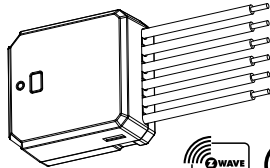


DC MOTOR CONTROLLER  
ZEN53 LR

**ZOOZ™**  
bright ideas  
www.getzooz.com  
ask@getzooz.com



FEATURES

- Manual or Z-Wave control of DC motors (reversed polarity)
- Great for motorized shades, blinds, awnings, screens, and more
- Shutter and Venetian blind modes to choose from
- Installs behind your existing wall switch (momentary button)
- **700 series Z-Wave** chip for better range and faster control
- **Z-Wave Long Range** for ultra reliable no-mesh communication
- Advanced configuration including timer settings and calibration
- Built-in Z-Wave signal repeater for boosted communication
- SmartStart and S2 Security for a safer network

SPECIFICATIONS

- Model Number: ZEN53 LR
- Power: 6-32 VDC
- **Maximum Load:** 1.5 A (use with DC motors only)
- Range: Up to 300 feet line of sight (or up to a mile with LR)
- 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 motor controller. 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; any device over 32 V DC power; or a transformer-supplied fixture.

**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.

WIRING: READ IT!

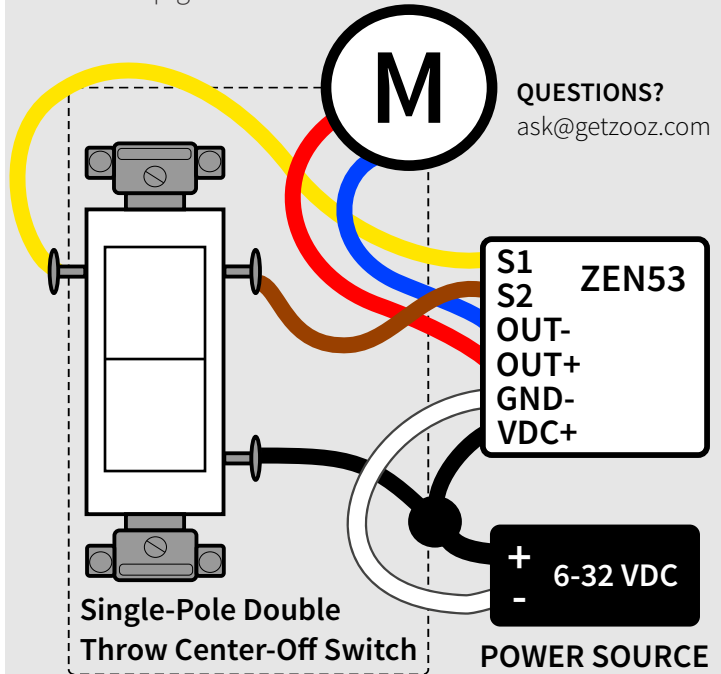
- CHECK THE LOAD:** don't exceed 1.5 A for your DC motor, **DO NOT CONNECT THIS DEVICE TO 120 VAC LOADS.**
- POWER OFF:** turn the circuit power off in the breaker panel before you start. If installing in a multi-switch box with multiple circuits, turn power off at all of the circuits.
- CHECK THE WIRES:** mark motor connections (OUT), DC power (GND- and VDC+), and switch connections (S1 and S2). **Don't rely exclusively on your multimeter to identify the wires!**
- DISCONNECT THE SWITCH:** remove the wires between the switch and the motor and label them accordingly.
- CONNECT THE MOTOR CONTROLLER:** follow all installation steps carefully. Wire the device EXACTLY like in the diagram.

**BUTTON SWITCHES ONLY**

Do not connect the ZEN53 to a wall dimmer, illuminated switches, or electronic add-on switches. The ZEN53 device can only be wired with single pole button momentary switches!



- 1 Connect the motor wires to **OUT -** and **OUT +** on ZEN53.
- 2 Keep your wall switch connected to the **VDC positive +** on DC power. Connect **S1** and **S2** on the ZEN53 according to the instructions for your wall switch. The diagram below shows a single-pole double-throw center-off switch.
- 3 Connect the **GND** on the DC power source to the GND pigtail on ZEN53.
- 4 Connect the VDC positive + on the DC power source to the **VDC+** pigtail on ZEN53.



COMPLETE INSTALLATION

Secure your Z-Wave DC Motor Controller and the wall switch in the box with mounting screws, handling the wires with care. Install the wall plate and restore power to the circuit.

Z-WAVE CONTROL



**1. ADD DEVICE** to your hub

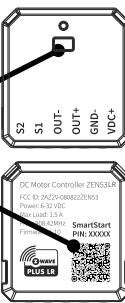
Initiate inclusion (pairing) in the app (or web interface). Check Long Range if using. Not sure how? Scan one of the QR codes below for step-by-step instructions or get in touch: [www.support.getzooz.com](http://www.support.getzooz.com)

2. Finalize inclusion at the device. **TAP THE Z-WAVE BUTTON 3 TIMES QUICKLY** if using traditional Z-Wave inclusion.

**SCAN THE QR CODE / ENTER THE 5-DIGIT PIN** if using the new SmartStart method.

The SmartStart security PIN is located on the back of the relay, next to the Z-Wave Plus logo.

The LED indicator will blink green to signal communication and turn green for 2 seconds if inclusion is successful or turn red for 2 seconds if the pairing attempt fails.



NEED SOME HELP? [ask@getzooz.com](mailto:ask@getzooz.com)

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



Z-Box Hub



Habitat



Home Assistant



SmartThings

Get more tutorials and helpful tips at [www.support.getzooz.com](http://www.support.getzooz.com)

Register your product for extended warranty and direct access to firmware files: [getzooz.com/register](http://getzooz.com/register)

## CALIBRATE THE DEVICE

You will need to calibrate the ZEN53 DC Motor Controller to operate your shades or blinds correctly using Z-Wave control. The default duration for an operating cycle for this device is 60 seconds (for a full up-down cycle). You can calibrate the ZEN53 automatically or manually to set the right duration for up / down or open / close cycles.

**NOTE: If you are installing a brand new motor for your shades, please set it up according to the instructions first.**

### AUTOMATIC CALIBRATION

Use this method for motors with limit switches.

1. Click the Z-Wave button 6 times quickly to enter calibration mode (or set parameter 5 to value 1 for shutter mode or value 2 for Venetian mode, add to hub first).
2. The device will start calibrating while blinking green. The process takes around 10 seconds.
3. The motor will start opening the blinds until it reaches the limit and the blind is fully open. It will then reverse operation and start closing the blind until it reaches the closed limit.
4. The calibration process is now complete. The device has calculated the total time it needs to fully open or close your blinds or shutters. It will use this data to execute open and close commands. If you need to make any adjustments manually, you can enter the new values in parameters 3 and 4 in the advanced settings.

SCAN FOR MANUAL CALIBRATION INSTRUCTIONS



### TROUBLESHOOTING

**The device 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** to add.
3. Bring the gateway controller (hub) **closer** to the device, it may be out of range.
4. Get troubleshooting tips for your hub at [www.support.getzooz.com](http://www.support.getzooz.com)

### EXCLUSION (REMOVING / UNPAIRING DEVICE)

1. Bring your Z-Wave hub close to the device if possible
2. Put the Z-Wave hub into **exclusion mode** (not sure how to do that? ask@getzooz.com)
3. Click the **Z-Wave button** on the device **3 times quickly** (the LED indicator will start blinking green)
4. Your hub will confirm exclusion, the LED indicator on the device will turn green for 2 seconds, and the ZEN53 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 reset the ZEN53, **click the Z-Wave button once and immediately after, press and hold it down for 15 seconds.** The LED indicator will flash red during the process and turn solid red for 3 seconds to confirm successful reset.

**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.

## ADVANCED SETTINGS

Here is a selection of settings available to customize your device. **Scan the QR code for a full list of parameters** and look below for how to access them on your hub.

- **Motor mode** to choose between shutter and Venetian operating mode
- **Timer** (automatic open/close)
- Full open and close cycle **duration**
- Open/close status after **power failure**

### SCAN SETTINGS



Choose your hub and scan the QR code with your phone's camera. Then click on the link to learn how to access and change the advanced settings for the device on your hub.



Z-Box Hub



Hubitat



Home Assistant



SmartThings

### ASSOCIATION

This Motor Controller supports Group 1 with up to 5 devices for Lifeline Group communication and Groups 2-4 with up to 5 devices. This device will send BASIC REPORT and SWITCH MULTILEVEL REPORT to Group 1, BASIC SET command to group 2, SWITCH MULTILEVEL SET to Group 3, and SWITCH MULTILEVEL START LEVEL CHANGE / SWITCH MULTILEVEL STOP LEVEL CHANGE when operated manually from the wall switch.

You can set direct association to have the relay control another Z-Wave device independently of the hub by using Group 2. Not every hub exposes direct association settings in the interface so please go to [www.support.getzooz.com](http://www.support.getzooz.com) to see if your system allows for direct association.



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.

### WARRANTY

This product is covered under a 1-year limited warranty and extender 5-year warranty once registered. 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 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