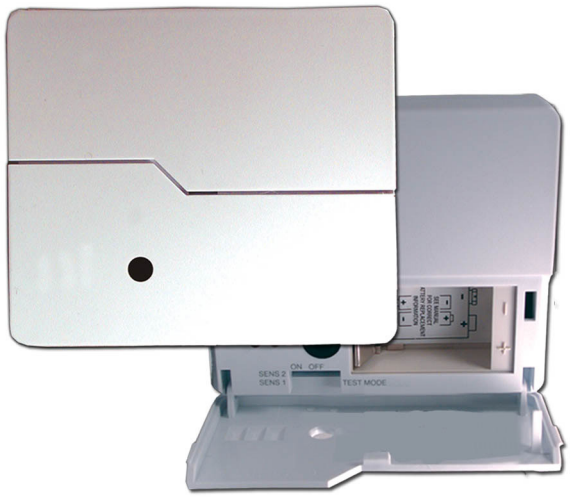
RF1100



Security Systems

EN

Installation Instructions

Wireless Glass Break Transmitter

BOSCH

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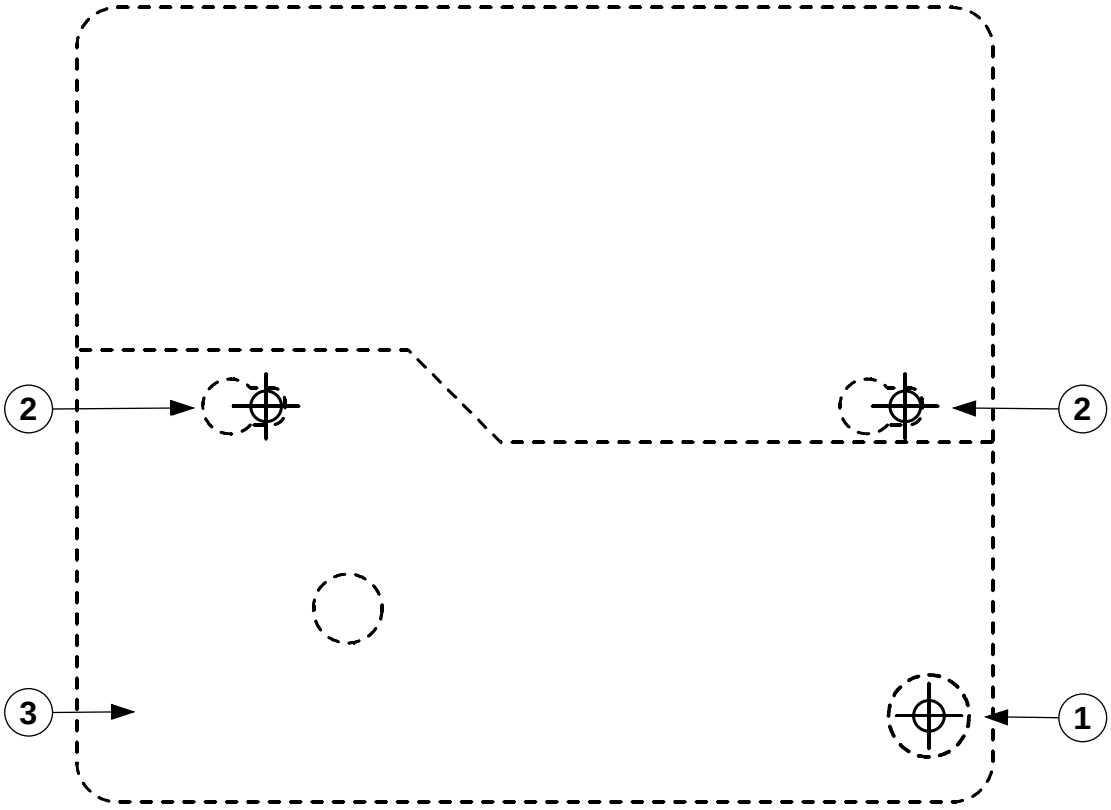
Figure 1: RF1100 Mounting Template (Actual size)



1 - Wall tamper screw (optional) *2 - Mounting screw* *3 - Base of RF1100*

1.0 Installation Considerations

Mount the RF1100 on flat surfaces such as ceilings and walls. Mount the unit to optimize glass break detection. Refer to *Figure 2* and *Figure 3* for mounting examples.

In normal residential or commercial applications, locate the RF1100 within 325 ft (100 m) of its assigned receiver.

For best detector performance, select a mounting location that is:

- within 25 ft (7.6 m) of the protected glass
- within clear view of the protected glass (there is no minimum range)
- at least 6.5 ft (2 m) from the floor
- at least 3.3 ft (1 m) from forced-air ducts
- at least 3.3 ft (1 m) from sirens or bells (greater than 2 in. [5 cm] in diameter)
- mounted on a window frame if any heavy window covering is present

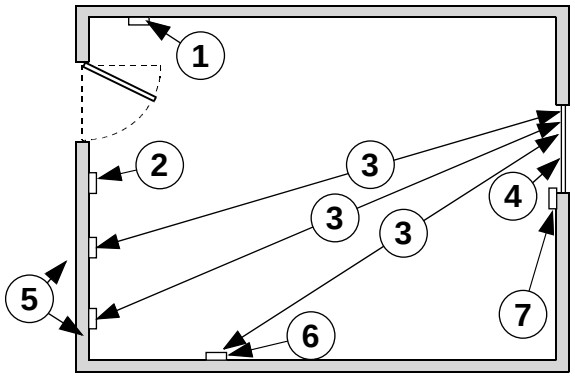
Avoid mounting the detector:

- in a corner
- on the same wall as the protected glass
- on free-standing posts or pillars
- in rooms with noisy equipment such as air compressors, bells, and power tools

Test the detector in the desired mounting location before drilling mounting holes. Refer to *Section 2.2 Testing* on page 5.

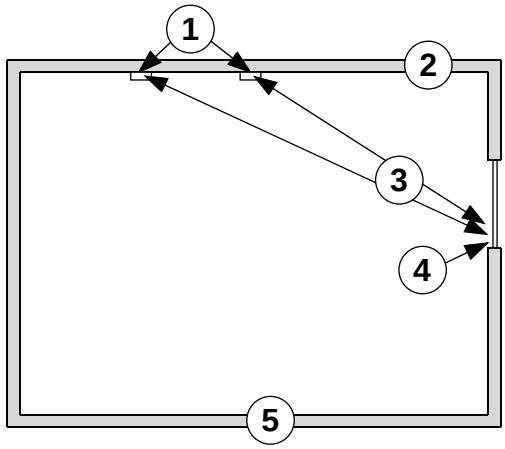
The RF1100's maximum outside RF range is approximately 1000 ft (300 m).

Figure 2: Wall Mounting Locations (top view)



1 - Poor location - fully opened door can block detector's range[3]
2 - Poor location - high risk of door slam noise[3]
3 - 25 ft (7.6 m) maximum mounting distance
4 - Window
5 - Best locations[1]
6 - Satisfactory location[2]
7 - Satisfactory location if a heavy window covering is present[2]

Figure 3: Ceiling Mounting Locations (side view)



1 - Best locations[1]
2 - Ceiling
3 - 25 ft (7.6 m) maximum mounting distance
4 - Glass
5 - Floor

1 Best location: where the RF1100 is most effective.

2 Satisfactory location: where the effectiveness of the RF1100 can be reduced.

3 Poor location: where the effectiveness of the RF1100 is impaired.

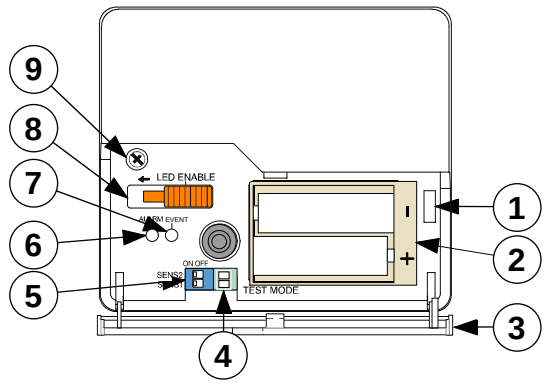
2.0 Setup

1. Carefully open the service door (*Item 3* in *Figure 4*) and insert the two AA batteries (supplied), observing the correct polarity.
2. Select a mounting location (refer to *Section 1.0 Installation Considerations* on page 3).
3. Temporarily mount the unit so you can remove it as needed.

2.1 Sensitivity Setting

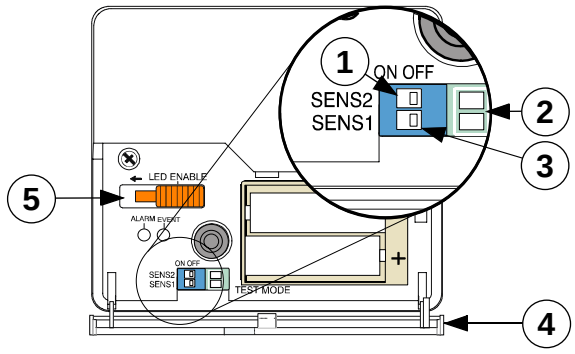
1. If the front housing is attached, carefully open the service door (*Item 4* in *Figure 5*).
2. Enable the LEDs for test purposes by sliding the LED ENABLE switch (*Item 5* in *Figure 5*) in the direction the arrow points (above the switch). An orange flag protrudes from the side of the RF1100.

Figure 4: RF1100 Front Layout



1 - Service door tamper switch
2 - AA batteries
3 - Service door
4 - SW4 Test Mode pads
5 - SW3 sensitivity DIP switches
6 - Alarm LED
7 - Event LED
8 - LED enable switch (off position)
9 - Housing screw

Figure 5: Sensitivity Switch



1 - SENS2
2 - Test Mode pads
3 - SENS1
4 - Service door
5 - LED enable switch (shown in the OFF position)

3. Determine the sensitivity setting for your application from *Table 1*.

Table 1: RF1100 Sensitivity Settings

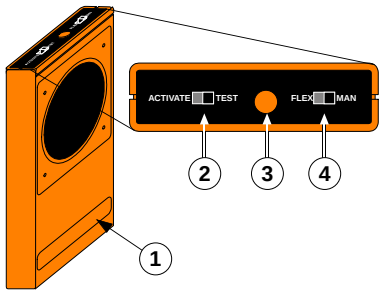
Sensitivity	SENS1	SENS2	Approximate Range
Maximum	OFF	OFF	25 ft (7.6 m)
Medium	ON	OFF	15 ft (4.6 m)
Low	OFF	ON	10 ft (3 m)
Lowest	ON	ON	5 ft (1.5 m)

4. Use a small flat head screwdriver to move the sensitivity switches. Use the settings determined in *Step 3*.
5. Turn on any sources of noise such as machinery, office, or audio equipment in the area.
6. Observe the green event LED (*Item 7* in *Figure 4*) for approximately 1 min. If the green LED flashes, relocate the unit or reduce the sensitivity by adjusting the sensitivity switch.
7. Repeat *Steps 3* through *6* until you achieve the best sensitivity level.
8. After setting the sensitivity, slide the LED enable switch (*Item 5* in *Figure 5*) to the OFF position.

2.2 Testing

Test the RF1100 at least once each year. Test the detector with the 13-332 Sound Sensor Tester.

Figure 6: 13-332 Sound Sensor Tester



1 -	*13-332*	*3 -*	*Start button*
2 -	*Activate/Test switch*	*4 -*	*Flex/Man switch*

2.2.1 Entering Test Mode

Place the RF1100 in Test Mode before testing the unit. Test Mode enables the RF1100's LED switch (*Item 5* in *Figure 5* on page 4). You can enter the Test Mode locally or remotely.

To enter the Test Mode locally:

1. Carefully open the service door of the RF1100.
2. Insert a screwdriver into the slot next to the sensitivity switches that contains the test pads.
3. Touch both test pads at the same time with the tip of the screwdriver.

The green LED (*Item 7* in *Figure 4* on page 4) on the RF1100 flashes once per second. If the green LED does not flash, repeat *Steps 2* and *3*.

You can select the glass break sensitivity remotely from a Bosch 13-332 Sound Sensor Tester to activate a Test Mode.

The 13-332 Sound Sensor Tester produces extremely loud sounds and can be hazardous to hearing when used at close range. Do not point the 13-332 towards someone's head.

To enter the Test Mode remotely:

1. Stand within 9 ft (3 m) of the RF1100.
2. Move the switches on top of the 13-332 tester to ACTIVATE (*Item 2* in *Figure 6*) and MAN (*Item 4*, *Figure 6*) Modes.
3. Point the front of the tester towards the detector and press the red **Start** button (*Item 3* in *Figure 6*).

The tester buzzes and the green LED on the RF1100 flashes once per second. If the green LED does not flash, move closer to the detector and repeat the procedure.

2.2.2 Testing the Detector (Flex and Audio Signals)

1. Set the 13-332 tester switches to the TEST (*Item 2* in *Figure 6*) and FLEX positions (*Item 4* in *Figure 6*).
2. Press the red **Start** button (*Item 3* in *Figure 6*). The tester activates and starts an eight-second armed period.
3. If window coverings are present, close them fully.
4. Hold the 13-332 tester near the point on the glass farthest from the detector. If window coverings are present, hold the tester between the glass and window coverings.
5. Carefully strike the glass with a cushioned tool. The 13-332 tester responds by producing a burst of glass break audio.

If the RF1100 receives both the flex and audio signals properly, its red Alarm LED lights for 3 sec.

If the red LED does not light, return to *Step 2* in *Section 2.0 Setup* on page 4 to reposition the detector.

2.2.3 Exiting Test Mode

To exit the Test Mode locally:

1. Carefully open the service door of the RF1100.
2. Insert a screwdriver into the slot next to the sensitivity switches that contains the test pads.
3. Touch both test pads at the same time with the tip of the screwdriver.

When the detector exits Test Mode, the green LED (*Item 7* in *Figure 4* on page 4) on the RF1100 stops flashing. If the green LED continues to flash, repeat *Steps 2* and *3*.

To exit the Test Mode remotely:

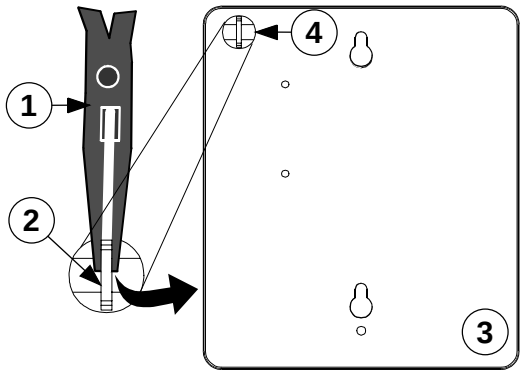
1. Stand within 9 ft (3 m) of the detector.
2. Move the switches on top of the 13-332 tester to ACTIVATE (*Item 2* in *Figure 6*) and MAN (*Item 4*, *Figure 6*) Modes.
3. Point the front of the tester towards the detector and press the red **Start** button (*Item 3* in *Figure 6*).
4. The tester buzzes.

2.3 Enabling the Wall Tamper

Using the wall tamper is optional. To enable the wall tamper:

- Use needle-nose pliers to remove the plastic tab on the back of the detector (*Figure 7*). The wall tamper contact extends through the hole.

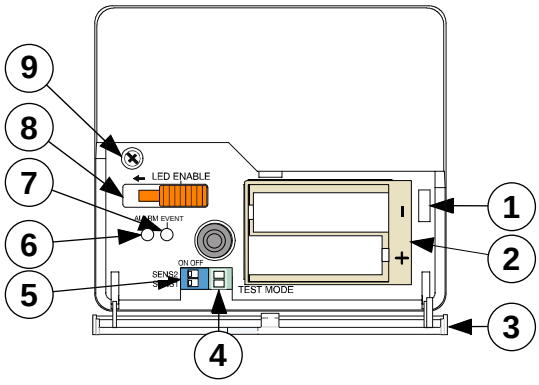
Figure 7: Removing the Wall Tamper Plastic Tab Block



1 - Needle-nose pliers		*3 - Back of RF1100*	
2 - Plastic tab		*4 - Tamper contact*	

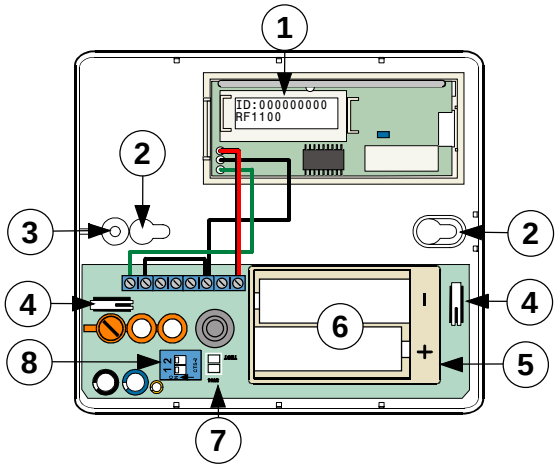
3.0 Mounting the RF1100

Figure 8: RF1100 Front Layout



1 - Service door tamper switch		*6 - Alarm LED*	
2 - AA batteries		*7 - Event LED*	
3 - Service door		*8 - LED enable switch (OFF position)*	
4 - SW4 Test Mode pads		*9 - Housing screw*	
5 - SW3 sensitivity DIP switches			

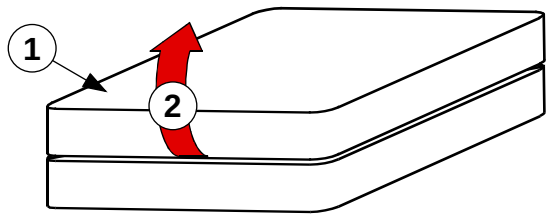
Figure 9: RF1100 Inside Layout



1 - RF ID sticker		*5 - Sensitivity switches*	
2 - Mounting holes		*6 - Test Mode pads*	
3 - Front housing screw hole		*7 - AA alkaline batteries*	
4 - Front housing tamper switch		*8 - Battery housing*	

1. Open the service door (*Item 3* in *Figure 8*).
2. Remove the housing screw (*Item 9* in *Figure 8*) located near the LED ENABLE switch (*Item 8* in *Figure 8*).
3. Lift the end of the cover off the base near the housing screw (*Item 9* in *Figure 8* and *Figure 10*).

Figure 10: Removing the Cover



1 - RF1100 Cover		*2 - Direction of removal*	

4. Use the mounting template (*Figure 1* on page 2) to mark the mounting holes and tamper screw hole (optional) on the mounting surface.
5. Drill the holes and insert the supplied wall anchors (if needed).
6. Partially insert the mounting screws and tamper screw (optional) into the mounting surface.
7. Place the base over the screws and slide it down.
8. If the optional wall tamper is used, adjust the tamper screw so it just touches the tamper contact and the base is flat against the mounting surface (*Item 4* in *Figure 7*).

9. Tighten the mounting screws to secure the unit in place.
10. Write down the ID number of the RF ID sticker (*Item 1* in *Figure 9* on page 6).
11. Align the tabs on the cover with the slots on the base and close the cover.
12. Replace the housing screw.
13. To ensure proper detection, re-test the detector's sensitivity. Refer to *Section 2.1 Sensitivity Setting* and *Section 2.2 Testing* on page 5.

4.0 Low Battery Indication

The RF1100 indicates a low battery condition in two ways:

- If the LEDs are enabled, both flash simultaneously every second.
- During each transmission, a battery status indication is sent to the control panel.

The LED flashing and a low battery indication at the control panel are independent of each other and do not necessarily occur at the same time. Receiving either condition indicates a low battery.

5.0 Control Panel Programming

A two-part RF ID sticker (*Item 1* in *Figure 9* on page 6) is located inside the transmitter portion of the RF1100. The number on this sticker is needed to program the transmitter into the control panel. Refer to your control panel's programming guide for programming information on wireless type devices.

6.0 Specifications

Table 2: RF1100 Specifications

Dimensions	4.8 in. x 4.2 in. x 1.3 in. (12.2 cm x 10.6 cm x 3.2 cm)		
Operating Temperature	+32°F to +120°F (0°C to +50°C		
Frequency	304 MHz		
Operating Voltage	3 V		
Battery Life	At least two years under normal operating conditions. Test with the recommended battery types.		
Recommended Battery Types	Two AA Alkaline	Duracell®	MN1500 or PC1500
		Eveready ™	E91
		Panasonic®	AM-3PIXB
Compatible Receivers	RF3212, RF3222, and RF3224		
Acoustic Capabilities	Glass Types and Thicknesses	**Type**	**Thickness**
		Plate	0.09 in. to 0.38 in. (0.24 cm to 0.95 cm)
		Tempered	0.13 in. to 0.38 in. (0.32 cm to 0.95 cm)
		Laminated*	0.13 in. to 0.56 in. (0.32 cm to 1.43 cm)
		Wired:	0.25 in. (0.64 cm)
		* protected only if both panes of glass are broken	
	Minimum pane size for all types of glass	11 in. (28 cm) x 11 in. (28 cm)	
	Minimum wall or barrier width for mounting glass	3 ft (0.9 m)	
	Range	Maximum 25 ft (7.6 m)	
	Sensitivity Settings	Use DIP switches to set sensitivity levels to reduce false alarms:	
		• Maximum • Medium	• Low • Lowest
FCC Compliance	The RF1100 Wireless Glass Break Transmitter complies with Part 15 of the FCC rules and with RSS-210 of Industry and Science Canada. Operation is subject to the following two conditions: • This device cannot cause harmful interference. • This device must accept any interference received, including interference that can cause undesirable operation. Changes or modifications not expressly approved by Bosch Security Systems can void the user's authority to operate the equipment.		

Bosch Security Systems
130 Perinton Parkway
Fairport, NY 14450-9199
Customer Service: (800) 289-0096
Technical Support: (888) 886-6189

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