### Installation Instructions

**STAR**

**COMPACT**

**GLASS BREAK & SHOCK DETECTOR**

The **STAR** is the ultimate answer for all those tired of false alarms. It listens for sounds of breaking glass, which produce two sequential signals of different frequencies. The unique phased frequency detection circuitry of this detector allows detection of both shock signal and the strong signal of glass breakage creating a "false alarm free" glass break detector. The detector does not need to be attached to the window, providing volume protection, and allowing you to protect several windows with one detector.

**Features**

- Shock and/or breakage selectable
- Analyzes two frequencies
- Unique signal analysis ignores environmental disturbances
- Memory LED
- ASIC based electronics
- Sensitivity adjustment
- New ultra compact design
- Flush mount installation (option)
- Outstanding detection range and reliability

### Select Location

**See FIG. 1**

- If heavy blinds or curtains cover the glass, you must locate the detector behind the blinds on the window frame or above it, otherwise the blinds might block the sound. Make sure to test the unit thoroughly for proper detection.
- Install the detector in a direct line of sight with the protected glass.
- Do not mount the unit in front of air ducts, or close to bells (measuring 0.5m (or larger) in diameter).
- For a few protected glasses in one room, locate the detector in optimal distance from them to achieve the best detection.

**Note:** for symmetrical cover of the detection area it is recommended to place the detector on the ceiling.

### Mounting the Detector

**See FIG. 2**

1. Use a small screwdriver to push the prong on top of the case and open the case.
2. Snap out the detector PCB.
3. Insert the wires through the wiring hole (B).
4. Use the mounting holes (A) to mount the detector.
5. Connect the wires to the terminal. (See Terminal Connections)
6. Reinstall the detector PCB.
7. Close the case.

**Jumpers (FIG. 4)**

- JP2 - Memory LED control.
- JP3 - Reduces the sensitivity of sound detection by 50%.

### Testing the Detector

**First use the Simulator in manual mode to simulate the noise of glass breaking.** Check that the yellow LED is ON. If it does not light, the sensitivity calibration is necessary (See Sound Calibration).

**Now use your hand or a padded object to carefully strike the glass.** If the green LED does not light, adjust as necessary (See Shock Calibration).

**Now use the Simulator in automatic mode and check that the red LED lights.** If the red LED is ON, your detector is working properly. Otherwise try adjusting the sound and shock setting until the red LED lights.
**GLASS BREAK ADJUSTMENT**

To adjust the glass break setting (increase/decrease sensitivity) place the jumper JP1 according to the GLASS marking (connecting the middle pin with the upper pin) (See Fig. 4). Green LED is constantly ON.

Now you can adjust the sensitivity by rotating the upper potentiometer (marked as GLASS CAL. - see Fig. 4).

Operate the Sound Break Simulator and rotate the potentiometer clock-wise to increase sensitivity, and counter-clock-wise to decrease sensitivity until the Yellow and Red LED’s are illuminating for each glass break sound.

Remember that rotating the potentiometer will have no effect upon the settings if the middle pin of JP1 is not connected to the upper pin.

**Note**

When the jumper is set for GLASS adjustment, only the high frequency sound of breaking glass is detected.

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**SHOCK ADJUSTMENT**

To adjust the shock setting (increase/decrease sensitivity) place the jumper JP1 according to the SHOCK marking (connecting the middle pin with the lower pin) (See Fig. 4). Yellow LED is constantly ON.

Now you can adjust the sensitivity by rotating the lower potentiometer (marked as SHOCK CAL. - see Fig. 4).

Hit gently on the protected glass and rotate the potentiometer clock-wise to increase sensitivity, and counter-clock-wise to decrease sensitivity until the Green and Red LED’s are illuminating for each hit.

Remember that rotating the potentiometer will have no effect upon the settings if the middle pin of JP1 is not connected to the lower pin.

**Note**

When the jumper is set for SHOCK adjustment, only the low frequency of the shock signal prior to glass breakage is detected.

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**PCB LAYOUT**

![PCB Layout](image)

**WIRE SIZE REQUIREMENTS**

<table>
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<tr>
<th>Wire Length</th>
<th>ft</th>
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<th>1200</th>
<th>2000</th>
<th>3400</th>
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<td>Wire Length m</td>
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<td>300</td>
<td>400</td>
<td>800</td>
<td></td>
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</tbody>
</table>

**TECHNICAL SPECIFICATIONS**

- **Power Input**: 9 - 16 Vdc
- **Current Consumption**: Standby: 22mA at 12Vdc Active: 25mA at 12Vdc
- **Detection Range**: 10m (33ft), Adjustable
- **Dimensions**: 78mm x 51mm x 21mm (3.07`` x 2.01`` x 0.83``)
- **Mounting**: Ceiling or Wall
- **Alarm Output Relay**: N.C 50mA/24Vdc with 27 Ohm in line resistor
- **Tamper Switch**: N.C 50mA 24Vdc with 10 Ohm in line resistor
- **Operating Temperature Range**: -20°C to 50°C (-4°F to 122°F)
- **Operating Humidity Range**: 95% max relative humidity non condensing
- **Storage Temperature Range**: -30°C to 70°C (-22°F to 158°F)
- **Microphone**: Electro Condenser
- **RFI Protection**: 30V/m 10 -1000MHz
- **EMI Protection**: 50,000V electrical Interference from lightning

**WARRANTY**

VIDICON Ltd. warrants this product to be free from defects in materials and workmanship under normal use and service for a period of ONE YEAR from the last day of the week and year whose numbers are printed on the printed circuit board inside this product.

This warranty is limited to repairing or replacing this product, at its option, free of charge for materials or labor, if it is proved to be defective in materials or workmanship under normal use and service. VIDICON shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than VIDICON.

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**FINAL TESTING**

- Make sure to disconnect the jumper at JP1. When the jumper is disconnected, the detector will detect both shock and sound frequencies.
- To ensure maximum protection against false alarms, activate any device in the area, which might automatically cycle pumps, generators, heating/air conditioning units, etc. If the cycling devices trigger an alarm, mount the unit in a different location.

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**THE MEMORY FUNCTION**

The alarm memory function allows the identification of an alerting detector out of multiple detectors connected to one (or the same) zone of the control panel.

To enable this function, Set ON jumper JP2 (MEM) (connected on both pins - See Fig. 4)

In case of an alarm, the Red LED will stay ON until memory function is reset.

To reset the memory function, switch OFF (disconnect) the voltage wire (+12V) from the TERMINAL BLOCK for minimum 15 seconds then switch on (reconnect) voltage wire (+12V).

(The control panel key ON/OFF can be used for this application if it control the voltage (+12V).

**SENSITIVITY SETTING**

For some installations you may find that VIG is too sensitive. Use JUMPER JP3 to decrease sensitivity to 50%.

JP3 OPEN - 100% sensitivity
JP3 CONNECTED - 50% sensitivity

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