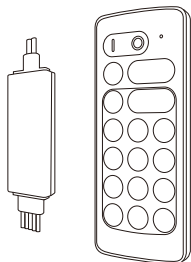


## Advanced RF Remote

## RGB+W LED Controller

Model: T140(-H)



-  Wireless Remote
-  Ultra Compact
-  Wide Voltage Range
-  Memory Function
-  Overheat Protection

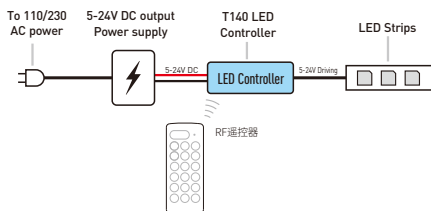
## 2. LED output

Connect LED fixtures to this terminal. Install LED common anode cable into the terminal marked with '+' or black cable and each channel LED cables to the relevant color cables. Please make sure the LED rated voltage is same as the power supply and each channel's maximum load current is below the controller rated current.

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

## 3. Wiring diagram

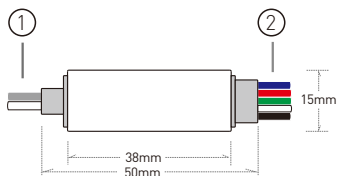
Please connect the controller output to LED loads and power supply to the controller power input. The output voltage of power supply must be same as the LED load's rated voltage. Check all cables to be well connected and insulated before power on.



## ■ Introduction

T140 LED controller is designed to drive constant voltage RGB+White LED products with common anode connection in voltage range of DC5-24V. The receiver works with the RF remote controller, user can setup white LED brightness, RGB LED color, brightness and dynamic effects on the remote controller, the receiver is powered by DC power supply and receives remote controller commands to drive LED fixtures.

## ■ Receiver & wiring

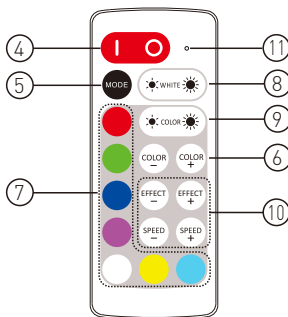


### 1. Power supply input

The controller supply voltage range is from DC 5V to 24V. The white power cable should be connected to power positive pole and gray to negative (For other cable color, please refer to the labels). The output voltage is at the same level as the power voltage, please make sure the power supply voltage is correct and the power rating is capable for the load power range.

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## ■ Remote controller function



### 4. 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.



### 5. Light mode switch

Press this key to switch between RGB, white and RGB+White mode. In RGB mode, white channel will be disabled; In white mode, RGB channel will be disabled; In RGB+White mode, all channels are usable.

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## 6. Select static RGB color

Press  and  key to select color from the preset library colors.

## 7. Shortcut color select

Shortcut key to static colors. LED will run the relevant color when pressing the specific color key. The shortcut color is included in 'COLOR+' and 'COLOR-' content.





## 8. White brightness control

Press  key to increase white LED brightness and press  key to decrease.

## 9. RGB brightness control

Press  key to increase RGB LED brightness and press  key to decrease.

## 10. RGB dynamic effect

These keys control the RGB dynamic effects. Press  and  to select dynamic effects and press  and  key to set the running speed of the dynamic effects.

## 11. Remote indicator

This indicator blinks when remote controller is working. If the indicator flash slowly when pressing keys, it means the remote battery is nearly empty and please change the battery in this case. The battery model is CR2032.

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## ■ 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	4x2A (Total max 6A)
Static color	30 colors
Dynamic effect	42 modes
White brightness grade	10 levels
Color brightness grade	5 levels
Speed grade	10 levels
Direct color select	7 direct keys
PWM frequency	1KHz
PWM physical grade	4000 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.
Controller dimension	50x15x7mm

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## ■ Remote operation

### 12. 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.

### 13. 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 main unit and plug in again after more than 5 seconds.

2). Press  and  keys 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.

### 14. Keep one remote and forget others

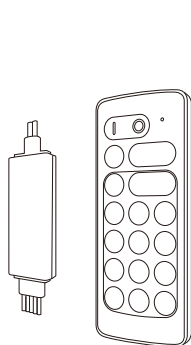
In some cases, one receiver might be paired with several remote controllers but extra remote controllers are no longer needed except current using one. User can simply pair the current using remote to receiver again, then the receiver will dis-pair all other remote controllers and recognize current one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

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RF无线遥控

## RGBW LED控制器

型号: T140(-H)



无线遥控



小尺寸



宽压输入



记忆功能



过热保护

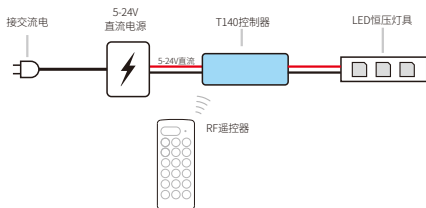
## 2. LED输出

连接LED灯具。请参考控制器上标明的电缆极性，并连接LED灯具的同极性电缆。请确保LED的额定电压与电源相同，并且每个通道的最大负载电流低于控制器额定电流。

**请注意!**如果控制器输出电缆被意外短路，可能导致控制器严重损坏，请确保电缆可靠连接并良好绝缘。

## 3. 接线图解

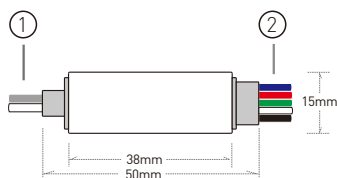
请将控制器输出与恒压LED灯具相连接，并将控制器输入与电源相连接。电源电压需与LED恒压灯具的额定电压相同。请在通电前检查所有电缆连接是否正确。



## ■ 简介

T140 RGBW LED控制器用来驱动电压范围为5V到24V的LED灯带或LED模块等恒压LED灯具。用户可以通过卡片式射频控制器来调节LED灯具的颜色、亮度和动态模式。控制器需要直流电源供电，并根据接收到的遥控器指令驱动LED灯具，实现颜色、亮度和动态模式调节功能。

## ■ 主机和接线

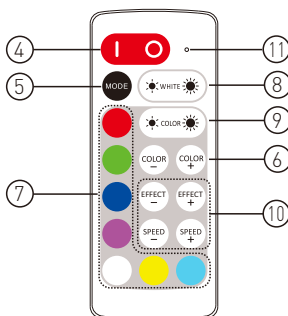


## 1. 电源输入

控制器可接受电压为5V到24V的直流电源供电。请按照控制器上标明的电源极性进行连接。控制器的输出电平与电源输入电压相同，请确保LED灯具额定电压与电源相同，且电源的功率满足控制器和灯具的需求。

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## ■ 功能



## 4. 开/关

按“1”键开启灯光，按“0”键关闭。控制器会记忆断电前的开关状态，如果在断电前为关机状态，下次通电后请使用遥控器开灯。

## 5. 模式调节

按此键可以自动切换单白光模式、RGB模式和RGB加白光模式。在单RGB动态模式下，仅能调节RGB功能；在单白光模式下，仅能调节白光的亮度；在RGB加白光模式下，RGB的颜色和亮度以及白光的亮度均可以独立调节。需注意在RGB动态模式下，单白光模式处于关闭状态。

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

## 6. 静态RGB颜色调节

按  和  可以从预设的颜色库中调节颜色。



## 7. 颜色快捷键

按下相应颜色快捷键时，LED灯具会跳转成相应的颜色。预设的颜色库中已包含快捷键所对应的颜色。





## 8. 单白光亮度调节

按  键增加单白光亮度，按  键降低单白光亮度。

## 9. RGB亮度调节

按  键增加RGB亮度，按  键降低RGB亮度。

## 10. RGB动态模式调节

按  和  调节RGB动态模式，按  和  调节RGB动态模式的运行速度。

## 11. 遥控器指示灯

按下遥控器按键时，该指示灯会快速闪烁。如果指示灯慢闪，则说明遥控器电池电量已耗尽，请更换遥控器电池（CR2032型纽扣电池）。

## ■ 操作方法

### 12. 使用遥控器


使用前请拔出遥控器电池绝缘片。RF无线遥控信号可以穿过一定的非金属屏障，为了保证控制器的接收效果，请勿将控制器安装在有大面积金属遮挡的位置。

### 13. 与新遥控器配对

遥控器和控制器出厂默认为1对1的配对状态。1个控制器最多可配对5个遥控器，而遥控器可配对到任意的控制器。

如需配对新遥控器，请按以下两个步骤操作：

1) 断开控制器电源，并在超过5秒后重新通电。

2) 在控制器通电后的10秒内，同时按下新遥控器  键约3秒。

配对成功后，LED灯具将快速闪烁提示配对成功。

### 14. 保留当前遥控器并清除其他遥控器

在控制器已与多个遥控器配对，而仅想保留当前遥控器的情况下，可以将正在使用的遥控器与控制器再进行一次配对操作，此后控制器将清除其他已配对的遥控器而仅保留当前使用的遥控器。

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## ■ 过热保护

本机具有过热保护功能，可防止控制器因负载过重引起异常发热而导致损坏。过热保护时控制器将关断输出，当温度下降到安全范围时，将尝试恢复正常工作。过热保护功能仅能在一定程度上防止控制器损坏，为确保安全，请勿将控制器输出过载或短路。

## ■ 规格

输出方式	PWM恒压
工作电压	DC 5-24V
额定输出电流	4x2A (最大总和6A)
静态颜色可调级数	30级
白光亮度可调级数	10级
RGB亮度可调级数	5种
动态速度可调级数	10级
颜色快捷键	7个
PWM分辨率	4000级
过热保护	有
遥控器工作频率	433.92MHz
遥控器工作距离	空旷地带>15m
断电记忆功能	有，含开关状态
外壳类型	热缩套管 / ABS+硅胶(-H版本)
控制器尺寸	50x15x7mm

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