




Rayrun PB.0 LED Controller User Manual

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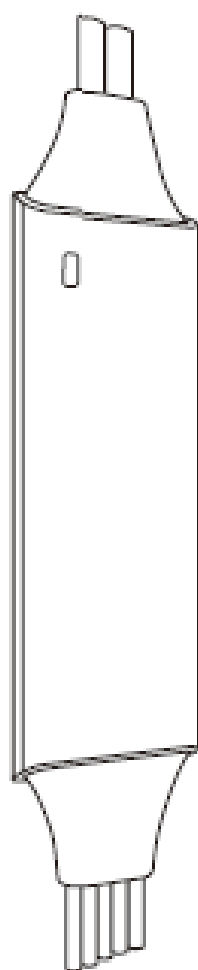
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Rayrun PB.0 LED Controller



4-in-1 Multi-function Model Advanced Parameters Full Protection



Smart Control



4-in-1 Model



User Parameters



Full Protection



Compact Size



Waterproof

Working status indicator

This indicator shows all working status of the controller. It displays different events as following:

- **Steady blue** : Normal working.
- **Short white blink**: Command received.
- **White blink for 3 times**: Confirmation or identification. Single yellow flash : Edge of the adjustment.
- **Red flash**: Overload protection.
- **Yellow flash**: Overheat protection.

LED output

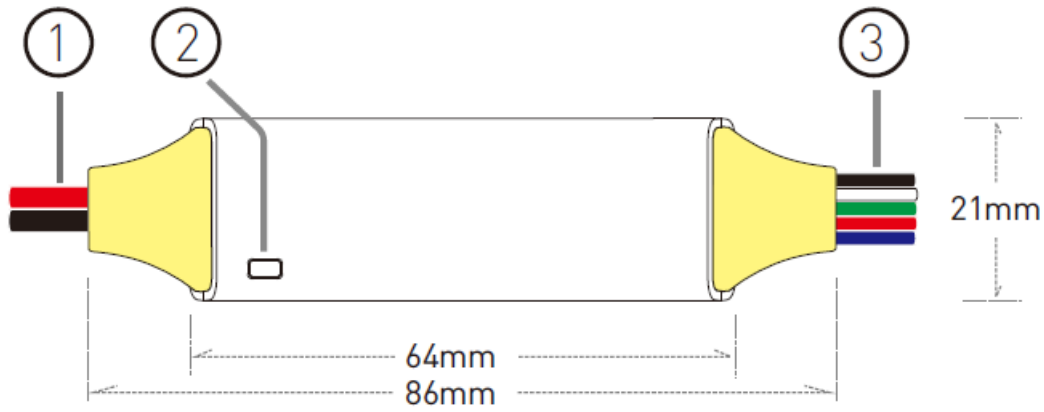
Connect to LED loads. The LED loads need to be constant voltage driving and with common anode connection. Please make sure the LED rated voltage is same as the power supply and each channel maximum load current is below the controller's rated current. The controller can be configured to different applications for single color, CCT, RGB or RGBW. For different application, the 1-4 channel is mapped as following table:

Application	CH1 (white cable)	CH2 (green cable)	CH3 (red cable)	CH4 (blue cable)
Single color	White	White	White	White
CCT	Cool white	Cool white	Warm white	Warm white
RGB	No use	Green	Red	Blue
RGBW	White	Green	Red	Blue

Introduction

This LED controller is designed to drive single color to RGB+White constant voltage LED products in the voltage range of DC 6-24V . With powerful functions of Casambi platform, it also has advanced user parameters to fine tune the application. With compact size and lead wire design, the controller can be installed in narrow space. The IP68 waterproof feature is available on -S version for various applications.

Function & Size

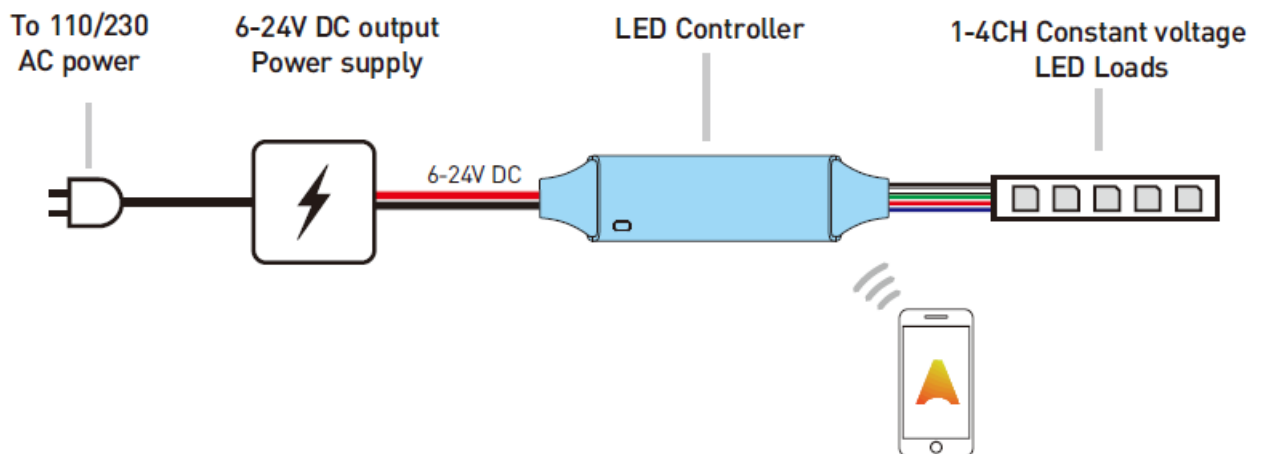


Power supply input

Connect to power supply. The controller can accept supply voltage from DC 6V to 24V, the red power cable should be connected to power positive and black to negative. The output voltage is at same level as the power, please make sure the power supply voltage is correct and the power is capable for the load wattage.

Wiring

Please connect the controller output to LED loads and power supply to the controller power input. The power supply voltage must be same as the LED load's rated voltage. Check all cables to be well connected and insulated before power on.



Operation

Control by smartphone

Please install CASAMBI app on your smart phone first. It requires iOS10.0, Android 4.4 or macOS11.0 or later system to support the app. All functions of the controller is integrated with the CASAMBI app, please find the guidance on the app for operation.

IP68 Waterproof (-S version)

The -S version controller has IP-68 waterproof feature with glue injection finish. For overall waterproof performance, the cables must be waterproof treated separately.

Wireless signal degrade : The wireless communication ability could degrade when using at wet environment, please be aware that the wireless control distance will be shortened in such case.

Advanced features

Change model function

The working mode can be changed from 1 channel (single color) to 4 channels (RGBW) from the Casambi app. To change the model, Please make sure the controller is not paired and then select the 'Change profile' function on the app to select desired model.

Change user parameters

The gradient time and PWM frequency is adjustable from the user parameter setting. Please go to the setting menu on Casambi app to set up the parameters.

Protection feature

The controller has full protection function against wrong wiring, load short circuit, overload and overheat. The controller will stop working and the indicator will flash with red / yellow color to indicate the malfunction. The controller will try to recover from protection status in a short time when the working condition is good. For protection issues, please check the situation with different indicator information:

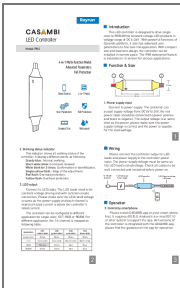
Red flash: Check the output cables and load, make sure no short circuit and the load current is in rated range. Also the load must be constant voltage type.

Yellow flash: Check the installation environment, make sure in a rated temperature range and with good ventilation or heat dissipation condition.

Specification

Function	Single color, CCT, RGB, RGBW
Working voltage	DC 6-24V
Rated output current	4x3A
Smartphone connection	Bluetooth mesh
Output mode	PWM constant voltage
User parameter	Gradient, PWM frequency
PWM frequency	500Hz, 1KHz, 2KHz, 4KHz
Overload protection	Yes
Overheat protection	Yes
Waterproof	IP63 for standard version, IP68 for -S version
Working temperature (Ta)	-20°C~+55°C
Dimension	86x21x8.5mm

Documents / Resources



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