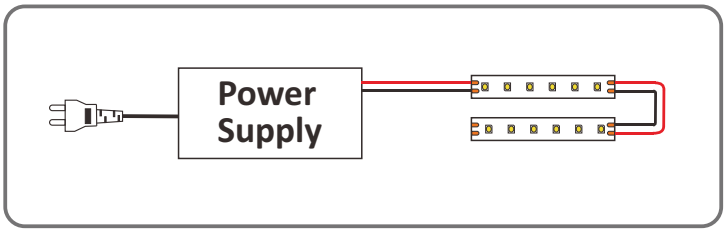
LED Strip/Tape Installation Instruction

Installation Planning

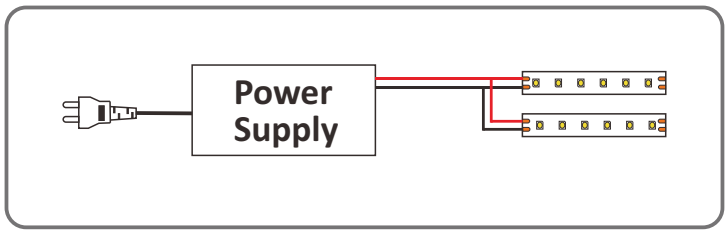
LED Flexible Strip/Tape is highly versatile and can provide a superior lighting solution in Back Lighting, Cove Lighting, Task Lighting, Display Lighting, Accent Decor Lighting, Cabinet lighting and etc, to maximize the lighting benefits of LED Strip/Tape, a few panning/design steps are recommenced as the first phase in the installation process:

★ Where is the nearest power source for Drivers and how you want to locate it.
★ How will you switch your light on/off?
★ Do you need to dim the light in some application?
★ What is the best layout configuration for your installation?
★ How will you run your wiring to your LED Strip/Tape?

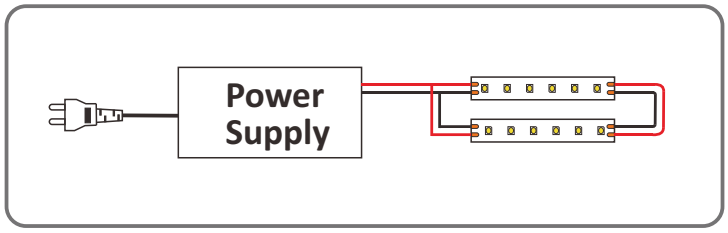
Layout Options



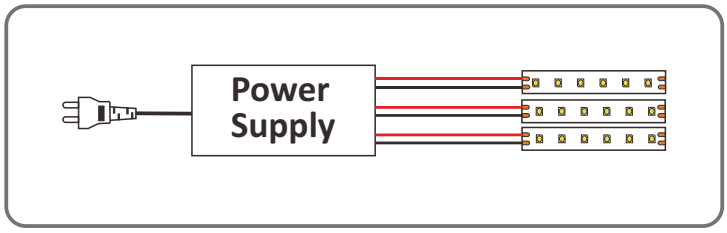
❶ LED Strips/Tapes are powered in a “continuous” single line run. Strips/Tapes are furthest from the power supply are more likely to exhibit voltage drop.



❷ LED Strips/Tapes are powered from a “splice” Centerfeed connection. This type of layout tends to produce more consistent brightness and color between Strips.



❸ LED Strips/Tapes are powered from a single looped “Loop-back” connection, which also produces more consistent results. Often used for room perimeter and cove.



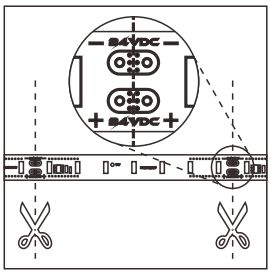
❹ In the “Array” option, LED Strips/Tapes are individually powered. Total wattage should be determined so as not to overload power supply.

Voltage Drop

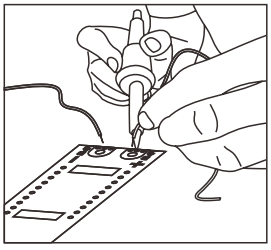
Voltage drop is the normal loss of voltage that occurs as current flows along a wire connection in low voltage systems, and increase as length of a wire connection is increased. Wire length and thickness as well as light wattage influence the amount of voltage drop.

Drawing of installation(Non waterproof)

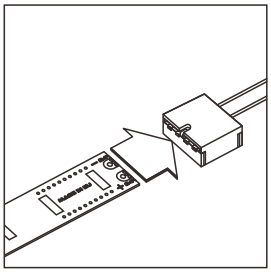
1. Clean surfaces carefully (free from grease and dust) before fitting and ensure that the double sided tape or adhesive sticking properly to the surface and less chance peel off after a short time. Problematic surfaces include wood, powder-coatings, structured surfaces, glass, stainless steel etc.



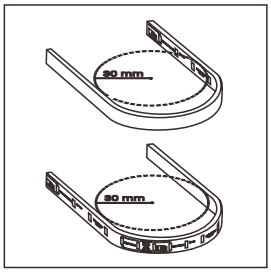
2. LED Strip/Tape Only can be cut in the middle of cutting sign by the chance to break the circuit of PCB of shortcut risk.



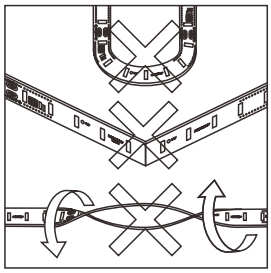
3. Only licensed electrician can do the soldering by the maximum 350 C by maximum duration 2 seconds, longer time soldering or over heating may cause the LEDs dead close-by the soldering pad. Make sure you are using the Lead-Free soldering wire.



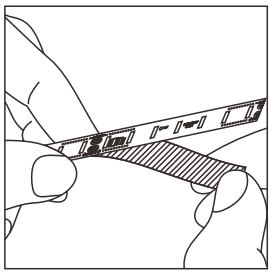
4. Make sure using the matched quick connector with right fit-in width as well as the right pin type, single color at 2 pins, CCT tunable at 3 pins and RGB at 4 pins, RGBW is not recommended by quick connectors due to the narrow space holding 5 pins attached tightly.



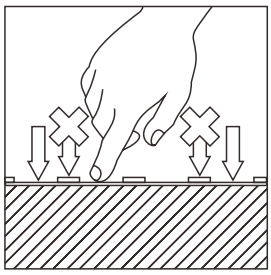
5. Do not over bend the led strip/tape to make the circuit break, even the strip/tape performs fine after over-bending, the hot and cold contrast may cause PCB disfunction either.



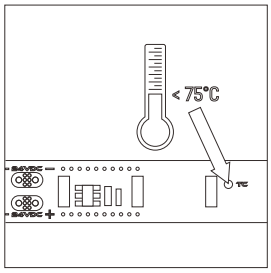
6. Do not bend led strip/tape on a horizontal direction as well as do not fold or crease led strip/tape.



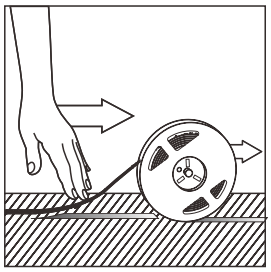
7. Gently peel off the tape and the adhesive tape may tear by over stretching.



8. Always wearing the anti-static ring and gently press the PCB part instead on the surface of LEDs, which may cause the chemical reaction after time goes by.



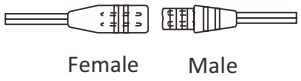
9. In the case Strip/Tape be fitted to surfaces with low heat dissipation surface such as wood, plasterboard, plastic, glass etc., please use additional aluminum profiles to which the strips can be fitted in order to ensure sufficient heat dissipation. Too much heat can otherwise easily damage or dramatically reduce the Strip/Tape lifespan.Preferred working temperature of TC point should below 75 C.



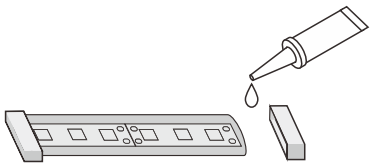
10. Watch out by not stepping on the reel if you unreel the whole strips out first.

Drawing of installation(Waterproof)

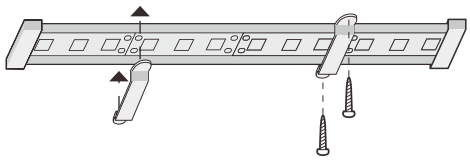
Wet location tape includes mounting clips and hardware to harness tape light to a desired surface. Wet location splice connectors and end caps are also included. Utilize male and female wet location connectors to connect various cut lengths in series. Ensure not to exceed the maximum run limit of the tape light. Do not submerse wet location tape in liquids. Do not install near chemically treated water or salt water. Do not install in direct sunlight.



- Utilize female and male wet location connectors to attach cut sections of wet location tape in series.



- All cut points must be sealed with silicone adhesive (not included), and wet location end caps.



- Mount with included mounting clips and screws. Silicone adhesive can also be utilized to mount tape to surfaces.

Safety Tips

LED Light Strip Handling

★ Do not stare directly into LED lights when illuminated for eye protection for too much strong brightness contrast.
★ Always disconnect driver before cutting/connecting LED Light strip/tape.
★ Do not expose LED Light Strips to direct or indirect moisture if they are below IP54.
★ Do not expose LED Light Strips to direct or indirect sunlight, not even mounted with profile and diffusers, reflected sunlight may cause ultraviolet stress and overheating.
★ Do not crimp light strip/tape, attempt to bend light strips width-wise, or length-wise to a radius less than 30mm/1.2 inches.
★ Maintain minimum and maximum surrounding temperatures (-20C and +45C).
★ Do not assemble wherever at any damp and wet surrounding even the led light/tape is above IP54.

Drivers

★ Apply power to test LED Light Strip/Tape before mounting to any location.
★ Always reserve at least 10% of Max Loading watts to extent the life span of drivers, overloading may cause overheating, shorting, and possibly fire.
★ Make sure drivers can undertake current surge up to 80A and has anti-overload circuit protection.

Trouble Shooting

LED Strip/Tape does not light

★ Make sure your power supply is turned on and receiving the power, mostly of the drivers over 20W has the signal LED On when they are powered.

★ Confirm you have maintained correct polarity(+ to + and - to -) when joining LED Strip/Tape as well as when they are connected to the Drivers.
★ Check the output voltage of Driver matches the input of LED Strip/Tape as Drivers ranges from 5VDC, 12VDC, 12VAC, 24VAC, 24VDC, LED Strip/Tape has constant voltage as well as constant current input options.
★ Check all LED strip/tape connections and any switch or dimmer connections from the drivers to the LED strips/tape.
★ Consider testing with multimeter to ensure there is no shortcut as well as measuring the right voltage or current.

Only Part of LED Strip/Tape is lit

★ Check connections to the part of the Light that is not lit.
★ Confirm you have maintained correct polarity(+ to + and - to -) when joining LED Strip/Tape as well as when they are connected to the Drivers.
★ If only 1 LED series is out, cut out and remove the damaged group LED or smallest unit between cutting sign and splice together LED strip/tape replaced with the brand new group.

LED Strip/Tape Light blink on then Off

★ Check the drivers are adequate for the length of LED strip/tape you are powering. Install a higher wattage power supply or reduce watts used by shortening the lengths of your strip/tape.

LEDs farthest from the drivers are noticeably dim

★ Result of voltage dropping caused the problem. Decrease the length of drivers feed wires or use thicker power feed wires between the drivers to strip/tape.
★ Use shorter lengths of LED strip/tape. Refer to layout options in these guidances by consider a different layout.
★ Power both ends of LED strip/tape from same Driver to make voltage dropping as less as possible.