



## SH-MAG-SHOCK-8F/9F

TWO WAY WIRELESS  
MAGNETIC DOOR/WINDOW CONTACT  
& SHOCK DETECTOR



INSTRUCTION MANUAL  
P/N 7101689\_C

### PRODUCT FEATURES

The SH-MAG provide perimeter protection for premises with early warning upon attempted intrusion.

SH-MAG & SHOCK device analyzes shocks while ignoring background vibrations. It can be configured Over-The-Air and feature a 5 year battery life.

- Freewave2™ Two Way ISM
- GFSK with 5 frequencies & LBT
- Immunity to attenuation feature
- Powered by 1 Lithium batteries 3.0V Size CR123
- Contact Open/Close transmission
- Shock detection transmission
- Tamper Open/Close transmission
- Battery life up to 5 years
- Operating Frequencies: 868MHz or 916MHz
- Event Transmission:
  - Alarm
  - Tamper Open/Close
  - Supervision
  - Battery status
- Bi-Color LED indications
- Up to 500m transmission range in open space
- Remotely configurable

### DETECTOR OPENING

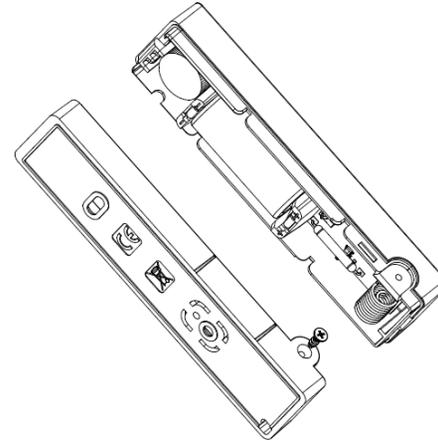


Figure 1  
Pull out the detector cover

### CIRCUIT LAYOUT

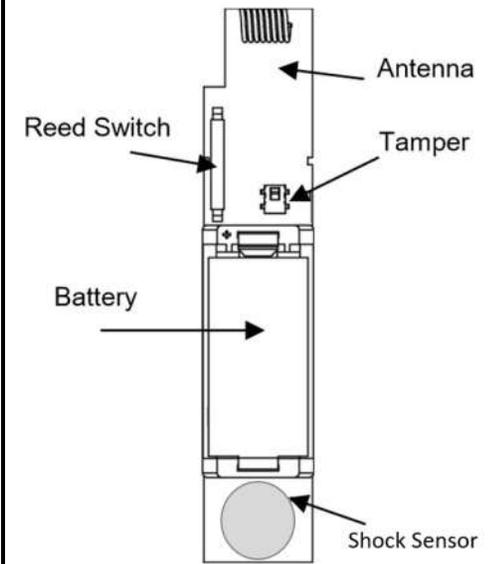


Figure 2  
Remove the batteries cover

### BATTERY INSERTION

### DETECTOR MOUNTING

### LEARNING PROCESS

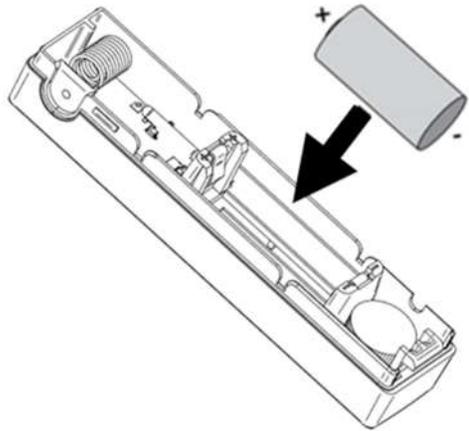


Figure 3

Batteries can be replaced by the user  
Battery type: Lithium. 3V Type: CR123A Size: 2/3AA

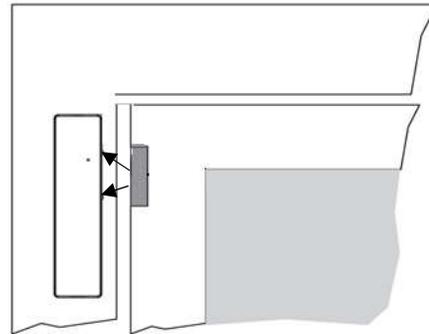


Figure 4

Place the Magnet unit near this marking

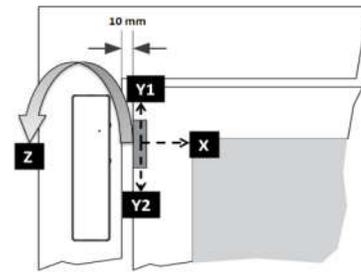


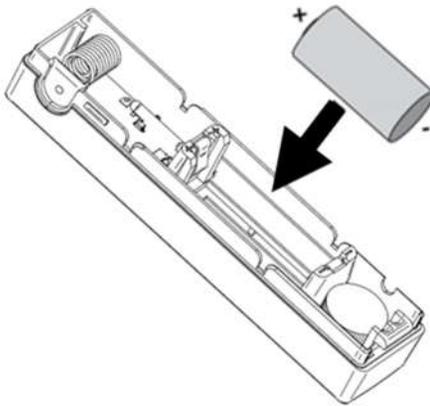
Figure 5  
Basic installation at 10mm between FW2-Mag and Magnet Unit.

Configurations	Axis	Removal Distance (cm)	Approach Distance (cm)
Wood	X	1.5	1.5
	Y	1	1.4
	Z	3	2.9
Iron	X	1	1
	Y	2	1.8
	Z	2.3	2.2

For pairing process, please refer to your control panel instructions.

To pair your device with Shepherd™ panel, please proceed as follows:

1. Enter in installing mode via the "Installer Webpage"
2. Go to "Zones" and select the zone # you want to learn
3. Add Zone -(Reminder: insert Link Type "ISM" , device's ID, Device Type "Magnetic & vibration sensor".)
4. Set the detector configuration: supervision time, VIB sensitivity, and save configuration.
5. Place a battery as instructed in Figure 3 and wait until the Red / Green LED stops blinking.
6. The device should register to the Control Panel.
7. When registration process is successfully completed, the Green LED will constantly light ON for 3 seconds and then turn OFF.
8. If Green LED continues flashing more than 5 minutes and stopped, please check MAG-SHOCK settings details, remove battery and repeat steps 3,4,5.
9. If Led flashes green constantly , please check if device's ID is correct or missing.

DETECTOR TESTING	BATTERY REPLACEMENT	SPECIFICATION	STANDARDS APPROVALS																												
<p><b>Transmission Test</b> Go to OVERVIEW level in installer webpage programming mode, Identify and locate the tested Zone. Physically Remove the magnet from the sensor, the open alarm appears in STATE column, return the magnet back and verify ready state. <b>Note:</b> refresh the web page display in case you don't see the change</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">Zone # Open</div> <p><b>Tamper Transmission Test</b> Pressing and releasing the tamper (push button) enables the TAMPER transmission test feature. Use the overview level as above for Transmission Test</p> <p><b>EVENT TRANSMISSION</b></p> <p><b>SUPERVISION</b> – A periodical transmission (configurable) indicating detector's presence.</p> <p><b>ALARM</b> – Alarm transmission triggered by the device indicating opening or shock detection. The Red LED will blink once.</p> <p><b>LOW BAT</b> – Whenever the battery reaches the low level (2.5V), a Battery Low signal will be sent. When Battery level drops below Cut Off level (2.3V) the device will stop functioning and the Red LED will blink for 10 seconds and then turned Off.</p> <p><b>TAMPER</b> – Whenever the cover is removed from the device or the device is tear off from the wall, a message will be transmitted with "Tamper ON" signal. When cover will be returned a "Tamper OFF" signal will be transmitted.</p>	 <p style="text-align: center;">Figure 5</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px auto;"> <p><b>The battery must be replaced by</b> <b>Lithium. 3V Type: CR123A Size: 2/3AA</b></p> </div> <p style="text-align: center;"><b>CAUTION</b> <b>RISK OF EXPLOSION</b> <b>IF BATTERY IS REPLACED BY DIFFERENT TYPE / MODEL.</b> <b>DISPOSE USED BATTERY</b> <b>ACCORDING TO ITS INSTRUCTIONS</b></p>	<table border="0"> <tr> <td>Detection Method</td> <td>Magnetic Field Sensor</td> </tr> <tr> <td>Communication Protocol</td> <td>Freewave2™ Two Way ISM GFSK with 5 frequencies &amp; LBT</td> </tr> <tr> <td>Operating Frequencies</td> <td>868-869MHz / 916-917MHz</td> </tr> <tr> <td>Identification</td> <td>Unique ID serial number – 24 bit</td> </tr> <tr> <td>Events Transmission</td> <td>Alarm, Tamper, Supervision, Low Bat, Keep Alive.</td> </tr> <tr> <td>Supervision Time</td> <td>7 min by default (configurable between 1 to 30 min)</td> </tr> <tr> <td>Transmission Range</td> <td>500m in open space</td> </tr> <tr> <td>Battery</td> <td>Lithium. 3V Type: CR123A Size: 2/3AA</td> </tr> <tr> <td>Battery life</td> <td>Up to 5 years</td> </tr> <tr> <td>Current Consumptions</td> <td>Standby ~5 µA Receive mode ~24 mA Transmit mode ~50 mA Transmit power &lt; 14dBm Low Bat 2.5V Cut Off 2.3V</td> </tr> <tr> <td>Tamper Switch</td> <td>Front Cover Removal</td> </tr> <tr> <td>Operating temperature</td> <td>-10°C to +55°C</td> </tr> <tr> <td>Dimensions</td> <td>100mm x 23mm x 22mm</td> </tr> <tr> <td>Weight (incl. battery)</td> <td>50gr.</td> </tr> </table>	Detection Method	Magnetic Field Sensor	Communication Protocol	Freewave2™ Two Way ISM GFSK with 5 frequencies & LBT	Operating Frequencies	868-869MHz / 916-917MHz	Identification	Unique ID serial number – 24 bit	Events Transmission	Alarm, Tamper, Supervision, Low Bat, Keep Alive.	Supervision Time	7 min by default (configurable between 1 to 30 min)	Transmission Range	500m in open space	Battery	Lithium. 3V Type: CR123A Size: 2/3AA	Battery life	Up to 5 years	Current Consumptions	Standby ~5 µA Receive mode ~24 mA Transmit mode ~50 mA Transmit power < 14dBm Low Bat 2.5V Cut Off 2.3V	Tamper Switch	Front Cover Removal	Operating temperature	-10°C to +55°C	Dimensions	100mm x 23mm x 22mm	Weight (incl. battery)	50gr.	<p>The SH-MAG conforms to the essential requirements set out by:</p> <ul style="list-style-type: none"> <li>RED directive:2014/53/EU</li> <li>EMC directive: 2014/30/EU</li> <li>Low Voltage directive: 2014/35/EU</li> </ul> <p>Harmonized Standards applicable to this products are:</p> <ul style="list-style-type: none"> <li>EN300220-2</li> <li>EN300220-1</li> <li>EN301489-3</li> <li>EN301489-1</li> <li>EN50130-4</li> <li>EN61000-6-3</li> <li>EN62368-1</li> </ul> <p>Additional Standards and Directives applicable to this product are:</p> <ul style="list-style-type: none"> <li>RoHS directive: (EU) 2015/816</li> <li>EN50131-2-6</li> <li>EN50131-1</li> <li>EN50131-6</li> <li>EN50130-5</li> <li>EN50131-5-3</li> </ul> <p>Certification body: Telefication B.V. Security Grade 2, Environmental Class II Power supply Type C</p> <div style="text-align: right;">    </div>
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<p><b>WARRANTY POLICY CERTIFICATE</b></p>		<div style="text-align: center;">  <p>sales@crow.co.il support@crow.co.il</p> <p><a href="http://www.thecrowgroup.com">www.thecrowgroup.com</a></p> </div> <p style="text-align: center;">These instructions supersede all previous issues in circulation prior to April 2019</p>																													