

Z-Wave In-Wall Smart Dimmer User Manual



FCC

Federal Communications Commission (FCC) Statement FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

WARNING

RISK OF FIRE

RISK OF ELECTRICAL SHOCK

RISK OF BURNS

CONTROLLING APPLIANCES:

EXERCISE EXTREME CAUTION WHEN USING Z-Wave® DEVICES TO CONTROL APPLIANCES. OPERATION OF THE Z-Wave® DEVICE MAY BE IN A DIFFERENT ROOM THAN THE CONTROLLED APPLIANCE, ALSO AN UNINTENTIONAL ACTIVATION MAY OCCUR IF THE WRONG BUTTON ON THE REMOTE IS PRESSED. Z-Wave® DEVICES MAY AUTOMATICALLY BE POWERED ON DUE TO TIMED EVENT PROGRAMMING. DEPENDING UPON THE APPLIANCE, THESE UNATTENDED OR UNINTENTIONAL OPERATIONS COULD POSSIBLY RESULT IN A HAZARDOUS CONDITION. FOR THESE REASONS, WE RECOMMEND DO NOT RETURN THIS PRODUCT TO THE STORE THE FOLLOWING: DO NOT USE Z-Wave® DEVICES TO CONTROL ELECTRIC HEATERS OR ANY OTHER APPLIANCES WHICH MAY PRESENT A HAZARDOUS CONDITION DUE TO UNATTENDED OR UNINTENTIONAL OR AUTOMATIC POWER ON CONTROL.

Specifications

ITEM	INFORMATION
Model	2BSVZ-NVN-110
Power Supply	AC 120V 60HZ
Signal(Frequency)	908.42MHz/920MHz
Range	Up to 100 feet line of sight between the Wireless Controller and the closest Z-Wave®receiver module.
Operating Temperature Range	5-104° F (-10-40° C)

- Specifications subject to change without notice due to continuing product improvement

Introduction

This product can be operated in any Z-Wave network with other Z-Wave Plus®certified devices from other manufacturers.

All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Each module is designed to act as a repeater,which will re-transmit a radio frequency (RF) signal by routing the signal around obstacles and radio dead spots to ensure that the signal is received at its intended destination.

2BSVZ-NVN-110 is a security enabled Z-Wave Plus®device. A security Enabled Z-Wave Plus®Controller must be used in order to fully utilize the product.

- GENERIC_TYPE: GENERIC_TYPE_SWITCH_MULTILEVEL(0x11)
- SPECIFIC_TYPE: SPECIFIC_TYPE_NOT_USED(0x00)

Key Features

- Remote ON/OFF control via the Z-Wave®controller

- Manual ON/OFF control with the front panel push button
- Support Association Group and Auto Report switch status
- Support firmware upgrades via Over-the-air (need Gateways support)
- Support Scenes
- Support Smart Start
- Support Long Range

Product Overview

A. Up Push button

B. Down Push button

C. Airgap Switch

D. LED indicator

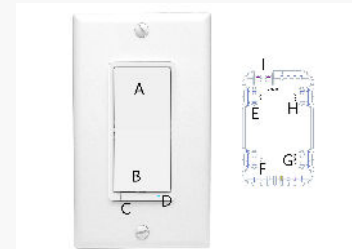
E. Load (Black)

F. Lin (Black) - Line in

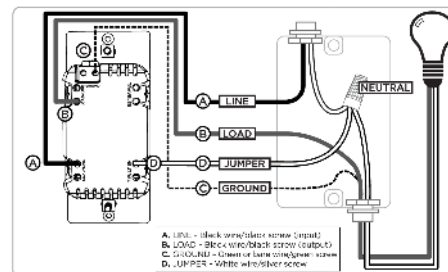
G. Nin (White) - Neutral in

H. 3-way (RED)

I. GROUD(GREEN)



Installation Wiring Diagram



Button Function Description

1. Add or Remove the device

- press **UPPER** or **LOWER** Button Once : Add/Include the device into network.
- press **UPPER** or **LOWER** Button Once: Remove/Exclude the device from network.

2. Factory Reset

- Pull the Airgap switch. Press and hold the bottom button, push the Airgap switch in and continue holding the bottom button for 10 seconds. The LED will flash once each of the 8 colors then stop.

3. Others

- press 1x UPPER button: turn output ON
- press 1x LOWER button: turn output OFF

Adding Your Device To Hub

- The device support two methods of inclusion, When using a Z-Wave Plus®certified controller choose Network Wide Inclusion or Smart Start.
- Network Wide Inclusion To A Z-Wave®Network
 - Refer to your primary controller instructions to process the inclusion / exclusion setup procedure.
 - When prompted by your primary controller, click the Z-Wave upper button three times .
- The device is compatible with SmartStart.

SmartStart enabled products can be added into a Z-Wave®network by scanning the Z-Wave QR Code found on the top of the outlet or the back of the box with a controller providing SmartStart inclusion. No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on and in the network vicinity.

Z-Wave Long Range device can only support be included via SmartStart.Extract the DSK from end device and paste itinto the Dsk Value in PC Controller, make sure the Long Range' option is ticked.

QR Code and DSK

- The QR code are stocked to the side of the case, DSK is included in the QR code.
 - The DSK code can be found on the DSK label which is attached on the packaging box.
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PACKAGE	DEVICE
	

Command Class

Command Class Name	Version	Required Security Class
Z-Wave Plus Info	V2	none
Security 2	V1	none
Supervision	V1	none
Transport Service	V2	none
Basic	V2	highest granted
Association	V2	highest granted
Association Group Information	V3	highest granted
Multi Channel Association	V3	highest granted
Version	V3	highest granted
Manufacturer Specific	V2	highest granted
Device Reset Locally	V1	highest granted
Power Level	V1	highest granted

Command Class Name	Version	Required Security Class
Indicator	V3	highest granted
Firmware Update Meta Data	V5	highest granted
Configuration	V4	highest granted
Central Scene	V3	highest granted
Switch Multilevel	V4	highest granted

Basic Set Mapping

- Basic CC is mapped to Switch Multilevel Command Class
 - Basic Set is mapped to Switch Multilevel Set.

Central Scene

Button	Scene Number	Attributes
Upper	1	1x,2x,3x,held down,release
Lower	2	1x,2x,3x,held down,release

Indicator Command Class

- The indicator (blue color) will flashes according the indicator set command received from HUB.

Indicator ID	Property ID
0x50 (NODE IDENTIFY)	0x03(ON OFF PERIOD)
0x50 (NODE IDENTIFY)	0x04(ON OFF CYCLES)
0x50 (NODE IDENTIFY)	0x05(ONE TIME ON OFF PERIOD)

Association Group

ID	Name	Node Count	Profile	Function
1	Lifeline	5	General: Lifeline	Device Reset Locally Notification: Issued when Factory Reset is performed. Indicator Report: Issued when included successfully. Switch Multilevel Report: Issued when output level is changed. Basic Report: Issued when output level is changed. Central Scene Notification: Issued when button press or hold or release. Central Scene Configuration report: Issued when HUB get the configuration of central scene.
2	Basic Set for Single Press	5	Control: Key 1	Basic Set: Send 'BASIC_SET' to control other device when tap upper or lower paddle once.
3	Basic Set for Double Press	5	Control: Key 2	Basic Set: Send 'BASIC_SET' to control other device when tap upper or lower paddle twice.

Configuration Parameters

Number	Name	Information	Format / Size	Read Only	Altering	Advanced	MIN	MAX	Default
3	LED light mode	Set the LED Light Mode.	1 byte unsinged integer	no	no	no	0	3	0
4	Invert Switch	Reverse the default ON/OFF Paddle switch.	1 byte unsinged integer	no	no	no	0	1	0
5	Select 3-Way Type	Configure standard 3-Way or Add-On Switch.	1 byte unsinged integer	no	no	no	0	1	0
16	Switch Mode	Set control mode: 0= Dim mode,1= Switch mode.	1 byte unsinged integer	no	no	no	0	1	0
19	Alternate Exclusion	Alternative way to perform Exclusion.	1 byte unsinged integer	no	no	no	0	1	0
30	Minimum Dim Threshold	Minimum Dim Threshold.	1 byte unsinged integer	no	no	no	1	99	1
31	Maximum Brightness Threshold	Maximum Brightness Threshold.	1 byte unsinged integer	no	no	no	1	99	99
32	Starting Brightness Level	Dimmer will turn ON to this level.	1 byte unsinged integer	no	no	no	0	99	0
34	LED light color	Set the LED Light Color.	1 byte unsinged integer	no	no	no	1	8	5
35	LED light intensity	Set the LED Light Intensity.	1 byte unsinged integer	no	no	no	1	7	4
36	Guide light mode intensity	Set the Guide light Mode Intensity.	1 byte unsinged integer	no	no	no	1	7	4
84	Reset Factory Default	Reset Switch to Factory Defaults.	1 byte unsinged integer	no	no	no	0	1	0