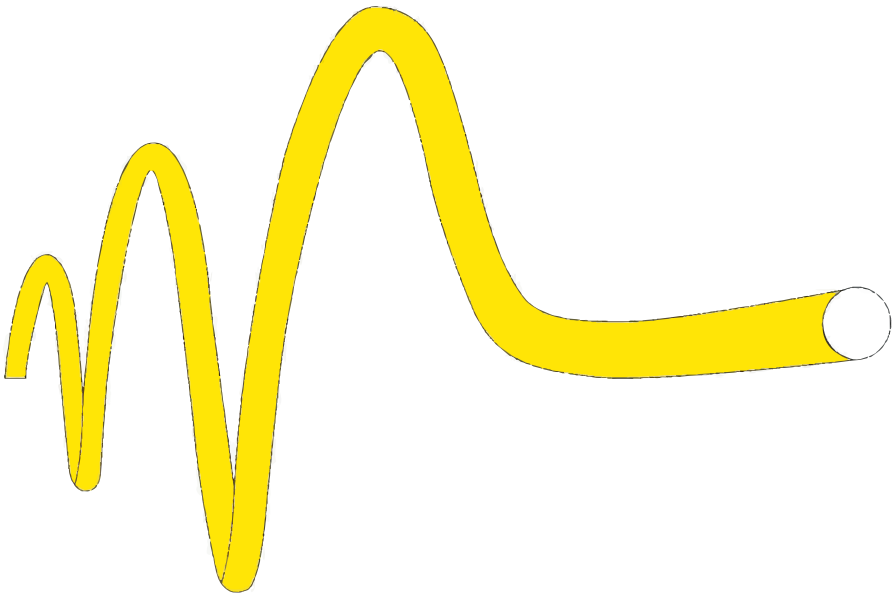
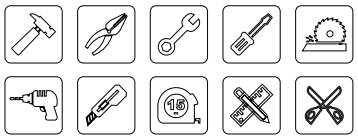
ATEA

NEO
INSTALLATION INSTRUCTIONS







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ATEA

OPERATION INSTRUCTION
NEO

Preparation

Top Bend

Sectional View

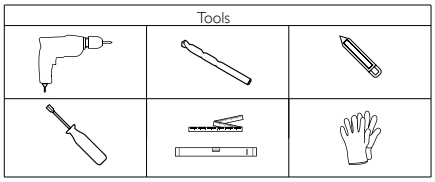
Side Bend

Sectional View

Dual Bend

Sectional View

LED NEO



Notice

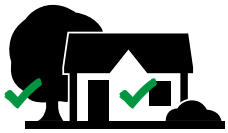
Please take the time to read this operation manual before you use the product, it contains important information regarding installation and operation. The product must be processed in a proper way.

Warranty

- White/CCT products provide a 5 years warranty - 60 000h (3 years for some models),
- 48V/D2W/Color/RGB/RGBW/RGBCCT/High Output/POOL/SAUNA products provide a 3 years warranty - 36 000h.
- Pixel (SPI/DMX) products offer a 2 years warranty - 20 000h.

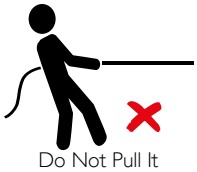
However, the warranty does not include the product damage caused by usage methods or incorrect operation not specified in the operation manual.

Safety & Warnings

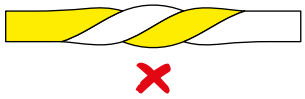


Indoor & Outdoor Usage

Do Not Step On It



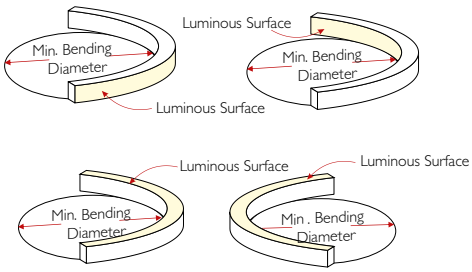
Do Not Pull It

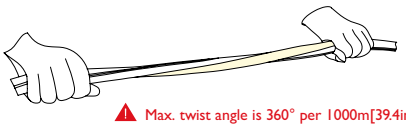


Do Not Twist It

(1) The product should be stored in a dry and sealed environment with a storage temperature of -20C~+60C, and the working environment temperature requirement is -20C~+45C.
(2) Only professional personnel can install, dismantle, and repair the product.
(3) Avoid privately changing or damaging the circuit or other components of the product.
(4) Avoid scrapes, twists, and irregular bends during installation, which might cause non-repairable status for the product.
(5) Please clean and wipe the outer surface of product with water and methylated alcohol liquids.
(6) Do not run the product to exceed the maximum run length, it will lead to problems of overload or uneven brightness.
(7) To protect your eyes, do not stare at the product for a long time while it's illuminated.
(8) The bend and twist diagram is shown below, over-bend or over-twist may break the product.

Dual-Bend

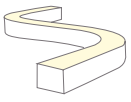




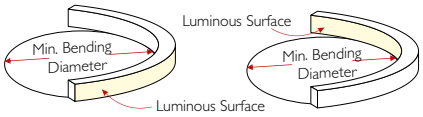
Max. twist angle is 360° per 1000m[39.4in.]

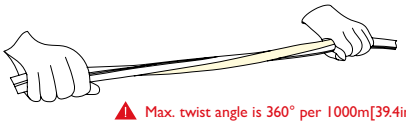
Can be top-bend

Can be side-bend

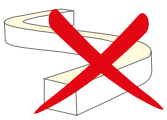


Top-Bend



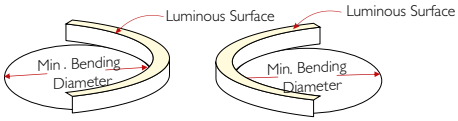


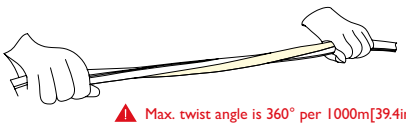
Max. twist angle is 360° per 1000m[39.4in.]



Can't be side-bend

Side-Bend





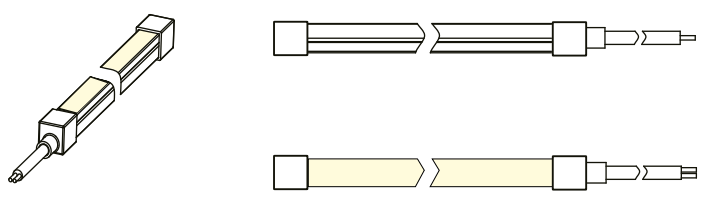
Max. twist angle is 360° per 1000m[39.4in.]

Can't be side-bend

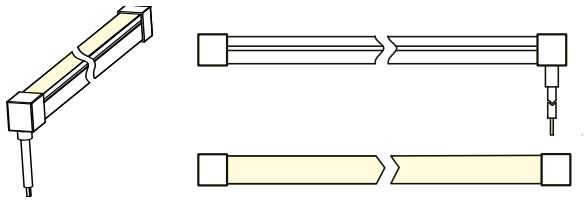
Outlet

(1) Optional 1: End cap sealed by gluing process (no equipment required).

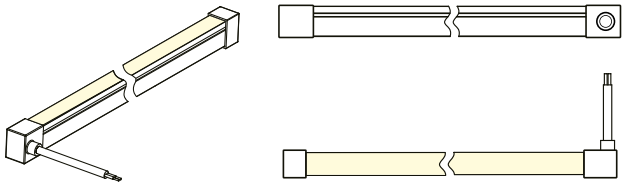
IP65 Glued Endcap - Axis outlet



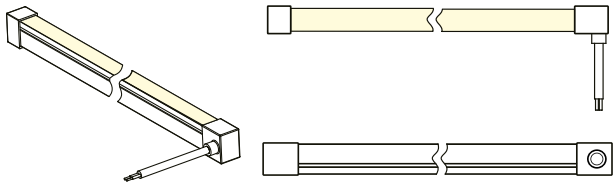
IP65 Glued Endcap - Bottom outlet



IP65 Glued Endcap - Right side outlet

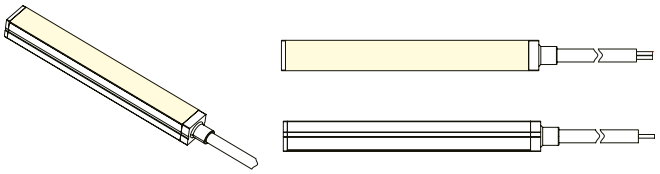


IP65 Glued Endcap - Left side outlet

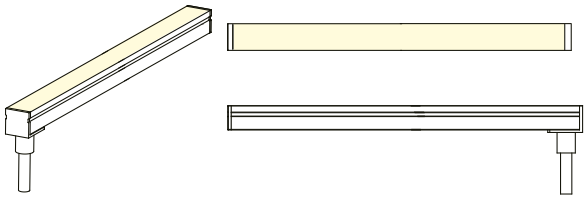


(2) Optional 2: End cap sealed by die-casting process (specialized die-casting equipment is required).

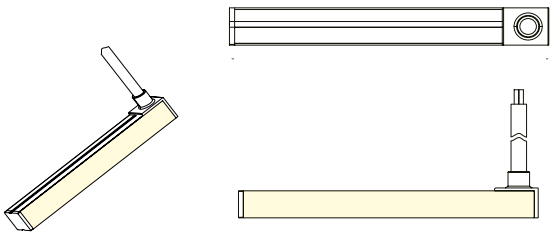
IP67 No dark Endcap - Axis outlet



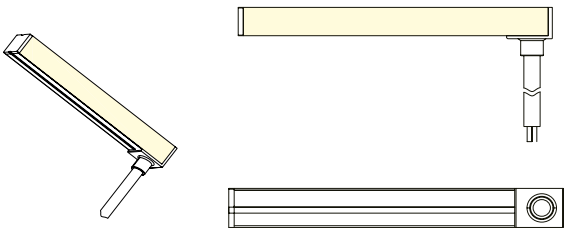
IP67 No dark Endcap - Bottom outlet



IP67 No dark Endcap - Right side outlet

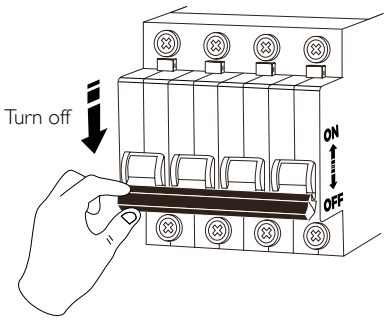


IP67 No dark Endcap - Left side outlet



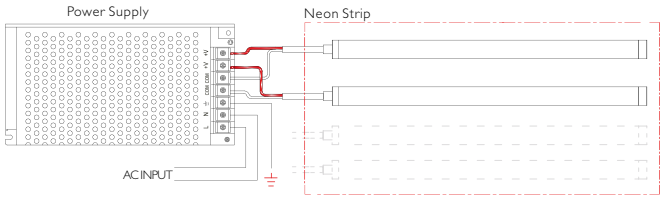
Wiring

Cut off the power before wiring !

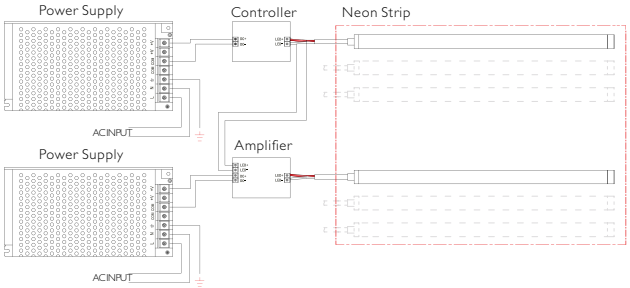


(1) Do not install the product when the power is on. Before powering on, make sure the wiring is correct.
(2) The Product has unidirectional conductivity. It should undergo power-on and lighting testing to ensure correct positive and negative pole connections.
(3) The product requires an isolated power supply, and the ripple requirement is ≤5%. Do not use an RC (resistor-capacitor voltage reduction) scheme or a non-isolated driving power supply.
(4) In practical applications, a 20% margin of the power supply should be retained (it is recommended to use ≤80% of the power) to ensure sufficient voltage to drive the product.

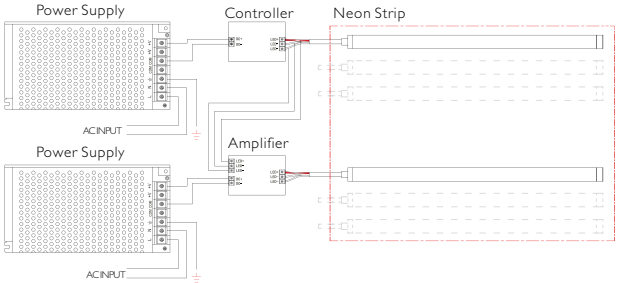
Non-Dimming Status for White Color



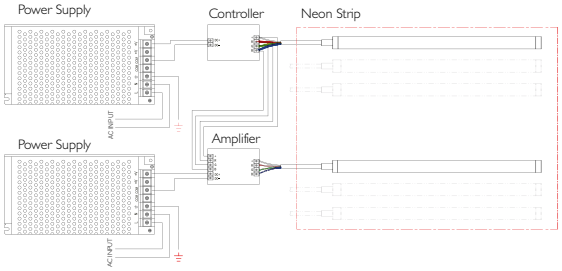
Dimming Status for White Color



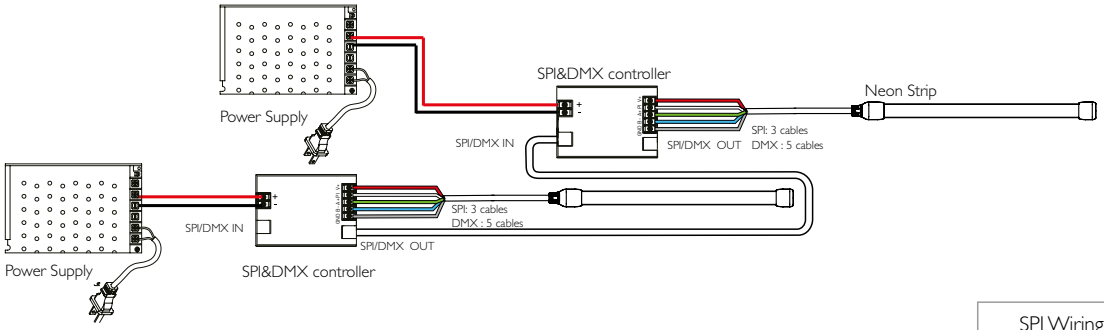
Dimming Status for CCT-Tunable Color



Dimming and tuning status for RGB/RGBW



Dimming and tuning status for SPI/DMX RGB/RGBW



Important notice for wiring: the linkable connection must be from DI/PI to DO/PO strictly following the arrow printing on connector, it can't be made by reverse connection, otherwise the product will be out of control and even damaged.

SPI Wiring	DMX Wiring
Red Cable : +24V Black Cable : GND White Cable : DI	Red Cable : +24V Black Cable: GND Green Cable: A Blue Cable : B White Cable : PI

Calculation

VOLTAGE DROP GUIDANCE CHART

Always choice a nearest value for following calculation
(1st step: calculate the Max. load power/current; 2nd step: measure the distance between power supply and load;
3rd step: select the suggested wire gauge.)

12V Voltage Drop & Wire Length Distance (3% Drop or 11.64V)

Wire \ Load	20W 1.66A	30W 2.5A	40W 3.3A	50W 4.2A	60W 5A	70W 5.8A	80W 6.7A	90W 7.5A	100W 8.3A	150W 12.5A	200W 16.6A	300W 25A
20AWG	2.7m [9ft.]	1.8m [6ft.]	1.5m [5ft.]	1.2m [4ft.]	0.9m [3ft.]	0.6m [2ft.]	Don't Use	Don't Use	Don't Use	Don't Use	Don't Use	Don't Use
18AWG	5.2m [17ft.]	3.4m [11ft.]	2.4m [8ft.]	1.8m [6ft.]	1.5m [5ft.]	1.2m [4ft.]	1m [3.4ft.]	0.9m [3ft.]	0.8m [2.7ft.]	0.5m [1.8ft.]	0.4m [1.3ft.]	Don't Use
16AWG	8.2m [27ft.]	5.5m [18ft.]	4m [13ft.]	3.1m [10ft.]	2.7m [9ft.]	1.9m [6.2ft.]	1.6m [5.4ft.]	1.5m [4.8ft.]	1.4m [4.5ft.]	0.9m [2.9ft.]	0.6m [2.1ft.]	0.4m [1.4ft.]
14AWG	13.1m [43ft.]	8.8m [29ft.]	6.4m [21ft.]	5.2m [17ft.]	4.3m [14ft.]	3m [9.8ft.]	2.6m [8.5ft.]	2.3m [7.7ft.]	2.1m [7ft.]	1.4m [4.6ft.]	1m [3.4ft.]	0.7m [2.3ft.]
12AWG	20.7m [68ft.]	13.7m [45ft.]	10.4m [34ft.]	8.2m [27ft.]	6.7m [22ft.]	4.9m [16ft.]	4.1m [13.5ft.]	3.7m [12ft.]	3.4m [11ft.]	2.3m [7.4ft.]	1.7m [5.5ft.]	1.1m [3.6ft.]
10AWG	30.2m [99ft.]	20.1m [66ft.]	14.9m [49ft.]	11.9m [39ft.]	10.1m [33ft.]	7.6m [25ft.]	7.5m [24.5ft.]	5.9m [19.5ft.]	5.5m [18ft.]	3.5m [11.6ft.]	2.6m [8.6ft.]	1.8m [6ft.]

24V Voltage Drop & Wire Length Distance (3% Drop or 23.28V)

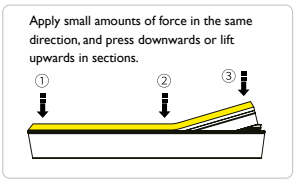
Wire \ Load	20W 0.83A	30W 1.3A	40W 1.7A	50W 2.1A	60W 2.5A (1st. step)	70W 2.9A	80W 3.3A	90W 3.75A	100W 4.2A	150W 6.25A	200W 8.33A	300W 12.5A
20AWG	13.1m [43ft.]	8.2m [27ft.]	6.4m [21ft.]	5.2m [17ft.]	4.3m [14ft.]	3.7m [12ft.]	3.1m [10ft.]	2.7m [9ft.]	2.4m [8ft.]	1.2m [4ft.]	Don't Use	Don't Use
18AWG	20.7m [68ft.]	13.7m [45ft.]	10.1m [33ft.]	8.2m [27ft.]	6.7m [22ft.]	5.8m [19ft.]	5.2m [17ft.]	4.6m [15ft.]	4.3m [14ft.]	2.1m [7ft.]	1.5m [5ft.]	1m [3.5ft.]
16AWG (3rd. step)	33.2m [109ft.]	21.9m [72ft.]	16.5m [54ft.]	13.1m [43ft.]	11m [36ft.] (2nd. step)	9.4m [31ft.]	8.2m [27ft.]	7.3m [24ft.]	6.7m [22ft.]	3.4m [11ft.]	2.7m [9ft.]	1.73m [5.7ft.]
14AWG	53m [174ft.]	35.1m [115ft.]	26.2m [86ft.]	21m [69ft.]	17.4m [57ft.]	14.9m [49ft.]	13.1m [43ft.]	11.9m [39ft.]	11m [36ft.]	5.8m [19ft.]	4.3m [14ft.]	2.7m [9ft.]
12AWG	82.9m [272ft.]	55.2m [181ft.]	41.1m [135ft.]	32.9m [108ft.]	27.4m [90ft.]	23.5m [77ft.]	20.7m [68ft.]	18.6m [61ft.]	17.1m [56ft.]	9.1m [30ft.]	6.7m [22ft.]	4.6m [15ft.]
10AWG	121m [397ft.]	80.2m [263ft.]	60m [197ft.]	48.2m [158ft.]	39.9m [131ft.]	36.9m [121ft.]	29.9m [98ft.]	29.6m [97ft.]	25m [82ft.]	13.7m [45ft.]	13.7m [35ft.]	6.9m [22.7ft.]

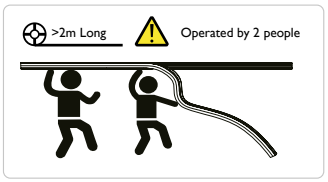
48V Voltage Drop & Wire length Distance (1% Drop or 47.5V)

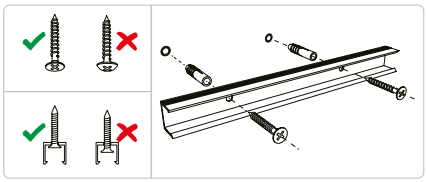
Wire \ Load	20W 1.66A	30W 2.5A	40W 3.3A	50W 4.2A	60W 5A	70W 5.8A	80W 6.7A	90W 7.5A	100W 8.3A	150W 12.5A	200W 16.6A	300W 25A
20AWG	17.2m [56.4ft.]	11.4m [37.4ft.]	8.7m [28.5ft.]	6.9m [22.6ft.]	5.7 m [18.7 ft.]	4.9m [16.1ft.]	4.3m [14.1ft.]	3.8m [12.5ft.]	3.4m [11.2ft.]	2.3m [7.5ft.]	Don't Use	Don't Use
18AWG	27.2m [89.2ft.]	18.2m [59.7ft.]	13.8m [45.3ft.]	10.9m [35.8ft.]	9.2m [30.2ft.]	7.8m [25.6ft.]	6.8m [22.3ft.]	6.1m [20ft.]	5.5m [18ft.]	3.6m [11.8ft.]	2.7m [8.9ft.]	Don't Use
16AWG	43.2m [141.7ft.]	29.1m [95.5ft.]	21.9m [71.9ft.]	17.5m [57.4ft.]	14.6m [47.9ft.]	12.5m [41ft.]	10.9m [35.8ft.]	9.7m [31.8ft.]	8.8m [28.9ft.]	5.8m [19ft.]	4.4m [14.4ft.]	Don't Use
14AWG	68.6m [225.1ft.]	46.2m [151.6ft.]	34.8m [114.2ft.]	27.8m [91.2ft.]	23.1m [75.8ft.]	19.8m [65ft.]	17.3m [56.8ft.]	15.4m [50.5ft.]	13.9m [45.6ft.]	9.3m [30.5ft.]	6.9m [22.6ft.]	4.6m [15.1ft.]
12AWG	109.2m [358.3ft.]	73.4m [240.8ft.]	55.4m [181.8ft.]	44.2m [145ft.]	36.7m [120.4ft.]	31.4m [103ft.]	27.5m [90.2ft.]	24.4m [80.1ft.]	22.1m [72.5ft.]	14.7m [48.2ft.]	10.9m [35.8ft.]	7.4m [24.3ft.]
10AWG	173.6m [569.6ft.]	116.6m [382.5ft.]	87.8m [288.1ft.]	70.2m [230.3ft.]	58.4m [191.6ft.]	50.2m [164.7ft.]	43.8m [143.7ft.]	38.8m [127.3ft.]	35.2m [115.5ft.]	23.3m [76.4ft.]	17.5m [57.4ft.]	11.7m [38.4ft.]

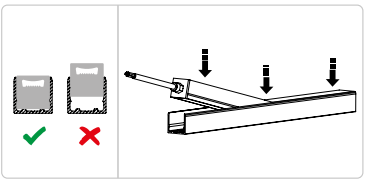
Installation

(1) When installing in environments with significant temperature changes, it is important to consider thermal expansion. Based on the characteristics of the material, the product will have thermal expansion due to temperature changes.
(2) Try to use tools made of soft and elastic material for installation or disassembly, as dragging or pulling by hand may cause damage to the product.
(3) Installation or disassembly of products for 2 meters or longer requires 2 people to operate, to avoid damage to the product.

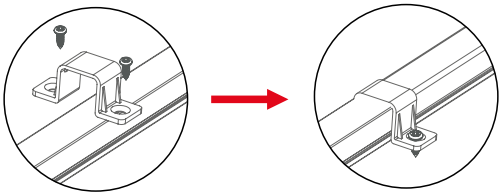




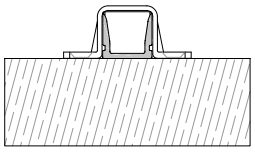




Option 1 : Fixed by clip and screw

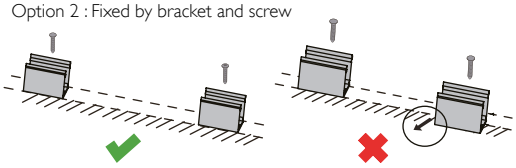


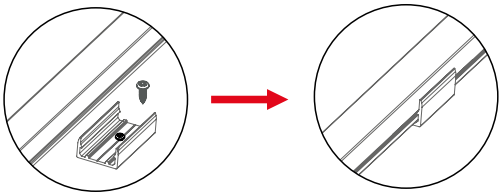
Space & Groove are shown as below



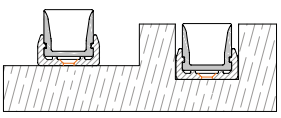
Surface mounting

Option 2 : Fixed by bracket and screw





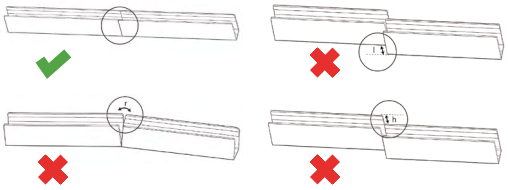
Space & Groove are shown as below

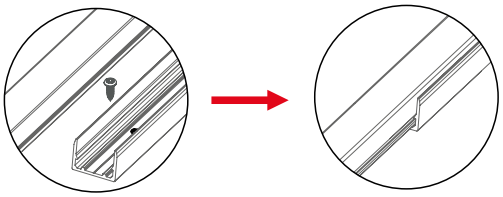


Surface & Recessed mounting

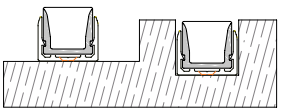
⚠ Clip: 3 clips can be used for 1m;

Option 3 : Fixed by aluminum profile and screw



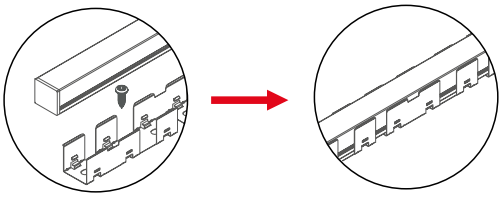


Space & Groove are shown as below

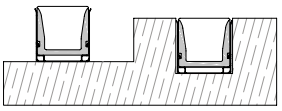


Surface & Recessed mounting

Option 4 : Fixed by bendable bracket and screw

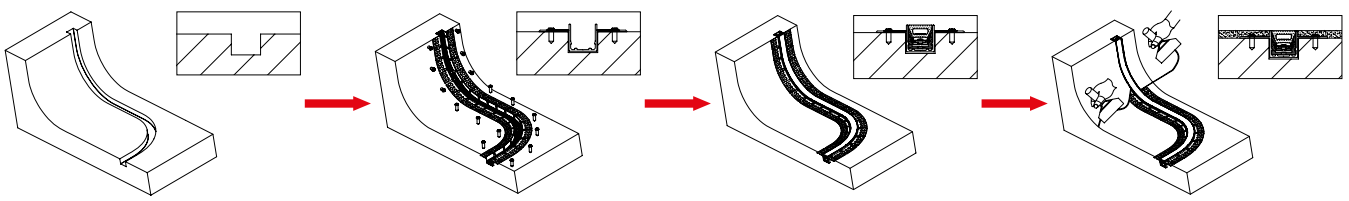


Space & Groove are shown as below



Surface & Recessed mounting

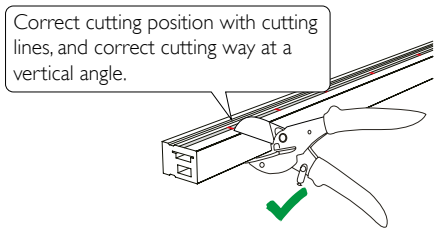
Option 5 : Fixed by dual-bend plaster-in aluminum profile and screw

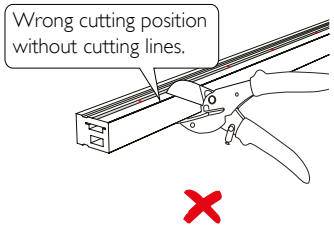


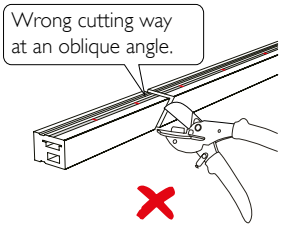
OPERATION INSTRUCTION
NEO

Assembly

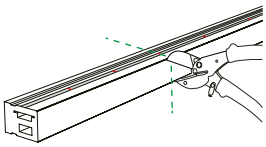
(1) Cut the product along the cutting line according to the required length.
(2) Pay attention to identifying the positive and negative polarities to avoid short circuits and damage to components
(3) To ensure the effectiveness of the protection level of outdoor use styles, please refer to and follow the corresponding operating specifications of the model.



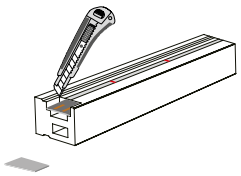




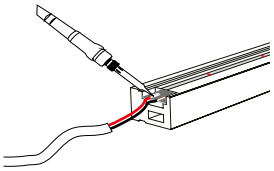
(4) The operation method as following for the end cap sealed by the gluing process.



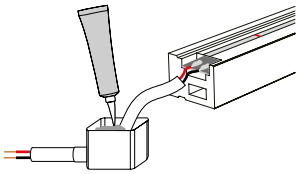
(1) Cut vertically along the cutting line according to the required length.



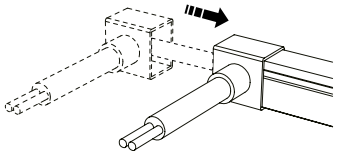
(2) Peel off the jacket on the back of the PCBA to expose the solder pads.



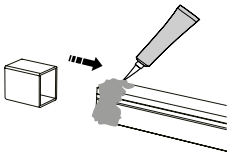
(3) Solder the cables to the corresponding polarity on the solder pads.



(4) Thread the cable through the front end cap and fill it with 1/3~1/2 capacity glue.



(5) Push the end cap onto the product, and lay it flat to dry for 2 hours.



(6) Fill the tail end cap with 1/3~1/2 capacity glue, push it onto the product, and lay it flat to dry for 2 hours.

Packing

Generally speaking, the standard run length and shipping length are 5 meters (some are 3 meters for the run length), and the maximum shipping length can reach 50 meters (some are 10, 20, or 30 meters). In addition, packaging methods, materials, and solutions can be customized according to needs.