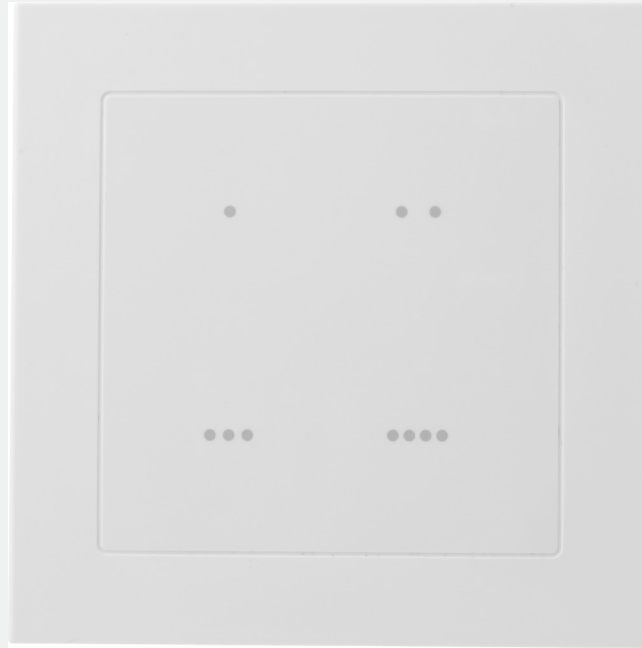# Installation Guide

Smart Scenario Switch
(WSS-4E-ZBS)

NookBox

Smart Home Security

Smart Scenario Switch (WSS-4E-ZBS)

WSS-4E-ZBS is a ZigBee Four Touch Button Scenario Switch designed to control a group of pre-programmed home automation devices by simply pressing the scenario touch buttons under the same ZigBee network.

The Scenario Switch utilizes ZigBee technology for wireless signal transmission. ZigBee is a wireless communication protocol that is reliable and has low power consumption and high transmission efficiency. Based on the IEEE802.15.4 standard, ZigBee allows a large amount of devices to be included in a network and coordinated for data exchange and signal transmission.

The Scenario Switch serves as an end device in the ZigBee network. It can be included in the ZigBee network to transmit signal upon activation, and can control any ZigBee device, but cannot permit any other ZigBee device to join the network through the Scenario Switch.

The WSS-4E ZigBee Four Touch Button Scenario Switch includes the following models:

WSS-4E-ZBS
WSS-4E-ZBS-OTA

Device Introduction

1. Scenario LED

There are four Scenario LEDs, the LED will light up according to the correspondent Scenario touch button pressed.

When the Scenario Switch receives acknowledge from the Control Panel after a button press, it will flash once and emit a beep as indication.

If the LED flashes twice upon touch button press, it means the ZigBee control panel was unable to receive signal sent from Scenario Switch, please check ZigBee connectivity.

2. Scenario Touch Button

The Scenario Switch has 4 scenario touch buttons:

- ● Touch Button 1
- ● ● Touch Button 2
- ● ● ● Touch Button 3
- ● ● ● ● Touch Button 4

## 3. Battery Compartment

4. Function Button

-Press and hold for 10 seconds to reset.

5. ZigBee LED (Red)

Red LED lights up in the following situations:

-    Flashes once:
     When sending control, resetting, or learning signal.
     When the Scenario Switch receives acknowledgement from the Control Panel after a button press.
-    Flashes twice:
     The Scenario Switch has successfully joined a ZigBee network.

6. Function Button Hole
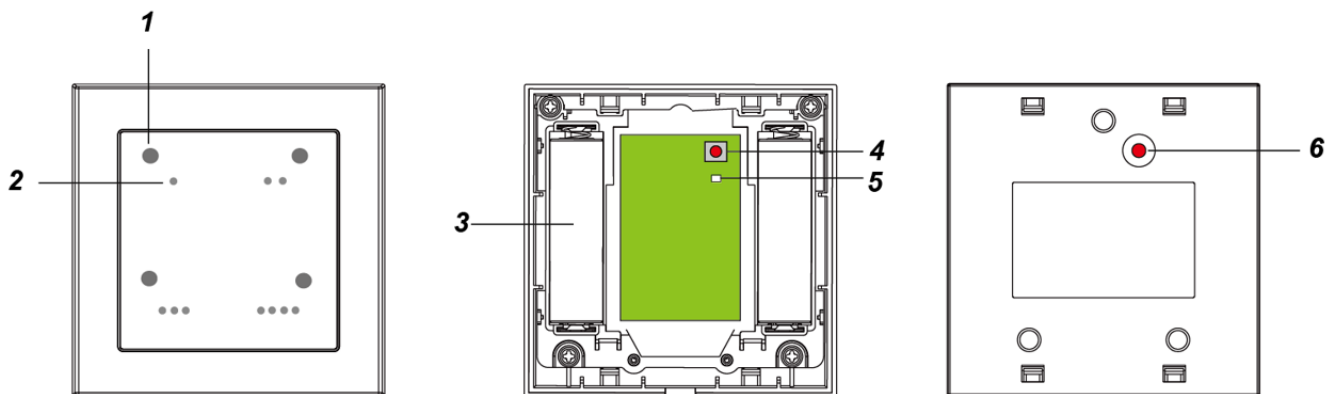
Features

Battery and Low Battery Detection

The Scenario Switch uses two 1.5V AA Alkaline batteries as its power source. The Scenario Switch feature Low Battery Detection function. When the battery voltage is low, the Scenario Switch will transmit Low Battery signal to the ZigBee network coordinator.

Scenario

When a Scenario Touch Button is pressed, the Scenario Switch will send a signal to the Control Panel to activate the correspondent scenario (see Control Panel for details).

ZigBee Network Setup

ZigBee Device Guideline

The IR Remote Control is a wireless communication protocol that is reliable and has low power consumption and high transmission efficiency. Based on the IEEE802.15.4 standard, ZigBee allows a large amount of devices to be included in a network and coordinated for data exchange and signal transmission.
Due to the fundamental structure of ZigBee network, ZigBee device will actively seek and join network after powering on. Since performing a task in connecting network may consume some power, it is required to follow the instructions to avoid draining battery of a ZigBee device.
    - Ensure the ZigBee network router/coordinator is powered on before inserting battery into ZigBee device.
    - Ensure the ZigBee network router/coordinator is powered on and in range while ZigBee device is in use.
    -Do not remove a ZigBee device from the ZigBee network router or coordinator without removing the battery from a ZigBee device.

Joining the ZigBee Network

As a ZigBee device, the IR Remote Control needs to join a ZigBee network to receive command from ZigBee network coordinator to transmit IR signal. Please follow the steps bellow to join the IR Remote Control into the ZigBee network.
1. Insert batteries to power on the IR Remote Control.
2. Press and hold the ZigBee button for 10 seconds, then release it to join the network. Please make sure the permit-join feature on the router or coordinator of your ZigBee network is enabled.
3. After joining the ZigBee network, the IR Remote Control will be registered in the security system in the network automatically. Please check the security system control panel or CIE (Control and Indicating Equipment) to confirm if joining and registration is successful.
4. If the IR Remote Control successfully joins the ZigBee network, the ZigBee LED will flash twice to indicate.
5. After joining the ZigBee network, if the IR Remote Control loses connection to current ZigBee network, the ZigBee LED indicator will flash every 20 minutes. Please check the ZigBee network condition and the IR Remote Control signal range to correct the situation.

Removing Device from ZigBee Network (Factory Reset)

To remove the device from current ZigBee network, the IR Remote Control must be put to Factory Reset to complete device removal. Factory Reset function will clear the IR Remote Control of its stored setting information and prompt the device to search for new ZigBee network. Before removing device, make sure the device is within current ZigBee network signal range
1. Delete the IR Remote Control from current control panel / CIE.
2. Press and hold the function button for 10 seconds, then release the button to reset device.
3. Upon reset, the IR Remote Control will clear current ZigBee network setting and transmit signal to ZigBee coordinator to remove itself from current ZigBee network. It will then actively search for available ZigBee network again and join the network automatically.

OTA Firmware Upgrade

The device supports OTA firmware upgrade feature via ZigBee network, which can be initiated from the ZigBee network coordinator. Follow steps below to perform OTA firmware upgrade.

1. You have to access your ZigBee Coordinator to perform the firmware upgrade on the air.
2. On the configuration webpage, select the device that you wish to upgrade and select the new ZigBee firmware provided. Please refer to ZigBee Coordinator User Manual for detail.
3. Press OK to start upgrading process, please do not perform any other actions, or power down the panel.
4. The length of an upgrade will take approximately 20 to 30 minutes. Please note that the duration may vary based on file size or distance between your accessory and coordinator.
5. Wait for firmware to complete update. When the progress reaches 100%, the Device will reset automatically. You can also refresh the webpage again to ensure if the Device firmware   is successfully updated with the newest version displayed.

Installation

The Scenario Switch is designed to be mounted on a flat surface with fixing screws.
The base has 3 knockouts, where the plastic is thinner, for mounting purpose.

1. Remove the cover by using a screwdriver.
2. Break through the appropriate knockouts on the base.
3. Using the holes as a template, drill holes in the surface.
4. Screw the base into the surface.
5. Replace the cover back onto the base and secure it by tightening the fixing screw.
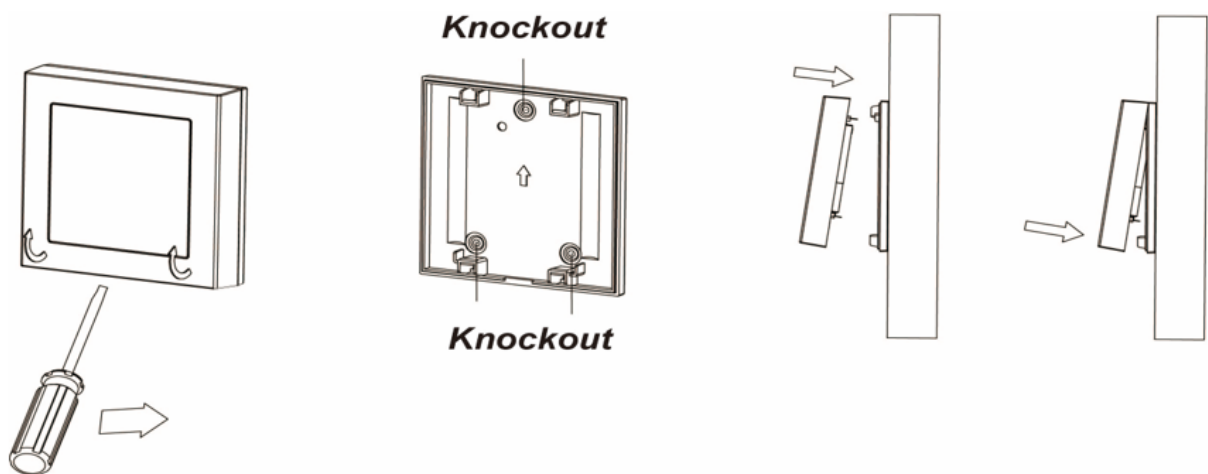
● Appendix (For developers only)

● *Scene Selector Cluster ID*

Device ID: Scene Selector 0x0004 Endpoint: 0x01	
Server Side	**Client Side**
Mandatory	
Basic (0x0000)	Identify (0x0003)
Identify(0x0003)	Groups (0x0004)
	Scenes (0x0005)
Optional	
Power Configuration(0x0001)	*None*

● *Attribute of Basic Cluster Information*

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	*ZCLVersion*	Unsigned 8-bit integer	0x00 –0xff	Read only	0x01	M
0x0001	ApplicationVersion	Unsigned 8-bit integer	0x00 – 0xff	Read only	0x00	O
0x0003	*HWVersion*	Unsigned 8-bit integer	0x00 –0xff	Read only	0	O
0x0004	*ManufacturerName*	Character String	0 – 32 bytes	Read only	Climax Technology	O
0x0005	*ModelIdentifier*	Character String	0 – 32 bytes	Read only	(Model Number)	O
0x0006	*DateCode*	Character String	0 – 16 bytes	Read only		O
0x0007	*PowerSource*	8-bit	0x00 –0xff	Read only		M
0x0010	*LocationDescription*	Character String	0 – 32 bytes	Read / Write		O
0x0011	*PhysicalEnvironment*	8-bit	0x00 –0xff	Read / Write	0x00	O
0x0012	*DeviceEnabled*	Boolean	0x00 –0x01	Read / Write	0x01	M

● *Attribute of Identify Cluster Information*

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	*IdentifyTime*	Unsigned 16-bit integer	0x00 –0xffff	Read / Write	0x0000	M

● *Attribute of Power Configuration Cluster Information*

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0035	BatteryAlarmMask	Bitmap (8-bits)	0000 - 000x	Read / Write	0000 0000	O

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