

## BTF-LIGHTING FCOB-24V-960L-W-IP30

# BTF-LIGHTING FCOB COB LED Strip RGBCCT User Manual

Model: FCOB-24V-960L-W-IP30

## 1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of your BTF-LIGHTING FCOB COB LED Strip. This RGBCCT LED strip offers a wide range of colors and tunable white light, suitable for various indoor decorative and functional lighting applications. Please read this manual thoroughly before installation and use to ensure proper function and safety.

## 2. SAFETY INFORMATION

- Ensure the power supply is disconnected before installation or maintenance.
- This product is designed for indoor use only (IP30 rating). Avoid exposure to moisture or outdoor elements.
- Use only with a compatible DC24V power supply. Using an incorrect voltage may damage the strip.
- Do not power the LED strip when it is rolled up, as this can cause overheating and damage.
- Avoid bending the strip sharply or applying excessive force, which can damage the internal circuitry.
- Keep out of reach of children.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x 16.4FT FCOB RGBCCT LED strip
- 2x 6-pin connectors
- 6x LED Strip fixed clips



# Why Choose Our FCOB RGB CCT LED Strip



**BTF-LIGHTING**

**OTHERS**

**VS**



**960LED/m**

**Brighter and More Uniform**

**No Dark Spots**



**840LED/m**

**Dim and Diffused**

**Obvious Dark Spots**

Figure 4.1: Comparison of FCOB LED strip uniformity.



Figure 4.2: FCOB vs. SMD LED strip light distribution.

## 5. SETUP AND INSTALLATION

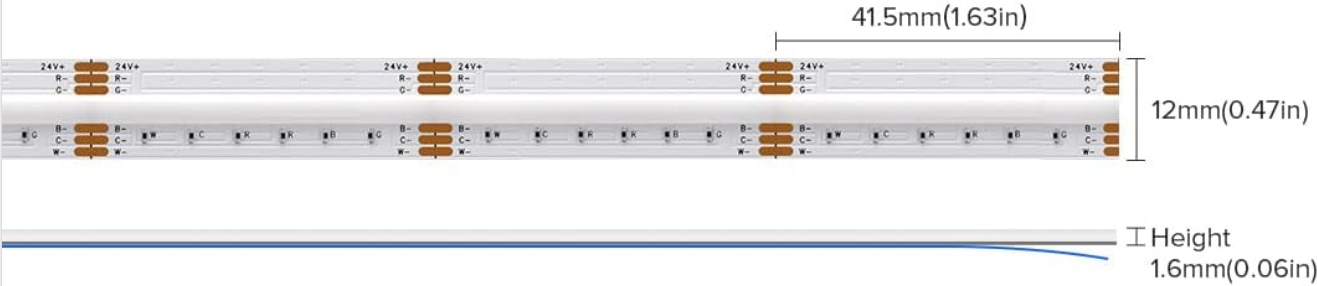
### 5.1 Preparation

- Ensure the installation surface is clean, dry, and smooth for optimal adhesive performance.
- Measure the desired length for your LED strip.

### 5.2 Cutting the LED Strip

The LED strip can be cut at designated cutting marks, typically indicated by a copper pad with a scissor icon. Ensure to cut only at these marks to avoid damaging the circuit.

# DC24V FCOB RGB CCT 960Chips/m



## Controller Sold Separately



Figure 5.1: LED strip dimensions and cuttable sections.



Figure 5.2: Features for installation: flexibility, cut points, adhesive, clips, and connection.

### 5.3 Mounting the LED Strip

1. Peel off the protective backing from the double-sided adhesive tape on the back of the LED strip.
2. Carefully press the strip onto the prepared surface, ensuring firm contact along its entire length.
3. For added security, use the provided fixed clips at regular intervals, especially around corners or areas with potential stress.



Figure 5.3: Applying the LED strip with adhesive backing.

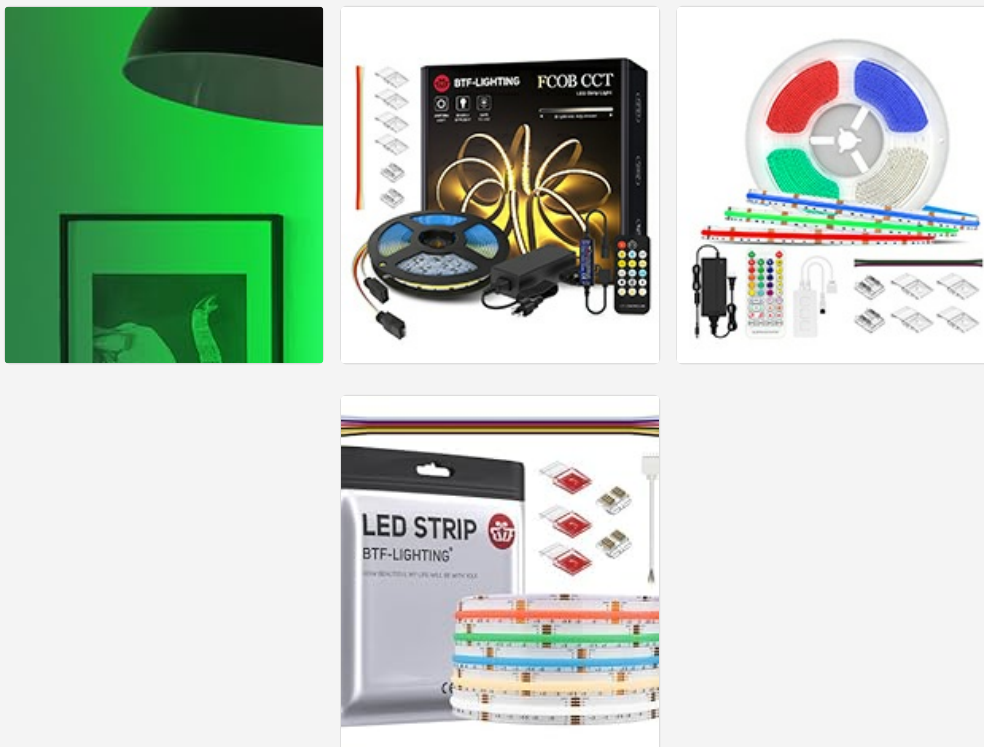


Figure 5.4: Various connection methods and use of fixed clips.

## 5.4 Wiring and Connection

This LED strip requires a DC24V power supply and a compatible RGBCCT controller (both sold separately). The strip has 6-pin connectors (V+, G, R, B, C, W).

1. Connect the 6-pin connector from the LED strip to the corresponding output on your RGBCCT controller.
2. Connect the controller to a DC24V power supply.
3. Connect the DC24V power supply to an AC 110-220V power source.
4. **Important:** Do not turn on the light strip when it is rolled up, as this can cause severe overheating and damage.



Figure 5.5: Basic wiring diagram for a single LED strip.

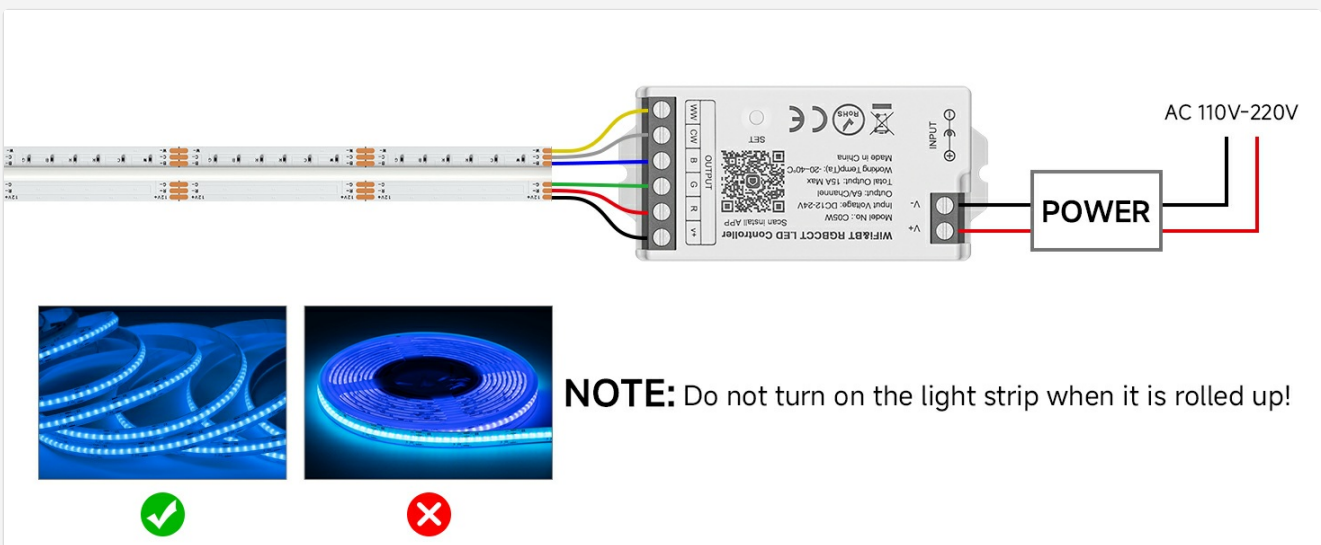


Figure 5.6: Wiring diagram for multiple LED strips with an amplifier.

## 6. OPERATING INSTRUCTIONS

Once properly installed and connected to a compatible RGB CCT controller (not included), you can operate your LED strip. Refer to your controller's specific manual for detailed instructions on its functions.

- **Power On/Off:** Use the controller to turn the LED strip on or off.
- **Color Selection:** Select from 16 million RGB colors using your controller's color wheel or preset options.
- **Tunable White:** Adjust the white light color temperature from 3000K (warm white) to 6000K (cool white).
- **Dimming:** Adjust the brightness level to your preference.
- **Modes:** Many controllers offer various dynamic modes, such as flashing, fading, or color cycling.



# RGBCCT Light Strip

RGB + Tunable White (3000K-6000K)

Figure 6.1: Examples of tunable white and RGB color lighting.

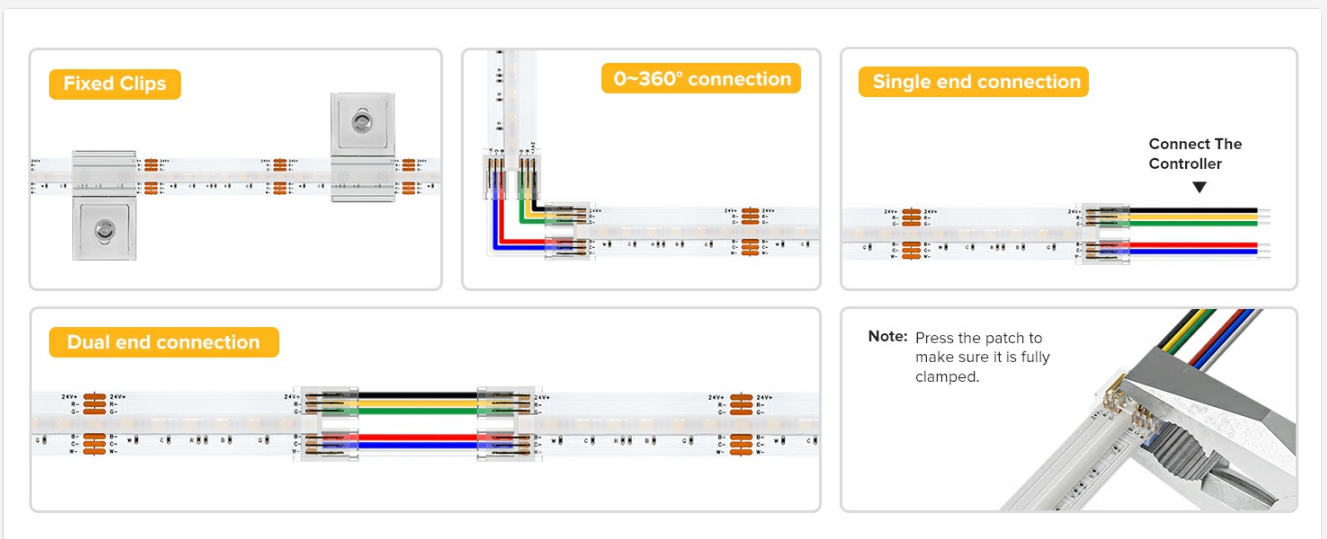


Figure 6.2: Demonstration of dimming capabilities.

## 6.1 Compatible Controllers (Sold Separately)

This LED strip is compatible with various RGB CCT controllers. Examples include:

- RF Controllers (e.g., C05RF+RC03RFB)
- WiFi Alexa Controllers (e.g., WB5, C05W)
- Zigbee 3.0 Controllers (e.g., LM052, C05Z)
- Bluetooth Mesh Controllers (e.g., LM053)

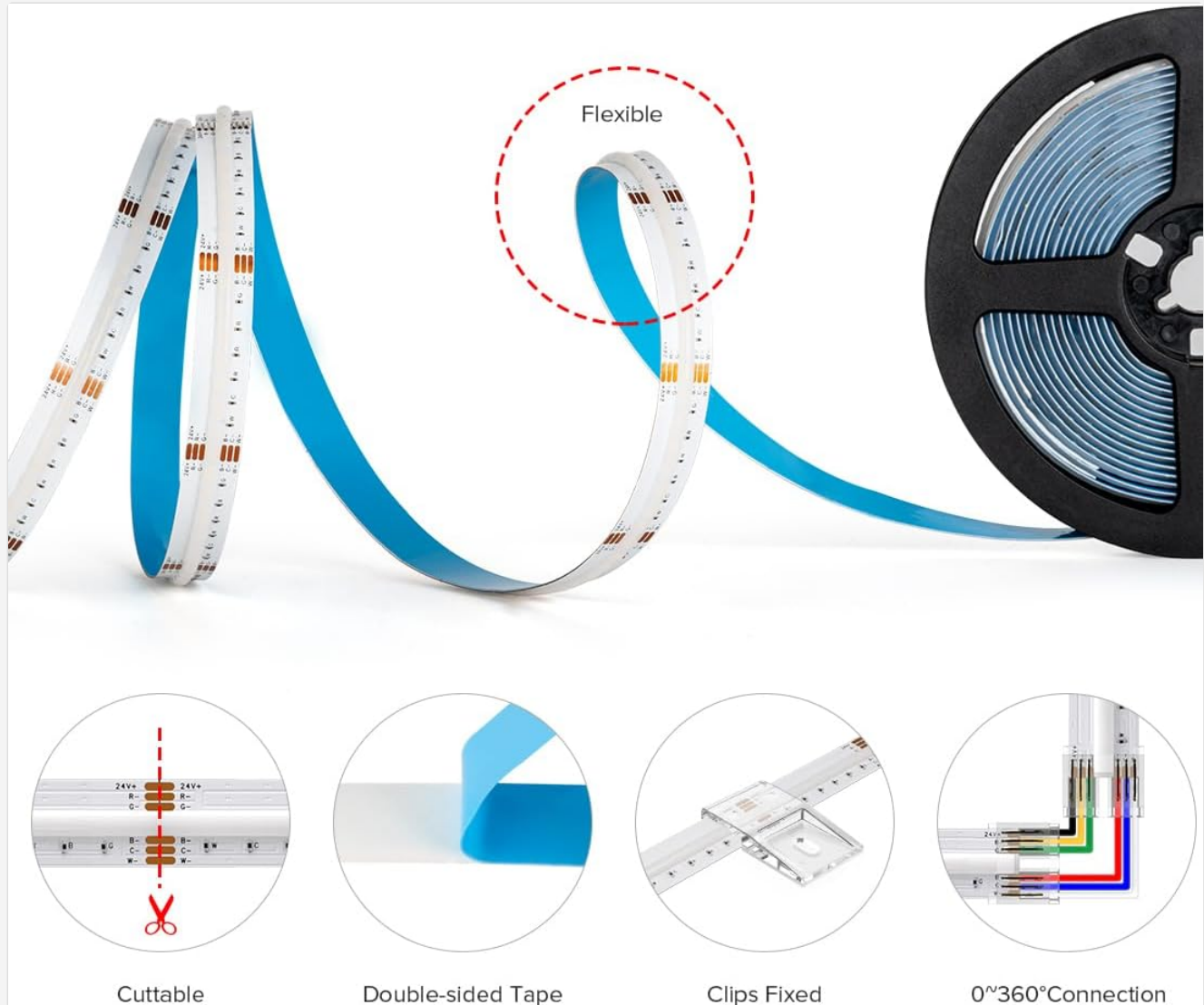


Figure 6.3: Examples of compatible controllers.

For smart home integration, some controllers may require an app like Smart Life. You can find more information at [smartapp.tuya.com/smartlife](https://smartapp.tuya.com/smartlife).

## 7. MAINTENANCE

- **Cleaning:** Gently wipe the LED strip with a dry, soft cloth to remove dust. Do not use liquid cleaners or abrasive materials.
- **Inspection:** Periodically check the strip and connections for any signs of damage or loose wiring.
- Ensure proper ventilation around the LED strip to prevent heat buildup, especially in enclosed spaces.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
LED strip does not light up.	<ul style="list-style-type: none"> <li>No power to the power supply.</li> <li>Incorrect voltage.</li> <li>Loose connection.</li> <li>Controller malfunction.</li> <li>Damaged LED strip.</li> </ul>	<ul style="list-style-type: none"> <li>Check power outlet and power supply connection.</li> <li>Ensure a DC24V power supply is used.</li> <li>Verify all 6-pin connections are secure.</li> <li>Test with a different compatible controller if available.</li> <li>Inspect the strip for visible damage; if damaged, replace.</li> </ul>
Colors are incorrect or inconsistent.	<ul style="list-style-type: none"> <li>Incorrect wiring of RGB/CCT channels.</li> <li>Controller settings.</li> </ul>	<ul style="list-style-type: none"> <li>Double-check the 6-pin wiring to ensure correct channel alignment (V+, G, R, B, C, W).</li> <li>Adjust color settings on your controller.</li> </ul>
Brightness is low or uneven.	<ul style="list-style-type: none"> <li>Insufficient power supply.</li> <li>Voltage drop over long runs.</li> <li>Controller dimming setting.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure power supply wattage is sufficient for the strip length.</li> <li>For longer runs, consider power injection or using an RGB CW amplifier (see Figure 5.6).</li> <li>Increase brightness setting on the controller.</li> </ul>
Adhesive not holding.	<ul style="list-style-type: none"> <li>Surface was not clean or dry.</li> <li>Surface is porous or textured.</li> </ul>	<ul style="list-style-type: none"> <li>Re-clean and dry the surface thoroughly before re-applying.</li> <li>Use the provided fixed clips for additional support, especially on challenging surfaces.</li> <li>Consider using an alternative adhesive if necessary.</li> </ul>

## 9. SPECIFICATIONS

Feature	Detail
Model Number	FCOB-24V-960L-W-IP30
Color Type	RGBCCT (RGB + Tunable White)
LED Density	960 LEDs/meter
Length	16.4 FT (5 meters)
Voltage	DC24V
Width	12mm
Color Temperature Range	3000K (Warm White) - 6000K (Cool White)
Water Resistance Level	IP30 (Not Water Resistant, Indoor Use Only)

Feature	Detail
Average Lifespan	>65,000 hours
Included Components	LED strip, 6-pin connectors, fixed clips, 6-pin wire cable (Power supply and controller not included)

## 10. WARRANTY AND SUPPORT

BTF-LIGHTING provides a **12-month worry-free warranty** for this product. For any troubleshooting assistance, replacement requests, or questions regarding purchase or installation, please contact BTF-LIGHTING customer service. We offer **24/7 customer service** to ensure your satisfaction.

For support, please refer to the contact information provided with your purchase or visit the official BTF-LIGHTING website.

