

AMB-300

Addressable PIR Detector

INSTALLATION INSTRUCTIONS

The AMB-300 is a general purpose PIR detector designed to provide reliable motion detection for residential and commercial applications.

Exceptional design care and factory testing ensure years of trouble free performance. The detectors provide immunity against false alarms from RF, static, electrical transient and white light.

Multi-level signal processing*, temperature compensation and a large multi-beam lens design means that the human target will not slip by unnoticed—even on a hot summer day.

Four interchangeable lenses, wall or corner mounting and vertical adjustment provide application versatility. Your client will appreciate the small size and elegant simplicity of the case design.

The AMB-300 uses a 2-wire connection for power and to communicate with the control panel. This simplifies wiring and reduces installation cost. The AMB-300's low current draw also maximizes the number of devices that can be attached to an addressable loop.

Specifications

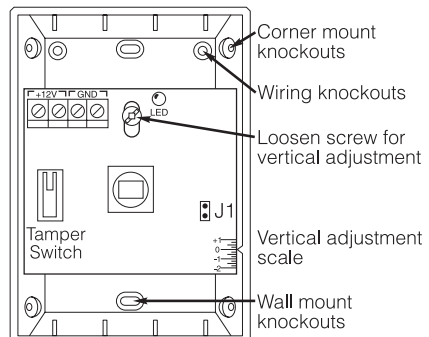
- Current rating: 0.75 mA (standby); 3 mA (test mode)
- Operating environment: 32°F-120°F / 0°C-49°C; 5%-93% RH, non-condensing
- Radiated RF immunity: 10 V/m with 80% AM over range, 80MHz to 1.0GHz**
- Conducted RF immunity: 10V with 80% AM over range 150kHz to 100MHz**
- Static immunity: 15 kV
- Transient immunity: 2.4 kV @ 1.2 joules
- White light immunity: 20,000 Lux @ device
- Walk detection speed: 0.5-10'/s (0.15-3m/s)
- Coverage angle (BV-L1): 90° minimum
- Vertical adjustment: +5° to -10°
- Mounting heights: 6-10'/2-3m (nom. 7.5'/2.3m); 4-5'/1.2-1.5m (pet alley only)
- Tamper switch contact rating: 0.1A @ 24Vdc

Control Panel Compatibility

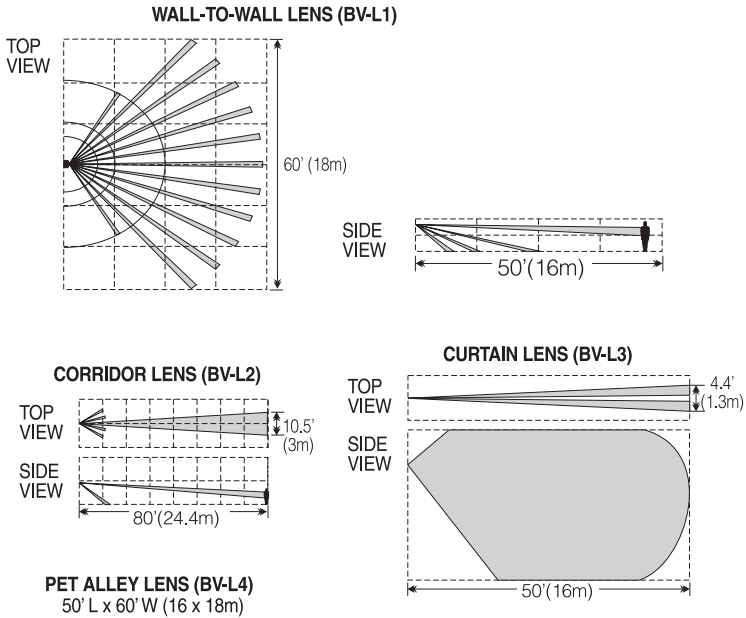
- PC4010/4020 v3.x
- PC5010/PC5015/PC5020 v2.x with PC5100 interface module

* Protected by one or more of the following patents:
Canada 2099971, US 5444432

** RF immunity and white light not verified by UL



Beam Patterns for Lenses BV-L1 to BV-L4



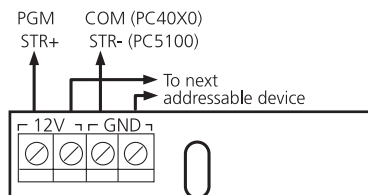
Locating the Detector

Select a detector location that will provide the coverage required keeping in mind the following potential problems.

- Do not aim the detector at **reflective surfaces** such as mirrors or windows as this may distort the coverage pattern or reflect sunlight directly onto the detector.
- Avoid locations that are subject to direct high **air flow** such as near an air duct outlet.
- Do not locate the detector near sources of **moisture** (steam or oil).
- Do not aim the detector such that it will receive direct or reflected (mirror) **sunlight**.
- Do not limit the coverage by large **obstructions** within the detection area such as plants or filing cabinets.
- When using BV-L4 (Pet Alley lens): Do not aim the detector at a stairway which a pet has access to. Do not place furniture or objects higher than 3 ft/0.9 m, which a pet can climb onto (e.g. a cat on a couch), closer than 6 ft/1.8 m to the detector.

Device Wiring

To connect the AMB-300, consult the wiring diagram below:



Mounting

To open the case, use a small flat blade screwdriver and gently push in the tab at the bottom of the case and pull the cover straight out at the bottom. Loosen the printed circuit board screw, and push the board up as far as it will go. Using a small screwdriver, remove the appropriate knockouts for the mounting screws. Remove the desired wiring entrance knockouts located at the top or bottom of the backplate. Mount the backplate.

Locate mounting screws diagonally opposite each other to prevent the case from warping.

Device Enrollment

The serial number located on the back of the device must be enrolled into the alarm control panel via Installer's Programming ([*] [8] [Installer's Code]). This procedure is outlined for the PC4010/4020 in the control panel Installation Manual and for the Power panels in the PC5100 Installation Manual.

WARNING: Connect only DSC Addressable Series devices to the addressable loop connections. Connection of ANY other type of device will impair operation. Any devices other than Addressable Series devices which require power to operate must be powered separately.

Vertical Adjustment

NOTE: Range and dead zones may vary due to settings.

Using the figures listed below, set the vertical adjustment to get the desired coverage. Ensure that the PCB retaining screw is tightened just enough to prevent board movement.

Height ft/m	Setting for Full Range (by lens type)			
	BV-L1	BV-L2	BV-L3	BV-L4
10'3m	0.00	-0.25	0.00	—
8'2.4m	+0.50	+0.25	0.00	—
7'2.1m	+0.75	+0.25	0.00	—
6'1.8m	+1.00	+0.50	0.00	—
5'1.5m	—	—	—	0.00
4'1.2m	—	—	—	0.00

Moving the circuit board down will increase the far range and bring the near beams closer to the mounting wall. Moving the circuit board UP will reduce the far range and move the near beams farther out from the mounting wall. Moving the circuit board UP too much will cause the far beams to "look" above the target; as a result, the range may appear shorter. Jumper J1 selects between harsh and normal environments. For a typical environment or one containing a small pet (height less than 1.2 ft/0.36 m), set the unit as normal (J1 ON). For a large pet and multiple pets, the jumper J1 should be removed.

Walk Testing

Once the detector has been set up, walk test the entire area where coverage is desired. Should the coverage be incomplete, readjust or relocate the detector to obtain full coverage.

IMPORTANT NOTE: Upon installation, the unit should be thoroughly tested to verify proper operation. The end user should be instructed on how to perform walk tests, and should walk test the detector weekly.

DM-C and DM-W: Detector Mounting Brackets

Use the optional DM-W Wall Mount and DM-C Ceiling Mount brackets to solve difficult placement problems. The DM-W and DM-C mount to either the wall or ceiling and allow for full vertical and horizontal positioning of the motion detector - the detector can be tilted up or down and rotated through 90° to obtain the best position for optimal coverage.

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
 - Relocate the alarm control with respect to the receiver
 - Move the alarm control away from the receiver
 - Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.
- If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

LIMITED WARRANTY

Digital Security Controls warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfilment of any breach of such warranty, Digital Security Controls shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls. Digital Security Controls neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbecues, fireplaces, sunlight, steam vents, lighting and so on.

Warning: Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Important Information: Changes or modifications not expressly approved by Digital Security Controls could void the user's authority to operate this equipment.

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