DESCRIPTION

The 5600 Glassbreak Sensors are designed to detect breaking glass caused by forced entry into a protected window or door. The 'Tru-Dual' transducer design provides excellent false-alarm immunity in noisy environments.

The 5600 Sensor processes both acoustic and vibration information to identify breaking windows. Frame mounting the 5600 Sensor eliminates detection concerns with drapes and blinds. The built-in reed switch provides protection against forced opening of windows or doors, as well as breaking glass.

Note: This sensor may not consistently detect cracks, bullets, or similar breaks. Glassbreak sensors should always be backed up by interior protection such as a motion detector.

Sentrol

ShatterPoint™ Glassbreak Sensor

Installation Instructions

Models
564503 (3 Volt) 564506 (6 Volt)

STEP 1 — MOUNTING

The 5600 sensors are designed to mount either inside the frame (see Figure 1a) or on the facing (see Figure 1b). Refer to Figure 2 for recommended mounting locations and coverage range. Mounting location should provide good mechanical coupling from glass to sensor and an unobstructed microphone view of the glass. **If structural integrity of the frame is poor, temporarily mount sensor and follow Step 3 for range testing.** Do not exceed the tested range of the sensor.

Note: For applications with more than one framed window or French style doors and windows, use multiple 5600s or a ShatterPro II.

Use provided screws to securely mount the sensor to the frame. A loosely mounted sensor will not perform correctly. The small screw must be used to permanently attach the cover.

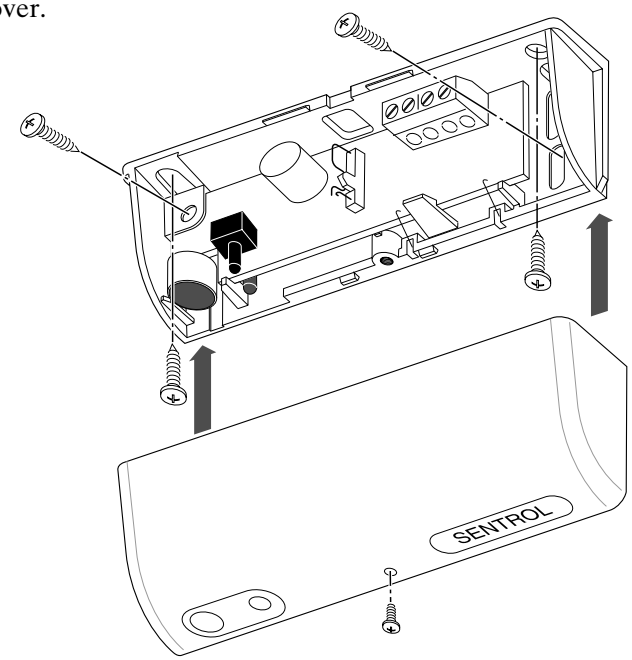


Figure 1a

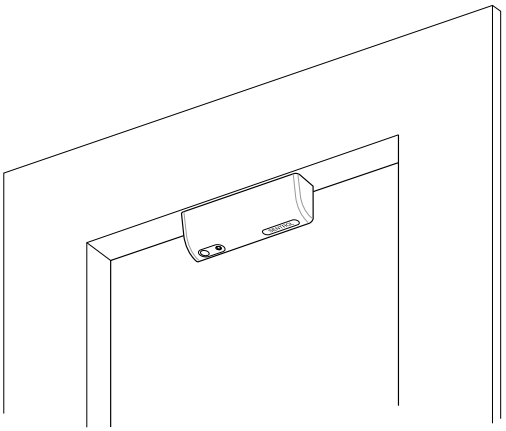


Figure 1b

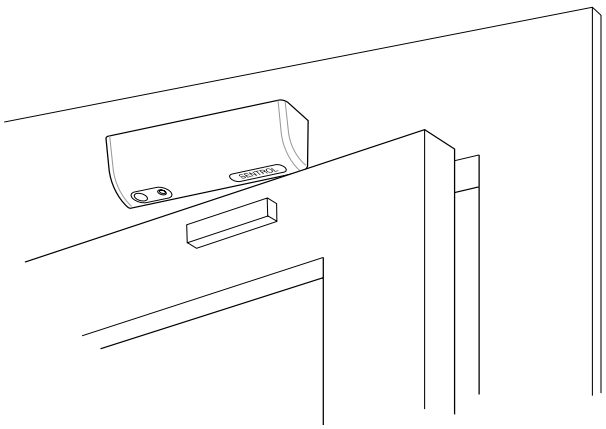
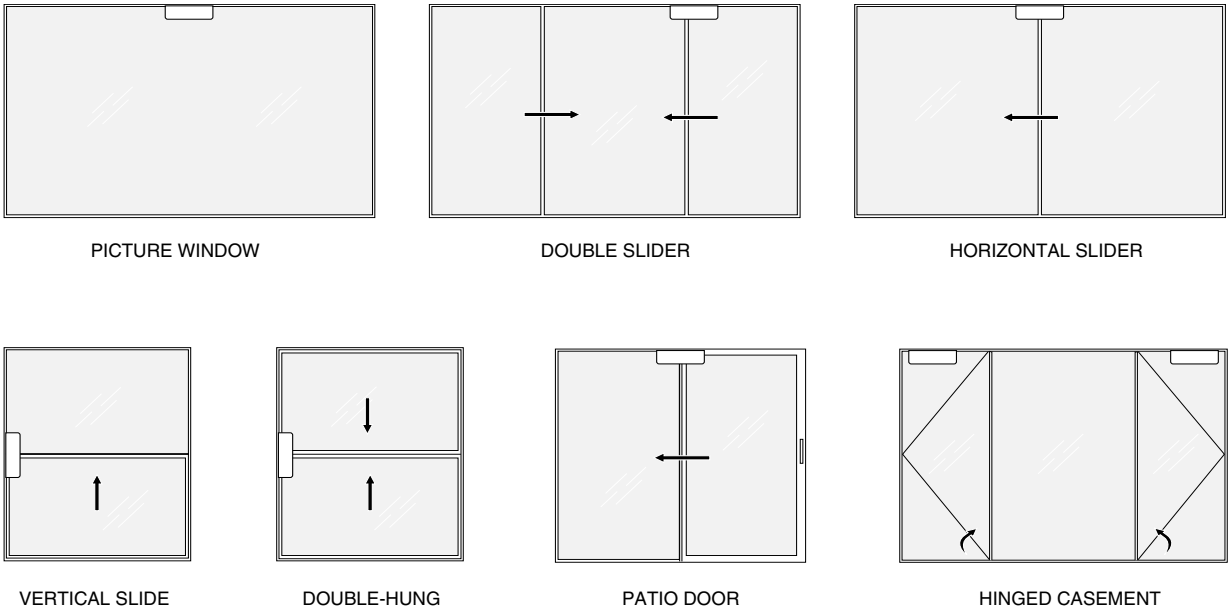


Figure 2



Note: Not recommended for French style doors or windows, use a ShatterPro II.

Reed Switch

The magnet must be mounted on the moving portion of the window or door. Magnet placement must be within 3/4" (1.9cm) of sensor, either behind or below (see Figure 3). Center magnet as marked on the printed circuit board. Place magnet cover over center of mounting plate and slide to either left or right until housing snaps in place.

Note: Mounting sensor or magnet on steel surfaces will reduce gap.

The magnetic contact can be deactivated by closing wire jumper switch.

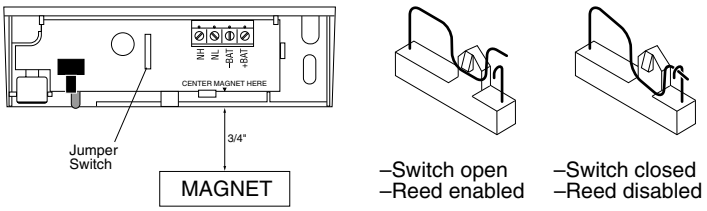
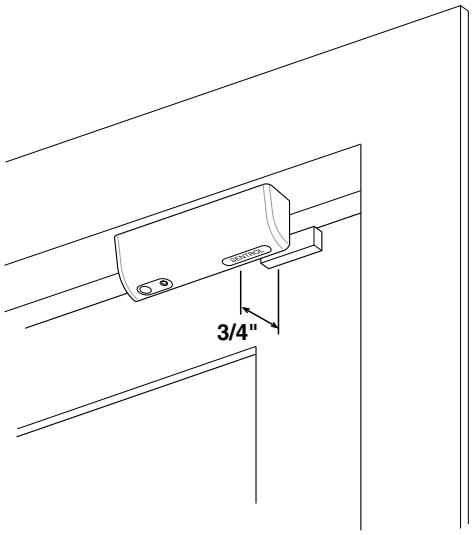


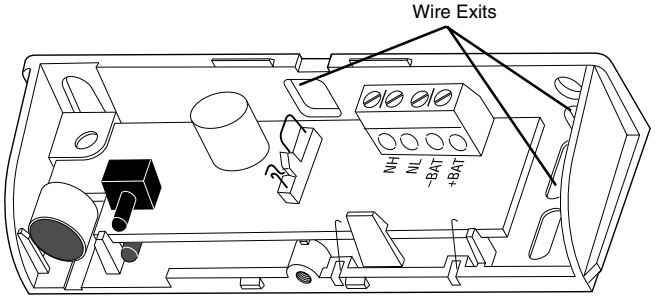
Figure 3



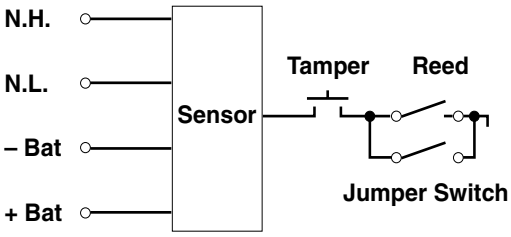
STEP 2 — WIRING

The 5600 sensor provides multiple wiring entrances (see Figure 4). Use rear holes or knock-out as needed. It is recommended to tape over unused holes.

Figure 4



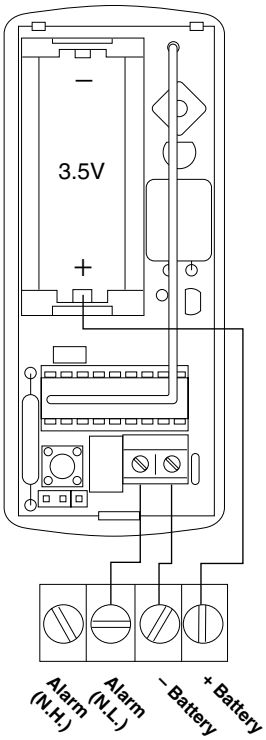
Output Circuit (shown powered)



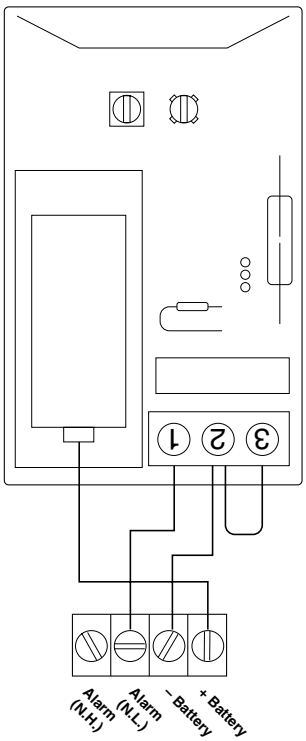
Note: Sensor will remain in an alarm state as long as the tamper or reed is open.

TRANSMITTER WIRING DIAGRAMS — 3 VOLT

SENTROL UNIVERSAL TRANSMITTER

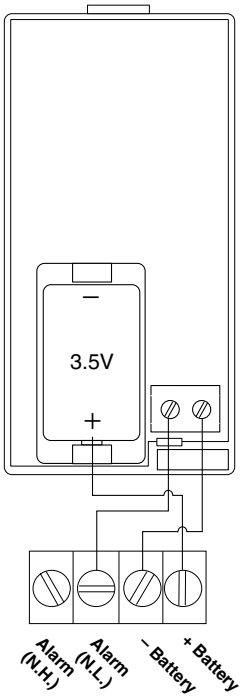


NAPCo GEM-Trans2

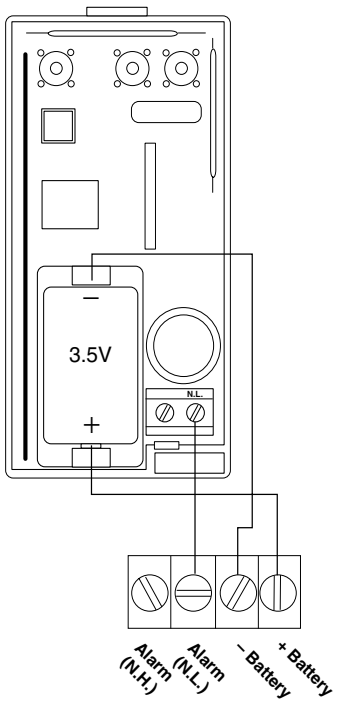


564503-W
Legend:
Alarm NL—White Wire
3V (+)—Red Wire
Grnd (-)—Black Wire

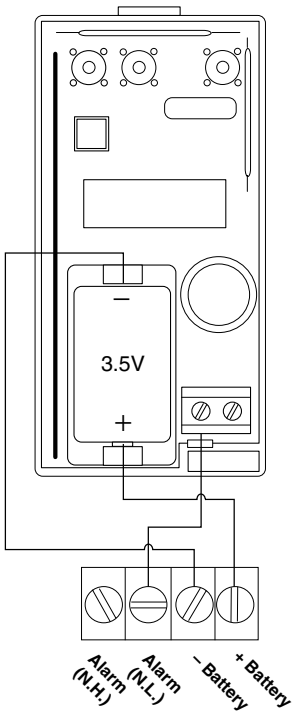
ITI 3.5V SYSTEM IV



ITI 3.5V Programmable

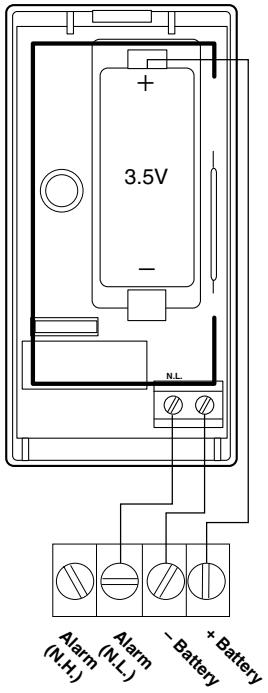


ITI 3.5V Learn mode

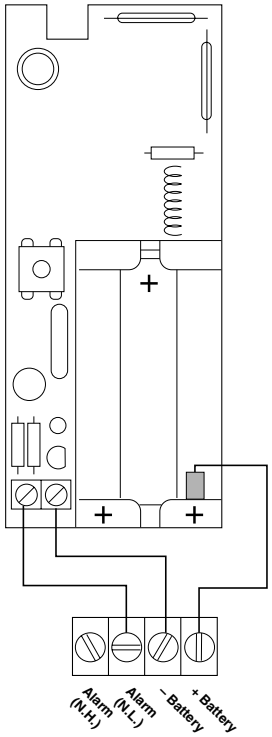


TRANSMITTER WIRING DIAGRAMS — 3 VOLT (continued)

Ademco model 5816 & 5816MN

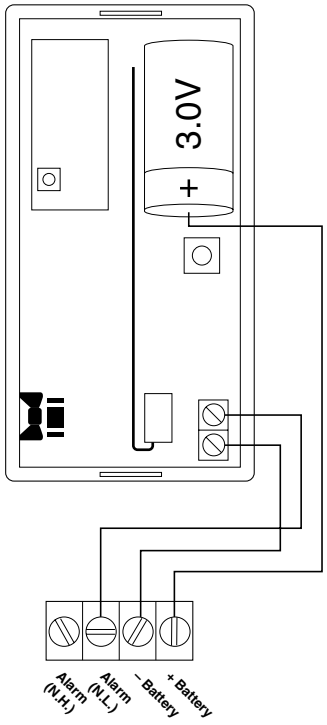


DSC WSS-907U



*Remove top Battery and slide gold terminal clip between + end of bottom-right battery and circuit board battery terminal. Rotate gold clip out of the way and replace top Battery.

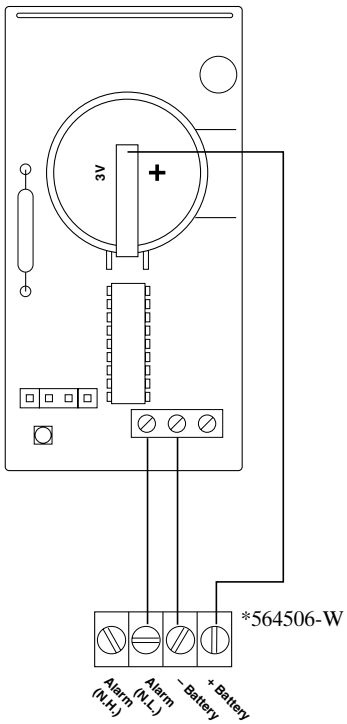
Inovonics FA-210



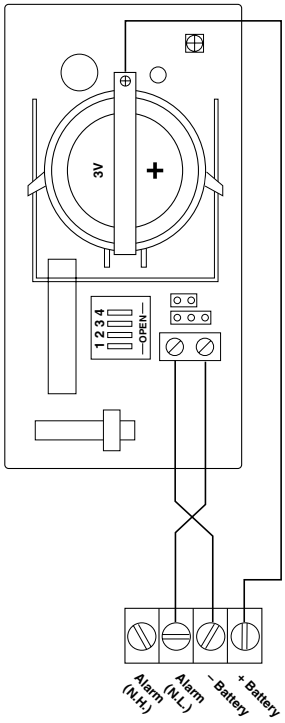
*For Inovonics FA series receivers the contact selection header must be correspondingly set to NC.

TRANSMITTER WIRING DIAGRAMS — 6 VOLT

Linear DXT-31 (6V)



Linear T-90 (6V)



564506-W
Legend:
Alarm NL—White Wire
6V (+)—Red Wire
Grnd (-)—Black Wire

STEP 3 — TESTING

Installation Test

The sensor is ready to test once installed with cover on and powered, no test mode setting is necessary. To test sensor, perform Range testing to ensure adequate vibration coupling to the sensor. After range is verified, perform Alarm test.

1. **Range testing** – Indicates sensor is within detection range by blinking the LED twice slowly. To test, rap the glass lightly with the handle of a large screwdriver. Start close to the sensor and proceed to furthest point of glass. If LED does not blink over the entire glass, better coupling between glass and sensor is needed. Try adding screws to the window support into the frame near the sensor or use longer screws to mount sensor, being careful not to damage the window.

2. **Alarm testing** – Using the Sentrol 5709C hand-held tester (set for proper glass type), hold tester close to sensor and press test button while simultaneously rapping lightly on the glass with the handle of a screwdriver. Proper sequence is important to alarm sensor. When alarmed, the outputs will change state for 4 seconds and the LED will turn on solid for 4 seconds then turn off. This verifies that the sensor has triggered an alarm. The panel should report an alarm condition from the attached transmitter. The reed switch can be tested by opening the window or door a few inches.

   Note: The 5645's do not have alarm memory.

   Caution: Hinged style door or window will significantly reduce range. Test seismic signal thoroughly.

Sensor Self-Tests

All the 5600s perform a processor self-test at power up. If the processor finds a faulty condition, the LED will stay lit and the output will stay in an alarm state.
Normal operation will clear the LED and cause normal output states.

During operation, the processor periodically tests itself for conditions that could impede performance. If the processor malfunctions, it will reset itself and perform a power-up self-test. If memory fails, the LED will blink continuously at 1Hz (1/2 second on, 1/2 second off) to signal the trouble.

Promptly replace a sensor which indicates a faulty condition.

Note: Test sensor at least annually for proper operation.

Installation Tests

Test	Action	LED Indication		
		No Flash	2 Slow Flashes	Solid On
Range Test	Rap Glass	Out of Range	Within Range	Within Range
Alarm Test	Rap Glass & Key 5709C	No Alarm	No Alarm	Alarm
End-User Test	Rap Glass	Too Far From Sensor or Hardware Fault	Sensor Okay	Alarm

Sensor Self-Test

Test	Condition	Indication
Power-up test	Normal	LED Turns Off, Normal Output States
	Faulty	LED Solid On, Alarm Condition
Memory test	Normal	LED is off
	Faulty	LED Flashes at 1Hz (1/2 sec. on, 1/2 sec. off) continuously

SPECIFICATIONS

Electrical

Voltage (564503) ..... 2–5V DC
Voltage (564506) ..... 4–9V DC
Current (564503) ..... <10µA typical
Current (564506) ..... <20µA typical
Wire Terminals ..... 22-18 AWG

Environment

Operating Temperature ..... 0° to +120°F (–18° to +50°C)
Humidity ..... 10% to 90% noncondensing
RF Immunity ..... 20 V/m, 1 to 1000 MHz

Features

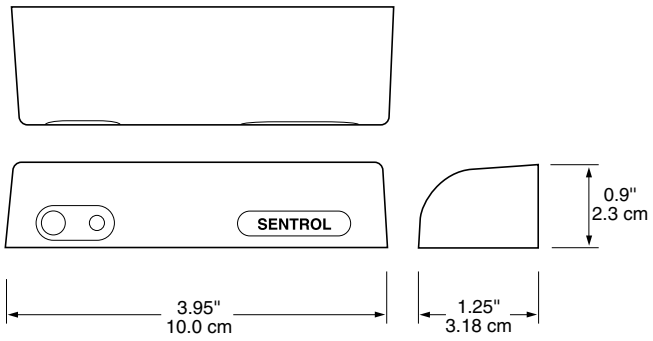
Glass Types
- Plate ..... 3/32" (2.4 mm) to 3/8" (9 mm)
- Tempered ..... 1/8" (3.2 mm) to 1/4" (6.4 mm)
- Laminated ..... 1/8" (3.2 mm) to 1/4" (6.4 mm)
- Wired ..... 1/4" (6.4 mm)

Mounting Location ..... Frame
Range of Glass Surface Covered (Radius from sensor)
- Single-pane window ..... up to 10' (3 m)
- Multi-pane window ..... up to 8' (2.4 m)
- Sliding-glass door ..... up to 8' (2.4 m)

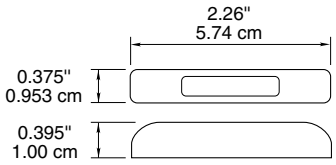
Minimum Glass Size ..... 18" (45 cm) x 18" (45 cm)
Magnet Gap Distance ..... 3/4" (1.9 cm) maximum
Note: Mounting sensor or magnet on steel will reduce gap.
Housing Material ..... Flame Retardant ABS
Color ..... White

DIMENSIONS

Sensor



Magnet



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:

- Re-orient 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.

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.

Protected under U.S. and foreign patents including: 3,863,250; 4,745,398; 4,837,558; 5,192,931 and other patents pending.

Ordering Information

Description	Model Number	Color
Wireless ShatterPoint™, 3 Volt with magnetic contact	564503-W/M	white/mahogany
Wireless ShatterPoint™, 6 Volt with magnetic contact	564506-W/M	white/mahogany
Hand-held Tester	5709C-W	white
Replacement magnet	1838-N/M	white/mahogany

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