

1129 Glassbreak

Description

The 1129 Glassbreak wireless sensor is omni-directional, providing 360° detection coverage of framed glass mounted in an outside wall. Mount the 1129 Glassbreak on the ceiling or an opposing wall for maximum flexibility and coverage. The 1129 Glassbreak operates using the supplied 3 VDC Lithium battery.

The 1129 PIR operates with the XR500 Series or XR100 Series panels using the 1100X/1100XH Receiver or with the XTL, XT30 or XT50 Series panels using the 1100D/1100DI/1100DH Receiver.

What is Included

The 1129 Glassbreak includes the following items:

- One Glassbreak detector with DMP wireless transmitter installed
- One 3V lithium CR123 battery
- Hardware pack
- Zone name and number label
- Serial number label

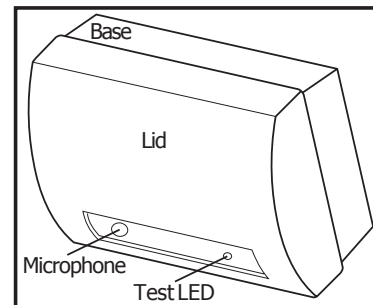


Figure 1: 1129 Glassbreak

Installation

For your convenience, an additional pre-printed serial number label is included. Prior to installing the device, record the serial number or place the pre-printed serial number label on the panel programming sheet. This number is required during programming. As needed, use the zone name and number label to identify a specific transmitter.

Programming the Glassbreak in the Panel

Refer to the XTL Programming Guide (LT-1108), XT Series Programming Guide (LT-0981), the XR100 Series Programming Guide (LT-0896), and the XR500 Series Programming Guide (LT-0681) as needed. Program the device as a zone in **Zone Information** during panel programming. At the Serial Number: prompt, enter the eight-digit serial number. Continue to program the zone as directed in the panel programming guide.

Note: When a receiver is installed, powered up, or the panel is reset, the supervision time for transmitters is reset. If the receiver has been powered down for more than one hour, wireless transmitters may take up to an additional hour to send a supervision message unless tripped, tampered, or powered up. This operation extends battery life for transmitters. A missing message may display on the keypad until the transmitter sends a supervision message.

Selecting the Best Location (LED Survey Operation)

The Glassbreak transmitter provides a survey capability to allow one person to confirm transmitter communication with the receiver while the cover is removed. The glassbreak wireless transmitter PCB Red Survey LED turns on whenever data is to be sent to the receiver then immediately turns off when the receiver acknowledgement is received and the processor shuts off. Pressing the tamper switch is a convenient way to send data to the receiver to confirm operation. When the transmitter does not receive an acknowledgement from the receiver, the transmitter Survey LED remains on for about 15 seconds to let you know communication is not established. Relocate the transmitter or receiver until the Survey LED immediately turns off indicating the transmitter and receiver are communicating properly. If the transmitter is not programmed into the panel, it does not operate properly.

Using the 1129 Glassbreak

The 1129 Glassbreak coverage is measured from the sensor to the farthest point on the glass. The sensor can be mounted as close as 3.3' (1m) from the glass.

1. Mounted on an opposite wall or adjoining walls, range is 20' (6m) for plate, tempered, laminated and wired glass.
2. Mounted on the ceiling, maximum range is 20' (6m) for plate, tempered, laminated and wired glass.
3. For armor-coated glass, mount sensor no more than 12' (3.65m) from glass.

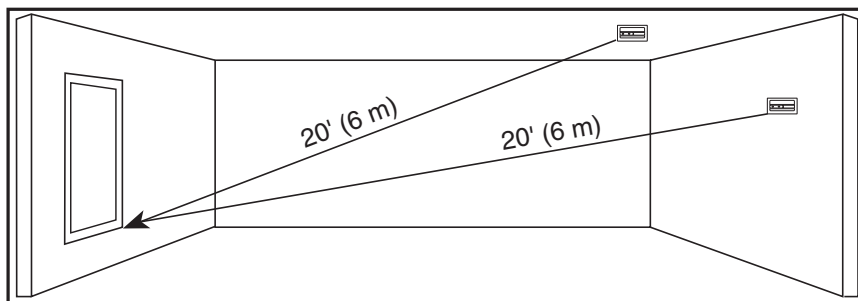


Figure 2: Mounting Locations

Recommendations

For best detection operation refer to the following information regarding glass, the best installation locations, and related considerations.

Glass Size

Minimum 1' x 2' (0.3m x 0.6m) or larger

Glass thickness:

- Plate: 3/32" to 1/4" (2.4mm to 6.4mm)
- Tempered: 1/8" to 1/4" (3.2mm to 6.4mm)
- Wired: 1/4" (6.4mm)
- Laminated: 1/8" to 1/4" (3.2mm to 6.4mm)

Optimizing Detection

Install the 1129 Glassbreak in the following areas:

- Rooms with moderate noise
- Large rooms

Avoiding False Alarms

For best false alarm immunity do not install the 1129 Glassbreak in the following areas:

- Rooms with lined, insulating, or sound deadening drapes
- Rooms with closed wooden window shutters inside
- Room corners
- 24-hour loop applications where the sensor is armed even when the room is in use.
- Where white noise, such as air compressor noise, is present (A blast of compressed air may cause a false alarm)
- Rooms smaller than 10' x 10' (3m x 3m) and rooms with multiple noise sources
- Excessively humid rooms (Excess moisture on the circuit board can eventually cause a short and false alarm)

Alternative Solutions

For glassbreak protection in the following applications, use shock sensors on the windows or window frames rather than installing glassbreak protection:

- glass airlocks and glass vestibule areas
- noisy kitchens or other noisy areas
- residential car garages
- small utility rooms
- stairwells
- small bathrooms
- other small acoustically live rooms

Mounting the 1129 Glassbreak



IMPORTANT! Prior to permanently mounting the 1129 Glassbreak unit, test the sensor to identify the best mounting location. Use a hand-held tester and follow the steps in the Testing Options, 1129 Glassbreak Pre-Testing and Testing the Sensor sections later in this document.

Mounting Locations

Note: Do not exceed the sensor rated range, regardless of what the tester shows.

For best false alarm immunity the sensor should be located at least 4' (1.2m) away from noise sources (televisions, speakers, sinks, doors, etc.). The sensor must always be in direct line of sight of all windows to be protected. It cannot consistently detect glass breaking around corners, in other rooms, etc. There is no front or back, up or down, orientation of the sensor required.

Since the sound of breaking glass travels directionally out from the broken window, the best location for mounting the sensor is on the opposite wall—assuming the glass to be protected is within the sensor range and line of sight. Optionally, mount the sensor 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' (2-3m) into the room provides better detection.

1129 Glassbreak Mounting Steps

The red wire runs from the battery positive terminal to the encased glassbreak controller and provides operating power to the controller. The green and black (GND) wires connect the transmitter terminal block to the encased glassbreak controller board.

There are two knockouts in the housing base for mounting. It is not necessary to remove the transmitter PCB from the housing to install the unit in the ceiling or wall location.

1. Select the optimum wall or ceiling mount location.
2. Tap the mounting screws into the knockouts and screw the housing into place.
3. Observe polarity and snap the battery into place.
4. Snap the cover onto the housing.

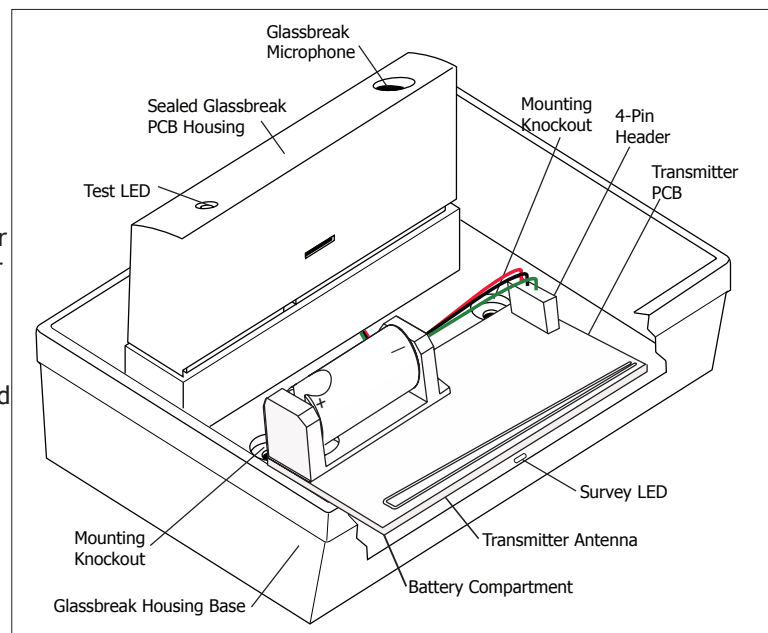


Figure 3: Glassbreak PCB in the Housing

Testing Options

How the Test Mode Works

The 1129 Glassbreak Pattern Recognition Technology™ ignores most false alarm sounds, including glassbreak testers. In order to test the 1129 Glassbreak, a test mode is used. With the sensor in test mode, glassbreak pattern processing in the upper and lower frequencies is disabled. The 1129 Glassbreak is then listening only for the mid-range frequencies, which the tester reproduces. It is the mid-range frequencies that determine sensor range.

In normal mode the LED does not blink unless it hears a loud sound. In normal mode the 1129 Glassbreak DOES NOT trip to the tester, unless the tester is held next to the sensor.

Note: Each time the glassbreak sensor activates it also goes into test mode for one minute.

Testing Considerations

The 1129 Glassbreak is designed to detect the breaking of framed glass mounted in an outside wall. Testing the sensor with unframed glass or broken bottles may not trip the sensor. The 1129 Glassbreak typically does not trip to glass breaking in the middle of the room since no burglar breaks glass in the middle of a room, so such breaks are false alarms.

Note: 1129 Glassbreak may not consistently detect cracks in glass, or bullets which break through the glass. Glassbreak sensors should always be used along with interior protection.

Putting the 1129 Glassbreak into Test Mode

Use a hand-held tester (DMP Model 5709CW) to put the sensor into test mode. Set the tester to tempered glass mode, hold the tester speaker directly on top of the sensor, and activate the tester. The sensor alarms, then goes into test mode for one minute. When in test mode the LED on the sensor blinks continuously. Extend the test mode time by firing the tester at the sensor at least once a minute.



IMPORTANT! Room acoustics can artificially extend a glassbreak sensor range. The 1129 Glassbreak specified range has been established for worst-case conditions. While the sensor may function at an additional range, it could miss a minimum output break, or room acoustics may change at some future time, bringing sensor range back into normal 20' (6m) conditions.

Testing the Sensor

Prior to permanently mounting the sensor, pre-test its operation from multiple locations in the room. Refer to Figure 4 and perform the following steps.

1. Verify the tester is set for tempered glass.
2. Hold the tester near the glass surface, aim the tester at the 1129 Glassbreak, 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 the sensor with heavy or lined drapes).
3. Check that the sensor LED momentarily lights solid while the tester triggers. This indicates the glass is within detection range.
4. If the LED does not light solid, but simply continues blinking, re-position the sensor closer to the protected windows and retest.
5. Continue testing as needed to find the best 1129 Glassbreak mounting location.

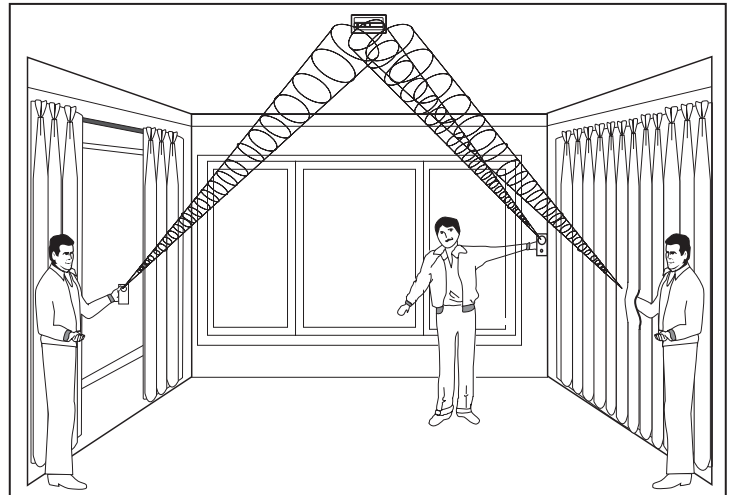


Figure 4: Testing Location Examples

Note: Testing may indicate the requirement to mount additional sensors in order to achieve adequate coverage. It is very rare that the sensor does not activate within its stated range of coverage. If there is any question about the range, double check for adequate battery strength in the hand-held tester. A new tester battery should restore range.

The sensor automatically changes from test mode to normal mode approximately one minute after it last hears the hand-held tester.

Hand Clap Test

The 1129 Glassbreak can be checked by the installer or end user while in normal mode, simply by clapping hands loudly under the sensor. The LED blinks twice, but the sensor does not trip. This verifies visually that there is power to the sensor, and that the microphone and circuit board are functioning.

The hand clap activation is only momentary, so there is no appreciable effect on battery life.

Installing or Replacing the Battery

Observe polarity when installing the battery. Use only 3.0V lithium batteries, DMP Model CR-123, or the equivalent battery from a local retail outlet.

Note: When setting up a wireless system, it is recommended to program zones and connect the receiver before installing batteries in the transmitters.

1. If installed, remove the glassbreak housing cover.
2. If replacing the battery, remove the old battery and dispose of it properly.
3. Place the 3.0V Lithium battery in the battery compartment as shown in Figure 3 and press into place.
4. Snap the cover back into place.



Caution: Risk of fire, explosion, and burns. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate. Properly dispose of unused batteries.

Battery Life Expectancy

Typical battery life expectancy for DMP Model 1129 Glassbreak wireless transmitters is 3 years. DMP wireless equipment uses two-way communication to extend battery life.

The following situations can reduce battery life expectancy:

- If a receiver is unplugged or not installed.
Note: Transmitters continue to send supervision messages until a receiver returns an acknowledgement. After an hour the transmitter only attempts a supervision message every 60 minutes.
- Frequent transmissions, such as high noise environment where messages are sent more frequently.
- When installed in extreme hot or cold environments.

The following situation can extend battery life expectancy:

- Extend transmitter supervision time in panel programming.
- Infrequent transmission trips, such as a low noise area where messages are rarely sent.

FCC Information

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, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons. It must not be co-located or operated in conjunction with any other antenna or transmitter.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specifications		Patents	
Battery		U. S. Patent No. 7,239,236	
Life Expectancy	3 years		
Type	3.0V Lithium CR-123		
	See Battery Life Expectancy for full details.		
RF Frequency Range	903-927 MHz		
Sensor RF Immunity	20 V/meter, 1MHz to 1000MHz		
Microphone	Omni-directional electret		
Dimensions	4.25" L x 3.15" W x 1.75" H		
Color	White (passes VW-1 flame test)		
Housing material	Flame retardant ABS		
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