

Product Description

Thank you for purchasing Solid Apollo's LED Mini Neon 60W 24V DC!

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

The LED Mini Neon comes custom ready to fit almost any lighting project. This user guide is intended to instruct & guide anyone on how to properly cut the LED Mini Neon to length, re-powering it with a new power cable and completely waterproof the connection.



LED Mini Neon 60W 24V DC

Product Features

- Brutally Bright and Fully Dimmable
- 20ft Spool
- Cut Points Every 2in
- Flexible and Cuttable
- Features a 6.6ft Waterproof Cable w/ Female Barrel Connector
- Low Voltage Product at 24V - 60W Per Spool
- Fully Waterproof, Rated at IP65
- Indoor / Outdoor Application
- Product Comes Ready to Plug & Play
- Waterproof IP68 Female XLR Cable Included
- Perfect for In-Wall Installations and Long Linear Lighting

Manual will Review

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

Proper Cutting and Installation

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

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 LED Mini Neon 60W 24V DC
- Box Knife or Blade

Step 1: Locate the Cut Points

Look on both sides of the Mini Neon strip and find the side that has a thin transparent line in the middle of the strip. The transparent line will be your guide to seeing where the Cut Points are located.

Within the transparent lines you will see a distinctive small **black line**. That black line is your cut point, see Figure 1.

Pro Tip: The LED Mini Neon has cut points every **2 inches**. If you are having a hard time seeing the Cut Points, just measure 2 inches from the beginning of the Neon Strip, mark it with a marker and cut it from there.

Step 2: Cutting the Cut Point

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



Figure 1.

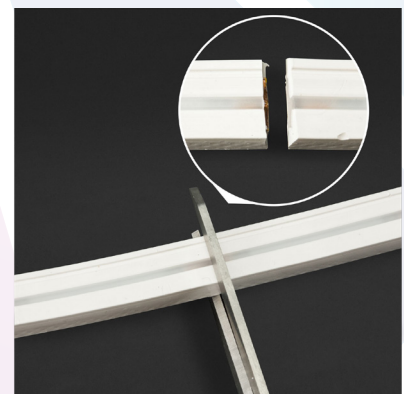


Figure 2.

Step 3: Exposing the Positive & Negative Contacts

Once you have made your cut, notice that the positive and negative contacts are tucked inside the Mini Neon Strip. 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 Mini Neon's sleeve or just trim enough off the Mini Neon's sleeve until you see the positive and negative contacts, or until you clearly see the positive and negative icons next to the contacts (see figure 3).

Please Note: Be very careful when trimming off the sleeve and to not cut through all the way to the strip. Slice gently, the LED Mini Neon's sleeve is super soft that you just need to slightly use the tip of the blade.

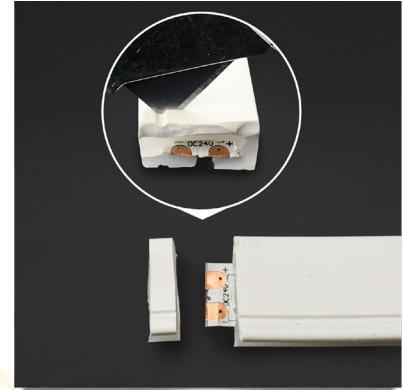


Figure 3.

Step 4: Insert Cable Endcap 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 Endcap** 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.

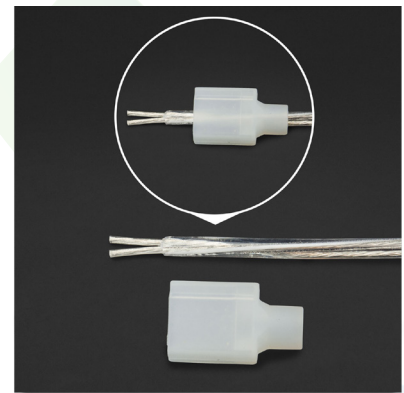


Figure 4.

Step 5: Splicing Waterproof Cable Wires

When splicing your **Waterproof Cable** wires, please keep in mind to cut the positive and negative wires as short as **1/8** of an inch or short enough length for the main waterproof cable to be inside the Cable Endcap (refer to figure 5). Leaving the positive and negative wires too long will not properly seal the connection and will cause the LED Mini Neon to fail over time due to debris and other chemical, see figure 6 for proper connectivity.



Figure 5.

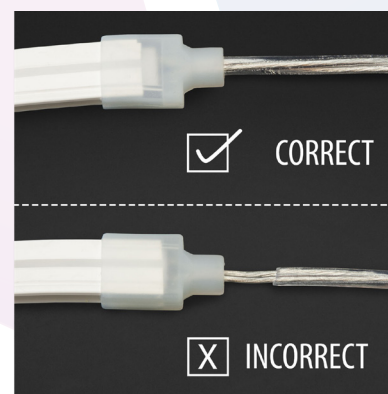


Figure 6.

Step 6: Soldering Positive & Negative Wires

If you are using the standard power cables (Red & 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). The positive icon is located below the bottom contacts and the negative icon is located above the top contact.

The example shown in figure 8 is using Solid Apollo's 15ft Waterproof Cable. You do not necessarily have to know which contact to solder to as it comes with a female barrel connector. But if you do have to put a female barrel connector on, you'd have to know which cable went to each contacts.



Figure 7.

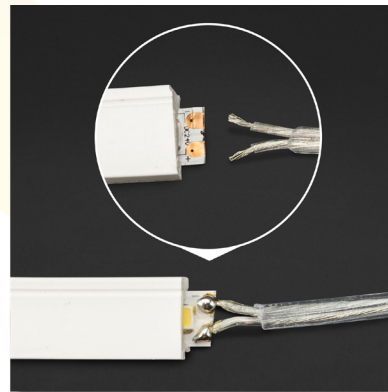


Figure 8.

Step 7: Waterproof Seal - Cable Endcap

Before proceeding in waterproof sealing it, check first to see if your connections work. Once everything is confirmed working, grab your 5g Waterproofing glue and put a pinch of glue inside the **Cable Endcap** (refer to figure 9). Slide it all the way until you feel it's snug and you're good to go.

Please note to at least wait **24 hours** for drying time before installing or using the LED Mini Neon.

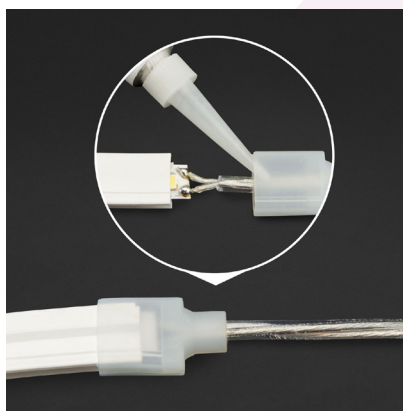


Figure 9.

Step 8: Waterproof Seal - Endcap

Just like Step 7, once everything is perfect. Grab your 5g Waterproofing glue and put a pinch of glue inside the **Endcap** (refer to figure 10). Slide it all the way until you feel it's snug and you're good to go.

Please note to at least wait **24 hours** for drying time before installing or using the LED Mini Neon.

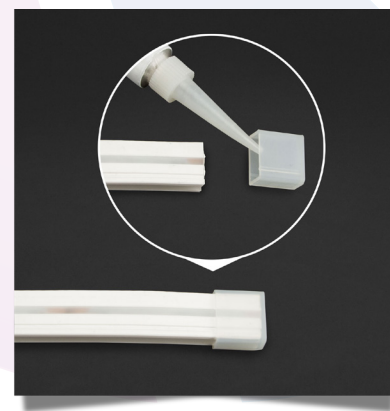


Figure 10.

Technical Information

Dimmable : **Yes**

Minimum Cut : **2in (50mm)**

Available Colors : **Candle Light Warm White 2400K**
Super Warm White 2700K
Warm White 3000K
Daylight White 4000K
White 6000K
Red, Green, Blue & Amber

Total LEDs : **720**

LEDs per Foot : **36**

Operating Voltage : **24V**

Watts per Foot : **3W**

Watts per Spool : **60W**

Max Power : **60W**

LED Type : **SMD 2835**

Beam Angle : **120°**

Warranty : **3 Years**

Weight : **1.55lb**

Size : **L: 20ft x W: 0.25in x H: 0.50in**

IP Rating : **IP65**

Product Color : **Clear and White Housing**

Working Temperature : **-10F to 140F**

Do's and Don'ts

Before soldering Cable Wires to LED Mini Neon.

1. **Don't** - Do not forget to slide the Cable End Cap first into the cable wire before soldering your connections (refer to Step 4).
2. **Do** - Check the length of the positive and negative wires before soldering, otherwise you'd have to cut and re-solder the cables. Furthermore, if the cables are not in proper length it will not be waterproof sealed.

Proper Handling and Cutting.

1. **Do** - Always double-check the cut point that you are cutting. Mark it with a marker if you have to, its better to be safe than sorry.
2. **Don't** - Keep in mind that the LED Mini Neon is designed to bend convex (left to right) and not lateral (up and down). Bending the LED Mini Neon laterally could possibly split the contacts causing it to fail. If you do have to adjust the LED Mini Neon off the brackets for example, pull it off the brackets gently.