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inov.li/vernacular

VZM30-SN
Instructions

Next Gen Smart Lighting

We're excited to have you on this journey with us and we're here for you every step of the way. Not only are we smart home owners ourselves, but we build all of our products alongside 1,000's of passionate community members. To see how the project came to life and how everyone contributed, please see Page 54 or visit: inov.li/vernacular. It's truly amazing working with people of all walks of life and even more humbling to see everyone's dedication to making some of the best smart home products.

Thank you so much for your trust in us and welcome to the next generation of smart lighting with Inovelli.

Eric H. - Founder/CEO

Eric M. - Founder/CTO

A handwritten signature in black ink, consisting of two parts: 'Eric H.' on the left and 'Eric M.' on the right. The signature is fluid and cursive, with some variations in line thickness.

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Navigating this Manual

We designed this manual as if we were installing the switch ourselves. We suggest reviewing the full manual before beginning the installation process. There are three areas this manual covers:

1. Getting to know your switch
2. Figuring out your wiring
3. Connecting to your hub/gateway

As we continue to work with hub manufacturers, and improve our products. It may be necessary to periodically update this manual. You can always find the latest version of this manual by visiting: inov.li/vzm30sn

Quick Setup.

Quick Setup Notes

We get it—you're ready to go. No need to flip through the manual; you want the abridged version. This section assumes your switch is wired correctly, the blue LED is on and pulsing.

It also assumes you know how to enter Zigbee pairing mode on your hub/gateway and that you have a Zigbee-compatible hub/gateway.

To check compatible hubs, please visit: inov.li/vzm30snhubs

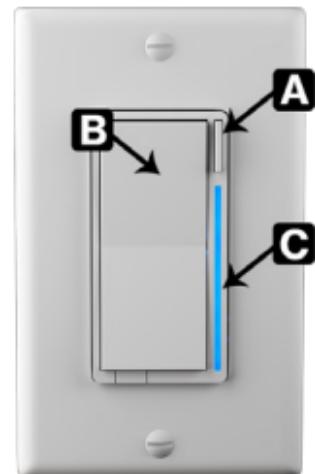
While these instructions likely won't change, for the latest updates, we recommend scanning the QR code to the right or visiting: inov.li/vzm30snOS



Pairing Your Switch

Auto-Pairing: The switch will automatically start pairing when power is restored. To indicate the switch is in pairing mode, the LED Bar (C) will pulse blue. If the LED Bar (C) is not pulsing, pull the air-gap out (located at the bottom left of the switch) and push it back in or flip the breaker off/on. Start the Zigbee pairing process on the hub at any time. If successful, the LED Bar (C) will turn green.

If the switch is unsuccessful during pairing, you can factory reset the switch by holding down the top of the paddle (A) and the config button (C) for 20 seconds. The LED Bar (D) will turn green, then yellow, and finally red, indicating it's been reset and you can try the pairing process again.



Getting to Know Your Switch

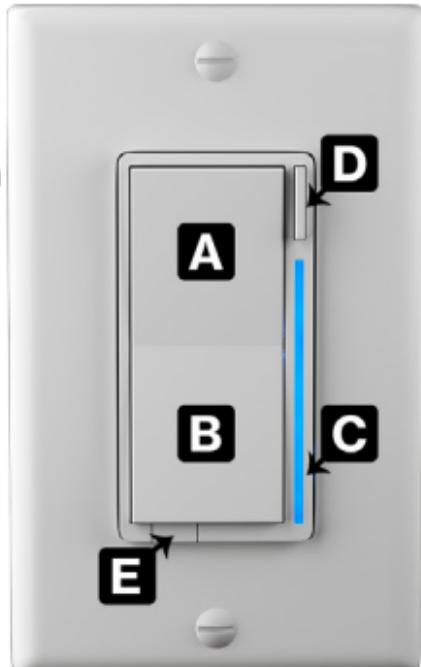
Please use the next couple pages to get to know your smart switch.

- A. Light On:** Tap 1x to turn on your light. In addition, it can be used to activate scene control (multi-taps and holds) where up to 7 scenes can be added*.
- B. Light Off:** Tap 1x to turn off your light. In addition, it can be used to activate scene control (multi-taps and holds) where up to 7 scenes can be added*.
- C. RGB LED Bar:** Multi-functional LED bar that shows the % level at which your switch is at. In addition, it can be used as a notifier* for various events (e.g., turn red when alarm is armed, pulse purple if garage is left open, etc).

D. Config / Favorites Button: Used to configure certain parameters of the switch. In addition, it can be used to activate scene control (multi-taps and holds) where up to 7 scenes can be added*.

E. Air Gap: This can be pulled out to cut power to the load and is there for safety purposes.

Note: the humidity sensor is located under the paddle.



* Hub must support these features. Please see pg. 37.

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Wiring.

Wiring Notes

Due to the number of ways these switches can be wired, all schematics are housed online and you can access the schematics by scanning the QR Code at the bottom right, or by visiting:
inov.li/vzm30snwiring

To work your way through this section, first read the warnings, then familiarize yourself with the vernacular used. Finally, keep notes as you go through the first three (3) steps as you will use them to determine whether or not your wiring is compatible and whether or not you have to manually program your switch (pg. 31).

Finally, please do not attempt to install these switches if you are unfamiliar with electrical as serious



Safety Reminder

Consult a qualified electrician if necessary as **we are unable to give wiring advice outside of schematics.**

If you are unsure how electrical circuits work, please do not try installing this device. As exciting as it is to have a smart switch installed, it can be dangerous and even life-threatening if you do not install it correctly. Improper installation will void the product's warranty.

Please read through the warnings on the next few pages before installing your switch. We can't stress enough how dangerous installation can be if you don't know what you're doing.

Warnings

Caution - Please Read: This device (VZM30-SN) is intended for installation in accordance with the National Electric Code and local regulations in the United States, or the Canadian Electrical Code and local regulations in Canada. If you are unsure or uncomfortable about performing this installation consult a qualified electrician. This product is made for indoor use only and is not designed or approved for use on power lines other than 120VAC or 277VAC, 60Hz, single phase. Attempting to use this VZM30-SN on non-approved power lines may have hazardous consequences.

Attention - Information importante: Cet appareil (VZM30-SN) est conçu pour être installé conformément au « National Electric Code » et aux réglementations locales aux

États-Unis, ou au Code canadien de l'électricité et aux réglementations locales canadiennes. Si vous ne vous sentez pas à l'aise ou qualifiés pour effectuer cette installation, veuillez consultez un électricien qualifié. Ce produit est conçu pour une utilisation intérieure uniquement et n'est pas conçu ou approuvé pour une utilisation avec une ligne électrique ayant un voltage autre que 120 VCA, 60 Hz, monophasé. L'utilisation du VZM30-SN avec une ligne électrique non approuvée peut avoir des résultats dangereux.

Other Warnings: Risk of Fire, Electrical Shock & Burns

Autres avertissements: Risque d'incendie, de choc électrique et de brûlures

Warnings (Continued)

Recommended Installation Practices:

- ✗ Use only indoors or in an outdoor rated box.
- ✗ Turn off the circuit breaker. Installing this switch with the power on will expose you to dangerous voltages.
- ✗ Connect only copper or copper-clad wire to the switch.

To prevent overheating and potential damage to other equipment, do not exceed the load limits specified in the table on page 17 for the VZM30-SN.

A "General Purpose Load" includes non-lighting devices such as electric heaters, coffee machines, and fans.

Maximum load values apply to both 120VAC and 277VAC, except for incandescent loads, which are listed separately.

Load Type	Max Load	Load Type	Max Load
General Purpose Load	1800W	Incandescent (277V)	1385W
Resistive Load	15A	Incandescent (120V)	960W
Motor Load	1/2HP	LED/CFL	600W

To install your On/Off Switch (VZM30-SN), you'll need to identify the following four wires (**NOTE:** A neutral wire is mandatory):

- ✗ **Line:** Usually black and can also be called the, "hot" or "live" and carries 120/277VAC electricity into the electrical box
- ✗ **Neutral:** Usually white and is commonly daisy chained from box to box, usually appearing as a white wire bundle
- ✗ **Load:** Usually black, blue or red
- ✗ **Ground:** Bare copper wire or metal fixture (if grounded)

Warnings (Continued)

Pratiques d'installation recommandées :

- ✗ Utiliser uniquement à l'intérieur ou dans une boîte extérieure.
- ✗ Éteignez le disjoncteur. L'installation de cet interrupteur avec l'appareil sous tension vous exposera à des tensions dangereuses.
- ✗ Connectez uniquement du fil de cuivre ou recouvert de cuivre au commutateur.

Pour éviter la surchauffe et les dommages potentiels à d'autres équipements, ne dépassez pas les limites de charge spécifiées dans le tableau de la page 19 pour le VZM30-SN.

Une « charge à usage général » comprend les appareils non liés à l'éclairage tels que les radiateurs électriques, les machines à café et les ventilateurs.

Les valeurs de charge maximales s'appliquent à la fois à 120 VCA et à 277 VCA, à l'exception des charges à incandescence, qui sont répertoriées séparément.

Type de charge	Maximum	Type de charge	Maximum
Charge à usage général	1800W	Incandescent (277V)	1385W
Charge résistive	15A	Incandescent (120V)	960W
Charge du moteur	1/2HP	LED/CFL	600W

Pour installer votre interrupteur marche/arrêt (VZM30-SN), vous devrez identifier les quatre fils suivants (REMARQUE : un fil neutre est obligatoire) :

- ✖ **Ligne** : généralement noire et peut également être appelée « chaud » ou « sous tension » et transporte l'électricité 120/277VAC dans le boîtier électrique.

Warnings (Continued)

- ✖ **Neutre** : généralement blanc et généralement connecté en série d'une boîte à l'autre, apparaissant généralement sous la forme d'un faisceau de fils blancs.
- ✖ **Charge** : généralement noire, bleue ou rouge
- ✖ **Terre** : Fil de cuivre nu ou luminaire métallique (si mis à la terre)

Vocabulary

Before we go into actual steps, it's important to be familiar with the vernacular used on the following pages. Please see below:

- ✖ **Line:** This is your hot wire (120V/277V) - aka: "live" wire
- ✖ **Load:** This is the wire that runs from your light switch to what you're controlling (ie: bulb(s), fan, etc)
- ✖ **Neutral:** This is the wire that carries current back to the power source
- ✖ **Single-Pole:** One switch controlling one or more load(s)
- ✖ **Multi-Way:** Refers to 3-Way (2 switches, 1 load), 4-Way (3 switches, 1 load), or 5-Way setups (4 switches, 1 load)
- ✖ **Aux Switch:** Refers to the Inovelli Aux Switch (inov.li/aux)

Step 1 - Determine Wiring Type

The first step is to determine how many switches control your load(s) (aka: light(s)).

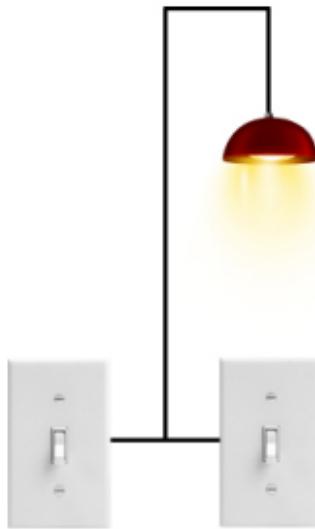
Using the diagram on the next page, please determine what your wiring type is and remember this selection:

- ✗ **Single-Pole:** One switch controls one load (load may contain more than one light, etc).
- ✗ **Multi-Way:** Two or more switches control one load (load may contain more than one light, etc). We will use the term, "multi-way" instead of 3-Way, 4-Way, 5-Way, etc as the programming of the switch is the same regardless.



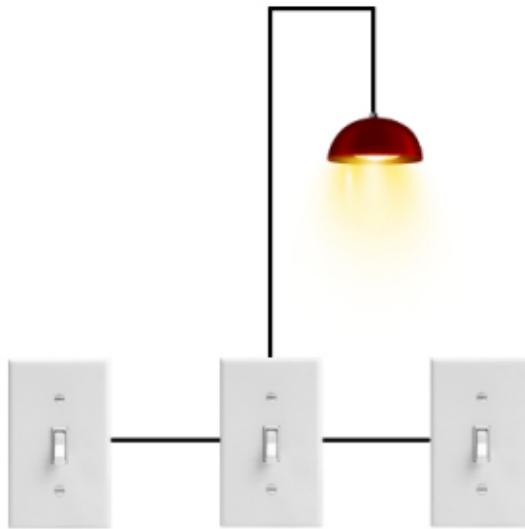
Single-Pole

One switch controls one (or more) load(s).



Multi-Way

Two or more switches control one (or more) load(s).



Step 2 - Determine Switch Layout

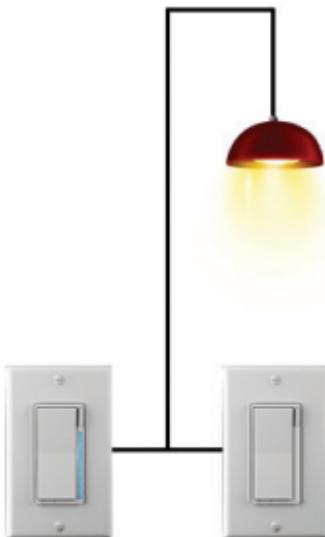
NOTE: If you determined in Step #1 that your switch is single-pole, you can skip this step. This step is for multi-way setups only.

Using the diagram on the next page, please determine what your wiring layout is and remember this selection:

- ✗ **Smart Switch + Aux Switch:** One smart switch and one (or more) aux/add-on switch (Model #: AUX01 or inov.li/aux).
- ✗ **Smart Switch + Smart Switch:** Two (or more) smart switches.

See inov.li/vzm30snlayout for the pro/cons of each setup. You may not mix/match (ie: Smart + Smart + Toggle) in the same circuit.

Wiring Type (Circle One): Aux, or Smart Switch(es)



Smart + Aux Switch

One Inovelli smart switch & one (or more) Inovelli aux switch (AUX01).



Smart Switches

Two (or more) Inovelli smart switches.

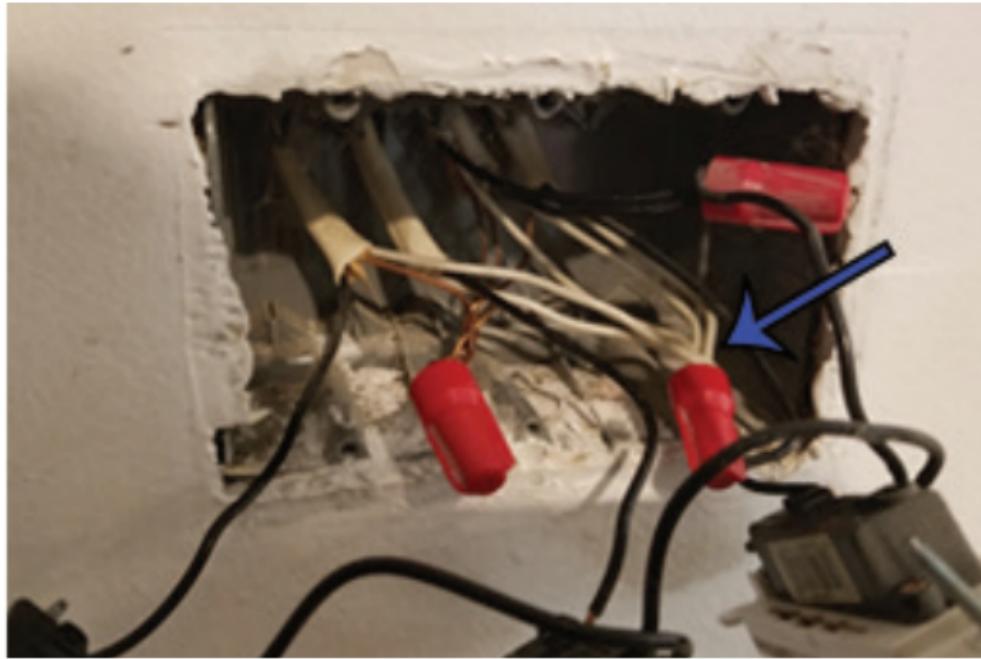
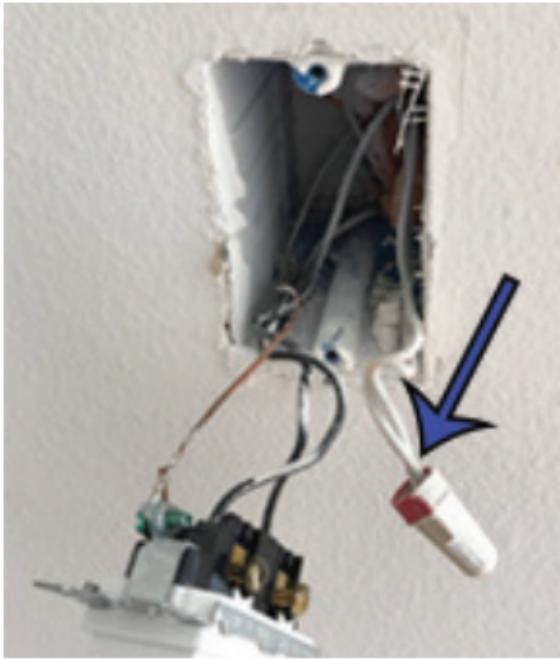
Step 3 - AC Power Type

In this step, we will determine if you have a neutral wire, which is typically white and located in the back in your switch gang-box (typically in a bundle of wires tied together).

Here are some signs you may have a neutral wire:

- ✗ If your house was built in the mid-1980's or later
- ✗ If there is an outlet (receptacle) near the switch
- ✗ If switches are in the same gang-box (regardless of the year your house was built)

See the next page for details on checking for a neutral wire.



After turning off your breaker, pull out the switches (**WARNING:** there may be multiple circuits in one gang-box -- please ensure all circuits are turned off). Check the back of your gang-box for a bundle of white wires. These are typically neutrals.

Step 4 - Compatibility Check

In this step, we will determine if your switch can be installed with your current wiring setup.

Taking the answers you circled in Steps 1-3, please see the chart on the next page to see if your switch is compatible with your setup.

Example: If you circled, "Multi-Way", "Aux Switch" and "Neutral", you will see that your wiring is compatible. However, if you circled, "Single-Pole" and "No Neutral", you will see that your wiring is not compatible and you will need to purchase an alternate switch (inov.li/aux).

Wiring Type	Switch Layout	Power Type	Supported
Single-Pole		Neutral	Yes
		No Neutral	No
Multi-Way	Aux (Switch)	Neutral	Yes
		No Neutral	No
	Smart (Switch)	Neutral	Yes
		No Neutral	No

IMPORTANT: This switch is not compatible in non-neutral situations. If you do not have a neutral wire, we recommend purchasing our non-neutral dimmer switch (inov.li/bluedimmer) and ensuring the load you're controlling is compatible.

Step 5 - Switch Installation

The last step is to physically install your switch. After you've determined your wiring type, switch layout, AC Power type and whether or not you have a compatible setup, it's time to look at the wiring schematics and install your switch.

As mentioned, there are many different ways your switch can be wired that if we posted them here, we'd have an encyclopedia of a manual, so all of our schematics are housed online. [UL specifies the tightening torque for the screws to be 0.8 N.m \(7.08 lbf-in\).](#)

Keep note of your answers from the prior steps and either scan the QR Code to the right or go to: inov.li/vzm30snwiring and match up your answers to the correct schematic section.



Hub/Gateway Setup.

Hub/Gateway Setup Notes

As manufacturers update their hub/gateway platforms, the setup process may change. We recommend checking our website for the latest directions, by scanning the relevant QR code.

If you don't see your hub, please go to: inov.li/vzm30sn0T

**Amazon
Echo**



[inov.li/
vzm30snAE](https://inov.li/vzm30snAE)

**Samsung
SmartThings**



[inov.li/
vzm30snST](https://inov.li/vzm30snST)

**Home Assist.
ZHA**



[inov.li/
vzm30snZHA](https://inov.li/vzm30snZHA)

**Home Assist.
Z2M**



[inov.li/
vzm30snZ2M](https://inov.li/vzm30snZ2M)

**Hubitat
Elevation**



[inov.li/
vzm30snHE](https://inov.li/vzm30snHE)

Amazon Echo Instructions

COMPATIBLE HUBS: Echo Plus 1st & 2nd Gen, Echo Show 2nd Gen, and Echo Studio. For a full model list, visit: inov.li/vzm30snAEHubs.

(NOTE: Advanced features are not supported by Amazon at this time.)

First, Follow the directions on page 7 to put the switch in pairing mode. When the LED bar (C) is pulsing blue proceed (if you run into issues pairing, please follow the reset instructions on page 7):

- ☒ Open the Amazon Alexa app and click on the devices icon
- ☒ Tap on the (+) button and click, "Add Device"
- ☒ Tap on the switch icon
- ☒ Scroll to the bottom and select, "Other"
- ☒ Click, "Discover Devices"
- ☒ If successful, the LED Bar (C) will turn green and your app will show the new switch (feel free to rename it)

SmartThings Instructions

COMPATIBLE HUBS: Samsung SmartThings Hub V1, V2, Samsung or Aeotec Hub V3, Samsung Dongle, and SmartThings Station (**NOTE:** You will need to install an Edge Driver to ensure full functionality of the switch. For more info, please go to: inov.li/vzm30snSTPrereqs).

First, Follow the directions on page 7 to put the switch in pairing mode. When the LED bar (C) is pulsing blue proceed (if you run into issues pairing, please follow the reset instructions on page 7):

- ☒ Open the SmartThings app and click on the devices icon
- ☒ Tap on the (+) button and click, "Add Device"
- ☒ Under the, "Scan for nearby devices", click, "Scan" and your hub will search, find and initialize the device
- ☒ If successful, the LED Bar (C) will turn green and your app will show the new switch (feel free to rename it)

Home Assistant Instructions

COMPATIBILITY: We recommend either ZHA or Zigbee2mqtt (**NOTE:** you will also need a compatible Zigbee stick - a full list can be found here: ZHA = inov.li/vzm30snZHsticks or Z2M = inov.li/vzm30snZ2Msticks).

You didn't think we'd be able to fit the HA instructions in here, did you?! Please visit our website :)

ZHA
Instructions



inov.li/vzm30snZHA

Zigbee2mqtt
Instructions



inov.li/vzm30snZ2M

Hubitat Instructions

COMPATIBLE HUBS: Hubitat C3, C4, C5, C7, C8, C8 Pro (**NOTE:** You will need to install a Device Driver to ensure full functionality of the switch. We recommend doing this prior to pairing. For more info, please go to: inov.li/vzm30snHEPrereqs).

First, Follow the directions on page 7 to put the switch in pairing mode. When the LED bar (C) is pulsing blue proceed (if you run into issues pairing, please follow the reset instructions on page 7):

- ✗ Login to your Hubitat portal and click on the devices tab
- ✗ Tap on the (+) Add Device button and click, "Zigbee" under, "Add device manually"
- ✗ Click, "Start Zigbee Pairing" and your hub should go into pairing mode, find and initialize the device
- ✗ If successful, the LED Bar (C) will turn green and your app will show the new switch (feel free to rename it)

Advanced Features.

Advanced Features Notes

NOTE: The advanced features shown below are what is built into the switch firmware, and may or may not be supported by your hub/gateway. We've confirmed they're supported on SmartThings, Hubitat, and Home Assistant (ZHA and Zigbee2MQTT).

These switches are packed with a ton of amazing features, which include scene control (multi-tap), animated notifications, smart bulb mode, energy monitoring, and approximately 50 different parameters to customize your switch.

The manual does not have enough room to list out and explain all the parameters and advanced features. However, the following pages will direct you to the proper URL's. An overview can be found at the QR code to the right or at the following URL: inov.li/vzm30snAF



Switch Parameters

There are approximately 50 different parameters on this switch, making it one of the most customizable switches out there.

Due to the space constraints in this manual, we had to list them all out on our website. You can access these parameters by scanning the QR Code or by visiting: inov.li/vzm30snparameters

If your hub does not support parameter changes, you can program a lot of these directly from the configuration button. Please visit: inov.li/vzm30snLC



Other Advanced Features

To setup some of the other advanced features, such as: Animated Notifications, Scene Control, Smart Bulb Mode and Zigbee Binding, please see the URL's below as the instructions will be different depending on the hub you're using.

- ✗ **Animated Notifications:** inov.li/vzm30snAN
- ✗ **Scene Control:** inov.li/vzm30snSC
- ✗ **Smart Bulb Mode:** inov.li/vzm30snSBM
- ✗ **Zigbee Binding:** inov.li/vzm30snZB

As noted on page 39, your switch has the ability to program parameters from the configuration button. To learn more, please visit: inov.li/vzm30snLC

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Product & Contact Info.

Product & Contact Info Notes

As mentioned in the beginning of the manual, we're all smart home owners ourselves and have an amazing community of people who are eager to help and share their setups.

If you ever run into any issues, please do not hesitate to submit a ticket, or post in the community. We'd love to hear from you.

Community Link: inov.li/community

Submit a Ticket: inov.li/support (or scan the QR Code below)

Thanks again for your support and we look forward to helping you get the most out of our smart home!



FCC/IC Statements

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

NOTE: 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 in accordance with

FCC/IC Statements (Cont.)

the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna, increase the separation between the equipment and receiver, connect the equipment into an outlet on a circuit different from that to which the receiver is connected or consult the dealer or an experienced radio/TV technician for help. This equipment should be installed and operated with minimum distance 8in (20cm) between the radiator and your body.

IC Caution: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. This equipment should be installed and operated with a minimum distance of 8 inches (20cm) between the radiator and your body.

DECLARATION DE CONFORMITE D'INDUSTRIE CANADA: Ce périphérique a été testé et reconnu conforme aux limites spécifiées dans RSS-210. Son utilisation est soumise aux deux conditions suivantes: (1) il ne doit pas provoquer d'interférences gênantes et (2) il doit tolérer les interférences, notamment celles susceptibles d'en perturber le fonctionnement. Cet équipement doit être installé et utilisé avec une distance minimale de 20cm entre le radiateur et votre corps.

Product Info

Name: Smart On/Off Switch

SKU #: VZM30-SN

Power: 120V or 277V AC, 60Hz

Signal (Frequency): 2.4GHz

Operating Temperature Range: 32-95° F (0-35° C)

Maximum General Purpose Load: 1800 Watts for both 120V and 277V

Maximum Resistive Load: 15 Amps for both 120V and 277V

Maximum Lighting Load (Watts): 120V AC - 960W Incandescent, 600W LED/CFL, 277V AC - 1385W Incandescent, 600W LED/CFL

Maximum Motor Load: 1/2 Horsepower for both 120V and 277V

Range: Up to 100 meters line of sight between the Wireless Controller (HUB) and the closest Zigbee Repeater.

Certifications: ETL Listed, FCC/IC & Zigbee 3.0 Certified

For indoor use only.

Company Info / Warranty

If you run into any issues, feel free to reach out to us at: contact@inovelli.com. We typically answer tickets within 24-48 hours and are staffed by actual smart home owners.

All Inovelli products come with a one (1) year warranty (defined as 365 days). This warranty protects you from breakdowns in the material or workmanship under normal use. This warranty is limited in a couple areas. Purchases must be made from Inovelli or an authorized reseller. The product should be used in the manner directed in the instructions. The product must only be used and/or installed in the United States or Canada.

For full warranty info, please visit: inov.li/warranty

Project Vernacular

The name “Vernacular” came about as a bit of a peace offering after the debate around the original name of the 2-1 Switch (now our Dimmer Switch). Consider it our way of saying, “Sorry for the confusion—yes, the 2-1 isn’t a true On/Off switch in that it doesn’t have a relay. Please accept our apology and enjoy using this for anything that won’t fully turn off!”

Our community has had a few lively discussions (okay, battles) over the terminology used, and this project name is a tongue-in-cheek nod to those threads.

To see the origin of this project, as well as the journey scan the code or visit: inov.li/vernacular



~~S~~

George

Buy

K

Nick

~~Eric~~

Connie

Kohan

~~Thom~~

霍伟主任

~~郭东升~~

Don

~~John~~

John

~~John~~

~~Ruth~~

Daniel

William

~~Shant~~

王宇坤

唐忠清

~~宋立~~ ~~孙立~~

Hankin Rachel

Thank You.

moretti
®