Beamever
Designer's Custom Playground

LINIO NEON 1617 SV

INSTALLATION MANUAL

www.beamever.com
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Before you start 1

Warning 1

Installing Neon 2

01 Installing with straight surface channel (LN1617-SC) 3

02 Installing with PC channel (LN1617-PC) 4

03 Installing with light block channel (LN1617-LBC) 5

04 Installing with straight recessed channel (LN1617-RC) 6

05 Installing with mud-in channel (LN1617-MC) 7

06 Installing with bendable mud-in channel (LN1617-BMC) 8

07 Installing with bendable surface channel (LN1617-BC) 10

08 Installing with bendable PC surface channel (LN1617-BPC) 11

09 Installing with mounting clips (LN1617-CL) 13

10 Installing with adjustable mounting clips (LN1617-AC) 14

11 Installing with L-shaped mounting bracket (LN1617-LS) 17

Cutting Instruction 19

Installing End Cap 19

01 Silicone end cap 19

02 Mechanical end cap (with screws) 21

03 Mechanical closed end cap (with screw) 22

04 Strip to Strip Connector (IP20) 24

Wiring Diagram 26

Trouble Shooting 28

LINIO NEON 1617 SV

Installation Manual

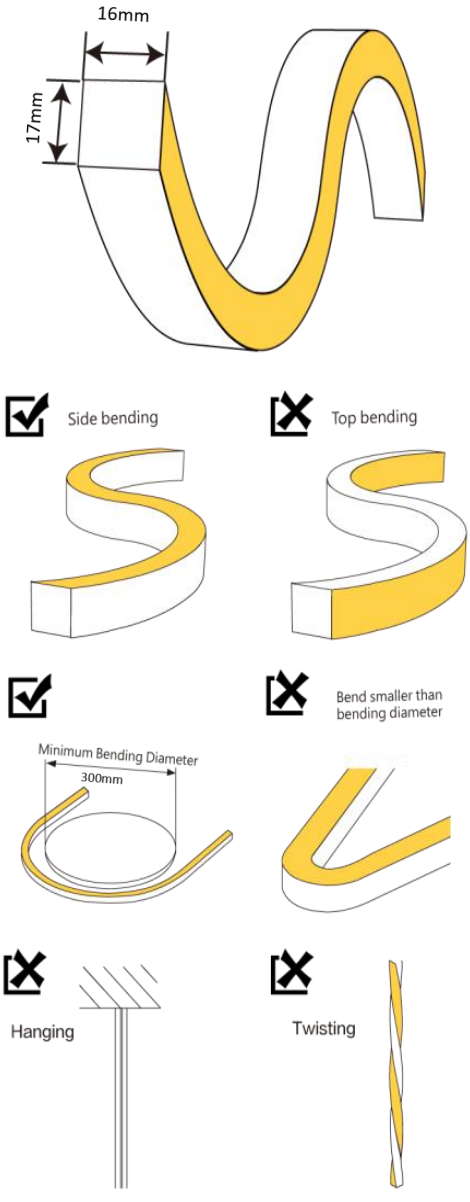
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ATTENTION: This product should be installed by a professional licensed electrician.



Before you start

1. Verify all product is accounted for and in good condition. If not, please contact information at the bottom.
2. Please check local electrical codes.
3. Turn power off before installing, and make sure to use properly rated wire.
4. Modifying or not following instructions will void the warranty for this product.
5. Please read the instructions entirely before starting installation.
6. For specifications that call for more intricate installations, please don't hesitate to contact us at info@beamever.com.

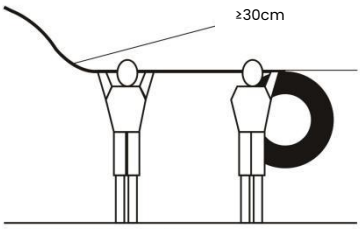


Warning

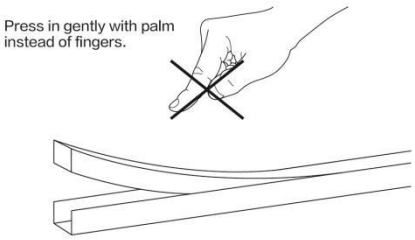
1. Please operate this product by instructions, and confirm the work voltage, it must be matched with product specifications.
2. Connect and cut this product correctly. Incorrect operations may damage this product.
3. Use qualified DC power supply.
4. The most suitable operation temperature shall be -40℃~45℃. DO NOT operate light when ambient temperature exceeds this range.
5. DO NOT energize the light over 30 minutes in coil packaging while the product is still coiled.
6. Avoid direct contact between the product and any paper materials to prevent sticking or surface damage.
7. The maximum bend diameter is 300mm. DO NOT overbend - it may cause product damage. Do not twist, drop, hang, drape the product in any way other than the intended approved installation. This product can only bend horizontally in relation to its light output.

Installing Neon

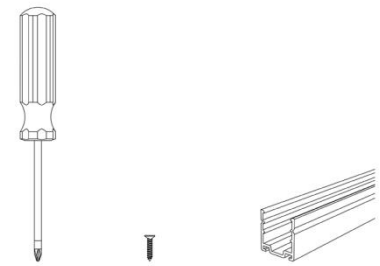
- It is recommended that the installation be performed by at least 2 persons to ensure proper handling of the product and prevent damage to the electronic and housing construction.
- Please make sure to install the product into profile carefully and correctly. Taking out the product and re-assembling will most likely damage the product.
- Only use hands to install fixture into mounting clips or channels.
- Install the neon from one direction to avoid choking in the middle.
- Whenever possible, use your palm instead of your fingers to press the neon into the channel for more even pressure.
- The M12 connectors used with this product have a 15 mm outer diameter. Ensure all openings and conduits along the routing path accommodate this size before installation.
- If cutting is needed, please refer to the cutting instruction on page 19.



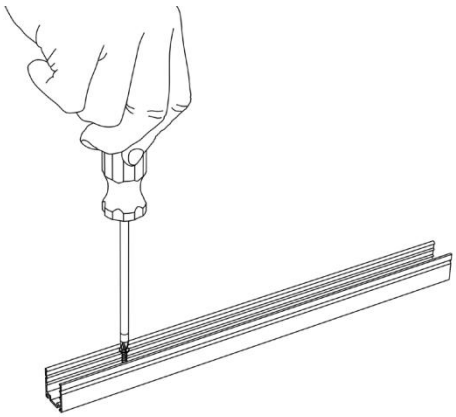
Two Person Installation



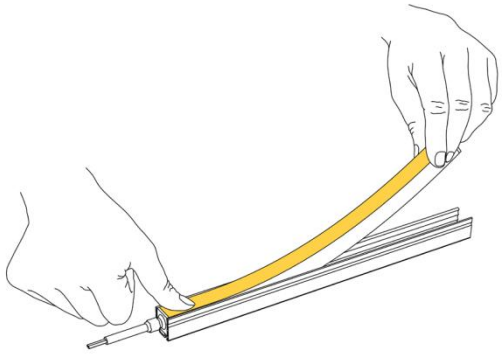
01 Installing with straight surface channel (LN1617-SC)



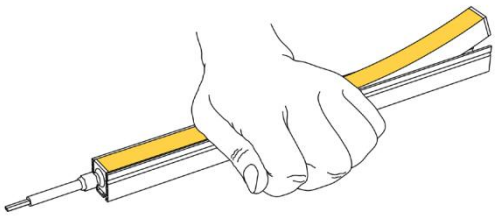
Step 1 Gather all necessary tools and materials.



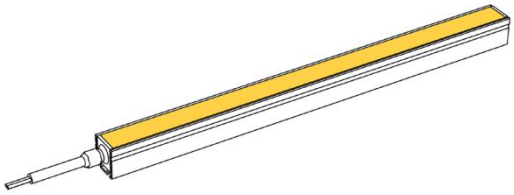
Step 1 Secure the channel to the installation surface using the provided screws.



Step 2 Insert the wired end of the LED strip into the channel opening. Use your thumb to press and secure the beginning of the strip.



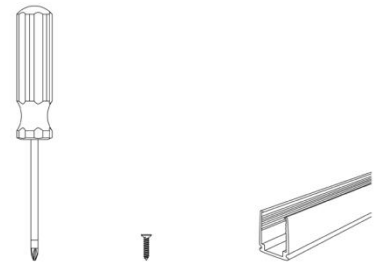
Step 3 With your palm, press the rest of the neon LED strip firmly and evenly into the channel.



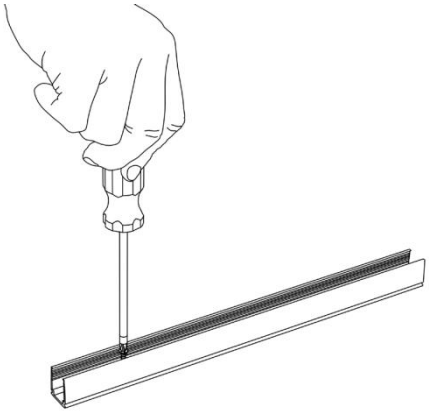
Step 4 Ensure the strip is seated flush and parallel within the channel for a clean, straight installation, as illustrated.

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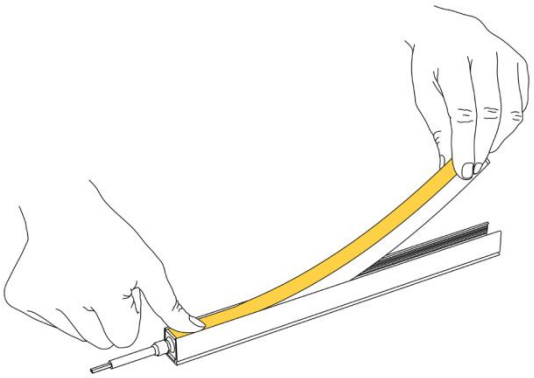
02 Installing with PC channel (LN1617-PC)



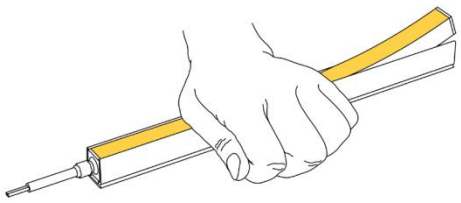
Step 1 Gather all necessary tools and materials.



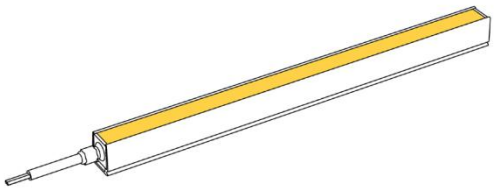
Step 2 Secure the channel to the installation surface using the provided screws.



Step 3 Insert the wired end of the LED strip into the channel opening. Use your thumb to press and secure the beginning of the strip.



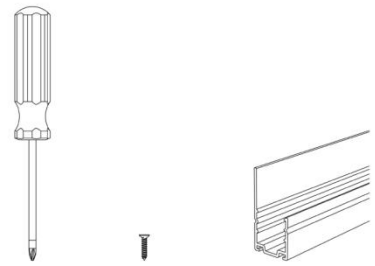
Step 4 With your palm, press the rest of the neon LED strip firmly and evenly into the channel.



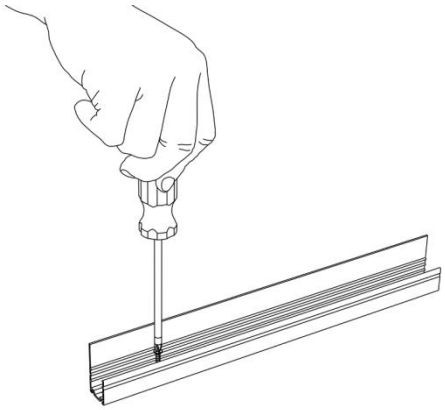
Step 5 Ensure the strip is seated flush and parallel within the channel for a clean, straight installation, as illustrated.

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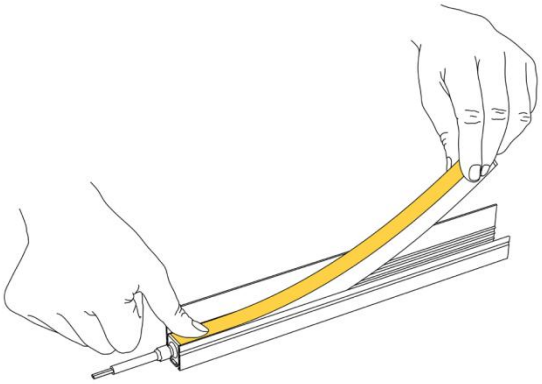
03 Installing with light block channel (LN1617-LBC)



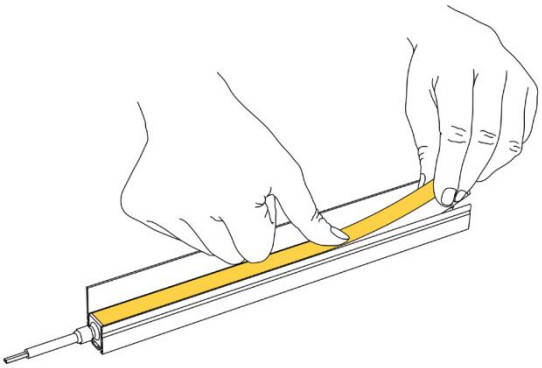
Step 1 Gather all required tools and materials.



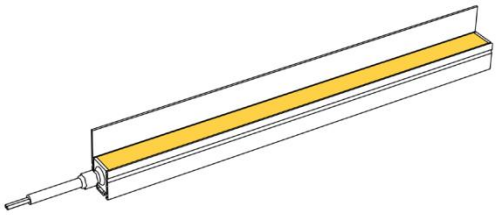
Step 2 Secure the channel to the installation surface with screws.



Step 3 Begin by inserting the wired end of the neon strip into the channel.



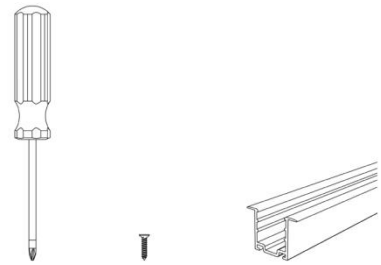
Step 4 Press the strip firmly into the channel, working your way down its length.



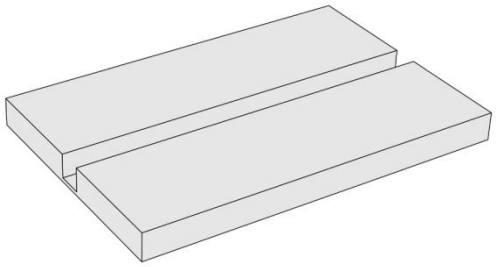
Ensure the strip is fully seated and flush with the channel for a uniform appearance.

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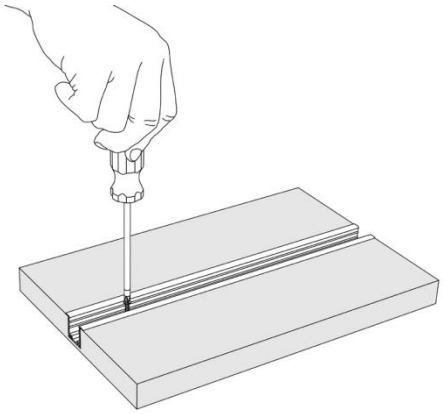
04 Installing with straight recessed channel (LN1617-RC)



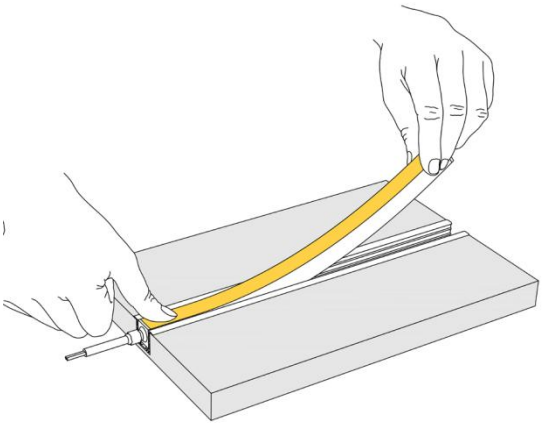
Step 1 Gather all required tools and materials.



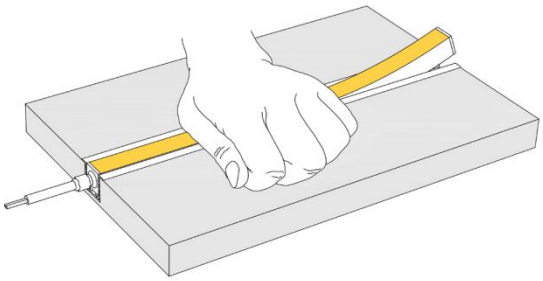
Step 2 Based on the channel's dimensions, cut a groove into the installation surface (e.g., wood panel, drywall).



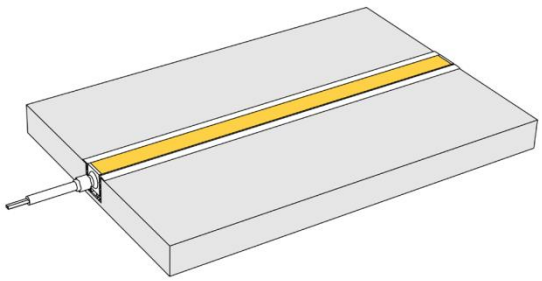
Step 3 Place the channel into the groove and secure it with screws.



Step 4 Begin by inserting the wired end of the neon LED strip into the channel.



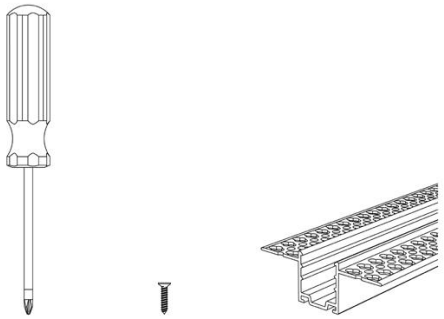
Step 5 Press the strip firmly and evenly along its entire length until it is fully seated within the channel.



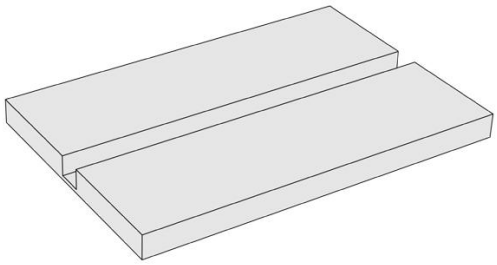
Step 6 Ensure the strip is flush with the surface for a clean, seamless look.

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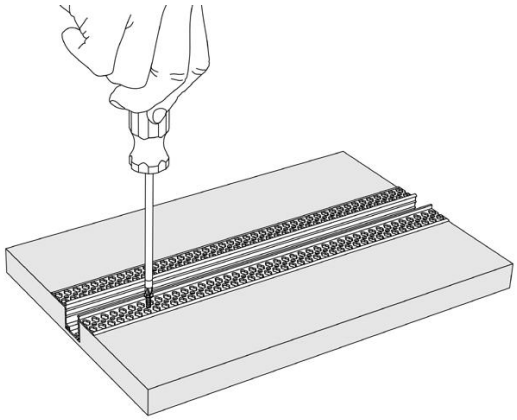
05 Installing with mud-in channel (LN1617-MC)



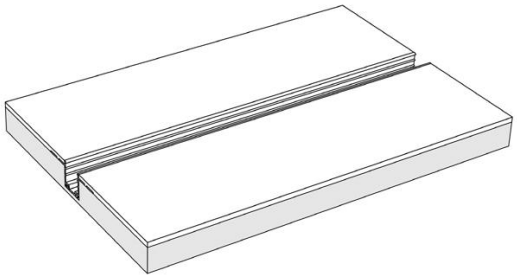
Step 1 Gather all required tools and materials, including the channel, screws, and plaster/drywall compound.



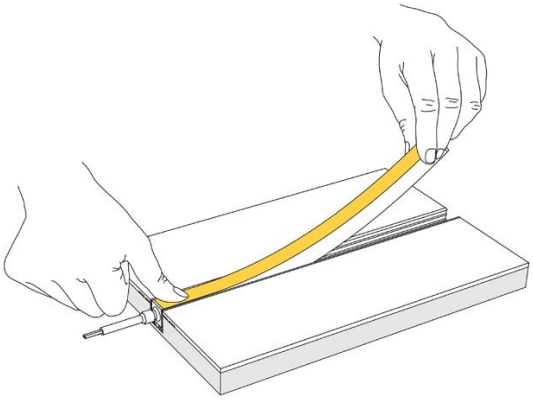
Step 2 Cut a groove in the drywall or installation surface to match the channel's dimensions.



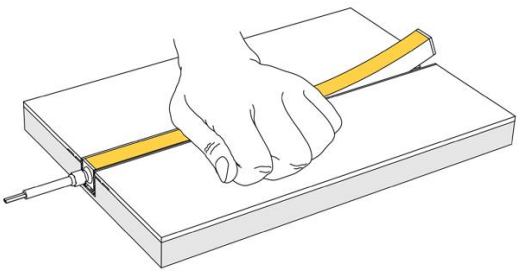
Step 3 Insert the channel into the groove and secure it firmly with screws.



Step 4 Apply plaster or drywall compound over the channel's perforated flanges. Feather the edges to create a seamless, level surface. Allow to dry completely, then sand until smooth.

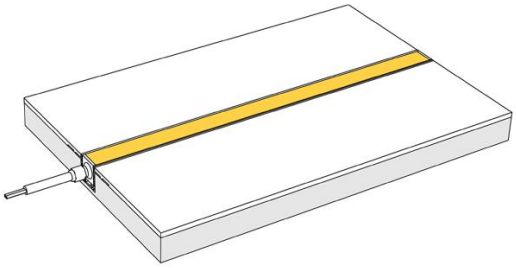


Step 5 Insert the wired end of the neon LED strip.



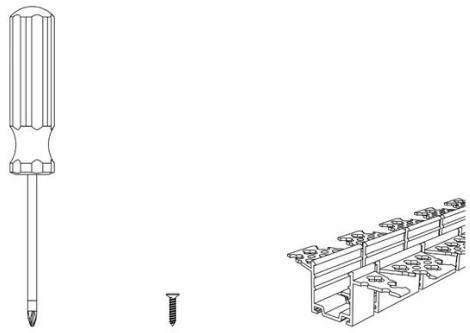
Step 6 Press it firmly and evenly into the channel.

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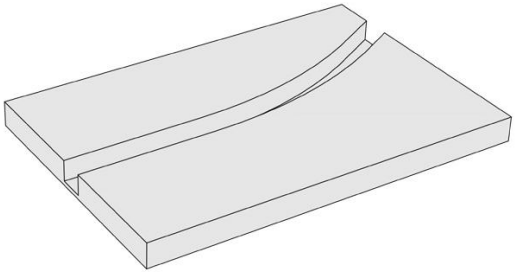


Step 7 Ensure the LED strip is fully seated and flush for a flawless, trimless appearance.

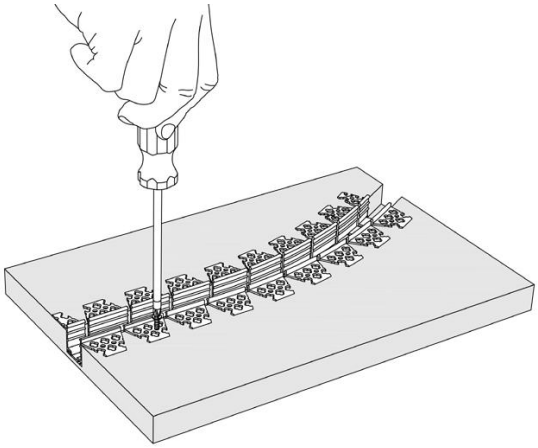
06 Installing with bendable mud-in channel (LN1617-BMC)



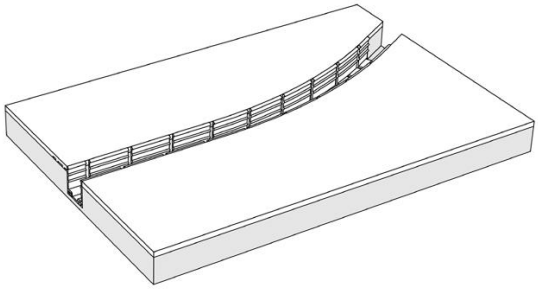
Step 1 Gather all required tools, including the flexible channel, screws, and plaster/drywall compound.



Step 2 Cut a curved groove into the drywall or installation surface, following your design.

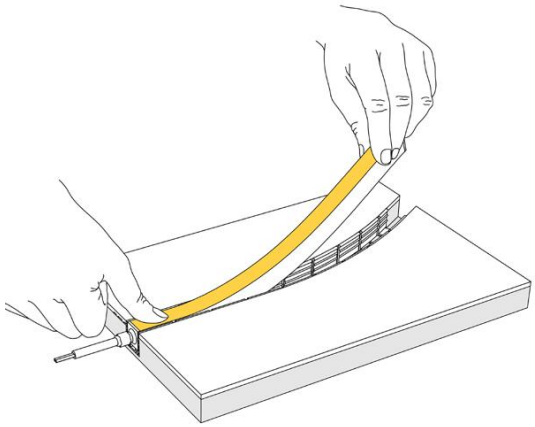


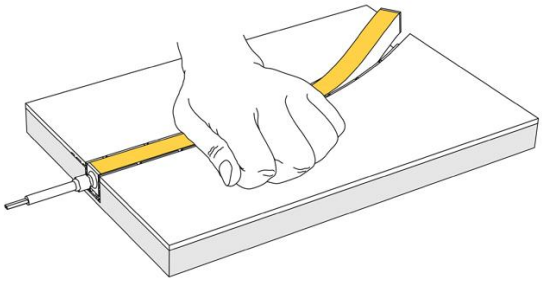
Step 3 Carefully bend the flexible channel to fit the curve of the groove and secure it with screws.



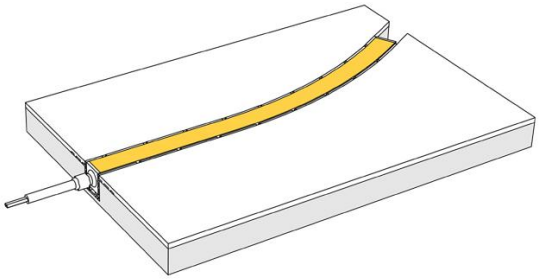
Step 4 Apply plaster over the flanges, feathering the edges. Let dry, then sand smooth.

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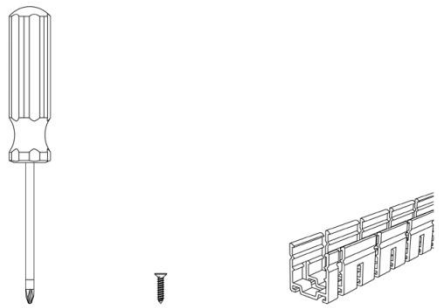
Step 5 Insert the neon LED strip, pressing it firmly and evenly into the channel along the curve.



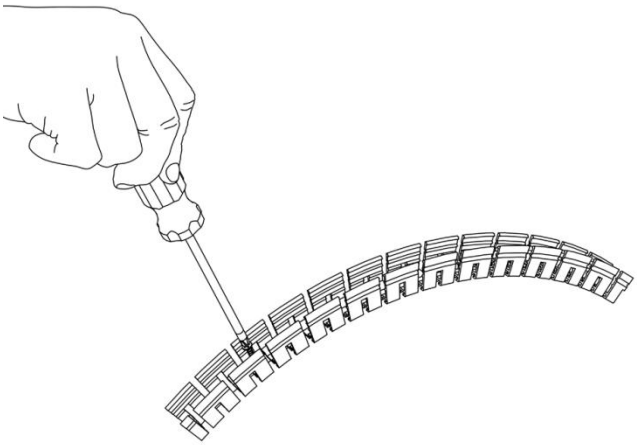
Note:
The min. bending diameter of LN1617-BMC channel is 600mm.

Step 6 Ensure the LED strip is fully seated for a flawless, trimless curved lighting effect.

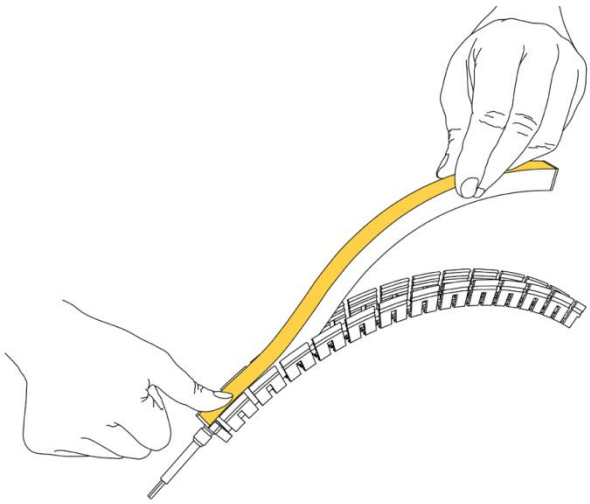
07 Installing with bendable surface channel (LN1617-BC)



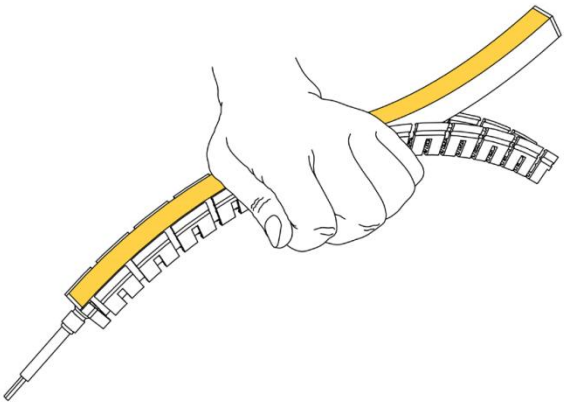
Step 1 Gather all required tools and materials.



Step 2 Bend the flexible channel to match the contour of the installation surface. Secure it tightly against the surface using screws.

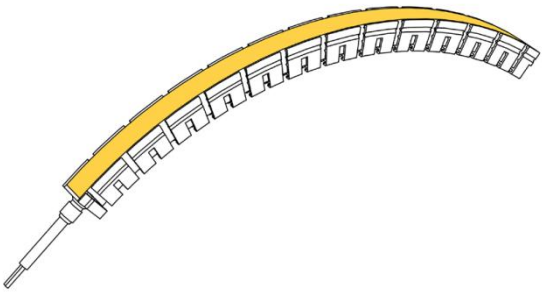


Step 3 Begin by inserting the wired end of the neon LED strip into the channel.



Step 4 Press the strip firmly and evenly along the curve until it is fully seated.

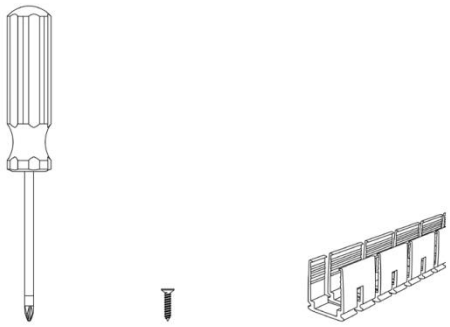
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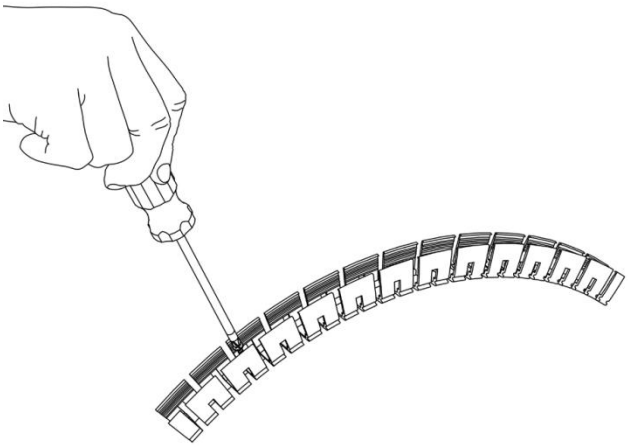
Note:
The min. bending diameter of LN1617-BC channel is 600mm.

Step 5 Ensure the strip is securely in place and follows the channel's curve for a smooth, continuous line of light.

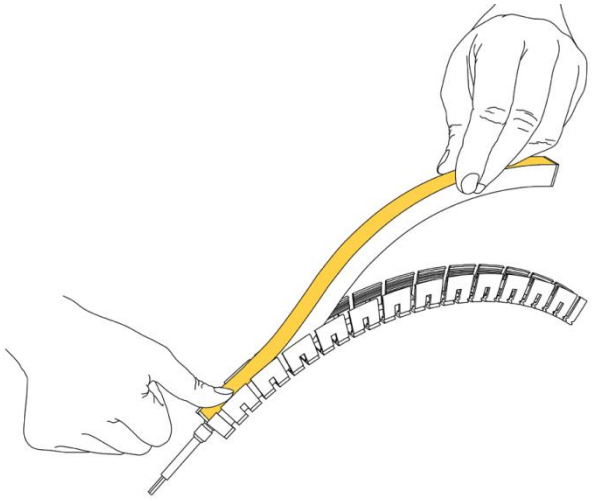
08 Installing with bendable PC surface channel (LN1617-BPC)



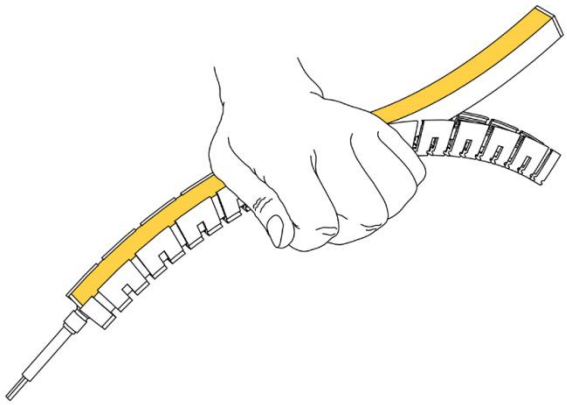
Step 1 Gather all required tools and materials.



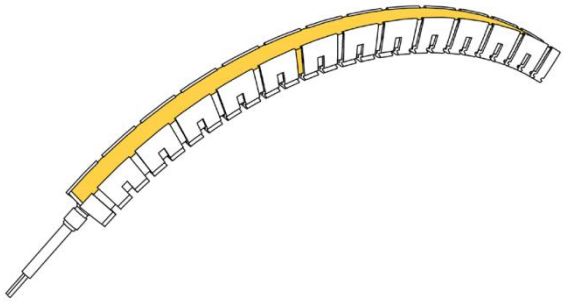
Step 2 Bend the flexible PC channel to match the contour of the installation surface. Secure it tightly against the surface using screws.



Step 3 Begin by inserting the wired end of the neon LED strip into the channel.



Step 4 Press the strip firmly and evenly along the curve until it is fully seated.

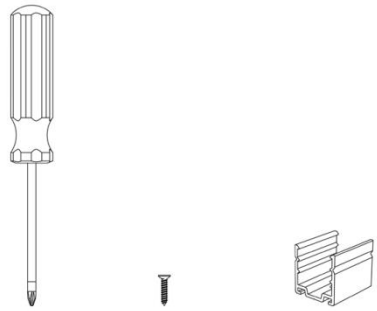


Note:
The min. bending diameter of LN1617-BPC channel is 600mm.

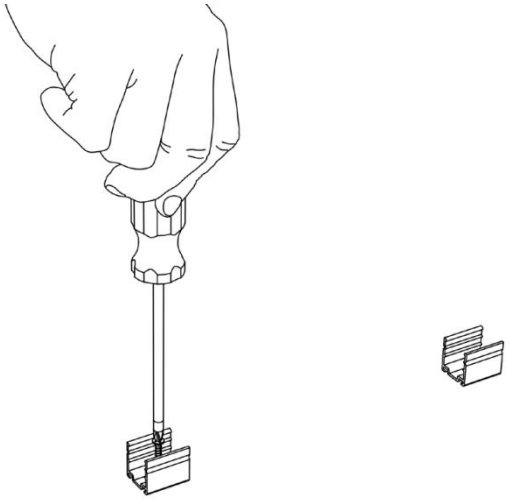
Step 5 Ensure the strip is securely in place and follows the channel's curve for a smooth, continuous line of light.

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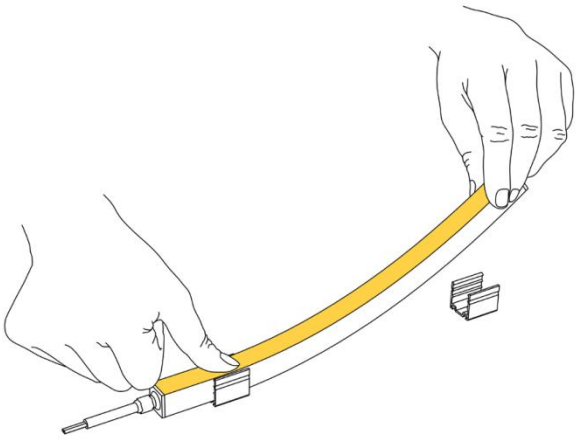
09 Installing with mounting clips (LN1617-CL)



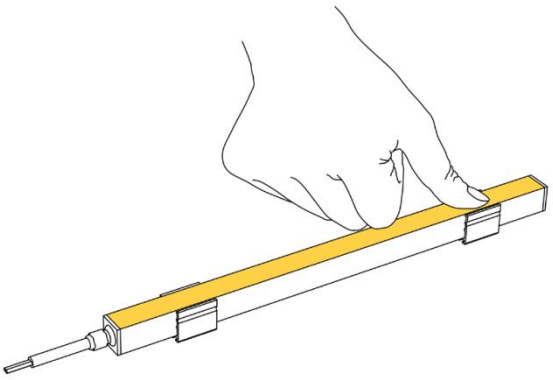
Step 1 Gather all required tools and materials.



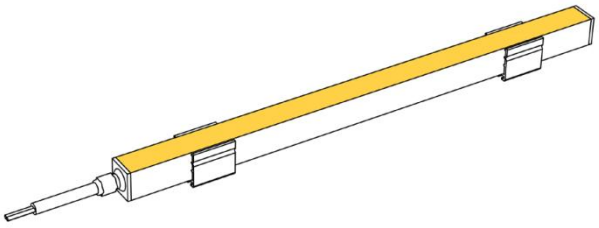
Step 2 Secure the mounting clips to the installation surface using screws, spaced at regular intervals of 300cm unless otherwise specified for the project.



Step 3 Align the neon LED strip with the clips.

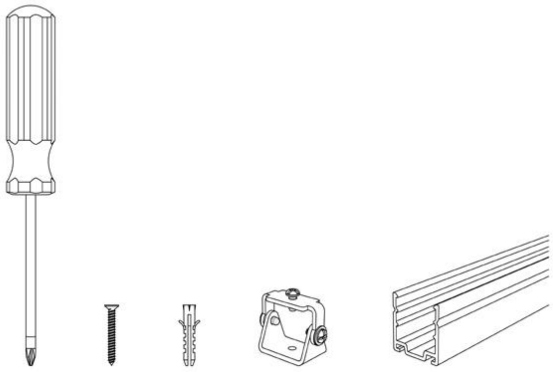


Step 4 Starting from one end, press the strip firmly until it snaps securely into each clip.

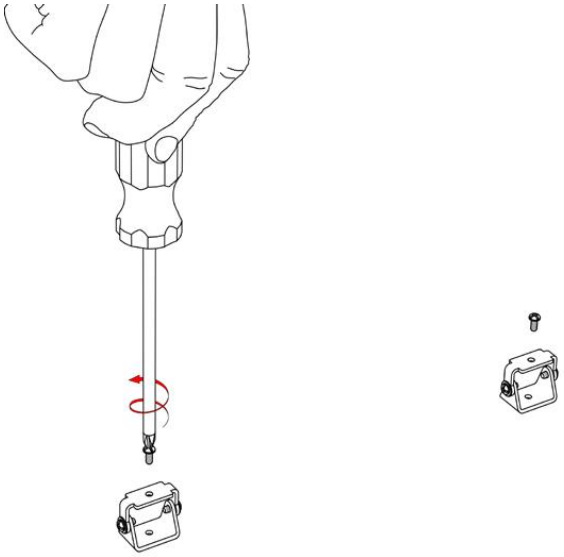


Step 5 Ensure the strip is straight and held securely by all clips for a professional finish.

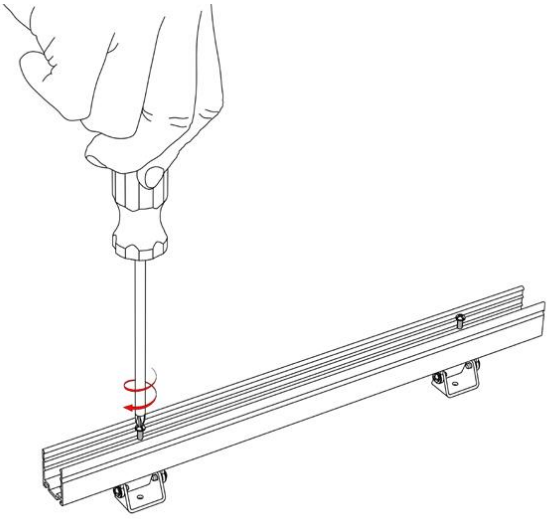
10 Installing with adjustable mounting clips (LN1617-AC)



Step 1 Gather all tools and materials.

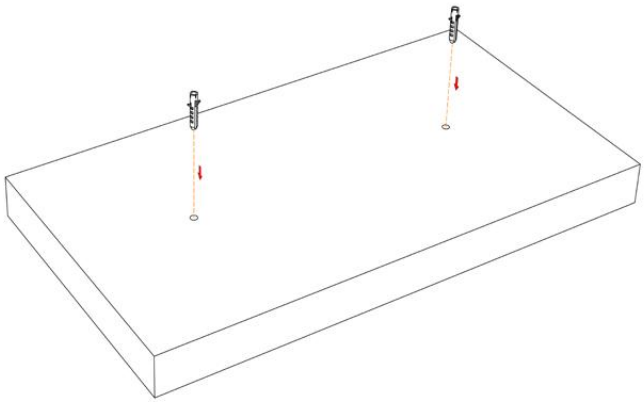


Step 2 Loosen the angle-locking screws on the rotating brackets. Remove the mounting screws from the base of each bracket.

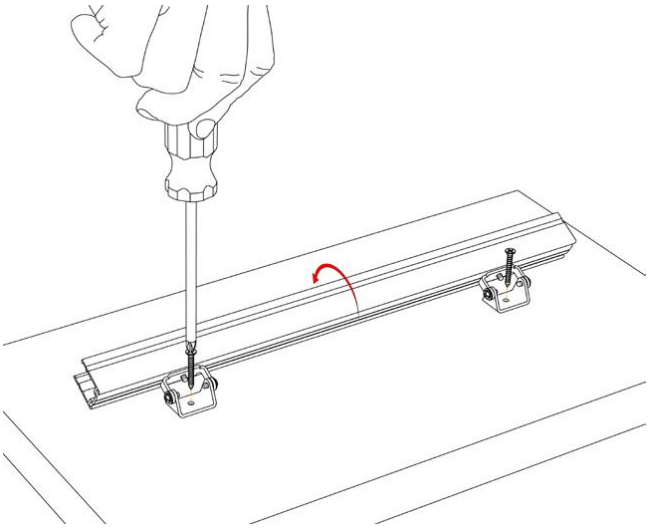


Step 3 Align the brackets with the holes on the mounting channel.

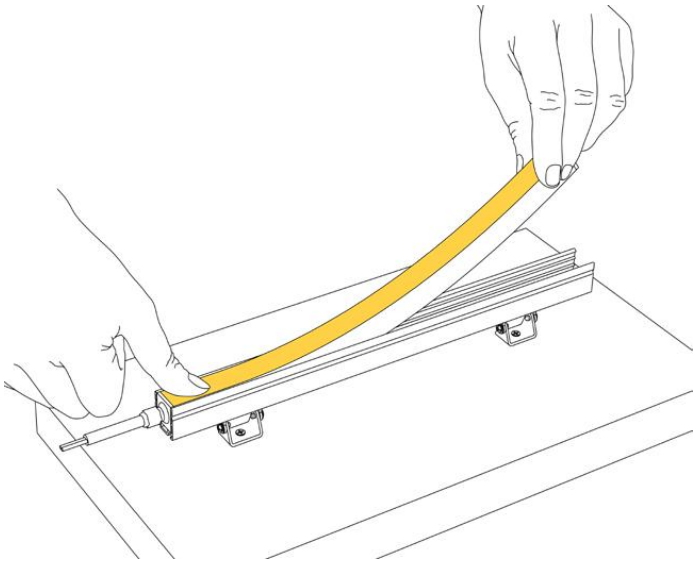
Step 4 Use the screws you just removed to securely attach the brackets to the channel.



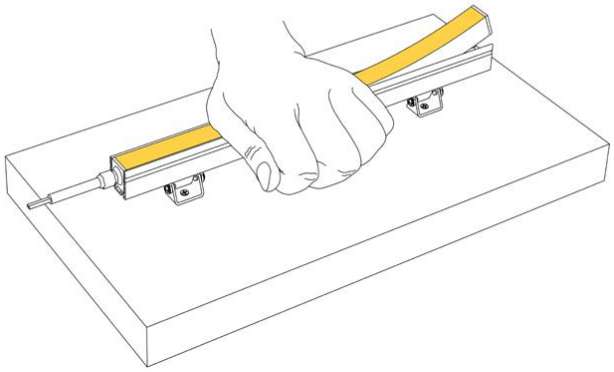
Step 5 Mark and drill pilot holes on the installation surface.



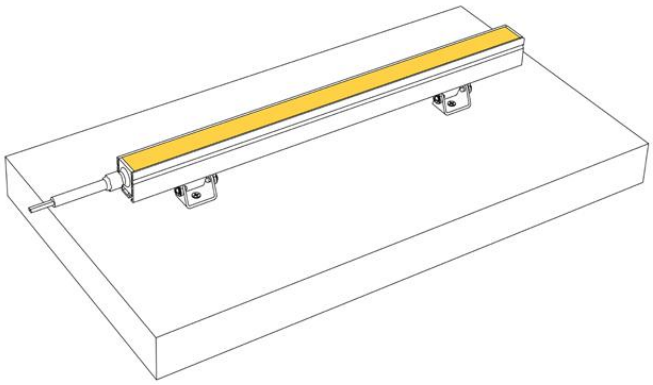
Step 6 Secure the entire assembly (channel + brackets) to the surface using the appropriate screws.



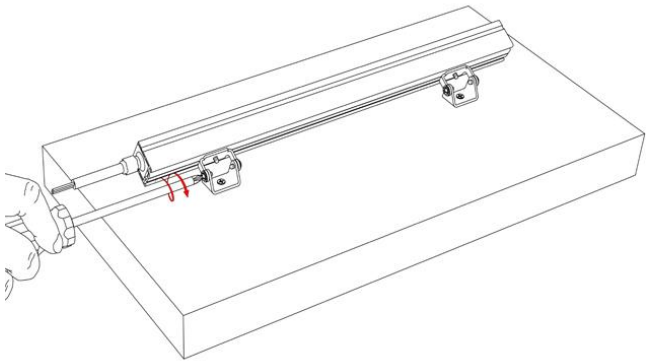
Step 7 Insert the neon LED strip, pressing it firmly and evenly into the channel until it is fully seated.



Step 8 Insert the wired end of the neon LED strip.



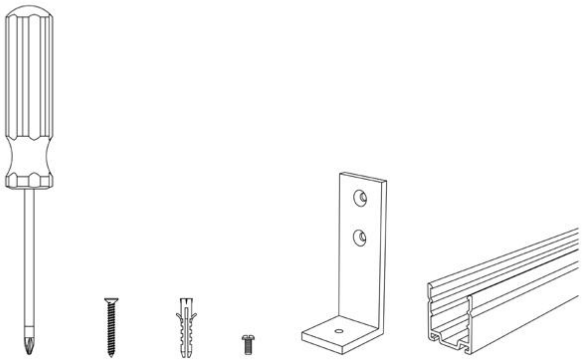
Step 9 Press it firmly and evenly into the channel.



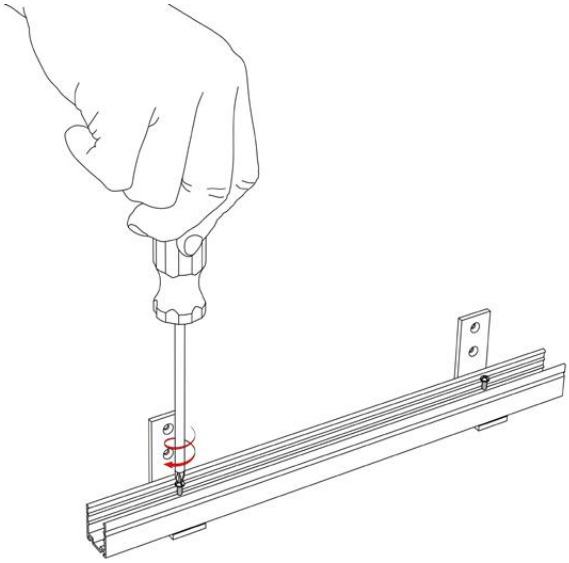
Step 10 Rotate the channel to your desired angle. Tighten the angle-locking screw on the side of each bracket to fix the position.

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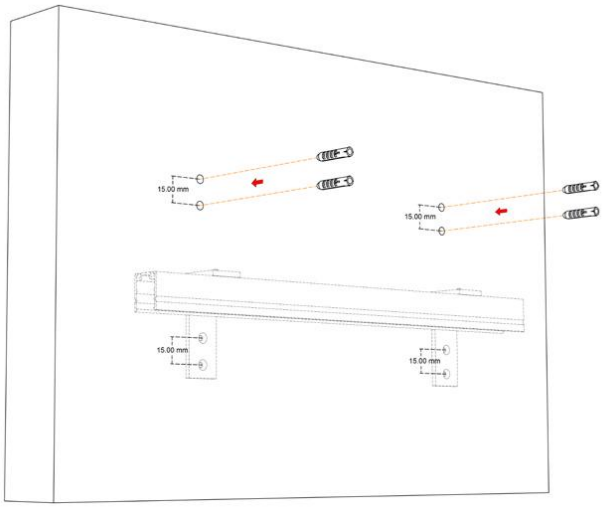
11 Installing with L-shaped mounting bracket (LN1617-LS)



Step 1 Gather all required tools and materials.

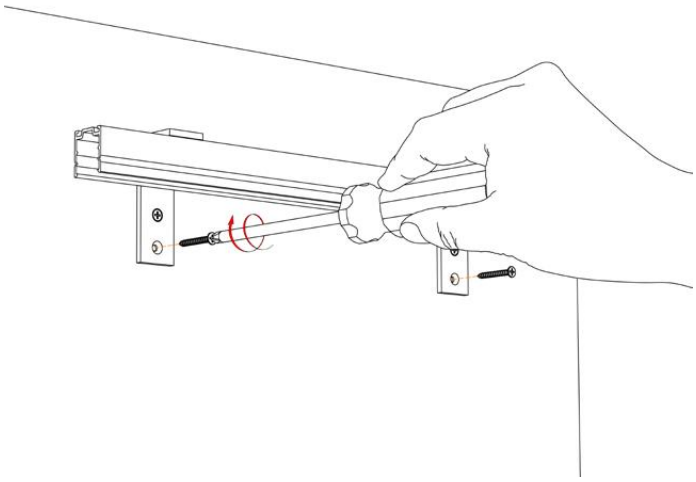


Step 2 Drill guide holes in the mounting channel as needed. Attach the L-brackets to the channel using the small screws provided, creating a single assembly.

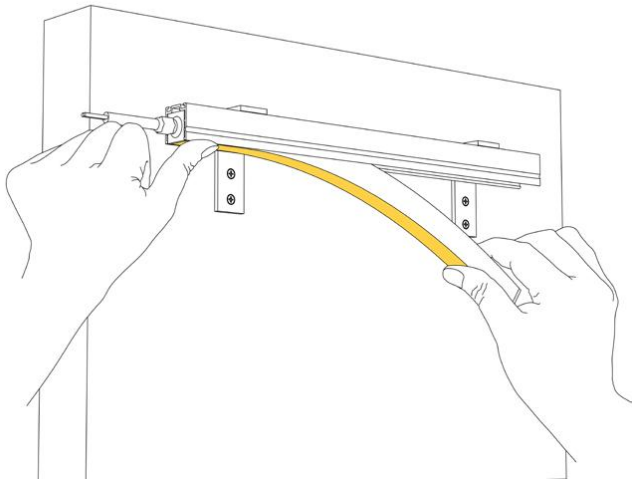


Step 3 Position the entire assembly against the installation surface and mark the drill points for the L-brackets.

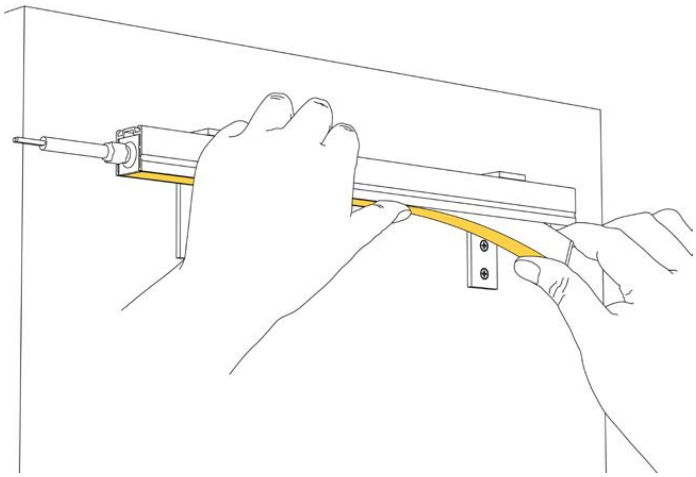
Step 4 Drill pilot holes into the surface at the marked locations.



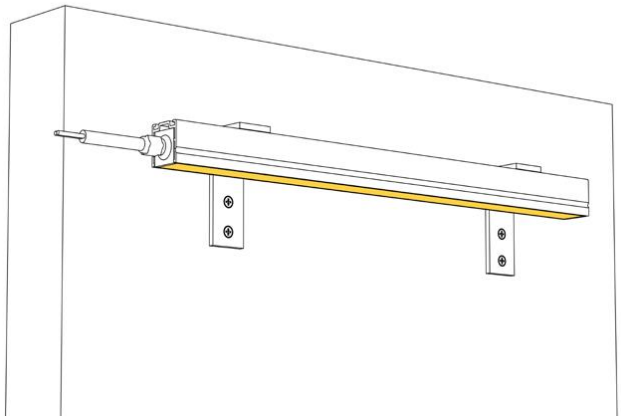
Step 5 Secure the assembly firmly to the surface using the long screws.



Step 6 Insert the wired end of the neon LED strip into the channel.



Step 7 Press the strip firmly and evenly along the channel until it is fully seated.

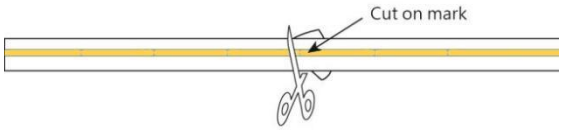


Step 8 Ensure the installation is secure and the LED strip provides a straight, uniform line of light.

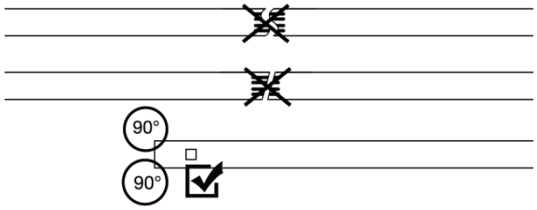
Cutting Instruction

- Skip to "**Installing Neon**" if not cutting to specific length.
- Disconnect power at the source prior to attempting cutting.
- Use only factory-recommended cutter.
- Place the light horizontally when cutting it.

Step 9 Determine the desired location of the cut based on the cutting increments marked on the product, with cut marks facing upwards.



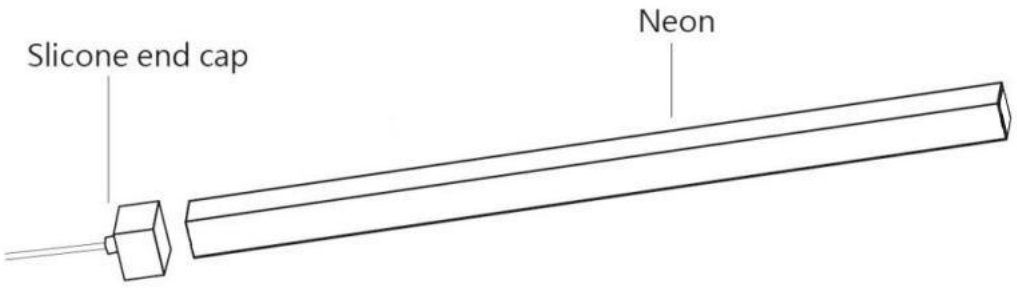
Step 10 Use factory-recommended cutter, gently cut straight down through the body of the product directly on the cutting increment mark. DO NOT cut diagonally or horizontally as this may damage the product.

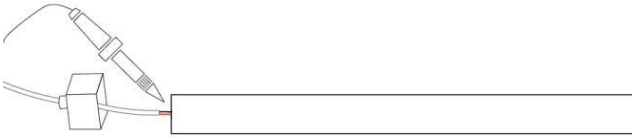


Installing End Cap

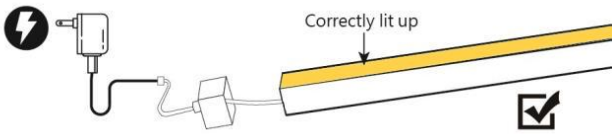
- Disconnect power at the source prior to attempting installation.
- All end caps must be connected correctly to achieve corresponding IP rating.
- Always select the correct end caps for the end of the light.
- NEVER wet the assembly units or assemble with wet hands.
- Do this operation at room temperature in a non-condensing environment.

01 Silicone end cap





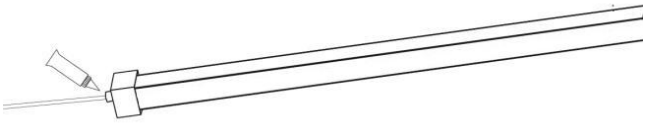
Step 1 Solder cable to the neon with solder iron. Make sure the "+" polarity is connected to the "+" polarity of the PCB.



Step 2 Perform a quick light-up test. Proceed to the next step ONLY after the neon is lit up.



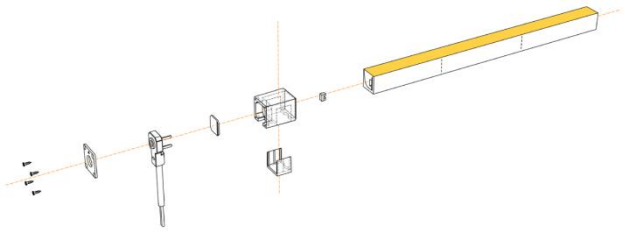
Step 3 Apply silicone glue to the neon.



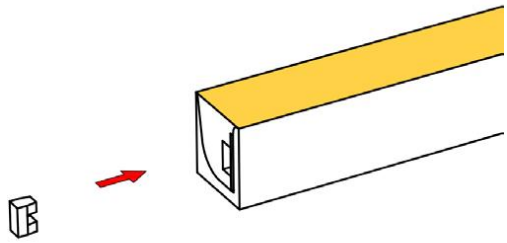
Step 4 Seal the neon with silicone end cap and push until seated. Apply silicone glue to the gap between neon and silicone end cap to tighten it.

Step 5 Set power on the strip again and gently bend the strip to ensure the strip is goo to be installed.

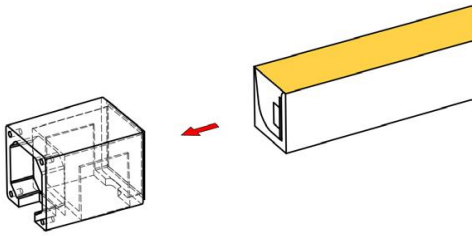
02 Mechanical end cap (with screws)



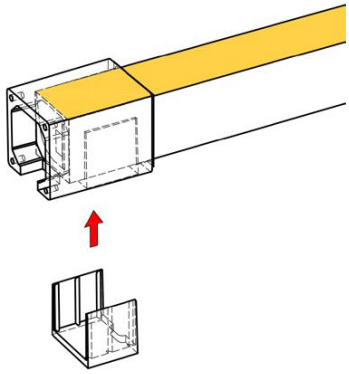
Step 1 Gather all parts for the end cap assembly. This guide is for custom-cut lengths of the neon strip.



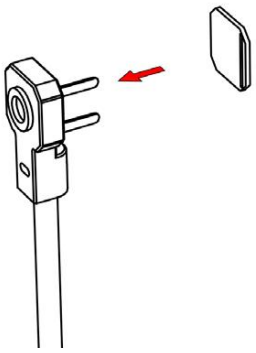
Step 2 Insert the small, transparent U-shaped plug into the end of the neon strip, between the circuit board (FPC) and the LEDs.



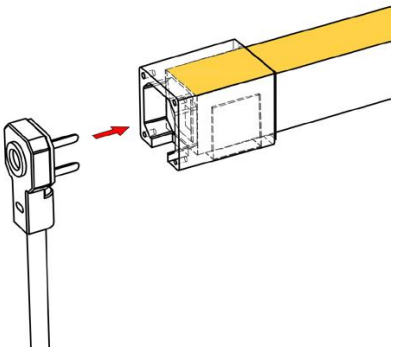
Step 3 Slide the clear plastic end cap housing over the neon strip.



Step 4 Insert the metal U-shaped buckle from the bottom to lock the strip in place.

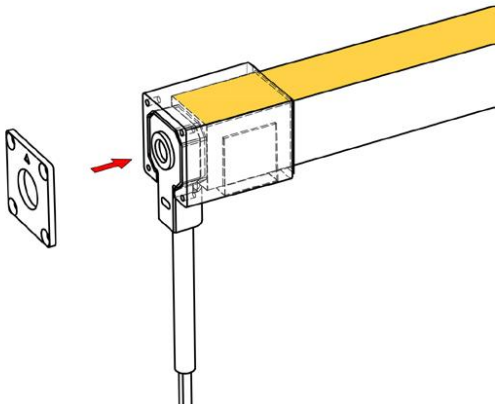


Step 5 Insert the silicone gasket into the power feed cable's connector.

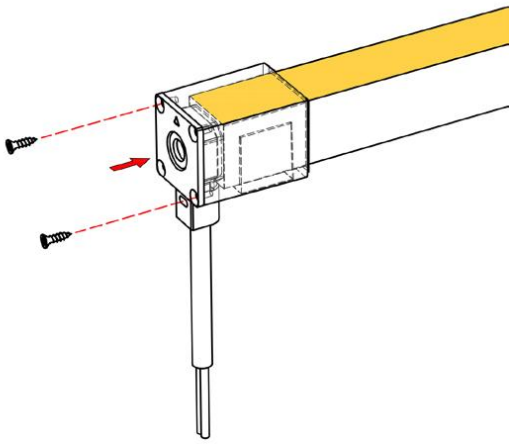


Step 6 Carefully align the connector's copper contacts with the pads on the strip's circuit board and press firmly to connect.

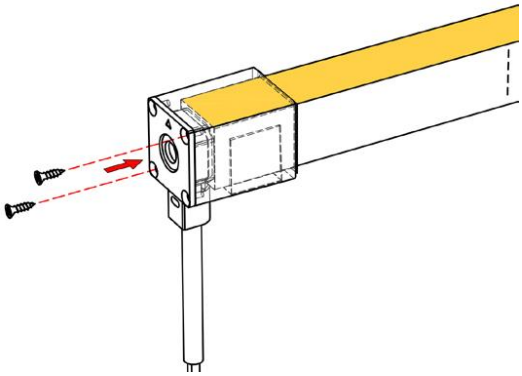
Important: Connect to a DC24V power supply for testing.**DO NOT** connect directly to AC110V/220V mains power.



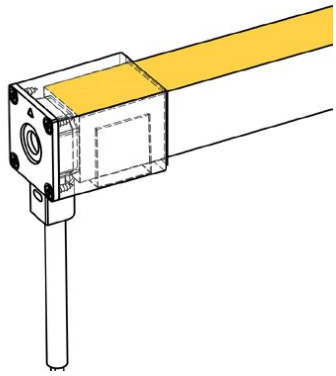
Step 7 Place the stainless steel cover plate over the end cap.



Step 8 Partially tighten the first pair of diagonal screws.

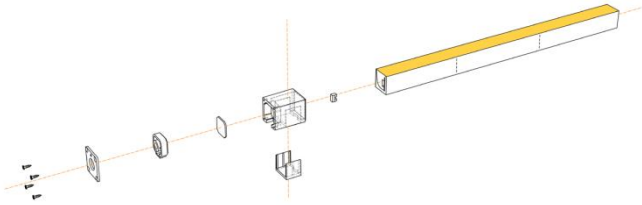


Step 9 Tighten the second pair of diagonal screws, then fully tighten the first pair to ensure a secure, even seal.

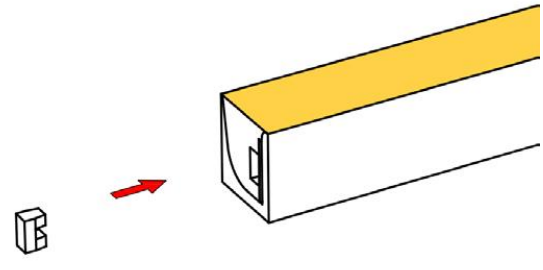


Step 10 Verify all components are properly aligned and securely fastened as shown.

03 Mechanical closed end cap (with screw)

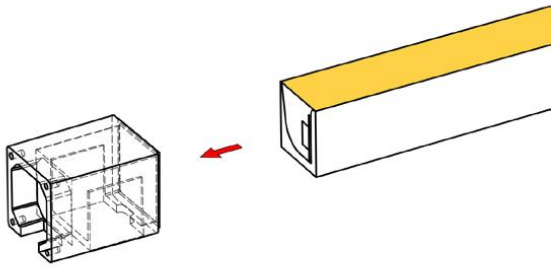


Step 1 Gather all components for the end cap assembly. This guide is for custom-cut lengths of the neon strip.

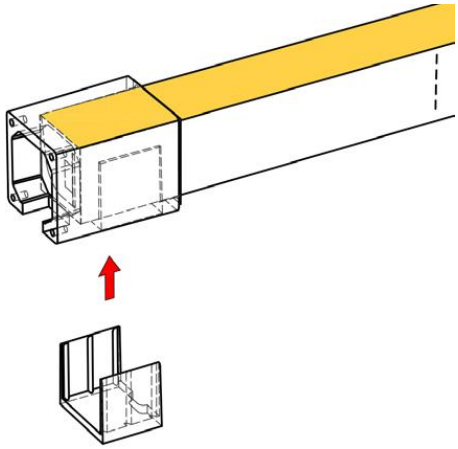


Step 2 Insert the small, transparent U-shaped plug into the end of the neon strip, between the circuit board (FPC) and the LEDs.

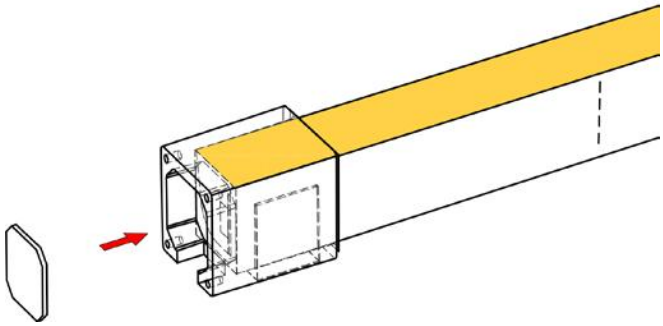
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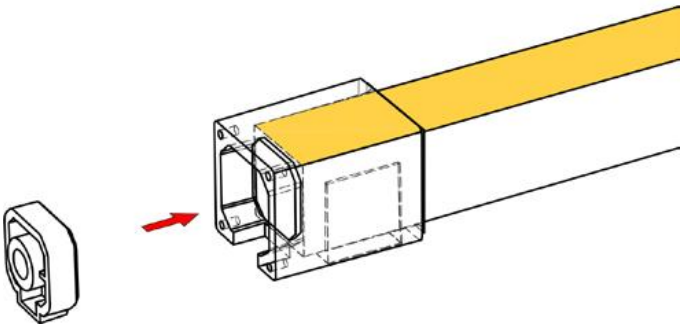
Step 3 Slide the clear plastic end cap housing over the neon strip.



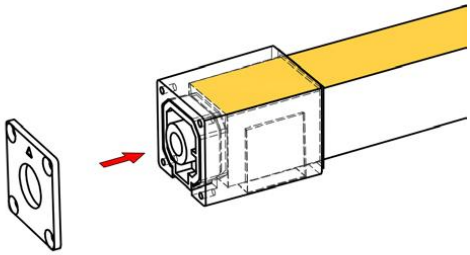
Step 4 Insert the metal U-shaped buckle from the bottom to lock the strip securely in place.



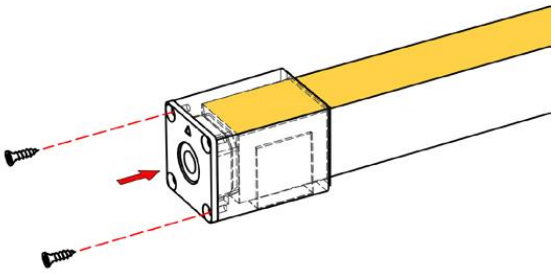
Step 5 Place the square silicone gasket inside the end cap housing.



Step 6 Insert the transparent sealing plug to cover the opening.

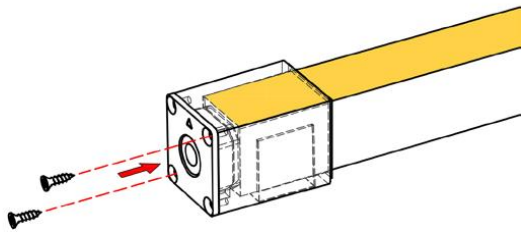


Step 7 Place the stainless steel cover plate over the end cap.

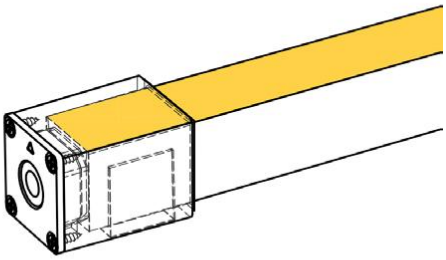


Step 8 Partially tighten one pair of diagonal screws, then the second pair.

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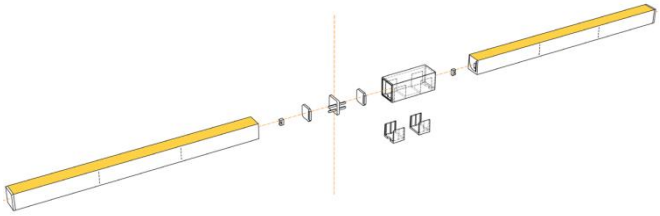


Step 9 Fully tighten all screws to ensure an even, watertight seal.

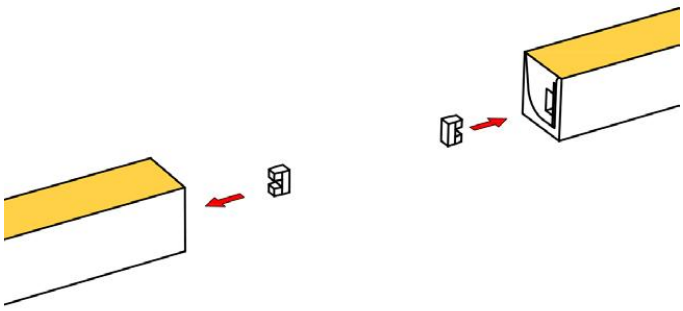


Step 10 Confirm all parts are properly installed and securely fastened.

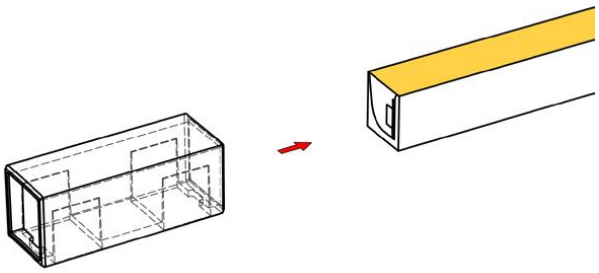
04 Strip to Strip Connector (IP20)



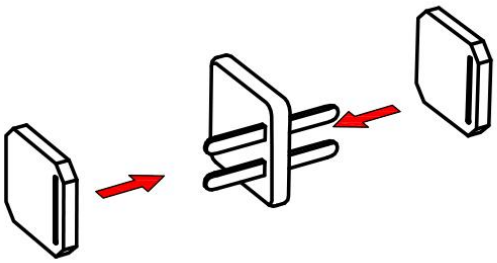
Step 1 Gather all connector components and the two custom-cut neon strips to be joined.



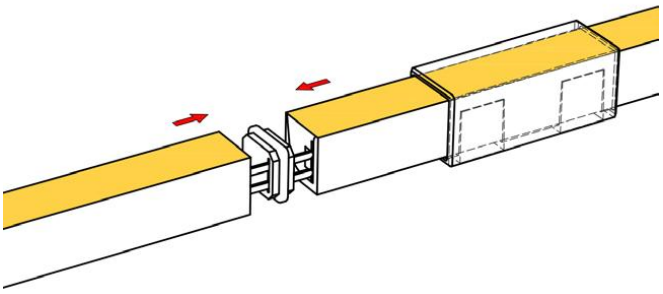
Step 2 Insert a transparent U-shaped plug into the end of each neon strip, between the circuit board (FPC) and the LEDs.



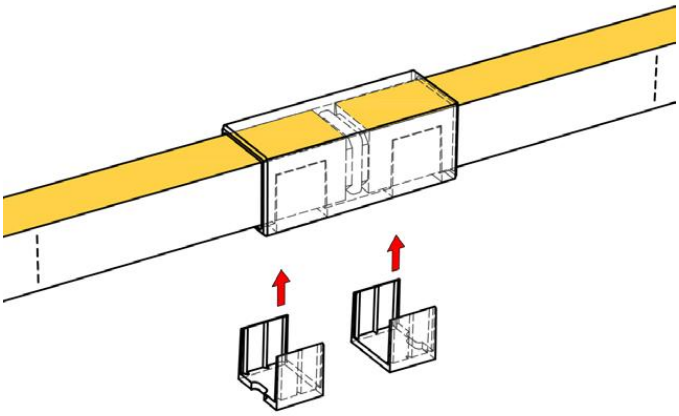
Step 3 Place the clear plastic connector housing over one of the strip ends.



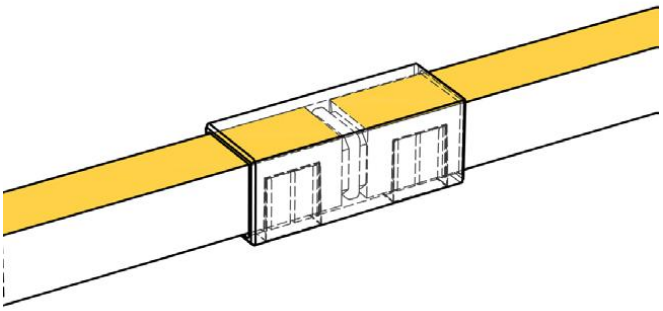
Step 4 Insert the two perforated silicone gaskets onto the pins of the middle terminal.



Step 5 Align the terminal's pins with the contact pads on the circuit boards of both strips and press firmly to connect them. Slide the plastic housing to center it over the connection point.



Step 6 Insert the two metal U-shaped buckles from the bottom to lock the entire assembly securely in place.

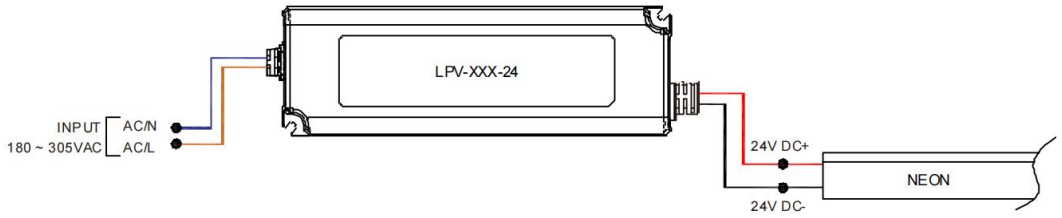


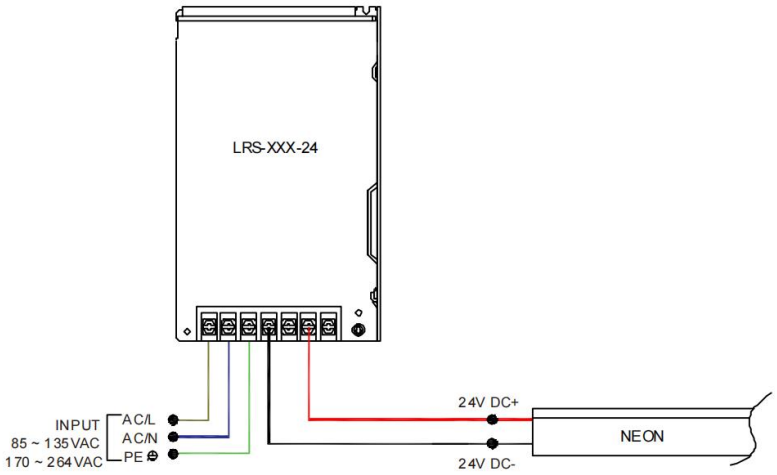
Step 7 Ensure both strips are held firmly and the housing is secure.

Wiring Diagram

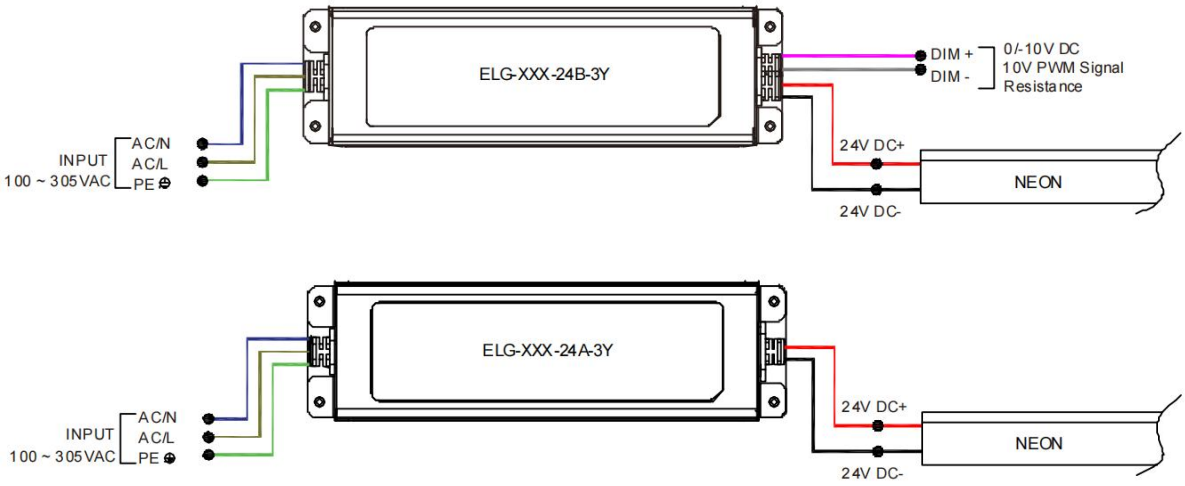
- Disconnect power at the source prior to attempting installation.
- Use this product with appropriate 24V DC power supplies only. Unapproved power supplies may damage the product.
- Always observe proper polarity.
- Ensure to add 20% buffer when sizing power supply.
- Ensure that the power cable carried current is no greater than 80% of its capacity.
- To minimize the voltage drop and keep light consistency, position power supply nearest to the power feed end of the fixture and keep the power line as short as possible.
- Prior to installing 24V DC power supply, refer to the power supply installation instruction for more information.

Non Dimmable

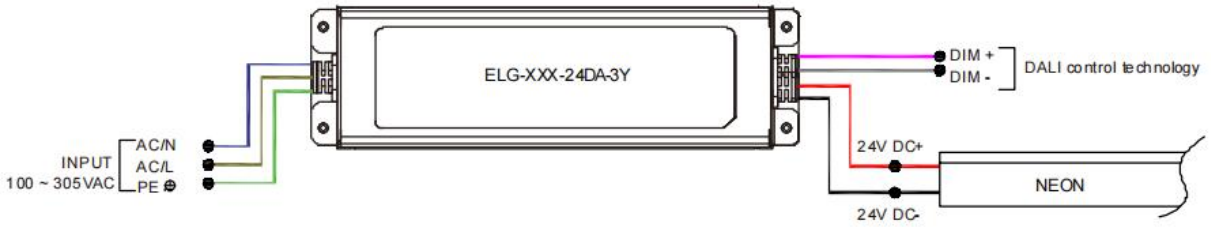




3 in 1 -dimmable



DALI-dimmable



Trouble Shooting

01 The whole strip doesn't work.

- Check whether the power supply is plugged in, switched on and receiving power.
- Check whether the strip, decoders, controllers are connected to the power supply correctly.
- Check whether the polarity of all wire connections are connected correctly.
- Make sure power supply output voltage is 24V DC.
- Check whether the connector and end caps are inserted behind the PCB properly.

02 Light emitting appear dim or dull at one end.

- Check whether the power supply output voltage matches the strip's rated input voltage.
- Adjust the dimming level to the maximum.
- Use two-end feeding or split the installation into shorter electrical runs to avoid voltage drop.
- Check whether the strip is too far away from the power supply leading to voltage drop.

03 Light emitting appear excessive brightness.

- Check whether the output voltage of the power supply matches the rated voltage of the strip.
- Check whether the power grid is stable.

04 The first segment of the strip doesn't work.

- Check whether the strip is NOT cut on indicated cutting mark in a straight line.
- Check whether the strip was cut at the correct cutting mark. If cut incorrectly, discontinue installation and contact your supplier for replacement.
- Check whether the first LED was damaged during connector/end-cap installation. Do not attempt to re-seal or re-assemble on site. Contact your supplier for support.
- Check for possible water ingress caused by improper connector or end-cap installation. Replace the section only with a factory-sealed unit.
- Check for signs of external impact damage. Replace the affected section with a new factory-sealed unit.

05 Strip is flashing on and off.

- Check whether the wattage of the power supply supports the load of the entire length of the strip.
- Select the appropriate power supply wattage or install an additional power supply.
- Check whether the power supply output voltage is stable.
- Check whether the connector/end cap is properly installed with good contact with the copper PCB.
- Check whether proper controller is connected for light working.

Beamever

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