

## LN-CON-WiFi-3CH-XV

### WiFi-LED Controller with RF button remote

WiFi-V03 controller appeared with the installation of controlling software on mobile devices with Android or IOS system, such as android phone, Iphone, tablet PCs, they can remote control LED lighting products through Wi-Fi, which makes LED control more intelligent and humanization. One WiFi-V01 controller can be used as dimmer, CT controller, and RGB controller, only need to select the right control interface in the software. In addition, this model has DIY function. Users can get any effect they want based on our controlling software. If you don't have any mobile devices with the controlling software at hand, you could also use our RF remote control to control it. This model designed for constant voltage led products, such as led strip, led modules. For controlling more led products, amplifier is available.



## Features

- Support both Wi-Fi control of Apple products (iPod, iPad, Iphone), Android mobile devices like Samsung, HTC, and RF14keys wireless remote control.
- With the 3-in-1(Dimming, CT, RGB) apple/android software. One device suit to different lighting application scene.
- Memory function to save scenes anytime anywhere for next play.
- WIFI-V01 is designed for constant voltage led products, working voltage auto fit to DC12-24V.
- Wi-Fi control based on 2.4GHZ frequency, RF remote control based on 433.92MHz.
- 2 year warranty.

## Technical parameters

### 1. Controller

<b>Working temperature</b>	-20-60℃	<b>Working voltage</b>	DC12~24V
<b>Power consumption</b>	<3W	<b>Connect method</b>	Common anode
<b>WIFI brightness level</b>	100	<b>WIFI speed level</b>	100
<b>brightness level</b>	32	<b>speed level</b>	100
<b>N.W.</b>	150g	<b>G.W.</b>	230g
<b>Case dimension</b>	L108*W63*H28mm	<b>Box dimension</b>	L109*W55*H56mm
<b>Output</b>	3 channels	<b>Output current</b>	≤4A(each channel)
<b>WIFI frequency</b>	2.4G	<b>RF frequency</b>	433.92Mhz
<b>Output gray scale</b>	256	<b>Memory function</b>	support
<b>Receiving sensitivity</b>	802.11b:DSSS (-5dBm) 802.11b:CCK(-10dBm) 802.11g:OFDM(-15dBm)		
<b>Output power</b>	12V: ≤144W(3CH) 24V: ≤288W(3CH)		

### 2. RF remote control

<b>Working temperature</b>	-20℃~60℃	<b>Supply voltage</b>	DC3V (AAA*2)
<b>Standby current</b>	<18uA	<b>Working current</b>	<25mA
<b>Standby power</b>	54uW	<b>Working power</b>	75mW
<b>Net weight</b>	65g	<b>RF frequency</b>	433.92MHz
<b>External dimension</b>	L150*W40*H20 mm	<b>RF distance</b>	≤20m

### 3. Software

<b>Name</b>	FreeColor V2.0	<b>Platform</b>	Android 2.1 or above, IOS4.3 or above, with wifi function
<b>Size</b>	Android(661KB) , IOS(1.4MB)		
<b>Category</b>	Communication	<b>Language</b>	English

## Using illustration

FreeColor V2.0 installation:

- Android: Scan the QR code to download Freecolor , click the “Freecolor.apk”  to start the



installation .

- IOS : the same as the other software from App Store download the “Freecolor” from App store and install or Scan the QR code to download the freecolor.

Scan the QR code to download Freecolor



Freecolor IOS  
APP Store



Freecolor Android  
Google Play




Freecolor Android  
baidu Skydriver

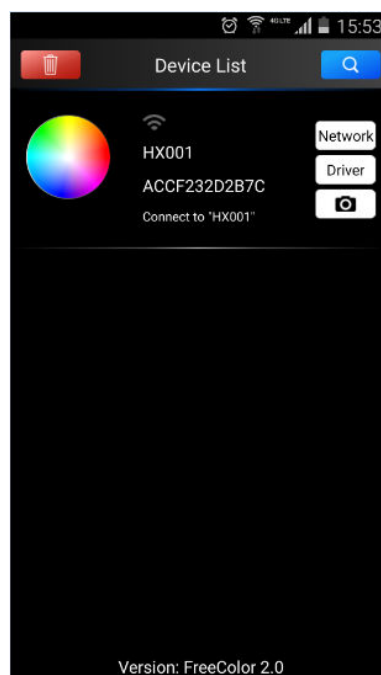
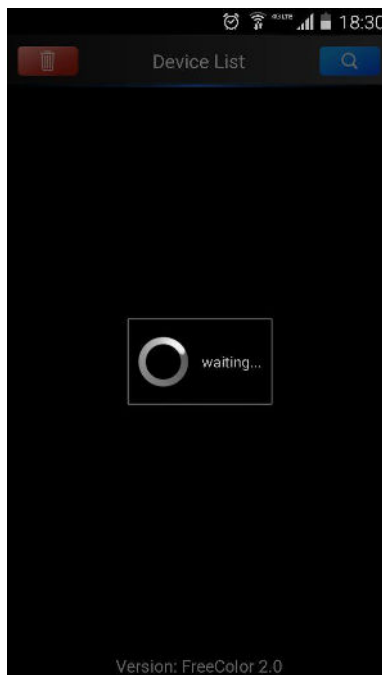
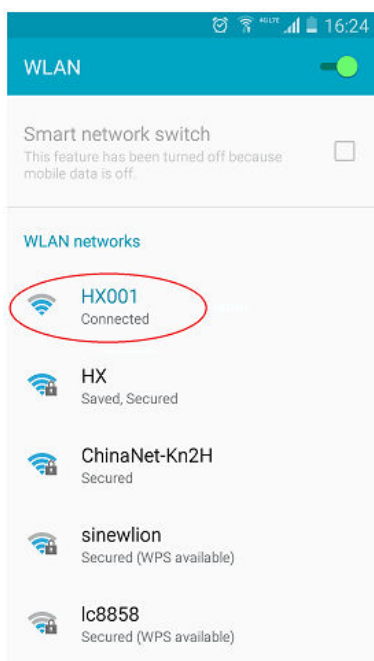
## FreeColor V2.0 software Using illustration:

### 1. making the WIFI-V01 properly connected, and then turn on the power;

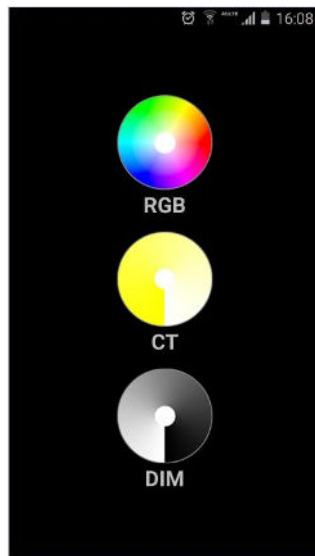
Step 1: find the WIFI network named "HX001" (factory default name) on the phone, and connect it.

Step 2: open the application “Freecolor” on the phone, you will see the application enter the “device list” interface and search the device automatically. If the device is not show in the search result list, click  on the upper right to re-search.

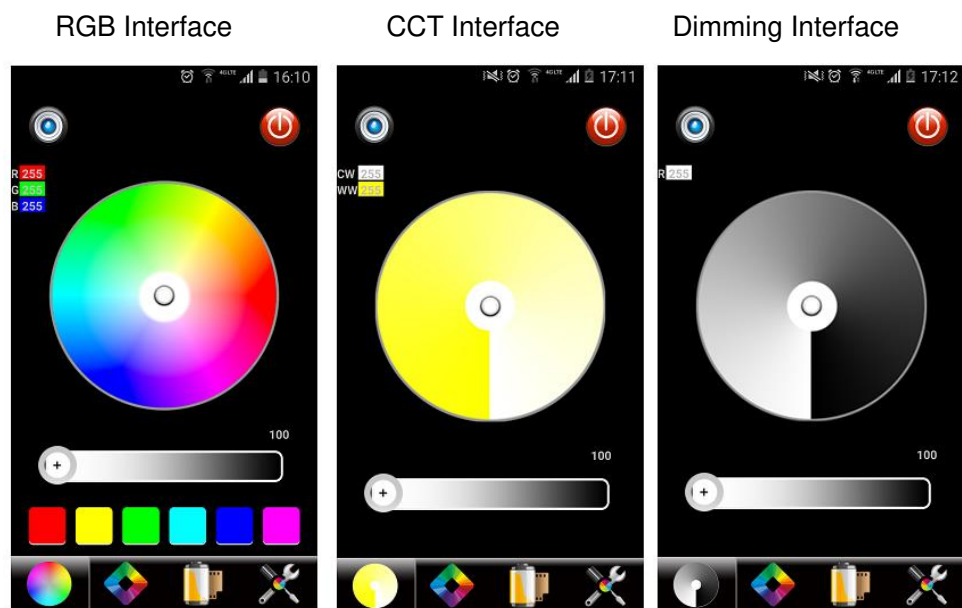
Step 3: Find out the device from the search result list, and click the round icon to go into the main control interface.



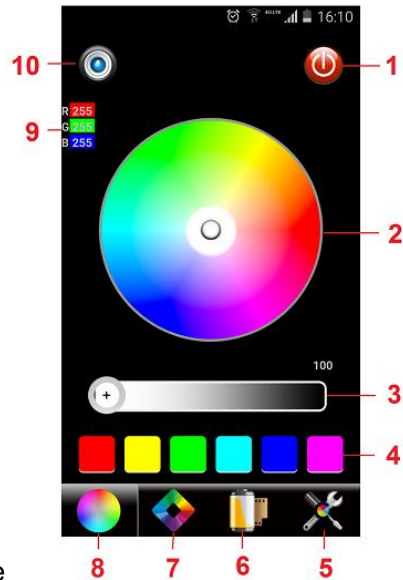
("FreeColor" is 3-in-1 (Dimmer, CT, RGB) software. The round icon contains 3 versions for RGB/CCT/DIM, will show RGB version as default, click "Driver" to change to CCT/DIM if needed.)



**2. The main control interface for RGB/CCT/DIM as below:**



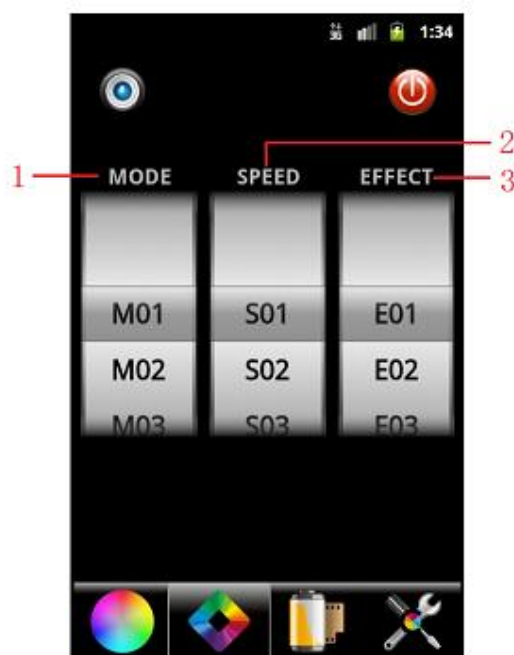
**3. Application functions. (Using RGB interface as example, CCT/DIM are same)**



1) RGB control interface

NO.	Button	Function
1	ON/OFF	Turn on/off the light
2	Color board	Select any static color mode from the board.
3	Brightness slip	Slip to adjust the current light brightness, 100 levels in total.
4	Color shortcut key	Quickly to select 6 kinds of common color
5	System setting	Enter to the "Device list", set the WIFI connection and select the application scene (RGB/CCT/DIM).
6	DIY memory function	Go to DIY modes select page. Display the saved DIY modes
7	Dynamic modes	Go to select the dynamic modes.(fade, jump effects)
8	RGB seven color board	Display RGB seven color board
9	Color value	Display the R/G/B gray value, "L": the current brightness level.
10	DIY mode saving key	After DIY, click this key to save. Save any color which you like

2) Dynamic mode interface



◇ MODE: select the different dynamic mode, such as flash, fade and etc;

- ✧ SPEED: select the speed level of the dynamic mode, 100 levels in total;
- ✧ EFFECT: select the different effect based on the different mode.

### 3)、DIY modes manage interface:



This page displays all of the DIY modes which have been saved, up to 12 modes in total.

If you need to save the changes you like, you can click the DIY storage key to save and name, then click the DIY memory function, you can select the storage modes.

## 4. Join to the home network and SSID setting


### 1) join to the home network

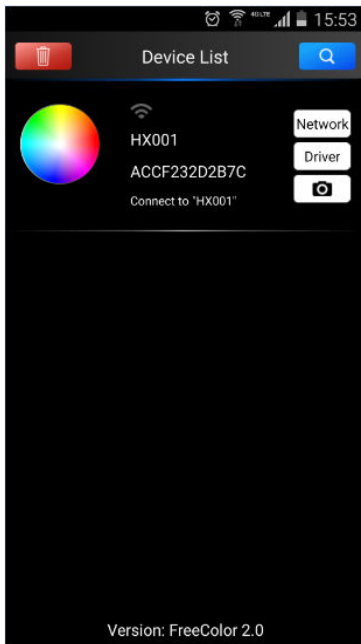
Step 1: Before setting the joining to the home network, connect the phone with the WIFI controller directly as the instruction above.

Step 2: Enter into “Device list” interface after the Step 1; and click “Network” on the right go into setting interface for joining the home network (Figure 1 below).

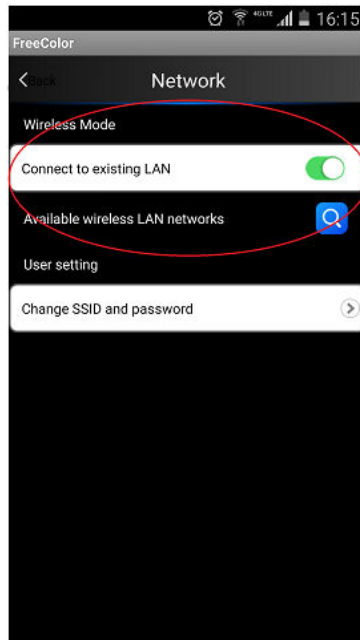
Step 3: Open “Connect to existing LAN” (Figure 2 below), the application will search LAN automatically.

Step 4: Click the LAN which you want to join in(Figure 3 below), will pop up “Enter the SSID password” dialog box, enter your home LAN password and press “OK” to confirm(Figure 4 below). There will show “change wifi success and search again” after success connection(Figure 5 below).

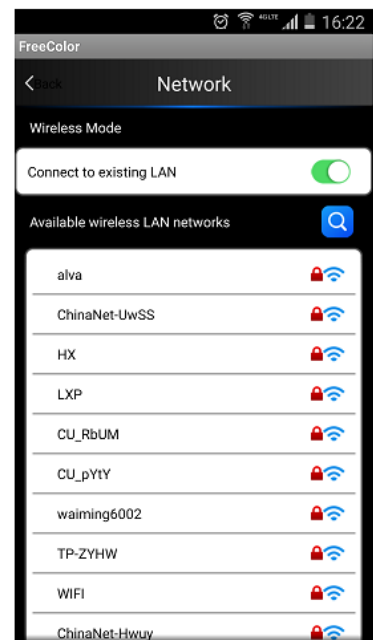
Step 5: The application will back to “Device list” interface automatically after Step 4. Click  on the upper right to re-search, will find the device which have been connected to home LAN well. Click the round icon start to control your light through your home LAN.



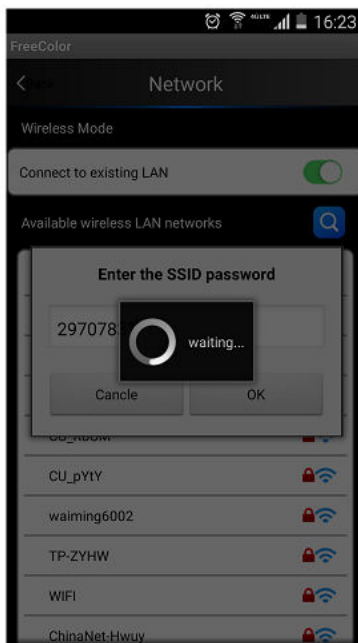
(Figure 1)



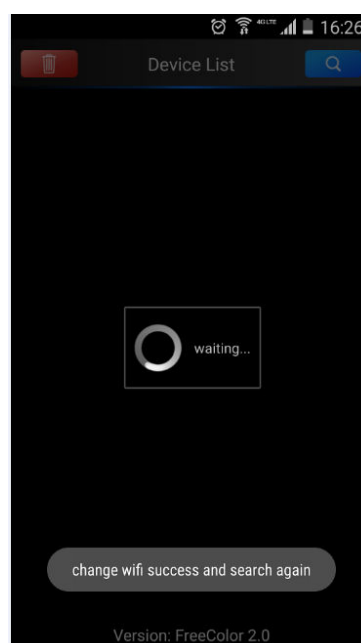
(Figure 2)



(Figure 3)



(Figure 4)



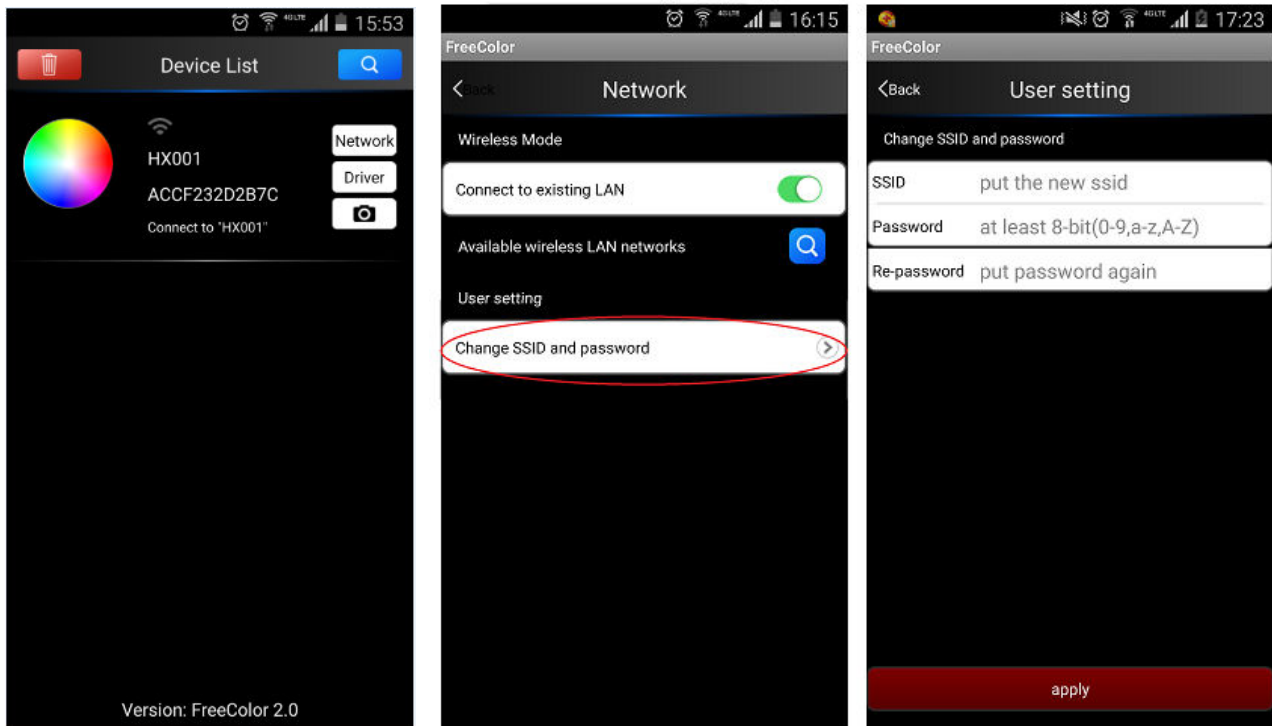
(Figure 5)

## 2) Resetting SSID username and password

If more than one WIFI-V01 in close area, we can reset the SSID for the devices in order to avoid they jamming each other.

Enter "Device List" interface, click and enter "Network" interface, then click "Change SSID and password" will pop up "User setting" page, key in the SSID name and password, click "apply" to finish and save(The available SSID name are 16 in total, HX001,HX002.....HX016). Re-link the device after success setting.





## Controller operation illustration

### 1. Connector illustration



For Dimming: CH1→V-, CH2→V-, CH2→V-, V+→V+;

For CT: CH2→WW, CH1→WC, V+→COM;

For RGB: CH3→B, CH2→G, CH1→R, V+→COM.

### 2. Working state instruction

Indicator light	Function table
Power	Power indicator light, long-time bright shows power supply is working normally
Wifi	Long-time bright in normally connection, when receives wifi signal data flicker.
RF	Flickering when receives correct control signal from wifi device or RF remote control; and die out in free time.



### 3. Controller connection

**WiFi (r)** **Smart wireless**

### LED Controller

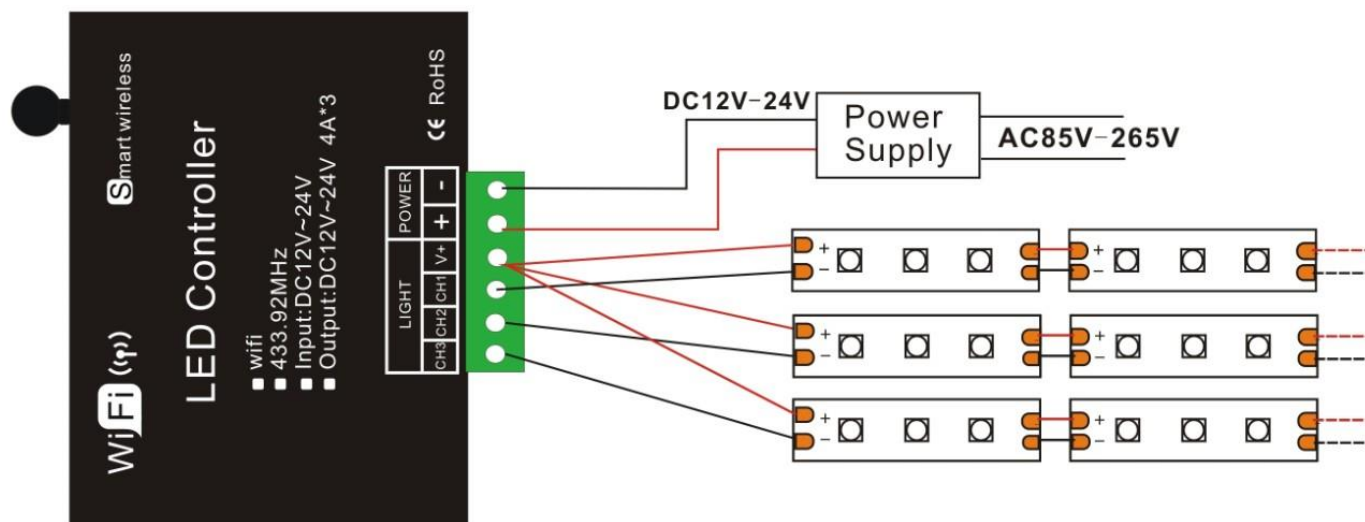
- wifi
- 433.92MHz
- Input:DC12V~24V
- Output:DC12V~24V 4A\*3

LIGHT			POWER	
CH3	CH2	CH1	V+	-

CE RoHS

The diagram shows the wiring for the WIFI LED Controller. The controller is a black PCB with a red LED indicator. It features a 'WIFI' logo, 'Smart wireless' text, and a list of specifications: 'wifi', '433.92MHz', 'Input:DC12V~24V', and 'Output:DC12V~24V 4A\*3'. A table on the PCB defines the pin functions: CH3, CH2, CH1 for LIGHT; V+, +, - for POWER. The wiring includes a Power Supply (AC85V-265V to DC12V-24V) connected to the V+ and - pins. The CH1, CH2, and CH3 pins are connected to the C, W, and +A pins of the LED strips, respectively. The LED strips are shown with three square LEDs each.

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#### 4. RGB remote control operation illustration

Adopt RF remote technology, 14 buttons in total.

1) The function of buttons for RGB as below:



Name of key	Function description
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on	Turn on the controller output
off	Turn off the controller output
Dynamic mode+	For dynamic mode selection(9-17), each time pressing dynamic mode +1
Dynamic mode-	For dynamic mode selection(9-17), each time pressing dynamic mode -1
Static mode+	For static color selection(1-7), each time pressing static mode+1
Static mode-	For static color selection(1-7), each time pressing static mode-1
White color	White color hot key(mode 8)
100% brightness	press this key goes to 100% brightness for the present color
Brightness+	Each time pressing brightness +1, 256 levels in total, long-pressing can get fast adjustment
Brightness-	Each time pressing brightness -1, 256 levels in total, long-pressing can get fast adjustment
Speed+	Each time pressing speed +1, 100 levels in total, long-pressing can get fast adjustment
Speed-	Each time pressing speed -1, 100 levels in total, long-pressing can get fast adjustment
Automatic cycle	All dynamic modes are automatically circulating in order

### Standard color changes as follows:

No	Patterns	Remarks
1	Static red	Brightness is adjustable, speed is unadjustable
2	Static green	
3	Static blue	
4	Static orange	
5	Static yellow	
6	Static purple	
7	Static cyan	
8	Static white	
9	White flash	Speed / brightness are adjustable
10	White breathe	Speed is adjustable, brightness is unadjustable
11	3 color jumpy	Speed / brightness are adjustable
12	7 color jumpy	
13	3 color fade	Speed is adjustable, brightness is unadjustable
14	7 color fade	
15	R/G cross fade	
16	R/B cross fade	
17	G/B cross fade	
18	9-17Autonomic cycle	

2) The function of buttons for CCT as below:



Name	Description
Set button	For setting the night light and matching code with receiver. Under night light mode, press “Set button” and hold on for 10 seconds will go into the night light setting. Press the set button again to save the setting and quit out.
ON	Turn on
OFF	Turn off
Brightness +	The brightness will add 1 level after each time press. Long-press can get fast adjusting.
Brightness -	The brightness will reduce 1 level after each time press. Long-press can get fast adjusting.
CW balance key	Balance to cool white. Long-press can get fast adjusting.
WW balance key	Balance to warm white. Long-press can get fast adjusting.
Mode	Hot key for 3 CCT full-light: 100% CW, 100% WW, 100%CW+100%WW, and 4 dynamic modes.
Night light	Press the button go to night light mode (night light <b>Setting</b> : Under night light mode, press “Set button” and hold on for 10 seconds will go into the night light setting, press the left button to down the brightness, press the right button to up the brightness. Adjustable range: 1%-10%.)
Speed +	Add the speed of dynamic mode. Long-press can get fast adjusting.
Speed -	Reduce the speed of dynamic mode. Long-press can get fast adjusting.
Delay button	The light will be delay off in 30 seconds.

3) The function of buttons for RGB as below:



Name	Description
Set button	For setting the night light and matching code with receiver. Under night light mode, press “Set button” and hold on for 10 seconds will go into the night light setting. Press the set button again to save the setting and quit out.
ON	Turn on
OFF	Turn off
Brightness +	The brightness will add 1 level after each time press. Long-press can get fast adjusting.
Brightness -	The brightness will reduce 1 level after each time press. Long-press can get fast adjusting.
Hot brightness key +	4 levels brightness (10%、30%、70%、100% ) hot selection key, lights will go to next one after each pressing.
Hot brightness key -	4 levels brightness (10%、30%、70%、100% ) hot selection key, lights will go to last one after each pressing.
Mode key	3 modes in total: 100% static, flash, breathe
Night light	Press the button go to night light mode (night light <b>Setting</b> : Under night light mode, press “Set button” and hold on for 10 seconds will go into the night light setting, press the left button to down the brightness, press the right button to up the brightness. Adjustable range: 1%-10%.)
Speed +	Add the speed of dynamic mode. Long-press can get fast adjusting.
Speed -	Reduce the speed of dynamic mode. Long-press can get fast adjusting.
Delay button	The light will be delay off in 30 seconds.

**Tips:** Receiver can be controlled by any one the same remote as factory default; RF BT remote control delivered with unique RF code as factory default; if unique-control is needed, please matching the code before installation and using.

#### Matching code operation

If unique-control or new-coded-remote is needed, pairing the remote and the receiver as below operation instruction before using:

1. **Step 1:** Pressing key “set” and hold on, power on the controller, the load LEDs will be 50% brightness white as responding.
2. **Step 2:** Continuously to press the key “**Mode key**” for 3 times within 5 seconds after step 1 ,the brightness of LEDs will change from 25% -10% as responding.
3. Code learning successfully, the LEDs will be back to the status before the power off, and the receiver only can be control by the remote.
4. If not, please re-operate from step 1 to 2.

#### Clear code operation

Back to factory default, wall-panel can be controlled by any one the same remote control.

1. **Step 1:** Pressing key “set” and hold on, power on the controller, the load LEDs will be 50% brightness white as responding.
2. **Step 2:** Continuously to press “**Delay button**” 3 times within 5 seconds after step 1 ,the brightness of LEDs will change from 25% -10% as responding.
3. Code clearing successfully, the LEDs will be back to the status before the power off, and the receiver can be controlled by any remote control(any one the same remote control can be used to clear the code).
4. If not, please re-operate from step 1 to 2.

#### Product information for placing order

Product name	Item number
WIFI-LED Controller	LN-CON-WiFi-3CH-XV