



LC-101CAM Series Mono/Colour

Quad Element PIR Mono/Colour Camera
Motion Detector with Pet Immunity

Installation Instructions



A new generation of professional movement spread analyzing PIR detectors with Mono / Colour Camera
Video sensing device * High sensitivity and high resolution board camera. * Electronic shutter control.
Audio sensing device * Omnidirectional response. * High sensitivity.

TYPICAL INSTALLATION

Select mounting location

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See detection pattern (Fig.3). The quad-element high quality sensor detects motion crossing the beam; it is slightly less sensitive detecting motion toward the detector. The LC-101CAM performs best when provided with a constant and stable environment.

Avoid the Following Locations * Facing direct sunlight. * Facing areas that may change temperature rapidly. * Areas where there are air ducts or substantial airflows. *The LC-101CAM performs better when provided with a constant and stable environment.*

MOUNTING DETECTOR BASE

1. To remove the front cover, unscrew the holding screw and gently raise the front cover. Fig.2-12 **2.** To remove the PC board, carefully unscrew the holding screw located on the PC board. Fig.2-7 **3.** Put wire through the bracket and holes "A". Fig.1 **4.** Mount the detector base to the wall or on the ceiling with a suitable bracket. (Install bracket). **5.** Reinstall the PC board by fully tightening the holding screw. Connect wire to terminal block. Fig.5 **6.** Connect the camera cable to connector in PC **7.** Replace the cover by inserting it back in the appropriate closing pins and screw in the holding screw.

DETECTOR INSTALLATION

Terminal Block Connections (See Fig.5)

Terminals 1 & 2 - Marked "T1,T2" (TAMPER) If a Tamper function is required connect these terminals to a 24-hour normally closed protective zone in the control unit. If the front cover of the detector is opened, an immediate alarm signal will be sent to the control unit.

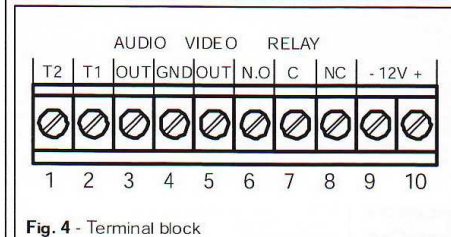
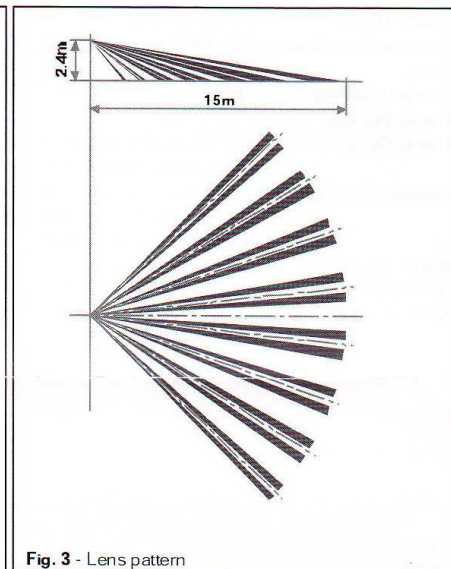
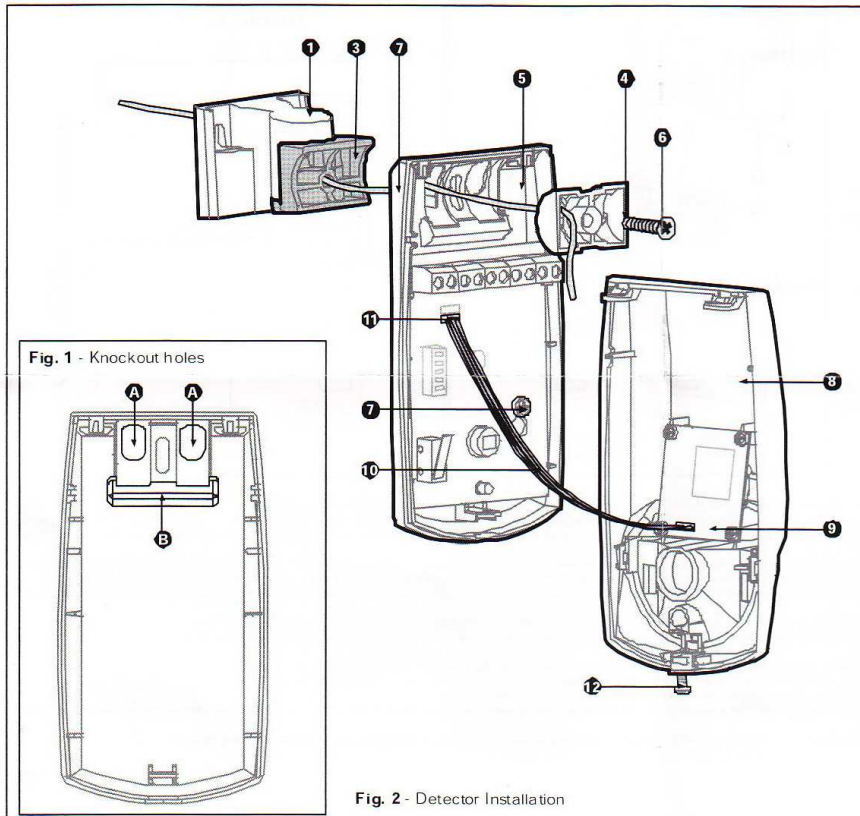
Terminals 3 & 4 - Marked "AUDIO: OUT, GND" This is the audio signal output. These two terminals should be connected to an audio input.

Terminals 4 & 5 - Marked "VIDEO: GND, OUT" This is the video signal output. These two terminals should be connected to video input.

Terminals 6,7 & 8 - Marked "RELAY: NO, COM & NC" These are the output relay contacts of the detector. Connect to a normally closed or normally opened zone in the control panel.

Terminal 9 - Marked "-"(GND) Connect to the negative Voltage output or ground of the control panel.

Terminal 10 - Marked "+ "(+12V) Connect to a positive Voltage output of 8.2 -16Vdc source (usually from the alarm control unit)



SETTING - UP THE DETECTOR

TIME ADJUSTMENT: Switch 1 & 2 of DIP-5 Use for Setting "TIME" - provides N.O. relay. (Four options).
Position Left - "OFF". **Position Right** - "ON".

1	2	TIME RELAY CLOSE/OPEN
ON	ON	2 SEC
ON	OFF	15 SEC
OFF	ON	60 SEC
OFF	OFF	240 SEC

* The N.C. Relay opens for 1.8 - 2 sec. when an alarm occurs.

LED CONTROL: Switch 3 of DIP-5, Use for Setting "LED" - LED Enable / Disable

Position On - LED ENABLE - The RED LED will activate when the detector is in alarm condition.

Position Off - LED DISABLE - The LED is disabled.

NOTE: the state of the switch "LED" does not affect the operation of the relay. When an intrusion is detected, the alarm relay will switch into alarm condition for 2 sec.

PIR SENSITIVITY ADJUSTMENT: Switch 4 of DIP-5. Use for Setting "PULSE" - provides sensitivity control of the PIR according to the environment.

Position Left "OFF" - Low sensitivity For harsh environments. **Position Right "ON"** - High sensitivity For stable environments.

PET IMMUNITY SETTING: Switch 5 of DIP-5. Use for Settings "PET" 15kg - 25kg

Position Right "ON" - Immunity to an animal up to 15 kg. **Position Left "OFF"** - Immunity to an animal up to 25 kg

POTENTIOMETER "PIR" - adjustment according to protected area range. Use "PIR" to adjust the detection range between 68% and 100% (factory set to 84%). Rotate the potentiometer clockwise to increase range, counter-clockwise to decrease range.

AUDIO VOLUME: Use the potentiometer "VOL." to adjust the audio volume. Rotate the potentiometer clockwise to increase volume. Rotate the potentiometer counter-clockwise to decrease volume.

TEST PROCEDURE:

Wait for one minute warm up time after applying 12 Vdc power. Conduct testing with the protected area cleared of all people.

Walk test 1. Remove front cover. Set LED to ON position. **2.** Reassemble the front cover. **3.** Start walking slowly across the detection zone. **4.** Observe that the red LED lights whenever motion is detected. **5.** Allow 5 sec. between each test for the detector to stabilize. **6.** After the walk test is completed, you can set the LED to OFF position.

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

CAMERA TECHNICAL SPECIFICATION

Camera Type: B&W: CCIR or EIA COLOR: PAL or NTSC

Picture Elements: 290K (PAL;CCIR) 250K (NTSC;EIA)

Resolution: 420 TV lines (PAL;NTSC), 380 TV lines (CCIR;EIA)

Sensitivity: 0.5Lux - F2.0 (NTSC;PAL), 0.5Lux - F1.2 (EIA;CCIR)

S/N Ratio: Better then 48 dB

Electronic

Shutter Time: 1/60 - 1/100,000 sec (NTSC;EIA)

1/50 - 1/100,000 sec (PAL;CCIR)

Video Output: 1V p-p 75W

TECHNICAL SPECIFICATION

Detection Method: Quad (four) element PIR

Power Input: 8.2 to 16 Vdc

Current Draw Mono: 115 mA Colour: 150 mA

Temp.

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: 116mm x 62.5mm x 40mm

(4.56" x 2.46" x 1.57")

Weight: 110 gr. (3.88 oz.)

Fig. 5 - Bracket Installation

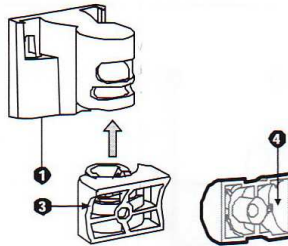


Fig. 6 - Bracket options

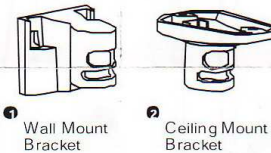
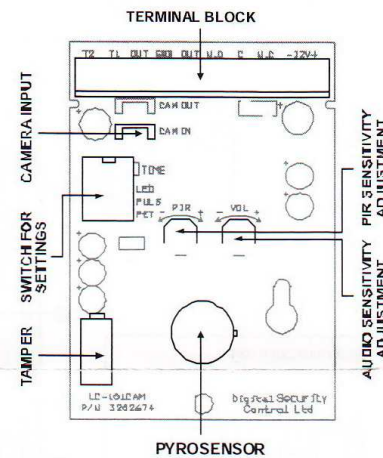


Fig. 7 - PCB Layout



LIMITED WARRANTY: Digital Security Controls Ltd. warrants that for a period of 12 months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd shall, at its option, repair or replace the defective equipment upon returns 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 Ltd, 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 Ltd. Digital Security Controls Ltd neither assumes responsibility for, 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 Ltd 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 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 Ltd, 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 Ltd could void the user's authority to operate this equipment.