Z-WAVE PLUS PSE04 Multiple Sound Siren User Manual

Multiple Sound Siren PSE04

Built-in high accuracy Temperature sensor
The PSE04 is a wireless siren, based on Z-Wave technology. It is the Z-Wave Plus TM product, it supports the security, OTA… Those newest features of the Z-WaveTM is a wireless communication protocol designed for home automation, specifically to remotely control applications in residential and light commercial environments. The technology uses a low-power RF radio embedded or retrofitted into home electronics devices and systems, such as lighting, home access control, entertainment systems, and household appliances.TM technology. Z-WaveTM This product can be included and operated in any Z-Wave network with other Z-WaveTM TM-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 the reliability of the network. The device adopt the Z-WaveTM 700 series chip when your Z-WaveTM network system is all made by Z-Wave 700 series devices. The network system will have the advantages as below.TM

- Concurrent multi-channel support reduces external interference.
- Better RF range, improve about 10 meters in indoor.
- Support 100 Kbps transmit speed, speed up communication.

Contents

Specification

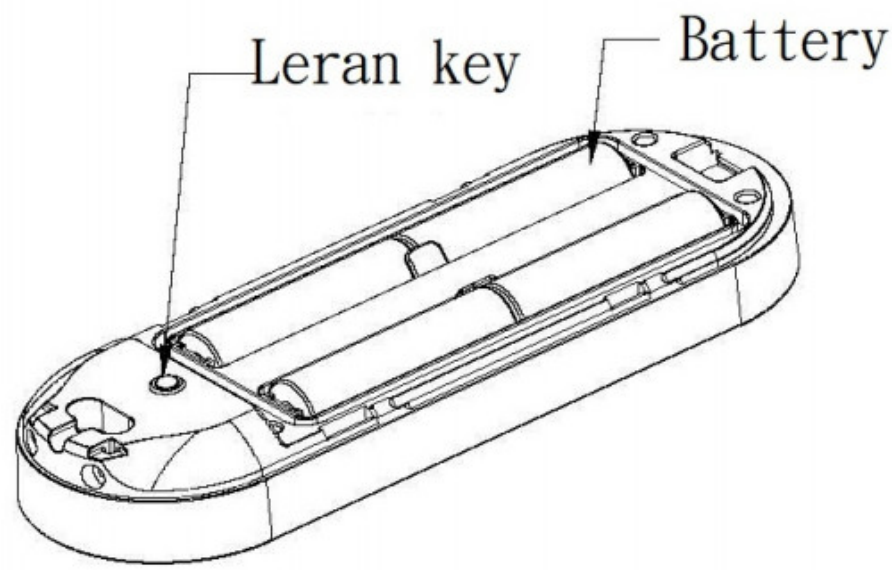
Rating	6VDC (AA Battery *4)
RF distance	Min. 40M indoor, 100M outdoor line of sight,
RF Frequency	868.40 MHz, 869.85 MHz(EU) 908.40 MHz, 916.00 MHz(US) 920.9MHz, 921.7MHz, 923.1MHz (TW/KR/Thai/SG) 921.40 MHz, 919.80 MHz(ANZ) 869.00 MHz(RU) 865.20 MHz(IN) 916.00 MHz(IL)
RF Maximum Power	+10dBm (Peak), -10dBm (Average)
Dimension	170mnn(L) X 48mm (W) X 30(H)
Weight	205g
IP classification	IP44; Outdoor use
Operation temperature	-20 to 55° C
Humidity	85%RH max
FCC ID	RHHPSE04
Marking	CE/NCC

- Specifications are subject to change and improvement without notice.

Troubleshooting

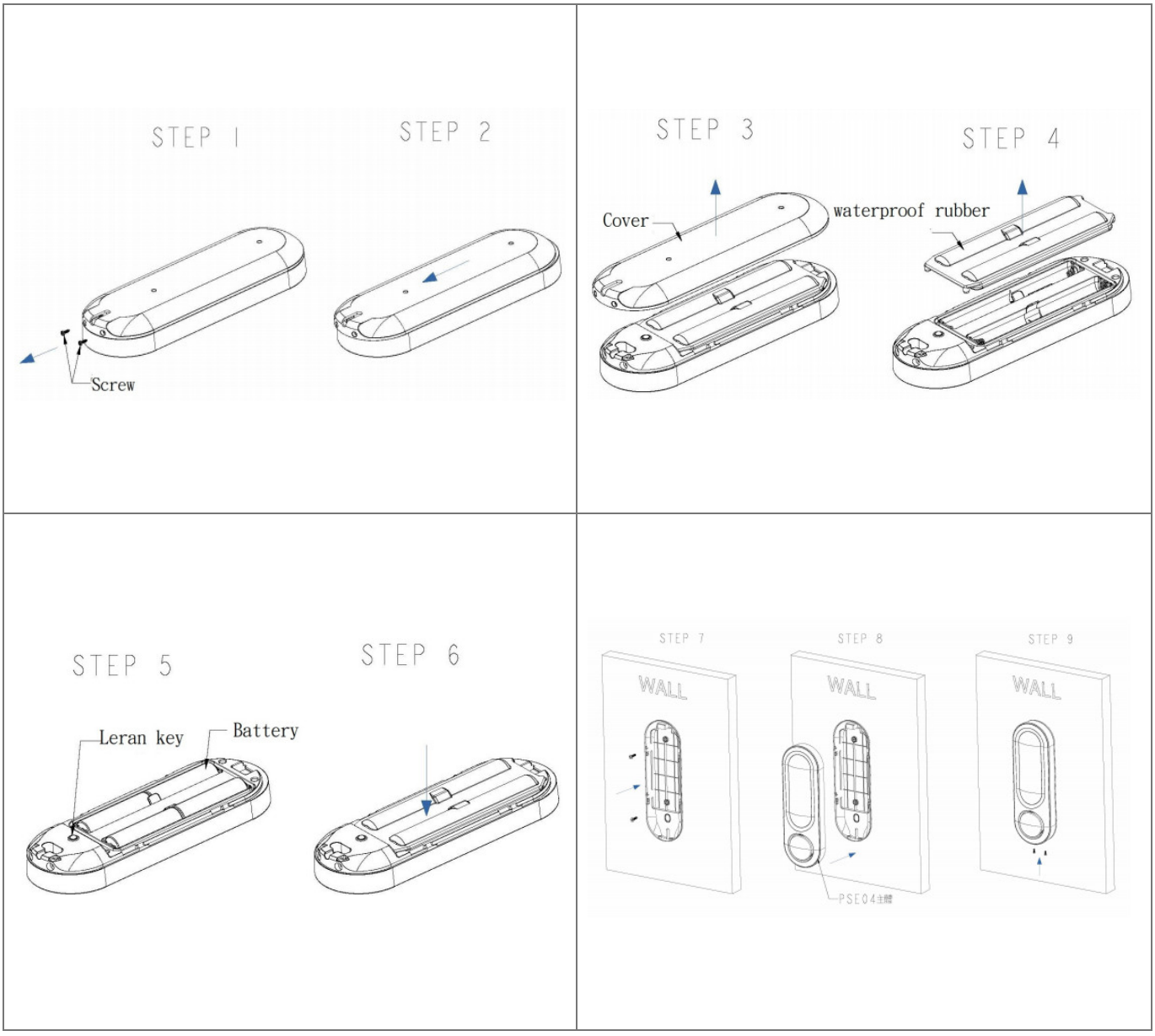
Symptom	Cause of Failure	Recommendation
The device can not ‘n to Z-*Wave'"* network	The device may be in a Z- Wave'" net work.	Exclude the device then induce again.

Overview



Battery Installation

When the device reports a low battery message. The user should replace the battery to the new one. The battery type is AA, 1.5V Please loosen the screw on the back cover to release the front cover



Adding to Z-WaveTM Network

There is one tamper key on the device. The tamper key can add, remove, reset from the Z-WaveTM network.
In the first time, add the device into the Z-Wave network. First, make sure the primary controller is in the add mode. And then power on the device. The device will auto start the SmartStart Inclusion mode.
Notice: Including a node ID allocated by Z-Wave Controller means **"Add"** or **"Inclusion".** Excluding a node ID allocated by Z-WaveTM Controller means "**Remove"** or **Exclusion".TM**

Function	**Description**
Add	1. Have ZWaveTM Controller entered inclusion mode. 2. Pressing the tamper key three times within 1.5 seconds to enter the inclusion mode. 3. After add successfully, the LED will light ON 1 second
Remove	1. Have Z-Wave™ Controller entered exclusion mode. 2. Pressing the tamper key three times within 1.5 seconds to enter the exclusion mode. 3. Node ID has been excluded.
Reset	**Notice: Use this procedure only in the event that the primary controller is lost or otherwise inoperable.**1. Pressing the tamper key four times within 1.5 seconds and do not release the tamper key in the 4th pressed, and the LED will light ON.2. After 3 seconds the LED will turn OFF, after that within 2 seconds, release the tamper key. If succ essful, the LED will light ON one second. Otherwise, the LED will flash once.3. IDs are excluded and all settings will reset to factory default.

SmartStart	1. Product has a DSK string, you can key in the first five-digit to increment the SmartSt art process, or you can scan the QR code. Ex:mydsk 10209-46687-52248-13629-04783-07465-15776-56519 2. SmartStart enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product providing SmartStart inclusion. No further action is required and the SmartStart product will be added automatically within 10 minutes of m inutes On in the network vicinity. *notice:The QR code can be found on the device PSE04 or on the box.
Association	This machine provides one group of nodes. Each group can set 1 Node. Group 1 is called Lifeline the device will report : 1. Notification report 2. Sensor multilevel report 3. Device Reset Locally Notification 4. Battery Report 5. Indicator Report
• Failed or success in including/excluding the node ID can be viewed from Z-Wave Controller.	

Notice 1: Always RESET a Z-Wave device before trying to add it to a Z-WaveTM network.

LED Light Indication
The LED light indicates the different modes of the PSE04

State Type	**LED Indication**
Without Node ID	Under normal operation, when the PSE04 has not been allocated a node ID, the L ED light will flash on and off alternately at 0.5-second intervals. By pressing the O n/Off button, the LED light will stop flashing temporarily.
Learning	Slow flashes once when learning is successful.
Alarm Trigger	All LED flashes until trigger off.

Z-WaveTM Message Report
In default, the device will use Notification Report to represent the tamper trigger event.
*** Tamper Report:**
When the tamper key is pressed over 5 seconds. The device will into the alarm state. In that state, if the tamper key be released, the device will unsolicited to send the report to the nodes in group 1.

Notification Report (V8)
Notification Type: Home Security (0x07) Event: Tampering. Product covering removed (0x03)

*** Siren State Report:**
When the siren starts playing or stops the alarm sounds, the device will unsolicited to send the “Notification Report” to the nodes in group 1.

Notification Report (V8)
Notification Type: Siren (0x0E) Event: Siren active (0x01) , Siren idle (0x00)

***Temperature Report:**

When the temperature differential over, the device will unsolicited to send the “Sensor Multilevel Report” to the nodes in the Lifeline group. Sensor Type: Temperature (0x01)
*** Temperature differential report ***

This function default is disabled, to enable this function by setting the configuration NO.5 is greater than 0.
The default, is disable temperature differential report.
If setting the configuration NO.5 to 1, when the temperature is changed to plus or minus one degree Celsius (1.8 degree Fahrenheit), the device will report temperature information to the nodes in the l Lifeline group.
The device will measure the temperature in every 10 seconds.
Notice 1: The PSE04 must stay awake for at least 2 seconds after communicating, so therefore the more communication, the power consumption fast, please pay attention to use configuration NO.5.
Notice 2: This product cannot reflect outdoor temperature immediately because of the temperature sensor equipped inside rather than the surface.

***Play Sound:**
Using the BASIC_SET or Sound_Switch_Tone_Play_Set to play the siren, BASIC_SET or Sound_Switch_Tone_Play_Set with Value 0xFF, the Sound ID will be the same as the value which was set in Configuration No.7, 0x00 will stop to play.

Basic Set (V2) or Sound Switch Tone Pley Set (V1)

Value	Sound
0x00	Stop Play
0x01	Fire
0x02	Ambulance
0x03	Police
0x04	Alarm
0x05	Ding Dong
0x06	Beep
0xFF	Same as configuration NO.7 setting, or sound switch c onfiguration setting.

*** Timing Report:**

Besides the event triggered could report message, the device also supports the timing unsolicited report of the status.

- Battery level report: Every 6 hours report once in default. It could be changed by setting configuration NO. 6.
- Low battery report: When the battery level is too low, every 30 minutes will report once.
- Temperature report: Every 6 hours report once in default. It could be changed by setting the configuration NO. 4.

Notice: Configuration NO. 4 and 6 could be setting to zero to disable the auto report. And configuration NO. 1 could change the tick interval, the default value is 30, if setting to 1, that means the minimum auto report interval will be one minute. And please notice if setting this value to zero, that means disable all of the timing report except the low battery detection.

Power Up Procedure

***Battery Power Check**

When the device power-up, the device will detect the power level of the battery immediately. If the power level is too low, device will report low battery even every 30 minutes. Please change to another new battery.

***Wake up beam**

If a Z-Wave controller or another node in the network needs to communicate with a battery-powered device such as a door lock, the controller sends a special beam signal. The purpose of this beam is to wake up the FLiRS device.

When the first device receives this beam, it immediately fully wakes up and then communicates with the controller or other Z-Wave device utilizing standard Z-Wave protocol commands. If the device does not hear a Beam it goes back to full sleep for another period until it partially awakes again and listens for a Beam.

Over The Air (OTA) Firmware Update

The device is supported with Z-Wave™ firmware update via OTA.

1. Set the Z-WaveTM Controller into the firmware update mode.
2. Choose the hex file to update the firmware.
3. Wait 10~15 minutes for completing the OTA process.

4. The result of OTA will show in the Z-Wave™ Controller log.

During the OTA process, please DO NOT remove the power, otherwise, the firmware will be broken, and the device will be nonfunctional.

Z-Wave Configuration Settings

Notice 1: All of the configurations, the data size is 1.

Notice 2: The reserved bit or not supported bit is allowed any value, but no effect.

Notice 3: The PSE04 must stay awake for at least 2 seconds after communicating, so therefore the more communication, the power consumption fast, please pay attention to use configuration NO.1, NO.4, NO.5, NO.6.

NO.	Name	Def.	Valid	Description
1	Auto Report Tick Interval	0x1E	0~255	The interval time for auto-report each tick.
2	Sound Duration	0x06	0~255	Play sound duration, 1 tick is 30 seconds.
3	Customer Function	0x00	All	Customer function switch, using bit control.
		0	☑	**Bit0:** Disable Trigger Alarm. 0:Enable, 1:Disable.
		0	☑	Bit1: Disable Sound. Only using the optical alarm. 0: Enable, 1:Disable.
		0	☑	Bit2: Temperature Unit. 0:Fahrenheit, 1:Celsius.
		0	☐	**Bit3:** Reserve.
		0	☐	**Bit4**: Reserve.
		0	☐	**Bit5:** Reserve.
		0	☐	**Bit6**: Reserve.

		0	☐	**Bit7:** Reserve.
4	Auto Report Temperature Time	0x0C	0-255	The interval time for auto report the temperature.
5	Temperature Differential Report	0x00	0255	The temperature differential to report.
6	Auto Report Battery Time	0x0C	0— 255	The interval time for auto report the battery level.
7	Play Sound Control	0x43	All	Control play sound's level and which sound.
		3	☑	**BitBrut** Play sound's level. Level 1-3, 0: Level 3.
		0	☐	**Bit2:** Reserve.
		0	☐	**Bit3:** Reserve.
		4	☑	**Bit40•7:** Which sound id will play when control forms controller. Sound ID 1-6, 0: Disable.

Z-Wave Supported Command Class

Command Class	Version	Required Security Class
Z-Wave Plus™ Info	2	None
Security	1	None
Security 2	1	None
Supervision	1	None
Transport Service	2	None
Association	2	Highest granted Security Class
Association Group Information	3	Highest granted Security Class
Device Reset Locally	1	Highest granted Security Class
Firmware Update Meta Data	5	Highest granted Security Class
Indicator	3	Highest granted Security Class
Manufacturer Specific	2	Highest granted Security Class
Multi-Channel Association	3	Highest granted Security Class
Powerlevel	1	Highest granted Security Class
Version	3	Highest granted Security Class
Configuration	4	Highest granted Security Class
Sensor Multilevel	11	Highest granted Security Class
Basic	1	Highest granted Security Class
Notification	8	Highest granted Security Class
Sound Switch	1	Highest granted Security Class
Battery	1	Highest granted Security Class

 **Warning**
Caution, avoid listening at high volume levels for long periods

CAUTION
Risk of explosion if the battery is replaced by an incorrect type. Dispose of used battery according to the instructions.

Choosing a Suitable Location

1. The suitable ambient temperature for the module/device is 0°C~40°C.
2. Do NOT place the module/device direct under sunlight, in a humid place or in any location where they may

contact moisture, dirt, dust.

3. Do NOT place the module/device where exists combustible substances or any source of heat, fires, radiators, boiler, etc.

Disposal

This marking indicates that this product should not be disposed of with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

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FCC Interference Statement

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 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. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

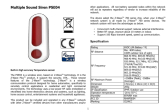
  1.This device may not cause harmful interference, and

  2. This device must accept any interference received, including interference that may cause undesired operation.

  FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

  This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Documents / Resources

	**Z-WAVE PLUS PSE04 Multiple Sound Siren** [pdf] User Manual Multiple Sound Siren, PSE04
	**Z-Wave Plus PSE04 Multiple Sound Siren** [pdf] User Manual PSE04, Multiple Sound Siren, PSE04 Multiple Sound Siren, Sound Siren, Siren
	**Z-Wave Plus PSE04 Multiple Sound Siren** [pdf] User Manual PSE04, Multiple Sound Siren, PSE04 Multiple Sound Siren, Sound Siren, Siren

References

- philio-tech.com/