

# Instruction Manual

## Power plug

Thank you for your support

- Please read the instruction manual carefully before operating
- Please keep the instruction manual after reading

Model:NAS-WR01Z



**Shenzhen NEO Electronics Co., LTD**

## Product Introduction

Power plug is an intelligent device that can be controlled remotely by the Z-wave network and the radio wave which has particular frequency. In the Z-wave network communications, Power plug can be connected to any Z-wave main controller. In the radio wave communications, Gateway and Power plug can send messages to each other through the radio waves. Different countries or areas, the radio frequency is different. In the communication with gateway, the power plug can send and receive messages. When press the code button of power plug, it will send messages to the gateway. The gateway can display the on/off status of power plug correctly; when the power plug receives messages from the gateway, the on/off status of the power plug can be switched remotely via mobile phone APP. The power plug is small and light, very easy to operate.

## Technical parameters

- Input voltage: 120V AC +/-10% 60Hz
- Rated input current: 10A, 120V , 60 Hz Continuous load current  
16A, 120V , 60Hz Instantaneous load current
- Rated power: 2500w
- Radio Protocol: Z-wave
- Radio Frequency: 908.42MHz
  
- Wireless distance: 50m
- Operation temperature: 0-40°C
- Storage temperature: 0-60°C
- Dimension (D x W x H):  
US plug: 43mm x 43mm x 45mm  
EU plug: 43mm x 43mm x 65mm

## Technical Information

- The on and off of the power plug can be switched remotely by mobile phone App.
- The working status of the power plug can be viewed through the mobile phone App
- Switching on and off of appliances easily via mobile phone App.
- Can Compatible with any Z-Wave main controller.

## Product Configuration



## Product List

- Power plug 1pc
- Instruction manual 1pc

## Including Sensor (Power plug) to Z-Wave Network

The Power plug can be added to the Z-Wave network by pressing the code button.

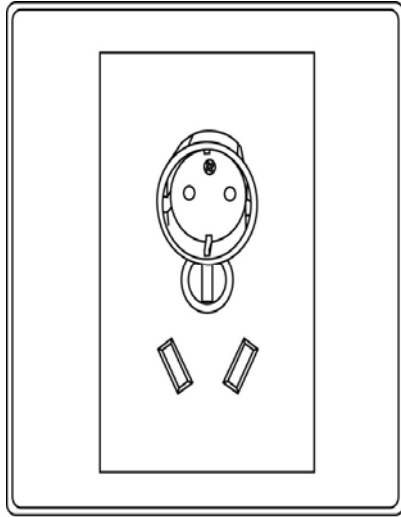
- 1) Plug the power plug in the socket. Make sure the device is located within the direct range of the main controller.
- 2) Set the main controller to the learning mode (see main controller's operating manual).
- 3) Quickly, triple click the code button, the device will enter inclusion mode, and the LED light will flash on and off with green alternately five times within 2 seconds.
- 4) Power plug will be detected and added to the Z-Wave network.
- 5) Wait for the main controller to configure the sensor.

## Excluding Sensor (Power Plug) from Z-Wave Network

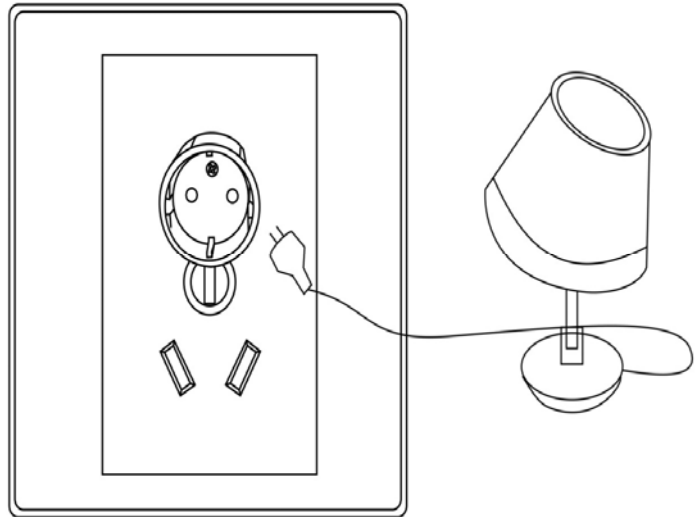
- 1) Make sure the sensor is connected to power source.
- 2) Set the main controller to the learning mode (see main controller's operating manual)
- 3) Quickly, triple click the code button
- 4) Wait for the main controller to delete the sensor
- 5) If the sensor has been deleted from the Z-wave network, the LED light will flash five times within 2 seconds

## Installation Steps

- Plug the power plug in the socket
- Plug the load in the power plug



Plug the power plug in the socket



Plug the load in the power plug

## Tips

- Please do not spray water on the power plug.
- The on and off of power plug can be switched remotely by mobile phone APP.
- The load connected with the power plug shouldn't exceed 2500w to avoid damaging of the power plug.
- Make sure of that power plug is in the gateway's network.

## The status of LED

1. When the power plug is on, LED light keeps being green.
2. When the power plug is off, LED light keeps being out.
3. Quickly, triple click the code button ,add the power plug to the Z-WAVE network or delete PIR from Z-WAVE network , LED light flashes red and yellow for 5 times at the same time.
4. Press on the code button for 10 seconds, the PIR to restore factory settings, LED light flashes red and yellow for 1 times at the same time.

## Restore the Sensor (Power Plug) to Factory Default Settings

- Reset procedure will delete all information on the Z-Wave network and Z-Wave controller or Z-Wave Gateway, and restore the sensor to factory default settings.
  1. Plug the power plug in the socket.
  2. Press and hold the button for 10 seconds, the LED light flashes.
  3. Release the button.
- When the power plug is reset completely, The LED light will flash on and off with dark alternately five times within 2 seconds.

## NOTE

When the power plug is being restored factory settings, please make sure power source is connected.

## Associations

This has the effect that when the sensor is triggered, all devices associated with the sensor will receive the relevant reports. Through an association the sensor may control another Z-Wave network device, e.g. the alarm device, wall plug, lamp etc.

The Wall Plug provides two association groups:

**Association group 1** is assigned to Plugs status - On/Off. Allows for receiving control command from trigger devices whenever the Plug is turned On or Off.

**Association group 2** reports relay's status to just one device, Z-Wave network's main controller by default. It's not recommended to modify settings of this association group.

## Current Load and Energy Consumption

This Plug provides line voltage, current load, power consumption and energy consumption measuring. These measurement results are sent to Z-Wave Controller or Z-Wave Gateway.

**Voltage** – The Supply Power Voltage For Plug.

**Current** – The Current for the Electric Device Connect to Plug Consumption.

**Power** – Power Consumed by an Electric Device in an instant, unit: Watt (W).

**Energy** – Energy Consumed by an Electric Device through a Time Period. Most commonly measured in Kilowatt-hours (kWh). One kilowatt-hour is Equal to One Kilowatt of Power Consumed over a Period of One Hour, 1kWh = 1000Wh.

## Advanced Configuration

### 1. Send Meter Report Enable

This parameter defines Disable/Enable meter report measure data to controller.

**Function:** Meter Report Enable

**Parameter Number:** 1.

**Parameter Size:** 1 Byte

**Available Settings:** 0,1.

0 – Disable Report,

1 - Enable Report

**Default Setting:** 1.

### 2. Meter Report Interval

This parameter defines interval time (in seconds) that Meter report data to main controller.

**Function:** set the upper current threshold.

**Parameter Number:** 2.

**Parameter Size:** 2 Byte

**Available Settings:** 1 – 65535(s).

**Default Setting:** 300(s)

### 3. Configure maximum over-load current

This parameter defines maximum current the plug can provide to load that be connected to plug.

If the current consumed by load greater than maximum current, the plug will cut off power.

**Function:** set the upper current threshold.

**Parameter Number:** 3.

**Parameter Size:** 1 Byte

**Available Settings:** 1 – 16 (Ampere).

**Default Setting:** 13(A).

#### 4. Configure maximum Alarm current

This parameter defines maximum current, if the current plug provide to load great than this parameter, the plug will send over-current notification to main controller and the LED will be turn RED, but plug cannot cut-off power. This value must be less than parameter 3#.

**Function:** Set Alarm upper current threshold.

**Parameter Number:** 4.

**Parameter Size:** 1 Byte

**Available Settings:** 1 – Parameter #3 (Ampere).

**Default Setting:** 12(A).

#### 5. Led Display Enable

This parameter defines the LED indication Function ON/OFF. This parameter can be configured with 0 or 1, where 0 means disable LED indication Function and will always be turn-off, and 1 means enable LED Function.

**Function:** LED Enable/Disable

**Parameter Number:** 5.

**Parameter Size:** 1 Byte

**Available Settings:** 0, 1.

**Default Setting:** 1.

#### 6. Configure power report

This parameter defines by how much power consumed must change to be reported to the Z-Wave Controller or Z-Wave Gateway, in percents. If the rate of power consumed change ratio is greater than this parameter, the plug will report the results, voltage, current, power and energy, that plug measure to Z-Wave Controller or Z-Wave Gateway.

**Function:** Power Reporting Setting

**Parameter Number:** 6.

**Parameter Size:** 1 Byte

**Available Settings:** 1 – 100 (%).

**Default Setting:** 30(%).

#### 7. 7. Remember Relay ON/OFF status

This parameter defined the relay status if remember or not. If remembered, the plug will restore the relay status last power off when the plug supply power next time.

**Function:** Remember Relay Status

**Parameter Number:** 7.

**Parameter Size:** 1 Byte

**Available Settings:** 0 - 255

0 – Don't Remember, the relay will keep OFF when Plug Supply Power.

Others – Remember the Relay Status.

**Default Setting:** 255.

#### 8. Configure Plug Time switch Function

This parameter defines the timer function Enable/Disable. This parameter can be configured with 0 or 1, where 0 means disable time switch function and 1 enable. The time period will be defined in parameter 9#. If this parameter is Set to 1, and when turn the plug relay on, the timer in plug start run with time period defined in parameter #9 and the plug will turn the relay off.

**Function:** Time switch Configure

**Parameter Number:** 8.

**Parameter Size:** 1 Byte

**Available Settings:** 0, 1

0 – Time switch Disable.

1 – Time switch Enable.

**Default Setting:** 0

#### 9. Configure Time switch Period

This parameter defines the time period that plug time switch off. This parameter can be configured 1 ~ 65535(in minutes). If Parameter 9# is set to '1', and relay is turn-on, the relay will be turn-off after delay this parameter.

**Function:** Time switch Configure

**Parameter Number:** 9.

**Parameter Size:** 2 Byte

**Available Settings:** 1 ~ 65535 (minutes).

**Default Setting:** 150(min)

### Command Classes

The Plug supports Command Classes as Below:

- \* COMMAND\_CLASS\_ZWAVEPLUS\_INFO (V2)
- \* COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC (V2)
- \* COMMAND\_CLASS\_VERSION (V2)
- \* COMMAND\_CLASS\_ASSOCIATION (V2)
- \* COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO (V1)
- \* COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY (V1)
- \* COMMAND\_CLASS\_POWERLEVEL (V1)



- \* COMMAND\_CLASS\_SWITCH\_BINARY (V1)
- \* COMMAND\_CLASS\_NOTIFICATION (V4)
- \* COMMAND\_CLASS\_METER (V4)
- \* COMMAND\_CLASS\_CONFIGURATION (V1)
- \* COMMAND\_CLASS\_SWITCH\_ALL (V1)
- \* COMMAND\_CLASS\_BASIC (V1)

### **Guarantee**

1. The Guarantee is provided by Shenzhen NEO Electronics Co., Ltd (hereinafter “Manufacture” )
2. The Manufacturer is responsible for equipment malfunction resulting from physical defects (manufacturing or material) of the device for 12 months from the date of its purchasing.
3. During the Guarantee period, the Manufacturer shall remove any defects, free of charge, by repairing or replacing.
4. In special cases, when the device cannot be replaced with the device of the same type (e.g. the device is no longer available in the commercial offer), the Manufacturer may replace it with a different device having technical parameters similar to the faulty one. Such activity shall be considered as fulfilling the obligations of the Manufacturer. The Manufacturer shall not refund money paid for the device.
5. The guarantee shall not cover:
  - mechanical damages (cracks, fractures, cuts, abrasions, physical deformations caused by impact, falling or dropping the device or other object, improper use or not observing the operating manual);
  - damages resulting from external causes, e.g.: flood, storm, fire, lightning, natural disasters, earthquakes, war, civil disturbance, force majeure, unforeseen accidents, theft, water damage, liquid leakage ,battery spill, weather conditions, sunlight, sand, moisture, high or low temperature, air pollution
  - damages caused by malfunctioning software, attack of a computer virus, or by failure to update the software as recommended by the Manufacturer;

- FCC NOTE:
- 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.
  
- THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS OR CHANGE TO THIS EQUIPMENT. SUCH MODIFICATIONS OR CHANGE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.
  
- 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.
  
- RF exposure statement  
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .The device has been evaluated to meet general RF exposure requirement.  
The device can be used in portable exposure condition without restriction.

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