



LUMENS DEPOT
PRO LIGHTING SOLUTIONS

PoolGlow Neon Instructions



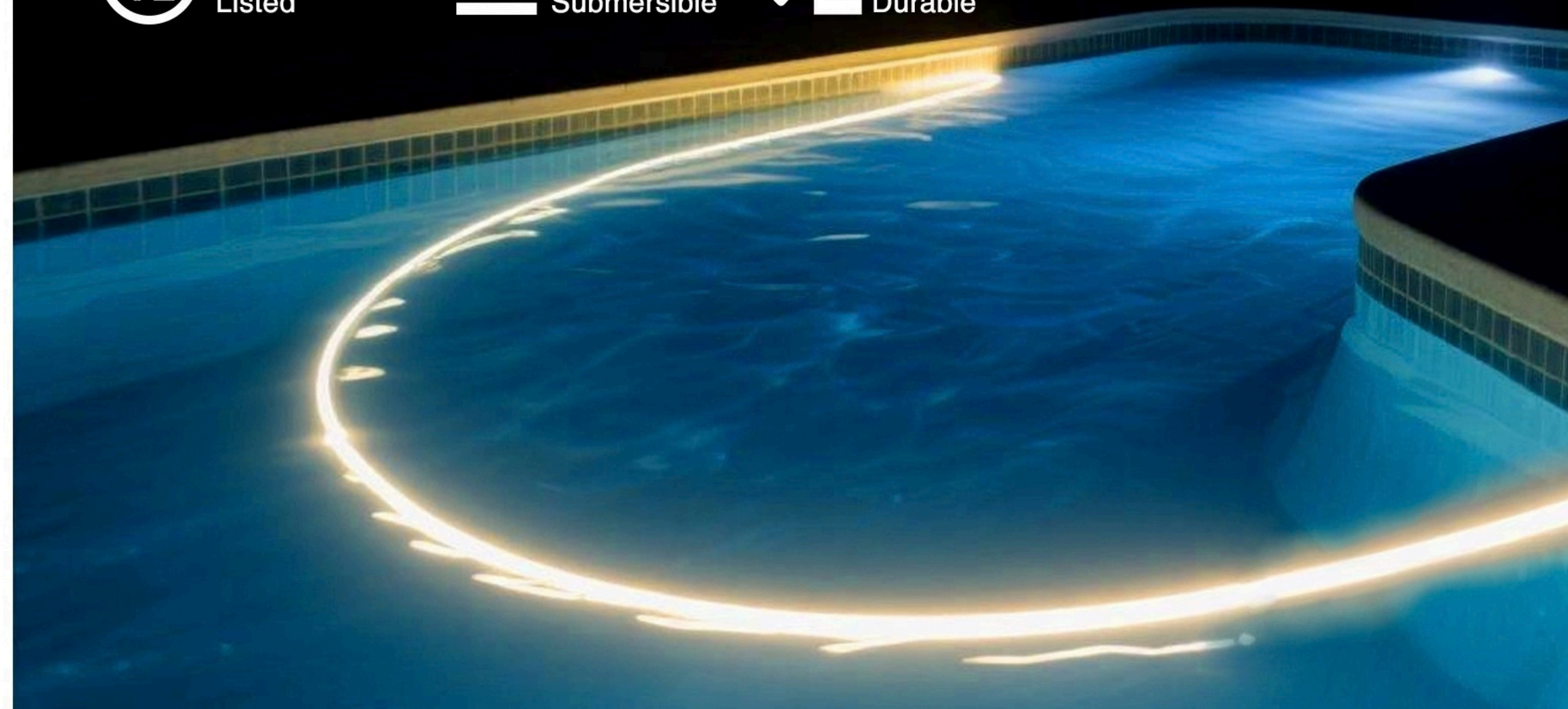
UL676
Listed



IP68
Submersible



IK08
Durable



CONTENTS

01 DISCLAIMER

02 WARRANTY

02 SAFETY & WARNINGS

05 SPECIFICATIONS

06 INSTALLATION INSTRUCTIONS

11 WIRING INSTRUCTIONS

13 TROUBLESHOOTING



DISCLAIMER

These instructions provide suggested installation procedures only. They do not constitute professional installation and may not meet all electrical requirements in your state or the National Electrical Code® (NEC). The NEC requires that low-voltage power supplies and electrical wiring comply with Class 2 standards.

This product is custom-cut and cannot be modified or cut in the field. Any alteration, including cutting, will void the warranty and invalidate the UL676 Safety Standard certification. Before beginning installation, read all instructions thoroughly. If you are not qualified, do not attempt installation—consult a licensed electrician instead.

Lumens Depot assumes no liability for incidental or consequential damages, including but not limited to installation costs, personal injury, or property damage. Improper installation or modification of this product may pose a shock or fire hazard. For your safety and compliance, adhere to these guidelines and consult a professional if unsure.

WARRANTY

Lumens Depot PoolGlow Neon Series are covered by a 3-year warranty against defects in materials and workmanship, effective from the date of original purchase. At Lumens Depot we take pride in the quality and durability of our products, offering you confidence and peace of mind for years to come.

SAFETY & WARNINGS

Read Carefully

Prior to installation, thoroughly review all provided instructions. These instructions contain critical safety information and should be retained for the product's service life.

Qualified Installation

Risk of fire and electrical shock. Fixture must be installed by a qualified electrician only in accordance with national, local building and electrical codes.

NEC 680 Guidelines

When installing in or near a pool, spa, or fountain, a UL676 product must be used and must be installed in accordance to NEC 680 guidelines. According to NEC CODE 680.23(A)(2), transformers and power supplies used for the supply of underwater luminaires, together with the transformer or power supply enclosure, shall be listed, labeled, and identified for swimming pool and spa use. The transformer or power supply shall incorporate either a transformer of the isolated winding type, with an ungrounded secondary that has a grounded metal barrier between the primary and secondary windings, or one that incorporates an approved system of double insulation between the primary and secondary windings.

UL 676 Certification

UL 676 Underwater Luminaries/ CAN/ CSA C22.2. 89-1976/ UL 8750. This certification conforms to Article 680 and 682 of the National Electrical Code for installation in swimming pools, fountains, spas, natural and artificially made bodies of water.

Class 2 Compliance

Class 2, as defined by the National Electrical Code (NEC) and Underwriters Laboratories (UL), refers to a safety standard for low-voltage power supplies. These power supplies are limited to a maximum output of 30V AC or 60V DC, 100W, and 8A and include built-in overload protection, making them inherently safe for low-voltage applications. This means they are considered low-risk in terms of fire and shock hazards.

Verify Power Source

Always disconnect power before installation. Use GFCI protection on circuits or outlets for outdoor installations. Ensure the power source meets the fixture's requirements. Product is 24V, Do not connect to 120V power source. Install with a compatible Class 2 listed DC LED driver. Be sure not to load any driver to 100% as this will reduce its efficiency. A 80%-90% maximum load is recommended for driver longevity. The Constant Current (CC) Integrated Circuit extends max run length. Do not use a CC power supply, as it may cause damage.

Do Not Exceed Max Run Length

In compliance with UL676 standards, the total power consumption of fixtures must not exceed 100W. The maximum run length for these products is limited to 16.4 feet (5 meters) with a single power feed and 32.8 feet (10 meters) with dual power feeds.

Use Approved Cords

Use only UL-approved outdoor extension cords, such as types SW, SOW, STW, STOW, SJW, SJOW, SJTW, or SJTOW. These designations are marked on the cord's jacket. Consult "Low Voltage Wire Gauge" for recommended wire gauges, using the incorrect gauge wire can lead to issues such as flickering, light loss and altered color temp. Cable junction box must be kept on the shore and above the ground at least 4".

Do Not Cut

This is a custom cut only product and is not field cuttable. Do not attempt to cut, splice, or modify in anyway.

Keep Away Combustibles

Do not install near flammable liquids or other flammable materials.

Chemical Exposure Warning

We are not responsible for damage of neon strip due to chemical corrosion caused by incorrect operation. The user must provide suitable protection against serious corrosive agents, such as moisture and condensation and any other harmful elements/compounds. Regarding the use and management of cleaning agents, avoid directly spraying high concentration cleaning agents on the surface of the neon strip, and regularly check the chlorine content in the water (to maintain a range of 1-3 ppm). To ensure the stability of the appearance, materials, and quality of the neon strip, the pH of long-term disinfectant and soaking liquid used should be within the range of 6-8.

WARNINGS

Monitor Temperature

For submersible underwater light fixtures with a power ≤ 16.5 W/meter, the ambient working temperature range is -4°F to 113°F (-20°C to 45°C). The power of the strip need to be reduced to 9W/M for operating ambient temperature in -4°F to 131°F (-20°C to 55°C).

Inspect Regularly

Do not use if there is any damage to the silicone housing or power cord insulation. Inspect periodically.

Uncoil the Light

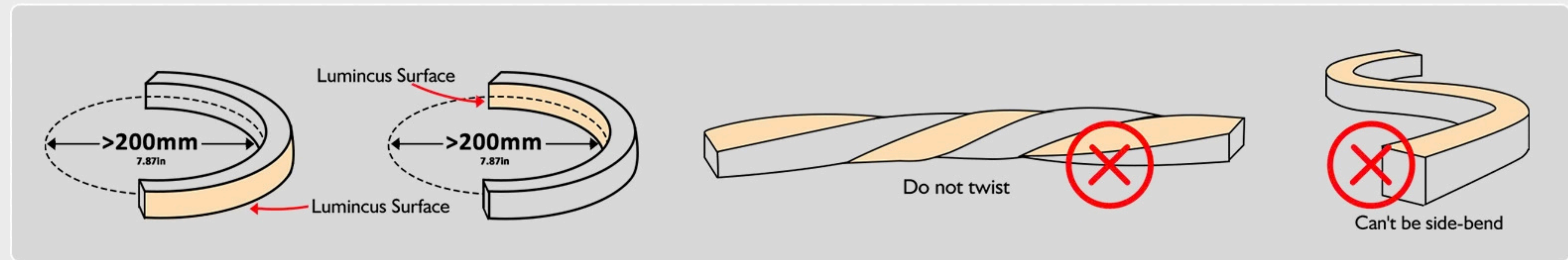
Uncoil flexible light prior to plugging in. Do not operate this neon light for 5 minutes while it is tightly coiled.

Do Not Cover

Do not cover this product as the covering may cause product to overheat, melt, or ignite.

Avoid Sharp Bends

The maximum bending radius of the PoolGlow Neon Series product is 200mm. Do not twist, drop, hang, sag, or bend product in any way other than intended. Excessive or exaggerated bending and twisting can damage the circuit. This product is top bend only.



Use Proper Mounting

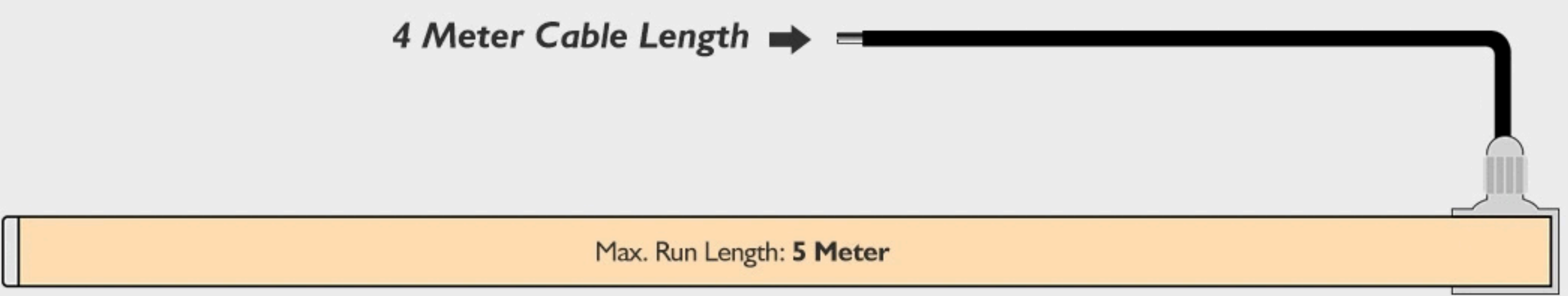
Secure this flexible light using only factory recommended mounting channel and hardware, sold separately. Do not secure this product or its cord with staples, nails, or like means that may damage the outer jacket or cord.

SPECIFICATIONS

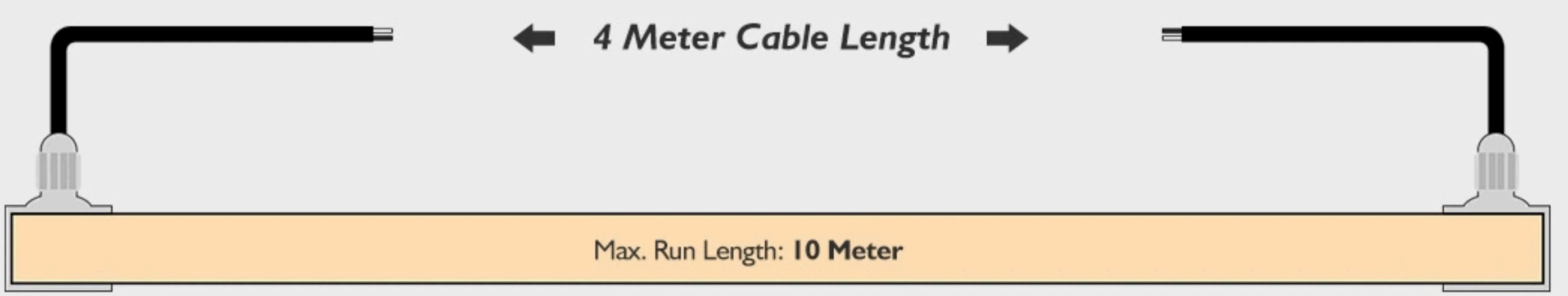
LIGHT PROFILE



SINGLE FEED



DOUBLE FEED



SPECIFICATIONS

Product	Color	Voltage	Power	Max. Run Length	IP Rating	Operating Ambient	Life Span	Warranty
PoolGlowNEON top bend 16*16mm	White/CCT RGB/RGBW	24V DC	9W/M	5M (single feed) 10M (double feed)	IP68 (Max 3M underwater)	-4°F to 131°F (-20°C to 55°C)	50,000hrs	3 Years

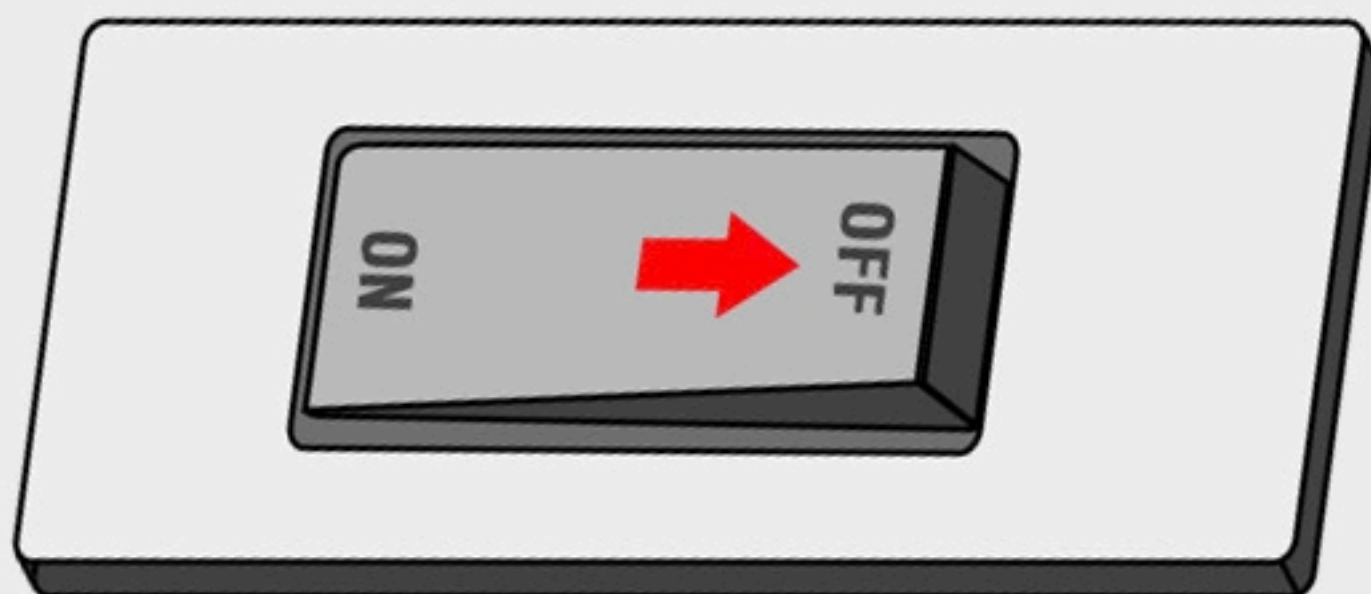
INSTALLATION INSTRUCTIONS

⚠️ FIBERGLASS & VINYL LINED POOLS:

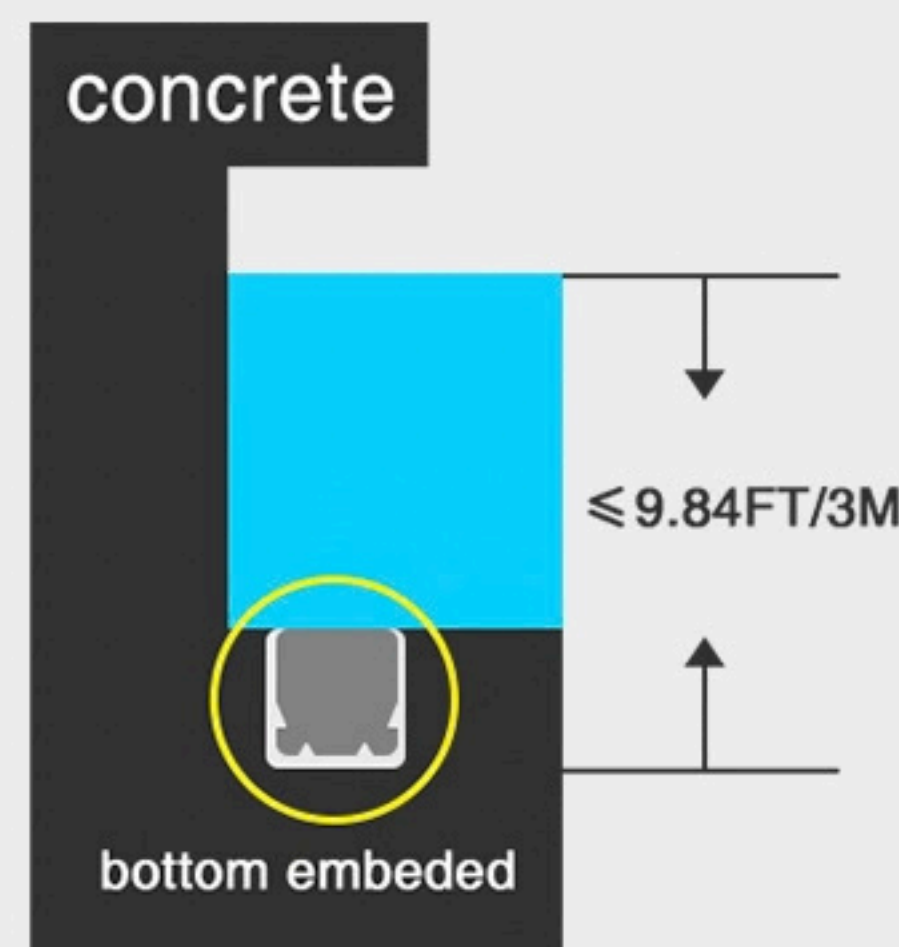
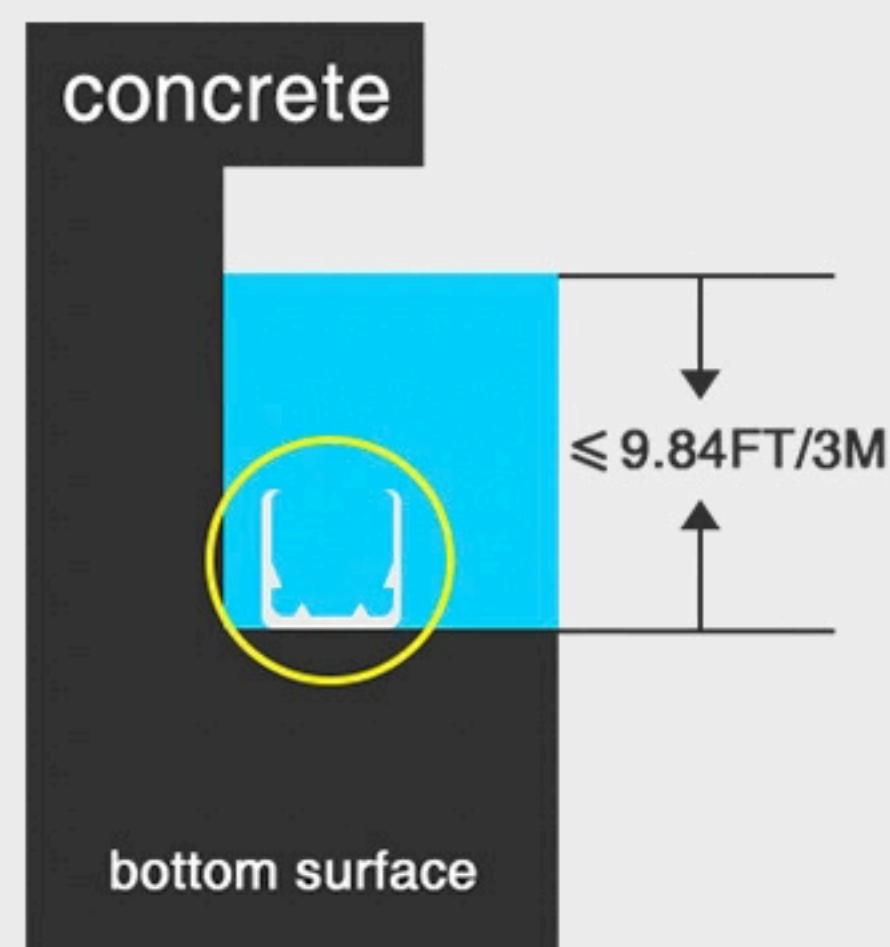
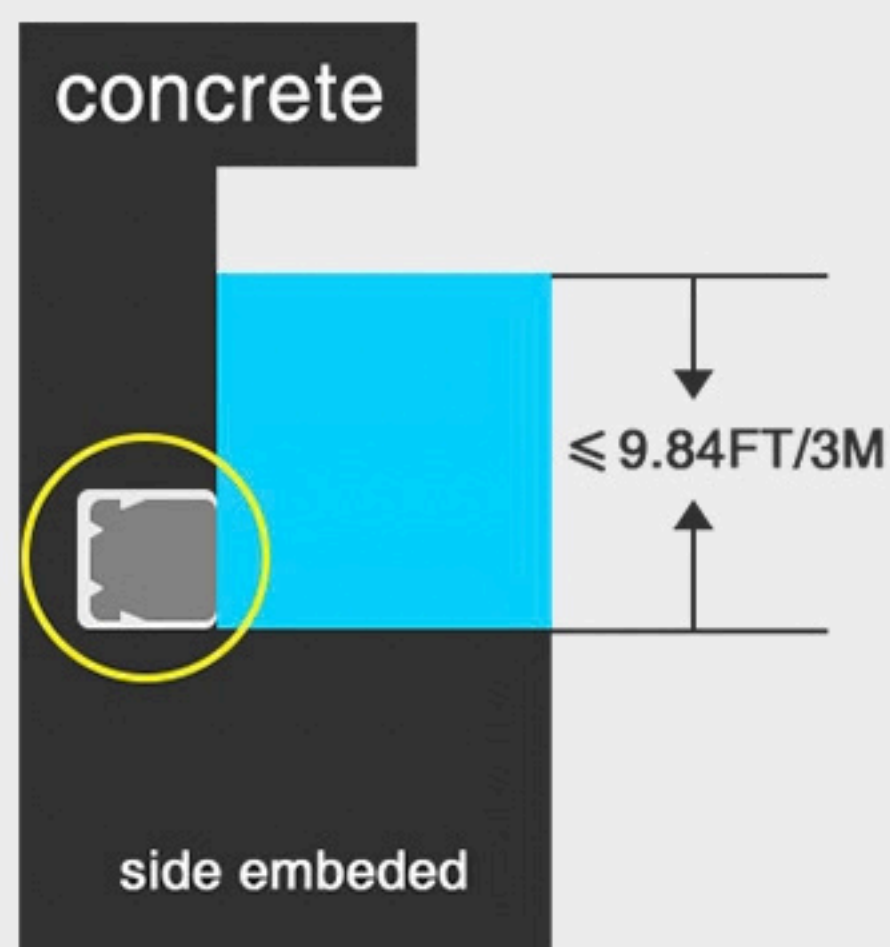
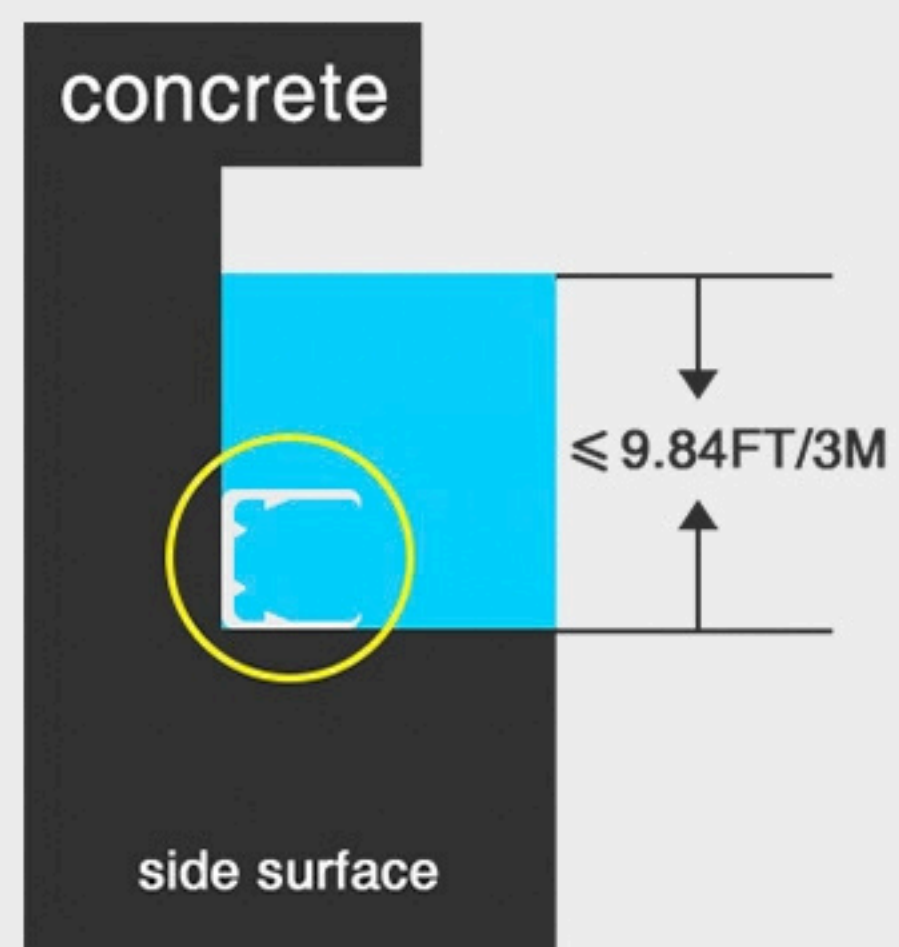
Unlike concrete pools, most fiberglass and vinyl lined pools have strict warranty guidelines that do not allow the user to deface the pool wall surface. Diode LED does not recommend mounting to fiberglass or vinyl pool walls and/or defacing the surface in any way (ex. drilling into surface to route lead wires). It is recommended to mount to a separate pool coping or lip to ensure your pool warranty is not voided.

Always consult with your pool supplier and contractor for proper installation of 3rd party products.

BEFORE STARTING THE INSTALLATION PROCESS, MAKE SURE TO TURN POWER OFF AT CIRCUIT BREAKER.

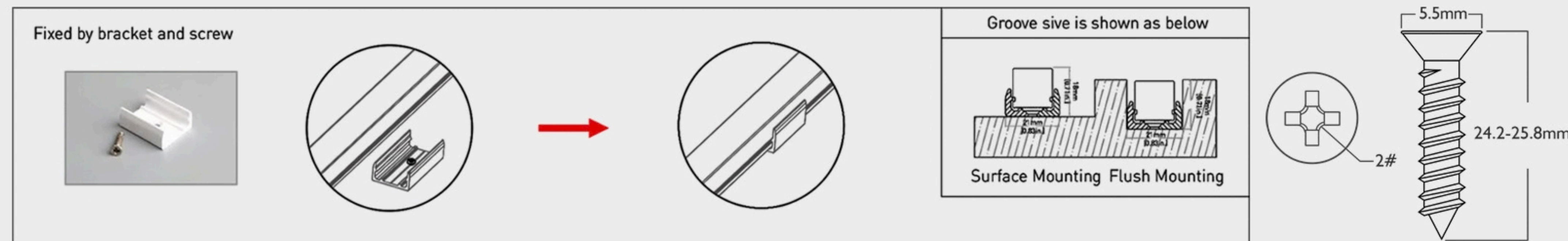


INSTALLATION POSITION

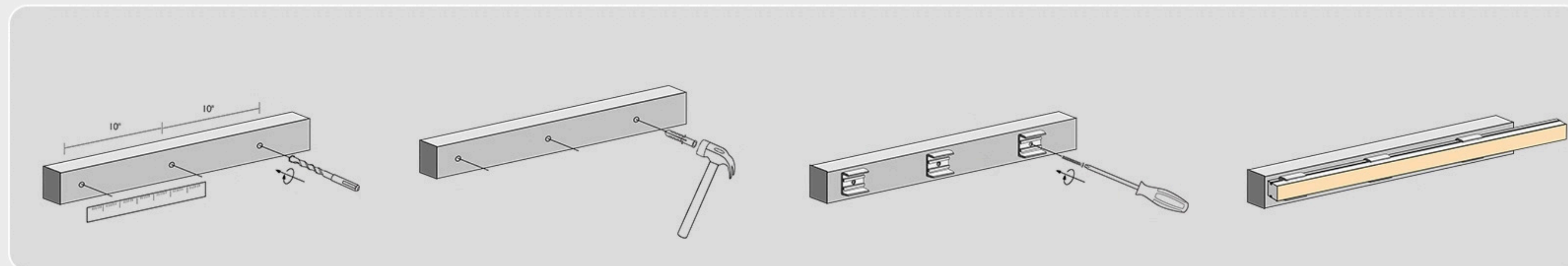


INSTALLATION METHODS

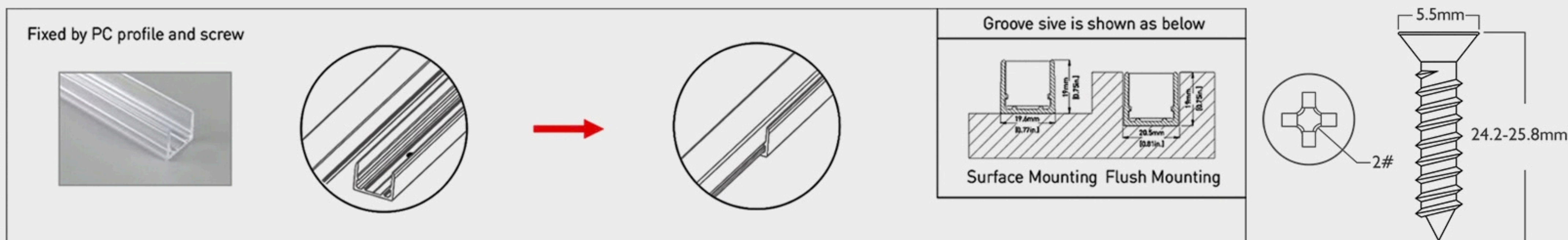
1.Fixed by bracket and screw



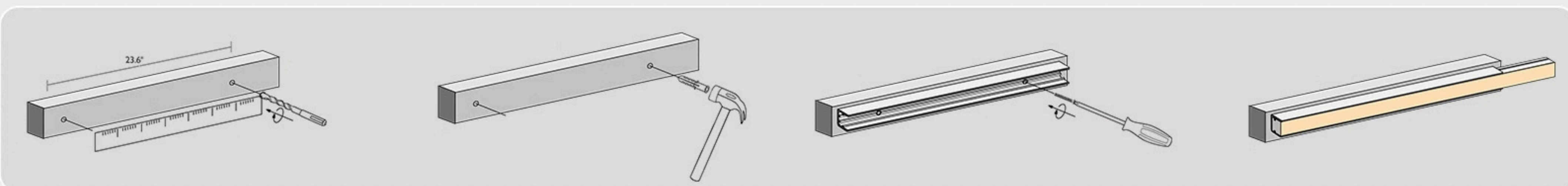
1. To install using mounting brackets, start by determining the best location for the drivers, controllers, and junction boxes.
2. Using the ruler, measure and mark placement spots for mounting brackets about 10" apart.
3. Using the drill, drill holes into the mounting surface at the previously marked placement spots.
4. With the hammer, carefully maneuver mounting anchors into the newly drilled holes.
5. Using the included screws, securely attach the mounting brackets to the mounting surface at each anchor.
6. Once the brackets have been securely attached to the mounting surface, clip and fasten the PoolGlow Neon into the mounting brackets.



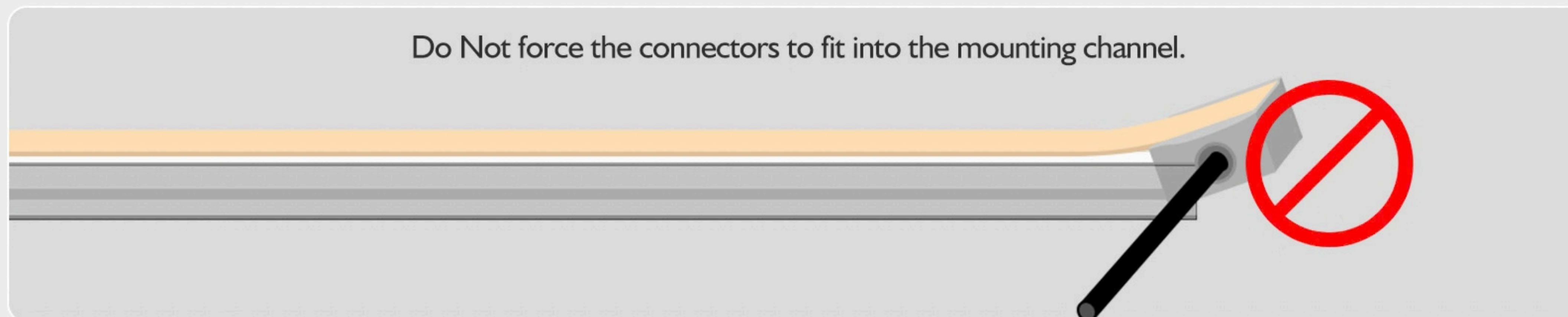
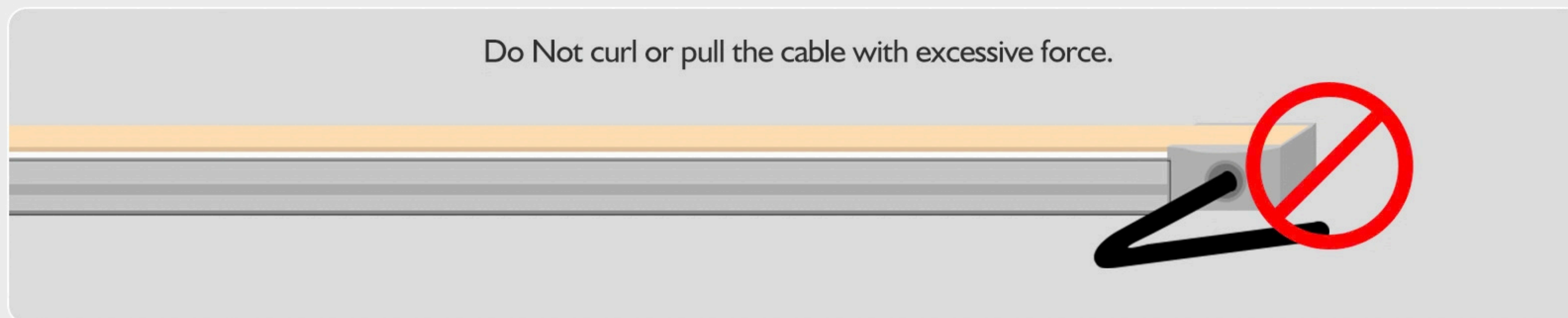
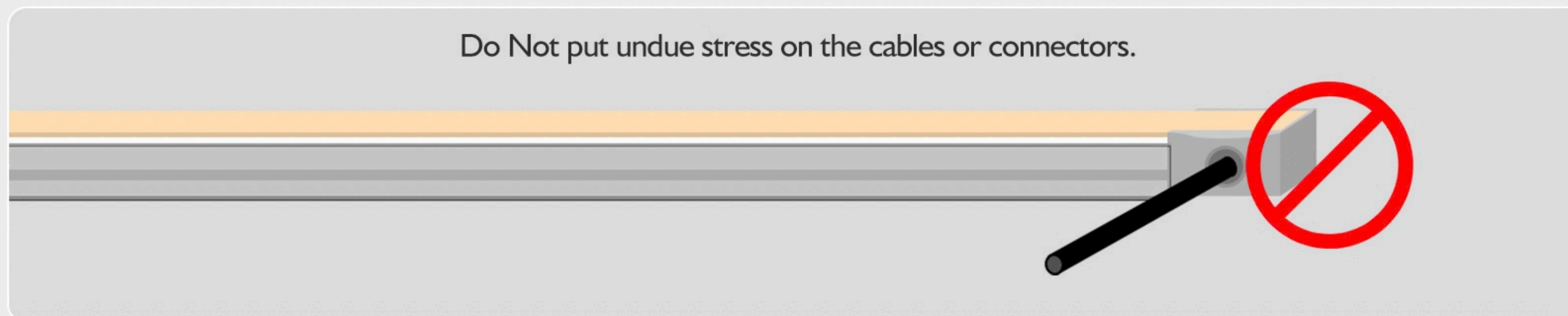
2.Fixed by PC profile and screw



- 1.To install using mounting channel, start by determining the best location for the drivers, controllers, and junction boxes.
2. Using the ruler, measure and mark placement spots for mounting channel.
3. Using the drill, drill holes into the mounting surface at the previously marked placement spots.
4. With the hammer, carefully maneuver mounting anchors into the newly drilled holes.
5. Using the drill again, drill holes directly through the extrusion along the underside of the mounting channel that line up with original holes already drilled into the mounting surface.
6. Using the included screws, securely attach the mounting channel to the mounting surface at each anchor by drilling directly through the mounting channel.
7. Once the channel has been securely attached to the mounting surface, press the PoolGlow Neon into the mounting channel and fasten it into place.
8. Use the fine tooth saw to remove any excess extrusion material.
9. If necessary, include an appropriate amount of Gorilla Glue® Max Strength Construction Adhesive Clear.



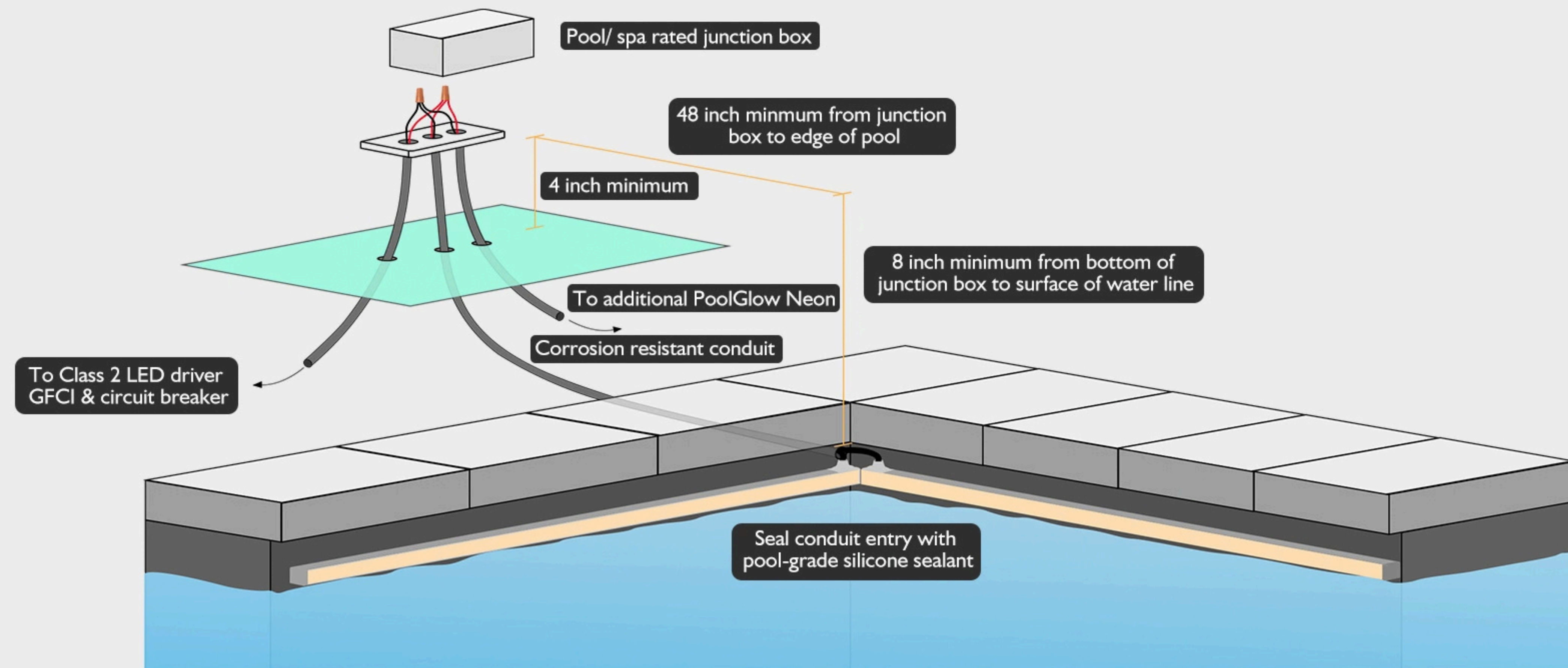
3.INCORRECT INSTALLATION



4.INSTALLATION DIAGRAM

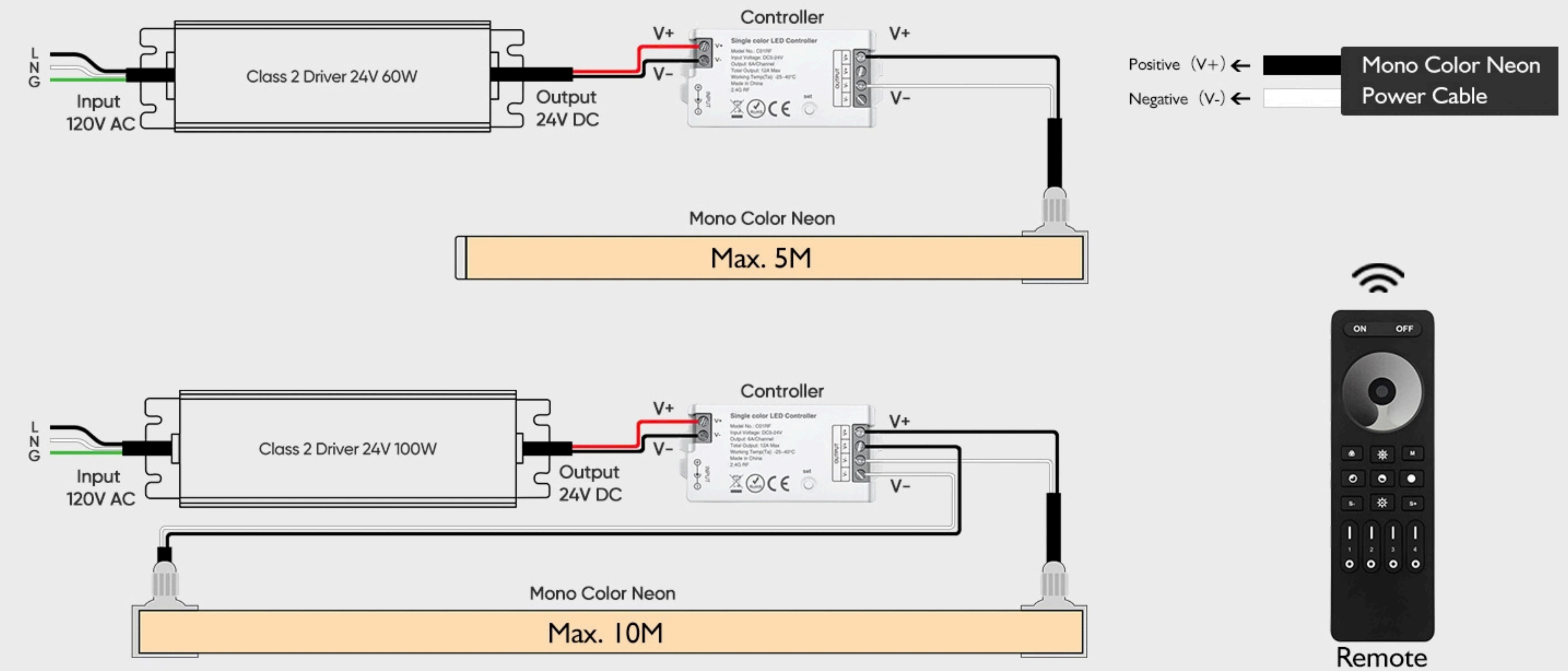
When all the luminaires have been properly mounted and installed, feed all the wires through the pools conduit and wire at junction box using the following instructions.

1. Make sure to follow best use guidelines for minimum distances as outlined.
2. Feed all wires from PoolGlow Neon through a corrosion resistant conduit to a pool/spa certified junction box.
3. Wire all cables according to wiring guide below.
4. Seal conduit in pool with pool-grade silicone sealant. For concrete pools, seal conduit entry with an appropriate amount of construction adhesive rated to bond to PVC and Polyurethane suited for the conditions of the installation.
5. DO NOT drill holes in fiberglass pools/hot tubs or vinyl-lined pools. An alternate method is to route the wire directly out of pool.



WIRING INSTRUCTIONS

MONO COLOR WIRING DIAGRAM



1.Disconnect Power

Disconnect power at the source before attempting installation or servicing of the product.

2.Choose LED Driver

Use this fixture only with a 24V DC power supply. For neon lights up to 5 meters in length, we recommend the Mean Well IP67 Class 2 60W LED driver (Model HLG-60H-24A). For neon lights from 5 to 10 meters in length, we recommend the Mean Well IP67 Class 2 100W LED driver (Model HLG-100H-24A).

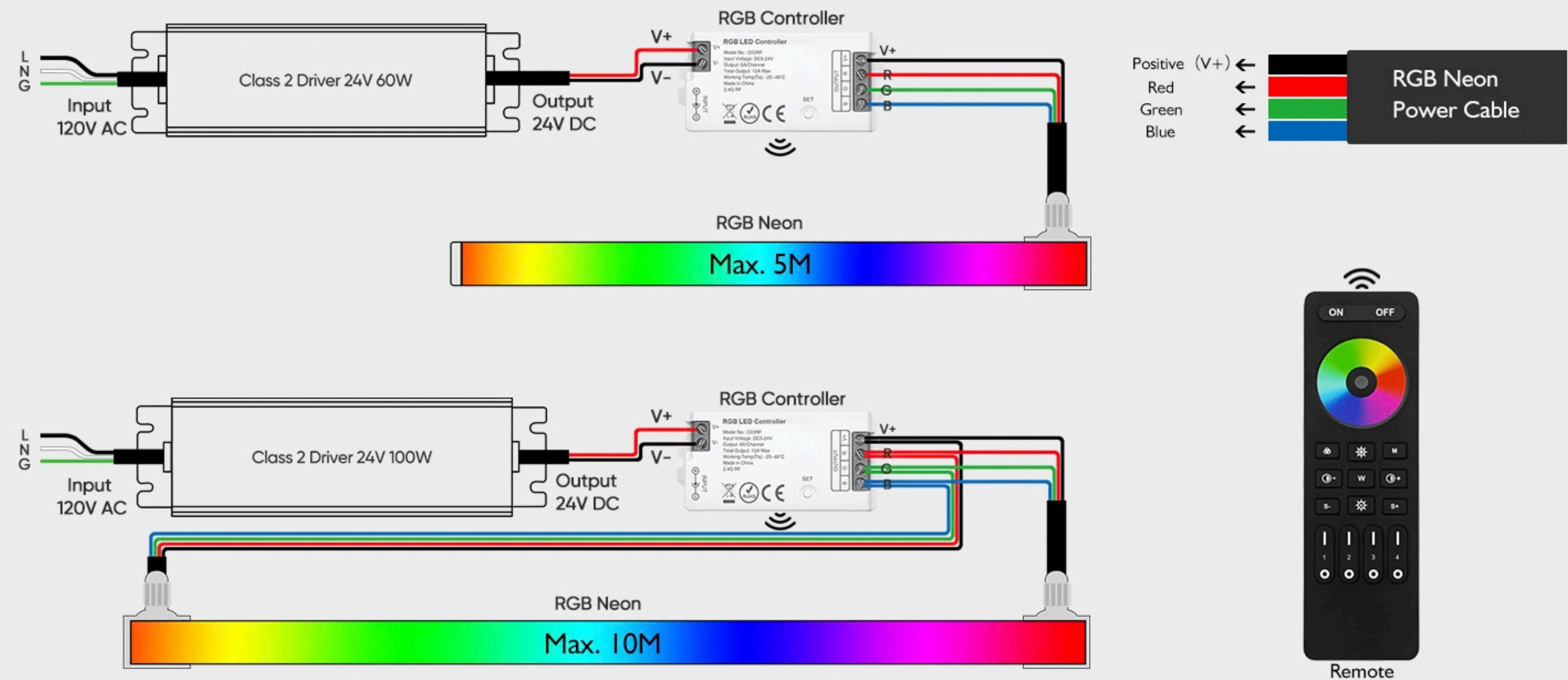
3.Choose Dimmer

Dimmer pack is optional. When using a controller/dimmer, first connect appropriate 24V DC driver to the dimmer according to the driver's instructions. We recommend the dimmer (Model C01RF) and Remote (Model RC01RFB) for this mono color neon light.

4.Connect Neon Light with Dimmer/ Driver

The mono color neon is equipped with an SJOW 18AWG 2-core power cable (outer diameter: 7.5mm). The black wire is the positive conductor, and the white wire is the negative conductor.

RGB WIRING INSTRUCTIONS



1.Disconnect Power

Disconnect power at the source before attempting installation or servicing of the product.

2.Choose LED Driver

Use this fixture only with a 24V DC power supply. For neon lights up to 5 meters in length, we recommend the Mean Well IP67 Class 2 60W LED driver (Model HLG-60H-24A). For neon lights from 5 to 10 meters in length, we recommend the Mean Well IP67 Class 2 100W LED driver (Model HLG-100H-24A).

3.Choose RGB Controller

RGB Controller pack is a must. When using a RGB controller, first connect appropriate 24V DC driver to the dimmer according to the driver’s instructions.We recommend the dimmer (Model C03RF) and Remote (Model RC03RFB) for this RGB neon light.

4.Connect RGB Neon Light with RGB Controller

The rgb neon is equipped with an SJOW 18AWG 4-core power cable (outer diameter: 8.5mm). The black wire serves as the positive conductor, while the red, green, and blue wires correspond to the red, green, and blue channels, respectively.

TROUBLESHOOTING

Trouble	Possible Cause	Solution
Lights not turning on	Incorrect wiring or polarity	Verify wiring and polarity; consult an electrician and check voltage with a voltmeter if needed.
	Poor connection at wire connection terminals	Ensure proper connection.
	Inadequate lead wire exposure	Insert leads fully and ensure adequate wire exposure.
Dead LEDs	Bent beyond minimum bending radius, damaging internal circuits	Avoid bending the strip beyond the specified minimum bending radius, and only in the correct direction.
Remote doesn’t work	Voltage drop due to long runs or improper wire gauge	Pull out the transparent insulation sheet.
	Inadequate power supply	Make sure the LED strip and power supply are compatible in wattage and voltage.
	Dimmer not set to maximum	Adjust the dimmer to its maximum brightness setting.
Lights not illuminating the right color	Incorrect wiring or connections	Take clear photos of the wiring installation (input/output connections) and email them to helpdesk@lumensdepot.com for technical support.
	Color reflections from surrounding surfaces	Assess neighboring surfaces for potential color reflections and adjust the installation as needed.
Lights flickering abnormally	Incompatible dimmer or power supply	Ensure the dimmer and power supply are compatible and properly selected for use with the LED neon strip.
Lights cycle on and off repeatedly	Incompatible dimmer or power supply	Confirm the dimmer and power supply are compatible. Verify the total wattage of connected LED strips does not exceed the driver’s capacity.