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› [Sogledwow](#) /

› Sogledwow WLED Signal Amplifier Booster LT-GL-BS-001WL Instruction Manual

Sogledwow LT-GL-BS-001WL

Sogledwow WLED Signal Amplifier Booster LT-GL-BS-001WL Instruction Manual

Model: LT-GL-BS-001WL

INTRODUCTION

The Sogledwow WLED Signal Amplifier Booster is designed to extend the effective range of digital LED strip signals, preventing flicker and ensuring stable data transmission over longer distances. This device is compatible with various addressable RGB IC LED strips, including WS2811, WS2812, SK6812, WS2813, and WS2815, and supports a wide input voltage range from 5V to 48V DC.

PACKAGE CONTENTS

- WLED Signal Amplifier (Model: LT-GL-BS-001WL)

Please inspect the package contents upon receipt to ensure all items are present and undamaged.

PRODUCT OVERVIEW

The WLED Signal Amplifier Booster is a compact device engineered to enhance the signal integrity for addressable LED strips. It features clearly labeled input and output terminals for V+, DATA, and GND connections.



Image: The Sogledwow WLED Signal Amplifier Booster shown with its product packaging, highlighting its compact design and connection labels.

Key features include:

- **10m Signal Boost:** Extends LED strip control up to 10 meters, eliminating flicker in large installations.
- **Wide Compatibility:** Works with WLED controllers and addressable LED ICs such as WS2811, WS2812, SK6812, WS2813, and WS2815.
- **Flicker-Free Operation:** Prevents data loss and lag, ensuring stable performance for long LED runs.
- **Broad Voltage Support:** Compatible with DC 5-48V power supplies.
- **IP20 Rated:** Designed for indoor use in dry environments.

SETUP AND INSTALLATION

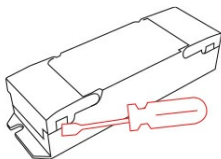
Proper installation of the signal amplifier is crucial for optimal performance. Follow these steps for a successful setup:

1. **Prepare the Amplifier:** Use a flathead screwdriver to carefully open the housing on both sides of the signal amplifier to access the wiring terminals.

2. **Connect the Amplifier:** The WLED amplifier should be connected between your WLED controller and the LED light strip.

Wiring Instructions

1. Use a flathead screwdriver to open the housing on both sides of the signal amplifier.



Note: Don't reverse the connections of the signal amplifier ports, otherwise it may damage the signal amplifier.

2. Please connect the WLED amplifier between WLED controller and light strip.

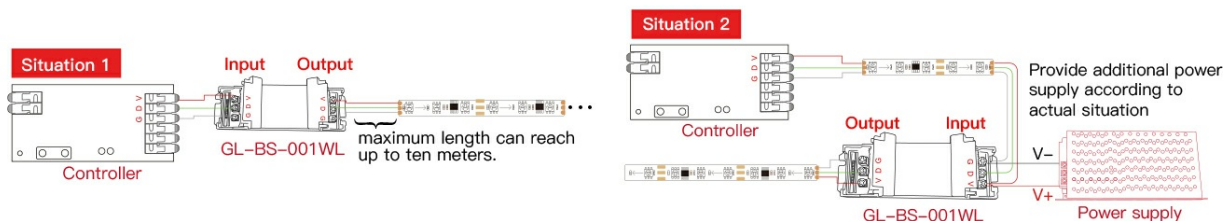


Image: Detailed wiring instructions illustrating two common connection scenarios for the WLED Signal Amplifier. Situation 1 shows the amplifier extending a signal up to 10 meters. Situation 2 shows the amplifier with an additional power supply for longer runs or higher power requirements.

Wiring Scenarios:

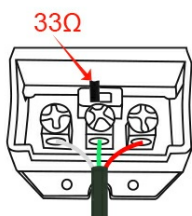
- **Situation 1 (Signal Extension):** Connect the controller's V+, DATA, and GND outputs to the amplifier's INPUT terminals. Then, connect the amplifier's OUTPUT terminals (V+, DATA, GND) to the LED strip. This setup allows for signal extension up to 10 meters.
- **Situation 2 (Signal Extension with Additional Power):** For very long LED strip runs or high power consumption, an additional power supply can be connected to the amplifier's V+ and V- terminals. Ensure the power supply voltage matches the LED strip requirements.

Important Note: Do not reverse the connections of the signal amplifier ports (V+, DATA, GND), as this may damage the signal amplifier and connected devices.

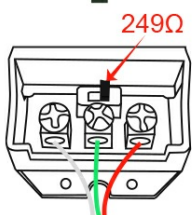
Output Resistance Configuration:

The amplifier includes options for output resistance calibration to optimize signal quality based on your wiring setup.

Output resistance description



Please choose 33Ω resistor to signal calibration when the V+, DATA, and GND of the light strip are all wrap in the same cable.



Please choose 249Ω resistor to signal calibration when the V+, DATA, and GND of the light strip are separate wires.

Image: Diagram illustrating the selection of output resistance (33Ω or 249Ω) based on whether the V+, DATA, and GND wires are bundled in the same cable or

are separate.

- **33Ω Resistor:** Choose the 33Ω resistor for signal calibration when the V+, DATA, and GND wires of the light strip are all wrapped in the same cable.
- **249Ω Resistor:** Choose the 249Ω resistor for signal calibration when the V+, DATA, and GND of the light strip are separate wires.

OPERATING INSTRUCTIONS

Once the WLED Signal Amplifier Booster is correctly wired between your controller and LED strip, its operation is automatic. The device amplifies the data signal to ensure consistent and flicker-free illumination along the entire length of the LED strip.

- Ensure all connections are secure and polarity is correct (V+, DATA, GND).
- Power on your WLED controller and the connected LED strips. The amplifier will automatically process the signal.
- Verify that the LED strip operates without flickering or signal degradation.

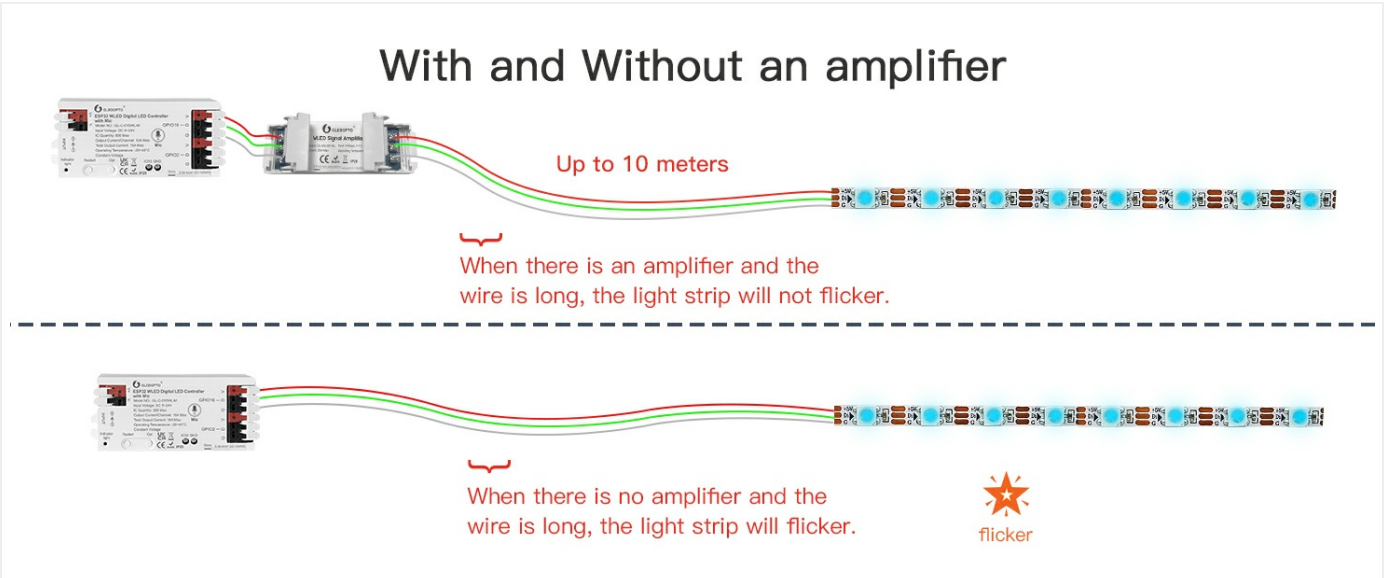


Image: A visual comparison demonstrating how an LED strip connected with a signal amplifier maintains stable, flicker-free illumination over long distances, contrasted with a flickering strip when no amplifier is used.

TROUBLESHOOTING

Problem	Possible Cause	Solution
LED strip still flickers or shows incorrect colors.	Incorrect wiring (V+, DATA, GND reversed). Insufficient power supply for the LED strip. Incorrect output resistance setting. Faulty LED strip or controller.	Double-check all wiring connections for correct polarity. Ensure the power supply provides adequate current and voltage for the entire LED strip length. Verify the output resistance setting (33Ω or 249Ω) matches your wiring type. Test the LED strip and controller independently if possible.

Problem	Possible Cause	Solution
No light from the LED strip.	No power to the amplifier or LED strip. Incorrect wiring. Damaged amplifier or LED strip.	Check power connections and ensure power supplies are active. Review all wiring for correct connections and polarity. Inspect the amplifier and LED strip for visible damage.
Amplifier housing difficult to open.	Tight clips for secure closure.	Use a flathead screwdriver and apply firm, even pressure to pry open the housing clips. Exercise caution to avoid damaging the plastic.

SPECIFICATIONS

Product parameters

Craftsman spirit, quality is guaranteed

Model No.:
GL-BS-001WL

Output Current:
20A Max

Suggested Wire Type:
1-4mm²(17-11AWG)

N.W.:
50.4g

Operating Temperature:
-20~45°C

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

Material:
Flame Retardant PC

Stripping Length:
6-7mm

G.W.:
57.2g

Size:
115x35x24mm

Image: A detailed graphic displaying the technical specifications of the WLED Signal Amplifier, including model number, input voltage, output current, material, wire type, stripping length, weight, operating temperature, and size.

Parameter	Value
Model Number	LT-GL-BS-001WL
Input Voltage	DC 5-48V
Output Current	20A Max
Material	Flame Retardant PC
Suggested Wire Type	1-4mm ² (17-11AWG)
Stripping Length	6-7mm
Net Weight (N.W.)	50.4g
Gross Weight (G.W.)	57.2g
Operating Temperature	-20~45°C
Product Dimensions (L x W x H)	115 x 35 x 24mm (approx. 4.5 x 1.4 x 0.9 inches)
IP Rating	IP20 (Indoor Use Only)

MAINTENANCE

The WLED Signal Amplifier Booster is designed for reliable, maintenance-free operation. To ensure its longevity and optimal performance:

- Keep the device in a dry environment, away from moisture and direct sunlight.
- Avoid exposing the amplifier to extreme temperatures outside its specified operating range.
- Periodically check all wiring connections to ensure they remain secure.
- Clean the exterior with a soft, dry cloth if necessary. Do not use liquid cleaners or solvents.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the manufacturer's official website or contact your retailer. Keep your purchase receipt as proof of purchase.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question