

zooZ™
ZEN16 800LR Z Wave
Long Range Multi Relay



Zooz ZEN16 800LR Z Wave Long Range Multi Relay User Manual

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Zooz ZEN16 800LR Z Wave Long Range Multi Relay



Specifications

- **Model:** ZEN16 800LR
- **Power Input:** 12-24 V (DC/AC)
- **Compatibility:** Traditional motorized garage door openers, gas fireplace millivolt valve
- **Maximum Load:** Relay 1 and Relay 2 – 15 A, Relay 3 – 20 A

Product Usage Instructions

Before Installation

This device should be installed by a licensed electrician by the National Electric Code and local regulations. Use a single power source at all times.

Wiring Tips

- Document your existing setup before disconnecting any wires.
- Use the correct screwdriver size for terminal screws.
- Follow safety guidelines and use appropriate electrical tools.

Installation Steps

1. Check the load to ensure it does not exceed the specified limits
2. Turn off the circuit power in the breaker panel.
3. Remove the wall switch if the load is controlled by one.
4. Connect the MultiRelay following the provided wiring diagrams.

FEATURES

- Powerful dry contact relays to control loads up to 15 A and 20 A
- Perfect for outdoor lighting, pool pumps, garage door, or gas fireplace
- Control up to 3 connected loads independently or together
- Z-Wave® or optional wall switch control (toggle or momentary type)

- NEW: 800 series Z-Wave® chip for better range and faster control
- Z-Wave® Long Range for ultra-reliable no-mesh communication
- Built-in timers for each relay to simplify automation
- Built-in Z-Wave® Plus signal repeater to extend network range
- Powered by 12-24 V DC/AC or USB C port for easy set-up
- Wall mounting and minimal design for a clean installation

SPECIFICATIONS

- **Model Number:** ZEN16 800LR
- **Z-Wave® Region:** US / CA / MX
- **Power:** 12-24 V DC/AC or USB C (DON'T use laptop/tablet chargers)
- **Maximum Load:** Relay 1: 15A ($\frac{1}{3}$ HP), R2: 15A ($\frac{1}{3}$ HP), R3: 20A ($\frac{3}{4}$ HP)
- **Range:** Up to 200 feet line of sight (up to 1300 feet with Long Range)
- **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 MultiRelay. Remote control of appliances may result in unintentional or automated activation of power.

BEFORE YOU INSTALL

This device is intended for installation by the National Electric Code and local regulations. It is recommended that a licensed electrician perform this installation. USE A SINGLE POWER SOURCE AT ALL TIMES.

WIRING: READ IT!

1. **CHECK THE LOAD:** make sure that the connected appliance does not exceed 15 A for Relay 1 and Relay 2 or 20 A for Relay 3.
2. **POWER OFF:** turn the circuit power off in the breaker panel before you start. If handling wiring from a box with multiple circuits, turn the power off at all of the circuits.
3. **REMOVE THE WALL SWITCH:** if the load is currently controlled by a wall switch, carefully remove it from the box and disconnect the wires from the switch.
4. **CONNECT THE MULTIRELAY:** follow the instructions in the appropriate diagram for your set-up. If you can't find your scenario in the diagrams below, please request custom instructions from our support team, we're happy to help: ask@getzooz.com.

HOW TO SECURE WIRES IN TERMINALS: first, unscrew the appropriate terminal's screw just far enough so there is a clear opening in the terminal for the wire to go in. Make sure the wire is stripped at the right length and perfectly straight before you insert it into the terminal. Once you put the wire in the terminal, carefully screw the terminal screw back in to hold down the wire. Check the connection by gently pulling on the connected wire to make sure it's fixed securely.

5. **POWER THE MULTIRELAY:** connect the USB C power source to the MultiRelay or use the "+" "-" terminals on the device to bring low voltage power to it. Never use both at the same time. In both cases, you'll need a standard 1 A power adapter to plug into a standard 120 VAC receptacle. Do NOT use with laptop or tablet

chargers, they require a large battery on load to activate.

WIRING TIPS

• TAKE PICTURES

Before you disconnect any wires, document your set-up and send us images of your existing installation so we can help if needed.

• GATHER YOUR TOOLS

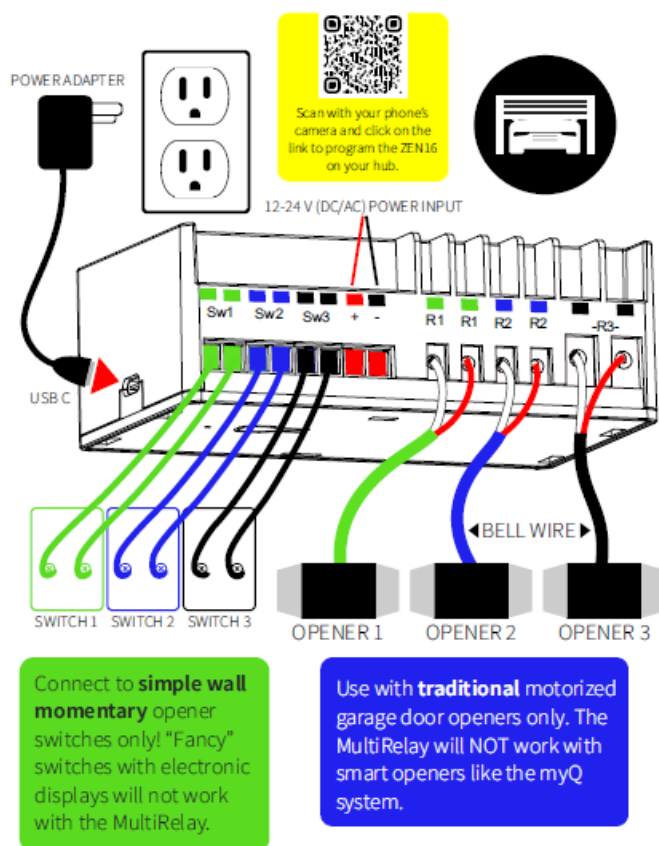
Always use the correct screwdriver size for the terminal screws on your MultiRelay and wall switches (if connecting them). Use appropriate electrical tools when cutting, prepping, and stripping electrical wires. If you don't have the necessary tools to perform the installation or are not sure which tools to use or how, please hire an electrician to complete the installation for you.

• SAFETY FIRST

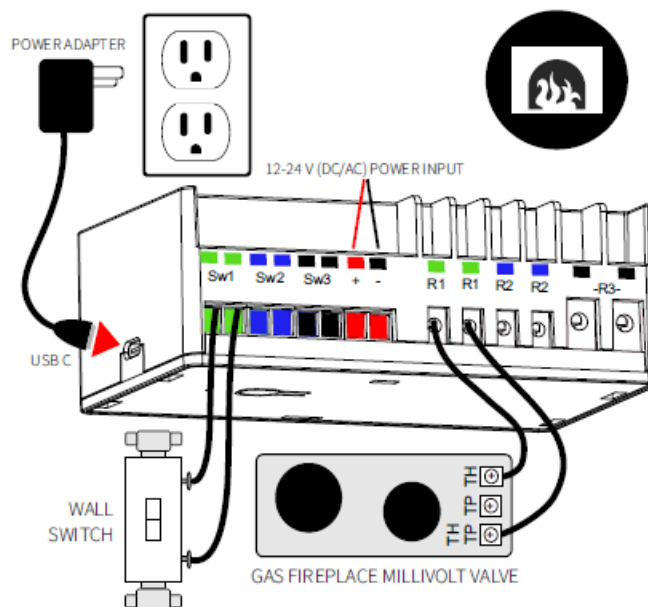
Follow the National Electrical Code and your local safety regulations when performing the installation, including (but not limited to), choosing the correct gauge of jumper wires. The recommended gauge for 15 Amp circuits is 14 AWG and 12 AWG for 20 Amp circuits.

ZOOZ MULTI-RELAY ZEN16 WIRING DIAGRAMS

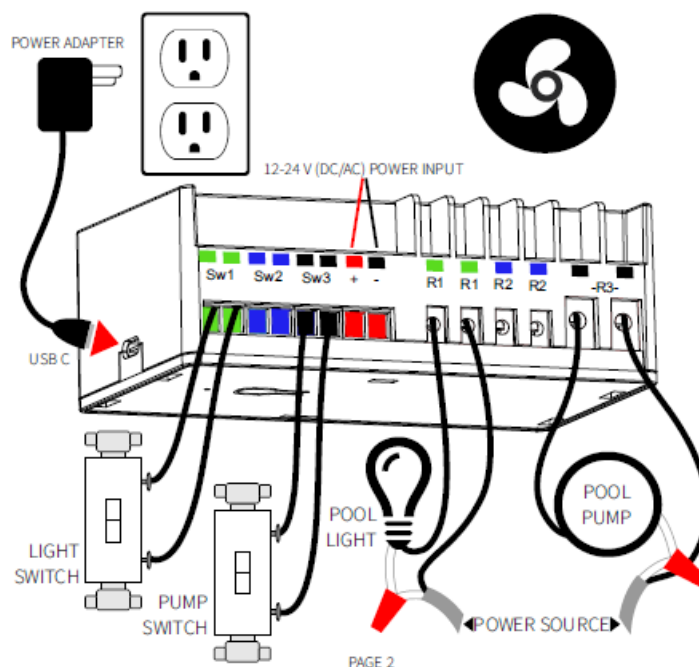
ZEN16 WIRING DIAGRAM FOR GARAGE DOOR OPENERS



ZEN16 WIRING DIAGRAM FOR GAS FIREPLACE MILLIVOLT VALVE



ZEN16 WIRING DIAGRAM FOR GAS FIREPLACE MILLIVOLT VALVE



Z-WAVE®

CONTROL

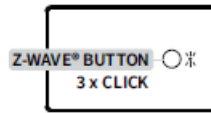
1. ADD DEVICE to your hub

Initiate inclusion (pairing) in the app (or web interface). Not sure how? Use the camera on your phone to scan the QR code below for hub specific instructions.

2. Finalize inclusion at the device.



Scan the QR code on the back of the device if Z-WAVE® BUTTON your hub supports SmartStart inclusion.



Click the Z-Wave® button 3 times quickly to add the MultiRelay to your network. The LED indicator will blink to signal communication and remain on for 2 seconds to confirm inclusion. SmartStart-enabled products can be added to a Z-Wave® network by scanning the Z-Wave® QR Code present on the product 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 in the network vicinity.



Get more tutorials and helpful tips at www.support.getzooz.com

TROUBLESHOOTING

The MultiRelay won't add to your system. Try this:

1. Initiate EXCLUSION and click the Z-Wave® button 3 times quickly.
2. Click the Z-Wave® button 4-5 times quickly when adding it.
3. Bring your MultiRelay closer to the gateway controller (hub), 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 MultiRelay close to the Z-Wave® gateway (hub) and power it
2. Put the Z-Wave® hub into exclusion mode (not sure how to do that? ask@getzooz.com)
3. Click the Z-Wave® button 3 times quickly
4. Your hub will confirm exclusion and the MultiRelay 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, click the Z-Wave® button 4 times quickly, and the LED indicator will light up, then quickly click the Z-Wave® button 4 times again. The LED indicator will flash 3 times to confirm successful reset and will then turn off.

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

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.

- 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 the 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.

COMMAND CLASSES

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_MULTI_CHANNEL
- COMMAND_CLASS_SECURITY_2
- COMMAND_CLASS_SUPERVISION
- COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2

ALL SETTINGS

Scan this QR code and click on the link to access all advanced settings and parameters for the ZEN16 MultiRelay.



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 device supports Group 1 with up to 1 device for Lifeline communication and Groups 2 (for Relay 1), 3 (for R2), and 4 (for R3) with up to 5 devices each to send BASIC_SET reports when operated manually.

CUSTOMIZE YOUR MULTIRELAY

On Off Status After Power Failure

- Parameter 1: Set the on off status for the relays after power failure.
- Values: 0 – ALL relays forced to OFF (regardless of state before power outage); 1 – ALL relays remember and restore on/off status after power failure (default); 2 – ALL relays forced to ON (regardless of state before power outage); 3 – Relay 1 and Relay 2 remember and restore on/off status after power failure, Relay 3 forced to OFF; 4 – Relay 1 and Relay 2 remember and restore on/off status after power failure, Relay 3 forced to ON.
- Size: 1 byte dec.

Switch Type for Relay 1 (Sw1)

- Parameter 2: Choose the wall switch type you want to connect to the Sw1 terminal. Default: 2.
- Values: 0 – momentary for lights only; 1 – toggle switch (light on when the switch is toggled up, light off when the switch is toggled down); 2 – toggle switch (state changes whenever the switch is toggled); 3 – garage door (momentary mode for Z-Wave® control); 4 – leak alarm (water sensor); 5 – heat alarm; 6 – motion alert; 7
 - open/close alert (door sensor); 8 – CO alarm; 9 – CO2 alarm; 10 – on/off report (dry contact switch/sensor); 11
 - garage door mode for the relay (momentary contact) and door sensor type for the input (use with wired analog door/window sensors and garage gate openers). Press and hold the Z-Wave® button for 5 seconds to change mode manually between values 0 and 3. Size: 1 byte dec.

Switch Type for Relay 2 (Sw2)

- Parameter 3: Choose the wall switch type you want to connect to the Sw2 terminal. Default: 2.
- Values: 0 – momentary for lights only; 1 – toggle switch (light on when the switch is toggled up, light off when the switch is toggled down); 2 – toggle switch (state changes whenever the switch is toggled); 3 – garage door (momentary mode for Z-Wave® control); 4 – leak alarm (water sensor); 5 – heat alarm; 6 – motion alert; 7
 - open/close alert (door sensor); 8 – CO alarm; 9 – CO2 alarm; 10 – on/off report (dry contact switch/sensor); 11
 - garage door mode for the relay (momentary contact) and door sensor type for the input (use with wired analog door/window sensors and garage gate openers).

Click-click'n'hold the Z-Wave® button for 5 seconds to change mode manually between values 0 and 3.

- Size: 1 byte dec.

Switch Type for Relay 3 (Sw3)

- Parameter 4: Choose the wall switch type you want to connect to the Sw3 terminal.
- Values: 0 – momentary for lights only; 1 – toggle switch (light on when the switch is toggled up, light off when

the switch is toggled down); 2 – toggle switch (state changes whenever the switch is toggled); 3 – garage door (momentary mode for Z-Wave® control). Default: 2.

Click-click-click'n'hold the Z-Wave® button for 5 seconds to change mode manually for values 0-3.

- Size: 1 byte dec.

LED Indicator Control

- Parameter 5: Choose if you want the LED indicator to turn on when any of the relays are on if all of them are off, or if you want it to remain on or off at all times. Values: 0 – LED indicator is on when ALL of the relays are off,
- LED indicator is off when any of the relays is on (default); 1 – LED indicator is on when any of the relays is on, the LED indicator is off when ALL of the relays are on; 2 – LED indicator is always OFF; 3 – LED indicator is always ON.

Click the Z-Wave® button 5 times quickly to change mode manually.

- Size: 1 byte dec.

Auto Turn-Off Timer for Relay 1

- Parameter 6: Use this parameter to set the time after which you want the device connected to Relay 1 to automatically turn on once it has been turned on. The number entered as a value corresponds to the number of minutes, seconds, or hours (set the unit in Par. 15). Values: 0 – timer disabled (default); 1 – 65535.
- Size: 4 byte dec.

Auto Turn-On Timer for Relay 1

- Parameter 7: Use this parameter to set the time after which you want the device connected to Relay 1 to automatically turn on once it has been turned off. The number entered as a value corresponds to the number of minutes, seconds, or hours (set the unit in Par. 16). Values: 0 – timer disabled (default); 1 – 65535.
- Size: 4 byte dec.

Auto Turn-Off Timer for Relay 2

- Parameter 8: Use this parameter to set the time after which you want the device connected to Relay 2 to automatically turn off once it has been turned on. The number entered as a value corresponds to the number of minutes, seconds, or hours (set the unit in Par. 17). Values: 0 – timer disabled (default); 1 – 65535.
- Size: 4 byte dec.

Auto Turn-On Timer for Relay 2

- Parameter 9: Use this parameter to set the time after which you want the device connected to Relay 2 to automatically turn on once it has been turned off. The number entered as a value corresponds to the number of

minutes, seconds, or hours (set the unit in Par. 18). Values: 0 – timer disabled (default); 1 – 65535.

- Size: 4 byte dec.

Auto Turn-Off Timer for Relay 3

- Parameter 10: Use this parameter to set the time after which you want the device connected to Relay 3 to automatically turn on once it has been turned on. The number entered as a value corresponds to the number of minutes, seconds, or hours (set the unit in Par. 19). Values: 0 – timer disabled (default); 1 – 65535.
- Size: 4 byte dec.

Auto Turn-On Timer for Relay 3

- Parameter 11: Use this parameter to set the time after which you want the device connected to Relay 3 to automatically turn on once it has been turned off. The number entered as a value corresponds to the number of minutes, seconds, or hours (set the unit in Par. 20). Values: 0 – timer disabled (default); 1 – 65535.
- Size: 4 byte dec.

Enable/Disable Manual Control for Sw1

- Parameter 12: Enable or disable physical on/off control of Relay 1 from the wall switch connected to the Sw1 terminal. If disabled, you'll only be able to control the connected device via Z-Wave®.
- Values: 0 – local control disabled. 1 – local control enabled (default). 2 – local control disabled with enabled on/off reports (connected switch won't control the relay but it will send on/off reports to the hub when triggered).
- Size: 1 byte dec.

Enable/Disable Manual Control for Sw2

- Parameter 13: Enable or disable physical on/off control of Relay 2 from the wall switch connected to the Sw2 terminal. If disabled, you'll only be able to control the connected device via Z-Wave®.
- Values: 0 – local control disabled. 1 – local control enabled (default). 2 – local control disabled with enabled on/off reports.
- Size: 1 byte dec.

Enable/Disable Manual Control for Sw3

- Parameter 14: Enable or disable physical on/off control of Relay 3 from the wall switch connected to the Sw3 terminal. If disabled, you'll only be able to control the connected device via Z-Wave®.
- Values: 0 – local control disabled. 1 – local control enabled (default). 2 – local control disabled with enabled on/off reports.
- Size: 1 byte dec.

Auto Turn-Off Timer Unit for Relay 1

- Parameter 15: Choose between seconds, minutes, and hours as the unit for the auto turn-off timer for Relay 1.

Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

Auto Turn-On Timer Unit for Relay 1

- Parameter 16: Choose between seconds, minutes, and hours as the unit for the auto turn-on timer for Relay 1.
Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

Auto Turn-Off Timer Unit for Relay 2

- Parameter 17: Choose between seconds, minutes, and hours as the unit for the auto turn-off timer for Relay 2.
Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

Auto Turn-On Timer Unit for Relay 2

- Parameter 18: Choose between seconds, minutes, and hours as the unit for the auto turn-on timer for Relay 2.
Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

Auto Turn-Off Timer Unit for Relay 3

- Parameter 19: Choose between seconds, minutes, and hours as the unit for the auto turn-off timer for Relay 3.
Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

Auto Turn-On Timer Unit for Relay 3

- Parameter 20: Choose between seconds, minutes, and hours as the unit for the auto turn-on timer for Relay 3.
Values: 0 – minutes (default); 1 – seconds; 2 – hours. Size: 1 byte dec.

DC Motor Mode

- Parameter 24: Sync R1 and R2 together to prevent them from being activated at the same time.
- Values: 0 – DC motor mode disabled (relays will activate whenever they're triggered); 1 – DC motor mode enabled (relay will check the status of the other relays are being triggered and will shut the other relay off before activating so that only one of the relays is on at the same time). Default: 0.
- Size: 1 byte dec.

Reversed Reports for Sw1

- Parameter 28: Reverse the reported values for your selected input type on Sw1 terminals (select the same value as you chose for parameter 2 to reverse the values for open and closed circuits).
- Values: 0 – values reported as normally open, not reversed (default); 4 – leak alarm (water sensor); 5 – heat alarm; 6 – motion alert; 7 – open/close alert (door sensor); 8 – CO alarm; 9 – CO2 alarm; 10 – on/off report (dry contact switch/sensor).
- Size: 1 byte dec.

NOTE: This will not affect the relay behavior if you leave the input linked to the output, it will still trigger the relay to

on when the circuit is closed (if connected to R1), regardless of the reported value. This setting only affects the reports displayed in the hub for the input and does not affect the relay (output) behavior.

Use parameters 29 and 30 to reverse reporting on Sw2 and Sw3 inputs respectively.

QUESTIONS?

ask@getzooz.com | www.support.getzooz.com

WARRANTY

This product is covered under a 12-month limited warranty or an extended 5-year warranty once registered. To read the full warranty policy or file a warranty claim, please go to 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 CONCERNING 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, under 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 the receiving antenna
- Increase the separation between equipment and receiver
- Connect the equipment to a separate outlet or circuit from the receiver
- Consult the dealer or an experienced radio/TV technician for additional assistance

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FAQS

- **Q: Can I use fancy switches with electronic displays with the MultiRelay?**

A: No, the MultiRelay is only compatible with simple wall momentary opener switches.

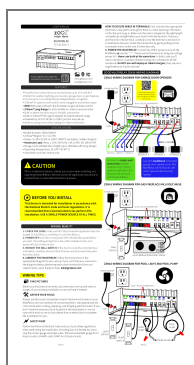
- **Q: What should I do if I can't find my installation scenario in the provided diagrams?**

A: Please contact our support team at ask@getzooz.com for custom instructions tailored to your setup.

- **Q: What is the recommended gauge of jumper wires for different circuits?**

A: For 15 Amp circuits, use 14 AWG jumper wires, and for 20 Amp circuits, use 12 AWG jumper wires.

Documents / Resources



[Zooz ZEN16 800LR Z Wave Long Range Multi Relay](#) [pdf] User Manual
ZEN16, ZEN16 800LR Z Wave Long Range Multi Relay, ZEN16 800LR, Z Wave Long Range Multi Relay, Long Range Multi Relay, Range Multi Relay, Multi Relay, Relay

References

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- [Z Home - Zooz Support Center](#)
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