

User Manual

Combined Interface

Model: Z103A

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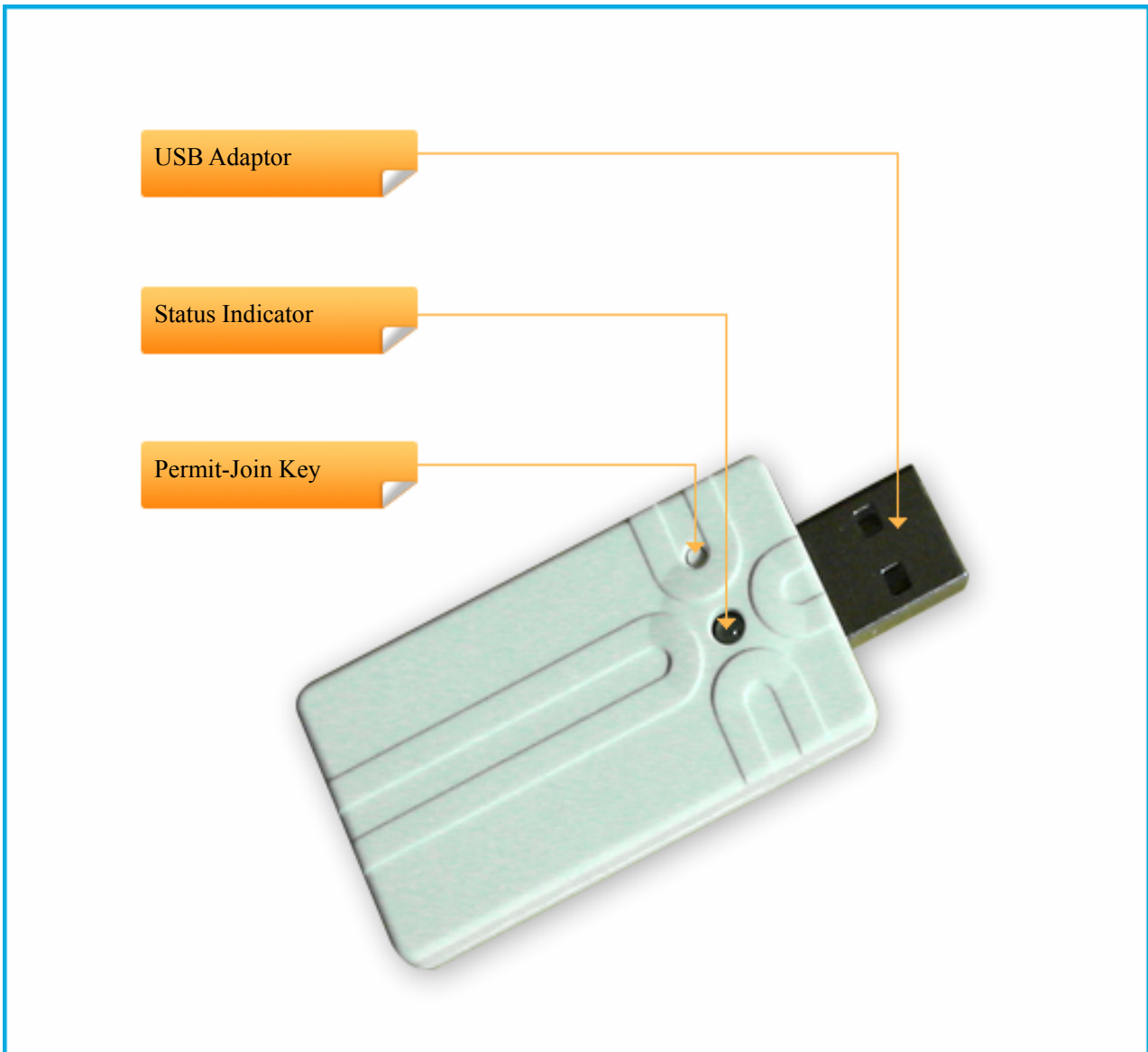
1. Introduction

Netvox Z103A, a ZigBee USB Dongle, acts as a coordinator or a router in ZigBee network. It is designed for computer to communicate with ZigBee network through ZiG-BUTLER - the Netvox application software. Users can search devices, send commands, control devices, or perform customized scheduling using ZiG-BUTLER.

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: USB port
- Up to 70 meters wireless transmission range in non-obstacle space
- Easy installation and configuration

4. Installation

- Plug Z103A into the USB port of a computer or a laptop.

5. Setting up Z103A

5-1. Join the ZigBee Network

Z103A can act as:

- A. Coordinator: After Z103A is powered on, it will create a ZigBee network. After the ZigBee network is built up, the indicator will stay ON.
- B. Router: Z103A will search and try to join a ZigBee network after it is powered on. The indicator flashes while it is searching. After Z103A joined a network, the indicator would stay ON.

5-2. Permit-Join

Z103A is designed to work as a coordinator or a router. To allow other devices to join the ZigBee network, users could enable the Permit-Join feature using the tips:

- A. Press the *Permit-Join Key* to enable the Permit-Join feature. The indicator will flash once per second.
- 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 *Permit-Join key* to turn off the Permit-Join feature. When the Permit-Join is off, the indicator would stay ON.

5-3. Restore to Factory Setting

To restore Z103A to factory setting, please follow the steps:

- Step1. Remove Z103A from the USB port to power it off.
- Step2. Press and hold the *Permit-Join Key*.
- Step3. Do not release the key and plug Z103A into the USB port to complete the restore.

6. Home Automation Clusters for Z103A

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 Z103A.

- 1.End Point(s) : 0x0A
- 2.Device ID : Combined Interface (0x0007)
- 3.Cluster ID

Server side	Client side
Mandatory	
Basic(0x0000)	
Identify(0x0003)	
Commissioning(0x0015)	
Diagnostics(0x0B05)	
Optional	

This lists the attributes of the basic information.

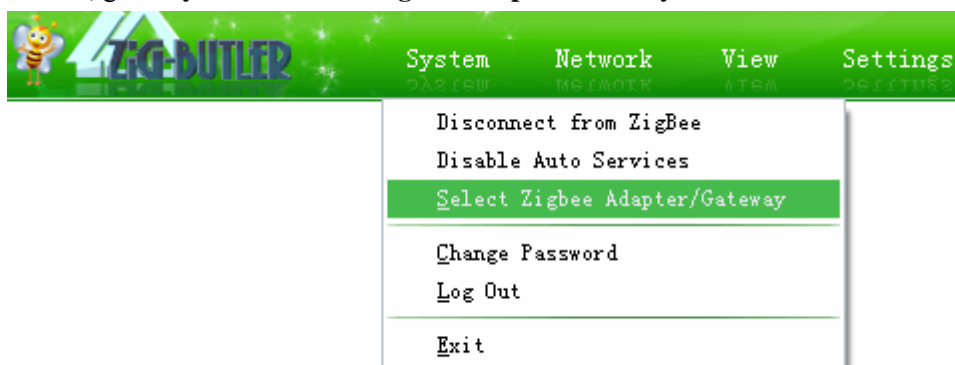
Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	<i>ZCLVersion</i>	Unsigned 8-bit integer	0x00 – 0xff	Read only	0x03	M
0x0001	<i>ApplicationVersion</i>	Unsigned 8-bit integer	0x00 – 0xff	Read only	0x28	O
0x0002	<i>StackVersion</i>	Unsigned 8-bit integer	0x00 – 0xff	Read only	0x33	O
0x0003	<i>HWVersion</i>	Unsigned 8-bit integer	0x00 – 0xff	Read only	0x0B	O
0x0004	<i>ManufacturerName</i>	Character	0 – 32	Read only	netvox	O

		string	bytes			
0x0005	<i>ModelIdentifier</i>	Character string	0 – 32 bytes	Read only	Z103AE3C/ Z103AE3R	O
0x0006	<i>DateCode</i>	Character string	0 – 16 bytes	Read only	20131202	O
0x0007	<i>PowerSource</i>	8-bit Enumeration	0x00 – 0xff	Read only	0x04	M
0x0010	<i>LocationDescription</i>	Character string	0 – 16 bytes	Read/write		O
0x0011	<i>PhysicalEnvironment</i>	8-bit Enumeration	0x00 – 0xff	Read/write	0x00	O
0x0012	<i>DeviceEnabled</i>	Boolean	0x00 – 0x01	Read/write	0x01	M

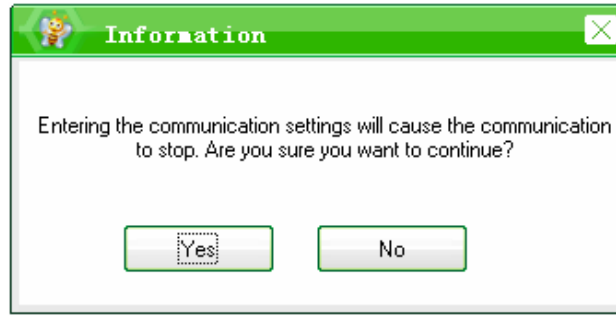
7. ZiG-BUTLER

ZiG-BUTLER is an exclusive program which allows users to easily control the devices, such as enable permit-join feature, wirelessly through computer or laptop. Of course, any other 3rd party ZigBee enabled software is also applicable. The system needs a Z103 USB dongle or a Z202 ZigBee gateway to communicate with the ZigBee network.

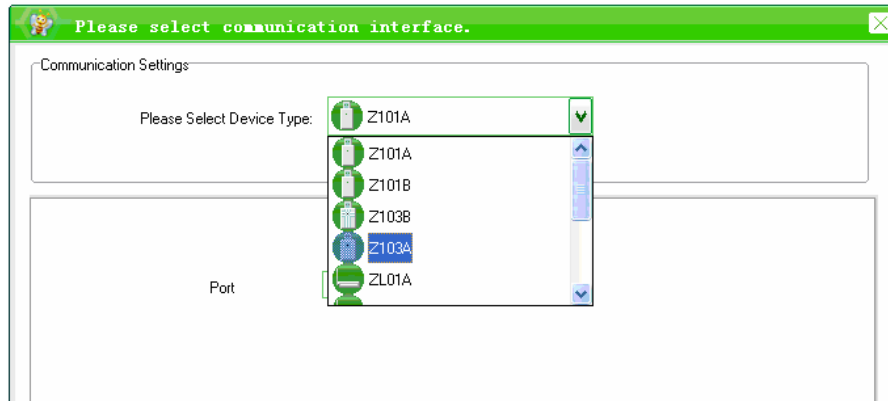
A. On the menu, go to **System** → **Select ZigBee Adapter/Gateway**.



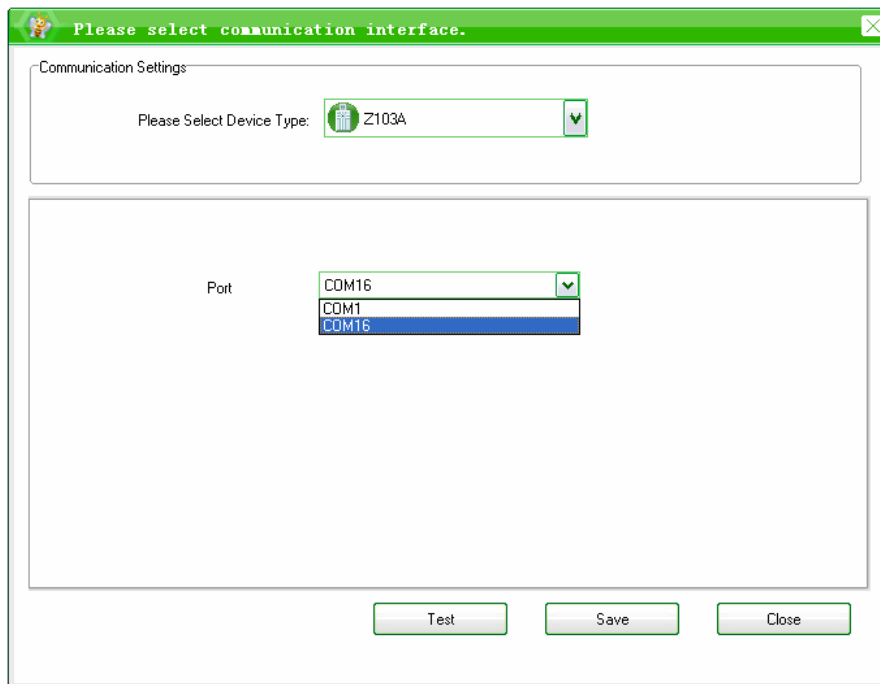
B. Click **Yes**.



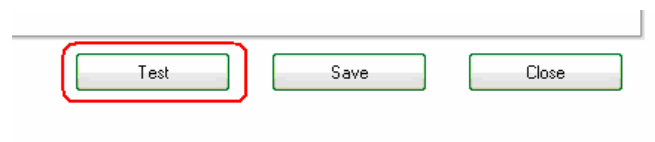
C. Choose Z103A.



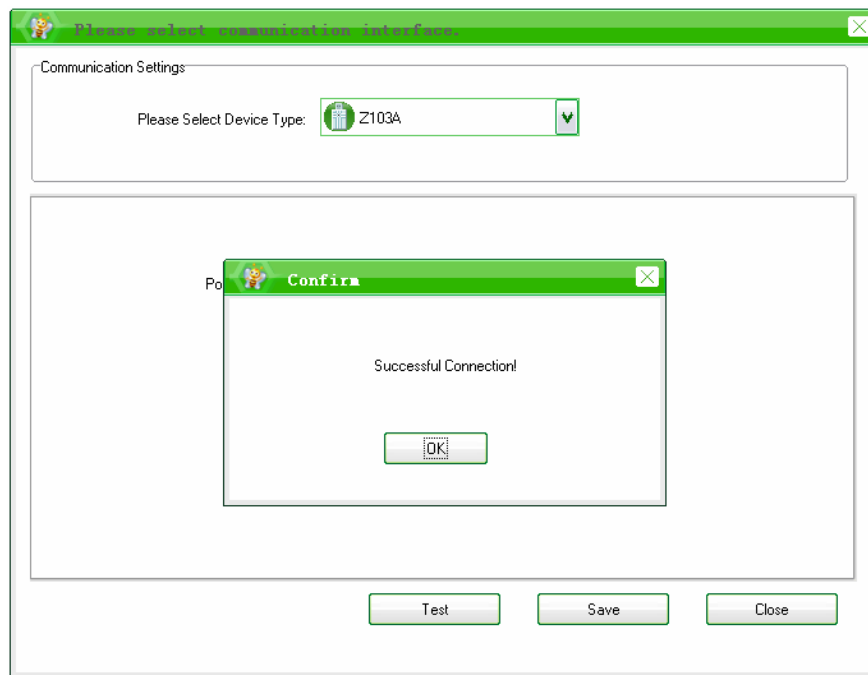
D. Select the port number.



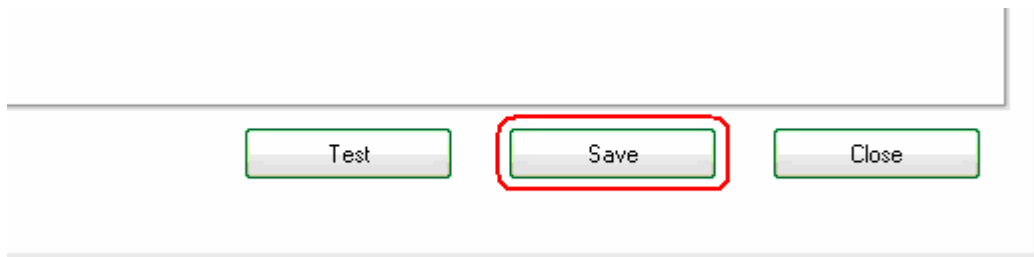
E. Click **Test**.



F. When the connection is detected, it shows Successful Connection; otherwise, it will show Connection Failed.



G. Click Save to finish the settings.



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.