



DID YOU KNOW SALES TIPS

From

DSC®

How a DSC Glass Break Detector Works

The Acuity glassbreak detector is a microprocessor based detector, designed to reliably detect the sounds produced by all types of framed glass; laminated, plate, tempered and safety glass. The unit uses DSP ('Dynamic Signal Processing' – patent pending) to analyze all sounds and reject those created by all objects that are not breaking glass including thunder, dogs and all other 'bell' or 'ringing' type sounds.

Operation

Extensive research was done to identify how a piece of framed glass breaks. When manufactured, all glass contains tiny imperfections or microcracks that are invisible to the eye. Initially, a piece of glass will bend before it breaks. The bending of the glass puts pressure on these tiny microcracks and they begin to expand. When the microcracks begin to join together, the glass breaks. The way in which these microcracks join is random and causes a large number of different frequencies in the audio spectrum. A substantial force is required to break framed glass so the amplitude of these sounds is typically quite high, somewhere in the order of 90 dB at 10 feet. Finally, the sound will decay very rapidly as the surrounding environment absorbs the noise.

These are the three criterion required to trigger the Acuity glassbreak detector; a large number frequencies in the audio spectrum, with high amplitude and with a rapid decay. All types of glass will produce these results provided:

1. The glass is framed.
2. The glass is of sufficient size (See the Acuity Installation Sheet for more information).

Testing

It is not possible to get the required frequencies at the required volume or amplitude from a battery operated glassbreak tester and a small speaker. For this reason, to test the Acuity, it must be placed in test mode (Jumper J1 ON). When in the test mode, the Acuity will amplify the signals it receives. If a signal is received that meets the requirements of the Acuity, it will light the LED for two seconds to indicate an alarm. During the test, the Acuity will violate the zone on the control panel until jumper J1 is removed. This is designed to prevent the unit from accidentally being left in the test mode.

Note - It is important to use the AFT-100 glass break tester when testing the Acuity as it was specifically designed to test the Acuity and was the only tester tested with the Acuity.

Models

AC-10X (Wall Mount Glass Break Detector) WL5912-433 (Wireless Wall or Ceiling Glass Break Detector)

AC-50X (360 Ceiling Mount Glass Break Detector) BV50XGB (360 Ceiling Mount Motion and Glass Break Detector)

*Where X=0 (form A contact), X=1 (form A contact w/tamper), X=2 (form C contact w/tamper)