



SH-MAG-SHOCK-8F/9F (V2)

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

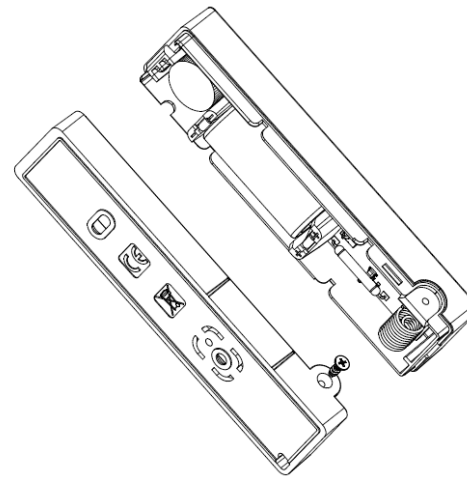


Figure 1
Pull out the detector cover

CIRCUIT LAYOUT

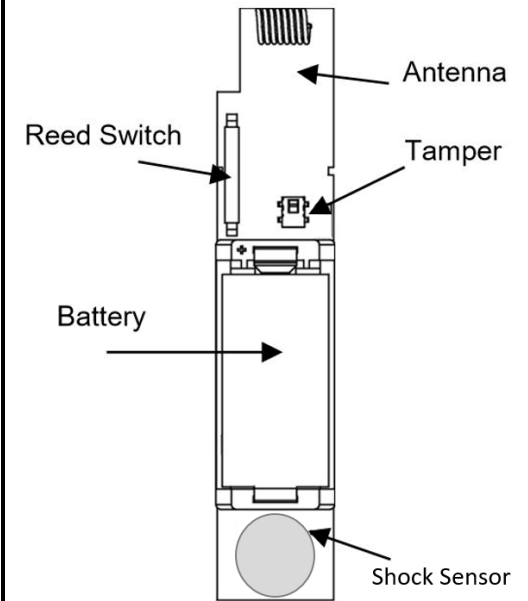


Figure 2
Remove the batteries cover

BATTERY INSERTION

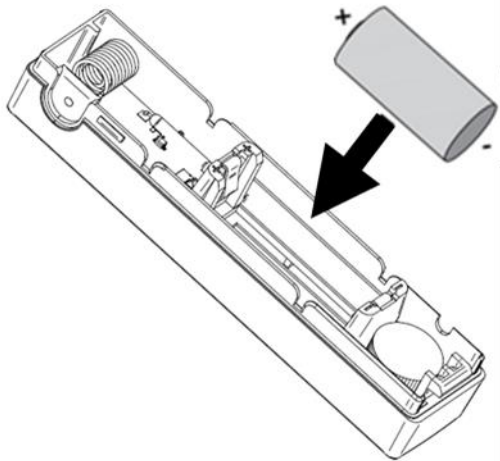


Figure 3

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

DETECTOR MOUNTING

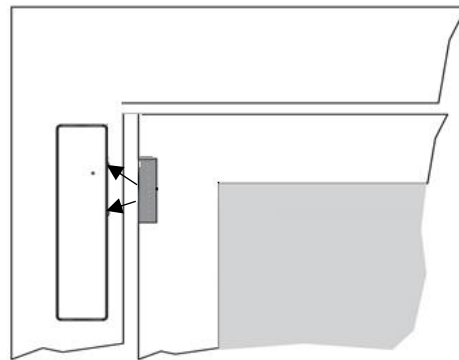


Figure 4

Place the Magnet unit near this marking

DETECTOR MOUNTING

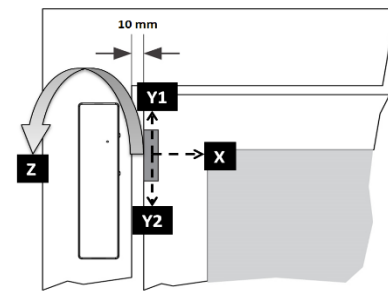


Figure 5
Basic installation at 10mm between FW2-Mag and Magnet Unit.

Configurations	Axis	Removal Distance (mm)	Approach Distance (mm)
Wood	X	15	12
	Y	20	17
	Z	35	260
Iron	X	10	5
	Y	17	14
	Z	32	28

LEARNING PROCESS

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
 1. Add Zone -(Reminder: insert Link Type "ISM" , device's ID, Device Type "**Magnetic & vibration sensor**".)
 2. Set the detector configuration: supervision time, VIB sensitivity, and save configuration.
3. Place a battery as instructed in Figure 3 and wait until the Red / Green LED stops blinking.
4. The device should register to the Control Panel.
5. When registration process is successfully completed, the Green LED will constantly light ON for 3 seconds and then turn OFF.
6. 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.
7. If Led flashes green constantly , please check if device's ID is correct or missing.

DETECTOR TESTING

Transmission Test

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.

Note: refresh the web page display in case you don't see the change

Zone # Open

Tamper Transmission Test

Pressing and releasing the tamper (push button) enables the TAMPER transmission test feature.
Use the overview level as above for Transmission Test

EVENT TRANSMISSION

SUPERVISION – A periodical transmission (configurable) indicating detector's presence.

ALARM – Alarm transmission triggered by the device indicating opening or shock detection. The Red LED will blink once.

LOW BAT – 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.

TAMPER – 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.

BATTERY REPLACEMENT

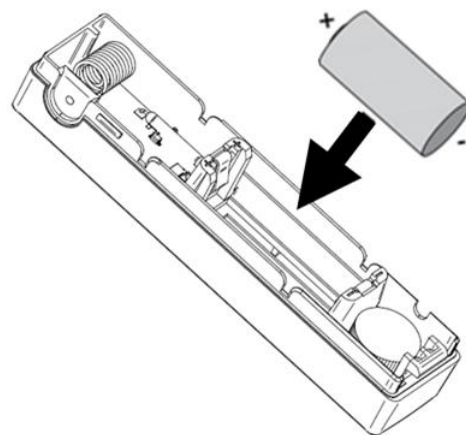


Figure 5

The battery must be replaced by
Lithium. 3V Type: CR123A Size: 2/3AA

CAUTION

RISK OF EXPLOSION
IF BATTERY IS REPLACED BY DIFFERENT TYPE / MODEL.

DISPOSE USED BATTERY
ACCORDING TO ITS INSTRUCTIONS

SPECIFICATION

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 Standby ~5 µA Receive mode ~24 mA Transmit mode ~50 mA
Current Consumptions	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.

Shock sensitivity levels Select by EN standards

The detector has 5 adjustable shock sensitivity levels (0 to 4).

The glass window surface EN approved for Sensitivity Level 0 (Lowest sensitivity level).

The Wooden plate surface EN approved for Sensitivity Level 3.

The Concrete plate surface EN approved for Sensitivity Level 4 (Highest sensitivity level).

STANDARDS APPROVALS

The SH-MAG-SHOCK conforms to the essential requirements set out by:

- RED directive:2014/53/EU
- EMC directive: 2014/30/EU
- Low Voltage directive: 2014/35/EU

Harmonized Standards applicable to this products are:

- EN300220-2
- EN300220-1
- EN301489-3
- EN301489-1
- EN50130-4
- EN61000-6-3
- EN62368-1

Additional Standards and Directives applicable to this product are:

- RoHS directive: (EU) 2015/816
- EN50131-2-6
- EN50131-2-8

- EN50131-1
- EN50131-6
- EN50130-5
- EN50131-5-3

Certification body: Applica Test and Certification AS
Security Grade 2, Environmental Class II
Power supply Type C



WARRANTY POLICY CERTIFICATE

Crow warrants these products to be free from defects in materials and workmanship under normal use and service for a period of 24 months from the last day of the week and year whose numbers are printed on the printed circuit board inside these products.

Subject to the provisions of this Warranty Certificate, during the Warranty Period, Crow undertakes, at its sole discretion and subject to Crow's procedures, as such procedures are from time to time, to repair or replace, free of charge for materials and/or labor, products proved to be defective in materials or workmanship under normal use and service. Repaired products shall be warranted for the remainder of the original Warranty Period.

All transportation costs and in-transit risk of loss or damage related, directly or indirectly, to products returned to Crow for repair or replacement shall be borne solely by the Purchaser.

This Warranty Certificate does not cover products that is defective (or shall become defective) due to: (a) alteration of the products (or any part thereof) by anyone other than Crow; (b) accident, abuse, negligence, or improper maintenance; (c) failure caused by a product which Crow did not provide; (d) failure caused by software or hardware which Crow did not provide; (e) use or storage other than in accordance with Crow's specified operating and storage instructions.

There are no warranties, expressed or implied, of merchantability or fitness of the products for a particular purpose or otherwise, which extend beyond the description on the face hereof.

This limited Warranty Certificate is the Purchaser's sole and exclusive remedy against Crow and Crow's sole and exclusive liability toward the Purchaser in connection with the products, including without limitation - for defects or malfunctions of the products. This Warranty Certificate replaces all other warranties and liabilities, whether oral, written, (non-mandatory) statutory, contractual, in tort or otherwise.

In no case shall Crow be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Crow or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever.

Crow does not represent that these products cannot be compromised or circumvented; that these products will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise; or that these products will in all cases provide adequate warning or protection.

Purchaser understands that a properly installed and maintained product may in some cases reduce the risk of burglary, fire, robbery or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss or damage as a result.

Consequently, Crow shall have no liability for any personal injury; property damage or any other loss based on claim that these products failed to give any warning. If Crow is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Crow.


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