philo PSE04 Multiple Sound Wireless Siren User Manual

Multiple Sound Siren PSE04 A/B+

Built-in high accuracy Temperature sensor The PSE04 is a wireless siren, based on Z-Wave TM technology. It is the Z-Wave Plus TM product, it support the security, OTA… Those newest features of the Z-Wave TM technology. Z-Wave TM 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. This product can be included and operated in any Z-Wave TM network with other Z-Wave 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 adopts the Z-Wave TM 700 series chip when your Z-Wave TM network system is all made by Z-Wave TM 700 series devices. The network system will have the advantages as below.

- 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), Max.300mA
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)
RF Maximum Power	+10dBm (Peak), -10dBm (Average)
Dimension	170mm(L) X 58mm (W) X 30mm(H)
Weight	205g
IP classification, Location	IPx4; Outdoor use
Operation temperature	-20 to 54° C
Humidity	85%RH max
FCC ID	RHHPSE04
Max. sound duration time	110dB @30cm
Multi sound	6 Different tunes, Fire Alarm/Ambulance/Police/Alarm/Door chime/beep
Temperature detector range	-20 to 54° C

Specifications are subject to change and improvement without notice.

Function

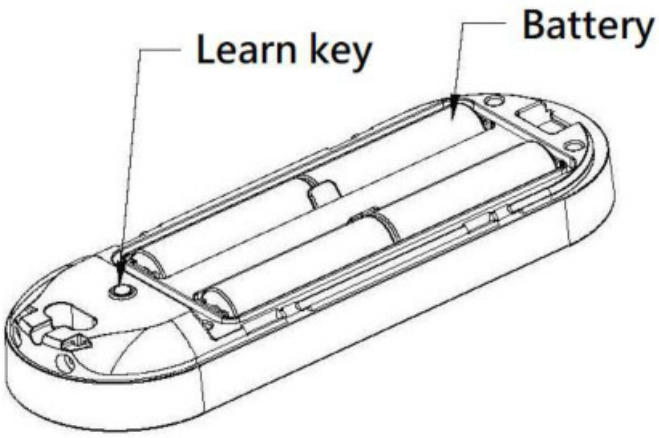
	Siren	Temperature sensor
PSE04-A	V	V
PSE04-B	V	

Troubleshooting

Symptom	Cause of Failure	Recommendation
The device can not join to Z-Wave™ network	The device may in a ZWave™ network.	Exclude the device then include again.

For Instruction to **http://www.philio-tech.com**

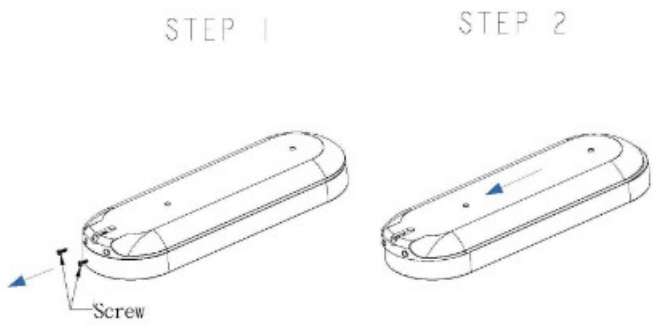
Overview

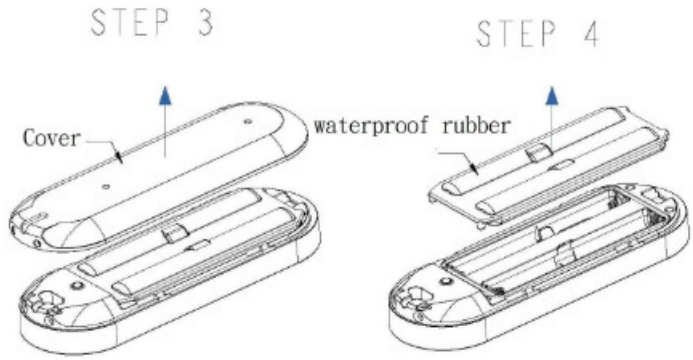


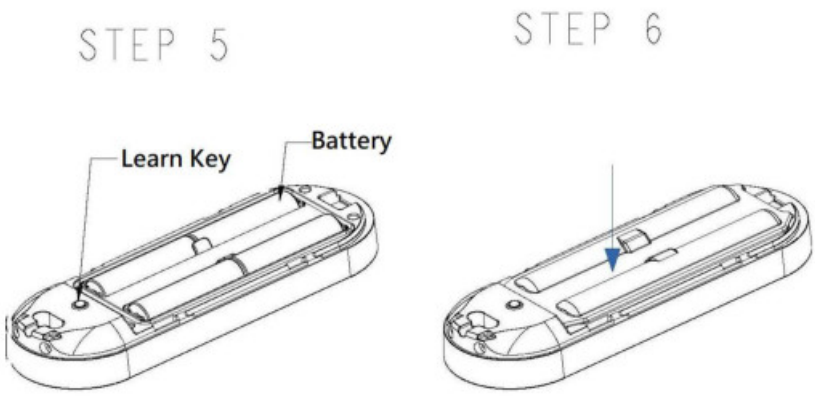
CAUTION
– replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);
– disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
– leaving a battery in an extremely high temperature surrounding an environment that can result in an explosion or the leakage of flammable liquid or gas;
– a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas The marking information is located at the bottom of the apparatus.

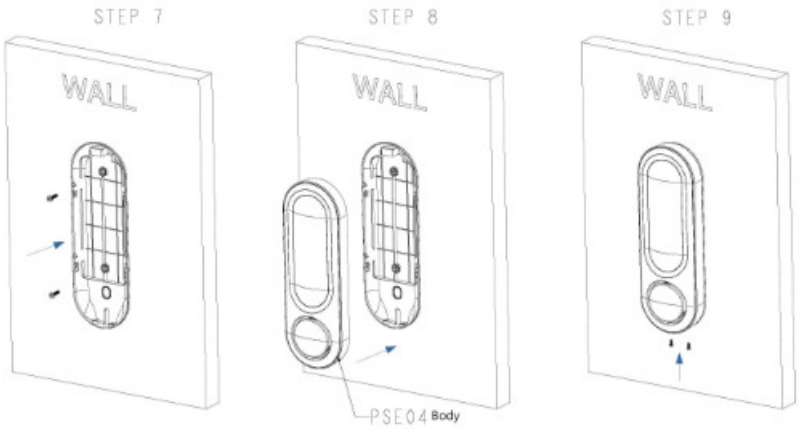
Battery Installation

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-Wave TM Network

There is one tamper key on the device. The tamper key can add, remove, reset from the Z-Wave TM network. In the first time, add the device into the Z-Wave TM 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 TM Controller means “Add” or “Inclusion”. Excluding a node ID allocated by Z-Wave TM Controller means “Remove” or “Exclusion”.

Function	**Description**
Add	1. Have Z-WaveTM Controller entered inclusion mode. 2. Press 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-WaveTm Controller entered exclusion mode. 2. Press 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. Press 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 k ey. If successful, 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 SmartStart p rocess, or you can scan a 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-Wa ve QR Code present on the product providing SmartStart inclusion. No further action is req uired and the SmartStart product will be added automatically within 10 minutes of minutes On in the network vicinity. *notice1: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

Notice 1: Always RESET a Z-Wave TM device before trying to add it to a Z-Wave TM 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 LED light will f lash on and off alternately at 0.5-second intervals. By pressing the On/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-Wave™ 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 stop the alarm sounds, the device will unsolicited send the “Notification Report” to the nodes in the group

1. Notification Report (V8)

Notification Type: Siren (0x0E)

Event: Siren active (0x01) , Siren idle (0x00)

***Temperature Report:**

When the temperature differential is 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. In 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 degrees Fahrenheit), the device will report temperature information to the nodes in the 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 configuration setting.

*** Timing Report:**
Besides the event triggered could report messages, the device also supports the timing of unsolicited reports 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 set to zero to disable the auto report. And configuration NO. 1 could change the tick interval, the default value is 30, if set to 1, that means the minimum auto report interval will be one minute. And please notice if setting.

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, the device will report low battery even every 30 minutes. Please change to another new battery.lue to zero means disable all of the timing reports except the low battery detection.

***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 FLiRS 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-Wave TM 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 Interv al	OxIE	— 0 255	The interval time for auto-report each tick.
	2 Sound Duration	0x06	255	Play sound duration, 1 tick is 30 seconds
3	Customer Function	Ox00	AU	Customer function switch, using bit control.
		0		BitO: Disable Trigger Alarm. 0:Enable, 1:Disable.
			M	
			√	
		0	√	Biti: 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	❑	BM: Reserve.

		0		Bit6:Reserve.
		0		Bit7:Reserve.
4	Auto Report Temperatur e Time	Ox OC	— 0 255	The interval time for auto report the temperature.
5	Temperature Differential Report	Ox00	255	The temperature differential to report.
6	Auto Report Battery Tim e	Ox OC	0 — 255	The interval time for auto report the battery level.
	Play Sound Control	0x43	All	Control play sound’s level and which sound.
		3	√	Bit0,4: Play sound’s level. Level 1-3, 0: Level 3.
		0	❑	Bit2:Reserve.
		0	❑	Bit3:Reserve.
		4	√	Bit4^,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 Plu5TM 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:
- This device may not cause harmful interference, and
- 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

	philo PSE04 Multiple Sound Wireless Siren [pdf] User Manual PSE04, Multiple Sound Wireless Siren, PSE04 Multiple Sound Wireless Siren