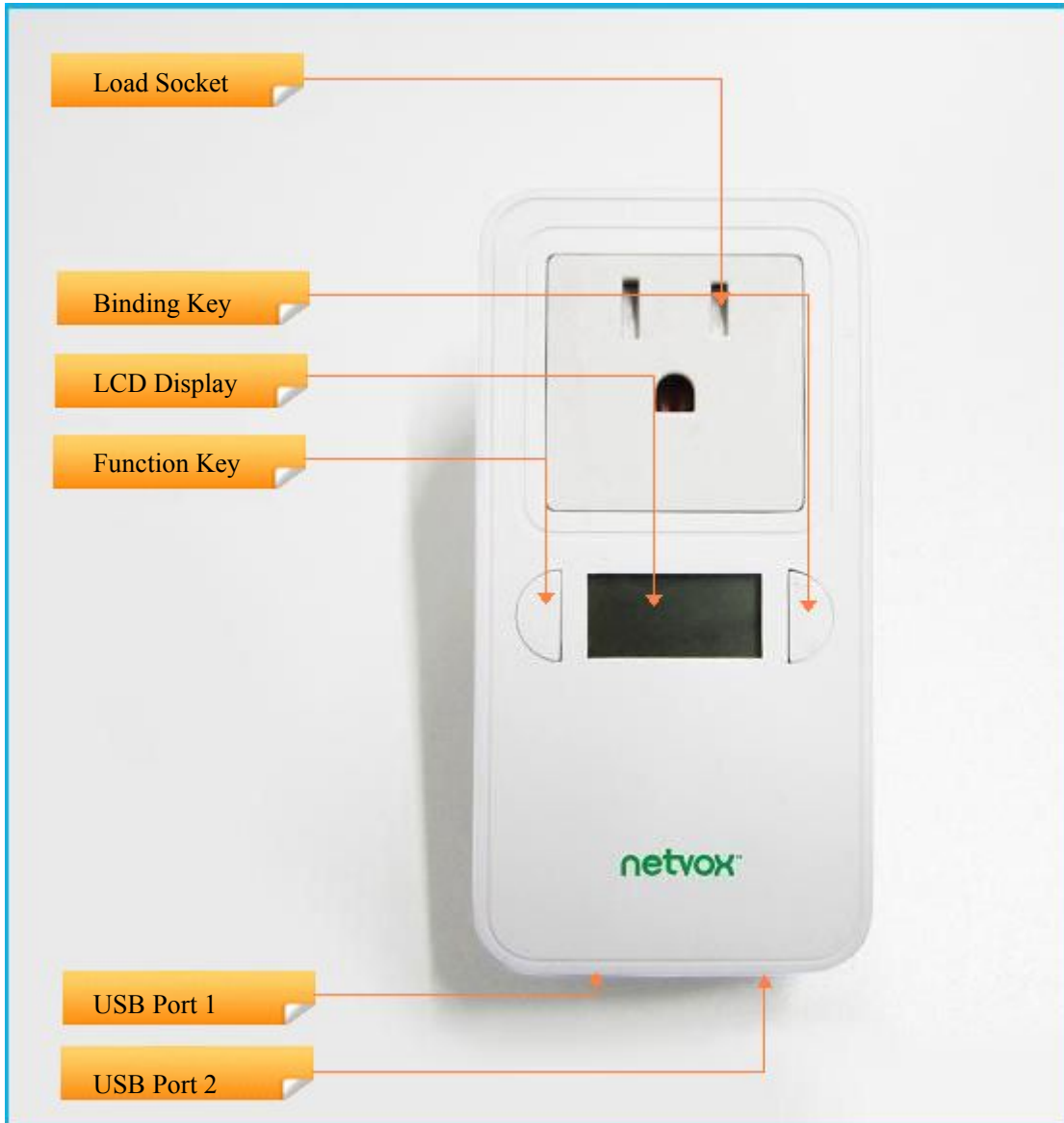

**Wireless Dimmable Power Plug with Power
Monitoring LCD & USB Port**

**Wireless Dimmable Power Plug with Power Monitoring
LCD & USB Port
User Manual**

Firmware: V5.1
Hardware: V2.4

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Z808B Appearance

1. Introduction

Z808B (ZigBee Dimmer Control with Power Consumption Display) is used as a **routing device** in the network, allowing other devices to be their sub-devices. The Z808B device can detect the current, voltage, power and energy of the load. At the same time, the Z808B can be bound to the control device with the switch function/level control function, and the Z808B switch/level can be controlled by the bonded device .

ZigBee wireless technology:

ZigBee is an emerging short-range, low-complexity, low-power, low-data-rate, low-cost wireless network technology. It is a technical proposal between wireless tag technology and Bluetooth. Mainly used for short-range wireless connections. It communicates with thousands of tiny sensors in accordance with the 802.15.4 standard. These sensors require very little energy to relay data from one sensor to another in a relay, and their communication efficiency is very high. In some locations, the use of ZigBee wireless technology may be limited. Please consult your local authorities or service provider.

2. Product Characteristics

- Fully compatible with IEEE 802.15.4
- Use the 2.4GHz ISM band for a total of 16 channels
- 100-240 VAC 50/60Hz power supply
- Communication distance are up to 210 meters
(depending on specific environmental conditions)
- Simple operation and setting

3. Operation instructions


3.1 Power on


Connect the Z808B device to the AC 100-240V power supply, power on the device, and the LCD backlight is always on.

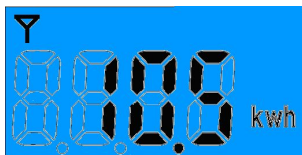
3.2 Join the network

In order to Z808B capable of ZigBee communication to other devices in the network, it is necessary to Z808B added ZigBee network, the screen operates as follows:

a) Open the allowable screening function of the coordinator or routing device on the same channel as the Z808B in the network.

b) Z808B is used as a router in the network. It actively searches for the network immediately after power-on.  does not blink before the network is added, and the value area displays the power information.


c) The network-joining is successful, and  is always on, indicating that the network-joining is successful; the LCD information area displays the power information. As shown below

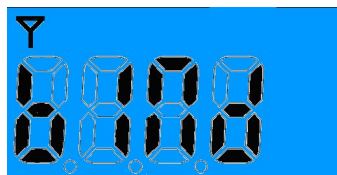


displaying electricity consumption 10.5 kWh.

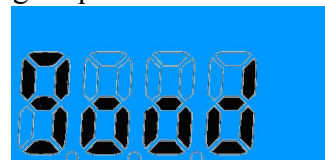
3.3 End Device Bind

Z808B can bind device such as the client end having ON / OFF cluster with control or level control cluster such as Netvox Z503/Z501, binding operation is as follows :

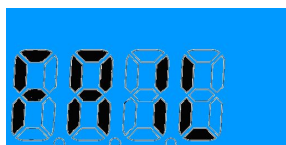
a) Press the binding key for 3 seconds till  blinks once. At this time, the LCD value area displays the bind information, and the device issues a binding request.



As shown in the figure, and operate the bound device within 16 seconds so that it also issues a binding request. Once the binding



operation is successful, it will show word good and flash for 3 seconds and return to the main page. Once the binding operation is failure, it



will show word fail and flash for 3 seconds and return to the

main page.

b) Unbind operation: If operating the bound device to be bound again, it will be unbound.

Note: The device supports only 16 groups, 16 scenes.

3.4 Under control



1. Binding Control: the bound device will send switching / level commands to control the load connected to Z808B on the switch / level functions.

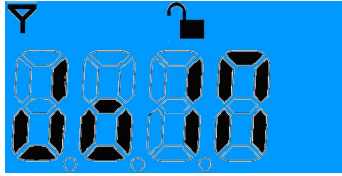
2. Direct control

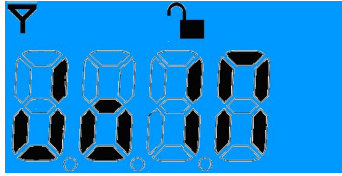
Short press the bind button	External dimming light brightness	Short press the bind button	External dimming light brightness
1 time	12.5	9 times	87.5
2 times	25	10 times	75
3 times	37.5	11 times	62.5
4 times	50	12 times	50
5 times	62.5	13 times	37.5
6 times	75	14 times	25
7 times	87.5	15 times	12.5
8 times	100	16 times	0

Regardless of the status of the external light, short press the device after power-on and the dimming level changes according to the above table.

3.5 Allow network-join function

As a router in the network, the Z808B has the function of allowing other devices to join the network as its sub devices. At the same time, press the binding button and the function button for 1 second. After 1 second, the  icon will flash. After the button is released, the LCD value field will display JOIN for 1 second and then return to the power display screen, and the unlock icon will  start flashing for 60 times as




shown ; the network-join is allowed to last for one minute and automatically shut down after one minute. If pressing the binding key and the function button for 1 second again during the process of allowing the network-join process, and the device will turn off the function.

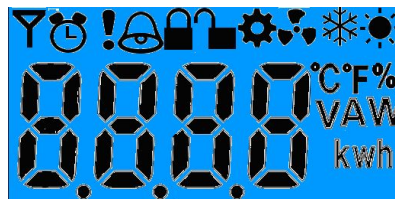
3.6 Power, power, voltage, current switching display

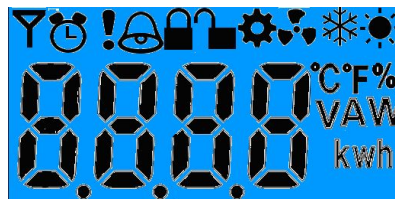
In the power display interface, press the function button to switch to voltage (in volts), current (in amps), power (in watts), and power (in kWh).

3.7 Restore factory settings

After the Z808B joins the network, it will save its assigned network address. If users want to join a new network, users need to restore the device to the factory settings


first. Press and hold the bind button for 15 seconds ( icon flashes for 3 times). After releasing the button, press the function button for 2 seconds to restore the factory

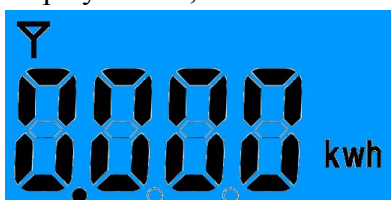


settings. The LCD value area display  which means that the factory reset is successful. The device automatically restarts, and the network can be re-joined.

3.8 Erase power information

The power information detected by Z808B will be stored in the eeprom memory. When the factory value is restored, the power information will not be erased. Users can erase the power information by the following method. Press and hold the binding

key for 20 seconds ( icon flashes for 4 times). Release and press the function key within 2 seconds. Z808B will erase power information and the power information is displayed as 0, the LCD numerical display power information area, as shown in FIG.



3.9 ZigBee Description

1. End Point(s) : 0x01
2. Device ID : Dimmer Light (0x0101)
3. Cluster ID which the endpoint supports

Cluster ID for Z808B	
Server side	Client side
EP 0X01 (Device ID: Dimmer Light (0x 0101)	
Basic (0x0000)	<i>None</i>
Identify (0x0003)	
Groups (0x0004)	
Scenes (0x0005)	
On/Off (0x0006)	
Level Control (0x0008)	
Commissioning (0x0015)	
Simple Metering (0x0702)	
Electrical Measurement (0x0B04)	
Diagnostics (0x0B05)	

4. Related attribute definitions for each Cluster :

(1) Attributes of the Basic Device Information attribute set

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	<i>ZCLVersion</i>	8-bit Unsigned integer	0x00 -0xff	Read only	0x0 3	M
0x0001	<i>Application Version</i>	8-bit Unsigned integer	0x00 -0xff	Read only	0x33	O
0x0002	<i>Stack Version</i>	8-bit Unsigned integer	0x00 -0xff	Read only	0x53	O

0x0003	<i>HWVersion</i>	8-bit Unsigned integer	0x00 – 0xff	Read only	0x18	O
0x0004	<i>Manufacturer Name</i>	Character string	0 – 32 Bytes	Read only	Netvox	O
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32bytes	Read only	Z808BE3R	O
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	20150121	O
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 – 0xff	Read only	0x01	M
0x0010	Location Description	Character string	0 – 16bytes	Read/write	--	O
0x0011	Physical Environment	8-bit Enumeration	0x00 – 0xff	Read/write	--	O
0x0012	Device Enabled	Boolean	0x00–0x01	Read/write	0x01	O

3.10 Product attributes and custom instructions

1. The cluster that Z808B uses is refer to SE in Simple Metering used in the Cluster ID (0x0702) and **Electrical the Measurement the ClusterID (0x0B04)** , and the Cluster ID (0x0702) in NETVOX custom current, voltage, power, energy attribute .

Cluster ID (0x0B04):

- (1) The current attribute uses the Attribute ID : 0x0508 , voltage attribute 0x0505 .
- (2) The power attribute uses the Attribute ID : 0x050B , and the power factor attribute 0x0510.

Cluster ID (0x0702) :

- (1) The current attribute uses the Attribute ID : 0xE000 , voltage attribute 0xE001 .
- (2) The power attribute uses the Attribute ID : 0xE002, and the power attribute 0xE003.
- (3) The attribute CurrentSummationDeliver that implements the AttributeID of 0x0000 corresponds to the power attribute 0xE003 .

In addition, the attribute InstananeousDemand with the AttributeID of 0x0400 is implemented corresponding to the power attribute 0xE0002 .

(4)

- 1) The power ATTRID = 0xE003 (or 0x0000), the unit is Wh ; the power

ATTRID = 0xE002 (or 0x0400), the unit is W ;

2) Current ATTRID=0xE000, the unit is mA;

voltage ATTRID = 0xE001, the unit is V

2 . Custom command

The instruction format for erasing the current battery information is:

CMD=0CE0 LEN ADDRMODE DSTADDR DSTENDPOINT CLUSTER_ID
ACTION

4. Load Characteristics

Rated Load (AC) ** Remark**	Max. Load with LEDs *Remark**	Max. Surge Endurable	Surge Detection	Overload Protection with Auto Power Cutoff
400W/3A/250V	100W/4LEDs	150A	Yes	Yes

Note: Hardware board V3.0 supports impact, V2.4 does not support impact.

5. Related Products



Z810A : Switch control unit with consumption display



Z800B : Power Socket with Power Consumption Monitoring

6. Installation Methods and Precautions for Use

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

Note:

1. The device has over-current and over-voltage protection function. If the current exceeds 3A , the device will turn off the load lamp within 2 seconds.

Backlight flashes 10 times (10, 250, 250). If ACAlarmsMask is of Bit1 (Current OverLoad) bit 1 are simultaneously issued Alarm broadcast alarm, AlarmCluster = 0x0B04, AlarmCode = 0xF0.

2. The device stores the power information every 30 seconds, so the data within 30 seconds will disappear due to the device power failure. (Note: The time period for storing data varies depending on the memory capacity used: 24C01 30 seconds, 24C02 15 seconds).

3. Please know in detail whether the device to be connected is suitable for use before use. This device uses the thyristor voltage leading edge phase modulation method to dim; only allows the matching dimmable lamps to be connected, and can not be used as a common electronic switch.

If the connection uses a non-dimmable device or an unmatched dimming device, it will damage the connected device or even the device, or cause other unpredictable consequences. Examples of non-connectable devices are as follows: general electronic energy-saving lamps, gas discharge lamps, home appliances, computer equipment, and switch-mode power supplies.

For the common lamps in the market, the load characteristics of the machine are as follows: 1. The pure resistive tungsten lamp load can withstand the load of up to 3A/600W; 2. The adjustable dimming electronic fluorescent lamp or the self-electrical rectification Dimming LED bulbs, because of the large inrush current, for safe use, it is recommended to limit the load below 100W, and it is not recommended to use multiple bulbs in parallel; 3. This product is not suitable for connection to coil transformers.

That is to say, the low-voltage lamp powered by the coil transformer cannot be dimmed with this product, and it can be considered to be replaced with a suitable electronic transformer.

4. The two USB ports included with the device output 5V/1000mA, which can be used to charge matching electronic devices.

7. Maintenance

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.

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.