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BTF-LIGHTING FCOB COB SPI RGBCCT 5M 840LED/m IP30

BTF-LIGHTING FCOB COB SPI RGBCCT LED Strip Instruction Manual

Model: FCOB COB SPI RGBCCT 5M 840LED/m IP30

Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your BTF-LIGHTING FCOB COB SPI RGBCCT LED Strip. Please read these instructions carefully before use and retain them for future reference.

Setup Instructions

1. Power Supply Connection

The LED strip operates on 24V DC. A compatible 24V DC power supply (minimum 3A for 5 meters, 72W) is required and must be purchased separately. Ensure the power supply's wattage is sufficient for the total length of the LED strip being used to prevent flickering, overheating, or circuit damage.

2. Controller Connection

This FCOB LED strip requires an RGBCCT SPI controller for operation. Controllers such as SP530E, SP630E, RC4, and RB4 are compatible. Connect the 3-pin SM connectors (male/female) from the LED strip to your chosen controller. Ensure the correct color order is set on your controller for proper functionality.

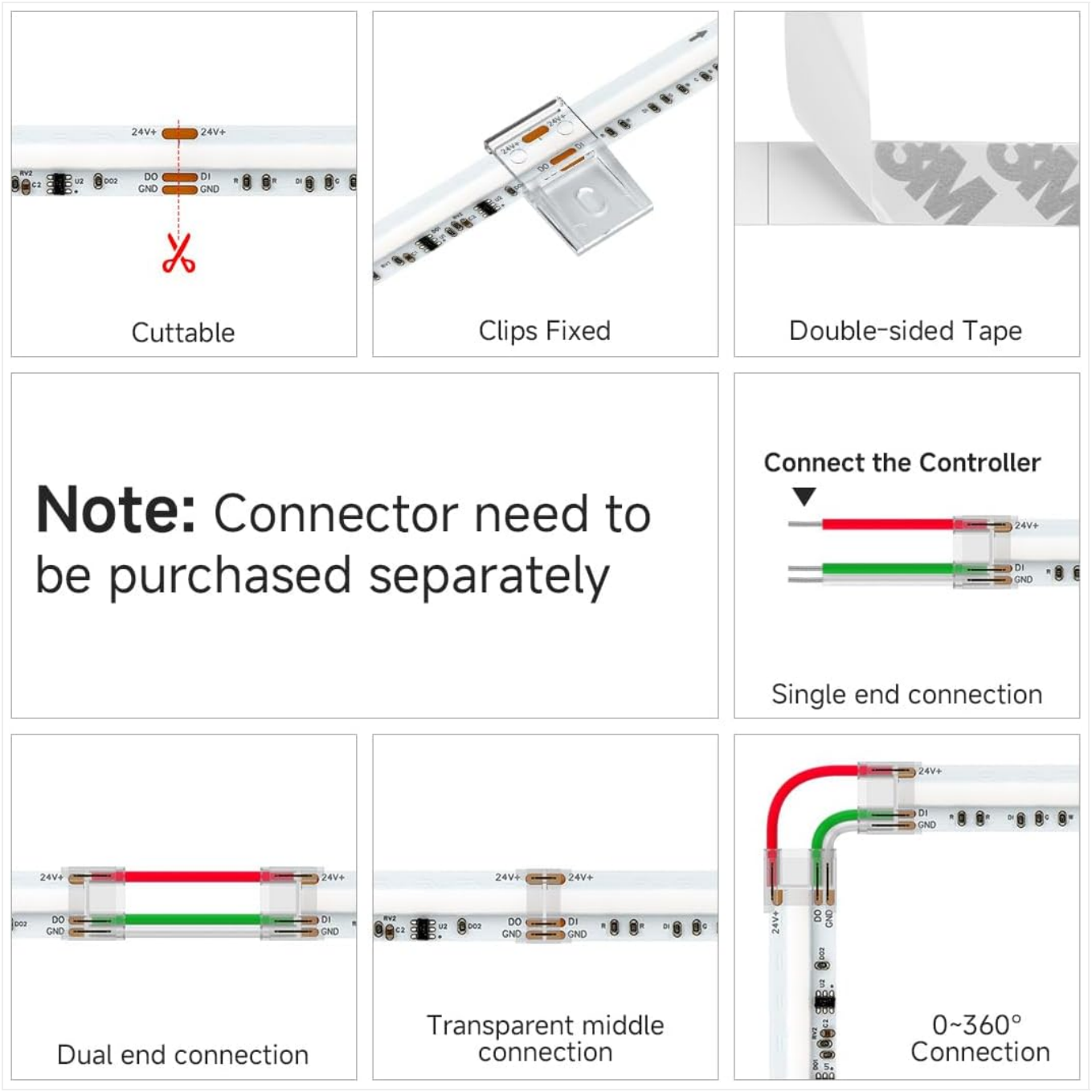

Image: Connection diagram for the LED strip to a controller. Note that the connector must be purchased separately.

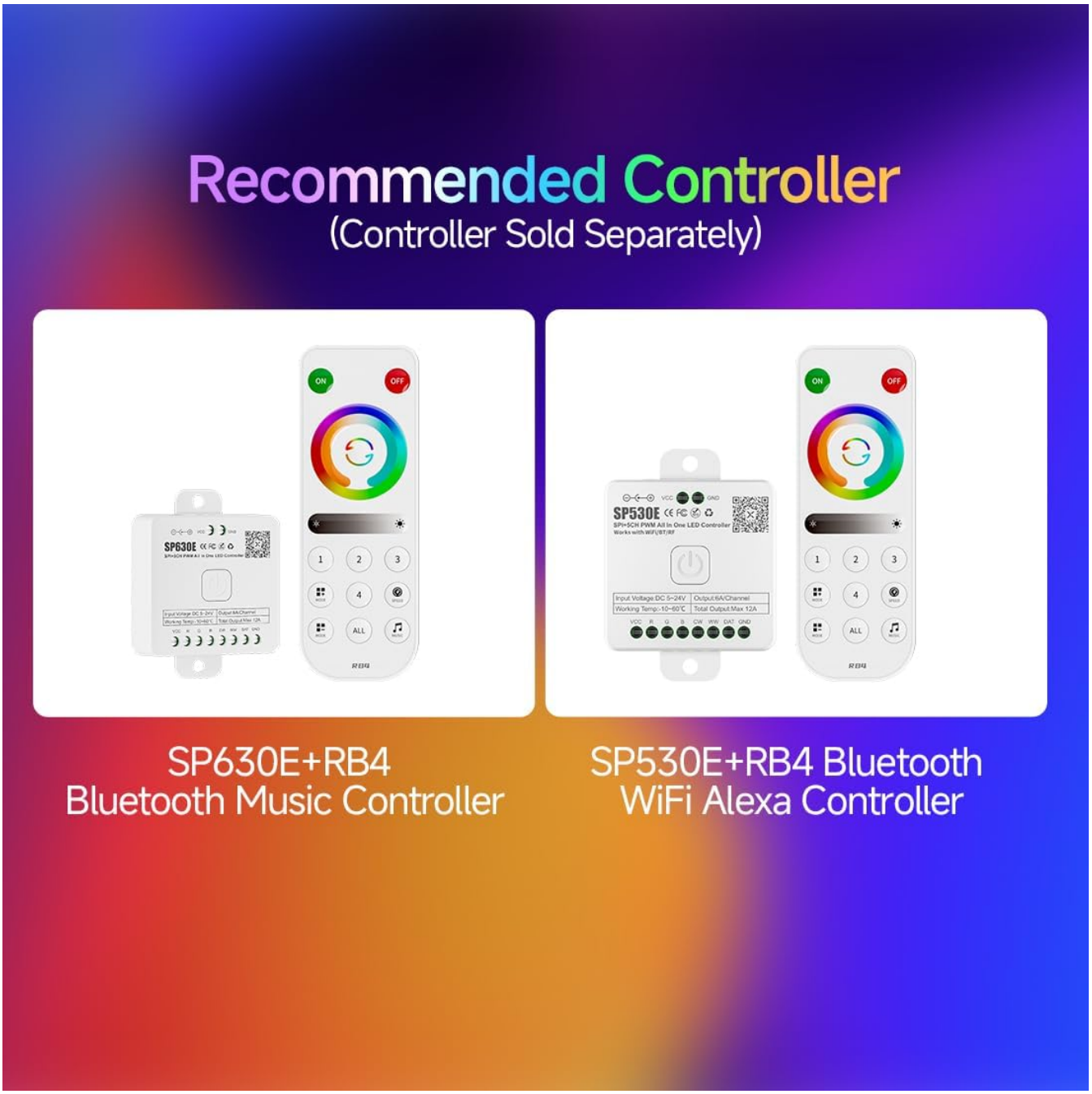

Image: Examples of compatible RGBCCT SPI controllers (SP630E+RB4 and SP530E+RB4). Controllers are sold separately.

3. Mounting the LED Strip

The FCOB LED strip features 3M self-adhesive tape on its back for easy, tool-free installation. Ensure the mounting surface is clean, dry, and smooth before application. Simply peel off the protective film and firmly press the strip into place. For additional security or in specific applications, clips can be used to fix the strip.

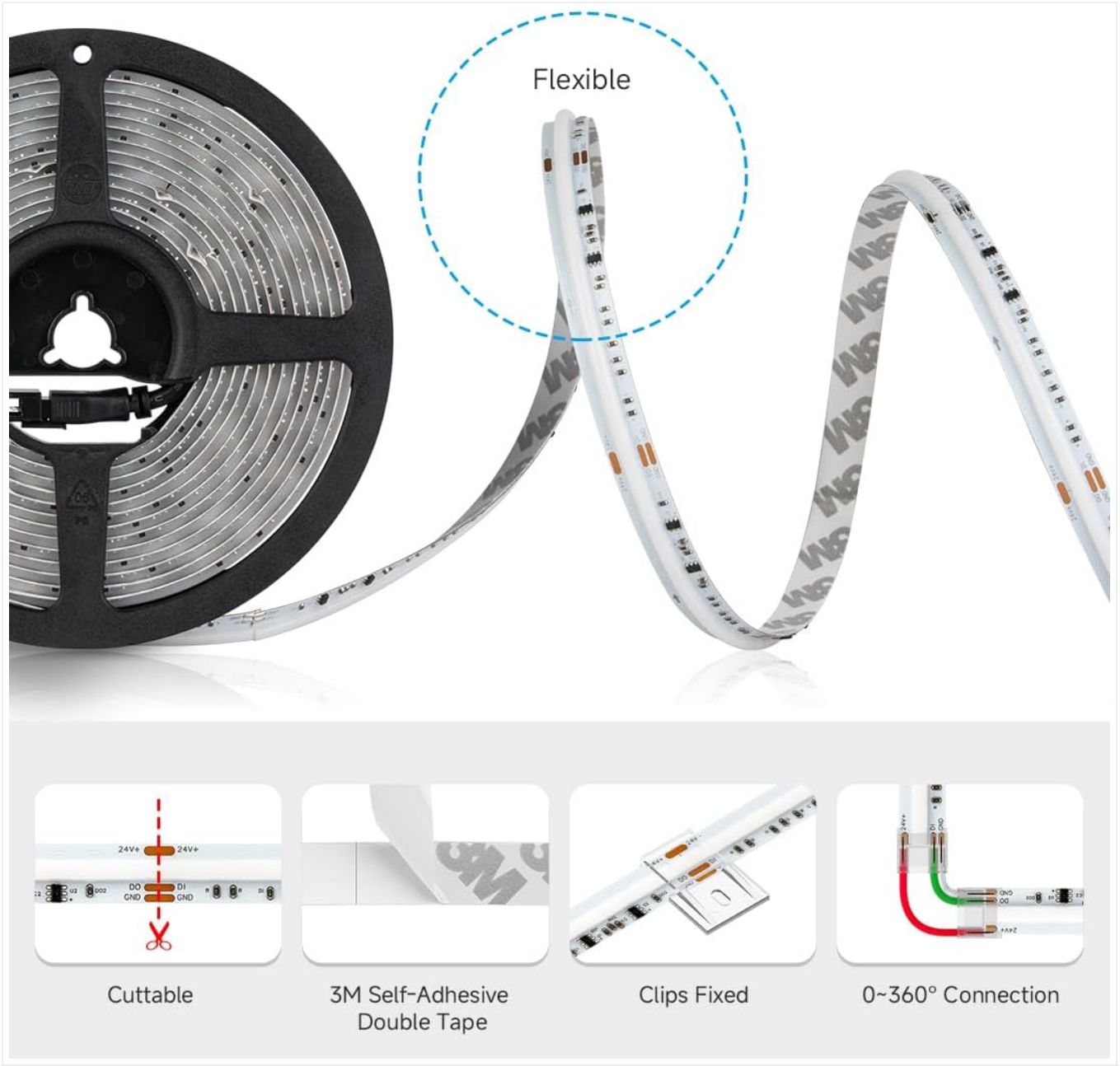

Image: The LED strip is flexible, features 3M adhesive tape, can be secured with clips, and supports various connection methods.

4. Cutting and Connecting Multiple Strips

The LED strip is soft and flexible, designed with marked cutting points every 71 mm (2.8 inches). You can cut the strip at these designated points to customize its length for your DIY projects. Multiple strips can be connected in series using the integrated SM 3-pin connectors. If connecting extensive lengths, a slight decrease in brightness at the far end may occur. To counteract this, use an RGBCCT signal amplifier (sold separately).

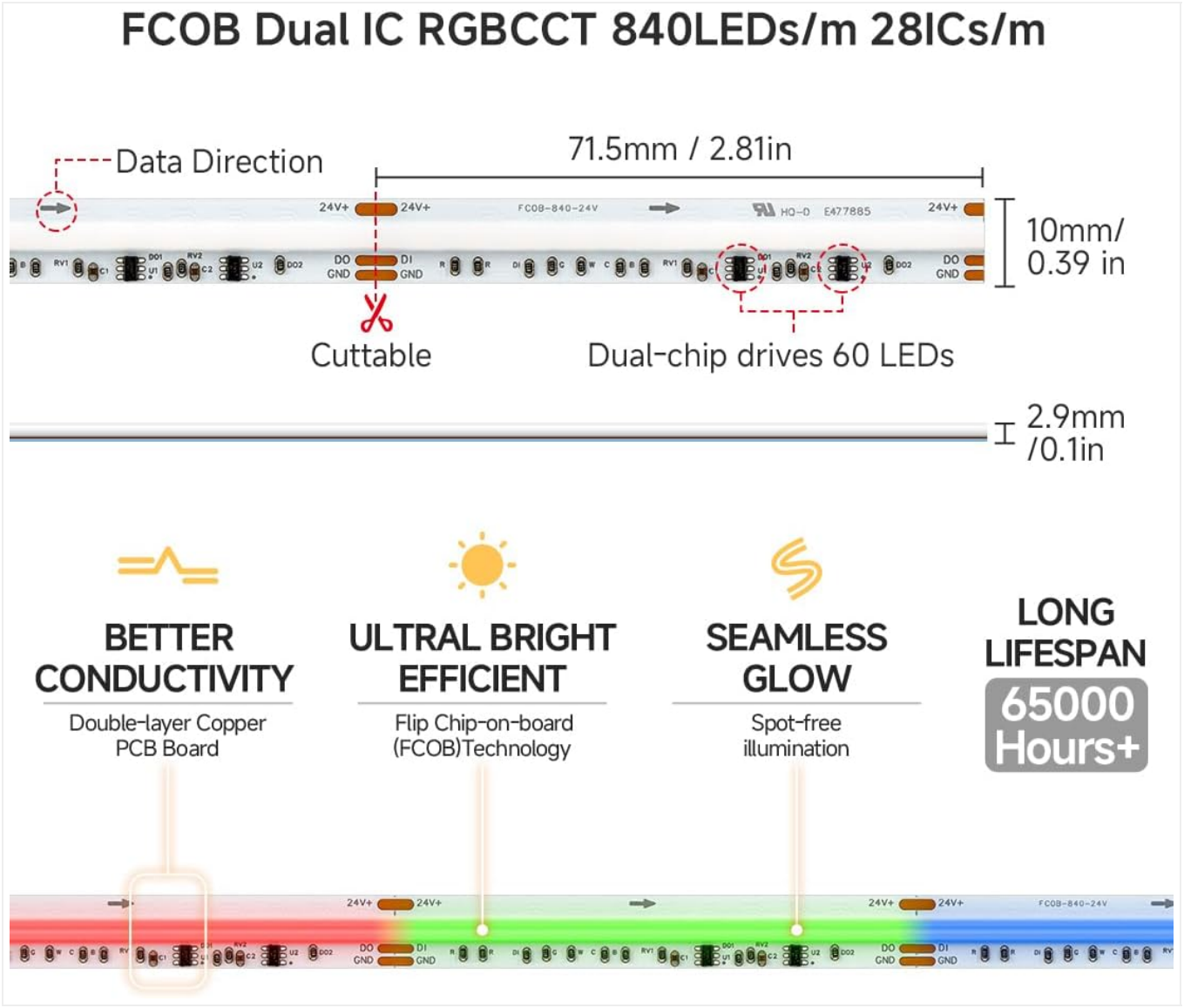

Image: The FCOB LED strip can be cut every 71.5mm (2.81 inches) at marked points.

Operating Instructions

1. Color and White Light Adjustment

Utilize your RGBCCT SPI controller to access the full range of colors (RGB) and adjust the white light temperature. The white light can be set from 3000K (warm white) to 6500K (cool white), offering versatility for various lighting atmospheres. The FCOB technology ensures uniform, spot-free illumination across all colors and white tones.

2. Chasing Effects

Depending on your controller's capabilities, you can activate dynamic chasing effects for both RGB colors and CCT white light. Refer to your controller's manual for specific instructions on enabling and customizing these effects.



Image: Examples of RGB and CCT chasing effects achievable with the LED strip and a compatible controller.

Maintenance

The BTF-LIGHTING FCOB LED strip is designed for durability with a lifespan exceeding 65,000 hours. To maintain optimal performance and appearance:

- **Cleaning:** Gently wipe the surface of the LED strip with a soft, dry cloth. Avoid using abrasive cleaners or solvents, as these can damage the strip.
- **Environment:** This product is rated IP30, meaning it is **non-waterproof** and intended for indoor use only. Avoid exposure to moisture, high humidity, or direct water contact.
- **Inspection:** Periodically check connections for any signs of wear or damage. Ensure the strip remains securely adhered to its mounting surface.

Troubleshooting

- **Issue:** Brightness decreases at the end of a long series of connected strips.

Solution: This is a normal physical phenomenon. Use an RGBCCT signal amplifier (sold separately) to boost the signal and maintain uniform brightness across the entire length.

- **Issue:** LED strip flickers, overheats, or shows signs of circuit damage.
  Solution: Ensure your power supply is compatible with the LED strip's specifications (24V DC, sufficient wattage for total length). An undersized or incompatible power supply can cause these issues.
- **Issue:** LED strip does not display correct colors or functions.
  Solution: Verify that the correct color order is configured in your RGBCCT SPI controller settings. Refer to your controller's manual for instructions on setting the color order.
- **Issue:** No light from the LED strip.
  Solution: Check all power connections, ensure the power supply is active, and confirm the controller is properly connected and powered on. Verify that the LED strip is correctly connected to the controller.

Specifications

Brand	BTF-LIGHTING
Model	FCOB COB SPI RGBCCT 5M 840LED/m IP30
LED Type	FCOB (Flip Chip On Board) RGBCCT Dual IC Addressable
LED Density	840 LEDs/meter
Length	5 meters
Voltage	24V DC
Power Consumption	12W/meter (Max output up to 60W for 5 meters)
Color Temperature	3000K (Warm White) to 6500K (Cool White)
Color Rendering Index (CRI)	>90
Cuttable Length	Every 71 mm (2.8 inches)
IP Rating	IP30 (Non-waterproof)
Material	Plastic, Double-layer Copper PCB
Lifespan	>65,000 hours
Included Components	3M self-adhesive tape
Specific Uses	Indoor use only



Image: Comparison between FCOB and SMD LED strip technologies, illustrating the superior uniformity and brightness of FCOB.



Image: This product is IP30 rated, meaning it is non-waterproof. The image illustrates the difference between IP30 and IP66 versions.

Warranty Information

For warranty details, please refer to the specific terms and conditions provided by the seller or manufacturer at the time of purchase. Retain your proof of purchase for any warranty claims.

Customer Support

If you encounter any issues or have questions regarding your BTF-LIGHTING FCOB COB SPI RGBCCT LED Strip that are not covered in this manual, please contact BTF-LIGHTING customer support or your retailer for assistance.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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