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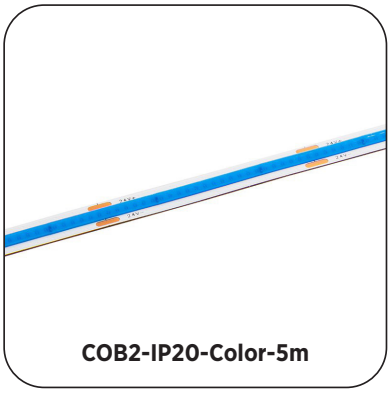
Even-Glow COB LED Strips

Single Color COB Strip Light Specifications

Project _____ Date _____

Notes _____



COB2-IP20-Color-5m

Voltage 12 or 24 VDC Available | COB LEDs | PWM Dimming | IP20 | 5 yr WARRANTY

Available Models[1]

12 VDC

- ☐ STN-B-BAMB-O12A-08F5M-12V
- ☐ STN-B-BBLU-O12A-08F5M-12V
- ☐ STN-B-BGRE-O12A-08F5M-12V
- ☐ STN-B-BICEBLU-O12A-08F5M-12V
- ☐ STN-B-BRED-O12A-08F5M-12V

24 VDC

- ☐ STN-B-BAMB-O24A-08F5M-24V
- ☐ STN-B-BBLU-O24A-08F5M-24V
- ☐ STN-B-BGRE-O24A-08F5M-24V
- ☐ STN-B-BICEBLU-O24A-08F5M-24V
- ☐ STN-B-BRED-O24A-08F5M-24V

SAMPLE PART NUMBER BREAKDOWN **STN-B-BAMB-O12A-08F5M-12V**

Series	Strip Type	Color	LED Type	LEDs/Segment	IP Rating	Width	Density	Length	Voltage
STN-B	B	AMB	O	12	A	08	F	5M	12V
Non-weatherproof	Single Color	AMB: Amber BLU: Blue GRE: Green ICEBLU: Ice Blue RED: Red	COB	12: 12 LEDs/seg 24: 24 LEDs/seg	IP20	8mm	480 LEDs/m	5 meters	12V: 12 VDC 24V: 24 VDC

Overview

The 5m white COB LED strip light uses chip-on-board technology and a high density of LEDs to create a continuous, dotless line of light ideal for applications on or around reflective surfaces such as granite countertops and tile floors. The strip provides vibrant red, green, or blue light to your application. Flexible construction, cut segments every 1 inch (12V) or 1.97 inches (24V), and 3M™ adhesive backing make customization and installation easy, even on round surfaces and edges.

Features

- COB LEDs create a dotless line of light without a diffuser
- Flexible, cuttable, 3M™ adhesive-backed for easy install
- High-density design with 146 LEDs/ft
- 0-100% PWM dimmable

Product Details

- Cut segments: 1.0in. (12V) or 1.97in. (24V)
- Class 2 Max Run: 21.3ft (12V) or 36.1ft (24V)
- Strip Width: 8mm
- Pigtail connection
- 12 or 24 VDC input

Certifications and Compliances

- UL Listed - UL 2108 (IFDR)
- CE compliant

UL LISTED CE

Applications

- Accent Lighting
- Cove Lighting
- Displays
- Sign Lighting
- Stage & Theaters
- Toe Kick Lighting
- Trade Shows
- Under-Cabinets

Warranty

- 5-year warranty

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Rev. V1.1 Date: 12/15/2025

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Installation Instructions

1. Plan Your Layout

Identify COB strip placement, including how long each run will be and where to place the power supply. Depending on how evenly you want the light to appear, decide on a straight run, center feed, loop-back, or multi-leg. Hidden placements like under cabinets or inside coves produce indirect illumination for ideal lighting results.

2. Match the Power Supply

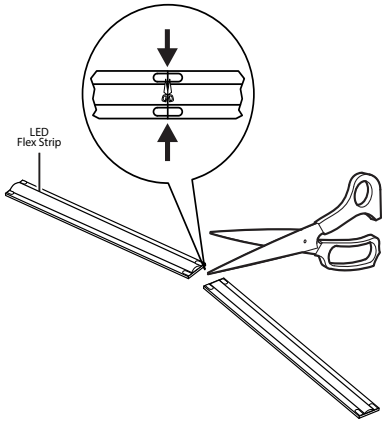
First, calculate the total strip wattage by multiplying the total strip length by the power used per foot for the total strip wattage. Next, use the following formula to determine the minimum necessary wattage of your power supply

Total Strip Wattage / 0.80 = Minimum Power Supply Wattage

Round up to the nearest wattage, and this number will provide you with the 20% wattage overhead required to maintain power supply longevity.

3. Cutting the Strip

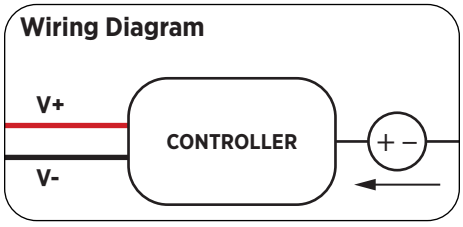
If you need to cut the strip to a custom length, unroll the strip and find the marked cut points, usually between copper pads. Make sure the strip is not powered when cutting. Use sharp scissors to cut only on these lines. Cutting anywhere else can break the circuit.

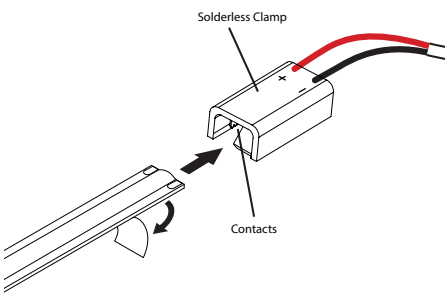


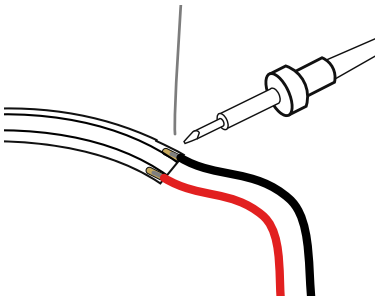
4. Connecting the Strip (Solderless or Soldering)

To connect cut sections of LED strips to a power supply or controller, wires can be soldered directly to the copper pads or solderless connectors may be used as an alternative. To use a solderless connector, open the connector, then slide in the cut end of the strip so the copper pads line up with the contacts inside. Ensure the connector is oriented correctly so the contacts pierce through the top of the strip. Close the connector to lock it in place. Use jumper connectors instead of bending the strip for corners or gaps.

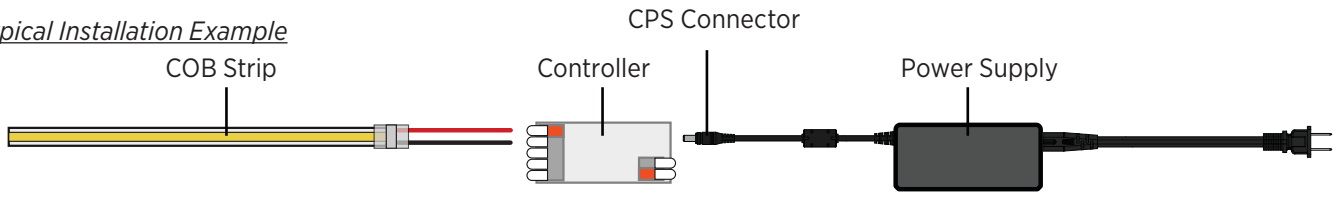
Note: *Illustrations show wiring for single-color strip.*
Follow specific wiring diagram for strip and controller type.







Typical Installation Example



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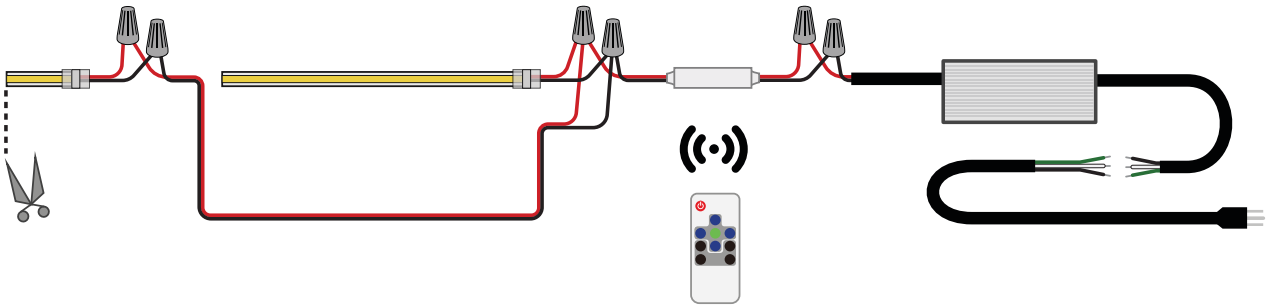
Installation Instructions (cont.)

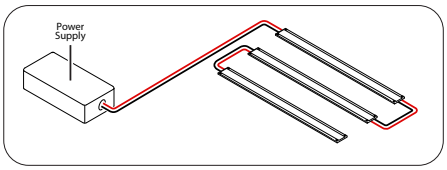
5. Extend the Wiring

Use the lowest gauge wire that's practical for your setup, based on the total current draw and length of the run. As a general guideline, 22 AWG is suitable for short, low-power runs, while 18 AWG or lower is recommended for longer runs or higher-powered strips. Keep the wiring short where possible and double-check polarity. Longer runs can lead to voltage drop and dimming at the far end of the strip.

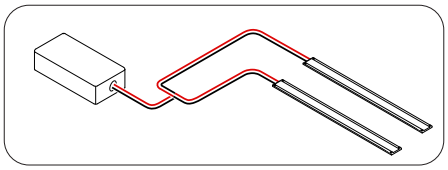
Extended Power Wire Installation Example



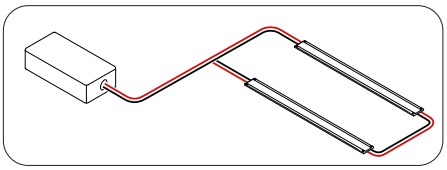
Straight Run Layout



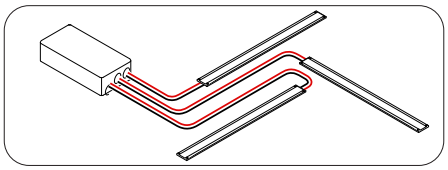
Center Feed Layout



Loop-back Layout



Multi-leg Layout



Voltage Drop

As current travels through the strip, resistance in the circuit causes a drop in voltage over the length of the strip, leading to dimmer light at the far end. Wire length and total power draw of the circuit influence the amount of voltage drop. To reduce it, keep wire lengths short, use thicker gauge wire, or split the power feed (center-feed or loop-back).

6. Prepare the Surface

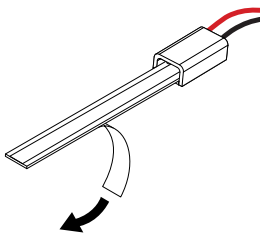
Wipe the mounting area with alcohol or another cleaner that removes dust, oils, and residue. The strong 3M™ adhesive backing is intended for a single application.

7. Connect to Power and Test

Connect the wires from the strip or connector to the output side of the power supply or controller. Match the positive and negative sides. If you're unsure, use a multimeter. If using a dimmer or switch, install it according to the product's installation instructions. Before mounting, test the strip to make sure all sections light up properly and there are no connection issues.

8. Mount the Strip

Peel the paper from the adhesive backing and press the strip firmly into place. Work slowly from one end to the other to avoid bubbles or wrinkles. To prevent damage to the circuit, avoid bending the strip sharply or folding it over itself. Use flexible connectors for any sharp turns or difficult areas.



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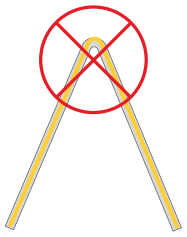
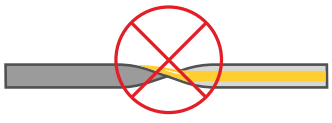
SPECIFICATIONS					
Model	**STN-B-Bx-O12A-08F5M-12V**			**STN-Bx-O24A-08F5M-24V**	
PHOTOMETRIC					
LED Color*	Amber	Blue	Green	Ice Blue	Red
Wavelength	590nm	460nm	545nm	475nm	620nm
Beam Angle	160°				
ELECTRICAL					
Operating Voltage	12 VDC			24 VDC	
Current Draw per Foot	201 mA/ft			104 mA/ft	
Current Draw	3.3A			1.7A	
Wattage per Foot	2.4 W/ft				
Wattage	40 Watts				
Dimmer Type	PWM				
MECHANICAL					
Max Run (Class 2)	21.3ft (6.5m)			36.1ft (11m)	
Minimum Cut Length	25mm (1.0in.)			50mm (1.97in.)	
LEDs per Segment	12			24	
Length	16.4ft (5m)				
Strip Width	8mm (0.31in.)				
LED Density	146 LEDs/ft				
LED Type	COB (chip-on-board)				
LED Lifetime	50000 hours				
Input Connection Type	Pigtail				
ENVIRONMENTAL					
IP Rating	IP20				
Environmental Rating	Non-weatherproof, Suitable for Dry Locations				
Ambient Operating Temperature	-20 to 60°C (-4 to 140°F)				

*Single color LEDs as ordered

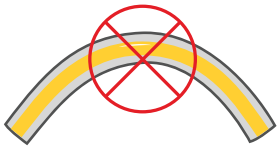
Strip Flexibility



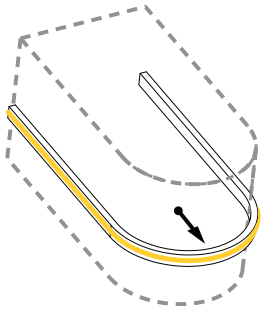
Bending strips at sharp angles will damage circuit traces and void warranty.



Twisting strips will damage circuit traces and void warranty.



Bending strips on horizontal plane will damage circuit traces and void warranty.



Minimum bending radius ≥ 1.97in. [50mm]

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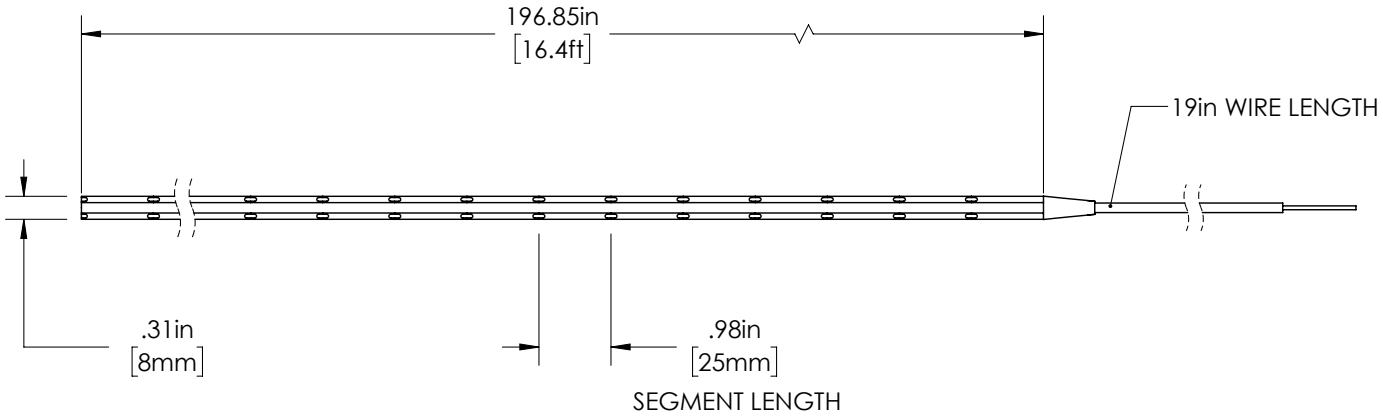
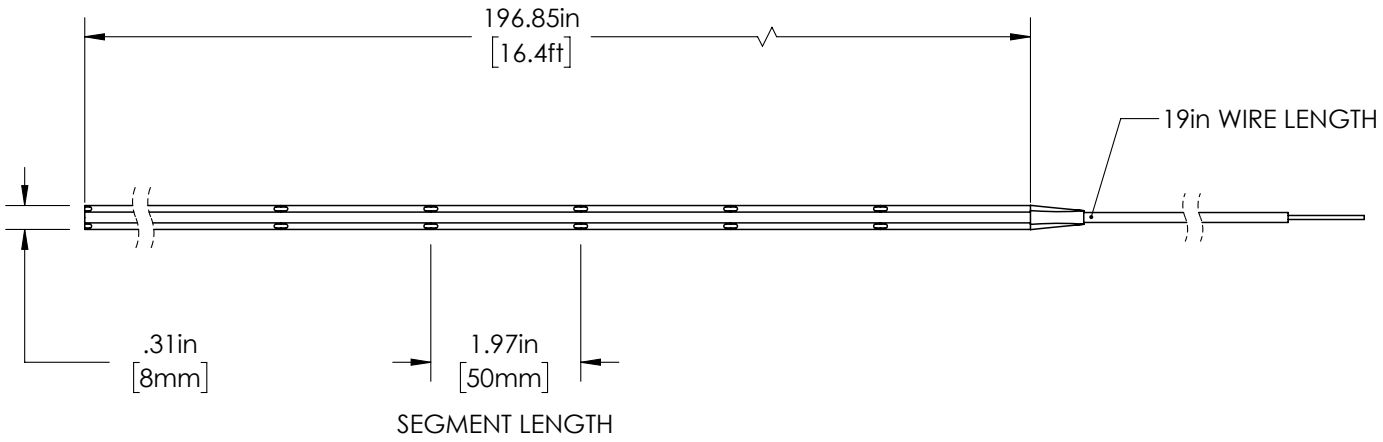
Dimensional Drawings

STN-B-Bx-O12A-08F5M-12V



STN-B-Bx-O24A-08F5M-24V



Note: Strip thickness ~0.08in. (1.9mm)

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