# Z-Wave Plus In-Wall Smart Paddle Switch,, 800S 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 ANUNINTENTIONAL 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 | ZWN4017 |
| Power Supply | AC 125V 60HZ |
| Signal(Frequency) | 908.42MHz/916MHz/912MHz/920MHz |
| Long Range | Support |
| Range | Up to 150 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.

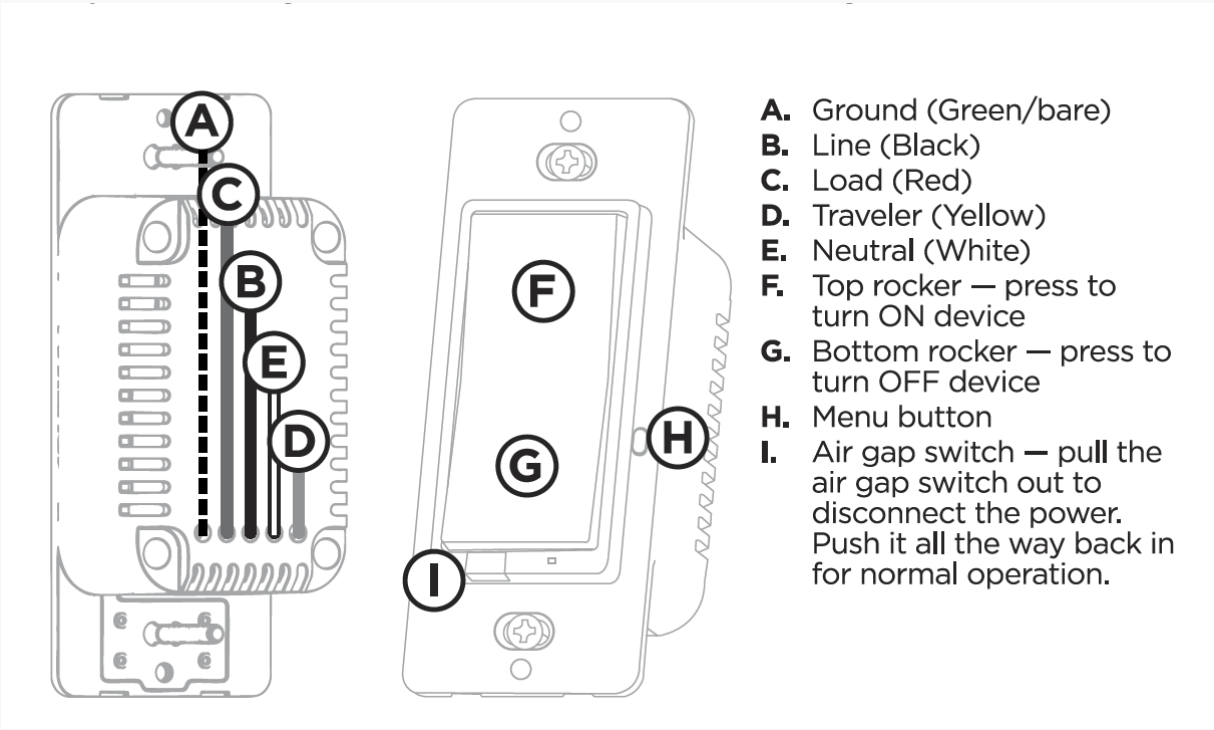
MP31Z is a security enabled Z-Wave Plus®device. A security Enabled Z-Wave Plus®Controller must be used in order to fully utilize the product.

- **Type**
  - GENERIC_TYPE: GENERIC_TYPE_SWITCH_BINARY(0x10)
  - SPECIFIC_TYPE: SPECIFIC_TYPE_NOT_USED(0x00)
  - INSTALL ICON TYPE:  ICON_TYPE_SPECIFIC_ON_OFF_POWER_SWITCH_WALL_LAMP(0x0704)

## Key Features

- Remote ON/OFF control via the Z-Wave®controller
- Manual ON/OFF control
- Support Association Group and Auto Report switch status
- Support firmware upgrades via Over-the-air (need Gateways support)
- Support Z-Wave® Long Range (need Gateways support)
- Support SmartStart

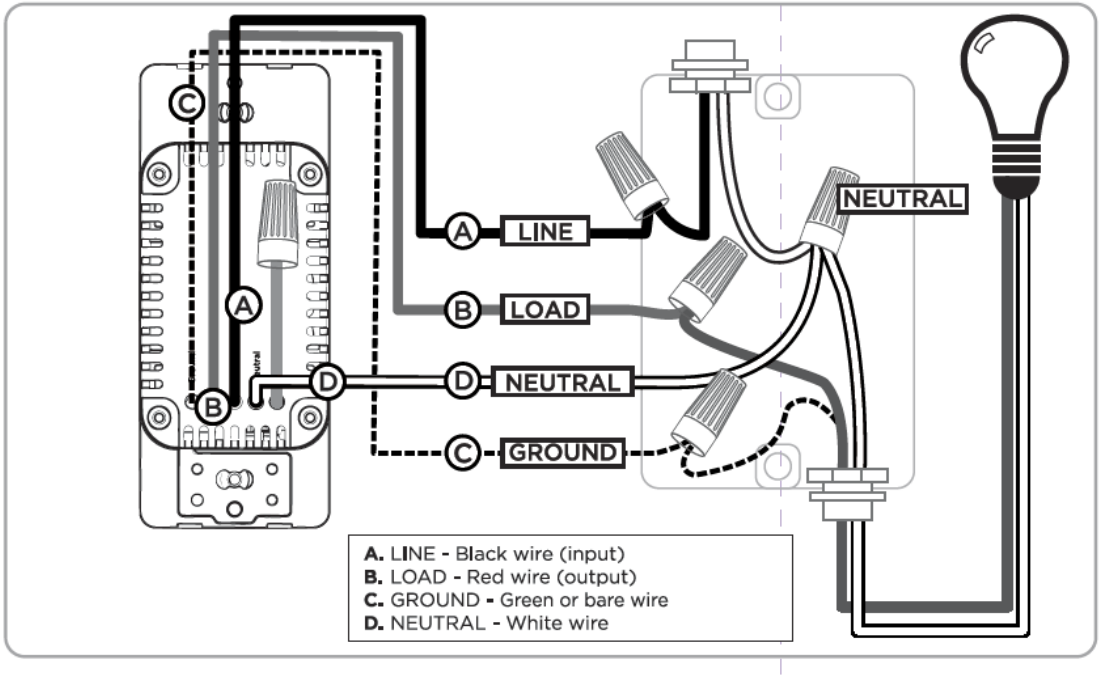
## Product Overview




## Installation Wiring Diagram

## SINGLE-SWITCH WIRING

**WIRING REQUIREMENTS**
Wire strip length — 5/8in. (16mm)




1. Connect green/bare wire to the GROUND lead
2. Connect the black wire from the light to the LOAD lead
3. Connect the black wire from the power source (hot) to the LINE lead
4. Connect the white wire to the NEUTRAL lead – use neutral if necessary

**NOTE:** *The traveler terminal is only used for multi-switch wiring and is not used in a two-way system (one switch and one load)*

5. Secure the device into the switch box with the provided mounting screws – ensure wires are not pinched or crushed
6. Install the wallplate

### CYCLE LED

The LED below the switch acts as a guide light or status indicator.

**How to cycle through options:**
1. Press menu button for five seconds
2. Press up three times and down one time quickly – indicator flashes blue
3. Push the top paddle:
   - **A.** Once for LED ON when the load is OFF – illuminates orange to confirm
   - **B.** Twice for LED ON when the load is ON – illuminates yellow to confirm
   - **C.** Three times for always OFF – illuminates pink to confirm
   - **D.** Four times for always ON – illuminates purple to confirm
4. Press menu button once to save – indicator flashes green twice

### CHANGE LED INDICATOR COLOR

The LED indicator color can be changed from the device.

1. Press menu button for five seconds
2. Press top paddle once and bottom paddle once – LED illuminates in selected color
3. Press top or bottom paddle to cycle through color options:
   - Red
   - Orange
   - Yellow
   - Green
   - Blue (default)
   - Pink
   - Purple
   - White
4. Press menu button once to save – indicator flashes green twice

# Button & Indicator Function Description

- **Button Definition**
  1. Press 1x top switch: Turn on Load **Z-Wave network inclusion(ADD) /exclusion(REMOVE)**
  2. Press 1x bottom switch: Turn off Load **Z-Wave network inclusion(ADD) /exclusion(REMOVE)**
  3. Factory Reset： Pull the Airgap switch. Press and hold the bottom button, push the Airgap switch back in and continue holding the bottom button for 10 seconds.
     The LED will flash once each of the 8 colors then stop.

     Note: Please use this procedure only when the network primary controller is missing or otherwise inoperable.

# 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 SmartStart.
  - TAP the button once times to **ADD/INCLUDE** the device.
- Network Wide Inclusion To A Z-Wave®Network
  - TAP the button once times to **REMOVE/EXCLUDE** the device
  - Refer to your primary controller instructions to process the inclusion / exclusion setup procedure.
  - When prompted by your primary controller, click the Z-Wave button one 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.
- Note: 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 theLong 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.

| | DEVICE |
|---|---|
| |  |

## Command Class

- Endpoint ROOT CC List

| Command Class Name | Version | Required Security Class |
|---|---|---|
| Z-Wave Plus Info | V2 | none |
| Security 2 | V1 | none |
| Supervision | V1 | none |
| Transport Service | V2 | none |
| 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 |

| Command Class Name | Version | Required Security Class |
|---|---|---|
| Power Level | V1 | highest granted |
| Indicator | V3 | highest granted |
| Firmware Update Meta Data | V5 | highest granted |
| Configuration | V4 | highest granted |
| Central Scene | V3 | highest granted |
| Switch Binary | V2 | highest granted |
| Basic | V2 | highest granted |

## Basic Set Mapping

- The Basic Set command is mapped to Binary Switch Set command.
- The Basic Report command is mapped to Binary Switch Report command.

## 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) |

## Central Scene

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

## Association Group

- **Endpoint ROOT**

| ID | Name | Node Count | Profile | Function |
|---|---|---|---|---|

| ID | Name | Node Count | Profile | Function |
|---|---|---|---|---|
| 1 | Lifeline | 5 | General: Lifeline | Device Reset Locally Notification<br>Indicator Report<br>Switch Binary Report<br>Central Scene Notification<br>Central Scene Configuration report |
| 2 | Basic Set for Single Press | 5 | Control: Key01 | Basic Set |
| 3 | Basic Set for Double Press | 5 | Control: Key02 | Basic Set |

# Configuration Parameters

| Number | Name | Information | Format / Size | Read Only | Altering | Advanced | MIN | MAX | Default | Value Description |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 | LED light mode | Set the LED Light Mode. | 1 byte unsigned integer | NO | NO | NO | 0 | 3 | 0 | 0 - LED ON when device is OFF, LED is OFF when device is ON<br>1 - LED ON when device is ON, LED is OFF when device is OFF<br>2 - LED always OFF<br>3 - LED always ON |
| 0 4 | Invert Switch | Reverse the default ON/OFF Paddle switch. | 1 byte unsigned integer | NO | NO | NO | 0 | 1 | 0 | 0 - Default Paddle Switch orientation<br>1 - Invert (up side down) the Paddle Switch orientation |
| 0 5 | Select 3-Way Type | Configure standard 3-Way or Add-On Switch. | 1 byte unsigned integer | NO | NO | NO | 0 | 1 | 0 | 0 - Add-On Switch<br>1 - Standard 3-Way Switch |
| 19 | Alternate Exclusion | Alternative way to perform Exclusion. | 1 byte unsigned integer | NO | NO | NO | 0 | 1 | 0 | 0 - Default Press Single Paddle switch (up or down paddle switch) once<br>1 - Press Menu button once |
| 34 | LED light color | Set the LED Light Color. | 1 byte unsigned integer | NO | NO | NO | 1 | 8 | 5 | 1 - RED<br>2 - ORANGE<br>3 - YELLOW<br>4 - GREEN<br>5 - BLUE<br>6 - PINK<br>7 - PURPLE<br>8 - WHITE |
| 35 | LED light intensity | Set the LED Light Intensity. | 1 byte unsigned integer | NO | NO | NO | 1 | 7 | 4 | 1 - Lowest to 7 - Highest |
| 36 | Guide light mode intensity | Set the Guide light Mode Intensity. | 1 byte unsigned integer | NO | NO | NO | 1 | 7 | 4 | 1 - Lowest to 7 - Highest |
| 39 | Relay Control | Disable manual control relay. | 1 byte unsigned integer | NO | NO | NO | 0 | 1 | 0 | 0 - Relay is controlled by the paddle switch<br>1 - Relay is not controlled, relay is always OFF, and power always ON |