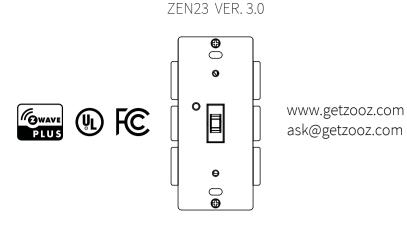
### USER MANUAL



**ON/OFF TOGGLE SWITCH** 



#### FEATURES

- Ÿ Manual or Z-Wave on/off control with instant status updates Ÿ Direct 3-Way: works with regular on/off switches in a 3-way (neutral
- wire required)
- Ÿ Remembers and restores on/off status after power failure Ÿ Classic toggle design
- Ÿ Built-in Z-Wave Plus signal repeater to extend network range Ÿ Works with LED, CFL, and incandescent bulbs
- Ÿ Can be used in rules and scenes with other Z-Wave devices for advanced home automation
- Ÿ Supported by most Z-Wave hubs

#### SPECIFICATIONS

- Ÿ Model Number: ZEN23 VER. 3.0
- Ÿ Z-Wave Signal Frequency: 908.42 MHz
- Ϋ Power: 120 VAC, 60 Hz
- Ÿ Maximum Load: 960W Incandescent, 1800W (15A) Resistive
- Ÿ Range: Up to 100 feet line of sight
- Ÿ Operating Temperature: 32-104° F (0-40° C)
- Ÿ Installation and Use: Indoor only

# CAUTION

- This is an electrical device please use caution when installing and operating the on/off switch. Remote control of appliances may result in unintentional or automated activation of power.
- Do not use this Z-Wave device to control electric heaters or other appliances which produce the risk of fire, burns, or electrical shock when unattended.
- To reduce risk of overheating and possible damage to other equipment, do not install this unit to control a receptacle; a motor-operated appliance; a fluorescent lighting fixture; or a transformer-supplied fixture.

#### **BEFORE YOU INSTALL** ( 🗲

This switch is intended for installation in accordance with the National Electric Code and local regulations. It is recommended that a licensed electrician perform this installation.

#### WIRING: READ IT!

1. CHECK THE LOAD: lights only (150W for LED's, 600W for incandescent), DON'T CONNECT THIS SWITCH TO FANS OR TUBE LIGHTS. 2. POWER OFF: turn the circuit power off in the breaker panel before you start. If installing in a multi-switch box with multiple circuits, turn power off at all of the circuits. 3. CHECK THE WIRES: mark load (most often black), line (most often black), neutral (most often white), and ground (most often bare). 14AWG wires only! Don't rely exclusively on your multimeter to identify the wires!

#### HOW TO INSTALL THE WIRES





- 2. PRESS DOWN: once it's loose, press the screw down with your finger so it catches the thread.
- 3. INSERT WIRE: make sure the wire is perfectly straight, then insert it into the terminal while holding the screw down. DO NOT wrap wires around the terminal screws!
- **4. TIGHTEN:** turn the screw clockwise to tighten the wire. DO NOT OVERTIGHTEN!

#### COMPLETE INSTALLATION

Secure your Z-Wave switch in the box with mounting screws, handling the wires with care. For multi-gang-box installations, you may need to break the side tabs off with pliers to fit the switch next to the neighboring switches. Install the wall plate using the included short screws and restore power to the circuit.

Toggle the switch up for ON and toggle it down for OFF.

- If the test fails, please check that:
- Ÿ power is fully restored to the circuit
- Ÿ wiring matches the instructions **exactly** (don't follow color code blindly
- but rather identify all connections using appropriate tools if needed)
- Ÿ the type of load is approved and within the specs of this switch

#### **A**WARNING

- Ÿ This product should be installed indoors upon completion of any building renovations.
- Ÿ Prior to installation, the device should be stored in a dry, dust-andmold-proof place.
- Ÿ Do not install the switch in a place with direct sun exposure, high temperature, or humidity.
- Ÿ Keep away from chemicals, water, and dust.
- Ÿ Ensure the device is never close to any heat source or open flame to prevent fire.
- Ÿ Ensure the device is connected to an electric power source that does not exceed the maximum load power.
- $\ddot{Y}$  No part of the device may be replaced or repaired by the user.

#### Z-WAVE CONTROL

#### **1. ADD DEVICE** to your hub



Initiate inclusion (pairing) in the app (or web interface). Not sure how? Get step-by-step instructions for adding the switch to SmartThings, Vera, Wink and other hubs here: www.support.getzooz.com

2. Finalize inclusion at the switch. **TOGGLE UP 3 TIMES** 

A new on/off switch will show up on your hub's device list.

# **VERY QUICKLY**

#### NEED SOME HELP? ask@getzooz.com

#### TROUBLESHOOTING

The switch won't add to your system? Try this:

#### ADVANCED SETTINGS

Please refer to your controller's user guide for advanced programming instructions as they are a little different for every software.

Not sure where to start? Go to www.support.getzooz.com for detailed instructions on how to change the settings on SmartThings, Vera, and more. Or just email us: ask@getzooz.com

#### ASSOCIATION

This on/off switch supports Group 1 with up to 1 devices for lifeline communication and Group 2 with up to 5 devices. This device will send BASIC REPORT to Group 1 and BASIC SET to group 2 when operated manually.

#### CUSTOMIZE YOUR SWITCH

#### **Toggle Control**

Parameter 1: Choose if you want the to turn the light on by clicking the toggle up or down

<u>Values:</u> 0 – Toggle up turns the light on, toggle down turns the light off (default); 1 – Toggle up turns the light off, toggle down turns the light on; 2 – Toggling either direction will turn the light on or off depending on the status. Size: 1 byte dec.

#### Auto Turn-Off Timer

Parameter 3: Use this parameter to enable or disable the auto turn-off timer Values: 0 - timer disabled (default); 1 - timer enabled. Size: 1 byte dec.

Parameter 4: Use this parameter to set the time after which you want the switch to automatically turn off once it has been turned on. The number entered as value corresponds to the number of minutes. Values: 1 - 65535 (minutes). 60 - default.

Size: 4 byte dec.

#### Auto Turn-On Timer

Parameter 5: Use this parameter to enable or disable the auto turn-on timer Values: 0 - timer disabled (default); 1 - timer enabled. Size: 1 byte dec.

Parameter 6: Use this parameter to set the time after which you want the switch to automatically turn on once it has been turned off. The number entered as value corresponds to the number of minutes. Values: 1 - 65535 (minutes). Default set to 60. Size: 4 byte dec.

#### **On Off Status After Power Failure**

Parameter 8: Set the on off status for the switch after power failure. Values: 0 – forced to OFF (regardless of state prior to power outage); 1 – forced to ON (regardless of state prior to power outage); 2 - remembers and restores on/off status after power failure (default) Size: 1 byte dec.

#### SCENE CONTROL

You can trigger 2 scenes or control 2 independent Z-Wave devices in your network using this switch. Just enable the setting in Parameter 9.

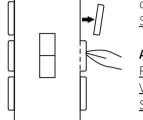
2 x TOGGLE UP: Trigger Scene 1

2 x TOGGLE DOWN: Trigger Scene 2

#### Enable/Disable Scene Control

Parameter 9: Enable or disable scene control functionality for quick 2-tap. Values: 0 - scene control disabled (default). 1 - scene control enabled. Size: 1 byte dec.

This device requires the following **command classes** to be supported and recognized by your Z-Wave controller: COMMAND\_CLASS\_ZWAVEPLUS\_INFO, COMMAND\_CLASS\_SWITCH\_BINARY, COMMAND CLASS ASSOCIATION, COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION, COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO, COMMAND\_CLASS\_TRANSPORT\_SERVICE,



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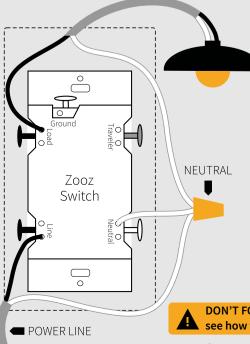
>>

### **TEST THE SWITCH**

Not sure what you're seeing? We'll help: support.getzooz.com

4. REMOVE THE OLD SWITCH: disconnect the wires and label them. 5. CONNECT THE Z-WAVE SWITCH: follow all installation steps carefully. Wire the switch EXACTLY like shown in the diagram.

#### ZEN23 WIRING DIAGRAM FOR SINGLE POLE INSTALLATION



SEE BACK PAGE FOR 3-WAY & 4-WAY DIAGRAMS AND INSTRUCTIONS

**1** Insert the ground (bare) wire into the Ground terminal (not shown in the diagram)

2 Insert the line wire to Line terminal and load wire to Load terminal. Load and line CAN'T be swapped so make sure you identified them correctly!

3 Run the white jumper (included in the box) from the bundle of white wires to the Neutral terminal

DON'T FORCE THE SCREWS. Look up to see how to install the wires correctly.

1. Initiate **EXCLUSION** and toggle the switch down 3 times quickly.

- 2. Toggle the switch **up 6-7 times** very quickly when adding it.
- 3. Bring the gateway controller (hub) **closer** to the switch, it may be out of range.
- 4. Get troubleshooting tips for your hub at www.support.getzooz.com

#### EXCLUSION (REMOVING / UNPAIRING DEVICE)

- 1. Bring your Z-Wave gateway (hub) close to the switch if possible
- 2. Put the Z-Wave hub into **exclusion mode** (not sure how to do that? ask@getzooz.com)
- 3. Toggle the switch **down 3 times** quickly.
- 4. Your hub will confirm exclusion and the device will disappear from your controller's device list

#### FACTORY RESET

If your primary controller is missing or inoperable, you may need to reset the device to factory settings. To complete the reset process manually, toggle-toggle-toggle'n'hold down for at least 10 seconds.

NOTE: All previously recorded activity and custom settings will be erased from the device's memory



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. This is a UL certified device. UL, just like ETL, is a Nationally Recognized Testing Laboratory. The UL mark is proof of product compliance with North American safety standards.

COMMAND\_CLASS\_VERSION, COMMAND CLASS MANUFACTURER SPECIFIC, COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY, COMMAND\_CLASS\_POWERLEVEL, COMMAND CLASS CONFIGURATION, COMMAND\_CLASS\_CENTRAL\_SCENE, COMMAND\_CLASS\_SUPERVISION, COMMAND\_CLASS\_SECURITY\_2, COMMAND\_CLASS\_FIRMWARE\_UPDATE\_MD

#### WARRANTY

This product is covered under a 12-month limited warranty. To read the full warranty policy or file a warranty claim, please go to www.getzooz.com/warranty

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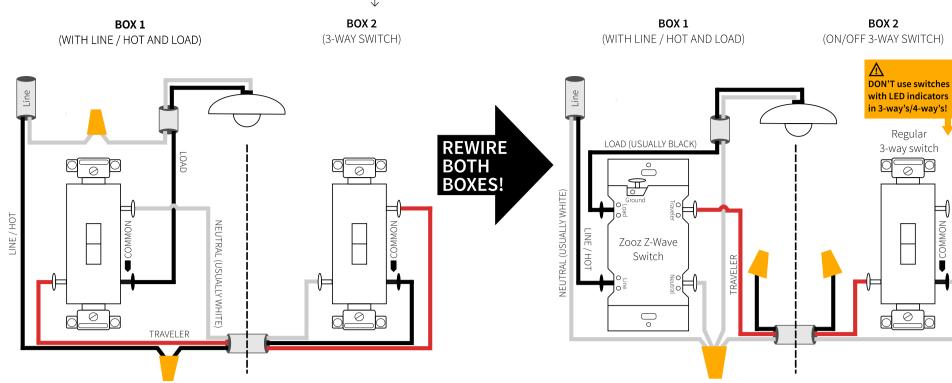
### **ZEN23 WIRING DIAGRAMS FOR THE MOST COMMON 3-WAY INSTALLATIONS**

For more diagrams or to request custom instructions go to support.getzooz.com

### **3-WAY DIAGRAM FOR 2-POINT CONTROL OF ZOOZ SWITCHES: OPTION 1**

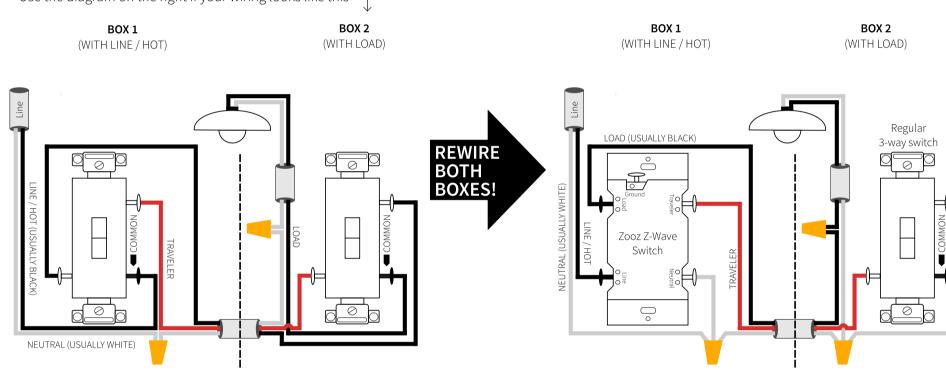
ZEN21, ZEN22, ZEN23, ZEN24 VER. 2.0 / 3.0

Use the diagram on the right if your wiring looks like this —



### 3-WAY DIAGRAM FOR 2-POINT CONTROL OF ZOOZ SWITCHES: OPTION 2

ZEN21, ZEN22, ZEN23, ZEN24 VER. 2.0 / 3.0 Use the diagram on the right if your wiring looks like this



### **STOP!**

Wire and screw position, as well as color codes are for illustration only. You should not follow the colors and positioning in the illustration blindly. Always identify all wires prior to installing Zooz switches and make sure you can match the diagrams to your set-up exactly. Don't experiment or attempt a "trial-and-error" installation for your own safety.

## NOTE!

If you are not comfortable identifying the wiring and completing the installation, please consult a licensed electrician.

Make sure you have identified all wiring correctly before connecting the switch. If your wiring doesn't match any of the below diagrams, contact our support: ask@getzooz.com

# **ON/OFF SWITCHES ONLY**

Do not connect Zooz Z-Wave switches to an existing 3-way dimmer, illuminated switch, or an electronic add-on switch. Zooz switches can only be wired with mechanical on/off switches in a 3way or 4-way setting!

To simplify the diagrams, we did not include connections for the ground wire. Remember that all Zooz switches need to be wired according to the electrical code, with ground wire connected to the ground terminal.

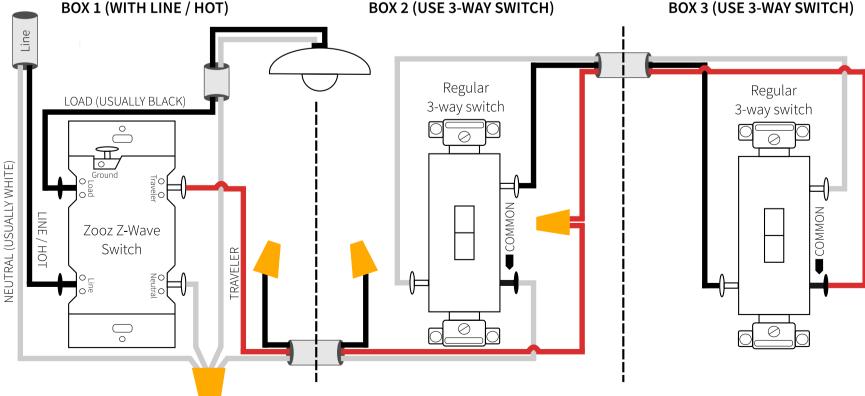
#### **POWER OFF!**

Cut power to the circuit before handling the wiring.

Always install your Zooz switch in the box with direct connection to power line. **Diagrams and instructions in this manual** are for ZEN21, ZEN22, ZEN23, and ZEN24 VER. 2.0 / 3.0 models ONLY!

### ZEN23 4-WAY INSTALLATION WIRING DIAGRAM (LINE AND LOAD MUST BE IN THE SAME BOX)

**NOTE:** Use regular 3-way on/off switches ONLY in this set-up (replace any 4-way switches or 3-way dimmers if needed). To simplify the diagrams, we did not include connections for the ground wire. Remember that all Zooz switches need to be wired according to the electrical code, with ground wire connected to the ground terminal.



# **NEED HELP?**

If you're having trouble reading the diagrams or don't see your wiring set-up here, get in touch! We have more 3-way, 4-way, and 5-way diagrams and instructions. There are many ways to wire multi-point control set-ups so unless you can match your wiring to the diagrams here, please don't attempt the installation for your own safety.

> www.support.getzooz.com ask@getzooz.com

#### EACH BOX NEEDS TO BE REWIRED ACCORDING TO THE ABOVE DIAGRAM.

Follow this diagram ONLY if you confirmed you have direct connection to power and light in the same box. If they're in separate boxes, use the ZEN26 model instead.

If you have power or load coming into the box with the 4-way switch, contact us for custom instructions: ask@getzooz.com