

# LIGHT GRID<sup>+</sup>

WIR-GATEWAY3 G3+  
Wireless Gateway

Installation Guide

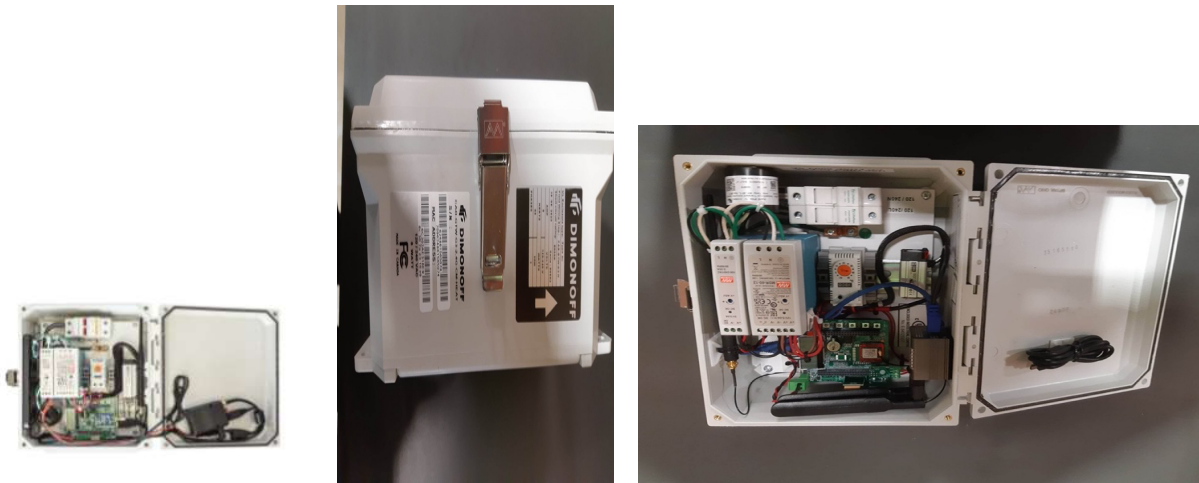


#### **DESCRIPTION**

Part of the LightGRID+ wireless lighting control technology suite, the third-generation Gateway G3+ enables communications between the Smart Wireless Lighting Nodes and LightGRID+ Enterprise Software.

Each gateway autonomously manages a group of nodes, removing any dependency on a central server for normal operation and making the system redundant and robust.

This guide documents the installation of a LightGRID+ Gateway G3+.



Examples of a LightGRID+ Gateway G3+: Sierra modem (on the left) and new LTE-Cube modem (on the right)

#### **CAUTIONS**

- To be installed and used in accordance with appropriate electrical codes and regulations.
- Disconnect power at circuit breaker or fuse when servicing, installing or removing.
- LightGRID+ recommends that the installation is performed by a qualified electrician.
- **IMPORTANT:** Gateway's radios are generally uniquely configured for each specific project, installing gateways on another project will prevent them from joining the network.

#### **TECHNICAL SPECIFICATIONS OF THE GATEWAY**

- Operating Voltage: 120 to 240 Vac - 50 and 60 Hz
- 277 and 347 Vac requires a stepdown transformer (STPDNXFMR-277 or 347) which can be provided by Current.
- NEMA4 Cabinet (Model Hammond PJ1084L or equivalent) delivered with installation supports including pole and wall mount options.
- Heat option (when temperature is below 0 °C / 32 °F at gateway location)
- Cellular modem option (when a local Internet network is not available)

Please refer to product datasheet for further information available on [www.LED.com](http://www.LED.com)

#### **PHYSICAL INSTALLATION**

The gateway needs to be installed by a certified electrician.

Included Material:

- Brackets and screws provided are suitable for most pole and wall mounting;
- USB key;
- Stickers with the "Mac Address" and the "Serial Number", respectively at the top and bottom;

- The sheet with the security key;
  - **Important Note:** The last 12 characters of the security key must be entered in the LightGRID+ Enterprise Software.
- If the gateway has a cellular modem, the small key at the bottom of the image is provided to help with the installation of the SIM card;
- The SIM card, optional, not shown in the picture.



#### **Requirements:**

1. Power source: 120 to 240 Vac – 50 and 60 Hz (as stable as possible)
  - Note: 277 and 347 Vac requires a stepdown transformer (WIR-STPDNxFMR-277 or 347) which can be provided by Current.
2. Local Internet network installation: an Ethernet cable with RJ45 connector must be accessible where the gateway will be installed.

OR

2. Cellular installation: SIM card to be inserted in the gateway's cellular modem (in option).

**Recommendations:** For an optimal communication with the Smart Wireless Lighting Nodes, please follow these installation instructions:

- The gateway must be installed within 300 m (1000 ft) of the two first nodes.
- The gateway must have a direct line of sight with at least two nodes.
- The gateway must be installed vertically so that the antenna in the box is positioned vertically.
- LightGRID+ recommends installing the gateway at the same height and in the same environment (inside or outside) of the nodes.
- In case the gateway is installed in an environment with thick walls or metallic enclosure, you may need to install an extended cable with an external antenna (in option).
- To prevent the gateway from being stolen or damaged, it is recommended to install it out of reach.

#### **Installation steps:**

1. Install the gateway using the brackets and screws provided with the equipment which are adapted to wall mount and pole options.
2. Connect the gateway to a 120 – 240 Vac power outlet, as stable as possible.

Note: 277 and 347 Vac requires a stepdown transformer (WIR-STPDNxFMR-277 or 347) which can be provided by Current.

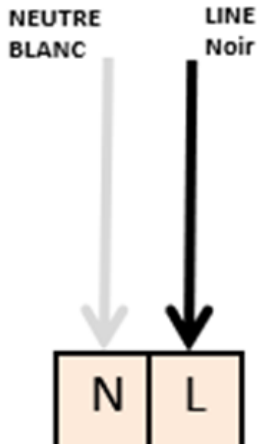
**IMPORTANT:** Gateways require an uninterrupted flow of electricity, 24 hours a day. If they are electrically powered from the same circuit and that the circuit is controlled by a timer, relay, contactor, BMS photocell, etc., the contractor must bypass all existing controls in advance to ensure an uninterrupted flow of electricity to the gateway.

You will need to make a hole in the NEMA4 cabinet, make sure to keep the case sealed when it is installed outside to prevent damages to the equipment (ex. water, dust, etc.).

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## LightGRID+

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Insert the wires then use the screws on top to hold them in place securely.

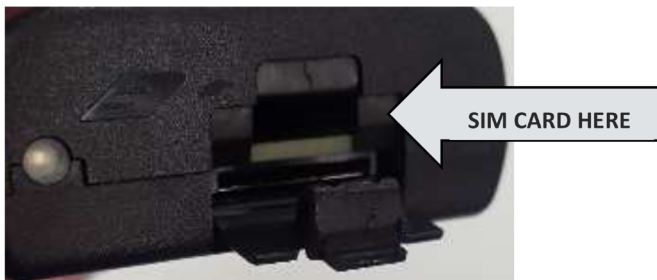
3. Backhaul communication network.

3.1. Local Internet network installation: Connect an Ethernet cable with RJ45 connector.



Note: To connect the Ethernet cable, simply move the surge arrester (the black and round small thing in front of the Ethernet port). The surge arrester is held there by double sided tape.

3.2. Cellular modems shown below:



Sierra Wireless Model



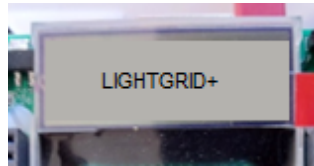
LTE-Cube Model

Note:

- In case the gateway is installed in a metallic box, you may need to install an external antenna for the cellular modem to get a good signal. The external antenna and cable can also be supplied by Current, as an option.
- For the LTE-Cube model, the small key showed in the picture below will assist in the SIM card installation.



4. Restore power to the gateway. After a few minutes, the LightGRID+ logo should appear on the screen.



Gateway physical installation is now complete.

### **WARRANTY**

Please refer to the General Terms and Conditions on LightGRID+'s web site: [www.LED.com](http://www.LED.com)