ZWN-RSM2

Smart Dual Relay Switch Module

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Switch Module
Cat.No.: ZWSM2
Voltage: 120-277VAC, 50/60Hz
Max.Load: 4A+4A
Z-Wave Frequency:
908.42MHz(US)
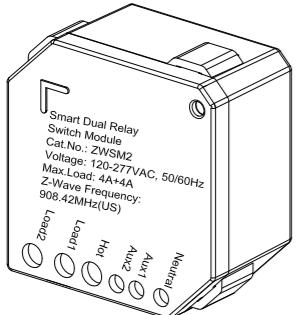
◆ SPECIFICATIONS

Voltage..120-277VAC, 50/60Hz

Maximum Load requirement...4A+4A

Z-Wave Frequency.. 908.42MHz(US)

Operating Temperature...32° F-104° F

Size...1.77" ×1.65" ×0.82"

Range..Up to 131 feet line of sight between

between the Wireless Controller and the closest Z-Wave receiver module.

◆ FEATURES

● Work with existing light switches, required neutral wire
● Slim size module with build in Z-Wave technology
● Acts as a Z-Wave repeater to extend the range
● On/Off control via Z-Wave controller, manual wall switch
● 3 way wiring compatible

◆ DESCRIPTION

Z-Wave unifies all your home electronics into an integrated wireless network and helps them talk to each other. Any Z-Wave enabled item can be added to the network, and making your home electronics fully compatible.

The ZWN-RSM2 Switch Module is a component of lighting control system, it can not be used separately but should turn an existing switch into a Z-Wave switch. This ZWN-RSM2 module is a Z-Wave enabled device and is fully compatible with other Z-Wave certified device from other manufacturers. In a Z-Wave network, each device is designed to act as a wireless repeater. Once the ZWN-RSM2 module is installed and setup with in your wall, it will retransmit the RF signal from one device to another until the intended device to intended device is reached. This ensures that the signal is received by its intended destination by routing the signal around obstacles and radio dead spots.

WARNINGS AND CAUTIONS

To be installed and/or used in accordance with appropriate electrical codes and regulations. Exercise extreme caution when using Z-Wave devices to control appliances. Operation of the Z-Wave device may be in a different room than the controlled appliance, also an unintentional activation may occur if the wrong button on the remote is pressed. Z-Wave devices may automatically be powered on due to timed event programming. Depending upon the appliance, these unattended or unintentional operation could possibly result in a hazardous condition. Z-Wave enabled devices should never be used to supply power to, or control the On/Off status of medical and/or life support equipment. If you are unsure or uncomfortable about performing the installation, please consult a qualified electrician.

◆ INSTALLATION

Wiring Diagram:

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Neutral — Neutral — Neutral (White)
Aux1 — Aux 1 — Switch 1 — Line
Aux2 — Aux 2 — Line
Hot — Hot — Switch 2 — Line (Black)
Load1 — Load 1 — Neutral
Load2 — Load 2 — Neutral
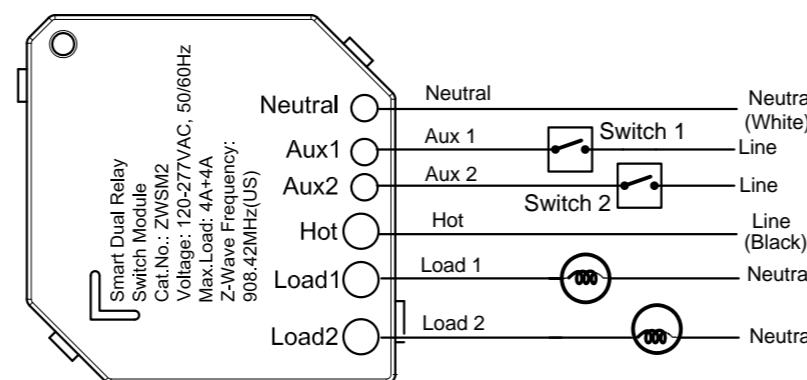
IMPORTANT NOTE ABOUT 3-WAY CIRCUITS

The term "3-way circuit" refers to a circuit with two switches and one load (light) like you find at the top and bottom of a stairway. There are many ways to physically wire a 3-way circuit and it is important to understand how the circuit you wish to upgrade to Z-Wave control is wired. Below is a description of a typical 3-way circuit.

One of the ways to wire a two-switch/one-load circuit is to route the incoming power through the first switch, then to the second switch and then to the load. Although very common and by no means a standard, it is the easiest to convert to Z-Wave control.

Technically switch 2 and switch 4 are in the same location, so ZWN-RSM2 is set behind them. Do not change the wiring of switch 1 and switch 3. Please note that all the switches must be 3-way switch.

Typical 3-way circuit :

Black — Black — Red
Yellow
Switch 1 — Switch 2
White

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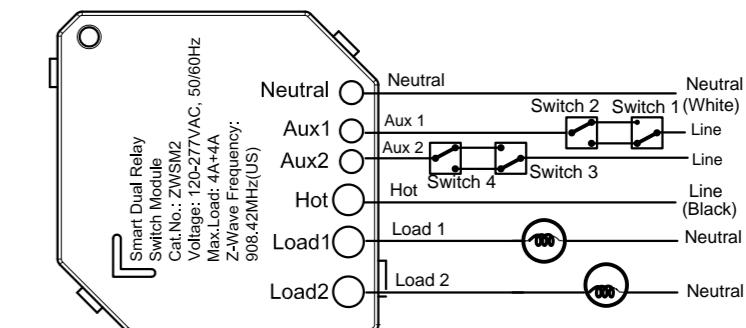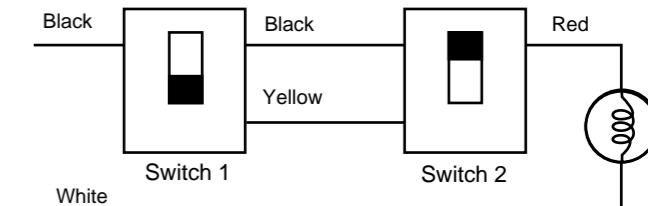
Please consult an electrician if you have trouble identifying the type of wiring circuit you wish to convert or if you do not feel confident in your ability to convert the circuit to Z-Wave control.
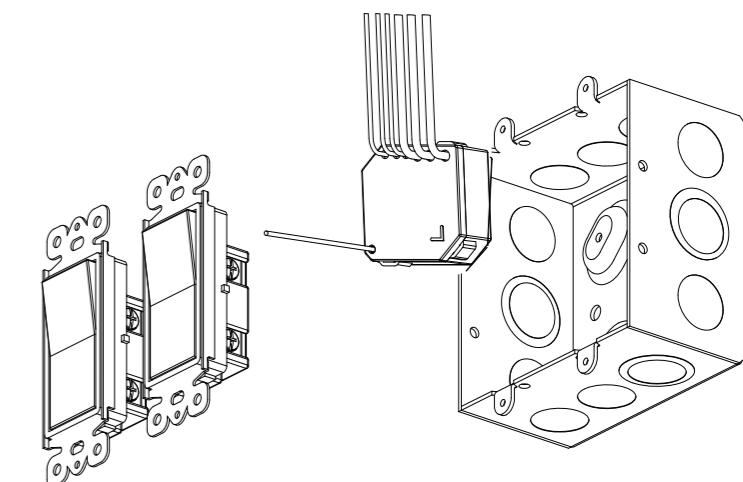
1. WARNING: To avoid fire, shock, or death. Turn off power at circuit breaker or fuse and test that power is off before wiring.
2. Remove wall plate and switches mounting screws.
3. Carefully remove these existing switches from the switch box.
4. Disconnect the wiring from these existing switches.
5. Connect the ZWN-RSM2 module as shown in the wiring diagram.
6. Check connections to be sure they are tight and no bare conductors are exposed.
7. Insert the ZWN-RSM2 module into the box first, then wire these existing switches.
8. Attach the wall plate.
9. Restore power at the circuit breaker and test the system.

Program Button

Antenna

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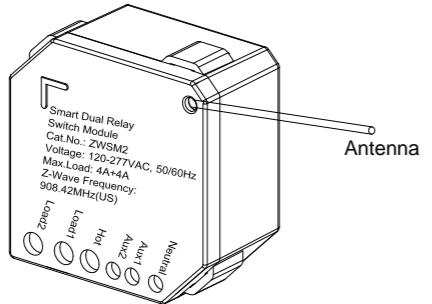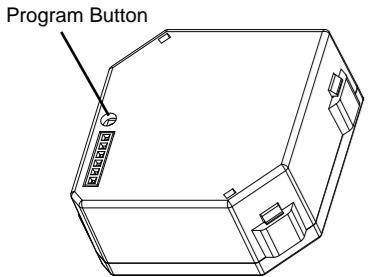
TIPS FOR ARRANGING THE ANTENNA:

● Locate the antenna as far from metal elements as possible to prevent interferences.

● Metal surfaces in the direct vicinity of the antenna may impair signal reception.

● Do not cut or shorten the antenna - its length is perfectly matched.

Basic Operation

The connected device can be turned ON in two ways:

1. Manual control with the button on the connected switch.

2. Z-Wave remote controller.

Manual Control

1. Turn the household appliance on/off by pressing the button on the connected switch to perform manual function, this function is as same as traditional switch.

2. When the controller is in add mode,Press and release the program button of ZWN-RSM2 module,or Flick 3 times of the connected switch with Aux1 line(or Aux 2 line) in 1.5 second. Then the controller will add the module into current Z-Wave network.

3. When the controller is in remove mode,Press and release the program button of ZWN-RSM2 module, or Flick 3 times of the connected switch with Aux1 line (or Aux2 line) in 1.5 second. Then the controller will remove the module from current Z-Wave network.

4. Once program button is pressed and hold for 10 second, the device will send a device reset locally notification to controller. Then clear all of information for the network, and restore factory defaults, and reset the module. Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

Remote Control

When the ZWN-RSM2 switch module is included in a Z-Wave network, it can be turned on/off remotely by a portable controller or a Z-Wave enabled gateway controller.

Please Note: After a power failure, the ZWN-RSM2 switch module returned to the OFF state.

ADVANCED OPERATION

The following Advanced Operation parameters require that you have an advanced controller. However, basic remotes do not have this capability.

All-ON and All-OFF

Depending upon your primary controller, the ZWN-RSM2 module can be set to respond to ALL-ON and ALL-OFF commands in up to four different ways. Some controllers may not be able to change the response from its default setting. Please refer to your controller's instruvtions for information on whether or not it supports the configuration function and if so, how to change this setting.

The four possible responses are:

- It will respond to ALL-ON and the ALL-OFF command (default).
- It will not respond to ALL-ON or ALL-OFF commands.
- It will respond to the ALL-OFF command but will not respond to the ALL-ON command.
- It will respond to the ALL-ON command but will not respond to the ALL-OFF command.

Association

Grouping ID Max number of nodes   Description

Grouping ID	Max number of nodes	Description
1	1	Lifeline: Send device reset locally notification Switch Binary Report
2	3	StatusReport_EP1: Switch Binary Report
3	3	StatusReport_EP2: Switch Binary Report

Note: The device need creating an End Point association from lifeline Association Group to Root Device of gateway. Then the gateway may receive unsolicited Multi Channel encapsulated Switch Binary Report from each of End Point.

Multi Channel CC

This cammand is used to independently access the two End Points, they have identical capability but they are individual.

Each End Point capability Report:

Generic Device Class	SWITCH BINARY
Specific Device Class	POWER SWITCH BINARY
supported Command Calsses	COMMAND_CLASS_SWITCH_BINARY

Restoring Factory Defaults

All information of network can all be restored to their factory default settings by using your primary controller or manual reset control to reset the device.

This device complies with the Z-Wave standard of open-air, line of sight transmission distances of 131 feet. Actual performance in a home depends on the numbers of walls between the remote controller and destination device, the type of construction and the number of Z-Wave enabled devices installed in the control network.

Things to consider regarding RF range:

● Each wall or obstacle (i.e.:refrigerator, big screen TV, etc.)between the remote or a Z-Wave device and the destination device will reduce the maximum range by approximately 25-30%.

● Brick, tile or concrete walls block more of the RF signal than walls made of wooden studs and plasterboard (drywall).

● Wall mounted Z-Wave devices installed in metal junction boxes will suffer a significant loss of range (approximately 20%) since the metal box blocks a large part of the RF signal.

Effects of Home Construction on Wireless Range Between Z-Wave Enabled Devices.

Note: The distances shown in the table below are typical example. Actual performance in your home will vary.

From the Remote (or repeating Z-Wave module) to destination device:				
Type of Construction	Wood Frame with Drywall		Brick, Tile or Concrete	
	Plastic J-Boxes*	Metal J-Boxes	Plastic J-Boxes*	Metal J-Boxes
Number of Walls or Obstacles 0**	131'	105'	131'	100'
1	90'	76'	80'	65'
2	66'	52'	48'	40'
3	45'	35'	28'	20'

◆ WARRANTY INFORMATION

Our company warranties its products to be free of defects in materials and workmanship for a period of two (2) years. There are no obligations or liabilities on the par of our company for consequential damages arising out of or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.

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