

RF835E Wireless PIR/Microwave Intrusion Detector with Pet Immunity Installation Instructions

1.0 Overview

The RF835E wireless detector uses passive infraRed (PIR) technology, microwave (MW) technology, and artificial intelligence to detect motion. The RF835E may be installed to provide immunity to false alarms caused by pets. Recommended limits are a dog up to 100 lbs. (45 kg), 2 dogs up to 60 lbs. (27 kg) combined weight, or up to 10 cats. An integral RF transmitter sends alarm, low battery, tamper and routine supervisory signals to the control panel.

2.0 Specifications

General

- Dimensions (H x W x D): 5 in. x 2.8 in. x 2.5 in. (12.7 cm x 7.2 cm x 6.2 cm)
- Power supplied by four 1.5 V AA Alkaline batteries.
Recommended Batteries: Panasonic AM-3
Duracell MN1500 or PC1500
Energizer E91
- Typical current draw is 100 μ A with the LED disabled. The LED is automatically disabled except during walk tests.
- Typical battery life is two to three years.
- Operating temperature range of +32°F to +120°F (0°C to +49°C).
- Microwave Frequency: RF835E 10.525 GHz
RF835E-C 10.588 GHz
- RF Transmit Frequency: 433MHz
- Options: B335 Low Profile Swivel Mount Bracket (use of this bracket may reduce range and dead zone areas).
- Patents: This product is covered by one or more of the following U.S. Patents: #4,660,024, #4,764,755, #5,077,548, #5,208,567, #5,262,783, and #5,450,062. Other patents pending.

TriTech Motion Sensor

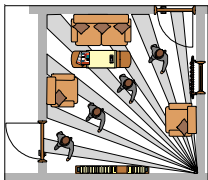
- Coverage area 35 ft. by 35 ft. (10.7 m by 10.7 m).
- Internal coverage pointability -4° to -10° Vertical and \pm 10° Horizontal.
- Field selectable sensitivity options of Standard and the more sensitive setting of Intermediate.
- Three minute transmitter lockout time after alarm extends battery life.
- Timed Walk Test Mode automatically disables LED after setup to extend battery life.
- Cover activated Tamper indication. Optional wall-activated Tamper is included.

RF Transmitter

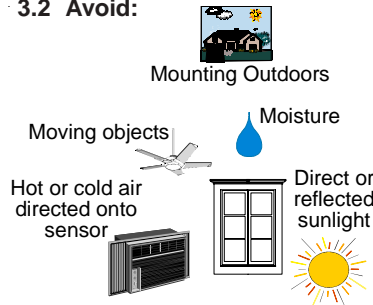
- Integral RF transmitter capable of transmitting up to 500 ft. (150 m) in open air. (Actual acceptable transmitter range should be verified for each installation). In normal operation, it is recommended that the RF835 be within 100 ft. (30 m) of the receiver.
- Transmits low battery reports and tamper reports to the control panel.
- Transmits supervisory signal to the control panel every 13 minutes.

3.0 Installation

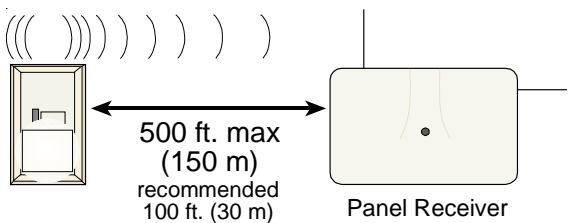
3.1 Select a mounting location. Mount the sensor where an intruder will most likely cross through the coverage pattern.



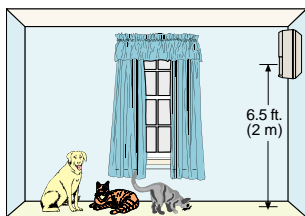
3.2 Avoid:



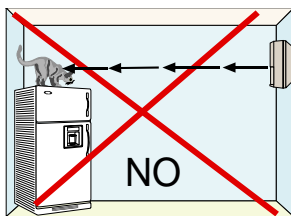
3.3 Observe Receiver Range.



3.4 Observe the Pet Immunity mounting recommendations.



Mount the detector 6.5 ft. (2 m) above the floor



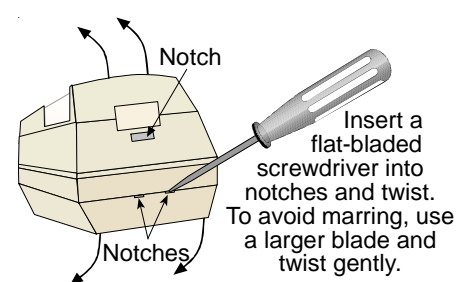
Don't point where pets can climb



Pet Immune Area

Note: The upper areas are not pet immune.

3.5 Remove the cover and the base.

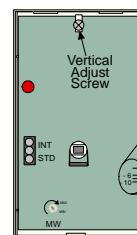


Insert a flat-bladed screwdriver into notches and twist. To avoid marring, use a larger blade and twist gently.

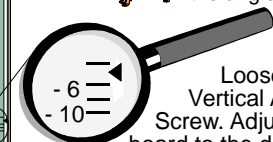
3.6 Choose mounting height and desired range, and set the vertical angle.

Mounting Height	Range	
	20 ft. (6.1 m)	35 ft. (10.7 m)
6.5 ft. (2 m)	-7°	-5°
7.0 ft. (2.1 m)	-9°	-6°
8.0 ft. (2.4 m)	-10°	-7°

NOTE: The mounting height must be 6.5 ft. (2 m) and the vertical angle must be set at -5° for installations containing pets.

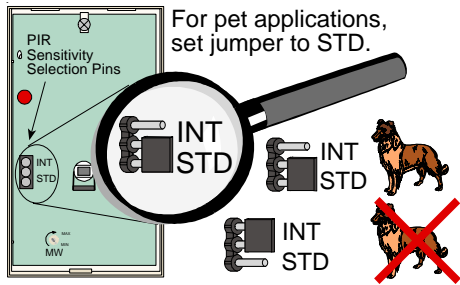


For pet immune applications, adjust the angle to -5.0.



Loosen the Vertical Adjust Screw. Adjust the board to the desired angle.

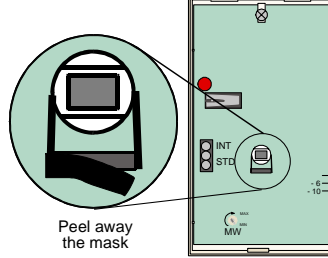
3.7 Set the PIR Sensitivity.



For pet applications, set jumper to STD.

Note: The INT setting is more sensitive than the STD setting.

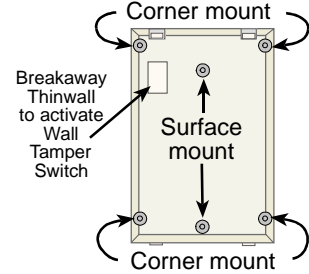
3.8 Uncover the Look Down Lens.



Peel away the mask

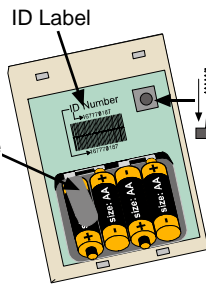
In non-pet applications only, if look-down is desired, peel away the look-down mask. **Do not remove the clear plastic lens.**

3.9 Mount the Detector Base.



Note: The Wall Tamper cannot be used in corner mount installations or when using the swivel bracket.

3.10 Remove the battery tab, install the wall tamper spring, replace the cover and base.



Pull battery tab out from between the battery and its contact.

During the warm-up period, the tricolor LED will flash red until the unit has stabilized (approximately 5 minutes). When the LED stops flashing, the detector is ready to be walk tested.

If the Wall Tamper is desired, gently press the Spring onto the tapered shaft. Do **not** force it down onto the shaft. As you place the unit onto its base, be sure the spring extends through the knockout to the wall.

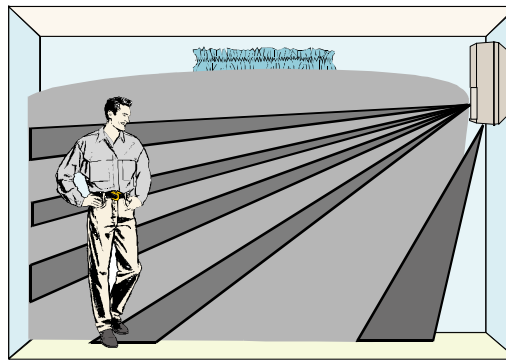
LED Condition	Cause
Steady Red	Unit Alarm
Steady Yellow	Microwave Activation (Walk Test)
Steady Green	PIR Activation (Walk Test)
Flashing Red	Warm-Up Period After Power-Up
Flashing Red (four-pulsed sequence)	Microwave or PIR Failure Replace Unit

3.11 Walk test the detector.

Perform this test at the time of installation and monthly thereafter. To ensure continual daily operation, the end user should be instructed to walk through the far end of the coverage pattern. This ensures an alarm output prior to arming the system.

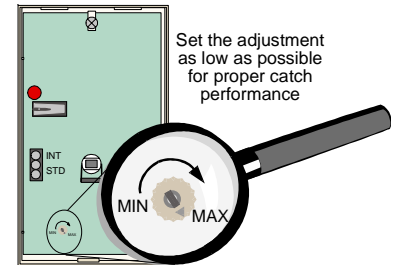
Pattern Testing in Walk Test Mode

Removing and replacing the cover will start a 90 second Walk Test Mode. During this Test Mode, any activity in the sensor's coverage pattern will cause a transmitted alarm and LED activation. Each alarm will also extend the Test Mode for an additional 90 seconds.



Watch for the yellow LED to indicate the edges of the microwave pattern. Adjust as necessary.

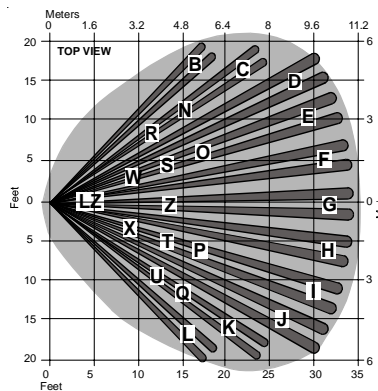
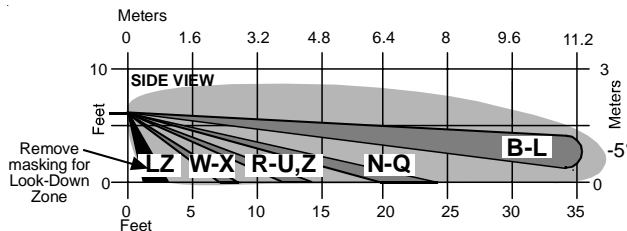
- Green = PIR detect
- Yellow = MW detect
- Red = Alarm



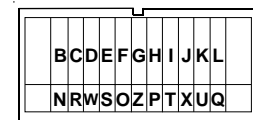
Set the adjustment as low as possible for proper catch performance

4.0 Coverage Patterns

Note: The protective zone is the area where the PIR and Microwave technologies overlap.



Pattern Masking: The PIR coverage pattern may be masked.



RF835E Lens (inside view)

NOTE: Masking only eliminates the PIR portion of the coverage and has no effect on the Microwave pattern.

5.0 Panel Programming

There is a two-part ID sticker located on the housing of the RF835E. You will need the number on this sticker to program the Detector into the control panel. See your panel's Programming Guide for programming information on wireless type devices.



Countries of Intended Use: These products are intended for use in the following countries within the European Union and in countries outside the European Union:

- **RF835E** Austria, Belgium, Denmark, Finland, Greece, Luxembourg, Netherlands, Norway, Spain, and Sweden.
- **RF835E-C** United Kingdom, Ireland, and France.