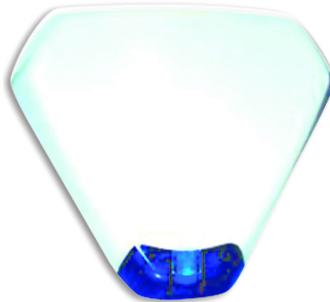




# Wireless Sounder

Wireless External  
Sounder



Wireless Internal  
Sounder



**Installation and Programming Instructions**

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## Introduction

RISCO Group's two-way wireless sounders are designed to extend the signaling capabilities of the Risco Group wireless systems within the protected area. The wireless sounders offer an easy and flexible solution for quick installations. The sounders are powered by their own batteries and communicate wirelessly with the security panel using 868MHz or 433MHz frequency band. Up to 3 wireless sounders (external or internal) can be assigned to a system.

\* Sounder and siren are used interchangeably in this document.

## Operational Functions

### Alarm / Tamper Indication

Upon an alarm condition, the sounder sound will be activated for a period of time defined by the system (the Bell Time Out parameter).

The maximum time that the sound will be activated is 5 minutes.

### Low Battery Indication

Upon a low battery condition a trouble indication is sent to the panel.

There are 2 types of low battery indications:

Radio low battery

Speaker low battery

### Supervision

Each sounder can be defined to be supervised by the panel. The system generates a local trouble signal identifying the sounder which its signal is not received during a predefined time, followed by a report to the Central Station (if defined).

### Pre Alarm Indication

When an entry time starts, the system transmits a pre-alarm signal to the sounder. If the system is disarmed before the entry delay time expires a cancellation signal is sent to the sounder.

If the sounder does not receive a canceling signal within the entry delay time, the sounder will be activated.

#### **NOTE:**

This feature is programmable. For more information please refer to page 11.

### Self Testing

Upon pressing on the reset switch located on the PCB, the sounder performs a functional self test. The strobe flashes and a squawk will sound.

Remote testing can be performed from the system keypad or using the Upload/Download software.

### Installation LED Indication

The sounder incorporate two LEDs located on the PCB. These LEDs are enabled when the tamper is open and 10 minutes after the tamper is closed.

**Red Only:** Indicates transmission time

**Yellow Only:** Indicates low battery

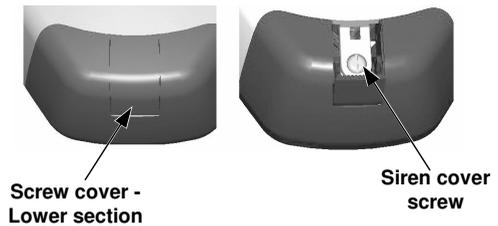
**Red + Yellow** (3 seconds): Confirmation of successful learning mode.

## Installation

Use the following instructions to mount the external and internal wireless sounders.

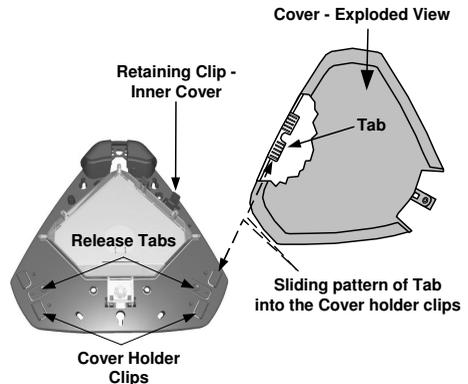
### Mounting the External Sounder

1) Open the screw cover by applying thumb pressure on the screw cover lower part. When raised, push outwards. Once you have gained access to the cover screw, open screw and lift the cover away until cleared from the back plate.

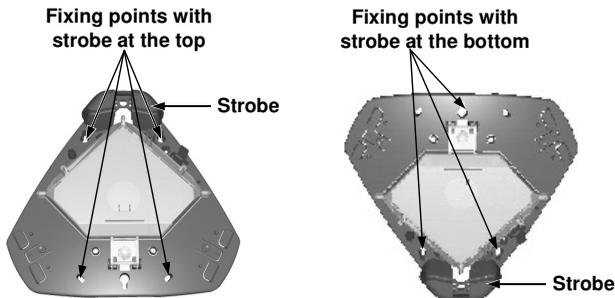


2) Once the cover has been removed it may be slid into one of the Cover Holder Clips. This is done by placing the cover next to the cover holding clips and then sliding it into place. To release cover, press the release tab and slide cover out.

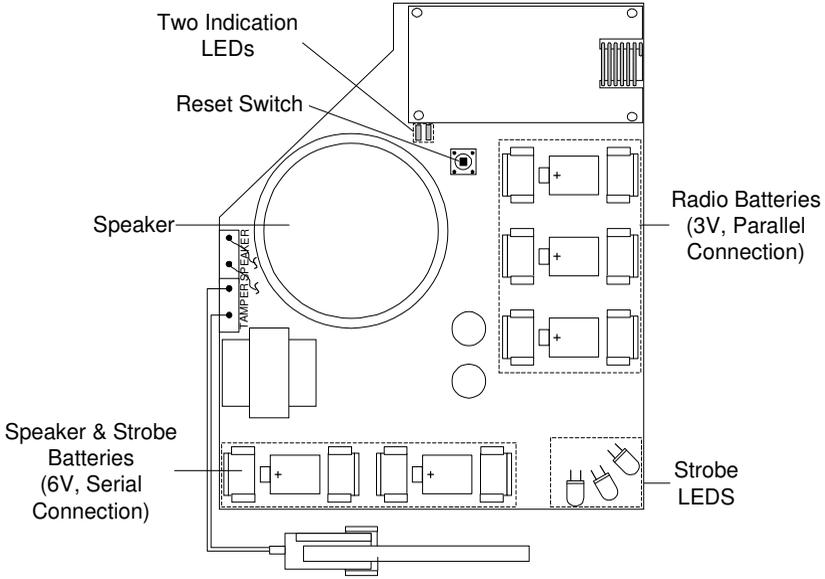
3) To reach the PCB release the inner cover and lift the cover until it locks in the raised position.



4) Position the sounder base plate against the wall and mark the securing holes according to the strobe required position. The unit should be mounted to the wall using at least three 2" No 10 screws and suitable wall anchors.



- 5) Insert the supplied batteries in the metal clips according to the polarity.
- 6) The sounder is ready for communication set up with the system.
- 7) Once the communication set up is completed, close the inner cover and reattach the outer cover.



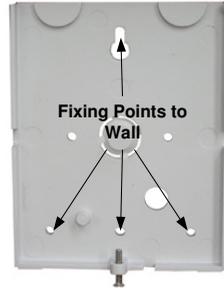
External Sounder - PCB Diagram

## Mounting the Internal Sounder

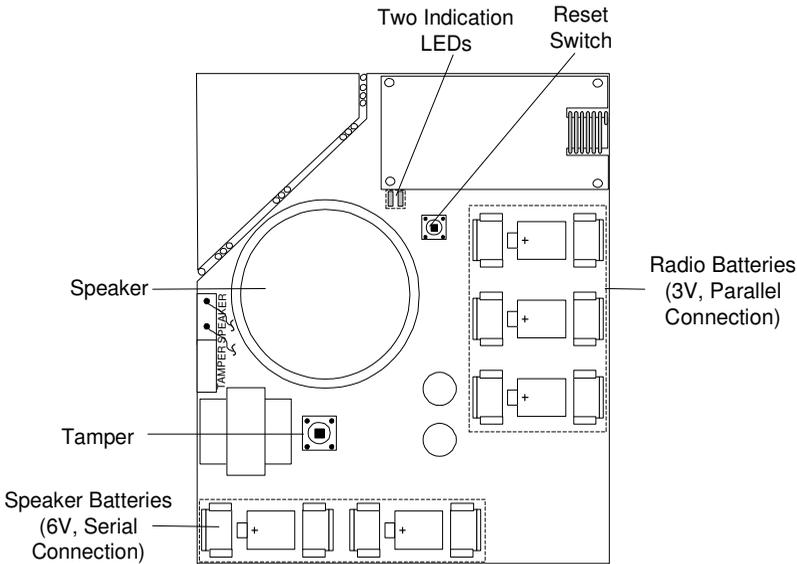
1. Open the front cover by removing the cover locking screw located at the bottom of the unit.
2. Hold the back plate against the wall and mark the locations of the mounting holes. Drill the desired mounting holes and insert screw anchors.
3. Mount the back unit to the wall using the supplied screws.
4. Insert the supplied batteries paying attention to the polarity
5. Perform communication set up with the control panel
6. Once communication setup is completed, close the cover and locking screw.



Remove cover locking screw



Fixing Points to Wall



Internal Sounder - PCB Diagram

## Programming Instructions

The following section describes programming options added relating to the programming of the wireless sounder. Up to 3 wireless sounders (external or internal) can be assigned to the system.

We recommend reading and fully understanding the system Installation and User manuals, before programming the sounder.

## Engineer Programming Menu

### ➤ To access the sounder menu

1. From the main engineer menu press [9] to access the More "Devices menu".
2. Press [2] for Siren.
3. You are now in the sounder submenus as described below.

### [9][2][1] Siren: Allocation

The sounder must identify itself to the system's receiver by writing its ID into the System.

### ➤ Step 1: Introducing the Sounder to the System

1. After accessing the siren menu, press [1] for the **Allocation** menu
2. Select the sounder ID you want to assign.
3. Place the cursor over the **Type** field. Use the  key to choose one of the following options and then press [#] :

NONE

ODWS1: Outdoor wireless sounder

INWS1: Indoor wireless sounder



#### NOTE:

After selecting the NONE option the system will ask you whether to erase the sounder or not.

4. Use the  key to choose if the sounder will be audible [Y] or silent [N] and press [#].
5. Use the  key to choose if the squawk sound will be audible [Y] or silent [N] and press [#].
6. Use the  key to choose if the squawk strobe is enabled [Y] or disabled [N] and press [#].



#### NOTE:

The definition of the squawk strobe is applicable only for the outdoor (ODWS1) sounder.

➤ **Step 2: Setting communication with the system**

1. After adding the sounder to the panel, the sounder must identify itself to the system's receiver by writing its ID into the system's receiver. Select the appropriate option as follows:

Press [1] to Skip to the next sounder assignment

Press [2] to allocate the sounder into the system. Send a write signal (within 255 seconds) from the sounder as follows:

- a. Press the reset switch on the sounder.
- b. After a squawk is sounded and the sounder's strobe flashes (only in outdoor sounder) you have 10 seconds to press on the tamper switch for at least 3 seconds.

If the sounder is successfully recognized, the system will sound a confirmation beep, the sounder will initiate a squawk sound and the 2 LEDs on the sounder will flash for 3 seconds.

Press [3] to erase the sounder from the system memory.

Press [4] to select whether the sounder will be supervised or not.

2. Repeat the process for other sounders in the system (up to 3).

**[9][2][2] Siren: Parameters**

Using this menu you can define parameters that reflect the operation of the sounder.

➤ **To set the sounder parameters**

1. From the engineer menu, access the siren parameters submenu, Quick Key [9][2][2].
2. Enter the number of the sounder that you want to program and then press [#].  
You can now program the sounder parameters.



**NOTE:**

For internal sounder (INWS1) only the **Volume** parameter is available.

---

**Siren: Parameters**

---

**Quick Keys    Parameter**

---

**[9][2][2][1]    Strobe Control**

---

Defines the Strobe operation mode.

**[9][2][2][1]  
[1]    Always Off**

---

The strobe is deactivated

**[9][2][2][1]  
[2]    Follow Bell (Default)**

---

The strobe is activated when the sounder bell is triggered.

**[9][2][2][1]  
[3]    Follow Alarm**

---

The strobe is activated when an alarm event occurs in the system.

[9][2][2][2]	<b>Strobe Blink</b>						
Defines the number of times that the strobe will flash per minute.							
[9][2][2][2] [1]..[5]	<b>Strobe Blink options</b>						
<table border="0"> <tr> <td>[1] 20 times per minute</td> <td>[4] 50 times per minute</td> </tr> <tr> <td>[2] 30 times per minute</td> <td>[5] 60 times per minute</td> </tr> <tr> <td>[3] 40 times per minute (Default)</td> <td></td> </tr> </table>		[1] 20 times per minute	[4] 50 times per minute	[2] 30 times per minute	[5] 60 times per minute	[3] 40 times per minute (Default)	
[1] 20 times per minute	[4] 50 times per minute						
[2] 30 times per minute	[5] 60 times per minute						
[3] 40 times per minute (Default)							
[9][2][2][3]	<b>Strobe Arm Squawk</b> Default: 05      Range: 01-20 (seconds)						
The time that strobe blinking will continue when arm is performed.							
<b>NOTE:</b> If the sounder's squawk strobe is defined as NO (Refer to Allocation section) this parameter will be ignored.							
[9][2][2][4]	<b>Volume</b>						
Defines the sounder sound volume for the following system modes. The sound volume range is between 0 (silent) to 5 (maximum volume).							
[9][2][2][4] [1]	<b>Exit / Entry</b>						
The sound produced during exit/entry time Default: 0							
[9][2][2][4] [2]	<b>Alarm</b>						
The sound produced during alarm. (Default: 9)							
[9][2][2][4] [3]	<b>Squawk</b>						
The sound produced during squawk sounds (Default: 9)							

**[9][2][3] Siren: Communication Test**

The sounder communication test performs a communication test between the sounder receiver and the system. The value displayed indicates the receiving level of the signal sent from the system to the sounder's receiver.

➤ **To perform communication test**

1. From the engineer menu access the siren communication test submenu, Quick Key [9][2][3].
2. The system sends a test signal to the sounders. A number between 00-99 indicates the strength of the communication signal between the system and the sounder.

**NOTE:**

For successful communication, the strength of the signal should be higher than the sounder receiver noise threshold level (see quick key [9][2][4]) .

## [9][2][4] Siren Receiver Calibration

This feature establishes the threshold noise level of the wireless sounder receiver for successful communication with the system.

### ➤ To calibrate the sounder receiver

1. From the engineer menu access the siren receiver calibration submenu, Quick Key [9][2][4].
2. Select the sounder for which you want to calibrate its receiver.
3. To perform a new automatic calibration, use the  key to select [Y]. After the calibration process is accomplished, the new noise threshold level is displayed.
4. To confirm the new threshold level, press [#] or change the threshold level manually and then press [#].

## [9][2][5] Siren: Tamper Mute

Selecting this option will disable the tamper sound during the current installation programming period.

### NOTE:

An ongoing tamper alarm will not be disabled.

## [1][1][9] Siren Supervision Time

### System: Timers

Quick Keys	Parameter	Default	Range
[1][1][9]	<b>Accessory Supervision Time</b>	60 minutes	00-255 minutes

Specifies the siren supervision time parameter, i.e. if set to 60 minutes the siren will send a supervision signal every 60 minutes. If any of the sounders does not transmit to the panel at least once, during the supervision time of the system receiver (Quick Key [1][3][3] ) the system will regard the sounder as Lost.

### IMPORTANT:

The supervision time of the system receiver (Quick key [1][3][3]) should be higher than the accessory supervision time ([1][1][9]) in order to eliminate false lost event.

## [1][2][35] Siren Pre Alarm Feature

This wireless sounder incorporates a pre alarm feature that enhances the security of the system, by producing a local alarm in case of the sabotage.

**NOTE:**

In the UK version of the system the quick key of this parameter is [1][2][44].

### System: Control

Quick Keys	Parameter	Default
[1][2][35]	<b>Siren Pre Alarm</b>	No
	Specifies if the system will send a Pre Alarm message to the sounder while an entry delay starts. <b>Yes:</b> The system sends a pre alarm signal to the sounder at the beginning of the entry delay. If the sounder does not receive a cancellation signal from the system at the end of the entry time, the sounder goes into alarm. <b>No:</b> Pre Alarm disabled	

## [6][2][6][4] Siren Report Codes

The following are the new report codes related to the wireless sounders.

### Report codes → Manual → Wireless → Siren

Quick Keys	Parameter
[6][2][6][4] [1]	<b>Tamper</b> Tamper alarm from sounder X
[6][2][6][4] [2]	<b>Tamper Restore</b> Tamper alarm restore from sounder X
[6][2][6][4] [3]	<b>Battery Trouble</b> Report code for a low battery condition in a wireless sounder
[6][2][6][4] [4]	<b>Battery Trouble Restore</b> Report code for the correction of a low battery condition
[6][2][6][4] [5]	<b>Lost Trouble</b> A report code that indicates the following condition: If any of the sounders does not respond to any request from the system, during the <u>supervision time of the system receiver</u> (Quick Key [1][3][3] ), the system will regard the sounder as Lost.
[6][2][6][4] [6]	<b>Lost Trouble Restore</b> Restore is established when the system receives any signal from the sounder.

## Event Log Messages

The following list details the wireless sounder dedicated event messages, as displayed on the system LCD display:

LCD Text	Event Description
Tamper Siren=X	Tamper alarm from wireless sounder X
Tmp rstr Siren=X	Tamper alarm restore from wireless sounder X
Spkr low bat S=X	Speaker low battery trouble
Spkr l.bat rs=X	Speaker low battery restore from sounder X
Radio l.bat S=X	Radio low battery trouble
Radio l.bat rs=X	Radio (Transceiver) low battery restore from sounder X
Siren=X Lost	Sounder X is regarded as lost following supervision test.
Siren=X Lost Rst	The System received a signal from sounder X after it has been regarded as lost

## User Programming Menu

### Diagnostics

The diagnostics menu enables to test parameters that reflect the operation of the sounder.

➤ **To perform diagnostics:**

1. From the **user** menu press [**⌘**] [4] to access the Maintenance menu.
2. Enter the Engineer code (or sub-engineer) and press [**#**].
3. Press [7][1] to access the Siren diagnostic menu.
4. Enter the digit representing the sounder you want to test and then press [**#**].  
The system will perform the diagnostics test and a list of test parameters will appear, as indicated in the table below.
5. Use the arrow keys to view the diagnostics test results.

### NOTE:

The diagnostic features can be also performed from Upload/Download software, locally or remotely.

#### Maintenance: Siren Diagnostics

Quick Keys	Parameter
------------	-----------

[4][7][1]	<b>Siren Diagnostics</b>
-----------	--------------------------

Speaker batteries voltage: Tests the selected sounder's speaker batteries voltage.

Radio (Transceiver) batteries voltage: Tests the selected sounder's radio's batteries voltage.

### Siren Version

This menu displays information regarding the sounder's version. Repeat steps 1 to 4 in the Siren diagnostic section with the exception of pressing [7][2] in step 3 for the Siren version option.

#### Maintenance: Siren Version

[4][7][2]	<b>Siren Version</b>
-----------	----------------------

Sounder part number:

F=Frequency (868MHz / 433MHz) V=Siren type (Internal/External),  
C= lens Color

Sounder software version

Sounder software date

Sounder software checksum

## Replacing Batteries

1. To silence the tamper alarm enter the engineer programming mode, quick key [9][2][5] and activate the Tamper Mute option.
2. Remove the sounder cover as described in the installation section.

### NOTE:

If required you can silence a tamper alarm by pressing the RESET Switch.

3. Remove the old batteries from the metal clips and replace with new ones. Pay attention to the polarity.
4. Press the RESET switch.
5. Close the cover and fasten the cover locking screw.

### NOTE:

Dispose of batteries according to your local regulations

## Technical Information

### Electrical

Power Supply	5 X CR123, 3V Lithium Battery (3 batteries for the Radio Transceiver, 2 batteries for the Speaker/Strobe, see External and Internal Sounder - PCB Diagrams on pages 5 and 6)
Battery life	3 years (typical)
Speaker sound level	105 dB @ 1 meters (adjustable)
Strobe lens (External sounder)	Polycarbonate, available in amber, red, blue or transparent
Strobe flash rate (External sounder)	60 times per minute (maximum)
Size: External sounder (HxWxD)	300x 325x70 mm (11.8 x12.8x2.8 inch)
Size: Internal sounder (HxWxD)	145 x 120 x 50 mm (5.7x4.7x2 inch)
External sounder Weight (batteries included)	1 Kg (35.2 oz)
Internal sounder Weight (batteries included)	0.44Kg (15.52 oz)

### Radio

Radio type	Two Way Narrow band
Frequency	868 MHz or 433MHz
Range up to:	150m (492') Line of sight
Supervision	Yes
Modulation Type	ASK

### Environmental

Temperature	-25°C to 60°C (-4°F to 140°F)
IP Rating	IP 44
Environmental Class	Class IV

## **FCC & IC notes**

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 on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on to a different circuit from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment which are not expressly approved by the party responsible for compliance (RISCO Ltd) could void the user's authority to operate the equipment.

**FCC ID: JE4RWRT433**

**IC: 6564-RWRT433**

## **RTTE Compliance Statement**

Hereby, RISCO Group Ltd, declares that these products (Wireless external siren and wireless internal siren) are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.



## **RISCO Group Limited Warranty**

RISCO Group Ltd. and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 12 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller cannot guarantee the performance of the security system which uses this product. Seller's obligation and liability under this warranty is expressly limited to repairing and replacing, at Seller's option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose.

In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever.

Seller's obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages or delay.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any person's injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery or fire without warning, but is not insurance or a guaranty that such will not occur or that there will be no personal injury or property loss as a result.

Consequently seller shall have no liability for any personal injury, property damage or loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising from under this limited warranty or otherwise, regardless of cause or origin, seller's maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller.

No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

**WARNING:** This product should be tested at least once a week.

## Contacting RISCO Group

RISCO Group Ltd. is committed to customer service and product support. You can contact us through our website ([www.riscogroup.com](http://www.riscogroup.com)) or at the following addresses:

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