

SP802E Instructions

SPI RGB Matrix LED Controller



1.Brief:

SP802E SPI RGB Matrix LED Controller. It features a wide array of built-in animation effects, multiple music rhythm effects, and a rich material library. Additionally, it offers a powerful creative platform, including text editing, doodling, animation creation, and the ability to import images and GIFs. Users can endlessly expand lighting effects, freely adjust parameters, and create vivid lighting displays.

2.Features:



Built-in with various effects and music modes, it allows for achieving any lighting effect through highly flexible customization.



A brand-new scene-based App UI design with visualized lighting effect previews, making it more intuitive and user-friendly.



Screen size ratio and wiring layout can be adjusted freely.



Supports two control methods: Wi-Fi, Bluetooth.



Supports OTA updates, ensuring your device stays with the latest features and improvements.



Supports One-click lighting effect favorites for easy access.



Supports device password protection, color calibration, and scheduled ON/OFF.

3.BanlanX App:

- SP802E 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.



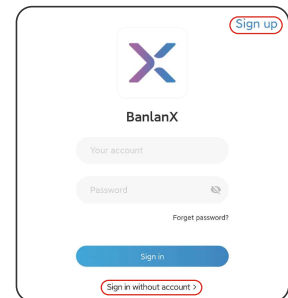
App operation:

- **Register and Login:**

Click on the upper right corner of the page "Sign up" → Fill in the required information → Registration success → Login.

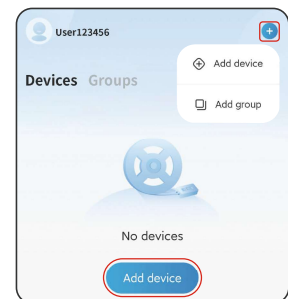
Note:

Click "Sign in without account" → Enter Guest Mode (some features may be limited).



- **Add Device:**

After registering successfully, Add device in **Add device** or **+** → Searching page → Select the device → Finish adding.

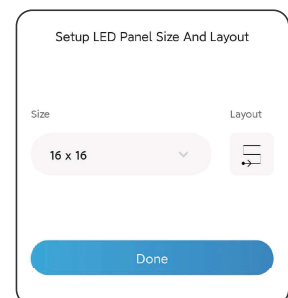


- **LED Panel setting:**

Click the  icon in the upper right corner of the control interface → LED Panel Layout → Layout settings can be adjusted based on the actual size of the LED panel → Finish setting.

Note:

The total number of pixels on the display cannot exceed 1024.

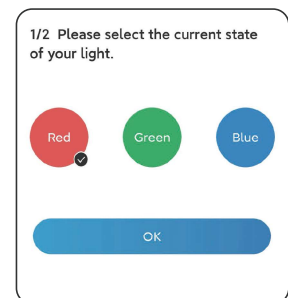


- **Color Correction:**

Click the  icon in the upper right corner of the control interface →  Color Correction → Select the corresponding color button based on the actual color shown by the LED → Correction completed.

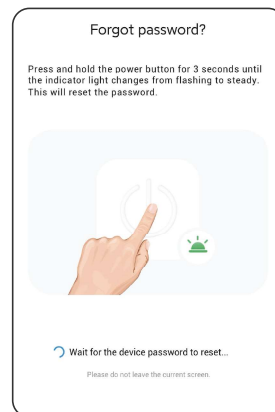
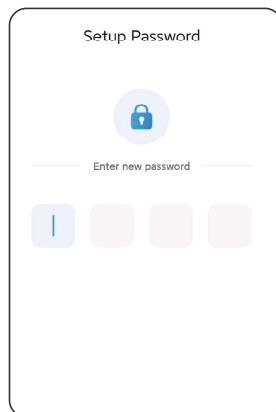
Note:

Due to differences in the LED, if the UI color does not match the actual light, calibration is required.



- **Device password:**

Click the  icon in the upper right corner of the control interface →  Device password
→ Enter new password → Enter the new password again → Finish setting.

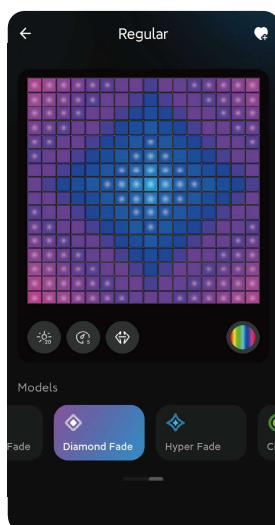


Note:

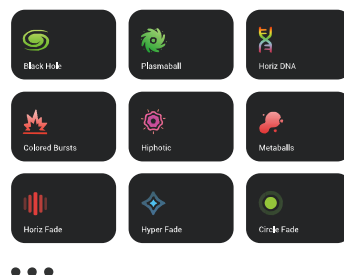
If you forget your password, go to the "Forgot Password" screen and press and hold the power button on the controller for 3 seconds until the indicator light changes from flashing to steady. This will reset the password.

- **Control Lighting Effect:**

1.Regular Effects:



Click the  icon on the control interface to enter the control page.
Click the effect icon at the bottom to choose different regular effects.



- **Single color settings:**



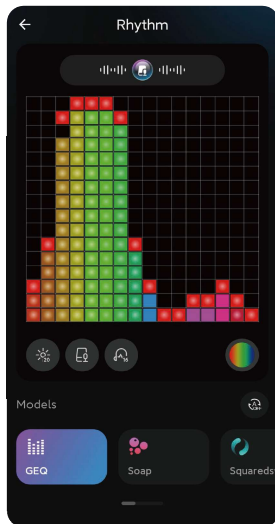
- **Color combination adjustment:**



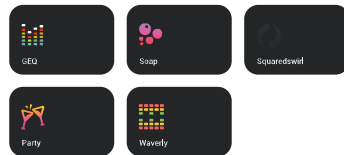
- **Gradient color settings:**



2.Rhythm Effects:



Click the  icon on the control interface to enter the control page.
Click the effect icon at the bottom to choose different rhythm effects.



• Music collection methods:

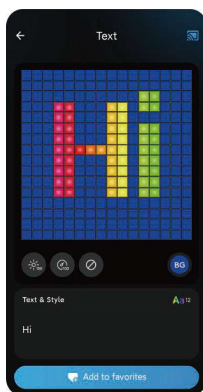


• Set sensitivity:

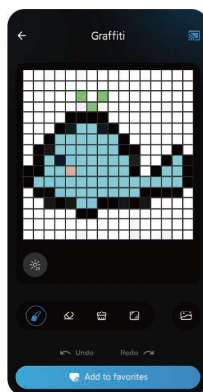


3.Creative Center:

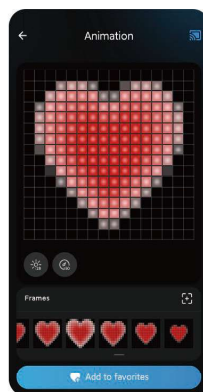
Click the "Creative Center" tab on the lighting effect interface to choose different creative effects.



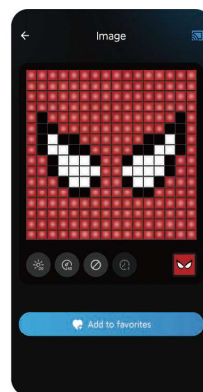
* Text *



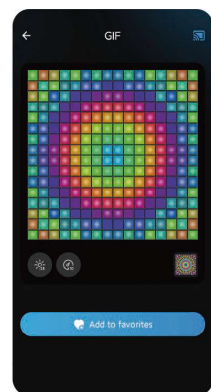
* Graffiti *



* Animation *



* Image *



* GIF *

• Adjusts brightness:



• Speed adjustment:



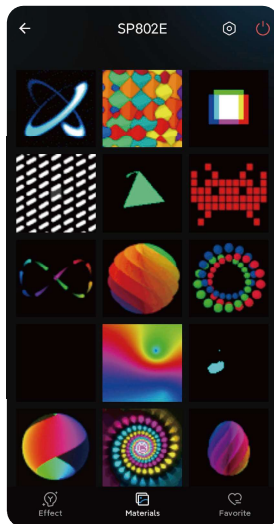
• Set effect direction:



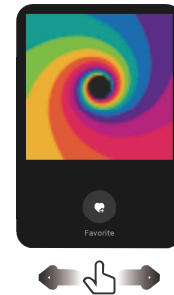
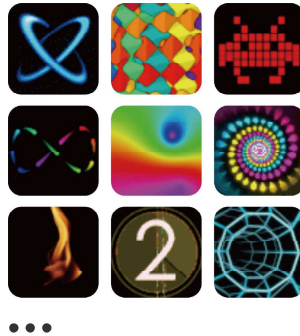
Note:

The parameter adjustment range for different functions may vary depending on the usage scenario. For detailed parameter adjustment ranges, please refer to the BanlanX App.

4.Effect Assets:

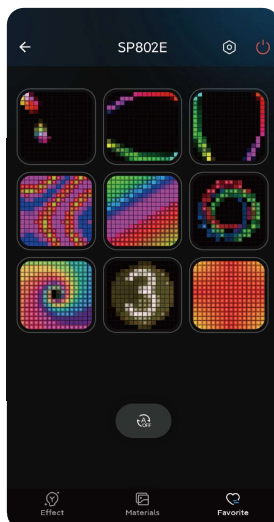


Click the  icon at the bottom of the control interface to enter the effect assets library page. Click the effect icon at the bottom to choose different effect assets.



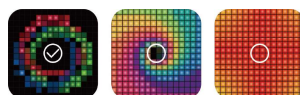
Swipe left and right to switch effect assets.

5.Favorites:



At the top right of any effect screen, click the  icon to add the current effect to the favorites list.

• Long press to manage:



• Loop playback ON / OFF:



• Adjusts loop playback interval:



4. Technical Parameters:

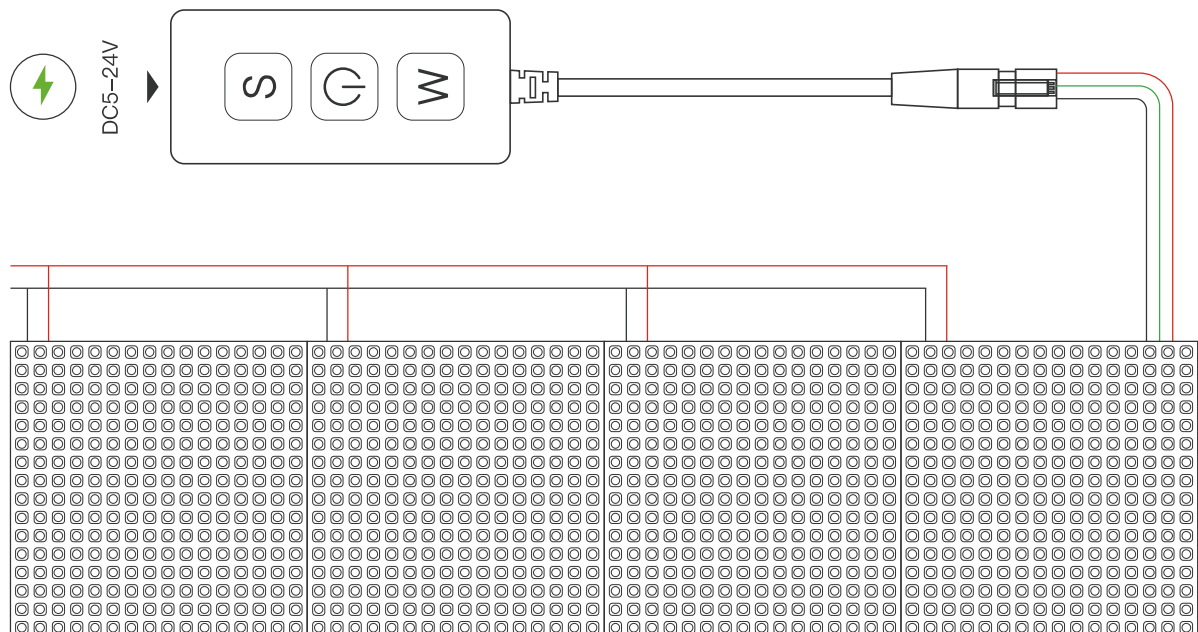
- Controller Parameters:

Working Voltage: DC5V~24V	Data Type: SPI
Working Current: 14mA~50mA	MAX Pixels: 1024
Working Temp: -10°C~60°C	Dimension: 60mm*30mm*14mm (Not including the wires)
IC Type: Single-wire RZ RGB LED driver IC for UCS1903, SM16703, WS2812B, SK6812, etc.	

[Note:Restore Factory Settings](#)

Press and hold the power button to power on the device. At this moment, the **blue and green indicator lights** will blink together. Continue holding the power button until the **blue indicator light** turns to a breathing. Then release the power button.

5. Wiring:



FCC Statement :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
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Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

Common part :

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.