



## zoOZ ZEN23 On/Off Toggle Switch User Manual

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**zoOZ**<sup>TM</sup>  
bright ideas

## zoOZ ZEN23 On/Off Toggle Switch



## FEATURES

- Manual or Z-Wave on/off control with instant status updates
- Direct 3-Way: works with regular on/off switches in a 3-way (neutral wire required)
- Scene control: trigger actions with multi-tap (if supported by hub)
- Smart bulb mode: disable relay and control the light via Z-Wave only
- Remembers and restores on/off status after power failure
- Supported by most Z-Wave hubs
- Classic toggle design
- Built-in Z-Wave Plus signal repeater to extend network range
- Works with LED, CFL, and incandescent bulbs

## SPECIFICATIONS

- Model Number: ZEN23 VER. 4.0
- Z-Wave Signal Frequency: 908.42 MHz
- Power: 120 VAC, 60 Hz
- Maximum Load: ISOW LED and CFL bulbs, 960W Incandescent, 1800W (ISA) Resistive, 3A motor (fans)
- Range: Up to 100 feet line of sight
- Operating Temperature: 32-104° F (0-40° C)
- 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.

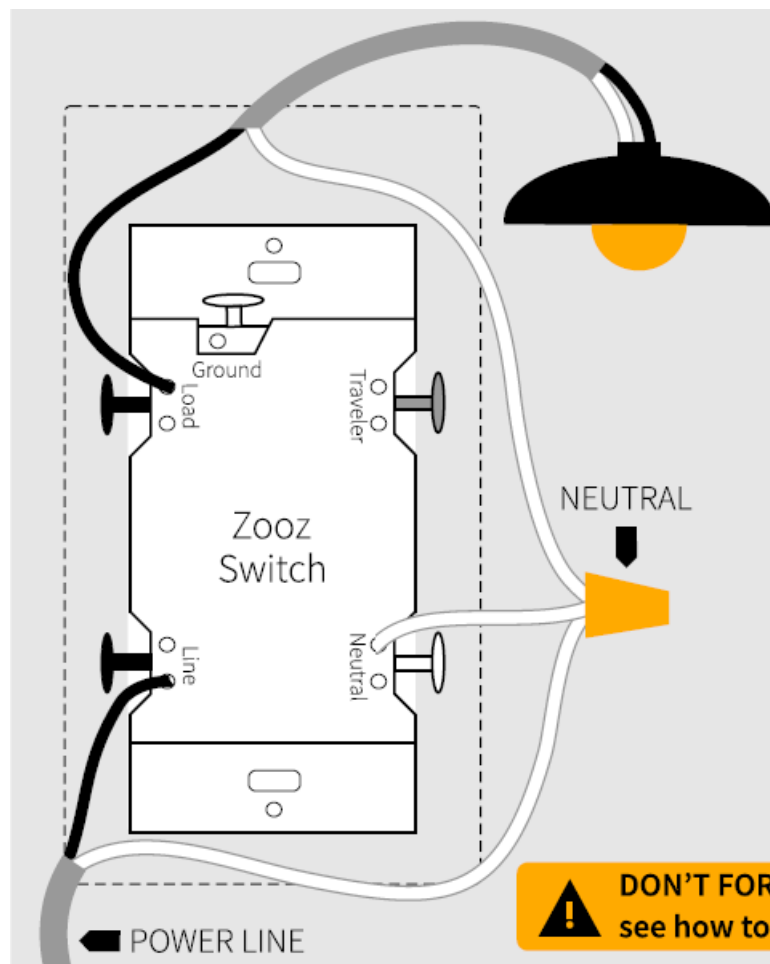
## BEFORE YOU INSTALL

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!

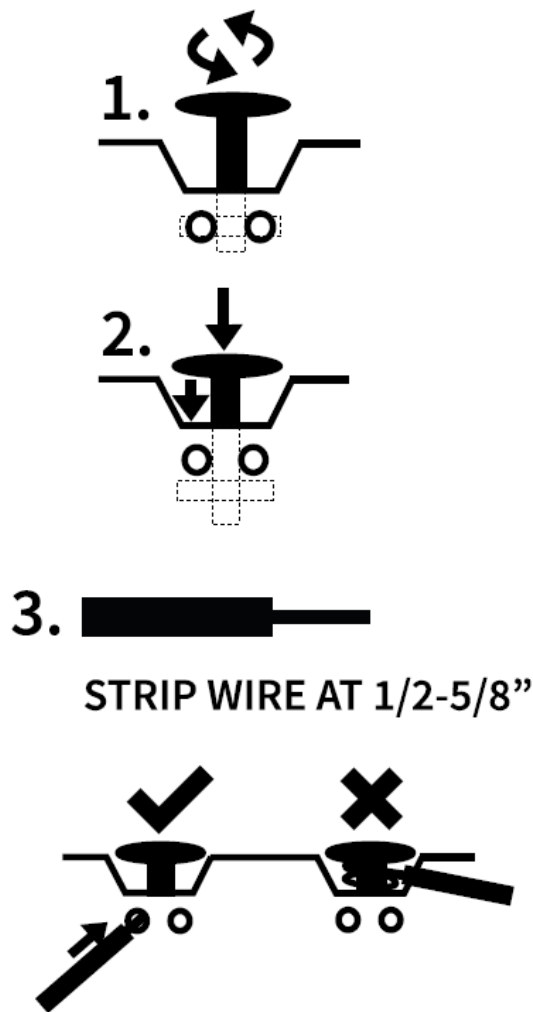
1. **CHECK THE LOAD:** lights only (ISOW for LED's, 600W for incandescent), DON'T CONNECT THIS SWITCH TO OUTLETS OR TUBE LIGHTS.
2. **POWER OFF:** turn the circuit power off in the breaker panel before you start. If installing in a multi-switch box with multiple circuits, turn power off at all of the 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!
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



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

## HOW TO INSTALL THE WIRES



1. **UNSCREW:** carefully turn the screw counterclockwise to make space for the wire. DO NOT unscrew completely.
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. Install the wall plate and restore power to the circuit.

**ALWAYS USE THE SHORT WALL PLATE SCREWS SUPPLIED BY ZOOZ INSTEAD OF THE ORIGINAL LONG WALL PLATE SCREWS!**

### TEST THE SWITCH

Toggle the switch up for ON and toggle it down for OFF. If the test fails, please check that:

- power is fully restored to the circuit
- wiring matches the instructions exactly (don't follow color code blindly but rather identify all connections using appropriate tools if needed)
- the load isn't too large and overheating the switch causing it to shut off

## WARNING

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

## Z-WAVE CONTROL

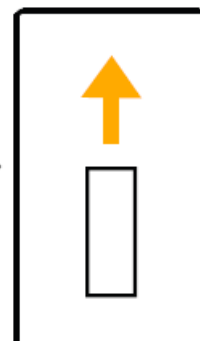


### 1. ADD DEVICE to your hub

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](http://www.support.getzooz.com)

### 2. Finalize inclusion at the switch.

**TOGGLE UP 3 TIMES  
VERY QUICKLY** ➡➡➡



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

NEED SOME HELP? [ask@getzooz.com](mailto:ask@getzooz.com)

## TROUBLESHOOTING

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

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](http://www.support.getzooz.com)

### **The switch won't control the lights manually anymore? Try this:**

1. Turn the power off at the breaker and check if a wire didn't get loose.
2. Exclude the switch from the hub or reset it in case manual control was accidentally disabled.
3. The load may be incompatible so try it with a single regular bulb.

### **EXCLUSION (REMOVING / UN PAIRING 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](mailto: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 product features the latest Security 2 (S2) framework to remove smart home network hacking risks. This device is equipped with a unique authentication code for trusted wireless communication.

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

### **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](http://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](mailto:ask@getzooz.com)

### **ASSOCIATION**

This on/off switch supports Group 1 with up to 1 devices for lifeline communication and Group 2 and 3 with up to 5 devices. This device will send BASIC REPORT to Group 1 and BASIC SET to group 2 and 3 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

Values: 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

#### **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

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

### **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

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

### **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

## **SCENE CONTROL**

You can trigger up to 10 scenes or control up to 10 independent Z-Wave devices in your network using this switch. Just enable the setting in Parameter 9 and make sure your hub supports scene control.

You can assign scenes to 1-tap, 2-tap, 3-tap, 4-tap, and 5-tap as well as to press-and-hold for toggle up and toggle down.

### **Enable/Disable Scene Control**

Parameter 9: Enable or disable scene control functionality for quick double tap triggers.

Values: 0 – scene control disabled (default). 1-scene control enabled.

Size: 1 byte

Find out how to make scene control work on your hub and access more advanced settings at

[www.support.getzooz.com](http://www.support.getzooz.com)

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

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

## 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](http://www.getzooz.com/warranty)

IN NO EVENT SHALL ZOOZ OR ITS SUBSIDIARIES AND AFFILIATES BE LIABLE FOR ANY INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, OR USE INCURRED BY CUSTOMER OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT, OR OTHERWISE EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ZOOZ'S LIABILITY AND CUSTOMER'S EXCLUSIVE REMEDY FOR ANY CAUSE OF ACTION ARISING IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF THE PRODUCTS, WHETHER BASED ON NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY, BREACH OF AGREEMENT, OR EQUITABLE PRINCIPLES, IS EXPRESSLY LIMITED TO, AT ZOOZ'S OPTION, REPLACEMENT OF, OR REPAYMENT OF THE PURCHASE PRICE FOR THAT PORTION OF PRODUCTS WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. ALL CLAIMS OF ANY KIND ARISING IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF PRODUCTS SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING WITHIN THIRTY (30) DAYS FROM ZOOZ'S DELIVERY, OR THE DATE FIXED FOR DELIVERY IN THE EVENT OF NONDELIVERY.

## FCC NOTE

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT. STORE IN DOORS WHEN NOT IN USE. SUITABLE FOR DRY LOCATIONS ONLY. DO NOT IMMERSE IN WATER. NOT FOR USE WHERE DIRECTLY EXPOSED TO WATER. This device complies with Part 15 of the FCC Rules.

### Operation is subject to the following conditions:

1. This device may not cause harmful interference,
2. This device must accept any interference received, including interference that may cause undesired operation.

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 according to instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in any given installation.

If this equipment causes harmful interference to radio or television reception, the user may try to correct the interference by taking one or more of the following measures:

- Reorient or relocate receiving antenna
- increase separation between equipment and receiver
- Connect the equipment into a separate outlet or circuit from the receiver
- Consult the dealer or an experienced radio/TV technician for additional assistance

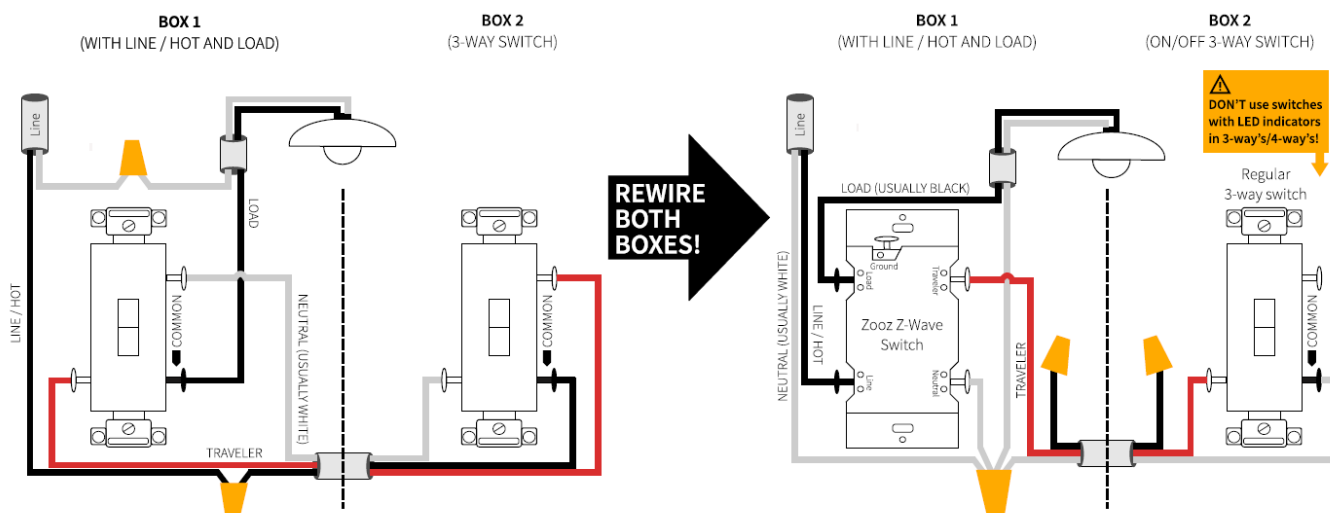
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## 3-WAY DIAGRAM FOR 2-POINT CONTROL OF ZOOZ SWITCHES

### OPTION 1

ZEN21, ZEN22, ZEN23, ZEN24 VER. 2.0 / 3.0 / 4.0

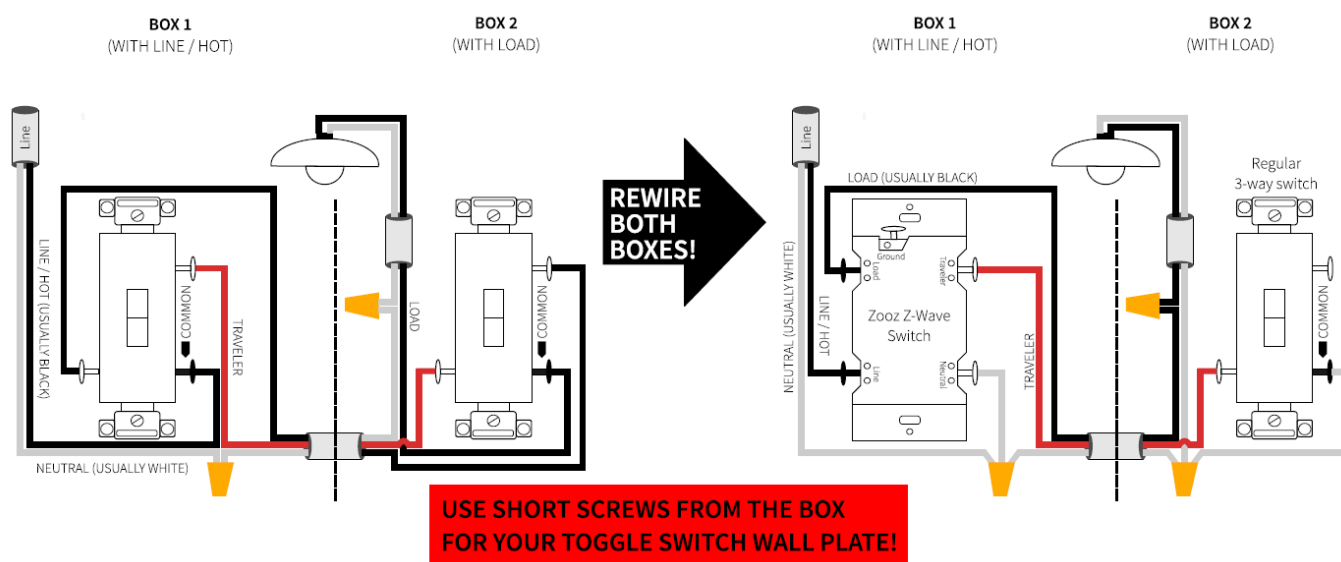
Use the diagram on the right if your wiring looks like this →



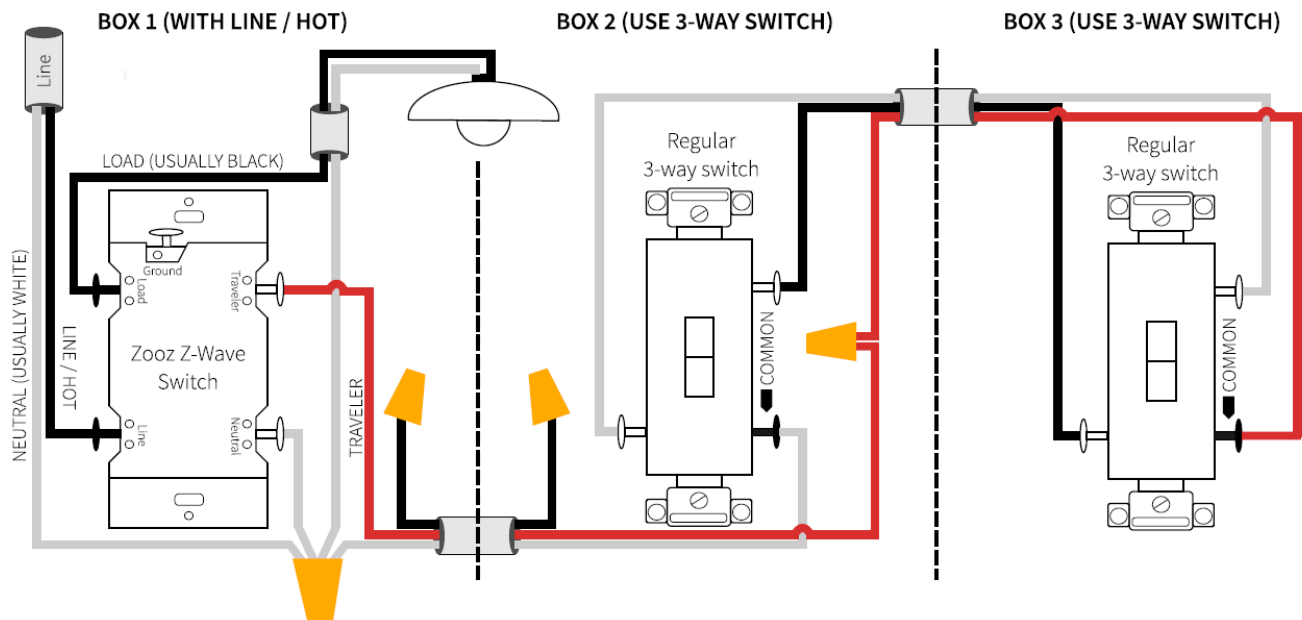
## OPTION 2

ZEN21, ZEN22, ZEN23, ZEN24 VER. 2.0 / 3.0 / 4.0

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



## 4-WAY DIAGRAM FOR 2-POINT CONTROL OF ZOOZ SWITCHES



## 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](http://www.support.getzooz.com) [ask@getzooz.com](mailto: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.

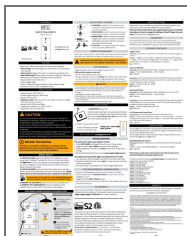
If you have power or load coming into the box with the 4-way switch, contact us for custom instructions:

[ask@getzooz.com](mailto:ask@getzooz.com)

## USE IT WITH SMART BULBS!

Want to control your smart bulb from a wall switch without cutting power to it every time you turn the light off from the switch? We'll tell you how, just ask!

## Documents / Resources



[zoOZ ZEN23 On/Off Toggle Switch](#) [pdf] User Manual  
ZEN23, On Toggle Switch, Off Toggle Switch