

ClareOne Siren

Engineering Specification

Table of Content

1	Overview	1
2	Specifications	2
3	Quick Start	3
3.1	<i>How to add the product.....</i>	<i>3</i>
3.1.1	Classic inclusion	3
3.1.2	SmartStart	3
3.2	<i>How to remove the product.....</i>	<i>3</i>
3.3	<i>How to factory reset</i>	<i>3</i>
4	Software Function Definition	5
4.1	<i>Supported Command Classes.....</i>	<i>5</i>
4.2	<i>Basic Command Class mapping</i>	<i>5</i>
4.3	<i>Z-Wave Plus Info</i>	<i>5</i>
4.4	<i>Manufacturer Specific.....</i>	<i>5</i>
4.5	<i>Version</i>	<i>6</i>
4.6	<i>Association Group Info.....</i>	<i>6</i>
4.7	<i>Configuration</i>	<i>6</i>

1 Overview

ClareOne Siren is a smart siren based on Z-Wave™.

This product supports Security 2 Command Class. While a Security S2 enabled Controller is needed in order to fully use the security feature. 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.

This product supports 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 after this product being powered on in the network vicinity.

2 Specifications

Parameter	Value
Model	ZW080-A17
Wireless Technology	Z-Wave
Z-Wave Plus™	Yes
Z-Wave Module	ZM5202
Z-Wave Antenna Distance	40m
Z-Wave SDK Version	6.82.01
Z-Wave Library Type	Enhanced 232 Slave
Z-Wave Role Type	ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON
Generic Device Type	GENERIC_TYPE_AV_CONTROL_POINT
Specific Device Type	SPECIFIC_TYPE_SOUND_SWITCH
Security Class	Non-Security, S0, S2 Unauthenticated, and S2 Authenticated
SmartStart Compatible	Support. After powering on, SmartStart is auto activated.
Over The Air (OTA)	Support. Firmware can be updated via RF.
Multi Channel Device	No
Association	Support. Refer to Section 4.6 Association Group Info.
Factory Reset	Support. Refer to Section 3.3 How to factory reset.
Power-down Memory	Support. All command settings will stay unchanged even power down.
Supported Tones	Max: 5
Buttons and Connectors	Action Button (x1)
Indicator Light	Led(x3)

3 Quick Start

3.1 How to add the product

The following will step you through adding the product to your Z-Wave network.

Note:

When powered, the product will indicate Z-Wave status with the LED:

- **Network LED slow flash 3 times and then off** - the product is not added to any Z-Wave network.

3.1.1 Classic inclusion

1. Power the product.
2. Set your main controller into its 'add product' mode. Refer to its manual if you are unsure of how to perform.
3. Click button once. Network LED will flash quickly which indicates entering inclusion mode, and Node Info will be issued for adding.
4. If your controller supports S2 security, and you want to add the product into S2 Authenticated network, please scan the QR code or enter the PIN code (the underlined 5-digits of the DSK) when prompted. **[IMPORTANT] QR/PIN code can be found on the product. A full DSK string can be found on the packaging.**
5. Wait for the adding process to end.
6. Confirm the adding result. Successful adding will be confirmed by the Z-Wave controller's message or LED status. If adding is successful, Network LED will light stays on and then off. If its Network LED slow flash 3 times and then off, it indicates adding is unsuccessful. The product will auto-reset and then activate SmartStart. Repeat the above steps or contact us for further support if needed.

Note:

The classic manually inclusion will exit if click button once during the adding process. Its Networkd LED will become slow flash 3 times and then off. The product will auto-reset and activate SmartStart.

3.1.2 SmartStart

1. Scan the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. No further action is required and the product will be added automatically within 10 minutes after this product being powered on in the network vicinity.
2. Its Network LED will light stays on after your controller beginning to respond to its SmartStart inclusion request.
3. Confirm the adding result. Successful adding will be confirmed by the Z-Wave controller's message or LED status. If adding is successful, Network LED will light stays on and then off. If its Network LED slow flash 3 times and then off, it indicates adding is unsuccessful. Repeat the above steps or contact us for further support if needed.

3.2 How to remove the product

1. Make sure the product is powered.
2. Set your main controller into its 'remove product' mode. Refer to its manual if you are unsure of how to perform.
3. Click button once.
4. Wait for the removing process to end.
5. Confirm the removing result. Successful removing will be confirmed by the Z-Wave controller's message or LED status. If removing is successful, Network LED will slow flash 3 times and then off. If its Network LED allways stays off state, it indicates removing is unsuccessful. Repeat the above steps or contact us for further support if needed.

3.3 How to factory reset

Reset procedure allows to restore the product back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted.

1. Make sure the product is powered.
2. Press and hold the button for at least 20s, and then Factory Reset is performed. The product will issue a Device Reset Locally Command via its Lifeline to notify the Lifeline destination that the product has been reset to its factory default state. And it will perform the reset operation regardless of whether or not the delivery of the Device Reset Locally Notification is successful.
3. Pay attention to the Network LED state change. After few seconds the product will be reset and restarted, which is signaled with the Network LED slow flash 3 times and then off.

Note:

If you press and hold the button, 1 to 5 seconds, the Network LED will flash fast. 6 to 8 seconds, 3 Leds will flash rapidly and trigger the default alarm sound. 9 to 20 seconds, the Network LED will flash fast until the factory settings are restored.

Resetting the product is not the recommended way of removing the product from the Z-Wave network. Use reset procedure only if the primary controller is missing or inoperable. Certain product removal can be achieved by the procedure of removing described in "How to remove the product".

4 Software Function Definition

4.1 Supported Command Classes

In order to increase interoperability with legacy controlling nodes, this device can reply to Manufacturer Specific Get Commands received non-securely if it was granted the S0 network key as its highest Security Class.

Command Class	Version	Required Security Class
ZWAVEPLUS_INFO	2	None
ASSOCIATION	2	Highest granted Security Class
CONFIGURATION	1	Highest granted Security Class
SCENE_ACTIVATION	1	Highest granted Security Class
SCENE_ACTUATOR_CONF	1	Highest granted Security Class
ASSOCIATION_GRP_INFO	1	Highest granted Security Class
TRANSPORT_SERVICE	2	None
VERSION	2	Highest granted Security Class
MANUFACTURER_SPECIFIC	2	Highest granted Security Class
DEVICE_RESET_LOCALLY	1	Highest granted Security Class
POWERLEVEL	1	Highest granted Security Class
SECURITY	1	None
SECURITY_2	1	None
SUPERVISION	1	None
FIRMWARE_UPDATE_MD	4	Highest granted Security Class
BASIC	1	Highest granted Security Class
SWITCH_BINARY	1	Highest granted Security Class
SOUND_SWITCH	1	Highest granted Security Class

4.2 Basic Command Class mapping

Basic Set Command (Value) maps to Sound Switch Tone Play Set Command (Tone Identifier).

Basic Get Command maps to Sound Switch Tone Play Get Command.

Basic Report Command (Value) maps to Sound Switch Tone Play Report Command (Tone Identifier).

4.3 Z-Wave Plus Info

Parameter	Value
Z-Wave Plus Version	1
Role Type	5 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON)
Node Type	0 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type	0x2200 (ICON_TYPE_GENERIC_SOUND_SWITCH)
User Icon Type	0x2200 (ICON_TYPE_GENERIC_SOUND_SWITCH)

4.4 Manufacturer Specific

Parameter	Value
Manufacturer ID 1	0x01
Manufacturer ID 2	0x94
Product Type ID 1	0x00(EU), 0x01(US), 0x02(AU), 0x1D(CN)
Product Type ID 2	0x03
Product ID 1	0x00
Product ID 2	0x50

4.5 Version

Parameter	Value
Z-Wave Protocol Library Type	0x03
Z-Wave Protocol Version	0x06
Z-Wave Protocol Sub Version	0x09
Firmware 0 Version	0x0B
Firmware 0 Sub Version	0x00
Hardware Version	0x50
Number of firmware targets	0x00

4.6 Association Group Info

Root device

ID	Name	Node count	Profile	Function
1	Lifeline	5	General: Lifeline	Device Reset Locally Notification: Issued when Factory Reset is performed. Sound Switch Tone Play Report: Issued when a tone has started playing. Sound Switch Configuration Report: Issued when volume or default tone has changed. Basic Report Issued when a tone changed and Configuration parameter 80 set enable. Switch Binary Report Issued when a tone changed and Configuration parameter 80 set enable. Configuration Report Issued when Configuration Set 255 to reset configuration parameter.
2	Retransmit	5	General: NA	Retransmit a Basic Set, Switch Binary Set, Sound Switch Tone Play Set to the nodes associated.

4.7 Configuration

Parameter	0x26 (38)			
Properties	Size	1	Min Value	0
	Format	Signed Integer	Max Value	1
	Write/Read	Write and Read	Default Value	1
Description	This parameter is used to Enable or Disable the ability that click the Action Button to stop a playing tone.			
	Value	Function		
	0	Disable		
	1	Enable		

Parameter	0x27 (39)			
Properties	Size	1	Min Value	0
	Format	Signed Integer	Max Value	1
	Write/Read	Write and Read	Default Value	0
Description	This parameter is used to set tone play mode.			
	Value	Function		
	0	Single loop playback.		
	1..127	Set play multiple times.		
	128..255	Reserved.		

Parameter	0x50 (80)			
Properties	Size	1	Min Value	0
	Format	Signed Integer	Max Value	2
	Write/Read	Write and Read	Default Value	2
Description	This parameter is used to configure commnd to report to lifeline when tone changed.			
	Value	Function		
	0	Nothing.		
	1	Basic report.		
	2	Switch binary report.		

Parameter	0xFF (255)			
Properties	Size	4	Min Value	0
	Format	Signed Integer	Max Value	0x55555555
	Write/Read	Write and Read	Default Value	0
Description	Reset Configuration Parameter to factory setting OR Factory Reset the product.			
	Value	Function		
	0x00000000	Reset Configuration Parameter to factory setting. Note: Configuration Report [Parameter=255, Size=4, Value=0x00000000] will be issued via Lifeline when this function executed.		
	0x55555555	Factory Reset the product and remove it from the network. Note: All Configuration Parameter will be reset to factory setting.		