# **EXHIBIT 5**

Installation and Operating Instructions

Para. 2.1033(b)(3)



# **Retlif Testing Laboratories**

Test Report No. R-7489-1 FCC ID: ESV-0407-5

# Installation Instructions for the RF920 Passive Infared Detector

## 1.0 GENERAL INFORMATION

The RF920 is a high performance PIR Motion Sensor which uses advanced signal processing to provide outstanding catch performance and unsurpassed false alarm immunity. It contains an integral RF transmitter capable of transmitting at least 500 feet open air. (Actual acceptable transmitter range should be verified for each installation). The transmitter sends a battery report with each transmission and transmits a supervisory signal to the Control Panel every 65 minutes.

 May be used as Central Station Burglary, Grades AA and A when used with a DS7400Xi Ver. 3+ with a DS3222 wireless receiver. Corner Mounting may not be used in Central Station Burglary, Grades AA and A, Installations.

## 2.0 SPECIFICATIONS

Coverage area:

35 ft. by 40 ft. (10m x 12m)

· Operating Temperature:

-4° to +150°F (-20 to +65°C). 0 to 95% relative humidity (non-condensing. +32° to+120°F (0° to +49° C) for UL Certificated

Installations

· Standby Voltage:

Supplied by two 3 VDC lithium

batterys.

· Battery Life:

Approximately 5 years under normal operating conditions with the recommended battery types.

· Recommended Battery Types:

Duracell DL123A, Energizer EL123AP, or Panasonic

CR123A.

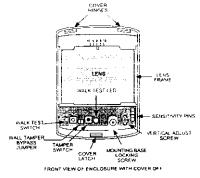
· Compatible Control Panels:

DS7400Xi Version 3+ Control/ Communicator with software

version 3.07 or above.

· Compatible Receivers:

RF3222 wireless receiver.



# 3.0 MOUNTING PROCEDURE

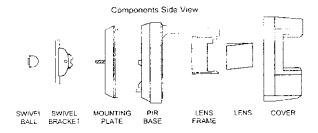
Surface or Corner Mounting (without swivel bracket)

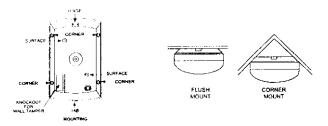
Corner Mounting may not be used in Central Station Burglary, Grades AA
and A, Installations.

The maximum wireless range of the detector, in open air, is approximately 500 feet (150 m). In normal household or commercial applications it is recommended that the detector be kept within 100 feet (30 m) of the control panel receiver to which it is assigned.

It is recommended that the detector be temporarily mounted, using double sided tape, and tested from the desired location before permanent mounting.

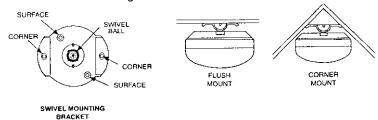
 Do Not mount in areas with large metallic surfaces (e.g. heating ducts) or electrical wiring which may inhibit the sensor's RF signals from reaching the Control Panel Receiver.





- Remove the sensor's cover by gently inserting a screwdriver into the notch at the bottom of the cover.
- Remove the mounting plate from the enclosure by prying it up and out from the bottom.
- Punch out 2 appropriate holes in the mounting plate (for surface or corner applications).
- If the wall tamper function is required, remove the rectangular knockout. Locate the small spring in the hardware kit. Hold the PIR base so the battery is visible. Place the spring on the black plastic shaft of the wall tamper switch just below the battery.
- Remove the wall tamper bypass jumper located next to the walk test switch. NOTE: The wall tamper can not be used when corner mounting.
- Using the mounting plate as a template, mark the location of the required holes on the mounting surface.
- For installation on drywall or plaster, drill a 1/8" pilot hole to determine if a wall anchor is required.
- Secure the mounting plate to the wall with the #6 x 1\* wood screws provided.

#### **Swivel Bracket Mounting**



- Using the swivel bracket as a template, mark the location of the required holes on the mounting surface.
- For installation on drywall or plaster, drill a 1/8\* pilot hole to determine if a wall anchor is required.
- Secure the swivel bracket to the wall with the #6 x 1\* wood screws provided.
- Attach the mounting plate to the swivel bracket using the #6 x 5/8\* machine screw provided.
  - Aim the mounting plate in the desired direction and tighten the screw.

    NOTE: The wall tamper switch can not be used when mounting with the swivel bracket. Use of the swivel bracket may reduce PIR range and dead zones.



- Attach the PIR base to the mounting plate and tighten the mounting plate locking screw.
- · Replace the cover, engaging the top first then securing the bottom latch.
- For added security, the cover may be locked to the base latch using the small screw provided. The screw hole in the bottom of the cover must be knocked out prior to replacing the cover.

# 4.0 PROGRAMMING THE DS7400Xi CONTROL/COMMUNICATOR

See your DS7400Xi Wireless Reference Guide for programming information for wireless type devices.

#### 5.0 WALK TESTING

 Consult the pattern drawings and the following recommended adjustment table

Mounting Height	Standard Broad Coverage Lens Range	
	20 ft_	35 ft.
6.5 ft.	-7"	-4°
7.5 ft.	-10°	-6°
8.5 ft.	_	-7°
10.0 ft.	_	-10°

Sensitivity Selection

- Locate the sensitivity pins. Move the shorting jumper to the appropriate pair of pins.
- If Re shorting jumper is not used or placed incorrectly, the sensor peaults to Intermediate sensitivity.

Standard sensitivity is recommended for Broad coverage patterns. This setting is the most tolerant of environmental extremes.

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<u>Intermediate</u> sensitivity should be used for Long Range or Barrier type lens patterns or for any location where an intruder is expected to cover only a small portion of the protected area. This setting tolerates normal environments.



<u>High</u> sensitivity should only be used in quiet environments where thermal and illumination transients are not anticipated. This setting has the fastest response to intruder signals.

#### Pattern Testing

Pressing the Walk Test Switch 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.

Walk Testing should be done across the coverage pattern. The edge of the coverage pattern is determined by the first flash of the LED. This may change slightly depending upon the sensitivity setting. Walk Test the unit from both directions to determine the pattern boundaries.

NOTE: Excessive use of the Walk Test Mode may reduce battery life.
Use only for initial setup and maintenance testing.

If the rated range cannot be achieved, adjust the pattern up or down to assure the pattern is not aimed too low or high. The vertical angle of the pattern may be changed by adjusting the swivel bracket and/or by moving the circuit board vertical adjustment between -10° and +2°. Loosen the Vertical Adjust Screw to slide the circuit board. Moving the board up will angle the pattern downward. Tighten the Vertical Adjust Screw when positioning is complete.

The detection pattern may also be shifted ±10 degrees horizontally by rotating the lens left or right to the appropriate marks on the lens frame.

#### Final Testing

Turn on all heating and air conditioning sources which would normally be active during the protection period. Stand away from the sensor and outside the coverage pattern and watch for alarms.

After setup and tests are completed, and there has been no activity in the sensor's coverage pattern for approximately 90 seconds, the LED will flash to indicate that the Walk Test mode is ending.

NOTE: When the Walk Test Mode has ended, an alarm can be transmitted only after three (3) minutes have passed since the previous alarm.

This 3 minute lockout time reduces unnecessary RF transmissions in high traffic areas thereby extending battery life.

#### Maintenance

At least once a year, the range and coverage should be verified for proper operation. To assure daily operation, the end user should be instructed to walk through the far end of the coverage pattern to verify an alarm output prior to arming the system.

#### **Battery Installation**

The sensor is normally shipped with a separate battery. When installing the battery it is necessary observe proper polarity or the sensor may be damaged. When the battery is installed, wait at least 5 minutes before activating the Walk Test Mode.

#### Coverage Masking

The Masking labels provided are cut to match the corresponding lens segments.

- Determine which detection zone/lens segment needs a masking label.
- Peel the desired mask tabel from its backing and apply to the inside of the lens segment to be blocked.

#### **RFTESTING**

The actual RF transmitter range can be determined by performing a Dealer Sensor Test as follows:

- Remove the sensor's cover and press the Walk Test Switch. Refer to Figure 3 for the switch location.
- · Replace the sensor's cover.
- Using the appropriate touchpad for the Control Panel, enter the Dealer Sensor Test Code.
- Move across the detection pattern until the sensor's LED turns on. STOP your motion.
- Note the number of siren beeps indicating how many RF packets the control panel received from the sensor. You should hear 7-8 beeps. If you hear 6 or fewer beeps, relocate the sensor and retest.

## FCC COMPLIANCE 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 users authority to operate the equipment.

# LENS PATTERNS

