

AMA-100

Addressable Glass Break Detector

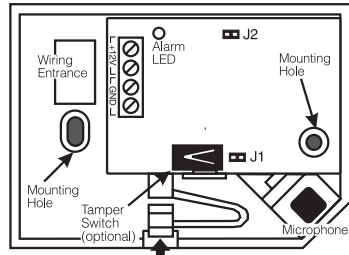
INSTALLATION INSTRUCTIONS

The Acuity AMA-100 is an advanced acoustic glass break sensor, designed to detect the sounds produced by the shattering of framed glass. The AMA-100 is the result of an extensive research program, designed to study the properties of glass as well as the properties of sounds produced by the shattering of framed glass. The result is a detector which provides exceptional sensitivity and high false alarm immunity. High quality manufacturing methods have been combined with a meticulous final test, to produce a detector which is superior to any other product of its kind.

Dynamic Signal Processing* provides accurate detection of plate, laminated, wired and tempered glass types, while rejecting common false alarm sounds.

The AMA-100 uses a 2-wire connection for power and to communicate with the control panel. This simplifies wiring and reduces installation cost. The AMA-100's low current draw also maximizes the number of devices that can be attached to an addressable loop.

** Patented*



Specifications

Current rating	3.9 mA standby; 5.9 mA with test LED on
Microphone type	Omnidirectional Electret
Dimensions (L x W x H)	89 x 64 x 20 mm (3.5 x 2.5 x 0.8 in.)
Operating Environment	0°C-50°C (32°F-122°F); 5%-95% RH, non-condensing
Alarm duration	3 seconds
Detection Level	Jumper J2
Control Panels	PC4010/4020 v3.x, PC5010, PC5015 v2.X w/PC5100 interface module

Maximum Detection Range

Glass Type	Thickness	Sizes (lxw)	Level 1	Level 2
Plate/Tempered	1/8-1/4" 3-6mm	18"×18" and up	25ft	15ft
		46×46cm and up	7.6m	4.6m
		12"×12" to 18"×18" 30×30cm to 46×46cm	15ft 4.6m	10ft 3m
Wired/Laminated	1/4"(6mm) 6mm	18"×18" and up	20ft	Do Not Use
		46×46cm and up	6m	Do Not Use
		12"×12" to 18"×18" 30×30cm to 46×46cm	10ft 3m	Do Not Use Do Not Use

Level of Detection (Jumper J2)

The AMA-100 glass break detector comes with a "detection level" jumper setting (Jumper J2), which allows the selection of one of two levels of detection, depending on the size and acoustics of the room in which the detector will be installed. This improves the overall false alarm immunity of the detector.

The detector is factory preset for Level 1 detection (Jumper J2=OFF). This is the highest sensitivity setting of the detector, and is designed for applications requiring high sensitivity and range, such as larger rooms, or rooms which contain a significant amount of sound-absorbing surfaces (such as carpets, furniture, drapes, etc.). Level 1 will be suitable for most applications.

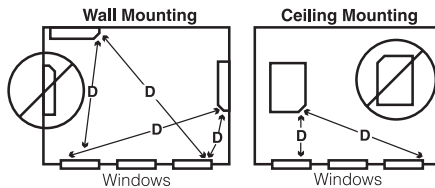
For rooms which are smaller, and contain a significant amount of hard, sound-reflective surfaces (such as kitchens, bathrooms, entrances etc.), Level 2 detection (Jumper J2=ON) provides a lower sensitivity setting which is more appropriate for these environments.

NOTE: Jumper J1 is not used and must always be left on.

Locating The Detector

NOTE: Test the detector thoroughly for proper placement using the AFT-100 Glass Break Simulator. Other simulators may trip the unit, but will not provide accurate indications.

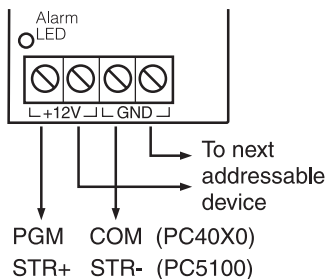
- For optimum protection, the detector should have a direct line of sight to the protected glass.
- Window coverings will absorb sound energy from the shattering glass. In these cases, mount the detector as close as possible to the protected glass, either on an adjacent wall, the ceiling, or behind the window covering if possible.
- The detector should be mounted at least 1.8m (6 feet) off the ground.
- Do not mount the detector on the same wall as the protected glass. Refer to the diagram below for correct and incorrect mounting locations.
- Avoid installation near “noisy” sources, such as speakers or other objects which produce sounds continuously.
- Do not install the detector beyond the maximum recommended range, even if the AFT-100 simulator shows additional range - future changes in room acoustics could reduce that additional range.
- Application on 24 hour loops should be avoided unless the location is unoccupied.
- Test false alarm immunity by creating any sounds in the room which will likely occur when the alarm system is armed.



D = Distance

Wiring the Device

To connect the AMA-100, consult the wiring diagram below:



Mounting the AMA-100

Once the location has been determined, open the detector by pressing the release tab on the bottom with a small flat-blade screwdriver. Remove the cover and set in a safe location. Draw the wires through the rectangular opening in the backplate and connect to the terminal block. Mount the detector using the two mounting screws. Once the device is wired and mounted, you will need to enroll it.

Device Enrollment

The serial number located on the back of the device must be enrolled into the alarm control panel via Installer's Programming ([*] [8] [Installer's Code]). This procedure is outlined for the PC4010/4020 in the control panel Installation Manual and for the Power panels in the PC5100 Installation Manual.

Once the detector is enrolled, replace the cover and test the detector using the AFT-100 tester to confirm proper operation.

Removing Devices

Before removing devices from the system, **you must delete their serial numbers.** To remove a 2-wire addressable device from the system, follow the Enrollment procedure but enter [00000] for the serial number of the device you wish to remove.



You may need to power down the panel to clear troubles which could be caused by deleted devices.

Replacing Devices

In order to replace an AML device, you must first remove the old device, then enroll the new device, as described above.

WARNING: Connect only DSC Addressable Series devices to the addressable loop connections. Connection of ANY other type of device will impair operation. Any devices other than Addressable Series devices which require power to operate must be powered separately.

Testing

Once you have mounted, wired and enrolled the detector, test to ensure that the detector is working correctly. To do this:

1. Put the control panel in walk test mode as described in the control panel installation manual.
2. Use the AFT-100 glass break simulator to test the AMA-100. When the AMA-100 is working correctly, the LED will light up in response to the AFT-100. Refer to the section below for tips on using the AFT-100.
3. End walk test mode as described in the control panel installation manual.

NOTE: The detector will not respond to the glass break simulator unless the system is in walk test mode.

The AFT-100 Glass Break Simulator

The AFT-100 glass break simulator generates plate or tempered glass samples. Use the plate glass setting if you are unsure of the glass type. Observe the following when testing the detector:

- The correct mounting location is indicated by three successive detections. If the detector does not respond each time, relocate the detector and repeat the test.
- If the windows in question are covered by drapes or blinds, place the tester behind the closed window coverings. If the drapes prevent reliable detection, we suggest that the detector be mounted behind the drapes either on an adjacent wall or on the ceiling.

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- If there are multiple windows, or one large window, activate the tester at the furthest point on the glass.

When the detector responds consistently, it can be permanently mounted using the supplied screws.

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

Limited Warranty

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in material and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether express or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. This warranty contains the entire warranty. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

Warning

Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.



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