NEON Y | INSTALLATION INTRO

This installation guide is for **Neon Y, Neon Micro Y & Neon Y3**. LED Neon Y is a vertical bending and highly durable linear LED product suitable for both indoor and outdoor applications. This installation guide is divided into four sections:

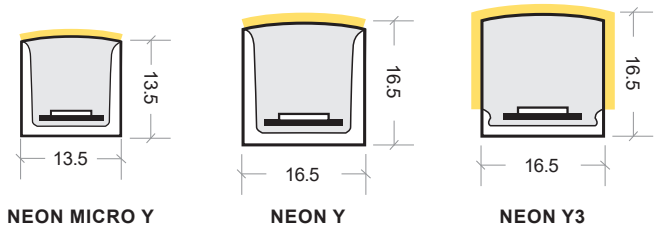
- INTRO

- CORES & WIRE CONNECTION REFERENCE
(wiring diagrams on specification sheets)

- PRODUCT PHYSICAL PARAMETERS

- INSTALLATION & MOUNTING

NEON Y MODELS



NEON MICRO Y **NEON Y** **NEON Y3**

Note: Other models may have different parameters,ensure you have the correct installation guide for your model.

GENERAL INFO

- This product must be installed by a qualified and competent professional.
- Always disconnect the power supply before attempting to maintain or service the equipment.
- Do not work on the product with wet hands.
- Make sure that all parts of the equipment are kept clean and free of dust which should be carried out as part of a maintenance cycle that's appropriate for the installation location of the product.
- The lamp (LED) should be changed if it has become damaged or thermally deformed.
- Do not power the product if :
  - The outer PVC jacket is damaged
  - There are loose electrical connections
  - The wires are visible without insulation.
- Do not stare directly into the LED light source.

ELECTRICAL SAFETY

- Always disconnect the power supply before attempting to maintain or service the equipment.
- The Earth wire MUST ALWAYS be connected.
- Local electrical and building regulations must be followed.
- Do not power the product whilst in packaging.
- Always make sure that the power and data connections are connected correctly and securely.
- The power supply (PSU), DMX/RDM driver and LED drivers should be changed if they fail to operate.
- Do not cut while the LED flex neon is connected to power.
- Do not reverse polarity when connecting from both ends. This will damage the internal PCB. Always test connections with a multi-meter before applying power.
- Must always be used with an electrical isolation transformer providing SELV (safety extra low voltage).

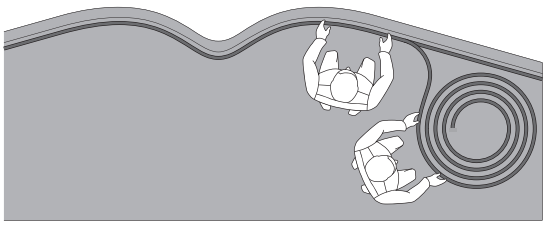
HANDLING

LED Neon must be installed by at least 2 people, who can support the product in various locations as shown. During installation, care should be taken to ensure the bending radius of is not exceeded.

When transporting the product, it is advisable to use the original packaging in which the product left the factory.

Do not roll out the product onto rough surfaces or over sharp corners. This will scratch the PVC optics and damage the finish of the product.

Do not power the product whilst in packaging.



This user manual is intended to cover as much detail as possible for this product, and great care has been taken to ensure this and the accuracy of the information contained within, however should additional information or clarification be required that is not covered within this manual or associated data sheets, or if there are any uncertainties regarding the installation and operation of this product, Distributor MUST be contacted before any work is carried out on the fixture or associated products.

FAILURE TO COMPLY WITH THIS MANUAL AND LOCAL ELECTRICAL AND CONSTRUCTION REGULATIONS MAY RESULT IN SERIOUS INJURY OR EVEN DEATH - ALWAYS ISOLATE POWER BEFORE WORKING ON ELECTRICAL PRODUCTS AND ENSURE ADEQUATE MEASURES ARE TAKEN TO MECHANICALLY SUPPORT FIXTURES AT ALL TIMES.

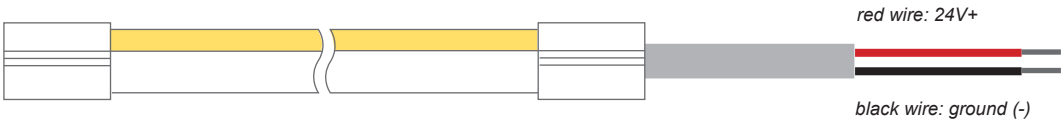
NEON Y | CORES & WIRE CONNECTION REFERENCE

REFER TO INDIVIDUAL SPECIFICATION SHEETS CONNECTION DIAGRAMS

The product specification sheet will provide the specific product operating voltage and the wattage per metre. Care should be taken to ensure the operating voltage is constant (constant voltage).

The below diagrams indicate the number of cable cores and the connections they relate to. Each manufactured length will have a factory fitted label which indicates the correct cores to use, as well as the colour of each specific core and its associated connection. Reference should always be made to the label on the product itself as sometimes, the cable colours may vary pending manufacturing processes or for custom orders. If in doubt contact support for assistance before connecting to power.

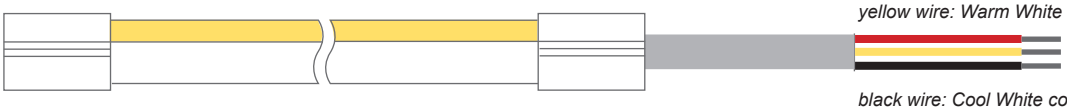
SINGLE COLOUR



red wire: 24V+

black wire: ground (-)

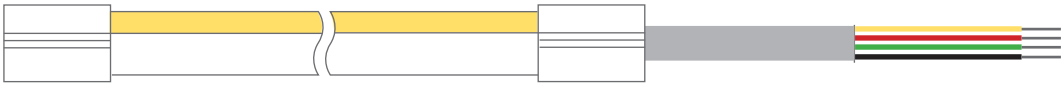
TUNEABLE WHITE



red wire: 24V+
yellow wire: Warm White connection (-)

black wire: Cool White connection (-)

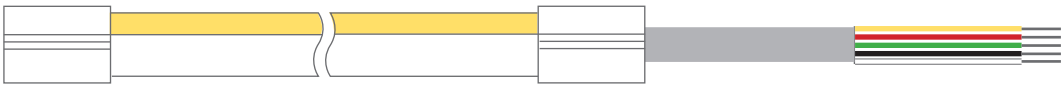
RGB



yellow wire: 24V+
red wire: red “R” terminal (-)

green wire: green “G” terminal (-)
black wire: blue “B” terminal (-)

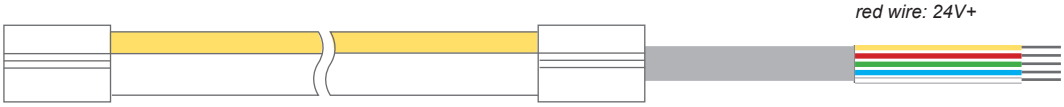
RGBW



yellow wire: 24V+
red wire: red “R” terminal (-)

green wire: green “G” terminal (-)
black wire: blue “B” terminal (-)
white wire: White “W” terminal (-)

DMX DYNAMIC RGB / RGBW ‘CHASING’



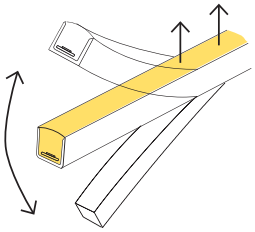
yellow wire: DMX (+)
red wire: 24V+

green wire: address
blue wire: DMX (-)
white wire: ground (-)

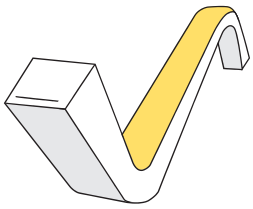
- LED Neon must always be used in conjunction with a certified 24V DC power supply.
- Check the polarity of the connector before inserting the front connector and switching on the mains power.
- To minimise voltage drop and ensure consistent light output, position the power supply near to the power feed end of the LED Neon, and keep the line as short as possible
- Ensure your maximum run per power feed adheres to the guidelines; see specification sheet.
- Ensure to add 20% buffer when selecting a power supply
- Before making any cuts, installation, maintenance, or connection, be sure the mains power is disconnected.
- If essential; cut and connect LED Neon correctly. Any incorrect operation can cause damage (IP67 Snap connectors only).
- All IP67 snap connector joints must be connected correctly to achieve connector IP rating. See ‘Neon Y - IP67 Snap Installation.pdf’

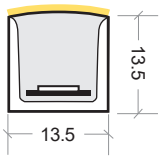
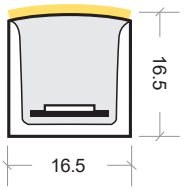
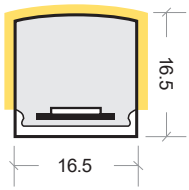
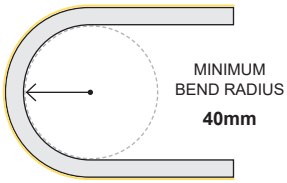
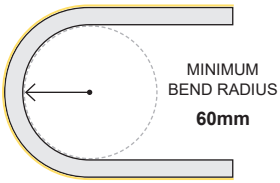
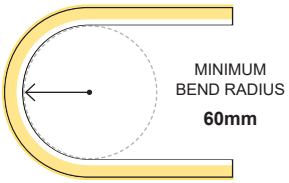
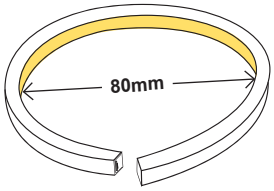
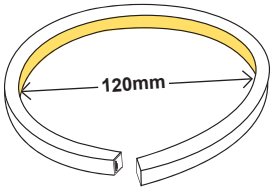
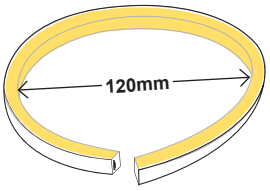
NEON Y | PRODUCT PHYSICAL PARAMETERS

LIGHT DIRECTION



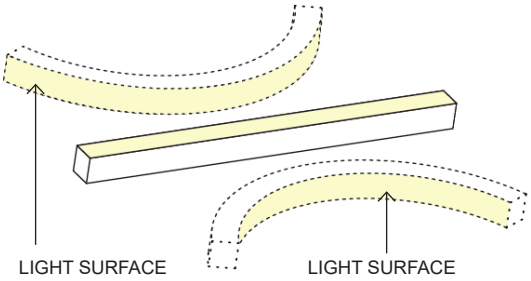
VERTICAL BENDING



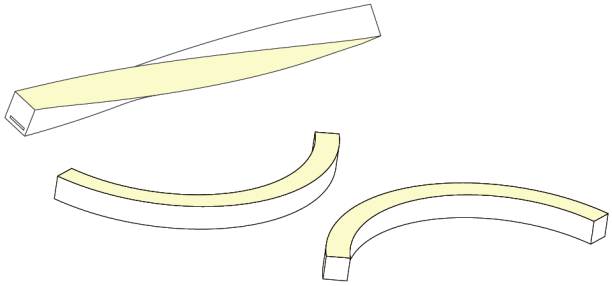
NEON MICRO Y	NEON Y	NEON Y3
		
		
		
MINIMUM BEND DIAMETER	MINIMUM BEND DIAMETER	MINIMUM BEND DIAMETER

Exceeding these minimum bends may damage the product and cause segments to fail.

NEON Y CAN BE CURVED AS SHOWN BELOW

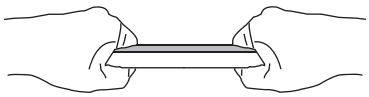


DO NOT TWIST THE LIGHT OR BEND AGAINST THE LIGHT SURFACE

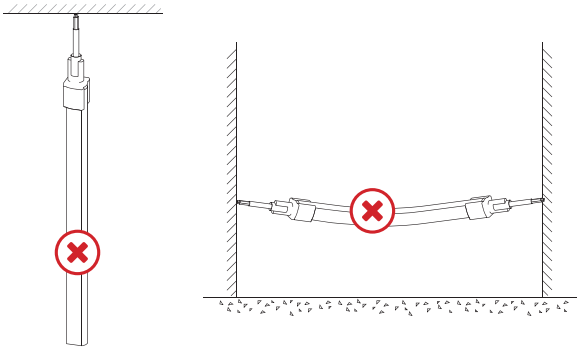


NEON Y HAS A MAXIMUM HORIZONTAL FORCE OF

5-10KG



DO NOT ALLOW NEON TO HANG UNSUPPORTED.



Actual product characteristics may vary

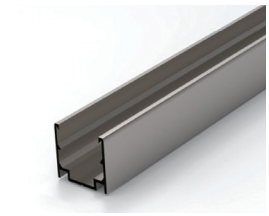
NEON Y | INSTALLATION & MOUNTING

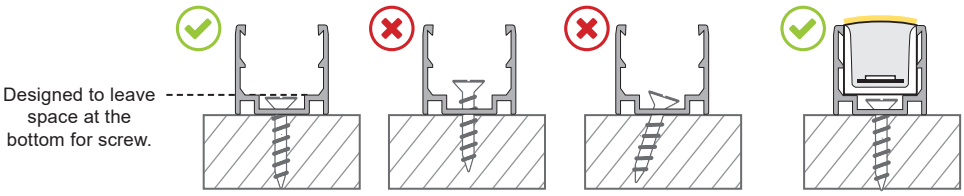
REFER TO INDIVIDUAL SPECIFICATION SHEETS FOR AVAILABLE PROFILE / MOUNTING CLIPS

GENERAL MOUNTING INFO

- **DO NOT** use glues or resins as fixing agents. Use of glues and resins may invalidate the warranty of the product.
- Screw mounting profile or clips are the best way to mount Neon. There are often multiple profile options available for different applications.
- Care should be taken to ensure drooping is avoided, and to ensure that is fastened adequately to avoid stresses on itself.

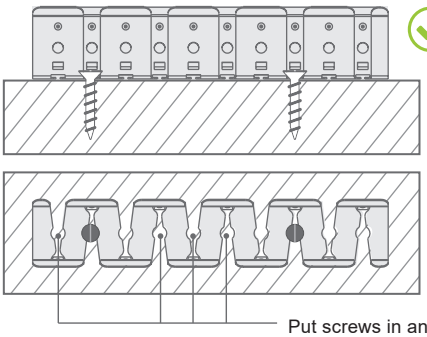
STANDARD PROFILE / MOUNTING CLIPS



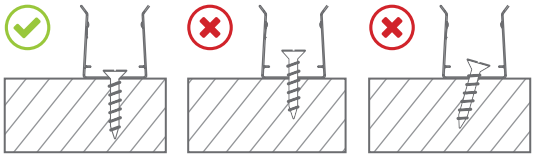


Install the screw ensuring head is flush or lower than the profile groove and screwed into surface straight

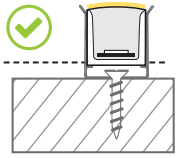
FLEXIBLE PROFILE (WHERE AVAILABLE)



Put screws in any hole along the bendable profile to create the desired curve shape.

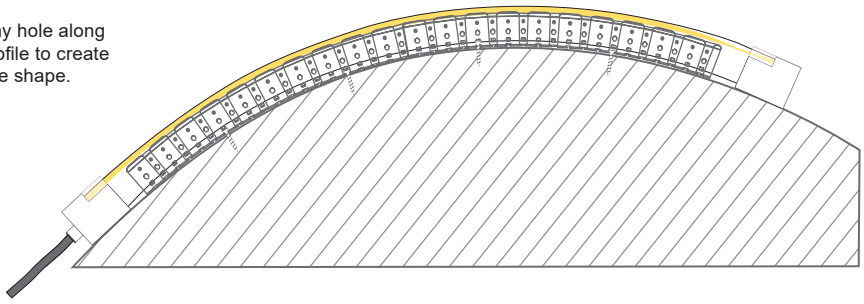


CURVED PROFILE MOUNTING:
Install the screw ensuring head is flush or lower than the profile groove and into surface straight



Designed to leave space at the bottom for screw.

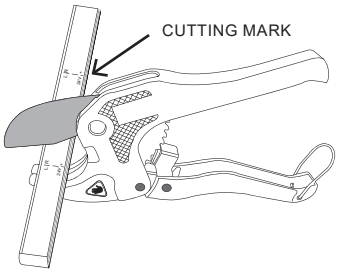
Curve stainless steel profile is flexible and can stretch or condense as the design requires.



NEON Y | INSTALLATION & MOUNTING

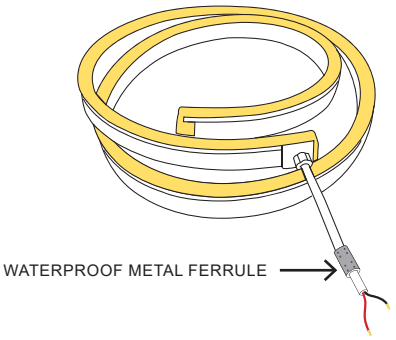
CUTTING

- Neon can only be cut where cutting marks are present. Look for the “Dotted Line” or “Scissor Mark”.
- Cutting outside of the specified mark will damage the light and cause a failed segment.
- A cut section must have the appropriate IP67 Snap connector power feed or end cap accessory to maintain IP ratings. **See Neon IP67 Snap Connection Installation at end of Installation Guide information on fitting these.**
- Where installation is known to require cuts on-site the purpose-built cutting tool should be purchased with your order from your distributor.



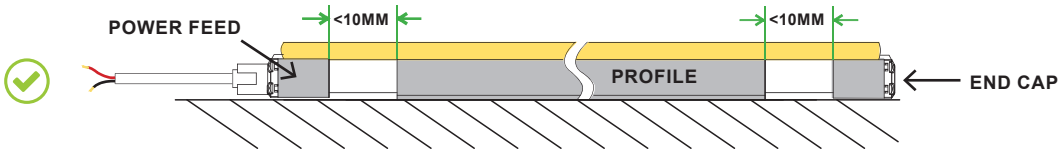
IP68 INJECTION MOULDING:

DO NOT cut off the cable wire between the waterproof metal ferrule and connector.

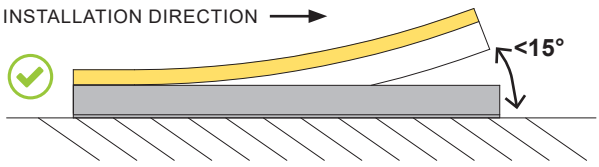


INSTALLATION

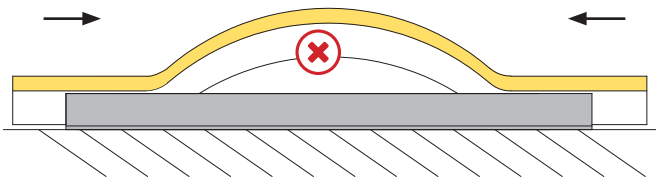
- Ensure the supply cord is not subject to mechanical stress
- **IP67 Snap connectors:** Keep at least 10mm distance between the end of the profile and the end mounting piece



- Press the flex light into mounted aluminium channel in one direction. Bend angle should be less than 15°.

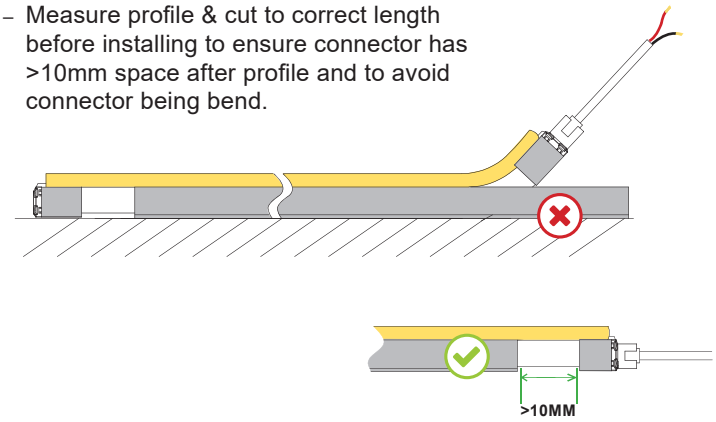


- Do not let Neon bow in centre (from installing from both ends)

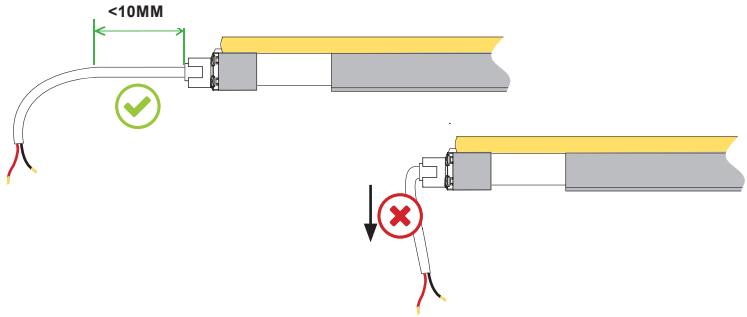


NEON Y | INSTALLATION & MOUNTING

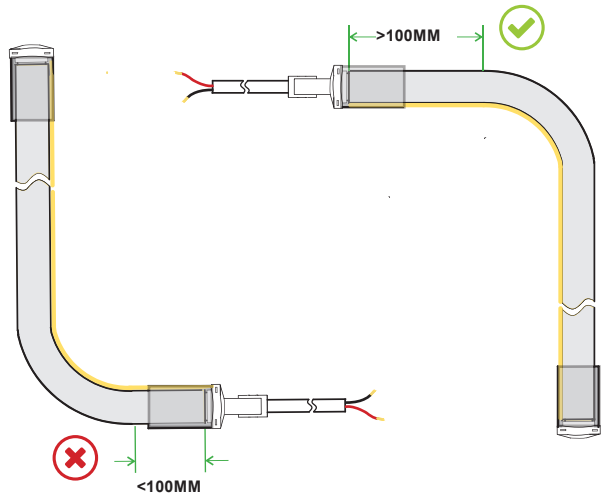
– Measure profile & cut to correct length before installing to ensure connector has >10mm space after profile and to avoid connector being bend.



– Avoid placing mechanical stress on the front connector cable
– Do not curl or bend the front connector cable with excessive force



– Leave 100mm or more after connector before bending Neon. Bending to close can stress the connector and may lead to failure of the IP rating.



INSTALLATION SAFETY

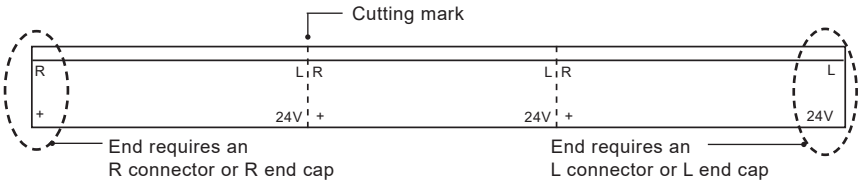
- Always ensure the supporting structure is a flat and solid surface and can support the weight of the product and any additional wind or shear force. The supporting structure must be suitable for the installation of luminaries, and advice must be taken from an appropriately qualified and competent person to verify proposed mounting positions and surfaces.
- **DO NOT** secure the product with staples, nails, or alike that might damage the insulation or PVC material. Aluminium profile or mounting clips should be used.
- **DO NOT** install the product on/in places where it is subject to continuous flexing. Constant movement over time from weather can cause damage.
- **DO NOT** leave any part of the product unsecured.
- When installing into pools, ensure pool is not in use.
- Although this product does not generate a great amount of heat, it is recommended that you do not cover or conceal it.
- **DO NOT** route the product through walls, doors, windows, or building structures.
- The product must be installed within well-ventilated areas.
- A minimum distance of 0.5m must be maintained between the equipment and any combustible surface. The mounting surface must not be combustible.
- **DO NOT** bury product
- **DO NOT** operate/run the product in temperatures exceeding 55°C.
- **DO NOT** operate the product over the specified voltage or LED life degradation will be greatly increased.
- During installation, violent pulling and bending are prohibited.

NEON | SNAP CONNECTOR INSTALLATION - POWER FEED

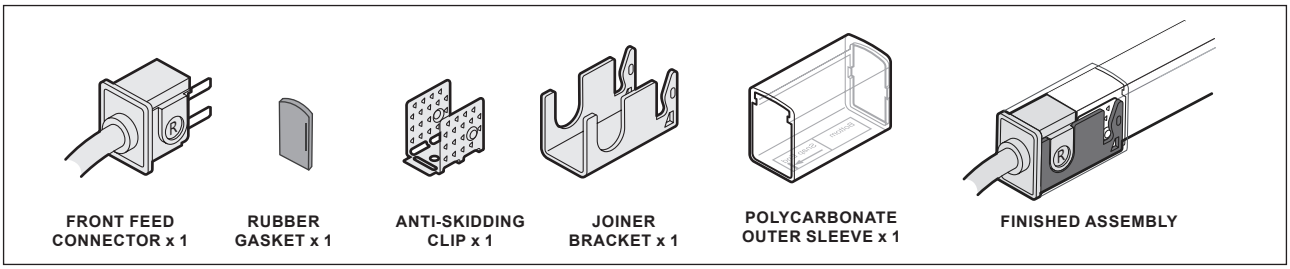
The DIY snap kit has an IP67 rating. They can be fitted on-site, to allow flexible where lengths aren't known prior to installation. Connectors can only be used once, so ensure correct location before fitting. Neon can only be cut at specific cutting marks. End cap installation on next page.

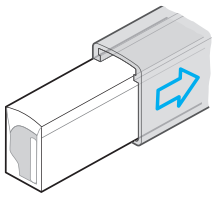
CUTTING & RIGHT OR LEFT END
Neon has cutting marks on the side or bottom. These show locations where cutting is allowed and the connector type required.

The snap connector letter needs to match letter (R or L) with the end.



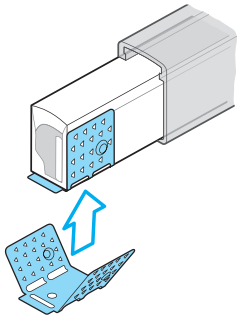
EXAMPLE FOR NEON X. NEON Y MODELS WILL HAVE PINS AT BOTTOM. PROCESS IS THE SAME.





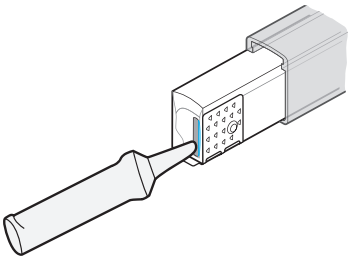
STEP 1

Slide neon through polycarbonate outer sleeve, printed instruction aligns with the 'Snap End' arrow points in the direction of the feed connector.



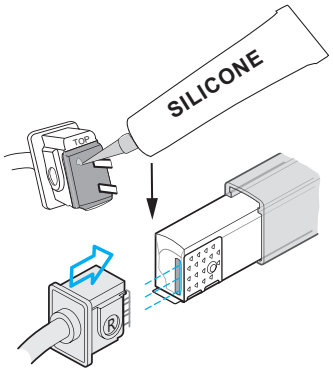
STEP 2

Place the anti-skidding clip on the very end of the neon as shown.



STEP 3

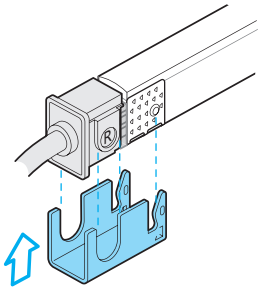
Place the tip of the assistant tool against the outer side of the internal circuit board within the neon flex. Carefully push the tool into the neon (max. depth of 12.5mm) so that it creates a small cavity in the flexible material on the outer side of the circuit board.



STEP 4

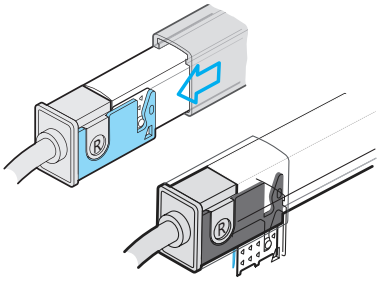
Insert rubber gasket into the pins and apply 100% clear silicone on the surface of it. Align the front feed connector with the cut end part and carefully push its pins into the gaps.

Ensure pins are going on the outer side of the LED strip.



STEP 5

Gently yet firmly push the joiner bracket onto the end cap assembly. The two parts close together and eventually lock them into place.



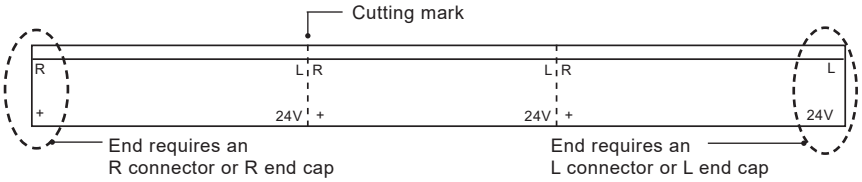
STEP 6

Slide the polycarbonate outer sleeve until it hits the flange of the front connector

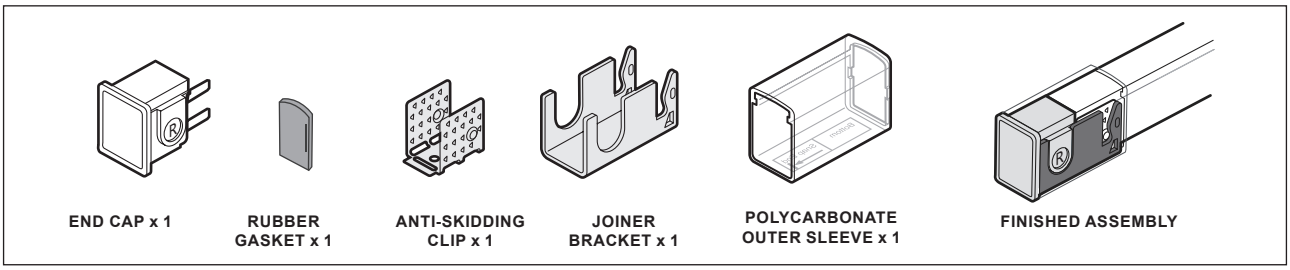
NEON | SNAP CONNECTOR INSTALLATION - END CAP

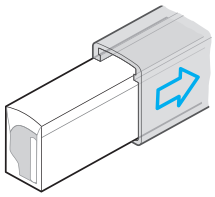
CUTTING & RIGHT OR LEFT END
Neon has cutting marks on the side or bottom. These show locations where cutting is allowed and the connector type required.

The snap connector letter needs to match letter (R or L) with the end.



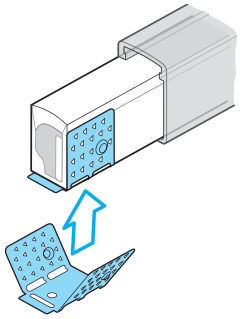
EXAMPLE FOR NEON X. NEON Y MODELS WILL HAVE PINS AT BOTTOM. PROCESS IS THE SAME.





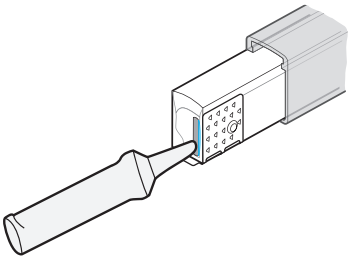
STEP 1

Slide neon through polycarbonate outer sleeve, printed instruction aligns with the ‘Snap End’ arrow points in the direction of the feed connector.



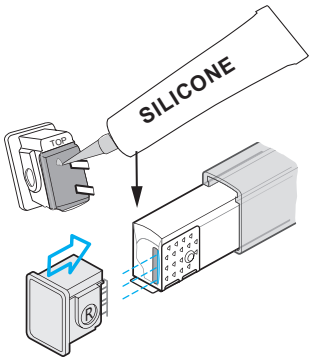
STEP 2

Place the anti-skidding clip on the very end of the neon as shown.



STEP 3

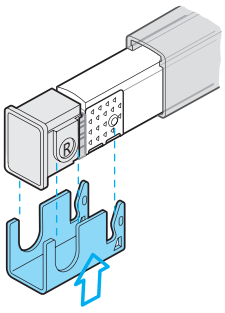
Place the tip of the assistant tool against the outer side of the internal circuit board within the neon flex. Carefully push the tool into the neon (max. depth of 12.5mm) so that it creates a small cavity in the flexible material on the outer side of the circuit board.



STEP 4

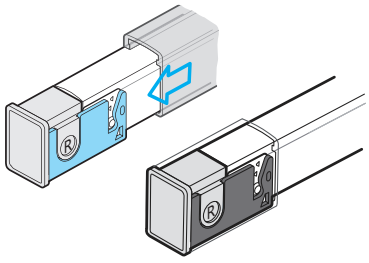
Insert rubber gasket into the pins and apply 100% clear silicone on the surface of it. Align end cap with the cut end part and carefully push its pins into the gaps.

Ensure pins are going on the outer side of the LED strip.



STEP 5

Gently yet firmly push the joiner bracket onto the end cap assembly. The two parts close together and eventually lock them into place.



STEP 6

Slide the polycarbonate outer sleeve until it hits the flange of the end cap