

Instruction Manual

Power plug

Thank you for your support

- Please read the instruction manual carefully before operating
- Please keep the instruction manual for future reference



Shenzhen NEO Electronics Co., LTD

Product Introduction

Power plug is an intelligent device that can be controlled remotely by the Z-wave network which has particular frequency. In the Z-wave network communications, Power plug can be connected to any Z-wave main controller. Different countries or areas, the radio frequency is different of the Z-wave network. In the communication with the Z-wave main controller, the power plug can send and receive messages. When press the code button of power plug, it will send messages to the Z-wave main controller. The Z-wave main controller can display the on/off status of power plug correctly; when the power plug receives messages from the Z-wave main controller, 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.

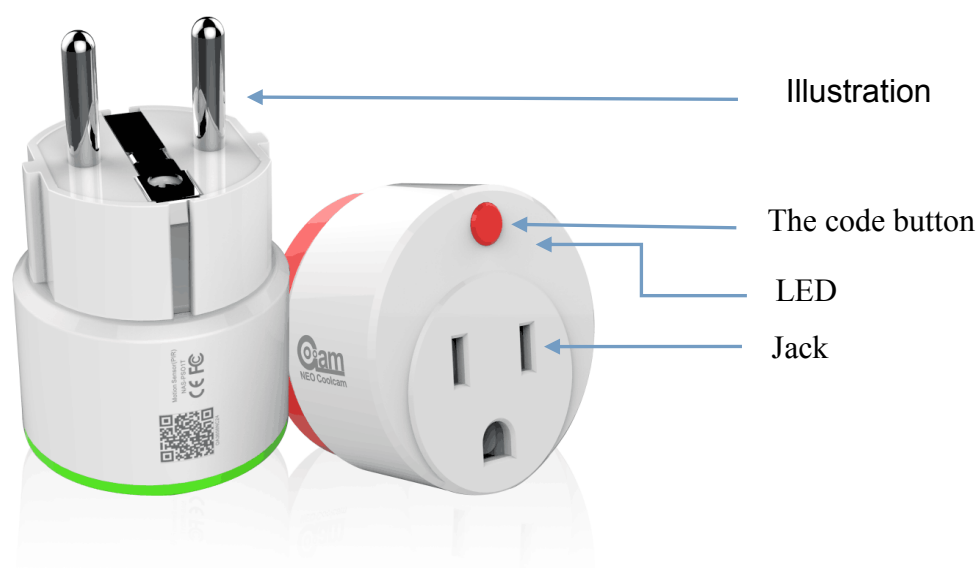
Technical parameters

- ON/OFF control
- Compatible with 300 series and 500 series
- Measuring voltage, current, instant power, accumulated power.
- Input voltage: 110-230V AC 50/60HZ
- Max current: 12A
- Rated input current: 10A,110-230V , 50/60 Hz Continuous load current
16A,110-230V , 50/60Hz Instantaneous load current
- Radio Protocol: Z-wave
- Radio Frequency: 868.4MHz EU; 908.4MHz US; 921.4MHz ANZ; 869.2MHz RU
- 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
- 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.

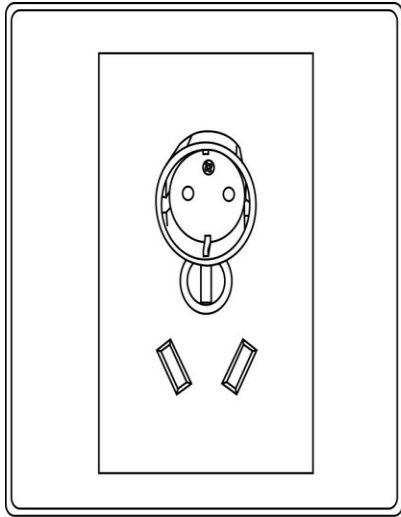
- 1) Power to the code, the device is plugged into the power 20S can not have any operation!
- 2) Plug the power plug in the socket. Make sure the device is located within the direct range of the main controller.
- 3) Set the main controller to the learning mode (see main controller's operating manual).
- 4) Quickly, triple click the code button, the device will enter inclusion mode, and the LED light will **flash red 5 times**.
- 5) Power plug will be detected and added to the Z-wave network.
- 6) Wait for the main controller to configure the sensor.

Excluding Sensor (Power Plug) from Z-wave Network

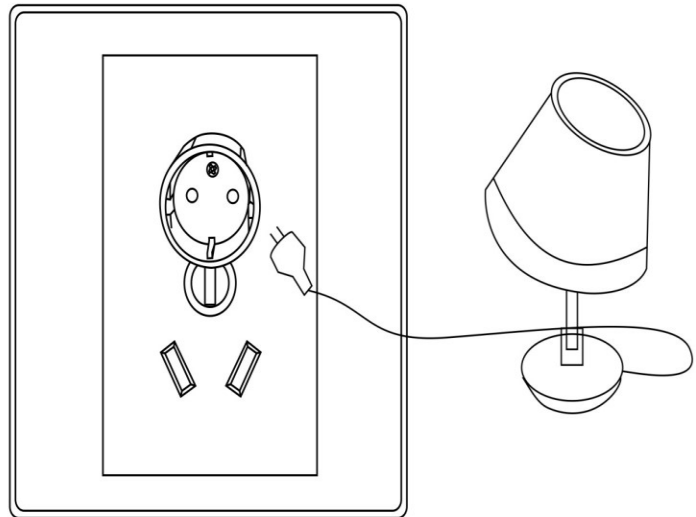
- 1) Make sure the sensor is connected to power source.
- 2) Set the main controller to the learning mode (see main controller's operating manual)
- 3) Quickly, triple click the code button, LED light will **flash red 5 times**.
- 4) Wait for the main controller to delete the sensor

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 the power plug.
- Make sure of that power plug is in the Z-wave 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 off.
3. Quickly, triple click the code button ,add the power plug to the Z-wave network or delete it from Z-wave network , LED light flashes yellow or red for 5 times at the same time.
4. Press the code button for 10 seconds, the power plug will restored to factory default settings, LED light flashes red for 5 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 or Z-wave controller, and restore the sensor to factory default settings.

1. Plug the power plug in the socket.
2. Press the code button for 10 seconds, the LED light will flash red for 5 time at the same time.
3. Release the code button.

NOTE

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

Associations

Through an association this Plug may control another Z- Wave network device, e.g. a alarm device, wall plug, lighting etc.

The Wall Plug provides three association groups, and every group can be support to associated 5

devices max.

GROUP 1 is lifeline service that assigned to plug status – ON/OFF. It enables the Plug to send reports and readings to Z- Wave Controller or Z- Wave Gateway. This Group Support:

NOTIFICATION_REPOR

T_V4

METER_REPORT_V4

SWITCH_BINARY_REPORT

DEVICE_RESET_LOCALLY_NOTIFICATION

GROUP 2 allows for sending control commands to associated devices such as Siren, relay module, lighting, etc. If current load is over the max current defined in parameter #3, the Plug will send a BASIC_SET (0xFF) to associated devices. When current load is normal, plug will send a BASIC_SET (0x00) to associated devices. This Group Support:

BASIC_SET

GROUP 3 allows for Send Notification to associated devices in this group. This Group Support:

NOTIFICATION_REPORT_V4

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.

NOTE: **Energy (kWh) is default scale for Meter Command Class Version 1.**

About Notification CC

If current load is great than value defined in parameter #3, plug will send NOTIFICATION CC to Z- Wave controller. And if there are some devices associated with this plug, it will receive a BASIC_SET command from plug.

Over Current Protection Simulating (For Certification Test / Production Test)

When the wall plug is turn on, you can set 0xFF to parameter #100 through Configure CC to trigger over current protection. If you set, the wall plug will send

NOTIFICATION_EVENT_POWER_MANAGEMENT_OVER_LOAD_DETECTED to lifeline, and the wall plug will be turn off, red Led will blink every second. You can press the button once to clear this alarm and then the wall plug will be back to normal state.

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 Z-wave 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 is greater than maximum current, the plug will cut off power, and send **NOTIFICATION_EVENT_POWER_MANAGEMENT_OVER_LOAD_DETECTED** to associated devices in lifeline. Red Led will blink every seconds until current is normal (less than Parameter #3). You must remove the loader and turn on the Plug (press the button once) to enable current monitor and clear **NOTIFICATION ALARM**.

This parameter value must be great than #4. If user set this parameter to default by Configure CC, the parameter #4 will be set to default value.

Function: set the upper current threshold.

Parameter Number: 3.

Parameter Size: 1 Byte

Available Settings: 1 – 16 (Ampere).

Default Setting: 13A).

4. Configure maximum Alarm current

This parameter defines maximum current, if the current plug provide to load is great than this parameter, the plug will light yellow LED, but plug cannot cut- off power. This parameter value must be less than parameter #3. If user set this parameter to default by Configure CC, the parameter #3 will be set to default value.

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: 5(%).

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: 0,1

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

Default Setting: 1.

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)

10. Button On/Off Enable

This parameter defines the button on/off function is enabled or not on the top of the wall plug. This parameter can be configured 0 and 1. If this parameter is set to '1', users can turn on and off the wall plug by pressing the button on the top of the wall plug. If this parameter is set to '0', the wall plug cannot be turned on and off by pressing the button.

Function: Enable Button On/Off

Parameter Number: 10.

Parameter Size: 1 Byte

Available Settings: 0, 1.

Default Setting: 1

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 “Manufacturer”)
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;

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