



Rayrun P12 Single Color LED Controller User Manual

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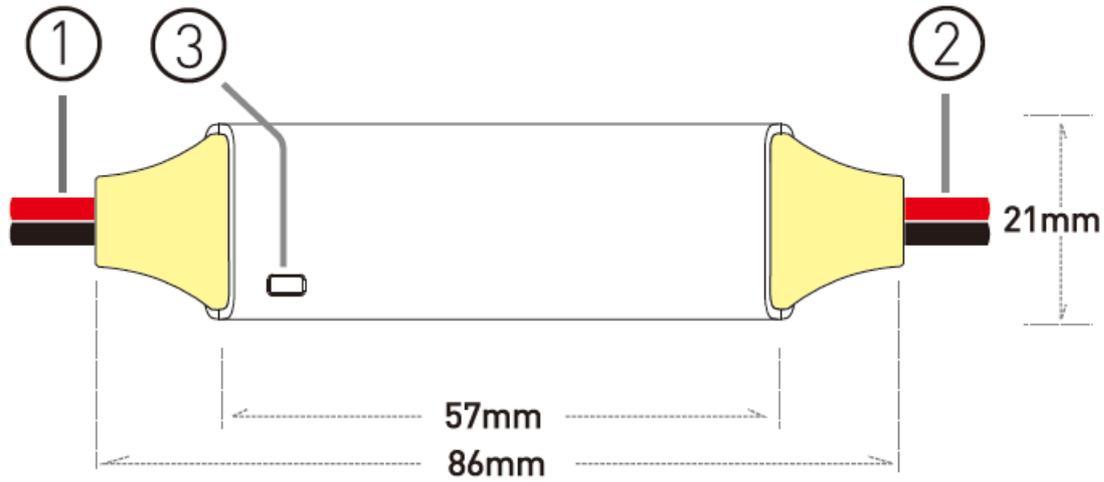
Rayrun P12 Single Color LED Controller



Introduction

P12 single color LED controller is designed to drive constant voltage LED products in voltage range of DC5- 24V. The main unit works with a RF remote controller, user can setup LED brightness from the remote controller. The

main unit is powered by DC power supply and receives remote controller commands to drive LED fixtures.



FEATURE



Full Protection



High Power



Waterproof



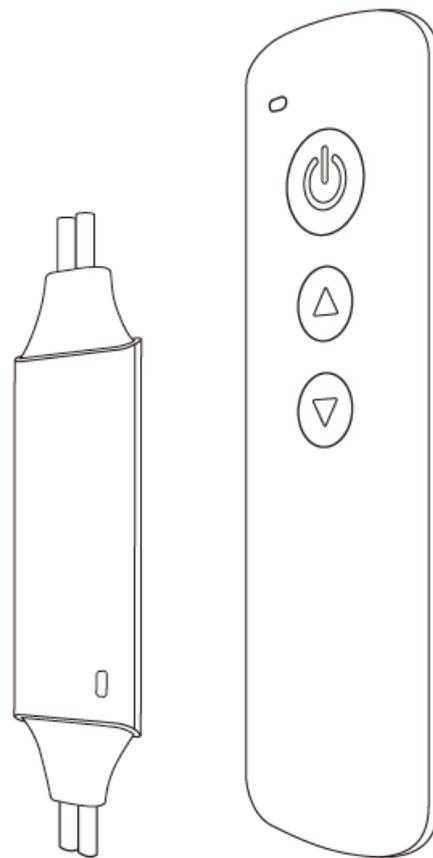
Compact Size



Wireless Remote



Wide Voltage Range



Wiring & Indicator

Power supply input

The controller supply voltage range is from DC 5V to 24V. The red power cable should be connected to power positive and black to negative. (For other cable color, please refer to the labels). The LED output voltage is at

same level as the power voltage, please make sure the power supply voltage is correct and the power rating is capable for the load.

LED output

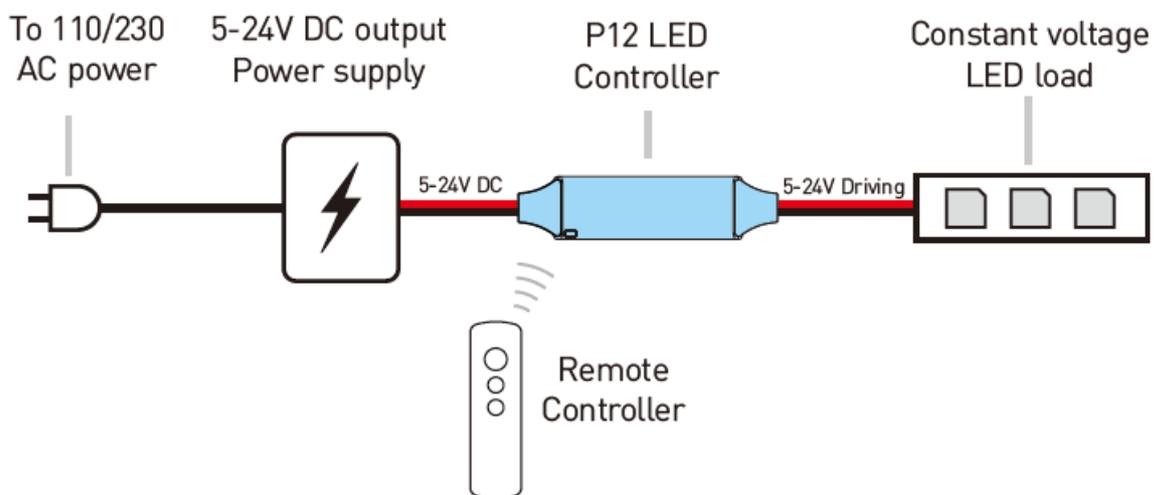
Connect constant voltage LED loads. Please connect red cable to LED+ and black cable to LED-. Please make sure the LED rated voltage is same as the power supply and each channel's maximum load current is in range of the controller rated current.

Work 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: New remote paired. Single yellow flash : Edge of the content. Red flash: Overload protection. Yellow flash: Overheat protection.

Wiring diagram

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.

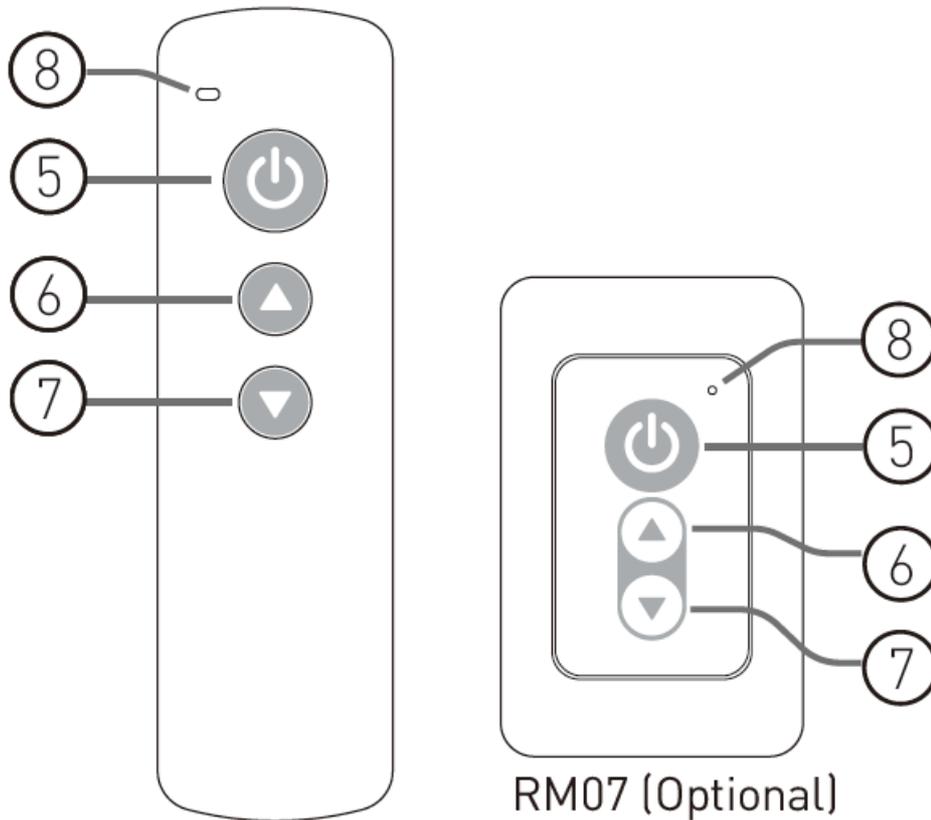


Functions

Turn ON / OFF

Press this key to turn on or turn off the light. Cotnroller will memorize the on/off status and will restore to the previous status on next power on.

Please use remote controller to turn on the unit if it was switched to off status before previous power cut



Brightness adjust

Press  key to increase brightness and press  key to decrease. Hold press to adjust brightness smoothly. When controller is at 'OFF' status, user can also hold press  key to turn on the light to minimum brightness

Remote indicator

This indicator blinks when remote controller works. The indicator will flash slowly if the battery is empty, please change the remote controller battery in this case. The battery model is CR2032 lithium cell.

Operation

Using the remote

Please pull out the battery insulate tape before using. The RF wireless remote signal can pass through some nonmetal barrier. For proper receiving remote signal, please do not install the controller in closed metal parts.

Pairing a new remote controller

The remote controller and main unit is 1 to 1 paired for factory default. It's possible to pair maximum 5 remote controllers to one main unit and each remote controller could be paired to any main unit.

You could pair a new remote controller to main unit by following steps:

- Plug off the power of main unit and plug in again after more than 5 seconds.

- Press  and  key simultaneously for about 3 seconds, within time of 10 seconds after the main unit powered on.

Recognize current remote only

In some cases, one main unit might be paired with several remote controllers but extra remote controllers are no longer needed. User could simply pair the current using remote to main unit again, then the main unit will dis-pair all other remote controllers and recognize current one only.

Advanced features

Waterproof (-S version)

The IP-68 waterproof feature with glue injection finish is available on -S version controllers. 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.

Protection function

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:

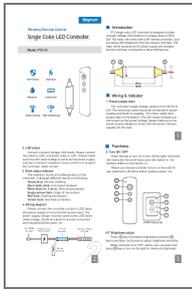
Red flash: Check the output cables and load, make sure no short circuit and the load current is in rated range. Also the load must be constant voltage type.

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

SPECIFICATION

Model	P12	P12-S
Brightness grade	7 levels	
PWM grade	4000 steps	
Overload protection	Yes	
Overheat protection	Yes	
Working voltage	DC 5-24V	
Remote frequency	433.92MHz	
Remote control distance	>15m at open area	
Rated output current	1x15A	
IP Grade	IP63	IP68

Documents / Resources



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