



INSTALLATION INSTRUCTIONS FOR NEON STRIP





Please read the manual carefully before installation!

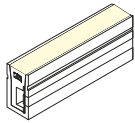
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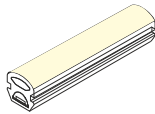
01/ Pay attention to take and put it gently

Neon flex profile

Horizontal Bending

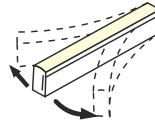


Vertical Bending

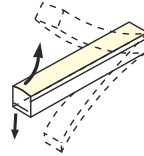


Bending direction

Horizontal Bending

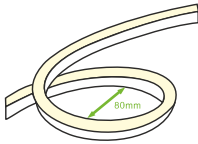


Vertical Bending



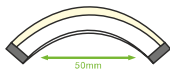
Minimum bending diameter

Correct bending way of horizontal bending series

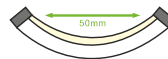


Light surface upwards, the strip is bendable to right or left naturally, the minimum bending diameter is 80mm

Correct bending way of vertical bending series



When luminescent surface is upward (as shown), the minimum diameter of bend downward is 50MM



When luminescent surface is upward (as shown), the minimum diameter of bend upward is 50MM

Incorrect bending way



(as the picture shows) please do not twist the strip, or it will be damaged



02/Safety Warning

- Install in accordance with national standards and local electrical codes
- This product must be installed and maintained by a qualified electrician
- Only installation it with Class 2 DC constant voltage driver , Do not use this product if it does not comply with Class 2 standard
- The power of drive must meet the output of the rated power, and do not exceed the specified output power
- Use a cable with rated temperature at least 80 ° C and be certified for external connection of the electrical equipment
- Improper electrical installation may cause the cable to overheat and cause a fire
Pls Use a suitable cable between the driver, the clamp, and the controller When selecting a wire, the voltage and current must meet the rated values

Input voltage	See the packaging label	Using environment temperature	-25°C~60°C
Power supply selection		*Do not install the product outside of the listed environment	

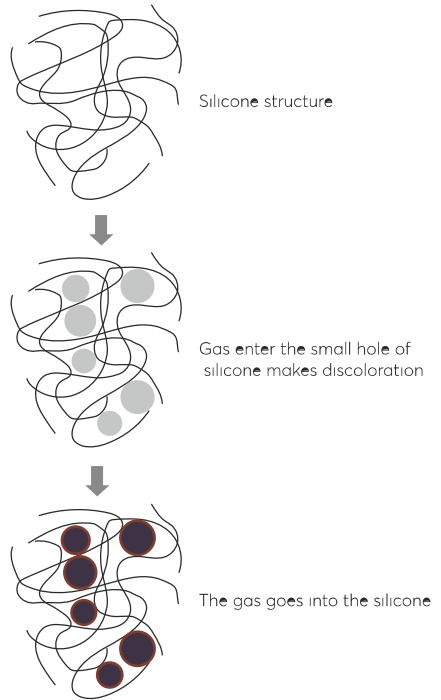


03/ Installation Environment

- ❶ Do not install the LED strip in an environment that is overheated (for example, near a heat-generating device) or in a poorly-cooled area (for example, in a confined space), Pls check the Ambient Temperature Considerations!
- ❷ Do not use this product in environments with high volatile organic compounds such as sulfur, chlorine, bromine and VOC to avoid reduce the service life
 - LED light source is afraid of sulfur, which is because the sulfur-containing gas will vulcanize with the silvered layer of light source through the porous structure of silica gel or bracket gap After the curing reaction of the LED light source, the functional area of the product will be blackened, the luminous flux will be gradually decreased, and the color temperature will obviously drift After vulcanized silver sulfide increases in conductivity with increasing temperature, leakage phenomenon will occur easily during use, more serious condition is that the silver layer is completely eroded and the copper layer is exposed
 - The material which are easily makes LED "poisoning" are organic compounds which contains N, P, S and so on , heavy metal ion compounds with Sn, Pb, Hg, Sb, Bi, As and so on , organic compounds which contains ethynyl and other unsaturated groups Pls Pay attention to the following materials
 - Organic Rubber Sulfur Vulcanized rubber such as gloves
 - Epoxy resin, polyurethane resin Amine, Isocyanate curing agent
 - Synthetic silicone RTV rubber especially the use of Sn-based catalyst
 - Adhesive glue
 - Fireproof material like barley paper
 - Volatiles in paint
 - Soft Polyethylene plasticizers, stabilizers
 - Welding flux used in construction
 - Engineering Plastics Flame Retardants, Heat Resistant Agents, UV Absorbers and so on
 - Chlorine chlorinated corrosion on the silver-plated support, alloy wire or other active metals and chip electrodes (aluminum reflector)



- Silicone is a commonly used LED packaging material, and also a high-quality materials for silicone tube LED strips , silicone has the advantage of good heat dissipation, anti-ultraviolet (UV), not easy to yellow edge and so on. Silicone properties determine its waterproofing effect is good, as the silicone material is full of small holes, so the silicone has breath ability. This feature easily lead the gas into the LED inside through the holes , and caused some undesirable phenomena like the led chips bead the color , Light failure ,dead leds and so on.



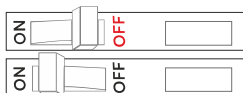
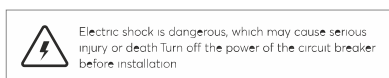
- 4 Volatile substances enter the interior of the LED in the form of gas and react with the silvered layer of the silica gel and the support to cause the interior of the LED to become black, decrease in brightness, increase in color temperature. Therefore, special attention should be paid on the construction site first doing the construction of painting, glue, welding , and installation the led products until the paint and glue curing and gas evaporation ,which can avoid the bad situation of vulcanization

04/Installation Guide

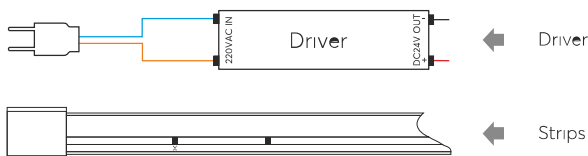
Precautions before Use

- * Verify that whether all components (LED strips, drivers, controls, amplifiers and accessories) are compatible before installation
- * Configure and pre-test LED strips before installation to ensure that all components operate properly

1 Turn off the power switch before installation



2 Determine the location of the components for proper wiring



3 Select the suitable power supply which was required by LED strips

Quick check list for the driver selection of led strip

Power Supply Voltage	5W Strips	10W Strips	15W Strips	20W Strips	30W Strips	50W Strips	75W Strips	100W Strips	150W Strips	200W Strips	250W Strips	350W Strips
DC	12W	24W	24W	36W	50W	75W	100W	150W	200W	300W	350W	500W
24V	0.25A	1A	1A	1.5A	2.1A	3.1A	4.2A	6.25A	8.3A	12.5A	14.5A	20.8A



Example:

The parameters of led strip "48W 24V", then the matched power supply should choose 75W 31A 24V

The first step Assuming the power of LED strips to be connected is 48W, then with the nearest principle, select 75W power supply,

The second step Make sure the working voltage of LED strip, assuming it's DC24V,

The third step Choose the right driver

Power Supply Voltage	5W Strips	10W Strips	15W Strips	20W Strips	30W Strips	50W Strips	75W Strips	100W Strips	150W Strips	200W Strips	250W Strips	350W Strips
DC 24V	12W 0.25A	24W 1A	24W 1A	36W 1.5A	50W 2.1A	75W 3.1A	100W 4.2A	150W 6.25A	200W 8.3A	300W 12.5A	350W 14.5A	500W 20.8A

- 4 For reaching best performance and lumens, pls select the appropriate wire gauge for the LED strip to reduce voltage drop

Adapter table of power and wire for DC24V strips

Wire gauge	Resistance /KM	Voltage drop	10W 0.42A	20W 0.83A	30W 1.25A	40W 1.6A	50W 2.1A	60W 2.5A
20AWG	33.9Ω	<0.38V	25.5M	12.9M	8.1M	6.3M	5.1M	4.2M
18AWG	21.4Ω	<0.38V	40.2M	20.4M	13.5M	9.9M	8.1M	6.6M
16AWG	13.5Ω	<0.38V	64.5M	32.7M	21.6M	16.2M	12.9M	10.8M

Example:

The first step Assuming the power of LED strip to be connected is 40W, the distance from drive power to the LED strip is 4 meters,

The second step Confirm the working voltage of LED strips, assuming it's DC24V,

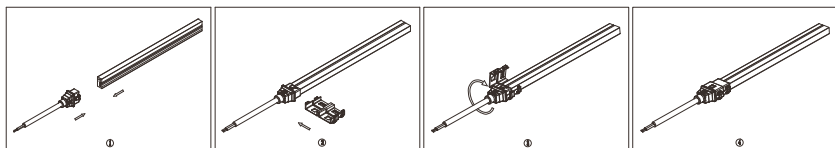
The third step select the appropriate connection wire is 16AWG wire gauge

Example: Adapter table of power and wire for DC24V strips

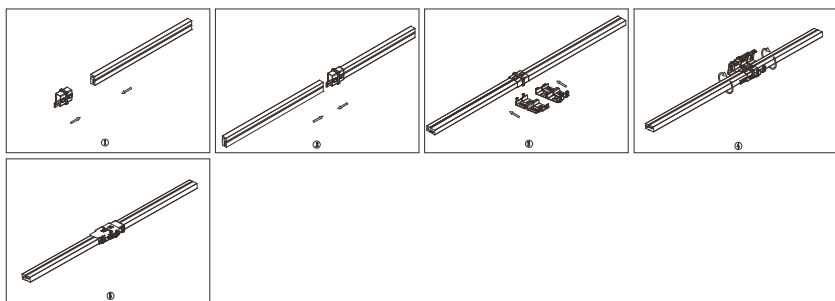
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6 Installation structure

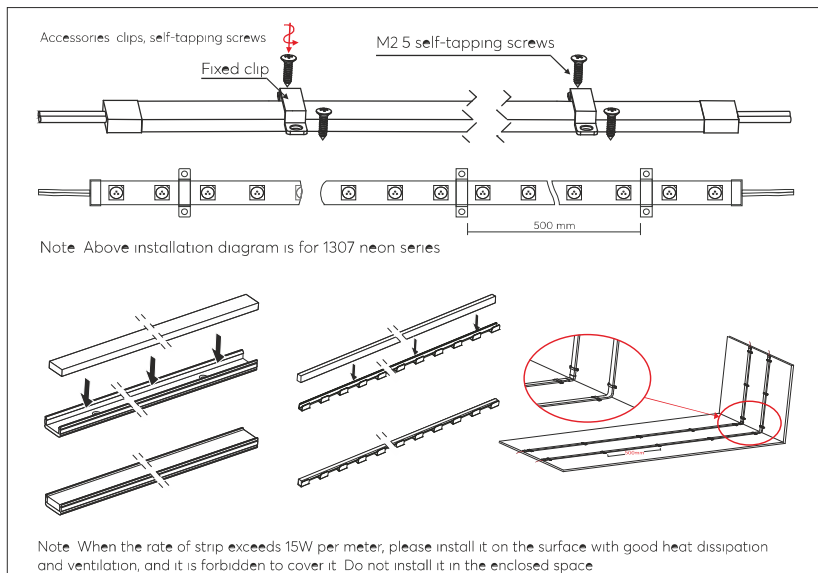
Installation diagram of cable connector



Installation diagram of butt joint

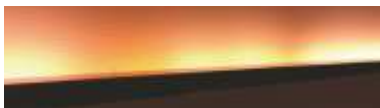


Installation for Neon strip



7 Installation Precautions

- ★ Avoid sticking paint



The light effect after Sticky paint

- ★ Keeping the strip with a straight installation, and avoid installing distortion



The lighting effect After twisted installation

- ★ Install the connector to align, to avoid the connector and cable block the light



The lighting effect after Block light