Siren Alarm

User Manual

Thank you for your support
Please read the user manual carefully before operating.
Please keep the user manual for future reference.

Product Introduction

Siren alarm is an intelligent device that can be controlled remotely by the radio frequency. Siren alarm send messages via Z-Wave network to the Z-Wave main controller. In the Z-Wave network communications, Siren alarm can be connected to any Z-Wave main controller, Different countries or areas, the radio frequency of the Z-Wave network is different.In the communication between the Siren alarm and Z-Wave main controller, the siren alarm can both send and receive messages. When press the code button of siren alarm, it will send message to the Z-Wave main controller, the Z-Wave main controller can display the on/off status of the siren alarm; when the siren alarm receives messages from the Z-Wave main controller, the siren alarm will be triggered. The siren alarm is battery powered, small and easily install. When siren alarm is working, LED light will flash, and there will be alarm sound at the same time. The sound is not lower than 100 decibels.

Technical Parameters

- Power supply:CR123A x 2
- External power supply: Mini USB , 5V,1A
- Radio Frequency: 868.4MHz EU; 908.4MHz US
- 10 sounds can be selected
- Range: up to 70m outdoor, up to 45m indoor
- Radio Protocol: Z-wave
- Sound intensity: 100 dB
- Operation temperature: 0~40℃
- Storage temperature: 0~60℃
- Dimension: (D x W x H):68mm x 68mm x 33mm

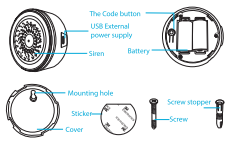
Technical Information

- When the siren alarm triggered, it will make alarm sound and LED light flash at the same time.
- When the other sensor is triggered, the siren alarm can associate with the sensors through the Z-wave network.
- Siren alarm can be controlled remotely via mobile phone App.
- Compatible with any Z-wave controller.

What's in the box ?

- Siren alarm 1pc
- Battery 2pcs
- Screw 1pc
- Screw stopper 1pc
- Double-side adhesive 1pc
- User manual 1pc

Product Configuration

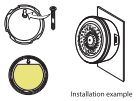


Installation Steps

1. Cover Installation

Method 1:
1. Secure the screw into the wall and side the siren over it making sure the screw head goes into the Mounting hole.
2. Pull the siren down slightly and screw will lock in place.

Method 2:
Fix the siren alarm with sticker.



Installation example

2. Battery Installation

Open the siren alarm | Install the battery | Close the siren alarm

LED Color Indicator

LED Color	Led Display Status	Description
Red	Blink 5 Times (1s Interval)	Power on and Not Add in Z-Wave Network
	Blink 5 Times (500msInterval)	Press Button tripled, Adding siren in a Z-WaveNetwork or Send Node Info.
	Blink 5 Times (300msInterval)	Power on and Already Add in a Z-Wave Network
	Blink 1 Time	Press the Button Long Time, Reset the Plug tonestore default settings
	Turn on with rotation	Alarm on

Battery Command Class
The users can also enquire the battery status of the device by sending BATTERY_GET command. Once the device receivers the command, it will return BATTERY_REPORT command.
The device will send BATTERY_LEVEL = 0xFF command to the Z-Wave Controller to inform that the device is in dead battery status, otherwise BATTERY_LEVEL value range is 0% to 100%.

Network Configuration

Z-Wave Network Inclusion/Exclusion/Reset

There is one button in the back side of the sensor, it can be executed inclusion, exclusion and reset from Z-Wave network.

Add[1]	1.Power up the device. 2.Set Z-Wave Controller into inclusion mode 3.Press the button 3 times within 1.5s to enter inclusion mode. 4.The device will be recognized and automatically included into Z-Wave Network.	Led lights will be blinked with 1s interval until inclusion successful.
Remove	1.Power up the device. 2.Set Z-Wave Controller into exclusion mode 3.Press the button 3 times within 1.5s to enter exclusion mode	Led lights will be blinked 3 times with 0.3s interval.
Factory Reset[2]	1.Power up the device. 2.Press and hold the button for 10s until led lights is on, then release the button.	Reset successfully, led light will be Blinked 5 times.
Product Test Mode	1.Press and hold the button. 2.Power on the device, device will enter factory product test mode	Led will blink with 100ms interval.

Notice 1: When device enters into inclusion mode, the device all functionality will be useless. The inclusion mode will be timeout after 30s, user can press the button 3 times within 1.5s to terminate inclusion mode.

Notice 2: Factory Reset will clear the device all Z-Wave Network data (include home id, node id, etc…) saved in memory, and restore all configuration parameters to factory default. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Associations

The device supports 1 association groups, and each group supports max 5 associated nodes.
Group 1 is lifeline group; all nodes which associated in this group will receive the messages sent by device through lifeline.

Group	Command Class	Command
1 (Lifeline)	COMMAND_CLASS_NOTIFICATION COMMAND_CLASS_SWITCH_BINARY COMMAND_CLASS_BATTERY COMMAND_CLASS_DEVICE_RESET_LOCALLY	NOTIFICATION_REPORT SWITCH_BINARY_REPORT BATTERY_REPORT DEVICE_RESET_LOCALLY_NOTIFICATION

Z-Wave Message Report

Once the device is triggered by an associated device or controller, it will report two events to controller to indicate device state: Notification Report and Switch Binary Report.

Notification Report

Command Class COMMAND_CLASS_NOTIFICATION
Command NOTIFICATION_REPORT
Type SIREN (0x0E)
Event NOTIFICATION_EVENT_SIREN_ACTIVE (0x01)
NOTIFICATION_EVENT_SIREN_INACTIVE (0x00)

Switch Binary Report

Command Class COMMAND_CLASS_SWITCH_BINARY
Command SWITCH_BINARY_REPORT
Value 0x00/0xFF

Z-Wave Control Command

Turn on Siren

There are three modes to turn on siren listed as table below:

State	Command Class	Command	Value
ON	COMMAND_CLASS_SWITCH_BINARY	SWITCH_BINARY_SET	0xFF
	COMMAND_CLASS_BASIC	BASIC_SET	0xFF
	COMMAND_CLASS_INDICATOR	INDICATOR_SET	0x01 – 0x0A

Turn off Siren

There are three modes to turn off siren listed as table below:

State	Command Class	Command	Value
ON	COMMAND_CLASS_SWITCH_BINARY	SWITCH_BINARY_SET	0x00
	COMMAND_CLASS_BASIC	BASIC_SET	0x00
	COMMAND_CLASS_INDICATOR	INDICATOR_SET	0x00

Alarm Sound Select

There have 10 alarm sounds building in this device. There have 2 methods for user to select different sound.
1. User can select alarm sound by configured the Configuration No. 5 and 6.
2. User can play alarm sound by send INDICATOR_SET command with COMMAND_CLASS_INDICATOR:

Command	Sound Index	Playing Volume And Time
INDICATOR_SET = 0x01	1	Defined By Param #3, #4
INDICATOR_SET = 0x02	2	Defined By Param #3, #4
INDICATOR_SET = 0x03	3	Defined By Param #3, #4
INDICATOR_SET = 0x04	4	Defined By Param #3, #4
INDICATOR_SET = 0x05	5	Defined By Param #3, #4
INDICATOR_SET = 0x06	6	Defined By Param #3, #4
INDICATOR_SET = 0x07	7	Defined By Param #3, #4
INDICATOR_SET = 0x08	8	Defined By Param #3, #4
INDICATOR_SET = 0x09	9	Defined By Param #3, #4
INDICATOR_SET = 0x0A	10	Defined By Param #3, #4

Other values (0x0B ~ 0xFF) are invalid.

Advanced Configuration

The device supports the controller to configure parameters of the device through Configuration Command Class, and the device has 9 parameters available for users to set according to their different needs:

1. Alarm Sound Volume
This parameter defines the output volume when siren plays door bell sound. Door Bell sound volume is divided into 3 stages, Low (Parameter is set to '1'), Middle (Parameter is set to '2'), High (Parameter is set to '3'). Default value is '3'.

Parameter Number	Size (Byte)	Available Settings	Default value
1	1	1 ~ 3	3

2. Alarm Sound Duration Time
This Parameter defines the alarm sound duration time when siren receive an alarm sensor notification report or an alarm command from controller.
The duration time is divided into 5 stages:
- Siren is not on (Parameter is set to '0'),
- 30 second (Parameter is set to '1'),
- 1 minute (Parameter is set to '2'),
- 5 minute (Parameter is set to '3')
- Siren is always on until battery is dead (Parameter is set to '0x7F'). Default value is '2'.

The value for this parameter is unsigned value.

Parameter Number	Size (Byte)	Available Settings	Default value
2	1	0 ~ 3, 127	2

3. Door Bell Sound Duration Time
This parameter defines the door bell sound duration time when siren receives a door/window sensor notification report or an alarm command (BASIC_SET = 0x02) from controller. The door bell sound will be played always if this parameter is set to '0x7F'. The door bell sound will not be played if this parameter is set to '0'. Other values are the door bell sound playing duration time. Unit: Time.
The value for this parameter is unsigned value.

Parameter Number	Size (Byte)	Available Settings	Default value
3	1	0 ~ 127	1

4. Door Bell Sound Volume
This parameter defines the output volume when siren plays alarm sound. Door Bell sound volume is divided into 3 stages: Low (Parameter is set to '1'), Middle (Parameter is set to '2'), High(Parameter is set to '3'). Default value is '1'.

Parameter Number	Size (Byte)	Available Settings	Default value
4	1	1 ~ 3	1

5. Alarm Sound Index
This parameter defines the alarm sound index for siren play different sound when alarm occurs. There are 10 different sound for user selection.

Parameter Number	Size (Byte)	Available Settings	Default value
5	1	1 ~ 10	10

6. Door Bell Sound Index
This parameter defines the door bell sound index for siren play different sound when alarm occurs. There are 10 different sound for user selection.

Parameter Number | Size (Byte) | Available Settings | Default value
6 | 1 | 1 ~ 10 | 9

7. Default Siren On Mode
This parameter defines the default sound index, volume and the duration time for siren on. This parameter can be selected between ALARM SOUND and DOOR BELL SOUND. The settings for ALARM SOUND MODE defines by Param #1, #2 and #5. The settings for DOOR BELL SOUND MODE defines by Param #3, #4 and #6.
If parameter is set to '1', siren will select ALARM SOUND MODE to play sound;
If parameter is set to '2', siren will select DOOR BELL SOUND MODE to play sound;

Parameter Number	Size (Byte)	Available Settings	Default value
7	1	1, 2	1

8. Alarm Led Enable
This parameter defines the default led enable status when siren is on for ALARM SOUND MODE.
If parameter is set to '0', led will be disable.
If parameter is set to '1', led will be enable. When siren is on, the led will blink.

Parameter Number	Size (Byte)	Available Settings	Default value
8	1	0, 1	1

9. Door Bell Led Enable
This parameter defines the default led enable status when siren is on for DOOR BELL SOUND MODE.
If parameter is set to '0', led will be disable.
If parameter is set to '1', led will be enable. When siren is on, the led will blink.

Parameter Number	Size (Byte)	Available Settings	Default value
9	1	0, 1	0

Smart Start & S2 Security Function

SmartStart

This device supports SmartStart function. QR code printed by laser can be found on surface of product and the outside of packing box. And the full DSK code is printed can be found on the packing box.
The device will enter SmartStart if the device is not included in network after power up. And then
2nd SmartStart time delay approximately 16s
3rd SmartStart time delay approximately 32s
4th SmartStart time delay approximately 64s
5th SmartStart time delay approximately 128s
6th SmartStart time delay approximately 256s
7th SmartStart time delay approximately 512s
Afterwards, the Smartstart mode will be auto running with 512 second interval until device is included successfully or battery run down.

Security Network

The device supports the security function with and S2 + SmartStart encrypted communication. The device will auto switch to the security mode when the device included with a security controller. In the security mode, the follow commands must use security or security_2 command class wrapped to communicate, otherwise the device will not response any commands.

Security Network

The device supports the security function with 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 follow commands must use security and security_2 command class wrapped to communicate, otherwise the device will not response any commands.

Security Keys

This device supports security levels are listed in below table:

Security Levels	Support (Yes/No)
SECURITY_KEY_S0	No
SECURITY_KEY_S2_UNAUTHENTICATED	Yes
SECURITY_KEY_S2_AUTHENTICATED	No
SECURITY_KEY_S2_ACCESS	No

Command Classes

All Supports Command Class

This device supports All Z-Wave Command Classes in NIF List as follows:
*COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
*COMMAND_CLASS_SECURITY_2 (V1)
*COMMAND_CLASS_TRANSPORT_SERVICE (V2)
*COMMAND_CLASS_VERSION (V3)
*COMMAND_CLASS_POWERLEVEL (V1)
*COMMAND_CLASS_ASSOCIATION (V2)
*COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION (V3)
*COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
*COMMAND_CLASS_MANUFACTURER_SPECIFIC (V2)
*COMMAND_CLASS_DEVICE_RESET_LOCALLY (V1)
*COMMAND_CLASS_BATTERY (V1)
*COMMAND_CLASS_NOTIFICATION (V8)
*COMMAND_CLASS_SWITCH_BINARY (V1)
*COMMAND_CLASS_INDICATOR (V1)
*COMMAND_CLASS_CONFIGURATION (V1)
*COMMAND_CLASS_SUPERVISION (V1)

All Security Command Class in Security Network

The Z-Wave Command Classes are secured in security network as follows:
*COMMAND_CLASS_VERSION (V3)
*COMMAND_CLASS_POWERLEVEL (V1)
*COMMAND_CLASS_ASSOCIATION (V2)
*COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION (V3)
*COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
*COMMAND_CLASS_MANUFACTURER_SPECIFIC (V2)
*COMMAND_CLASS_DEVICE_RESET_LOCALLY (V1)
*COMMAND_CLASS_BATTERY (V1)
*COMMAND_CLASS_NOTIFICATION (V8)
*COMMAND_CLASS_SWITCH_BINARY (V1)
*COMMAND_CLASS_INDICATOR (V1)
*COMMAND_CLASS_CONFIGURATION (V1)
*COMMAND_CLASS_SUPERVISION (V1)

Non-Secure Command Class in Secure Network

Unsecure Command Class which included in a secure Z-Wave Network is listed in unsecure node information.
*COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
*COMMAND_CLASS_SECURITY_2 (V1)
*COMMAND_CLASS_TRANSPORT_SERVICE (V2)
*COMMAND_CLASS_SUPERVISION (V1)

Guarantee

1.The Guarantee is provided by our company (hereinafter"Manufacture")
2.The Manufacturer is responsible for equipment malfunction resulting from physical defects (manufacturing or material) for 12 months from the date of its purchasing.
3.During the Guarantee period, the Manufacturer shall repair or replace any defects, free of charge.
4.In special cases, when the device cannot be replaced with the device of the same type (e.g. the device is no longer available in the commercial offer), the Manufacturer may replace it with a different device which has similar technical parameters as the faulty one. Such activity shall be considered as fulfilling the obligations of the Manufacturer. The Manufacturer shall not refund money paid for the device.
5.The guarantee shall not cover:
a. mechanical damages (cracks, fractures, cuts, abrasions, physical deformations caused by impact, falling or dropping the device or other object, improper use or not observing the operating manual);
b. damages resulting from external causes, e.g.: flood, storm, fire, lightning, natural disasters, earthquakes, war, civil disturbance, force majeure, unforeseen accidents; theft, water damage, liquid leakage, battery spill, weather conditions, sunlight, sand, moisture, high or low temperature, air pollution
c. damages caused by malfunctioning software, attack of a computer virus, or by failure to update the software as recommended by the Manufacture.

All above is for reference only, please see the subject products.

FCC statement

This device complies with Part 15 of the FCC Rules: Operation is subject to the following two conditions:
1. This device may not cause harmful interference and
2. This device must accept any interference that is received, including any interfer ence that may cause undesired operation.

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:

- 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

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.