WallMote 7

ZWA022-A

Engineering Specifications

This product can be operated in any Z-Wave™ network with other Z-Wave Plus™ certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Each module is designed to act as a repeater, which will re-transmit a radio frequency (RF) signal by routing the signal around obstacles and radio dead spots to ensure that the signal is received at its intended destination. ZWA022-A is a security enabled Z-Wave Plus device. A security Enabled Z-Wave Plus Controller must be used in order to fully utilize the product.

1 Library and Command Classes

1.1 Embedded SDK

v 7.13.9

1.2 Device Type

Generic Type: GENERIC_TYPE_WALL_CONTROLLER
Specific Type: SPECIFIC_TYPE_NOT_USED

1.3 Role Type

Reporting Sleeping Slave

1.4 Command Class

Command Class Name	Version	Required Security Class
Z-Wave Plus Info	V2	none
Security 2	V1	none
Supervision	V1	none
Transport Service	V2	none
Association	V3	highest granted
Association Group Information	V3	highest granted
Multi Channel Association	V4	highest granted
Version	V3	highest granted
Manufacturer Specific	V2	highest granted

Device Reset Locally	V1	highest granted
Power Level	V1	highest granted
Indicator	V3	highest granted
Firmware Update Meta Data	V5	highest granted
Configuration	V4	highest granted
Central Scene	V3	highest granted
Battery	V1	highest granted
Wake Up	V2	highest granted

2 Z-Wave Network Operation

Functions	Action Button		Description
Inclusion	1x tap	Out of network	Send NIF for network pairing/ inclusion (white LED quick flashes). If pairing is successful, the LED will turn to solid green for 2s, then deactivates.
		In network	Trigger to send Central Scene 1x tap scene.
Central Scene	2x tap	In network	Trigger to send Central Scene 2x tap scene.
Central Scene	3x tap	In network	Trigger to send Central Scene 3x tap scene.
Central Scene	4x tap	In network	Trigger to send Central Scene 4x tap scene.
Central Scene	5x tap	In network	Trigger to send Central Scene 5x tap scene.
Exclusion	6x tap	In network	Send NIF for network unpairing/ exclusion (purple LED flashes). If unpairing is successful, the LED will turn to solid green for 2s, then fades in and out for a few seconds.
Wake Up	7x tap	In network	Trigger to send Wake Up Notification (solid yellow LED).
Toggle parameter 84	8x tap	In network	Toggle parameter 84 value
Toggle parameter 82	9x tap	In network	Toggle parameter 82 value
Toggle parameter 87	10x tap	In network	Toggle parameter 87 value
Central Scene	Press and hold for 1 - 15s		Trigger to send Central Scene hold scene.
Central Scene	Release		Trigger to send Central Scene release scene.
Nothing	Press and hold for 16 – 19s		Flash red LED rapidly.
Factory reset	Press and hold for 20s		Manual Factory reset -> Send gateway RESET DEVICE LOCALLY **Note:** When the LED turns into Blue, then release the button, the LED will be solid Blue for 2 seconds, during the 2 seconds, tap the button again, it will start the factory reset process, then return to factory reset LED status. Please use this procedure only when the network primary

		controller is missing or otherwise inoperable.

1) This device must be used in conjunction with a Security Enabled Z-Wave Controller in order to fully utilize all implemented functions.

3 Association Groups

The device supports 5 association groups and every group supports max 5 associated nodes.
Group 1 is Lifeline group, all nodes associated in this group will receive the messages sent by device through Lifeline.
Group 2-5 are controlling groups.

The Command Class supported by each association group is shown in the tablebelow:

ID	Name	Node Count	Profile	Function
1	Lifeline	5	General: Lifeline	**Device Reset Locally Notification:** Issued when Factory Reset is performed. **Indicator Report:** Issued when included successfully. **Battery Report:** Issued when output status is changed. **Central Scene Notification:** Issued when button press or hold or release.
2	Top button set ON/OFF	5	Control: Key 1	**Basic Set or Switch Binary Set:** Issued when Top button press. (The command class is determined by Parameter 2)
3	Top button multilevel set	5	Control: Key 1	**Multilevel Switch Set:** Issued when Top button press.
4	Bottom button set ON/OFF	5	Control: Key 2	**Basic Set or Switch Binary Set** Issued when Bottom button press. (The command class is determined by Parameter 2)
5	Bottom button multilevel set	5	Control: Key 2	**Multilevel Switch Set:** Issued when Bottom button press.
6	Top and Bottom button set ON/OFF	5	Control: Key 3	**Basic Set or Switch Binary Set** Issued when External Switch press. (The command class is determined by Parameter 2).
7	Top and Bottom button multilevel set	5	Control: Key 3	**Multilevel Switch Set:** Issued when Bottom button press.

4 Basic Command Map

Basic Set is mapped to Switch Binary Set Command Class.

5 Indicator Command Class

Indicator ID	Property ID
0x50 (NODE IDENTIFY)	0x03(ON OFF PERIOD)
0x50 (NODE IDENTIFY)	0x04(ON OFF CYCLES)
0x50 (NODE IDENTIFY)	0x05(ONE TIME ON OFF PERIOD)

6 Manufacturer Information

Parameter	Value
Manufacturer ID 1	0x03
Manufacturer ID 2	0x71
Product Type ID 1	0x01
Product Type ID 2	0x03
Product ID 1	0x00
Product ID 2	0x16

7 Configuration

User can change the default settings by the below configuration parameters. After device reset, all these parameters will be set to their default values.

Parameter Number	Name	Information	Size	MIN	MAX	Default	Description
1	Define button output	Enable or disable association group command and central scene command.	1	0	2	2	0- Group Association only 1- Central Scene only 2- Group Association and Central Scene
2	Definite Switch Group Control	Select association group 2/4/6's reports type: basic or binary set.	1	0	1	0	0- Basic Set 1- Binary Switch Set
3	Define Dimmer Group Control	Select the association group 3/5/7's behavior when double tap the paddle.	1	0	2	1	0- disabled 1- 2x Tap = toggle full 100% or full 0% 2- 2x Tap = toggle custom brightness level or 0% (Parameter 4)
4	Define custom brightness	Define custom brightness for parameter 3	1	0	99	50	0- 0% 1- 1% .. ... 2- 100 - 100%
39	Low battery level	Setting Low battery level	1	5	50	20	5- 5% 50- 50%
81	Enable/Disable Wakeup LED	Set the LED state for Wake-Up event.	1	0	1	1	0- Disabled 1- Enabled
82	Communication failure LED	Set the LED state for communication failure event.	1	0	1	1	0- Disabled 1- Enabled

84	Enable/Disable LED indicator	Enable/Disable LED indicator	1	0	1	1	0- Disabled 1- Enabled
85	Led Indicator Color For Top button	Select the indicator color for Top button.	1	0	9	9	0- Disabled 1- Red 2- Blue 3- Green 4- Pink 5- Cyan 6- Purple 7- Orange 8- Yellow 9- White
86	Led Indicator Color For Bottom button	Select the indicator color for Bottom button.	1	0	9	5	0- Disabled 1- Red 2- Blue 3- Green 4- Pink 5- Cyan 6- Purple 7- Orange 8- Yellow 9- White
87	Enable/ disable FLiRs command	Enable/ disable FLiRs command	1	0	1	0	0- Disable 1- enable

8 Security Network

This device is a security enabled Z-Wave Plus product that is able to use encrypted Z-Wave Plus messages to communicate to other security enabled Z-Wave Plus products.

The device supports the security function with S0 and S2 encrypted communication. The device will auto switch to the security mode when the device included with a security controller. In the security mode, the commands will use security and security2 command class wrapped to communicate with others, otherwise the device will not response anycommands.

This device supports security levels are listed in belowtable:

Security Levels	Support(Yes/No)
SECURITY_KEY_S0	No
SECURITY_KEY_S2_UNAUTHENTICATED	Yes
SECURITY_KEY_S2_AUTHENTICATED	Yes

9 SmartStart

SmartStart 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. You can find the QR code on the bottom of the product, like this:

PIN: XXXXX

And the DSK information will be shown like this:

DSK: XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

10 Specifications

Power Supply	2× CR2032 batteries
Communication Frequency	908.40MHz, 916.00MHz (US)
Communication Range	Up to 70m+ indoors (line of sight) or 150m outdoors.
Communication Certification	Z-Wave Plus v2 with SmartStart
Operational Temperature	0 - 40℃ / 32 - 104℉
Operating Humidity	8% to 80%