RGB LED Strip Controller/Remote | **Specification**

CR3-GBA
CK4-GBA

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Indoor CE RoHS

【Features】

● 4096 levels 0-100% dimming smoothly without any flash.

● Match with RF 2.4G single zone single color, dual color and RGB/RGBW remote control.

● One RF controller accept up to 10 remote control.

● Auto-transmitting function: Controller automatically transmit signal to another

    controller with 30m control distance.

● Synchronize on multiple number of controllers.

● Connect with external push switch to achieve on/off and 0-100% dimming function.

● When using with RGB light, built in 10 dynamic mode, include jump or gradual change style.

● Over-heat / Over-load / Short circuit protection, recover automatically.

● Certification: CE, RoHS.

● Warranty: 5 years.

【Technical Parameters】

Name	Specs	Parameter
Controller	Mode NO.	CR3-GBA
	Input voltage	DC12-48V
	Input current	Max 18.5A
	Output voltage	DC12-48V
	Output current	Max18A,6Ax3CH
	Output power	Max 216W@12V Max 432W@24V Max 648W@36V Max 864W@48V
	Input singal	RF2.4GHz+ Push Dim
	Control distance	30m(Barrier-free space)
	Dimming gray scale	4096 (2^12) levels
	Dimming range	0-100%
	Protection	Reverse polarity,Over-heat, Over-load, Short circuit
	Production size	L175*W45*H27mm
	Ta	-30℃—+55℃
	IP rating	IP20
	Certification	CE，RoHS
	Warranty	5 years

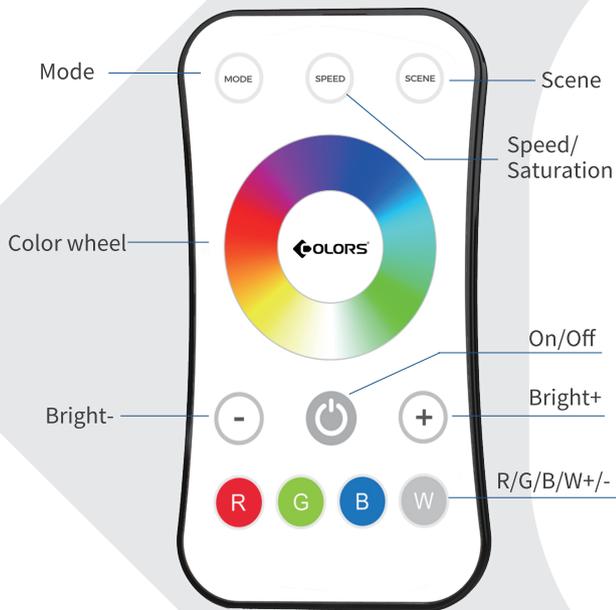| Name	Specs	Parameter
Remote	Mode NO.	CK4-GBA
	Output singal	RF(2.4GHz)
	Working voltage	3VDC(2032 Battery)
	Working current	＜5mA
	Standby current	＜10uA
	Standby time	1 years
	Remote distance	30m(Barrier-free space)
	Zone	1 zone
	Size	L107*W58.5*H9mm
	IP rating	IP20
	Ta	-30℃— +55℃
	Tc	Max 60℃
	Certification	CE、RoHS
	Warranty	5 years

Remarks：
1、The above parameters are based on the standard test；
2、The above parameters are typical values.

【Operation identification description】

1. CR3-GBA :

Push-Dim Wiring Area
- Push switch B
- Push switch G
- Push switch R
- Push switch common
- Match key
- LED indicator

RF2.4G Wiring Area
- Output LED +
- Output Blue LED -
- Output Green LED -
- Output Red LED -
- Power Input -
- Power Input +
- Installation rack

2. CK3-GBA :

- Mode
- Scene
- Speed/ Saturation
- Color wheel
- On/Off
- Bright+
- Bright-
- R/G/B/W+/-
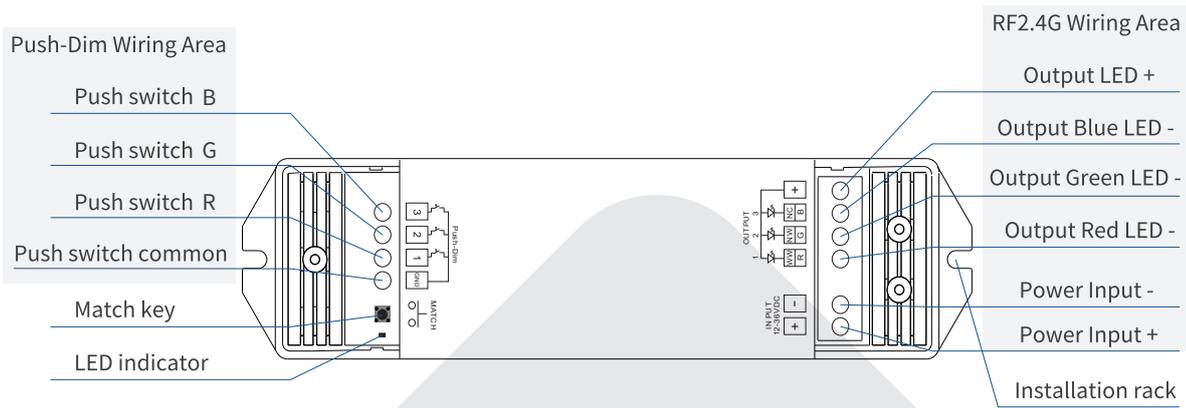
On/Off: Turn on/off light.

Color wheel: Touch to change static RGB color.
Mode: Short press run the next dynamic mode, long press 2s run mode cycle.

Speed/Saturation: For dynamic mode, adjust speed, short press 10 levels, long press 2s get the default speed. For static color, adjust saturation, namely change current static RGB color to mixed white slowly,short press 11 levels, long press 1-6s for continuous 256 levels adjustment.

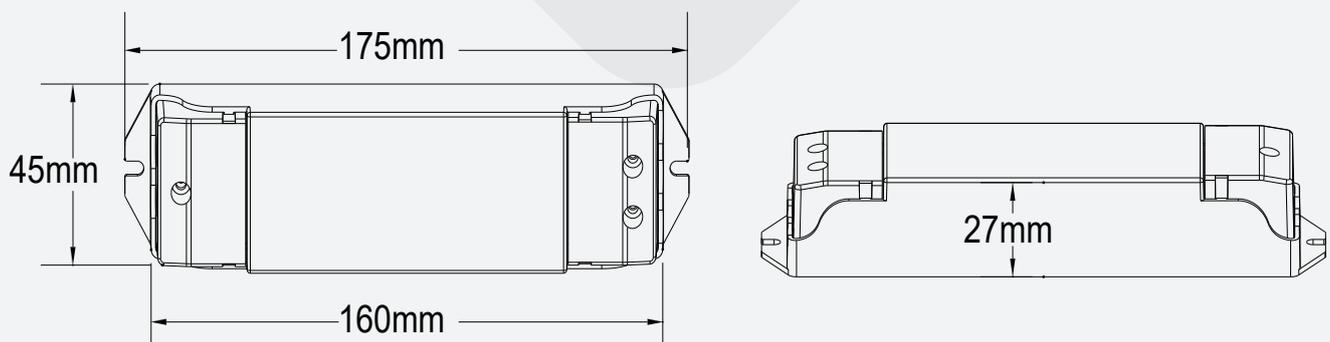Bright+/-: Adjust brightness, short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

R/G/B: Short press get red, green or blue color directly,long press 1-6s adjust R/G/B brightness continuously to achieve millions of colors.

W+/-: For RGB light, short press turn on/off white(RGB mix), long press 1-6s adjust saturation continuously,namely change current static RGB color to mixed white slowly.For RGBW light, short press turn on/off W channel, long press 1-6s adjust W brightness continuously.
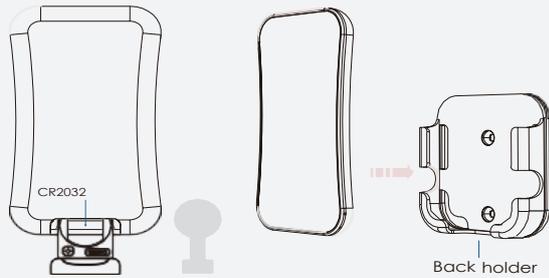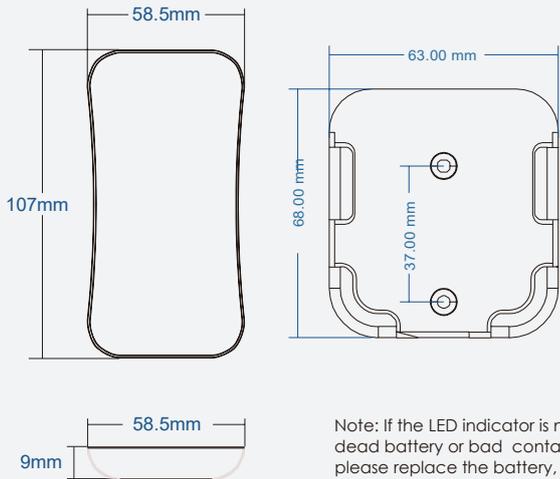
Scene: Short press recall the scene, long press 2s save the current color into the scene.the LED indicator will light up longer when save OK.
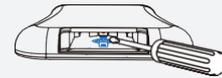
【Dimensions】

1. CR3-GBA :

175mm

45mm

160mm

27mm

2. CK3-GBA :

58.5mm

107mm

58.5mm

9mm

63.00 mm

68.00 mm

37.00 mm

CR2032

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

Note: If the LED indicator is not on when press key,it is due to dead battery or bad contact caused by multiple plugging, please replace the battery, or raise the battery shrapnel with a screwdrive.
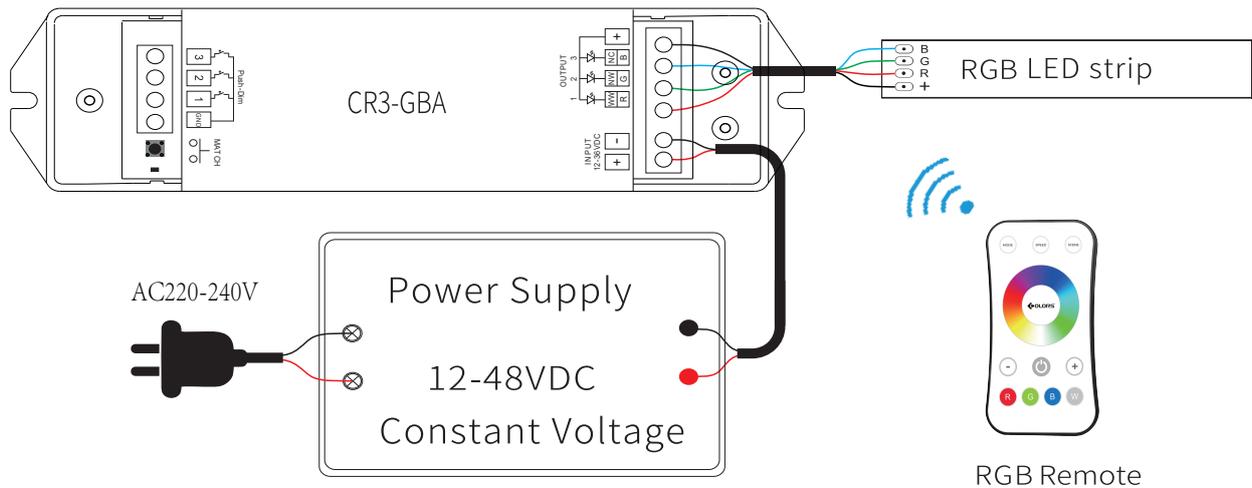
Back holder

To fix the remote, two options are offered for selection:
Option 1:
fix the remote' back holder on the wall with two screws.
Option 2:
Stick the remote' back holder to the wall with tape.

【RF2.4G Wiring Introduction 】

1、Wiring Diagram：

CR3-GBA

OUTPUT

INPUT 12-36VDC

B
G
R
+

RGB LED strip

AC220-240V

Power Supply

12-48VDC
Constant Voltage

RGB Remote

2、RF2.4G: Match Remote Control(2 match ways)：

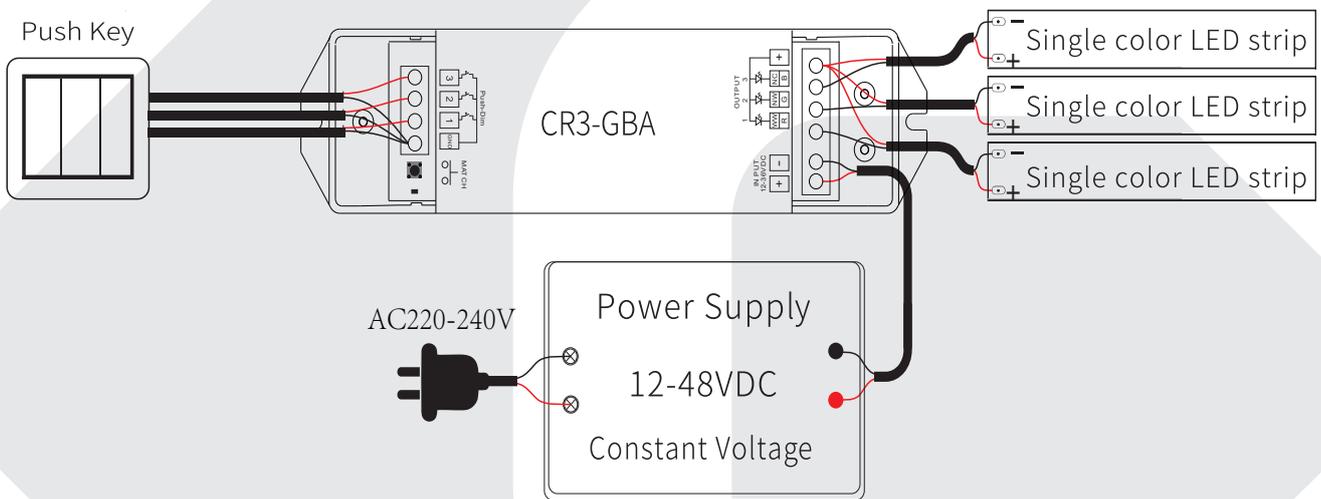| Operation	Use the controller's Match key	Use Power Restart
Match	Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) on the remote. The LED indicator fast flash a few times means match is successful.	Switch off the power, then switch on power again, immediately short press on/off key (single zone remote)or zone key (multiple zone remote) 3 times on the remote. The light blinks 3 times means match is successful.
Delete	Press and hold match key for 5s to delete all match, The LED indicator fast flash a few times means all matched remotes were deleted.	Switch off the power, then switch on power again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

3、 Application notes：
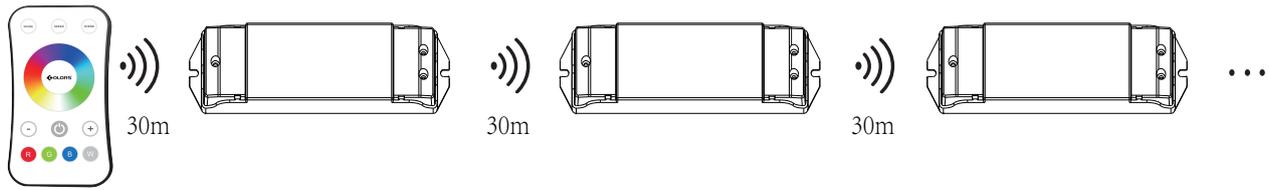
RF Remorte

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 limitless.

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

【 Push-Dim Wiring Introduction 】

1. Wiring Diagram :

Push Key

CR3-GBA

Single color LED strip

Single color LED strip

Single color LED strip

AC220-240V

Power Supply

12-48VDC

Constant Voltage

2. Push-Dim Function :

The 3 push key have 3 channel dimming function defaultly.

● Short press: Turn on or off each channel.
● Long press (1-6s): Press and hold to step-less dimming of each channel,
   With every other long press, the light level goes to the opposite direction.
● Dimming memory: Light returns to the previous dimming level when switched off and on again

   You also can long press push key and Match key at the same time to select 3 kinds light type,
   and each light type will have different push key function.
   Long press 1 key and Match key 2 seconds, set as 3 channel single color type (default).
   Long press 2 key and Match key 2 seconds, set as dual color type.
   Long press 3 key and Match key 2 seconds, set as RGB type.
   at this time, if the light type has set as dual color or RGB, match remote will not change light type.
   If you want to cancel light type set, please long press Match key 10 seconds to restore factory setting

Single color (3CH)	1 Key	Short press turn on/off 1 channel, long press 1-6s dim up/down.
	2 Key	Short press turn on/off 2 channel, long press 1-6s dim up/down.
	3 Key	Short press turn on/off 3 channel, long press 1-6s dim up/down..
Dual color (2CH)	2 Key	Short press turn on/off light, long press 1-6s dim up/down.
	1 Key	Short press 3 levels color temperature (WW, NW, CW), long press 1-6s color temperature up/down.
	3 Key	Unvalid
RGB	1 Key	Short press turn on/off light, long press 1-6s dim up/down.
	2 Key	Short press change dynamic mode, long press 2s to set speed (1-10 levels).
	3 Key	Short press change static RGB color (24 levels), long press 1-6s adjust saturation.

3. Push-Dim RGB Dynamic Mode List

NO.	Name	NO.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

4. Malfunctions analysis & troubleshooting:

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B wires	1. Reconnect R/G/B wires.,
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 repeate
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.

【Packing】

1、Packing list:

Model	Controller /Remote	Manual	Back support	Double-sided tape	Self-tapping screws	PE Bag	Individual box
CR3-GBA	1PCS	1PCS	/	1PCS	/	1PCS	1PCS
CK4-GBA	1PCS	1PCS	1PCS	/	2PCS	2PCS	1PCS

2、Packaging Information:

Model	Individual box size	Quantity/box	Number / Box	net weight (kg)	Net weight per carton (kg)	Gross weight (kg)	Carton size (mm)
CR3-GBA	L178*50*38 mm	1PCS	100PCS	0.108	10.8	15.2	285*245*220
CK4-GBA	L114*65*20 mm	1PCS	100PCS	0.037	3.7	8.2	350*240*230

【Reliability Test Information】

Test items	Testing requirements	Guideline	Test method or condition（streamline）
Performance Testing	No load	Colors	Intput 48Vdc,Output 48Vdc.
	Short circuit protection	Colors	The output positive and negative poles are short-circuited, Then input 48V, the controller should be able to self.
	Load capacity	Colors	DC48V input, output full load, controlThe controller should work normally.
	Remote control distance temperature	Colors	The remote 30m should be able to connect normally Pairing, normal function; wireless signal relay connection is normal.
	Push-Dim Fuction	Colors	Push-Dim function should be normal,off and dimming functions.
High temperature aging test	Work stability	Colors	Input voltage: 48VDC, load LED current: 10.01A (full load); Conditions: temperature 55°C, aging time 24H.

【Precautions】

1. Receiver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range. Strong signal sources such as WiFi routers and microwave ovens will affect the range.We recommend for indoor applications that receiver placements should be no further apart than15m.

2. The number of controllers controlled by one remote control should not be too many to avoid mutual interference of remote control signals. It is recommended to replace the controllers with power expanders as much as possible.

3. When installing batteries in the remote control, pay attention to the positive and negative poles of the batteries. Please remove the battery when not in use for a long time; when the remote control distance becomes smaller or the remote control fails frequently, please replace the battery in time.

4. If no response from the receiver, please re-match the remote.

5. Gently handle remote, be ware of falling .

6. For indoor and dry location use only.