®ADEMCO

INSTALLATION INSTRUCTIONS 5850

Glass Break Detector/Transmitter

For use with QED control panels ONLY!

GENERAL INFORMATION

The 5850 Glass Break Detector/Transmitter is intended for use in systems which support QED 5800 wireless devices. The self-contained detector includes a transmitter which can send alarms, tamper, and low battery messages to the control panel. Each 5850 has a unique identification code (serial number ID) permanently assigned during manufacture. The ID must be "enrolled" by the QED control prior to usage in the system. The detector is designed for continuous operation using a single 9V lithium type battery.

Dual Technology

The 5850 is a "dual technology" device that acoustically senses both sound and shock waves associated with glass breakage. The detector features separate microphones for sound (audio) and shock (referred to as "flex"). The audio microphone detects the high frequency of breaking glass. The flex microphone detects ultra low frequencies typically generated by a blow to a glass window. 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.

LED Indicators

The built-in LED indicators permit local adjustment and monitoring when enabled via the orange LED ENABLE slide switch. This switch is accessible when the cover door is open. When a shock is detected, the yellow FLEX LED lights. When the sound of breaking glass is detected, the green AUDIO LED lights. When both shock and sound are detected, the red ALARM LED lights. LEDs normally light momentarily.

Alarm Memory

The 5850 also features an alarm LED latch switch, which causes the LEDs to remain latched when activated. This is helpful during testing and in multiple detector installations where identifying units that caused an alarm could otherwise be difficult.
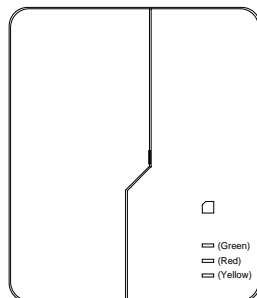
To enable alarm memory:

Remove the cover assembly (see step 3 of the Mounting section). Move the alarm LED latch switch to the ON position. Replace the cover assembly.

Types of Glass Protection

• Tempered Glass

• Laminated Type Glass

• Ordinary Plate Glass

• Wired Plate Glass

The 5850 is not recommended for protection of glass areas of less than 10-7/8" x 10-7/8".
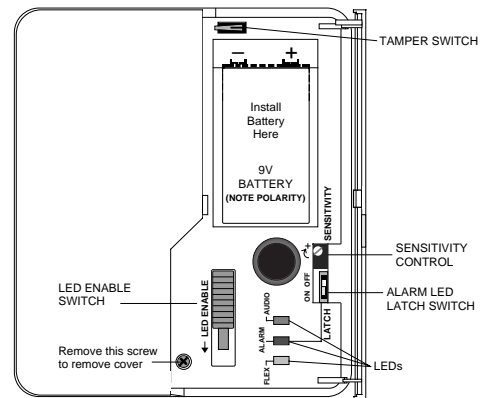
(Green)
(Red)
(Yellow)

5850 Glass Break Detector

INSTALLATION PROCEDURE

Refer to the specific sections for details on each of the following steps.

1. Install the battery. See Installing the Battery section.
2. Adjust the detector's sensitivity. See Adjusting Sensitivity section.
3. "Enroll" the detector's serial number using the QED control panel's programming procedure. See Enrolling the 5850 Serial Number section.
4. Mount the detector. See Mounting section.
5. Test the detector. See Testing Alarm Operation section.

TAMPER SWITCH

Install Battery Here

9V BATTERY (NOTE POLARITY)

SENSITIVITY

SENSITIVITY CONTROL

LED ENABLE SWITCH

ON OFF

LATCH

ALARM LED LATCH SWITCH

AUDIO

ALARM

FLEX

LEDs

Remove this screw to remove cover

LED ENABLE

5850 With Cover Door Open

INSTALLING THE BATTERY
Important Notes:

• Use only UltraLife model U9VL-J 9-volt lithium battery. Use of another battery may present a risk of fire or explosion.

• Observe polarity.

• When replacing the battery, wait at least 30 seconds after removing the old battery, before installing the new one.

1. Open the detector's cover door.

2. Check battery polarity orientation before installing.

   Insert the battery into the battery holder with terminals toward the ledge with embossed polarity markings.

3. Press the back end of the battery down until it is securely seated in the holder. Close the cover door.

4. Wait at least 30 seconds to allow the detector to warm up, then test the unit to ensure proper operation.

To remove the battery, pry up the back end of the battery with a screwdriver (or similar tool) until it can easily be removed.

WARNING: Battery may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.

NOTE: If a low battery message is displayed at the keypad and you suspect that the battery is not truly low, remove the battery, wait at least 30 seconds, then reinstall the battery and re-test the transmitter.

ADJUSTING SENSITIVITY

1. With the detector in the approximate mounting location, carefully open the cover door.

   Forcefully opening and closing the door can cause the detector to alarm. An alarm can also occur if the LED ENABLE switch is moved too forcefully.

2. Slide the LED ENABLE switch in the direction of the printed arrow (an orange tab will protrude from the detector).

3. Using a screwdriver, adjust the sensitivity control fully clockwise (maximum sensitivity).

4. Turn on all heating/air conditioning systems and other equipment in the detector's vicinity.

   Observe the yellow FLEX LED for about one minute.

5. Random LED flashing indicates the detector is sensitive to the subsonic sounds of operating equipment. Slowly turn the sensitivity control counter-clockwise until the point at which the flashing stops.

6. After adjustment, close the cover door.

"ENROLLING" THE 5850 SERIAL NUMBER

The 5850's serial number must be "enrolled" by the control before usage in the system. The QED control unit's installation instructions provide detailed programming procedures for "enrolling" transmitter serial numbers. Before programming, do the following:

1. Install the battery (if not already installed). Observe polarity!

2. Remove the cover assembly (see step 3 of Mounting section).

3. When programming this transmitter, note the following:
   - Input Type = 3 (Supervised RF)
   - Loop Number = 1

   Transmit from the detector when prompted (momentarily press the test switch located on the exposed transmitter PC board, press the tamper switch, etc.). You can also manually enter the detector's serial number.

4. Test the detector after "enrolling" into the system. Refer to the Testing Alarm Operation section.
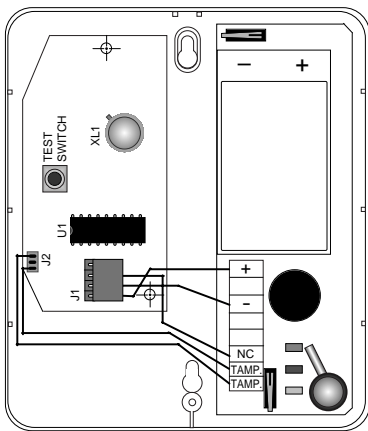

5850 With Cover Assembly Removed
(Shows Test Switch Location)

MOUNTING

1. Determine the optimum mounting location, noting the following:
   - Mount on the ceiling or on a wall at least 7 feet from the floor.
   - Mount such that the detector has a direct, unobstructed line-of-sight to the protected glass.
   - Mount no more than 25 feet from the farthest protected glass.
   - Make sure there are no intervening partitions, curtains, etc. that could block the transfer of shock or sound waves.

     Note: 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 locating the detector near sources of ambient vibration or sound, such as: air conditioners, fans, blowers, air ducts, or loudspeakers
   - Avoid locations where furniture can be moved so that it blocks the detector's line-of sight to the glass.
   - Avoid locations where a door can be open or closed such that it blocks the detector's line-of sight to the glass.
   - Avoid locations near doors or windows that may be slammed.
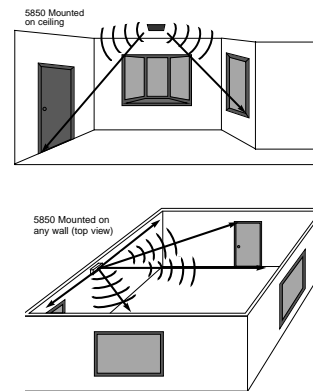
2. Before mounting the 5850 permanently, conduct Go/No Go tests (see QED control's instructions) to verify adequate signal strength, and reorient or relocate the 5850 if necessary (press the detector's test switch to send a transmission). It is also recommended that before mounting permanently the detector be tested to ensure it is within reliable audio and flex range from the protected glass. See the Testing Alarm Operation section for the procedure.

3. If not already removed, remove the detector's cover assembly by removing the screw located near the LED ENABLE switch. Carefully pull the cover assembly away from the case.

4. Mark the mounting hole locations on the ceiling or wall using the case as a template.

5. Drill holes (if necessary) and insert mounting screws part way into the ceiling or wall (use anchors if necessary).

6. Hang the narrow part of the case mounting slots over the screws and tighten securely.

TESTING ALARM OPERATION

To test the operation of the 5850, use the Intellisense model FG-700 Glass Break Simulator.

Before proceeding, open the cover door and slide the LED ENABLE switch in the direction of the arrow.

1. Test the audio range as follows:

   a. Activate the simulator in manual mode at the farthest point of the glass being protected (maximum 25 feet).

   b. Observe that the green audio LED flashes.

2. Test the flex range as follows:

   a. Carefully strike the protected glass with your hand or a cushioned tool.

   b. Observe that the yellow flex LED flashes.

   c. Set the simulator to flex mode.

   d. Arm the simulator by pressing the red button.

   e. Generate a flex signal by carefully striking the protected glass within 30 seconds of arming the simulator. The simulator will automatically create the sound of breaking glass.

   f. Observe that the red alarm LED flashes, indicating an alarm condition.

3. To ensure maximum protection against false alarms, activate all equipment in the vicinity. None of the detector's LEDs should flash.

4. After testing, disable the LEDs (if desired) by pushing the orange tab gently back into the detector case.

MAINTAINING PROPER OPERATION

To maintain the detector in proper working condition, it is important that use observe the following:

1. Replace the battery when the system indicates that the 5850 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/re-test of the system performed.

SPECIFICATIONS

Types of Glass:	Ordinary Plate, Tempered, Wired Plate, Laminated.
	NOTE: The 5850 is NOT recommended for protection of glass areas of less than 10-7/8" X 10-7/8"
Detection Method:	Simultaneous shock (flex) and sound.
Range:	Within 25 ft of farthest protected glass.
Indicators:	FLEX (Yellow) LED, AUDIO (green) LED, ALARM (Red) LED (Flex plus Sound)
Power:	Single 9V Lithium Battery: Use **only** UltraLife U9VL-J
	WARNING: 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.
Operating Temp.:	32° to 110° F
Dimensions:	4.75" L x 4.13" W x 1.25" D (70mm x 125mm x 27mm)

FCC NOTICE

FCC ID: CFS 8DL 5850

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 ensure the system's proper operation at all times.

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

ADEMCO GROUP

165 Eileen Way, Syosset, New York 11791
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