

INSTALLATION INSTRUCTIONS

BOND AHD

DIGITAL PIR & PINHOLE CAMERA
DETECTOR
With PET IMMUNITY up to 25 kg

VIDICON®
CE

PRODUCT FEATURES

Video sensing device

- High sensitivity and high-resolution board camera.
- Electronic shutter control.
- Audio sensing device
- Omnidirectional response.
- High sensitivity.
- AGC
- Quad (four element) PYRO sensor and hard lens for outstanding detection performance and elimination of false alarms, caused by small animals and Pets
- ASIC based electronics with movement speed spectrum analysis.
- User-friendly installation with swivel bracket.
- Bi directional temperature compensation.
- Environmental immunity.
- Pet immunity up to 25Kg. Pet active bellow 1m.
- Height installation calibrations free from 1.8m to 2.4m.
- Wide range operating voltage.
- High reliability and trouble free operation.
- LED ON/OFF Jumper
- Tamper Switch

OPTIONS

- Long Range Curtain Lens
- Wall & Ceiling Mount Bracket

DETECTION PATTERNS

Fig. 1 - Wide Angle Lens

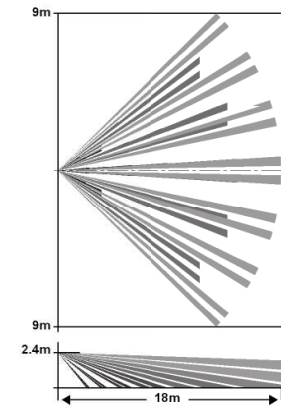
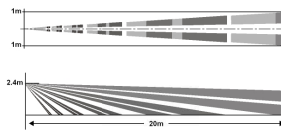


Fig 2 - Long Range Curtain Lens – OPTION



SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. See detection pattern **fig. 1 and fig.2**. The **BOND** 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 **BOND** 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 **Low** is not required for Pet Immunity applications.
Use **Low** 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, corner or ceiling mounted by using special bracket base for the bracket mounting. Refer to bracket description. (See fig. 7)

1. Unscrew the holding screw and gently raise the front cover (Fig. 4).
2. Insert wire through the bracket and holes. (See fig.3)
3. Mount the bracket base to the wall or to the ceiling with the suitable adaptor. Hold the detector base in front of the protected area and tighten the bracket screw.
4. Insert the wires through the bracket and connect the wires to the terminal block.
5. Replace the cover by inserting it back in the appropriate closing pins and screw in the holding screw.

MOUNTING DESCRIPTION

Fig. 3

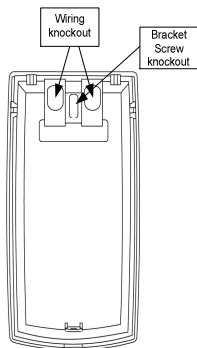
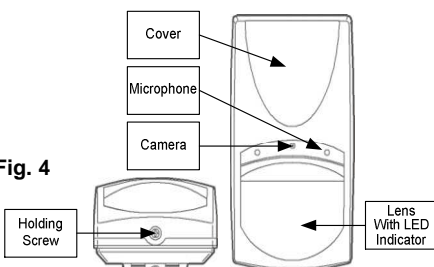


Fig. 4



TERMINAL BLOCK CONNECTIONS

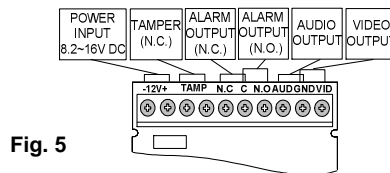


Fig. 5

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.

Terminals 3 & 4 - Marked TAMP
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 5,6 & 7 - Marked "N.C, C & N.O"
These are the output relay contacts of the detector. Connect to a normally closed or normally opened zone in the control panel.

Terminals 8 & 9 - Marked "AUD" & "GND"
This is the audio signal output. These two terminals should be connected to an audio input.

Terminals 9 & 10 - Marked "GND" & "VID"
This is the video signal output. These two terminals should be connected to video input.

TESTING THE DETECTOR

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 **PIR** switch is in positions high sensitivity.
3. Make sure that **LED** switch 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 PIR** switches 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

SETTING UP THE DETECTOR

PET IMMUNITY SETTING

Switch 1 of dipswitch DIP5 use for setting the PET Immune function - Up to 15Kg or 25Kg, depending on the pet weight.

Position Right - ON

Immunity to an animal up to 15 kg

Position Left - OFF

Immunity to an animal up to 25 kg

PIR ADJUSTMENT

PULSE COUNT CONTROL

Switch 2 of dipswitch DIP5 use for setting the PULSE count function in order to provide PIR sensitivity control according to the environment.

Position Right – ON. High sensitivity - 1 PULSE - for normal stable environment with wide angle lens.

Position Left – OFF. Low sensitivity – 2 or 3 PULSES - for harsh environments.

Note: For Long Range Lens set **Switch 2** to OFF.

RANGE CONTROL

Use the Potentiometer marked “PIR” to adjust the detection sensitivity between 15% and 100%, according to walk test in the protected area.

(Factory setting is 57%)

Rotate the potentiometer clockwise to increase range, counter-clockwise to decrease range.

LED INDICATION OF ALARM SIGNAL

Switch 3 of dipswitch DIP5 use for setting - LED Enable / Disable

Position Right – ON - LEDs ENABLE

The RED LED will activate when the detector is in alarm condition.

Position Left – OFF - LEDs DISABLE

Note: the state of the switch “LED” does not affect the operation of the relay.

When an intrusion is detected, the LED will activate and the alarm relay will switch into alarm condition for 2 sec.

N.O RELAY - TIME DELAY SETTING

Switches 4 & 5 of dipswitch DIP5 use for setting the time delay of the N.O. Relay terminals 6 & 7.

There are four options.

Switch 4	Switch 5	N.O. RELAY TIME DELAY
ON	ON	2 Sec. Contact closed
ON	OFF	15 Sec. Contact closed
OFF	ON	60 Sec. Contact closed
OFF	OFF	240 Sec. Contact closed

The N.C. Relay (Terminals 5 & 6) opens for 1.8 – 2 sec. when an alarm occurs.

AUDIO SENSITIVITY ADJUSTMENT

Use the potentiometer “AUDIO” to adjust the audio sensitivity. Rotate the potentiometer clockwise to increase sensitivity. Rotate the potentiometer counter-clockwise to decrease sensitivity.

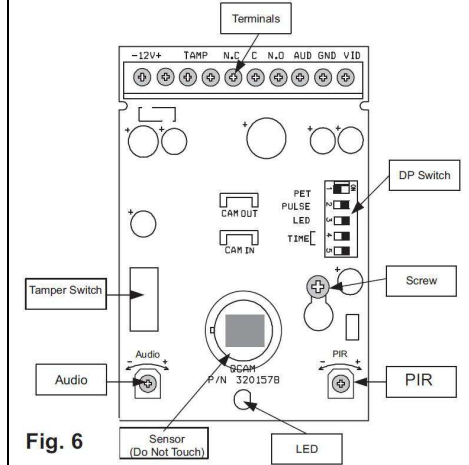


Fig. 6

BRACKET INSTALLATION

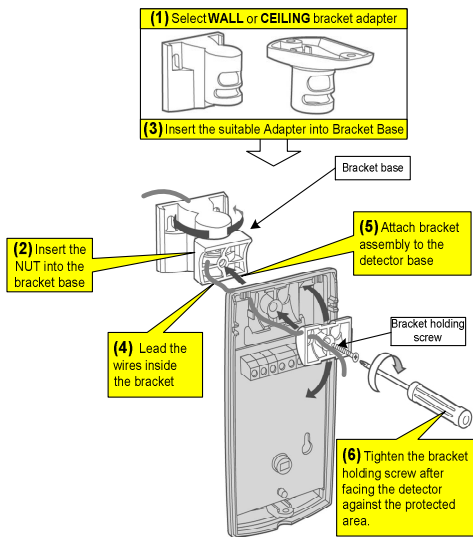
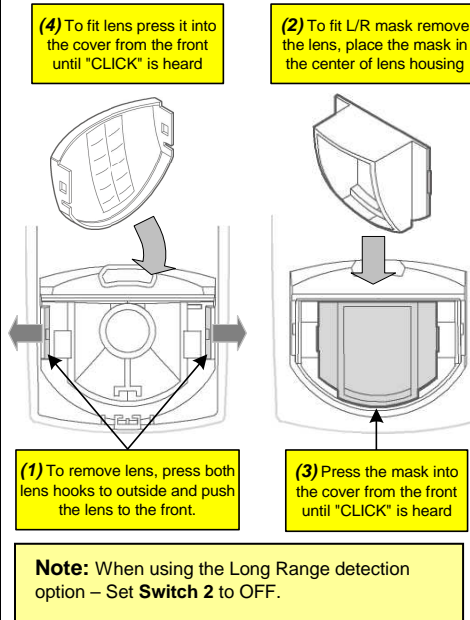


Fig. 7

LONG RANGE CURTAIN OPTION



Note: When using the Long Range detection option – Set **Switch 2** to OFF.

VISIBLE LIGHT FILTER OPTION

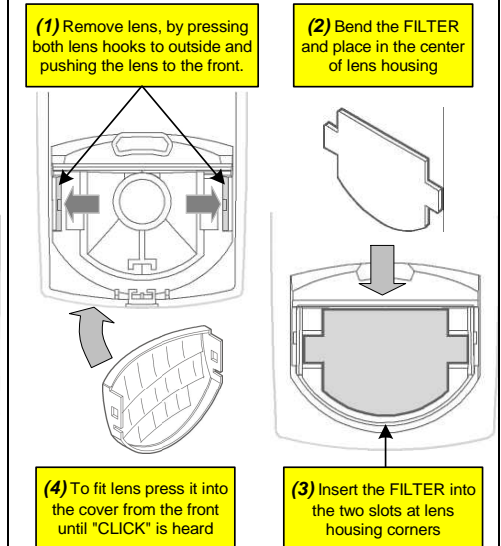


Fig. 8

TECHNICAL SPECIFICATIONS

Camera Type	1/2.9" 2.3 Mega Pixel SONY CMOS
Resolution	AHD 1080P, CVBS : 1280H
Lens	3M 4.3mm Fixed Pinhole Lens
Sensitivity	Color DSS: 0.002 Lux / BW DSS : 0.001 Lux
S/N Ratio	>80 dB
Electronic Shutter Time	1/50 – 1/100,000 sec.
Video Output	AHD – CVBS, 1.0V p-p 75Ω Composite
Audio Sensitivity	Audio 38±3dB (0dB=1V/Pa, 1KHz)
	Switch to AHD / CVBS mode
AHD –H	=> CVBS - Press long button „Left“
CVBS	=> AHD –H - Press long button „Right“
Detection Method	Quad (four) element PIR
Power Input	12 VDC +/-10%
Max. Current Draw (with camera)	Standby: 158 mA Alarm: 160 mA
Temperature Compensation	YES
Alarm Period	2 +/- 1 sec
Alarm Output	N.C 28Vdc 0.1 A with 10 Ohm series protection resistors
Tamper Switch	N.C 28Vdc 0.1A with 10 Ohm series protection resistor – open when cover is removed
Warm Up Period	1 min
LED Indicator	Red LED is ON during alarm
Dimensions	123mm x 61mm x 38mm
Weight	135_gr.

VIDICON reserves the rights to change specifications without prior notice

WARRANTY

VIDICON LIMITED WARRANTY

VIDICON's obligation is limited to repairing or replacing this product, at its option, free of charge for materials or labor, if it is proved to be defective in materials or workmanship under normal use and service. VIDICON shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than VIDICON.

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