



# Rayrun T120 Tunable White LED Controller User Manual

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The Rayrun logo, featuring the word "Rayrun" in white italicized font on a blue rectangular background.

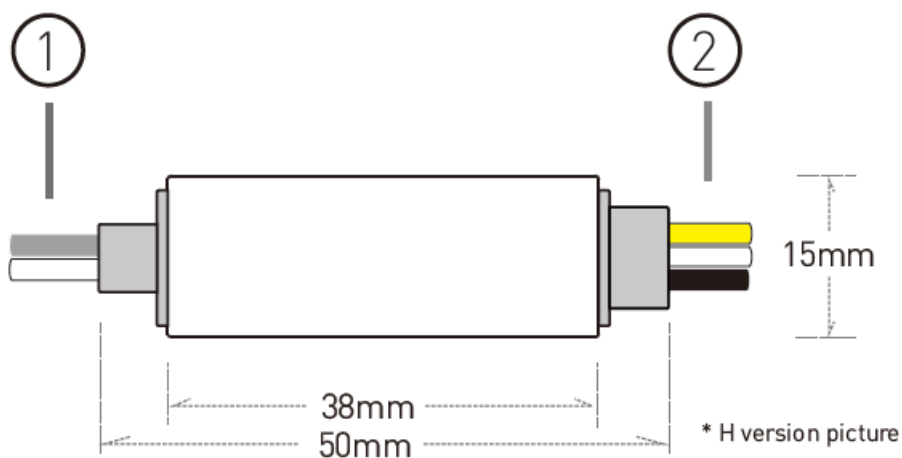
**Rayrun T120 Tunable White LED Controller**



## Introduction

T112 LED dimmer is designed to drive constant voltage single color LED products such as LED strip or LED module in voltage range of DC5-24V. The receiver works with the RF wireless remote controller, user can setup LED brightness from the remote controller.

## Receiver & wiring



## Power supply input

The controller supply voltage range is from DC 5V to 24V. Please refer to the print on the controller for cable polarity. The output voltage is at the same level as the power voltage, please make sure the power supply voltage

is correct and the power wattage is capable for the load wattage. Please be noted the positive power cable is directly connected to the output cable inside the controller.

### LED output

Connect to LED loads. Please refer to the print on the controller for cable polarity and connect LED load with according polarity. Please make sure the LED rated voltage is same as the power supply and the maximum load current is below the controller rated current.



Wireless Remote



Ultra Compact



Wide Voltage Range



Memory Function

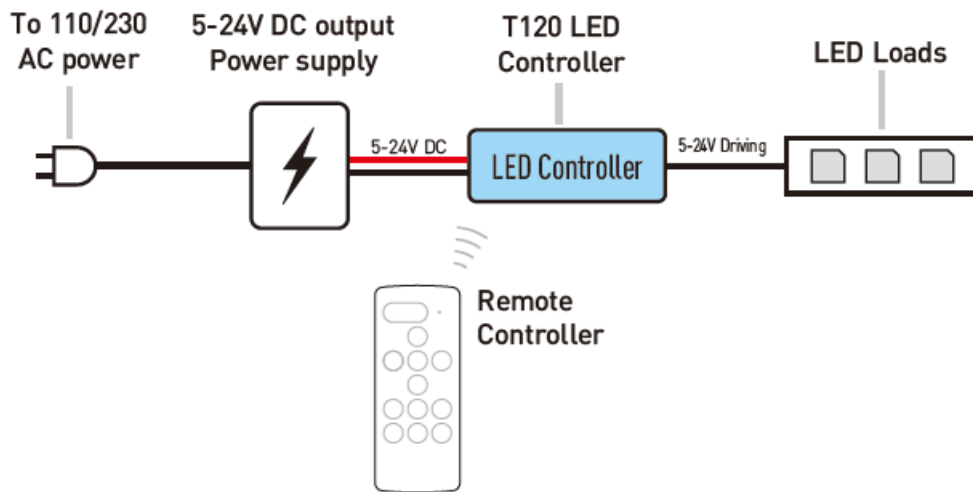


Overheat Protection

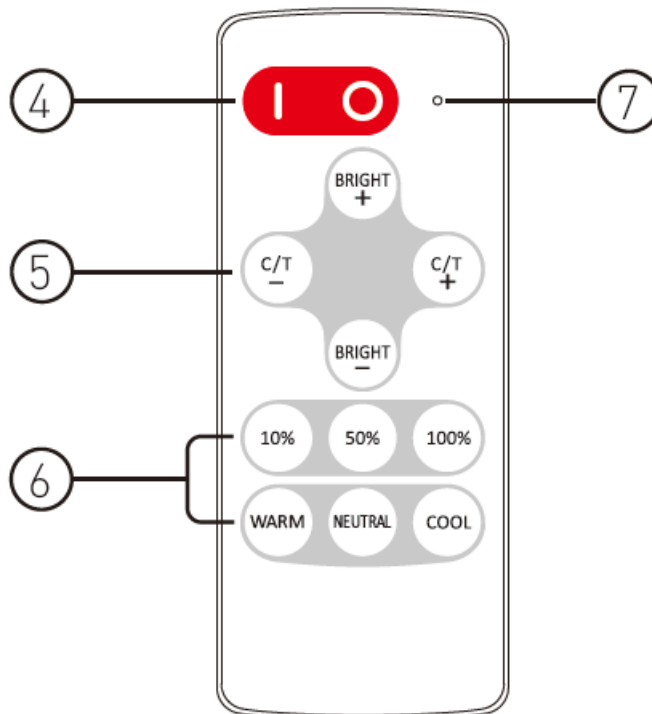
**CAUTION!** The controller might be permanently damaged if output cables short circuit. Please ensure the cables are well insulated to each other.

### Wiring diagram

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







## Remote controller function



### Turn ON / OFF

Press 'I' key to turn on controller or press 'O' key to turn off. The controller will memorize the on/off status and will restore to the previous status on the next power on. Please use remote controller to turn on the unit if it was switched to off status before power cut.

### Brightness and color temperature adjust

Press  and  keys to adjust brightness up and down, press these  or  key to adjust color temperature up and down.

### Brightness & color temperature shortcut

Press the key with relative printing to jump to specified brightness or color temperature setting.

### Remote indicator

This indicator blinks when remote controller is working. If the indicator flashes slowly when pressing keys, it

means the remote battery is used up and please change the battery in this case. The battery type is CR2032.

## Remote controller operation

### Using the remote controller

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.

### Pair a new remote controller

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

To pair a new remote controller, please follow two steps:

1. Plug off the power of receiver and plug in again after more than 5 seconds.
2. Press and key simultaneously for about 3 seconds, within 10 seconds after the receiver powered on. After this operation, the LED fixture will flash quickly to acknowledge that remote pairing is accomplished.

### Keep one remote and forget others

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

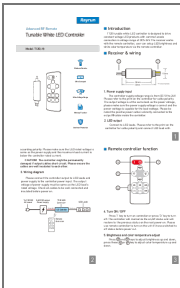
## Overheat Protection

The controller has overheat protection feature and it can protect itself from damage caused by some abnormal usage such as overloading which generates excess heat. At overheat situation, the controller will shutdown the output for a short while and recover when temperature drops to a safe range. Please check the output current and make sure it's under rated level at this situation.

## Specification

- **Output mode** PWM constant voltage
- **Working voltage** DC 5-24V
- **Rated output current** 2x3A
- **White brightness grade** 11 levels
- **PWM frequency** 1KHz
- **PWM physical grade** 256 steps
- **Overheat protection** Yes
- **Remote frequency** 433.92MHz
- **Remote control distance** >15m at open area
- **Power off memorizing** Yes, restore to previous mode before off.
- **Housing** Tubed for standard, ABS+Slicon for -H version
- **Controller dimension** 50x15x7mm

## Documents / Resources



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T120 Tunable White LED Controller, T120, Tunable White LED Controller, LED Controller, Contr  
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