



GLEDOPTO

AquaX WL1

WLED WiFi LED Strip Controller

GL-C-812WL

Product Parameter >>>

Model: GL-C-812WL

Total Output Current: 15A Max

Material: Flame retardant PC

Temperature: -20~45°C

Input Wire: 2x2.5² (25cm)

Input Voltage: DC 5-12-24-36-48V

Output Current/Channel: 10A Max

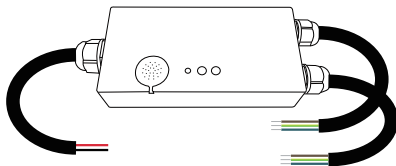
Waterproof Rating: IP67

Recommended 1600 ICs Max

Output Wire: 3x1.0² (30cm)

Wiring instructions:

WLED controller supports connecting up to two digital LED strips. The output terminals labeled 'V+', 'GPIO16,GND'; 'V+', 'GPIO2, GND' should be connected to the LED strip's 'VCC DATA GND'.



INPUT

— V+
— V-

OUTPUT

— V+
— DATA
— GND

APP Download Method >>>

IOS

Search for and download **WLED** in the App Store.



Android

Search for and download **WLED/**
WLED Native in the Google Play Store.



APP Configuration Steps >>>

1. Power on the WLED controller.
2. Open the phone settings and enter WiFi settings, find "WLED-AP" and connect to it with the password "wled1234".



3. After successful connection, it will automatically jump to the WLED page (or enter the website 4.3.2.1 in the browser to enter the WLED page).

4. Click "WIFI SETTINGS", set the WiFi account and password, and the click "Save & Connect" at the top of the screen to save.



5. Keep both your phone and the WLED controller connected to the same Wi-Fi network. Then, open the WLED-Native APP, and the WLED controller will be displayed in the list.



Note:

1. After the WLED controller disconnects from the router, the chip will restart and return to the preset state (you can find the hotspot "WLED-AP" in your phone's WiFi settings).
2. If the WLED controller is not displayed or cannot be found in the APP, you can open a browser, enter the IP address of the WLED controller, and use the web interface for control (To find the controller's IP address: Connect to the Wi-Fi, locate the router's or controller's web address (usually found at the bottom of the router or on the controller itself), enter this address in the browser, and then you can view the controller's IP address in the router's backend interface).

LED Strip Configuration >>>

Enter into the WLED control page and click on the "Config" button in the upper right corner. Then, select "LED Preferences" and navigate to "Hardware setup" to configure the LED strip information.



Mic Configuration >>>

Enter the WLED control page, click "config" in the upper right corner, select "Usermods", find "AudioReactive", check (Enabled), and then configure according to the configuration information under "Digitalmic". After the configuration is completed, click "save". After the successful save, turn off the controller.

Configuration Information:

1. Type: Generic PDM 2. Pin I2S SD: 32 3. Pin I2S WS: 15



Note:

1. The Mic function is configured by default.
2. After microphone function configured, it will be only activated after rebooting the controller again.

Relay Configuration >>>



Enter into the WLED control page, click on the top right corner "Config", select "LED Preferences", then find "Relay GPIO". Configure Relay GPIO as 18, check Invert, and click Save to apply the settings.

note:

1. The relay function is configured by default.
2. When turning off the light via the APP, remote control, or PUSH switch, the power supply to the output terminal will be cut off to save energy. It should be noted that this function cannot deactivate the supplementary power supply.

Reset to Factory Settings >>>



1. Button Reset

Long press the "Function" button for 10 seconds.

2. APP Reset

Enter into the WLED control page and click on the top right corner "Config". Click on "Security & Updates" at the bottom, and then scroll down to find "Factory reset" and check the box. Click "Save" to reset the controller.

Description of Button Functions >>>

Restart (EN):

Pressing the button will power off the controller module, releasing it will power it back on. Useful when the controller needs to be restarted after configuring the microphone.

Funciton (GPIO17):

1. Short press: Power on/off.
2. Long press for 1 second: Switch color.
3. Long press for 10 seconds: Reset the WLED controller and activate the WLED-AP hotspot.



WLED remote controller connection >>>

1. Please ensure that WLED Remote is in a good WiFi environment.
2. Go to the WLED controller's control page, click "Config" in the top right corner, select "WiFi Setup", scroll down to the bottom to find "ESP-NOW Wireless", check "Enable ESP-NOW", then click "Save & Connect".
3. Long press any button on the WLED remote for 1 second, then go to "WiFi Setup", find "ESP-NOW Wireless", copy the field after "Last device Seen" to "Paired Remote MAC", then click "Save & Connect" to use the WLED remote control to control the WLED controller.



WLED-compatible remote controller >>>



GL-RC-001WL



GL-RC-002WL

Supported Chips >>>

WS2805, WS2811, WS2811F, WS2812B, WS2814A, WS2815,
SK6812, SM16703, SM16703SP3, FL19038, FW1935, UCS2903B, etc.

Troubleshooting and Solution >>>

Number	Symptoms	Solution
1	Indicator light is not on	Check whether the input power connection is correct
2	APP shows "offline"	1. Check if the phone is on the same network as the controller. 2. Check if the controller is out of the range of the WIFI connection, causing unstable connection. 3. Turn off and on the controller to retry.
3	APP is connected, but the light strip is not controllable	1. Check if the power supply is working properly. 2. Check if the power supply voltage matches the light strip. 3. Check if the input power connection is correct. 4. Check if the light strip connection is correct. 5. Check if the GPIO settings in the APP are correct. 6. Check if the light strip IC model in the APP is set correctly.
4	The brightness of the light strip is low, and the front and back colors are significantly different	1. Check if the power supply is working properly. 2. Check if the power supply matches the light strip. 3. Check if all connections are good, and use conductive and short wires as much as possible for connection. 4. Add power supply at an appropriate position. 5. Check if the APP has set a limit on brightness or current.



Attention

1. **Electrical Connections:** Ensure all electrical connections are correct and secure before powering on. Never wire, disconnect, or perform maintenance while the device is powered.
2. **Rated Parameters:** Always operate the product within its specified voltage and current range. Operating outside these limits may cause product damage, performance degradation, or safety hazards.
3. **No Unauthorized Modifications:** Do not disassemble or modify this product. Improper handling may cause internal short circuits or electric leakage, leading to fire or electric shock hazards.
4. **Wireless Environment:** This product relies on wireless communication. Avoid using it inside metal enclosures, closed metal cabinets, or areas with strong magnetic fields, as this may severely degrade or interrupt the signal.
5. **Operating Environment Warning:** As a precision electronic device, do not use this product in the following conditions:
 - Environments with relative humidity above 80%;
 - Temperatures outside the specified range (-20°C ~ 45°C);
 - Areas with strong electric fields or near high-voltage lines;
 - Environments with high dust concentrations or corrosive gases.
 - Violation of these guidelines may result in product failure or reduced lifespan.

Disclaimer

1. We reserve the right to modify specifications due to technical improvements or production changes without prior notice. Please refer to the actual product or our official website for the latest information.
2. This manual is for reference only and does not guarantee absolute performance, appearance, or functionality. Actual products may vary; please refer to the delivered item.
3. Mentioned components and accessories are for reference and may not be included in the standard configuration. Please refer to the actual packing list.
4. All intellectual property rights of this manual belong to [GLEDOPTO]. No part of this manual may be reproduced or distributed without prior written consent.
5. Compatibility with third-party devices depends on their continued support. We are not liable for any functionality or compatibility issues caused by third-party updates or service termination.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.