

# Constant Current LED RGB Controller User Manual



(Please read through this manual carefully before use)

## 1. Brief Introduction

RGB controller is a unique DIY version as well as a powerful combination that can control color changes of LED lights with 4-pin 3-loop cables (common anode), built-in 18 modes with touch functional buttons, provided with IR wireless remote control panel, users can control color changes of LED light by pressing the button on the controller or on the remote control panel, very users friendly.

## 2. Specifications

| Model               | 350mA   | 700mA   |
|---------------------|---|---|
| Input voltage       | DC12V-DC48V   | DC12V-DC48V   |
| Output current      | 350mA/CH×3  | 700mA/CH×3  |
| Driving LEDs        | 12V: 1-3pcs 1W LED<br>24V: 1-6pcs 1W LED<br>36V: 1-9pcs 1W LED<br>48V: 1-12pcs 1W LED | 12V: 1-3pcs 3W LED<br>24V: 1-6pcs 3W LED<br>36V: 1-9pcs 3W LED<br>48V: 1-12pcs 3W LED |
| Changing mode       | 18 modes  | 18 modes  |
| Scale level         | 256 steps per RGB   | 256 steps per RGB   |
| Static dimming      | mixing up 4096 colors   | mixing up 4096 colors   |
| working temperature | -30°C-65°C  | -30°C-65°C  |
| Dimension           | L142×W73×H30(mm)  | L142×73×H30(mm)   |
| Package Size        | L145×W88×H46(mm)  | L145×W88×H46(mm)  |
| Weight (G.W)        | 350g  | 350g  |

## 3. Basic Features

1. Automatically output an accurate voltage as per the LED quantity at each channel from 12V-48V.

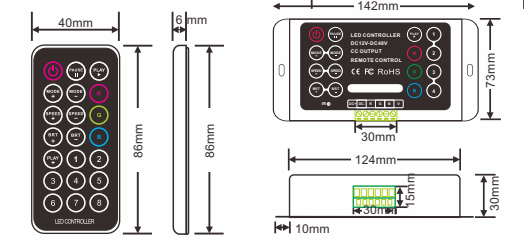
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2. With 21 buttons IR wireless remote control, reliable control distance can reach as far as 10m.
3. Several DIY Storage Buttons, to record your favorite effect.
4. 0-100% dimming and 16 levels of static brightness per RGB: Can mix 4096 colors.
5. 256 Grey steps per RGB, color-smooth effect is gentle and accurate.
6. Can choose changing speed separately and adjust the brightness of each mode.
7. Can stop at current color and color brightness by selecting PAUSE function.
8. Working with our power repeater to connect more LEDs.
9. Power loss memory function.
10. Equipped with extension infrared receiver, more convenient to receive infrared signals.

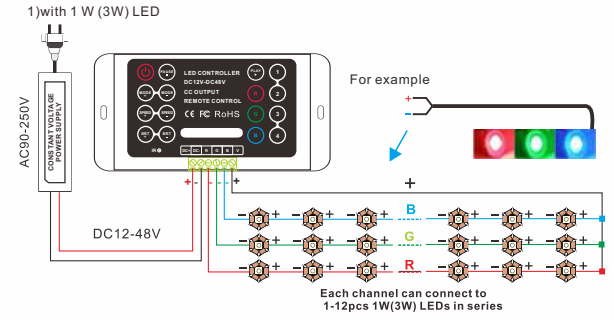
## 4. Safety warnings

- Please don't install this controller in lightning, intense magnetic and high-voltage fields.
1. To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
  2. Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
  3. Check if the voltage and power adapter suit the controller.
  4. Don't connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.
  5. Please don't open controller cover and operate if problems occur.
- The manual is only suitable for this model; any update is subject to change without prior notice.

## 5. Dimensions

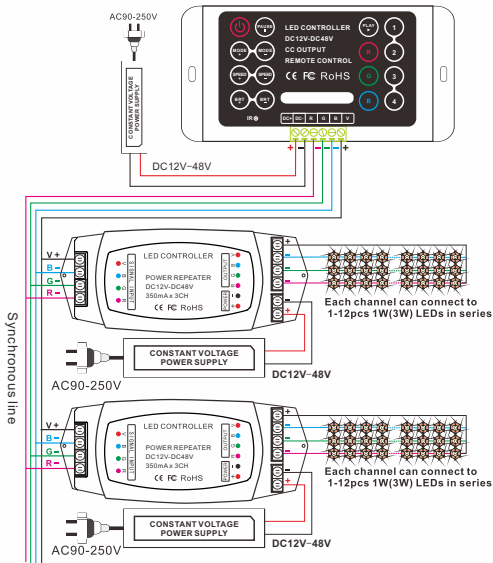


## 6. Conjunction Diagram



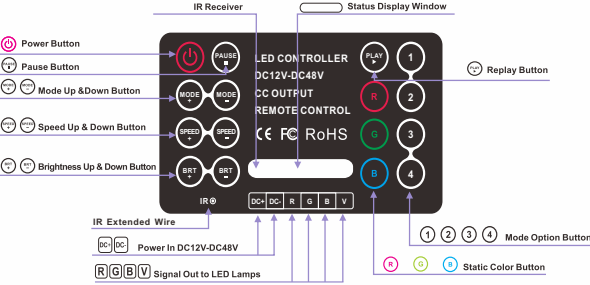
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## 2) Work with power amplifier (the controller and the amplifier can share the same power supply):



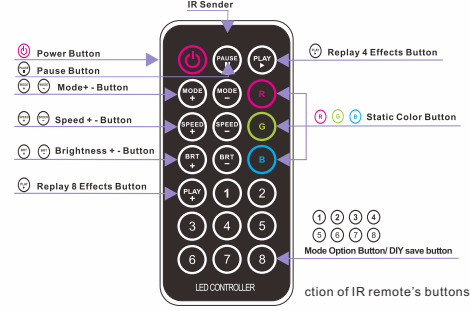
## 7. Operating instructions

### 1) Instructions of the keys on the controller:



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### 2) Instructions of the keys on the remote:



### 3) Detailed key functions

| Sign            | Button              | Description  |
|-----------------|---------------------|--|
| Power Button    | ON / OFF            | Turn on/off the controller. Any button can start the controller at off status.   |
| Pause Button    | PAUSE               | Press this button will rest at current color, it will continue to change if press again. Press this button in 3 seconds, the buzzer can be on or off.  |
| Mode+ / Mode-   | MODE+ / MODE-       | Press them to select next mode or back to previous mode (pls refer to the VI item), press MODE+ or press MODE- over 3s to enter cycle mode.  |
| Speed+ / Speed- | SPEED+ / SPEED-     | Press them to quicken or slower speed, press SPEED+ or SPEED- over 3s, current speed is restored to Default status.  |
| BRT+ / BRT-     | BRT+ / BRT-         | Press them to increase or decrease brightness, press any one over 3s, current brightness is restored to Default status.  |
| 1 2 3 4         | DIY modes           | Press them over 3s, LED flickers twice, then remember current change mode on this button, it can save 4 modes, just press it once then enter into pre-setup mode.                                  |
| 1 2 3 4 5 6 7 8 | DIY modes of remote | Press them over 3s, LED flickers twice, then remember the current mode on this button, it can save 8 modes, later can reach your pre-setup mode by just pressing it once.                          |
| PLAY            | PLAY                | Cycle play the 4 pre-setup modes in controller.  |
| PLAY+           | PLAY+               | Cycle play the 8 pre-setup modes in IR remote controller.  |
| R G B           | RGB Dimming Key     | 1. Press single R, G, or B key continuously to change the brightness of RGB LED.<br>2. In single R, G or B dimming status, press BRT+/BRT- key to increase/decrease the brightness of current LED. |

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## Tables of changing modes

| Sequence | Modes                     | Description  | Remark                          |
|----------|---------------------------|--|---------------------------------|
| 1        | Static red                | Normally on red  | Brightness adjustable           |
| 2        | Static green              | Normally on green  | Brightness adjustable           |
| 3        | Static blue               | Normally on blue   | Brightness adjustable           |
| 4        | Static yellow             | Normally on yellow   | Brightness adjustable           |
| 5        | Static purple             | Normally on purple   | Brightness adjustable           |
| 6        | Static cyan               | Normally on cyan   | Brightness adjustable           |
| 7        | Static white              | Normally on white  | Brightness adjustable           |
| 8        | 3-color skipping          | Red, green & blue 3-color skipping                             | Brightness & speed adjustable   |
| 9        | 7-color skipping          | Red, green, blue, yellow, purple, cyan, white 7-color skipping | Brightness & speed adjustable   |
| 10       | White color strobe        | White (with all red, green & blue on) strobe                   | Brightness & speed adjustable   |
| 11       | 3-color smooth            | RGB 3-color gradual changes                                    | Brightness & speed adjustable   |
| 12       | Full color smooth         | All 7-color gradual changes                                    | Brightness & speed adjustable   |
| 13       | RG color smooth           | Red, green 2-color gradual changes                             | Brightness & speed adjustable   |
| 14       | RB color smooth           | Red, blue 2-color gradual changes                              | Brightness & speed adjustable   |
| 15       | GB color smooth           | Green, blue 2-color gradual changes                            | Brightness & speed adjustable   |
| 16       | White color fade & change | white (with red, green & blue on) gradual bright & fade        | Brightness & speed adjustable   |
| 17       | Great cycle               | All changing modes overlap cycle                               | /                               |
| 18       | RGB static dimming        | 0-100% dimming per RGB   | 16 levels of brightness per RGB |

## 7. After Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, 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.

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## 8. Kindly Reminder

### 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.

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