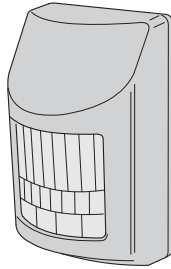


# NAPPIR01

## SUPERVISED WIRELESS MOTION DETECTOR With Pet Immunity

### Installation Instructions



USA & Canada (800) 421-1587 & (800) 392-0123  
 (760) 438-7000 - Toll Free FAX (800) 468-1340  
 www.linearcorp.com

### PRODUCT DESCRIPTION

The NAPPIR01 is a battery powered passive infrared motion detector with a built-in transmitter designed for use with NAPCO® GEM and GEM-C systems. This transmitter can be used in a variety of motion detection applications. When the passive infrared sensor detects motion in its field of view, the transmitter sends a digitally coded wireless signal to its companion receiver. To reduce false alarms caused by pets inside the protected area, the NAPPIR01 features pet immunity with a selectable large or small pet setting.

The NAPPIR01 can send five different signals: fault, restore, low battery, status, and tamper. Receivers must be programmed to the transmitter's code before system testing and operation. Refer to the receiver's instructions for details on programming.

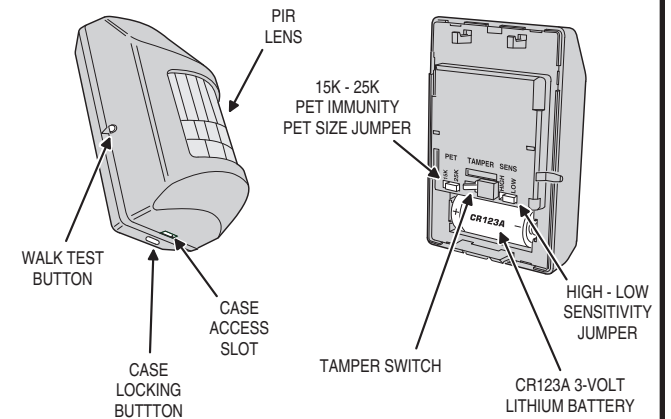
In a typical installation, the motion detector is mounted indoors in a corner or on a wall 7-1/2 feet high. Two mounting brackets and an adjustable PIR bracket are included. The sensor will monitor the infrared level in its detection pattern. If the level increases or decreases rapidly (as when a person moves through the area) the transmitter triggers, sending a **fault** signal to the receiver. A **restore** signal is sent when the motion stops. To conserve battery life, during normal operation, the detector can trigger the transmitter a maximum of once every three minutes. Opening the transmitter case will send a **tamper** signal.

Being supervised, about every 65 minutes the transmitter sends a **status** signal to update the panel. If the battery tests low, a **low battery** signal is included with any transmission. The transmitter is powered from one 3-Volt CR123A lithium battery (included).

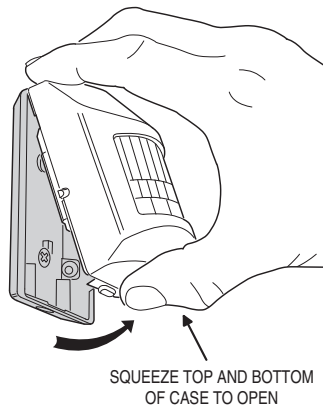
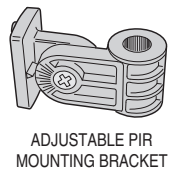
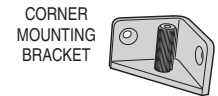
For setup and testing, pressing the test button on the left side of the case places the unit in walk test mode for five minutes. The installer can walk in front of the unit while viewing the red test indicator through the detector's lens to determine the detection area.

The detector can be mounted directly to the wall, or by using the PIR mounting bracket assembly. The assembly connects the PIR to the corner or wall mount bracket and allows vertical and horizontal adjustment of the unit.

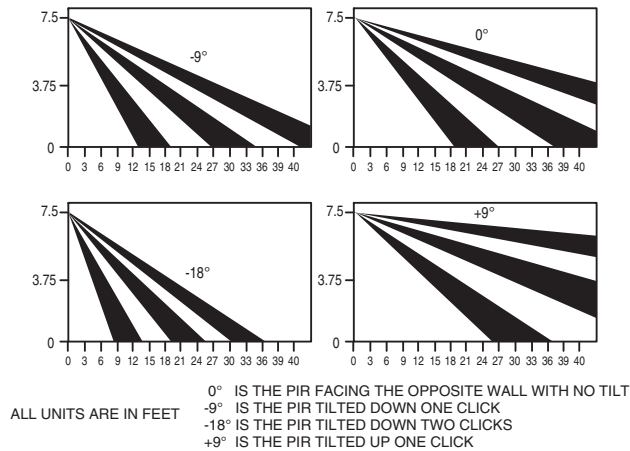
### PIR FEATURES



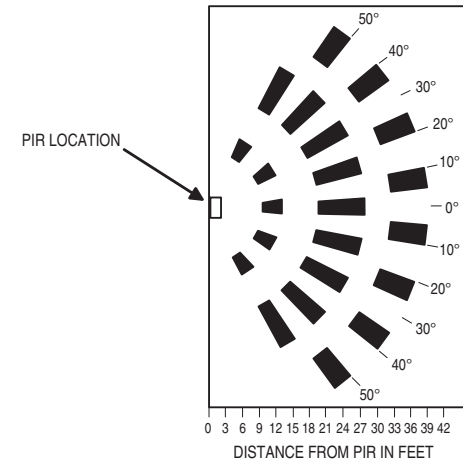
### INSTALLATION BRACKETS



### DETECTION PATTERN SIDE VIEW

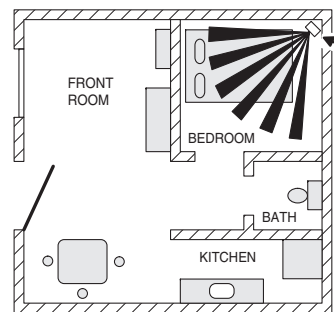


### DETECTION PATTERN TOP VIEW



### TYPICAL INSTALLATION

DON'T POINT AT HEAT SOURCES (HEATERS, ETC.), WINDOWS, OTHER MOTION DETECTORS OR DOOR/WINDOW TRANSMITTERS



PIR MOTION DETECTOR (FOR INDOOR USE ONLY)

MOUNT DETECTOR SO THAT INTRUDER WILL CROSS BEAMS

### PIR INSTALLATION TIPS

While the NAPPIR01 is a highly reliable intrusion detection device, it does not offer guaranteed protection against burglary. Any intrusion detection device is subject to compromise or failure to warn for a variety of reasons. The following issues should be considered during new installations or when troubleshooting:

- If the premise has pets, make sure to follow the instructions in this manual concerning installation with pets.
- This PIR has built-in protection, which keeps bugs from getting into the sensor area and causing false alarms. This does not prevent insects from crawling across the lens of the PIR, which in turn can cause the PIR to trigger an alarm.
- Infrared energy can be reflected off any glossy surface such as mirrors, windows, floors or counter tops with glossy finish, and slick finished concrete. Some surfaces will reflect less than others will. For example, PIRs can see a change in infrared energy reflected off any reflective surface even if the heat or cold source is not within the detection pattern of the PIR.
- Windows cannot only reflect infrared energy, but they can also allow sunlight or lights from cars to pass through to the PIR. For example, a PIR can detect a quick change in infrared energy if sun light comes through a window (which may not be detected by the PIR) and shines on a hardwood floor (which can be detected by the PIR). If the change in infrared energy is quick enough on the floor, the PIR can trigger an alarm. The same applies if the PIR "covers" the window, even though the pattern of protection cannot "see" through glass. Lights from a passing car can also pass through the window at night and directly into the lens of the detector.
- Heating and A/C ducts are also important to take into consideration because if they blow air onto an object within the fields of view, the temperature of that object could change quickly enough for the detector to see a change in infrared energy. Detectors cannot see air current, only the change in temperature of a physical object.
- The PIR senses change in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 95° to 120°F, the detection performance can decrease.

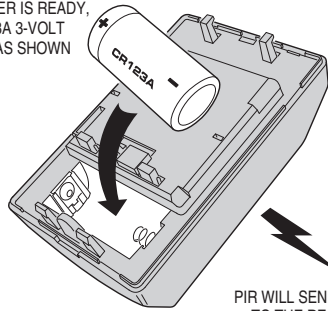
### PIR INSTALLATION TIPS

- Make sure the area you wish to protect does not have obstructions (curtains, screens, large pieces of furniture, plants, etc.) that may block the pattern of coverage provided by the PIR.
- Anything that can sway or move due to air current can cause a change in infrared energy within the fields of view. Heating and A/C ducts, drafts from doors or windows can cause this to happen. Other objects to be aware of are curtains, blinds, balloons, loose paper, plants, hanging banners or baskets, etc.
- Make sure the PIR is mounted on a solid surface and does not allow for any vibration. Vibration will not only cause the PIR to move a little, but this will also cause the fields of view in the room to move with respect to the PIR. A little vibration can go a long way with the fields of view, thus the PIR may see a change in energy.
- An installation may require a PIR to be aimed at a door. The PIR may "detect" door movement before the door contact can initiate an entry delay, causing the PIR to trigger an alarm. If the PIR has to be installed this way, it is recommended that the alarm control panel program set the PIR as an entry delay.
- The PIR detects intrusion only within the pattern of coverage as diagrammed in this manual.
- The PIR does not provide volumetric area protection.
- The PIR creates multiple beams of protection and intrusion can only be detected in unobstructed areas covered by those beams.
- The PIR cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows.
- Tampering with, masking, painting, or spraying of any material on the PIR lens or any part of the optical system can reduce the detection ability of the PIR.
- The PIR will not operate without the appropriate battery installed, or if the battery is weak or improperly connected (i.e., reversed polarity).
- The PIR, like other electrical devices, are subject to component failure. Even though the NAPPIR01 is designed to last as long as 10 years, the electronic components in it could fail at any time.

### BATTERY INSTALLATION & PROGRAMMING

PREPARE THE RECEIVER TO "LEARN" THE TRANSMITTER

WHEN THE RECEIVER IS READY, INSTALL THE CR123A 3-VOLT LITHIUM BATTERY AS SHOWN



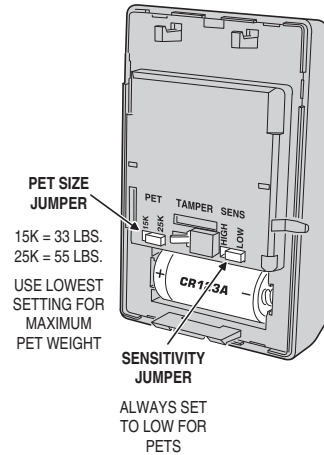
**OBSERVE BATTERY POLARITY!!!**

PIR WILL SEND A TRANSMISSION TO THE RECEIVER AND THE TRANSMITTER'S ID WILL BE STORED IN THE RECEIVER

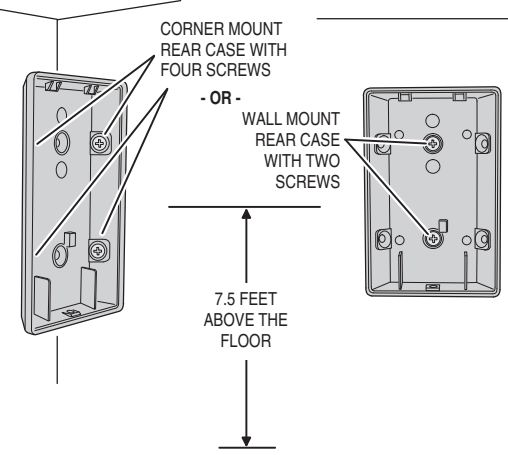
### PET IMMUNITY TIPS

To take full advantage of the NAPP1R01 pet immunity features in installations with pets, use these following steps:

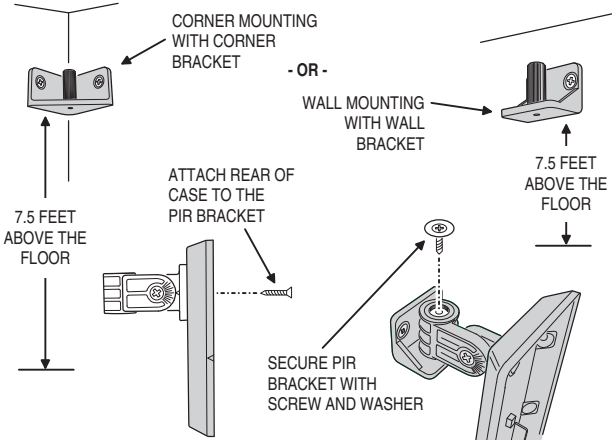
- Mount the PIR with the center of the lens 7-1/2 to 8 feet above floor level.
- Set the **SENSITIVITY** jumper to the **LOW** position.
- Set the **PET SIZE** jumper to the lowest setting for the maximum pet weight.
- Mount the PIR where pets cannot come within six feet of the unit by climbing on furniture, boxes, or other objects.
- Do not aim the PIR at stairs or furniture, boxes, or other objects that can be climbed by pets.
- **NOTE:** The NAPP1R01 will provide immunity to false alarms for an individual animal or a group of animals whose total weight is equal to or less than 55 pounds when the room temperature is above 50° F and below 90° F. If the optional mounting bracket is used, it should be mounted with no tilt.



### MOUNTING PIR WITHOUT INSTALLATION BRACKETS



### MOUNTING PIR WITH INSTALLATION BRACKETS



### PROGRAMMING

For a detail programming guide, the instruction manual should be consulted for that panel. The below guide should only be used as a reference and not as a replacement for using the programming instructions.

1. Enter Panel Programming
2. Select Zone #
3. Enter 6 Digit ID number (located on back of unit)
4. Enter Check sum (0-9 ; A-F) (located on back of unit). Digit that follows ":" on the Serial ID. For A - F use 0 - 5 (See Below)
5. Enter Point "3" - for PIR
6. Push On/Off to Save

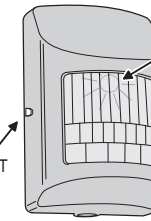
#### Alpha Numeric Conversion

A = *0	D = *3
B = *1	E = *4
C = *2	F = *5

### WALK TESTING AND OPERATIONAL TESTING

SNAP CASE CLOSED BEFORE WALK TESTING

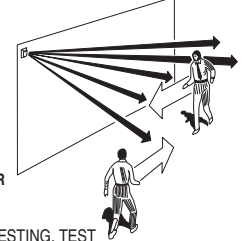
PRESS WALK TEST BUTTON ON LEFT SIDE OF CASE



UNIT WILL STAY IN WALK TEST MODE FOR FIVE MINUTES

RED WALK TEST INDICATOR WILL SHOW THROUGH PIR LENS

WALK ACROSS BEAM PATTERN WHILE OBSERVING THE WALK TEST INDICATOR

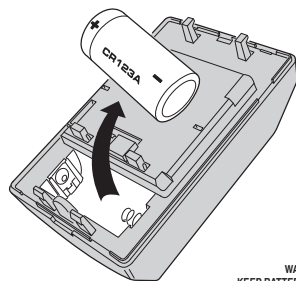


**NOTE: LET PIR STAND WITH NO INTERFERENCE FOR FIRST 3 MINUTES.**

AFTER WALK TESTING, TEST THE PIR WITH THE SYSTEM CONTROL PANEL OR RECEIVER

### BATTERY REPLACEMENT

WHEN THE SYSTEM INDICATES THAT THE PIR HAS A LOW BATTERY, REMOVE THE OLD BATTERY AND DISPOSE OF IT PROPERLY

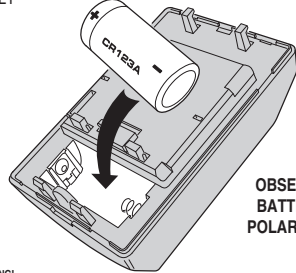


**WARNING!**  
 BATTERY MUST NOT BE RECHARGED, DISASSEMBLED, OR DISPOSED OF IN A FIRE. DISPOSAL OF USED BATTERIES MUST BE MADE IN ACCORDANCE WITH THE WASTE RECOVERY AND RECYCLING REGULATIONS IN YOUR AREA.

**WARNING!**  
 KEEP BATTERY AWAY FROM SMALL CHILDREN. IF BATTERY IS SWALLOWED, PROMPTLY SEE A DOCTOR

**CALIFORNIA ONLY:** THIS PERCHLORATE WARNING APPLIES ONLY TO MANGANESE DIOXIDE LITHIUM CELLS SOLD OR DISTRIBUTED ONLY IN CALIFORNIA, USA. PERCHLORATE MATERIAL: SPECIAL HANDLING MAY APPLY. SEE: [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

INSTALL CR123A 3-VOLT LITHIUM BATTERY AS SHOWN



**OBSERVE BATTERY POLARITY!!!**

**WARNING!**  
 IMPROPER HANDLING OF LITHIUM BATTERIES MAY RESULT IN HEAT GENERATION, EXPLOSION OR FIRE, WHICH MAY LEAD TO PERSONAL INJURIES. REPLACE WITH ONLY TYPE CR123A BATTERY.

### SPECIFICATIONS

OUTPUTS:	FAULT, RESTORE, LOW BATTERY, STATUS, & TAMPER
TRANSMITTER FREQUENCY:	319.5 MHz
SUPERVISORY INTERVAL:	65 MINUTES
SENSOR TYPE:	QUAD ELEMENT
PET IMMUNITY:	SELECTABLE: 15 Kg (33 LBS.) OR 25 Kg (55 LBS.)
SENSITIVITY JUMPER:	SELECTABLE: HIGH OR LOW
SUGGESTED MOUNTING HEIGHT:	7.5 FT. (2.3 m)
SENSOR RANGE:	30 FT. (9.1 m) X 50 FT. (15.2 m)
MAXIMUM HORIZONTAL SENSING ANGLE:	90°
DIMENSIONS:	3.2" x 2.5" x 1.9" (8.12 x 6.35 x 4.82 cm)
WEIGHT (INCLUDING BATTERY & BRACKET):	3.7 OZ. (104.9 g)
COLOR:	WHITE
OPERATING TEMPERATURE:	32° TO 103° F (0° TO 39° C)
RELATIVE HUMIDITY:	5-95% NON-CONDENSING
BATTERY (INCLUDED, NOT INSTALLED):	ONE (1) PANASONIC CR123A, OR EQUIVALENT LITHIUM BATTERY
REGULATORY LISTINGS:	FCC PART 15, INDUSTRY CANADA
INCLUDED ACCESSORIES:	MOUNTING BRACKETS AND SCREWS, PLASTIC WALL ANCHORS

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

#### IMPORTANT !!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

THIS DEVICE COMPLIES WITH FCC RULES AND REGULATIONS AS PART 15 DEVICES, AS WELL AS INDUSTRY CANADA RULES AND REGULATIONS. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE; (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.