

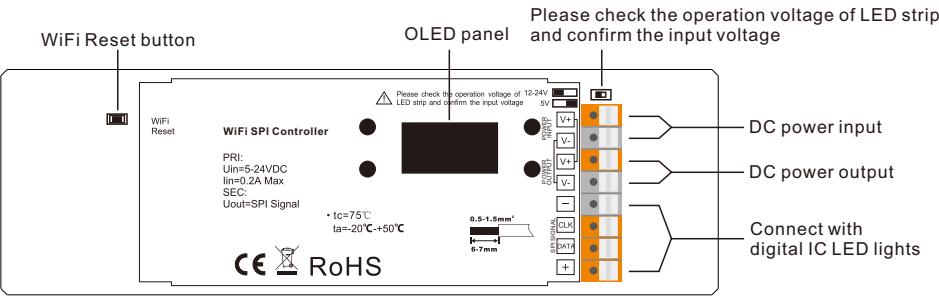
Smart SPI Controller User Manual

70140006



Important: Read All Instructions Prior to Installation

Function introduction



Product Data

Input Voltage	DC5V/DC12-24V
Input Current	0.2A Max.
Input Signal	WiFi
Output Signal	SPI
Supported IC Type	UCS2904BH
Driving Pixels	Max. 1020
Product Dimension	170x53.4x28mm
Working Temperature	-20°C ~ +50°C
Waterproof Grade	IP20

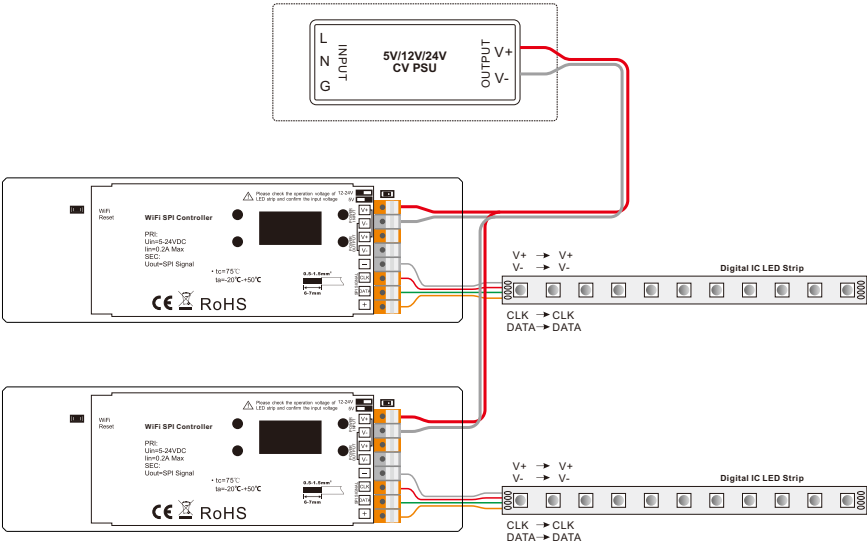
Product Features

- SPI signal output for control of RGBW pixel lights
- Tuya WiFi control, easy configuration and control through the smart APP
- Capable of addressing up to 1020 pixels at the same time
- The built-in, backlit OLED panel allows for displaying information of the controlled pixel lights
- Supports UCS2904BH driving IC
- Supports segments control
- Supports preset color patterns and customized color patterns

Safety & Warnings

- DO NOT install the device with power applied.
- DO NOT expose the device to moisture.

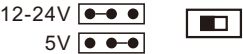
Wiring Diagram



1.Power input

5VDC/12-24VDC voltage can be set by a DIP switch

Please set the correct voltage according to the type of LED pixel to be controlled before wiring



2.SPI signal output

- + is Positive voltage output (voltage depends on input)
- CLK is the Clock signal (only used with four wire pixels)
- Data is the Data signal (used on all pixels)
- is Negative voltage output (voltage depends on input)

Operation

1. OLED Function

After power on the SPI controller, the IC type, LED type and strip length will be displayed on the OLED panel. "WF mode" means this controller is controlled through WiFi, "UCS2904BH" means the IC type. "RGBW" means the LED type. "0020" means the strip length, which can be set through the APP interface.



2. Pair the SPI LED controller to the smart phone or tablet:

Step 1: Download the "TuyaSmart" APP from APP store or google play, and register an account as instructed.

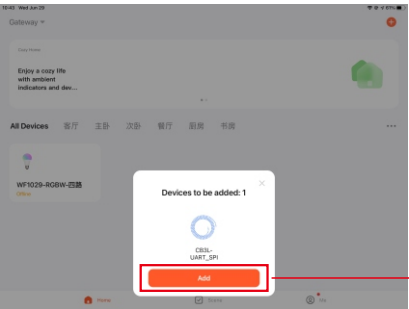
Step 2: Connect your smart phone or tablet WiFi to your home router network.

Step 3: Run the "TuyaSmart" APP on your smart phone or tablet, and add the SPI LED controller.

Note: Please enable bluetooth and the APP must have the permission to access bluetooth.

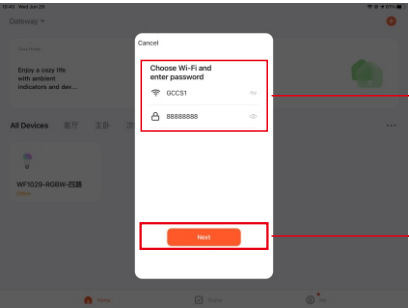
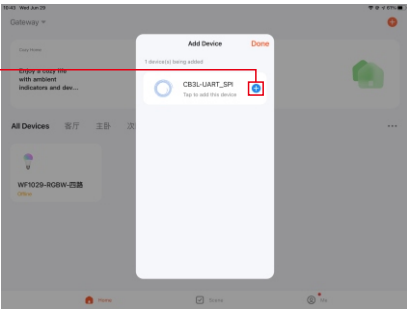
Step 4: Power on the SPI controller, by factory default it will be set into pairing mode automatically and discovered automatically by the App.

Note: if it can not be discovered automatically, short press the “WiFi Reset” button 3 times continuously to reset the SPI controller and set it to pairing mode, LED light will blink rapidly, then tap “Add Device” to pair the SPI controller to the smart phone.



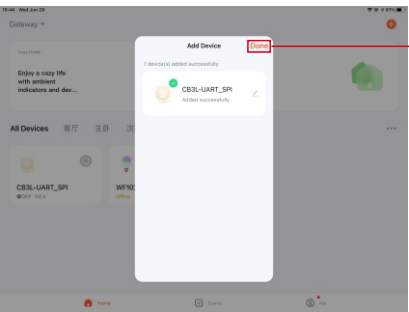
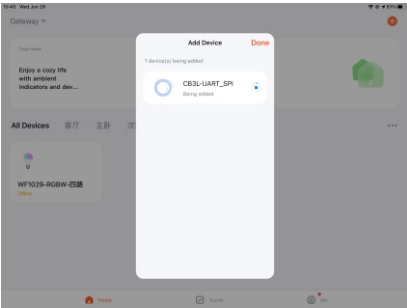
Tap “+” to add the controller.

Tap to add the controller.



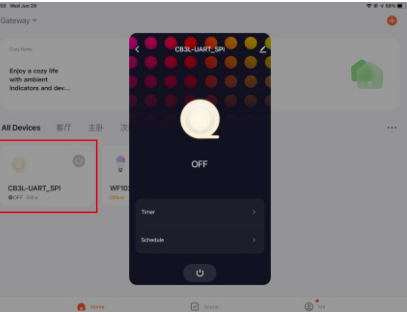
Enter the WiFi information that the smart phone connected to.

Tap “Next”.

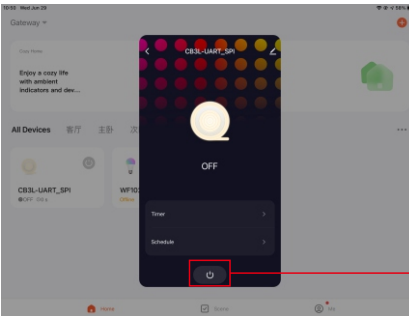


Once added, tap “Done” to complete the adding.

The device will be displayed on home interface.



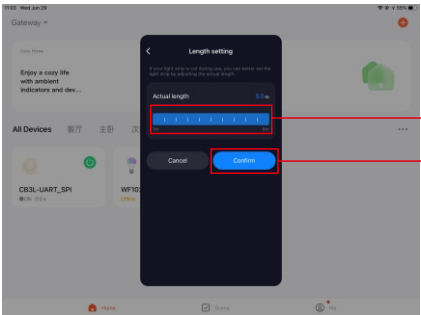
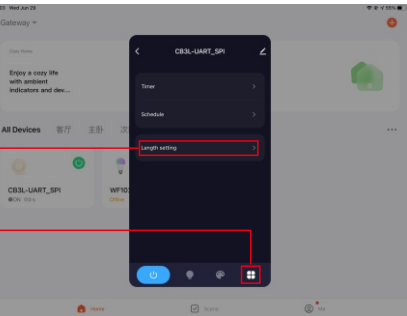
Step 6: Once added successfully, we need to set the length and segments of the connected pixel lights.



Tap to set strip length.

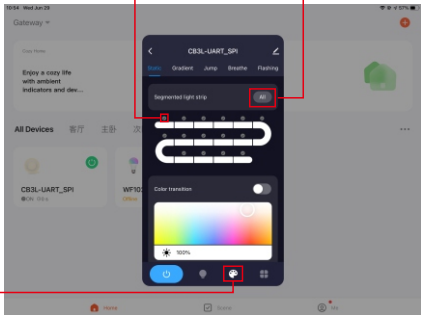
Tap to go to setting page.

Tap to turn on the controller.



Slide to select strip length, selectable range is 1~5m.
Tap to confirm length setting.

Tap to set segments.

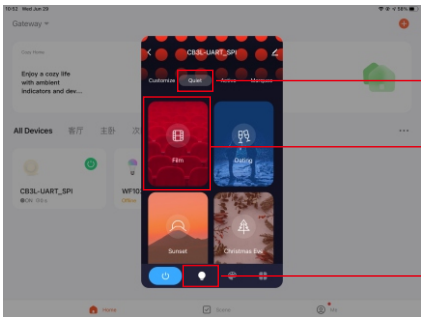


Or you can tick to select one by one.

You can tap all to select all segments.

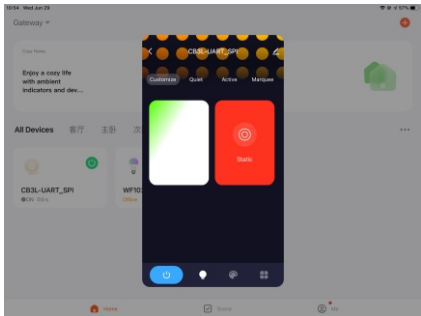
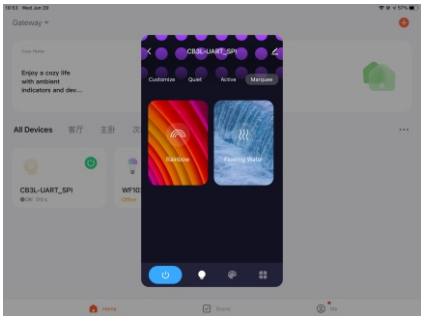
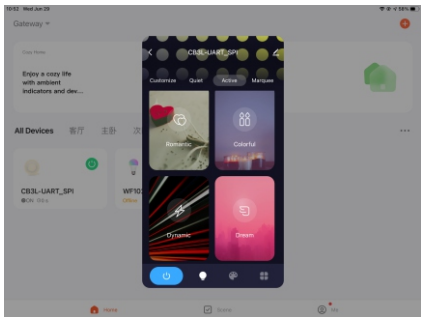
3. Control the Connected Pixel Lights:

3.1: Run preset static or dynamic color patterns.



Tap to choose “Quiet” color patterns.
Tap to recall a color pattern.

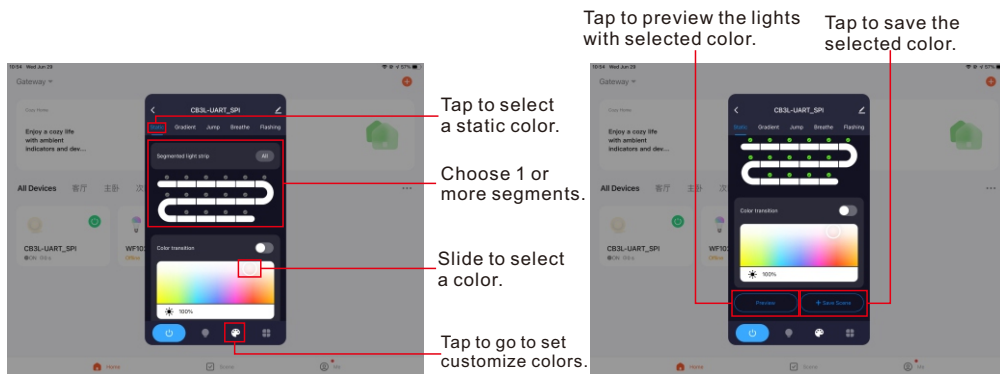
Tap to go to preset color patterns.



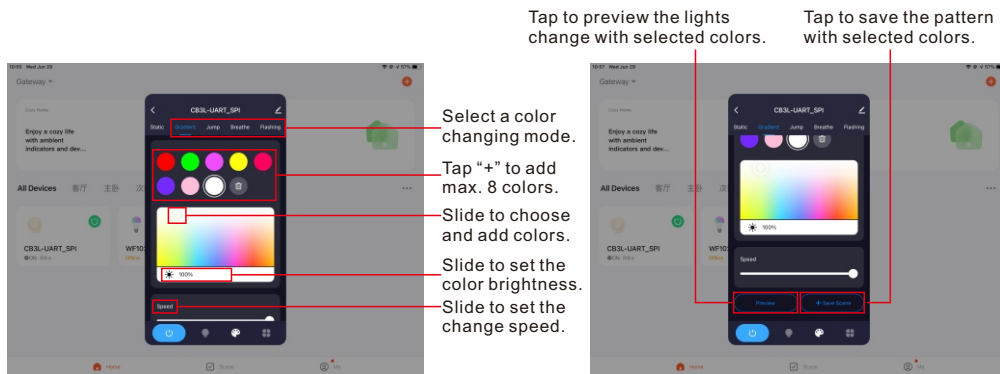
Note: There are 4 different styles of preset color patterns: Quiet, Active, Marquee and Customize. Among them, Quiet, Active, Marquee are preset color pattern styles, Customize is the saved customized color pattern style.

3.2: Customize static or dynamic color patterns. (All pixels or selected segments will respond.)

3.2.1: Set customized static color pattern.



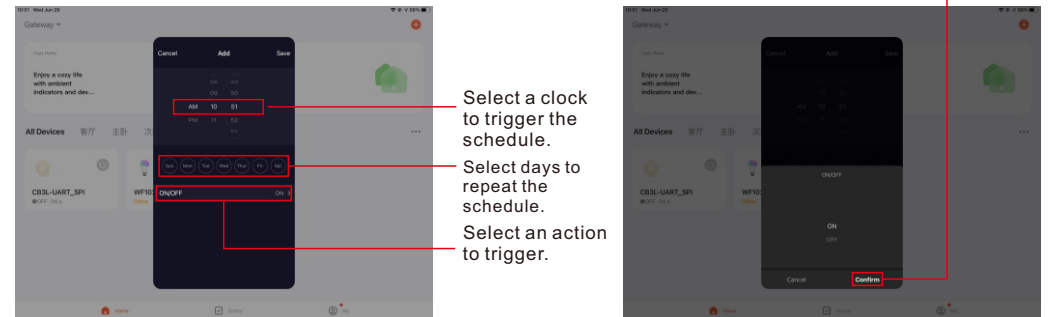
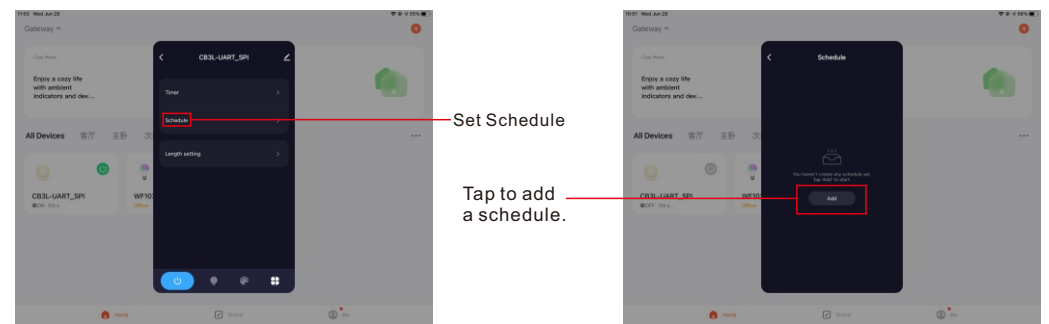
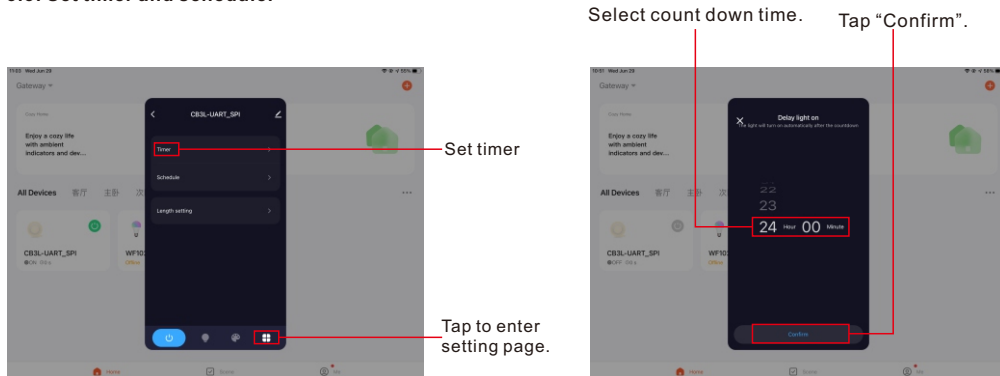
3.2.2: Set customized color changing patterns.



Note: 1) There are different styles of customize color patterns: Gradient, Jump, Breathe, Flashing, Rainbow and Stream, if a customized color pattern is saved as a scene, the user can recall it at the "Customize" column of "Preset Color Patterns".

Note: 2) For Rainbow and Stream changing patterns, you can set change sequence of the pixels as "Clockwise" or "Anticlockwise". "Clockwise" means the change sequence will be from the first pixel to the last pixel. "Anticlockwise" means the change sequence will be from the last pixel to the first pixel.

3.3: Set timer and schedule.



4. Remove the SPI Controller from the App:

