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*Wireless Power Plug with Power Meter*

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**Wireless Power Plug with Power  
Meter  
User Manual**

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# 1. Introduction

R809A is a long-distance wireless socket device for Netvox ClassC type devices based on the LoRaWAN open protocol, compatible with the LoRaWAN protocol. The AppServer can be used to control the opening and closing of the external load of the R809A, and the external load can also be controlled by the switch that comes with the R809A device itself. The current, current, voltage, power and energy values of the current load can be viewed through the AppServer.

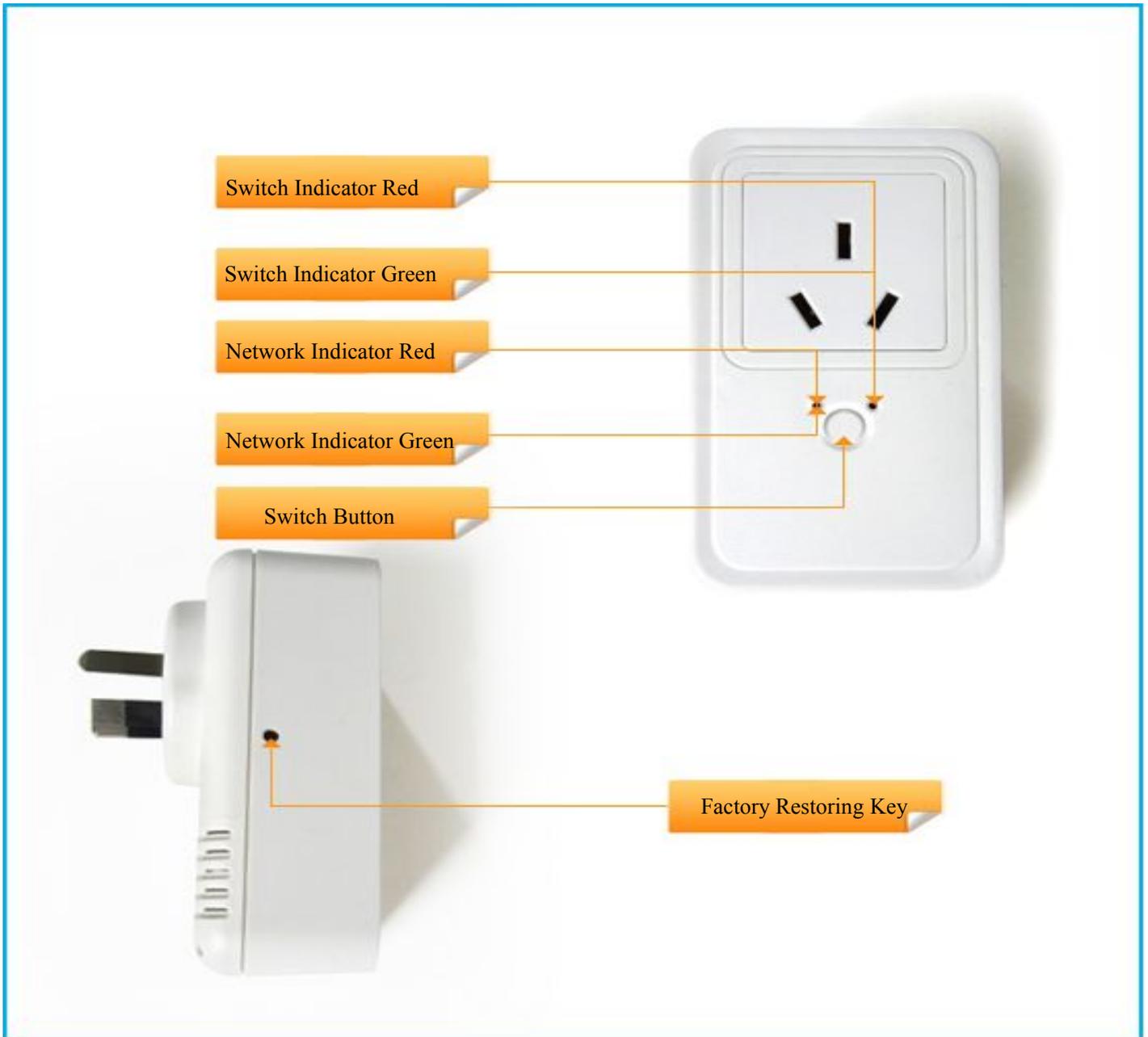
LoRa wireless technology:

LoRa is a wireless communication technology dedicated to long-distance low-power consumption. Its spread-spectrum modulation method greatly increases the communication distance compared with other communication methods, and can be widely used in long-distance low-rate IoT wireless communication fields in various occasions. Such as automatic meter reading, building automation equipment, wireless security systems, industrial monitoring and control. It has the characteristics of small size, low power consumption, long transmission distance and strong anti-interference ability.

LoRaWAN:

LoRaWAN defines an end-to-end standard specification using LoRa technology to ensure interoperability between devices from different vendors.

## 2. Appearance



Different specifications diagram of plugs and sockets.



### 3. Main Characteristic

- Compatible with LoRaWAN
- 100-240VAC 50/60HZ power supply
- Simple operation and setting

### 4. Operation

#### 4.1 Power On

Connect the R809A to the power supply of the AC 100-240V. Power on the device, and all the indicators flash once.

## **4.2 Join LoRa Network**

In order for the R809A to communicate with the gateway, the R809A needs to be added to the gateway's network.

Operations are as follows:

After power-on, R809A will actively request to join the network. When the gateway is successfully added, the network green indicator light stays on.

## **4.3 Function Key**

(1) Press and hold the factory button for 5 seconds to restore the factory settings. After the factory reset is successful, the green LED flashes 20 times.

(2) Short press the switch button to control the relay switch on R809A to control the switch of the external circuit. When R809A is on, the green indicator light of the switch indicator is on, the red indicator light is off; when R809A is off, the red switch indicator is on. The green indicator light is off.

## **4.4 Remote Control Function**

Through the AppServer, the R809A can be remotely controlled. When the switch command is sent to it, the R809A receives the open command and energizes the relay. The magnet's magnet attracts the switch to close it, the external circuit is turned on, the switch green indicator is always on, and the switch is red. When the off command is received, the relay is de-energized, the magnet of the relay no longer adsorbs the switch, and the switch is disconnected, so the external circuit is disconnected, the red indicator of the switch is always on, and the green indicator of the switch is off.

## **4.5 Detect Loading Function**

After the load is connected to the AC output of R809A, the R809A device can detect the voltage value supplied to the device and the current value consumed by the load, the power of the load, and the accumulated energy value. The R809A device periodically reports current, voltage, and power data to the AppServer.

## 4.6 Data Report

A version package will be sent immediately after the device is powered on. The version packet transmission frequency is once every 24 hours.

The device reports data every 3 minutes by default, and the device sends data by default configuration before any configuration is performed.

Maximum time: 2 seconds

Minimum time: 180 seconds

Default reportchange: Current --- 0x64 (100mA)

Power --- 0x02 (2W)

Note: the device reports the switch state first, and then reports the power, current and voltage measurement information status after 10 seconds.

Short press the switch or receive the switch command:

Will be reported immediately. (Report the switch status first, then the power current voltage measurement information status after 10s)

Data report configuration and sending period are as following:

Min Interval (Unit:second)	Max Interval (Unit:second)	Reportable Change	Current Change $\geq$ Reportable Change	Current Change < Reportable Change
Any number between 1~65535	Any number between 1~65535	Can not be 0.	Report per Min Interval	Report per Max Interval

## 5.Restore to Factory Setting

The device saves data including network key information, configuration information, etc. To restore to factory setting, users need to execute below operation.

Press and hold function key for 5 seconds till the green indicator flashes and then release; LED flashes quickly 20 times.

## 6. Load Property

Rated Load (AC) ** Remark**	Max. Load with LEDs **Remark**	Max. Inductive Load ( $\cos\phi=0.4$ )	Max. Load with Electric Motors	Overload Protection with Auto Power Cutoff
EU Type : 16A/250V~ UK Type : 13A/250V~ AU Type : 10A/250V~ US Type : 15A/125V~	LED power is less than 400W and less than 8 LEDs	8A/250V	1.5HP/250V	YES

When the detected current exceeds the measurement range (10A), the device will automatically disconnect the load within 2 seconds after the detection.

## 7. Product Installation

This product does not have a waterproof function. After the screening is completed, please place it indoors.

Note:

The energy data of R809A is saved once every 30 seconds if the memory chip is AT2401, once every 10 seconds for AT2402, and the high-capacity storage such as AT2404/08 is saved once every 1 second.

## 8. Important Maintenance Instruction

Your device is a product of superior design and craftsmanship and should be used with care. The following suggestions will help you use the warranty service effectively.

- Keep the equipment dry. Rain, moisture, and various liquids or moisture may contain minerals that can corrode electronic circuits. In case the device is wet, please dry it completely.
- Do not use or store in dusty or dirty areas. This can damage its detachable parts and electronic components.
- Do not store in excessive heat. High temperatures can shorten the life of electronic devices, destroy batteries, and deform or melt some plastic parts.

- Do not store in a cold place. Otherwise, when the temperature rises to normal temperature, moisture will form inside, which will destroy the board.
- Do not throw, knock or shake the device. Rough handling of equipment can destroy internal circuit boards and delicate structures.
- Do not wash with strong chemicals, detergents or strong detergents.
- Do not apply with paint. Smudges can block debris in detachable parts and affect normal operation.
- Do not throw the battery into a fire to prevent the battery from exploding. Damaged batteries may also explode.

All of the above suggestions apply equally to your device, battery and accessories. If any device is not working properly.

Please take it to the nearest authorized service facility for repair.