zooZ
bright ideas

MULTIRELAY
ZEN16 VER. 2.0

Z-WAVE PLUS

ETL Intertek 5012446
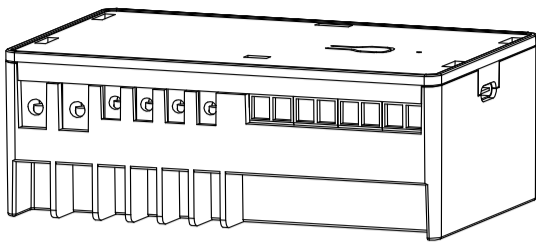
www.getzooz.com
ask@getzooz.com

FIRMWARE VERSION 2.10

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)
• **VER. 2.0:** 700 series Z-Wave chip and SmartStart S2 security
• Built-in timers for each relay to simplify automation
• Remembers and restores on/off status after power failure
• 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 clean installation

SPECIFICATIONS

• Model Number: ZEN16
• Z-Wave Signal Frequency: 908.42 MHz
• 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 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 MultiRelay. Remote control of appliances may result in unintentional or automated activation of power.

⚡ BEFORE YOU INSTALL

This device is intended for installation in accordance with 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 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**

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.
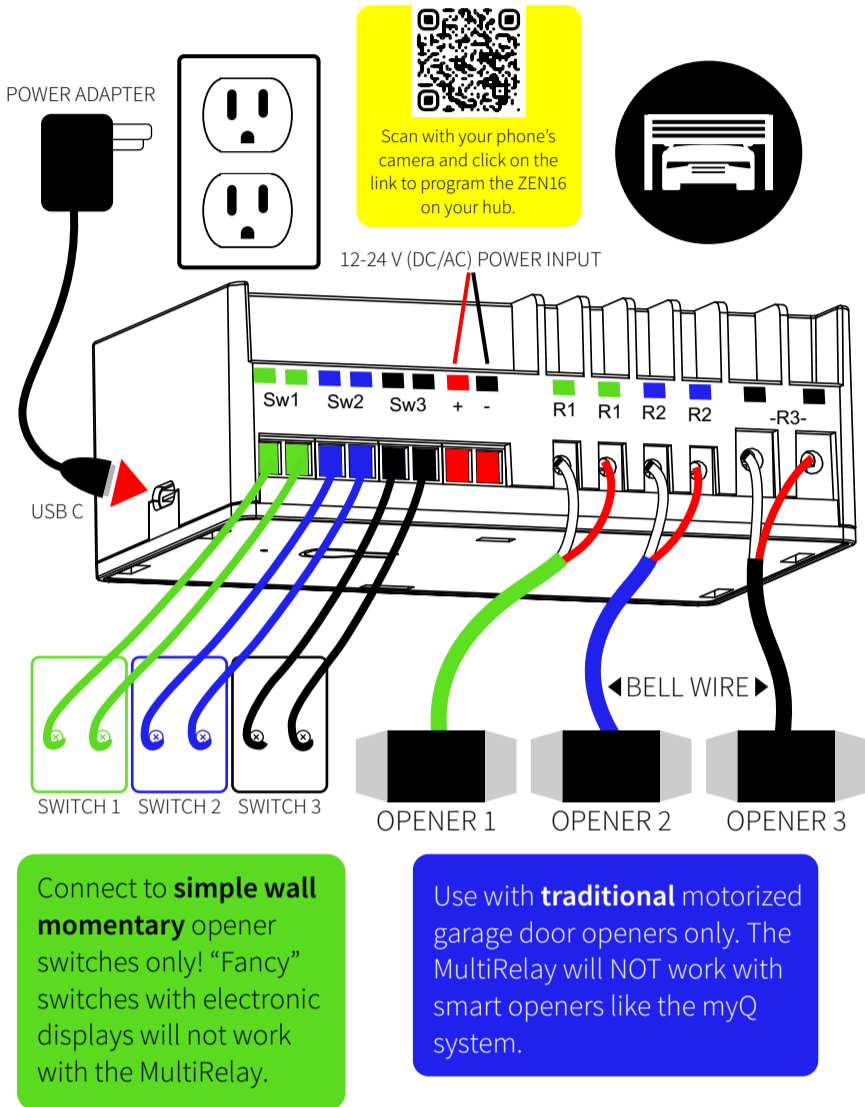
⚡ SAFETY FIRST

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.

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.
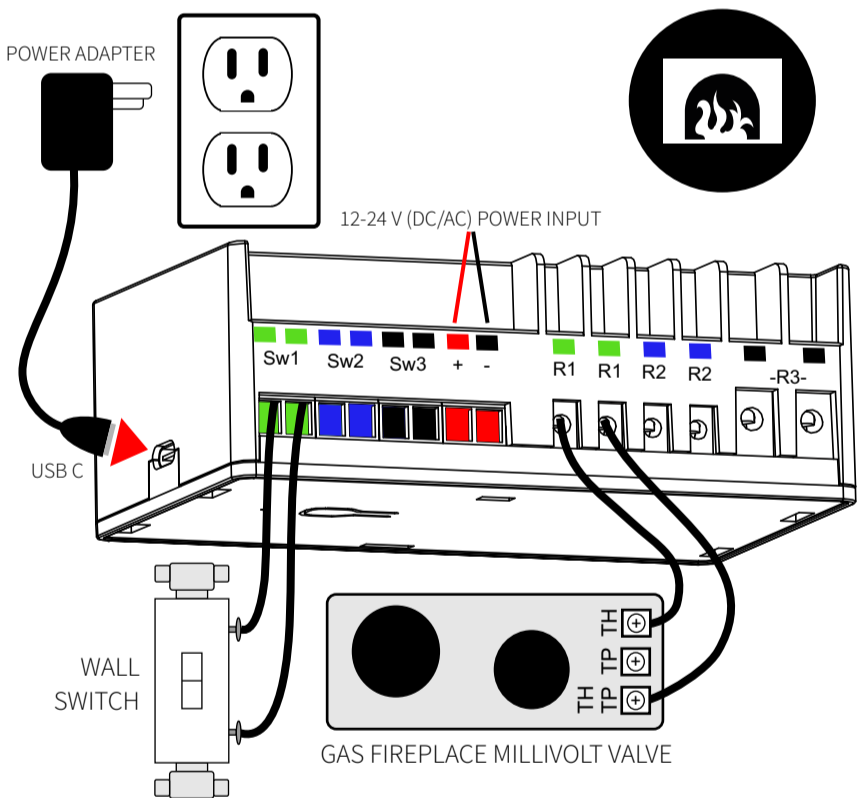**5. POWER THE MULTIRELAY:** connect the USB C power source to the MultiRelay **or** use the "+" "-" terminals on the device to bring low voltage power to it. **Never use both at the same time.** In both cases you'll need a standard 1 A power adapter to plug into a standard 120 VAC receptacle. **Do NOT use with laptop or tablet chargers**, they require a large battery on load to activate.
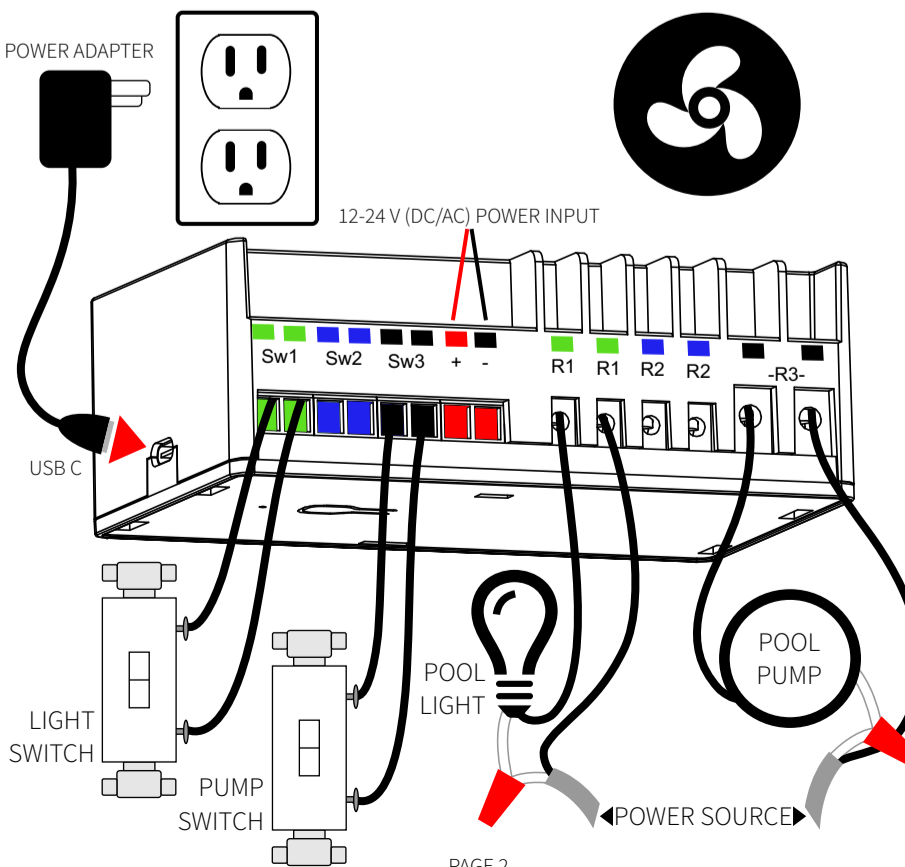
ZOOZ MULTIRELAY ZEN16 WIRING DIAGRAMS

ZEN16 WIRING DIAGRAM FOR GARAGE DOOR OPENERS

Scan with your phone's camera and click on the link to program the ZEN16 on your hub.

POWER ADAPTER
USB C
12-24 V (DC/AC) POWER INPUT
Sw1 Sw2 Sw3 + - R1 R1 R2 R2 -R3-
SWITCH 1 SWITCH 2 SWITCH 3
BELL WIRE
OPENER 1 OPENER 2 OPENER 3

Connect to **simple wall momentary** opener switches only! "Fancy" switches with electronic displays will not work with the MultiRelay.

Use with **traditional** motorized garage door openers only. The MultiRelay will NOT work with smart openers like the myQ system.

ZEN16 WIRING DIAGRAM FOR GAS FIREPLACE MILLIVOLT VALVE

POWER ADAPTER
USB C
12-24 V (DC/AC) POWER INPUT
Sw1 Sw2 Sw3 + - R1 R1 R2 R2 -R3-
WALL SWITCH
TH TP TH TP TH TP
GAS FIREPLACE MILLIVOLT VALVE

ZEN16 WIRING DIAGRAM FOR POOL LIGHT AND POOL PUMP

POWER ADAPTER
USB C
12-24 V (DC/AC) POWER INPUT
Sw1 Sw2 Sw3 + - R1 R1 R2 R2 -R3-
LIGHT SWITCH
PUMP SWITCH
POOL LIGHT
POOL PUMP
POWER SOURCE

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 your hub supports SmartStart inclusion.

Z-WAVE BUTTON
3 x CLICK

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.

Choose your hub and scan the QR code with your phone's camera. Then click on the link to access step-by-step pairing instructions.
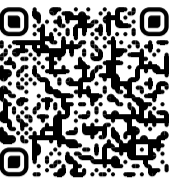
SmartThings   **Hubitat**   **Vera**

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

NEED SOME HELP? ask@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**, 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 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

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 devices for lifeline communication and Groups 2 (for Relay 1), 3 (for R2), 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 prior to power outage); 1 – ALL relays remember and restore on/off status after power failure (default); 2 – ALL relays forced to ON (regardless of state prior to 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 or 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, LED indicator is off when ALL of the relays are off; 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 off once it has been turned on. The number entered as 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 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 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 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 off once it has been turned on. The number entered as 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 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 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 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 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 relay after 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 circuit).
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 extended 5-year warranty once registered. To read the full warranty policy or file a warranty claim, please go to www.getzooz.com/warranty