

Midnight

This document provides additional technical data and instructions for operating this device, which is based on the CORE model of the Philips FP140A turntable. The document is permanently available on the website <https://musicandlight.art> , and the address can be obtained by scanning the QR code on the back of the device. The device is multifunctional, combining the visual artistic element of a lamp or sculpture in your interior, enabling vinyl music playback, and enhancing the experience of aesthetic or musical moments with its light effects. It adds a fantastic "vinylizing" touch to your home parties.

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SCULPTURE

When not in use for playing vinyl records, this device can serve as ambient lighting for your interior. By selecting static effects with the remote control or mobile app, adjusting RGB colors and light intensity, you can create interesting secondary lighting in the room. If you activate dynamic light modes, the possibilities become multiple.

By removing the Black and White Slipmat and placing the transparent acrylic one, you allow an unobstructed flow of light towards the room ceiling. The light play can be observed with the lid closed or open, where you get an additional mirror effect from the inside of the lid.

MUSIC



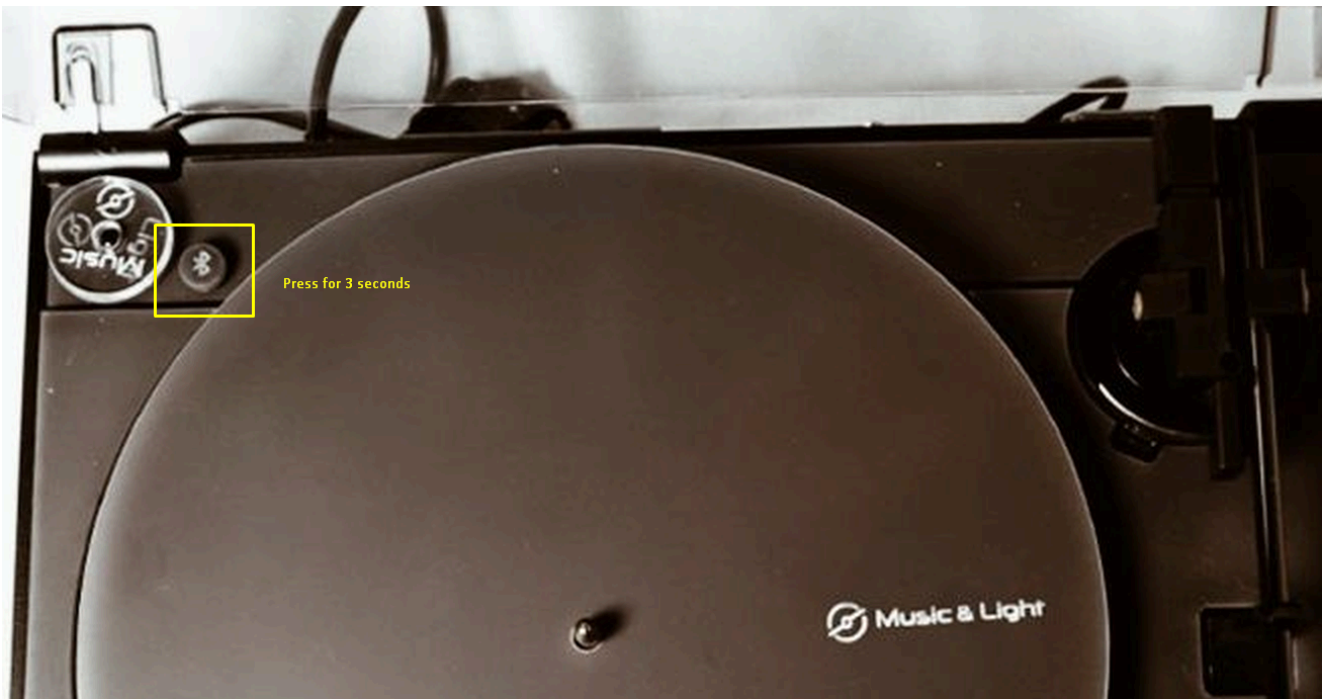
The operation of the turntable is entirely manual. Speed changes are mechanical, and the tonearm automatically returns to the starting position after the record on the platter finishes playing. Manual playback initiation is done by moving the tonearm so that it lifts and moves to the beginning of the record being played. The lift functions to gently lower the stylus at the start.



Connection of the turntable can be made using RCA connectors directly to the amplifier's aux input, as the turntable has a built-in phono preamp.



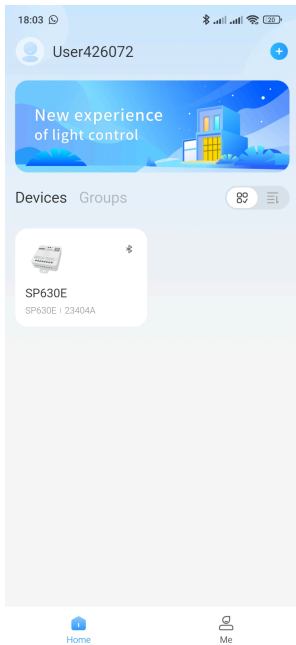
It is also possible to enable Bluetooth connection by pressing the BT button for 3 seconds. The connection can be made to an amplifier, headphones, or BT speaker.



LIGHT

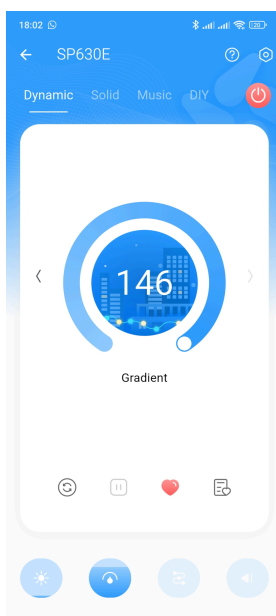
Light effects can be turned on using the remote control or through a mobile app. Instructions for the remote control can be found in this document by [following the link...](#)

Light effects are controlled via the SP630A controller, and the software used to manage this controller is Banlan X. You need to register and launch the app with Bluetooth connection enabled. After selecting the found controller, various light settings become available.

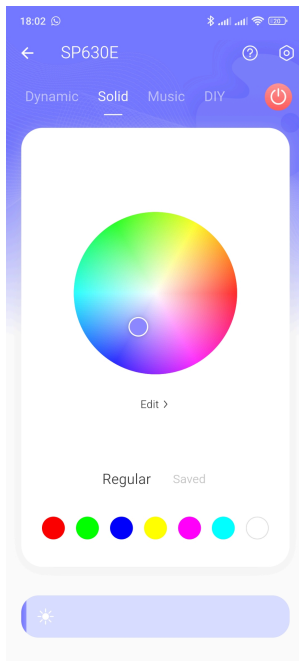


The controller allows for 4 light modes:

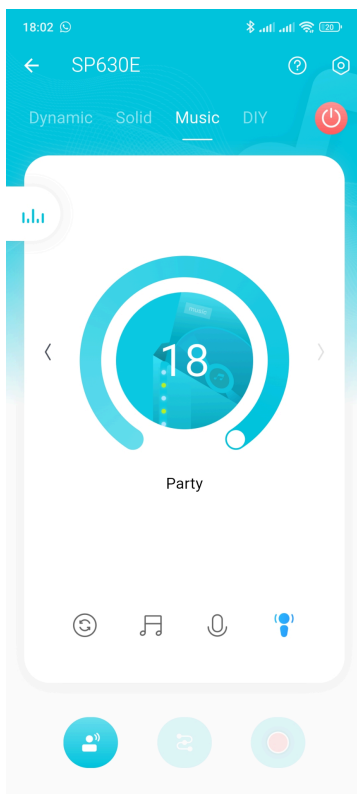
1. Dynamic - 146 effects with brightness control, speed adjustment, and an option to set effects as favorites.



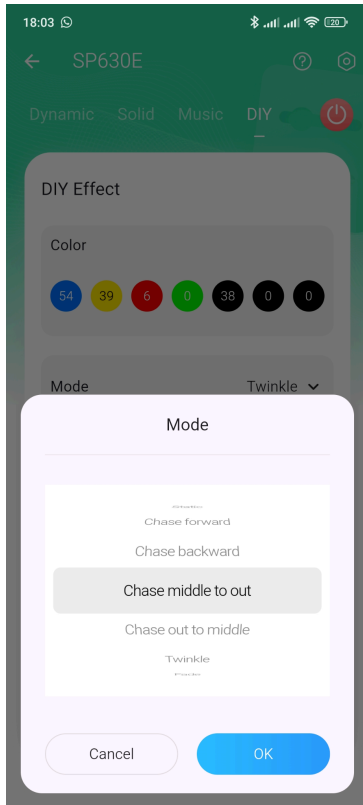
2. Static mode - RGB mode for selecting light color and brightness, allowing this device to function as a lamp and home decor.



3. Music Mode - The built-in microphone in the controller detects sound and triggers one of 18 light effects. It's also possible for the controller to operate based on sound received through the microphone of a mobile phone. The sound-activated light effects respond to music from the turntable that is heard through speakers and the amplifier.



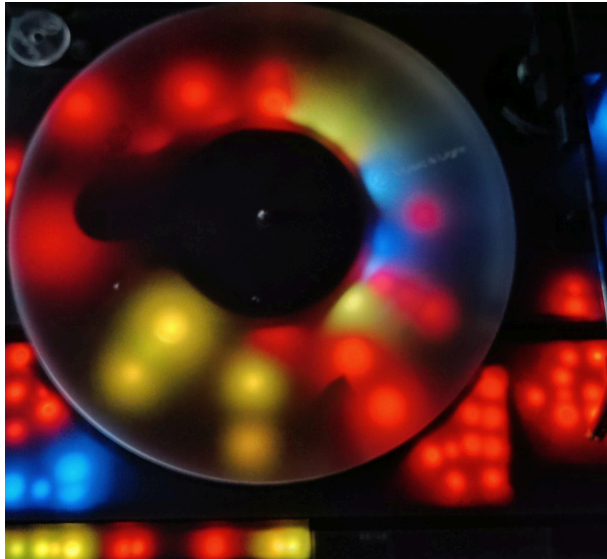
4. DIY Mode - 18 effects that differ from dynamic effects, offering the ability to adjust in a variety of color and speed variations.



The device has been modified so that both the platter and the casing of the turntable are crafted in a Black and White panel, which changes color to white when illuminated.



The slipmat is also light-transmissive, allowing you to enjoy the light effects underneath the platter.

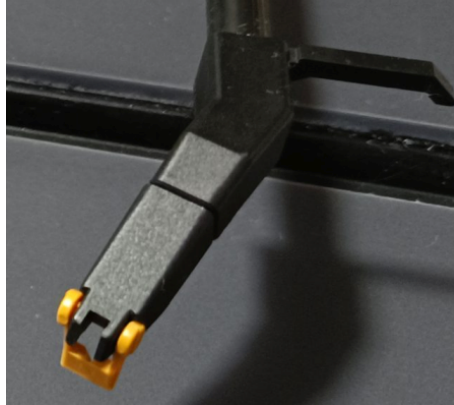


Another option provided with the device is a transparent slipmat for a light show in static mode without vinyl playback. This acrylic slipmat can hold a regular vinyl record, just like the previously shown Black & White version.



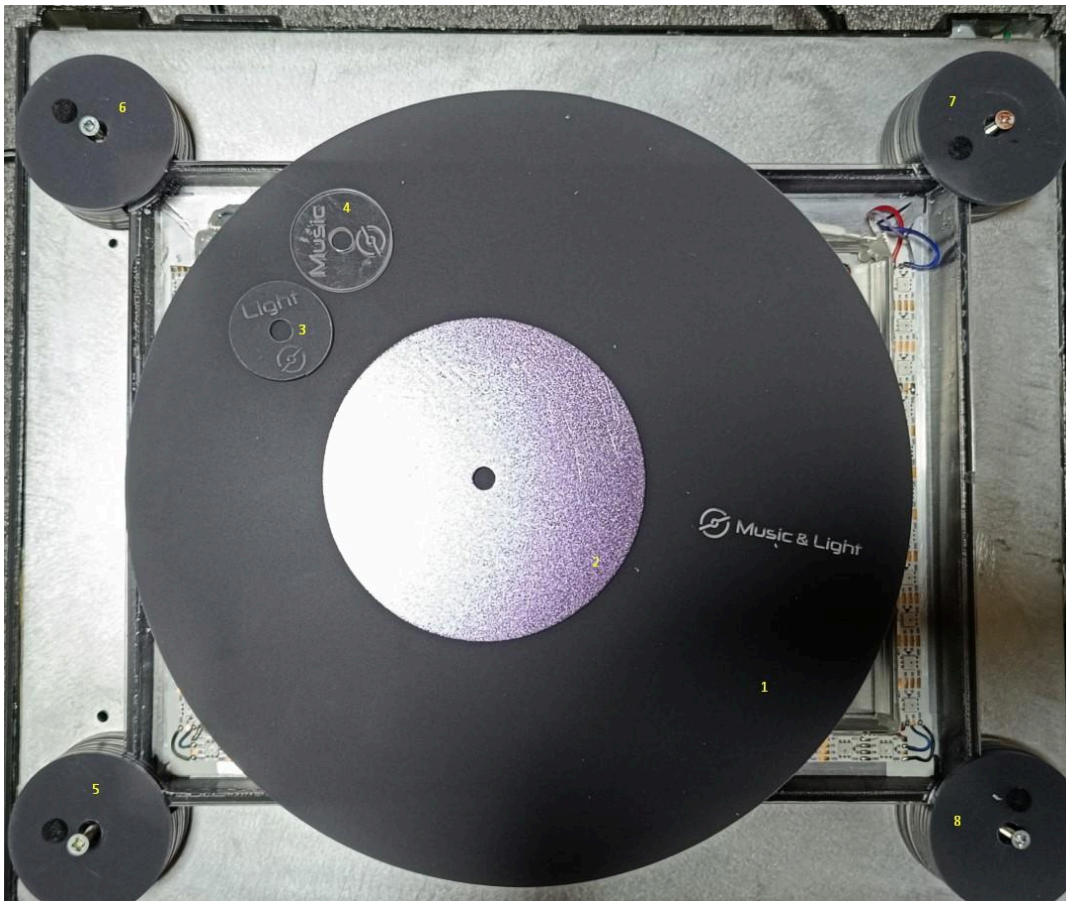
The installed stylus is a standard Philips stylus designed for the factory-set cartridge and tonearm of the turntable, ensuring maximum high-quality playback.

The designation for this stylus is 946D74 or 946D76 - 11238. Another mark is GP330.

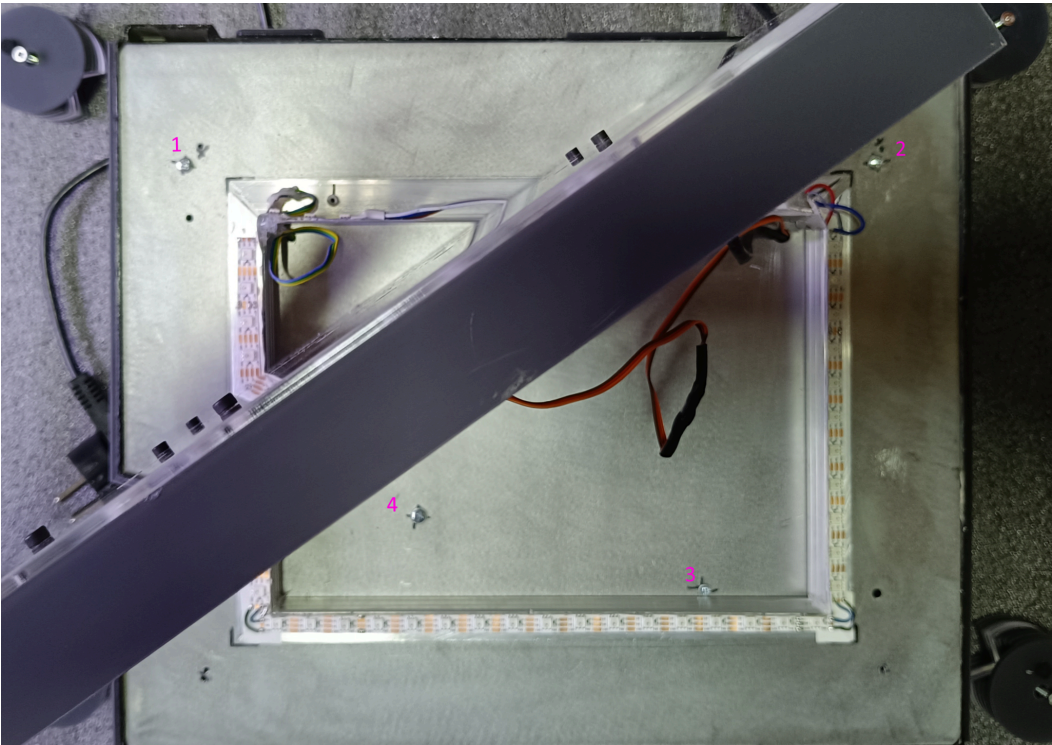
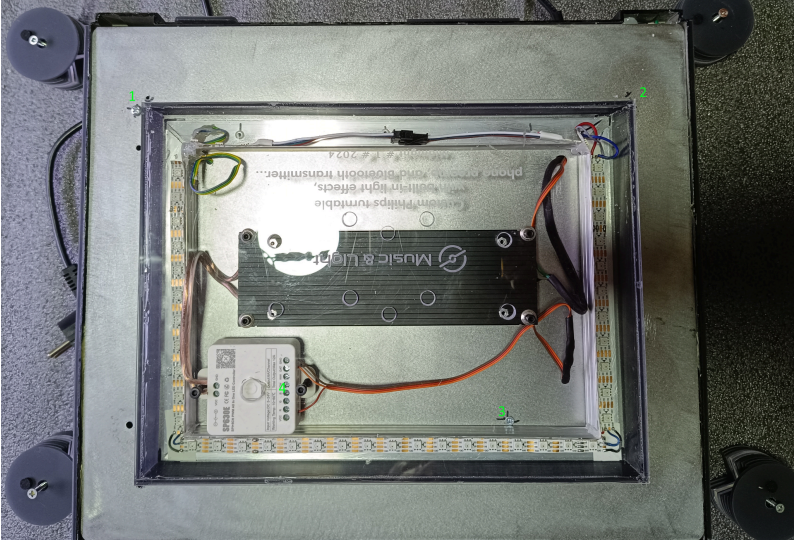


Initial disassembly

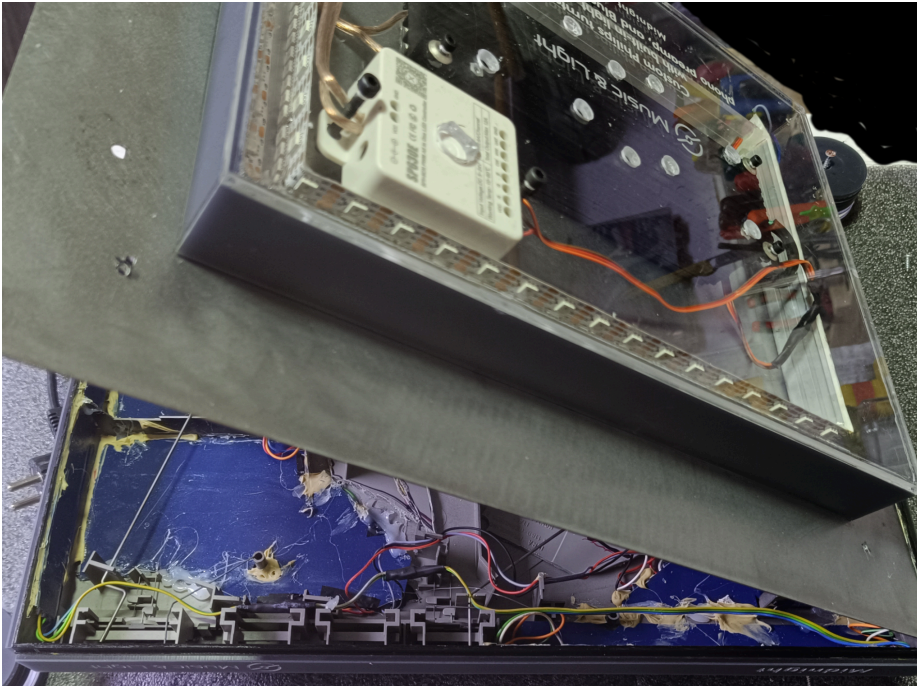
1. Remove the slipmat and the base with a vinyl 7" adapter (numbers 1-4).
2. Secure the tonearm
3. Turn the device upside down on its cover
4. Remove the screws marked with numbers 5-8 to remove Stands



5. Remove the screws 1-4 that secure the steel plate, which forms the bottom of the turntable.



- Lift the left side of the plate and the housing of the power supply and LED controller, similar to how you would open a car hood.

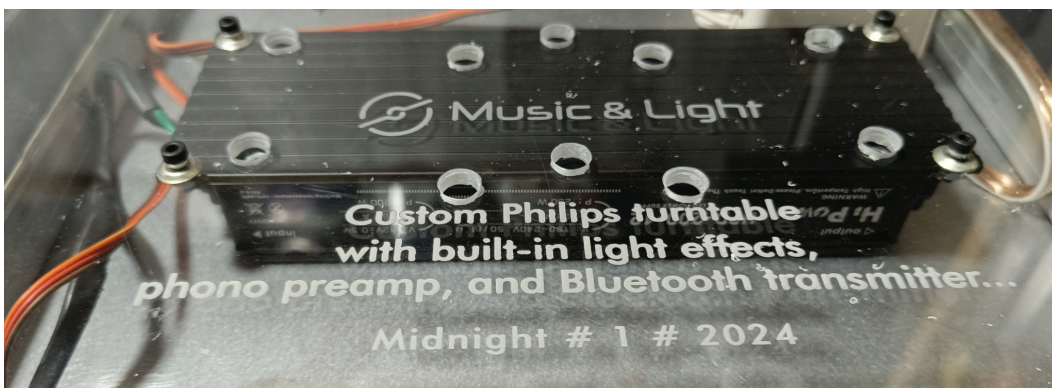


- You will see two types of conductors: one that powers the LED strips on the outer housing and the other that represents the initial connection of the LED strip coming from the LED controller. Both conductors can be detached using plastic connectors for further disassembly.



- In case further disassembly of the device or replacement of the Bluetooth transmitter or Phono preamp is needed, we advise you to contact us for further instructions, to avoid damaging the device

LED tape and controller Power supply:



LED Controller - SP630E



Remote controller - 2.4G 86-Type Touch panel

Instructions

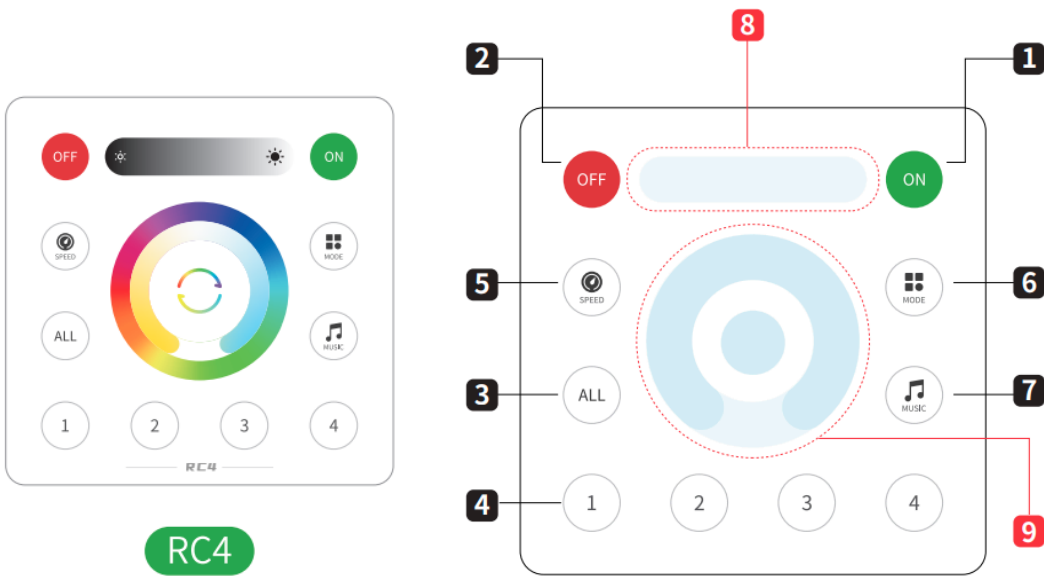
1. Brief

RC4 is 2.4G RF wireless touch remote controls, which works with SP630E controller. Remote panel opisuje funkcionalnost daljinskog upravljača da bude montiran na zid ili komad nameštaja u vašem enterijeru, ili se koristi kao redovni daljinski upravljač.

2. Features :

- 2.4G wireless remote control technology, with low power consumption, long transmission distance, strong anti-interference ability etc..
- Touch control, high sensitivity, good consistency and reliability.
- Support one-to-many control, a remote control can control multiple controllers.
- Support multi-to-many control, each controller can bind up to 5 remote controls.
- Support unified control and 4-zones control.

3. Functions - 86-Type Panel Model - RC4



1 ON

Short press: Turn on the light.
 long press: Within 20s after the controller is powered on, long press **ON** to bind/unbind the remote control.

2 OFF

Short press: Turn off the light.
 Long press: Within 20s after the controller is powered on, first turn off the lights completely, and then long press the **OFF** button to clear all bound remote controls.

3 ALL

Short press: select all zones.
 long press: Within 20s after the controller is powered on, long press **ALL** to unset the zones.

4 1, 2, 3, 4

Short press: select specific zone, E.g: short press **1** first, then press **MODE**, then only zone 1 will respond to this operation.
 Long press: zone setting, within 20s after the controller is powered on, long press a key **1...4** to set the controller to specific zone.

5 SPEED 6 MODE 7 MUSIC MODE



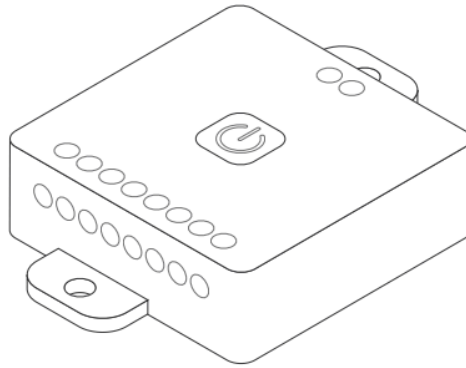
	RB1	RB2	RB3	RB4
10	Brightness Level	Warm/Nature/ Cold White	White	Color HUE/ Temperature Ring
	Brightness Ring	Temperature Ring	Color HUE Ring	Color HUE/ Temperature Ring

Different functions according to different models

4. Technical Parameters

Working Voltage:3V(CR2032)	Quiescent Current: 26uA
RF frequency: 2.4GHz	Remote Range:30M
Remote DIMensions: 135mm*48mm*10mm	Panel DIMensions:86mm*86mm*12mm

LED Controller SP630E Series Instructions



SPI+5CH PWM All In One LED Controller



1. Brief

SP630E is compatible with multiple types of LEDs. It can work with 1/2/3/4/5CH W/CCT/RGB/RGBW/RGBCCT PWM and addressble LEDs, and it can also work with addressble+PWM combined LEDs:

NO.	Parameters			LED Type
	RGB	CW	WW	
1				1CH PWM Single Color
2				2CH PWM CCT
3				3CH PWM RGB
4				4CH PWM RGBW
5				5CH PWM RGBCCT
6				SPI Single Color
7				SPI CCT
8				SPI RGB
9				SPI RGBW
10				SPI RGBCCT
11				SPI RGB+1CH PWM Single Color
12				SPI RGB+2CH PWM CCT

note: user can select the specific LED type on the App setting page

2. Features

- High performance, low power consumption 2.4G Bluetooth microprocessor;
- Compatible with 12 kinds of type of LEDs;
- Support App control, 2.4G touch remote control and 2.4G touch 86-type control panel;
- The remote control and 86-type control panel can be set up for zone-control (can be divided into 4 zones), or unified control (ALL);
- Support to set kinds of on/off animations and the default power-on state.
- Support for modifying device name, color order correction and setting timers.
- Support 3 kinds of music capture modes:
 - a. **cell phone microphone**,
 - b. player **streaming**,
 - c. **on-board microphone**.
- 4 major control pages in the App: Dynamic, Static, Music, Custom.

Built type of LED correspond to different App working modes, as follows:

You can choose between 146 dynamic light effects, 18 music effects, 18 CUSTOM DIY effects and Static mode in all possible RGB colors.


APP Pages Functions LED Types		Dynamic		Static		Music		Custom
		Colorful	White	Colorful	White	Colorful	White	DIY
1	1CH PWM Single Color	None	3	None	DIM	None	1	None
2	2CH PWM CCT	None	3	None	CCT	None	1	None
3	3CH PWM RGB	12	None	HUE	None	3	None	3
4	4CH PWM RGBW	12	3	HUE	DIM	3	1	3
5	5CH PWM RGBCCT	12	3	HUE	CCT	3	1	3
6	SPI Single Color	None	10	None	DIM	None	5	None
7	SPI CCT	None	10	None	CCT	无	5	None
8	SPI RGB	146	None	HUE	None	18	None	18
9	SPI RGBW	146	10	HUE	DIM	18	5	18
10	SPI RGBCCT	146	10	HUE	CCT	18	5	18
11	SPI RGB+1CH PWM Single Color	146	3	HUE	DIM	18	1	18
12	SPI RGB+2CH PWM CCT	146	3	HUE	CCT	18	1	18



















3. Mobile APP by Banlan X



SP630E supports App control for iOS and Android devices. Apple devices require iOS 10.0 or higher, and Android devices require Android 4.4 or higher. You can search “BanlanX” in App Store or Google Play to find the APP, or scan the QR code to download and install.

Operations

- Open the App, click the icon in the top right corner of the home page to add device .
- Please set the LED type and calibrate the color order according to the page prompts, you can also change these settings on the settings page.
- Click the Gear  icon in the upper right corner of the App to enter the settings page, where you can modify the name, modify the type of LED, calibrate the color order, set the timings, set the on/off effect, etc.
- Touch functions on the panel remote RC4:

					
ON	OFF	Brightness Level	Warm/Nature/ Cold White	White	Color HUE/ Temperature Ring
					
Brightness	Brightness	Brightness Ring	Temperature Ring	Color HUE Ring	Color HUE/ Temperature Ring
					
Speed	Mode+	Mode-	Music effect	1-4 Zones	All Zones

Note: 1. Within 20s after power on, long press the ON key: binding/unbinding the remote/panel;
2. Within 20s after power on, long press Zone1~4/ZoneAll, to set the Zones;

4. Technical Parameters

SP630E

Working Voltage: DC5V~24V	Working Current: 3mA~13mA
PWM Single Channel Maximun Output Current: 6A	PWM Total Maximun Output Current : 12A
Working Temp: -20°C~60°C	DIMensions: 78mm*56mm*20mm

2.4G Remote/Panel

Working Voltage: 3V(CR2032)	Quiescent Current: 35uA
RF frequency: 2.4GHz	Remote Range: 30M
Remote DIMensions: 135mm*48mm*10mm	Panel DIMensions: 86mm*86mm*12mm

5. Wiring

Different types of LED correspond to different output ports; The ports should match the selected LED type, and the specific port descriptions as follows. Marked is LED type built into this custom Turntable.

LED Type		Output Port							
		VCC	R	G	B	CW	WW	DAT	GND
1	1CH PWM Single Color	✓				✓	✓		
2	2CH PWM CCT	✓				✓	✓		
3	3CH PWM RGB	✓	✓	✓	✓				
4	4CH PWM RGBW	✓	✓	✓	✓	✓			
5	5CH PWM RGBCCT	✓	✓	✓	✓	✓	✓		
6	SPI Single Color	✓						✓	✓
7	SPI CCT	✓						✓	✓
8	SPI RGB	✓						✓	✓
9	SPI RGBW	✓						✓	✓
10	SPI RGBCCT	✓						✓	✓
11	SPI RGB+1CH PWM Single Color	✓				✓	✓	✓	✓
12	SPI RGB+2CH PWM CCT	✓				✓	✓	✓	✓