# GLAS-TRAK<sup>TM</sup> GLASS BREAK DETECTOR Model # 13-021

The Glas-Trak<sup>TM</sup> Glass Break Detector has <u>not</u> been investigated by Underwriters Laboratories.

#### **OVERVIEW**

The GlasTrak<sup>TM</sup> Model GSU-2000 Glass Break detector is a solid state piezoelectric glass break detector made by Alfasystems GmbH in Germany. It contains discriminating circuits that detect only the specific mechanical ultrasonic frequencies generated by breaking glass. Because the GlasTrak<sup>TM</sup> detects only these specific frequencies, it will not false alarm due to shock, vibration, temperature changes, or bending. It is designed to withstand static charges of 12K volts and an induced voltage of 1500 volts at 500 mz. The GlasTrak<sup>TM</sup> sensitivity level insures that the detector would still cause an alarm even if the window bonding materials, such as putty, were glazed over the detector area to cause a damping effect on the glass.

The GlasTrak<sup>TM</sup> GSU-2000 protects a large 10 foot radius from its detector. It works on all glass - floating, wired or tempered. It gives half coverage on laminated glass.

The GlasTrak<sup>TM</sup> works well with ITI Door/Window Sensors because it provides typically a 1 1/2 second opening before it resets. If you select another brand, be sure that it provides a trip of at least 1 full second.

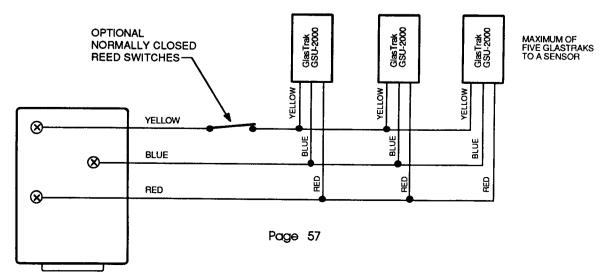
NOTE: The part number for the Adhesive and Activator solution is 13-023. The part number for the SPZ-1 tester is 13-022.

#### **MOUNTING INSTRUCTIONS**

- (1) Thoroughly clean glass with alcohol. Don't skip this step.
- (2) Apply Activator to glass. Hold can 1 2 inches from glass and spray on the Activator.
- (3) Mount detector edges 3/4" 2" from the vertical and horizontal window frames, for coverage of 6.5 10 feet respectively.
- (4) Apply one drop of Adhesive to detector base. Immediately position detector on glass, press lightly until adhesive squeezes out from ALL sides. 100% adhesive coverage is required.
- (5) Hold steady and press firmly for 60 seconds. The hardening process takes several hours, but handling of the cable can be undertaken immediately.

# WIRING INSTRUCTIONS

- (1) The Yellow and Blue wires from the GlasTrak<sup>™</sup> provide an open on alarm which trips the Normally Closed transmitter inputs. The red wire provides power.
- (2) Normally closed magnetic reed switches can be added to the sensor as shown below.
- Up to five GlasTraks can be connected to a single Door/Window Sensor, wired in parallel, as shown:



### **SPZ-1 TEST METER**

The test meter is used to test the glass break sensors by producing the identical frequencies as produced when glass is broken. *It is important to always use Mallory DURACELL* batteries. Since their internal resistance is much lower than normal alkaline batteries it makes it possible to obtain higher surge currents as required for correct operation of the test meter. To open the test meter case twist a screwdriver blade in the lower slot of the case.

### TESTING OF NON-INSTALLED GLASS BREAK SENSORS

It is possible to test the detectors by simply applying the test meters transducer to the face of a Glass Break detector previously moistened with alcohol. Press button "1" and make sure the impulse generated by the test meter has triggered the detector into alarm. It is also possible to press both the glass break detector and the transducer against a glass surface moistened with alcohol.

### TESTING OF INSTALLED GLASS BREAK SENSORS

You must use the SPZ-1 GlasTrak<sup>TM</sup> Tester (or the IEI-712 Glass-Guard tester) to test the GlasTrak<sup>TM</sup> sensors since their exceptionally high filtering makes it almost impossible to test their operation by hitting metallic items onto the glass.

- (1) Check that the tester batteries are good. Replace if doubtful.
- (2) Be sure the transducer surface is clean.
- (3) Clean the glass next to the GlasTrak<sup>™</sup> detector.
- Wet the glass with water, alcohol, or with ultrasonic couplant to couple the maximum signal into the glass.
- (5) Hold the transducer on the glass a few inches away from the GlasTrak™ detector.
- (6) Push test button [1] in for at least 1 second to activate the tester. A red LED will light on the test meter to show that the meter is working. Press button [2], which gives a greater pulse, against glasses thicker than 6mm or against glass surfaces smaller than 12" x 16".
- (7) If the GlasTrak™ does not trigger, re-check all units and try again. Try holding the tester flush to the glass and steady. Be sure to pause between tests for about 10 seconds.

### **REMOVAL**

Should you ever need to remove a GlasTrak<sup>TM</sup> detector, the only way to do it is to heat the glass from the outside with a hair dryer set at its hottest setting.