Wall Switch User Guide

Introduction

In the front casing, there are 2 touch buttons, the left touch button is used to carry out inclusion, exclusion and reset factory default settings on PCB Board.

These two touch buttons support controlling two channels relays to turn on/off

When power is first supplied, the Red LED will flash on and off alternately at one second intervals within 5 seconds if the device has not been added a Z-Wave network. Please get familiar with the terms below before starting the operations.

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

Manufacture ID: 0x0258
Product ID: 0x008B (US)
Product ID: 0x108B (EU)

Add the Wall Switch to Z-Wave Network

1. Make sure the wall switch is powered.
2. Set Z-Wave controller or Z-Wave gateway into inclusion mode (Refer to the controller or gateway operating manual)
3. Touch the left button three times within 1.5 second, the device will enter inclusion mode. And the Red LED will flash on and off alternately five times.

Note: If wall switch has not been added to Z-wave network, it will enter inclusion mode automatically when it is powered on. You should let the controller enter into inclusion first before power on the wall switch in order to run this function.

Remove the Wall Switch from Z-Wave Network

1. Make sure the wall switch is powered.
2. Set Z-Wave controller or Z-Wave gateway into exclusion mode (Refer to the controller or gateway operating manual)
3. Touch the left button three times within 1.5 second, the device will enter exclusion mode.

Restore the Wall Switch to Factory Default Settings

Reset procedure will delete all information on the Z-Wave network and Z-Wave controller or Z-Wave Gateway, and restore the wall switch to factory default settings.
1. Make sure the device is powered.
2. Touch and hold the left button for 10 seconds, Red Led will blink once.
3. Release the button.

Associations (Association Command Class Version 2)

This wall switch supports 3 groups; each group supports max 5 associated nodes.

GROUP 1 is lifeline service that assigned to wall switch status. It enables the wall switch to send reports to Z-Wave Controller or Z-Wave Gateway whenever some button is touched. This Group Support:

    SWITCH_BINARY_REPORT,

    DEVICE_RESET_LOCALLY_NOTIFICATION

Notice: The SWITCH_BINARY_REPORT is sent only by MULTI_CHANNEL_CMD_ENCAP command.

GROUP 2 allows for Send Binary Switch Report to associated devices in this group. This group is mapping to Endpoint 1. This Group Support:

    SWITCH_BINARY_REPORT

GROUP 3 allows for Send Binary Switch Report to associated devices in this group. This group is mapping to Endpoint 2. This Group Support:

    SWITCH_BINARY_REPORT

Advanced Configuration

1. Backlight Enable
This parameter defines the backlight state for touch button. The backlight led is on when wall switch power on if this parameter is set to '1', otherwise the backlight led is off. The default value is '1'.

Parameter Number	Size	Available Settings	Default
1	1	0, 1	1

2. Relay On/Off Indicate
This Parameter defines the relays state. The led will be turn on with pink color when the button is touched to turn on relay if this parameter is set to '1'; otherwise the led state is not changed. The default value is '1'.

Parameter Number	Size	Available Settings	Default

2	1	0, 1	1

3. Relay On/Off Status Saved Enable

This parameter defines the on/off status of relay is need to save or not. The status will be saved when relay status is changed if this parameter is set to '1'; otherwise the relay status is not saved. The wall switch will restore the relay On/Off status previous when power on again.

Parameter Number	Size	Available Settings	Default
3	1	0, 1	1

4. Root Device Mapped Setting

This parameter defines which endpoint is mapped to root device (Endpoint 0). The valid values are explained as follows. The default value is '1'.

0 – No endpoint is mapped to root device

1 – Endpoint 1 is mapped to root device

2 – Endpoint 2 is mapped to root device

3 – Both endpoint 1 and 2 are mapped to root device.

For example, assumes this parameter is set to '1' (default value). Controller or other devices (such as door/window sensor, motion sensor, etc) that associated the wall switch send a command BASIC_SET = 0xFF to wall switch, the relay in endpoint 1 will be turned on; other relay status will not be changed.

Parameter Number	Size	Available Settings	Default
4	1	0 ~ 3	1

Command Class Interact

This Wall Switch supports two channel relays. Controller must use command MULTI_CHANNEL_CMD_ENCAP to encapsulate the command class switch binary to control these two relays.

Binary Switch Command Class

Wall Switch can be turned on and off by received commands SWITCH_BINARY_SEND or BASIC_SET.

Relay On:

Command Class:　　COMMAND_CLASS_SWITCH_BINARY

Command:　　　　 SWITCH_BINARY_SEND

Value:　　　　　 0xFF

Relay Off:

Command Class:　　COMMAND_CLASS_SWITCH_BINARY

Command:　　　　 SWITCH_BINARY_SEND

Value:　　　　　 0x00

Basic Command Class

The Functions of BASIC_SET = 0x00 And BASIC_SET = 0xFF are same to Binary Switch Command Class.

LED Color Indicator

LED Color	Led Display Status	Description
Red	Blink 5 Times(1s Interval)	Power on and Not Add in Z-Wave Network
	Blink 5 Times(500ms Interval)	Touch Button tripled: 1, Enter Inclusion Mode 2, Enter Exclusion Mode 3, Send Node Info.
	Blink 5 Times(300ms Interval)	Power on and Already Add in a Z-Wave Network
	Blink 1 Time	Press the Button Long Time, Reset the Plug to restore default settings
	Always On	Backlight is disabled and Relay is on
Blue	Always On	Backlight is enabled and Relay is off
Pink	Always On	Backlight is enabled and Relay is on

Command Classes

The root device of wall switch supports Command Classes as Below:
* COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
* COMMAND_CLASS_VERSION (V2)
* COMMAND_CLASS_MANUFACTURER_SPECIFIC (V2)
* COMMAND_CLASS_DEVICE_RESET_LOCALLY (V1)
* COMMAND_CLASS_POWERLEVEL (V1)
* COMMAND_CLASS_ASSOCIATION (V2)
* COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
* COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION (V2)
* COMMAND_CLASS_MULTI_CHANNEL (V4)
* COMMAND_CLASS_SWITCH_BINARY (V1)
* COMMAND_CLASS_CONFIGURATION (V1)

Endpoint 1 supports Command Classes as Below:
* COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
* COMMAND_CLASS_ASSOCIATION (V2)
* COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
* COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION (V2)
* COMMAND_CLASS_SWITCH_BINARY (V1)
* COMMAND_CLASS_BASIC (V1)

Endpoint 2 supports Command Classes as Below:
* COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
* COMMAND_CLASS_ASSOCIATION (V2)
* COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
* COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION (V2)
* COMMAND_CLASS_SWITCH_BINARY (V1)
* COMMAND_CLASS_BASIC (V1)

SPECIFICATIONS

Battery type:	AC Power
Power Consumption:	1.2W
Max Current:	100mA
EU Standards Compliance:	
Radio Protocol:	Z-Wave
Radio Frequency:	EU – 868.4MHz
	US – 908.4MHz
Valid Range:	Up to 80m outdoors
	Up to 40m indoors (Depending on terrain and building structure)
Operational Temperature:	0 – 40 ℃