



RYSE

Z-Wave Accessory Manual

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Product description

Product name: Z-Wave Accessory

Product SKU: ZW-0101

Version 1.0



What is Z-Wave® and Long Range?

The Z-Wave protocol is an open, interoperable, sub-GHz wireless communications technology designed specifically for control, monitoring and status reading applications in residential and light commercial environments. Z-Wave has two operating modes Z-Wave MESH which is a very reliable sub-GHz MESH and Long Range (US only) which operates in a STAR topology offering over a mile range.

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers.

Note: To add in Z-Wave Long Range mode, you can only use SmartStart.

Connection

The RYSE Z-Wave Accessory is to be connected directly to the SmartShade, with the RYSE BatteryPack or Wall Adapter powering the accessory. This will supply power to both the accessory and SmartShade.



Installation

Follow specific manufacturer instructions to include the Z-Wave Accessory to platforms such as SmartThings, Homey, Alarm.com, Vivint, SmartRent, etc.

Z-Wave Include (Add) / Exclude (Remove) process

Adding by Pair button

Power up the device, switch the Z-Wave controller to the "Inclusion" mode and one time press Pair button. The Learn mode is active for 30 seconds.



To remove device from a Z-Wave network switch the Z-Wave controller to the "Exclusion" mode and one time press Pair button.

Adding using SmartStart

Ryse device is a SmartStart enabled product. It can be added into a Z-Wave network by scanning the Z-Wave QR Code placed on the case.

- To use SmartStart your controller needs to support Security S2
- On the add device page scan the SmartStart QR-code or enter the full DSK string
- Power up the device
- Wait for the adding process to start (up to few minutes)

Usage in Z-Wave network

=The RYSE Z-Wave Accessory interfaces with RYSE SmartShade to control a window shade and reports to the controller the shade level.

Associations

Association - Direct control of other Z-Wave devices in case of exceeding the threshold of one of the sensors. Up to 5 devices can be placed in the association group.

Group #	Description	Reports
1	Lifeline - reports on all sensor values to the controller	- Switch Multilevel Report - Window Covering Report - Device Reset Notification - Indicator Report - Battery Report

Configuration Parameters

Configuration parameters are used to configure the device for individual needs.

2. Activity LED

Turns on/off activity led.

Value	0 - 1
Default	1
Size	1 byte

Factory Reset

Factory resetting your SmartShade will result in losing its calibration points (top and bottom shade position) and routines.

- Look for the pinhole on top of the SmartShade right above the Stop button. This is the Factory Reset button. See image below.



- Using any object with a pointed end (i.e. a pen or a pencil), press and hold the Factory Reset button for a few seconds. Once the lights on the SmartShade flash RED momentarily, you can release the button. It will then flash BLUE before becoming a solid BLUE.

Device Reset Locally notification is sent just before leaving the network.

NOTE: Please use this procedure only when the network's primary controller is missing or otherwise inoperable.

LEDs (on SmartShade)

Red flash thrice for Error -

Blue flashes 1Hz for pairing mode until complete-

Indicator Command Class

Identify command will turn on the LED on the RYSE motor

Security

Version: 1

Device supports four Z-Wave security levels

- Non-secure
- S0
- S2 Unauthenticated
- S2 Authenticated

The security level required to communicate with each Association target is detected automatically. The highest possible supported level will be used for each target.

Basic Command

Version: 1

The Basic Set command is mapped on the Switch Multilevel Set command on channel 1.

Basic Command	Mapped Command	Parameters
Basic Set	Switch Multilevel Set	Value → Shades level 0-99
Basic Report	Switch Multilevel Report	Current Value → Shades level 0-99

Power Mode

The Accessory can work like an always listening device or a frequently sleeping (FLiRS). The power mode is selected during inclusion. If the battery pack is is connected, the frequently sleeping mode is applied. Otherwise the always listening mode is used.

When always listening mode is used, the Accessory will automatically become a repeater in the Z-Wave network to improve network connectivity.

Command Classes Versions

Command Class	Version	Security
Application Status	1	Unsecure and secure
Association	3	Highest security level
Association Group Information	3	Highest security level
Battery	3	Highest security level
Basic	2	Highest security level
Configuration	4	Highest security level
Device Reset Locally	1	Highest security level
Firmware Update	5	Highest security level
Indicator	4	Highest security level
Manufacturer Specific	2	Highest security level
Multi Channel Association	4	Highest security level
Multilevel Switch	4	Highest security level
Power Level	1	Highest security level
Security S0	1	Security transport
Security S2	1	Security transport
Supervision	2	Unsecure and secure
Transport Service	2	Unsecure and secure
Window Covering	1	Highest security level
Version	3	Highest security level
Z-Wave Plus Information	2	Unsecure and secure

Technical specifications

Voltage	Powered from RYSE 12 V power supply or battery pack
Operating temperature	0°C ... +40°C
Operating humidity	Up to 80%, without condensation of moisture
Dimensions	49x49x24 mm
Weight	30 g
Communication interfaces	Z-Wave Plus®
Z-Wave frequency	908/916 MHz (classical Z-Wave), 912/920 MHz (Z-Wave Long Range). USA, Canada