RGBCCT Controller
User Manual

(Please read this manual before use)
Update Time: 2024.3.29

1. Brief Introduction

Welcome to use this RGBCCT controller, which is a universal high-performance overall color-changing power controller.It can be applied to RGB_CCT constant voltage full-color lighting products with co-anode, such as LED modules, LED light strips, SMD soft light strips and other LED lamps. All of its functions can be operated by the remote control.

2. Specifications

| Model	Rotary RGBCCT Controller
Input voltage	DC12V-DC48V
Output current	5A×5CH
Output power	60W/CH(12V)/120W/CH(24V)180W/CH(36V)/240W/CH(48V)
Scale levels	4096 level
Output frequency	4KHz
Remote control distance	40-50 meters
Dimension	L176xW46xH45.5(mm)
Weight	122g

1

3.Features

1. Automatically adapt DC12V-48V input voltage.
2. Conveniently controlled by OLED screen, encoders and buttons.
3. Friendly to human eyes and users can DIY any color they want.
4. Preset scenes and one-click restore are supported.
5. Amplified with power repeater.
6. It will automatically return to the operating state before the power-off with power-down protection after an unexpected power-off.
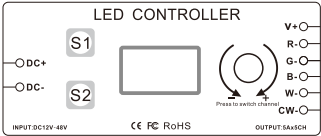
4. Safety warnings

1.For your safety, please read manual carefully before installation.
2.Do not install this controller in lightening, intense magnetic and high-voltage area.
3.Fixed it properly to reduce the risk of component damage and fire caused by short circuit.
4.Put the controller in a place of well-ventilated and moderate temperature .
5.Make sure of using the right voltage and power adapter
  (please select DC12-48V power supply with constant voltage)
6.Do not connect cables when power on; make sure of a correct connection and power
  on after no short circuit is examined.
7.Do not disassemble the controller when problems occur,please contact the supplier.

5. Dimension

176mm

46mm

30mm

106mm

56mm
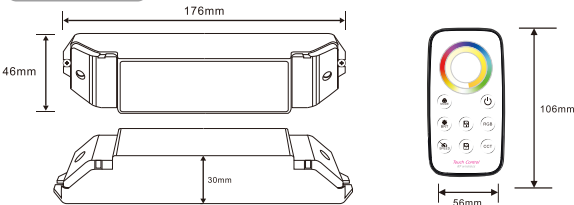
6. Instruction

1.Instructions

LED CONTROLLER

S1

S2

V+
R-
G-
B-
W-
CW-

INPUT DC12V-48V   OUTPUT 5Ax5CH

The controller has three states: off-screen state, normal state, and adjustment state. In the screen-off state, press any button to switch to the normal state, and the normal state shows the output state of the current light. Press any button again in the normal state to switch to the corresponding adjustment interface or directly call up the corresponding scene.

2

Note: The adjustment state will switch to the normal state without any operations after 30 seconds, and the normal state will switch to the screen off state without any operations after 30 seconds.

2.Use the encoder to adjust the color of each channel:
Increase or decrease the greyscale level of the channel by rotating the knob, and switch the channel by pressing the knob.
As shown in the picture, the grayscale value of the G channel is being adjusted:

G : 0
R:000 G:000 B:000
CW:000 WW:000

Current adjustment color: Green

Note: For better user experience, the quick adjustment mode can be activated byrotating the knob in the same direction for more than 2 seconds and release the knob less than 0.8 seconds during the rotation.

3.Save/Call scene mode
This controller can preset 2 scenes, long press Scene button to save the scene(The OLED screen will show"Save Success"to indicate the scene is saved) and short press Scene button to call up the scene.

As shown in the picture, the current light effect is saved to "Scene1":

Scene1
R:000 G:000 B:000
CW:000 WW:000
Save Success

Current saved Scene1

As shown in the picture, the "Scene1" scene mode is called up.

Scene1
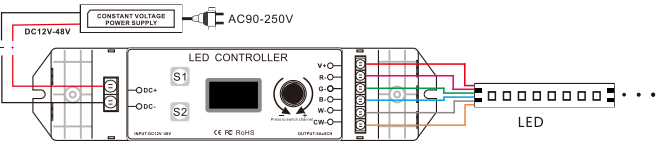R:000 G:000 B:000
CW:000 WW:000
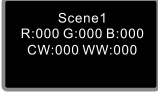
Scene mode is called up

Note: Calling up the scene will override the current light state.

4.Conjunction diagram
Conjunction diagram of LED constant voltage strip

CONSTANT VOLTAGE
POWER SUPPLY   AC90-250V

DC12V-48V

LED CONTROLLER

S1
S2

V+
R-
G-
B-
W-
CW-

LED

3

5.Remote control operation

Remote control matching:
In the normal state or adjustment state, long press the encoder to enter the remote control pairing interface, and press any button to exit the pairing interface.

Press any button of the remote control under this interface, and when the controller OLED displays the ID of the remote control and "Success", the remote control is successfully paired.

As shown in the picture:

Remote Contorol
Matching…
ID: 123
Success

Note: The controller can be paired with only one remote control, which means that after it is successfully paired, the new remote control will overwrite the previous one.

Keys and functions of the remote control:

Sign	Button	Description
	ON/OFF	Turn on or off the lights of the corresponding channel for the remote control type (RGB or CCT).
	MODE	Short press to switch dynamic mode, long press to call up MODE10 when the remote control is in RGB type.
	BRT	Increase the brightness of the light, totally 8 levels.
	SPEED	Increase the running speed of dynamic mode, totally 8 levels.
	SCENE1	Short press to call up the scene, long press to save the current light state to the Scene1 button.
	SCENE2	Short press to call up the scene, long press to save the current light state to the Scene2 button.
	RGB	Switch the remote control to RGB type, and the RGB light dynamic breathing effect is used as a remote control type switching prompt.
	CCT	Switch the remote control to CCT type,and the CCT light dynamic breathing effect is used as a remote control type switching prompt.

Note:
The scene button does not distinguish the type of remote control, that is, when saving the scene effect, the status of RGB and CCT will be saved at the same time, and the current state of RGB and CCT will be overwritten at the same time when calling up.
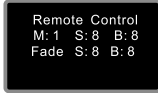
4

Touch circle:
Click or touch the circle to change the color of the corresponding channel for the current remote control type (RGB or CCT).

Mode button dynamic/static mode changes:
The remote dynamic mode is shown as follows:

Remote Control
Static Color
Static CCT

The remote dynamic mode is shown as follows:

Remote Control
M: 1   S: 8   B: 8
Fade S: 8   B: 8

RGB static color display: Static Color. Dynamic display: M: 10 S: 8 B: 8, which refers to the mode number, speed value, and brightness value.

CCT static color display: Static Color. Dynamic display: Fade S:8 B:8 , which refers to the color temperature gradient, speed value, and brightness value.

Note:For the RGB type, a total of 10 dynamic modes are supported, of which the tenth is called up by long pressing the MODE button after switching the remote control type to RGB. SPEED and BRIGHT in MODE10 are determined by SPEED and BRIGHT set by MODE1~9. For CCT type, only gradient dynamic mode is supported.

Dynamic modes:

Mode No.	Model	illustrate	Remark
1	3 color skipping	RGB 3-color skipping	Brightness, speed adjustable
2	7 color skipping	7-color skipping	Brightness, speed adjustable
3	White strobe	White strobe	Brightness, speed adjustable
4	3 colorsmooth	RGB 3-color gradual changes	Brightness, speed adjustable
5	Full color smooth	All 7-color gradual changes	Brightness, speed adjustable
6	Red green smooth	RG 2-color gradual changes	Brightness, speed adjustable
7	Red blue smooth	RB 2-color gradual changes	Brightness, speed adjustable
8	Green blue smooth	GB 2-color gradual changes	Brightness, speed adjustable
9	Whites mooth	White gradual bright & fade	Brightness, speed adjustable
10	Cycle mode	All changing modes overlap cycle	Brightness, speed adjustable

7. Exception Handles

Malfunction	Causation	Solution
No Light	1.No power from the socket	1.Check the socket
	2.Reverse connection of power +/-	2.Modify the connection
	3. Wrong or loose connection	3.Check connection
Wrong color	4.R,G,B,W,CW wrong wiring	4.Re-wire R,G,B,W,CW
Brightness of the LED is not even	5.Output wire too long, voltage drops	5.Reduce cable or use loop connection
	6.Wire diameter too slim, voltage drops	6.Calculate the current and change to a wider wire
	7.Power supplier overloads	7.Change to another large power supplier
	8.Controller overload	8.Add a power repeater
Mode not change	9.The setting of speed is too low	9.Press the button to increase speed
Can't be remote controlled	10.The battery has run down	10.Change battery
	11.Out of the controlling distance	11.Shorten the controlling distance

8. After Sales

This controller is covered by a 3-year warranty from the day you purchase our products, we provide free repair or replacement services except the following cases:
1.Any defects caused by wrong operations.
2.Any damages caused by inappropriate power supply or abnormal voltage.
3.Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4.Any damages due to transportation, breaking, flooded water after the purchase.
5.Any damages caused by earthquake, fire, flood, lightning strike etc force majeure of natural disasters.
6.Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.

9. Warm tips

Power Source Selection:
Power source must be DC constant voltage type of power supply. Due to the efficient output in some power supplies are only 80% of total, so please select at least 20% higher output power supply than the consumption of LED lights.

5

6