

# PS-372 Digital Glass Break Detector

## Installation Manual

### INTRODUCTION

Thank you for selecting the PS-372 glass break detector, which is designed for professional security applications, with advanced techniques. Please follow the instructions in this manual carefully to optimize use of your detector, which has been 100% quality control tested to ensure proper operation and unit durability. The PS-372 is a microprocessor-based glass break detector utilizing dual frequency analysis to detect the common sounds of shattering glass and acoustical shock when a window is broken. It can analyze the frequency and wave shape of the sound received by a condenser microphone and compare with the real glass break data inside its database and determine whether it is an alarm signal. The detector's sensitivity can be set manually so that a good balance point is reached according to the environment condition. The alarm LED indicating lamp on the detector may be programmed for memory or auto reset with a configuration jumper inside the detector. (See Fig.1). You have got PS-372, the most advanced glass break detector available on to-day's security market.

### APPLICATIONS

The PS-372 will protect 3- 6mm plate glass and 6mm tempered and laminated glass at a range of up to 8m. In order to achieve the best result, the detector should be firmly fixed on a surface. Room acoustics will also affect the range of a glass break detector, it is better that the acoustic environment, such as furniture layout, during testing is same as the normal situation. It is very important that the detection range is verified using the PS-373 tester.

### FEATURES

1. Driven by software, 8/12 bits microprocessor, controlled DSP(8MHz)
2. High frequency and sound pressure detection
3. Digital RF/EMI filtering, extremely high immunity.
4. Manual sensitivity settings to avoid false alarm.

### MOUNTING LOCATION

Mount the PS-372 on the ceiling or wall with the most open and direct acoustic path to the protected glass. (See Fig 2 &3). Keep an open field between the glass break detector and points of entry (no partitions, walls, etc. between the detector and the protected glass.) While the PS-372 may be mounted on any wall or ceiling, a 40% reduction in range is expected when mounting on the same wall as the glass. Drapes and window coverings will affect the detection range. Use the PS-373 Glassbreak Simulator behind window coverings to test properly. Do not mount the detector closer than 1.2m to door bells, air conditioners, air compressors, large fans, steam or air vents, or any other sources that tend to generate noise interference. If, for any reason, the unit does not enter the Normal mode of operation immediately following its power up sequence (see STATUS INDICATORS), verify that the TestMode Jumper/Switch is in the OFF position and reset the device by de-powering and reapplying power.

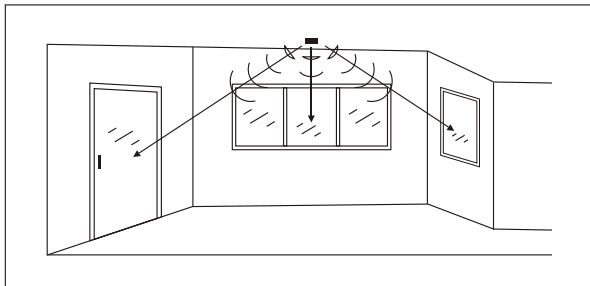


Figure 2 (mounted on ceiling)

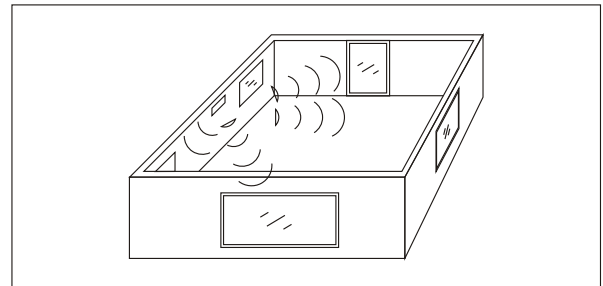


Figure 3 (mounted on wall)

### INSTALLATION

1. Remove the cover by pressing the opening pin(l) on the side of the detector.
2. Run the wire through one of the holes at the back or side openings of the case.
3. Connect the terminals.
4. Mount the detector in its location with a screw inserted into screw holes (2) and (3).
5. Setting of sensitivity
6. Replace the cover.
7. Test the detector.

### WIRING TERMINATION

**-Wiring connection of the terminals is as follows:**

TAMP: Connect to 24 hour zone or tamper zone of alarm control panel.  
 RELAY OUTPUT: NC,C is normal closed output, NO,C is normal opened output.  
 POWER SUPPLY: Connect to DC12V auxiliary output of alarm control panel.

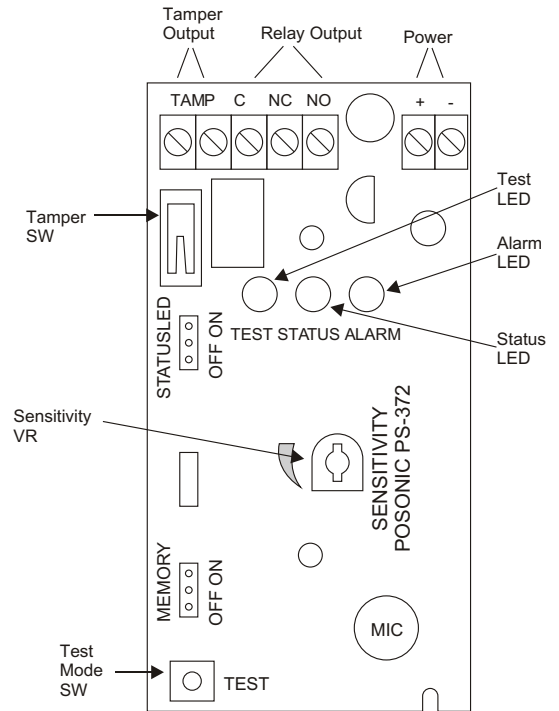


Figure 1

**JUMPER SETTING**

STATUS LED: ON side of lumper is shorted, tile green status LED is able. OFF side is shorted, the LED is disable. Default setting is ON.  
 MEMORY: ON side of jumper is shorted, the memory LED is able. The red ALARM LED will be steady ON after alarmed detection until reset by pressing the TEST switch twice or power off. Default setting is OFF.

**SENSITIVITY SETTING**

Use a screwdriver to turn the sensitivity adjusting VR as shown on Fig 1. Turn clockwise to increase sensitivity. Turn anti-clockwise to reduce sensitivity, Do not set sensitivity any higher than necessary to protect the glass in the detector's range. Setting sensitivity higher than needed increases the chance of false alarms without increasing protection. A correct setting is that besides enough sensitivity it will not caused false alarm when you clap your hand near the detector.  
 When the correct sensitivity is found using the above procedure, determine whether the sensitivity is high enough to trigger the alarm (red LED ON) by using PS-373 tester. If the Red LED does not come ON, the sensitivity must be increased.  
 When setting sensitivity make sure that the room's environment is as close as possible to what it will be when the detector is in use. For instance, if the curtains are usually closed at night when the alarm is armed, then set sensitivity with the curtain closed. If a window in the room is left open, then set the sensitivity with v, indoor, open. The sensitivity should always be retested when the environment of the room changes, such as when furniture is moved.

**TESTING**

For proper testing, use the PS-373 Glass break Simulator. Press the Test Mode Switch of the detector once: the yellow Test Mode LED will illuminate. Then move to the part of the protected surface furthest from the glass break detector to conduct the test. Press and hold the "push" switch on the simulator until a full glass break test tone is generated. The detector's red LED should respond to this tone and light. If the red LED does not respond to the test tone, the sensitivity should be increased(turn VR clockwise). If the detector still responds to the simulator even the distance between them is further than the protected range, it means the sensitivity is too sensitive and need to be reduced (turn VR anti-clockwise). Once testing is complete, press the Test Mode Switch again to exit Test Mode: the yellow Test Mode LED will be extinguished, However, if left in Test Mode, the PS-372 will automatically exit Test Mode 5 minutes later. Please always check whether the capacity of 9V battery inside simulator is in the enough level for testing.

**LED INDICATION**

Normal: Green LED lights, disable by jumper  
 Alarm: Red LED lights for 3 seconds. If alarm memory is set, red LED will light constantly. To clear alarm memory, press left Button twice or cycle power.  
 Test Mode: Yellow LED light  
 Low Voltage: Red LED flashing when supply voltage is under 11V

**MAINTENANCE**

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system, The installer should assume the responsibility of developing and offering a regular maintenance program to the user, as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least monthly) to insure the system's operation at all times.

**LIMITATIONS OF YOUR GLASS BREAK DETECTOR**

While this Glass Break Detector is a highly reliable intrusion detection device, it does not offer guaranteed protection against burglary. Any intrusion detection device is subject to compromise or failure to warn for a variety of reasons. For example: Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device. This detector cannot operate properly if it is not installed in accordance with the instructions in this installation manual or the control to which it is connected is not operative (because of lack of power, malfunction, etc.) This detector cannot sense intrusion when the attack occurs outside of its specified protection range or if its DC electrical power source is off, missing, dead, or insufficiently filtered. This equipment, like other electrical devices, is subject to component failure. Although this equipment is designed to last as long as 10 years, the electronic components could fail at any time. The most common cause of an alarm system not functioning when an intrusion occurs is inadequate maintenance. This device, and the alarm system to which it is connected, should be tested monthly to make sure all is working properly.

**SPECIFICATIONS**

Model	PS-372
Sensor	Condensed Microphone
Digital Processor	Microprocessor controlled
Coverage Range	8 in
Type of glass protected	All type, rain size 900cm square
Sensitivity Adjust	Continuously adjustable
Alarm Output	N.O. and N.C. contact
Alarm Indication	Red LED
Alarm Duration	3 seconds
Alarm Output Rating	30VDC 1A
Tamper Output	N.C. contact
Power Source	11.5-16VDC, 24mA
Circuit Protection	Reverse polarity protected
Mounting	Ceiling or wall mounted, near to or opposite to the glass
Operating Temperature	-10° to 50°C
Case	Fire resistance white ABS
Dimension	51X99X20mm
Weight	100g