# 5845-ID

## Installation Instructions
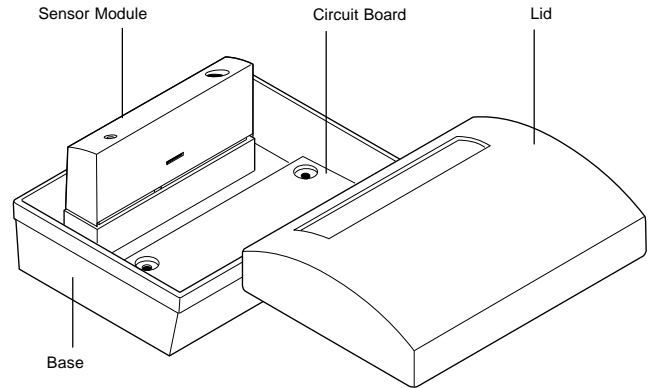


Figure 2.

## Description

The 5845-ID is an addressable glassbreak device that interfaces with the PinPoint® system. The system provides flexible and reliable two-way communication between the device and the controller. This glassbreak device is based on ShatterPro® II technology and uses the patented Sentrol Pattern Recognition Technology.

### Range

The ShatterPro®II glassbreak is omni-directional, providing 360° coverage. Coverage is measured from the unit to the point on the glass farthest from the unit.

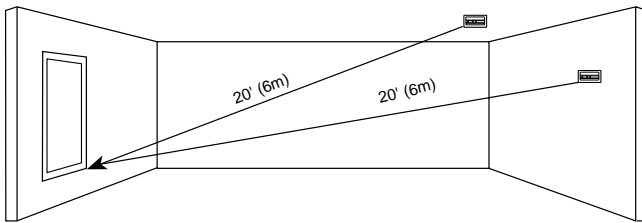| | |
|---|---|
| Minimum - | 3.3 feet (1m) from the glass |
| Maximum - | 20 feet (6m) for plate, tempered, laminated, and wired glass |
| | 12 feet (3.7m) for armor-plated glass |



Figure 1. Maximum range

### Recommended Glass Size

Minimum 1 x 2 feet (0.3 x 0.6m) or larger
Glass thickness:

| | |
|---|---|
| Plate: | 3/32 to 1/4 inch (2 to 6mm) |
| Tempered: | 1/8 to 1/4 inch (3 to 6mm) |
| Wired: | 1/4 inch (6mm) |
| Laminated: | 1/8 to 1/4 inch (3 to 6mm) |

### For Best Detection, Avoid Installing In:

- Rooms with lined, insulating, or sound deadening drapes.
- Rooms with closed, inside wooden window shutters.
- Corners of a room.

### For Best False Alarm Immunity:

- Install the unit as a perimeter zone which is armed only when the perimeter doors and windows are armed. Avoid installing the unit as a 24-hour zone, where the unit will be armed even when the room is in use.

- Do not install in humid rooms. The unit is not hermetically sealed. Excess moisture on the circuit board can eventually cause a short and a false alarm.

- Do not use where white noise, such as air compressor noise, is present. (A blast of compressed air may cause a false alarm.)

- Avoid rooms smaller than 10 x 10 feet (3 x 3m) and rooms with multiple noise sources.

### Areas to Avoid:

- Glass airlocks and glass vestibule areas
- Noisy kitchens
- Residential car garages
- Small utility rooms
- Stairwells
- Small bathrooms
- Other small acoustically live rooms

# Mounting Location

For best false alarm immunity the unit should be located at least 4 feet (1.2m) away from noise sources (televisions, speakers, sinks, doors, etc.). The unit must always be in direct line of sight of all windows to be protected. There is no front or back, up or down, orientation of the sensor required.

### Wall Mounting

Since the sound of breaking glass travels directionally out from the broken window, the best location for mounting the unit is on the opposite wall,  within the sensor's range and line of sight. The ceiling and adjoining (side) walls are also good mounting locations.

### Ceiling Mounting

Mount the unit in any type of ceiling in a location which is in direct line of sight of the windows to be protected. However, since sound travels directionally out from the broken window, a position 6 - 10 feet (2-3 m) into the room provides optimal detection.

## Installation

1.  Run the PinPoint system wiring to the unit location.

2.  Open the unit by gently inserting a screwdriver in the hidden opening notches that are located under the lid in the middle of the long sides of the sensor. See Figure 3.

    **CAUTION**

    You must be free of all static electricity before handling sensor circuit boards. Touch a grounded, bare metal surface before touching ciruit boards or wear a grounding strap.

3.  Set the PinPoint address DIP switches. See Figure 3.

    **Note**
    Devices are shipped with DIP switches set to 255. This is an invalid address. **The device will not communicate with the control panel until a valid address has been set.** Refer to the NX-2192 manual to determine the correct address setting for each unit.

4.  Remove the appropriate wiring and mounting knockout holes (use the mounting screws to remove the mounting knockouts). See Figure 3.

5.  Pull the PinPoint wiring through the wiring knockout holes.

6.  Attach the base to the mounting surface with two screws through the mounting knockout holes. (Use wall anchors if necessary.)

7.  Strip 1/4 inch (6.4mm) of insulation from each PinPoint wire. Connect the wiring to the appropriate screw terminals and tighten the screws. See Figure 3.

8.  Replace the lid on the unit.

9.  Test the unit when the PinPoint system is completely installed and the control panel is powered.
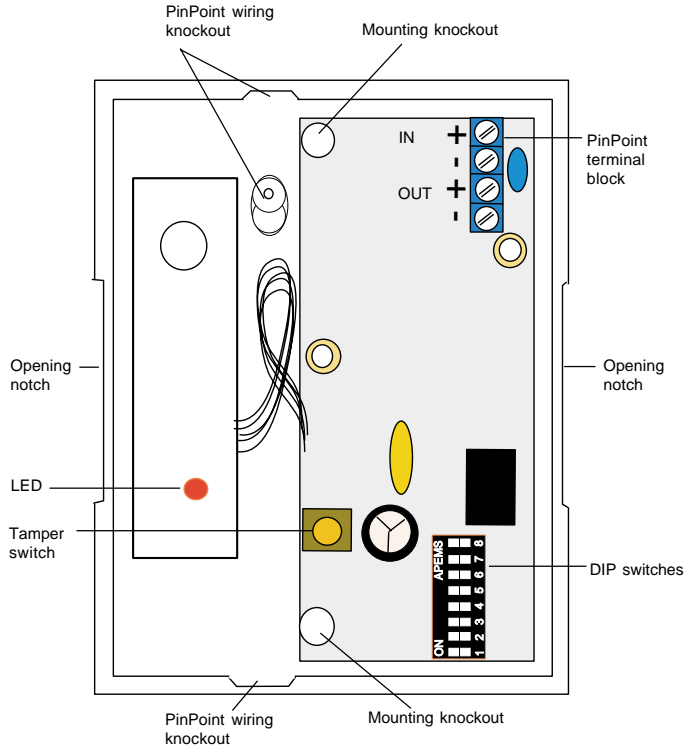


Figure 3.  Base and circuit board

# Testing

The Pattern Recognition Technology of the unit ignores most false alarm sounds, including glassbreak testers. In order to test the sensor, a test mode is used. With the unit in test mode, processing of the glassbreak pattern in the upper and lower frequencies is disabled. The unit is then listening only for the mid-range frequencies, which the Sentrol 5709C tester reproduces. It's the mid-range frequencies that determine unit range.

1. Lift the lid off the unit and put it back on to activate the LED for the walktest.

2. Use the Sentrol 5709C hand-held tester to set the unit into test mode. The 5709C tester has a different setting for each type of glass. The tester should always be set for tempered or laminated glass (either is correct and both have the same range) unless the installer is certain that all the glass to be protected is plate glass. Hold the tester speaker directly on top of the unit and activate the tester. The unit will alarm then go into test mode for one minute. When in test mode, the LED on the unit, if enabled, will blink continuously. Extend the test mode time by firing the tester at the unit at least once a minute.

   ### Note
   In normal mode the LED does not blink unless it hears a loud sound. In normal mode, the sensor WILL NOT trip to the tester, unless the tester is held next to the sensor.

3. Holding the tester near the surface of the glass, aim the tester at the unit and hold down the test button. If drapes or blinds are present, test with the hand-held tester behind the closed drapes or blinds (do not use unit with heavy or lined drapes). See Figure 4.

   **When the LED on the unit goes solid momentarily while the tester is triggered, the glass is within detection range.**

4. If the LED does not go solid, but simply continues blinking, re-position the unit closer to the protected windows and retest. Additional units may be required to achieve adequate coverage. It is very rare that the unit will not activate within its stated range of coverage. Double check adequate battery strength in the hand-held tester. A new tester battery will likely restore range.

The unit will automatically change from test mode to normal mode approximately one minute after it last hears the hand-held tester. LED feedback will time out in 3 minutes.

### Note
**Do not exceed the rated range of the sensor, regardless of what the tester shows**. Room acoustics can artificially extend the range of a glassbreak sensor. The specified range of the unit has been established for worst-case conditions. While the unit will likely function at additional range, it may miss a minimum output break, or room acoustics may be changed at some future time, bringing the unit range back into normal 20 foot (6m) conditions.
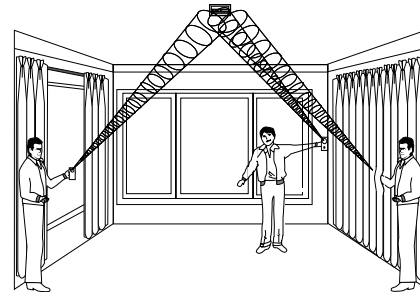


Figure 4. Testing the unit

### Proper Testing

The unit is designed to detect the breaking of framed glass mounted in an outside wall. Testing the sensor with unframed glass, broken bottles, etc., may not trip the unit. The unit typically does not trip to glass breaking in the middle of the room.

### Note
The unit may not consistently detect cracks in glass, or bullets which break through the glass. Glassbreak sensors should always be backed up by interior protection.

# Hand Clap Test

The unit can be checked by the installer or end user while in normal mode, simply by clapping hands loudly under the unit. The LED will blink twice, but the unit will not trip. This verifies visually that there is power to the unit, and that the microphone and circuit board are functioning.

# Maintenance

When installed and used properly, this unit provides years of service with minimal maintenance. You should test the unit annually to ensure proper operation.

Clean the cover with a damp (water) cloth as needed to keep it free of dust and dirt. Always test the unit after cleaning.

## Specifications

| | |
|---|---|
| Housing material | Flame retardant ABS |
| Operating voltage | 8 to 27V, (as supplied by NX-2192) |
| Current draw | 250µA typical average<br>3 mA with LED momentarily on |
| Microphone | Omni-directional electret |
| Operating temperature | 14 to 120°F (-10 to 50°C) |
| Relative humidity | 10 - 90% non-condensing |
| Maximum line length | 10,000 feet (3km) |
| Dimensions: | |
| Width | 3.13 inch (8.0cm) |
| Depth | 1.70 inch (4.3cm) |
| Height | 4.24 inch (10.8cm) |
| Color | White |
| Listing | FCC |

## FCC Compliance

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.

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

## Product Ordering

| Product | Description |
|---|---|
| 5845-ID | Addressable ShatterPro® II glassbreak for use with the NX-2192 PinPoint Bus Interface. |
| 5709C | Glassbreak tester |