

## Dual Color LED Controller Kit

Model No.: V2 + R7-1

2 channels constant voltage/Touch color slide/Step-less dimming/Wireless remote 30m distance



FC CE RoHS LVD RED

### Features

- Ultra sensitive color adjustment touch slide
- Smooth dimming and switch without any flickering
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance
- Synchronize on multiple number of controllers
- Light on/off fade time 3s selectable

### Technical Parameters

| LED Receiver's Input and Output |                  |
|---------------------------------|------------------|
| Input voltage                   | 12-24VDC         |
| Input current                   | 10.5A            |
| Output voltage                  | 2x(12-24)VDC     |
| Output current                  | 2CH, 5A/CH       |
| Output power                    | 2x(60-120)W      |
| Output type                     | Constant voltage |

| Dimming data  |             |
|---------------|-------------|
| Dimming level | 4096 levels |
| Dimming range | 0-100%      |
| Dimming curve | Linear      |
| PWM Frequency | 2000Hz      |

| Warranty and Protection |                  |
|-------------------------|------------------|
| Warranty                | 5 years          |
| Protection              | Reverse Polarity |

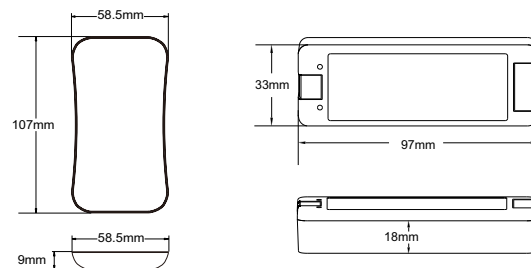
| LED Remote's Input and Output |              |
|-------------------------------|--------------|
| Output signal                 | RF(2.4GHz)   |
| Working voltage               | 3VDC(CR2032) |
| Working current               | < 5mA        |
| Standby current               | < 10μA       |
| Standby time                  | 1 year       |
| Remote distance               | 30m          |

| Safety and EMC        |   |
|-----------------------|---|
| EMC standard [EMC]    | ETSI EN 301 489-1 V2.2.3<br>ETSI EN 301 489-17 V3.2.4 |
| Safety standard [LVD] | EN 62368-1:2020+A11:2020                              |
| Radio Equipment [RED] | ETSI EN 300 328 V2.2.2                                |
| Certification         | CE, EMC, LVD, RED                                     |

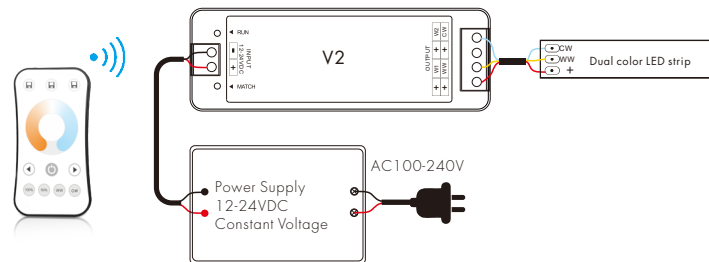
| Environment             |                   |
|-------------------------|-------------------|
| Operation temperature   | Ta: -30°C ~ +55°C |
| Case temperature (Max.) | Tc: +85°C         |
| IP rating               | IP20              |

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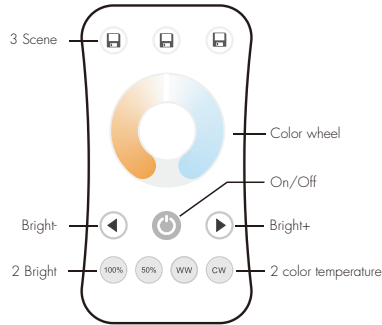
### Mechanical Structures and Installations



### Wiring Diagram



## Key function



**On/Off:** Turn on/off light.

**Color wheel:** Touch to change color temperature.

**Bright+/-:** Adjust brightness, short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

**100%, 50%:** Get 100% or 50% brightness directly.

**WW:** Get warm white directly.

**NW:** Get cold white directly.

**3 Scene:** Short press recall the scene, long press 2s save current color into the scene.

## Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

### Use the controller's Match key

**Match:**  
Short press match key, immediately press on/off key of the remote.

**Delete:**  
Press and hold match key for 5s to delete all match, The light blinks 5 times means all matched remotes were deleted.

### Use Power Restart

**Match:**  
Switch off the power, then switch on power, repeat again. Immediately short press on/off key 3 times on the remote. The light blinks 3 times means match is successful.

**Delete:**  
Switch off the power, then switch on power, repeat again. Immediately short press on/off key 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

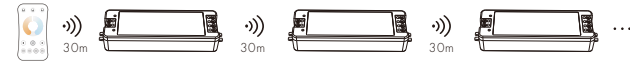
## Light on/off fade time

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times.

Long press match key 10s, restore factory default parameter, the light on/off time also restore to 0.5s.

## Application notes

All the receivers are matched with one RF remote.



RF remote

**Auto-transmitting:** One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be extended.

**Auto-synchronization:** Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote.

Receiver placement may offer up to 30m communication distance. However, we recommend for indoor applications that receiver placements should be no further apart than 15m.

## Dual color control

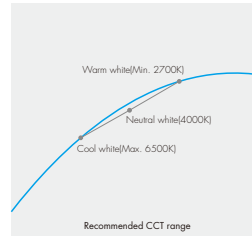
CH1=Warm white LED

CH2=Cool white LED

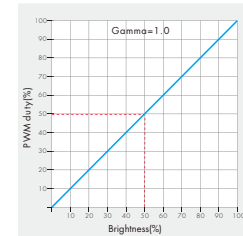
Each channel can supply up to 120W[@24V] and white balance can be controlled as such:

| Color temperature  | Cool white      | Neutral white   | Warm white      |
|--------------------|-----------------|-----------------|-----------------|
| Power distribution | CH1=0W,CH2=120W | CH1=60W,CH2=60W | CH1=120W,CH2=0W |

Linear dual color tuning



Dimming curve



## Malfunctions Analysis & Troubleshooting

| Malfunctions   | Causes   | Troubleshooting   |
|--|--|---|
| No light   | 1. No power.<br>2. Wrong connection or insecure.   | 1. Check the power.<br>2. Check the connection.   |
| Uneven intensity between front and rear, with voltage drop | 1. Output cable is too long.<br>2. Wire diameter is too small.<br>3. Overload beyond power supply capability.<br>4. Overload beyond controller capability. | 1. Reduce cable or loop supply.<br>2. Change wider wire.<br>3. Replace higher power supply.<br>4. Add power repeater. |
| No response from the remote                                | 1. The battery has no power.<br>2. Beyond controllable distance.<br>3. The controller did not match the remote.  | 1. Replace battery.<br>2. Reduce remote distance.<br>3. Re-match the remote.  |