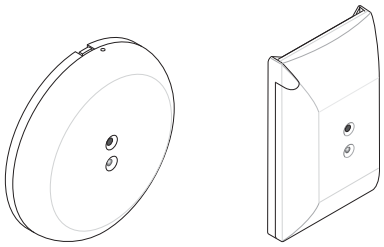
ShatterPro 3 Glassbreak Detector Installation Instructions

Introduction

This is the ShatterPro 3 Glassbreak Detector Installation Instructions. 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 12 VDC 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 (Figure 1 below).

Figure 1: ShatterPro 3 housings



The detector provides the following features:

Range up to 25 ft. (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

The detector has 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.

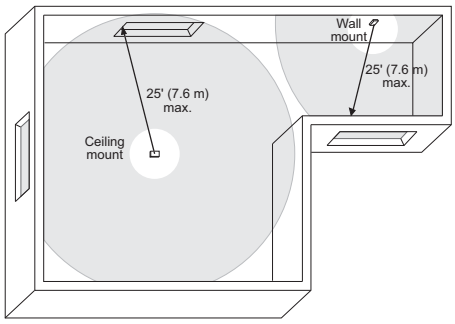
You will need the following tools and parts to install the detector:

- ShatterPro 3 detector including cover screw
- Screws and wall anchors
- Flat-blade screwdriver
- Phillips screwdriver
- UTC Fire & Security 5709C hand-held tester

Mounting location

You can mount the detector on ceilings or on the walls opposite or adjacent to the window to be protected (Figure 2 below).

Figure 2: Mounting locations



Use the following guidelines to determine the best mounting location:

- Mount the detector at least 3 ft. (1 m) from the windows being protected.
- Windows must be at least 12 x 24 in. (30.5 x 61 cm).
- Avoid locations where insulating, sound deadening, or lined drapes or closed wooden shutters are used.
- Mount 12 in. (30.5 cm) away from wall corners.
- Locate in a suitable environment: temperature between 32 and 122°F (0 and 50°C); and humidity between 10 and 90% noncondensing.

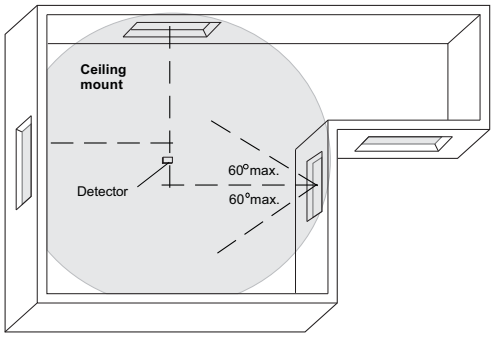
- Mount the detector on a stable surface up to 25 ft. (7.6 m) from the farthest point on the glass surface.
- Avoid locations that expose the detector to possible false alarm sources such as:
    - Glass airlocks and vestibule areas
    - Kitchens
    - Residential car garages
    - Small utility rooms
    - Stairwells
    - Bathrooms
    - Small acoustically live rooms
    - Air vents

Multiple window coverage

The detector has a 360 degree coverage pattern that can be used to cover several windows in a single room. To use this coverage pattern, do the following:

1. Draw an imaginary line from the center of each window to be covered in toward the center of the room.
2. Mount the detector on the ceiling as close as possible to where the lines intersect (Figure 3 below).

Figure 3: Multiple window coverage



Do not mount the detector at more than a 60 degree angle from the center of any window to be protected.

Installation

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

Caution: If you are unsure about location, connect a 9V battery to the detector and test it before permanently mounting the detector.

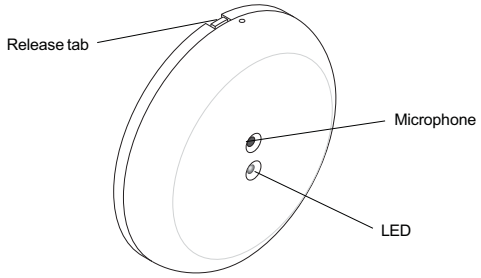
To install the detector, do the following:

1. Run the security system wiring to the detector location.
2. Remove the front cover of the detector as follows:

Round housing

Press the release tab on the lip of the base, twist the cover counter clockwise, and lift the cover off (Figure 4 below).

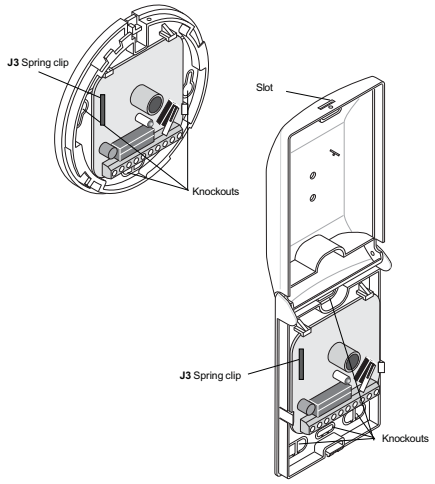
Figure 4: Round housing parts



Rectangle housing

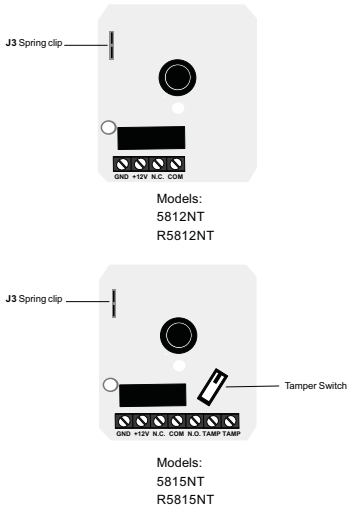
Insert a flat-blade screwdriver into the slot on the bottom of the cover and gently pry up to unlock the cover. Grasp the bottom of the cover and lift up until the cover plate is in the open position (Figure 5 below).

Figure 5: Detector knockout locations



3. Set the range with J3 spring clip on the circuit board. See “Range settings” on page 3.
4. Remove the appropriate wiring and mounting knockout holes from the base. See Figure 5 above for rectangle housings and round housings.
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 in. of insulation from each wire.
7. Connect the system wires to the appropriate screw terminals on the base and tighten the screws (Figure 6 on page 3).

Figure 6: Wiring diagram



8. Replace the cover as follows:

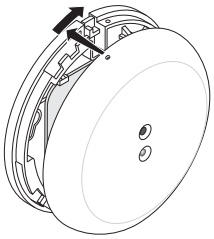
   Rectangle housing

   Press the cover back down over the detector until the cover snaps firmly into place.

   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 (Figure 7 below).

Figure 7: Attaching the round cover



9. Apply power. The red LED should flash once.
10. Test the detector. See “Testing” below.

Range settings

The detector has a spring clip (J3) to set the room size (Figure 6 above). Use Table 1 below to determine what setting to use for your application

Table 1: Setting the range

Setting	Description
Open	Default. Use for rooms 100 square ft. and larger, Range 5 to 25 ft (1.5 to 7.5 m).
Closed	Use for rooms smaller than 100 square ft. Range 3 to 10 ft. (0.9 to 3 m).

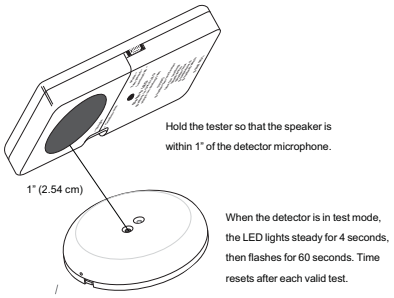
Testing

To verify detector range and operation, you need the UTC Fire & Security 5709C handheld tester.

To test the detector, do the following:

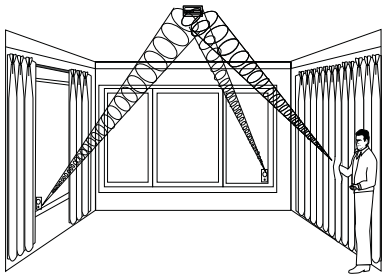
1. Set the tester to the appropriate glass-type setting. Use the tempered setting if you are unsure about the glass type.
2. To put the detector in test mode, hold the tester so that the speaker is within 1 in. (25 mm) of the detector microphone (Figure 8 below) and activate the tester. When the detector is in test mode the LED on the detector lights steady for 4 seconds and then flashes for 60 seconds. The relay opens for 4 seconds, then returns to standby. Time resets after each valid test.

Figure 8: Using the tester



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 (Figure 9 below).

Figure 9: Testing behind curtains



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.

LED indications

The red LED located on the front of the detector indicates the status of the detector as shown in Table 2 below.

Table 2: LED indications

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.

Hand-clap test and alarm memory

To check alarm memory and detector operation with the hand-clap test, do the following:

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 power to clear the alarm memory.

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

Maintenance

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 it.

Specifications

Input voltage	9.5 to 16 VDC
Current Typical Maximum	 15 mA 25 mA
Electrical configuration	Form A, Form C
Relay rating	16 V, 50 mA max.
Tamper switch rating	12 V, 50 mA max.
Detection range	3 to 25 ft. (0.9 to 7.6 m) x 360°
Alarm response	4 seconds
Minimum glass size	12 x 24 in. (30.5 x 61 cm)
Recommended glass thickness Plate Tempered Wired Laminated	 3/32 to 1/4 in. (2.4 to 6.4 mm) 1/8 to 1/4 in. (3.2 to 6.4 mm) 1/4 in. (6.4 mm) 1/4 in. (6.4 mm)
Operating temperature	32 to 122°F (0 to 50°C)
Relative humidity	10 to 90% noncondensing
Dimensions Rectangle housing (DxWxH) Round housing	 0.81 x 2.75 x 4.52 in. (2.1 x 2.75 x 4.52 cm) 0.81 (2.1 cm) depth, 4.0 in. (10.2 cm) diameter
Color	white
Field wiring size	18 to 24 AWG

Regulatory information

UL listings	CUL, ULC-S306, UL 639
FCC compliance	This device complies with part 15 of the FCC rules. Operation is subject to the following conditions: This device may not cause harmful interference. This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Certification	CE

Product ordering

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

Contact information

www.utcfireandsecurity.com or www.interlogix.com

For customer support: www.interlogix.com/customer-support