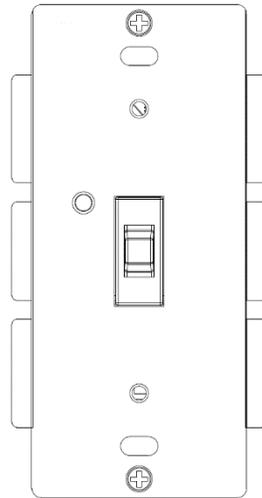




Z-WAVE TOGGLE DIMMER



ZEN24



Z-Wave Plus Certified Device



UL Certified Device

FEATURES

- Manual or remote on/off control and dimming from your mobile device or computer (when included to a Z-Wave gateway controller)
- Z-Wave Plus with improved 500 chip for faster and safer wireless communication
- Works with most high-quality DIMMABLE LED, CFL, and incandescent bulbs (20 Watts minimum required)
- Based on universal command classes - supported by most Z-Wave controllers
- May be associated and grouped with other Z-Wave devices for advanced home automation
- Air-gap switch to power the dimmer off when changing light bulbs
- Built-in Z-Wave signal repeater for a stronger and more reliable network

SPECIFICATIONS

Model Number: ZEN24

Z-Wave Signal Frequency: 908.42 MHz

Power: 120 VAC, 60 Hz

Maximum Loads: 600W Single-gang, 500W Double-gang, 400W Triple-gang Incandescent, 150W CFL or LED

Minimum Load: 20W for LED and CFL bulbs

Range: Up to 100 feet line of sight

Operating Temperature: 32-104° F (0-40° C)

Installation and Use: Indoor only

### Z-WAVE COMMAND CLASSES

This device requires the following command classes to be supported and recognized by your Z-Wave controller:

COMMAND\_CLASS\_ASSOCIATION\_V2

COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO

COMMAND\_CLASS\_CONFIGURATION

COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY

COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC\_V2

COMMAND\_CLASS\_BASIC

COMMAND\_CLASS\_POWERLEVEL

COMMAND\_CLASS\_SWITCH\_ALL

COMMAND\_CLASS\_SWITCH\_MULTILEVEL

COMMAND\_CLASS\_VERSION\_V2

COMMAND\_CLASS\_ZWAVEPLUS\_INFO\_V2

### BEFORE YOU RETURN IT

Let us know if you are having any issues installing or operating the device.

Our fast and friendly tech support is there to help, every day of the year: [ask@getzooz.com](mailto:ask@getzooz.com)

Get more helpful tips at [getzooz.com](http://getzooz.com)

### CAUTION

This is an electrical device - please use caution when installing and operating the Toggle Dimmer. 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.

### INSTALLATION

#### **WAIT!**

Make sure the load you are about to connect does not exceed 600W for incandescent lights or 150W for DIMMABLE CFL or LED. Check if you have at least 20 Watts on load when using low-voltage bulbs.

Check your wiring first and confirm that you have all of the following present in your gang box: load (most often black), line (most often black), neutral (most often white), and ground (most often green).

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

#### **POWER OFF FIRST!**

Before you take out the old switch and start replacing it with your new Z-Wave device, turn the circuit power OFF in the breaker panel.

The switch must be installed according to the standards of the National Electric Code in the United States or the Canadian Electrical Code and all applicable local regulations.

If you do not have any experience handling electrical fixtures, please **DO NOT** install this device on your own.

Hire a qualified professional instead as ignoring any of the above requirements may result in personal injury and/or equipment damage.

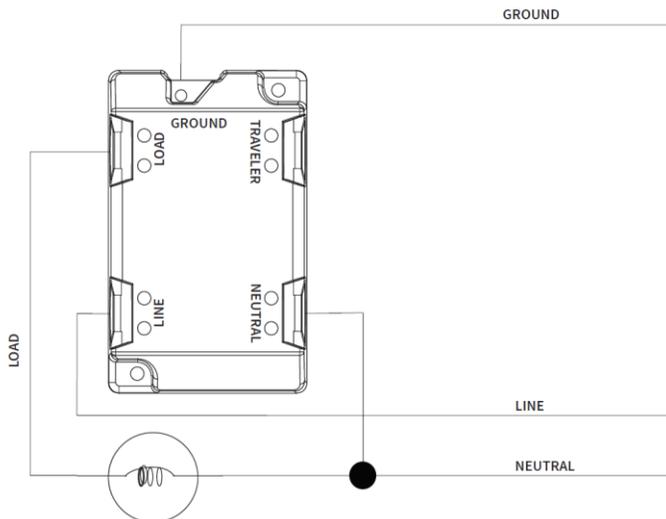
The below instructions are for single-pole installation only. If you are looking to install the switch as a 3-way, please contact us first: [ask@getzooz.com](mailto:ask@getzooz.com)

**DO NOT** connect this Z-Wave switch with **ANY** regular electrical switches because it will damage your Z-Wave device.

1. Start by making sure power is OFF in the switch box before you proceed
2. Take out the wall plate and mounting screws from the existing switch
3. Carefully remove the old switch from the gang box
4. Verify that you have identified the wiring in the switch box correctly and you are able to recognize the line, load, neutral, traveler, and ground
5. Disconnect all wires from the old switch, labeling selected wires if needed
6. Verify that you are dealing with **copper wire** as this is the only approved type of wiring for this installation
7. Connect the wires to the terminals of your new Z-Wave switch, starting with ground

**WAIT!** Do NOT turn the terminal screws counter clockwise (when holding the switch up) at any time or it will get loose and fall out of the terminal - there is no fixing that!

Always turn the screws **CLOCKWISE** to tighten the wires.



**NOTE:** Make sure you have identified all wiring correctly before connecting the switch. Load and line **CANNOT** be swapped. Neutral (most often white) wire is required for this device to function. Please show this manual to your electrician to get them familiarized with Z-Wave switch wiring requirements.

NOTE: The switch may only be used as a single-pole and cannot be wired to any other electrical or electronic switches. Please contact us if you would like to install the switch in a 3-way setting: [ask@getzooz.com](mailto:ask@getzooz.com)

8. Secure your Z-Wave switch in the box with mounting screws, handling the wires with care
9. Install the wall plate of your choice and you're done!

**NOTE: If the screw from your wall plate is too long to go all the way through, DO NOT force it in. Use electrical pliers to shorten the screws or use screws supplied with decora-style wall plates which are typically shorter.**

Now turn the power back on and test the device.

First, see if you are able to control the light manually. Simply press and release the toggle up (on) or down (off) or hold it up or down to adjust brightness.

If the test fails, please check the following:

- that power has been fully restored to the circuit
- that you have wired the switch exactly according to the instructions in this manual
- that the air-gap switch in front of the device is pushed all the way to the right (try sliding the switch to the left for a minute and then back to the right side if you are experiencing power issues)
- that the load type is supported by this device (see specifications for details)

Once you have tested manual control, it's time for the fun part - wireless control.

#### Z-WAVE INCLUSION

1. Bring your Z-Wave gateway hub or controller within direct range of the switch
2. Put your Z-Wave controller in inclusion mode
3. Toggle the switch up and down quickly 3 times to finalize the inclusion process
4. A new dimmer switch should appear on your controller's device list

#### **Troubleshooting Tips:**

If you are unable to include the Toggle Dimmer to your controller, please try one of the following:

- Bring the controller closer to your Z-Wave switch or use a hand-held secondary controller for inclusion
- Toggle your Z-Wave switch quicker 4 or 5 times once you put the controller in the inclusion mode to ensure the command has gone through
- Put your controller in the EXCLUSION mode and toggle the switch quickly 3 times, then try adding it to your network again

#### Z-WAVE EXCLUSION

1. Bring your Z-Wave gateway hub or controller within direct range of the switch
2. Put your Z-Wave controller in exclusion mode
3. Toggle the switch up and down quickly 3 times to complete the exclusion process
4. The device should disappear from your controller's device list

Please repeat the process following all steps carefully if the first attempt is unsuccessful

#### FACTORY RESET

The Toggle Dimmer will be reset to factory defaults only by exclusion using a Z-Wave controller. You may use any certified Z-Wave controller to exclude and reset the switch. This device may not be reset manually when the network's primary controller is missing or otherwise inoperable. NOTE: All previously recorded activity and custom settings will be erased from the device's memory.

#### ASSOCIATION

Once the Toggle Dimmer is added to your network, you are able to turn the device on or off remotely from your mobile device, computer, or Z-Wave remote control.

Depending on your Z-Wave gateway's home automation software capabilities, you may be able to associate your Z-Wave switch in groups with other Z-Wave devices to schedule scenes and create events. This on off switch supports Group 1 with up to five devices for lifeline communication. This device will send SWITCH MULTILEVEL REPORT to Group 1 when operated manually.

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

#### ADVANCED SETTINGS

Parameter 1: Use it to change between 2 control modes. Mode 1 will turn the light on when you toggle the switch up, and turn it off when you toggle the switch down. Mode 2 will turn the light on when you toggle the switch down, and turn it off when you toggle the switch up.

Values: 0 – Mode 1 (default); 1 – Mode 2

Size: 1 byte dec.

#### 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 dimmer 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 PLUS CERTIFIED

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.

#### UL CERTIFIED

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

#### WARRANTY

This Limited Warranty applies to physical goods, and only for physical goods, purchased from Zooz (the "Physical Goods").

**What does this limited warranty cover?**

This Limited Warranty covers any defects in material or workmanship under normal use according to instructions from the User Manual during the Warranty Period. Warranty coverage applies to purchases made from authorized dealers only. See full list of Zooz distributors here: [getzooz.com/buy.html](http://getzooz.com/buy.html) During the Warranty Period, Zooz will repair or replace, at no charge, products or parts of a product that prove defective because of improper material or workmanship, under normal use and recommended maintenance. Zooz does not assume the cost of return shipping for warranty service.

### **How long does the coverage last?**

The Warranty Period for Physical Goods purchased from Zooz is 12 months from the date you purchased this product.

### **What does this limited warranty not cover?**

This Limited Warranty does not cover any problem that is caused by:

- conditions, malfunctions or damage not resulting from defects in material or workmanship
- improper handling or installation of the product

The warranty does not cover purchases from unauthorized dealers or second-hand sources.

The warranty does not cover return shipping cost for warranty service.

### **What do you have to do?**

To obtain warranty service, please contact us to determine the problem and offer a quick solution for you: [warranty@getzooz.com](mailto:warranty@getzooz.com)

You may also get in touch with the reseller of the product directly to return or replace the product within 30 days of purchase or within applicable reseller's returns period.

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 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 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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