2.1MP AHD Operational PIR Camera

GHDPIR

Quick Start Guide

Please read these instructions carefully before operating the unit and keep for further reference.

genie

Contents

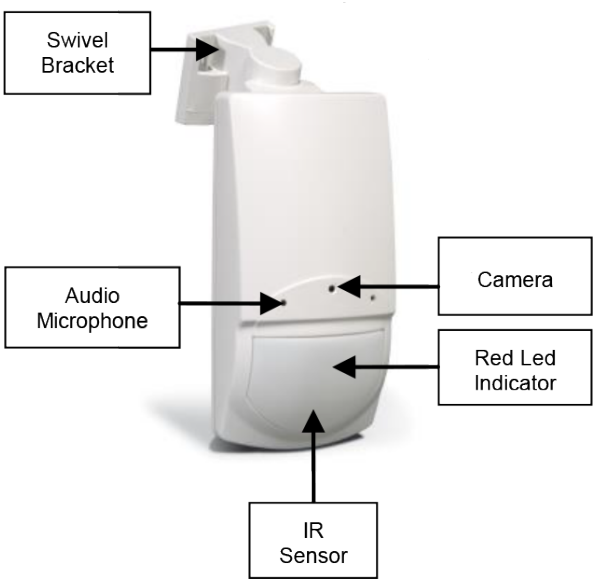
Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only.
The contents of this manual are subject to change without notice.

The Genie GHDPIR is a 2.1MP AHD 3.7mm lens camera built into a fully operational PIR detector housing. Suitable for covert and discreet operations.

1.1 Product Features

- Sony 1/2.9" 2.19MP Progressive Scan CMOS
- 1080p (1920×1080) @ 30 (25)fps
- 4-in-1 output (AVI, TVI, CVI, CVBS)
- Fixed Board Lens
- Mechanical Day&Night
- WDR, 3D DNR, Defog
- UTC function supports OSD Control
- Camera module
- Conical pinhole lens
- Quad pyro sensor
- Bi-directional temperature compensation
- Pet immunity up to 25Kg. Pet active below 1M
- Tamper switch
- NDAA compliant

1.2 Product Overview

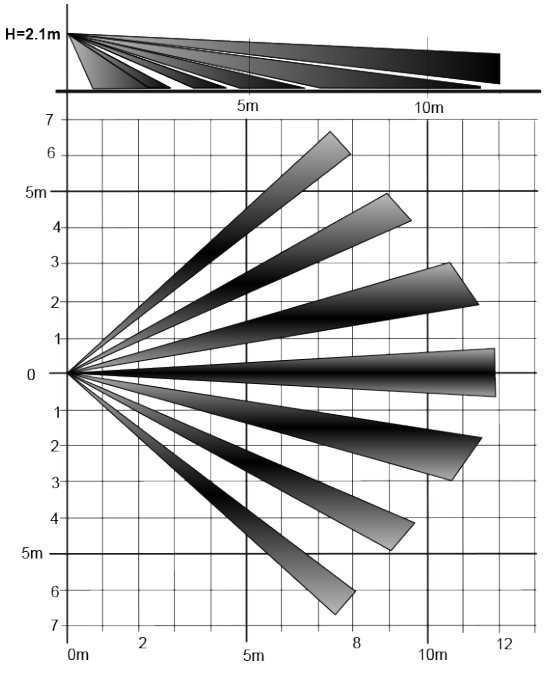


1.3 Specification

Camera	Image Sensor	1/2.9" Progressive Scan CMOS
	Resolution	TVI, AVI, CVI : 1080p @ 30(25)fps / 720p @ 60fps (50fps) / 720p @ 30fps (25fps) TV out : CVBS NTSC/PAL
	Minimum Illumination	0.2Lux(F1.6, AGC33dB, DSS:x2)
	Lens	Conical Pinhole Fixed Board Lens, 3.6mm, F 2.0
	Angle of View	106.9˚ (D)x89.7˚ (H)x47.5˚ (V)
	Shutter Speed	AUTO/FLICKER/MANUAL/(1/30(25)~1/30,000)
	Digital Slow Shutter (DSS)	OFF~ x32
	Effective Pixel	1985(H) x 1105(V)
	Video Output	AVI, TVI, CVI, CVBS
Functions	White Balance	AUTO/AUTO EXT/PUSH LOCK/MANUAL
	WDR/BLC	OFF/BLC/HLC/WDR (4 Zones selectable)
	D-WDR	OFF/LOW/MIDDLE/HIGH
	Level	132.6dB
	Auto Gain Control (AGC)	OFF~45dB
	Day & Night	AUTO/COLOUR/B&W (Electronic D&N)
	Noise Deduction	3D-DNR(OFF/LOW/MIDDLE/HIGH)
	Motion Detection	OFF/ON(4 Zones)
	Privacy Mask	16 Zones
	Image Rotation	OFF/H-FLIP/V-FLIP/HV-FLIP
	Defog	OFF/ON (AUTO/MANUAL)
	Sharpness	0~10
	OSD Control	UTC
	Language	8 languages
Others	Power Supply	DC12V(±10%)
	Power Consumption	Max.140mA @ DC12V
	Temperature Conditions	Operating: -10°C~+50°C Storage: -20°C~+60°C

1.4 Choosing an Installation Location

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See detection pattern on the right.



The quad-element high quality sensor detects motion crossing the beam; it is slightly less sensitive detecting motion toward the detector.
The GHDPIR performs best when provided with a constant and stable environment and background.

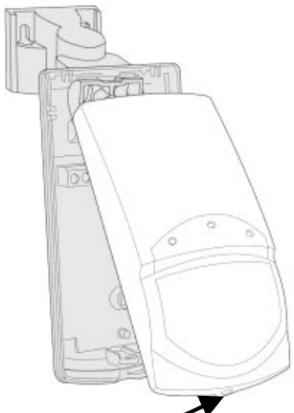
Avoid the following locations:

- Facing direct sunlight.
- Facing areas that may change temperature rapidly.
- Areas where there are air ducts or substantial airflows.

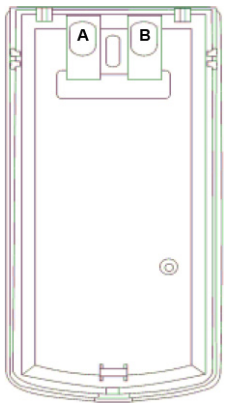
2.1 Detector Installation

The detector can either be wall, corner or ceiling mounted by using a special bracket base for the bracket mounting.

1. To remove the front cover, unscrew the holding screw and gently raise the front cover.



2. Insert wire through the bracket and holes "A" and "B".



Wire Size Requirements

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

Wire Length	m	200	300	400	800
Wire Diameter	mm	0.5	0.75	1.0	1.5
Wire Length	ft.	800	1200	2000	3400
Wire Gauge	#	22	20	18	16

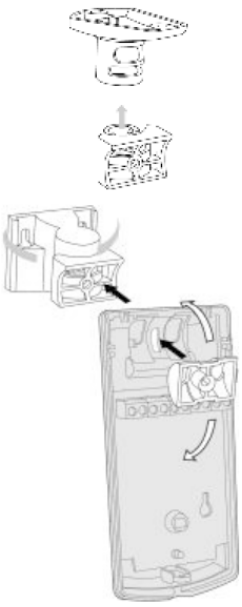
3. Mount the bracket base to the wall or to the ceiling with the suitable adaptor. Hold the detector base in front of the protected area and tighten the bracket screw.

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.

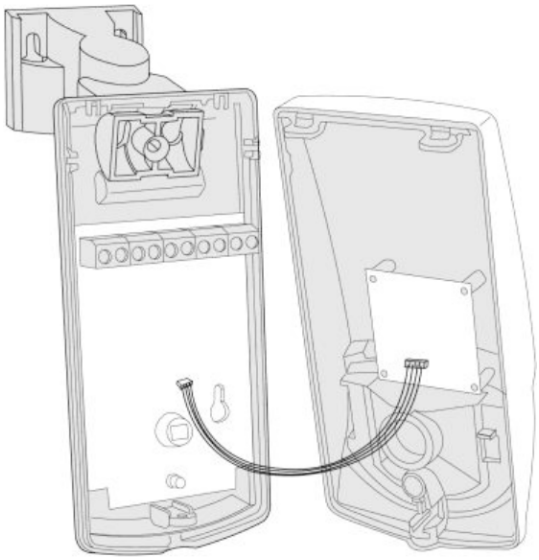
2.2 Installation Options

Ceiling Bracket Base



Wall Bracket Base

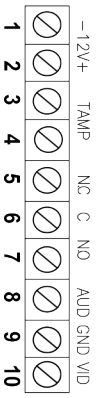
2.3 Camera Module Connection



Connect the camera module to the main PCB.

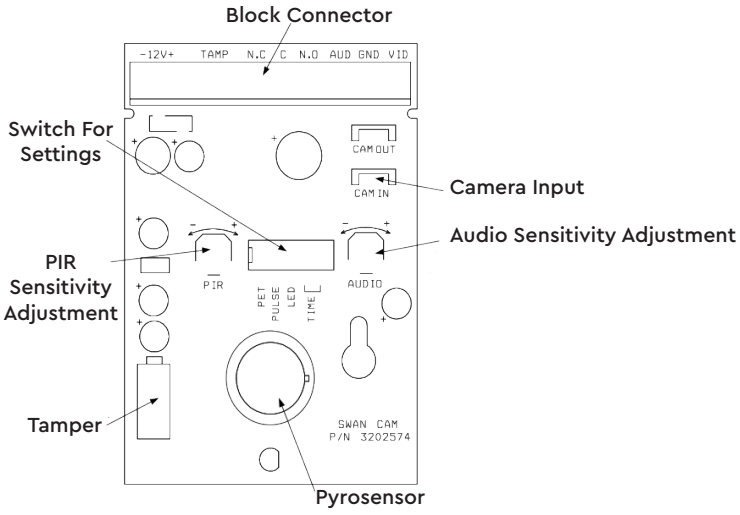
2.4 Detector Connection

Please refer to "Wire Size Requirements" in 2.1 Detector Installation before connecting detector to achieve optimal operation.

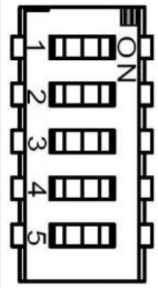


Terminal 1 Marked " - " (GND)	Connect to the negative supply voltage output
Terminal 2 Marked " + " (+12V)	Connect to a positive supply voltage output of 12VDC only source
Terminals 3 & 4 Marked " TAMP "	Connect these terminals to a 24-hour normally closed zone. If the front cover of the detector is 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.

2.5 Setting up the Detector



DIP SWITCHES



SWITCH 1 - PET IMMUNITY SETTING
Use for setting the pet immune function - up to 15kg or 25kg, depending on the pet size.
Position Up (ON) – Immunity up to 15kgs
Position Down (OFF) – Immunity up to 25kgs

SWITCH 2 – PIR PULSE COUNT ADJUSTMENT
Use for setting the count function to provide PIR sensitivity control according to the environment.
Position Up (ON) – High Sensitivity for stable environment
Position Down (OFF) – Low Sensitivity for harsh environment

SWITCH 3 – LED SETTINGS (this setting does not affect detector operation)
Use for setting LED Enable / Disable
Position Up (ON) – LED Enable (activated by motion detection)
Position Down (OFF) – LED Disable

SWITCH 4 & 5 – N.O RELAY – TIME DELAY SETTINGS
Use for setting the time delay of the N.O relay terminals 6 & 7

There are 4 options:

SWITCH 4	SWITCH 5	N.O RELAY TIME RELAY
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 (Terminal 5 & 6) opens for 1.8 to 2 seconds when an alarm occurs.

3.0 Potentiometers Adjustment

There two potentiometers located on the PCB device to set the optimal sensitivity of the detection and the audio.

PIR Sensitivity Adjustment

- Use the Potentiometer marked "PIR" to adjust the detection sensitivity between 15% and 100% according to walk test in the protected area. (Factory setting to 57%).
- Rotate the potentiometer clockwise to increase range, counter-clockwise to decrease range.

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.

4.0 Testing The Detector

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

Walk Test

1. Remove front cover.
2. Set LED to ON position.
3. Reassemble the front cover.
4. Start walking slowly across the detection zone.
5. Observe that the LED lights whenever motion is detected.
6. Allow 5 sec. between each test for the detector to stabilise.
7. 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 verify proper operation of the detector.

5.0 Video Synchronisation

The video module has the ability to Auto Detect the DVR or Screen which it is connected. In case of the video is not transmitted, please perform a reset by following steps according to your DVR model:

1. For CVBS: Push the OSD button to LEFT for 5 to 10 seconds. The camera automatically turn OFF and ON. Then you will see the analogue CVBS mode.

2. For AHD to TVI / TVI to AHD: Cursor on EXPOSURE -> RIGHT RIGHT RIGHT (3 times) then ENTER. -> You will see the system in the hidden menu.

3. For PAL & NTSC: It is in the OSD menu. ADJUST -> VIDEO OUT

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