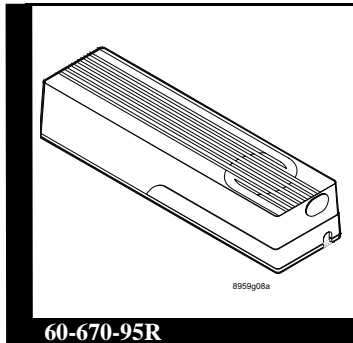


NX-450, NX-451 Door/Window Sensors

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Installation Instructions

Product Summary

The NX-450 (white) and NX-451 (brown) Door/Window Sensors can be installed on doors, windows, or many other objects that open and close. The sensors transmit signals to the control panel when a magnet mounted near the sensor is moved away from or closer to the sensor.

The sensors include an input that accepts external hardwired devices such as flush-mounted door/window contacts.

Installation Guidelines

Use the following guidelines for installing Door/Window sensors.

- Mount the sensor on the door frame and the magnet on the door (see Figure 1). If the sensor is to be used on double doors, mount the sensor on the least-used door and the magnet on the other door.

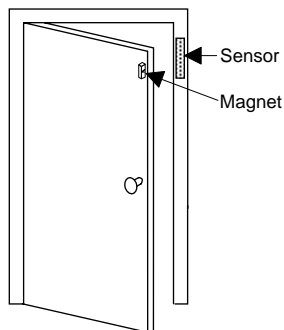


Figure 1. Sensor and Magnet Locations

- If possible, locate sensors within 100 feet of the panel. While a transmitter may have a range of 500 feet or more out in the open, the environment at the installation site can have a significant effect on transmitter range. Sometimes a change in sensor location can help overcome adverse wireless conditions.
- Make sure the alignment arrow on the magnet points to the alignment mark on the sensor (see Figure 2).

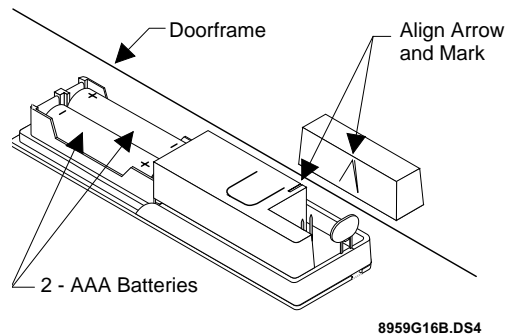


Figure 2. Aligning the Door/Window Sensor and Magnet

- Place sensors at least 5 inches above the floor to avoid damaging them.
- Avoid mounting sensors in areas where they will be exposed to moisture or where the operating temperature (10°-120°F) will be exceeded.
- Use spacers (not included) to keep sensors and magnets away from metal or metallic surfaces such as foil wallpaper.

Materials Needed

- #6 flathead screws
- Screwdriver or brad driver

Installing the Sensor

1. Remove the sensor cover by pressing the button on the narrow end.
2. Remove the batteries to access the mounting holes.
3. Mount the sensor base with two #6 flathead screws at the locations shown in Figure 3. If you need to connect external switches, they should be installed at this point. Use the procedure for connecting external switches.

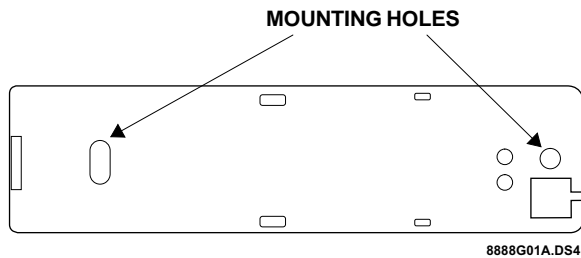


Figure 3. Mounting Hole Locations (Bottom View)

4. Remove the magnet from its base. Line up the arrow on the magnet with the mark on the sensor.
5. Mount the magnet base no more than 3/8-inch away from the sensor base. Replace the magnet cover.
6. Re-install the batteries and circuit board; and attach the sensor cover to the sensor base.

Note: When window or door construction does not allow the transmitter to be installed next to the magnet, install an external switch and connect it to the Door/Window Sensor.

Connecting External Switches

External switches used with Door/Window Sensors allow you to protect doors and windows when there is inadequate room for directly mounting the sensor or when you want to locate the Door/Window Sensor in an adjacent, but less visible place.

Materials Needed

- Hermetically sealed external switches (sealed reed switch) that supply a minimum 250-millisecond open or closure on alarm
- Stranded 22-gauge wire

Installing External Switches

1. Install the external switch according to the manufacturer's instructions.
2. Remove the cover and batteries from the Door/Window Sensor.
3. Feed the wires on the external switch through the rear opening at the bottom of the Door/Window Sensor.
4. Attach each wire to one side of the screw terminal. Press the screw terminal over the wire posts.
5. Mount the sensor.
6. Replace the batteries and sensor cover.

Programming

For complete programming instructions, refer to the *NX-Series Receiver Modules Installation Instructions*.

Testing Door/Window Sensors

Testing sensors is recommended after all programming is completed and whenever a sensor-related problem occurs, to verify radio signal integrity and confirm control panel programming and response.

Note: While the sensor test is a valuable tool, it only tests sensor operation for the current conditions. A sensor test should be done after any change in environment, equipment, or programming.

1. Place the system in test mode.
2. Trip the sensor by moving the magnet away from the sensor and listen for the correct system response. If the system does not respond, proceed to the "Troubleshooting" section.

Troubleshooting

Use the following guidelines if the system does not respond correctly when the sensor is activated.

- Check programming and re-program sensor into panel if necessary.
- Use an RF Sniffer (NX-468) test tool to verify that the sensor is transmitting. Constant beeps from the RF Sniffer indicate a runaway (faulty) sensor. Replace the sensor.
- Change the position of or move the sensor to another location and test for correct response.

To reposition a sensor:

1. Rotate the sensor and test for improved sensor communication at 90 and 180 degrees from the original position.
2. If poor communication persists, relocate the sensor as described below.

To relocate a sensor:

1. Test the sensor a few inches from the original position.
2. Increase the distance from the original position and retest until an acceptable location is found.
3. Mount the sensor in the new location.
4. If no location is acceptable, replace the sensor.

To replace a sensor:

1. Test a known good sensor at the same location.
2. If the system does not respond, avoid mounting a sensor at that location.
3. If the replacement sensor functions, return the problem sensor for repair or replacement.

Specifications

- Power source: 2 AAA Alkaline batteries
- Dimensions: L = 4.5" X W = 1.2" H = .94"
- Typical battery life: 4-6 years (not verified by UL)
- Operating temperature range: 10° to 120° F

Notices

These devices comply with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. These devices may not cause harmful interference.
2. These devices must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Interactive Technologies, Inc. can void the users' authority to operate the equipment.



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