

GV-IPCam

Quick Start Guide



- Cube Camera
- Mini Fixed Dome
- Mini Fixed Rugged Dome
- Target Mini Fixed Dome
- Target Mini Fixed Rugged Dome

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

ICH265HISI2V10-B

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



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Options


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

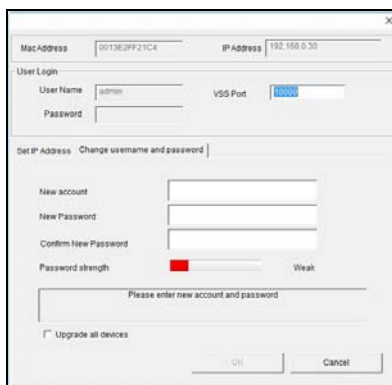
Device	Description
Power Adapter	The power adapter is available for all Mini Fixed Dome, Cube Camera, and Advanced Cube Camera. Contact your sales representative for the countries and areas supported.
GV-PA191 PoE Adapter	The GV-PA191 PoE adapter is designed to provide power and network connection to the cameras over a single Ethernet cable.
GV-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> .
GV-WiFi Adapter	<p>The GV-WiFi Adapter is a plug-and-play device designed to connect the camera to wireless network. The product complies with IEEE 802.11 b/g/n (Draft 3.0) standards for wireless networking.</p> <p>Note: Only compatible models and firmware versions support GV-WiFi Adapter</p>

Device	Description
Plastic PG21 Conduit Connector	<p>The plastic PG21 conduit connector is used for running the wires of Target Mini Fixed Rugged Dome through a 1/2" conduit pipe.</p> <p>The connector is not supported by GV-EFD2700 / 4700 Series and GV-MFD2700 / 4700 Series.</p>
GV-Relay V2	<p>The GV-Relay V2 is supported by GV-EFD2700 Series and GV-MFD2700 / 4700 Series. 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.</p>

Creating GV-IP Camera's Login Credentials

The default Administrator and Guest accounts are no longer supported by firmware V1.14 or later. When purchasing a new camera or performing factory resetting, you need to set up a login username and password for the camera.

1. Download and install **GV-IP Device Utility** from the company [website](#).
2. On the GV-IP Device Utility window, click  to search for your GV-IP camera.
3. Double-click your GV-IP camera in the GV-IP Device Utility list. This dialog box appears.

The image shows a screenshot of the 'GV-IP Device Utility' dialog box. At the top, there are fields for 'MacAddress' (0013E2FF21C4) and 'IP Address' (192.168.0.30). Below these is the 'User Login' section with 'UserName' (admin) and 'Password' fields, and a 'VSS Port' field (8000). The main section is titled 'Set IP Address Change username and password'. It contains fields for 'New account', 'New Password', and 'Confirm New Password'. A 'Password strength' indicator shows a red bar and the word 'Weak'. At the bottom, there is a checkbox for 'Upgrade all devices' and 'OK' and 'Cancel' buttons.

4. Click the **Change Username** and **Password** tab to type a new username and password. Note that the new password must meet the password strength requirements.
5. Optionally click **Upgrade all devices** to use the same username and password on all other devices.

Note for USB Storage and WiFi Adapter

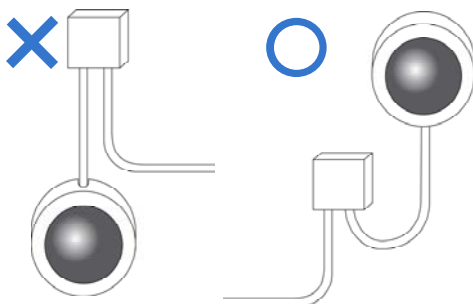
Mind the following limitations and requirements for using USB storage and GV-WiFi Adapter:

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.
5. To connect a GV-WiFi Adapter, make sure it is connected before the camera is powered on.

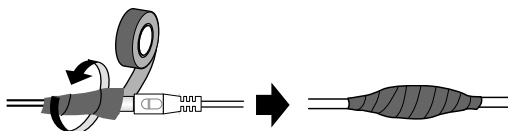
Note for Installing Camera Outdoor

When installing **Mini Fixed Rugged Dome** outdoor, be sure that:

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



2. 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.

Chapter 1 Mini Fixed Dome (Part I) & Mini Fixed Rugged Dome

The Mini Fixed Dome (GV-MFD) and Mini Fixed Rugged Dome (GV-MDR) are fixed, mini-sized ceiling-mount network cameras.

The GV-MDR series is designed for outdoor surveillance, conforming to IK10 and IP67 standards. The camera is adjustable in 3 axis (pan, tilt and rotate) and can be connected through PoE.

The GV-MFD series is designed for indoor surveillance. Adjustable in 2 axis (pan and tilt), the camera also supports PoE.

The **super low lux** models can provide color live view in near darkness and the **WDR Pro** models can process scenes of contrasting intensity of lights.

Mini Fixed Dome (GV-MFD)

Model No.		Specifications	Description
GV-MFD120	Fixed Lens	Fixed Iris, f: 4 mm, F/1.5, 1/3" M12 Mount	1.3 MP Low Lux, H.264, Color
GV-MFD130 GV-MFD320		Fixed Iris, f: 2.54 mm, F/2.8, 1/2.5" M12 Mount	1.3 MP / 2 MP / 3 MP / 5MP, H.264, Color
GV-MFD1501-0F GV-MFD2401-0F GV-MFD2501-0F GV-MFD3401-0F GV-MFD5301-0F		Fixed Iris, f: 2.8 mm, F/2.0, 1/3" M12 Mount	1.3 MP Super Low Lux / 2 MP / 2 MP Super Low Lux / 3 MP / 5 MP, H.264, Color
GV-MFD1501-1F GV-MFD2501-1F		Fixed Iris, f: 4 mm, F/1.5, 1/3" M12 Mount	
GV-MFD1501-2F GV-MFD2401-2F GV-MFD2501-2F GV-MFD3401-2F GV-MFD5301-2F		Fixed Iris, f: 8 mm, F/1.6, 1/3" M12 Mount	
GV-MFD1501-3F GV-MFD2401-3F GV-MFD2501-3F GV-MFD3401-3F GV-MFD5301-3F		Fixed Iris, f: 12 mm, F/1.6, 1/3" M12 Mount	
GV-MFD1501-4F GV-MFD2401-4F		Fixed Iris, f: 2.1 mm, F/1.8, 1/3" M12 Mount	
GV-MFD1501-5F GV-MFD2401-5F GV-MFD2501-5F GV-MFD3401-5F GV-MFD5301-5F		Fixed Iris, f: 3.8 mm, F/1.8, 1/3" M12 Mount	

Model No.		Specifications	Description
GV-MFD2501-6F GV-MFD3401-6F	Fixed Lens	Fixed Iris, f: 2.3mm, F/2.2, 1/3" M12 Mount	2 MP Super Low Lux / 3 MP WDR Pro, H.264, Color

Mini Fixed Rugged Dome (GV-MDR)

Model No.		Specifications	Description
GV-MDR220 GV-MDR320 GV-MDR520	Fixed Lens	Fixed Iris, f: 2.54 mm, F/2.8, 1/2.5" M12 Mount	2 MP / 3 MP / 5MP, H.264, Color
GV-MDR1500-1F GV-MDR3400-1F GV-MDR5300-1F		Fixed Iris, f: 2.8 mm, F/2.0, 1/3" M12 Mount	1.3 MP super low lux / 2 MP WDR Pro / 2 MP super
GV-MDR1500-2F GV-MDR3400-2F GV-MDR5300-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/3" M12 Mount	low lux / 3 MP WDR Pro / 5 MP, H.264, Color

1.1 Packing List

GV-MFD

- Mini Fixed Dome
- Torx Wrench
- Self Tapping Screw x 2
- Screw Anchor x 2
- Cable stopper
- 2-pin terminal block (for GV-MFD120 / 130 / 320)
- Short-Body RJ-45 Plug (for GV-MFD1501 series / 2401 series / 2501 series / 3401 series / 5301 series)
- USB / Audio Y-cable (for GV-MFD1501 series / 2401 series / 2501 series / 3401 series / 5301 series)
- Power Adapter
- Download Guide
- Warranty Card

Note: The power adapter can be excluded upon request.

GV-MDR

- Mini Fixed Rugged Dome
- Torx Wrench
- Self Tapping Screw x 2
- Screw Anchor x 2
- Cable stopper
- Cable Connector
- Installation sticker
- Silica gel bag x 2
- Adhesive Tape for Silica Gel Bag x 2
- Ferrite core for vehicle installation
- Download Guide

Note:

1. The power adapter can be excluded upon request.
 2. When purchasing **GV-MDR1500 / 3400 / 5300**, choose one of the two LAN connector types (for motor vehicles or for general use). For details, see *LAN Connector, 1.2.3 GV-MDR*.
-

1.2 Overview

1.2.1 GV-MFD120 / 130 / 320



Figure 1-1

No.	Name	Description
1	Default Button	Resets the camera to factory default. For details, see <i>1.5 Loading Factory Default</i> .
2	Lens	Receives image inputs.
3	Tilt Screw	Loosens the screw to adjust tilt angle.
4	Microphone	Provides one-way audio.
5	Pan Screw	Loosens the screw to pan.

No.	Name	Description
6	LED Indicators	See <i>LED Indicators</i> below.
7	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.

LED Name	Description
1. Link	Turns on when the network is connected.
2. ACT	Turns on when data are being transmitted.
3. PWR	Turns on when power is on.
4. SW RDY (Status)	Turns on when the system is ready.

1.2.2 GV-MFD1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

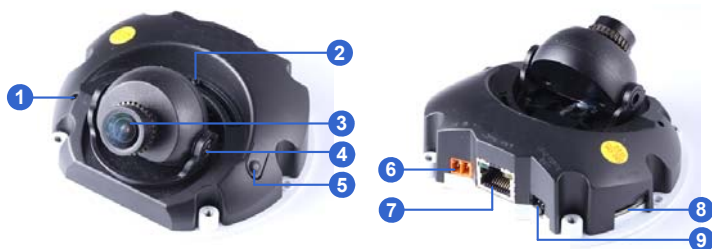
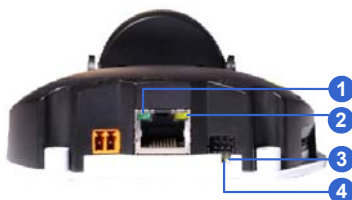


Figure 1-2

No.	Name	Description
1	Microphone	Receives sound.
2	Pan Screw	Loosens the screw to pan.
3	Lens	Receives image inputs.
4	Tilt Screw	Loosens the screw to adjust tilt angle.
5	Default Button	Resets the camera to factory default. For details, see <i>1.5 Loading Factory Default</i> .
6	DC 5V Power Port	Connects to power.
7	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
8	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.
9	USB and Audio Out	Connects to a GV-WiFi Adapter/USB hard drive and a speaker through the supplied Y cable.

*Figure 1-3*

LED Name	Description
1. Link	Turns on (green) when the network is connected.
2. ACT	Turns on (orange) when data are being transmitted.
3. Status	Turns on (red) when the system is ready.
4. Power	Turns on (green) when power is on.

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

1.2.3 GV-MDR



Figure 1-4

No.	Name	Description
1	Silica gel bag	Absorbs the moisture inside the camera.
2	Conceal paper	Prevents water or moisture from entering the camera.
3	Lens	Receives image inputs.
4	Rotation Disc	Rotates the camera lens.
5	Pan Disc	Pans the camera lens.
6	Tilt Screw	Loosens to tilt the camera.
7	Microphone	Provides one-way audio.

No.	Name	Description
8	Default Button	Resets the camera to factory default. For details, see <i>1.5 Loading Factory Default</i> .
9	Power and status LED	Turns red when the power is on. Flashes orange light twice when the system is ready.
10	LAN LED	Turns on when the network is connected.
11	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.

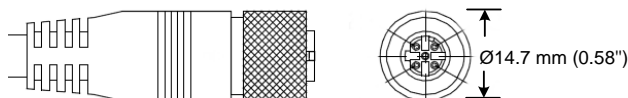
IMPORTANT: In case of damage and possible condensation inside the camera housing, be sure not to touch or remove the conceal paper.

LAN Connector

Two types of LAN connector are available for GV-MDR1500 series / 3400 series / 5300 series. Select an option based on your installation environment.

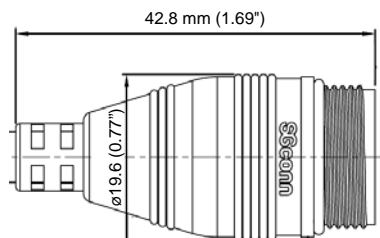
1. Waterproof M12 4-Pin Female Connector

The M12 connector is used for motor vehicles.



2. **Small Waterproof Connector**

For this connector type, see 1.3.2 *GV-MDR* to install the supplied cable connector.



1.3 Installation

To install a Mini Fixed Dome, make sure the installing site is shielded from rain and moisture.

1.3.1 GV-MFD Series

1. Unscrew the housing cover using the supplied torx wrench.
2. Put the camera on the desired location and make 2 marks on the ceiling for screw anchors. If you want to run the cables inside the ceiling, make a round mark with a diameter of 2.5 cm.
3. Drill the marks and insert the screw anchors.
4. Secure the Mini Fixed Dome to the ceiling with the self-tapping screws.
5. Connect the camera to network and power. For details, see *1.4 Connecting the Camera*.
6. Access the live view. For details, see *7.2 Accessing the Live View*.
7. Adjust the angles based on the live view.

Pan Adjustment



Figure 1-5

Tilt Adjustment



Figure 1-6

8. Adjust image clarity using the GV-IP Device Utility program. For details, see *7.3 Adjusting Image Clarity*.
9. Insert a Micro SD card (SD/SDHC, version 2.0 only, Class 10) into the memory card slot (No. 7, Figure 1-1).
10. Secure the housing cover using the supplied torx wrench.
11. Optionally conceal the cable opening with the supplied cable stopper.



Figure 1-7

1.3.2 GV-MDR Series

1. Paste the installation sticker on the desired location. The arrow should point toward the direction that the camera faces.
2. Drill one hole on each of the two curves for screw anchors. Drill the circle (30 mm in diameter) if you want to run the cable into the ceiling.

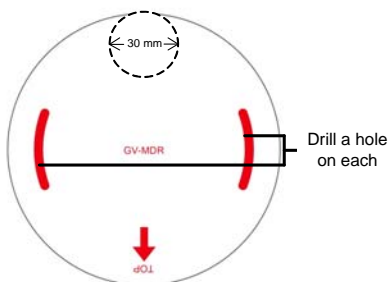


Figure 1-8

3. Insert the screw anchors.
4. Unscrew the housing cover using the supplied torx wrench.
5. Secure the camera body to the ceiling with the self-tapping screws.



Figure 1-9

6. Install the cable connector to waterproof the cable. You should have 5 parts:



Figure 1-10

- A. Prepare an Ethernet cable with the RJ-45 connector on one end only.



Figure 1-11

- B. Connect the Ethernet cable to the camera cable.
- C. Paste the sticker to the camera cable and slide in all the components as shown below.



Figure 1-12

- D. Move all the components toward the RJ-45 connector, fit item 4 to item 2, secure item 3 to the camera cable and finally secure item 5 to item 2 tightly.



Figure 1-13

IMPORTANT: Item 5 must be secured tightly to waterproof the cable.

7. Access the live view. For details, see *7.2 Accessing the Live View*.

8. Adjust the angles based on the live view.

Pan Adjustment



Figure 1-14

Tilt Adjustment

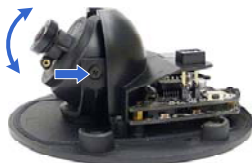


Figure 1-15

Rotational Adjustment



Figure 1-16

9. Adjust image clarity using the GV-IP Device Utility program. For details, see *7.3 Adjusting Image Clarity*.
10. Insert a Micro SD card (SD/SDHC, version 2.0 only, Class 10) into the memory card slot (No. 11, Figure 1-2).

11. Replace the silica gel bag.

IMPORTANT: 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.

12. Secure the housing cover using the supplied torx wrench.
13. Optionally conceal the cable opening with the supplied cable stopper.



Figure 1-17

1.4 Connecting the Camera

Refer to the wire definition and illustrations below to connect the power and network.

1.4.1 Wire Definition

GV-MFD120 / 130 / 320

The data cable provides connections for power and network access. The wires are illustrated and defined below:



Figure 1-18

No.	Wire Color	Definition
1	Yellow	DC 12V+
2	Orange	GND
3	Gray	PoE, Ethernet

GV-MDR Series

Power and network connectivity is provided through a PoE cable.

Wire Color	Definition
Gray	PoE, Ethernet

1.4.2 Power and Network Connection

Use one of the following methods to power on and connect your camera to network:

- Wired connection with PoE:** Use a Power over Ethernet (PoE) adapter to connect the camera to the network, and the power will be provided at the same time.
- Wired connection with network cable (GV-MFD Series only):** Connect the camera with a standard network cable and use the power adapter to supply power. For details, see *Powering On for GV-MFD Series* below to assemble the terminal block with power adapter.
- Wireless connection (GV-MFD1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series only):** Connect the camera with a GV-WiFi Adapter (optional accessory) and use the power adapter to supply power.

Powering On the GV-MFD120 / 130 / 320

- Insert the orange wire of the camera to the left pin (-) and the yellow wire to the right pin (+) of the terminal block.

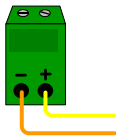


Figure 1-19

- Connect the power adapter to the terminal block.



Figure 1-20

3. Connect the camera to network using a network cable.

1.4.3 Vehicle Installation

To install the **Mini Fixed Rugged Dome** on a vehicle, clip the ferrite core to the camera cable. In accordance to EN 50155, the ferrite core is used for reduction of the cable-based and radiated interferences, ensuring stable image quality. The ferrite core must be attached as close as possible to the camera with the maximum distance of 15 cm.

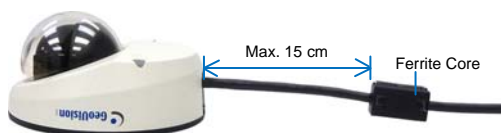


Figure 1-21

1.5 Loading Factory Default

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

1.5.1 Using the Web Interface

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

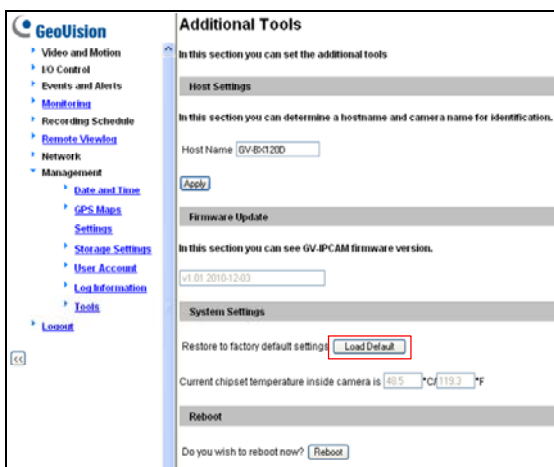


Figure 1-22

1.5.2 Directly on the Camera

1. Keep the power and network cables (or PoE) connected to the camera.
2. Press and hold the **default** button.



Figure 1-23

(GV-MFD120 / 130 / 320)



Figure 1-24

(GV-MFD1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series)

3. Release the **default** button when the **status LED** blinks. This shall take about 8 seconds.
4. When the **status LED** fades, the process of loading default settings is completed and the camera reboots automatically.

Chapter 2 Mini Fixed Dome (Part II)

The GV-MFD2700 Series / 4700 Series offers an indoor, fixed, mini-sized network camera with 3-axis mechanism for easy and flexible installation. GV-MFD2700 Series / 4700 Series can support H.265 video codec to achieve better compression ratio while maintaining high picture quality at reduced network bandwidths. The camera can process scenes with contrasting intensity of lights and produce clear image using the built-in WDR Pro. The camera is equipped with a Super Low Lux CMOS image sensor which allows the camera to provide a color live view in near darkness.

Model No.		Specifications	Description
GV-MFD2700-0F	Fixed Lens	Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12 Mount	2 MP, H.265, Super Low Lux, WDR Pro
GV-MFD2700-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	
GV-MFD2700-6F		Fixed Iris, f: 2.3 mm, F/2.2, 1/2.7" M12 Mount	
GV-MFD4700-0F		Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12 Mount	4 MP, H.265, Super Low Lux, WDR Pro
GV-MFD4700-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	
GV-MFD4700-6F		Fixed Iris, f: 2.3 mm, F/2.2, 1/2.7" M12 Mount	

2.1 Packing List

- H.265 Mini Fixed IP Dome

- Screw x 2



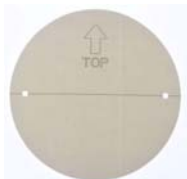
- Screw Anchor x 2



- Focus Adjustment Ring
(only for GV-MFD2700-0F/2F
and GV-MFD4700-0F/2F)



- Installation Sticker



- Audio and I/O extended cable



- Torx Wrench

- Download Guide

- Warranty Card

Note: Power adapters can be purchased upon request.

2.2 Overview



Figure 2-1

No.	Name	Description
1.	Lens	Receives image inputs.
2.	Pan Screw	Loosens the screw to adjust pan angle.
3.	Tilt Screw	Loosens the screw to adjust tilt angle.
4.	Default Button	Resets the camera to factory default. For details, see 2.5 <i>Loading Factory Default</i> .
5.	DC 12V Port	Connects to power.
6.	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
7.	Audio and I/O Terminal Block	Connects the camera to a microphone or a speaker and to one input and one output devices using audio and I/O extended cable. For details, see 2.4 <i>Connecting the Camera</i> .
8.	Memory Card Slot	Inserts a micro SD card (SD/SDHC/SDXC/UHS-I, Class 10) to store recording data.
a	Status	Turns on (green) when the system is ready.
b	Power	Turns on (green) when power is on.

c	Link	Turns on (green) when the network is connected.
d	ACT	Turns on (orange) when data are being transmitted.

2.3 Installation

The Mini Fixed Dome can be installed on the wall or the ceiling. Before installing the camera, make sure the installing site is shielded from rain and moisture.

1. Open the housing cover by unscrewing the three screws.



Figure 2-2

2. Place the camera where you want to install it, and make 2 marks on the ceiling or the wall for screw anchors. If you want to run the cables inside the ceiling or the wall, make a round mark with a diameter of 2.5 cm.



Figure 2-3

3. Drill the marks and insert the screw anchors.
4. Thread the power and / or network cable(s) through the oval-shaped hole or the cable opening on the side.



Figure 2-4

5. Connect the camera to network, power, a microphone or a speaker, and one input and one output devices. For details, see 2.4 *Connecting the Camera*.
6. Optionally insert a memory card.



7. Secure the camera to the ceiling or the wall with the supplied screws.
8. Access the live view. For details, see 7.2 *Accessing the Live View*.
9. Adjust image clarity using the GV-IP Device Utility program. For details, see 7.3 *Adjusting Image Clarity*.

10. Loosen the tilt screw, pan screw or rotational screw. Adjust the angles based on the live view as needed, and tighten the screws again.



Figure 2-5

11. Place the housing cover back and turn to secure it.

2.4 Connecting the Camera

2.4.1 Wire Definition

The supplied audio and I/O extended cable allows you to connect one sensor input and alarm output, and one microphone and speaker.



Figure 2-6

NO.	Wire Color	Definition
1.	Red	Digital In
2.	Yellow	Digital Out
3.	Black	Ground
4.	Red RCA	Audio in
5.	Green RCA	Audio out

For details on how to enable an installed I/O device, see [4.3 I/O Settings](#), *GV-IPCam Firmware Manual*.

2.4.2 Voltage Load Expansion (Optional)

The 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.

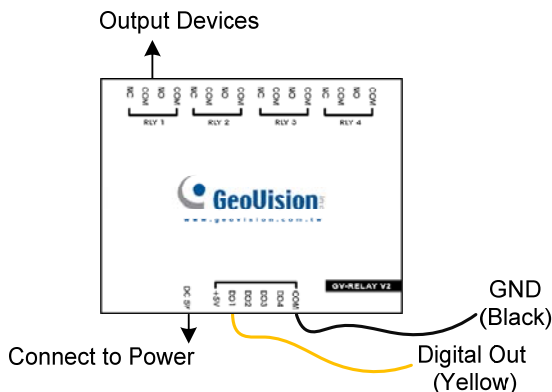


Figure 2-7

GV-Relay V2	Mini Fixed Dome
COM	Ground (Black)
DO1	Digital Out (Yellow)

2.5 Loading Factory Default

2.5.1 Using the Web Interface

You can restore factory default settings through the Web interface. For details, see *1.5.1 Using the Web Interface*.

2.5.2 Directly on the Camera

Keep the power connected to the camera. Press and hold the **default** button for about **8 seconds**. Release the button when the status LED blinks. For details, see *1.5.2 Directly on the Camera*.

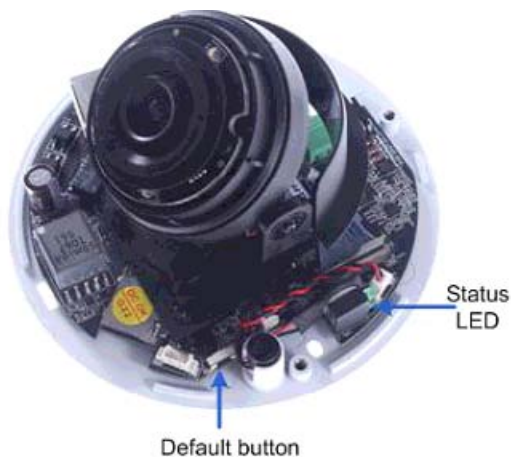


Figure 2-7

Chapter 3 Target Mini Fixed Dome

The Target Mini Fixed Dome (GV-EFD) is an indoor, fixed, mini-sized network camera equipped with an automatic IR-cut filter and IR LEDs for day and night surveillance. Adjustable in 2 axis (pan and tilt), it offers an entry-level surveillance solution with all the essential features and excellent image quality.

Model No.		Specifications	Description
GV-EFD1100-0F GV-EFD2100-0F	Fixed Lens	Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12 Mount	1.3 MP / 2 MP, H.264, Low Lux
GV-EFD2700-0F GV-EFD4700-0F		Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12 Mount	2 MP, 4 MP, H.265, Super Low Lux, WDR Pro
GV-EFD1100-2F GV-EFD2100-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	1.3 MP / 2 MP, H.264, Low Lux
GV-EFD2700-2F GV-EFD4700-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	2 MP, 4 MP, H.265, Super Low Lux, WDR Pro

3.1 Packing List

- Target Mini Fixed Dome (for GV-EFD1100 Series / 2100 Series)
- H.265 Mini Fixed Dome (for GV-EFD2700 Series / 4700 Series)
- Screw x 2
- Screw Anchor x 2
- Focus Adjustment Ring
- Download Guide
- Warranty Card

Note: Power adapters can be purchased upon request.

3.2 Overview

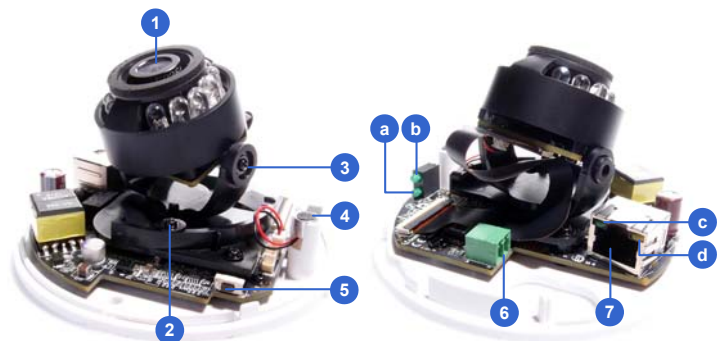


Figure 3-1

No.	Name	Description
1	Lens	Receives image inputs.
2	Pan Screw	Loosens the screw to adjust pan angle.
3	Tilt Screw	Loosens the screw to adjust tilt angle.
4	Microphone	Receives sound.
5	Default Button	Resets the camera to factory default. For details, see <i>3.5 Loading Factory Default</i> .
6	DC 12V Port	Connects to power.
7	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
a	Status	Turns on (green) when the system is ready.
b	Power	Turns on (green) when power is on.
c	Link	Turns on (green) when the network is connected.
d	ACT	Turns on (orange) when data are being transmitted.

Note: The TV-out function can only be used during installation to adjust the focus of the camera. To use the TV out function, connect the supplied black BNC connector to a monitor and select your signal format (NTSC or PAL) at the **TV Out** field on the Web interface. The default signal format is NTSC. For details, see *4.1.1 Video Settings, GV-IPCam Firmware Manual*.

3.2.1 GV-EFD2700

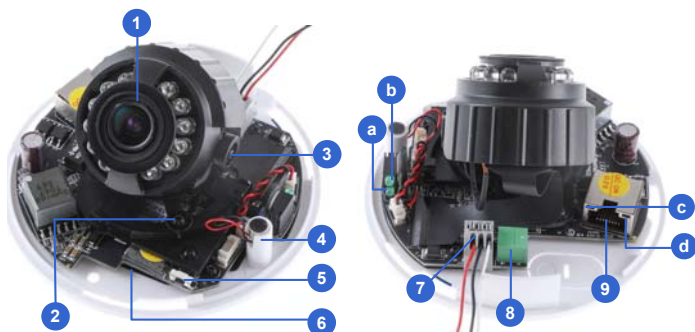


Figure 3-2

No.	Name	Description
1	Lens	Receives image inputs.
2	Pan Screw	Loosens the screw to adjust pan angle.
3	Tilt Screw	Loosens the screw to adjust tilt angle.
4	Microphone	Receives sound.
5	Default Button	Resets the camera to factory default. For details, see 3.5 Loading Factory Default.
6	Memory Card Slot	Inserts a micro SD card (SD/SDHC/UHS-I, Class 10) to store recording data.
7	I/O Terminal Block	The connectors for the digital input and output. For details, see 3.4.1 I/O Connector.
8	DC 12V Port	Connects to power.
9	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
a	Status	Turns on (green) when the system is ready.

b	Power	Turns on (green) when power is on.
c	Link	Turns on (green) when the network is connected.
d	ACT	Turns on (orange) when data are being transmitted.

3.3 Installation

The Target Mini Fixed Dome can be installed on the wall or the ceiling. Before installing the camera, make sure the installing site is shielded from rain and moisture.

1. Open the housing cover by turning.



Figure 3-2

2. Place the camera where you want to install it, and make 2 marks on the ceiling or the wall for screw anchors. If you want to run the cables inside the ceiling or the wall, make a round mark with a diameter of 2.5 cm.

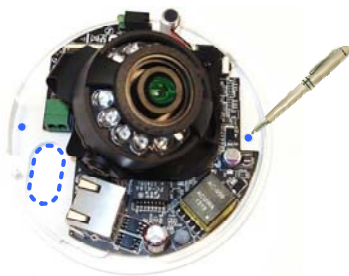


Figure 3-3

3. Drill the marks and insert the screw anchors.

4. Thread the power or network cable through the oval-shaped hole or the cable opening on the side.

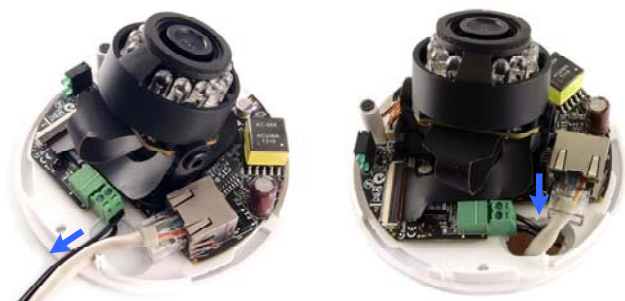


Figure 3-4

5. Connect the camera to network and power. For details, see 3.4 *Connecting the Camera*.
6. Only for GV-EFD2700, insert a memory card.



Figure 3-5

7. Secure the camera to the ceiling or the wall with the supplied screws.

8. Access the live view. For details, see *7.2 Accessing the Live View*.

Note: The TV-out function can only be used during installation to adjust the focus of the camera. To use the TV out function, connect the supplied black BNC connector to a monitor and select your signal format (NTSC or PAL) at the **TV Out** field on the Web interface. The default signal format is NTSC. For details, see *4.1.1 Video Settings, GV-IPCam Firmware Manual*.

9. Adjust image clarity using the GV-IP Device Utility program. For details, see *7.3 Adjusting Image Clarity*.
10. Loosen the tilt screw, pan screw or rotational screw. Adjust the angles based on the live view as needed, and tighten the screws again.



Figure 3-6

11. Place the housing cover back and turn to secure it.

3.4 Connecting the Camera

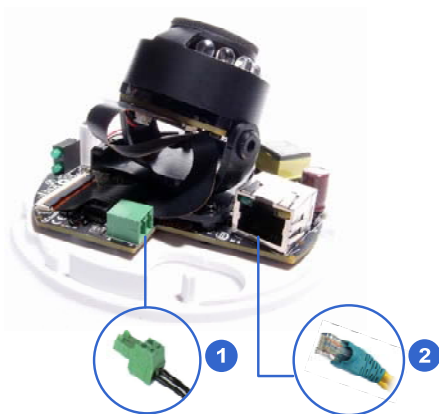


Figure 3-7

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 *Chapter 7, Accessing the Camera*.

3.4.1 I/O Connector

For the GV-EFD2700 only, the I/O extended cable allows you to connect one sensor input and one alarm output.



Figure 3-8

NO.	Definition
1.	Digital In
2.	Ground
3.	Digital Out

Note: The I/O cable is not included in the packing list. The users must prepare them additionally.

For details on how to enable an installed I/O device, see [4.3 I/O Settings](#), *GV-IPCam Firmware Manual*.

3.4.2 Voltage Load Expansion (Optional)

The GV-EFD2700 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.

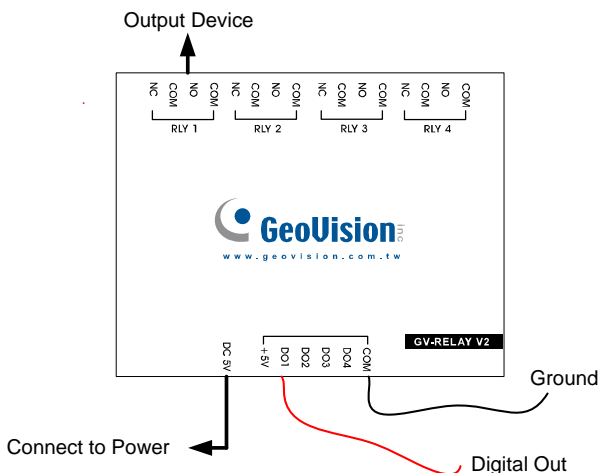


Figure 3-9

GV-Relay V2	Mini Fixed Dome
COM	Ground
DO1	Digital Out

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 *1.5.1 Using the Web Interface*.

3.5.2 Directly on the Camera

Keep the power connected to the camera. Press and hold the **default** button for about **8 seconds**. Release the button when the status LED blinks. For details, see *1.5.2 Directly on the Camera*.



Figure 3-10



Figure 3-11

Chapter 4 Target Mini Fixed Rugged Dome

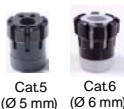
The Target Mini Fixed Rugged Dome (GV-EDR) is an outdoor, fixed, mini-sized network camera equipped with an automatic IR-cut filter and IR LEDs for day and night surveillance. Adhering to IK10 and IP67 standards, it offers an entry-level outdoor surveillance solution with all the essential features and excellent image quality.

For GV-EDR4700 / 2700, with its super low lux CMOS image sensor and WDR Pro, it is capable of providing a color live view not only in near darkness but also under contrasting light intensities. GV-EDR4700 / 2700 can support H.265 video codec to achieve better compression ratio while maintaining high quality pictures at reduced network bandwidths.

Model No.		Specifications	Description
GV-EDR1100-0F GV-EDR2100-0F GV-EDR2700-0F GV-EDR4700-0F	Fixed Lens	Fixed Iris, f: 2.8 mm, F/2.0, 1/2.7" M12 Mount	1.3 MP / 2 MP, H.264, Low Lux,
GV-EDR1100-2F GV-EDR2100-2F GV-EDR2700-2F GV-EDR4700-2F		Fixed Iris, f: 3.8 mm, F/1.8, 1/2.7" M12 Mount	2 MP / 4 MP, H.265, Super Low Lux

4.1 Packing List

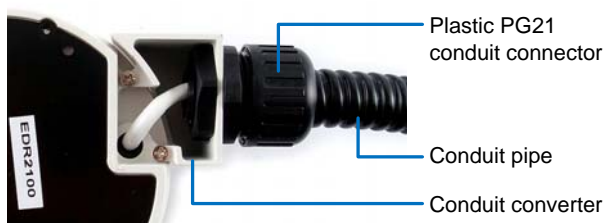
- Target Mini Fixed Rugged Dome (For GV-EDR1100 / 2100 Series)
- H.265 Mini Fixed Rugged Dome (For GV-EDR2700 / 4700 Series)
- Screw x 2
- Screw Anchor x 2
- Focus Adjustment Ring
- Installation Sticker
- Conduit Converter
- RJ-45 Connector
- Waterproof Rubber Sets (for RJ-45 Cat.5 and 12V DC / for RJ-45 Cat.6)



- Torx Wrench
- Silica Gel Bag x 2
- Adhesive Tape for Silica Gel Bag x 2
- Concave Hexagon Wrench
- Ruler
- Screw for Conduit Converter x 2
- Download Guide
- Warranty Card

Note: Power adapters can be purchased upon request.

Note: You can choose to run the wires through a conduit pipe. After you have threaded all the wires, install the supplied conduit converter with a PG21 conduit connector and a self-prepared conduit pipe (of 1/2", 3/4" or 1") to the camera. Do not use a 1/2" pipe if you use the power adapter for power supply because the adapter cannot be threaded through. A plastic PG21 conduit connector for 1/2" pipe can be purchased upon request.



4.2 Overview



Figure 4-1

No.	Name	Description
1	Lens	Receives image inputs.
2	Tilt Screw	Loosens the screw to adjust tilt angle.
3	Pan Screw	Loosens the screw to adjust pan angle.
4	Default Button	Resets the camera to factory default. For details, see <i>4.5 Loading Factory Default</i> .
5	DC 12V Port	Connects to power.
6	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
a	Status	Turns on (green) when the system is ready.
b	Power	Turns on (green) when power is on.
c	Link	Turns on (green) when the network is connected.
d	ACT	Turns on (orange) when data are being transmitted.

4.2.1 GV-EDR2700

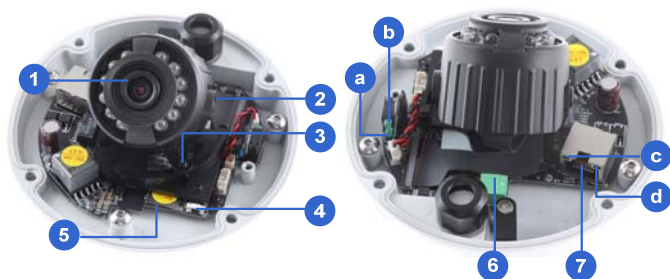


Figure 4-2

No.	Name	Description
1	Lens	Receives image inputs.
2	Tilt Screw	Loosens the screw to adjust tilt angle.
3	Pan Screw	Loosens the screw to adjust pan angle.
4	Default Button	Resets the camera to factory default. For details, see <i>4.5 Loading Factory Default</i> .
5	Memory Card Slot	Inserts a micro SD card (SD/SDHC/UHS-I, Class 10) to store recording data.
6	DC 12V Port	Connects to power.
7	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
a	Status	Turns on (green) when the system is ready.
b	Power	Turns on (green) when power is on.
c	Link	Turns on (green) when the network is connected.
d	ACT	Turns on (orange) when data are being transmitted.

4.3 Installation

The Target Mini Fixed Rugged Dome can be installed on the wall or ceiling. You must use the supplied waterproof rubber set to waterproof the cable.

1. Paste the installation sticker where you want to install, and drill two holes that are at a diagonal. To run the cables inside the wall or ceiling, drill a larger opening as shown below.

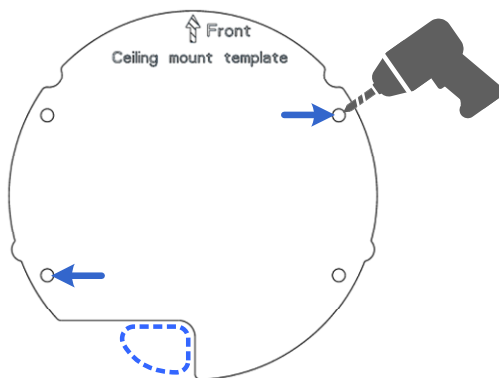


Figure 4-3

2. Insert the supplied screw anchors into the two drilled holes.
3. Open the camera's housing cover using the supplied torx wrench.



Figure 4-4

4. Unscrew the three screws as indicated below. A back plate can be separated from the bottom.

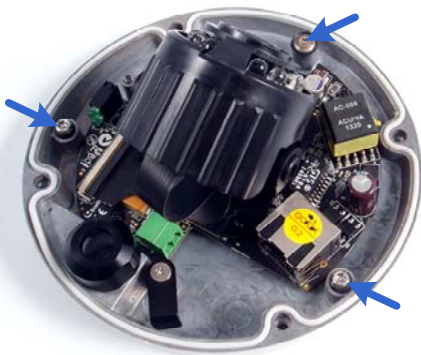


Figure 4-5

5. Use the 2 supplied screws to secure the back plate onto the ceiling or the wall where the screw anchors were inserted.



Figure 4-6

6. Prepare an Ethernet cable with the RJ-45 connector on one end only.

7. Remove the waterproof cap from the cable opening and thread the power and / or network cable(s) through the opening.

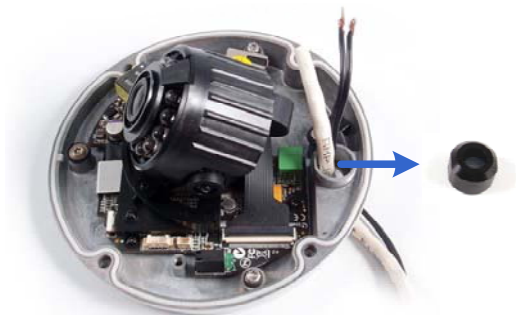


Figure 4-7

8. Install the supplied waterproof rubber set onto the cable(s). The rubber set has two parts. According to the below situation, replace Part 1 if necessary.
 - For users of PoE with a Cat.5 Ethernet cable, stay with Part 1a on the camera body.
 - For users of PoE with a Cat.6 Ethernet cable, change Part 1a to the supplied Waterproof rubber set (1b).
 - For users of DC 12V, change Part 1a to the supplied Waterproof rubber set (1c).

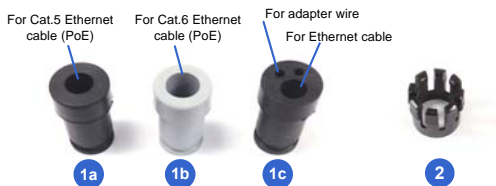


Figure 4-8

- A. Slide the waterproof rubber set, and the waterproof cap you previously removed through the cable(s) as shown below.



Figure 4-9

- B. Connect the supplied RJ-45 connector to the Ethernet cable.
- C. If you are using a power adapter, insert the striped wire to the left pin (+) and the other wire to the right pin (-).

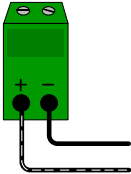


Figure 4-10

- D. Fit item 1 to item 2, and insert them in the cable opening. Use the supplied ruler to make sure the length of the cable(s) from the bottom of the opening to the end of the cable is under 10 cm.



Figure 4-11

- E. Cap the cable opening with the waterproof cap. Use the supplied concave hexagon wrench to tighten.



Figure 4-12

9. Thread the cable(s) under the black cable holder. You can loosen the screw on the cable holder if needed.



Figure 4-13

10. Connect the camera to network and power. For details, see [4.4 Connecting the Camera](#).

11. Only for GV-EDR2700 series, insert a memory card.



Figure 4-14

12. Secure the camera to the back plate by tightening the three screws as shown in Step 4.
13. Access the live view. For details, see *7.2 Accessing the Live View*.
14. Adjust image clarity using the GV-IP Device Utility program. For details, see *7.3 Adjusting Image Clarity*.
15. Loosen the tilt screw and pan screw, adjust the angles based on the live view as needed, and tighten the screws again.



Figure 4-15

16. Attach the silica gel bag to the place indicated below, and secure the housing cover using the torx wrench.



Figure 4-16

IMPORTANT:

1. The 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 silica gel bag within 2 minutes of exposing to open air.
 2. Make sure the housing cover is properly secured to prevent water from entering and damaging the inner housing.
-

4.4 Connecting the Camera

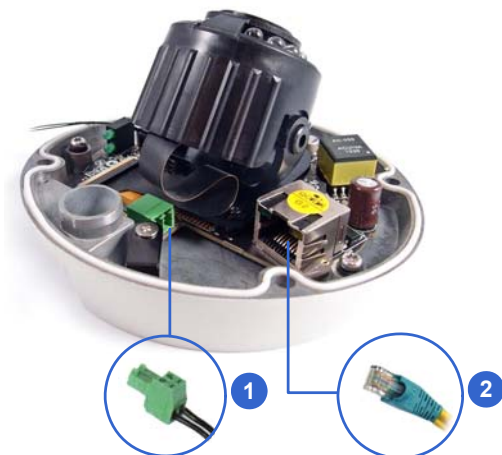


Figure 4-17

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 *Chapter 7, Accessing the Camera*.

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 *1.5.1 Using the Web Interface*.

4.5.2 Directly on the Camera

1. Keep the power and network cables (or PoE) connected to the camera.
2. Press and hold the **default** button for about 8 seconds.

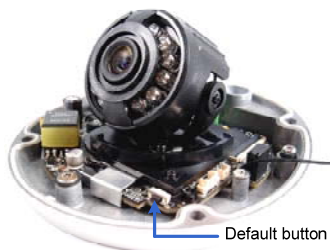


Figure 4-18

3. Release the **default** button when the **status LED** blinks.



Figure 4-19

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

Chapter 5 Cube Camera

The Cube Camera is a light weighted network camera designed for indoor usage. Its simple design allows for fast and easy installation and fixed-spot surveillance once installed. Four models are available:

Model No.		Specification	Description
GV-CB120	Fixed Lens	Fixed Iris, f: 3.35 mm, F/2.4, 1/3"	1.3 MP, H.264, Cube Camera
GV-CB220		M12 mm lens mount	2 MP, H.264, Cube Camera

5.1 Packing List

- Cube Camera

- Supporting Rack



- Screw x 3



- Screw Anchor x 3



- Power Adapter

- Download Guide

- Warranty Card

Note: The power adapter can be excluded upon request.

5.2 Overview

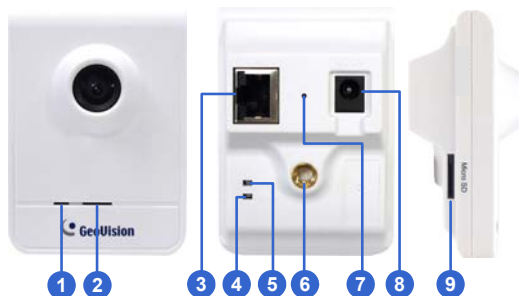


Figure 5-1

No.	Name	Description
1	Microphone	Receives sounds.
2	Speaker	Plays sounds.
3	LAN	Connects to a 10/100 Ethernet.
4	Status LED	Turns red when the system powers on. Turns orange when the system is ready.
5	LAN LED	Turns green when the camera is connected to the Internet through wires.
6	Stand screw	Connects to the Supporting Rack.
7	Default Button	Resets the camera to factory default. For details, see <i>5.5 Loading Factory Default</i> .
8	Power port	Connects to the power adapter.
9	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.

5.3 Installation

Follow the steps below to install, connect to and adjust your Cube Camera and Wireless Cube Camera.

1. Put the supporting rack on the desired location and make marks for screw anchors.



Figure 5-2

2. Drill the marks and insert the screw anchors.
3. Secure the supporting rack onto the wall using the supplied screws.
4. Screw the camera onto the supporting rack and fasten the indicated screw.



Figure 5-3

5. Connect the network and power cables to the camera. See *5.4 Connecting the Camera*.
6. Access the live view. See *7.2 Accessing the Live View*.
7. Adjust the angle of the camera based on live view and fasten the indicated screw.



Figure 5-4

5.4 Connecting the Camera



Figure 5-5

1. Use a standard network cable to connect the camera to your network.
2. Power on using the power adapter.
3. The status LED of the camera will be orange.

IMPORTANT: Be sure to use the GeoVision power adapter to power up the camera. To use your own power cable, make sure you look up the power source value indicated at the camera's back panel.

5.5 Loading Factory Default

5.5.1 Using the Web Interface

You can restore factory default settings through the Web interface. For details, see *1.5.1 Using the Web Interface*.

5.5.2 Directly on the Camera

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

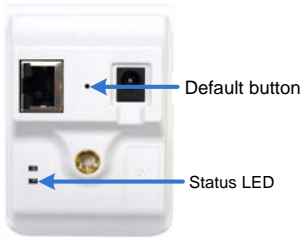


Figure 5-6

3. Release the **default** button when the **status LED** blinks. This shall take about 8 seconds.
4. When the **status LED** turns orange, the process of loading default settings is completed and the camera is ready for use.

Chapter 6 Advanced Cube Camera

The Advanced Cube Camera integrates the passive infrared (PIR) sensor and the alarm LED to illuminate the scene automatically when the motion is detected. It also offers wireless connection to the network for flexible installation. It is small, light, and easy-to-use for indoor security. We provide four models:

Model No.		Specification	Description
GV-CA120	Fixed Lens	Fixed Iris, f: 3.35 mm, F/2.4, 1/3" M12 mm lens mount	1.3 MP, H.264, Cube Camera
GV-CA220			2 MP, H.264, Cube Camera
GV-CAW120			1.3 MP, H.264, Wireless Cube Camera
GV-CAW220			2 MP, H.264, Wireless Cube Camera

6.1 Packing List

- Advanced Cube Camera

- Supporting Rack



- Screw x 3



- Screw Anchor x 3



- Power Adapter

- Download Guide

- Warranty Card

Note: The power adapter can be excluded upon request.

6.2 Overview












Figure 6-1

No.	Name	Description
1	Speaker	Plays sounds for tampering and motion alarm, and listens to the audio around the camera. To set up alarm sound, see 4.3.9 <i>Speaker, GV-IPCam Firmware Manual</i> .
2	PIR sensor	Passive infrared sensor.
3	Microphone	Receives sounds.
4	White Illumination LED	When the PIR sensor detects the movement, the white illumination LED lights up in a low light scene. To set up the LED, see 4.1.1 <i>Video Settings, GV-IPCam Firmware Manual</i> .
5	Monitoring LED	Reflects monitoring status of the camera. See the below table.
6	Live View LED	Reflects live view status of the camera. See the below table.
7	LAN / PoE	Connects to a 10/100 Ethernet or PoE.

No.	Name	Description
8	Stand screw	Connects to the Supporting Rack.
9	Power port	Connects to the power adapter.
10	Ready LED	Reflects system status of the camera. See the below table.
11	LAN LED	Reflects LAN status of the camera. See the below table.
12	Memory Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0 only, Class 10) to store recording data.
13	Default	Resets the camera to factory default. For details, see <i>6.5 Loading Factory Default</i> .

IMPORTANT: The White Illumination LED can reach high temperatures. Be sure not to touch the LED with bare hand.

LED	Status	Description
Live View 		<ul style="list-style-type: none"> Turns on orange light when you see the live view.
Monitoring 		<ul style="list-style-type: none"> Turns on red light when you start monitoring.
Ready 		<ul style="list-style-type: none"> Turns on green light when the system is ready. Flashes green light when you load default value.
LAN 	 	<ul style="list-style-type: none"> Turns on green light when you connect the LAN Network. Turns on blue light when you connect the Wi-Fi Network (for GV-CAW120 / 220 only).

6.3 Installation

Follow the steps below to install, connect to and adjust your Advanced Cube Camera and Wireless Advanced Cube Camera.

1. Put the supporting rack on the desired location and make marks for screw anchors.



Figure 6-2

2. Drill the marks and insert the screw anchors.
3. Secure the supporting rack onto the wall using the supplied screws.
4. Screw the camera onto the supporting rack and fasten the indicated screw.



Figure 6-3

5. Connect the network and power cables to the camera. See *6.4 Connecting the Camera*.
6. Access the live view. See *7.2 Accessing the Live View*.
7. Adjust the angle of the camera based on live view and fasten the indicated screw.



Figure 6-4

8. For GV-CAW120/220, to connect to the Internet through wireless service, follow the steps in *7.2.3 Configuring the Wireless Connection*.

6.4 Connecting the Camera

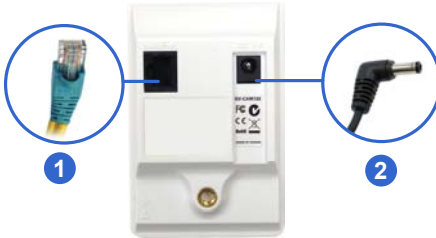


Figure 6-5

1. Use a standard network cable to connect the camera to your network.
2. 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.
3. When the ready LED of the camera shines green, the camera is ready for use.

Note: PoE function is only supported for GV-CA120 and GV-CA220.

6.5 Loading Factory Default

6.5.1 Using the Web Interface

You can restore factory default settings through the Web interface. For details, see *1.5.1 Using the Web Interface*.

6.5.2 Directly on the Camera

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

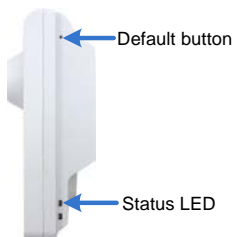


Figure 6-6

3. Release the **default** button when the **status LED** blinks. This shall take about 8 seconds.
4. When the **status LED** turns green, the process of loading default settings is completed and the camera is ready for use.

Chapter 7 Accessing the Camera

7.1 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 or later

Note: For the users of **Internet Explorer 8**, additional settings are required. For details, see *Appendix A* in *GV-IPCAM Firmware Manual*.

7.2 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 *7.2.1 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 *7.2.2 Configuring the IP Address* for more detail.

7.2.1 Checking the Dynamic IP Address

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

Note:

1. The computer you use to configure the IP address must be under the same LAN with your camera.
 2. The default Administrator and Guest accounts are no longer supported by **GV-IPCam H.265 series firmware V1.14 or later**. When logging in for the first time, you need to set up a login username and password for the camera. See *Creating GV-IP Camera's Login Credentials* at the beginning of the quick start guide.
-

1. Install **GV-IP Device Utility** from the company [website](#).
2. 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.

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

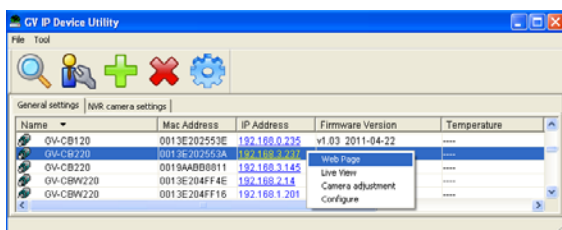


Figure 7-1

- The login page appears.

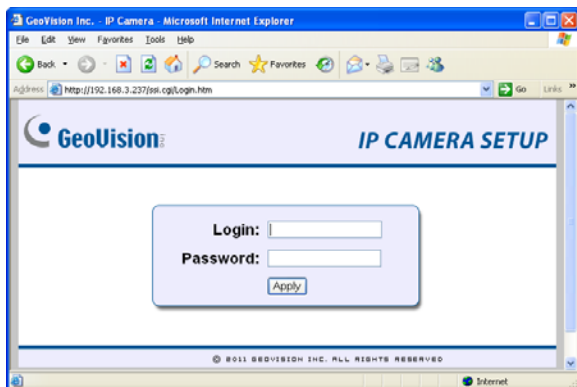


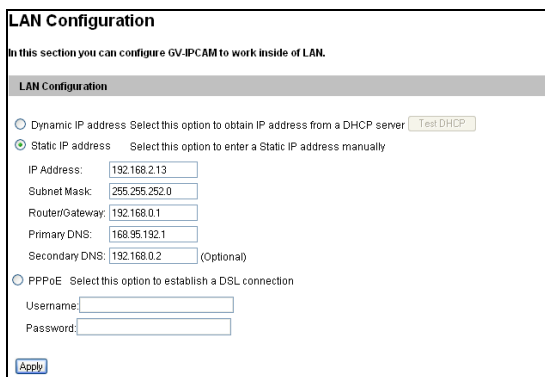
Figure 7-2

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

7.2.2 Configuring the IP Address

Follow the steps below to configure the IP address.

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



LAN Configuration

In this section you can configure GV-IPCAM to work inside of LAN.

LAN Configuration

☐ Dynamic IP address Select this option to obtain IP address from a DHCP server Test DHCP

☒ Static IP address Select this option to enter a Static IP address manually

IP Address:

Subnet Mask:

Router/Gateway:

Primary DNS:

Secondary DNS: (Optional)

☐ PPPoE Select this option to establish a DSL connection

Username:

Password:

Apply

Figure 7-3

4. Select **Static IP address**, **Dynamic IP address** or **PPPoE** and type the required network information.
5. Click **Apply**. The camera is now accessible by entering the assigned IP address on the Web browser.
6. To enable the updating of images in Microsoft Internet Explorer, you must set your browser to allow ActiveX Controls and perform a one-time 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 7.2.1 *Checking the Dynamic IP Address*. 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*.
 2. 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 1.5 *Loading Factory Default*.
-

7.2.3 Configuring the Wireless Connection

You may create wireless connection to the Internet for GV-MFD1501 Series / 2401 series / 3401 series / 5301 series.

1. To set up the wireless LAN for the first time, power on and connect a standard network cable to the camera.
2. An IP address will be automatically assigned to the camera. Use GV IP Device Utility to search for the device. For details, see *7.2.1 Checking the Dynamic IP Address*.
3. Configure the wireless settings.
 - A. On the Web interface, select **Network**, select **Wireless** and **Client Mode**. This dialog box appears.

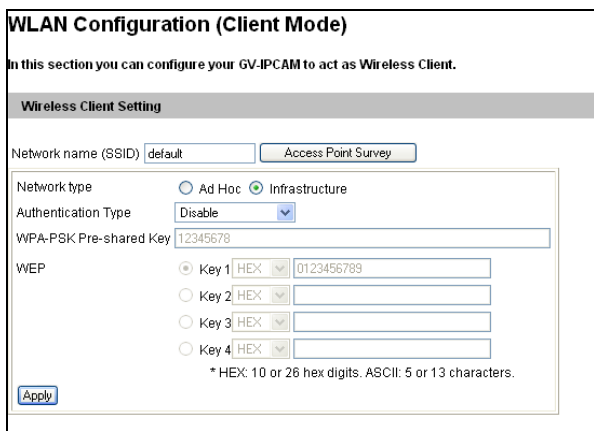


Figure 7-4

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

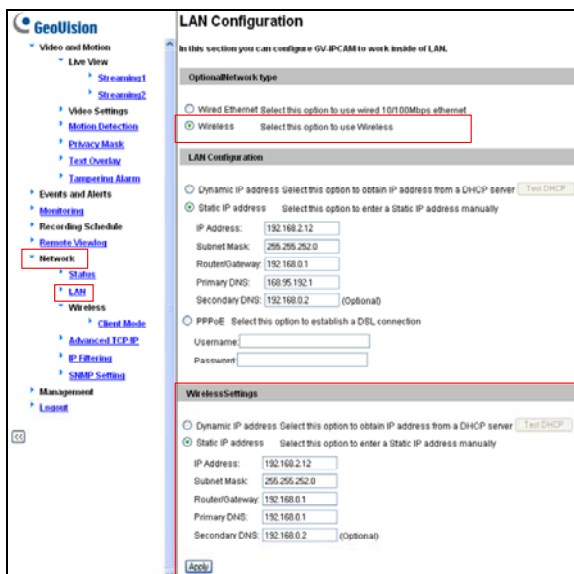
- C. Select **Ad-Hoc** or **Infrastructure** for the Network type.
- D. Select the **Authentication Type** using the drop-down list. You can also obtain this information by clicking the **Access Point Survey** button.
- E. Type the **WPA-PSK Pre-shared Key** or **WEP** depending on the encryption setting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

Note:

1. 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.
 3. 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.
-

4. Enable wireless LAN.

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



GeoVision

Video and Motion
 Live View
 Streaming1
 Streaming2
 Video Settings
 Motion Detection
 Privacy Mask
 Text Overlay
 Tampering Alarm
 Events and Alerts
 Monitoring
 Recording Schedule
 Remote Viewing
Network
 Status
 LAN
 Wireless
 Client Mode
 Advanced TCP/IP
 IP Filtering
 SNMP Settings
 Management
 Logout

LAN Configuration

In this section you can configure GV-IPCAM to work inside of LAN.

Optional Network type

☐ Wired Ethernet Select this option to use wired 10/100Mbps ethernet

☒ Wireless Select this option to use Wireless

LAN Configuration

☐ Dynamic IP address Select this option to obtain IP address from a DHCP server [Test DHCP](#)

☒ Static IP address Select this option to enter a Static IP address manually

IP Address:

Subnet Mask:

Router/Gateway:

Primary DNS:

Secondary DNS: (Optional)

☐ PPPoE Select this option to establish a DSL connection

Username:

Password:

Wireless Settings

☐ Dynamic IP address Select this option to obtain IP address from a DHCP server [Test DHCP](#)

☒ Static IP address Select this option to enter a Static IP address manually

IP Address:

Subnet Mask:

Router/Gateway:

Primary DNS:

Secondary DNS: (Optional)


[Apply](#)

Figure 7-5

- 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.
5. Click **Apply**. The camera will start creating a wireless connection to the access point.
6. Unplug the Ethernet cable.

7.3 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.

1. Make sure you have installed the GV-IP Device Utility program from the company website.
2. 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.
3. Select **Focus Value**. The Login dialog box appears.
4. Type the user name and password of the camera selected. The default is **admin** for both user name and password. This window appears.

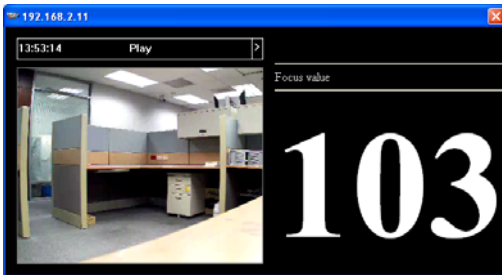


Figure 7-6

5. For **Target Mini Fixed Dome** and **Target Mini Fixed Rugged Dome**, hold the camera cover close to the lens and use the supplied focus adjustment tool for precise focus adjustment.

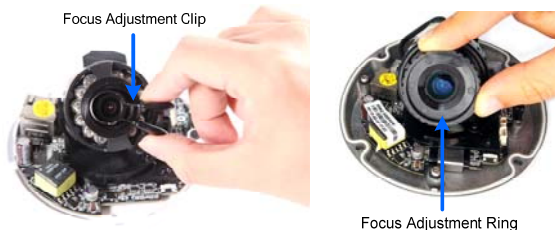


Figure 7-7

6. For **Mini Fixed Dome** and **Mini Fixed Rugged Dome**, hold the camera cover close to the lens for precise focus adjustment.
7. Adjust the **Zoom Screw** and the **Focus Screw** of the camera slowly until the focus value reaches the maximum.

Note:

1. For locations of adjustment screws and rings in each model, see *Locations of Adjustment Screws*, section, *Getting Started Chapter, GV-IPCAM Firmware Manual*.
 2. 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 8 The Web Interface

Live View

In this section you can see and configure the default camera view.



Live View

In this section you can see and configure the default camera view.



Figure 8-1

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> . Note this function is only available for Advanced Cube Camera .

Chapter 9 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.

Before you start

- 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.
- Stop monitoring of the camera.
- Stop all remote connections, such as GV-VMS.
- While the firmware is being updated, the power supply must not be interrupted.

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.

- Do not turn the power off within 10 minutes after the firmware is updated.

1. In the Live View window, click the **Show System Menu** button and select **Remote Config**. This dialog box appears.

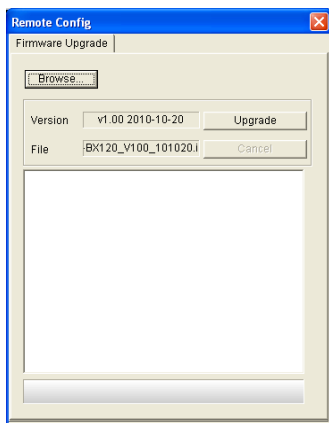


Figure 9-1

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