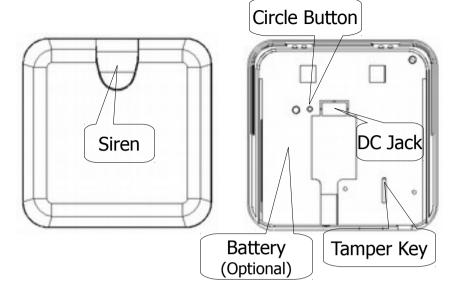
# **Multi Sound Siren PSE02**



**Product Overview** 



The multi sound siren PSE02 is a wireless siren, based on Z-Wave<sup>TM</sup> technology. Z-Wave<sup>TM</sup> 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 device is one component of the Z-Wave<sup>™</sup> system and is designed to work with all other Z-Wave<sup>™</sup> enabled devices in a home control network. The device adopt the Z-Wave<sup>™</sup> 400 series chip, when your Z-Wave<sup>™</sup> network system is all made by Z-Wave<sup>™</sup> 400 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.

### Adding to Z-Wave<sup>™</sup> Network

There are one tamper key behind the device. It could inclusion, exclusion, reset or association from Z-Wave<sup>™</sup> network.

In the first time, add the device into the Z-Wave<sup>™</sup> network. First, make sure the primary controller is in the inclusion mode. And then power on the device. The device will auto start the NWI (Network Wide Inclusion) mode. And it should be included in 5 seconds. You will see the LED light ON one second.

Function	Description				
Inclusion	<ol> <li>Have Z-Wave<sup>™</sup> Controller entered inclusion mode.</li> <li>Pressing tamper key three times within 1.5 seconds will enter inclusion mode.</li> <li>After inclusion successful, the device will wake to receive the setting command from Z-Wave<sup>™</sup> Controller about 20 seconds.</li> </ol>				

Exclusion	Node ID has been excluded.				
Reset	<ol> <li>Pressing tamper key four times within 1.5 seconds and do not release the tamper key in the 4<sup>th</sup> pressed, and the LED will turn ON.</li> <li>After 3 seconds the LED will turn OFF, after that within 2 seconds, release the tamper key. If successful, the LED will light ON one second. Otherwise, the LED will flash once.</li> <li>IDs are excluded and all settings will reset to factory default.</li> </ol>				
Association	<ol> <li>Have Z-Wave<sup>™</sup> Controller entered association mode.</li> <li>Pressing tamper key three times within 1.5 seconds will enter association mode.</li> <li>Note: The device support 6 groups.</li> <li>The group 1 is for receiving the report message, like tamper event.</li> <li>The group 2 to 6 will map to different sound, when the device got the BASIC Set 0xFF, it will check is the node in which group, and play the mapping sound.</li> <li>The group 2 mapping to emergency alarm.</li> <li>The group 3 mapping to fire alert.</li> <li>The group 5 mapping to police car sound.</li> </ol>				
<ul> <li>The group 6 mapping to door chime.</li> <li>Including a node ID allocated by Z-Wave<sup>™</sup> Controller means inclusion. Excluding a node ID allocated by Z-Wave<sup>™</sup> Controller means exclusion.</li> <li>Failed or success in including/excluding the node ID can be viewed from Z-Wave<sup>™</sup> Controller.</li> </ul>					

**Notice 1:** Always RESET a Z-Wave<sup>TM</sup> device before trying to add it to a Z-Wave<sup>TM</sup> network.

**Notice 2:** When the device into NWI mode, any tamper key and sensor functionality will useless. The NWI will timeout after 3 minutes.

# Z-Wave<sup>™</sup> Message Report

#### \* 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 "Sensor Binary Report" to the nodes in the group 1.

Sensor Type: Tamper (0x08) Sensor Value: 0xFF

#### \* Siren Alarm State Report:

When the siren start playing or stop the alarm sounds, the device will unsolicited to send the "Sensor Binary Report" to the nodes in the group 1.

Sensor Type: General Purpose (0x01)

Sensor Value: 0xFF (Start play), or 0x00 (Stop play)

# **Power Up Procedure**

When the power on, the device will check is it already adding to the network? If doesn't, it will auto start the NWI mode. The LED will flash in every second and continue 3 minutes. Until timeout or the device successful to inclusion by controller.

### **Play Sound**

The device supports using BASIC SET or SWITCH\_MULTILEVEL SET to play the sound. The sound ID is define as follow:

1: Emergency sound.

- 2: Fire alert.
- 3: Ambulance sound.
- 4: Police car sound.
- 5: Door chime.
- 6~99: Beep Beep.
- 0: means stop the sound, but will check the priority.

And the 255 is a special one, if the node priority is 1 or 7, the device will play the last sound.

The priority 2 will play emergency sound.

The priority 3 will play fire alert.

The priority 4 will play ambulance sound.

The priority 5 will play police car sound.

The priority 6 will play door chime.

### **Priority Specification**

The association group 1 to 6, not only for report message and mapping to the play sound. It also setting the priority number too. For instance the node added in the group 3 and this node's priority number will be 3 too. And the node not find in any group, its priority will be 7. The smaller priority number will have higher priority.

When the device is playing the sound ID 1, only the node with priority 1 or 2 can stop it or change playing another sound. Playing sound ID 2, stop by priority 3,2,1. Playing sound ID 3, stop by priority 4,3,2,1. Playing sound ID 4, stop by priority 5,4,3,2,1.

### **Manual Battery Shutdown**

When the DC power is dropped. The system will auto switch to use the battery power. If you want to really shutdown the system, please follow instructions as below.

- 1. Press and hold the circle button.
- 2. Click the tamper 3 times in 1.5 seconds.
- 3. Release the circle button.
- 4. If shutdown successful, the LED will flash 3 times.

After the battery shutdown, the system won't work anymore, unless the DC power recovery.

# **Z-Wave Configuration Settings**

Notice: The data size of the configuration settings is 1.

NO.	Name	Default	Valid Values	Description
2	Alarm Duration	6	0~127	<ul><li>Play alarm sound duration, 1 tick is 30 seconds. Default is 3 minutes, maximum is 63.5 minutes</li><li>0: means never auto stop.</li></ul>

### **Z-Wave Supported Command Class**

COMMAND\_CLASS\_SWITCH\_MULTILEVEL COMMAND\_CLASS\_CONFIGURATION COMMAND\_CLASS\_VERSION COMMAND\_CLASS\_SENSOR\_BINARY\_V2 COMMAND\_CLASS\_ASSOCIATION\_V2 COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC\_V2

### **Specifications**

Power by DC 5V, and support backup lithium battery (Optional). Signal (Frequency):

```
868.4 MHz(EU), 869.85 MHz(EU)
908.4 MHz(US/Canada), 916.0 Mhz(US/Canada)
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922~927 Mhz(JP/TW)
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921.4 MHz(Australia /New Zealand),
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919.8 MHz(Australia /New Zealand)
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Range:

Minimum 30 meters indoor,

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70 meters outdoor line of sight.
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Operating Temperature: -10^{\circ}C ~ 40^{\circ}C For indoor use only.
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Specifications subject to change without notice due to continuing product improvement.



# FCC ID: RHHPSE02

# **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.

# Warning

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.