Dual Color LED Controller Kit

Model No.: V2 + R12

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

FC C CE RoHS emc 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
● Magnet on the back which can be easily stuck on back holder or any metal surfaces

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

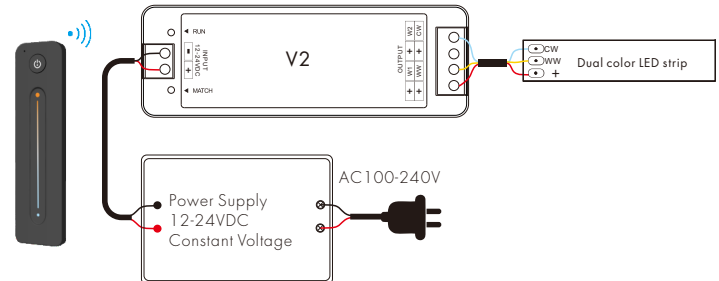|	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard(LVD)	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Environment

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

Mechanical Structures and Installations

Note: Before the first use, please remove the protective film on the battery.

Wiring Diagram

AC100-240V

Power Supply 12-24VDC Constant Voltage

Dual color LED strip

Key function

LED indicator

On/Off — ⏻ — Short press to turn on or turn off light.
Long press 1-6s to adjust brightness.

WW 100%
CW 0%

Color touch slide —

WW 50%
CW 50%

WW 0%
CW 100%
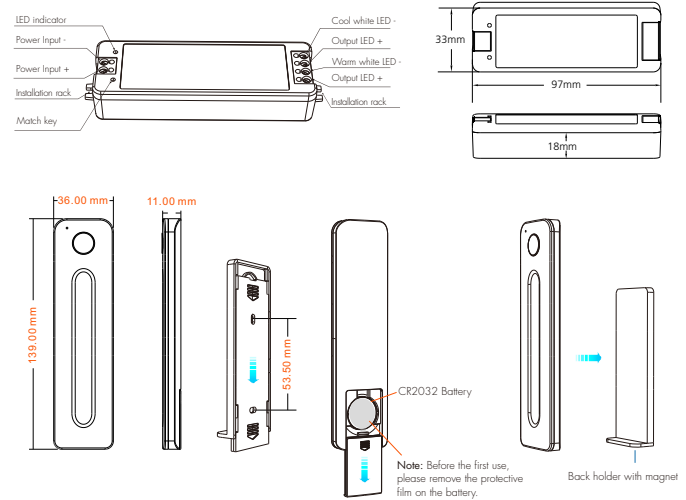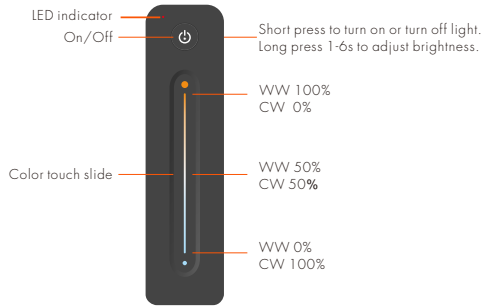
* To extend battery life, no operation after 20 seconds, the touch slide will enter sleep state.

* If the light is on, long press on/off key exceed 1 second, then touch slide to dimming.

* If the light is off, short press on/off key to turn on light, then touch slide to dimming.

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.
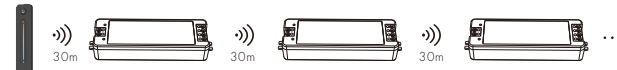
Light on/off fade time

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 than15m.
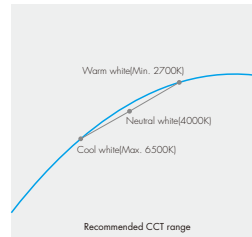
Dual color control
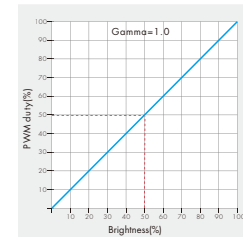
CH1=Warm white LED
CH2=Cool white LED
Each channel can supply up to 120W(@24V) and white balance can be controlled as such:

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

Warm white(Min. 2700K)

Neutral white(4000K)

Cool white(Max. 6500K)

Recommended CCT range

Dimming curve

Gamma=1.0

PWM duty(%)

Brightness(%)

Malfunctions Analysis & Troubleshooting

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