Solid Apollo LED
Where light meets perfection

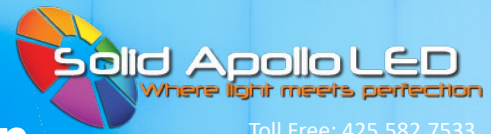## Driverless COB LED Strip Light Manual

WARNING

This LED light strip requires precise handling to successfully complete modifications. Soldering is required. It is recommend ONLY certified electricians attempt to modify this product.

This product is cut to size and is non-refundable. Failure to correctly modify the strip as outlined in the following manual will void any warranty.

Please contact us at 425.582.7533 or info@solidapollo.com with questions or concerns before modifying the strip.

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Email: info@solidapollo.com
www.SolidApollo.com

Product Description

The Driverless COB LED Strip Lights come ready for customization to fit almost any lighting project. This user guide is intended to instruct anyone on how to repower Driverless COB Light Strips, add interconnectors, and an end cap.

This user manual can be used when extra strip light has been left over from an installation or if extra strip light needs to be added, or during an installation where unexpected gaps or jumps are now required. Basically every part of making a fully waterproof and long lasting installation is covered in this user manual.
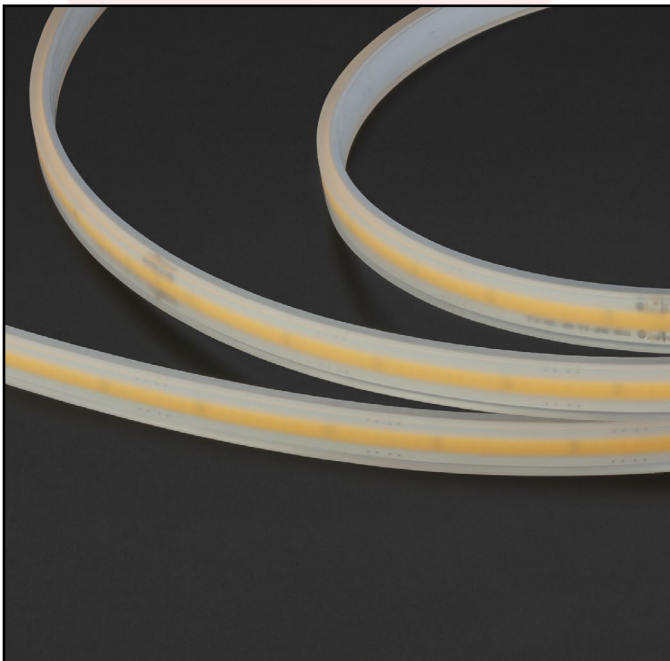
Main Functions:

Power Connector: For repowering a piece of strip light
Interconnector: Used for jumps and bends needed in an installation
End cap: For adding a durable waterproof seal to the end of strip light

This manual reviews:

- Entire waterproof and configuration process
- How to add a power connector
- How to install an interconnector
- How to add the end cap

COB Driverless Light Strip

USER MANUAL
Driverless COB Strip Light Configuration

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Installation

This section will show you how to cut the strip, add a power connector to the strip, install an interconnector, and add an end cap to complete the configuration for a fully waterproof seal. **All driverless strip can only be powered in one direction.** When cutting strip, try to keep track of which end is cut. 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 (for cutting strip at cut points)

X-Acto Blade or Razor (for stripping silicone)

Quality Fine Tipped Soldering Iron Kit (for securing connections)

Waterproofing Compound (for sealing cut points)

Paper Towels (for cleaning excess compound)

Warning: Light strip must be unplugged when any modifications are performed. 120V AC Current is dangerous and may cause electrical shock, injury, and in some cases death.
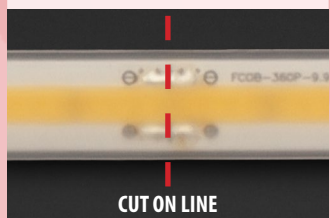
Cutting the Strip:

Each strip has cut points every 9.84". Refer to the diagrams below for the cut point symbol on each strip.

Types of Driverless Strip Cut Points:

Single Color

Standard Brightness
(3528 2-Prong)

FCOB-360P-9.9

CUT ON LINE

Cut **ON** vertical line

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 path of the blade.

1. Find the cut point on the strip. Imagine a line passing across the strip aligning with the cut line on the strip. Line up scissors or shears to the cut line and cut through the strip.
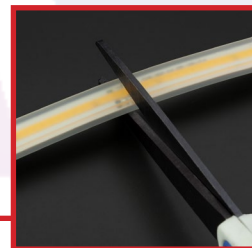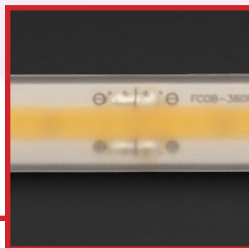
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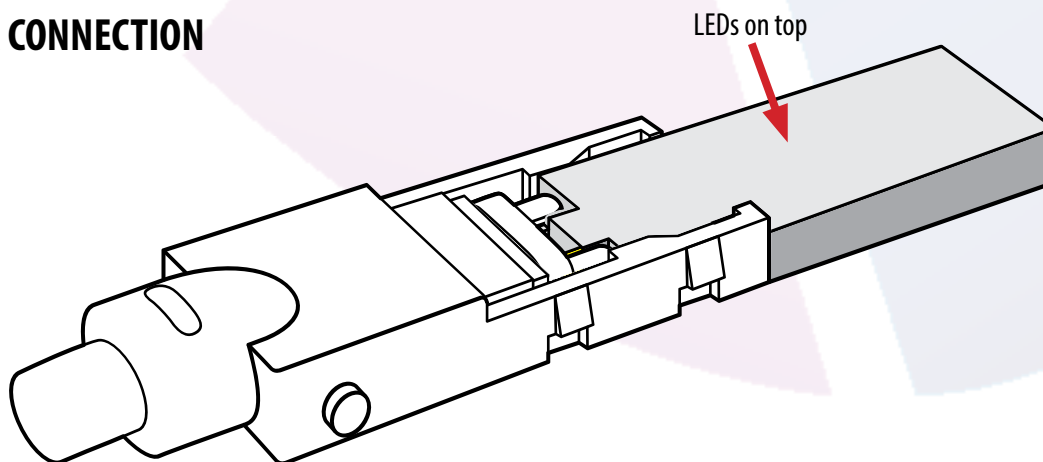
Driverless COB Strip Light Configuration

Connector Orientation:

The orientation between the prongs and the connector must match for correct installation. The flat end of the prong can only be inserted into the strip light. The barrel end (non-flat end) of the prong can only be inserted into the connector. The round bracket edge must always be facing up. In this orientation the LEDs will always be on top and visible when installed correctly.

CORRECT ORIENTATION
FOR INSTALLATION

LEDs on top

flat ends

barrel ends

STRIP LIGHT
(can only be powered in one direction)

PRONG
(can only be used in one direction)

CONNECTOR

round bracket edge facing up

LEDs on top

round barrel ends insert into connector

flat ends insert into trimmed strip
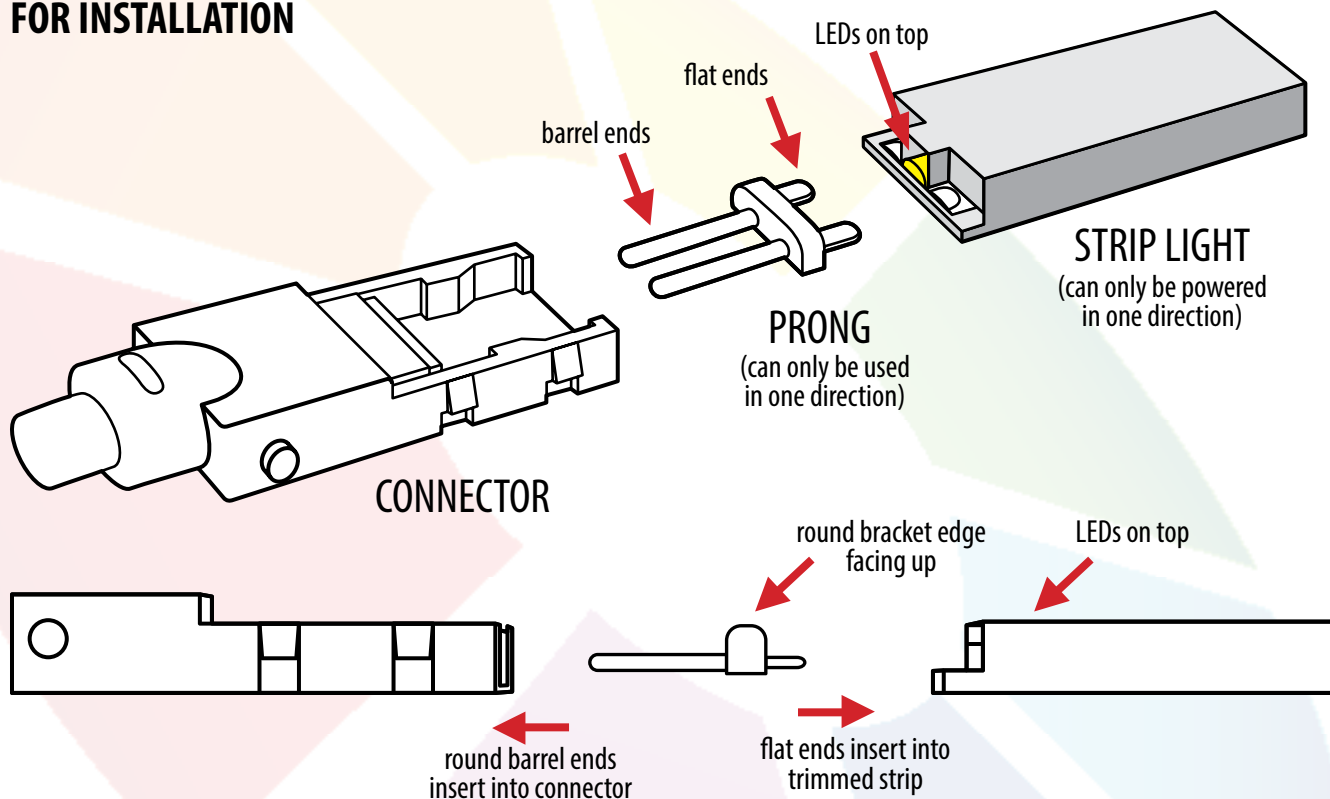
CORRECT ORIENTATION
AFTER CONNECTION

LEDs on top

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Driverless COB Strip Light Configuration

Pictures of Correct Connector Orientation

Driverless COB Single Color (2-Prong)	Rounded end facing up LED output facing up

Long, round end into connector

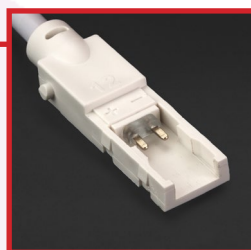Short, flat end into strip

PRONG BARRELS ON BOTTOM   PRONGS ON BOTTOM
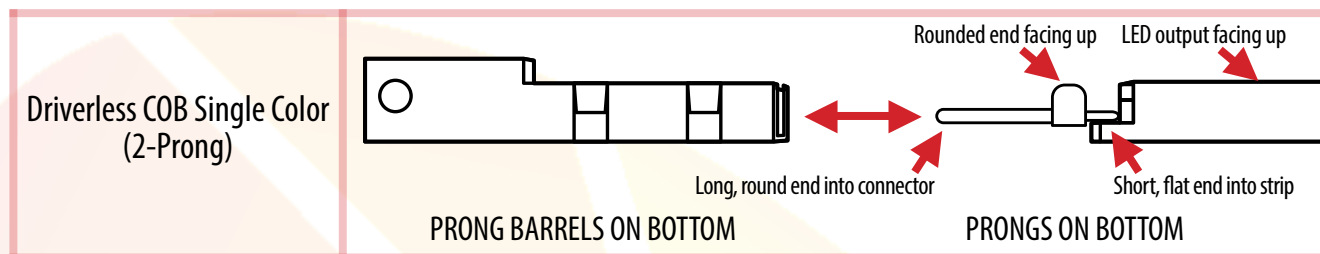
Stripping and Powering the Strip:

In this section you will learn how to add the power connector to any cut point on the strip.

1   First, the components need to be tested to confirm they work before adding any glue. The strip light can only be inserted in to the power connector in one direction. Double check the positive and negative symbols on the connector head match the positive and negative symbols on the LED strip.

2   Insert the prong piece into the connector head in the correct orientation. The prongs will slide into the small barrels inside the connector head and the plastic bracket will rest against the unit.

CORRECT: ✔

Long round prongs into connector head, rounded plastic bracket edge facing up

INCORRECT: ✘

Prong upside down, rounded plastic bracket edge facing down
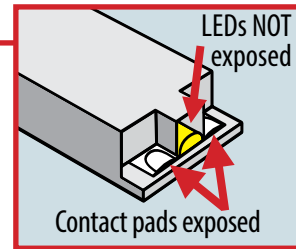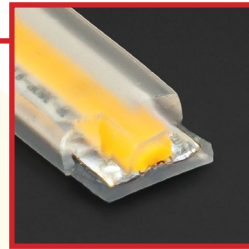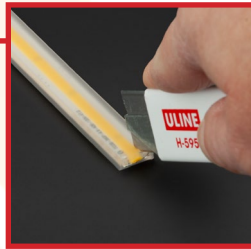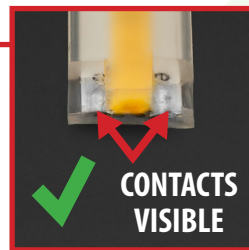
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Driverless COB Strip Light Configuration

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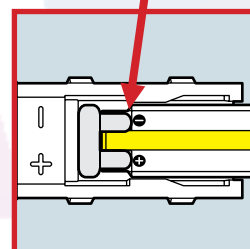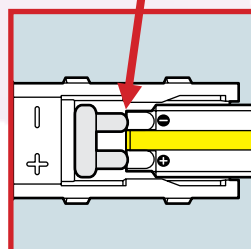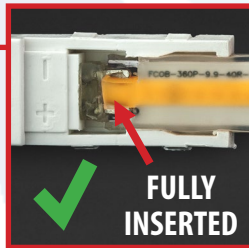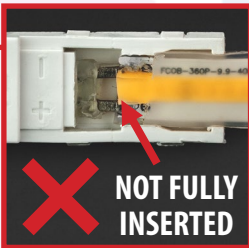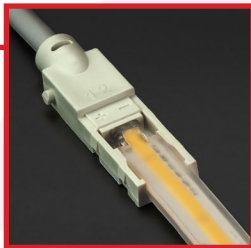Driverless COB Strip Light Configuration

3 Using a sharp blade **CAREFULLY** strip the silicone away from the contacts. Take care not to cut through the printed circuit board (PCB) or the yellow phosphor strip coving the LEDs. **CAUTION: Cutting the PCB or phosphor strip may cause malfunction or expose the diodes under the phosphor which will void the unit's warranty.**

LEDs NOT exposed

Contact pads exposed

4 Using an edged tool, gently remove any remaining silicone covering the contact pads taking care not to damage the contacts.

✕ CONTACTS OBSCURED

✓ CONTACTS VISIBLE

5 Line the stripped end of the strip up to the connector head with the installed prong piece making sure the positive and negative contacts align with the positive and negative symbols on the connector head. Firmly insert the strip so the prongs sit atop the contacts and the strip rests against the plastic bracket of the prong piece. Double check that the strip is **FULLY** inserted. The connector head creates a tight fit and the strip will require deliberate effort to fully insert.

✕ NOT FULLY INSERTED

✓ FULLY INSERTED

...continued on next page

USER MANUAL
Driverless COB Strip Light Configuration

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5 Take the plug on the power connector and connect it into the wall outlet. **WARNING: The prongs inserted in the connector head and the opposite end of the strip have not been sealed and must not touch any person or conductive material. Electric shock, injury, or death may occur.** If the lights turn on, the prongs and strip were inserted correctly. If the lights do not come on, the strip may not be inserted fully, there may still be silicone obscuring the contacts, or the prongs may not be making a complete connection with the contacts.
NOTE: Step 6 (soldering) may, but is not guaranteed to solve connection issues. Please note you proceed at your own risk and may void your warranty if your lights are improperly installed.


6 Unplug the power connector from the wall outlet. Secure your connections by soldering the prong piece and contact pads. Using a quality, fine tipped soldering iron set to 600°F (315°C) secure the connection between the prongs and contacts taking care not to burn any of the materials.
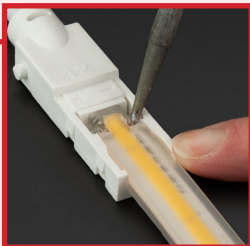
7 Using the waterproof silicone compound, fill the gap between the LED strip and the plastic bracket of the prong piece. Attach the arms of the connector head cover to the knobs on the connector head. Push the cover down until it clicks and locks in place. Use a paper towel to remove any excess silicone that may squeeze out from under cover.
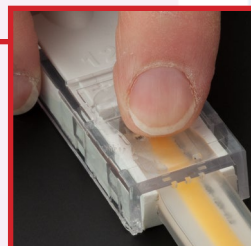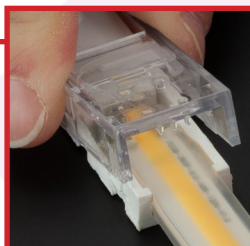
Do not forget to add an end cap to the other end of the strip. Failure to do so may cause electric shock, injury, or death and leave the strip non-waterproofed which will void the warranty.

When configuration is complete, we recommend at least 24 hours of drying time before installing or using the strip. Be careful when handling the 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.

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Installing an Interconnector:

In this section you will add an interconnector to any cut point on the strip allowing you to navigate obstacles that may be present at the installation site.

INTERCONNECTOR

Interconnector: Used for jumps and bends, such as going around corners and tying two strips together over a distance.

1 First, the components need to be tested to confirm they work before adding any glue. The strip light can only be powered from one end. If an extra piece of strip needs to be cut follow the cutting guide on page 2, otherwise skip to step 2.
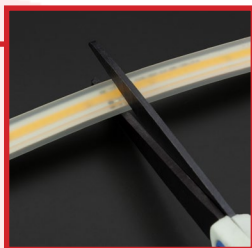
2 Insert the prong pieces into the connector heads in the correct orientation. The prongs will slide into the small barrels inside the connector head and the plastic bracket will rest against the unit.

CORRECT: ✔

Long round prongs into connector head, rounded plastic bracket edge facing up

INCORRECT: ✘

Prong upside down, rounded plastic bracket edge facing down

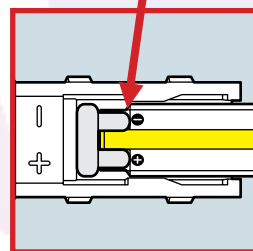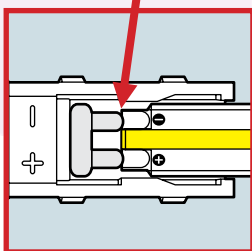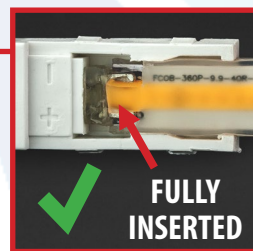# USER MANUAL
Driverless COB Strip Light Configuration

3 Using a sharp blade **CAREFULLY** strip the silicone away from the contacts on both strips to be connected. Take care not to cut through the printed circuit board (PCB) or the yellow phosphor strip coving the LEDs. **CAUTION: Cutting the PCB or phosphor strip may cause malfunction or expose the diodes under the phosphor which will void the unit's warranty.**

LEDs NOT exposed

Contact pads exposed

4 Using an edged tool, gently remove any remaining silicone covering the contact pads taking care not to damage the contacts.

✗ CONTACTS OBSCURED

✓ CONTACTS VISIBLE
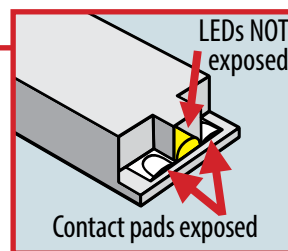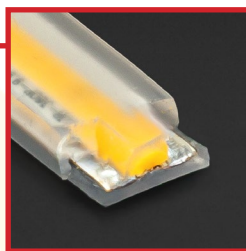
5 Line up the stripped end of the first strip you wish to connect to the connector head with the installed prong piece making sure the positive and negative contacts align with the positive and negative symbols on the connector head. Firmly insert the strip so the prongs sit atop the contacts and the strip rests against the plastic bracket of the prong piece. Double check that the strip is **FULLY** inserted. The connector head creates a tight fit and the strip will require deliberate effort to fully insert.

✗ NOT FULLY INSERTED

✓ FULLY INSERTED

USER MANUAL
Driverless COB Strip Light Configuration

6 Line up the stripped end of the second strip you wish to connect to the remaining connector head with the installed prong piece. **NOTE: The positive and negative symbols on the connector head MAY NOT match up the actual power flow.** Follow the power flow from the strip inserted in the previous step (ie. if the positive side of the first strip is in the top terminal, put the positive side of the second strip in the top terminal as well, even if symbol on the connector head is negative). Firmly insert the strip so the prongs sit atop the contacts and the strip rests against the plastic bracket of the prong piece. Double check that the strip is **FULLY** inserted. The connector head creates a tight fit and the strip will require deliberate effort to fully insert.

❌ **NOT FULLY INSERTED**

✔ **FULLY INSERTED**
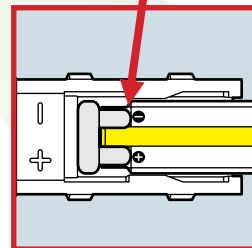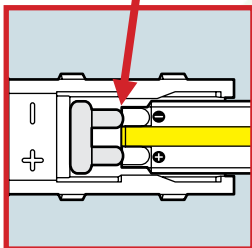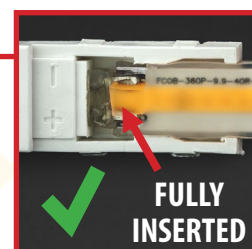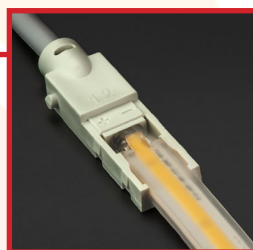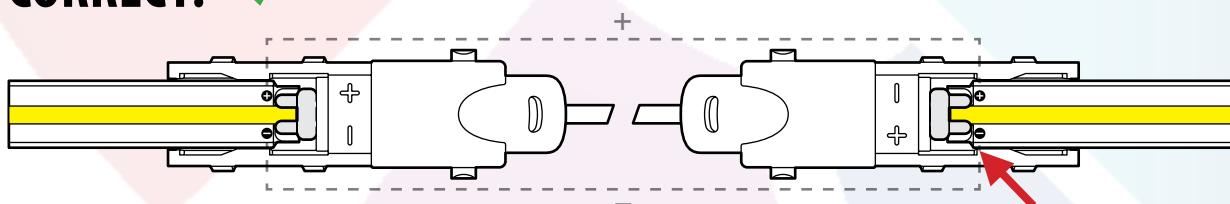
CORRECT: ✔

Strip is aligned to the power flow of the previous strip **NOT** the symbols on the connector head

INCORRECT: ❌

Strip is aligned to the symbols on the connector head **NOT** the power flow of the previous strip

Page 9

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Driverless COB Strip Light Configuration
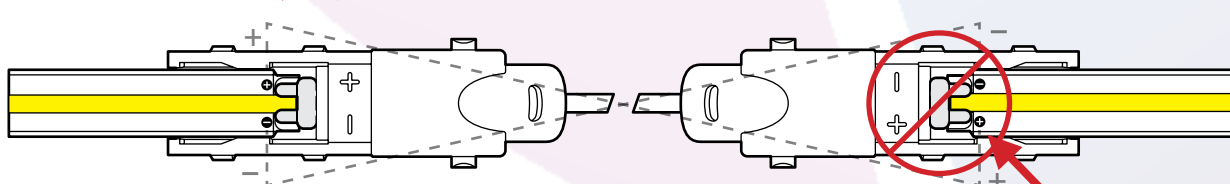
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7 Take the plug on the power connector and connect it into the wall outlet. **WARNING: The prongs inserted in the connector heads and the ends of any cut strip pieces have not been sealed and must not touch any person or conductive material. Electric shock, injury, or death may occur.** If the lights turn on, the prongs and strips were inserted correctly. If the lights do not come on, the strips may not be inserted fully, the contacts may still have silicone obscuring the contacts, or the prongs may not be making a complete connection with the contacts.
NOTE: Step 8 (soldering) may, but is not guaranteed to solve connection issues.
Please note you proceed at your own risk and may void your warranty if your lights are improperly installed.

8 Unplug the power connector from the wall outlet. Secure your connections by soldering the prong pieces and contact pads. Using a quality, fine tipped soldering iron set to 600°F (315°C) secure the connection between the prongs and contacts on both strips taking care not to burn any of the materials.
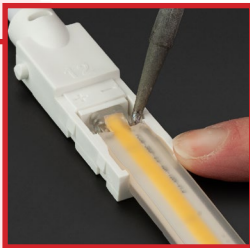
9 Using the waterproof silicone compound, fill the gap between the LED strip and the plastic bracket of the prong piece in both connector heads. Attach the arms of the connector head covers to the knobs on the connector heads. Push the covers down until they click and lock in place. Use a paper towel to remove any excess silicone that may squeeze out from under the covers.
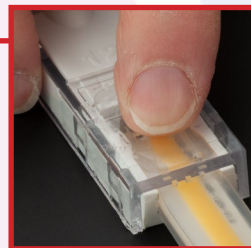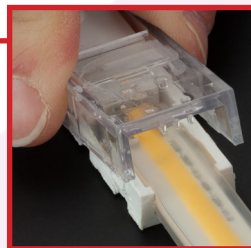
Do not forget to add end caps to any cut ends of the strip. Failure to do so may cause electric shock, injury, or death and leave the strip non-waterproofed which will void the warranty.

When configuration is complete, we recommend at least 24 hours of drying time before installing or using the strip. Be careful when handling the 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.

End Cap

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.
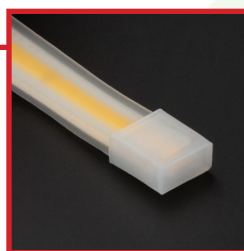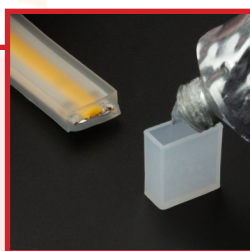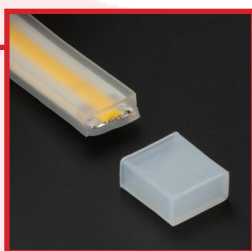
2 Excess glue usually comes out at the connection. Use a paper towel to wipe away the excess glue all the way around the connection point.

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.