RGB/RGBW Sound Active Controller

Item ref: 153.743UK User Manual

Wireless controller for RGB/RGBW multi-colour LED tape with a 24-key handheld remote. Capable of operating 12V or 24V tape with up to 5A per channel (R/G/B) or 4A (R/G/B/W). Options for 8 static colours, 3 auto sequences with speed control or 3 sound-activated sequences from an internal microphone or 3.5mm audio input with sensitivity control. Operating with this controller enables RGB/RGBW tape to give sound-reactive colour to architectural features or signage.

Note: This controller can operate with 12V or 24V LED tape up to 5A maximum output per channel for R/G/B tape (15A total) and up to 4A maximum output per channel for R/G/B/W tape (16A total). For longer runs of RGB and RGBW tape with higher current requirements, RGB/RGBW amplifiers with additional power supplies will be necessary.

If you have bought one of our LED Tape kits, you will have been supplied with a 4-pin lead to connect to connect to RBG/RGBW tape from the controller. Strip the wires for R / G / B / W / V+ and connect to the relative screw terminals on the controller. If you haven't bought one of our LED Tape kits, you will have to purchase this lead separately.

Main Unit Specification:

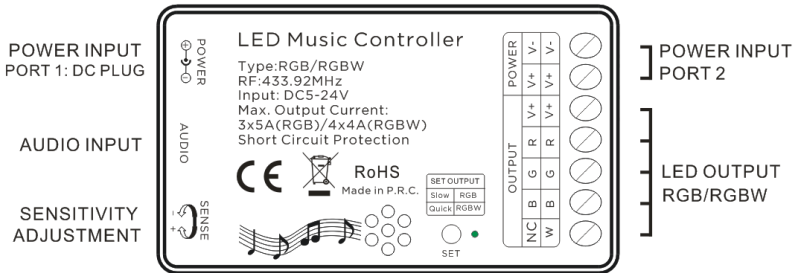|			
Working temperature	-20-60℃	Supply voltage	DC5V-24V
Static power consumption	<1W	Connecting mode	common anode
Grayscale	1024 levels (RGB each)	Speed stage	100 graduations
External dimension	L72*W42*20mm	Packing size	L92*W56*H32 mm
Net weight	52g	Gross weight	81g
Output	3/4 channels	Max. Output current	3*5A(RGB)/4*4A(RGBW)
RF frequency	433.92Mhz	Remote distance	Up to 20M
PWM frequency	1.95KHz	Memory function	Yes
Short-circuit protection	Yes	Max. Output power	80W(5V); 192W(12V); 384W(24V)

RF Remote-Control Specification:

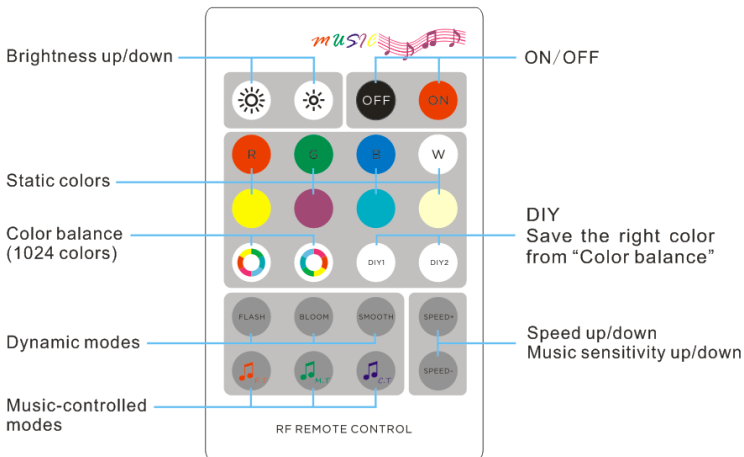|			
Working temperature	-20°C~45°C	Supply voltage	DC3V（CR2025）
Standby current	3.3uA	Working current	12mA
Standby power	9.9uW	Working power	36mW
Net weight	25g	RF frequency	433.92MHz
External dimension	L85*W51*H6mm	RF distance	≤20m

Version 1.0

⚠	Caution: Please read this manual carefully before operating Damage caused by misuse is not covered by the warranty

Main Unit Layout:

POWER INPUT
PORT 1: DC PLUG

AUDIO INPUT

SENSITIVITY
ADJUSTMENT

LED Music Controller
Type:RGB/RGBW
RF:433.92MHz
Input: DC5-24V
Max. Output Current:
3x5A(RGB)/4x4A(RGBW)
Short Circuit Protection

CE   RoHS
Made in P.R.C.

SET OUTPUT
Slow   RGB
Quick   RGBW

SET

POWER INPUT
PORT 2

LED OUTPUT
RGB/RGBW

RF Remote Control Layout:

Brightness up/down

ON/OFF

Static colors

Color balance
(1024 colors)

DIY
Save the right color
from "Color balance"

Dynamic modes

Speed up/down
Music sensitivity up/down

Music-controlled
modes

RF REMOTE CONTROL

Setting up:

Connect the +V, R, G, B (and W if using RGBW tape) output to the LED tape using a connection lead, ensuring that all terminals are fed to the correct connections on the tape. Connect 12Vdc or 24Vdc power to the DC5521 jack input or DC power input terminals, ensuring that both power supply and controller have enough current capacity to operate the connected tape.

Remove the plastic tab from the handheld RF remote control unit to activate the battery (Button cell CR2025). Power up the main control unit from the 12Vdc or 24Vdc power supply and if the LEDs are not lit, press the power 'ON' key on the remote control.

Use the 'SET' button to set the controller according to the type of LED tape being used. The indicator light will flash slowly for RGB tape and flash fast for RGBW tape setting.

Select static colours by pressing one of the colour keys on the remote control. Use the two brightness keys to adjust the brightness of the LED's. A short press on the W key will switch the white LED light on/off. A long press on the W key will dim the white LED light.

Preset auto sequences can be selected by pressing FLASH, BLOOM or SMOOTH keys. The speed of the selected preset can be adjusted using the SPEED+/SPEED- keys.

The controller has 3 sound activated modes:

1. Press the F.T. key for a sound activated colour flash effect
2. Press the M.T. key for a sound activated colour morph effect
3. Press the C.T. key for a sound activated colour scroll effect

Two Color balance keys enable manual setting any of 1024 colours by stepping up or down through them incrementally.

DIY 1 & 2: A long press on either DIY key for 3 seconds will store a new light colour setting, created using the colour balance keys. A short press will then activate the preset colour setting for that key.

Sound activated presets will be triggered by sound captured by the internal microphone. Alternatively, a line level audio source may be connected to the 3.5mm audio input jack.

Sound activated triggering is adjusted using the rotary sensitivity control. To switch off the LEDs temporarily, press the OFF key, then press ON to switch back on. If not being used for long periods, it is better to switch off the 12Vdc or 24Vdc power supply.

Application Circuit RGB:
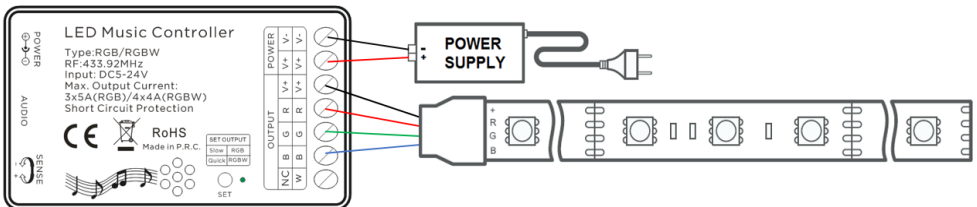
Application Circuit RGBW:
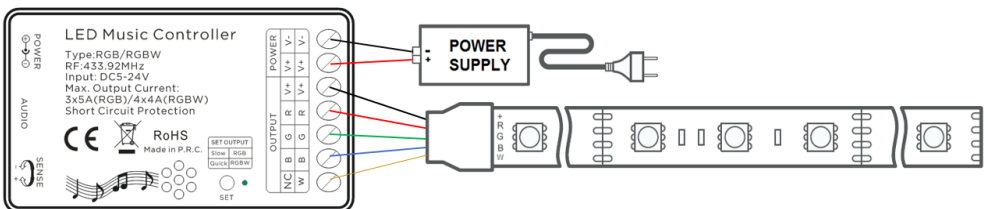
Warning:

- For reasons of electrical safety, this device must never be immersed in water, exposed to damp conditions or excessive force.
- Do not use this device if you find that it is damaged in any way.
- Do not attempt to repair this device or take apart under any circumstances, as this will invalidate your warranty.

Pairing the RF remote control handset

Each controller is supplied with an RF handheld remote control that has been uniquely coded to work with the controller. In some circumstances, it might be useful to operate several controllers independently from separate remote controls. The controller can be paired to a remote control using either of the following two methods…

Method 1:

Step 1: Press and hold the "FLASH" key, power on the controller, the LEDs will be 50% brightness white to confirm.
Step 2: Press the "FLASH" key 3 times within 3 seconds, the LEDs will change 25%-10%, then back to preset level.

Once the above process is completed, the controller should operate remotely from the paired handset.
If pairing is not successful, re-try by repeating steps 1 and 2 above.

Method 2:

Step 1: Once all connections are made, power up the controller.
Step 2: Press and hold the "SET" button on the receiver for 5 seconds until the indicator light lights up.
Step 3: Hold down the "SET" button on the controller and press "FLASH" on the remote control once to finish
The LED tape will flash 3 times to confirm.

Once the above process is completed, the controller should operate remotely from the paired handset.
If pairing is not successful, re-try by repeating steps 1 to 3 above.

Clearing pairing of RF remote control handsets

To revert remote control pairing back to the factory default, follow one of the two methods below.

Method 1:

Step 1: Press and hold the "SMOOTH" key, power on the controller, the LEDs will be 50% brightness white to confirm.
Step 2: Press the "SMOOTH" key 3 times within 3 seconds, the LEDs will change 25%-10%, then back to preset level.

If the pairing is cleared successfully, the receiver can be controlled by any remote control.
If pairing is not cleared successfully, re-try by repeating steps 1 and 2 above.

Method 2:

Step 1: Once all connections are made, power up the controller.
Step 2: Press and hold the "SET" button on the receiver for 5 seconds until the indicator light lights up.
Step 3: Hold down the "SET" button on the controller and press "SMOOTH" on the remote control once to finish
The LED tape will flash 3 times to confirm.

Once the above process is completed, the controller should operate remotely from the paired handset.
If pairing is not successful, re-try by repeating steps 1 to 3 above.

Hereby, AVSL Group Ltd. declares that the radio equipment type 153.743UK is in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity is available at the following internet address:
http://www.avsl.com/assets/exportdoc/1/5/153743UK%20CE.pdf