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Thank you for your purchase of our brunch in Dubai –ALNAJM LIGHTING

We are excited to get you better acquainted with the new wave of lighting that is taking the world by storm. LED Strip Lights can provide more even room illumination, and more integrated light for practically anything. Thanks to advancing new technologies, LED lights are more efficient, last longer, and are more eco-friendly than nearly any other light on the planet. So buckle up, let's get down to it.

We have three products LED spirit light

Firstly, 220 V doesn't need a power supply. They only need a connection and the place of the cut every 50 cm from the place of the cut drawn on the stiletto.

COB Strip Light Data Sheet	
	
Model No : AL-NAJM-123-60A	
Technical Product Parameters	
Type Of FPC : Double Sided Coper FPC	Size Of FPC : 8mm (W) *18/18mil
Nos Of Lamps : 288 Pcs/M	Product Size : 12 (W) *6mm (Thickness)
Nos Of Resistors : 36 Pcs/M	Beam Angle : 110°
Working Power : 220V DC	Brightness : 90lm/W
Power : 8.5W/M	Protection Level : (Waterproof) IP65
CRI : >80	Cutting Size : 50cm
Temperature : 46°-50°	
Packing : 100M/Roll With 2 Connector	Warranty : 2 Years

As for 12V and 24V, it needs a power supply to convert the power from 220 to 12V, 24V. they are all identical in the way of installation the only difference is the strip light 220V doesn't require a power supply it only needs a connector.

12V and 24V Strip Light Data Sheet



Type : SMD 5050	Type : COB
Specification : 5cm Cut	Specification : 5cm Cut
Waterproof Type : <input checked="" type="checkbox"/> IP65	Waterproof Type : <input checked="" type="checkbox"/> IP68
Voltage : 24V	Voltage : 12V
Quantity : 1Roll/5m	Quantity : 1Roll/5m
Warranty : 2 Years	Warranty : 2 Years

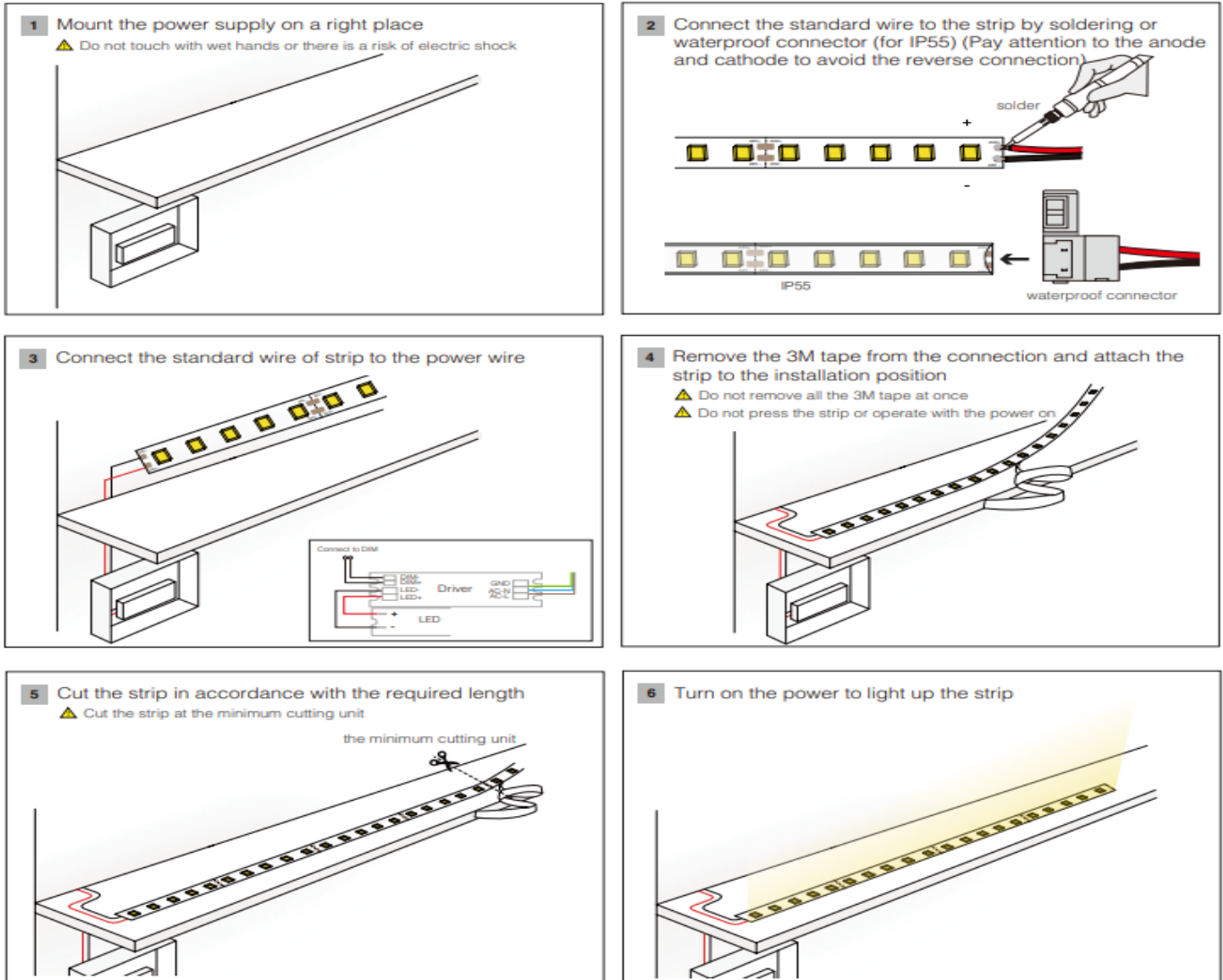
In this guide, you will learn proper techniques for installation, best practices for power supplies and controllers, along with things to avoid along the way. If you have questions surrounding installation or troubleshooting, please feel free to contact us.

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2. ACCESSORIES
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4. CONTROLLERS
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1. INSTALLATION

The following diagrams show some common installation techniques to install an LED strip (12,24V). Keep in mind whenever possible, we recommend soldering the contacts over strip connectors, especially in large-scale installations. They provide a longer-lasting, more reliable hold, and take much of the guesswork out of troubleshooting.

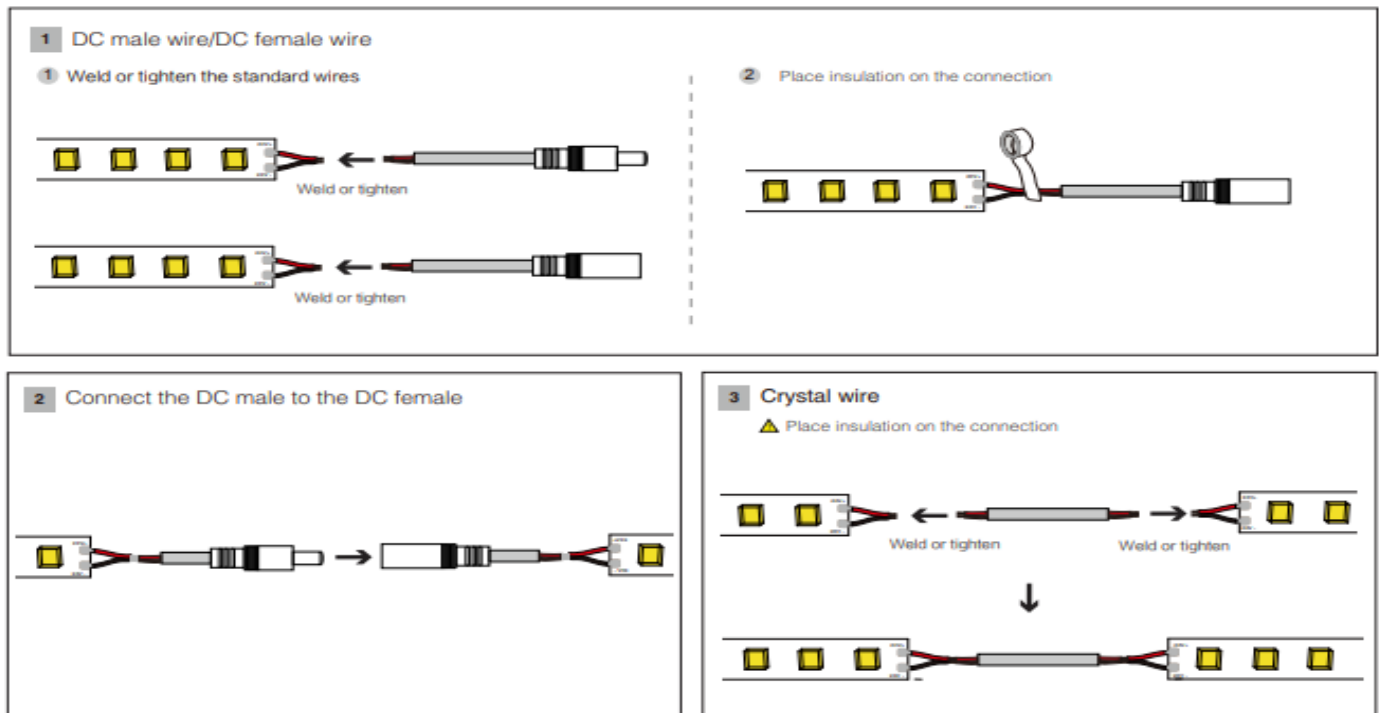


When soldering bare leads or barrel connectors to the LED Strip, we recommend adding glue and heat shrink tubing over the top of the connection area to ensure a proper hold on the LED Strip. Make sure to look at the strip marking to use the correct polarity.



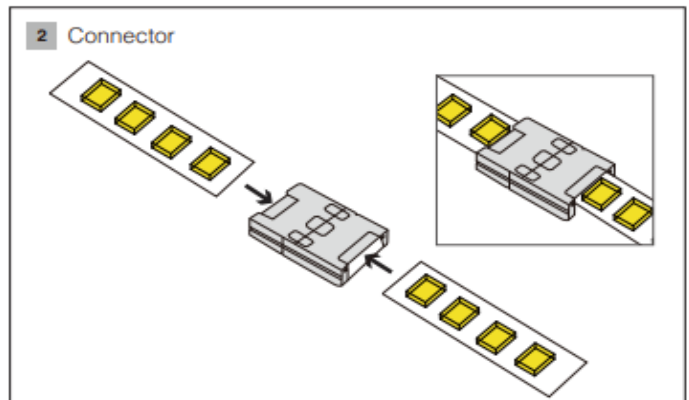
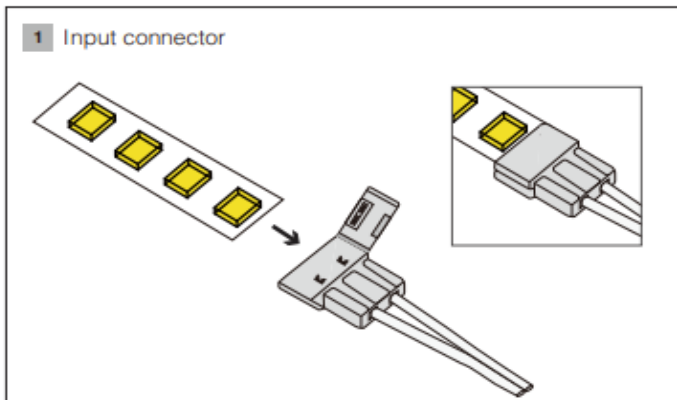
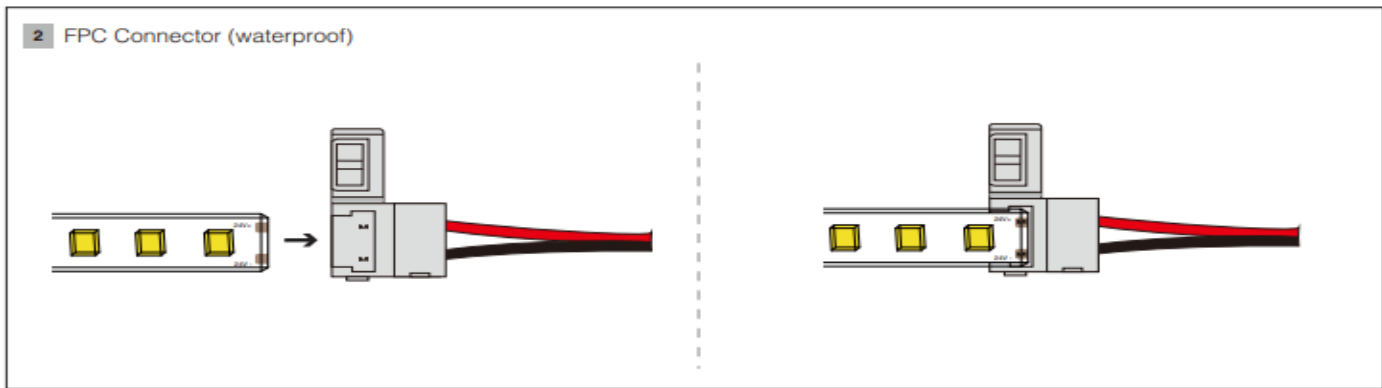
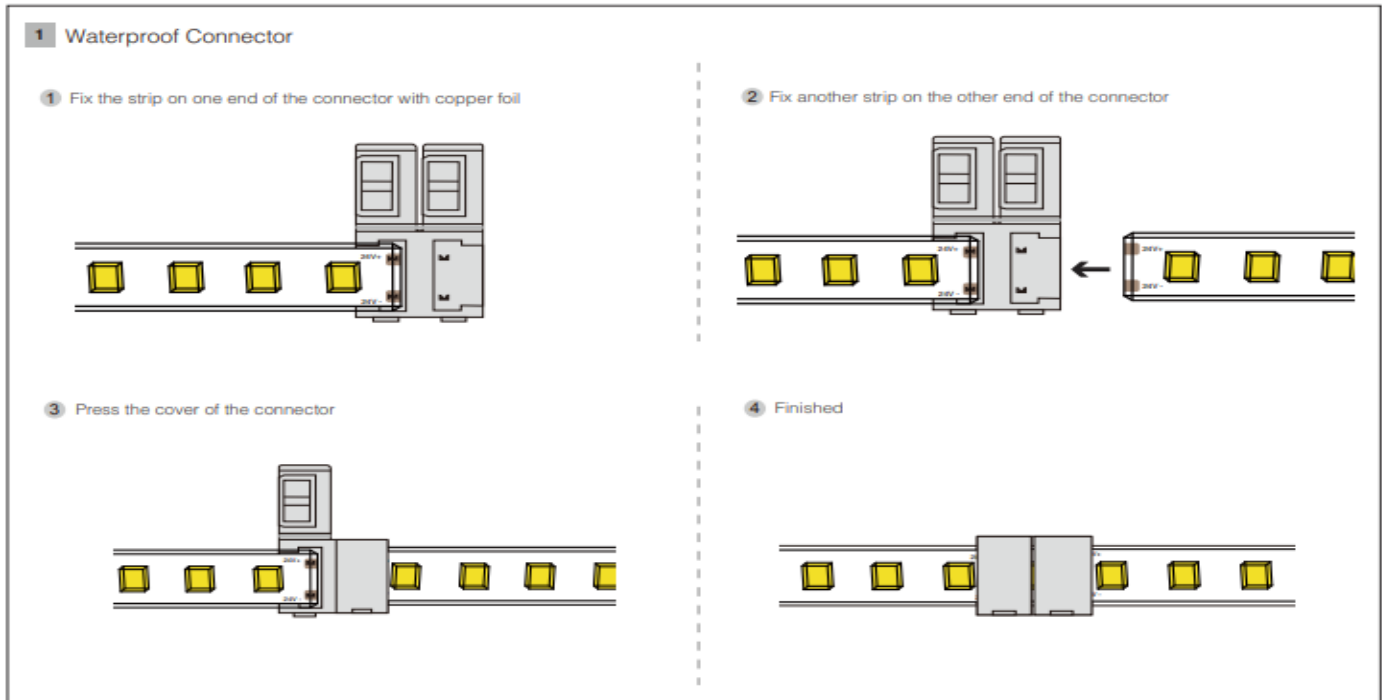
2. ACCESSORIES

The most common accessory is a DC connector. The female end is typically installed on the LED Strip, as most wall-type power supplies will come with a male end. When jumping wire from LED Strip to LED Strip, you can use the same technique by adding DC Connectors to make it disconnect, or bare wires. Be sure to glue and heat shrink or electrical tape the connection area for best results.



USING CONNECTORS

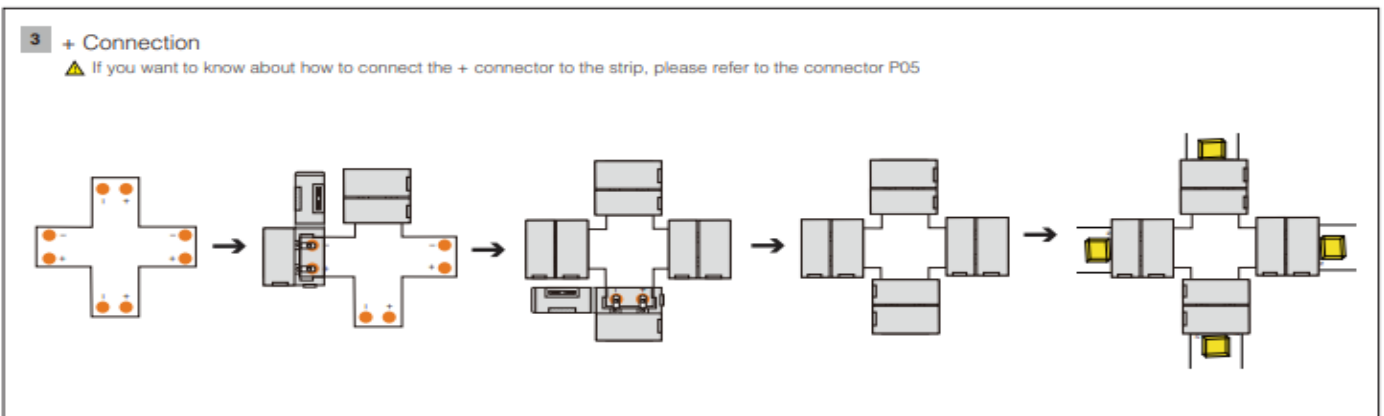
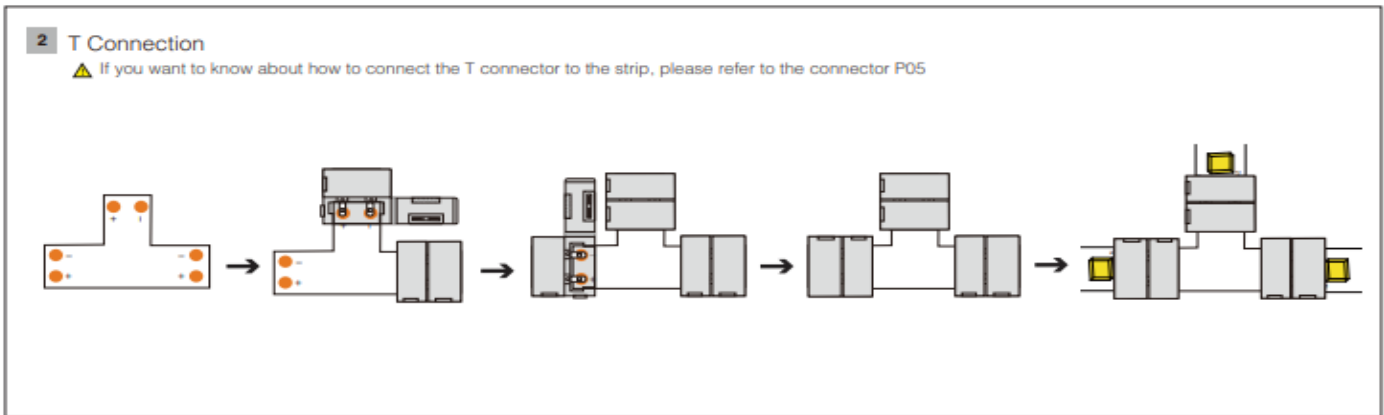
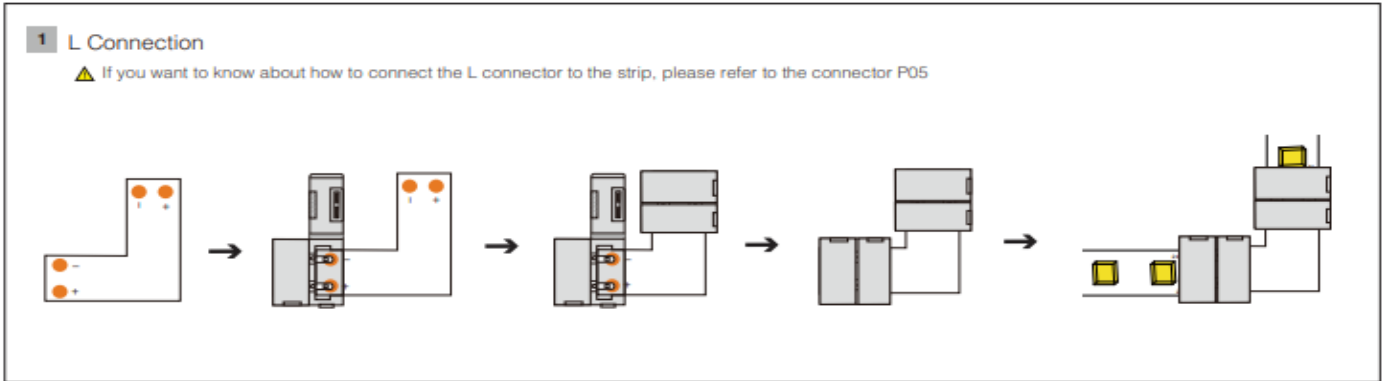
If using connector to connector fittings, FPC, or other connectors to secure your LED tape, see the below diagrams. When using these types of fittings, it is important to have the LED strip secured in place prior to fitting the connector on, using extreme caution not to move the connector once snapped into place. Because the contacts are generally spring or contact fit, the hold between LED Strip and connector is only press fit, so any movement after the connector is secured can misalign the contact points. It is recommended to test each fitting once installed to make sure the connection is secured.





USING CONNECTORS (CONT.)

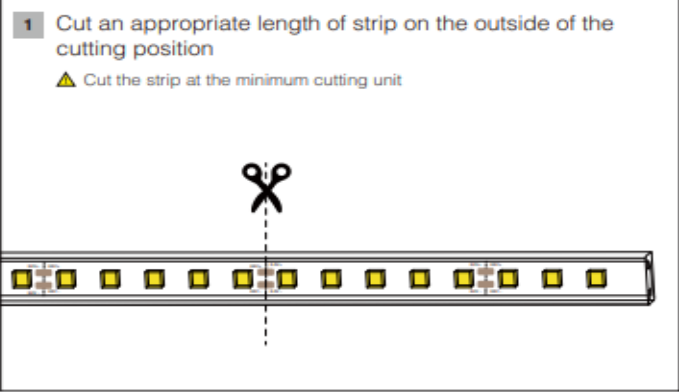
When using L, T, or X-type connections, make sure the polarity on the strip matches with each new section added. Like mentioned previously, make sure to add these connectors ONLY once the LED Strip is in place. Due to the nature of Pixel-Free LED products, we do NOT recommend using snap-fit connectors for best results.



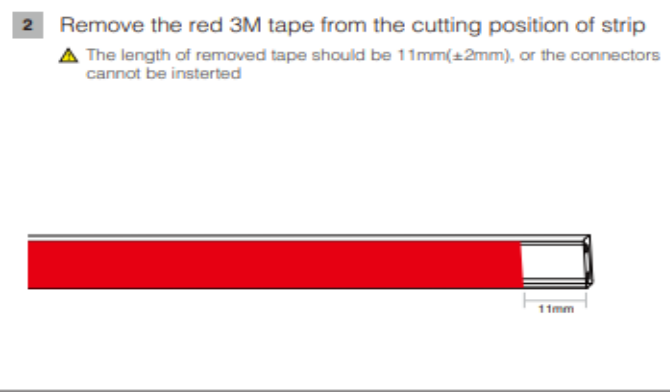
CUTTING & WATERPROOF TYPE CONNECTORS

When cutting ANY LED Strip, it is important to cut *only* on the cut points located on the front or back side of each strip. It should be level with scissor marks and be sure to cut evenly to be able to use each side of the solder pads. Cutting too far on one side will make it difficult or impossible to use that section of LEDs.

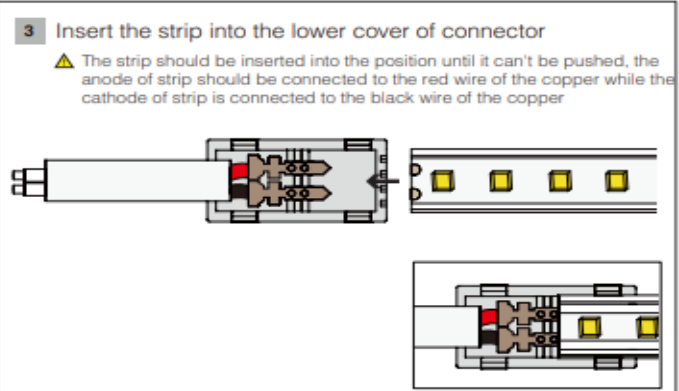
1 Cut an appropriate length of strip on the outside of the cutting position
 ⚠ Cut the strip at the minimum cutting unit



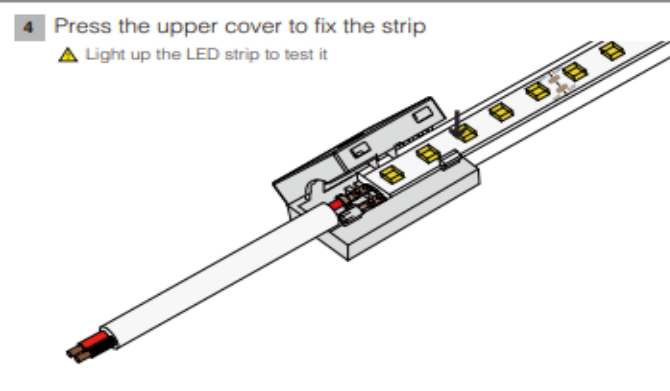
2 Remove the red 3M tape from the cutting position of strip
 ⚠ The length of removed tape should be 11mm(±2mm), or the connectors cannot be inserted



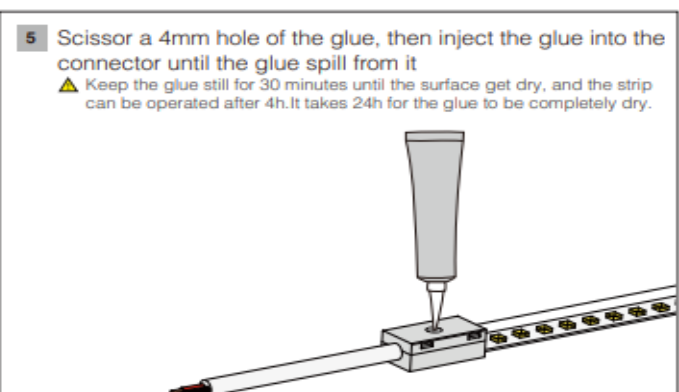
3 Insert the strip into the lower cover of connector
 ⚠ The strip should be inserted into the position until it can't be pushed, the anode of strip should be connected to the red wire of the copper while the cathode of strip is connected to the black wire of the copper



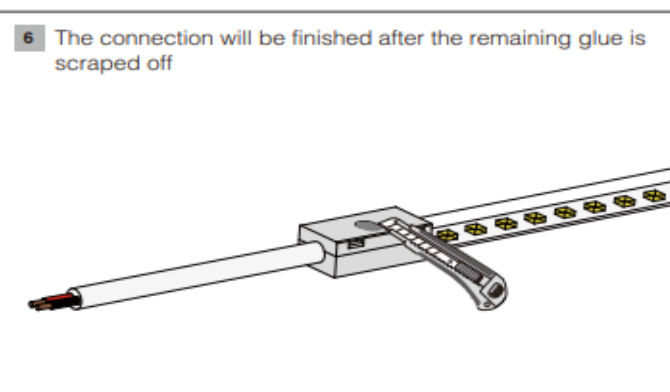
4 Press the upper cover to fix the strip
 ⚠ Light up the LED strip to test it



5 Scissor a 4mm hole of the glue, then inject the glue into the connector until the glue spill from it
 ⚠ Keep the glue still for 30 minutes until the surface get dry, and the strip can be operated after 4h. It takes 24h for the glue to be completely dry.



6 The connection will be finished after the remaining glue is scraped off

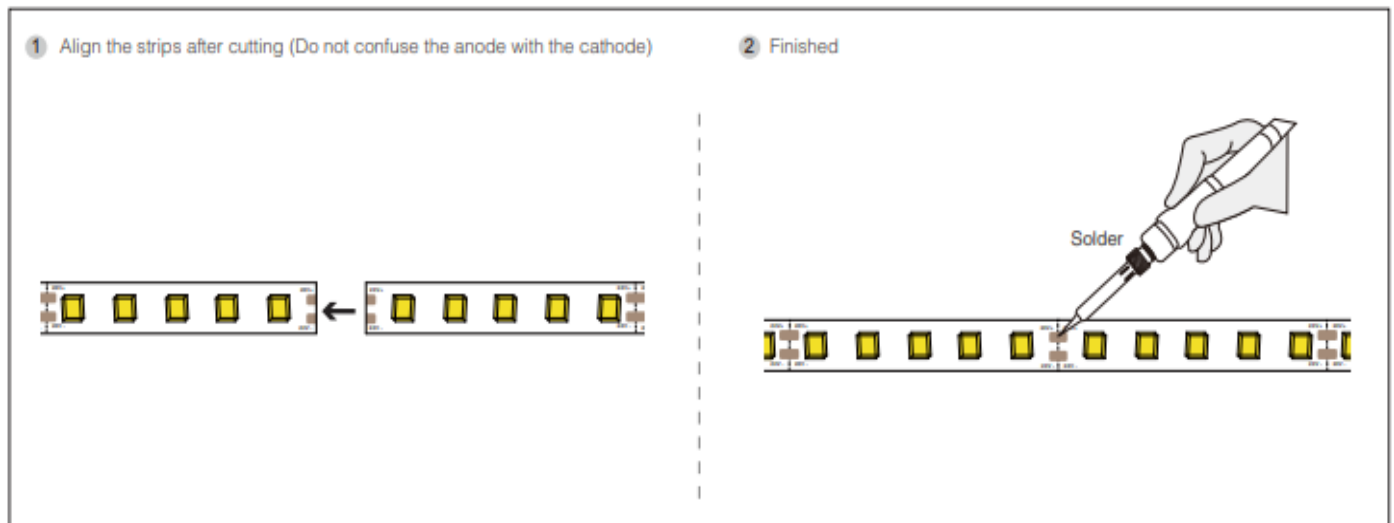


Waterproof connectors provide a better hold than non-waterproof connectors as they limit the flexing of the strip at the connection area.



COMBINING MULTIPLE LED STRIPS

When combining multiple strips, align the solder pads together, overlapping the strips slightly. Be sure to check the polarity on each side of the LED Strip. Once soldered, it is recommended to glue both sides of the strip at the seam, and add a piece of clear heat shrink tubing for best results.



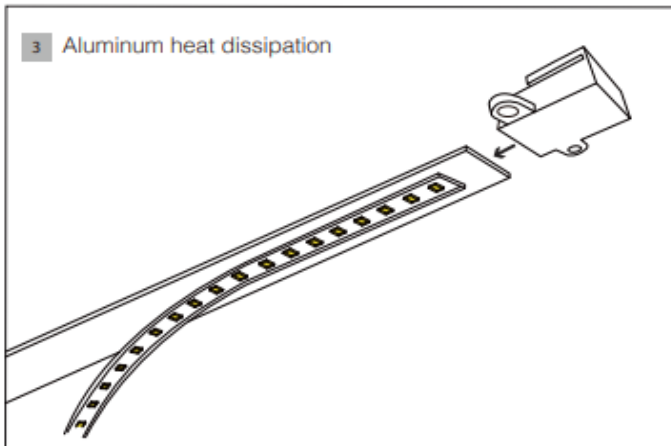
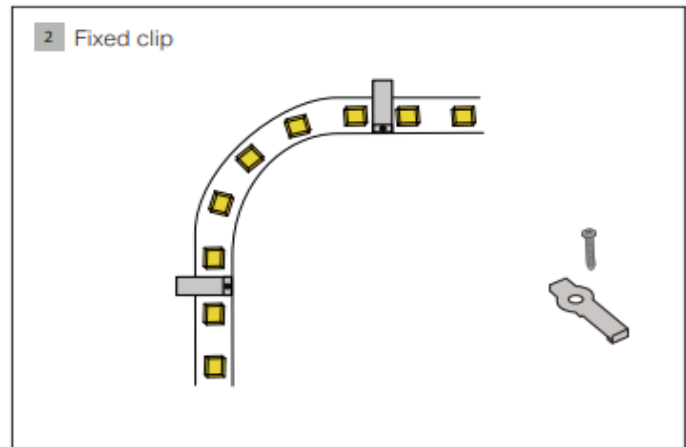
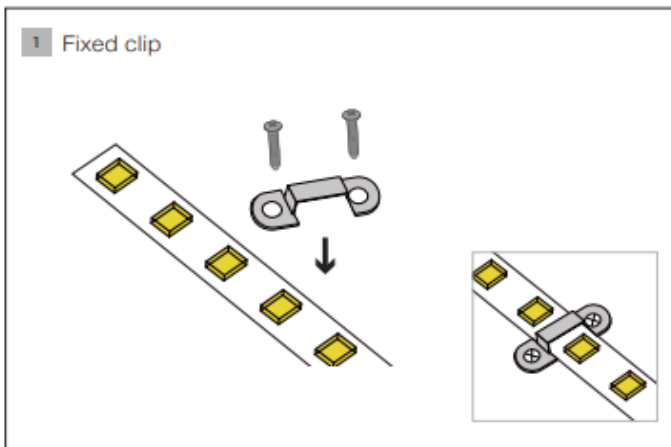


USING MOUNTING CLIPS

When using clips, make sure to have LED Strip securely in place. Often times, having a second set of hands to help hold the strip in place is valuable. For most LED Strips, having clips located 0.3m (~1ft) apart or less is recommended. When adding to curved surfaces, it is recommended to add a mounting clip before and after the curve.

For high-output LED Strips, it is common for the LED to heat up. For best results, we recommend adding the LED Strip to an aluminium surface to help dissipate the heat generated by the LED Strip. This will allow the LEDs to cool and longer lasting performance over your LEDs.

3. POWER SUPPLY



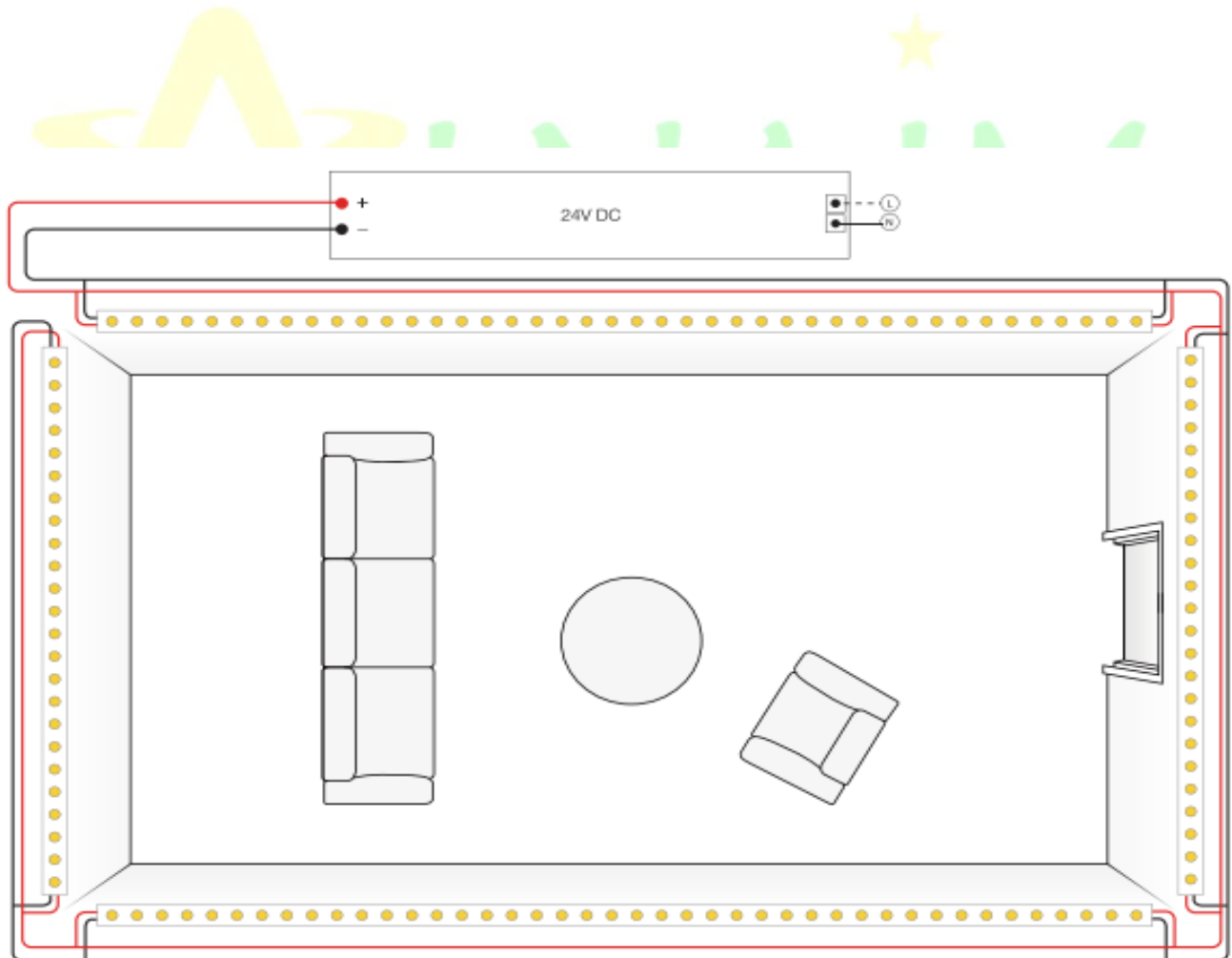


When selecting a power supply, it is important to use DC Isolated power supplies and confirm ripple wave of constant voltage source is less than 5% for best results. Depending on the power supply, it is recommended to make sure the power supply is rated for 20% more than the LED Strip consumption to guarantee sufficient voltage is available to drive the lighting properly and to avoid premature damage to the power supply. **POLARITY MATTERS!** Make sure positive and negative poles of wires during installation are correct. Failure to do so can cause irreparable damage to the LED Strip or power supply.

CONFIGURATIONS

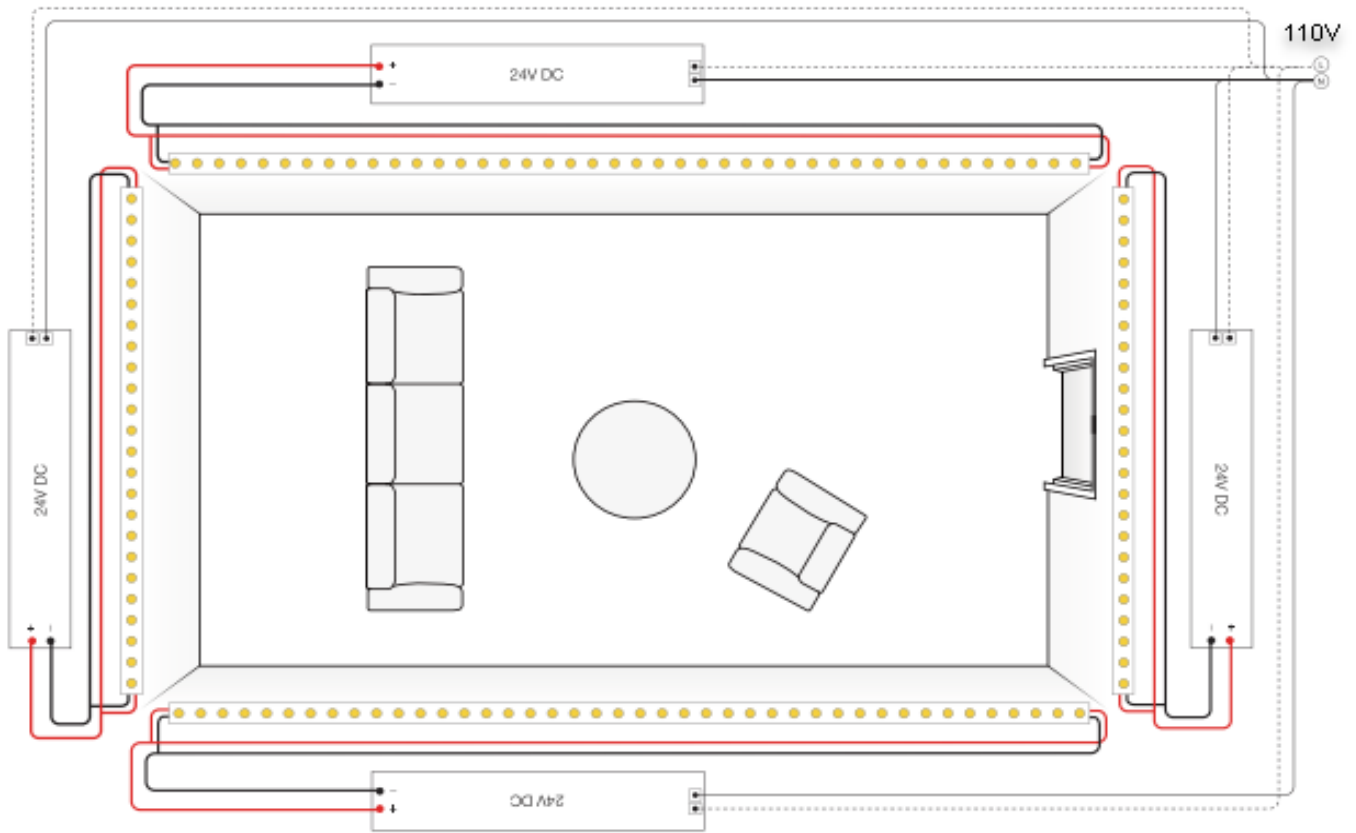
Below is a common configuration for a single power supply with multiple LED Strips combined.

MULTIPLE POWER SUPPLY CONFIGURATIONS





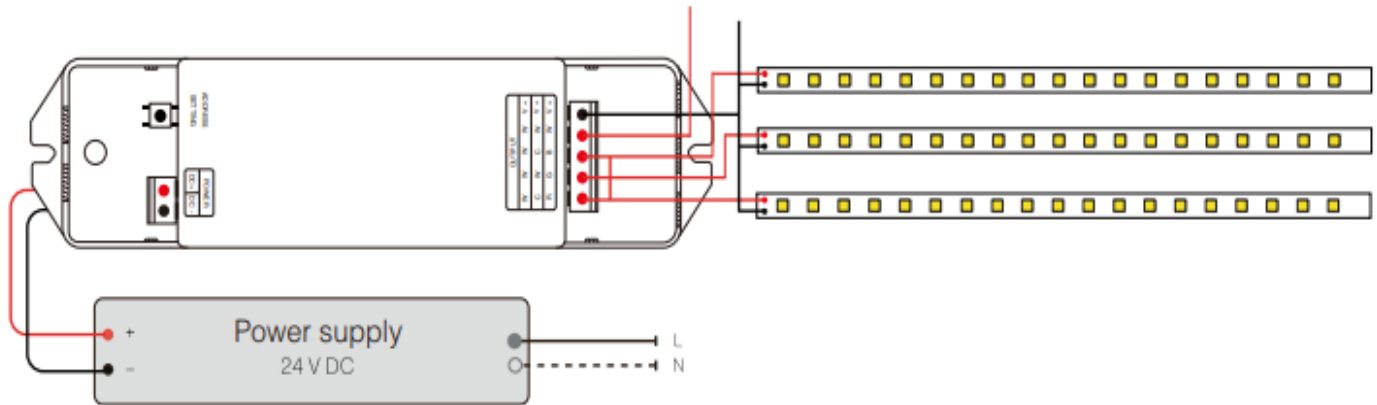
In installations where the LED Strip consumes a lot of power, or when space is at a premium where smaller power supplies are required, it can be common to have multiple power supplies on a single room or installation. To avoid voltage drop on longer strips, it is possible to wire a strip from both ends. **IMPORTANT: ONLY POWER LED STRIP FROM BOTH ENDS ON THE SAME POWER SUPPLY. NEVER USE MORE THAN ONE POWER SUPPLY WITH THIS CONFIGURATION.**



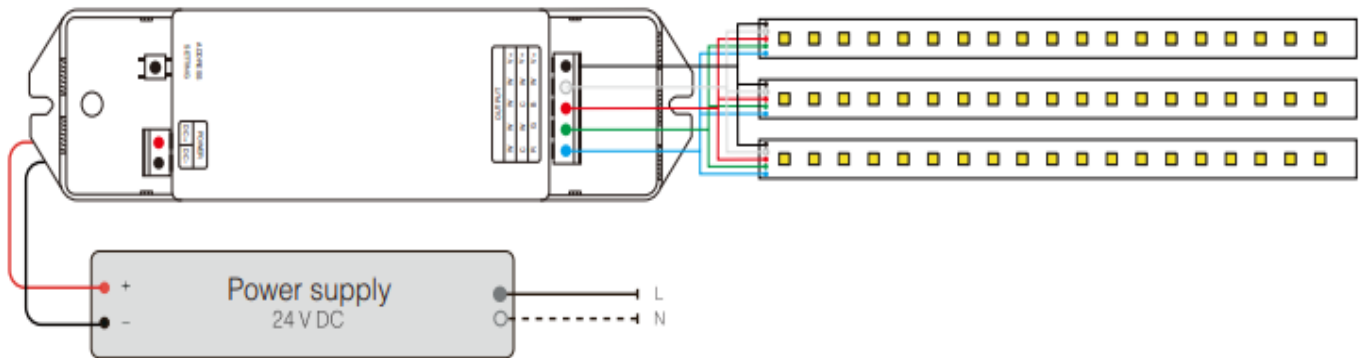
4. CONTROLLERS



In order to use any Auralux dimmers in line between the power supply, it is recommended to keep each LED Strip on their own channel. This ensures there is proper voltage allocated for each LED Strip.



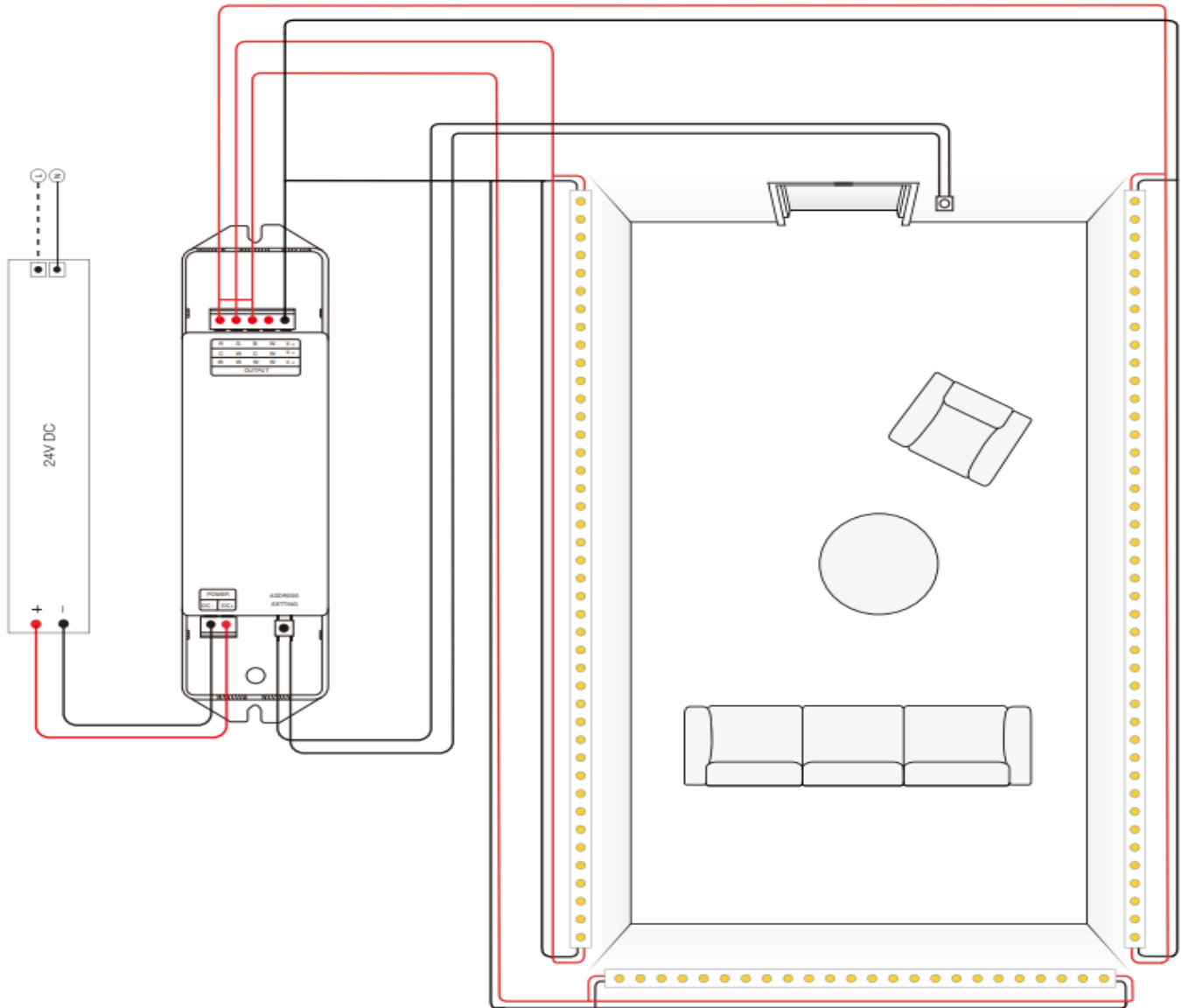
When using multiple RGB or RGBW LED Strips on the same dimmer, it is possible to combine the same color on each channel. Keep in mind to read the voltage and consumption requirements on the LED Strip packaging. Do NOT exceed the maximum per channel allowance on any dimming controller.



WALL DIMMING

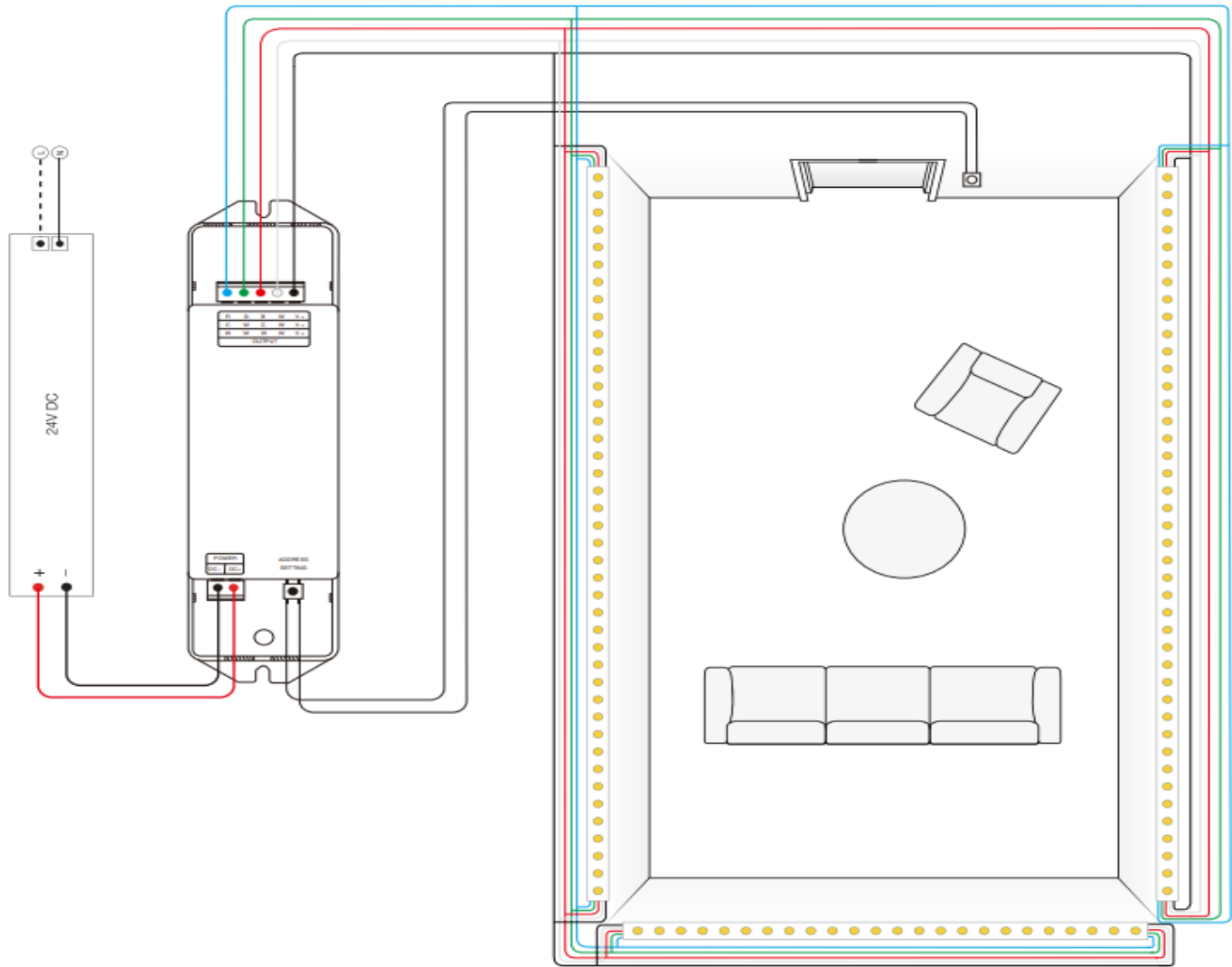


When using wall dimmers and combining with dimming controllers, it is important to read the voltage requirements on the dimmer to ensure proper power is being sent to the dimmer. Common wall dimmers operate at 110V or 24V, but they are NOT interchangeable. The following diagram is for a low voltage wall dimmer (24V).





WALL DIMMING (Color Controller)





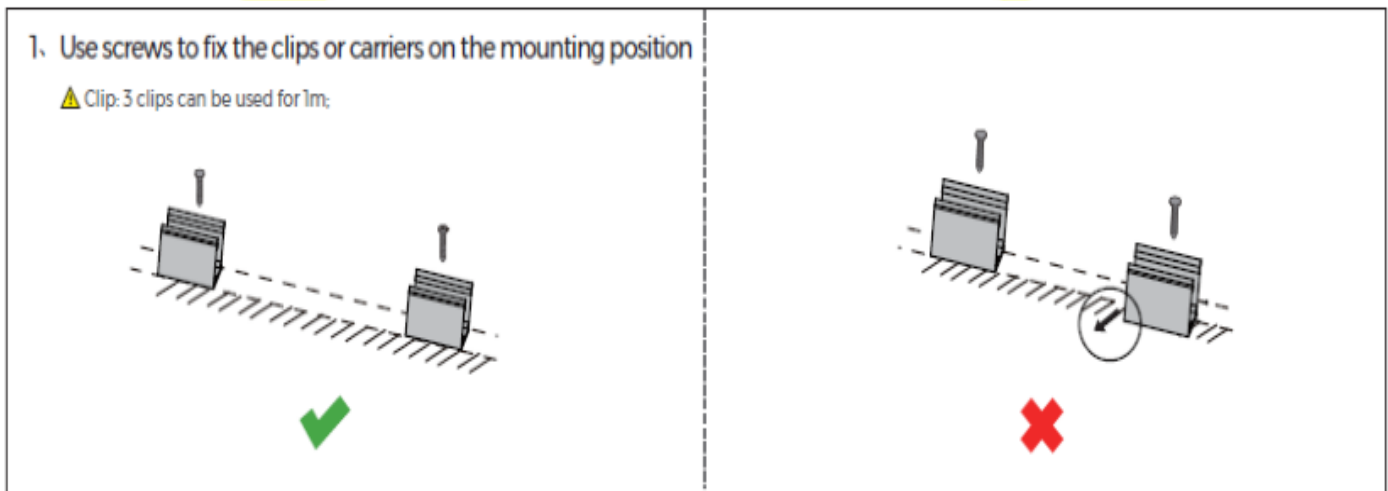
INSTALLATION INSTRUCTIONS (MOUNTING)

USING MOUNTING CLIPS

Make sure the mounting clips are on the same plane to avoid awkward bending of the strip. Side to side bending, and 360° bending IS possible with this strip, but be sure to keep a minimum bending diameter of 120mm (4.7”).

INSTALLATION INTO LINEAR CHANNELS OR SUBSTRATES

It is recommended to use caution when inserting the strip into channels and various substrates. LED is not meant to have sharp bends, so make sure to use extreme caution when inserting or removing the strip from a channel. When installing long lengths, 2-person installation is recommended to avoid damaging the LED Strip.



5. FAQ



Why are the LEDs not illuminating?

CHECK THE FOLLOWING ITEMS:

1. If the power is on
2. If the polarity is connected properly (Red to +, Black to -)
3. If there is a short circuit in power supply (may see a light on power supply)
4. If there is a short circuit caused by automatic short-circuit protection
5. If the fuse is burned. If so, replace the fuse.

Check the above items carefully in order to ensure the strip is working properly.

Why is there an inconsistent brightness in the LED?

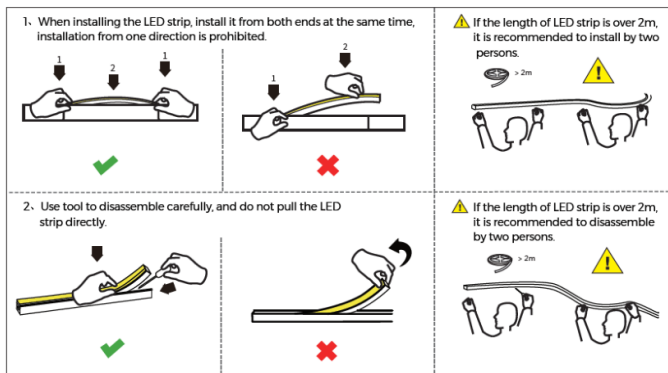
CHECK THE FOLLOWING ITEMS:

1. If there is an overload in the power supply. If so, add more power supplies.
2. If there is too much loss in a long line between LED and Power supply. If so, use a thicker gauge cable or shorten the leads to the LED.
3. If there are too many LED strips connected in series. If so, adjust the number of LED strips. Typically running LED strips in series like to stay below 5m (16.4ft).

Why is the LED Flashing?

CHECK THE FOLLOWING ITEMS:

1. If the connection area is making good contact. If not, try to resoled or reconnect
2. If the power supply is stable. Often times if using a power supply that is not rated for at least 120% of the consumption of LEDs, the power supply can have negative effects like strobing, flashing, or dropping out after seconds.



6. PRECAUTIONS



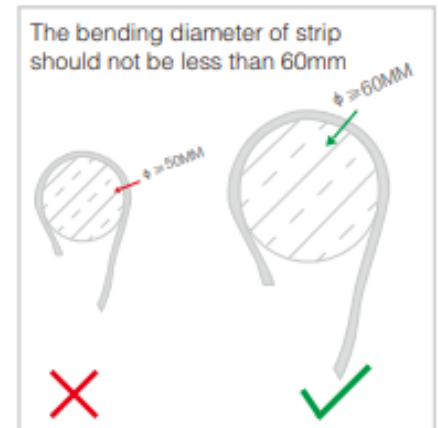
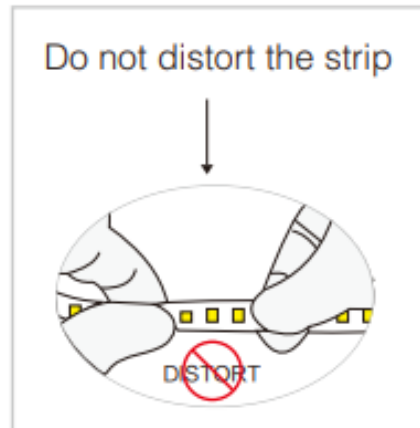
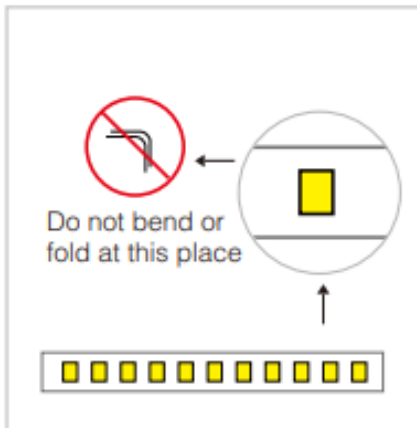
- Use a 24V DC Isolated Power Supply to drive LED Strip and confirm ripple wave of the constant voltage source is less than 5%. Do not use RC Voltage reduction or a non-isolated power supply to drive LED Strip.
- In order to guarantee sufficient voltage is available to drive LED Strip in all conditions, make sure the power supply is rated for 20% more than LED Strip consumption.
- Do not touch AC Power Supply when powered on
- Polarity Matters! Make sure to wire positive and negative poles of wires during installation to avoid damage to the strip.
- Avoid scratching, distorting, and repeated bending of the product during installation. Not following this can cause irreparable damage to the strip.
- Product is not intended to be submerged and used in swimming pools or hot tubs
- Professional installation recommended
- Install in the space without chemicals like sulphur, acid, or halogen.
- The temperature of the application environment should range from -20°C to 45°C.
- The quality of the atmosphere should not be lower than the national secondary standard.
- The no waterproof strip (IP33) can only be applied indoors with a humidity of no more than 55%.
- The gel coating strip (IP55) can only withstand a little water for a short time instead of being exposed to an environment with humidity of more than 80% for a long time.
- The silicone tube waterproof strip (IP65) can withstand the influences from the atmosphere, but it can only withstand a little water for a short time instead of being exposed to an environment with humidity of more than 80% for a long time.
- The silicone filling waterproof strip (IP67), a product that is suitable for indoors and outdoors, can withstand 1m underwater pressure for a short time if it has been protected well from extrusion and ultraviolet radiation.
- The Nano waterproof strip (IP68), a product that is suitable for indoors and outdoors, can withstand 1m underwater pressure for a long time if it has been protected well from extrusion and ultraviolet radiation.
- To ensure the lighting effect, the power supply of every 5m long strip should be connected to a main power supply.
- To ensure the long life span of the strip, please do not pull the strip or power supply wire hard during installation and use.
- To ensure the stability and long life span of the strip, the bending diameter of the strip should not be less than 60mm. The strip should not be folded to prevent the LED beads from damage.



- Please make sure the wire is connected to the anode and cathode (+/-) correctly. The power output should be consistent with the voltage of the strip.
- To avoid damaged components caused by surge voltage or unstable current, please use the stable power supply.
- Please make sure the product is well protected during installation and make appropriate prevention from static.
- The strip will dissipate heat during use, please make sure it has been placed at a ventilated place.

7. PRODUCT WARRANTY

A warranty period of three years is provided for products in normal use. For any faults arising during the period that are confirmed to be quality related by inspection of the company, a product of the same model will be replaced for free. 2. The warranty does not cover any of the following: (1). Any product damage due to



usage is not allowed in the instructions. (2). Any product damage due to disassembling or wrong operations by the user. (3). Severe appearance damage or deformation of the product.

If you have any questions or concerns about your LED Installation, please call or email us:

☎ +971 55 536 3322 ✉ samehyoussef@al-najm.com

What are LED IP Ratings?



What does IP stand for?

IP is an acronym for "Ingress Protection". It is a measurement of the protection an item will have against solid objects (dust, sand, dirt, etc.) and liquids.

An IP rating is comprised of 2 numbers. The first number refers to the protection against solid objects (dust, etc) and the second number refers to protection against liquids.

What is an IP Rating?

Each IP rating has two numbers, both of which give you information about the protection level. A higher number means greater protection against solids and liquids.

- The first number (0-6) refers to the level of protection against solid objects and moving parts, such as dust, debris, or other solid matter.

- The second number (0-8) references the level of liquid and moisture protection.

Example:










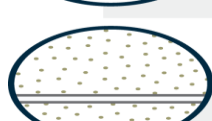
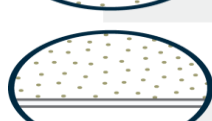
Take a look at the chart below to better understand the protection offered with each number.

IP Rating Chart

IP ratings are represented by combining the first and second digits of the following columns. See example below.




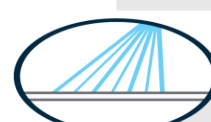

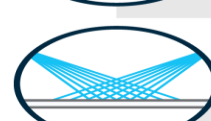



1st Digit - SOLID

Degree of protection against solid objects

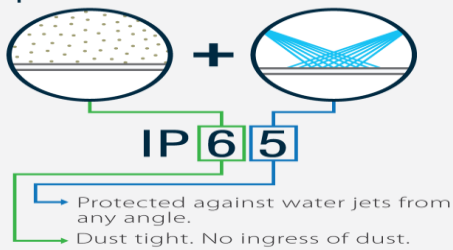
	No Protection	0
	Protected against a solid object greater than 50mm, such as a hand.	1
	Protected against a solid object greater than 12.5mm, such as a finger.	2
	Protected against a solid object greater than 2.5mm, such as a wire.	3
	Protected against a solid object greater than 1.0mm, such as a thin strap.	4
	Dust Protected. Prevents ingress of dust sufficient to cause harm.	5
	Dust tight. No ingress of dust.	6

2nd Digit - LIQUID

Degree of protection against water

	No Protection	0
	Protected against water drops.	1
	Protected against water drops at a 15 degree angle.	2
	Protected against water spray at 60 degree angle.	3
	Protected against water splashing from any angle.	4
	Protected against water jets from any angle.	5
	Protected against powerful water jets and heavy seas.	6
	Protected against the effects of temporary submersion in water. (30 minutes at 3 feet)	7
	Protected against the effects of permanent submersion in water. (Up to 13 feet)	8

Example:





Example: With an **IP65 rating**, the LEDs can be used in an outside setting and are water-resistant but they are not waterproof and are not suitable to be submerged. An IP68 can be submerged in water.

What is the difference between IP65, IP67 & IP68?

The differences between commonly sold IP65, IP67, & IP68 strips are slight, but very important. Using the above chart as a guide, we can see that all strips are protected at the highest level from solids and dust. The variations come with the protection against liquids.

IP65 = Water resistant. “Protected against water jets from any angle” *Do NOT submerge IP65 LED lights, these are not waterproof.

IP67 = Water resistant plus. “Protected against the events of temporary submersion (10 minutes)”*Do NOT submerge IP67 LED lights for extended periods, these are not waterproof.

IP68 = Waterproof “Protected against the events of permanent submersion up to 3 meters”

What IP Rating Will You Need?

If you don't anticipate a harsh environment that is extremely dusty or wet then a lower IP rating would suffice.

In places that will have a lot of dust, debris, or potential to be in contact with any solids or liquids, you'll want to make sure that the IP ratings are high and that you have adequate water resistant or waterproof coatings on your LED strip lights.

Examples of IP Ratings and Uses

Low IP ratings are appropriate for:

- Indoor use
- Protected use inside sealed products
- Inside sealed signage
- When using aluminium extrusions



High IP ratings are appropriate for:

- Unsealed outdoor locations
- Places that have a lot of debris
- Areas with heavy foot traffic
- High splash areas
- High contact areas (people touching them)
- Wet locations

Ready to Get Your Project Started?

[View our IP20 LED strip lights](#)

[View our IP65 LED strip lights with a silicone cover](#)

If you have a project that requires IP68 waterproof LEDs you can contact our LED strip lighting experts at Flex Fire LEDs and we can get your lights special ordered. We do not stock them normally. We can also help you with your lighting design projects.

