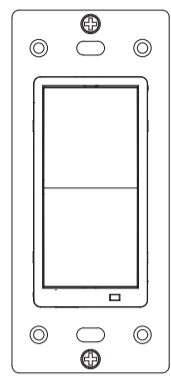


**ZOOZ™**  
bright ideas

ON/OFF SWITCH  
ZEN21 VER. 4.0



www.getzooz.com  
ask@getzooz.com



FIRMWARE VERSION 4.0

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
- LED indicator signals inclusion, exclusion, reset, and setting changes
- Built-in Z-Wave Plus signal repeater to extend network range
- Works with LED, CFL, and incandescent bulbs (don't use with tubes)

SPECIFICATIONS

- Model Number: ZEN21 VER. 4.0
- Z-Wave Signal Frequency: 908.42 MHz
- Power: 120 VAC, 60 Hz
- **Maximum Load:** 150W LED or CFL bulbs, 960W Incandescent, 1800W (15A) Resistive, 3A motor
- 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.

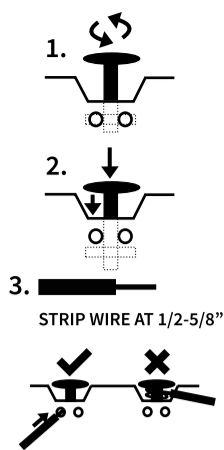
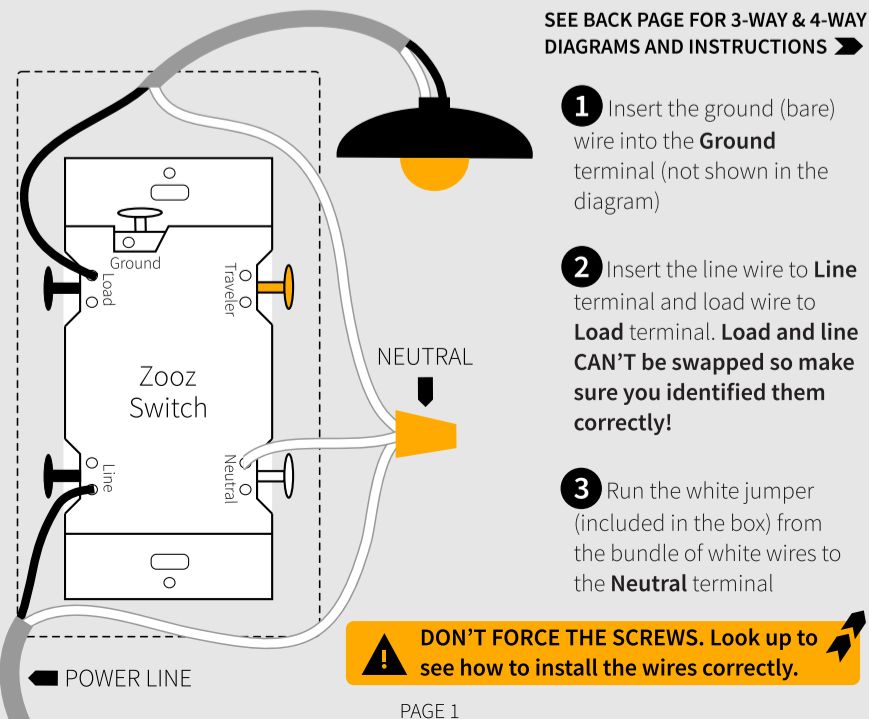
**BEFORE YOU INSTALL**

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 (150W 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!  
**NOT SURE WHAT YOU'RE SEEING? WE'LL HELP! SUPPORT.GETZOOZ.COM SEND US PICTURES OF YOUR SET-UP, BEFORE YOU DISCONNECT 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 in the diagram.

ZEN21 WIRING DIAGRAM FOR SINGLE POLE INSTALLATION



1. **UNSCREW:** carefully turn the screw counter clockwise 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.

TEST THE SWITCH

The LED indicator should light up as soon as you turn the power back on if the switch (light) is OFF. Tap the upper paddle for ON and lower paddle for OFF. **If the test fails, please check that:**

- power is fully restored to the circuit
- wiring matches the instructions **exactly**
- 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 switch 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. **TAP 3 TIMES QUICKLY**

The LED indicator will blink to signal communication and stay on/off when communication is concluded.

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 tap the lower paddle 3 times quickly.
2. Tap the upper paddle **4-5 times 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 / 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](mailto:ask@getzooz.com))
3. Tap the **lower paddle** on the switch **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, **tap-tap-tap'n'hold the upper paddle** for at least 10 seconds. The LED indicator will flash to confirm successful reset.

**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.

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

Paddle Control

**Parameter 1:** Choose if you want the upper paddle to turn the light on or turn the light off when tapped  
**Values:** 0 – Upper paddle turns the light on, lower paddle turns the light off (default); 1 – Upper paddle turns the light off, lower paddle turns the light on; 2 – Any paddle will turn light on / off depending on the status.  
**Size:** 1 byte dec.

LED Indicator Control

**Parameter 2:** Choose if you want the LED indicator to turn on when the switch (light) is on or off, or if you want it to remain on or off at all times  
**Values:** 0 – LED indicator is on when switch is off, LED indicator is off when switch is on (default); 1 – LED indicator is on when switch is on, LED indicator is off when switch is off; 2 – LED indicator is always OFF; 3 – LED indicator is always ON  
**Size:** 1 byte dec. **OR:**

**6 x TAP PADDLE to change LED mode**

Auto Turn-Off Timer

**Parameter 3:** Use this parameter to enable or disable the auto turn-off timer function  
**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). Default: 60.  
**Size:** 4 byte dec.

Auto Turn-On Timer

**Parameter 5:** Use this parameter to enable or disable the auto turn-on timer function  
**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: 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; 2 – remembers and restores on/off status after power failure (default)  
**Size:** 1 byte dec.

Enable/Disable Paddle Control

**Parameter 10:** Enable or disable local on/off control. If enabled, you'll only be able to control the connected light via Z-Wave. Scenes and other functionality will still be available through paddles. **Values:** 0 – local control disabled. 1 – local control enabled (default). 2 – local and Z-Wave control disabled.  
**Size:** 1 byte dec.

**OR:**

**Tap-tap-tap'n'hold to change the mode.**

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 any of the paddles.

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 dec.

**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
- COMMAND\_CLASS\_FIRMWARE\_UPDATE\_MD

QUESTIONS?

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

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.

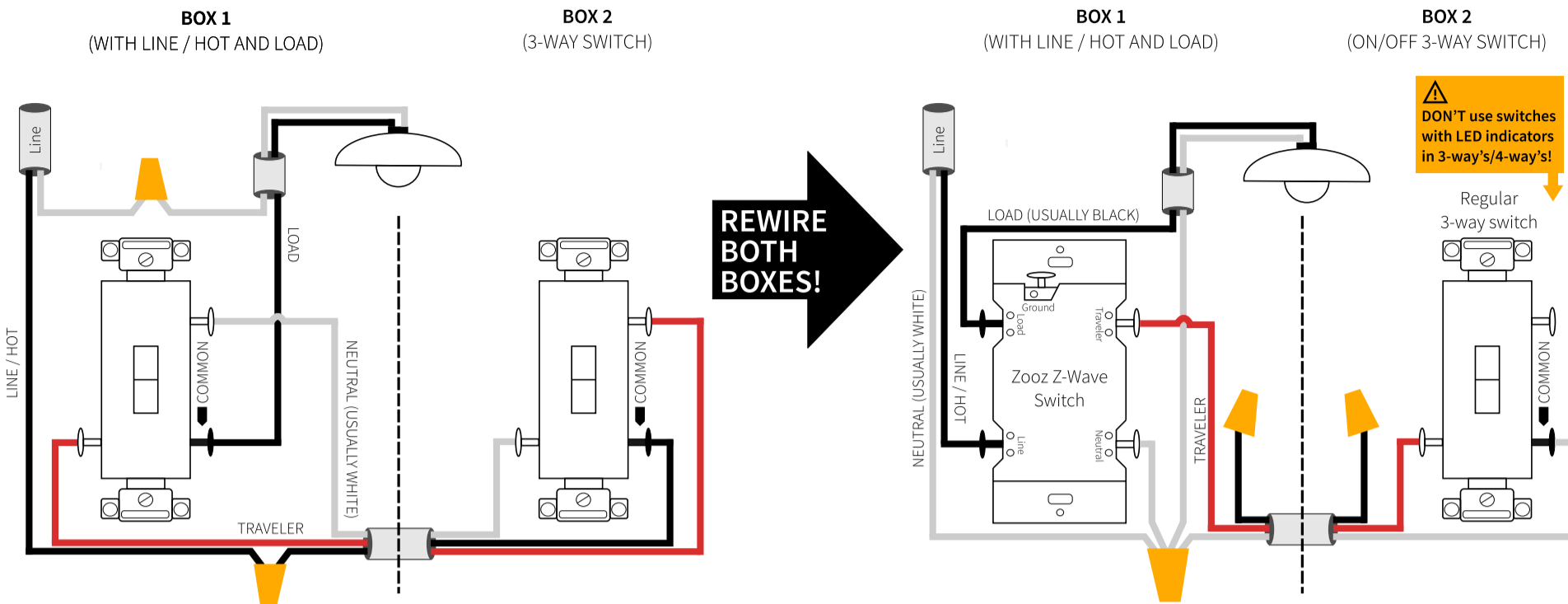
FCC NOTE  
THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT. STORE INDOORS WHEN NOT IN USE. SUITABLE FOR DRY LOCATIONS ONLY. DO NOT IMMERSIVE IN WATER. 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 the separation between equipment and receiver  
- Connect equipment into a separate outlet or circuit from 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 →



### 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. Don't disconnect any wires before documenting your set-up in each box with detailed images!

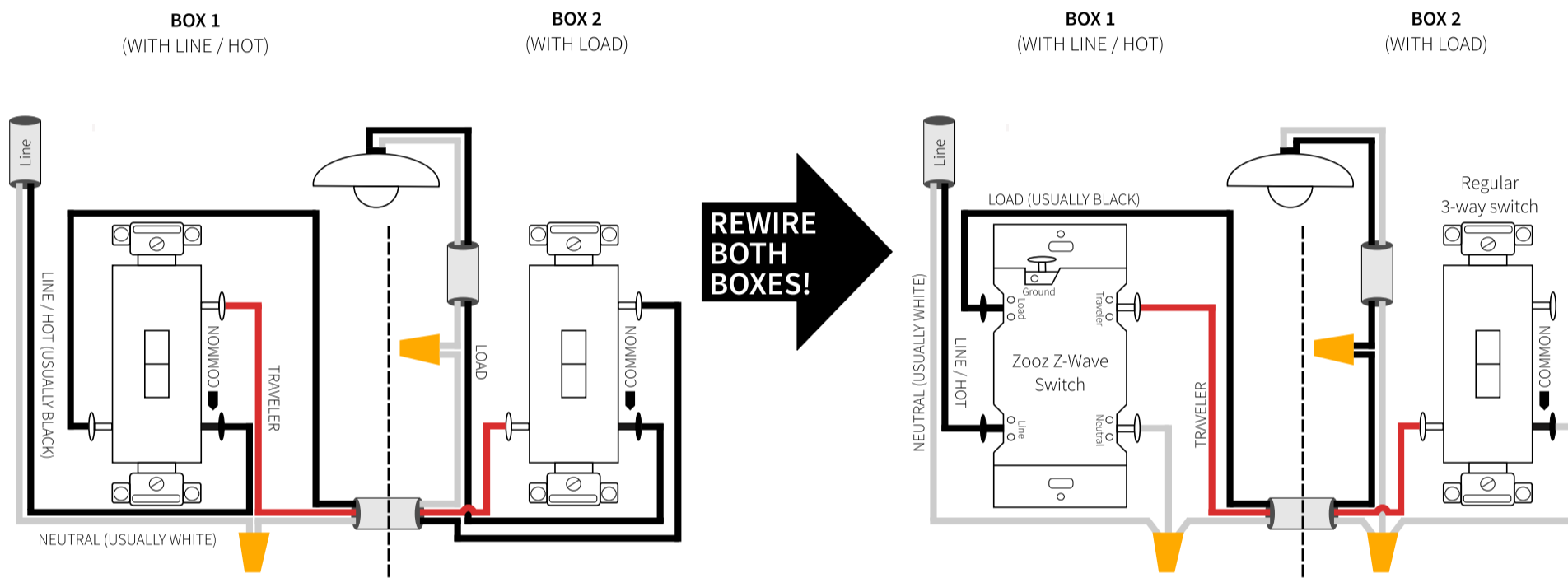
### NOTE!

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](mailto:ask@getzooz.com)

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



### ⚠ ON/OFF SWITCHES ONLY

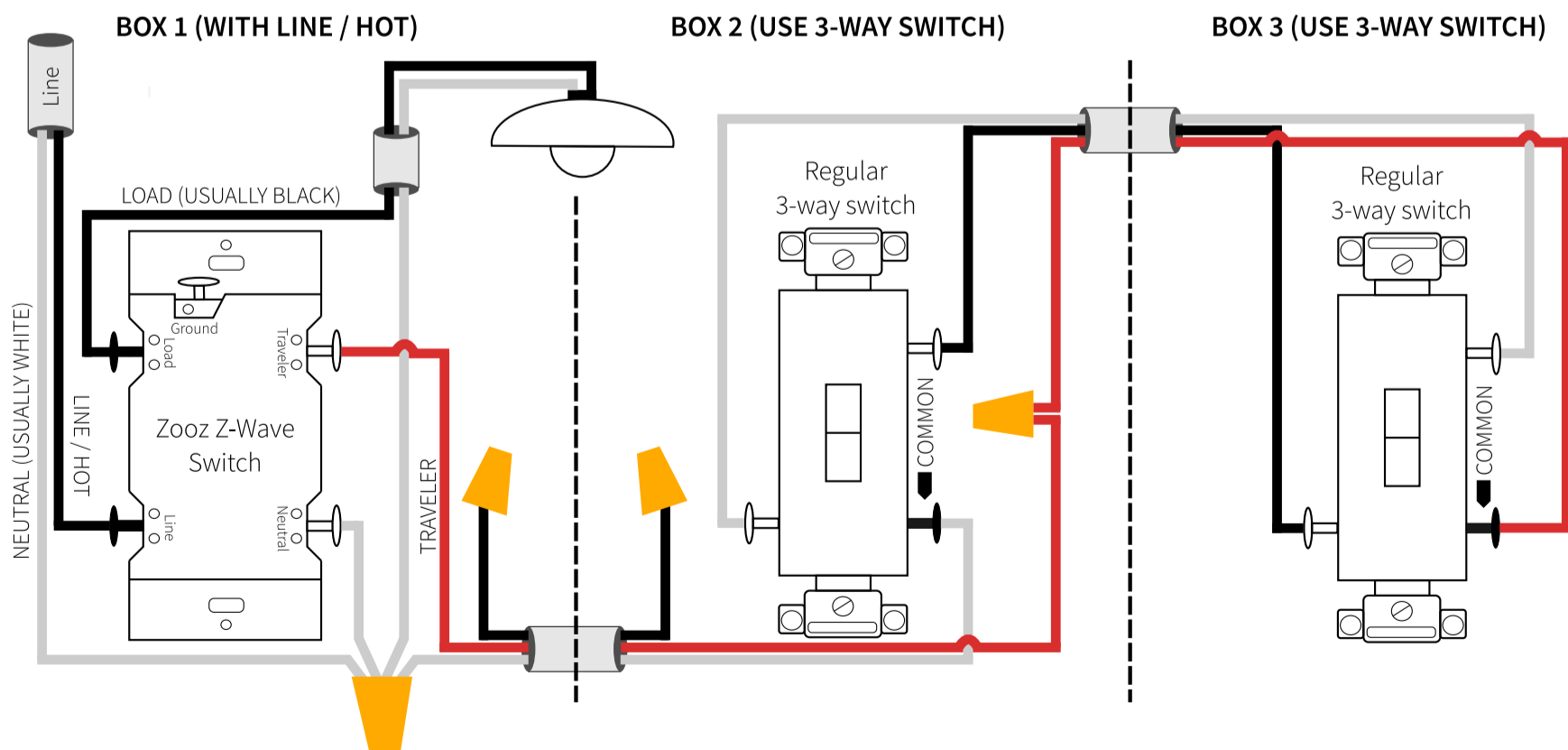
Do not connect Zooz Z-Wave switches to an existing 3-way dimmer, illuminated switch, or an electronic add-on switch. Zooz switches can only be wired with mechanical on/off or momentary switches in a 3-way or 4-way setting! To simplify the diagrams, we did not include connections for the ground wire. 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 / 4.0 models ONLY!

## ZEN21 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](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 or ask us about using the ZEN21 switch with ZAC99 momentary switches in 4-way and 5-way installations.

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!