

ZOOZ ZEN16

Zooz Z-Wave Long Range MultiRelay ZEN16 800LR Instruction Manual

Model: ZEN16

1. INTRODUCTION

The Zooz ZEN16 MultiRelay is a Z-Wave Long Range enabled device designed to integrate various dry contact devices into your smart home system. It features three independent dry contact relays, allowing for versatile control of appliances and systems such as garage doors, sprinklers, gas fireplaces, and more. This manual provides essential information for the safe and effective installation, operation, and maintenance of your ZEN16 MultiRelay.



Image 1.1: The Zooz ZEN16 MultiRelay device, showing its compact form factor and terminal block connections.

2. SAFETY INFORMATION

Please read and follow all safety instructions carefully to prevent injury or damage to the device. Improper installation or use can be dangerous and void the warranty.

- **Electrical Safety:** This device operates with low voltage (12-24 V AC/DC or 5V USB C). **DO NOT power the device with 110 V AC.** Ensure all power sources are disconnected before wiring.
- **Dry Contact Only:** The relay terminals (R1, R2, R3) and switch input terminals (SW1, SW2, SW3) are for dry contact connections only. **DO NOT apply voltage to the input (switch) terminals.**
- **Qualified Personnel:** Installation should be performed by a qualified electrician or experienced individual familiar with electrical wiring and safety procedures.
- **Indoor Use:** This device is intended for indoor use only. Avoid exposure to moisture, extreme temperatures, or direct sunlight.
- **Load Limits:** Do not exceed the specified current ratings for each relay (15A for R1/R2, 20A for R3).

3. PRODUCT OVERVIEW

The ZEN16 MultiRelay offers advanced control for various applications. Key features include:

- **Three Independent Dry Contact Relays:** Control up to three separate devices. Relays R1 and R2 support up to 15A, while R3 supports up to 20A.
- **Z-Wave Long Range (ZWLR) Ready:** Provides extended wireless range and faster communication when paired with a ZWLR compatible hub.
- **Flexible Power Options:** Can be powered via a standard USB C cable (5V, power supply not included) or 12-24 V AC/DC.
- **S2 Security and SmartStart:** Enhanced security and simplified pairing process.
- **Status Memory:** Remembers and restores on/off status after a power failure.
- **External Switch Inputs:** Three dry contact inputs (SW1, SW2, SW3) for connecting momentary or toggle wall switches for local control.

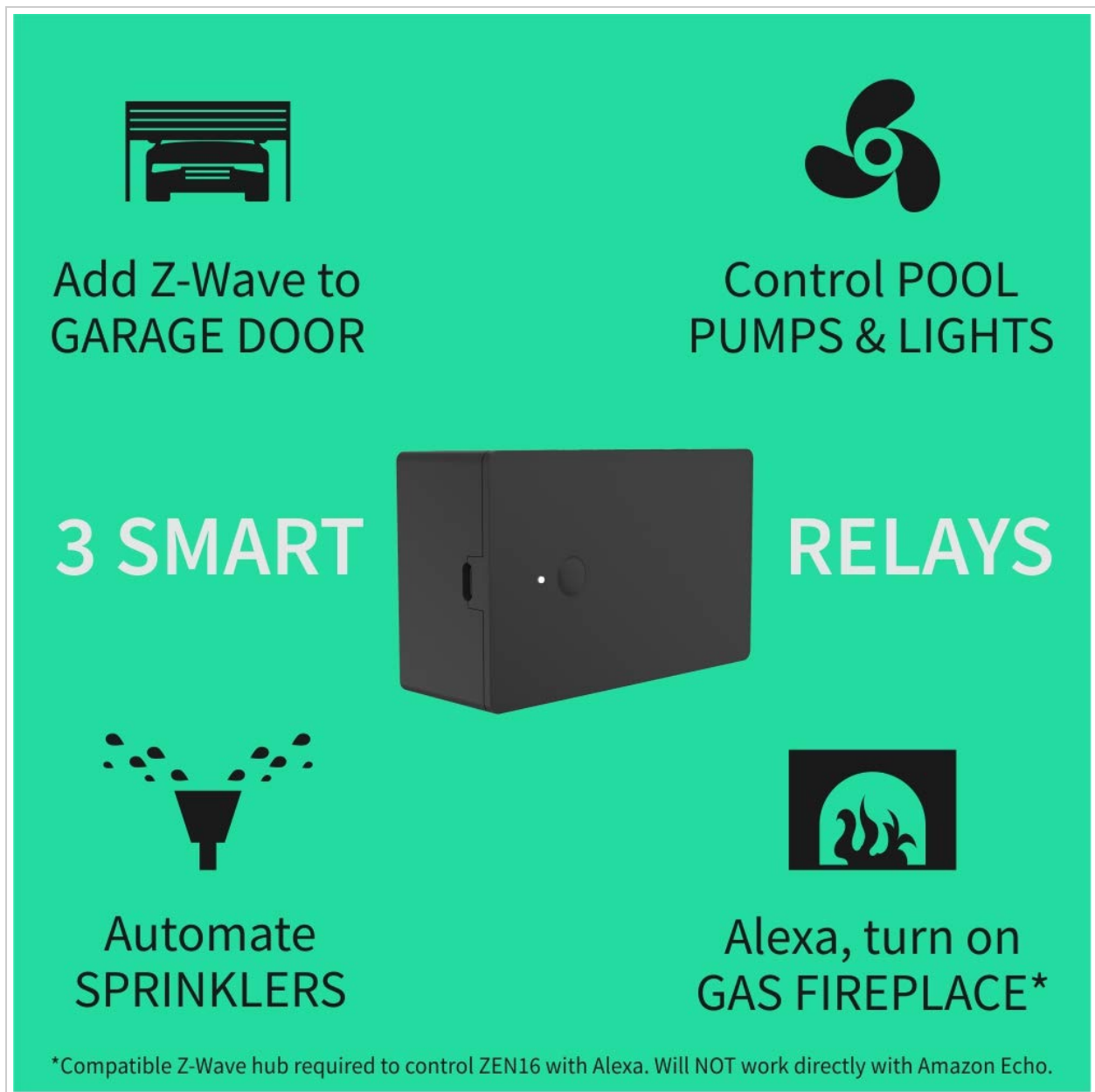


Image 3.1: Visual representation of common applications for the ZEN16 MultiRelay, such as garage door automation, pool pump and light control, sprinkler system automation, and gas fireplace integration.

4. SETUP AND INSTALLATION

4.1 Powering the Device

The ZEN16 MultiRelay can be powered in two ways:

- **USB C (5V DC):** Connect a standard USB C cable to the port on the side of the device and to a 5V power supply (not included). Ensure the power supply provides sufficient current.
- **12-24 V AC/DC:** Connect a 12-24 V AC or DC power source to the '+' and '-' terminals on the device. Observe polarity for DC power.

Important: Do not use 110 V AC to power the device. Only use 5V DC via USB C or 12-24 V AC/DC via the screw terminals.

4.2 Wiring Examples

The ZEN16 MultiRelay uses dry contact relays, meaning it acts as a switch to complete or break a circuit

without providing its own voltage to the controlled device. Always ensure power is disconnected before wiring.

4.2.1 Garage Door Opener Wiring

To automate a garage door, connect the ZEN16's relay terminals to the wall button terminals on your garage door opener. The ZEN16 will simulate a button press.

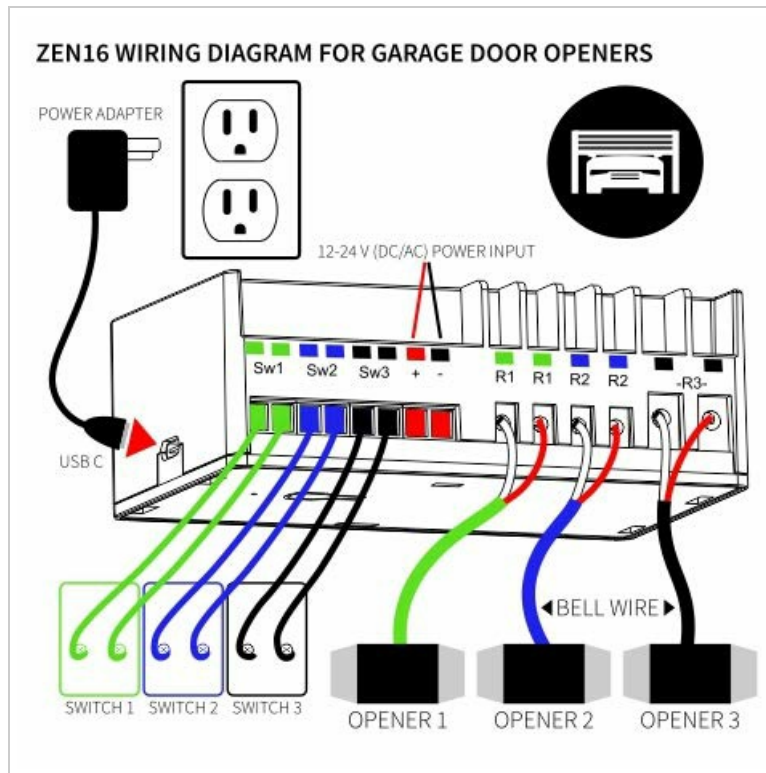


Image 4.1: Wiring diagram illustrating how to connect the ZEN16 MultiRelay to up to three garage door openers. Power is supplied via USB C or 12-24V AC/DC, and the relay outputs (R1, R2, R3) are connected to the opener's bell wire terminals. Optional external switches (SW1, SW2, SW3) are shown connected to the relay inputs.

4.2.2 Gas Fireplace Millivolt Valve Wiring

For gas fireplaces with a millivolt valve, connect the ZEN16's relay terminals in series with the existing wall switch or directly to the valve's thermostat terminals.

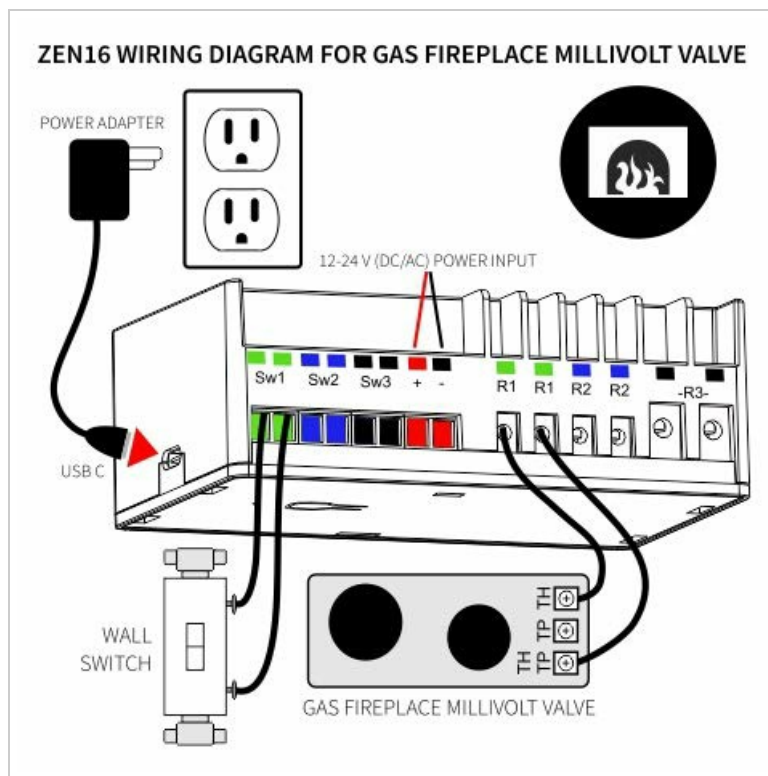


Image 4.2: Wiring diagram demonstrating the connection of the ZEN16 MultiRelay to a gas fireplace millivolt valve. The relay output (R1) is connected to the valve's terminals, and an optional wall switch is connected to the SW1 input for manual control.

4.2.3 Pool Light and Pump Wiring

The ZEN16 can control low-voltage pool lights and pumps by integrating its relays into their control circuits.

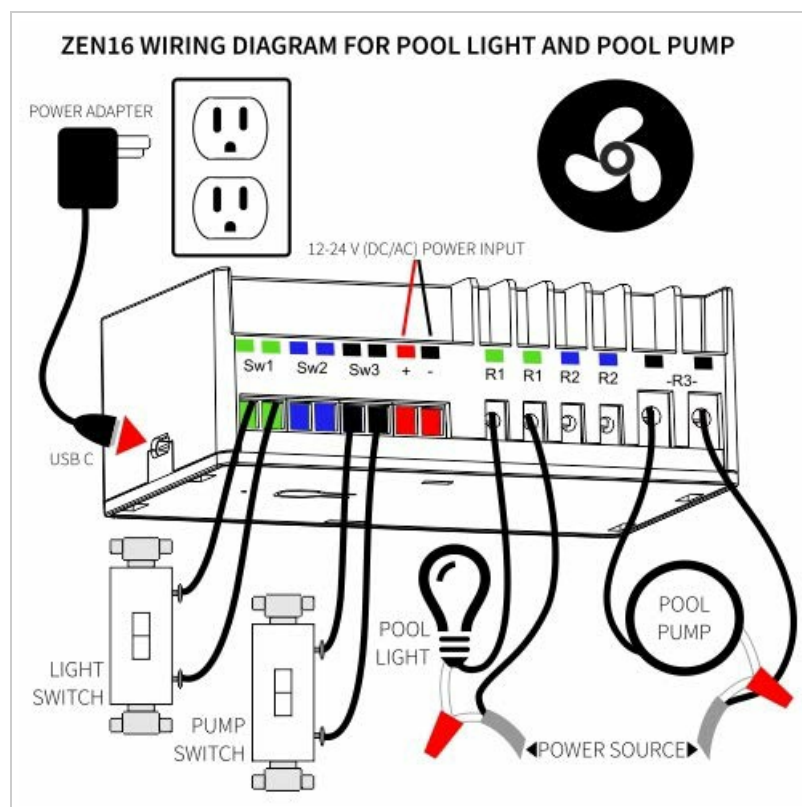


Image 4.3: Wiring diagram showing how to connect the ZEN16 MultiRelay to control a pool light and a pool pump. Relay outputs (R1, R2) are used to switch the power source for the light and pump, respectively. Corresponding external switches are connected to SW1 and SW2.

4.3 Z-Wave Inclusion (Pairing)

To integrate the ZEN16 into your Z-Wave network, a Z-Wave hub is required. Follow your hub's instructions for including a new Z-Wave device.

1. **Power the ZEN16:** Ensure the MultiRelay is powered using either USB C or 12-24 V AC/DC.
2. **Initiate Inclusion Mode:** Put your Z-Wave hub into inclusion (pairing) mode.
3. **Activate ZEN16 Pairing:** Press the Z-Wave button on the ZEN16 three times quickly. The LED indicator will flash to confirm inclusion mode.
4. **Confirmation:** Your hub should detect and add the device. The LED will turn solid green if successful.

For SmartStart inclusion, scan the QR code on the device or packaging with your hub's app if supported.

Note: Some hubs (e.g., Wink, Ring, Vivint, ADT Pulse) may offer partial control or require custom device handlers. Refer to the Zooz support page for specific hub compatibility and driver information.

5. OPERATING INSTRUCTIONS

Once successfully paired with your Z-Wave hub, the ZEN16 MultiRelay can be controlled wirelessly. Each of the three relays will appear as a separate switch in your Z-Wave interface.

- **Wireless Control:** Use your Z-Wave hub's interface or associated smart home app to turn each relay (R1, R2, R3) on or off independently.
- **Manual Control:** If external momentary or toggle switches are connected to SW1, SW2, or SW3, you can manually activate the corresponding relays.
- **Automation:** Configure scenes, schedules, and automations within your Z-Wave hub to control the relays based on time, sensor input, or other events.

6. ADVANCED CONFIGURATION

The ZEN16 MultiRelay supports various Z-Wave configuration parameters that allow customization of its behavior. Accessing and modifying these parameters typically requires an advanced Z-Wave hub (e.g., Hubitat, Home Assistant, SmartThings with custom drivers).

Common configurable parameters include:

- **Switch Type:** Configure SW1, SW2, SW3 inputs as momentary or toggle switches.
- **Auto On/Off Timer:** Set relays to automatically turn off after a specified duration or turn on for a set time.
- **Power State After Power Failure:** Define whether relays restore their last state, turn on, or turn off after power is restored.
- **Relay Behavior:** Adjust how the physical switch inputs control the relays (e.g., direct control, scene activation).

For a complete list of parameters and detailed instructions, please refer to the official Zooz support documentation for the ZEN16 MultiRelay on their website.

7. MAINTENANCE

The ZEN16 MultiRelay is designed for reliable operation with minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use harsh chemicals or abrasive cleaners.

- **Firmware Updates:** Periodically check the Zooz website for firmware updates. Updates can improve performance, add features, or address issues. Follow the provided instructions for any update procedures.
- **Environmental Conditions:** Ensure the device remains within its specified operating temperature and humidity ranges.

8. TROUBLESHOOTING

If you encounter issues with your ZEN16 MultiRelay, consult the following common troubleshooting steps:

8.1 Device Not Pairing with Hub

- **Power Check:** Ensure the ZEN16 is properly powered. The LED should be solid green or blue.
- **Exclusion First:** Try excluding the device from your Z-Wave network first, even if it was never paired. Put your hub into exclusion mode and press the ZEN16's Z-Wave button three times quickly.
- **Distance:** Move the ZEN16 closer to your Z-Wave hub during the pairing process.
- **Hub Compatibility:** Verify your hub's compatibility and check if a custom device handler is required.

8.2 Relays Not Responding

- **Wiring Check:** Double-check all wiring connections, especially to the controlled device and the ZEN16's relay terminals. Ensure no voltage is applied to the switch input terminals.
- **Load Limits:** Confirm that the connected load does not exceed the relay's maximum current rating.
- **Z-Wave Connectivity:** Ensure the ZEN16 is still connected to your Z-Wave network. Try refreshing the device status in your hub's interface.
- **Manual Test:** If external switches are connected, test if the relays respond to manual input.

8.3 Intermittent Connectivity

- **Z-Wave Mesh:** Ensure you have a robust Z-Wave mesh network with sufficient Z-Wave repeaters, especially if using standard Z-Wave.
- **Obstructions:** Large metal objects or thick walls can interfere with Z-Wave signals.
- **Z-Wave Long Range:** If your hub supports Z-Wave Long Range, ensure the device is paired in ZWLR mode for optimal range and reliability.

For further assistance, please contact Zooz customer support.

9. SPECIFICATIONS

Parameter	Value
Model Number	ZEN16
Z-Wave Frequency	908.42 MHz (US/CA/MX)
Power	5V DC (USB C) or 12-24 V AC/DC
Max Load (R1, R2)	15 Amps
Max Load (R3)	20 Amps

Contact Type	Normally Open (Dry Contact)
Mounting Type	Wall Mount
Operating Temperature	32-104° F (0-40° C)
Dimensions	5.39 x 3.82 x 2.32 inches
Certifications	ETL Certified

10. WARRANTY AND SUPPORT



Zooz products are backed by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the official Zooz website or the documentation included with your purchase.




For technical support, troubleshooting assistance, or any questions regarding your ZEN16 MultiRelay, please visit the Zooz support page on their official website. You can find detailed guides, FAQs, and contact information for their support team.

Online Support: www.support.getzooz.com

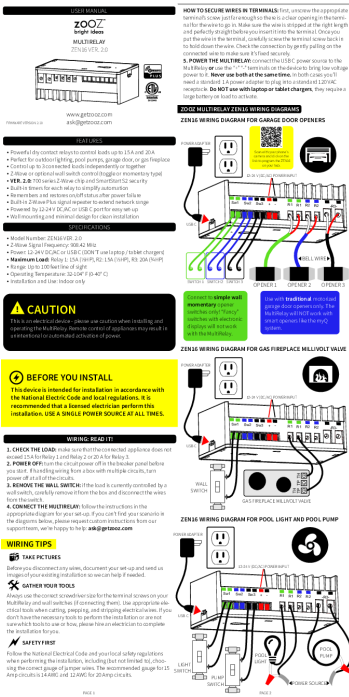
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Related Documents - ZEN16

	<p>Zooz ZEN77 800LR Z-Wave Plus S2 Dimmer Switch User Manual</p> <p>User manual for the Zooz ZEN77 800LR 800 Series Z-Wave Plus S2 Dimmer Switch, detailing installation, setup, features, advanced settings, and troubleshooting for smart home lighting control.</p>
	<p>Zooz ZEN35 800LR Z-Wave Dimmer & Scene Controller User Manual</p> <p>Comprehensive user manual for the Zooz ZEN35 800LR Z-Wave Dimmer & Scene Controller, covering installation, wiring, programming, advanced settings, and troubleshooting.</p>

	<p>Zooz ZEN05 800LR Outdoor Smart Plug User Manual & Setup Guide</p> <p>Comprehensive user manual for the Zooz ZEN05 800LR Z-Wave Plus Outdoor Smart Plug. Learn about features, installation, troubleshooting, and advanced settings for reliable smart home control.</p>
	<p>Zooz ZEN35 800LR: Z-Wave Dimmer and Scene Controller User Manual</p> <p>Comprehensive user manual for the Zooz ZEN35 800LR, an advanced 800 series Z-Wave dimmer and scene controller. This guide covers features, technical specifications, detailed installation and wiring instructions for single-pole, 3-way, and 4-way setups, Z-Wave inclusion, advanced configuration parameters, troubleshooting, and safety precautions. Optimize your smart home lighting with Zooz.</p>
	<p>ZOOZ ZEN15 800LR Z-Wave Plus Long Range Power Switch User Manual</p> <p>User manual for the ZOOZ ZEN15 800LR Z-Wave Plus Long Range Power Switch, detailing features, specifications, installation, advanced settings, troubleshooting, and warranty information for smart home automation.</p>

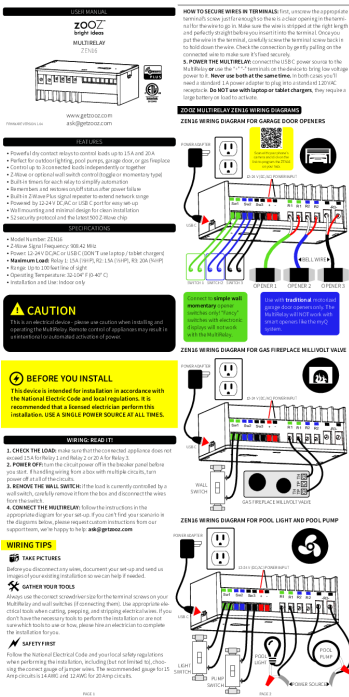
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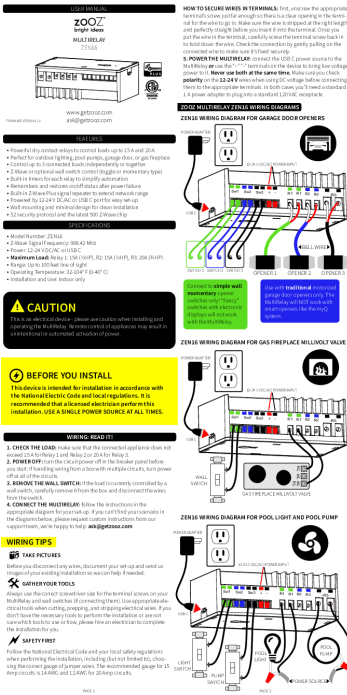
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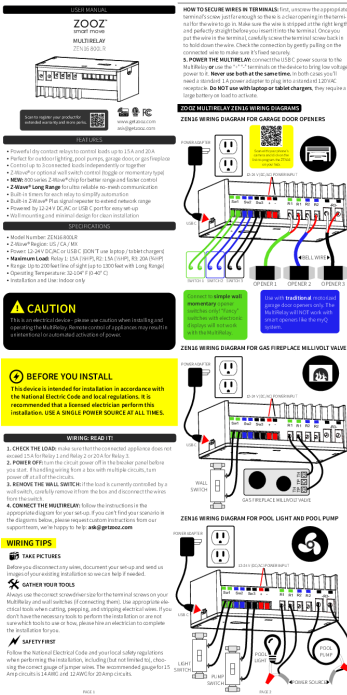
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[pdf] User Manual Warranty

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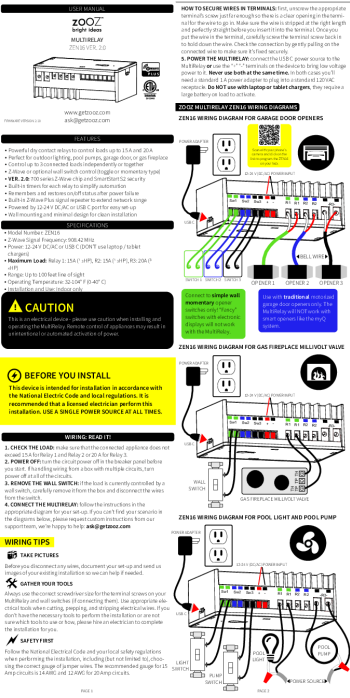
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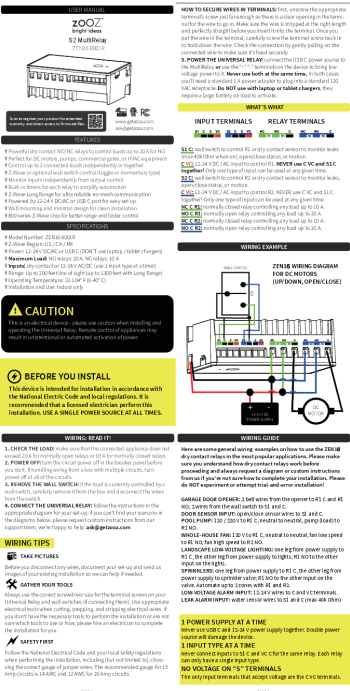
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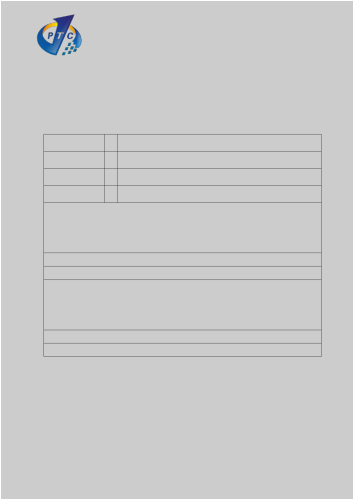
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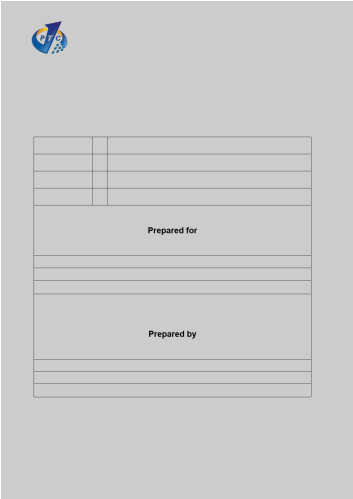
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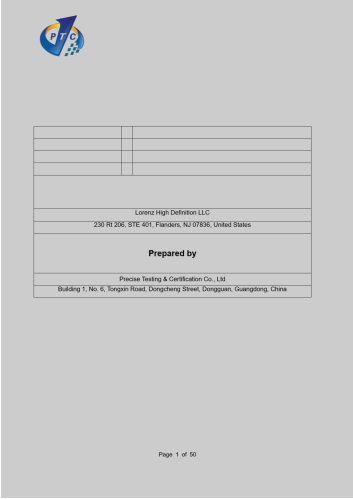
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401, Flanders, NJ 07836, United States Prepared by Precise Testing Certif...
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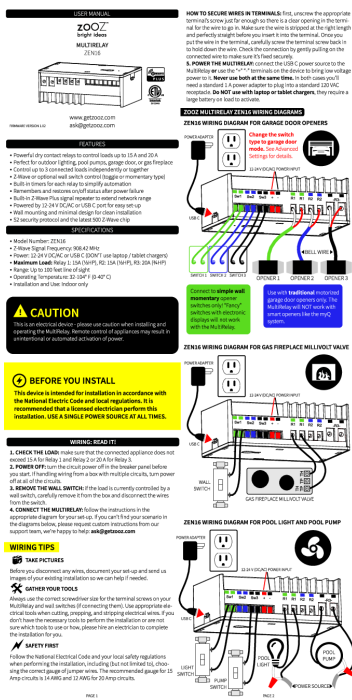
[pdf] Test Report

Test reports Lorenz High Definition LLC ZEN16 mutil relay 2AZ2VZEN16 zen16
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Z-Wave Protocol Implementation Conformance Statement MultiRelay General

Information Product Identifier: Brand Name: Product Version: Z-Wave Certification #:

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