

## BTF-LIGHTING FOB3M24V840LRGBCCT30UEU

# BTF-LIGHTING FCOB COB LED Strip RGBCCT Instruction Manual

Model: FOB3M24V840LRGBCCT30UEU | Brand: BTF-LIGHTING

## 1. INTRODUCTION

Thank you for choosing the BTF-LIGHTING FCOB COB LED Strip RGBCCT. This flexible, high-density LED strip offers both vibrant RGB color changing capabilities and tunable white light, ranging from 3000K (warm white) to 6000K (cool white). Utilizing Flip Chip On Board (FCOB) technology, it provides ultra-bright, uniform illumination without visible light spots, making it ideal for various indoor decorative and functional lighting applications. This manual provides essential information for safe installation, operation, and maintenance of your LED strip.



Figure 1: BTF-LIGHTING FCOB COB LED Strip RGB CCT

## 2. PRODUCT FEATURES

- **Color Changing and Tunable Color Temperature:** Offers full RGB color spectrum (16 million colors) and tunable white light from 3000K (warm white) to 6000K (cool white) to suit various atmospheres.
- **Ultra Bright and Uniform Illumination:** Features FCOB technology with 840 LEDs/meter for high brightness, consistent color, and a smooth, dot-free light output.
- **Flexible, Cuttable, and Linkable:** The strip is soft and flexible, allowing for easy installation around corners. It can be cut at designated marks and linked in series using the provided 6-pin connectors.
- **Wide Application:** Suitable for living rooms, hallways, bedrooms, kitchens, accent lighting, cabinet lighting, stairs, mirrors, and various commercial and residential lighting projects.
- **Durable Construction:** Built with a double-layer copper PCB board for enhanced electrical conductivity and heat dissipation, ensuring a lifespan of over 65,000 hours.



Figure 2: RGB CCT Light Strip showcasing tunable white light (3000K-6000K) and RGB color options.



Figure 3: Comparison of FCOB LED strips (uniform light) versus traditional SMD LED strips (visible dots).

### 3. PACKAGE CONTENTS

The package includes the following items:

- 1x 9.8FT FCOB RGB CCT LED strip (DC24V, 840LED/m, 12mm width, IP30)
- 2x 6-pin connectors
- 6x LED Strip fixed clips
- 1x 15cm 6-pin 24AWG wire cable

**Note:** Power supply and controller are NOT included and must be purchased separately. Ensure compatibility with DC24V systems.



Figure 4: Included accessories: 6-pin connectors, fixed clips, and wire cable.

## 4. SAFETY INFORMATION

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- Ensure the power supply is disconnected before installation or maintenance.
- Use only a DC24V power supply compatible with the LED strip's wattage requirements.
- Do not bend the LED strip sharply or apply excessive force, as this may damage the internal circuitry.
- This product is rated IP30 for indoor use only. Avoid exposure to water or high humidity unless using an IP66 rated variant.
- Keep out of reach of children.

## 5. SETUP & INSTALLATION

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### 5.1 Preparation

- Thoroughly clean and dry the installation surface to ensure proper adhesion of the strip's backing.
- Plan the layout of your LED strip before cutting or mounting.

### 5.2 Cutting the LED Strip

The LED strip can be cut at designated marks to achieve the desired length. Always cut in the middle of the copper pads indicated by a scissor icon.



Figure 5: LED strip showing designated cutting points.

### 5.3 Mounting the LED Strip

Peel off the protective backing from the self-adhesive tape on the back of the LED strip and firmly press the strip onto the clean, dry surface. Use the included fixed clips for additional security, especially on vertical surfaces or around bends.

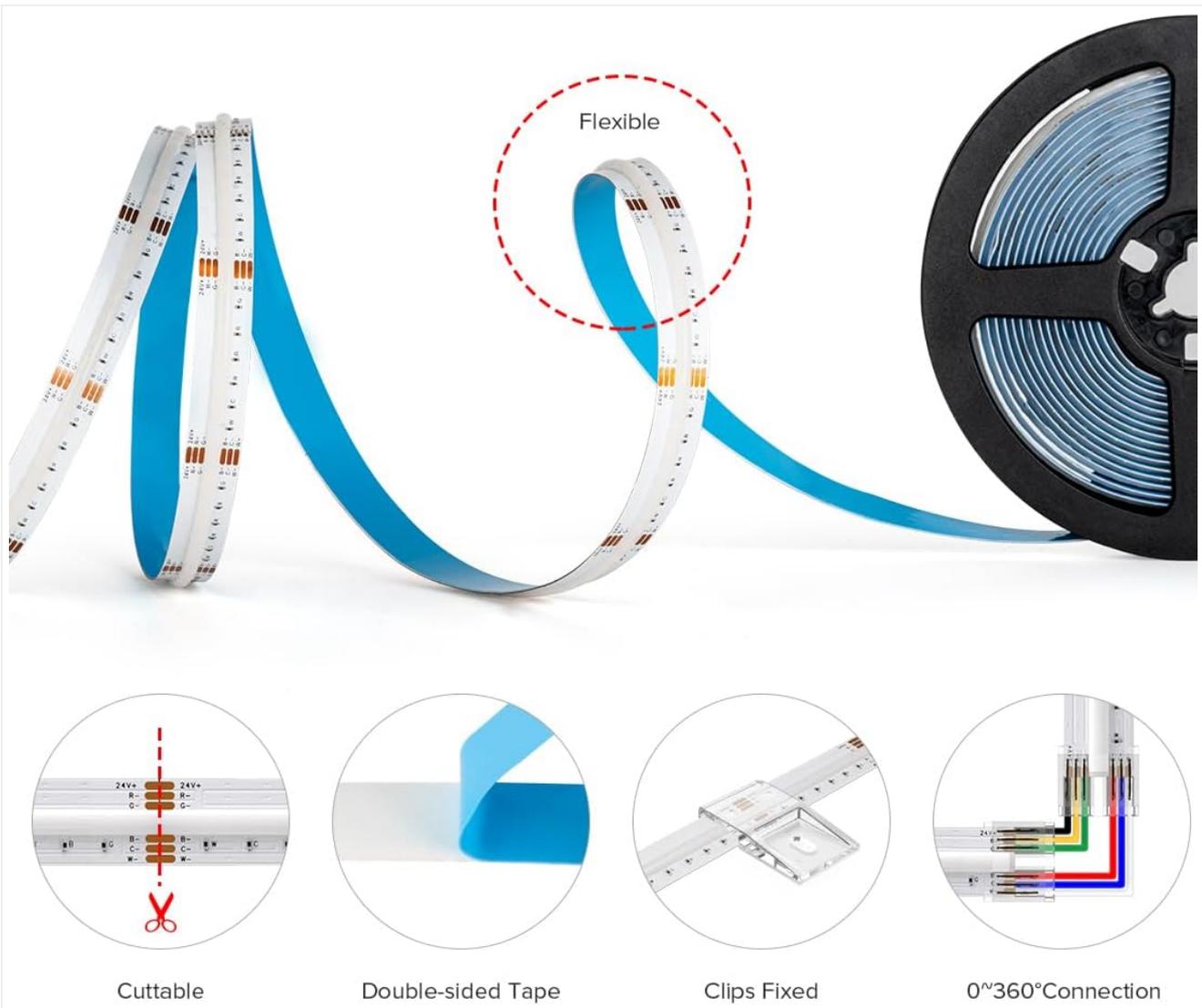


Figure 6: LED strip demonstrating flexibility, self-adhesive backing, and fixed clips for mounting.

## 5.4 Wiring the Controller and Power Supply

Connect the 6-pin wires from the LED strip to a compatible RGB CCT controller (e.g., SP530E or similar, sold separately). Ensure the correct color-coded wires are connected to their respective terminals (VCC, R, G, B, CW, WW, DAT, GND). Then, connect the controller to a DC24V power supply (AC110-220V input). Refer to the wiring diagram below for proper connections.



Figure 7: Wiring diagram for connecting the RGB CCT LED strip to a controller and power supply.

## 5.5 App Setup (for Smart Controllers)

If using a smart controller with Wi-Fi/Bluetooth capabilities, download the recommended app (e.g., [Tuya Smart Life App](#) or [BanlanX App](#) as shown in the video) from your device's app store. Follow the in-app instructions to pair your controller and configure the LED type to 'PWM RGB CCT LED strip' for full functionality.

Video 1: Detailed unboxing, wiring, and app configuration guide for the BTF-LIGHTING FCOB COB LED Strip RGB CCT with an SP530E controller. This video demonstrates connecting the 6-pin wires, setting up the app, and testing various color and white light modes.

## 6. OPERATION

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Once installed and configured, operate your LED strip using the compatible controller or smartphone app.

### 6.1 Color Control

- Use the color wheel or preset color options in your controller/app to select any desired RGB color.
- The FCOB technology ensures smooth color mixing and a uniform appearance.

### 6.2 Tunable White Light

- Adjust the white light color temperature from warm white (3000K) to cool white (6000K) to match your preference or ambient lighting.
- This feature allows for versatile lighting, from cozy warm tones to bright, crisp cool tones.



Figure 8: Demonstrating the tunable white light feature, showing 3000K, 4000K, and 6000K settings.

### 6.3 Dimming and Dynamic Modes

- Adjust the brightness of any selected color or white light using the dimming function in the app or controller.
- Explore various dynamic modes, such as color jumps, breathes, strobes, and gradients, for animated lighting effects.

## 7. MAINTENANCE

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- Keep the LED strip clean by gently wiping it with a dry, soft cloth.
- Avoid using abrasive cleaners or solvents that could damage the strip.
- Regularly check connections for any signs of wear or looseness.

## 8. TROUBLESHOOTING

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- **No Light:**

- Check if the power supply is properly connected and receiving power.
- Verify all wiring connections between the LED strip, controller, and power supply are secure and correct according to the diagram.
- Ensure the controller is powered on and correctly configured in the app (LED type: PWM RGB CCT).

- **Incorrect Colors or White Tones:**

- Confirm the LED type is correctly set to 'PWM RGB CCT LED strip' in your controller's app settings.
- Check the wiring for any misconnections between the color channels (R, G, B, CW, WW).

- **Uneven Brightness:**

- Ensure your power supply provides sufficient wattage for the entire length of the LED strip. Voltage drop can occur over long runs.
- Check for any physical damage or kinks in the LED strip.

## 9. SPECIFICATIONS

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Feature	Specification
Model Number	FOB3M24V840LRGB CCT30UEU
Brand	BTF-LIGHTING
LED Type	FCOB COB RGB CCT
LED Quantity	840 LEDs/meter
Strip Length	9.8 FT (3 Meters)
Working Voltage	DC24V
Width	12mm
Color Temperature	3000K (Warm White) - 6000K (Cool White)
Light Color	RGB + Tunable White
Indoor/Outdoor Usage	Indoor (IP30)
Wattage	5 watts (per meter, approximate)
Average Life	65,000+ hours
Material	Plastic

## 10. WARRANTY & SUPPORT

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BTF-LIGHTING provides a **12-month worry-free warranty** for this product. For troubleshooting, replacements, or any questions regarding purchase or installation, please contact our **24/7 customer service**.

**Email:** [Support@btf-lighting.com](mailto:Support@btf-lighting.com)