Enerwave ZWN-RSM2-PLUS Smart Dual Relay Switch Module User Guide

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The Switch Module based on Z-WaveTM Slave library of V7.18.03. This Switch integrated Z-Wave communication module to connect with Z-Wave gateway.

The Switch Module 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.

The Switch Module is a security Z-Wave device (S2), so a security enabled controller is needed for take full advantage of all functionally for the Switch Module.

Contents

Features

- Manual or Z-Wave on/off control of 2 electrical loads.
- Add Z-Wave to two wall switches with a single device.
- Installs behind your existing wall switch.
- Remembers and restores on/off status after power failure.
- Built-in Z-Wave signal repeater.
- Smart Start and S2 Security for a safer network.

Technical Specifications

| Model Number	ZWN-RSM2-PLUS
Z-Wave Signal Frequency	908.42MHz
Range	Up to 131 feet line of sight
Power	120~277VAC, 50/60Hz
Maximum Load	100W LED bulbs,500W incandescent,5A resistive per relay
Operating Temperature	32-104° F (0-40° C)
Operating Humidity	Up to 85% non-condensing

Z-Wave Specifications

SDK Version	7.18.03
SDK Library	libZWaveSlave
Explorer Frame Support	Yes
Routing	Yes
SmartStart	Yes
Device Type	Binary Switch
Basic Device Class	BASIC_TYPE_ROUTING_SLAVE
Generic Device Class	GENERIC_TYPE_SWITCH_BINARY
Specific Device Class	SPECIFIC_TYPE_NOT_USED
Role Type	Always On Slave (AOS)
Generic Device Class	GENERIC_TYPE_SWITCH_BINARY
Specific Device Class	SPECIFIC_TYPE_NOT_USED
Role Type	Always On Slave (AOS)

Familiarize yourself with Switch
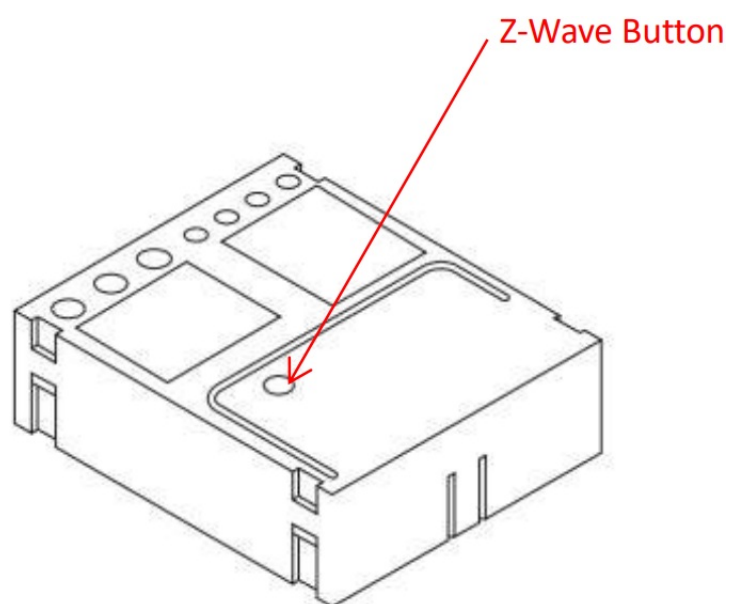
Installation
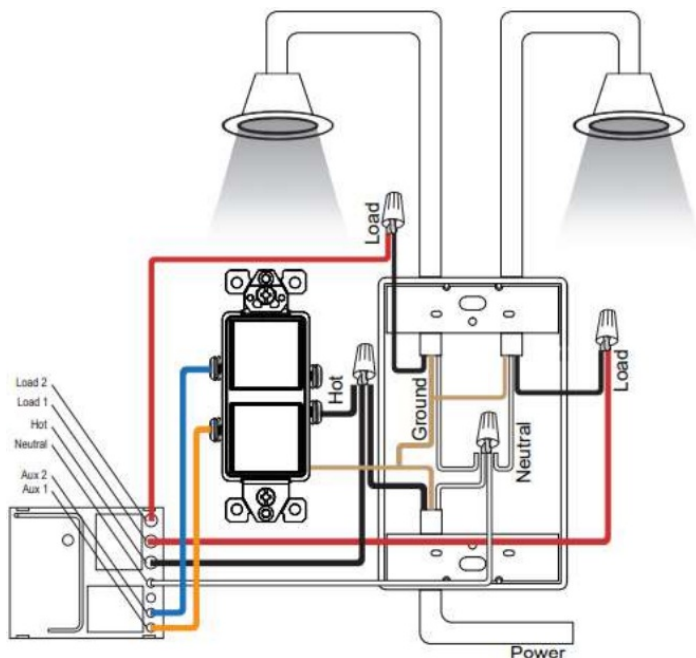
Security and non-Security features

This device is a security enabled Z-Wave PlusTM product that is able to use encrypted Z-Wave Plus messages to communicate to other security enabled Z-Wave Plus products.
When a node includes into a S0/S2 Z-Wave network, the node supports S0/S2 unauthenticated class, S0/S2 authenticated and so do the supported CCs.
This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

Supported Security Levels

- **SECURITY_KEY_S0_BIT**
- **SECURITY_KEY_S2_AUTHENTICATED_BIT**
- **SECURITY_KEY_S2_UNAUTHENTICATED_BIT**

All functions of each trigger

Smart Start

Smart Start enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on in the network vicinity.

Add the Switch into the Z-Wave network via SmartStart (SmartStart Inclusion):

a. Add Switch DSK into the primary controller SmartStartProvisioning List (If you don't know how to do this, refer to its manual, DSK usually print on the main body).
b. Remove the battery from the Switch. A few seconds later, reinsert battery in the DUT.
c. The Switch will send "Z-Wave protocol Command Class" frame to start SmartStart Inclusion.

LOAD will blink during the inclusion, and then solid for 2 seconds to indicate that the inclusion is successful, otherwise the LOAD will blink for 2 times in which you need to repeat the process form step b

Power on

In the network: LOAD will blink 1 time.

Not in the network:
LOAD will blink 1 time and start SmartStart..

Short press Z-Wave Button three times

Add the Switch into the Z-Wave network (Manual Inclusion):
a. Power on your Switch, set your Z-Wave controller into add/inclusion mode.
b. Short press Z-Wave Button three times(or Short press any external key five times).
c. LOAD will blink during the inclusion, and then solid for 2 seconds to indicate that the inclusion is successful, otherwise the LOAD will blink for 2 times in which you need to repeat the process form step a

Remove Switch from a Z-Wave network (Manual Exclusion):
a. Power on your Switch, and let the Z-Wave primary controller into remove/exclusion mode.
b. Short press Z-Wave Button three times(or Short press any external key five times).
c. LOAD will blink during the inclusion, and then solid for 2 seconds to indicate that the inclusion is successful, otherwise the LOAD will blink for 2 times in which you need to repeat the process form step a.

Reset Switch to factory default

Press and hold Z-Wave button at least 10 seconds, LOAD start blinking quickly, release Z-Wave button. The Switch will reset itself to factory default by sending a "Device Reset Locally Notification" to gateway when the button is released.
Note: Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Special Rule of Each Command

Basic Command Class

Basic CC is maps to Switch Binary CC

Z-Wave Plus Info Report Command Class

Z-Wave Plus Version: 0x02
Role Type: 0x05 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON)
Node Type: 0x00 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type: 0x0700 (ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH)
User Icon Type: 0x0700 (ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH)

Association Command Class

Below is an overview of the different association groups for each the endpoints.

Endpoint	GroupingIdentifier	MaxNodes	Mapping	Send Commands
Root Device	1(Lifeline Group)	0x05	Endpoint1 Endpoint2	1. Switch Binary Report.Switch will send Switch Binary Report when Switch status changed.2. Device Reset Locally.Press and hold Z-Wave button at least 10 seconds.3.Indicator Report
	2	0x05	Endpoint1	1. Basic Set.Switch will send Basic Set when Switch status changed.
	3	0x05	Endpoint2	1. Basic Set.Switch will send Basic Set when Switch status changed.
Endpoint 1	1	0x00		1. Switch Binary Report.Switch will send Switch Binary Report when Switch status changed.
	2	0x05		1. Basic Set.Switch will send Basic Set when Switch status changed.
Endpoint 2	1	0x00		1. Switch Binary Report.Switch will send Switch Binary Report when Switch status changed.
	2	0x05		1. Basic Set.Switch will send Basic Set when Switch status changed.

Indicator Command Class

The Receptacle support the Indicator Command Class, version 3 and support the Indicator ID 0x50 (Identify) and Properties ID 0x03, 0x04 and 0x05.

Configuration Command Class

#	Name	Size	Range	Description	Default
0x05	Power on status	1	0~2	When the device is powered on, the initial status.0= Off	0
				1= On2= Last State	
0x13	Child lockout enable	1	0~1	Child lockout feature can enabled and disabled local control.0= Disable1= Enable	0
0x14	Delayed off time	1	0~240	Delay off means when users press button to turn off the load, there's a reaction time.	0

Name	Info	Parame ter N umber	Default Value(d e c)	Max Va lue(d e c)	Min Va lue(d ec)	Size	ReadOn l y	Forma t	Altering capabilit y
Power on stat us	Power on statu s	0x05	0	2	0	1	No read-only	Unsign edinte ger	false
Child l ockout enable	Child l ockout enable	0x13	0	1	0	1	No read-only	Unsign edinte ger	false
Delayed off ti me	Delayed off tim e	0x14	0	240	0	1	No read-only	Unsign edinte ger	false

Documents / Resources

Enerwave ZWN-RSM2-PLUS Smart Dual Relay Switch Module [pdf] User Guide
ZWN-RSM2-PLUS Smart Dual Relay Switch Module, ZWN-RSM2-PLUS, Smart Dual Relay Swi
tch Module, Dual Relay Switch Module, Relay Switch Module, Switch Module, Module

References

- **User Manual**