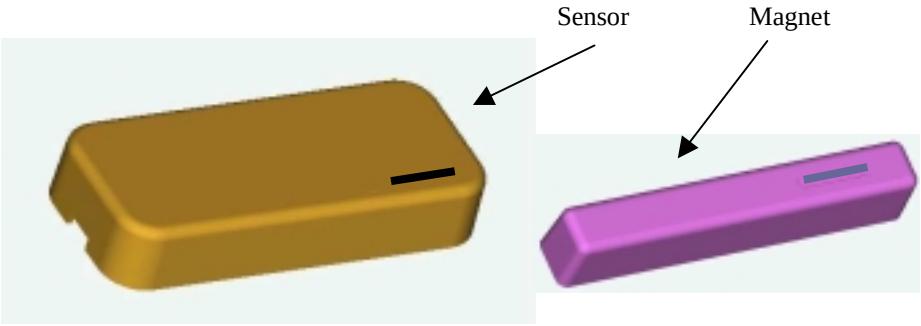
Exterior Window / Door Security Sensor

Installation Instructions

The Exterior Window / Door Sensor/Transmitter detects when a window is closed or opened, and transmits a wireless security message to the System Control Panel. This is accomplished through the use of a sensor unit (which contains the wireless transmitter and battery), and magnet unit. When the two are separated, by opening the window, the sensor transmits an open (TRIP) signal to the System Control Panel. When the window is shut, the magnet is again within the sensor's range, and a close (RESTORE) signal is sent.

Fig 1: Sensor and Magnet



The sensor sends supervisory signals to the panel every 64 minutes (approximately). The sensor is powered by a 3.0V, lithium battery, model CR2032.

Required Tools for Installation

- Installation Sheet for documenting sensor locations
- Screwdriver (if mounting using screws instead of adhesive)

Guidelines

The following guidelines will help ensure that installations are safe and efficient.

- A sensor can be mounted on any side of the window frame (top, side or bottom), such that the opening of the window moves the magnet away from the sensor.
- Always try to mount the hardware such that the magnet, not the sensor, is on the moving window panel. The sensor can be installed on the moving window panel, but should be avoided.
- The device can be mounted on a metal frame, however range can decrease slightly. Do not install the sensor on the frame until after the panel has "learned" the sensor's unique code (see LEARN SENSORS).
- Sensor's should be kept as close to the panel or repeater as possible. Try to chose locations where the separation is within 100 ft.
- Avoid mounting the sensor in a location where it will be exposed to moisture.
- Avoid mounting a sensor where temperatures are excessively hot or cold.

WARNING:

Some installations may have electrical wiring running through the door or window frames. Use caution to avoid electrical shocks.

Preparation

1. Determine a suitable location for the sensor and the magnet. These units are meant to be mounted on the exterior of the frame of the window. The sensor and magnet can be mounted with either the double-sided adhesive tape, or using screws (included with the sensor).

2. Measure and mark where the sensor and magnet will be installed in the window frame. Use the guide provided in Fig 2 for verifying the correct separation of the sensor and magnet.

3. Measure the distance between the window panel and frame. Ensure the separation is no more than 0.500" in height. Note: In cases where the separation may be greater, a larger magnet may be required. Contact the manufacturer for alternate magnets.

4. Verify the sensor will operate properly with the control panel, prior to drilling any holes. Go to the next section, LEARN SENSORS.

Fig 2. Positioning the Magnet and the Sensor relative to each other

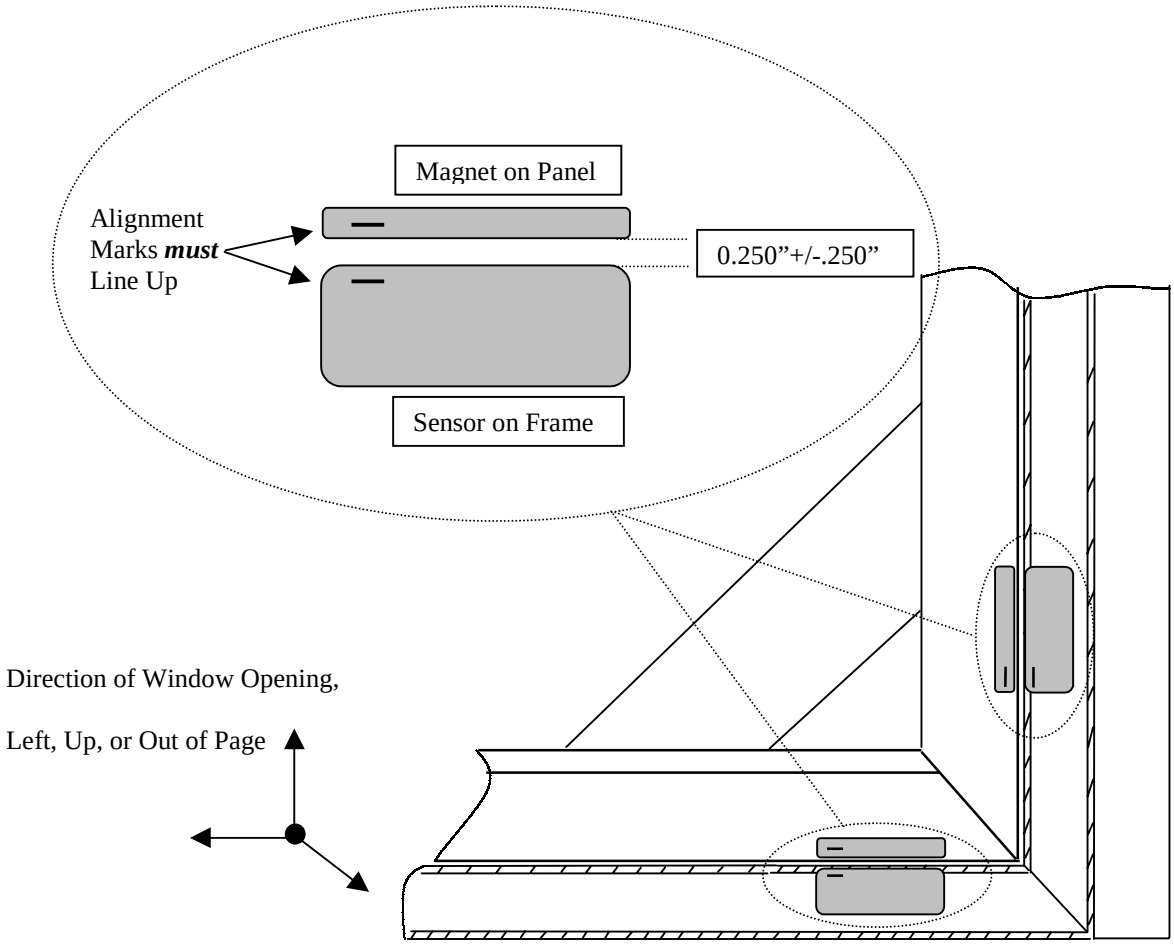
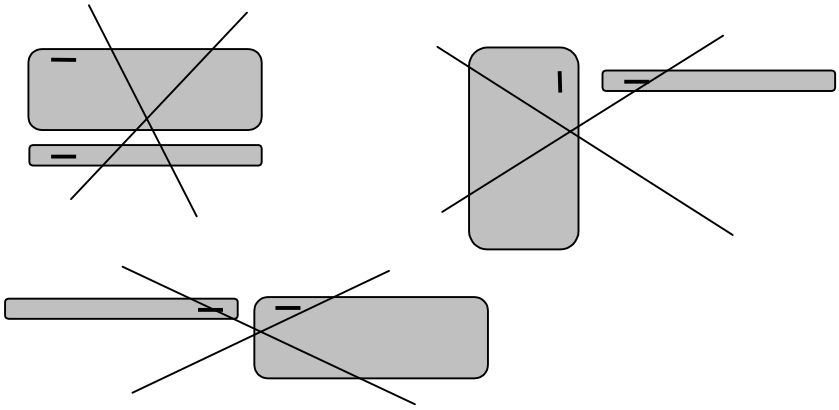


Fig 3: Incorrect Orientations of Magnet and Sensor



Learn Sensors

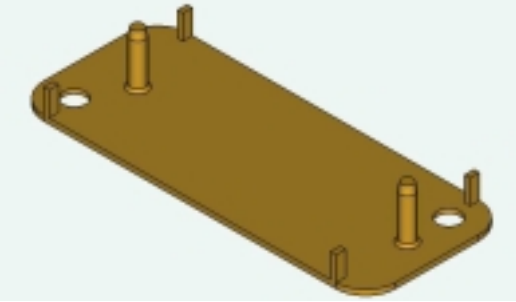
The sensors need to be added to the control panel memory (learned). This is done by triggering the sensor in it's "Learn Mode" while the panel is setup to record it. Refer to your *panel installation instructions or reference manual* for complete details.

1. Set the panel to Program Mode.
2. Proceed to the LEARN SENSORS menu.
3. Select the appropriate sensor group and sensor number.
4. Trip the sensor. This is done simply by inserting the battery in it's battery clip. When the device powers on, it will send out a "Learn" signal to the panel.
5. After verifying that the panel recognized the sensor, place it back in it's plastic.
6. Repeat this with all the sensor's being installed.
7. Exit Program Mode.

Fig 4. Flat Package, Base, Lid, & Sensor Electronics (including battery)

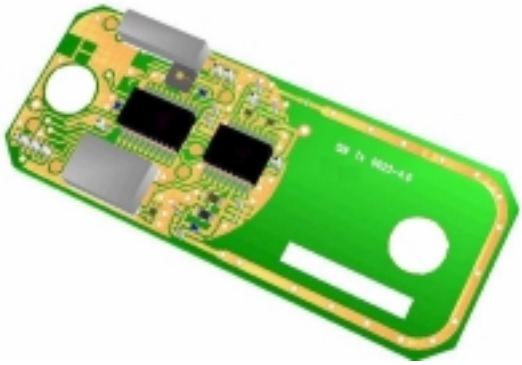
The Sensor Base mounts onto the Frame by double sided adhesive tape or screws (two holes provided). The Sensor Lid attaches to the base through a pressure fit on two posts. This lid should be closed after the LEARN is complete. Removing the lid will cause a "TAMPER" signal to be sent to the Controller.

Sensor Base



Sensor Lid

Circuit Board (Top Side)



Circuit Board (Battery Side)

The circuit board fits into the Lid with the battery side facing the Base of the package.

Installation on the Window or Door Frame

1. Line up the base of each housing against the other, and attach them to the frame and window.
2. Once the Sensor has been "Learned" by the Control Panel, insert the sensor circuit into the lid, and push the lid onto the base until it is completely closed. The lid will overlap the base to provide a clean appearance.

Testing the Sensor

1. Set the panel to the Dealer Sensor Test Mode.
2. Trip the sensor by opening the window or door. Typically 1" to 2" separation will be required.
3. Listen for interior siren beeps to indicate how many rounds the panel receives from the sensor. You should hear 6 to 8 beeps.
4. All Done !!!

Replacing the Battery

The Sensor Cover needs to be removed to replace the battery. On each side of the housing there is a small opening, where a small screwdriver can be used to carefully pry open the Cover.

The sensor requires a Lithium coin cell battery to operate. The type required for this sensor is a CR2032 battery. The battery holder is marked with positive "+" notation on the side of the clip, and the battery is also marked accordingly. Ensure the battery is replaced in the correct orientation.

The battery is expected to last 10+ years for windows, and 5+ years for doors (more frequent openings). For a replacement battery contact SDI or purchase directly from various battery suppliers.

Specifications

Dimensions:	Flat Package Base	1.952" long x 0.796" wide
	Flat Package Cover	2.018" long x 0.862: wide by 0.355" deep
	Magnet Base	1.952" long x 0.240" wide
	Magnet Cover	2.018" long x 0.300" wide by 0.355" deep
Power Source:		3.0V Lithium Coin Cell Battery CR2032
Transmit Range:		At least 500 ft, open air
Compatibility:		All Learn Mode Panels
Temperature Range:		10° to 120° F (-12° to 49° C)

FCC Notice

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference that may be received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Shearwater Digital Innovations, LLC. can void the user's authority to operate the equipment.