

## BTF-LIGHTING RC03RFB+2XC04RF

# BTF-LIGHTING 2.4GHz Wireless RF Remote RC03RFB & C04RF Tuya Controller Kit User Manual

Model: RC03RFB+2XC04RF

## 1. PRODUCT OVERVIEW

This kit includes the BTF-LIGHTING 2.4GHz Wireless RF Remote (RC03RFB) and two C04RF Tuya Controllers, designed for controlling RGBW LED strips. It supports 4-zone group control and can be integrated with Tuya Smart Life APP via a GW01W Tuya Gateway (sold separately) for smart home compatibility.



Image 1.1: Overview of the 2.4GHz RF Remote and C04RF LED Controller Kit components.

Your browser does not support the video tag.

Video 1.1: An official overview of the BTF-LIGHTING 2.4GHz RF LED Controller Series, demonstrating compatibility and basic functions.

## 2. SETUP INSTRUCTIONS

### 2.1 Package Contents

- 1x RC03RFB Remote Control
- 2x C04RF Tuya Controllers
- 1x RF Remote Bracket
- 2x Screws
- 1x Double-sided Adhesive

*Note: AAA batteries for the remote and the GW01W Tuya Gateway are not included and must be purchased separately.*

### 2.2 Power Supply Requirements

The C04RF Tuya Controller supports DC5V, DC12V, and DC24V input. Ensure your power supply matches the voltage requirements of your LED strip. The maximum allowable current through the two power interfaces of the controller is 5A and 12A respectively.



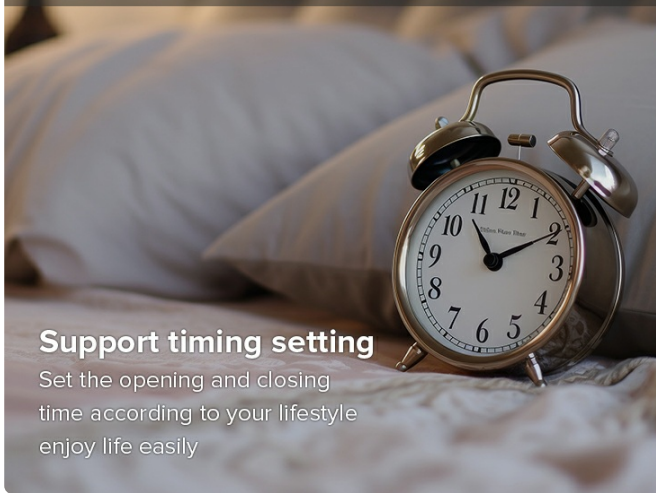
Image 2.1: The C04RF controller features two power input interfaces, supporting DC12V or DC24V. The 5.5mm x 2.1mm DC power jack input voltage equals the output voltage.

### 2.3 Wiring Diagram

Connect your RGBW LED strip to the C04RF controller according to the wiring diagram. Ensure correct polarity and connection of the R, G, B, W, and V+ wires.

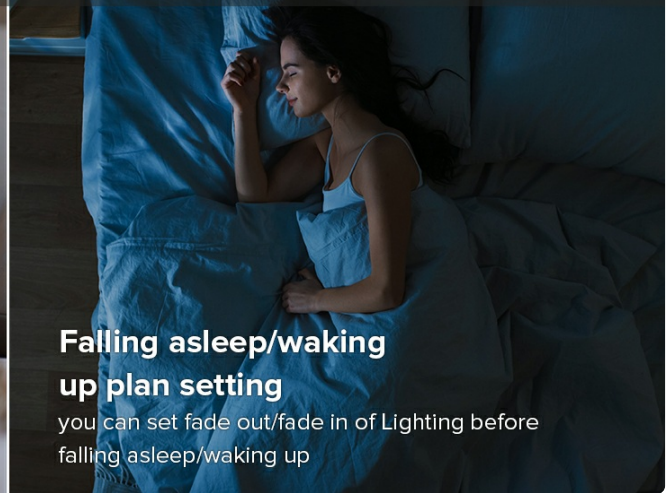
- **V+:** Positive power connection.
- **R:** Red channel output.
- **G:** Green channel output.
- **B:** Blue channel output.
- **W:** White channel output.

Need GW01W Tuya Gateway ,But Tuya Gateway is not included



### Support timing setting

Set the opening and closing time according to your lifestyle enjoy life easily



### Falling asleep/waking up plan setting

you can set fade out/fade in of Lighting before falling asleep/waking up

Image 2.2: Detailed wiring diagram showing how to connect the power supply and RGBW LED strip to the C04RF controller.

## 2.4 Controller Pairing (Remote Control)

To pair the RC03RFB remote with a C04RF controller:

1. Ensure the controller is powered off.
2. Power on the controller.
3. Within 3 seconds of powering on, press one of the Zone ON buttons (1, 2, 3, or 4) on the remote control.
4. The connected LED strip will flash three times to indicate successful pairing.

To unpair a controller from a zone:

1. Ensure the controller is powered off.
2. Power on the controller.
3. Within 3 seconds of powering on, press the corresponding Zone OFF button (1, 2, 3, or 4) five times.
4. The connected LED strip will flash ten times to indicate successful unpairing.

## 3. OPERATING INSTRUCTIONS

### 3.1 Remote Control Functions (RC03RFB)

The RC03RFB remote control features a touch color wheel and various buttons for comprehensive control of your LED strips.



Image 3.1: Diagram illustrating the buttons and functions of the RC03RFB remote control and the C04RF controller.

- **ON/OFF:** Master power control for all paired zones.
- **Color Ring:** Touch to select desired color (16 million colors).
- **Pilot Lamp:** Indicates remote activity.
- **Dynamic Modes:** Cycle through various pre-programmed lighting effects.
- **Brightness +/-:** Adjust brightness levels.
- **7 Colors Switching:** Quickly switch between 7 primary colors.
- **Color Temp/Saturation:** Adjust color temperature for white light or saturation for RGB colors.
- **White Light (W):** Activate pure white light.
- **Speed +/-:** Adjust the speed of dynamic modes.
- **Zone ON/OFF (1-4):** Turn individual zones on or off.
- **Night Light Mode:** Activates a low-brightness white light.

### 3.2 Group Control

The RC03RFB remote supports 4-zone group control, allowing you to manage multiple controllers independently or together. Each remote can be matched with one or more controllers per zone.

## 2.4GHz Wireless Transmission 4 Zone Control



Image 3.2: Illustration of 4-zone group control, demonstrating how different areas can be controlled independently.

The controllers feature an auto-transmitting function. One controller can transmit signals from the remote to another controller within 30 meters (98 feet), extending the effective control distance.



## Auto-Transmitting Function

One controller can transmit the signals from the remote control to another controller within 30m, as long as there is a strip controller within 30m, the remote control distance can be limitless

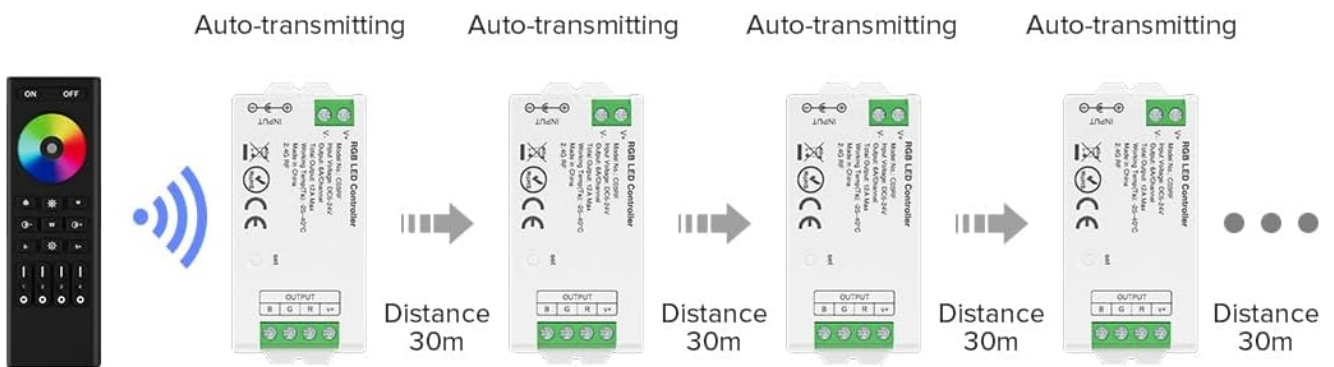


Image 3.3: Diagram explaining the auto-transmitting function, where controllers relay signals to extend the control range.

### 3.3 App Control (Requires GW01W Tuya Gateway)

For advanced control features, including voice control with Alexa and Google Home, timer settings, device sharing, and automation, a GW01W Wi-Fi+Bluetooth Dual Mode Tuya Gateway is required (not included).

### Group Control

You can add an endless numbers of lights to a zone on the 4 channel remote by linking the lights to different zones. This way you are completely flexible in creating different group combinations.

Below you can see some grouping examples.

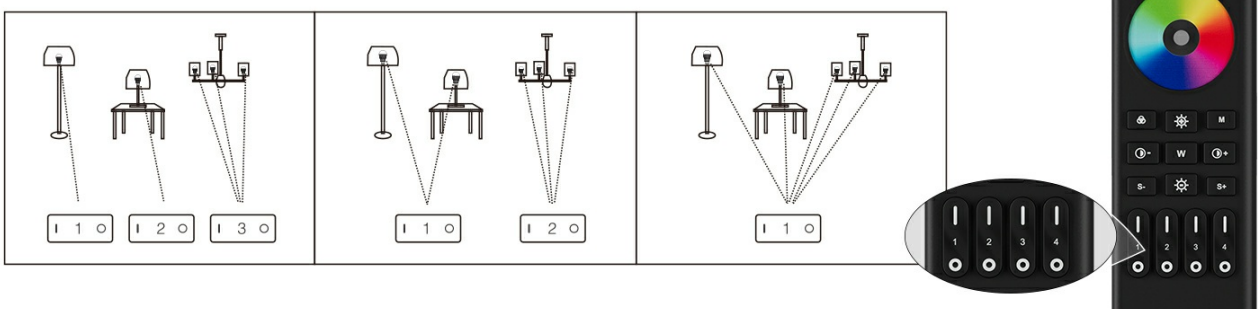


Image 3.4: The system supports smartphone app control and third-party voice control when connected to a Tuya Gateway.

### Steps to Control LED Strip through APP:

1. **Power Your Light Sources:** Connect the LED strip to the power supply.

2. **Power the GW01W Tuya Gateway:** Install the gateway within 30m of the lights and near your WiFi router.
3. **Download Smart Life or Tuya Smart App & Connect to Gateway:** Create an account, add the device, select the device working WiFi, and enter the password. Ensure the gateway indicator shows blue light (Linking). Connection is successful when the light shows green.
4. **Link the Lights or Controller to GW01W Gateway:** Switch off the lights you want to link, then switch them on again. Press the "SET" button on the 2.4G gateway once within 5 seconds. The lights will blink 3 times slowly, indicating successful linking.



Image 3.5: Step-by-step guide on how to connect and control your LED strip using the Smart Life or Tuya Smart app via the GW01W Tuya Gateway.

## 4. MAINTENANCE

To ensure optimal performance and longevity of your BTF-LIGHTING controller kit, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the remote control and controllers. Avoid using abrasive cleaners or solvents.
- **Battery Replacement:** The RC03RFB remote control uses AAA batteries. Replace them when the remote's response becomes sluggish or inconsistent. Ensure correct polarity when inserting new batteries.
- **Environment:** Keep the controllers and remote away from excessive moisture, extreme temperatures, and direct sunlight.

## 5. TROUBLESHOOTING

If you encounter issues with your BTF-LIGHTING controller kit, refer to the following common problems and solutions:

- **LED Strip Not Responding to Remote:**
  - Check if the remote's batteries are depleted and replace them if necessary.
  - Ensure the controller is powered on and the LED strip is correctly connected.

- Re-pair the remote control with the controller following the instructions in Section 2.4.
- Verify that the remote is within the 30-meter (98 feet) control range of the controller.

- **Incorrect Colors or Flickering:**

- Check the wiring connections between the LED strip and the controller for any loose or incorrect connections (R, G, B, W, V+).
- Ensure the power supply voltage matches the LED strip's requirements.

- **App Control Not Working:**

- Confirm that the GW01W Tuya Gateway is properly set up and connected to your home Wi-Fi network.
- Ensure the controller is successfully linked to the Tuya Gateway (refer to Section 3.3).
- Check your Wi-Fi signal strength and ensure the gateway is within range of both the router and the controllers.

- **Remote Control Color Wheel is Too Sensitive:**

- This is a known characteristic of the touch wheel design. Exercise care when adjusting colors to achieve the desired shade.

## 6. SPECIFICATIONS

Feature	Specification
Brand	BTF-LIGHTING
Model Name	RC03RFB+2XC04RF
Model Number	RC03RFB-C04RF
Connectivity Technology	Radio Frequency (2.4GHz)
Controller Type	Button Control
Compatible Devices	5050SMD, 3528SMD, 5630SMD RGBW FCOB COB LED strips (5-wire)
Voltage Support	DC5V, DC12V, DC24V
Max Output Current (Controller)	5A and 12A (two power interfaces)
Maximum Range	98 Feet (30 meters)
Group Control	4 Zones
Remote Battery Type	AAA (not included)
Item Weight	0.17 Kilograms

## **7. WARRANTY INFORMATION**

BTF-LIGHTING products are manufactured to high-quality standards. For specific warranty details, please refer to the product packaging or contact BTF-LIGHTING customer support. Keep your purchase receipt as proof of purchase for any warranty claims.

## **8. CUSTOMER SUPPORT**

For technical assistance, troubleshooting, or product inquiries, please contact BTF-LIGHTING customer support through the retailer's platform or visit the official BTF-LIGHTING website for contact information.