

# Rayrun T110 Single Color LED Controller User Manual

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**Rayrun T110 Single Color LED Controller** 

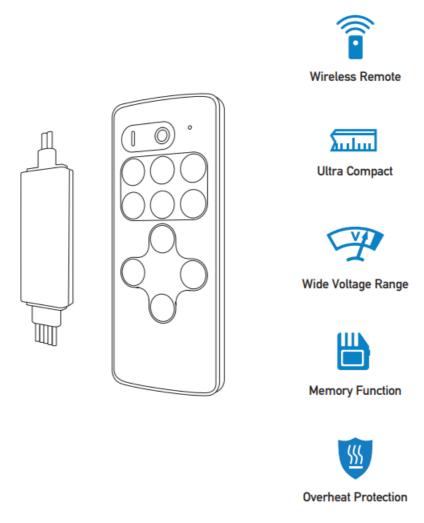


# Introduction

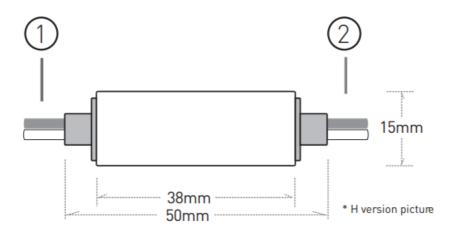
T110 LED controller is designed to drive constant voltage single color LED products such as LED strip or LED module in voltage range of DC5-24V. The receiver works with the RF wireless remote controller, user can setup LED brightness and dynamic effects from the remote controller.

**Functions** 

Model: T110 (-H)



# **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

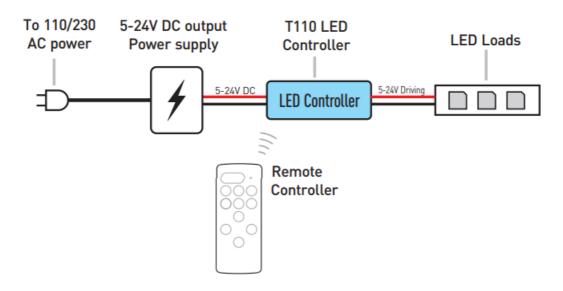
Connect to LED loads. Please refer to the print on the controller for cable polarity and connect LED load with

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.

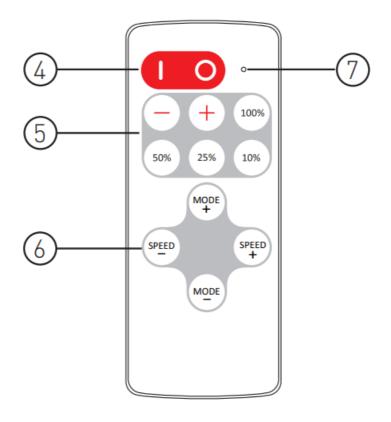
**CAUTION!** The controller might be permanently damaged if output cables short circuit. Please ensure the cables are well insulated to each other.

## 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 adjust**

Press '+' and '-' key to adjust brightness sequently or press the 100%, 50%, 25% and 10% key to jump to specified brightness level.

#### **Dynamic effects**

Press and keys to adjust the dynamic effect mode and press and keys to adjust the effect playing speed.

#### **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 50% 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.

## **Specification**

Output mode	PWM constant voltage
Working voltage	DC 5-24V
Rated output current	5A
White brightness grade	10 levels
Dynamic effect	8 modes
Dynamic speed grade	10 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

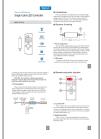
# Keep one remote and forget others

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 shut down the output for a short while and recover when the temperature drops to a safe range. Please check the output current and make sure it's under rated level at this situation.

## **Documents / Resources**



# Rayrun T110 Single Color LED Controller [pdf] User Manual

T110 Single Color LED Controller, T110, Single Color LED Controller, Color LED Controller, LE D Controller, Controller

Manuals+,