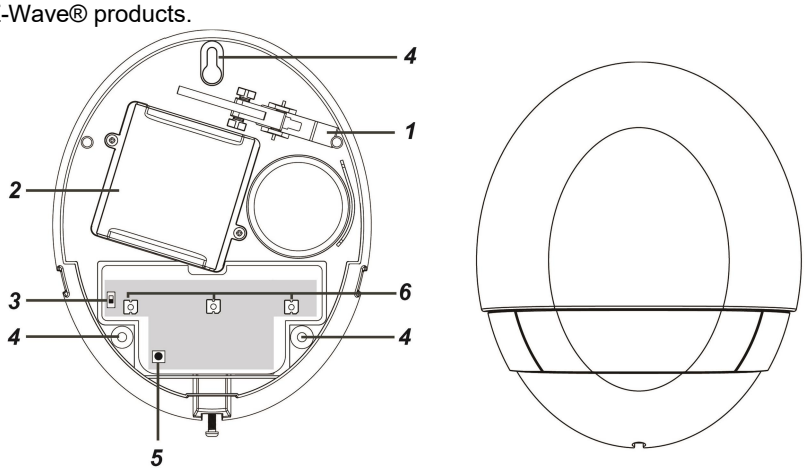
BX-32ZW Outdoor Bellbox

Introduction

BX-32ZW is a Z-Wave® Outdoor Bellbox. It is capable of raising alarm upon receiving alarm signal from the Z-Wave® network when an alarm is activated. During the alarm, the Bellbox will sound alarm with its built-in siren and also flash the strobe light to attract attention.

The Bellbox is a Z-Wave® enabled device and is fully compatible with any Z-Wave® enabled network.

Z-Wave® is a wireless communication protocol that uses a low-power RF radio. By taking advantage of the Z-Wave® mesh network, commands can be transmitted to their destination via intermediary "listening" Z-Wave® products.



Parts Identification

1. Tamper Switch

The Tamper switch will be activated when the Bellbox is removed from mounted surface, or it cover opened.

2. Battery Compartment

The Bellbox is powered by two 1.5V D-Cell alkaline battery.

3. Battery Switch

The battery switch is used when battery is installed in the Outdoor Bellbox. To power on/off the Outdoor Bellbox, switch the ON/OFF button.

4. Mounting Holes x 3

5. Function Button

- Press the button 3 times within 1.5 seconds to send a learn code.
- Press and hold the button for 10 seconds, Refer to **Removing Device (Exclusion)** for details.

6. LED 3 & 2 & 1 (From left to right)

Features

- ***Audio and Visual Status Indication***

The Siren can be set to indicate system status such as Arm, Home, Disarm and Fault. Please see the table below for indication patterns. (Functionality may vary depending on the controller)
The strobe light includes 3 LEDs (From right to left: LED 3-> LED 2->LED 1).
Refer to below table for LED and siren beep for status indication.

	Siren Audio	Strobe Light Indication
Arm/Home	1 Long Beep	3 LED's Flash at Once
Disarm	2 Beeps	Sequentially flashes for one cycle
Disarm + Alarm Memory	5 Beeps	None
Fault in System 1-sec	Short Beep	None
Alarm	Siren	LED's Flash
Burglar	Siren	LED's Flash

Fire	Siren	LED's Flash
Water	Continuous Beeps	LED's Flash
Entry Count Down	Short Beep	None
Exit Count Down	Short Beep	None
Door Chime	Ding-Dong	None
Stop Beep	None	None

<NOTE>

☞ Arm/Home/Disarm LED and siren beep behaviour are the same under fault conditions (Tamper Fault/Low Battery).

● *Alarm Activation*

When an alarm is activated, the Bellbox will activate its siren and strobe light according to different alarm type:

- Burglar and Emergency alarm: Continuous alarm, all LED flashes.
- Fire alarm: 2-second alarm with1-second interval, all LED flashes.

● *Alarm Length Setting*

When the Bellbox receives an alarm signal via Z-Wave® network, it will activate siren and strobe light according to the alarm length set by the system control panel (default is 10 minutes).

● *Battery and Low Battery Detection*

The Bellbox uses two 1.5V alkaline D-cell batteries as its power source. With the battery, use the battery switch to power on/off the Bellbox manually.

The Bellbox features Low Battery Detection function. When the battery voltage is low, the Bellbox will transmit Low Battery signal to the coordinator in Z-Wave® network.

The Bellbox will report its battery percentage to the Control Panel respectively at 100%, 75%, 50%, 25%, 10%. If the battery voltage is low (10%), a Low Battery signal will be sent to the Control Panel to notify the user.

When changing battery, after removing the old battery, press the Tamper Switch twice to fully discharge before inserting new battery.

● *Tamper Protection*

The Bellbox is protected by a tamper switch which is compressed against the mounting surface when mounted. Whenever the Bellbox is removed from mounted location, or its cover opened, the tamper switch will be activated and the Bellbox will send a tamper open signal to remind the user of the condition and activate an alarm immediately.

● *Adding Device (Inclusion)*

This product can be included and operated in any Z-Wave® network with other Z-Wave® certified devices from other manufactures and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

- Insert the two 1.5V D-Cell alkaline batteries into the battery compartment connecting the correct polarity as shown on the battery compartment lid.
- The Bellbox will emit a 2-tone beep.
- Put the Z-Wave® gateway or control panel into **Inclusion** or **Learning** mode (please refer to the Z-Wave® gateway or control panel manual).
- Within 1.5 seconds, press the Function Button 3 times.
- Refer to the operation manual of the Z-Wave® gateway or control panel to complete the learn-in process.
- If the sensor has already been **included** (learnt) into another Z-Wave® Gateway/Control Panel, or if the sensor is unable to be learnt into the current Z-Wave® Gateway/Control Panel, please exclude it first (see ***Exclusion***) before attempting to **include** it into the current Z-Wave® Gateway/Control Panel.

● *Removing Device (Exclusion)*

The Bellbox must be removed from existing Z-Wave® network before being included into another. There are two methods available to exclude a device.

Exclusion Mode

- Put the Z-Wave® gateway or control panel into **Exclusion mode** (please refer to the Z-Wave® gateway or control panel manual).
- Within 1.5 seconds, press the Function Button 3 times and the Bellbox will be removed from the Z-Wave® network.

Factory Reset

(Only use factory reset when network Control Panel/Gateway is missing or inoperable).

- Press and hold the Function button of the Bellbox for 10 seconds to factory reset with all LED flashes once.

<NOTE>

☞ Factory resetting the Bellbox will restore it to factory default settings (excluded from the Z-Wave® network). The Z-Wave® gateway or control panel will still keep its Z-Wave® settings. Please refer to the gateway or control panel manual on how to remove the Bellbox's Z-Wave® settings.

● *Range Test*

To test whether the device is able to communicate with the Z-Wave® gateway or control panel:

- Put the gateway / panel into range test mode (Walk Test).
- Press the Function Button on the device.
- The gateway / panel should display if the device is within the operation range (please refer to the operation manual of the gateway / panel).

● *Z-Wave® Sleep Mode*

- The Bellbox will enter Z-Wave® Sleep mode (to conserve power) after waking up for a short period of time (~10 seconds). While in Z-Wave® sleep mode, Z-Wave® gateways or control panels are unable to send commands to the Bellbox.
- To program the Bellbox, please send command(s) to the Bellbox within the wake-up period.

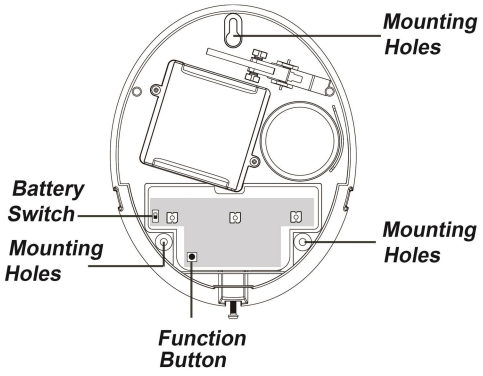
Installation

● *Installation Guideline*

- The Bellbox is designed with a waterproof case to be mounted on external wall of your house.
- When mounting the Bellbox, mount as high as possible for its siren and strobe light to attract attention when an alarm is activated.
- The Bellbox is designed to be mounted on a flat surface with fixing screws and plugs provided.
- The base has 3 mounting holes for you to screw the Bellbox onto the wall.

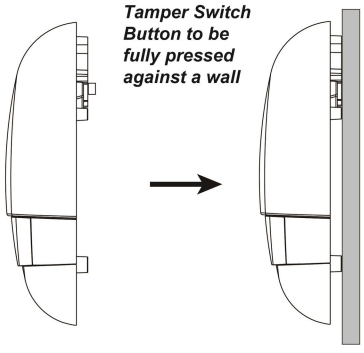
● *Mounting the Bellbox*

1. Find the location where the Bellbox is to be mounted.
2. Remove the Top cover by releasing the bottom screw using a Philips screwdriver and pulling the outer case out carefully.
3. Hold the Bellbox at the position where it will be mounted.
4. Check whether BX has a strong enough signal with the Control Panel by putting the Control Panel into Walk Test mode (please refer to Control Panel manual). Press the Function Button check whether the signal is strong enough (please refer to Control Panel manual for signal strength).
5. If you are satisfied with the signal strength, remove the Bellbox from mounting location.
6. Identify the 3 mounting holes, mount and fix the Bellbox on the wall using the large screws and wall plugs provided. Secure the screws using a Philips screwdriver. Make sure the Tamper Switch is fully depressed against the wall.



<NOTE>

☞ The tamper switch is secured with a button at the back of the base. When the siren is pulled off from the wall, button will be released, the alarm will be activated. Ensure the button is fully depressed when the siren is mounted. If there is a gap, pack with a suitable spacing material.



7. Replace the Top cover by hooking the top of the Top cover onto the top of the base. Push the bottom of the Top cover onto the base and tighten the bottom screw using a Philips screwdriver.
8. Check if the installation is successful by testing from the Control Panel by arming and disarming function.
9. The installation is now completed.

● *Z-Wave® Information*

BX-32ZW is a "Security Enabled Z-Wave® Plus® Product." The Controller also supports as 'Security Enabled Z-Wave® Controller."

Device Type: Generic Siren

Role Type: Listen Sleeping Slave (LSS)

Command Class Support/Control

Mandatory CC Support: Association CC, v2 or newer
Association Group Information CC
Binary Switch CC
Battery CC
Device Reset Locally CC
Manufacturer Specific CC
Notification CC
Configuration CC
Scene Activation CC
Powerlevel CC
Version CC, v2 or newer
Z-Wave® Plus® Info CC

Recommended CC Support: Firmware Update Metadata CC

● *Z-Wave®'s Groups (Association Command Class Version 2)*

The Bellbox can be set to send reports to associated Z-Wave® devices. It supports three association groups.

Group 1 for "LifeLine" (maximum node:1):
Battery CC (COMMAND_CLASS_BATTERY)
Notification CC,V4 (COMMAND_CLASS_NOTIFICATION)
SwitchBinary CC, V1 (COMMAND_CLASS_SWITCH_BINARY)
Device Reset Locally CC

Group 2 for "Tamp rep" (maximum node: 5):
Notification CC,V4 (COMMAND_CLASS_NOTIFICATION)
When Tamper Open, Group 2 send Notification (Type:07,Event:03), Tamper Close send Notification (Type:07,Event:00,Parameter:03)

Group 3 for "AC rep" (maximum node: 5):
Notification CC,V4 (COMMAND_CLASS_NOTIFICATION)
When AC Fail send Notification (Type:08,Event:02),
When AC Restore send Notification (Type:08, Event:03)

● *Z-Wave® Configuration*

[COMMAND_CLASS_CONFIGURATION]

[CONFIGURATION_SET]

Parameter Number: 0x01~0x04

Size:0x01

Reserved: 0x00

Default:0x00

Configuration Value: 0xXX

Parameter Number	Configuration Value
0x01, Alarm Length	0x01~0x0A (1~10 min), default 0x0A
0x02, Alarm LED Flash ON/OFF	0x00: disable, 0x01: enable; default 0x01
0x03, Comfort LED	0x00~0x19 (disable, 10sec,…,250sec) Default:0x00 Each unit is 10 sec
0x04, Tamper Enable/Disable	0x00:disable,0x01: enable; default 0x01