592540-0

INSTALLATION INSTRUCTIONS

INDOOR PIR CAMERA

GEN-IDCAM

1 BEFORE INSTALLATION

⚠ Warning Failure to follow the instructions provided and improper handling may cause death or serious injury.	Do not touch the unit base or power terminals of the product with a wet hand. (Also, if the product is wet after rain, do not touch it.) It may cause electric shock.
	Never attempt to disassemble or repair the product. It may cause fire or damage to the devices.
	[Handling of Batteries] Fire, explosion and severe burn hazard. Do not recharge, short circuit, crush, disassemble, heat above 100°C, Incinerate, or expose contents to water. Do not solder directly to the cell.
⚠ Caution Failure to follow the instructions provided and improper handling may cause injury and/or property damage.	Do not pour water over the product. The water may enter and may cause damage to the devices.
	Clean and check the product periodically for safe use. If any problem is found, do not attempt to use the product as it is and inform your installer.
	If you do not use the product for a long period of time, remove the battery. Keep it in a cool, dark area.
	Dispose batteries according to local regulations.

This symbol indicates prohibition. The specific prohibited action is provided in and/or around the figure.

This symbol requires an action or gives an instruction.

GEN-IDCAM is a ZigBee passive infrared (PIR) motion sensor camera with pet-immune function. It is capable of sending wireless signals and captured images (picture quality of up to 640 x 480 pixels) to the coordinator in the ZigBee network upon movement detection.
The PIR Camera is designed to give a typical detection range of 12 meters when mounted at 2 meters above ground. It has a pet-immune range of 7 meters and will not trigger false alarm from your household pets within this distance.
The PIR Camera utilizes ZigBee technology for wireless signal transmission. ZigBee is a wireless communication protocol that is reliable and has low power consumption and high transmission efficiency. Based on the IEEE802.15.4 standard, ZigBee allows a large amount of devices to be included in a network and coordinated for data exchange and signal transmission
The PIR Camera serves as an end device in the ZigBee network. It can be included in the ZigBee network to transmit signal upon activation, but cannot permit any other ZigBee device to join the network through the PIR.

2 PARTS IDENTIFICATION

1. Flash LED
The Flash LED delivers sufficient light for image capture under low lighting condition.
Both the Flash LED and the Blue LED will flash once when the Function Button is pressed for 10 seconds to indicate the PIR Camera has been reset.

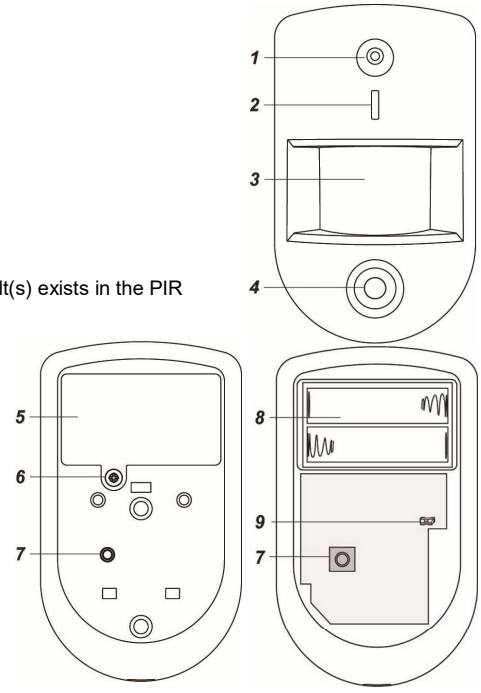
2. Blue LED/Function Button

LED Indication
The Blue LED lights up in the following conditions.

- The Blue LED flash once every 20 minutes
  The PIR Camera has lost connection to its current ZigBee network.
- The Blue LED lights up for 30 seconds:
  The PIR Camera is warming up when fault(s) exists in the PIR Camera.
- The Blue LED flashes twice quickly:
  The PIR Camera has successfully joined a ZigBee network after factory reset.
- The Blue LED lights up for 2 seconds under normal operation:
  The PIR Camera has detected a movement when fault(s) exists in the PIR Camera.
- The Blue LED flashes rapidly
  PIR Camera is transmitting pictures to the coordinator of the ZigBee network when fault(s) exists in the PIR Camera.
- The Blue LED and Flash LED flash once
  PIR Camera has been reset.

Function Button Usage

- To send a supervision signal, press the button once.
- To reset the PIR Camera, press and hold the button for 10 seconds. Release the button when both the Flash LED and the Blue LED flash once



3. IR Sensor
The sensor is intended to detect moving objects.

4. PIR Camera Lens

5. Battery Compartment Cover

6. Battery Compartment Screw

7. Tamper Switch
When the PIR Camera is properly installed, the Tamper switch will be activated when the PIR Camera is removed from mounting surface, or its cover opened. The Tamper switch is restored when the PIR Camera is installed properly and its cover secured.

8. Battery Compartment

9. Jumper Switch (JP2)

Jumper On
The jumper link is inserted connecting the two pins.

Jumper Off
if the jumper link is removed or "**parked**" on one pin.

Jumper On: After transmitting for a detected movement, any further movement detection will transmit the event code again (and the captured images) (**default**).
Jumper Off: PIR Camera has a "**sleep time**" of approximately 1 minute to conserve power.

3 FEATURES

IMAGE CAPTURE

When the alarm system is armed, the PIR Camera will capture 3 or 6 alarm images in 640 x 480 or 320 x 240 resolutions (programmable from control panel) upon movement detection. You can also manually request the PIR Camera to take a picture through CIE. The captured images will be transferred to ZigBee coordinator or CIE for user to view.

WARM UP PERIOD

When the ZigBee system enters arm mode, or when PIR Camera is put into Test Mode, the PIR Camera will warm up for 30 seconds. Do not trigger the PIR Camera during the 30-second warm up period. If the PIR Camera is under low battery or tamper opened condition, the Blue LED will light up during the warm up period.

SLEEP TIMER

When **Jumper Switch 2** is set to Off, the PIR Camera has a "**sleep time**" of approximately 1 minute to conserve power. After transmitting for a detected movement, the PIR Camera will not retransmit for 1 minute. Any detected movement during this period will reset the sleep time to 1 minute. Continuous movement in front of the PIR Camera will therefore not exhaust the battery.

BATTERY AND LOW BATTERY DETECTION

The PIR Camera uses two **1.5V "AA" Lithium batteries** in series connection as its power source. Remove the Battery Compartment Cover and insert the batteries to activate the PIR Camera.
The PIR Camera features Low Battery Detection function. When the battery voltage is low, the PIR Camera will transmit Low Battery signal to the coordinator in ZigBee network. If movement is detected under Low Battery condition, the Blue LED will light up for 2 seconds.
When changing battery, after removing the old battery, press the Tamper Switch or the Function Button twice to fully discharge before inserting new batteries

TAMPER PROTECTION

The PIR Camera is protected by a tamper switch which is compressed when the PIR Camera is properly installed. When the PIR Camera is removed from mounted surface or its cover opened, the tamper switch will be activated and the PIR Camera will send a tamper open signal to the ZigBee network coordinator or system control panel to remind the user of the condition. If movement is detected when the tamper switch is open, the Blue LED will light up for 2 seconds.

- PIR Camera will not detect the status of the tamper switch within 5 minutes of inserting battery.
- If the Tamper Switch is triggered during this 5-minute non-detection period, the PIR Camera will transmit a tamper status signal to the ZigBee network coordinator or system control panel immediately after the 5-minute non-detection period.
- **When the tamper switch is compressed, Factory Resetting the PIR Camera is disabled.**

SUPERVISION

The PIR Camera will transmit a supervision signal to report its condition regularly according to user setting. The factory default interval is 30 minutes. The user can also press the Function Button once to transmit a supervision signal manually.

TEST MODE

- Test mode is for you to check the PIR camera's detection range (not shooting coverage).
- To enter Test mode, press and hold the Function button over 3 seconds and release the button to enter the Test mode for 3 minutes.
- The PIR camera will warm up for 30 seconds. Please do not trigger the Camera during this warming-up period.
- After the warm-up period, you can trigger PIR camera to check IR detection range. If PIR camera is triggered, the Blue LED will light up for 2 seconds.

4 ZigBee NETWORK SETUP

ZigBee DEVICE GUIDELINE

ZigBee is a wireless communication protocol that is reliable, has low power consumption and has high transmission efficiency. Based on the IEEE802.15.4 standard, ZigBee allows a large amount of devices to be included in a network and coordinated for data exchange and signal transmission.
Due to the fundamental structure of ZigBee network, ZigBee device will actively seek and join network after powering on. Since performing a task in connecting network may consume some power, it is required to follow the instructions to avoid draining battery of a ZigBee device

- Ensure your ZigBee network router or coordinator is powered on before inserting battery into the ZigBee device.
- Ensure the ZigBee network router or coordinator is powered on and within range while a ZigBee device is in use.
- Do not remove a ZigBee device from the ZigBee network router or coordinator without removing the battery from a ZigBee device.

JOINING THE ZigBee NETWORK

As a ZigBee device, the PIR Camera needs to join a ZigBee network to transmit signal when a movement is detected. Please follow the steps below to join the device into the ZigBee network.

THE PIR CAMERA CAN ONLY JOIN ZigBee NETWORK WITHIN 3 MINUTES AFTER POWER ON.

Step1. Remove the Battery Compartment Cover by loosening the Battery Compartment Screw.
Step2. Insert the batteries. Orient the battery according to the polarity indication.
Step3. **Make sure the tamper switch is open.**
Step4. **Within 3 minutes after power on,** Press and hold the function button for 10 seconds, release the button when both the Blue LED and flash LED flash once. Please make sure to enable the permit-join feature on the router or coordinator of your ZigBee network.
Step5. After joining the ZigBee network, the PIR Camera will be registered in the security system in the network automatically. Please check the ZigBee network coordinator, system control panel, or CIE (Control and Indicating Equipment) to confirm if joining and registration is successful.
Step6. After joining the ZigBee network, if the PIR Camera loses connection with the ZigBee network, the LED will flash 20 minutes to indicate. Please check your ZigBee network condition and PIR Camera signal range to correct the situation.

REMOVING DEVICE FROM ZigBee NETWORK (FACTORY RESET)

To remove the PIR Camera from current ZigBee network, the PIR Camera must be put to Factory Reset to complete device removal. Factory Reset function will clear the PIR Camera of its stored setting and information and prompt the PIR Camera to search for new ZigBee network.

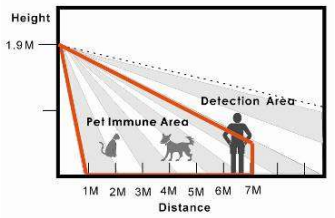
Before removing device, make sure the PIR Camera is within current ZigBee network signal range

Step1. Delete the PIR Camera from current control panel / CIE.
Step2. The PIR Camera can only be reset **within 3 minutes** after power up. If the PIR Camera has been powered up for more than 3 minutes, remove and reinsert the battery.
Step3. **Make sure the tamper switch is open (released),** press and hold the function button for 10 seconds, then release the button to reset PIR Camera.
Step4. Upon reset, the PIR Camera will clear current ZigBee network setting and transmit signal to ZigBee coordinator to remove itself from current ZigBee network. It will then actively search for available ZigBee network again and join the network automatically.

5 INSTALLATION

INSTALLATION GUIDELINE

- The PIR Camera is designed to be mounted on either a flat surface or in a corner situation with fixing screws and plugs provided.
- The base has knockouts, where the plastic is thinner, for mounting purpose. Two knockouts are for surface fixing and a triangular mounting bracket is used for corner fixing.



It is recommended to install the PIR Camera in the following locations.

- Mount where the animals cannot come to the detection area by climbing on furniture or other objects.
- Don't aim the detector at stairways the animals can climb on.
- In a position such that an intruder would normally move across the PIR's field of view.
- Between 1.9 and 2 m above ground for best performance. When mounted at 1.9 m above ground, it gives a typical PET IMMUNE range of 7 m. As the PIR Pet-Immune Camera is higher from above ground, it gives a farther PET IMMUNE range.
- In a corner to give the widest view.
- Where its field of view will not be obstructed e.g. by curtains, ornaments etc.
- For a small 3 to 5 m room, install between 1.9 to 2 m above ground.

Limitations

- Do not position a PIR Camera to look directly at a door protected by a Door Contact, this could cause the Door Contact and PIR Camera radio signals to be transmitted at the same instant when entering, canceling each other out.
- Do not install the PIR Camera completely exposed to direct sunlight.
- Avoid installing the PIR Camera in areas where devices may cause rapid change of temperature in the detection area, i.e. air conditioner, heaters, etc.
- Avoid large obstacles in the detection area.
- Not pointing directly at sources of heat e.g. Fires or boilers, and not above radiators.
- Avoid moving objects in the detection area i.e. curtain, wall hanging etc.

USING PIR CAMERA WITH ZigBee ROUTER

NOTE>>

- If PIR Camera installation location is away from your system control panel and requires ZigBee routers to improve signal strength. **DO NOT** use a ZigBee Router without backup battery. A ZigBee router without battery will be powered down during AC power failure and the PIR Camera connected to the router will lose connection with ZigBee network. Plan your PIR Camera installation location using only ZigBee router with backup battery.

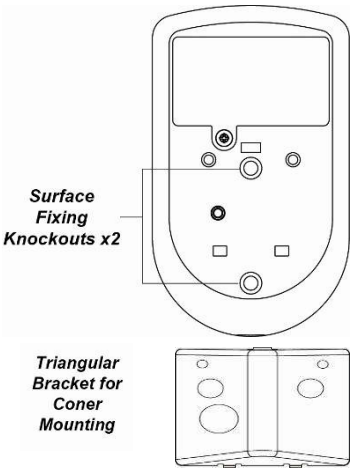
MOUNTING THE PIR CAMERA

Surface mounting

Step1. Remove the cover by loosening the Cover Screw using a Philips screwdriver.
Step2. Break through the 2 Surface knockouts at the center of base.
Step3. Use the holes as template to drill holes on the surface.
Step4. Insert the wall plugs if fixing it into plaster or brick.
Step5. Screw the base into the wall plugs.
Step6. Fit the cover onto the base and tighten the Cover Screw using a Philips screwdriver.

Corner mounting

Step1. Break through the two knockouts on the triangular bracket.
Step2. Use the two holes as template to drill holes on the corner surface.
Step3. Insert the wall plugs.
Step4. Screw the triangular bracket into the wall plugs with the two pointing sticks on top facing you.
Step5. Fit the PIR Camera onto the hooks of the triangular bracket.



6 APPENDIX (FOR DEVELOPERS ONLY)

PIR CAMERA CLUSTER ID

Device ID: _852_DEVICEID: 0x404 (proprietary) Endpoint: 0x01	
Server Side	Client Side
Mandatory	
Basic (0x0000)	*None*
IAS Zone(0x0500)	
Optional	
_852_Cluster(0x0503) (proprietary)	*None*

ATTRIBUTE OF BASIC CLUSTER INFORMATION

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0000	ZCLVersion	Unsigned 8-bit integer	0x00 –0xff	Read only	0x01	M
0x0001	ApplicationVersion	Unsigned 8-bit integer	0x00 –0xff	Read only	0x00	O
0x0003	HWVersion	Unsigned 8-bit integer	0x00 –0xff	Read only	0	O
0x0004	ManufacturerName	Character String	0 – 32 bytes	Read only	Climax Technology	O
0x0005	ModelIdentifier	Character string	0 – 32 bytes	Read only	(Model Version)	O
0x0006	DateCode	Character String	0 – 16 bytes	Read only		O
0x0007	PowerSource	8-bit	0x00 –0xff	Read only		M
0x0010	LocationDescription	Character String	0 – 32 bytes	Read / Write		O
0x0011	PhysicalEnvironment	8-bit	0x00 –0xff	Read / Write	0x00	O
0x0012	DeviceEnabled	Boolean	0x00 –0x01	Read / Write	0x01	M

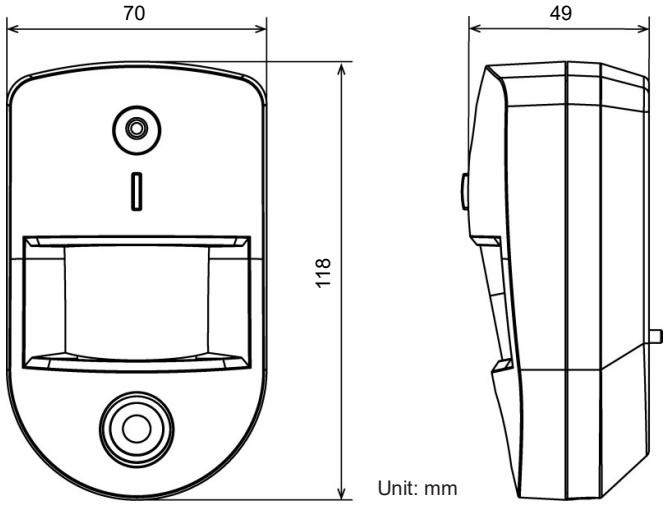
ATTRIBUTE OF IAS ZONE CLUSTER INFORMATION

Identifier	Name	Type	Range	Access	Default	Mandatory / Optional
0x0001	ZoneState	8-bit Enumeration	All	Read only	0x00	M
0x0002	ZoneType	8-bit Enumeration	All	Read only		M
0x0003	ZoneStatus	16-bit bitmap	All	Read only	0x00	M
0x0010	IAS_CIE_ADDRESS	IEEE ADDRESS	Valid 64bit IEEE address	Read / Write		M
0x0011	ZONE_ID	Unsigned 8-bit integer	All	Read only	0xFF	M

7 SPECIFICATIONS

Model	GEN-IDCAM
Detection method	Passive infrared
PIR Camera	7.0 m 90° wide
Frequency	2.4 GHz
Power source	L91 Lithium battery: 2 units
Battery life	Approx. 2.5 years (1 activations per day, 25°C)
Operating conditions	-10°C to +50°C (up to 85% non-condensing)
Mounting height	1.9 m
Weight	180 g (not including battery)

8 DIMENSIONS



Unit: mm