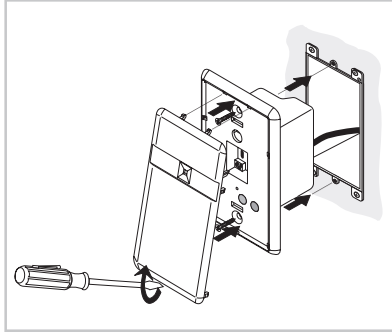# ❶ Mount the detector.

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

The FG-1525F/FD detector flush mounts in a gang box. (Gang box is not required; however, mounting directly in drywall is not recommended.)

Note: To use the tamper switch, refer to the Supplemental Information.

- Use a screw-driver to pry up on the latch at the bottom of the detector to remove the faceplate.

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

- Secure the detector with #6 flathead (M3) screws (not provided).

Important: Do not remove tamper arm from back of faceplate.

❷ Wire the detector.

- Cut and strip wire ends 1/4" (6.5 mm).

- Wire the detector using 18-22 AWG. Reverse polarity connections will not damage the detector. For proper wiring methods, refer to the National Electrical Code / NFPA 70 and the Canadian Electrical Code, Part 1, C22.1.

- Route wire around side of strain relief and clasp with wire tie (not provided) through hole in center ring.

- After completing wiring, push excess wire back into the gang box.

- Replace the faceplate by hooking the latches to the top of the detector and then pivoting the faceplate downward, snapping it into place.

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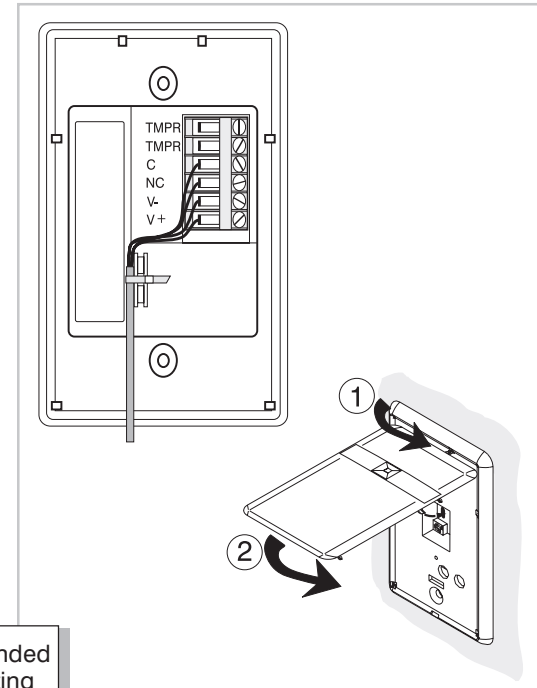
TIP: Temporarily mount the detector in the intended location and power it with a 9 V battery until testing establishes effective range coverage. If the 9 V battery is low both LEDs will flash.

❸ Configure the detector.

The following tables show how to configure DIP switch S1 to best suit the application.

SENS1
SENS2
LATCH
LED
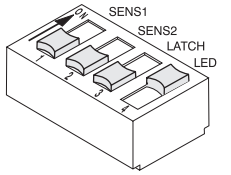
☐ = Default Settings

SWITCH	SENSITIVITY			
	Maximum 25' (7.6 m)	Medium 15' (4.6 m)	Low 10' (3 m)	Lowest 5' (1.5 m)
SENS1	Off	On	Off	On
SENS2	Off	Off	On	On

	OFF	ON
LATCH	Red Alarm LED lights for 5 seconds during alarm.	Red Alarm LED latches ON when detector goes into alarm.
LED	LEDs are disabled except during power-up and Test Mode.	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. (See Remote LED Enable/Disable Mode.)

❹ Test the detector.

Note: Test the FG-1525F/FD 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-1525F detector.

2 Switch the FG-701 simulator to ACTIVATE and MANual modes.

3 Point the front of the simulator at the detector and press the red start button.

The simulator buzzes, and the green LED on the FG-1525F/FD flashes about once per second to indicate it is in Test Mode.
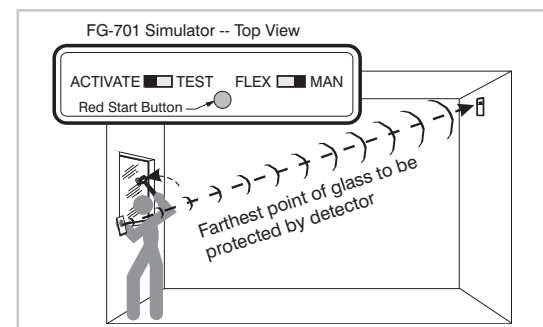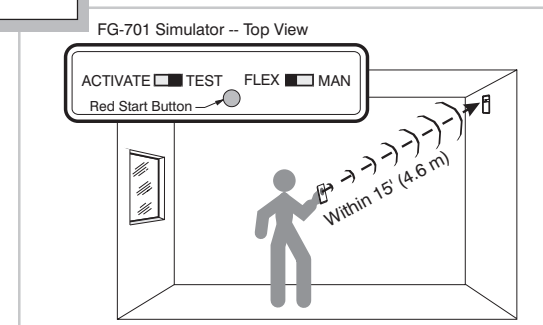
If an FG-701 is not available, or if for any reason remote activation cannot be used, use a small screwdriver to short the test pads on the PCB. This activates Test Mode.

Make sure to replace the faceplate of the FG-1525F/FD before testing.

Testing the FG-1525F/FD

1 Set the FG-701 switches to the TEST and FLEX positions.

2 Press the red start button. The simulator "clicks" on and starts an 8 second armed period.

3 Position the FG-701 near the farthest point of the glass and point it directly at the FG-1525F/FD. If window coverings are present, close them fully and hold the FG-701 behind them.

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-1525F/FD properly receives both the flex and audio, the red alarm LED lights.

FG-701 Simulator -- Top View

ACTIVATE ☐ TEST   FLEX ☐ MAN
Red Start Button

Within 15' (4.6 m)

FG-701 Simulator -- Top View

ACTIVATE ☐ TEST   FLEX ☐ MAN
Red Start Button

Farthest point of glass to be protected by detector

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 blinks 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-1525F/FD also automatically exits Test Mode after 5 minutes.

NOTE: The FG-1525FD detector is identical to the FG-1525F detector, except the faceplate and housing are doublewide.
This manual depicts the FG-1525F (single gang box) detector. All instructions also apply to the FG-1525FD detector.

MOUNTING GUIDELINES

The FG-1525F/FD detects framed glass broken by an impact sufficient to make a hole. Refer to the following guidelines when selecting a mounting location:

- The FG-1525F/FD 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 direct line-of-sight to the glass with no obstructions.
- 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.
- 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.

USING THE TAMPER SWITCH

The FG-1525F/FD has a normally-closed (NC) cover tamper switch. Any attempt to remove the front cover causes this switch to open and stay open until the cover is secured. This switch may be used on a separate NC loop or in series with the alarm relay, in which case removing the front cover appears to the panel as an alarm.

Separate NC loop   In series with alarm relay
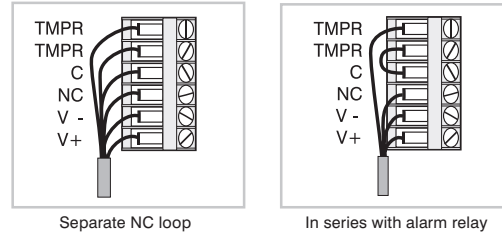
LED INDICATORS

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

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 (S1), position 4, to OFF.
2. Set the FG-701 switches to the ACTIVATE and MANual positions.
3. Stand within 15' (4.6 m) of the detector, point the front of the FG-701 at the detector, and press the red start button. The simulator generates an audio activation signal, and the detector's green LED flashes once per second.
4. Repeat step 3, and the detector's green LED stops flashing.
5. Within 2 seconds, repeat step 3 to send another activation code. If you disable the LEDs, the detector's green LED flashes once. If you enable the LEDs, the green LED flashes 2 to 3 times.
6. Clap your hands to test the LEDs. If the LEDs are enabled, the green LED flickers. If the LEDs are disabled, the green LED remains off.

SPECIFICATIONS

Range:
25' (7.6 m) maximum
No minimum range
Alarm relay:
Form A, 125 mA maximum
25 VDC maximum
Alarm duration:
5 seconds (unaffected by alarm LED latching)
Tamper switch:
Cover 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
Operating temperature:
14° to 120°F (-10° to 50°C)
Storage: -4° to 122° F (-20° to 50° C)

RFI immunity:
30 V/m, 10 MHz - 1000 MHz
ESD immunity:
10 kV, Discharges of either polarity to exposed surfaces
Dimensions:
FG-1525F:
Faceplate: 4.49" x 2.76" (114 mm x 70 mm); rear cover: 2.65" H x 1.97" W x 1.85" D (67.4 mm x 50 mm x 47 mm)
FG-1525FD:
Faceplate: 4.49" x 4.49" (114 mm x 114 mm); rear cover: 2.65" H x 1.97" W x 1.85" D (67.4 mm x 50 mm x 47 mm)
Weight:
3.1 oz., (87 g)
Packaged product: 4.7 oz., (133 g)
Accessories:
FG-701 Glassbreak Simulator
Approvals/listings:
FCC and IC verified
UL Listed
ULC Listed

The FG-1525F is compatible with the most common single gang boxes including: Allied Molded 9331, Allied Molded 1096, Carlon B116A, Carlon B114R, and Carlon B118A.

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.

| Type | THICKNESS | |
	Minimum	Maximum
Plate[3a]	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, 3b]	1/8" (3 mm)	1/4" (6 mm)
Sealed Insulating[1, 3b]	1/8" (3 mm)	1/4" (6 mm) (5/8" overall)

[1]Protected only if both glass plates are broken.
[2]Coated glass with security films, including films for solar protection, up to 12 mil. thick may be used. The Glass-Gard® GGLL1200 has been evaluated with this product by Underwriters Laboratories Inc.
[3]In compliance with Underwriters Laboratories of Canada's Standard for Intrusion Detection Units ((CAN/ULC-S306-M89):
   [a] Plate glass 1/8 in. (3 mm) to 3/8 in.(10 mm) can be used.
   [b] ULC recognizes a maximum range for protecting sealed Insulated and coated glass of 12.5 ft (3.8 m).

IMPORTANT: The FG-1525F 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.

IntelliSense