GeoVision inc.
The Vision of Security

GV-IPCam

Quick Start Guide

- Fixed IP Dome
- Motorized IP Dome
- Target Fixed Dome

ICH265-FD-EFD-A

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Contents

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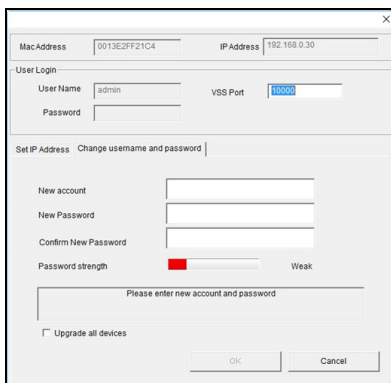
Optional devices can expand your camera's capabilities and versatility. Contact your dealer for more information.

Device	Description
Power Adapter	The power adapter is available for all Fixed IP Dome 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 *GV-Mount Accessories Installation Guide*.
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. GV-Relay V2 does not support GV-EFD2101 / 3101 / 5101.
Smoked Cover	The smoked cover is an IK7, tinted camera cover designed for GV-Fixed IP Dome to conceal the direction of the camera lens.

Creating GV-IP Camera's Login Credentials

The default Administrator and Guest accounts are no longer supported by **GV-IPCAM H.265 series 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.

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 Adjusting Focus and Zoom

When adjusting the Focus and Zoom Screws, do not over tighten the Focus and Zoom screws. The screws only need to be as tight as your finger can do it. It is not necessary to use any tools to get them tighter. Doing so can damage the structure of lens.

For example,

Focus Screw

Zoom Screw

Fixed IP Camera

The maximum torque value for all the zoom and focus screws is 0.049 N.m

Chapter 1 Introduction

Target Fixed Dome

The Target Fixed Dome (GV-EFD) is an indoor, fixed network camera equipped with an automatic IR-cut filter and IR LEDs for day and night surveillance. Adjustable in 3 axis (pan, tilt and rotate), it offers an entry-level surveillance solution with all the essential features and excellent image quality..

Model No.		Specifications	Description
GV-EFD2101	Varifocal Lens	P-Iris, f: 3 ~ 9 mm, F/1.7, 1/2.8" Ø14 mm Mount	2 MP, H.264, Super Low Lux, WDR
GV-EFD3101	Varifocal Lens	P-Iris, f: 3 ~ 9 mm, F/1.7, 1/2.8" Ø14 mm Mount	3 MP, H.264, Super Low Lux, WDR Pro
GV-EFD5101	Varifocal Lens	P-Iris, f: 3 ~ 9 mm, F/1.7, 1/2.7" Ø14 mm Mount	5 MP, H.264, Low Lux, WDR

Motorized IP Dome

GV-MD8710 / MD8710-FD are motorized IP cameras equipped with WDR Pro, an automatic IR-cut filter and IR LEDs for day and night surveillance, with the FD (Face Detection) model specifically designed for face detection. With motorized varifocal lens, users can zoom and focus the camera from the Web interface. The camera also supports H.265 video codec to achieve better compression ratio while maintaining high quality pictures at reduced network bandwidths. For night operations, the camera allows up to 30 m (100 ft) IR effective distance. Adjustable in 3 axes (pan, tilt and rotate), it offers smart surveillance solutions with all the essential features to provide excellent image quality.

Model No.		Specifications	Description
GV-MD8710	Motorized Varifocal Lens	P-Iris, f: 4 ~ 8 mm, F/1.44, ½.5" Ø14 mm Mount	8 MP, H.265, Super Low Lux, WDR Pro

FD (Face Detection) Model

Model No.		Specifications	Description
GV-MD8710-FD	Motorized Varifocal Lens	P-Iris, f: 4 ~ 8 mm, F/1.44, ½.5" Ø14 mm Mount	8 MP, H.265, Low Lux, WDR Pro

1.1 Packing List

- Target Fixed IP Dome / Motorized IP Dome

- Torx Wrench

- Screw x 3

- Screw Anchor x 3

- TV-Out Wire (Not supported by GV-MD8710 / 8710-FD)

- Installation sticker

  Ceiling mount template

- Shielding Ground Wire (only for GV-MD8710 / 8710-FD)

- I/O Wire (only for GV-MD8710 / 8710-FD)

- Download Guide

- Warranty Card

Note: Power adapter(s) can be purchased upon request.

1.2 Overview

No.	Name	Description
1	Lens	Receives image inputs.
2	Focus Screw	Adjusts the focus of the camera.
3	Zoom Screw	Adjusts the zoom of the camera.
4	Default Button	Resets the camera to factory default. For details, see *2.5 Loading Factory Default*.
5	TV-Out	Provides video inputs (D1 resolution).
6	Rotational Screw	Loosens to adjust the camera angle.
7	Pan Disc	Loosens to pan the camera.

No.	Name	Description
8	Power	Turns on (green) when power is on.
9	Status	Turns on (green) when the system is ready.
10	Audio Out	Connects a speaker for audio output.
11	Audio In	Connects a microphone for audio input.
12	Link	Turns on (green) when the network is connected.
13	ACT	Turns on (orange) when data are being transmitted.
14	DC 12V Port	Connects to power.
15	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
16	Tilt Screw	Loosens the screw to adjust tilt angle.
17	I/O Terminal Block	Connects to I/O devices. For details, see *1.5 I/O Terminal Block*.

Note: For GV-EFD2101 / GV-EFD3101 / GV-EFD5101, 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*. The TV-out wire must be removed before you secure the housing cover.

1.3 Installation

The camera 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. Use the supplied torx wrench to loosen three screws on the housing cover, and take out the camera body.

2. Place the installation sticker where you want to install it, and make 3 marks on the ceiling or the wall for screw anchors
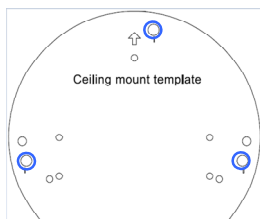
3. Drill the marks and insert the screw anchors.

4. Connect the camera to network and power. For details, see *2.4 Connecting the Camera*.

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

6. Access the live view. For details, see *2.2 Accessing the Live View*.

7. Adjust image clarity using the GV-IP Device Utility program. For details, see *2.3 Adjusting Image Clarity*.

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

Rotational Screw

Tilt Screw

Pan Disk
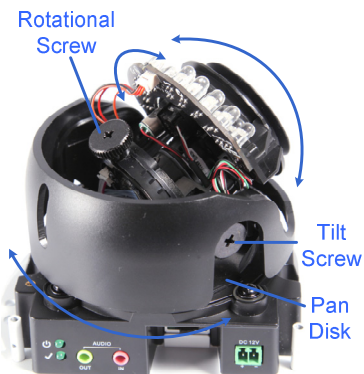
9. For GV-MD8710 / 8710-FD only, secure the "L" shaped end of the shield ground wire to one of the indicated positions.
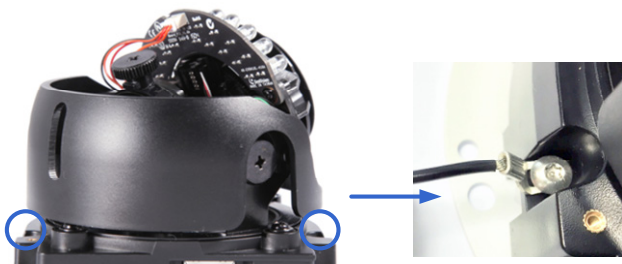
10. Place the housing cover back and tighten the three screws to secure it. Remove the indicated part when necessary.

1.4 Connecting the Camera

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 2 Accessing the Camera*.

1.5 I/O Terminal Block

Note the I/O Terminal Block is only supported by **GV-MD8700-FD**. The terminal block, located on the back panel of the 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 camera supports one digital input and one digital output of dry contact.
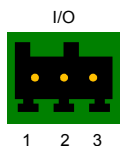
Pin	Function
1	Digital Input
2	GND
3	Digital Output

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

1.6 Loading Factory Default

1.6.1 Using the Web Interface

You can restore default settings through 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.

1.6.2 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.

Default button

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

Status
LED

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

Chapter 2 Accessing the Camera

2.1 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*.

2.2 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 *2.2.1 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 *2.2.2 Configuring the IP Address* for more detail.

Note: The default ID and Password of the GV-IP Camera is **admin**.

2.2.1 Checking the Dynamic IP Address

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

1. Install the GV-IP Device Utility program included from the company website.

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

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.

3. Find the camera with its Mac Address, click on its IP address and select **Web Page**.
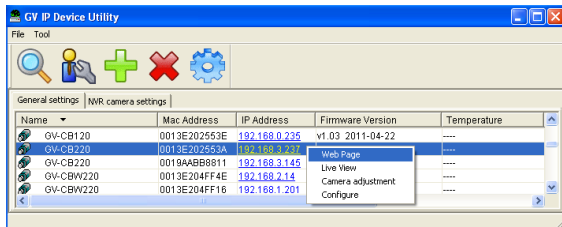
4. In the login page, type the default ID and password **admin** and click

   Apply to log in.

2.2.2 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.

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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:      192.168.2.13
     Subnet Mask:     255.255.252.0
     Router/Gateway:  192.168.0.1
     Primary DNS:     168.95.192.1
     Secondary DNS:   192.168.0.2    (Optional)
  ○ PPPoE   Select this option to establish a DSL connection
     Username:
     Password:

  [Apply]
```

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.

![GeoVision logo]

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 *2.2.1 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*.

2.3 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: This feature only applies to the cameras that allow manual focus adjustment.

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1. Make sure you have installed the GV-IP Device Utility program.

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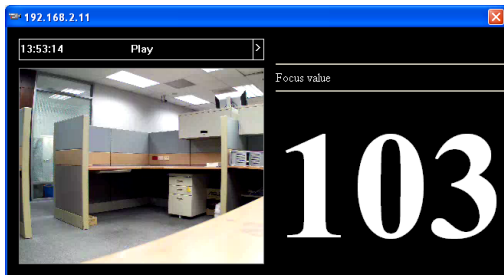
5. Adjust the Zoom Screw and the Focus Screw of the camera slowly until the focus value reaches the maximum.

Note:

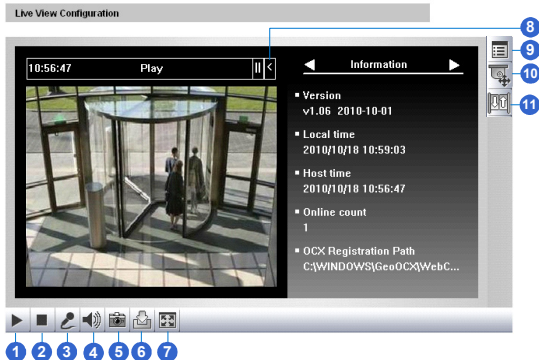1. For locations of adjustment screws and rings in each model, see Locations of Adjustment Screws, section, Getting Started Chapter, GV-IPCAM Firmware Manual.

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 3 The Web Interface

Live View

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

Live View Configuration

Live View

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

Live View Configuration

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 *Speaker* section, *Administrator Mode* Chapter, *GV-IPCAM Firmware Manual*. Note this function is only available for **Advanced Cube Camera**.

Chapter 4 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.
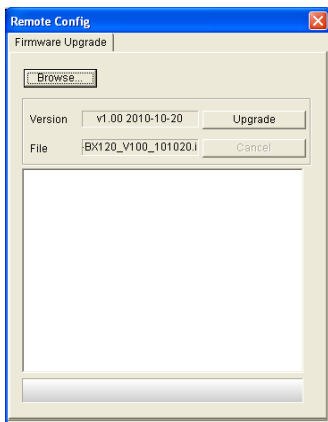
2. Click the **Browse** button to locate the firmware file (.img) saved at your local computer.

3. Click the **Upgrade** button to start the upgrade.