FlexGuard® FG-1625R/FG-1625RT Glassbreak Detector Installation Instructions

❶ Mount the detector.

For location guidelines, refer to the Supplemental Information on the back page.

Note: If you plan to use the wall tamper, locate the wall tamper screw position before the mounting screws position. Refer to the Supplemental Information for instructions on using the wall tamper.

- Use a screwdriver to push down on the latch at the side of the detector to remove the front cover.

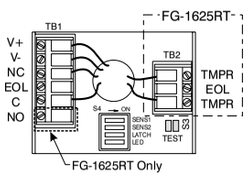
  Note: Do not remove the PCB from the protective enclosure.

- For surface wiring, use the FG-SP2 spacer plate provided.
- Secure the detector with #6 (3.5 mm) or #8 (4.2 mm) screws (not provided).

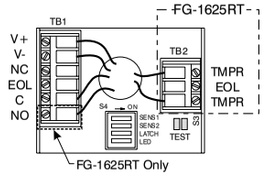
❷ Wire the detector.

- Route the wire through the wire entry hole in the PCB center. Cut and strip wire ends 1/4 inch (6.0 mm).
- Wire the detector using 18-22 AWG (0.64 mm to 1.02 mm). Reverse polarity connections will not damage the detector. For proper wiring methods, refer to the National Electrical Code NFPA 70.
- After completing wiring, push excess wire back into the wall and replace the front cover.

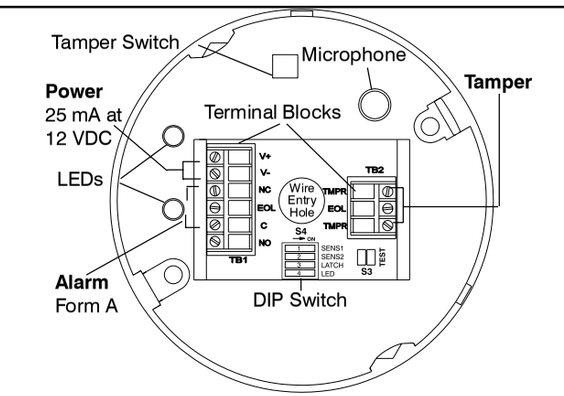
Note: You can secure the cover with a #4 (2.9 mm) screw if required. The hole is located on the intermediate cover near the latch.

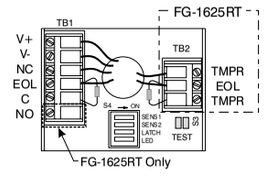


NC loop, no EOL resistor

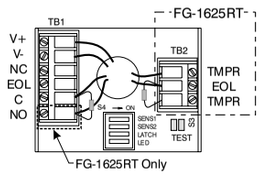


NO loop, no EOL resistor (FG-1625RT only)





NC loop with EOL resistor

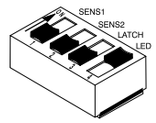


NO loop with EOL resistor (FG-1625RT only)

TIP: Temporarily mount the detector in the intended location and power it with a 9 V battery until testing establishes effective range coverage. If the 9 V battery is low, both LEDs will flash.

❸ Configure the detector.

The following tables show how to configure DIP switch S4 to best suit the application.



= Default Settings

SENSITIVITY[1]	SENS1	SENS2	APPROX. RANGE
Max	OFF	OFF	25' (7.6 m)
Med	ON	OFF	15' (4.6 m)
Low	OFF	ON	10' (3 m)
Lowest	ON	ON	5'(1.5 m)

SWITCH	OFF	ON
LATCH	Red Alarm LED lights for 5 seconds during alarm.	Red Alarm LED latches ON when detector goes into alarm.[2,3]
LED	LEDs are disabled except during power-up and Test Mode. [4]	LEDs are always enabled. No effect in Remote LED Enable/Disable Mode.

[1]Verify range with the FG-701.
[2]The timing of the alarm relay is not affected by the latched Alarm LED.
[3]Reset the Alarm LED by removing and restoring power, or by toggling the detector in and out of test mode.
[4]LEDs can be enabled or disabled with the FG-701.

❹ Test the detector.

Note: Test the FG-1625R/RT at least once each year.

Test the detector with the FG-701 Glassbreak Simulator. The FG-700 can be used if set for TEMPered glass sound.

Activating Test Mode

1. Position the simulator within 15' (4.6 m) of the FG-1625R/RT detector.
2. Switch the FG-701 simulator to ACTIVATE and MANual modes.
3. Point the front speaker of the simulator at the detector and press the red start button.

The simulator buzzes, and the green LED on the FG-1625R/RT flashes about once per second to indicate it is in Test Mode.

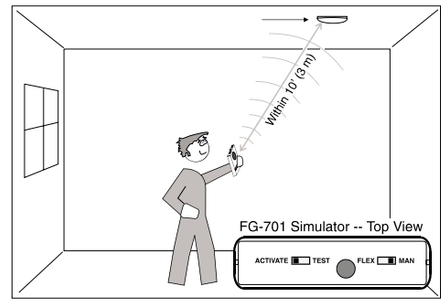
If an FG-701 is not available, or if for any reason remote activation cannot be used, use a small screwdriver to short the test pads on the PCB. This activates Test Mode.

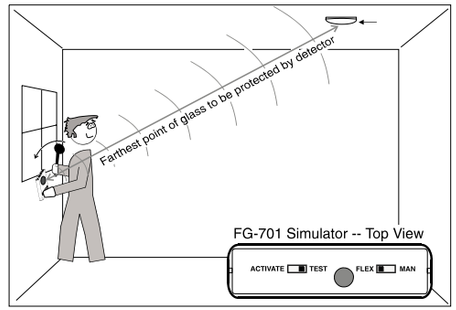
Make sure to replace the front cover of the unit before testing.

Testing the FG-1625R/RT

1. Set the FG-701 switches to the TEST and FLEX positions.
2. Position the FG-701 near the farthest point of the glass and point the speaker directly at the FG-1625R/RT. If window coverings are present, close them fully and hold the FG-701 behind them.
3. Press the red start button. The simulator "clicks" on and starts an 8 second armed period.
4. Generate a flex signal by carefully striking the glass with a cushioned tool. The FG-701 responds by producing a burst of glassbreak audio.

If the FG-1625R/RT properly receives both the simulator flex and audio, the red alarm LED lights.





Note: Some environmental factors may reduce the detector activation range. If after pressing the red start button you do not see the green LED flashing, move closer to the detector and try again.

Testing the Audio Alone

You can also use the simulator in the MANual mode to test audio alone. The green LED on the detector flickers when the detector properly receives the simulator audio. (See the FG-701 Operating Instructions for additional information.) Keep in mind this is not a complete test.

Exiting Test Mode

After testing, exit Test Mode using the same procedure for activating Test Mode. The FG-1625R/RT automatically exits the Test Mode 5 minutes after the last event is detected.

REMOTE LED ENABLE/DISABLE MODE

The detector's Remote LED Enable/Disable Mode allows you to enable or disable the detector's LEDs with the FG-701 Glassbreak Simulator.

To enable or disable the LEDs with the FG-701:

1. Set LED switch, S4 position 4, to off.
2. Enter Test Mode, and then exit Test Mode.
3. Within two (2) seconds, enter Test Mode again; this changes LED enable/disable status.
4. Exit Test Mode again.
5. Clap your hands to test the LEDs. If enabled, the green LED will flicker. If disabled, the green LED will remain off.

FlexGuard® FG-1625R/FG-1625RT Glassbreak Detector Supplemental Information

LOCATION GUIDELINES

The FG-1625R/RT detects framed glass broken by an impact sufficient to make a hole. Refer to the following guidelines when selecting a mounting location:

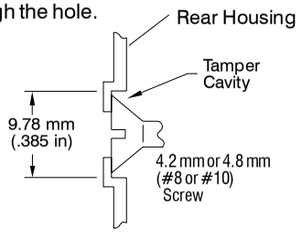
- The FG-1625R/RT can be mounted in corners, on walls, and on ceilings.
- Mount within 25' (7.6 m) of the glass.
- There is no minimum range, but the detector must have a clear line-of-sight and a clear view of the glass.
- The ideal location is on the wall or ceiling directly opposite the glass. The least desirable location is on the same wall as the glass.
- When wall mounting, mount the detector a minimum of 6' (1.8 m) high.
- Curtains, blinds and other window coverings absorb energy from breaking glass. Heavy curtains, for example, effectively block the sound signal. In these cases, mount the detector on the window frame behind the window covering or above the window.
- Do not mount within 3' (0.9 m) of forced air ducts, sirens, or bells measuring 2" (5 cm) or more in diameter.
- Minimize range to the glass. Do not install beyond the maximum specified range even if testing indicates greater range.
- Adjust sensitivity for desired range; verify by testing with the FG-701.
- Mounting on freestanding posts and pillars is not recommended.
- Verify all installations back to the panel to be sure the protection loop is intact.
- Do not use outside.
- Avoid installing in rooms with high-level noise sources, such as air compressors, bells, and power tools if those sources can be active when the detector can signal an alarm.
- Test false alarm immunity by activating any noise sources in the room.

Note: The FG-1625R/RT detects shattering of framed glass by a direct impact. It may not consistently detect breakage by blows that only crack the glass, by high velocity projectiles (such as bullets) or if the glass is broken without an impact.

USING THE CEILING/WALL TAMPER SWITCH (FG-1625RT ONLY)

The FG-1625RT has a combination normally-closed (NC) cover and wall tamper. Each detector is shipped with the cover tamper operational and the ceiling/wall tamper disabled.

- Use needle-nose pliers to break out the plastic tab on the back of the detector. The tamper arm then extends through the hole.
- The tamper screw (not provided) should be a flat-head #8 (4.2 mm) or #10 (4.8 mm) screw.
- Install the tamper screw so it will just make contact with the bottom of the mounted detector's tamper cavity.
- After installing the tamper screw, position the detector over it and mark the locations for the mounting screws.



Install screw to seat in tamper cavity

LED INDICATORS

The two LEDs on the front cover indicate the detector's operational status. The following table summarizes the LED operation when the LEDs are enabled.

Condition	Green LED	Red LED
Normal	OFF	OFF
Normal, event detected	Flicker	OFF
Normal, break detected	OFF	ON 5 seconds
Normal, alarm latched	OFF	ON continuously
Power up	ON 1 second	ON 1 second
Low voltage	Flash ON/OFF	Flash ON/OFF
Test Mode	Flash once per second	OFF
Test Mode, event detected	Flicker	OFF
Test Mode, alarm	Flash once per second	ON 5 seconds

Protected glass:
Minimum size for all types is 11 inches (28 cm) square. Glass must be framed in the wall of the room or mounted in a barrier of 36 inches (0.9 m) minimum width.

	Thickness	
Type	**Minimum**	**Maximum**
Plate[3]	3/32" (2 mm)	3/8" (10 mm)
Tempered	1/8" (3 mm)	3/8" (10 mm)
Laminated[1]	1/8" (3 mm)	9/16" (14 mm)
Wired	1/4" (6 mm)	1/4" (6 mm)
Coated[2]	1/8" (3 mm)	1/4" (6 mm)
Sealed Insulating[1,3]	1/8" (3 mm) [1/2" (13 mm overall)]	1/4" (6 mm) [3/4" (19 mm overall)]

[1]Protected only if both glass plates are broken.

[2]Coated glass with security films up to 0.35mm (14 mils) thick (including films for solar protection) may be used. Evaluated with these products: 3M® SCOTCHSHIELD® SH14CLARL – 0.35mm (14 mils), 4 ply film; Film Technologies International, Inc.'s GLASS-GARD® GGLL 1200 –0.3mm (12 mils), 3 ply film.

[3]In compliance with Underwriters Laboratories of Canada's Standard for Intrusion Detection Units (CAN/ULC-S306-M89), ULC recognizes a maximum range for protecting sealed and insulated glass of 3.8 m (12.5 ft).

IMPORTANT: The FG-1625R/RT must be connected to a UL listed power supply or UL listed control unit capable of providing **a minimum of four hours** of standby power.

SPECIFICATIONS

Range:
25 feet (7.6 m) maximum
No minimum range

Alarm relay:
FG-1625R Form A
FG-1625RT Form C
100 mA maximum
25 VDC maximum
ON/closed 22Ω ±6Ω
OFF/open >1MΩ

Alarm duration:
5 seconds (unaffected by alarm LED latching)

Tamper switch: (FG-1625RT only)
Combination cover and wall tamper
25 mA maximum
24 VDC maximum

Power requirements:
6 - 18 VDC; 12 mA typical at 12 VDC, 22 mA max.;
AC Ripple: 4 Volts peak-to-peak at nominal 12 VDC

RFI immunity:
30 V/m, 10 MHz - 1000 MHz

Operating temperature:
14° F to 131°F (-10° C to 55°C)
UL: 14° F to 122°F (-10° C to 50°C)
(Indoor use environment)
Storage: -4° F to 131° F (-20° C to 55° C)
UL: -4° F to 122° F (-20° C to 50° C)

ESD immunity:
10 kV, Discharges of either polarity to exposed surfaces

Dimensions:
4.25" OD x 0.88" THK
(108 mm x 22.4 mm)

Weight:
4.5 oz., (128 g)
Packaged product: 7.5 oz., (213 g)

Accessories:
FG-701 Glassbreak Simulator
FG-SP2 Spacer Plate

Approvals/Listings:
FCC and IC Verified
UL Listed
ULC Listed
CE
FG-1625RT only:
EN 50131-1, Grade 2, Class II
Suitable for connection to an EN 60950 Class II Limited Power Source

To obtain applicable EU compliance Declaration of Conformities for this product, please refer to our Website http://www.security.honeywell.com/hsce/international/index.html.
For any additional information regarding the compliance of this product to any EU specific requirements, please contact –
Quality Assurance Department,
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Tel: +44(0)1698 738200
Email: UK64Sales@Honeywell.com

NOTICES

FCC NOTICE: 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.

The user is cautioned that changes or modifications not expressly approved by Honeywell could void the user's authority to operate this equipment.

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: 1) Reorient or relocate the receiving antenna, 2) Increase the separation between the equipment and receiver, 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. The installer can also consult an experienced radio/television technician for additional suggestions, if necessary.

IC Notice: This Class B digital apparatus complies with the Canadian ICES-003.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada

Honeywell

P/N 5-051-738-00 Rev B