

# Industrial LoRaWAN Gateway

LCG-300 Series

Quick Installation Guide

### 1. Package Contents

Thank you for purchasing PLANET Industrial LoRaWAN Gateway, LCG-300 series. The descriptions of these models are as follows:

<b>LCG-300</b>	Industrial LoRaWAN Gateway with 5-Port 10/100/1000T
<b>LCG-300W</b>	Industrial LoRaWAN Wireless Gateway with 5-Port 10/100/1000T
<b>LCG-300-NR</b>	Industrial LoRaWAN + 5G NR Cellular Gateway with 5-Port 10/100/1000T

“**LoRaWAN Gateway**” is used as an alternative name in this Quick Installation Guide.

Open the box of the **LoRaWAN Gateway** and carefully unpack it. The box should contain the following items:

Item \ Model Name	LCG-300	LCG-300W	LCG-300-NR
Industrial LoRaWAN Gateway	1	1	1
Quick Installation Guide (QR code)	1	1	1
CloudViewer QIG	1	1	1
Wall-mount Kit	1	1	1
RJ45 Dust Cap	6	6	6
LoRa Antenna	1	1	1
LoRa Antenna Extender with Magnetic Base	1	1	1
Dual band Wi-Fi Antenna	--	2	--
Antenna Dust Cap	1	3	5
5G NR Antenna	--	--	4
5G NR Antenna Extender with Magnetic Base	--	--	4

If any item is found missing or damaged, please contact your local reseller for replacement.

### **2. Requirement**

- Workstations running Windows 7/8/10/11, macOS 10.12 or later, Linux Kernel 2.6.18 or later, or other platforms are compatible with TCP/IP protocols.
- Workstations are installed with Ethernet NIC (Network Interface Card)
- **Ethernet Port Connection**
  - Network cables -- Use standard network (UTP) cables with RJ45 connectors.
  - The above PC is installed with Web browser.

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**Note:** It is recommended to use Google Chrome, Microsoft Edge or Mozilla Firefox to access the LoRaWAN Gateway. If the Web interface of the LoRaWAN Gateway is not accessible, please turn off the anti-virus software or firewall and then try it again.

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### **3. Hardware Installation**

Refer to the illustration and follow the simple steps below to quickly install your **LoRaWAN Gateway**.

#### **3.1 LoRa Antenna Installation**

**Step 1:** Connect the LoRa antenna to the LoRa antenna extender.

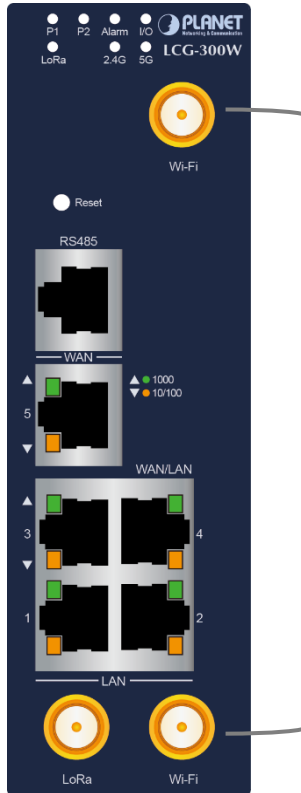
**Step 2:** Fasten the LoRa antenna extender to the connector on the front panel of the LoRaWAN Gateway.



### 3.2 Wi-Fi Antenna Installation (For LCG-300W Only)

**Step 1:** Fasten the two dual-band antennas to the antenna connectors on the front panel of the LoRaWAN Gateway.

**Step 2:** You can bend the antennas to fit your actual needs.



Two Wi-Fi  
RP-SMA Connectors

### **3.3 SIM Card Installation (For LCG-300-NR Only)**

A. Insert an ejector pin into the yellow button next to the tray to loosen the tray.

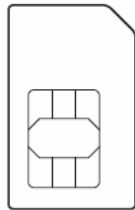


LCG-300-NR\_EMQ-1.png

B. Pull out the tray gently from the tray slot. Place the SIM card on the tray with the gold-colored contacts facing upwards.

C. Insert the tray back into the tray slot.

- **A mini SIM card with 5G NR and 4G LTE subscription**



**Mini SIM card**



**Micro SIM card**



**Nano SIM card**

### 3.4 5G NR Antenna Installation

(For LCG-300-NR Only)

**Step 1:** Connect 5G NR antennas to the 5G NR antenna extender.

**Step 2:** Fasten the 5G NR antenna extenders to the connectors.



### 3.5 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of LoRaWAN Gateway is used for two DC redundant power inputs. Please follow the steps below to insert the power wire.



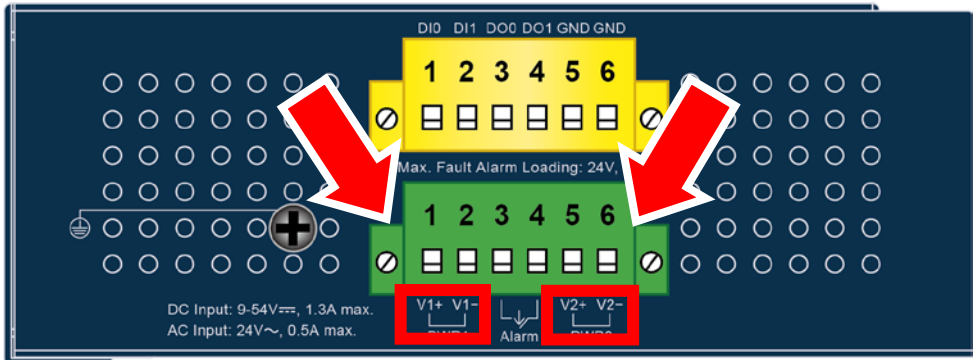
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When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

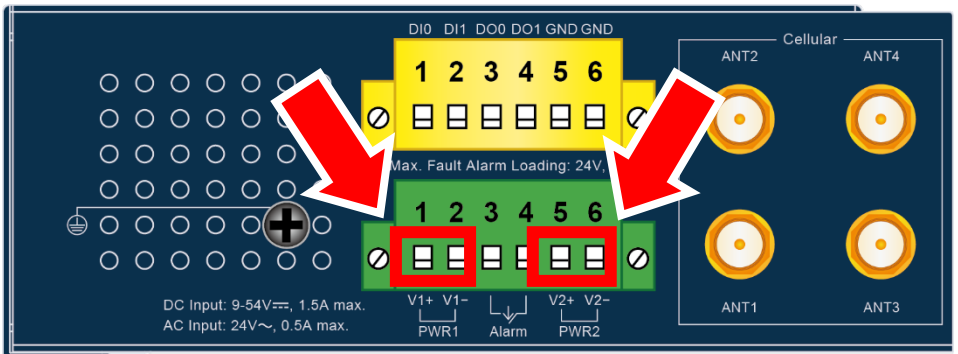
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1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or 5 and 6 for POWER 2.

## Quick Installation Guide



LCG-300/LCG-300W



LCG-300-NR



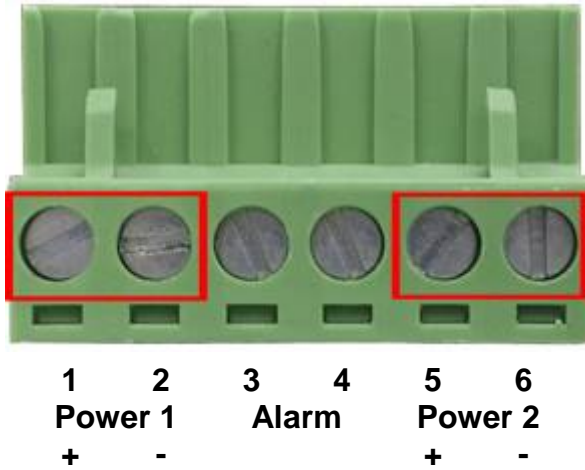
Please make sure the input voltage is in accordance with the specifications of the LoRaWAN Gateway.

2. Tighten the wire-clamp screws for preventing the wires from loosening.



## Quick Installation Guide

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Note

The wire gauge for the terminal block should be in the range between 12 and 24 AWG.

### CAUTION

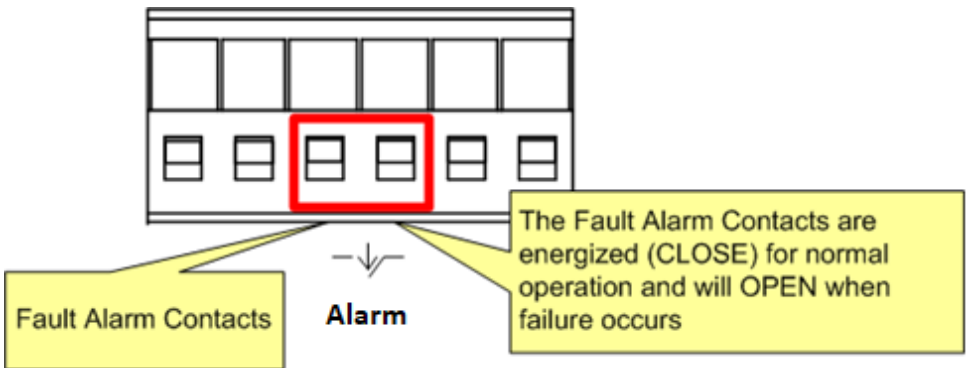
PWR1 and PWR2 must provide the **same DC voltage** while operating with dual power input.

### 3.6 Grounding the Device

User **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device. EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.

### 3.7 Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the LoRaWAN Gateway will detect the fault status of the power failure or port failure, and then will form an open circuit. The following illustration shows an application example for wiring the fault alarm contacts



Insert the wires into the fault alarm contacts

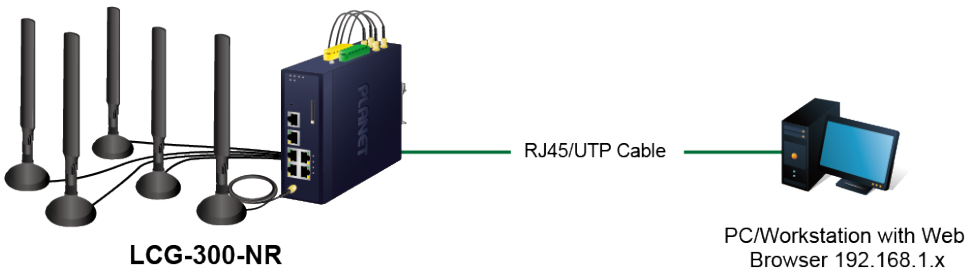


1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. Alarm relay circuit accepts up to 24V (max.) and 1A current.

## **4. Starting Web Management**

The following shows how to start up the **Web Management** of the LoRaWAN Gateway. Note the LoRaWAN Gateway is configured through an Ethernet connection. Please make sure the manager PC must be set to the same **IP subnet address**.

For example, the default IP address of the LoRaWAN Gateway is **192.168.1.1**, then the manager PC should be set to **192.168.1.x** (where x is a number between 2 and 254), and the default subnet mask is 255.255.255.0.



**Figure 4-1: IP Management Diagram**



When the DHCP server of the LoRaWAN Gateway is enabled, the LAN PC will get IP from the Cellular.

### 4.1 Logging in to the LoRaWAN Gateway

1. Use your preferred web browser (such as Chrome, Edge, Firefox, etc.) and enter IP address **<https://192.168.1.1>** (the factory default IP address or the one that you have just changed in console) to access the Web interface.



The following steps is based on the firmware version before **June of 2024**.

2. When the following dialog box appears, please enter the default user name “**admin**” and password “**admin**” (or the password you have changed before) as shown in Figure 4-2.

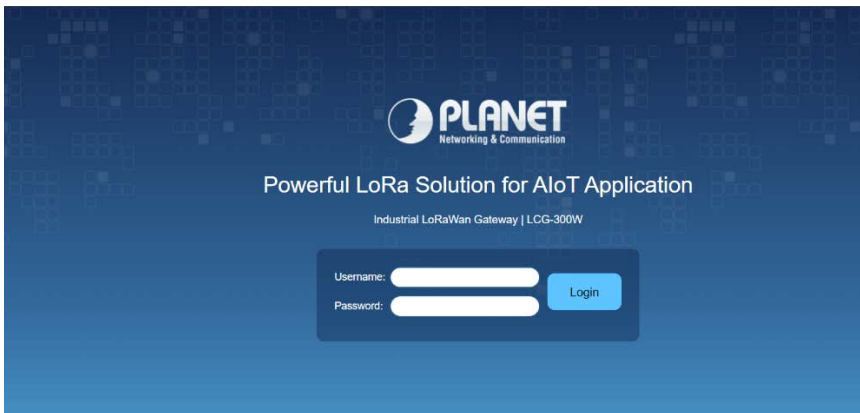
Default IP Address: **192.168.1.1**

Default User Name: **admin**

Default Password: **admin**

Default SSID (2.4G): **PLANET\_2.4G (for LCG-300W)**

Default SSID (5G): **PLANET\_5G (for LCG-300W)**



**Figure 4-2:** Login Screen



## Quick Installation Guide

4. After entering the password, the main screen appears as shown in Figure 4-3.



**Figure 4-4:** Web-based Main Screen of LoRaWAN Gateway

Now, you can use the Web management interface to continue the LoRaWAN Gateway management or manage the LoRaWAN Gateway by console interface. Please refer to the user's manual for more.

## **5. Recovering Back to Default Configuration**

### **■ IP address has been changed or admin password has been forgotten –**

To reset the IP address to the default IP address “**192.168.1.1**” or reset the login password to default value, press the hardware **reset button** on the rear panel for about **15 seconds**. After the device is rebooted, you can log in the management Web interface within the same subnet of 192.168.1.xx.



Figure 5-1: LCG-300 Series Reset Button

### **6. Customer Support**

You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:

<https://www.planet.com.tw/en/support/faq>

Support team mail address:

[support@planet.com.tw](mailto:support@planet.com.tw)

LCG-300, LCG-300W and LCG-300-NR User's Manual:

<https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LCG-300&view=3#list>



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