

Smart On/Off Toggle Switch

- MS12Z •



Specifications:

Model: MS12Z
 Power: 120VAC, 60Hz
 Frequency: 908.42 MHz
 Maximum Load: 960W Incandescent, ½ HP Motor or 1800W (15A) Resistive
 Temperature Range: 32° F-104° F

Indoor use in dry location

FCC / IC

This device complies with part 15 of the FCC and Industry Canada license-exempt RSS standard(s). Operation is subjected to the following two conditions:

- 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.
 - 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.
 - Consult the dealer or an experienced radio/TV technician for help
- (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION - PLEASE READ!

This device (MS12Z) 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.

CONTROLLING APPLIANCES

Please exercise EXTREME CAUTION when using Z-Wave devices to control appliances. Reason being is because the appliance you want to control may be in a separate room and if unintentional behavior occurs (such as a device turning on or off - either intentionally via schedules, or unintentionally via network error) this event may lead to a hazardous condition. For these reasons, please note the following suggestions:
 1) Do not include Z-Wave devices in Groups or Scenes if they control appliances.
 2) Do not use Z-Wave devices to control electric heaters or any other appliances which may present a hazardous condition due to unattended, unintentional, or automatic power control

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 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:
Important note: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

WARNING - SHOCK HAZARD

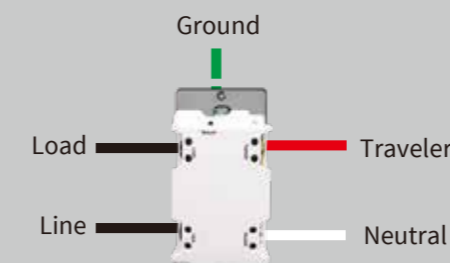
TURN OFF THE POWER to the circuit for the switch and lighting fixture at the service panel (circuit breaker) prior to installation.
ALL WIRING CONNECTIONS MUST BE MADE WITH THE POWER OFF to avoid personal injury and/or damage to the switch.

OTHER WARNINGS

- Risk of Fire
- Risk of Electrical Shock
- Risk of Burns

MEDICAL EQUIPMENT

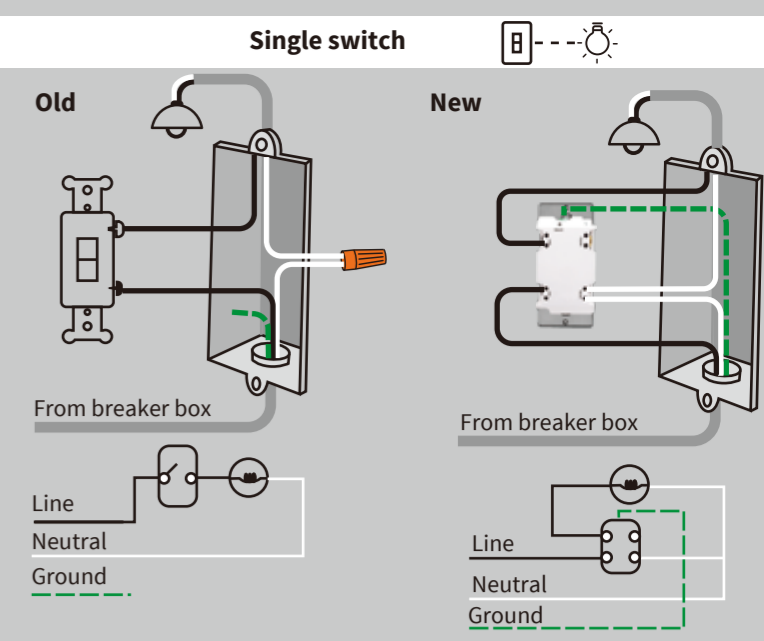
Please DO NOT use this switch to control Medical or Life Support equipment. Z-Wave devices should never be used to control the On/Off status of Medical and/or Life Support equipment.



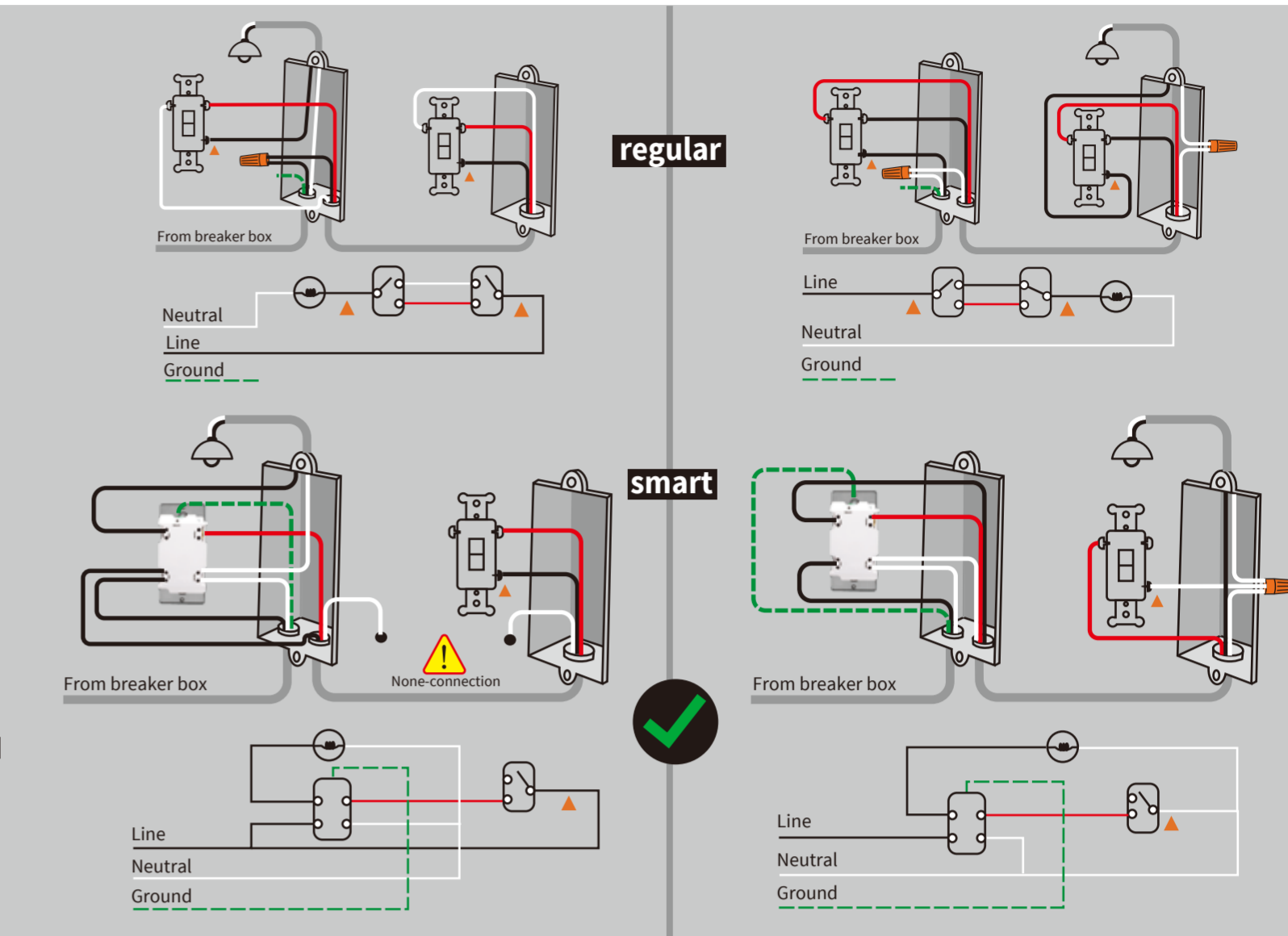
Identify the wires.

- LINE (Hot) — Black (connected to power)
- NEUTRAL — White
- LOAD — Black (connected to lighting)
- GROUND — Green/Bare
- TRAVELER — Red/Other (only in 3-way in stallations)
- COMMON

• Please contact us at ask@minoston.com if you have any questions during installation.

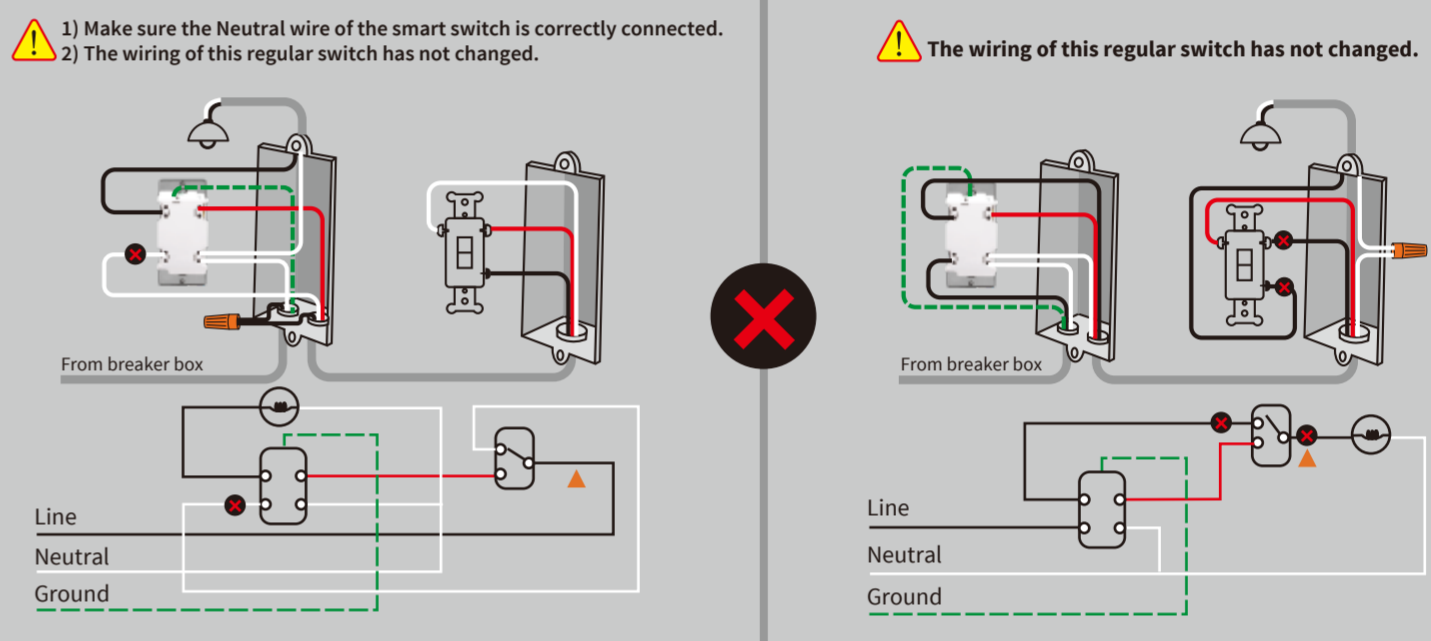


Please check which option is best for your 3-way installation.



Please change the wiring of the regular switch to make the 3-way configure works properly.

When the smart switch does not work properly, there may be in error conditions:



Z-WAVE™ Z-WAVE INTEROPERABILITY

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 device supports Lifeline (association group 1) supporting 1 node for lifeline communication. Group 1 must be assigned the Node ID of the primary controller where unsolicited notifications will be sent. The Z-Wave controller should set this association automatically after inclusion. Lifeline association only supports the "Device Reset Locally" function. Refer to the instructions of your controller for any available details on how this can be set.

Part 1. Installation

Wiring Instructions - A Few Quick Reminders

A quick note before we give out the wiring schematics. Please do not try installing this device if you are unsure of how electrical circuits operate within your home. As exciting as it is to have a smart switch installed, it can be dangerous and even life-threatening if you do not install this correctly. Please consult a qualified electrician if necessary. With that said, here are a few other warnings we'd like to point out for your safety:

IMPORTANT!
 The fixture controlled by the Z-Wave In-wall Smart Switch must not exceed 960 watts (Incandescent); 1800W (15A) Resistive or ½ HP Motor. The switch is designed only for using with permanently installed fixtures.

- Pre-installation preparation**
- 1) Please prepare a flat head screwdriver, a wire stripper, and a voltmeter. Just in case you might need them.
 - 2) Before installation makes sure the voltage supply is disconnected. And carefully remove the switch from the switch box.
 - 3) The wall box required: 1-gang U.S. wall box. 3½ in deep recommended, 2¼ in deep minimum.
 - 4) Wire gauge requirements: use 9 AWG or larger wires suitable for at least 80° C for supplying Line (HOT), Load, Neutral, Ground and Traveler connections.

PLEASE DO NOT RETURN THIS PRODUCT TO THE STORE!

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Installation

1. Turn off circuit breaker
 Find your light control in your circuit breaker and turn it off. Make sure the power is off by flipping your switch several times.
2. Detach old switch
 Unscrew the top and bottom screws of the switch to detach it from the wall. **IMPORTANT!** Verify power is OFF to switch box before continuing.
3. INSTALL THE WIRES (Refer to the step above the wiring diagram.)
4. Fix the shell (Please use our screws.)
5. Turn on the circuit breaker
 Turn on your switch's power from the circuit breaker. Press the switch several times to check whether it works.

IMPORTANT! Please Read.

Line and load must be in the same box for this schematic to work. if yours is not, please reach out for a custom schematic.

(3-WAY SWITCH WIRING)

For 3-Way setups, please only use an On/Off, 3-Way slave switch (non-dimming).
Note: The Traveler terminal is only used for 3-way wiring.

Part 2. Switch Setup

Operation	LED Status(Blue)	Switch
press down	ON (Default)	power OFF (Default)
press up	OFF (Default)	power ON (Default)
press 2x quickly	/	send scene 1 / scene 2
press 3x quickly (see below)	flash quickly	inclusion /exclusion
press 6x quickly	flash two times	change LED status
press 7x quickly	flash two times	change locally toggle function
press 8x quickly	flash two times	restores state after power failure
parameter change	flash two times	configuration succeed
tap-tap and hold 10 seconds	flash quickly	factory default

Adding your device to a Z-Wave network

Make your controller/hub into the "inclusion" mode, triple press the Up/Down push toggle quickly to include it in the network.

To exclude and reset the device

Make your controller/hub into the "exclusion" mode, triple press the Up/Down push toggle quickly to exclude it from the network.

To return your switch to factory defaults

1. Tap-tap and hold the upper toggle for at least 10 seconds.
- Note:** This should only be used in the event your network's primary controller is missing or otherwise inoperable.

Scene:

Scene 1: Tap-Down-2

Scene 2: Tap-Up-2

Works with Alexa & Google Assistant

It must be connected to a supported hub in order to interact with the Amazon Alexa / Google Home services.

FEATURES

1. 2 ways of control: Manual & wireless control switch on/off.
2. Support 3-way control with regular/ dummy switch(non-dimming switch)-neutral wire required.
3. Support 2 customized scene functions.
4. Built-in Z-Wave Plus signal repeater /range extender.
5. S2 security protocol + the latest 500 series Z-Wave chip.
6. OTA for firmware updates.
7. Support customized parameter settings.
8. Restores the same status after power failure.

WARRANTY

Our Products warrants this product to be free from manufacturing defects for a period of one year from the original date of consumer purchase. This warranty is limited to the repair or replacement of this product only and does not extend to consequential or incidental damage to other products that may be used with this product. This warranty is in lieu of all other warranties, expressed or implied. Some states do not allow limitations on how long an implied warranty lasts or permit the exclusion or limitation of incidental or consequential damage, so the above limitations may not apply to you. This warranty gives you specific rights, and you may also have other rights which vary from state to state.

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The indicator will flashes 2 times after each parameter set successfully.		
Parameter	Available settings	Operation
Parameter 1: Button Function Setting This parameter can access you to set the up button to turn the light on/off.	Size=1 Value=0 (Default) The up button turn the light on and down button turn lights off. Value=1 The up button turn the light off and down button turn lights on. Value=2 The up/down button both can changes the state of the light.	Quick press the switch button 7 times Please note: the switching of each value is in order, a quick press on button 7 times will switch once. eg: Switching from value 0 to value 2 needs 2 switching.
Parameter 2: LED Indicator Status Setting- This parameter can access you to choose the led indicator to be on when the switch(light) is on/off, or LED indicator remains on/off all times.	Size=1 Value=0 (default) LED is On when the switch(light) Off and LED is Off when the switch (light) On. Value=1 LED is On when switch(light) On and LED is Off when the switch(light) Off. Value=2 LED is always Off. Value=3 LED is always On.	Quick press the switch button 6 times Please note: the switching of each value is in order, a quick press on button 6 times will switch once. eg: Switching from value 0 to value 3 needs 3 switching.
Parameter 4: Auto Turn-Off Timer. This parameter can access you to set a timer to make the switch turn off automatically after the switch turned on.The numberentered as value corresponds to number of minutes.	Size=4 Values: 0 – 65535 (minutes); Value=0 (minutes) – default setting	Set up on the hub
Parameter 6: Auto Turn-On Timer. This parameter can access you to set a timer to make the switch turn on automatically after the switch turned off.The numberentered as value corresponds to number of minutes.	Size=4 Values: 0 – 65535 (minutes); Value=0 (minutes) – default setting	Set up on the hub
Parameter=7 Association Setting	Size=1 Default = 1 Value=00 – none Value=01 – local Value=02 – 3way Value=03 – 3way & local Value=04 – z-wave hub Value=Value=05 – z-wave hub & local Value=06 – z-wave hub & 3-way Value=07 – z-wave hub & local & 3way Value=08 – timer Value=09 – timer & local Value=10 – timer & 3-way Value=11 – timer & 3-way & local Value=12 – timer & z-wave hub Value=13 – timer & z-wave hub & local Value=14 – timer & z-wave hub & 3-way	Set up on the hub
Parameter 8: Restores State after Power Failure This parameter can access you to set the switch to be on/off after power failure.	Size=1 Value=1 The switch is off regardless of the state prior to power failure. Value=2(default) memory state before power failure This switch will be return to state prior to the power failure after power is restored.	Quick press the switch button 8 times Please note: the switching of each value is in order, a quick press on button 8 times will switch once. eg: Switching from value 0 to value 2 needs 2 switching.
Association Group: Linking devices: direct control of other devices within the Z-Wave system network.	Group 1 supports 1 node ID, Group 2 Supports maximum of 5 node ID's Association group_1:Z-Wave Plus Lifeline Association Group 2:Send Basic Set ON / Off	Set up on the hub

- Locally Toggle function:**
- 1: press 1x: turn output ON or OFF
 - 2: quickly press 2x: send scene1/scene2
 - 3: quickly press 3x: inclusion or exclusion
 - 4: quickly press 6x: change Parameter 2
 - 5: quickly press 7x: change Parameter 1
 - 6: quickly press 8x: change Parameter 8
 - 7: Factory reset : click Z-Wave Toggle 2 times quickly, and hold for at least 10 seconds.

Generic Device Class:
 0x10 - GENERIC_TYPE_SWITCH_BINARY

Specific Device Class:
 0x01 - SPECIFIC_TYPE_POWER_SWITCH_BINARY

- Command Classes:**
- 0x5E - COMMAND_CLASS_ZWAVEPLUS_INFO
 - 0x25 - COMMAND_CLASS_SWITCH_BINARY
 - 0x85 - COMMAND_CLASS_ASSOCIATION
 - 0x8E - COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
 - 0x59 - COMMAND_CLASS_ASSOCIATION_GRP_INFO
 - 0x55 - COMMAND_CLASS_TRANSPORT_SERVICE
 - 0x86 - COMMAND_CLASS_VERSION
 - 0x72 - COMMAND_CLASS_MANUFACTURER_SPECIFIC
 - 0x5A - COMMAND_CLASS_DEVICE_RESET_LOCALLY
 - 0x73 - COMMAND_CLASS_POWERLEVEL
 - 0x70 - COMMAND_CLASS_CONFIGURATION
 - 0x5B - COMMAND_CLASS_CENTRAL_SCENE
 - 0x6C - COMMAND_CLASS_SUPERVISION
 - 0x9F - COMMAND_CLASS_SECURITY_2
 - 0x7A - COMMAND_CLASS_FIRMWARE_UPDATE_MD