Vrabocry SPI RGB

Vrabocry DC5V-24V Smart Tuya APP LED SPI Controller

Model: Music X7 WIFI SPI IC (SPI RGB)

Brand: Vrabocry

INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Vrabocry DC5V-24V Smart Tuya APP LED SPI Controller. This device is designed to control various SPI RGB/RGBW LED strips, offering versatile lighting effects through APP and music synchronization.

WHAT'S IN THE BOX

Please verify that all components are present before proceeding with installation.

- 1 x Tuya SPI RGB/RGBW LED Controller (Colorful-X7)
- 1 x User Manual
- Necessary connection cables (as supplied)

Image: The Vrabocry LED SPI Controller, its accompanying cables, and a small screwdriver, laid out next to its packaging and a user manual. This illustrates the complete package contents.

Specifications

Feature	Detail
Product Name	Tuya SPI RGB/RGBW LED Controller
Working Voltage	DC 5~24V
Control Methods	APP (Smart Life or Tuya) or Music

Connectivity	WiFi-IEEE 802.11b/g/n 2.4GHz, Bluetooth mesh
Output	4A/Channel (Total Output Max. 12A)
Supported LED Strip Types	All SPI RGB LED strips (WS/SK/SM/TX/LPD/TM series)
Working Temperature	-20°C to 60°C
Max Supported Pixel Number	1024 pixels
Material	Plastic
Indoor/Outdoor Usage	Indoor

SETUP

1. Physical Connection

Ensure all power is disconnected before making any connections. Refer to the diagram below for proper wiring.

1. Connect the DC 5-24V power supply to the controller's power input terminals (DC5-24V).
2. Connect the LED strip to the controller's output terminals:

   - **GND:** Ground connection for the LED strip.
   - **DAT:** Data line for the LED strip.
   - **CLK:** Clock line for the LED strip (if applicable for your strip type).
   - **VCC:** Positive power supply for the LED strip.

3. The AUX IN port is for external audio input for music synchronization.
4. The SET button is used for pairing and mode selection.

Image: A detailed view of the Vrabocry Colorful-X7 Smart LED Music Controller, highlighting the DC5-24V power input, AUX IN, SET button, and the GND, DAT, CLK, VCC output terminals for LED strip connection.

Image: An angled perspective of the Vrabocry Colorful-X7 LED controller, focusing on the output terminals (GND, DAT, CLK, VCC) where the LED strip connects.

2. App Installation

Download the "Smart Life" or "Tuya" app from your mobile device's app store (iOS App Store or Google Play Store). Register or log in to your account.

3. WiFi Connection

1. Power on the LED controller.
2. Open the Smart Life or Tuya app.
3. Tap the "+" icon to add a new device.
4. Follow the in-app instructions to connect the controller to your 2.4GHz WiFi network. This typically involves putting the device into pairing mode (often by pressing and holding the SET button until an indicator light flashes).

Image: The Vrabocry LED controller shown alongside a smartphone displaying the Smart Life/Tuya control app interface, and two smart speakers, illustrating its smart home integration capabilities.

OPERATING INSTRUCTIONS

1. Basic Control via APP

Once connected, you can control the LED strip directly from the Smart Life or Tuya app. The app allows you to:

- Turn the lights On/Off.
- Adjust brightness and color.
- Select from 40 different dynamic lighting modes.
- Add up to 10 customized lighting modes.

2. Music Sync Control

The controller features a built-in microphone for music synchronization. The lights will react to the rhythm and beat of the music playing in the environment. For external audio input, connect an audio source to the AUX IN port.

3. Customization and Advanced Features

The app provides advanced tools for creating personalized lighting effects:

- **DIY Dynamic Lighting:** Utilize tools like Paint Bucket, Color Pen, and Eraser within the app to design unique lighting patterns.
- **Device Name Modification:** Rename your controller in the app for easier identification.
- **Color Order Correction:** Adjust the color order (RGB, GRB, etc.) to match your specific LED strip.
- **Setting Timers:** Schedule your lights to turn on or off at specific times.

MAINTENANCE

To ensure the longevity and optimal performance of your LED SPI Controller, follow these maintenance guidelines:
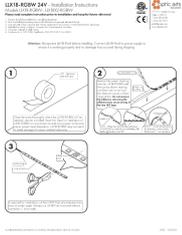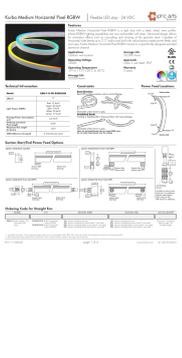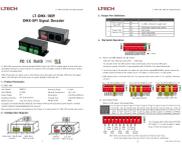
- Keep the controller in a dry environment, away from moisture and extreme temperatures.
- Clean the device with a soft, dry cloth. Do not use liquid cleaners or abrasive materials.
- Ensure proper ventilation around the controller to prevent overheating.
- Regularly check connections for any signs of wear or looseness.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Controller not powering on.	No power supply; incorrect voltage; faulty power adapter.	Check power connections. Ensure power supply is DC 5-24V. Test with a different power adapter if available.
LED strip not lighting up.	Incorrect wiring (GND, DAT, CLK, VCC); incompatible LED strip; faulty LED strip.	Verify all wiring connections are correct. Ensure your LED strip is an SPI type. Test the LED strip with another controller if possible. Check color order settings in the app.
Cannot connect to WiFi.	Incorrect WiFi password; 5GHz WiFi network; controller not in pairing mode; weak signal.	Double-check WiFi password. Ensure you are connecting to a 2.4GHz network. Put the controller into pairing mode (refer to app instructions). Move controller closer to router.
Music sync not working.	No music playing; music too quiet; microphone obstructed; incorrect AUX IN connection.	Ensure music is playing loudly enough near the controller. Check if the microphone port is clear. If using AUX IN, ensure the cable is properly connected and the audio source is active.

WARRANTY AND SUPPORT

Vrabocry products are designed for reliability and performance. For warranty information and technical support, please refer to the contact details provided on the product packaging or visit the official Vrabocry website. Keep your purchase receipt for warranty claims.

Related Documents - SPI RGB

[dimLED Tuya SPI LED Controller: User Manual and Technical Guide](#)
Detailed guide for the dimLED Tuya SPI LED Controller, covering installation, system wiring, Tuya smart app integration, remote control, and technical specifications for RGB, RGBW, and single-color LED strips.

[Luminii LLX18-RGBW 24V LED Strip Installation Guide](#)
Comprehensive installation instructions for Luminii LLX18-RGBW 24V LED strips, covering preparation, mounting, cutting, and wiring with SR-DMX-SPI decoders. Includes safety precautions and technical diagrams.

[Surplife LED Controller User Instruction](#)
User instructions for the Surplife LED Controller, detailing product parameters, remote control functions, app usage, and various lighting modes.

[Wi-Fi Sound-Control SPI Controller (D Series) User Manual](#)
This document provides a comprehensive overview of the Wi-Fi sound-control SPI controller (D series), detailing its product parameters, key functions, APP operations, and important attentions for usage. It covers setup, modes, and features like timer and delay functions.

[Luminii Kurba Medium Horizontal Pixel RGBW Flexible LED Strip - 24 VDC](#)
Explore the Luminii Kurba Medium Horizontal Pixel RGBW flexible LED strip, a 24 VDC solution offering advanced RGBW lighting effects for indoor and outdoor wet locations. This document details technical specifications, power consumption, ordering codes, mounting accessories, power supplies, and DMX controllers.

[LTECH LT-DMX-1809 DMX-SPI Signal Decoder User Manual and Datasheet](#)
Detailed information on the LTECH LT-DMX-1809 DMX-SPI Signal Decoder, covering product specifications, configuration, wiring diagrams, dip switch settings for DMX addressing and self-testing modes, operational attention points, and warranty agreement.