5885 ShatterPro® Plus
Motion Sensitive Acoustic Sensor
Installation Instructions

Installation

To install the unit:

1. Remove the front cover (*Figure 1*) by gently prying the unit apart at the bottom. The front cover hinges at the top.

2. Remove the circuit board assembly by holding the pyro shield (*Figure 1*) and pulling it out of the back cover.

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

3. Mount the back cover to a ceiling, wall, or corner (see *Mounting*). For wall mounting, make sure the UP arrow is pointing up (*Figure 2*). Use the appropriate mounting and wiring knockouts.

4. Snap the circuit board assembly back onto the back cover by aligning the lower edge of the board with the circuit board guides and pressing it into place.

5. Strip back the outer jacket on the wiring cable to allow it to flex in the case. Make sure the cable is slack in the ceiling or wall to avoid stressing the wires at their connections. Connect the wires as shown in *Figure 3*. The unit should be connected to a UL listed power supply capable of providing 4 hours of standby power.

6. Choose a masking plate, if needed (see *Zone patterns*) and cut to match the lens. Insert the masking plate behind the lens on the front cover by pressing it over the three mounting pins (*Figure 4*). To correctly mount the Pet Alley mask (*Figure 5*), the lens must be removed from the front cover, rotated 180 degrees, and cut to fit. Once the front cover is installed, the masking plate will be held tight against the lens.

7. Replace the front cover and test the unit (see *Testing the sensor*).
Mounting

For ceiling mount (Figure 6):
1. Mount unit in direct line of sight of windows to be protected.
2. Sensor can be mounted as close as 3.3 feet (1 m) from glass and up to 12 feet (3.7 m) from glass.

Note: When ceiling mounted, be sure to use the ceiling mount mask sticker to reduce potential for false alarms.

For wall or corner mount (Figure 7):
1. Do not aim sensor directly at window - install so PIR is covering the area of room you expect to have occupied.
2. Sensor can be mounted as close as 3.3 feet (1 m) from glass and up to 12 feet (3.7 m) from glass.

Sensor testing

Test the sensor to confirm that the field of view is set correctly and that the glassbreak detector will detect at the desired mounting location.

To test the field of view: Walk into the intended occupied area. The green LED should blink at 1 Hz for 1 minute. This means that the sensor has adjusted to a presence in the room and turned off the glassbreak alarm relay for 1 minute. It will turn the glassbreak on only after no movement has been detected for 1 minute. The LED will remain solid green for 4 seconds, indicating motion detection by the PIR.

Test and alarm LED indicators

<table>
<thead>
<tr>
<th>Condition</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glassbreak alarm</td>
<td>4 seconds solid red</td>
</tr>
<tr>
<td>Glassbreak test</td>
<td>1 Hz blinking red for 1 minute</td>
</tr>
<tr>
<td>Glassbreak latched</td>
<td>Solid red</td>
</tr>
<tr>
<td>Hand clap test</td>
<td>2 red blinks</td>
</tr>
<tr>
<td>PIR alarm</td>
<td>4 seconds solid green</td>
</tr>
<tr>
<td>PIR shunting glassbreak</td>
<td>1 Hz blinking green for 1 minute</td>
</tr>
</tbody>
</table>

Note: Each time the glassbreak sensor alarms, it also goes into test mode for 1 minute.

Hand clap test

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

When the ShatterPro Plus trips to an actual alarm condition, it will latch solid for 4 seconds, then start blinking for 1 minute. At the end of 1 minute, the LED will extinguish unless set for “LATCHING LED”.

Latching LED

To use the latching LED, remove Jumper J1 (Figure 8) to latch the LED for glassbreak. When the unit alarms for glassbreak, the LED will remain solid red after exiting test mode. Reset the unit by removing power for at least 1 second.
Application tips

The ShatterPro Plus provides two separate relays, one for the glassbreak sensor and one for the PIR. This configuration allows the ShatterPro Plus to be used in a variety of applications.

Application 1 - 24-hour glassbreak

In this application, the glassbreak relay is wired to a separate 24-hour zone and Jumper 2 is placed across one pin. Any time a person enters the PIR’s field of view, the glassbreak sensor will be disabled. The glassbreak sensor will automatically turn back on one minute after the PIR’s field of view is vacated.

Application 2 - 24-hour glassbreak and interior backup PIR

In this application, the glassbreak relay is wired to a 24-hour zone, the PIR relay is wired to a separate interior zone, and Jumper 2 is placed across one pin. The PIR relay is wired to the control panel to provide PIR backup for interior protection. Now when the interior zone is armed, the PIR will also act as a motion detector that will trigger an alarm if someone enters the room. This application is an affordable way to get two sensors in one installation.

Application 3 - Perimeter glassbreak and interior backup PIR

In this application, the glassbreak relay is wired to a separate perimeter (non 24-hour) zone, the PIR relay is wired to a separate interior zone, and Jumper 2 is placed across two pins. This configuration is a very affordable way to get two sensors in one, a glassbreak and a PIR. It’s perfect for installations that don’t require 24-hour operation, but are armed at night, during unoccupied hours, or during quiet occupied hours.

Zone patterns

Wall mount no mask

360° ceiling mount with ceiling mount mask

Note: Intruder must enter coverage pattern 3-4 feet (1-1.2 m) to cross one zone for detection of alarm. False alarm sources, such as heaters, should be kept out of the coverage pattern.
Specifications

**Electrical**
- Operational voltage: 9 to 16 VDC
- Current draw: 15 mA typical, 30 mA max.
- Alarm outputs: Normally closed, open 4 seconds on alarm
- On resistance: 5 to 15 Ohms
- Off resistance: >1 MOhms
- Maximum loop rating: 16 VDC, 50 mA (relay or tamper loop)
- Fails safe and opens on power loss
- Wire gauge: 14 - 22 AWG

**Environmental**
- Lightning suppression: 400 watts for 1 msec pulse
- Operating temperature: 0 to 120°F (-18 to 50°C)
- RFI immunity: 20 V/meter from 1 to 1000 MHz
- Humidity: 10% to 90% noncondensing

**PIR Features**
- Pulse count: Bi-directional, 1 zone (2 pulses) with motion verification
- Range:
  1. Wide Angle (90°) 30 ft. x 30 ft. (9.1 m x 9.1 m), 7 ft. (2.1 m) mounting height
  2. 360° Ceiling 15 ft. x 20 ft. (4.6 m x 6.1 m) at 8 ft. (2.4 m) height, 16 ft. x 30 ft. (4.9 m x 9.1 m) at 12 ft. (3.7 m) height, ceiling mounting height up to 12 ft. (3.7 m)
  3. Single Spot 40 ft. (12.2 m) range, 7 ft. (2.1 m) mounting height
  4. Vertical Barrier 40 ft. (12.2 m) range, 7 ft. (2.1 m) mounting height
  5. Pet Alley (90°) 30 ft. (9.1 m) range, 3 ft. (0.9 m) mounting height

**Acoustic Glassbreak Features**
- Microphone: Omni directional 360° electret
- Sensitivity setting: Factory set
- Range: 12 ft. (3.7 m) from ceiling to window wall, 12 ft. (3.7 m) to side wall
- Glass types detected:
  - Plate glass: 1/8 in. (3.2 mm) to 1/4 in. (6.4 mm)
  - Tempered glass: 1/8 in. (3.2 mm) to 1/4 in. (6.4 mm)
  - Wired glass: 1/4 in. (6.4 mm)
  - Laminated glass: 1/4 in. (6.4 mm)
- Mounting location: Ceiling or any wall except opposite wall
- Min. distance from glass: 3.3 ft. (1 m)
- Min. glass size: 1 ft. (0.3 m) x 2 ft. (0.6 m)
- Dimensions: 3.7 in. (9.4 cm) H x 2.2 in. (5.6 cm) W x 1.2 in. (3.1 cm) D
- Housing material: Flame retardant ABS plastic
- Color: White/white
- Shunting feature: Glassbreak automatically turns back on 1 minute after vacating PIR's field of view

**Listings**: UL639

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**Dimensions**

- Width: 2.2" (5.6 cm)
- Height: 3.7" (9.4 cm)
- Depth: 1.2" (3.1 cm)

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**Ordering information**

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<thead>
<tr>
<th>Model number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>5885-W</td>
<td>ShatterPro+ Plus</td>
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<tr>
<td>5709C</td>
<td>Hand held tester</td>
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