# PRODUCT MANUAL

## NeonArch 24V 90W

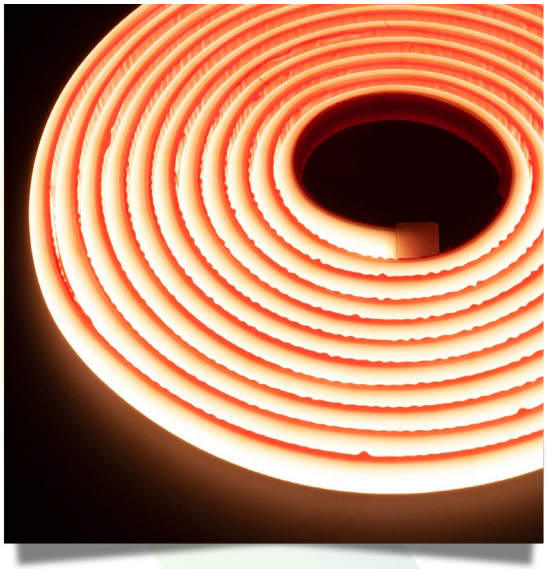
Solid Apollo™
Where light meets perfection
Toll Free. 425-582-7533
www.SolidApollo.com
info@SolidApollo.com

## Product Description

Thank you for purchasing Solid Apollo's NeonArch 24V 90W!

Solid Apollo's NeonArch is a state of the art Neon LED light simulating the effect and look of neon in a continuous well-balanced light. This next generation bendable NeonArch projects a brutally bright light offering optimum performance, energy efficiency, and effortless maintenance over traditional glass neon.

This user guide is intended to instruct and guide any user on how to properly cut the NeonArch to length, re-power with a new power cable, and completely waterproof the connection.



***NeonArch 24V 90W***

## Product Features

- 16.4ft Spool
- Flexible & Cuttable
- Top Bending
- Cut Points Every 1.3in
- Fully Dimmable
- Features a 6.6ft Waterproof Cable w/ Female Barrel Connector
- Low Voltage Product at 24V - 90W Per Spool
- Fully Waterproof, Rated at IP67
- Indoor / Outdoor Application
- Product Comes Ready to Plug & Play
- Perfect for Accent Lighting, Linear Lighting and In-Wall Lighting

## Manual Will Review

- Proper Cutting and Installation
- Waterproofing and Configuration Process
- Technical Information
- Do's and Don'ts

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# Proper Cutting and Installation

This section will guide you on how to cut the NeonArch, install a power/extension cable, and add an end cap for a complete, fully waterproof connection. Please note, for outdoor or high humidity applications, we recommend using waterproofing glue for all connections and a drying time of at least 24 hours before installing or using the NeonArch.

### Tools & Accessories Required

- Sharp Metal Scissors or Shears (for cutting Neon at cut points)
- 5g Waterproofing Glue
- Soldering Iron
- 15ft Waterproof LED Strip Extension Cable
- Cable End Cap for NeonArch 24V 90W
- Box Knife or Blade

## **Step 1:** Locate the Cut Points

The cut points on the NeonArch are located on the bottom of the light under the Ultra High Bond (UHB) tape. Place the NeonArch upside down with the UHB facing you. Peel back the protective film to reveal the distingtive small **black lines** going across the unit. These black lines are your cut points. (see Figure 1).

**Pro Tip:** The NeonArch has cut points every **1.3 inches**. If you are having a hard time seeing the Cut Points, measure 1.3 inches from the beginning of the Neon Strip, mark it with a marker and cut it from there.

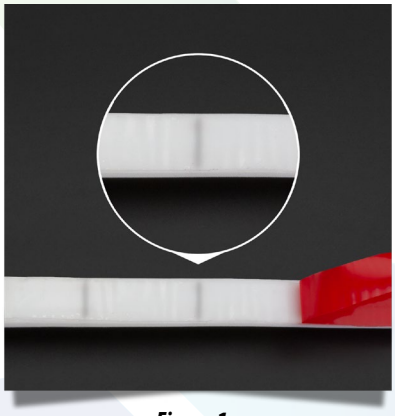

***Figure 1.***

## **Step 2:** Cutting the Cut Point

Imagine a line passing from one side of the NeonArch to the other with the center being the cut point symbol. Take either **scissors** or **shears** and line them up over the cut point as straight as you can and cut through the NeonArch (see Figure 2).

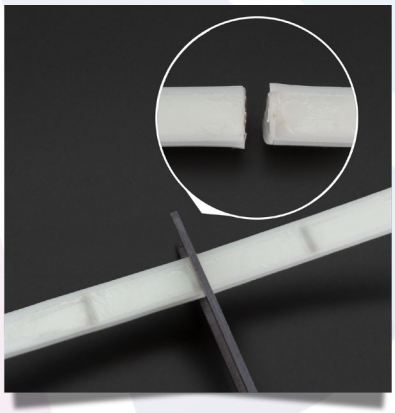

***Figure 2.***

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### **Step 3:** Exposing the Positive and Negative Contacts

Once you have made your cut, notice that the positive and negative contacts are tucked inside the NeonArch body. Grab your **box knife** or **blade** and prepare to trim.

To gain access to the positive and negative contacts, you will need to cut **1/16** of an inch off the NeonArch's sleeve or just enough until you can clearly see the positive and negative icons next to the contacts (see Figure 3).

**Please Note:** Be very careful when trimming off the sleeve. Do not cut all the way through to the strip. The NeonArch's sleeve is super soft and will only require the tip of the blade.

***Figure 3.***

### **Step 4:** Insert Cable End Cap to Cable Wire

Step 4 is one of the most important steps in the guide as it is the easiest to forget. Slide the **Cable End Cap** on to the cable wire before proceeding to the next step (see Figure 4). Failure to do this step will cause you to re-do the soldering process.

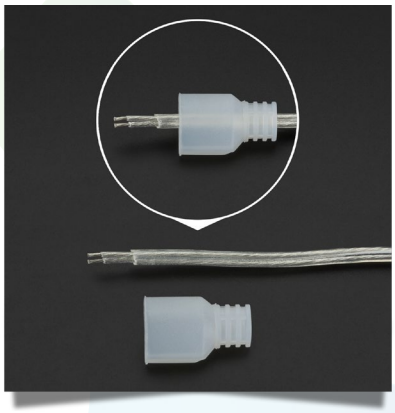

***Figure 4.***

### **Step 5:** Splicing Waterproof Cable Wires

When splicing your **Waterproof Cable** wires, be sure to cut the positive and negative wires as short as **1/8** of an inch or short enough for the main waterproof cable to be inside the Cable End Cap (see Figure 5). Leaving the positive and negative wires too long will not properly seal the connection and will cause the NeonArch to fail over time due to debris and exposure to other damaging elements. See Figure 6 for proper connection.

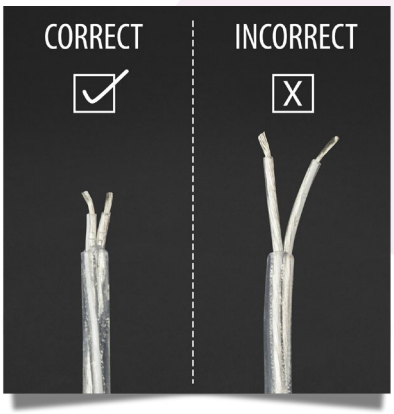


***Figure 5.***

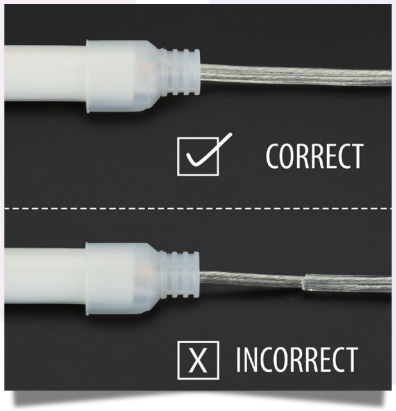


***Figure 6.***

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### **Step 6:** Soldering Positive and Negative Wires

If you are using standard power cables (red and black wires) keep in mind which contact is positive and negative when soldering your connections. On the strip, you can identify which side is positive or negative by looking for the icons corresponding to positive and negative (see Figure 7). Depending on the model of the strip the positive may be on top with negative on bottom or vice versa.

The example shown in Figure 8 utilizes Solid Apollo's 15ft Waterproof Cable which has a white strip running along the positive wire as an identifier. When using a similar cable with a barrel connector, double check you're connecting the positive wire to the positive contact and the negative wire to the negative contact to avoid a short circuit or having to re-solder.


***Figure 7.***

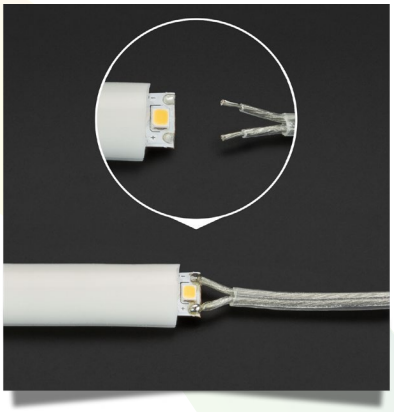

***Figure 8.***

### **Step 7:** Waterproof Seal - Cable End Cap

Before completing a waterproof seal, check first to see if your connections work. Once you've confirmed the strip properly lights, put a pinch of the 5g Waterproofing glue inside the **Cable End Cap** (Figure 9). Slide the end cap over the connection and the beginning of the strip until it's snug and you're good to go.

**Please note:** Let the unit dry for at least **24 hours** before installing or using the NeonArch.

***Figure 9.***

### **Step 8:** Waterproof Seal - End Cap

Like Step 7, check first to see if your connections work. Once you've confirmed the strip properly lights, put a pinch of the 5g Waterproofing glue inside the **End Cap** (Figure 10). Slide the end cap over the end of the strip until it's snug and you're good to go.

**Please note:** Let the unit dry for at least **24 hours** before installing or using the NeonArch.

***Figure 10.***

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## Technical Information

| | |
|---|---|
| Dimmable : | ***Yes*** |
| Minimum Cut : | ***1.3in (33mm)*** |
| Available Colors : | ***Candle Light Warm White 2400K<br>Super Warm White 2700K<br>Warm White 3000K<br>Daylight White 4000K<br>Natural White 5000K<br>Red, Green, Blue, & Amber*** |
| Total LEDs : | ***1050*** |
| LEDs per Foot : | ***64*** |
| Operating Voltage : | ***24V*** |
| Watts per Foot : | ***5.5W*** |
| Watts per Spool : | ***90W*** |
| Max Power : | ***90W*** |
| LED Type : | ***SMD 2835*** |
| Beam Angle : | ***124°*** |
| Warranty : | ***3 Years*** |
| Weight : | ***1.45lb*** |
| Size : | ***L: 16.4ft x W: 0.5in x H: 0.3in*** |
| IP Rating : | ***IP67*** |
| Working Temperature : | ***-10F to 140F*** |

## Do's and Don'ts

### Before Soldering Cable Wires to NeonArch

1. **Do** - Check the length of the positive and negative wires before soldering to avoid having to cut and re-solder the cables. Remember, if the cables are not a proper length the connection will not be waterproof sealed.
2. **Don't** - Do not forget to slide the Cable End Cap onto the cable wire first before soldering your connections (refer to Step 4).

### Proper Handling and Cutting

1. **Do -** Always double-check the cut point you are preparing to cut. Highlight it with a marker if you have to, it's better to be safe than sorry.
2. **Don't -** Keep in mind that the NeonArch is top bending (up and down) in the same direction of the light output and not side bending (left and right). Bending the NeonArch left and right horizontally could split the contacts causing the unit to fail.