

User Manual

Switch/ Output Unit

Model: Z812A

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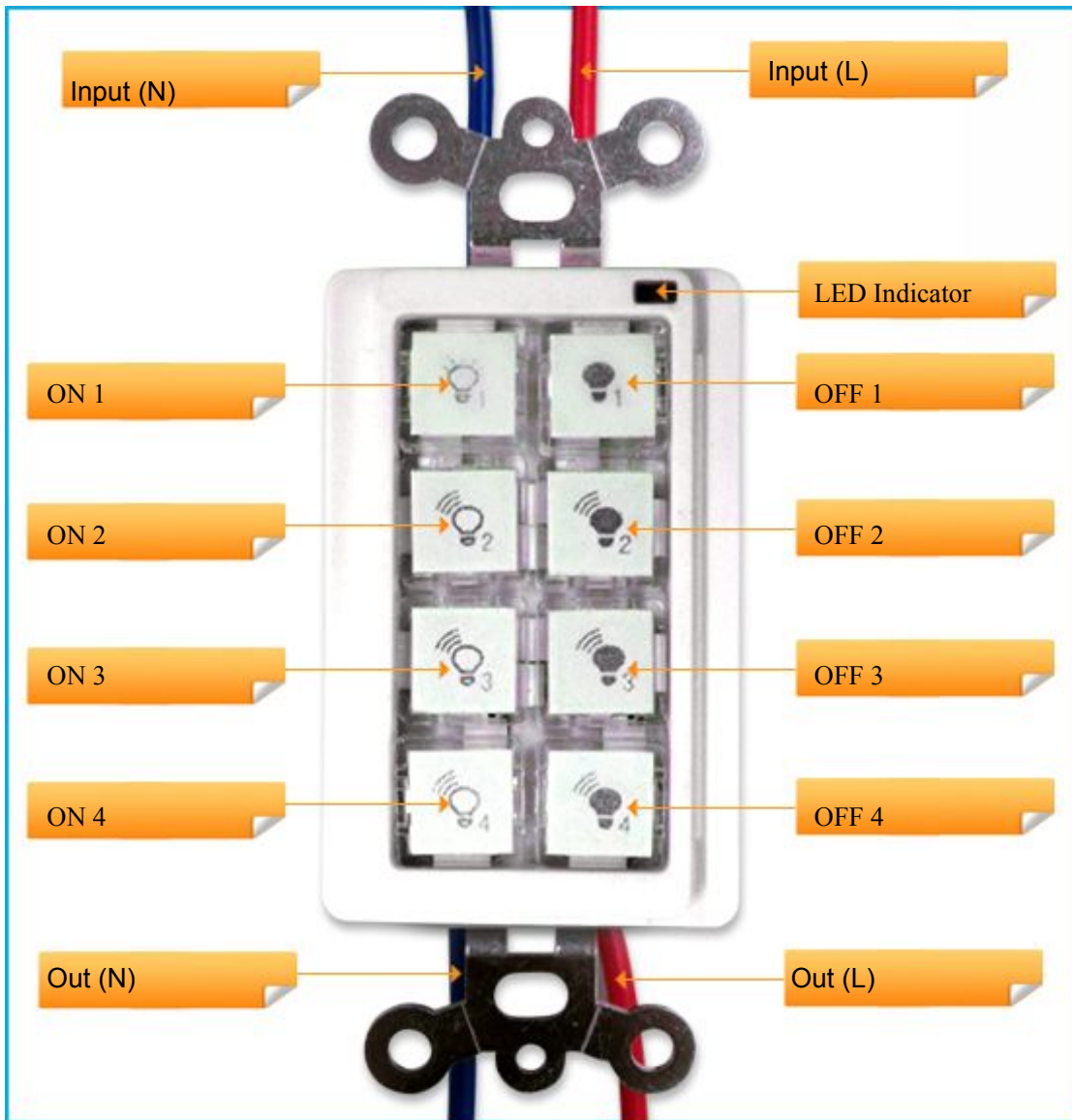
1. Introduction

Netvox Z812A, ZigBee Home Automation enabled in-wall switch module, acts as a Router Device in ZigBee network. There are four sets of the switches on Z812A. The first set (On1/Off1) of the switches could control the local relay or receives the task wirelessly to control the relay. The rest three sets can be programmed to send out On/Off command to manage the ZigBee enabled power plugs or power outlets wirelessly.

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: 0.8W (13mA@230V/50Hz)
- Relay lifetime: 100,000 times
- Up to 200 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.

5. Setting up Z812A

5-1. Join the ZigBee Network

After Z812A is turned on, it will search for an existing ZigBee network and send a request to join the network automatically. While Z812A is under the coverage from a coordinator or a router whose **permit-join feature is enabled**, Z812A 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 Z812A. It will start to search and join the network.

Step3. The indicator will flash **once** when it finds out a network to join.

Step4. The indicator will stay **ON** after it is joined successfully. Otherwise, the indicator will be **OFF**.

5-2. Binding

The first set (On1/Off1) of the switches can be bound with the device which can send out On/Off command such as Z501.

The rest 3 sets (On2/Off2, On3/Off3, or On4/Off4) can be bound with the On/Off device such as Z802 or Z807B.

Step1. Press and hold the On(N) and Off(N) for 3 seconds to broadcast the binding request. The indicator will flash **once**. For example, press and hold both On2 and Off2 for 3 seconds to bind the second set of the switches.

Step2. Enable the binding feature of the On/Off device.

Step3. The indicator flashes **5 times** after the binding is completed; otherwise, the indicator will stay **ON**.

5-3. Permit-Join

Z812A 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 both On4 and Off4 to enable the Permit-Join feature. The indicator will flash once per second.
- B. The default Permit-Join period of time is 60 seconds.

5-4. Control the Local Relay

The first set (On1/Off1) of Z812A could control the local relay or receives the task wirelessly to control the relay.

5-5. Control the Relay Wirelessly

The 2nd (On2/Off2), 3rd (On3/Off3), and 4th (On4/Off4) sets of Z812A can be programmed to send out On/Off command to manage the ZigBee enabled power plugs or power outlets wirelessly.

5-6. Turn On/ Turn Off the Keypad Light

To turn on/ turn off the keypad light, please press both On3 and On4.

5-7. Restore to Factory Setting

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

Step1. Press and hold both Off3 and Off4 for 5 seconds.

Step2. Release the button after the indicator is **OFF** to complete the restore.

6. Home Automation Clusters for Z812A

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 Z812A.

Device name: Z812A

End Point1: 0x01; End Point2: 0x02; End Point3: 0x03; End Point4: 0x04;

DEVICE ID1 : HA On/OFF OUTPUT (0x0002)

DEVICE ID2 : HA On/OFF SWITCH (0x0000)

DEVICE ID3 : HA On/OFF SWITCH (0x0000)

DEVICE ID4 : HA On/OFF SWITCH (0x0000)

EndPoint1 Cluster ID :

Server side	Client side
EP	
Basic	<i>None</i>
Group	
Scenes	
Identify	
On/Off	

EndPoint1 Attributes ID :

Attributes of the Basic Device Information attribute set

Identifier	Name	Type	Range	Access	Default	Cluster
0x0000	<i>ZCLVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x03	0X0000
0x0001	<i>ApplicationVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x15	0X0000
0x0002	<i>StackVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x2F	0X0000
0x0003	<i>HWVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x0D	0X0000
0x0004	<i>ManufacturerName</i>	Character string	0 – 32 Bytes	Read only	netvox	0X0000

Identifier	Name	Type	Range	Access	Default	Cluster
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32bytes	Read only	0x109F	0X0000
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	20140225	0X0000
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 –0xff	Read only	0x01	0X0000

EndPoint2~ EndPoint4 Cluster ID :

Server side	Client side
EP	
Basic	On/Off
Identify	

EndPoint2~ EndPoint4 Attributes ID :

Attributes of the Basic Device Information attribute set

Identifier	Name	Type	Range	Access	Default	Cluster
0x0000	<i>ZCLVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x03	0X0000
0x0001	<i>ApplicationVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x15	0X0000
0x0002	<i>StackVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x2F	0X0000
0x0003	<i>HWVersion</i>	8-bit Unsigned integer	0x00 –0xff	Read only	0x0D	0X0000
0x0004	<i>ManufacturerName</i>	Character string	0 – 32 Bytes	Read only	netvox	0X0000
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32bytes	Read only	0x109F	0X0000
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	20140225	0X0000
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 –0xff	Read only	0x01	0X0000

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.