®ADEMCO

Installation Instructions

998MX Passive Infrared Detector

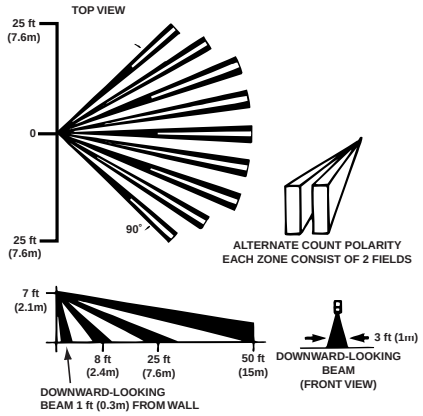
General Information

This passive infrared motion detector is designed for use with control panels that support polling loop devices equipped with DIP switches or polling loop devices that require their serial number to be "programmed*". It is a versatile wall-mounted unit employing Fresnel lenses and offering efficient protection patterns for commercial and residential applications. Best coverage will be obtained if mounting is selected such that the likely direction of intruder motion is *across* the pattern.

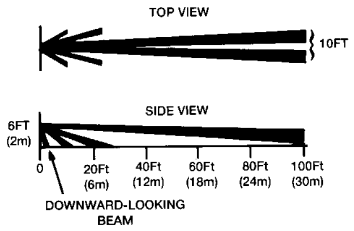
*** If the control panel supports Serial No. programming, you MUST configure the 998MX as a Serial No. device (see Address/Serial No. ID section).**

This detector is also equipped with "downward looking" optics to cover the normally "dead" zone directly beneath a detector.

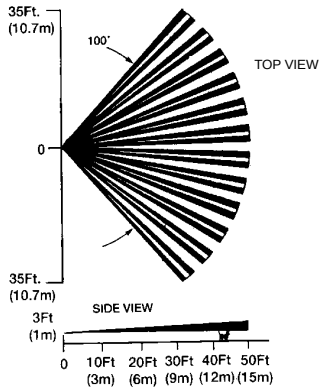
The detector is shipped with the standard wide-angle lens installed, but also supports the supplied pet alley lens (99PA) and long-range lens (99LR). An optional swivel mounting bracket (998SB) is available (purchased separately).



Protection Pattern, Standard Lens



Protection Pattern, No.99LR Long Range Lens



Protection Pattern, No 99PA Pet Alley Lens

Specifications

Coverage:	Standard Wide-Angle Lens 50 ft x 50 ft (15.2m x 15.2m), 90°
Optional Lens:	99PA, Pet Alley Lens 50 ft x 70 ft (15m x 21.3m), 100° 99LR, Long Range Lens 100 ft x 10 ft (30m x 3m)
Detection Zones:	
W/Standard Lens:	18 zones (9 long range, 5 intermediate, 2 short range).
W/Optional Lenses:	99PA: 12 zones 99LR: 5 zones (1 long range, 2 intermediate, 2 short range). Detector provides one "downward looking" zone with all lenses (downward looking lens must be masked when using the 99PA).
Pulse Count:	Installer-selectable (1, 2, or 3)
Detectable Walk Rate:	0.5–5 ft/Sec (0.15m –1.5m/Sec)
Mount Height:	7 ft nominal (2.1m)
Indicator:	Red LED with enable/disable link
Input Voltage:	8-11V peak to peak at polling loop terminals.
Current:	1mA (LED disabled) 3mA (alarm LED enabled)
Standby:	Power source should be capable of at least 4 hours of battery standby.
Operating Temp:	14°F to 122°F (-10° to +50°C)
Humidity:	Up to 95% RH (max.),non-condensing.
Dimensions:	2"W x 4"H x 2"D (max protrusion) (67mm x 111mm x 54mm).

Installation

Normal Mounting:

Mount the unit to a firm vertical surface. The wall wiring hole should be no more than 5/16" (8mm) in diameter.

1. Remove the front cover as shown in Figure 1.
2. Refer to Figure 2. Knockout holes "A" in the base are for normal surface mounting on a wall (slide PC board up for access to bottom holes, down for access to top holes). For corner mounting, see **Corner Mounting** section. Also break out the desired wire entry hole at this time (marked X1 or X2 in Fig. 2).
3. Feed wiring emerging from the wall through the wire access hole **near the top** of the detector base. Make sure wires have sufficient slack to allow the PC board to be moved up and down freely when the wires are connected to the terminals on the board.
4. Mount the base. ***Note the mounting orientation of this detector – wire entry at the top, lens at the bottom!***
5. Refer to the **Wiring Connections** section before replacing the front cover.

Corner Mounting:

Knockout holes "B" in the base are used for corner mounting on a wall (slide PC board up for access to bottom holes, down for access to top holes). Mount in selected corner with 4 screws (see Fig. 3).

Note the mounting orientation of this detector – wire entry at the top, lens at the bottom! Make sure the board is positioned so that the arrow is in line with the appropriate setting on the graduated scale (see Fig. 5 and Table 1).

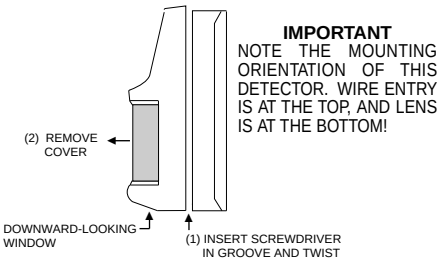


Figure 1. Cover Removal

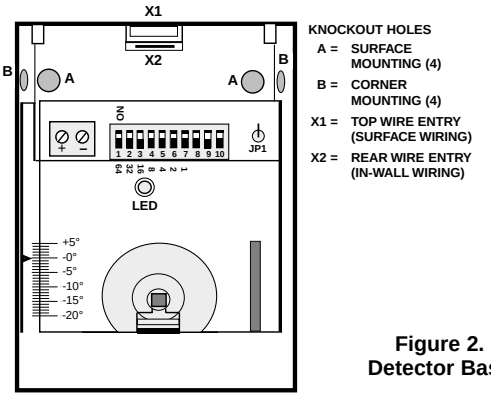


Figure 2. Detector Base

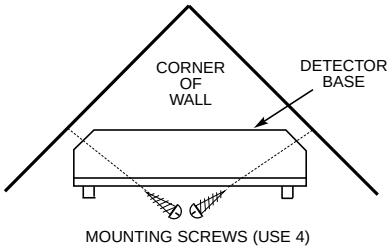


Figure 3. Corner Mounting

Changing lenses (if required)

1. Remove front cover.
2. Release the lens support frame located in front cover as follows: insert the blade of a small screwdriver between the locking tab and the detector case in each of the four corners of the frame, and lever each tab upward to release. See Figure 4. When all four corners are released, remove the lens support frame.
3. Remove the existing lens and replace with the replacement lens. **The lens must be installed with the smooth side facing outward. Also, the lens should be oriented with its part number on the upper right-hand side (see Fig. 4).** Be sure to center the lens.
   Note: Lens surface should be free of dirt, foreign matter and fingerprints. Use a clean, dry, soft cloth to wipe lens surfaces.
4. Insert the lens support frame into its original position and then press downward on the frame so that the lens locking tabs snap into position in each of the four corners.

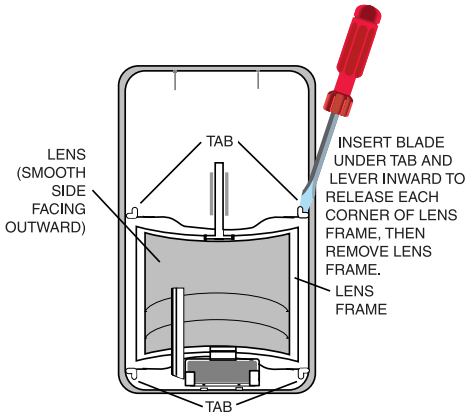
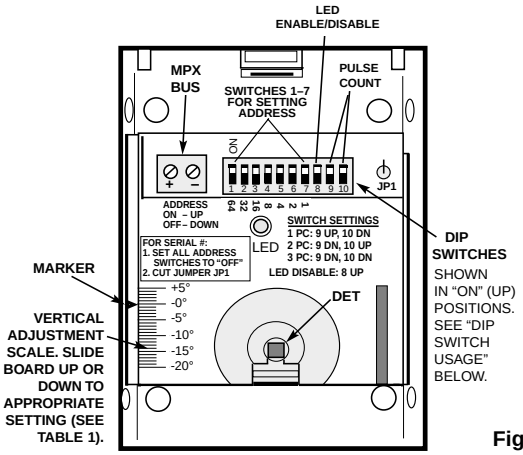


Figure 4. Changing Lenses



DIP SWITCH USAGE

1–7: USED FOR SETTING ADDRESS (FOR USE WITH CONTROLS THAT DO NOT SUPPORT "LEARNING" DEVICES). SEE "POINT ID PROGRAMMING CHART."

8: LED ENABLE/DISABLE:
UP (ON) DISABLES LED;
DOWN (OFF) ENABLES LED.

9/10: PULSE COUNT SELECTION:
FOR PC 1: 9 UP (ON), 10 DOWN (OFF).
FOR PC 2: 9 DOWN (OFF), 10 UP (ON).
FOR PC 3: 9 DOWN (OFF), 10 DOWN (OFF).

Figure 5. Wiring Connections

5. Refer to ***Vertical Pattern Adjustment*** and Table 1 for recommended detector pattern setting for various mounting heights and protection ranges.
6. Replace front cover.

Horizontal Adjustment of Lens

The protection pattern can be moved to the left or right by horizontal adjustment as follows:

1. Remove front cover.
2. Grasp the lens firmly on both sides (front and back) and slide the lens to the left or right, as needed. The lens may be moved as much as 4° (from center) in either direction.
3. Replace front cover.

After adjustment, conduct a walk test to ensure proper coverage of the area to be protected (see **Test Procedures**).

Vertical Pattern Adjustment

The protection pattern can be raised or lowered by re-positioning the PC board in the detector. A graduated scale to the right of the board (see Fig. 5) indicates the approximate number of degrees by which the pattern can be raised (max +5°) or lowered (max -20°). To make this adjustment, loosen the screw holding the PC board. Slide the board upward or downward by the number of degrees required, then tighten the holding screw again. Table 1 indicates the recommended setting at various mounting heights and protection ranges for each of the available lenses.

After any adjustment, conduct a Walk-Test to ensure proper coverage of the area to be protected; see **Test Procedures**.

Lens Masking

The supplied masking strips can be used to produce a protection pattern that suits the particular requirements of the protected area, or eliminate coverage from areas where you anticipate environmental disturbances that might reduce the PIR's stability (a heater or other heat-producing object, for example). Simply peel off the appropriate pressure-sensitive adhesive strip(s) and apply over the desired lens segment(s). Be sure to affix the masking strips to the inside of the lens (not the outer, smooth side). Each lens segment that is masked results in the elimination of one zone of protection from the coverage pattern.

The standard lens can be used to provide a pet alley. To do so, mask the bottom two rows (see Fig. 4) and mount as though the optional pet alley lens were installed.

IMPORTANT: If using the Pet Alley lens or if you have masked the standard lens to emulate a pet alley lens, *you must also mask the look-down window.*

Wiring Connections

Bring polling loop wires in through the wire access slot at the top of the detector base (near the terminal block) and connect to the screw terminals (see fig. 5). Seal any opening in the base with foam or RTV (not supplied) to prevent drafts or insects from entering the unit. *Apply power only after the wiring connections have been made and are inspected.*

Address/Serial No. ID

The 998MX can be configured as either a serial number polling loop device or a DIP switch polling loop device (for controls that do not support serial number devices).

IMPORTANT: You must use the serial number configuration if using this PIR with a control that supports Serial No. devices.

Use the DIP switches *only* if using this PIR with a control that *does not* support Serial No. devices.

For DIP switch configuration, set DIP switches 1–7 according to the Zone Number Programming Chart on the next page.

For serial number configuration, cut jumper JP1 off at the base, and set DIP switches 1–7 to the OFF positions (DOWN).

If the PIR is to be used with a control that supports serial number devices, this PIR's serial number can be entered by one of the following methods:

1. Downloading (Zone Definition screen of *Compass* Downloading software). **Recommended for large installations and installations where foot traffic cannot be controlled.**
2. Entered in manually at the "learn" prompt during manual zone programming (see Important note below). This PIR's unique factory-assigned serial number can be found on the bar code label on the left side of the PC board cover.
3. Entered by faulting the detector twice while at the "learn" prompt during manual zone programming.

IMPORTANT: If you are programming manually, be sure that other polling loop sensors are not activated so that they cannot send a signal to the control while this PIR is being programmed (mask PIRs, don't open/close doors, etc.).

To enter the serial number at the control, refer to the control's programming instructions, noting the following:

Input Type = 6 (SL: Serial Number Polling Loop Device)
Loop Number = 1

To fault the PIR when prompted, simply move your hand in front of the detector. The keypad will beep to confirm the signal. Wait 3–6 seconds before faulting the second time.

Pulse Count Option

This detector includes Pulse Count circuitry that provides stability in adverse environments to minimize false alarms.

Selectable 1-, 2-, or 3-event pulse count is provided by setting DIP switches 9 and 10 as shown in Figure 5. When programmed for 2- or 3- event pulse count, the detector will signal an alarm within 3 to 4 steps, since the processing logic requires more complex motion than just a momentary event. When the detector verifies an intrusion, the LED lights for approximately 1 to 3 seconds.

LED Enable/Disable Option

The Alarm LED is disabled when the LED enable/disable DIP switch (#8) is in the up position. To enable the LED, set the #8 DIP switch to the down position. See Figure 5.

Note: The LED is viewed through the front cover lens.

Tamper Switch

Removal of the cover causes a tamper switch to open. The control panel is automatically notified via the polling loop when this event occurs.

Test Procedures

IMPORTANT: Two-minute warm-up time is required after applying power. Testing should be conducted with the protected area cleared of all people. Disarm the protective system's control during the test procedure to prevent reporting of unwanted alarms.

1. Remove front cover and set the Pulse Count switches for "PC1" switch #9 up, switch #10 down). This will provide instant response.

   Set the LED enable/disable switch #8 to the down position to enable the LED.
2. Replace front cover and walk through protective zones, observing that the detector's LED lights whenever motion is detected. (The LED serves as a Walk-Test Indicator during this procedure.

   Note: In the Instant mode, the LED stays lit for approximately 1–3 seconds after detecting motion.
3. Test the downward-looking zone by walking along the wall directly beneath the detector (this does not apply to the Pet Alley lens or the standard lens masked to act as a Pet Alley lens, which should have the downward-looking window on the detector masked).
4. If pulse count is to be used, set the pulse count jumper to desired setting and repeat the walk test procedure. With pulse count on, the LED serves as an alarm indicator.

The absolute range of all PIR units is subject to variation because of different types of clothing, backgrounds and ambient temperature. For this reason, ensure that the most likely intruder routes are well within the PIR's protective zones and that Walk-Testing is carried out along these routes.

After the Walk-Test is complete, the LED may be disabled (switch #8 in the down position).

998MX Point ID Programming Chart

If using DIP Switches: For zone numbers 1–128, do not cut jumper JP1; for zone numbers [129]–[254], cut JP1.

IMPORTANT: If the control panel supports Serial No. programming, you MUST configure the 998MX as a Serial No. device (not a DIP Switch device). When programming Serial numbers, cut JP1 and set all DIP switches to the OFF position.

Position	7	6	5	4	3	2	1
Value	1	2	4	8	16	32	64
"**Learning**"	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1 [129]	OFF	on	on	on	on	on	on
2 [130]	on	OFF	on	on	on	on	on
3 [131]	OFF	OFF	on	on	on	on	on
4 [132]	on	on	OFF	on	on	on	on
5 [133]	OFF	on	OFF	on	on	on	on
6 [134]	on	OFF	OFF	on	on	on	on
7 [135]	OFF	OFF	OFF	on	on	on	on
8 [136]	on	on	on	OFF	on	on	on
9 [137]	OFF	on	on	OFF	on	on	on
10 [138]	on	OFF	on	OFF	on	on	on
11 [139]	OFF	OFF	ON	OFF	on	on	on
12 [140]	on	on	OFF	OFF	on	on	on
13 [141]	OFF	on	OFF	OFF	on	on	on
14 [142]	on	OFF	OFF	OFF	on	on	on
15 [143]	OFF	OFF	OFF	OFF	on	on	on
16 [144]	on	on	on	on	OFF	on	on
17 [145]	OFF	on	on	on	OFF	on	on
18 [146]	on	OFF	on	on	OFF	on	on
19 [147]	OFF	OFF	on	on	OFF	on	on
20 [148]	on	on	OFF	on	OFF	on	on
21 [149]	OFF	on	OFF	on	OFF	on	on
22 [150]	on	OFF	OFF	on	OFF	on	on
23 [151]	OFF	OFF	OFF	on	OFF	on	on
24 [152]	on	on	on	OFF	OFF	on	on
25 [153]	OFF	on	on	OFF	OFF	on	on
26 [154]	on	OFF	on	OFF	OFF	on	on
27 [155]	OFF	OFF	on	OFF	OFF	on	on
28 [156]	on	on	OFF	OFF	OFF	on	on
29 [157]	OFF	on	OFF	OFF	OFF	on	on
30 [158]	on	OFF	OFF	OFF	OFF	on	on
31 [159]	OFF	OFF	OFF	OFF	OFF	on	on
32 [160]	on	on	on	on	on	OFF	on
33 [161]	OFF	on	on	on	on	OFF	on
34 [162]	on	OFF	on	on	on	OFF	on
35 [163]	OFF	OFF	on	on	on	OFF	on
36 [164]	on	on	OFF	on	on	OFF	on
37 [165]	OFF	on	OFF	on	on	OFF	on
38 [166]	on	OFF	OFF	on	on	OFF	on
39 [167]	OFF	OFF	OFF	on	on	OFF	on
40 [168]	on	on	on	OFF	on	OFF	on
41 [169]	OFF	on	on	OFF	on	OFF	on
42 [170]	on	OFF	on	OFF	on	OFF	on
43 [171]	OFF	OFF	on	OFF	on	OFF	on
44 [172]	on	on	OFF	OFF	on	OFF	on
45 [173]	OFF	on	OFF	OFF	on	OFF	on
46 [174]	on	OFF	OFF	OFF	on	OFF	on
47 [175]	OFF	OFF	OFF	OFF	on	OFF	on
48 [176]	on	on	on	on	OFF	OFF	on
49 [177]	OFF	on	on	on	OFF	OFF	on
50 [178]	on	OFF	on	on	OFF	OFF	on
51 [179]	OFF	OFF	on	on	OFF	OFF	on
52 [180]	on	on	OFF	on	OFF	OFF	on
53 [181]	OFF	on	OFF	on	OFF	OFF	on
54 [182]	on	OFF	OFF	on	OFF	OFF	on
55 [183]	OFF	OFF	OFF	on	OFF	OFF	on
56 [184]	on	on	on	OFF	OFF	OFF	on
57 [185]	OFF	on	on	OFF	OFF	OFF	on
58 [186]	on	OFF	on	OFF	OFF	OFF	on
59 [187]	OFF	OFF	on	OFF	OFF	OFF	on
60 [188]	on	on	OFF	OFF	OFF	OFF	on
61 [189]	OFF	on	OFF	OFF	OFF	OFF	on
62 [190]	on	OFF	OFF	OFF	OFF	OFF	on
63 [191]	OFF	OFF	OFF	OFF	OFF	OFF	on
64 [192]	on	on	on	on	on	on	OFF

Position	7	6	5	4	3	2	1
Value	1	2	4	8	16	32	64
65 [193]	OFF	on	on	on	on	on	OFF
66 [194]	on	OFF	on	on	on	on	OFF
67 [195]	OFF	OFF	on	on	on	on	OFF
68 [196]	on	on	OFF	on	on	on	OFF
69 [197]	OFF	on	OFF	on	on	on	OFF
70 [198]	on	OFF	OFF	on	on	on	OFF
71 [199]	OFF	OFF	OFF	on	on	on	OFF
72 [200]	on	on	on	OFF	on	on	OFF
73 [201]	OFF	on	on	OFF	on	on	OFF
74 [202]	on	OFF	on	OFF	on	on	OFF
75 [203]	OFF	OFF	on	OFF	on	on	OFF
76 [204]	on	on	OFF	OFF	on	on	OFF
77 [205]	OFF	on	OFF	OFF	on	on	OFF
78 [206]	on	OFF	OFF	OFF	on	on	OFF
79 [207]	OFF	OFF	OFF	OFF	on	on	OFF
80 [208]	on	on	on	on	OFF	on	OFF
81 [209]	OFF	on	on	on	OFF	on	OFF
82 [210]	on	OFF	on	on	OFF	on	OFF
83 [211]	OFF	OFF	on	on	OFF	on	OFF
84 [212]	on	on	OFF	on	OFF	on	OFF
85 [213]	OFF	on	OFF	on	OFF	on	OFF
86 [214]	on	OFF	OFF	on	OFF	on	OFF
87 [215]	OFF	OFF	OFF	on	OFF	on	OFF
88 [216]	on	on	on	OFF	OFF	on	OFF
89 [217]	OFF	on	on	OFF	OFF	on	OFF
90 [218]	on	OFF	on	OFF	OFF	on	OFF
91 [219]	OFF	OFF	on	OFF	OFF	on	OFF
92 [220]	on	on	OFF	OFF	OFF	on	OFF
93 [221]	OFF	on	OFF	OFF	OFF	on	OFF
94 [222]	on	OFF	OFF	OFF	OFF	on	OFF
95 [223]	OFF	OFF	OFF	OFF	OFF	on	OFF
96 [224]	on	on	on	on	on	OFF	OFF
97 [225]	OFF	on	on	on	on	OFF	OFF
98 [226]	on	OFF	on	on	on	OFF	OFF
99 [227]	OFF	OFF	on	on	on	OFF	OFF
100 [228]	on	on	OFF	on	on	OFF	OFF
101 [229]	OFF	on	OFF	on	on	OFF	OFF
102 [230]	on	OFF	OFF	on	on	OFF	OFF
103 [231]	OFF	OFF	OFF	on	on	OFF	OFF
104 [232]	on	on	on	OFF	on	OFF	OFF
105 [233]	OFF	on	on	OFF	on	OFF	OFF
106 [234]	on	OFF	on	OFF	on	OFF	OFF
107 [235]	OFF	OFF	on	OFF	on	OFF	OFF
108 [236]	on	on	OFF	OFF	on	OFF	OFF
109 [237]	OFF	on	OFF	OFF	on	OFF	OFF
110 [238]	on	OFF	OFF	OFF	on	OFF	OFF
111 [239]	OFF	OFF	OFF	OFF	on	OFF	OFF
112 [240]	on	on	on	on	OFF	OFF	OFF
113 [241]	OFF	on	on	on	OFF	OFF	OFF
114 [242]	on	OFF	on	on	OFF	OFF	OFF
115 [243]	OFF	OFF	on	on	OFF	OFF	OFF
116 [244]	on	on	OFF	on	OFF	OFF	OFF
117 [245]	OFF	on	OFF	on	OFF	OFF	OFF
118 [246]	on	OFF	OFF	on	OFF	OFF	OFF
119 [247]	OFF	OFF	OFF	on	OFF	OFF	OFF
120 [248]	on	on	on	OFF	OFF	OFF	OFF
121 [249]	OFF	on	on	OFF	OFF	OFF	OFF
122 [250]	on	OFF	on	OFF	OFF	OFF	OFF
123 [251]	OFF	OFF	on	OFF	OFF	OFF	OFF
124 [252]	on	on	OFF	OFF	OFF	OFF	OFF
125 [253]	OFF	on	OFF	OFF	OFF	OFF	OFF
126 [254]	on	OFF	OFF	OFF	OFF	OFF	OFF
127	OFF	OFF	OFF	OFF	OFF	OFF	OFF
128	on	on	on	on	on	on	on

TABLE 1. INSTALLATION GUIDE FOR LENSES

STANDARD LENSES

PROTECTION RANGE

Mtg Height	15' (4.6m)	20' (6m)	30' (9m)	40' (12m)	50' (15m)
8.5Ft (2.6m)	-20°	-16°	-11°	-8°	-7°
8Ft (2.4m)	-20°	-15°	-10°	-8°	-6°
7Ft (21m)	-16°	-12°	-8°	-6°	-5°
6Ft (1.8m)	-13°	-10°	-6°	-5°	-4°

Vertical Pattern Setting

LONG RANGE - 998-LR

PROTECTION RANGE

Mtg Height	20' (6m)	40' (12m)	60' (18m)	80' (24m)	100' (30.4m)
8.5Ft (2.6m)	-15°	-9°	-6°	-5°	-5°
8Ft (2.4m)	-14°	-8°	-6°	-5°	-4°
7Ft (21m)	-11°	-6°	-5°	-4°	-4°
6Ft (1.8m)	-8°	-5°	-4°	-3°	-3°

Vertical Pattern Setting

*** Important:** When using the Long Range lens, set the PIR for Instant response (Pulse Count 1).

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Intermittent Alarm	Rapid temperature change. Check for electric or gas heaters, open flames, electric arcs, etc.	Locate source and reposition detector.
	Drafts causing drapes, light fixtures, display material to move.	Eliminate source of motion.
PIR does not appear to be operating	Polling loop voltage supplied to detector is inadequate, intermittent or polarity reversed.	Assure that proper polarity is supplied and that wiring is intact (no opens or shorts) and connection secure. Check for presence of 8–11V PP at terminals of unit. If too low, polling loop run to control may be excessive for the wire gauge used, or polling loop current drain may be excessive. Increase wire gauge or add Polling loop extender module to location in the loop where voltage boost is necessary and connect it to a power source. Alternatively, the detector can be tested using a 9-volt source (such as a 9-volt battery or a 9-volt power supply).
LED inoperative.	LED disable jumper is on	Set LED disable DIP switch to OFF.
	LED malfunction. Check for broken or shorted leads.	Return unit for service.
Detection Area Changes	Repositioned furniture or equipment in the protected area.	Caution customer about layout changes. Reposition detector.
	Mounting surface is unstable. A few degrees of vertical shift can change range substantially.	Mount on secure surface.
Trouble Code	Improper ID code, or PIR serial No. not entered.	Set DIP swiitches1–7 to proper code, or enter PIR serial No.

PET ALLEY LENS– 998-PA

Mounting Height: **3 ft –3.5 ft (0.9–1m)**
Vertical Pattern Setting (for all ranges): **+4°**
Important: Be sure to affix the provided masking label over the look-down window.

TO THE INSTALLER

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user, as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to ensure the system's operation at all times.

THE LIMITATIONS OF YOUR PASSIVE INFRARED MOTION DETECTOR

While the Intrusion Detector 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:

- Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in this installation manual.
- Passive Infrared Motion Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams.
- Passive Infrared Detectors cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows.
- Mechanical tampering, masking, painting or spraying of any material on the lenses, windows or any part of the optical system can reduce the detection ability of the Passive Infrared Motion Detector.
- Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 90° to 105°F (32° to 40°C), the detection performance can decrease.
- This Passive Infrared Detector will not operate without appropriate DC power connected to it, or if the DC power is improperly connected (i.e., reversed polarity connections).
- Passive Infrared Detectors, like other electrical devices, are subject to component failure. Even though this equipment is designed to last as long as 10 years, the electronic components in it could fail at any time.

We have cited some of the most common reasons that a Passive Infrared Motion Detector can fail to catch intrusion. However, this does not imply that these are the only reasons, and therefore it is recommended that weekly testing of this type of unit, in conjunction with weekly testing of the entire alarm system, be performed to ensure that the detectors are working properly.

Installing an alarm system may make the owner eligible for a lower insurance rate, but an alarm system is not a substitute for insurance. Homeowners, property owners and renters should continue to act prudently in protecting themselves and continue to insure their lives and property.

We continue to develop new and improved protection devices. Users of alarm systems owe it to themselves and their loved ones to learn about these developments.

ADEMCO SIX-YEAR LIMITED WARRANTY

Alarm Device Manufacturing Company, a Division of Pittway Corporation, and its divisions, subsidiaries and affiliates ("Seller"), 165 Eileen Way, Syosset, New York 11791, warrants this detector to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 72 months from the date stamp control on the product. Seller's obligation shall be limited to replacing, at its option, free of charge for materials or labor, a detector which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the detector is altered or improperly repaired or serviced by anyone other than Ademco factory service. In case of defect, return the detector to ADI or an authorized distributor for an immediate replacement.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

Seller does not represent that its detector may not be compromised or circumvented; that the detector will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the detector will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of a burglary, robbery, fire or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON A CLAIM THE DETECTOR FAILED TO GIVE WARNING. HOWEVER, IF SELLER IS HELD LIABLE, WHETHER DIRECTLY OR INDIRECTLY, FOR ANY LOSS OR DAMAGE ARISING UNDER THIS LIMITED WARRANTY OR OTHERWISE, REGARDLESS OF CAUSE OR ORIGIN, SELLER'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE DETECTOR, WHICH SHALL BE THE COMPLETE AND EXCLUSIVE REMEDY AGAINST SELLER. This warranty replaces any previous warranties and is the only warranty made by Seller on this detector. No increase or alteration, written or verbal, of the obligations of this Limited Warranty is authorized.

ADEMCO GROUP

165 Eileen Way, Syosset, N.Y. 11791

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