

# RF-SHK-319 – ELK Wireless TOTAL Window Sensor

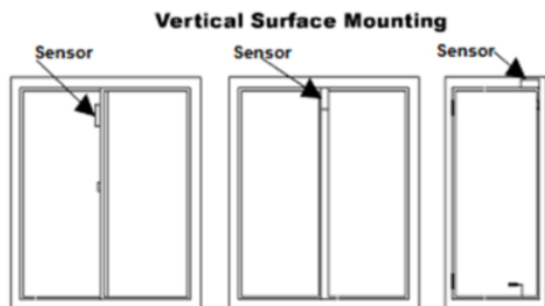
## Description

The RF-SHK-319-NN is a wireless window sensor designed for dual protection; open and close and to detect vibrations made by an intruder attempting to break a window. The shock sensor contains a piezo detection device that detects vibrations when mounted on a window frame. The detection circuit can be adjusted for sensitivity during installation to ensure maximum coverage. The device also has a built-in reed switch to monitor the open and close of the door or window.

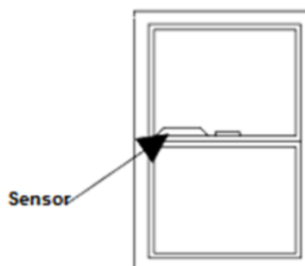
When activated, the sensor transmits a signal to the control panel. These are the signals the unit provides: supervisory, tamper and low battery (as needed). The sensor is powered by (2) replaceable 3-VDC, lithium coin-cell batteries.

## Installation Guidelines

- Mounting the sensor on metal can affect the transmitting range performance. Therefore, test the sensor from the desired location using the installer sensor test, before permanently mounting it.
- Mount the sensor within 100 ft. of the panel.
- Mount the sensor on the frame of the door or window.



## Horizontal (Flat) Surface Mounting



- The sensors can be mounted to either wood or metallic surfaces.
- After mounting the sensor, test the sensor using the procedure in the section “Testing the Sensor”.

## Mounting the Sensor

Mount the sensor using the supplied mounting screws for permanent mounting installations or using the supplied double-sided tape is optional.

**Note:** The gap between the sensor and magnet should not exceed a maximum of 3/8”.

## Mounting Screws

1. Remove the sensor base from the sensor.
2. Place the sensor base in desired location and mount the base with the supplied screws. Attach the sensor to the base.
3. Mount the magnet into the desired location using the supplied screw and lock washer, making sure the alignment mark lines up with the sensor mark.

## Double-Sided Tape

1. Before applying double-sided tape, ensure that the desired location is a smooth, clean and dry surface.

**Note:** When applying the double-sided tape, evenly apply pressure to ensure a good surface contact.

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2. Apply double-sided tape to the bottom of the sensor and the magnet. Mount the sensor and magnet at the desired locations, ensuring the alignment marks line up with each other.

## Programming

The following steps describe the general guidelines for programming the sensor into panel memory. Refer to the specific panel's documentation for complete programming details.

The internal magnetic reed switch and shock zones use separate ID's

Concord Control Panel – both ID's are enrolled at the same time

- Enter system programming
- Sensors
- Learn Sensor
- Trip Sensor
- Activate sensor tamper – the panel will enroll (2) zones
- First zone enrolled is shock
- Second zone enrolled is reed switch

Simon/Zerowire – each ID is enrolled separately

- Enter system programming
- Sensors
- Trip Sensor
- Activate sensor tamper to enroll shock
- For next zone number, remove sensor batteries, while holding the tamper re-insert batteries, this will enroll the reed switch

Qolsys - each ID is enrolled separately

- Enter system programming
- Sensors
- Trip Sensor
- Activate sensor tamper to enroll shock
- For next zone number, remove sensor batteries, while holding the tamper re-insert batteries, this will enroll the reed switch

Note: Panel model numbers variations may cause a 'sensor already learned-in' message inhibiting the shock sensor for learning in. If this is the case, learn in the reed switch using a

magnet to trip the reed, and learn-in the shock zone by tapping on device to activate it.

Exit program mode.

## Testing and adjusting the Sensor

1. Set the panel to the sensor test mode.
2. Take the sensor and magnet to the desired mounting location, making sure to line up their alignment marks with each other. Trip the sensor by pulling the magnet away from the sensor.
3. Monitor the system after tripping the sensor. Refer to the specific panel documentation for interpretation of the results to ensure desired signal strength is achieved.

## Shock LED Functionality

LED is functional only in test mode. Test mode is entered automatically when batteries are inserted. LED activates on shock activation and goes out upon shock restoral.

Test mode stays on as long as the cover is removed.

Batteries must be removed and re-installed to initiate test mode after expiration.

Low battery detect. LED flashes until battery is replaced. Device sends low battery signal to control panel.

## Shock sensor sensitivity setting

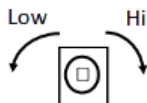
An LED test mode (see above) is included to aide in setting sensitivity to desired level

1. Mount sensor in intended location and tap mounting surface with desired level of activation impact
2. Adjust potentiometer until correct sensitivity is obtained

The potentiometer adjusts shock sensitivity from minimum Low (CCW) to maximum Hi

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(CW). These setting are marked on the PCB.



In maximum sensitivity mode, the least amount of shock is required to activate a shock alarm

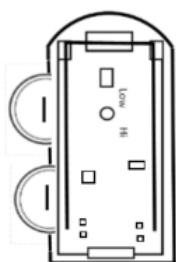
If the potentiometer is set all the way Low (CCW) the shock portion of the device is turned off and only the internal reed switch is active

**Note:** If a low battery alarm occurs, replace the battery within 7 days.

## Battery Replacement

The RF-SHK-319 requires (2) 3-VDC, lithium coin-cell batteries (Varta or Panasonic, Model CR2032). When replacing both batteries should be replaced at the same time.

1. Remove sensor cover by pressing on the latch and pulling the cover off
2. Do not remove the circuit board, slide the old batteries out as shown



Slide the batteries out from under the circuit board and insert new batteries observing polarity

Negative side of battery is facing up

3. Insert new batteries observing polarity
4. Replace sensor cover

**CAUTION:** Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

## Specifications

Model no.	RF-SHK-319-ELK
RF frequency	319.5 MHz
Compatibility	Interlogix Learn Mode Panels and Receivers – Concord, NetworX and Simon Series
Battery type	(2) 3-VDC, lithium coin-cell battery (Varta or Panasonic, Model CR2032)
Battery	Varta CR2032 Panasonic CR2032
Operating temperature range	32 to 120°F (0 to 49°C)
Storage temperature range	-30 to 140°F (-34 to 60°C)
Relative humidity	95% non-condensing
Dimensions (L x W x D)	2.25 x 1.0 x 0.50 in.

## FCC / IC 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 or more 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.

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This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20 cm is maintained from the general population.

**FCC: 2ABBZ-RF-SHK-319**

**IC: 11817A-RFSHK319**

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-3B.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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