

ShatterPro® 3 Glassbreak Detector

Installation Instructions



Description

The ShatterPro® 3 is an acoustic glassbreak detector designed to detect breaking glass from framed windows in the perimeter of a building. The detector is mounted in the building interior and uses a power supply from a 12VDC control panel. The detector is available in either a low-profile round housing or a rectangular housing that connects easily to a single-gang box.

Features

The detector provides the following features:

- **Range up to 25 feet (7.6 m)** Internal spring clip allows optimized room size coverage.
- **Alarm memory** After an alarm and until power is cycled, the alarm memory can be checked with the hand-clap test.
- **LED indicator** Red LED provides detector test and status indication.
- **Tamper resistant** Provides a screw that secures the cover to the base to prevent tampering.
- **Hand-clap test** In addition to a test mode, you can test the detector by clapping your hands.
- **Optional tamper switch** Sends a signal to the control panel when the cover is removed from the base.

What You Will Need

You need the following tools and parts to install the detector:

- ShatterPro® 3 detector including screw to secure the cover to the base
- Screws and wall anchors
- Flat-blade screwdriver
- Phillips screwdriver
- Sentrol 5709C hand-held tester

Selecting a Location for the Detector

The detector can be mounted on ceilings or on walls opposite or adjacent the window to be protected. See Figure 2.

Use the following guidelines to determine the best location to install the detector.

- Mount at least 3 feet (1 m) from glass windows being protected.
- Windows must be at least 12 x 24 inches (30.5 x 61 cm) square.

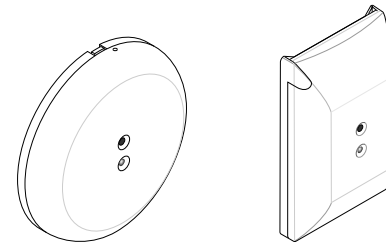


Figure 1 - ShatterPro® 3 Housings

- Avoid locations where lined, insulating, or sound deadening drapes are used.
- Mount 12 inches (30.5 cm) away from wall corners.
- Avoid locations where interior closed wooden shutters are used.
- Locate in a suitable environment as follows:
 - Temperature between 32° and 122°F (0° and 50°C)
 - Humidity between 10 and 90% non-condensing
- Mount the detector on a stable surface up to 25 feet (7.6 m) from the farthest point on the glass surface. See Figure 2.
- Avoid locations that expose the detector to possible false alarm sources such as:
 - Glass airlocks and vestibule areas
 - Kitchens
 - Residential car garages
 - Small utility rooms
 - Stairwells
 - Bathrooms
 - Small acoustically live rooms
 - Air vents

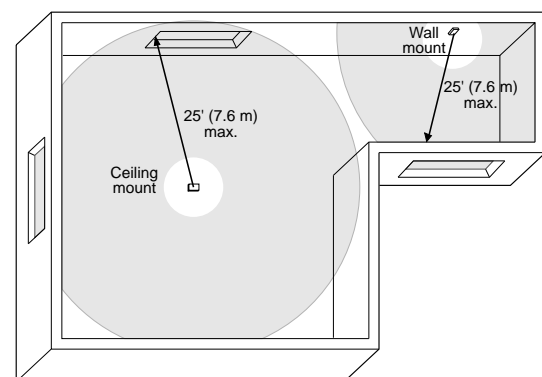


Figure 2 - Mounting Locations

Selecting the Best Location for Multiple Window Coverage

The detector has a 360° coverage pattern that can be used to cover several windows in a single room as follows:

- Draw an imaginary line from the center of each window to be covered in towards the center of the room.
- Mount the detector as close to where the lines intersect as possible. See Figure 3.
- Do not mount the detector at more than a 60° angle from the center of any window to be protected. See Figure 3.

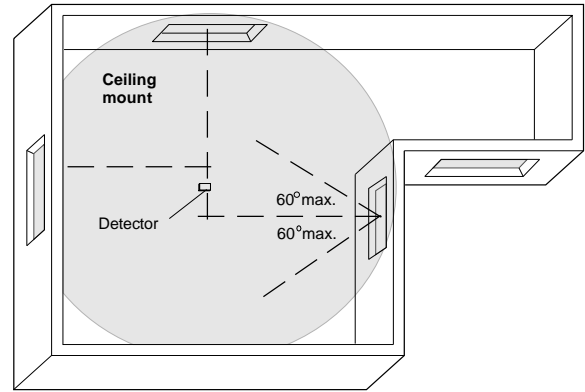


Figure 3 - Multiple Window Coverage

Installing the Detector

All wiring must conform to the National Electric Code (NEC) and/or local codes having jurisdiction.

Important !

If you are unsure about a location, connect a 9V battery to the detector and test it before permanently mounting. See *Testing the Detector*.

Use the following steps to install the detector:

1. Run the security system wiring to the detector location.
2. Remove the front cover as follows:
 - **Round housing** Press the release tab on the lip of the base, twist the cover counter clockwise, and lift off. See Figure 4.
 - **Rectangle housing** Insert a flat-blade screw driver into the slot on the bottom of the cover and gently pry up to unlock the cover. Grasp the bottom of the cover and lift up until the cover latches in the open position. See Figure 6.
3. Set the range with J3 on the circuit board. See *Setting the Range*.
4. Remove the appropriate wiring and mounting knockout holes from the base. See Figure 6.
5. Pull the wires through the knockout holes and use two screws to attach the base to the surface. Use wall anchors if necessary.
6. Strip 3/8 inch of insulation from each wire.
7. Connect the system wires to the appropriate screw terminals on the base and tighten the screws. See Figure 7.
8. Replace the cover as follows:
 - **Round housing** Line up the tabs on the base with the corresponding tabs on the cover, press together and turn clockwise until the cover snaps firmly into place. See Figure 5.
 - **Rectangle housing** Press the cover back down over the detector until the cover snaps firmly into place.
9. Apply power. The red LED should flash once.
10. Test the detector. See *Testing the Detector*.

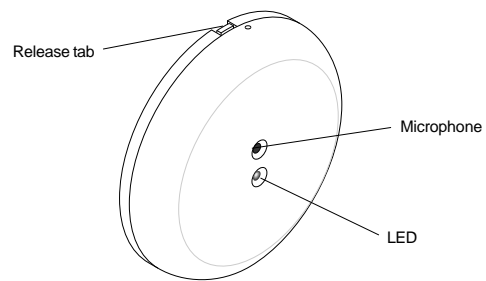


Figure 4 - Round Housing Parts

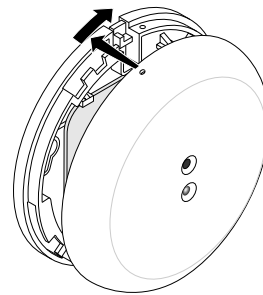


Figure 5 - Attaching the Cover

Setting the Range

The detector provides a spring clip (J3) to set room size. See Figure 6. Use the following table to determine what setting to use for an application.

Setting	Description
Open	Use for rooms 100 square feet and larger (range 5 to 25 feet (1.5 m to 7.6 m)). Default
Closed	Use for rooms smaller than 100 square feet (range 3 to 10 feet (0.9 m to 3 m)).

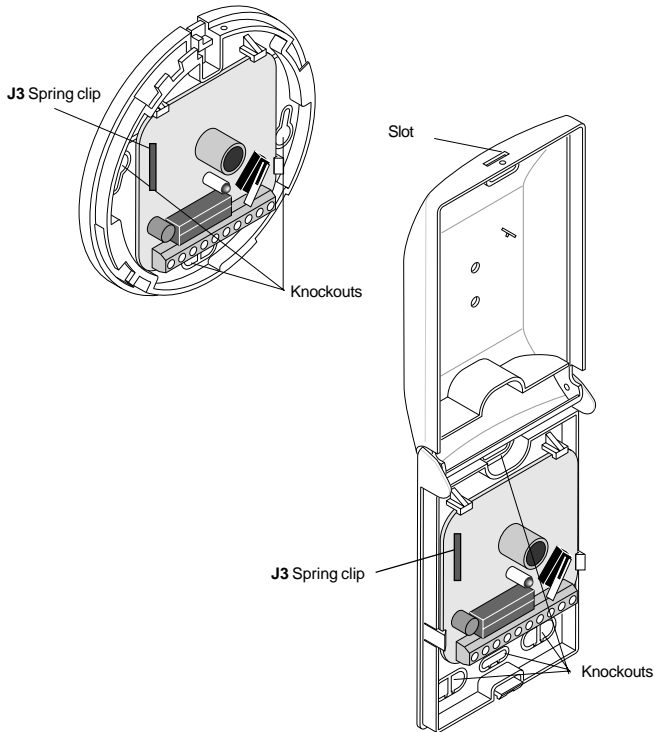


Figure 6 - Detector Knockout Locations

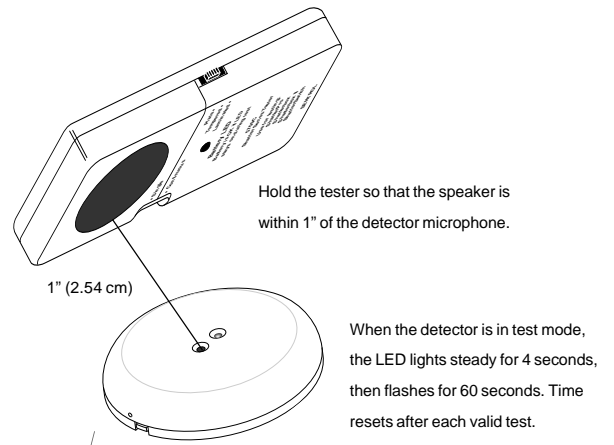


Figure 8 - Using the Tester

Testing the Detector

To verify detector range and operation, you need the Sentrol 5709C hand-held tester.

Use the following steps to test the detector:

1. Set the tester to the appropriate glass-type setting. Use the **tempered** setting if you are unsure about the glass type.

2. Put the detector in test mode as follows:
 - Hold the tester close to the detector. See Figure 8.
 - Activate the tester.

The LED on the detector lights for 4 seconds and then starts flashing to indicate the detector is in test mode. The relay opens for 4 seconds, then returns to standby.

3. Hold the tester near the surface of the glass to be protected and aim the speaker at the detector. Be sure the tester is at the point on the glass farthest from the detector. If closed drapes or curtains are present, hold the tester behind them. See Figure 9.
4. Press the test button on the tester. The LED on the detector should stay on for 4 seconds to indicate the glass is within detection range of the detector. **If the LED does not stay on for 4 seconds**, move the detector and retest.

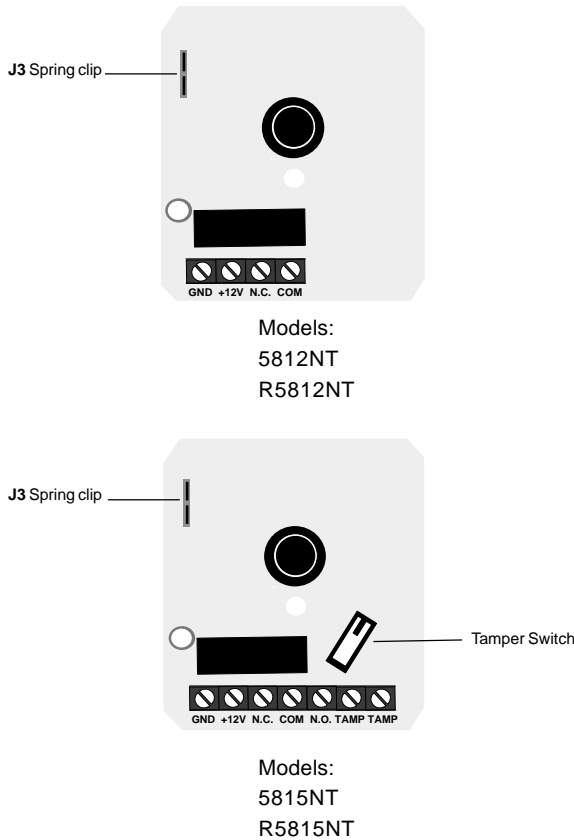


Figure 7 - Wiring Diagrams

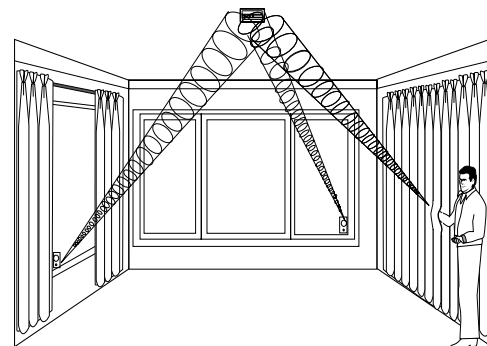


Figure 9 - Testing the Range

Understanding the LED

The red LED located on the front of the detector indicates the status of the unit as follows:

Status	LED indication
Power on	Flashes once when power is applied.
Clap test/Alarm memory	In response to the clap test: Flashes twice to indicate the detector has power and is functioning properly. or On for 4 seconds to indicate the detector has alarmed.
Alarm	On for 4 seconds with relay when breaking glass is detected.
Test mode	On for 4 seconds with relay, then flashes for 60 seconds. Each test trigger resets the test mode clock and the LED starts over flashing for 60 seconds.

Using the Hand-Clap Test and Alarm Memory

The alarm memory and detector operation can be checked with the hand-clap test as follows:

1. Standing under the detector, clap your hands together.
2. Observe the LED on the detector.

If the detector has power and is functioning properly, the LED quickly flashes twice.

If the detector has alarmed, the LED will light for 4 seconds. Cycle the power to clear the alarm memory.

The hand-clap test is intended as a functional test and is not an accurate indication of detector range.

Maintaining the Detector

When installed and used properly, the detector provides years of service with minimal maintenance. You should test the detector 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 detector after cleaning.

Ordering

Model Number	Description
5812NT	ShatterPro 3 with rectangular housing, Form A
R5812NT	ShatterPro 3 with round housing, Form A
5815NT	ShatterPro 3 with rectangular housing, Form C, tamper switch
R5815NT	ShatterPro 3 with round housing, Form C, tamper switch
Accessories	
5709C	Glassbreak hand-held tester

Specifications

Input voltage	9.5 to 16 VDC
Current	
Typical	15mA
Maximum	25mA
Electrical configuration	Form A, Form C
Relay rating	16V, 50mA max.
Tamper switch rating	12V, 50mA max.
Detection range	3' - 25' (0.9 m - 7.6 m) x 360°
Alarm response	4 sec.
Minimum glass size	12" x 24" (30.5 cm x 61 cm)
Recommended glass thickness:	
Plate	3/32" - 1/4" (2.4 mm - 6.4 mm)
Tempered	1/8" - 1/4" (3.2 mm - 6.4 mm)
Wired	1/4" (6.4 mm)
Laminated	1/4" (6.4 mm)
Operating temperature	32° - 122° F (0° - 50°C)
Relative humidity	10 - 90% non-condensing
Round housing dimensions:	
Depth	0.81" (2.1 cm)
Diameter	4.0" (10.2 cm)
Rectangle housing dimensions	
Depth	0.81" (2.1 cm)
Width	2.75" (7.0 cm)
Height	4.52" (11.5 cm)
Color	White
Field wiring size	18-24 AWG
Listing	CUL, ULC-S306, UL 639, CE

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.



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