SmartPhone

RGB LED Controller

User's Manual

Introduction

Thank you for purchasing our product. This smartphone RGB LED controller is designed to drive constant voltage LED products with common anode connection in voltage range of DC6V-24V. It works with the ColorEasy App on IOS or Android smartphones via Bluetooth connection. User can setup static color or dynamic mode from smartphone conveniently.

Installing

1. Power Supply

The controller unit can work from DC 6V to 24V. The red power cable should be connected to power positive and black to negative. Please make sure the power supply voltage is same as the LED load and the power is capable for the load wattage.

2. LED Output

The controller unit supports constant voltage driving LED products with common anode connection. The black cable on the output side is the common node, it connects to the power supply positive inside the controller. The green, red and blue cable runs the driving signal of relevant LED color, please connect the color cables to the cathode of relevant color LED loads and the black cable to the common node.

The controller unit has output overload protection function, please check whether the output is short circuit or over loaded if the controller stop working.

3. Status Indicator

This is a full color status indicator. It displays all working status of the controller. It indicates different events as following:

Blue fast flash: Starting up.
Blue/yellow fast flash: Waiting for bluetooth pairing.
Blue with yellow short flash: Bluetooth connected.
Steady Blue: Bluetooth disconnected.
Short single white flash: new command.
Red flash: overload protected.
Yellow flash: overheat protected.

Operation

4. Bluetooth Pairing

This unit connects to smartphones via bluetooth. It must be paired to smartphone before the APP can work with it.

On every power on, controller will enter pairing mode for 90 seconds, the indicator will quick flash blue and yellow. In this period, user can search bluetooth device on the smartphone and will find a device with name 'LED-XXX', the X is the serial number of controller. Please select this device and smartphone will connect to the LED controller.

The bluetooth device name can only be found in this 90 seconds by un-paired smartphones.

5. Bluetooth Re-connecting

The bluetooth connection is designed for connecting manually only. The controller will not connect to smartphone automatically, user must connect to it manually when connection is lost or controller power off and on again.

When bluetooth is not connected but in range, user still can connect to the controller by connect the device 'LED-XXX' on smartphone bluetooth setting in spite of it's in the 90 seconds pairing period or not.

Advanced Features

6. Waterproof

There's waterproof option for this LED controller, please check with your dealer if your controller is waterproofed. The waterproofed controller can be used under water within depth of 30 meters.

Note: The remote receiving sensitivity will decrease when controller installed under water, please setup the controller before installing under water.

8. Flicker Free

Base on the PWM working mode, This series controllers switch LED on and off at high speed to achieve displaying different color and brightness. At some moving application or video at slow motion, the on-off flicker might be visible. The standard models work at 1KHz switching frequency which is already non-flicker at most application. For more strict requirements, the advanced model works at 8KHz frequency and is fully flicker free even at fast moving application or slow motion video. Please check with your dealer if you're using the fully flicker free model.

The controller can absorb most unwanted switching interference, for better performance please avoid to drive strong inductive effect loads. Especially for fully flicker free model, please avoid to wire the output in multi turn coil shape or drive inductive load.

9. Protection

This controller has full protection function for output short circuit, overload, and overheat. The indicator will flash red at overload or short circuit protection and flash yellow at over heat. The controller will automatically recover from protection when working status is good.

Please ensure the LED loads are in rated range, not shorted and the controller unit is in a good heat dissipation environment to avoid protection.

Specification

Model	Basic	Basic / Waterproof	Flicker free / Waterproof
Dynamic mode	43 modes		
Static Color	16-mega colors		
Connection Method	Bluetooth V2.1 Class 2		
Support Smartphone	IOS or Android Device		
App Program	ColorEasy		
Overload protection	Yes		
Overheat protection	Yes		
Working Voltage	DC 6-24V		
Connecting Distance	>15 meters at open area		
Working Temperature	-30°C to +80°C		
Rated Output Current	3 x 3.5A		3 x 5A
PWM Frequency	1KHz		8KHz
IP Grade	IP-63	IP-68	

App Link:

IOS App

Android App