

# Indoor LED COB Ribbon

## Diffusion LED Strip



### Important

- Use only with approved Diffusion low voltage 24V DC power supplies.
- Do not stare directly into the LED lights when illuminated.
- Do not power the LED ribbon on while it's coiled on a reel.
- Always check polarity for 24V connections, positive (+) to positive and negative (-) negative.
- Do not install indoor versions in areas that are exposed to the elements.
- Route and secure wires so they will not be pinched or damaged.
- Do not install class 2 low voltage wiring in the same runs as AC main power. If AC and low voltage wires cross, keep them at 90 degree angles, if they are running parallel to each other keep them at least six inches apart.
- Warning do not connect LED ribbon light directly to 120V AC power. Only connect to an approved low voltage 24V DC driver.

**\*All wiring must be in accordance with national and local electrical codes, low voltage class 2 circuit. If you are unclear as to how to install and wire this product please contact a qualified professional.\***

### Recommended Planning

- Decide where you are going to place the power supply
- How are you going to switch your LEDs, will you use a dimmer?
- Plan the best layout configuration for your particular installation.

*Note: Temporarily mounting the LED ribbon with painter's tape or masking tape allows you to test and adjust the lighting effect before making a permanent installation.*

### Power Supply

- If using a dimmer, ensure it is compatible with the power supply's rating.
- Always use a power supply with a wattage rating higher than your LED ribbon light's requirements.
- Avoid exceeding lengths of 32 ft due to potential voltage drop. For longer runs, a new power feed will be required.
- Excessive voltage drop can cause LEDs to flicker or fail to light up.

*Note: Using a higher wattage driver will not damage LED ribbon lights.*



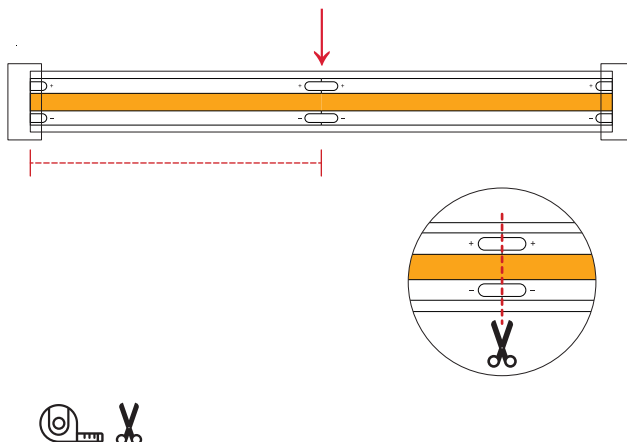
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### Step 1

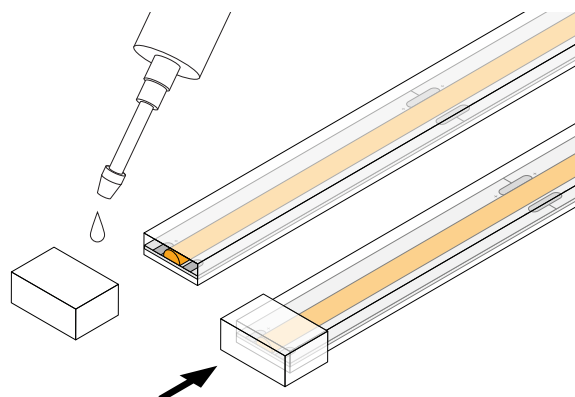
Measure the LED and cut to the desired length using a sharp pair of scissors.

Cut directly in the center of the cut marks on the LED ribbon. On the SL-COB3, it's every 50 mm (approx. 2"), and on the SL-COB6, every 62.5 mm (approx. 2.5").



### Step 2

Apply non-corrosive silicone to the inside of the cap and around the perimeter of the jacket. Push the cap firmly over the jacket and apply additional silicone as needed to create a continuous seal around the joint. Allow the silicone to cure before use.



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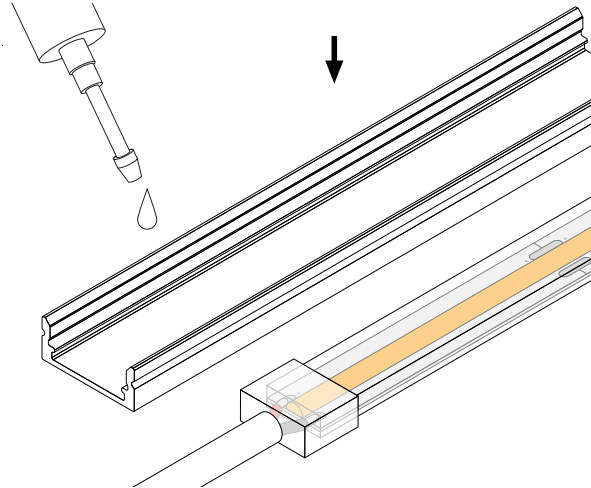
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### Step 3

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Apply non-corrosive silicone or construction adhesive to the channel or desired surface, then press the ribbon firmly into place.



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### Wiring Power Supply

- You need to run a 120V AC main feed to one of the knockouts on the driver and use an appropriate connector to enter into the driver enclosure.
- Then go out the other knockout to your low voltage feed (make sure you use the appropriate size wire for voltage drop).
- Then connect the other side of the low voltage cable you used to a started feed on the LED ribbon.

### Surface Preparation And Installing Peel And Stick LED Ribbon Light

- Before sticking the LED ribbon to your final product, it is important to test the LED ribbon and make sure it's going to work the way you hope. Once the LED ribbon is stuck and the light is installed you cannot reposition or move the LED ribbon, this will result in it not sticking properly. It is also recommended to use an aluminum channel to make sure you get it exactly where you want and to help make it straight.
- When you have determined your preferred position, clean and prep the surface area to ensure the 3M self-adhesive backing will adhere properly. Alcohol wipes work best for cleaning the surface area. It's important that it's dry, and dust free before installation.
- When you are adhering the LED ribbon in place make sure to firmly press the ribbon down the entire length of the strip.

### Troubleshooting

#### LED Ribbon Light Does Not Light

- Make sure your power supply is receiving power.
- Confirm you have the correct polarity throughout the LED ribbon.
- Make sure all connections are done correctly (i.e. polarity) and are not loose.
- Make sure your runs do not exceed recommended lengths and consider testing the voltage output and input on the LED driver.

#### LED Ribbon Light Blinks On, Then Goes Off

- If your power supply is too small, check your lengths and wattages and upgrade your power supply or shorten the length of the LED ribbon.
- One or all of your connection points are loose or polarity was incorrect.
- LEDs farthest from the power supply are noticeably dimmer. This is usually the cause of voltage drop, check your runs and feeder AWG to make sure they are adequate for the distance.
- Make sure you don't have more than the recommended length of continuous runs of LED ribbon.

#### LEDs Flicker When Dimming

- Check to make sure you are using a dimmable approved LED driver for the LED ribbon.
- Make sure you are using the correct dimmer for the driver.
- Make sure you adjust the trim settings on the dimmer and or for lighting systems.

Questions or Concerns email: [info@rjcross.com](mailto:info@rjcross.com)