

BTF-LIGHTING JQGD RT9+VP

BTF-LIGHTING RT9 & VP LED Strip Controller Kit User Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your BTF-LIGHTING RT9 & VP LED Strip Controller Kit. This kit is designed to provide versatile control over RGB and RGBW LED strips, offering features such as multi-zone control, color adjustment, and brightness dimming via a 2.4GHz RF wireless remote.

2. SAFETY INFORMATION

- Ensure the input voltage (12V/24V DC) matches the requirements of both the controller and the LED strips. Incorrect voltage can cause damage.
- Do not exceed the maximum output current or power ratings of the controller. Overloading can lead to overheating and failure.
- Always disconnect power before making any wiring connections to prevent electrical shock.
- Install the controller in a dry, well-ventilated area. Avoid exposure to moisture, high temperatures, or corrosive environments.
- This product is designed for indoor use only.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

Packing list



This image displays the complete contents of the BTf-LIGHTING RT9 & VP LED Strip Controller Kit, including the remote control, VP receiver, instruction manual, two AAA batteries, and a wall-mounted remote holder.

- 1 x RT9 RF 2.4GHz Wireless Remote Control
- 1 x VP 4-Channel LED Controller (Receiver)
- 1 x Remote Wall Mount Bracket
- 2 x AAA Batteries (for remote)
- 1 x User Manual (this document)

4. SPECIFICATIONS

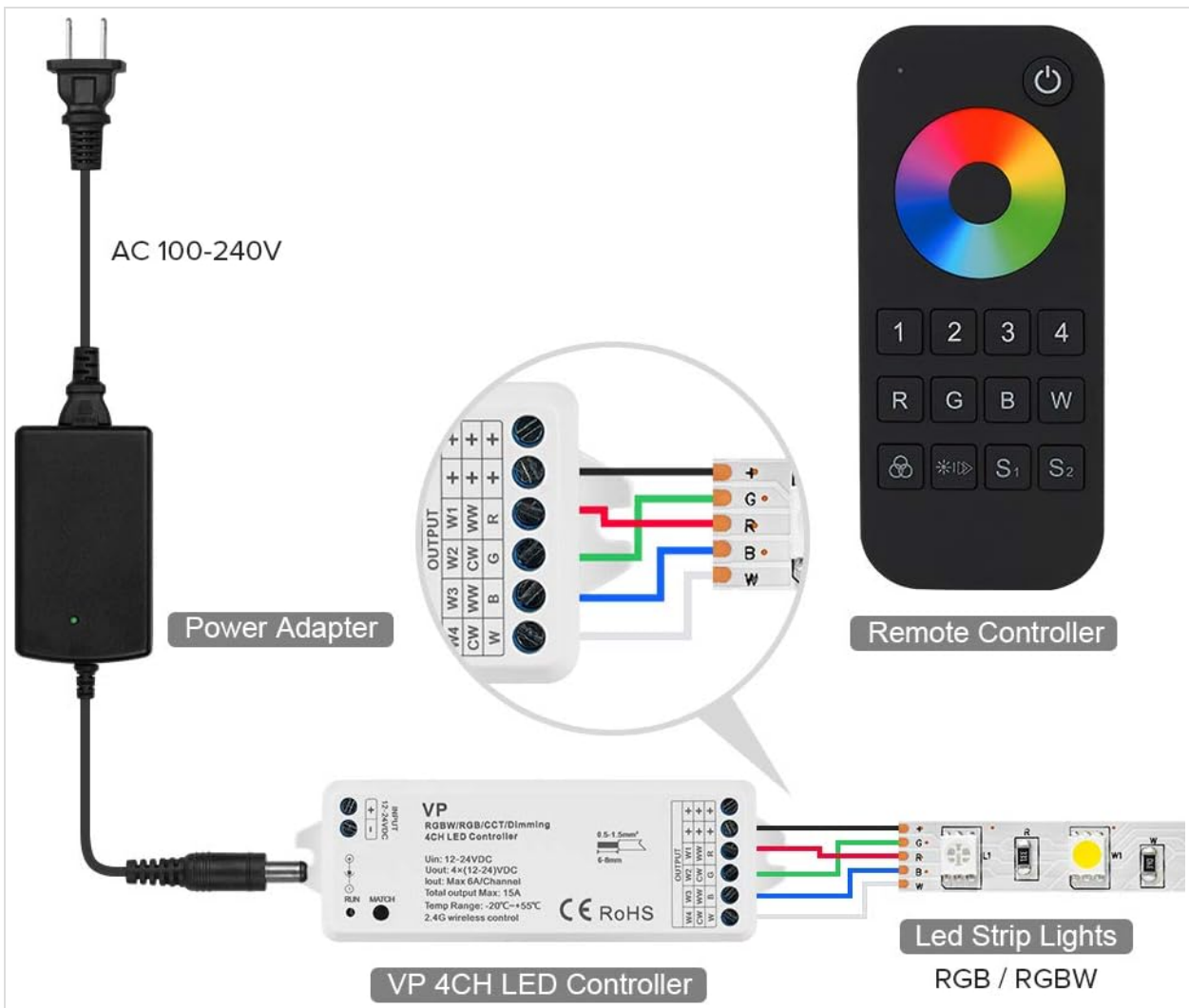
| Feature | Specification |
|---------------------|---------------|
| Model Number | JQGD RT9+VP |
| Input Voltage | 12/24V DC |
| Input Current (Max) | 15.5A |

| Feature | Specification |
|------------------------|--------------------------------------|
| Output Voltage | 4 x (12/24)V DC |
| Output Current | 4 channels, 4A/channel, Max 6A total |
| Output Power (Max) | 4 x (48/96)W |
| Output Type | Constant Voltage |
| Input Signal | RF 2.4GHz |
| Control Distance | 30m (barrier-free space) |
| Dimming Gray Scale | 4096 (2 ¹²) levels |
| Dimming Range | 0-100% |
| PWM Frequency | 750Hz (default) |
| Operation Temperature | -30°C ~ +55°C |
| IP Rating | IP20 |
| Case Temperature (Max) | Tc: +85°C |
| Indoor/Outdoor Usage | Indoor |

5. SETUP

5.1. Wiring Diagram

Follow the diagram below for correct electrical connections. Ensure all connections are secure before applying power.

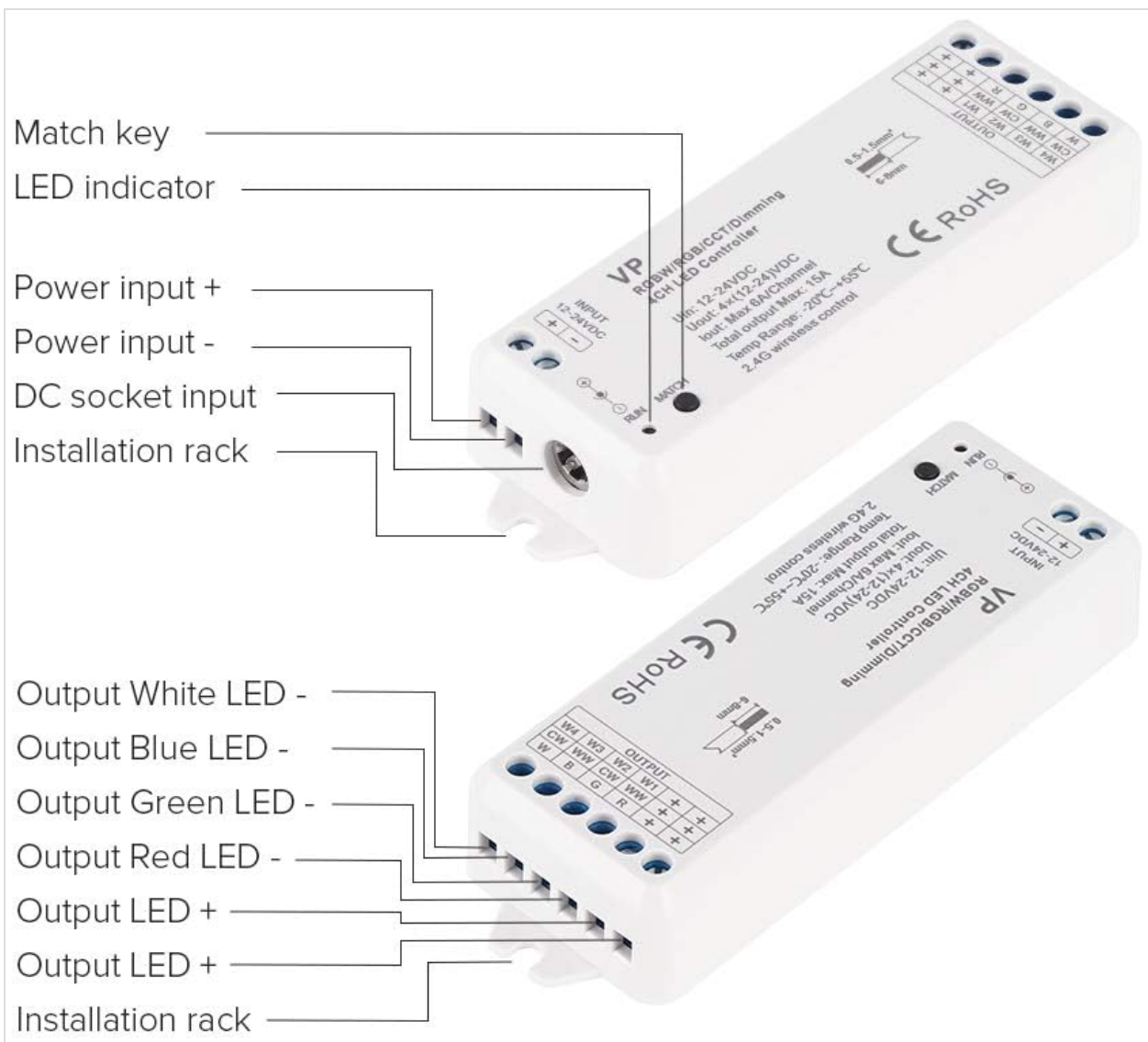


This diagram illustrates the correct wiring connections for the VP 4CH LED Controller. It shows the AC 100-240V power adapter connecting to the controller's input, and the controller's output connecting to the RGB/RGBW LED strip lights. The remote controller is also shown for reference.

1. Connect your 12V or 24V DC power adapter to the input terminals of the VP controller. Ensure the positive (+) and negative (-) terminals are correctly matched.
2. Connect the LED strip to the output terminals of the VP controller. For RGBW strips, connect the Red (R), Green (G), Blue (B), and White (W) wires to their respective terminals, and the common positive (+) wire to the V+ terminal. For RGB strips, connect R, G, B, and V+.
3. Ensure all connections are tight and insulated to prevent short circuits.

5.2. Controller Overview

Familiarize yourself with the controller's ports and indicators.



A detailed view of the VP LED Controller, indicating the power input terminals (12-24VDC), DC socket input, match key, LED indicator, and the output terminals for Red, Green, Blue, and White LED channels, along with the common positive (+) output.

- **Power Input:** Terminals for 12-24V DC power supply.
- **DC Socket Input:** Alternative power input via a DC barrel jack.
- **Match Key:** Used for pairing the remote control.
- **LED Indicator:** Shows the status of the controller (e.g., pairing mode, signal reception).
- **Output Terminals:** Labeled V+, R, G, B, W for connecting LED strips.

5.3. Remote Pairing

To pair the RT9 remote control with the VP controller:

1. Ensure the VP controller is powered on and connected to the LED strip.
2. Within 3 seconds of powering on the controller, press the 'Match' key on the VP controller once. The LED indicator on the controller will flash.
3. Immediately press any button on the RT9 remote control.
4. If pairing is successful, the LED strip will flash a few times, indicating a successful connection.
5. If pairing fails, repeat the steps. Ensure the remote is within range and its batteries are functional.

6. OPERATING INSTRUCTIONS

6.1. Basic Remote Functions

The RT9 remote control allows for comprehensive management of your LED lighting. Insert the two AAA batteries into the remote before use.



This image demonstrates the wireless transmission capability of the RT9 remote, allowing control of individual lighting zones (Zone 1 to Zone 4 and more) within a 30-meter distance in a barrier-free space. The remote can control multiple LED bulbs or strips in different areas of a home.

- **Power Button:** Turns the connected LED strips on or off.
- **Color Wheel:** Touch the color wheel to select any desired color.
- **Brightness Adjustment:** Use the brightness up/down buttons to adjust the intensity of the light.
- **Mode Buttons (S1, S2):** Cycle through pre-programmed dynamic lighting modes.
- **Zone Selection (1, 2, 3, 4):** Select individual zones to control them independently. Press and hold a zone button to link/unlink a controller to that zone.
- **RGB/W Buttons:** Directly select Red, Green, Blue, or White colors.

6.2. Zone Control

The RT9 remote supports up to 4 independent zones, allowing you to control different sets of LED strips

separately or together.



This diagram illustrates how multiple VP controllers can be linked together to extend the wireless control range. Each controller can communicate with others within a 30-meter radius, allowing for a larger network of controlled LED strips.

- To assign a controller to a zone: Power on the controller, then within 3 seconds, press the 'Match' key on the controller. Immediately press the desired zone number (1-4) on the remote. The LED strip will flash to confirm assignment.
- To control a specific zone, press its corresponding number button on the remote.
- To control all zones simultaneously, press the 'All' button (if available on your remote model, or cycle through zones).

6.3. Product Feature Videos

This video demonstrates the color-changing capabilities and brightness adjustment of the RGBW 5050SMD LED strip light when controlled by the BTF-LIGHTING system. It showcases the range from 1% to 100% brightness and millions of available colors.

This video provides a visual guide on how to use the RT9 remote control with the VP LED strip controller. It shows the remote's functions for changing colors (RGB and white), adjusting brightness, and selecting different lighting modes for 4-pin and 5-pin LED strips.

7. MAINTENANCE

- **Cleaning:** Gently wipe the controller and remote with a dry, soft cloth. Do not use harsh chemicals or abrasive cleaners.
- **Battery Replacement:** Replace the remote control batteries (2x AAA) when the control range decreases

or the remote becomes unresponsive.

- **Storage:** If storing the kit for an extended period, remove batteries from the remote and store in a cool, dry place.

8. TROUBLESHOOTING

| Issue | Possible Cause / Solution |
|--|--|
| LED strip does not light up. | <ul style="list-style-type: none">• Check power supply connection to the controller.• Ensure the power supply provides the correct voltage (12V/24V) and sufficient amperage for your LED strip length.• Verify LED strip is correctly wired to the controller outputs (V+, R, G, B, W).• Check for any loose connections or damaged wires. |
| Remote does not control the LED strip. | <ul style="list-style-type: none">• Ensure the remote is paired with the controller. Refer to the "Remote Pairing" section (5.3).• Check the remote's battery level and replace if necessary.• Ensure there are no significant obstructions between the remote and the controller.• Confirm the remote is within the 30m control range. |
| Incorrect colors or flickering. | <ul style="list-style-type: none">• Verify wiring connections for RGB/RGBW channels are correct and secure.• Ensure the LED strip type (RGB or RGBW) matches the controller's configuration.• Check for a stable power supply; voltage fluctuations can cause flickering. |
| Limited control range. | <ul style="list-style-type: none">• Ensure the controller is not obstructed by large metal objects or other sources of RF interference.• The maximum control distance is 30m in barrier-free space. Walls and other obstacles will reduce this range.• Consider adding more controllers to extend the network range if needed. |

9. WARRANTY AND SUPPORT

BTF-LIGHTING products are manufactured to high standards and undergo rigorous testing. This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. For specific warranty details, please refer to the product packaging or contact your retailer.

If you encounter any issues or require technical assistance, please contact BTF-LIGHTING customer support through the retailer's platform or the official BTF-LIGHTING website. Please have your product model number (JQGD RT9+VP) and purchase information ready when contacting support.

