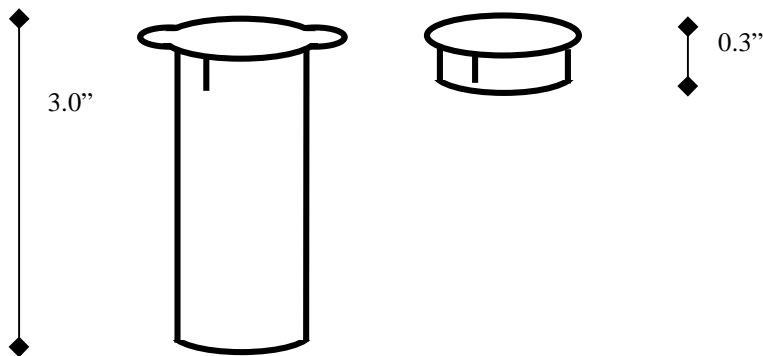


Embedded Door Frame Security Sensor

Installation Instructions

The Embedded Door Frame Sensor/Transmitter detects when a door 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 signal to the System Control Panel. When the window is shut, the magnet is again within the sensor's range, and a CLOSE 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 CR2. The sensor has been designed to draw very little power when in standby mode, and the CR2 battery should last 10+ years typically. The battery should be replaced by the installer only, as to do so the entire package needs to be removed from the door frame.

Required Tools for Installation

- Electric Drill
- SDI Custom Frame Drill Bit
- Pencil or chalk
- Installation Sheet for documenting sensor locations

Guidelines

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

- The sensor should be mounted up into the door frame, with the magnet in the door itself, such that the opening of the door moves the magnet away from the sensor.
- The sensor can be installed in the door, but avoided where possible.
- Do not install the sensor in 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.
- This device cannot be mounted in a metal frame, as the frame will block the antenna. If the door is metal, but the frame is not, and there is no metal blocking the sensor itself, then the installation should be fine.

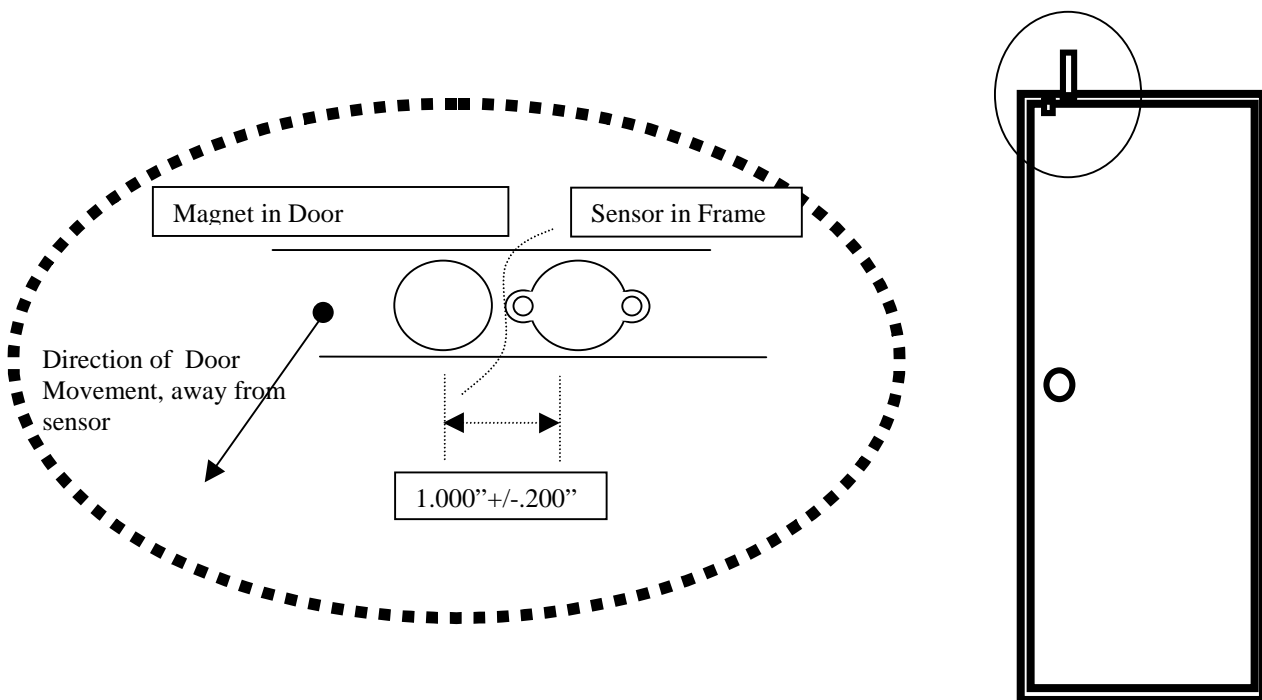
⚡ **WARNING:**

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 inside the frame of the door. As such do not drill a mounting hole unless:
 - You are a qualified installer
 - You have read, and are familiar with the mounting instructions for the sensor and magnet (specifically the orientation required – see diagram included)
 - You have the custom drill bit to allow proper mounting of the sensor and magnet in the frame.
2. Measure and mark where the sensor and magnet will be installed in the door frame. Use the guide provided in Fig 2 for the location of the two holes. The magnet and the sensor need to be offset for correct performance.
3. Always try to ensure that the magnet is mounted on the door. Measure the distance between the door and frame. Ensure the separation is no more than 0.5" 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. Correct Positioning the Magnet and the Sensor relative to each other



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 package. Snap the cap back on. (note: the square opening is used to remove the cap when replacing the battery).
6. Repeat this with all the sensor's being installed.
7. Exit Program Mode.

Installation in Door Frame

1. Using the dealer provided door frame bit supplied with your dealer kit, drill a 3/4" hole in the frame for the sensor, and one in the window panel for the magnet.
2. Both the sensor and the magnet have ribs on the outside that will provide a bite fit into the frame. Slowly press the sensor into the door frame until it's lid is flush with the frame base.
3. The dealer has the option of using a sealing agent at this point if weather proofing is required. Note that if a sealant is used, it will have to be redone at some point in the future when the device's battery is replaced (typically 10+ years).

Testing the Sensor

1. Set the panel to the Dealer Sensor Test Mode.
2. Trip the sensor by opening the 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 requires a Lithium coin cell battery to operate. The type required for this sensor is a CR2 battery. The battery holder is marked with positive "+" and negative "-" 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, however the lifetime is affected by various factors, including temperature, frequency of door openings, and unit to unit variations. For a replacement battery either contact SDI or purchase directly from various battery suppliers.

Specifications

Dimensions:	Dowel Package Lid	0.850" diameter x 0.030" thick
	Dowel Package	0.750" diameter x 3.000" long
Power Source:		3.0V Lithium Coin Cell Battery CR2
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.