

# User Manual

## Power Strip with Power Consumption Monitoring

**Model: Z803**

Firmware: V3.0  
Hardware: V1.0~V1.1

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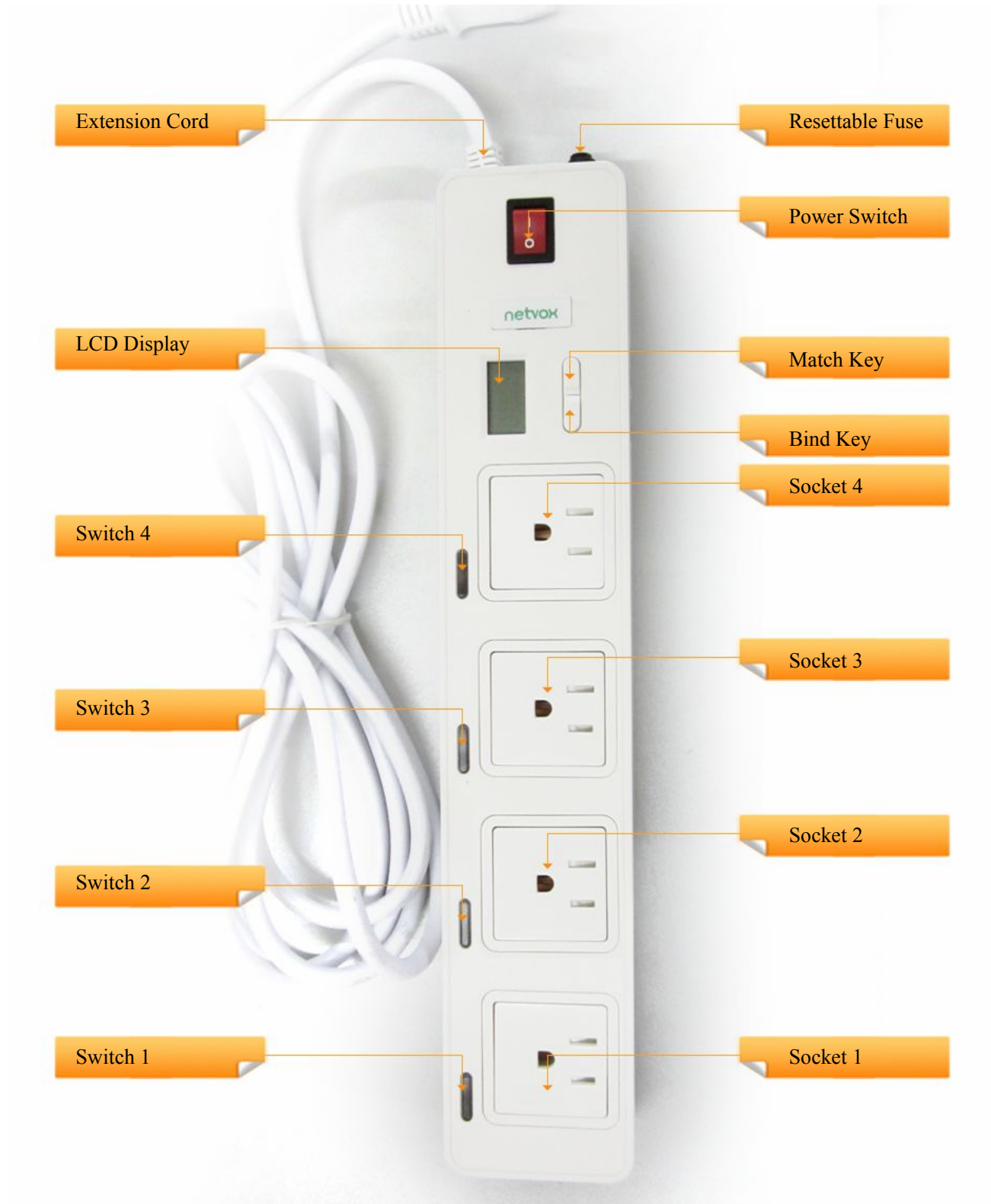
## 1. Introduction

Netvox Z803, a ZigBee power socket with power consumption monitoring, acts as a Router Device in ZigBee network. It performs the On/Off controlling feature for users to manage each On/Off switch. Users are able to wirelessly control the switch through paired soft On/Off button or paired remote controller. Users could monitor the power consumptions such as current/ voltage/ power/ energy via the built-in LCD or through Netvox ZiG-BUTLER application.

### *What is ZigBee?*

ZigBee is a short range wireless transmission technology based on IEEE802.15.4 standard and supports multiple network topologies such as point-to-point, point-to-multipoint, and mesh networks. It is defined for a general-purpose, cost-effective, low-power-consumption, low-data-rate, and easy-to-install wireless solution for industrial control, embedded sensing, medical data collection, smoke and intruder warning, building automation and home automation, etc.

## 2. Product Appearance



### 3. Specification

- Fully IEEE 802.15.4 compliant (ZigBee Pro)
- Utilizes 2.4GHz ISM band; up to 16 channels
- Power supply: 100~240VAC; 50/60Hz
- Power consumption: 1.2W (18mA@230V)
- Resistive load: 250VAC/ 16A
- Inductive load: 220VAC/ 8A
- USB output: 5VDC/ 1A
- Relay lifetime: 100,000 times
- Up to 150 meters wireless transmission range in non-obstacle space
- Easy installation and configuration



### 4. Installation

- This device is NOT truly waterproof/ resistant and is for indoor use.
- Power on Z803 using 100~240 VAC power supply.

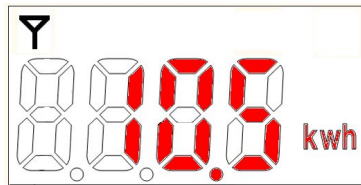
### 5. Setting up Z803

#### 5-1. Join the ZigBee Network

After Z803 is turned on, it will search for an existing ZigBee network and send a request to join the network automatically. While Z803 is under the coverage from a coordinator or a router whose **permit-join feature is enabled**, Z803 will be permitted to join the network.

- Before Z803 is joined a ZigBee network → the  icon will keep flashing.
- After Z803 has joined a ZigBee network → the  icon will stay on. The LCD displays the data

of power consumption such as



## 5-2. Binding

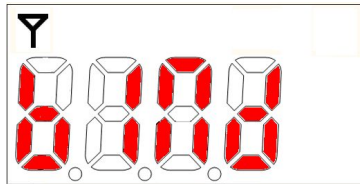
Z803 can be bound with the device which supports On/Off cluster.

Step1. Press and hold the *Bind Key* for 3 seconds.

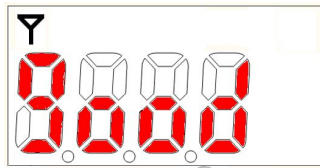
Step2. Release the *Bind Key* when the LCD flashes **!** **once**.

Step3. Within 5 seconds, press the switch button of the socket which you would like to bind to broadcast

the binding request. The LCD will show

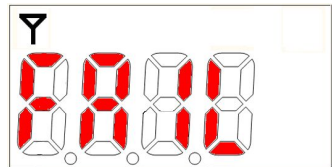


Step4. The LCD display shows



after the binding is completed; otherwise,

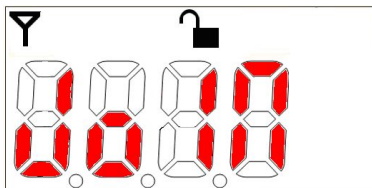
it will show



## 5-3. Permit-Join

Z803 is designed to work as a router. To allow other devices to join the ZigBee network, users could enable the Permit-Join feature using the tips:

A. Press the *Bind Key* to enable the Permit-Join feature. The LCD will display



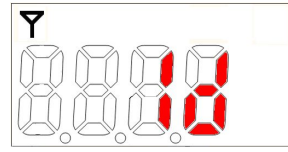
for 10 seconds, and the  icon will be flashing.

B. The default Permit-Join period of time is 60 seconds.

C. Under the circumstances Permit-Join feature is turned on, users can press the *Bind key* to turn off the Permit-Join feature.

## 5-4. Identification

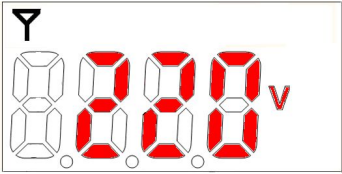
According to the received Identify Times, the LCD display will flash (Identify Times).

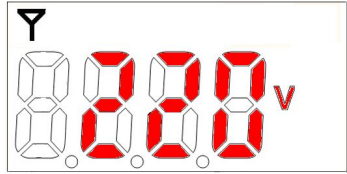


N times (N =

## 5-5. LCD Display


Users could use the *Match key* to switch the readings of Voltage (V) → Current (A) → Power (W) → Energy

(kWh). For example,  shows the voltage readings.

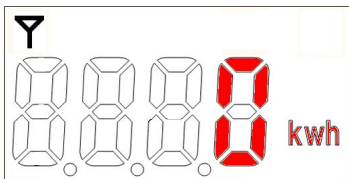


## 5-6. Reset Power Consumption Summation

To reset the power consumption data, please follow the steps:


Step1. Press and hold the *Bind Key* for 20 seconds. The  icon will flash **4 times** (at the 3rd, the 10th, the 15th, and the 20th second).

Step2. After releasing the *Bind Key*, press the *Match Key* within 2 seconds to complete the reset.



## 5-7. Restore to Factory Setting

To restore it to factory setting, please follow the steps:

Step1. Press and hold the *Bind Key* for 15 seconds. The  icon will flash **3 times** (at the 3rd, the 10th, and the 15th second).

Step2. After releasing the *Bind Key*, press the *Match Key* within 2 seconds to complete the restore.

## 6. Home Automation Clusters for Z803

A cluster is a set of related attributes and commands which are grouped together to provide a specific function. A simple example of a cluster would be the On/Off cluster which defines how an on/off switch behaves. This table lists the clusters which are supported by Z803.

Cluster ID for Z803	
Server side	Client side
<b>EP 0x01~0x04 ( OnOff Output)</b>	
Basic (0x0000)	<i>None</i>
Identify (0x0003)	
Groups (0x0004)	
Scenes (0x0005)	
On/Off (0x0006)	
Commissioning (0x0015)	
Simple Metering (0x0702)	
Electrical Measurement (0x0B04)	
Diagnostics(0x0B05)	
Cluster ID for Z803	
Server side	Client side
<b>EP 0x05 ( Consumption Awareness )</b>	
Basic (0x0000)	<i>None</i>
Identify (0x0003)	
Commissioning (0x0015)	
Simple Metering (0x0702)	
Electrical Measurement (0x0B04)	
Diagnostics(0x0B05)	

### Information attribute set

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	<i>ZCLVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x03	M



Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0001	<i>ApplicationVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	<b>0x1E</b>	O
0x0002	<i>StackVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x35	O
0x0003	<i>HWVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x0B	O
0x0004	<i>ManufacturerName</i>	Character string	0 – 32 Bytes	Read only	netvox	O
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32bytes	Read only	<b>Z803E3R</b>	O
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	<b>20141128</b>	O
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 –0xff	Read only	0x01	M
0x0010	<i>LocationDescription</i>	Character string	0 – 16bytes	Read/wr ite	Empty string	O
0x0011	<i>PhysicalEnvironment</i>	8-bit Enumeration	0x00 –0xff	Read/wr ite	0x00	O
0x0012	<i>DeviceEnabled</i>	Boolean	0x00–0x01	Read/wr ite	0x01	O

Use Cluster ID (0x0702) in **Simple Metering of SE** and **Cluster ID (0x0B04) of Electrical Measurement**. In Cluster ID (0x0702), Netvox defined attributes are as below:

The related Cluster ID:

- Simple Metering Cluster ID (0x0702)
- Electrical Measurement Cluster ID (0x0B04)

The related Attribute ID of Simple Metering Cluster ID (0x0702):

- Current Attribute ID: 0xE000; unit: mA
- Voltage Attribute ID: 0xE001; unit: V
- Power Attribute ID: 0xE002; unit: W
- Energy Attribute ID: 0xE003; related to AttributeID CurrentSummationDeliver (0x0000); unit: Wh

The related Attribute ID of Electrical Measurement Cluster ID (0x0B04):

- Current Attribute ID: 0x0508
- Voltage Attribute ID: 0x0505
- Power Attribute ID: 0x050B
- Power Factor Attribute ID: 0x0510

## 7. Important Maintenance Instructions

- Please keep the device in a dry place. Precipitation, humidity, and all types of liquids or moisture can contain minerals that corrode electronic circuits. In cases of accidental liquid spills to a device, please leave the device dry properly before storing or using.
- Do not use or store the device in dusty or dirty areas.
- Do not use or store the device in extremely hot temperatures. High temperatures may damage the device or battery.
- Do not use or store the device in extremely cold temperatures. When the device warms to its normal temperature, moisture can form inside the device and damage the device or battery.
- Do not drop, knock, or shake the device. Rough handling would break it.
- Do not use strong chemicals or washing to clean the device.
- Do not paint the device. Paint would cause improper operation.

Handle your device, battery, and accessories with care. The suggestions above help you keep your device operational. For damaged device, please contact the authorized service center in your area.