



Wireless VITRON™
Wireless Glassbreak Detector

Model: RWT6G

Installation instructions

1 General Description

The Wireless VITRON is an advanced microprocessor based Acoustic Glassbreak detector that detects the breaking of most common types of framed glass panes while ignoring false alarms.

Main Features

- Up to 9m detection range
- Suitable for most common glass types: plate, tempered, laminated and wired glass
- Minimum size for all types of glass: 30cm x 30cm (12" x 12").
- Wall and Front cover Tamper protection

Type of glass	Thickness
Plate	3.2 mm – 6.4mm (1/8"-1/4")
Tempered	
Laminated	
Wired	6.4 mm (1/4")

- Wireless VITRON will not alarm if glass pane is broken from inside or glass is dropped on floor.
- Optional ceiling/wall mount swivel adaptor for optimal mounting and performance (supplied with the Wireless VITRON).

2 Installation Procedure

Wireless VITRON range of coverage depends on the type of glass (see Table 1) and the installation angle between the Wireless VITRON and the glass (see Fig 1).

Plate			Tempered, Laminated, Wired		
Size	Thickness	Max. Range	Size	Thickness	Max. Range
Minimum 50x50cm (20"x20")	3.2 – 6.4mm (1/8"-1/4")	9m (30ft)	Minimum 30x30cm (12"x12")	6.4mm (1/4")	6m (20ft)
Minimum 30x30cm (12"x12")		6m (20ft)			

Table 1: Wireless VITRON range of coverage

Angle (degrees)	Percent of maximum range
0	10
12	95
30	87
45	70
60	50
75	25
90	0

Note: To improve detection, it is highly recommended to use a swivel adaptor, especially for ceiling and wall installations.

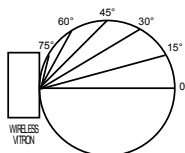


Fig 1: Percentage of Maximum Range as a function of angle between Wireless VITRON and glass.

Verify that the distance between the Wireless VITRON and the furthest point on the protected glass does not exceed the maximum specified range taking into account the reduced range due to angle (see Fig 2).

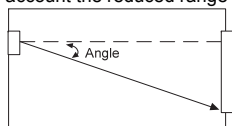


Fig 2: Angle between Wireless VITRON and glass

Other factors affecting range:

- There should be no obstructions between the Wireless VITRON and the protected glass.
- Curtains and blinds may reduce the effective range.
- Sound absorbing materials in the protected area may reduce the range.

3 Mounting Location

For optimal performance the Wireless VITRON should be mounted as nearly opposite to the glass area to be protected, as shown in Fig 3.

Attach the Glassbreak detector to the surface using the adhesive strips.

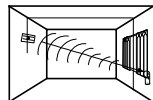


Fig. 3

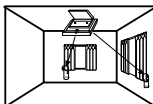


Fig. 4

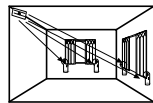


Fig. 5

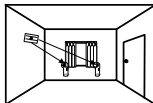


Fig. 6

- **Opposite Wall – Mounted** (For optimal results, Wireless VITRON is centered opposite glass, see Fig. 3).

- **Ceiling Mounted** (for optimal results Wireless VITRON is centered and directed towards protected glass, using the supplied swivel adaptor, see fig. 4)

- **Corner Mounted** (choose corner opposite glass to be protected, see fig. 5)

- **Side wall – mounted** not recommended due to the fact that the Wireless VITRON is not opposite the glass - see range versus angle diagram (Fig 2).

Notes:

1. Do not mount Wireless VITRON on same wall as the protected glass.
2. Avoid installing the Wireless VITRON near sources of loud noise or vibrations (air conditioners, fans, compressors, stereos, etc).
3. Avoid defining the Wireless VITRON as a 24 hour zone.
4. The Wireless VITRON should always be installed in addition to standard motion detectors.

4 Mounting

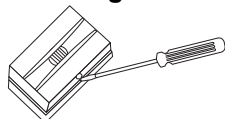


Fig. 7: Opening the detector cover

1. Open the Wireless VITRON cover using a flat screwdriver.
2. Open the required mounting knockouts, according to the type of installation (corner, flat or swivel mounting, see Fig. 8).
3. Use the detector's back plate as a template and mark the drilling holes on the required position.

Note: Remove the PCB only if corner mounting or optional swivel mounting adaptor is used.

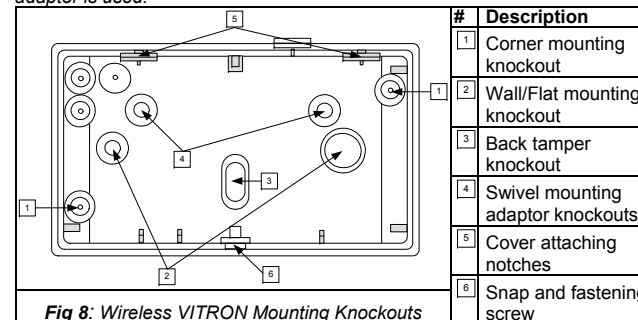


Fig 8: Wireless VITRON Mounting Knockouts

3. If a back tamper protection is required open the back tamper knockout (3, Fig.8).
4. Secure the back plate to the wall using the supplied screws. Snap back the PCB (if removed).
5. Insert battery in place according to the correct polarity (polarity marks – on PCB).

5 Swivel Mounting

When installing the Wireless VITRON with the supplied swivel mounting adaptor, maximum installation flexibility and performance is achieved.

To install the swivel mounting adaptor perform the following:

1. Remove the PCB from the Wireless VITRON back plate
2. Open the swivel mounting adaptor knockouts.
3. Attach the swivel mounting adaptor to the back plate using the two supplied screws (1, Fig 9).
4. Mount the Wireless VITRON on the required location (wall or ceiling) using the supplied screws (2, Fig 9). Do not tighten the screws.
5. Adjust the detector so it will face the protected glass.
6. Tighten the bolts to the final torque.

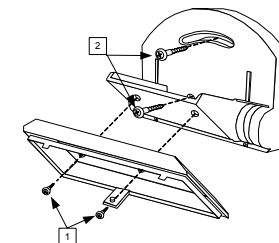


Fig. 9: Swivel Mounting

6 PCB Main Components

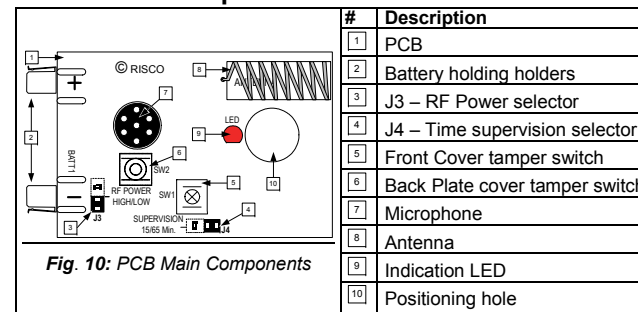




Fig. 10: PCB Main Components

7 Quick Device Allocation

The VITRON must identify itself to the WiComm Smart Hub. This can be performed either using the RISCO Express Wizard (www.riscocloud.com/express) by adding the extra sensor at the same time of the Smart Hub system installation or later either by using the "Settings" on the Web (www.riscocloud.com) or using the WiComm Smart Hub, as follows:

1. Press the  button on the WiComm Smart Hub for 5 seconds; the unit beeps once as it enters Learn mode (all the LEDs also light up, one after the other).
2. Open the Wireless VITRON cover using a flat screwdriver and remove the sensor's red battery isolation strip).
3. Press the Front Tamper Cover switch to send a signal transmission; the WiComm Smart Hub beeps once to accept or beeps three times to reject. Once accepted, the system announces the device type and its zone (for example, "Sensor, zone 1").
4. To complete allocation momentarily press WiComm Smart Hub button . A short beep is heard and the LEDs stop flashing.
5. Mount the detector.
6. You can change the zone labels through the www.riscocloud.com website (for details, see the Reference Manual).

Note: For future use, it is recommended to write down the sensor description, zone number, and installation location of each allocated detector.

The Wireless VITRON has 3 operation modes:

Normal: Any loud sound such as clapping, whistling or key-jingling should produce a flash of the VITRON's LED. This verifies that the Wireless VITRON is active. During active supervision, there is no transmission. To save power consumption the LED is activated up to 800 times per day.

Alarm: On detection of framed glass being broken from outside the LED will light continuously for 2 seconds and an alarm transmission is sent.

Test: See Test paragraph

8 Testing the Wireless VITRON

Testing under Test mode

Step 1: Entering the test mode

The Wireless VITRON enters the Test mode for two minutes after closing the front cover. After that it moves to Normal operation mode. During test mode you can perform the following 2 tests:

Step 2. Environmental Test

This test is performed to verify interference produced by environmental conditions or facilities.

To perform the test, operate all devices in the protected region that may interfere with the detector, including air conditioners, fans, radios etc.

Observe the wireless VITRON and note any disturbances. If disturbances occur, place the unit in a different position and test it again.

Turn all noise generating equipment off and wait until the unit returns to NORMAL mode.

Step3. User test

The Wireless VITRON can be tested while in normal mode by clapping or whistling or key-jingling under the detector. The LED will flash. No report will be generated.

9 Jumpers settings

Please do not change the jumper settings.

10 Technical Specifications

Electrical	
Current consumption (standby)	22 uA at 3 VDC, without acoustic signal
Current consumption (Alarm transmission)	10 mA at 3 VDC (Max. with LED OFF) 15 mA at 3 VDC (Max. with LED ON)
Modulation type	ASK
Battery life	3 years, at 65 minutes supervision
Range (LOS)	300m (1000 feet)
Voltage requirements	CR123A 3VDC Lithium Batteries
Frequency	915MHz
Physical	
Size (LxWxD)	87 x 50.7 x 28.6 mm (3.4 x 2.0 x 1.1 in.)
Environmental	
Operating/Storage temperature	0°C to 50°C (-32°F to 122°F)
* Specifications are subject to change without prior notice	

Standard Limited Product Warranty ("Limited Warranty")

RISCO Ltd. ("RISCO") guarantee RISCO's hardware products ("Products") to be free from defects in materials and workmanship when used and stored under normal conditions and in accordance with the instructions for use supplied by RISCO, for a period of (i) 24 months from the date of delivery of the Product (the "Warranty Period"). This Limited Warranty covers the Product only within the country where the Product was originally purchased and only covers Products purchased as new.

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Remedies. In the event that a material defect in a Product is discovered and reported to RISCO during the Warranty Period, RISCO shall accept return of the defective Product in accordance with the below RMA procedure and, at its option, either (i) repair or have repaired the defective Product, or (ii) provide a replacement product to the customer.

Return Material Authorization. In the event that you need to return your Product for repair or replacement, RISCO will provide you with a Return Merchandise Authorization Number (RMA#) as well as return instructions. Do not return your Product without prior approval from RISCO. Any Product returned without a valid, unique RMA# will be refused and returned to the sender at the sender's expense. The returned Product must be accompanied with a detailed description of the defect discovered ("Defect Description") and must otherwise follow RISCO's then-current RMA procedure published in RISCO's website at www.riscogroup.com in connection with any such return. If RISCO determines in its reasonable discretion that any Product returned by customer conforms to the applicable warranty ("Non-Defective Product"), RISCO will notify the customer of such determination and will return the applicable Product to customer at customer's expense. In addition, RISCO may propose and assess customer a charge for testing and examination of Non-Defective Product.

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WARNING: This product should be tested at least once a week.

CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to local regulations.

FCC ID: JE4RWT6G915

This device complies with part 15 of the 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

Changes or modifications to this equipment which are not expressly approved by the party responsible for compliance (RISCO Group's.) could void the user's authority to operate the equipment.

FCC Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and the receiver.
- ◆ Connect the equipment into an outlet on a different circuit from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.