

Constant Voltage LED RGB Controller User Manual



(Please read through this manual carefully before use)

1. Brief Introduction

Welcome to use this RGB controller. It is a universal high-performance power controller for entire color changing which adopted PWM(Pulse-Width-Modulation) controlling technology. Controls all common anode 4-pin 3-loop full color LED lights such as: RGB full color LED module, LED strip, LED SMD tape and so on. It can be controlled by the remote within the effective area no matter the direction and obstacles.

2. Specifications

| Model | Rotary RGB controller |
|-------------------------|---|
| Input voltage | DC12V-DC24V |
| Output current | 6A/3CH |
| Output power | 220W(12V)/440W(24V) |
| Scale levels | 4096 level x3 |
| Mode | 37modes |
| Speed level | 16 levels |
| Brightness level | 16levels |
| Remote control distance | 30m with obstacle, 60m without obstacle |
| Dimension | L176xW46xH30(mm) |
| Weight | 210g |

3. Function and feature

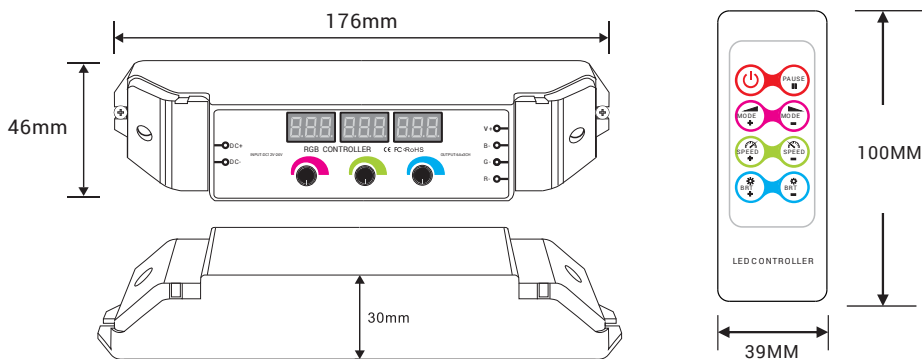
1. 37 changing modes such as skipping, smooth..., R G B 4096 grey scale levels each.
2. LED digital tube indicate current mode, speed, brightness directly and simply.
3. Three dimming rotary knobs, DIY your favorite color. Lamplight soft and stable, without flickers.
4. Save your DIY color automatically, can be adjusted by remote control.
5. Over-current protection, Short-circuit protection
6. Work with power repeater, the power can be amplified unlimitedly.
7. Power loss memory function.

4. Safety warnings

1. To ensure your safety and product properly usage, please read the user manual carefully.
2. To avoid installed the product in minefield, strong magnetic field and high voltage area.
3. To ensure the wiring is correct and firm avoiding short circuit damages to components and cause fire.
4. Please install the product in a well ventilated area to ensure appropriate temperature environment.
5. The product must be worked with DC constant voltage power supply.
Please check the consistence of input power with the product, if the output voltage of the power comply with that of the product.
6. Connect the wire with the power on is forbidden. Ensure proper wiring first then check to ensure no short-circuit, then power on !
7. Don't repair it by yourself whenever an error occur. Contact the supplier for any inquiry.

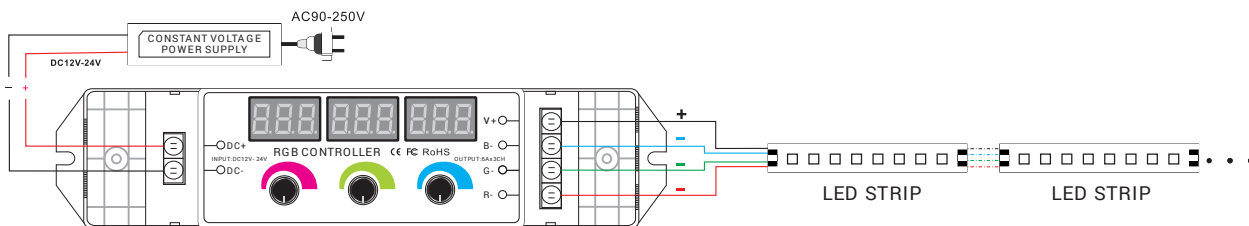
5. Installation and usage

1. Dimension

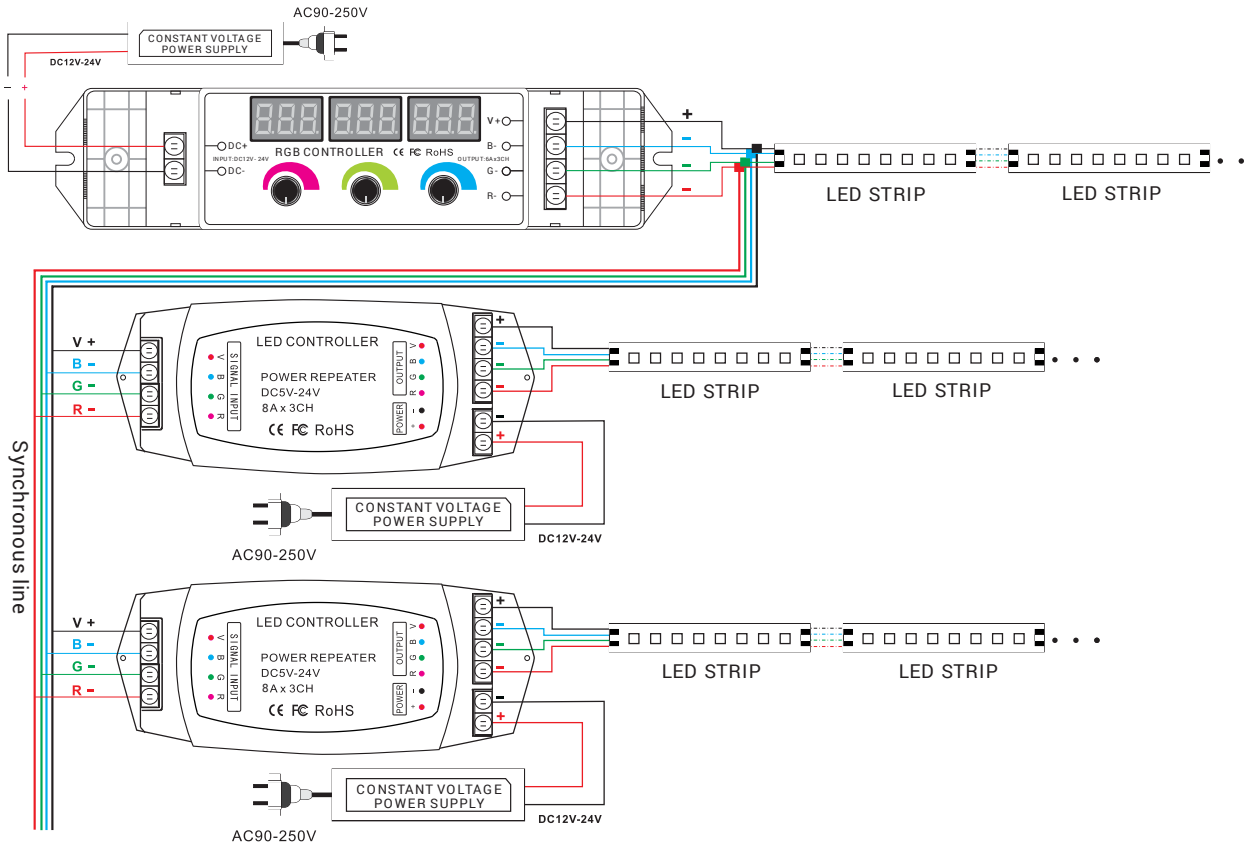


2. Conjunction diagram

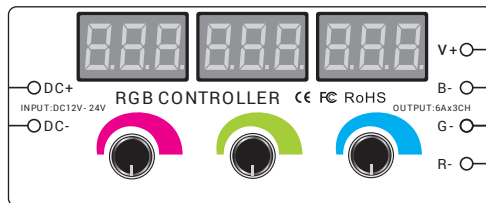
1) Conjunction diagram of LED constant voltage strip



2) Connect to power repeater (the controller and the amplifier can share the same power supply)



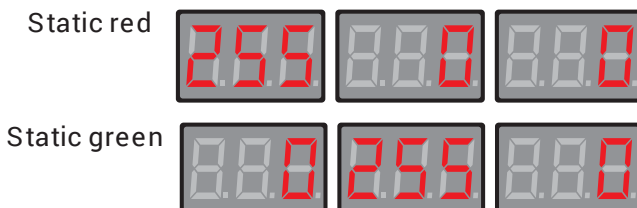
3. Operation instruction



Three rotary knobs to dim Red, Green and Blue colors, rotate the knobs the operation mode shifts to mode 1 automatically. The LED digital tubes shows the grey scale level of Red, Green and Blue under this mode.

The LED digital tube indicates current mode, speed and brightness.

Such as Mode1:



Static blue



Dynamic mode:

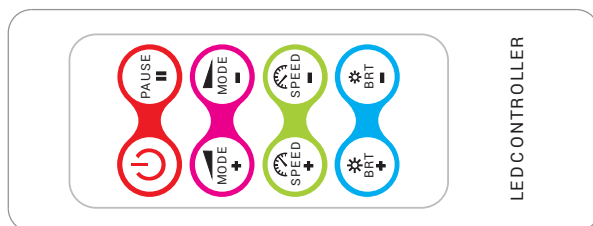


Mode 4 Speed level 10 Brightness level 6









When it is overload or short-circuits, the controller automatically stop output, LED display twinkles and shows: " ERR" , as below:



The 8 buttons on remote controller are : ON/OFF、PAUSE、MODE+、MODE-、SPEED+、SPEED-、BRT+、BRT-.



The remote control ID learning guide: Press ON/OFF button till the light flashes, then press PAUSE button, the light flashes again, the ID is set.

| Sign | Button | Description |
|---|---------|---|
|  | ON/OFF | ON/OFF: Turn on/off the controller Any button can start the controller at off status |
|  | PAUSE | PAUSE: Press this button will rest at current color, press it again, will continue to change. |
|  | MODE+ | Mode+: Press this button to select next mode |
|  | MODE- | Mode-: Press this button & back to previous mode |
|  | SPEED + | Speed+: speed up. Press this button to select 1-16 speed changing levels. |
|  | SPEED | Speed-: speed down. Press this button to select 1-16 speed changing levels. |
|  | BRT+ | BRT+: Press this button to select 1-16 brightness adjustment levels. Brightness up. |
|  | BRT- | BRT-: Press this button to select 1-16 brightness adjustment levels. Brightness down. |

Tables of changing modes

| Mode No. | Model | Remark | Mode No. | Model | Remark |
|----------|-----------------------|------------------------------|----------|---------------------------|------------------------------|
| 1 | DIY staticcolor | | 20 | Cyan fading | Brightness, speed adjustable |
| 2 | Staticred | Brightness adjustable | 21 | White fading | Brightness, speed adjustable |
| 3 | Staticgreen | Brightness adjustable | 22 | RGB fading | Brightness, speed adjustable |
| 4 | Staticblue | Brightness adjustable | 23 | Red green smooth | Brightness, speed adjustable |
| 5 | Staticyellow | Brightness adjustable | 24 | Red blue smooth | Brightness, speed adjustable |
| 6 | Staticpurple | Brightness adjustable | 25 | Green blue smooth | Brightness, speed adjustable |
| 7 | Staticcyan | Brightness adjustable | 26 | Red yellow smooth | Brightness, speed adjustable |
| 8 | Staticwhite | Brightness adjustable | 27 | Green cyan smooth | Brightness, speed adjustable |
| 9 | 3colorskipping | Brightness, speed adjustable | 28 | Blue purple smooth | Brightness, speed adjustable |
| 10 | 7colorskipping | Brightness, speed adjustable | 29 | Red purple smooth | Brightness, speed adjustable |
| 11 | Whitestrobe | Brightness, speed adjustable | 30 | Green yellow smooth | Brightness, speed adjustable |
| 12 | RGBstrobe | Brightness, speed adjustable | 31 | Blue cyan smooth | Brightness, speed adjustable |
| 13 | 7colorstrobe | Brightness, speed adjustable | 32 | Red white smooth | Brightness, speed adjustable |
| 14 | White speed-up strobe | White strobe increasingly | 33 | Green white smooth | Brightness, speed adjustable |
| 15 | Red fading | Brightness, speed adjustable | 34 | Blue white smooth | Brightness, speed adjustable |
| 16 | Green fading | Brightness, speed adjustable | 35 | Yellow purple cyan smooth | Brightness, speed adjustable |
| 17 | Blue fading | Brightness, speed adjustable | 36 | Full color smooth | Brightness, speed adjustable |
| 18 | Yellow fading | Brightness, speed adjustable | 37 | Cycle mode | All recycling |
| 19 | Purple fading | Brightness, speed adjustable | | | |

6、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.RGB wrong wiring | 4.Re-wire RGB |
| 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 |

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.

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.