

Installation Instructions

RF835 TriTech®

Microwave/PIR Intrusion Detector with Pet Immunity

1.0 Overview

The RF835 TriTech® detector uses passive infrared technology, Microwave technology, and artificial intelligence to detect motion and provides freedom from false alarms. When motion is detected the unit sends an alarm signal to the control panel.

2.0 Specifications

General

- Power supplied by four 1.5V AA Alkaline Batteries.
- Typical current draw is 100 micro-amps with LED disabled.
- Typical battery life is two to three years (has not been verified by Underwriters Laboratories).
- Operating temperature range of +32°F to +120°F (0°C to +49°C)
- Microwave Frequency: 10.525 Ghz (U.L. Listed)
- RF Transmit Frequency: 304.00 MHz
- Options: Low Profile Swivel Mount Bracket (use of this bracket may reduce range and dead zone areas).

TriTech Motion Sensor

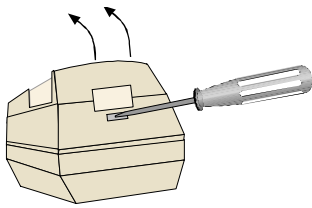
- Coverage area 35 ft. by 35 ft. (10.7 m by 10.7 m)
- Internal coverage pointability -6° to -10° Vertical and ±10° Horizontal.
- Masking kit provided to block portions of coverage area.
- Field selectable sensitivity options of Standard and Intermediate.
- Three minute transmitter lockout time after 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.
- Pet Immunity capabilities have not been verified by UL.

RF Transmitter

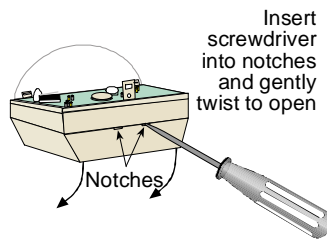
- Integral RF transmitter capable of transmitting 500 feet open air. (Actual acceptable transmitter range should be verified for each installation).
- Transmits low battery report (trouble) to the control panel.
- Transmits tamper
- Transmits supervisory signal to the control panel every 64 minutes.

3.0 Installation

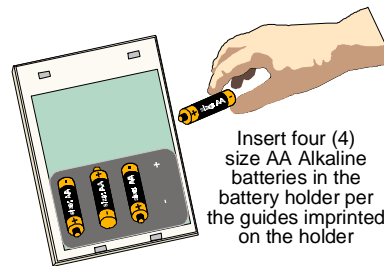
3.1 Open the cover



3.2 Open base



3.3 REMOVE BATTERY PLUG

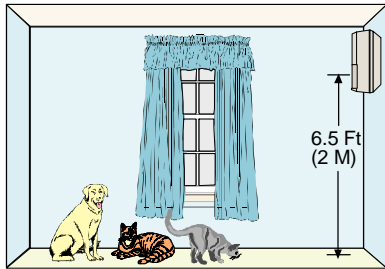


3.4 Select a mounting location



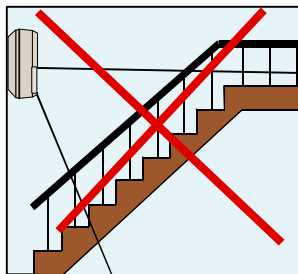
DO NOT MOUNT OUTDOORS

3.5 Observe the Pet Immunity mounting recommendations

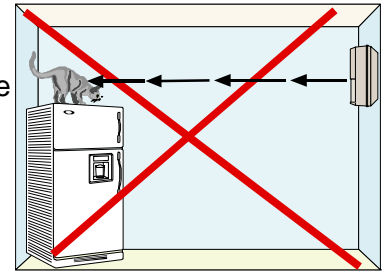


Mount the detector 6 1/2 feet (2 meters) above the floor

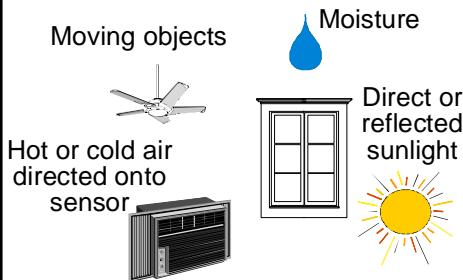
Don't point at stairs



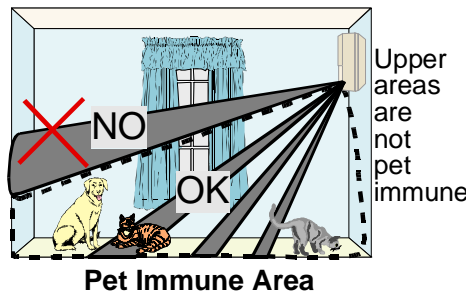
Don't point where pets can climb



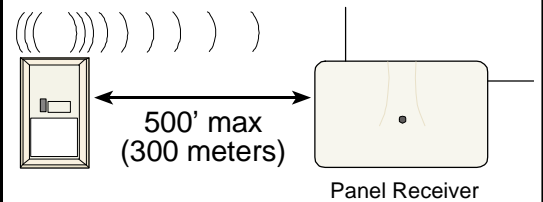
3.6 Avoid:



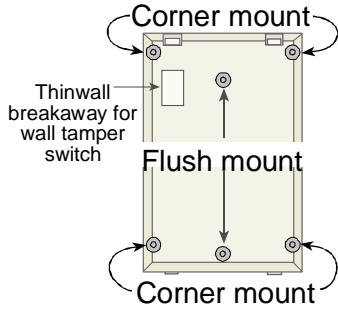
3.7 Observe the Pet Immune Area



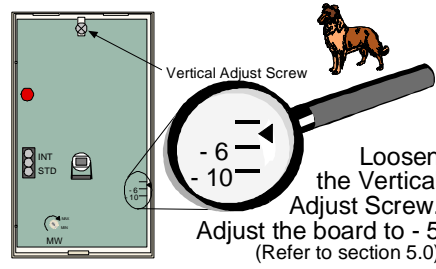
3.8 Observe Receiver Range



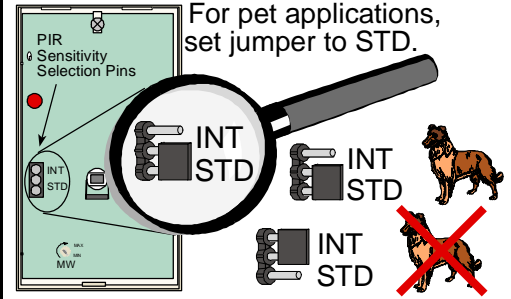
3.9 Mount the Detector



3.10 Set the Vertical Adjust

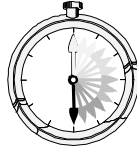


3.11 Set the PIR Sensitivity



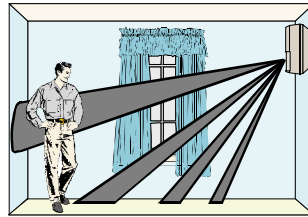
3.12 LED Operation

Replace cover
Wait 30 minutes after installing batteries to begin Walk test.



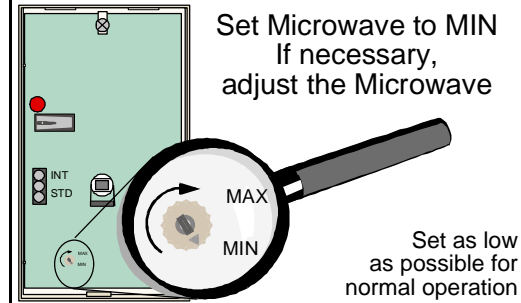
LED Condition	Cause
Steady Red	Unit Alarm
Steady yellow	Microwave Activation (walk test)
Steady Green	PIR Activation (walk test)
Flashing Red	Warmup Period After Power-Up
Flashing Red (four-pulse sequence)	Microwave or PIR failure. Replace Unit.

3.13 Walk Test



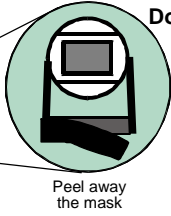
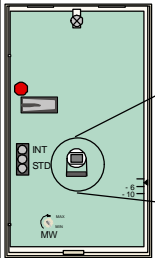
- Green = PIR detect
- Yellow = MW detect
- Red = Alarm

3.14 Adjust the Microwave

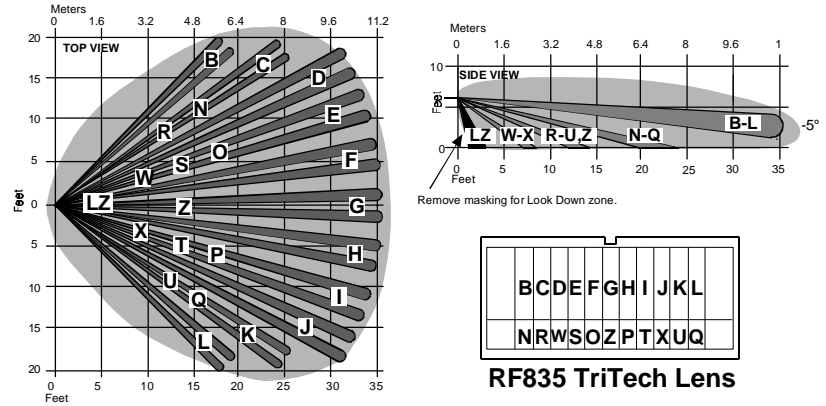


3.15 Uncover Look Down Lens

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



3.16 Coverage Patterns



4.0 Programming

See your Control Panel Programming Guide for information.

5.0 Setup for Non-Pet Applications

Select the vertical starting angle from the chart. To adjust the vertical starting angle for the desired mounting height and range, loosen the vertical adjust screw and slide the board up, to point the PIR pattern down. Note the settings on the vertical adjust scale (Figure 3.9).

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

* Required for pet immunity.

NOTE: The vertical angle must be set at -5° for installations containing pets.

NOTE: During the warm-up period, the tricolor LED will flash red until the unit has stabilized (approximately 30 minutes) and has seen no movement for two seconds. When the LED stops flashing, the detector is ready to be tested. With no motion in the protection area, the LED should be OFF. If the LED is on, recheck the protection area for disturbances affecting the Microwave (yellow) or PIR (green) technologies. (See Figure 3.11.)

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.

6.0 Other Information

Maintenance: At least once a month, the range and coverage should be verified using the walk test mode. 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 Masking: The PIR coverage pattern may be masked using the masking stickers provided with the unit.

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

U.S. Patent Numbers: #4,660,024, #4,764,755, #5,077,548, #5,208,567, #5,262,783, and #5,450,062. Other patents pending.

FCC Notice

This device 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: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation. Changes or modifications not expressly approved by Detection Systems, Inc. can void the user's authority to operate the equipment.