

User Manual

Mains Power Outlet & Scene Selector

Model: Z825J

Firmware: V1.1
Hardware: V1.0 and above

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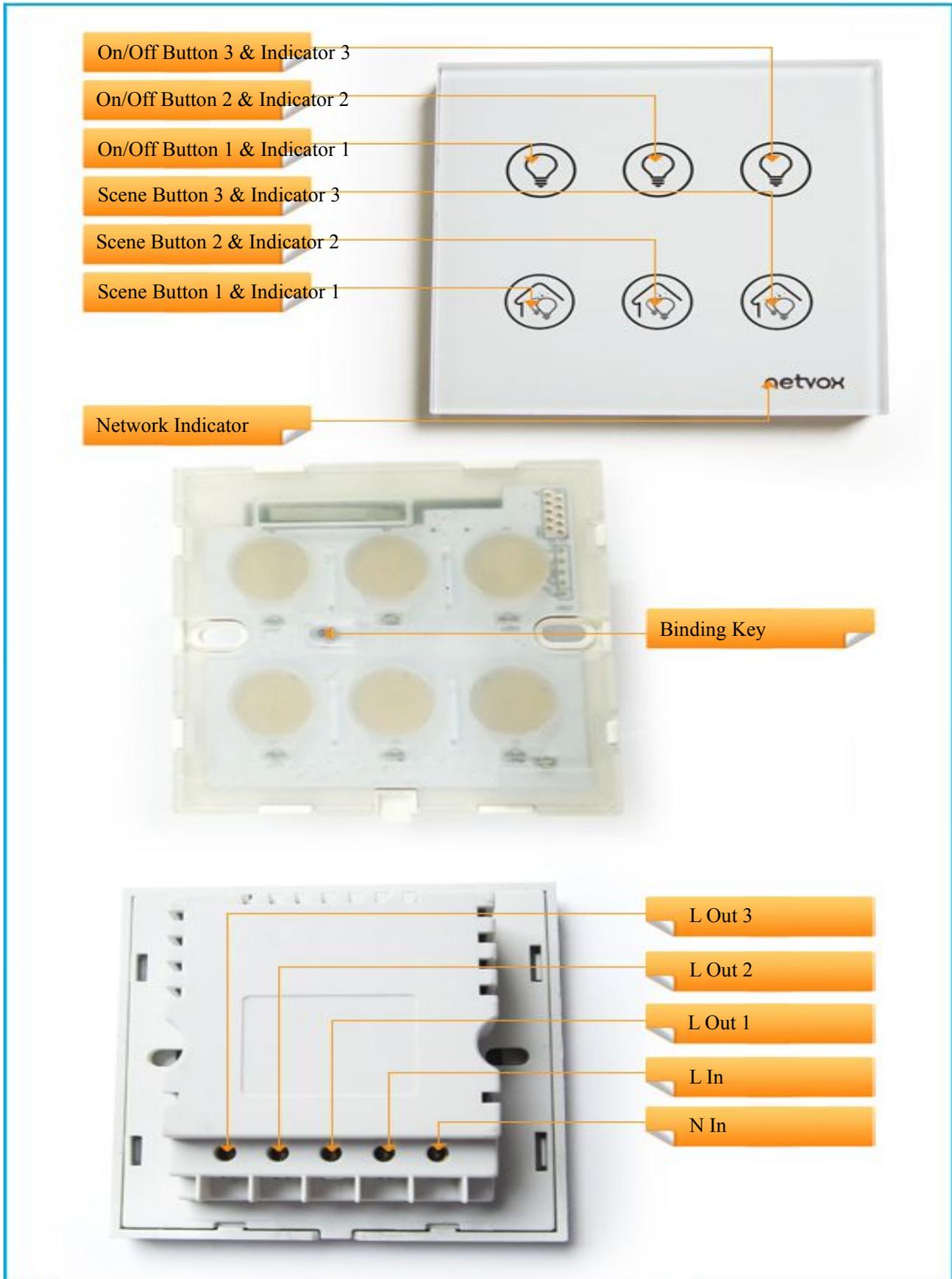
1. Introduction

Z825J, a touch panel power outlet & scene selector, acts as a Router Device in ZigBee network. Its 3-switch & 3-selector touch panel allows people to perform the on/off controls or scene controls. Users could setup up to 12 scenes or modes. Z825J is based on ZigBee protocol and suitable for ZigBee HA Profile network.

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
- Utilizes 2.4GHz ISM band; up to 16 channels
- Power supply: 100~240VAC 50/60HZ
- Power consumption: 8mA@230V
- Up to 70 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 Z825J using 100~240 VAC power supply.

5. Setting up Z825J

5-1. Join the ZigBee Network

After Z825J is turned on, it will search for an existing ZigBee network and send a request to join the network automatically. While Z825J is under the coverage from a coordinator or a router whose **permit-join feature is enabled**, Z825J will be permitted to join the network.

Step1. Enable the permit-join function (valid for 60 seconds) of a coordinator or a router (please refer to the user manual of the coordinator or the router to enable the permit-join feature).

Step2. Power on Z825J. It will start to search and join the network. The Network Indicator flashes **cyan twice** when it finds out a network to join.

Step3. The Network Indicator stays **cyan** after it is joined successfully.

5-2. Permit-Join

Z825J 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 *Binding Key* to enable the Permit-Join feature. The Network Indicator will flash **cyan** per second.
- B. The default Permit-Join period of time is 60 seconds.

5-3. Binding

Z825J can be bound with the On/Off device such as Netvox Z501.

- Step1. Press and hold the Binding Key for 3 seconds. The Network Indicator will flash **cyan once**.
- Step2. Release the Binding Key and then press the Binding Key **N times** (N=1 binding EP 1, N=2 binding EP 2, N=3 binding EP 3) within 5 seconds. For example, press the Binding Key 3 times when you would like to bind On/Off Button 3.
- Step3. Enable the binding feature of the On/Off device.
- Step4. The Network Indicator flashes slowly **cyan 5 times** after the binding is completed; otherwise, it will flash quickly **cyan 10 times**.

Note: It supports 36 binding rules/ 36 groups/ 32 scenes

5-4. Control

A. Remote Control (Button 1~3)

Users are able to use the device which is bound with Z825J to control it.

While the switch is ON, the indicator shows **green**.

While the switch is OFF, the indicator shows **yellow**.

B. Scene Selector

i. Store Scene

After Z825J join a network, users can add the device, like ZC06, into a group/scene using the following steps:

- Step1. Identify the device which you would like to add.
- Step2. Press and hold the button (4, 5, or 6) for 3 seconds. The Network Indicator will flash **cyan once**.
- Step3. Release the button and then press the *Binding Key* within 2 seconds.
- Step4. The devices which are identifying will be added into a Group (Group address 0x0001-0xffff) via addgroupifidentify command.
- Step5. The Network Indicator flashes **cyan 5 times** after the setting is completed; otherwise, it will flash **cyan 10 times**.

- Via the steps above, one button can only be used for one group/scene.
- One button can be used for multiple groups/scenes (up to 4 groups/scenes) via commands.
- The indicator colors for 4 groups/scenes are **blue** → **red** → **cyan** → **pink** in sequence.

ii. Recall Scene

After store scene, users can press the button 4/ 5/ 6 to recall or switch scenes.

C. Mode Selector

- One button can only be used for one mode.
- One button can be used for multiple modes (up to 4 groups/scenes) via commands.

- The indicator colors for 4 modes are **blue** → **red** → **cyan** → **pink** in sequence.

5-5. Power Metering

Z825J reports the power consumption data to the ZigBee network.

The related Cluster ID:

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

The related Attribute ID of Simple Metering Cluster ID:

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

The related Attribute ID of Electrical Measurement Cluster ID:

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

The command to reset power consumption summation: 0xE0. The format is:

Bits:8	16	8	8	8
Frame control	Manufacturer code	Transaction Sequence number	Command identifier	Frame payload
				Action
0x05	0x109F		0xe0	0x00

(clusterid : 0x0702 , Action : 0x00)

5-6. Reset Power Consumption Summation

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

Step1. Press and hold the Binding Key for 20 seconds. The Network Indicator will flash **cyan 5 times** (at 3rd, 6th, 10th, 15th, and the 20th second).

Step2. After releasing the Binding Key, press any switch key (Button 1/ Button 2/ Button 3) within 2 seconds. The Network Indicator will flash **cyan once**.

5-7. Restore to Factory Setting

To restore Z825J to factory setting:

- Step1. Press and hold the *Binding Key* for 15 seconds. The Network Indicator will flash **cyan 4 times** (at 3rd, 6th, 10th and the 15th second).
- Step2. After releasing the *Binding Key*, press any switch key (*Button 1/ Button 2/ Button 3*) within 2 seconds. The Network Indicator will be flashing. After the Network Indicator stops flashing, the restore is completed.

6. Home Automation Clusters for Z825J

1. End Point(s) : 0x01 ; 0x02; 0x03 ; 0x04 ; 0x05; 0x06

2. Device ID : Mains Power Outlet (0009) , Mains Power Outlet (0009) , Mains Power Outlet (0009) , Scene Selector (0x0004) , Scene Selector (0x0004) , Scene Selector (0x0004)

3. EndPoint (0x01-0x03) Cluster ID

Cluster ID for Z825J	
Server side	Client side
EP (0x01-0x03) (Device ID: Mains Power Outlet (0009))	
Basic(0x0000)	<i>None</i>
Group(0x0004)	
Identify(0x0003)	
Scene(0x0005)	
On/Off(0x0006)	
Meter(0x0702) (Only EP1) Diagnostics(0x0B05) Commissioning(0x0015) Electrical Measurement (0x0B04) (Only EP1)	

EndPoint (0x04-0x06) Cluster ID

Cluster ID for Z825J	
Server side	Client side
EP (0x04-0x06) (Device ID: Scene Selector (0x0004))	
Basic(0x0000)	Groups(0x0004)
Identify(0x0003)	Scenes(0x0005)
Diagnostics(0x0B05)	
Commissioning(0x0015)	

Attributes of the Basic Information

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	<i>ZCLVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x03	M
0x0001	<i>ApplicationVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x0A	O

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0002	<i>StackVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x33	O
0x0003	<i>HWVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x0A	O
0x0004	<i>ManufacturerName</i>	Character string	0 – 32 Bytes	Read only	netvox	O
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32bytes	Read only	Z825JE3R	O
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	20140318	O
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 –0xff	Read only	0x01	M

7. Loading property

Rated Load (AC) ** Remark**	Max. Load with LEDs **Remark**	Max. Inductive Load ($\cos\phi=0.4$)	Max. Load with Electric Motors	Max. Surge Endurable	Surge Detecion	Overload Protection with Auto Power Cutoff
10A/250V	400W/8 LEDs for each gang	8A/250V	1.5HP/250V	150A	YES	Yes

This device is not waterproof, after network configuration, place it indoor.

Note :

1. When measured current is over 10A, the device will cut power within 2 seconds and check if attribute Bit1(Current OverLoad) level of ACAlarmsMask is 1. If it's 1 and then device will send Alarm. If it's 0 and then device will not send Alarm. When alarm is on, AlarmCluster = 0x0B04, AlarmCode = 0xF0 ; network indicator flash 10 times (10, 250, 250).

2. Power data saving chip AT2401 : saving data every 30 seconds.

Power data saving chip AT2402 : saving data every 10 seconds.

Power data saving chip:AT2404/08: saving data every second.

3. When device is loaded, it would generate peak power (150A) and device would cut off power in 3 seconds. It will also send alarm warning, AlarmCluster = 0x0B04 , AlarmCode = 0xEF ; network indicator lashes 20 times (20,250,250).

8. 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.