

® ADEMCO

No. 5849 GLASS BREAK DETECTOR/TRANSMITTER

INSTALLATION INSTRUCTIONS

GENERAL INFORMATION

This Glass Break Detector/Transmitter can detect the breakage of glass windows and/or doors while wall mounted near the glass under surveillance and transmit a wireless signal to a receiver connected to the system control panel. This "dual technology" device senses *both* sound *and* shock waves associated with glass breakage. The glass can be: Ordinary Plate, Tempered, Wired Plate, or Laminated type.

Since *both* forms of energy must occur *at the same time* for a valid alarm condition to be initiated by the device, the likelihood of false alarm indications is kept to a minimum. The channel that monitors sound waves is turned on *only* when a shock signal is detected. When *both* channels are triggered, an alarm indication is transmitted to the control's receiver.

LED indicators on the unit permit local adjustment and monitoring. When a shock is detected, the yellow SHOCK LED glows. When both shock and sound are detected, yellow LED and red ALARM LED will both glow.

The detector is designed for continuous operation. Separate alarm and cover tamper signals permit 24 hour monitoring.

"LEARNING" THE TRANSMITTER ID

Each 5849 has its own unique identification code permanently assigned during manufacture. It is not necessary to program the transmitter ID during installation. Instead, the control unit is required to "learn" the transmitter ID at some point prior to its usage in the alarm system.

The control unit's installation instructions contains general information on the "learning" procedure, but the information given herein pertains specifically to the 5849:

1. Insert two 3V batteries (refer to the *SPECIFICATIONS section*) in the battery holders, as shown in the diagram. Observe polarity!
2. Turn the Shock Sensitivity "Fine" Pot to its maximum clockwise position. The yellow LED will glow steadily.

3. Set the system ready for learning the transmitter's serial number, as described in the control's instructions. The 5849 should be programmed as input Type "3" (RF) and Loop "1."
4. Use a sound simulator (such as the BGSIII, or equivalent) to activate the detector's sound channel. Both yellow and red LEDs should glow to indicate an alarm.
5. Proceed with the learning procedure, as described in the control's instructions.
6. Return the Shock Sensitivity "Fine" Pot to its MIN position temporarily.

INSTALLATION

Location Considerations

The preferred location for the detector in relation to the glass to be protected is:

- Σ Along the same wall.
- Σ As close to the glass as possible, but no more than 20 feet (along-the-wall) from the farthest glass. Room acoustics and wall construction will affect the range. **It is very important that the detector range be verified using proper test procedures.**
- Σ Without intervening partitions, etc. that could block transfer of shock or sound waves (see Limitations).

Alternatively, the location could be on a wall that abuts to the wall with the glass, with all of the other conditions still applicable.

If window dressing is present it will absorb sound energy from breaking glass. In such cases, the detector should be mounted between the protected glass and the window dressing.

Avoid sources of ambient vibration or sound, such as: air conditioners, fans, blowers, loudspeakers, or doorbells.

Mounting

Before mounting the 5849 permanently, conduct Go/No Go tests (see control's instructions) to verify adequate signal strength, and reorient or relocate the 5849 if necessary.

Remove the unit's cover (insert the blade of a small screwdriver in the slot at one end of the

cover), and mount the base in the selected location. Screws and plastic anchors are provided for a typical installation, but any two suitable fasteners may be used that secure the base *firmly* to the mounting surface. Mounting directly into a wall stud is especially desirable as it provides a good transmission path to the unit for shock energy.

ADJUSTING SENSITIVITY

If not previously inserted, place two 3V batteries (see *SPECIFICATIONS*) in the battery holders, as shown in the diagram. Observe polarity!

The "Sound Sensitivity" must be adjusted before the "Shock Sensitivity". Both procedures must be performed.

Adjust the Sound Sensitivity:

1. Turn the **Shock Sensitivity "Fine" Pot.** in the direction of the arrow to its maximum clockwise position (in the TEST ONLY area). The Shock Sensitivity "Coarse" jumper may be in either position. The yellow LED will glow, indicating that the shock channel is in steady alarm.
2. Place the **Sound Sensitivity jumper** in its LO position.
3. Operate a sound simulator (BGSIII or equivalent) at the most distant glass to be protected (there must be an unobstructed "view" between the glass and the 5849 detector). The BGSIII (if used) must be set for "Plate" when protecting ordinary plate glass, and for "Tempered" when protecting tempered, wired plate, or laminated glass. Point the simulator directly at the detector.
Observe the Red LED. If it glows when the simulator is operated, retain the **Sound Sensitivity jumper** in its LO position. If the Red LED does not glow, move the jumper to its HI position and retest with the sound simulator. If the red LED *still* fails to glow, the 5849 must be relocated closer to the protected glass.
4. Return the **Shock Sensitivity "Fine" Pot.** to its MIN position (fully counterclockwise).

Notes:

- For glass areas of less than 2 sq ft, the **Sound Sensitivity jumper** must be set to **HI** if the detector is located more than 2-1/2 ft from the protected glass.

- For glass areas of less than 1 sq ft, the 5849 detector must be no farther away than the lesser of 12 feet, or one half of the distance at which a successful sound simulator test is obtained.
- The No. 5849 is *NOT* recommended for protection of glass areas of less than 1/4 sq. ft.

Adjust the Shock Sensitivity:

The Shock Channel provides two levels of sensitivity adjustment; a jumper for "coarse" setting and a Pot for fine setting.

1. Place the **Shock Sensitivity "Coarse" jumper** in its LO position and make sure the **Shock Sensitivity "Fine" Pot.** is in its MIN (fully counterclockwise) position.
2. Use a shock simulator (BGS-V, or equivalent) in contact with the wall adjacent to the most distant glass to be protected.
3. Operate the shock simulator repeatedly while adjusting the pot slowly clockwise until the Yellow SHOCK LED glows at each shock simulation.
4. If the LED does not glow by the time the pot is about two-thirds clockwise (turning it *farther* clockwise will put it in the TEST ONLY area), move the **"Coarse" jumper** to its HI position, return the pot to MIN, and repeat the adjustment in step 3. If you are unable to adjust it satisfactorily, the 5849 must be relocated.

At completion of adjustment, replace the cover by engaging the hooks along one edge and snapping shut.

Note:

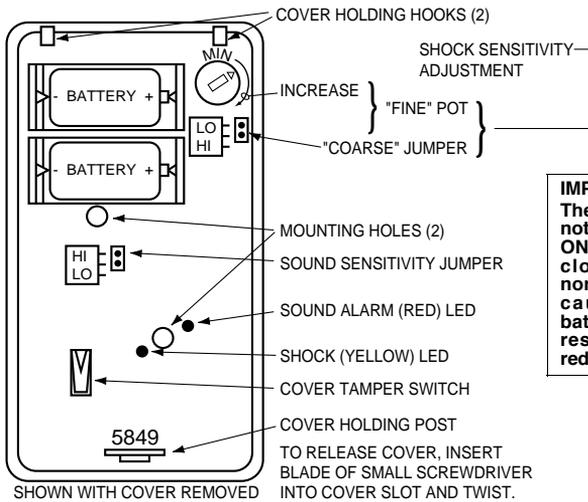
The "FINE" POT must **not** be set to the TEST ONLY area (maximum clockwise) during normal use. This will cause excessive battery current drain, resulting in greatly reduced battery life.

TESTING ALARM OPERATION

To verify that an alarm condition is sensed when both shock and sound conditions occur at the same time, operate the sound simulator while thumping the wall adjacent to the protected glass. The yellow SHOCK and red ALARM (Shock plus Sound) LEDs should glow for several seconds.

SPECIFICATIONS

- Types of Glass:** Ordinary Plate, Tempered, Wired Plate, Laminated.
Note: The 5849 is NOT recommended for protection of glass areas of less than 1/4 sq ft.
- Detection Method:** Simultaneous shock and sound.
- Preferred Location:** On the same wall as the protected glass.
- Alternative Location:** On wall touching glass's wall.
- Along-wall Range:** Within 20 ft of farthest protected glass (room acoustics and wall construction will affect range).
- Indicators:** SHOCK (Yellow) LED, ALARM (Red) LED (Shock plus Sound)
- Power:** Two 3V Lithium Batteries.
Use *only*: Duracell DL123A, Panasonic CR123A, Sanyo CR123A, or Varta CR123A.
- CAUTION:** Risk of fire, explosion, and burns. Do not recharge, disassemble, heat above 212°F (100°C) or incinerate. Dispose of used batteries promptly. Keep away from children.
- Alarm Output:** RF link to 5800 Wireless System.
Note: During programming of the control unit, the 5849 should be treated as "RF" (i.e. Supervised RF) Type.
- Operating Temperature:** 32 to 122°F (0 to 50°C)
- Dimensions:** 2-3/4" W x 4-15/16" H x 1-1/16" D (70mm x 125mm x 27mm)



IMPORTANT:
The "FINE" POT must not be set to the TEST ONLY area (maximum clockwise) during normal use. This will cause excessive battery current drain, resulting in greatly reduced battery life.

MAINTAINING PROPER OPERATION

To maintain the detector in proper working condition, it is important that the following be observed by the user:

1. The battery should be replaced when the system indicates that the 5849 has reported a low battery condition.
2. Units should never be relocated without the advice or assistance of the alarm service company.
3. Fans, air conditioners, blowers, loudspeakers, or other sources of vibration and sound should not be introduced into the protected area after installation of the detectors. If this is unavoidable, the alarm service company should be notified and a readjustment/retest of the system performed.

TO THE INSTALLER

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 weekly) to insure the system's operation at all times.

REFER TO THE INSTALLATION INSTRUCTIONS FOR THE RECEIVER/CONTROL WITH WHICH THIS DEVICE IS USED FOR DETAILS REGARDING LIMITATIONS OF THE ENTIRE ALARM SYSTEM.

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