Product Description

The Waterproof LED Strip Lights come ready for customization to fit even the most intricate lighting projects where humidity or outdoor conditions are a concern. This user guide is intended to instruct anyone on how to find and cut through a cut point, then make a connection, whether for a bend or jump to another piece of strip, and also how to add an end cap to complete the waterproofing process.

This user manual can also be used when extra strip light needs to be added to an existing installation, or when an unexpected bend or jump is required. Basically every part of making a fully waterproof and long lasting installation is covered in this user manual.

Solid Apollo LED Configuration Service:

Solid Apollo LED can also configure any strip to fit your installation, so when the strip light arrives its ready for installation right out of the box. We can provide help by soldering, adding interconnectors, and adding end caps. If you would like to know more, please call or email using the contact information at the top right of this page.

This manual reviews:

- Entire waterproof and configuration process
- How to find a cut point and cut through a cut point
- How to clean and prepare the strip
- Where to correctly tin and solder the wires
- How to add glue and completely seal the strip light from the elements
Installation

This manual will show you how to modify waterproof low voltage LED strip light to fit almost any installation. The sections will cover correctly cutting the strip, adding short and long extension wires, and an end cap to complete the configuration for a fully waterproof seal. All low voltage LED strip can only be powered in either direction. Please note, for outdoor or high humidity applications, we recommend using waterproofing glue for all connections (as noted in instructions), and we recommend at least 24 hours of drying time before installing or using the strip.

Tools Required:
- Sharp Metal Scissors or Shears
- Knife or Box Cutter
- Paper Towels (for excess glue)
- Soldering Iron
- Solder
- Wire Strippers

Warning: Light Strip must be unplugged when any modifications are performed. Electrical current is Dangerous and may cause electrical shock, injury, and in some cases death.

Cutting the Strip:

Each strip has cut points located every several inches. Please refer to the specifications listed on the Solid Apollo website for your exact cut point location by using the SKU number on the invoice or packaging received. Refer to the diagrams below for the cut point symbol on each strip.

Types of Strip Light Cut Points:

<table>
<thead>
<tr>
<th>Single Color Strip Light (2 Copper Pads)</th>
<th>Color Changing RGB Strip Light (4 Copper Pads)</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Single Color Strip Light Diagram]</td>
<td>![Color Changing RGB Strip Light Diagram]</td>
</tr>
<tr>
<td>Cut through middle of copper pads on the thin black line</td>
<td>Cut through middle of copper pads on line with scissors symbol</td>
</tr>
</tbody>
</table>

Warning: Any tool with a blade is dangerous, and caution is advised when handling any blade. Please make sure hands and fingers are kept at least several inches away from any blade and are not placed in the direction of the blade.

Find the cut point on the strip. Imagine a line passing from one side of the strip 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 and cut through the strip.
At the end of the strip, a portion of the plastic cover needs to be removed so the copper solder pads can be used. Use a knife or box cutter to carefully remove a portion of the plastic cover. Only remove enough material to completely expose the copper solder pads. Also scrape lightly on the copper pads to make sure no plastic material is left on the pads. If any plastic is left it will be difficult to adhere solder to the copper pads.

**Correct:**
- Plastic cover clears the copper solder pad.
- Plastic cover has been removed around entire strip.

**Incorrect:**
- Plastic cover is covering part of the copper solder pad.
- Plastic cover has not been removed on bottom of strip.

Begin the soldering process by tinning the solder pads. Using a solder iron and solder, add a small round puddle of solder on top of each copper solder pad. Be careful not get solder on the white strip light material.

Take the end cap, and using a knife or box cutter, pierce a small hole on the back of the end cap. The hole needs to be large enough for the wires to pass through.
Take the wires and cut it to the desired length. Please note a portion of the wire will be on the copper solder pads, so extra length will be required. Insert the wires through the hole in the back of the end cap. The end cap must face in the correct direction so it can slide over the strip light after the soldering process is complete. Take one wire at a time and prepare them for soldering. Use a wire stripper to remove the plastic cover and then braid the exposed wire ends. Using the Soldering Iron, tin the braided wire ends by adding a small amount of solder on the exposed braided wire end. This will help the wire attach during soldering. Repeat this for each of the wires used.

**CORRECT:**
- Wires pass through back hole
- Front of end cap faces strip

**INCORRECT:**
- Wires incorrectly pass through front of end cap
- Back of end cap incorrectly faces strip

Take the wires and use the soldering iron to attach them to the strip. Make sure the wires match the correct polarity. We recommend doing one wire at a time. Using the soldering iron, carefully heat up the solder puddle on the LED strip then slide the wire into the puddle. Remove the soldering iron once the wire has been inserted, and hold the wire in place for 4 seconds. Lightly tug on the wire to make sure it will not pull out. If it does pull out, repeat this step.
Repeat the connection process for the other strip being attached. Repeat steps 2 through 6 to attach the other strip.

Now test the strip to make sure the lights on both strips work by plugging in the power supply into the wall outlet. **Warning:** If the end of the strip has no end cap (strip not sealed) make sure it does not touch any conductive material or electric shock or injury could occur. The lights should now come on. If the lights after the connection do not come on, check the polarity of the wires match the symbols on the strip (such as + to +). If any are any backwards connections, use the soldering iron to melt the solder and repeat the wire attachment process. Also make sure the end cap stays on the wire and in the correct orientation noted in step 5.

The test phase is now complete and the final waterproofing can be done. Take the silicone glue and fill the end cap half way with glue. Then place a small puddle of glue where the wires connect to the strip. Pull the end cap over the end of the strip light until it seats over the strip. Some excess glue will come out. Wipe this glue around end cap opening and then wipe the any left over glue on a paper towel. If an end cap is required, please go to the next section. If no further modifications to the strip are necessary, then the strip needs to dry before installation. We recommend at least 24 hours of drying time to ensure the glue fully cures.

When configuration is complete, we recommend at least 24 hours of drying time before installing or using the strip. Be careful when handling strip while it is drying, as connections could come apart. We recommend taping the connections if the strip needs to be handled multiple times during configuration.
Adding an End cap:
In this section you will learn how to add an end cap to seal the end of the strip light.

1. Take the end cap and fill it half way with silicone glue. Insert the end cap on the end of the strip until the inner back wall of the end cap is touching the end of the strip. Sometimes the end cap has to be wiggled from side to side so the back wall of the end cap touches the end of the strip.

2. Extra glue usually comes out at the connection. Take your finger and wipe the excess glue all the way around the connection point. Wipe extra glue onto the paper towel.

   For drying, we recommend at least 24 hours of drying time before installing or using the strip.

3. The configuration is now complete and ready for use.

If you have any further questions, please contact us by phone or email using the contact information at the top right of this page.