

## INSTALLATION INSTRUCTIONS

# BINGO

DIGITAL PIR DETECTOR  
With  
PET IMMUNITY up to 25 kg

## VIDICON®



### PRODUCT FEATURES

The BINGO Detector uses a special designed optical Lens with unique Quad (Four element) PIR Sensor and new ASIC based electronics optimized to eliminate false alarms, caused by small animals and Pets. The BINGO provides unprecedented levels of immunity against visible light. The Detector offers an exceptional level of detection capability and stability for every security installation. The BINGO is supplied with Wide Angle lens with PET immune function.

- Four Element Imaging Technology "Quad".
- ASIC based electronics.
- Immunity to animals up to 25kg (55 lbs).
- 18m Detection Range with Wide Angle Lens.
- Temperature compensation.
- Compact Design for Residential Installation.
- Variable pulse width adjustment.
- Sensitivity adjustment.
- Environmental immunity.
- Height installation calibration free (1.0-2.4m).
- LED ON/OFF Jumper
- Selectable Pulse Count (1, 2 or 3)
- Selectable PET Size (15Kg or 25 Kg)
- EOL - spare Terminals
- Tamper Switch
- Sensitivity Calibration

### DETECTION PATTERNS

Fig. 1 - Wide Angle Lens

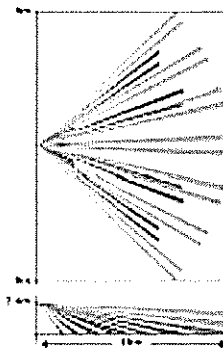
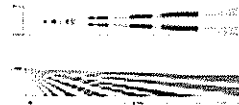


Fig 2 - Long Range Curtain Lens - OPTION



### SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. See detection pattern *Fig. 1 and Fig. 2*. The BINGO performs best when provided with a constant and stable environment and background. The quad-element high quality sensor detects motion crossing the beam; it is slightly less sensitive detecting motion toward the detector.

#### Long Range Curtain Lens - OPTION

When pet immunity is required, optional Long Range Curtain Lens cannot be used. Pet immunity can only be achieved with Wide Angle Lens.

#### AVOID THE FOLLOWING LOCATIONS:

- Facing direct sunlight.
- Facing areas that may change temperature rapidly.
- Areas where there are air ducts or substantial airflows.
- Avoid screen, curtain that may block detection area.
- Do not install outdoors.

### PET IMMUNITY

Pet immunity is most effective on the following sized animals:

Rodents = 5 to 12cm high

Cats = 5 to 35 cm high at normal room temperature.

Small to medium sized dogs = 10 to 45cm high at normal room temperature.

When a dog jumps up on desks, the BINGO may detect it. Adjust detection area to avoid such places.

Mount between 2.1 and 2.4m. (For better immunity, especially for medium sized dogs, mount as close to 2.4m, as possible).

Do not angle detector towards the ground or use the angle bracket.

Mount flat on the wall or in the corner.

For best pet immunity, limit the detectors field of view to 10-12m maximum in any direction.

Pulse Count 2 or 3 is not required for Pet Immunity applications.

Use 2 or 3 pulse only in harsh environment.

For rodents.

If any shelves within 4.5m of the detector have a height that comes within 0.5-1m below the mounting height of the detector and rodents can access these areas, pet immunity will be reduced. Please select mounting location of detectors carefully to avoid this situation.

For cats.

If there are cats, any shelves in the detection area will reduce pet immunity.

### MOUNTING THE DETECTOR

The detector can either be wall or corner mounted. If ceiling or special wall mounting is required, use the optional bracket base. Refer to bracket description. (See *fig. 8*)

1. Unscrew the holding screw and gently raise the front cover (*Fig. 3*).
2. Carefully unscrew the PCB holding screw located on the PC board (*Fig. 7*).
3. Break out the desired knockout holes for proper installation (*Fig. 4*).
4. The circular and rectangular indentations at the bottom base are the knockout holes for wire entry. You may also use mounting holes that are not in use for running the wiring into the detector (*Fig. 4*).
5. For bracket mounting option - lead wire through the bracket.
6. Mount the detector base to the wall, corner or ceiling. (For option with bracket see *Fig. 8*).
7. Reinstall the PC board by fully tightening the holding screw. Connect wire to terminal block.
8. Replace the cover by inserting it back in the appropriate closing pins and screw in the holding screw.

### OPENING THE DETECTOR

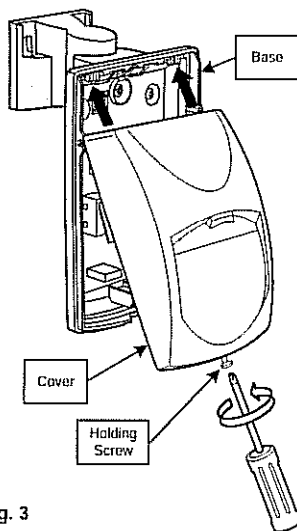


Fig. 3

### MOUNTING DESCRIPTION

Fig. 4

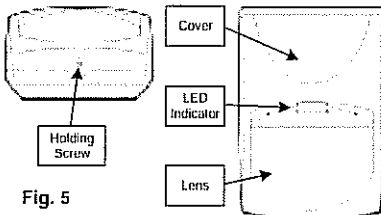
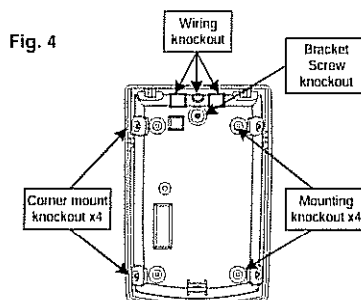


Fig. 5

### TERMINAL BLOCK CONNECTIONS

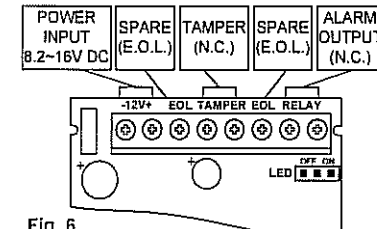


Fig. 6

Terminal 1 - Marked - (GND)

Connect to ground of the control panel.

Terminal 2 - Marked + (+12V)

Connect to the positive Voltage output of 8.2 - 16Vdc source (usually from the alarm control unit).

Terminals 3&6 - Marked EOL

End of line options.

Terminals 4 & 5 - Marked TAMPER

Connect these terminals to a 24hour normally closed protective zone in the control unit.


Once the front cover of the detector is opened, an immediate alarm signal will be sent to the control unit.


Terminals 7 & 8 - Marked RELAY

These are the output relay contacts of the detector. Connect to the control at zone input.


## SETTING UP THE DETECTOR


### PET IMMUNITY JUMPER


PET  Immunity to an animal up to 15 kg

PET  Immunity to an animal up to 25 kg

### PULSE COUNT JUMPER


 PULSE Installation for normal Stable environment with wide-angle lens - set to 1 PULSE


 PULSE When operating in harsh environment use 2 or 3 pulse count selection.

 PULSE

Note: For Long Range Lens set pulse count to 2.

### LED ENABLE / DISABLE JUMPER

LED  Set jumper to ON position to enable LED.

LED  Set jumper to OFF position to disable LED.

## SENSITIVITY ADJUSTMENT

The sensitivity potentiometer should be adjusted according to the security risk level at the installation site. For high-risk environment adjust sensitivity close to MIN (15%). In low risk situations, adjust sensitivity closer to MAX (100%), factory set to 57%.

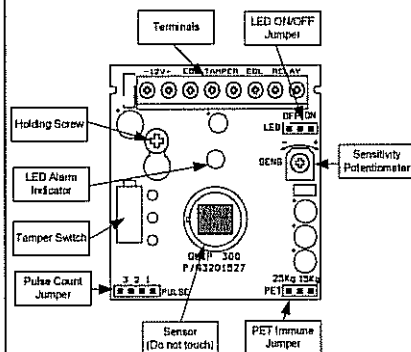


Fig. 7

## TESTING THE DETECTOR

### TEST PROCEDURES

Apply 12 Vdc power to the detector, wait 2 minutes to finish the detector warm up time. Conduct testing with the protected area cleared of all people.

- Walk test
1. Remove front cover.
  2. Make sure that **PULSE** jumper is in position 7.
  3. Make sure that **LED** jumper is ON.
  4. Replace the front cover.
  5. Start walking slowly across the detection zone.
  6. Observe that the detector's LED lights whenever motion is detected.
  7. Allow 5 sec. between each test.
  8. After the walk test is completed, the **LED** and **PULSE** jumpers may be changed.

NOTE: Walk tests should be conducted, at least once a year, to confirm proper operation and coverage of the detector.

### WIRE SIZE REQUIREMENTS

Use #22 AWG (0.5mm) or wires with a larger diameter. Use the following table to determine required wire gauge (diameter) and length of wire between the detector and the control panel.

Wire Length	m	200	300	400	800
Wire Diameter	mm	.5	.75	1.0	1.5
Wire Length	ft	800	1200	2000	3400
Wire Gauge	#	22	20	18	16

## BRACKET INSTALLATION OPTION

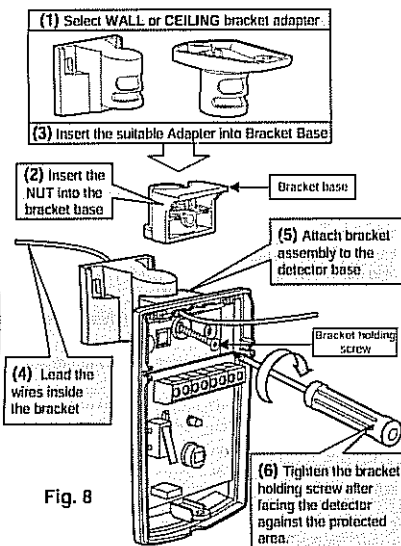
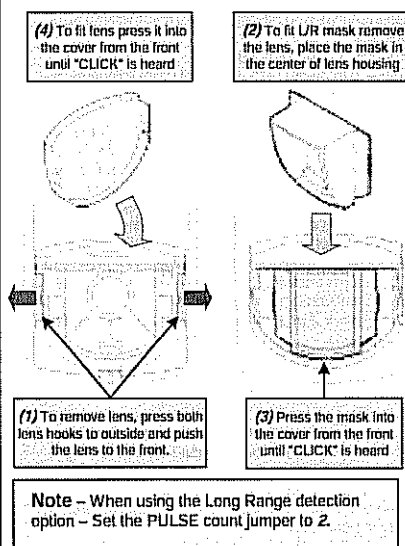


Fig. 8

## LONG RANGE CURTAIN OPTION



## VISIBLE LIGHT FILTER OPTION

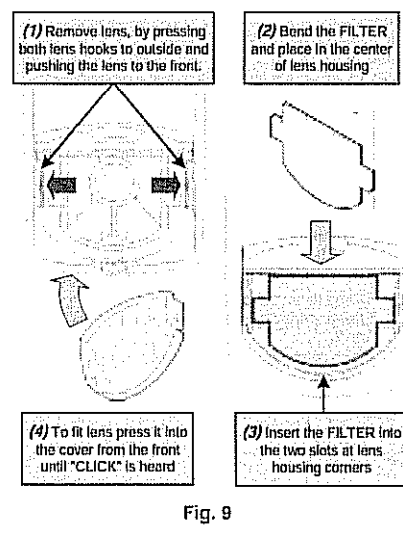


Fig. 9

## TECHNICAL SPECIFICATIONS

Detection Method	Quad (Four element) PIR
Power Input	8.2 - 16 Vdc
Current Consumption	Standby: 8mA ( $\pm 5\%$ ) Active with LED: 10mA ( $\pm 5\%$ ) Active w/o LED: 6mA ( $\pm 5\%$ )
Detection Range	18m, Adjustable
Mounting	Ceiling or Wall
Pulse Width	Adjustable
Alarm Period	2 sec.
Alarm Output Relay	N.C 28Vdc 0.1A with 10 Ohm in line resistor
Tamper Switch	N.C 28Vdc 0.1A with 10 Ohm in line resistor
Warm Up Period	60sec ( $\pm 5\%$ )
Operating Temperature	-20°C to 50°C
Operating Humidity	95% max relative humidity non condensing
Storage Temperature	-30°C to 70°C
RFI Protection	30V/m 10-1000MHz
EMI Protection	50,000V electrical interference from lightning
Dimensions	90.5mm x 61mm x 37.5mm

VIDICON reserves the rights to change specifications without prior notice

## WARRANTY

### VIDICON - WARRANTY POLICY CERTIFICATE

This Warranty Certificate is given in favor of the purchaser (hereinafter the "Purchaser") purchasing the products directly from Vidicon or from its authorized distributor. Vidicon warrants these products to be free from defects in materials and workmanship under normal use and service for a period of 24 months from the last day of the week and year whose numbers are printed on the printed circuit board inside these products (hereinafter the "Warranty Period"). Subject to the provisions of this Warranty Certificate, during the Warranty Period, Vidicon undertakes, at its sole discretion and subject to Vidicon's procedures, as such procedures are from time to time, to repair or replace, free of charge for materials and/or labor, products proved to be defective in materials or workmanship under normal use and service. Repaired products shall be warranted for the remainder of the original Warranty Period.

All transportation costs and in transit risk of loss or damage related, directly or indirectly, to products returned to Vidicon for repair or replacement shall be borne solely by the Purchaser. Vidicon's warranty under this Warranty Certificate does not cover products that are defective (or shall become defective) due to: (a) alteration of the products (or any part thereof) by anyone other than Vidicon; (b) accident, abuse, negligence, or improper maintenance; (c) failure caused by a product which Vidicon did not provide; (d) failure caused by software or hardware which Vidicon did not provide; (e) use or storage other than in accordance with Vidicon's specified operating and storage instructions.

There are no warranties, expressed or implied, of merchantability or fitness of the products for a particular purpose or otherwise, which extend beyond the description on the face hereof.

This limited Warranty Certificate is the Purchaser's sole and exclusive remedy against Vidicon and Vidicon's sole and exclusive liability toward the Purchaser in connection with the products, including without limitation - for defects or malfunctions of the products. This Warranty Certificate replaces all other warranties and liabilities, whether oral, written, (non-statutory) statutory, contractual, in tort or otherwise.

In no case shall Vidicon be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Vidicon or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Vidicon does not represent that these products can not be compromised or compromised, that these products will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise, or that these products will in all cases provide adequate warning or protection.

Purchaser understands that a properly installed and maintained product may in some cases reduce the risk of burglary, fire, robbery 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 or damage in a result.

Consequently, Vidicon shall have no liability for any personal injury, property damage or any other loss based on claim that these products failed to give any warning.

If Vidicon is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or origin, Vidicon's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Vidicon.

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