

GV-IP Camera

Quick Start Guide



- Box Camera
- Ultra Box Camera
- · Arctic Box Camera
- · Target Box Camera

Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.



© 2017 GeoVision, Inc. All rights reserved.

Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of GeoVision.

Every effort has been made to ensure that the information in this manual is accurate. GeoVision, Inc. makes no expressed or implied warranty of any kind and assumes no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages arising from the use of the information or products contained herein. Features and specifications are subject to change without notice. Note: no memory card slot or local storage function for Argentina.

GeoVision. Inc.

9F, No. 246, Sec. 1, Neihu Rd., Neihu District, Taipei, Taiwan

Tel: +886-2-8797-8377 Fax: +886-2-8797-8335 http://www.geovision.com.tw

Trademarks used in this manual: *GeoVision*, the *GeoVision* logo and GV series products are trademarks of GeoVision, Inc.

September 2017

Contents

Contents	ij
Caution	V
Safety Notice	V
Options	/i
Note for Installing Camera Outdoorvi	ii
Note for USB Storage and WiFi Adapteri	X
Note for Silica Gel Bagsi	X
Chapter 1 Box Camera	1
1.1 Packing List	.6
1.1.1 For H.265 Cameras	.6
1.1.2 For H.264 Cameras	.7
1.2 Overview	.8
1.2.1 GV-BX120D / 130D Series / 140DW / 220D Series /	
320D Series / 520D	.8
1.2.2 GV-BX1200 Series / 1300 Series / 1500 Series / 2400	
Series / 2500 Series / 2600 / 2700 Series /3400 Series / 4700	O
Series / 5300 Series / 5700 Series / 122011	0
1.3 Connecting the Camera1	3
1.3.1 GV-BX120D / 130D Series / 140DW / 220D Series /	
320D Series / 520D	3



1.3.2 GV-BX1200 Series / 1300 Series / 1500 Series / 2400	
Series / 2500 Series / 2600 / 2700 Series / 3400 Series / 470)0
Series / 5300 Series / 5700 Series / 122011	15
1.4 Accessory Installation	17
1.4.1 C-Mount Lenses	17
1.4.2 Infrared Illuminators (Optional)	18
1.5 I/O Terminal Block1	19
1.5.1 Pin Assignment	19
1.5.2 Connecting to GV-Relay V2 (Optional)2	20
1.6 Loading Factory Default2	21
1.6.1 Using the Web Interface2	21
1.6.2 Directly on the Camera	22
Chapter 2 IR Arctic Box Camera2	3
2.1 Packing List2	25
2.2 Overview	27
2.2.1 GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E /	
2400-E / 3400-E / 4700-E / 5300-E2	27
2.2.2 GV-BX2510-E / 5310-E2	28
2.3 Installation	29
2.4 Connecting the Camera	35
2.4.1 GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E /	
2400-E / 3400-E / 4700-E / 5300-E3	35

2.4.2 GV-BX2510-E / 5310-E	37
2.5 Notice for Using the IR Arctic Box Camera	40
2.5.1 Enabling IR LED after Loading Default	41
2.5.2 Disabling Status LED under Low Light Conditions	42
2.6 Loading Factory Default	43
2.6.1 Using the Web Interface	43
2.6.2 Directly on the Camera	43
Chapter 3 Ultra Box Camera	44
3.1 Packing List	45
3.2 Overview	46
3.3 Installation	47
3.4 Connecting the Camera	49
3.5 Loading Factory Default	50
3.5.1 Using the Web Interface	50
3.5.2 Directly on the Camera	50
Chapter 4 Target Box Camera	51
4.1 Packing List	51
4.2 Overview	52
4.3 Installation	53
4.4 Connecting the Camera	55
4.5 Loading Factory Default	56
4.5.1 Using the Web Interface	56



4.5.2 Directly on the Camera	56
Chapter 5 Accessing the Camera	57
5.1 System Requirement	57
5.2 Accessing the Live View	58
5.2.1 Checking the Dynamic IP Address	59
5.2.2 Configuring the IP Address	61
5.2.3 Configuring the Wireless Connection	63
5.3 Adjusting Image Clarity	66
Chapter 6 The Web Interface	69
Chapter 7 Upgrading System Firmware	72
Appendix	74
A. Supported Lenses for Box Camera	74

Caution

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Safety Notice

The GV-IPCAM uses a Lithium battery as the power supply for its internal real-time clock (RTC). The battery should not be replaced unless required!

If the battery does need replacing, please observe the following:

- Danger of Explosion if battery is incorrectly replaced
- Replace only with the same or equivalent battery, as recommended by the manufacturer
- Dispose of used batteries according to the manufacturer's instructions



Options

Optional devices can expand your camera's capabilities and versatility. Contact your dealer for more information.

Device	Description
Power Adapter	The power adapter is available for all Box Camera, Ultra Box Camera, and Target Box Camera. Contact your sales representative for the countries and areas supported.
GV-PA191 PoE Adapter	The GV-PA191 PoE adapter is designed to provide power and network connection to the cameras over a single Ethernet cable.
GV-PA482 PoE Adapter	The GV-PA482 PoE adapter is designed to provide power and network connection to GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 4700-E / 5310-E over a single Ethernet cable.
GV-POE Switch	The GV-POE Switch is designed to provide power along with network connection for IP devices. The GV-POE Switch is available in various models with different numbers and types of ports.
GV-Mount Accessories	The GV-Mount Accessories provide a comprehensive lineup of accessories for installation on ceiling, wall corner and pole. For details, see <i>GV-Mount Accessories Installation Guide</i> on the Software DVD.

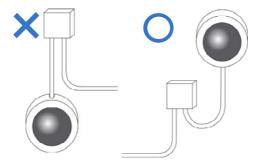
Device	Description	
GV-WiFi Adapter	The GV-WiFi Adapter is a plug-and-play device designed to connect GV-BX1200 Series / 1300 series / 1500 series / 2400 series / 2500 series / 3400 series / 4700 series / 5300 series / 5700 series and GV-MFD1501 series / 2401 series / 2501 series / 3401 series / 5301 series to wireless network. This product complies with IEEE 802.11 b/g/n (Draft 3.0) standards for wireless networking.	
GV-Relay V2	The GV-Relay V2 is designed to expand the voltage load of GV IP devices. It provides 4 relay outputs, and each can be set as normally open (NO) or normally closed (NC) independently as per your requirement.	



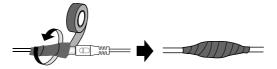
Note for Installing Camera Outdoor

When installing the IR Arctic Box Camera outdoor, be sure that:

1. The camera is set up above the junction box to prevent water from entering the camera along the cables.



Any PoE, power, audio and I/O cables are waterproofed using waterproof silicon rubber or the like.



3. The silica gel bag loses its effectiveness when the dry camera is opened. To prevent the lens from fogging up, replace the silica gel bag every time you open the camera, and conceal the gel bag in camera within 2 minutes of exposing to open air.

Note for USB Storage and WiFi Adapter

Mind the following limitations and requirements for using USB storage and GV-WiFi Adapter:

- 1. The USB hard drive must be of 2.5" or 3.5", version 2.0 or above.
- 2. The USB hard drive's storage capacity must not exceed 2TB.
- 3. USB flash drives and USB hubs are not supported.
- 4. External power supply is required for the USB hard drive.
- To connect a GV-WiFi Adapter, make sure it is connected before the camera is powered on.

Note for Silica Gel Bags

- The silica gel bag loses its effectiveness when the dry camera is opened. To prevent the lens from fogging up, replace the silica gel bag every time you open the camera, and conceal the gel bag in camera within 2 minutes of exposing to open air.
- When the camera is shipped, a silica gel bag will be included inside
 the camera. For the first-time user, replace the silica gel bag prior to
 the installation to avoid foggy live view.

Chapter 1 Box Camera

The Box Camera is a series of indoor IP cameras consisting of fixed focal and varifocal models in different resolutions. The Box Camera supports lens replacement and features an automatic infrared-cut filter for day and night surveillance. The **super low lux** models are capable of displaying color live view in near darkness. Models equipped with a **mini USB port** can be connected wirelessly through a GV-WiFi Adapter (optional). The **WDR Pro** models can produce clear image for scenes with contrasting intensity of lights. Models using **P-Iris** allow for precise control of exposure, producing images with better clarity and contrast. The Box Camera models are detailed below:

Box Camera

Model No.		Specifications	Description
GV-BX120D	Varifocal Lens	Auto Iris, f:2.8 ~ 12 mm, F/1.4, 1/3" CS Lens	1.3 MP, H.264, Low Lux, D/N
GV-BX130D-0		Auto Iris, f: 2.8 ~ 12 mm, F/1.4, 1/3" CS Lens	1.3 MP, H.264, D/N
GV-BX130D-1	Fixed Lens	Fixed Iris, f: 4 mm, F/1.4, 1/3" CS Lens	1.3 MP, H.264, D/N
GV-BX140DW	Varifocal Lens	Fixed Iris, f: 2.8 ~ 12 mm, F/1.4, 1/3" CS Lens	1 MP, H.264, D/N, WDR Pro
GV-BX220D-2		Auto Iris, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens	2 MP, H.264, D/N



Model No.		Specifications	Description
GV-BX220D-3	Varifocal Lens	Auto Iris, f: 2.8 ~ 12 mm, F/1.4, 1/3" CS Lens	2 MP, H.264, D/N
GV-BX320D-0	Varifocal Lens	Auto Iris, f:3.1 ~ 8 mm, F/1.2, 1/3" CS Lens	3 MP, H.264,
GV-BX320D-1		Auto Iris, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens	D/N
GV-BX520D		Manual Iris, f: 4.5 ~ 10 mm, F/1.6, 1/2" CS Lens	5 MP, H.264, D/N
GV-BX1200-0F	Fixed Lens	Fixed Iris, f: 4 mm, F/1.5, 1/3" CS Lens	1.3 MP, H.264, Low Lux, D/N
GV-BX1300-0F			1.3 MP, H.264, D/N
GV-BX1200-1F			1.3 MP, H.264, Low Lux, D/N
GV-BX1300-1F	. Fixed Lens		1.3 MP, H.264, D/N
GV-BX1500-1F		Fixed Iris, f: 8 mm, F/1.6, 1/2.5" CS Lens	1.3 MP, H.264, Super Low Lux, D/N
GV-BX2400-1F			2 MP, H.264, D/N, WDR Pro
GV-BX2500-1F			2 MP, H.264, Super Low Lux, D/N
GV-BX3400-1F			3 MP, H.264, D/N, WDR Pro

Model No.		Specifications	Description
GV-BX1200-2F			1.3 MP, H.264, Low Lux, D/N
GV-BX1300-2F			1.3 MP, H.264, D/N
GV-BX1500-2F	Fixed Lens	Fixed Iris, f: 12 mm, F/1.6, 1/2.5" CS	1.3 MP, H.264, Super Low Lux, D/N
GV-BX2400-2F	TIXOG LONG	Lens	2 MP, H.264, D/N, WDR Pro
GV-BX2500-2F			2 MP, H.264, Super Low Lux, D/N
GV-BX3400-2F			3 MP, H.264, D/N, WDR Pro
GV-BX1200-3V	Varifocal Lens		1.3 MP, H.264, Low Lux, D/N
GV-BX1300-3V	Lons	Auto Iris, f:2.8 ~ 12 mm, F/1.4, 1/2.7" CS Lens	1.3 MP, H.264, D/N
GV-BX1500-3V			1.3 MP, H.264, Super Low Lux, D/N
GV-BX2500-3V			2 MP, H.264, Super Low Lux, D/N
GV-BX2600		Auto Iris, f:3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	2 MP, H.264, Super Low Lux, D/N, WDR Pro
GV-BX3400-5V		Auto Iris, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens	3 MP, H.264, D/N, WDR Pro



GV-BX5300-6V		Auto Iris, f: 4.5 ~ 10 mm, F/1.6, 1/2" CS Lens	5 MP, H.264, D/N
GV-BX1500-8F		Fixed Iris, f: 2.8 mm, F/1.8, 1/2.5" CS Lens	1.3 MP, H.264, Super Low Lux, D/N
GV-BX2500-8F	Fixed Lens		2 MP, H.264, Super Low Lux, D/N
GV-BX3400-8F			3 MP, H.264, D/N, WDR Pro
GV-BX5300-8F			5 MP, H.264, D/N
GV-BX4700-8F		Fixed Iris, f: 2.8 mm, F/1.8, 1/2.5" CS Lens	4 MP, H.265, Super Low Lux, D/N, WDR Pro
GV-BX2700-8F		Fixed Iris, f: 2.8 mm, F/1.8, 1/2.5" CS Lens	2 MP, H.265, Super Low Lux, D/N, WDR Pro
GV-BX5700-8F		Fixed Iris, f: 2.95 mm, F/2.0, 1/1.8" CS Lens	5 MP, H.265, Low Lux, D/N, WDR
GV-BX12201	Varifocal Lens	DC drive Iris, f: 4.1 ~ 9 mm, F/1.6, 1/1.8" CS Lens	12 MP, H.264, D/N

P-Iris Models

Model No.		Specifications	Description
GV-BX1500-3V	Varifocal		1.3 MP, H.264, Super Low Lux, D/N
GV-BX2500-3V		P-Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.5" CS Lens	2 MP, H.264, Super Low Lux, D/N
GV-BX3400-3V			3 MP, H.264, D/N, WDR Pro
GV-BX2700-3V	Lens	P-Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	2 MP, H.265, Super Low Lux, D/N, WDR Pro
GV-BX4700-3V		P-Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	4 MP, H.265, Super Low Lux, D/N, WDR Pro
GV-BX5300-6V		P-Iris, f: 3.3 ~ 10.5 mm, F/1.4, 1/2.5" CS Lens	5 MP, H.264, D/N
GV-BX5700-3V		P-Iris, f: 3.6 ~ 10 mm, F/1.5, 1/1.8" CS Lens	5 MP, H.265, Low Lux, D/N, WDR



1.1 Packing List

1.1.1 For H.265 Cameras

- Box Camera
- Terminal Block (2-Pin and 3-Pin)
- Fixed Focal or Varifocal Megapixel Lens
- Six Lens Rings (only for Varifocal Lens)
- Video Out Wire
- Camera Holder
- Holder Screw x 2
- GV-IPCAM Software DVD
- GV-Software DVD
- Warranty Card

1.1.2 For H.264 Cameras

- Box Camera
- Terminal Block (2-Pin and 3-Pin)
- Fixed Focal or Varifocal Megapixel Lens
- Six Lens Rings (only for Varifocal Lens)
- Video Out Wire
- Camera Holder
- Holder Screw x 2
- Power Adapter
- GV-IPCAM Software DVD
- GV-Software DVD
- · Warranty Card

Note: The power adapter can be excluded upon request.



1.2 Overview

1.2.1 GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D



Figure 1-1

Note:

- The Auto Iris connector (No. 7) is only functional in GV-BX120D, GV-BX130D-0, GV-BX220D and GV-BX320D.
- The Light Sensor (No.11) is only available in GV-BX140DW. Keep the Light Sensor unobscured for accurate light detection.
- 3. The Iris Screw (No.13) is only available for GV-BX520D.
- 4. The Zoom Screw (No. 15) is not available for GV-BX130D-1.

No.	Name	Description
1	Video Out	Connects to a portable monitor for setting the focus and angle of Box Camera during initial installation.
2	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.

No.	Name	Description	
3	Audio Out	Connects a speaker for audio output.	
4	Audio In	Connects a microphone for audio input.	
5	I/O Terminal Block	For details, see 1.5 I/O Terminal Block.	
6	Power LED	Indicates the power is supplied. For detail, see the table below.	
7	Auto Iris Connector	Plug the iris control cable to the connector.	
8	DC 12V Port	Connects to power.	
9	LAN / PoE	Connects to a 10/100 Ethernet or PoE.	
10	Default	Restores the camera to the factory default. For details, see <i>1.6 Loading Factory Default</i> .	
11	Light Sensor	Detects light to switch between day and night mode.	
12	Focus Screw	Adjusts the focus of the camera.	
13	Iris Screw	Adjusts the iris of the camera.	
14	Microphone	Records the sounds.	
15	Zoom Screw	Adjusts the zoom of the camera.	
16	Status LED	Turns on when the unit is ready for use. For detail, see the table below.	

LED	Description	
Power LED turns green	The system powers on and succeeds to boot up.	
Status LED turns green	The system is ready for use.	



1.2.2 GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 2600 / 2700 Series /3400 Series / 4700 Series / 5300 Series / 5700 Series / 12201



Figure 1-2-1

Figure 1-2-2: GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 2600 / 2700 Series / 3400 Series / 4700 Series / 5300 Series / 5700 Series



Figure 1-2-1:

GV-BX12201

Note:

- The Auto Iris Connector (No. 8) is only functional for the models with auto iris lens.
- 2. The Iris Screw (No. 12) is only available in GV-BX5300-6V.
- 3. The Zoom Screw (No. 13) doesn't work on the models with fixed lens.
- The Memory Card Slot (No. 2) is currently not supported for GV-BX12201.
- Mini USB Slot (No. 3) connected to USB hard drive is currently not supported for GV-BX12201.
- 6. Built-in microphone is not available for GV-BX2600.

No.	Name	Description
1	Video Out	Connects to a portable monitor for setting the focus and angle of Box Camera during initial installation.
2	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.
3	Mini USB Slot	Connects to a GV-WiFi Adapter or a USB hard drive.
4	Audio Out	Connects a speaker for audio output.
5	Audio In	Connects a microphone for audio input.
6	I/O Terminal Block	Connects to I/O devices. For details, see 1.6 I/O Terminal Block.
7	Power LED	Indicates the power is supplied. For detail, see the table below.
8	Auto Iris Connector	Plug the iris control cable to the connector.
9	DC 12V Port	Connects to power.



No.	Name	Description	
10	LAN / PoE	Connects to a 10/100 Ethernet or PoE.	
11	Default	Restores the camera to factory default. For details, see 1.7 Loading Factory Default.	
12	Iris Screw	Adjusts the iris of the camera.	
13	Zoom Screw	Adjusts the zoom of the camera.	
14	Microphone	Records the sounds.	
15	Focus Screw	Adjusts the focus of the camera.	
16	Status LED	Turns on when the unit is ready for use. For detail, see the table below.	

LED	Description	
Power LED turns green	The system powers on and succeeds to boot up.	
Status LED turns green	The system is ready for use.	

1.3 Connecting the Camera

The Box Camera is designed for indoor use. Please make sure the installing site is shielded from rain and moisture.

1.3.1 GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D



Figure 1-3

- If you are using an auto iris model, plug the iris control cable to the Auto Iris Connector on the camera.
- 2. Use a standard network cable to connect the camera to your network.
- 3. Optionally connect a speaker and an external microphone.
- Optionally connect a monitor using a Video Out wire. Enable this
 function by selecting your signal format at the TV Out field on the
 Web interface. See 4.1.1 Video Settings, GV-IPCam Firmware
 Manual.



- Optionally connect to input / output devices or an infrared illuminator.
 For details, see 1.4.2 Infrared Illuminator and 1.5 I/O Terminal Block.
- 6. Connect power using one of the following methods:
 - plugging the power adapter to the power port.
 - using the Power over Ethernet (PoE) function and the power will be provided over the network cable.
- 7. The status LED of the camera will be on.
- 8. You are ready to access the live view, adjust the image clarity and configure the basics. See *Getting Started, Chapter 2, GV-IPCam Firmware Manual.*

1.3.2 GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 2600 / 2700 Series / 3400 Series / 4700 Series / 5300 Series / 5700 Series / 12201

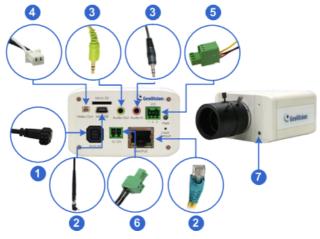


Figure 1-4

- If you are using an auto iris model, plug the iris control cable to the Auto Iris Connector on the camera.
- 2. Connect to network using one of the following methods:
 - Wired Connection: Use a standard network cable to connect the camera to your network and optionally connect a USB hard drive to the mini USB port.
 - Wireless Connection: Connect a GV-WiFi Adapter (optional accessory).
- 3. Optionally connect a speaker and an external microphone.



- Optionally connect a monitor using a Video Out wire. Enable this
 function by selecting your signal format at the TV Out field on the Web
 interface. See 4.1.1 Video Settings, GV-IPCam Firmware Manual.
- Optionally connect to input / output devices or an infrared illuminator.
 For details, see 1.4.2 Infrared Illuminator and 1.5 I/O Terminal Block.
- 6. Connect power using one of the following methods:
 - plugging the power adapter to the power port.
 - using the Power over Ethernet (PoE) function and the power will be provided over the network cable.
- 7. The status LED of the camera will be on.
- You are ready to access the live view, adjust the image clarity and configure the basics. See Getting Started, Chapter 2, GV-IPCam Firmware Manual.

Note: For details on limitations and requirements of the mini USB port, refer to the *Note for USB Storage and WiFi Adapter* at the beginning of this manual.

1.4 Accessory Installation

1.4.1 C-Mount Lenses

If you use a C-mount lens, it requires a certain distance from the camera's imaging chip to focus the lens. Mount the supplied C-mount lens adapter / lens ring to the camera, and then secure the lens onto the camera body.

Three types of C-mount lens rings are provided for Box Camera:

- 0.188 mm (transparent color) x 2
- 0.125 mm (black color with a glossy surface) x 2
- 0.254 mm (black color with a matt surface) x 2

For GV-BX140DW, a 0.125 mm is provided.

Note: The C-mount lens rings are specially designed for Box Camera. Besides the supplied C-mount lens rings, each of these models has already included with the necessary lens ring.



Figure 1-5



1.4.2 Infrared Illuminators (Optional)

If you use an infrared (IR) illuminator with I/O function, follow the steps below to install it.

- Connect the infrared illuminator to the terminal block on the camera.
 See 1.5 The I/O Terminal Block.
- 2. Access the Web interface of the camera.
- Select Video and Motion, select Video Settings, select Streaming 1 and set the IR Check Function setting to Trigger by Input.
- 4. Click Apply.

For details on the **Trigger by Input** function, see 4.1.1 Video Settings, GV-IPCam Firmware Manual.

1.5 I/O Terminal Block

The terminal block, located on the back panel of the Box Camera, provides the interface to one input and one output devices. The I/O terminal block can be used for applications such as motion detection, event alerts via E-Mail and FTP, and center monitoring through Center V2 and VSM.

1.5.1 Pin Assignment

The pin assignment for the I/O terminal block:

For the output point, please check if your output device meets the following **Absolute Maximum Ratings** before connecting it to the output point.

Breakdown Voltage	277V AC, 30V DC
Continuous Load Current	5A (NO), 3A (NC)

Note: Absolute Maximum Ratings are those values beyond which damage to the camera may occur. Continuous operation of the camera at the absolute rating level may affect the camera reliability.

The Box Camera support one digital input and one digital output of dry contact.



Figure 1-6

Pin	Function	
1	Digital Input	
2	GND	
3	Digital Output	

For details on how to enable an installed I/O device, see 4.3 I/O Settings, GV-IPCam Firmware Manual.



1.5.2 Connecting to GV-Relay V2 (Optional)

The Box Camera can only drive a maximum load of **200mA 5V DC**. To expand the maximum voltage load to **10A 250V AC**, **10A 125V AC** or **5A 100V DC**, connect the camera to a GV-Relay V2 module (optional product). Refer to the figure and table below.

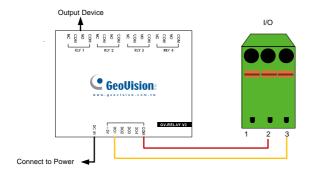


Figure 1-7

GV-Relay V2	I/O Terminal Block
COM	Pin 2 (GND)
DO1	Pin 3 (Digital Output)

1.6 Loading Factory Default

You can restore factory default settings through the Web interface or directly on the camera.

1.6.1 Using the Web Interface

- On the left menu of Web interface, select Management and select Tools. The Additional Tools dialog box appears.
- Click the Load Default button in the System Settings section.

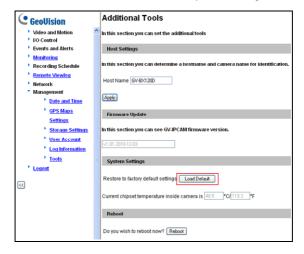


Figure 1-8



1.6.2 Directly on the Camera

- 1. Keep the power and network cables connected to the camera.
- Use a pin to press and hold the **default** button on the back panel of the camera.



Figure 1-9

 Release the default button when the status LED blinks. This shall take about 8 seconds.



Figure 1-10

 When the status LED fades, the process of loading default settings is completed and the camera reboots automatically.

Chapter 2 IR Arctic Box Camera

The IR Arctic Box Camera is a series of outdoor cameras designed for environments of extreme temperatures. The cameras adhere to IP67 and IK10 protection standards, and are equipped with IR LEDs and removable IR-cut filter for day and night surveillance. The GV-BX2400-E / 3400-E / 4700-E are equipped with WDR Pro to produce clear image for scenes containing contrasting intensity of lights. Models using P-Iris allow for precise control of exposure, producing images with better clarity and contrast.

IR Arctic Box Camera

Model No.		Specifications	Description
GV-BX120D-E		Auto Iris, f: 2.8 ~ 12 mm, F/1.4, 1/3" CS Lens	1.3 MP, H.264, Low Lux, D/N
GV-BX220D-E		Auto Iris, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens	2 MP, H.264, D/N
GV-BX320D-E		Auto Iris, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens	3 MP, H.264, D/N
GV-BX520D-E	Varifocal Lens	Manual Iris, f: 4.5 ~ 10 mm, F/1.6, 1/2" CS Lens	5 MP, H.264, D/N
GV-BX1500-E	20110	Auto Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	1.3 MP, H.264, Super Low Lux, D/N
GV-BX2400-E GV-BX3400-E		Auto Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	2 MP / 3 MP, H.264, D/N, WDR Pro
GV-BX4700-E		Auto Iris, f: 3 ~ 10.5 mm, F/1.4, 1/2.7" CS Lens	4 MP, H.265, D/N, WDR Pro



Model No.		Specifications	Description
GV-BX5300-E	Varifocal Lens	Manual Iris, f: 4.5 ~ 10 mm, F/1.6, 1/2" CS Lens	5 MP, H.264 D/N
GV-BX2510-E	Motorized Varifocal Lens	P-Iris, f: 3.7 ~ 9 mm, F/1.2, 1/2", ø 14 mm mount	2 MP, H.264, Super Low Lux, D/N
GV-BX5310-E		P-Iris, f: 4.5 ~ 9 mm, F/1.2, 1/2", Ø 14 mm mount	5 MP, H.264 D/N

2.1 Packing List

For GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 4700-E / 5300-E

- IR Arctic Box Camera
- Screw Anchor x 4
- Screw x 4
- Washer x 4
- 4 mm Torx Wrench
- 5 mm Torx Wrench
- Silica Gel Bag x 2
- Adhesive Tape for Silica Gel Bag x 2
- GV-IPCAM Software DVD
- GV-Software DVD
- Warranty Card

Note: Optionally purchase a GV-PA482 PoE Adapter for GV-BX1500-E / 2400-E / 3400-E / 4700-E / 5300-E.



For GV-BX2510-E / 5310-E

- IR Arctic Box Camera
- Screw Anchor x 4
- Screw x 4
- Washer x 4
- 5 mm Torx Wrench
- · Silica Gel Bag
- · Adhesive Tape for Silica Gel Bag
- Power Adapter (DC 48V, 2.5A, 120 W max.)
- GV-IPCAM Software DVD
- . GV-NVR Software DVD
- Warranty Card

Note: Optionally purchase a GV-PA482 PoE Adapter for GV-BX2510-E / 5310-E.

2.2 Overview

2.2.1 GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 4700-E / 5300-E

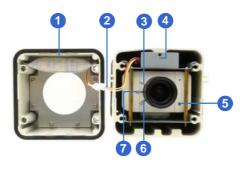


Figure 2-1

Note: The Iris Screw (No. 7) is only available in GV-BX520D-E and GV-BX5300-E.

No.	Name	Description
1.	Silica gel bag	Desiccant that keeps the camera housing dry.
2.	IR power plug	Supplies power to the built-in IR LEDs.
3.	Focus Screw	Adjusts the focus of the camera.
4.	Module screw	Holds the module in place.
5.	Status LED	Turns on when the camera is ready for use.
6.	Zoom Screw	Adjusts the zoom of the camera.
7.	Iris Screw	Adjusts the iris of the camera.



2.2.2 GV-BX2510-E / 5310-E

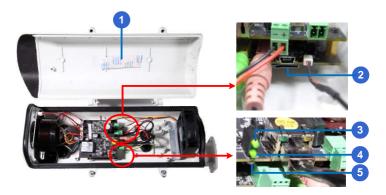


Figure 2-2

No.	Name	Description
1.	Silica gel bag	Desiccant that keeps the camera housing dry.
2.	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0, Class 10) to store recording data.
3.	Power LED	Turns on when the camera is supplied with power.
4.	Status LED	Turns on when the camera is ready for use.
5.	Default	Resets all configurations to factory default. For details, see 2.6 Loading Factory Default.

2.3 Installation

The IR Arctic Box Camera is designed for outdoor use. Follow the steps below to install your camera.

- 1. Mark the installation site and drill four holes for screw anchors.
- 2. Insert the supplied screw anchors.
- 3. Secure the camera to the wall using the supplied washers and screws.

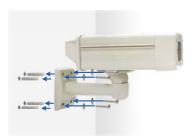


Figure 2-3

- Connect the camera with wires and cables. See 2.4 Connecting the Camera.
- 5. Access the live view. See 5.2 Accessing the Live View.



6. Based on the live view, adjust the angle of the camera. Loosen the indicated screw with the supplied big torx wrench and adjust the joint.



Figure 2-4

Tilt Adjustment



Figure 2-5

Pan Adjustment



Figure 2-6

- For GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 4700-E / 5300-E, adjust for image clarity based on the live view.
 - A. Unscrew the cover with the supplied 4 mm torx wrench.



Figure 2-7

B. Hold and unplug the connector.

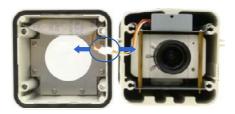


Figure 2-8

IMPORTANT: Unscrew and remove the cover carefully. Pulling the cover off may cause damages to the inner wiring of the camera.



C. Adjust the focus, zoom and iris screws. For a more precise focus, use GV-IP Device Utility. For details, see 5.3 Adjusting Image Clarity.

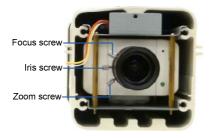


Figure 2-9

Note: Only GV-BX520D-E and GV-BX5300-E contain an iris screw.

D. Replace the silica gel bag. Paste the sticker to the silica gel bag. Press the sticker several times onto the camera cover to make sure it adheres properly.



Figure 2-10

E. Follow steps 7B and 7A to plug the connector back and close the camera cover.

- 8. For GV-BX2510-E / 5310-E, optionally insert a memory card.
 - A. Open the camera cover using the supplied torx wrench.



Figure 2-11

B. Insert a memory card to the card slot.

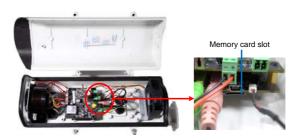


Figure 2-12



C. Replace the silica gel bag. Paste the sticker to the silica gel bag. Press the silica gel bag several times onto the camera cover to make sure it adheres properly.



Figure 2-13

D. Follow step 8A to close the camera cover.

2.4 Connecting the Camera

2.4.1 GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 4700-E / 5300-E



Figure 2-14

No.	Wire	Definition
1	RJ-45	PoE
2	Black BNC	TV out
3	Green RCA	Audio Out
4	Pink RCA	Audio In



- Optionally connect a speaker (green) and an external microphone (pink).
- Optionally connect a monitor using a Video Out wire. Enable this
 function by selecting your signal format at the TV Out field on the
 Web interface. See 4.1.1 Video Settings, GV-IPCam Firmware
 Manual.
- 3. Connect the camera to a GV-PA482 PoE Adapter to supply power and network access. For detailed instruction, see step 3 of *For GV-BX25010-E / 5310-E* in the next section of Chapter 2.
- 4. The status LED of the camera will be on.
- 5. You are ready to access the live view.

2.4.2 GV-BX2510-E / 5310-E



Figure 2-15

No.	Wire	Definition
1.	Green RCA	Audio Out
2.	Pink RCA	Audio In
3.	Brown wire	Digital Output
4.	Yellow wire	Digital Input
5.	White wire	GND
6.	Terminal Block	DC 48V
7.	BNC	TV Out
8.	RJ-45	Ethernet/PoE



- Optionally connect the audio out (green), audio in (pink), digital output (brown), digital input (yellow), and GND.
- 2. Optionally connect a monitor using a Video Out wire. Enable this function by selecting your signal format at the **TV Out** field on the Web interface. See *4.1.1 Video Settings*, *GV-IPCam Firmware Manual*.
- Supply the camera with power and network access using one of the following methods:
 - Use a GV-PA482 Power over Ethernet adapter to connect the camera to power and network as illustrated below. GV-PA482
 - PoE adapter is an optional accessory. For detail, see Options in the manual.

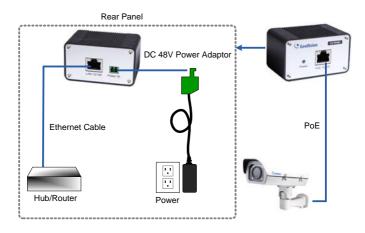


Figure 2-16

 Use the supplied power adapter. Connect the black wire of the power adaptor to the plus (+) port and the white wire to the negative (-) port. Connect the camera to network with a network cable.



Figure 2-17

4. You are ready to access the live view.



2.5 Notice for Using the IR Arctic Box Camera

For **GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 4700-E / 5300-E**, make sure that you:

- enable IR LED function on the Web interface after loading the default settings.
- disable the status LED to reduce reflection when a green light spot appears on the live view.

2.5.1 Enabling IR LED after Loading Default

Each GV-IR Arctic Box Camera is equipped with 4 IR LEDs to provide infrared illumination at night. The factory-loaded setting for the IR LED function is **enabled**. If you have restored the camera to default settings, please follow the steps below to enable the IR LED function.

- In the left menu of Web interface, select Video Settings and then Streaming 1.
- 2. Enable Trigger IR by D/N in IR Check Function.

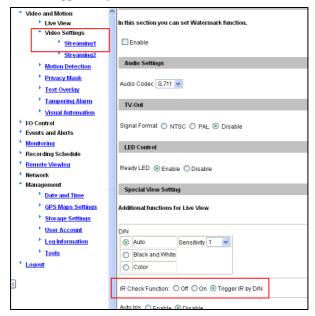


Figure 2-18

Click Apply.



2.5.2 Disabling Status LED under Low Light Conditions

If you have a green light spot on the live view, this is likely due to insufficient light at the installation site, which causes the status LED to reflect on the camera cover. In this case, it is advisable that you disable the status LED.

- In the left menu of Web interface, select Video Settings and then Streaming 1.
- Select **Disable** in LED Control.

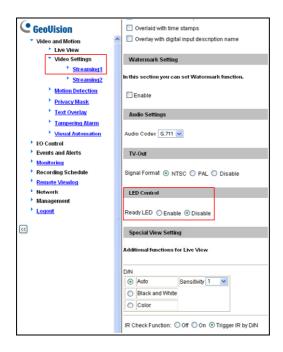


Figure 2-19

Click Apply.

2.6 Loading Factory Default

2.6.1 Using the Web Interface

You can restore factory default settings through the Web Interface. For details, see 1.6.1 Using the Web Interface, Loading Factory Default.

2.6.2 Directly on the Camera

Note that only **GV-BX2510-E** and **GV-BX5310-E** are equipped with a default button.

Press and hold the **default** button for about 8 seconds to restore the factory default. After the **status LED** blinks, release the **default** button. For details see 1.6 Loading Factory Default.

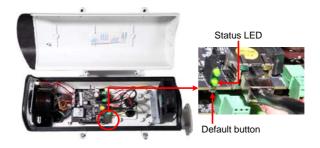


Figure 2-20



Chapter 3 Ultra Box Camera

The Ultra Box Camera is a series of light-weighted cameras designed for indoor usage. Equipped with IR-cut filter and built-in IR LEDs, the Ultra Box Camera provides excellent image quality. The camera supports PoE and can be installed intuitively. Nine models of varying resolutions and focal lengths are available.

Model No.		Specifications	Description
GV-UBX1301-0F GV-UBX1301-1F GV-UBX1301-2F	Fixed Lens	Fixed Iris, f: 2.8 mm, F/2.0, 1/3" M12 Mount	1.3 MP, H.264, D/N
GV-UBX2301-0F GV-UBX2301-1F GV-UBX2301-2F		Fixed Iris, f: 4 / 8	2 MP, H.264, D/N
GV-UBX3301-0F GV-UBX3301-1F GV-UBX3301-2F		mm, F/1.6, 1/3" M12 Mount	3 MP, H.264, D/N

3.1 Packing List

- Ultra Box Camera
- · Supporting rack
- Screw x 3
- Screw anchor x 3
- Power Adapter
- GV-IPCAM Software DVD
- GV-Software DVD
- Warranty Card

Note: The power adapter can be excluded upon request.



3.2 Overview



Figure 3-1

No.	Name	Description	
1	Audio Out	Connects a speaker for audio output.	
		Resets the camera to factory default.	
2	Default	For details, see 3.5 Loading Factory	
		Default.	
3	LAN / PoE	Connects to a 10/100 Ethernet or PoE.	
4	Microphone	Records sounds.	
		Inserts a micro SD card (SD/SDHC,	
5	Memory Card Slot	version 2.0 only, Class 10) to store	
		recording data.	
6	DC 5V Terminal Block	Connects to power.	

LED Indicator	Description	
Status LED	The status LED turns on (green) when the system is ready for use.	
O Power LED	The power LED turns on (green) when power is supplied to the camera.	

3.3 Installation

You can stand the Ultra Box Camera on a plain surface or install it to wall and ceiling. Follow the steps below to install, connect and adjust your Ultra Box Camera.

 To install the device on the wall/ceiling, put the supporting rack on the desired location and make marks for screw anchors.



Figure 3-2

- 2. Drill the marks and insert the screw anchors.
- Secure the supporting rack onto the wall/ceiling using the supplied screws.
- Secure the camera onto the supporting rack and fasten the indicated screw.



Figure 3-3



- 5. Connect the network and power cables to the camera. See 3.4 Connecting the Camera.
- 6. Access the live view. See 5.2 Accessing the Live View.
- Adjust the angle of the camera based on live view and fasten the indicated screw.



Figure 3-4

3.4 Connecting the Camera



Figure 3-5

- 1. Connect power using one of the following methods:
 - Plug the power adapter to the 5V terminal block. The power adapter is an optional device. For detail, see Options in the manual.
 - Use the Power over Ethernet (PoE) function and the power will be provided over the network cable.

The power and status LEDs shall turn on (green).

- 2. Use a standard network cable to connect the camera to your network.
- 3. Optionally connect a speaker.
- 4. Insert a micro SD card (SD/SDHC, version 2.0 only, Class 10).
- You are ready to access the live view, adjust the image clarity and configure the basics. See Getting Started, Chapter 2, GV-IPCam Firmware Manual.



3.5 Loading Factory Default

3.5.1 Using the Web Interface

You can restore factory default settings through the Web Interface. For details, see 1.6.1 Using the Web Interface, Loading Factory Default.

3.5.2 Directly on the Camera

Press and hold the **default** button for about 8 seconds to restore the factory default. After the **status LED** blinks, release the **default** button. When the status LED turns on (green), the camera is ready for use. For details see 1.6 Loading Factory Default.



Figure 3-6

Chapter 4 Target Box Camera

The Target Box Camera (GV-EBX) is a series of light-weighted cameras designed for indoor usage. Equipped with IR-cut filter and built-in IR LEDs, the camera is an entry-level surveillance solution with all the essential features and excellent image quality. The camera supports PoE and can be installed intuitively.

Model No.	Iris	Specifications	Description
GV-EBX1100-0F		Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12	1.3 MP, H.264,
GV-LBX1100-0F			Low Lux, D/N
OV 50 VO400 05		Mount	2 MP, H.264,
GV-EBX2100-0F	Fixed Lens	WOUTE	Low Lux, D/N
CV EDV4400 0E		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	1.3 MP, H.264,
GV-EBX1100-2F			Low Lux, D/N
CV EDV0400 0E			2 MP, H.264,
GV-EBX2100-2F	Mount	Low Lux, D/N	

4.1 Packing List

- · Target Box Camera
- Supporting Rack
- Screw x 3
- Screw Anchor x 3
- GV-IPCAM Software DVD
- GV-Software DVD
- · Warranty Card

Note: Power adapter can be purchased upon request.



4.2 Overview



Figure 4-1

No.	Name	Description
1	Default	Resets the camera to factory default. For
ı		details, see 4.5 Loading Factory Default.
2	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
3	Microphone	Records sounds.
4	DC 12V Terminal	Composto to power
	Block	Connects to power.

LED Indicator	Description
Status LED	The status LED turns on (green) when the system is ready for use.
O Power LED	The power LED turns on (green) when power is supplied to the camera.

4.3 Installation

You can stand the Target Box Camera on a plain surface or install it to wall and ceiling. Follow the steps below to install, connect and adjust your Target Box Camera.

 To install the device on the wall/ceiling, put the supporting rack on the desired location and make marks for screw anchors.



Figure 4-2

- 2. Drill the marks and insert the screw anchors.
- Secure the supporting rack onto the wall/ceiling using the supplied screws
- Secure the camera onto the supporting rack and fasten the indicated screw.



Figure 4-3



- 5. Connect the network and power cables to the camera. See *4.4 Connecting the Camera*.
- 6. Access the live view. See 5.2 Accessing the Live View.
- Adjust the angle of the camera based on live view and fasten the indicated screw.



Figure 4-4

4.4 Connecting the Camera



Figure 4-5

- 1. Connect power using one of the following methods:
 - Plug the power adapter to the 12V terminal block. The power adapter is an optional device. For detail, see Options in the manual.
 - Use the Power over Ethernet (PoE) function and the power will be provided over the network cable.

The power and status LEDs shall turn on (green).

- 2. Use a standard network cable to connect the camera to your network.
- 3. You are ready to access the live view, adjust the image clarity and configure the basics. See *Getting Started, Chapter 2, GV-IPCam Firmware Manual.*



4.5 Loading Factory Default

4.5.1 Using the Web Interface

You can restore factory default settings through the Web Interface. For details, see 1.6.1 Using the Web Interface, Loading Factory Default.

4.5.2 Directly on the Camera

Press and hold the **default** button for about 8 seconds to restore the factory default. After the **status LED** blinks, release the **default** button. When the status LED turns on (green), the camera is ready for use. For details see 1.6 Loading Factory Default.

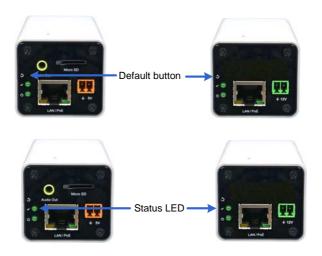


Figure 4-6

Chapter 5 Accessing the Camera

5.1 System Requirement

To access the GV-IP Camera through the Web browser, ensure your PC connects to the network properly and meets this system requirement:

Microsoft Internet Explorer 8.0 x or later

Note:

- For the users of Internet Explorer 8, additional settings are required. For details, see Appendix A in GV-IPCAM Firmware Manual on the Software DVD.
- For GV-BX2600, Microsoft Internet Explorer 11 or later is required.



5.2 Accessing the Live View

When the camera is connected to a network with a DHCP server, it will be automatically assigned with a dynamic IP address. See *5.2.1 Checking the Dynamic IP Address* to look up this IP address.

However, if you do not have a DHCP server on your network, access the camera by its default IP address 192.168.0.10 and see 5.2.2 Configuring the IP Address for more detail.

Note:

- 1. The default ID and Password of the GV-IP Camera is **admin**.
- 2. By default, GV-PTZ010D is assigned with the fixed IP address 192.168.0.10.

5.2.1 Checking the Dynamic IP Address

Follow the steps below to look up the IP address and access the Web interface.

 Install the GV-IP Device Utility program included on the GV-IPCAM software DVD.

Note: The PC installed with GV-IP Device Utility must be under the same LAN with the GV-IPCAM you wish to configure.

On the GV-IP Utility window, click the button to search for the IP devices connected in the same LAN. Click the Name or Mac Address column to sort.



Figure 5-1



Find the camera with its Mac Address, click on its IP address and select Web Page.



Figure 5-2

4. The login page appears.



Figure 5-3

5. Type the default ID and password **admin** and click **Apply** to log in.

5.2.2 Configuring the IP Address

Follow the steps below to configure the IP address.

- Open your Web browser, and type the default IP address http://192.168.0.10.
- In both Login and Password fields, type the default value admin. Click Apply.
- In the left menu, select **Network** and then **LAN** to begin the network settings.

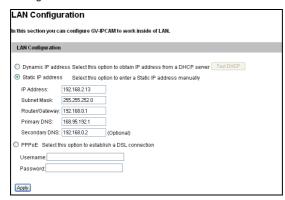


Figure 5-4

- Select Static IP address, Dynamic IP address or PPPoE and type the required network information.
- Click Apply. The camera is now accessible by entering the assigned IP address on the Web browser.
- To enable the updating of images in Microsoft Internet Explorer, you
 must set your browser to allow ActiveX Controls and perform a onetime installation of GeoVision's ActiveX component onto your
 computer.



Important:

- 1. If Dynamic IP Address or PPPoE is enabled, you need to know which IP address the camera will get from DHCP server or ISP to log in. If your camera is installed in the LAN, use the GV-IP Device Utility to look up its current dynamic IP address. See 5.2.1 Checking the Dynamic IP Address in the Quick Start Guide. If your camera uses a public dynamic IP address via PPPoE, use the dynamic DNS Service to obtain a domain name that is linked to the camera's changing IP address first. For details, see LAN Configuration and Advanced TCP/IP sections, Administrator Mode Chapter in the GV-IPCAM Firmware Manual on the Software DVD.
- If Dynamic IP Address or PPPoE is enabled and you cannot access the camera, you may have to reset the camera to its factory default and then perform the network settings again. To restore factory settings, see 1.6, 2.6, 3.5, 4.5. Loading Factory Default.

5.2.3 Configuring the Wireless Connection

You may create wireless connection to the Internet for GV-BX1200 series / 1500 series / 2400 series / 2700 series / 3400 series / 5300.

- To set up the wireless LAN for the first time, power on and connect a standard network cable to the camera.
- An IP address will be automatically assigned to the camera. Use GV IP Device Utility to search for the device. For details, see 5.2.1 Checking the Dynamic IP Address.
- Configure the wireless settings.
 - A. On the Web interface, select **Network**, select **Wireless** and **Client Mode**. This dialog box appears.

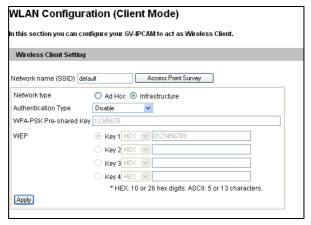


Figure 5-5

- B. Type the Network Name (SSID) or click the Access Point Survey button to search and select for the available Access Points/wireless stations.
- C. Select **Ad-Hoc** or **Infrastructure** for the Network type.



- Select the Authentication Type using the drop-down list. You can also obtain this information by clicking the Access Point Survey button.
- E. Type the **WPA-PSK Pre-shared Key** or **WEP** depending on the encryption setting for the Access Point.
- F. Click **Apply** to save the configuration.

Note:

- Your encryption settings must match those used by the Access Points or wireless stations with which you want to associate.
- 2. When **Ad Hoc** is used, only **WEP** encryption is supported.
- When you lose the wireless access, you can still access the unit by connecting it to a LAN and using the GV IP Device Utility to search for the device.

- Enable wireless LAN.
 - A. On the Web interface, select **Network** and **LAN**. This page appears.

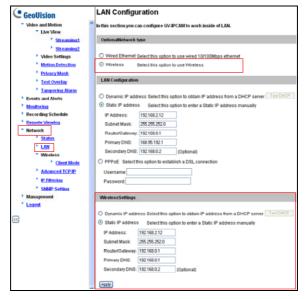


Figure 5-6

- B. Select Wireless for Optional Network Type.
- C. To use a dynamic IP address assigned by the DHCP server, select **Dynamic IP address**. To use a fixed IP address, select **Static IP address** and type the IP address information.
- Click Apply. The camera will start creating a wireless connection to the access point.
- 6. Unplug the Ethernet cable.



5.3 Adjusting Image Clarity

You can adjust the image clarity using the GV-IP Device Utility. Make sure that you have connected your GV-IPCAM to the network and install the GV-IP Device Utility program under the same LAN.

Note: The PC installed with GV-IP Device Utility must be under the same LAN with the GV-IPCAM you wish to configure.

- Make sure you have installed the GV-IP Device Utility program included on the GV-IPCAM software DVD.
- On the GV-IP Utility window, click the button to search for the IP devices connected in the same LAN. Click the IP Address of the camera you desire. A drop-down list appears.

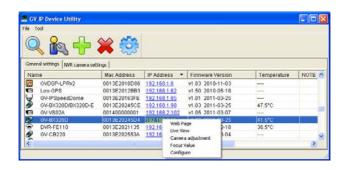


Figure 5-7

3. Select Focus Value. The Login dialog box appears.



Figure 5-8

4. Type the user name and password of the camera selected. The default is **admin** for both user name and password. This window appears.



Figure 5-9

 Adjust the Zoom Screw and the Focus Screw of the camera slowly until the focus value reaches the maximum.



Note:

- For locations of adjustment screws and rings in each model, see
 Locations of Adjustment Screws, section, Getting Started
 Chapter, GV-IPCAM Firmware Manual on the Software DVD.
- Do not over tighten the screws. The screws only need to be as tight as your fingers can get them to be. Do not bother using any tool to get them tighter. Doing so can damage the structure of lens.
- 3. The maximum focus value may vary when the environment changes.

Chapter 6 The Web Interface



Figure 6-1



No.	Name	Function
1	Play	Plays live video.
2	Stop	Stops playing video.
3	Microphone	Broadcasts to the surveillance site from a remote PC. Note this function is not available for Ultra Bullet Camera and Target Series . For Cube Camera and Advanced Cube Camera , click the Push to talk button (from the pop-up menu) for the camera to switch between audio transmission and reception, where only one party can speak at a time.
4	Speaker	Transfers sounds of the surveillance site to a remote PC. Note this function is not available for, Mini Fixed Rugged Dome, Ultra Bullet Camera, Target Bullet Camera, and Target Mini Fixed Rugged Dome.
5	Snapshot	Takes a snapshot of live video.
6	File Save	Records live video to the local computer.
7	Full Screen	Switches to full screen view. Right-click the image to see additional options.
8	Control Panel	Displays the camera information, video settings, audio data rate, I/O device status, images captured upon alarm, and GPS location of the camera. Also allows you to adjust image quality and install the program from the hard drive.
9	Show System Menu	Brings up these functions: Alarm Notify, Video and Audio Configuration, Remote Config, Show Camera Name and Image Enhance.

No.	Name	Function
10	PTZ Control Panel	Enables the PTZ Control Panel or the Visual PTZ. Note this function is supported by PTZ Camera and PT Camera , and only partially supported by GV-IP Cameras with motorized varifocal lens .
11	I/O Control	Enables the I/O Control Panel and Visual Automation. Note this function is not available in Mini Fixed Dome, Mini Fixed Rugged Dome, Cube Camera, Advanced Cube Camera and Target Series.
12	LED Control	Click to turn the Alarm LED on and/or adjust the brightness sensitivity. Note this function is only available for Advanced Cube Camera .
13	Alarm Speaker	Click to sound the alarm and/or adjust its volume. To sound the alarm upon motion or tampering events, see <i>Speaker</i> section, <i>Administrator Mode</i> Chapter, <i>GV-IPCAM Firmware Manual</i> on the Software DVD. Note this function is only available for Advanced Cube Camera .



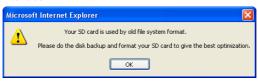
Chapter 7 Upgrading System

Firmware

GeoVision periodically releases updated firmware on the website. The new firmware can be simply loaded into the GV-IPCAM by using the Web interface or IP Device Utility included in the software DVD.

Important:

- To update the camera firmware from versions earlier than V2.07 to the latest version, back up the files in the storage device to another device before the upgrade.
- 2. While the firmware is being updated,
 - A) the power supply must not be interrupted, and
 - B) do not unplug the Ethernet cable if the cable is the source of power supply (Power over Ethernet or PoE supported).
- Do not turn the power off within 10 minutes after the firmware is updated.
- If you use the IP Device Utility for firmware upgrade, the computer used to upgrade firmware must be under the same network of the camera.
- 5. Since the firmware adopts different storage format from V2.07 onward, be sure to re-format the storage device after firmware upgrade. If you have not done so, this warning message appears when you view the Monitoring or Storage Settings' Web interface:



- Stop these operations: monitoring of the camera, connection to GV-DVR / NVR / VMS and remote connections to Center V2, Vital Sign Monitor, ViewLog Server and 3GPP/RTSP.
- In the Live View window, click the Show System Menu button and select Remote Config. This dialog box appears.

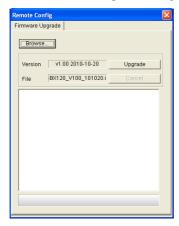


Figure 7-1

- Click the **Browse** button to locate the firmware file (.img) saved at your local computer.
- 4. Click the **Upgrade** button to start the upgrade.

Warning: The interruption of power supply during updating causes not only update failures but also damages to the camera. In this case, please contact your sales representative and send your device back to GeoVision for repair.



Appendix

A. Supported Lenses for Box Camera

Provider	Model No.
	RV0409D.IR
Fujian Forecam Optics	RV0515D.IR
	RV0820D.IR
	EVD03618F-IR
	EVD04218F-IR
EVETAR	EVD06018F-IR
LVLIAN	EVD08018F-IR
	EVD12018F-IR
	EVD16018F-IR
Pentax	TS3VP213ED-M