GeoVision inc

The Vision of Security

GV-IP Decoder Box Series and Display

User's Manual

Full HD 1080P | HDMI® HIGH DEFINITION MULTIMEDIA INTERFACE

- GV-IP Decoder Box Series
- GV-Pad Mini
- GV-IP Display 101 / 116

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

![GeoVision Inc. logo]

October 2023

Scan the following QR codes for product warranty and technical support policy:

[Warranty]   [Technical Support Policy]

Preface

Welcome to the *GV-IP Decoder Box Series and Display User's Manual.*

This Manual is designed for the following models:

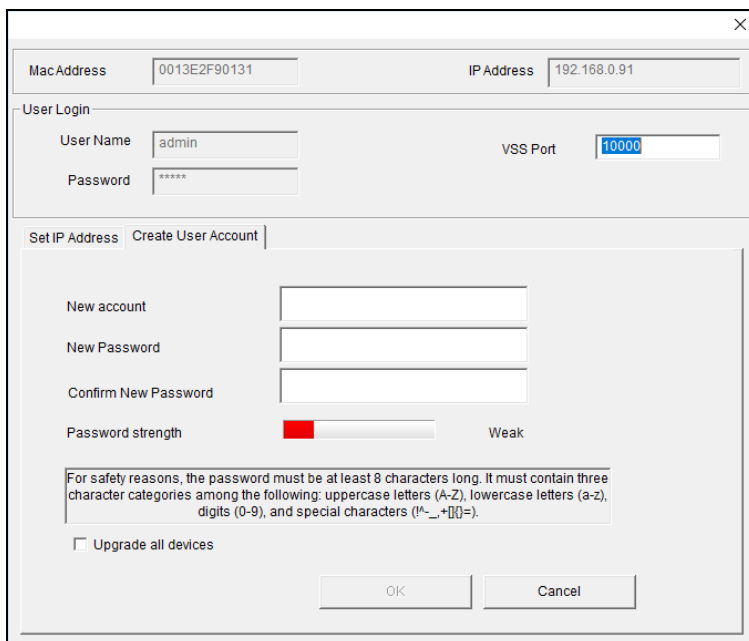| Model |
| --- |
| GV-IP Decoder Box Lite |
| GV-IP Decoder Box Plus |
| GV-IP Decoder Box Ultra |
| GV-IP Decoder Box Optimal |
| GV-Pad Mini |
| GV-IP Display 101 |
| GV-IP Display 116 |

Creating GV-IP Device's Login Credentials

When purchasing new GV-IP devices, or after resetting them, you need to create a login username and password for these devices before they can be accessed by other software / hardware.

1. Download and install GV-IP Device Utility from [GeoVision's website](#).

2. Once started, the utility will automatically search for GV-IP devices connected in the same LAN.

3. Double-click on a device in the list. This dialog box appears.

4. Click the **Create User Account** tab and type a username and password. The password must meet the password strength required.

5. Optionally, click **Upgrade all devices** to apply the created username and password to all devices which also don't have any login credentials.

Contents

Chapter 1   Introduction

1.1   GV-IP Decoder Box Optimal

GV-IP Decoder Box Optimal is designed to decode and display up to 64 IP videos in Single, 4-Division, 6-Division, 8-Division, and 9-Division View. It supports third-party IP cameras that adhere to RTSP or ONVIF, and can automatically search for any ONVIF-compliant under the same LAN. With HDMI/VGA output ports, dual monitor display is made accessible for a more effective surveillance environment. The security administrator can monitor channels, take snapshots of critical moments, and pause a channel when events occur. GV-Joystick V2 can be installed to control any PTZ / Speed Dome cameras connected onto the GV-IP Decoder Box Optimal.

Figure 1-1

Note: GV-VMS V17.4.5B / V18.3.1 or later and GV-Control Center V4.1.1 or later support GV-IP Decoder Box Optimal to be assigned with the desired camera channels of GV-VMS and GV-Control Center for remote display. See details in *Chapter 6 Integration to GV-Software*.

1.1.1 Features

- Decode video streams in H.264 / H.265 codec up to 30 fps

- Decode up to 8-megapixel IP cameras

- Decode up to 64 IP streams

- Automatically search for ONVIF IP devices

- Support for third-party IP cameras that adhere to RTSP or ONVIF

- Single, 4-Divsion, 6-Division, 8-Division, and 9-Division View

- Display of Matrix view through GV-Mobile Server

- Support for 10/100 Ethernet over LAN

- DC 12V / PoE (IEEE 802.3af)

- Dual monitor display for HDMI / VGA output

- Control the user interface using GV-IR Remote Control

- Control PTZ and Speed Dome cameras using GV-Joystick V2

- Remote firmware upgrade, IP address configuration, and addition of new channel

- Micro SD card and USB drive for snapshot storage and firmware upgrade

1.2 GV-IP Decoder Box Ultra

GV-IP Decoder Box Ultra can decode IP streams from GeoVision and third-party IP devices. It connects cameras and a monitor for video display in single or split screen divisions. It supports RTSP or ONVIF IP cameras and can detect ONVIF IP devices on the same LAN automatically. Enjoy a cost-effective alternative to conventional DVRs and PC-based video surveillance systems. With GV-IP Decoder Box Ultra, you can monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. Additionally, GV-Joystick V2 can be installed to efficiently control GeoVision and third-party PT / PTZ / Speed Dome cameras.

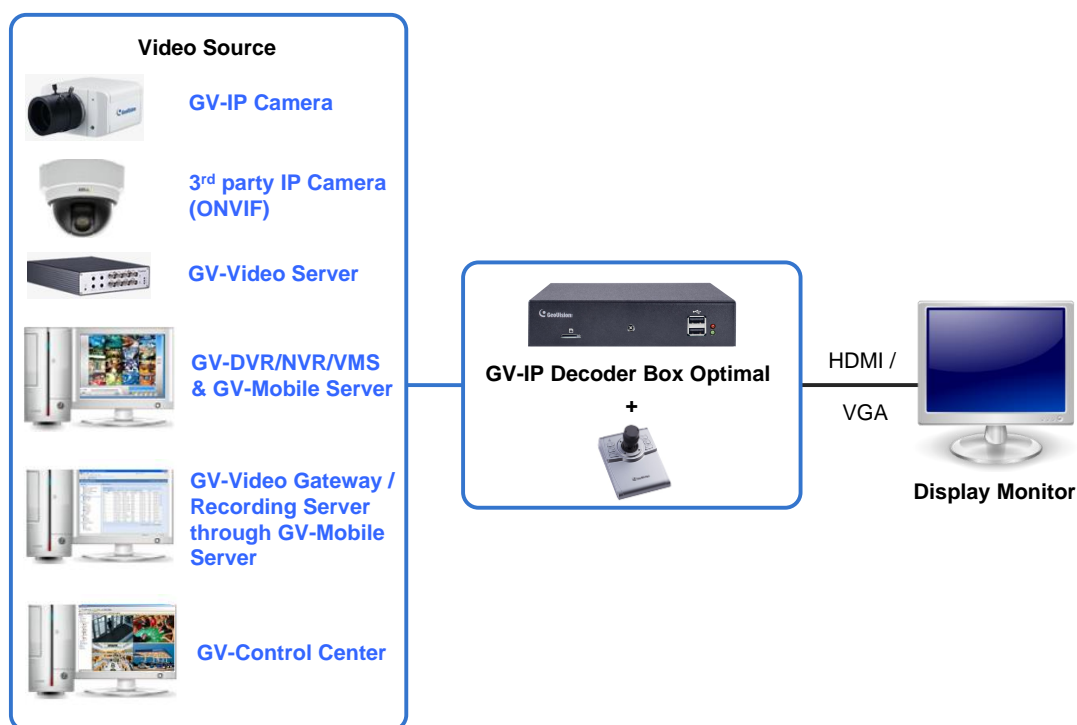*Figure 1-2*

Note: GV-VMS V18.1 or later and GV-Control Center V3.8.0 / V4.1.0 or later support GV-IP Decoder Box Ultra to be assigned with the desired camera channels of GV-VMS and GV-Control Center for remote display. See details in *Chapter 6 Integration to GV-Software*.

GeoVision

1.2.1 Features

- Decode video streams in H.264 / H.265 codec up to 30 fps

- Decode up to 8-megapixel IP cameras

- Decode up to 64 IP streams

- Automatically search for ONVIF IP devices

- Support for third-party IP cameras that adhere to RTSP or ONVIF

- Support for Single, 4-Divsion, 6-Division, 8-Division, and 9-Division View

- Display of Matrix view through GV-Mobile Server

- Support for 10/100 Ethernet over LAN

- DC 12V / PoE (IEEE 802.3af)

- HDMI video output resolutions up to 4K

- Control the user interface using GV-IR Remote Control

- Control PTZ and Speed Dome cameras using GV-Joystick V2

- Remote firmware upgrade, IP address configuration, and addition of new channel

- Micro SD card and USB drive for snapshot storage and firmware upgrade

1.3   GV-IP Decoder Box Plus

GV-IP Decoder Box Plus can decode IP streams from GeoVision and third-party IP devices. It connects cameras and a monitor for video display in single or split screen divisions. It supports RTSP or ONVIF IP cameras and can detect ONVIF IP devices on the same LAN automatically. Enjoy a cost-effective alternative to conventional DVRs and PC-based video surveillance systems. With GV-IP Decoder Box Plus, you can monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. Additionally, GV-Joystick V2 can be installed to efficiently control GeoVision and third-party PT / PTZ / Speed Dome cameras.
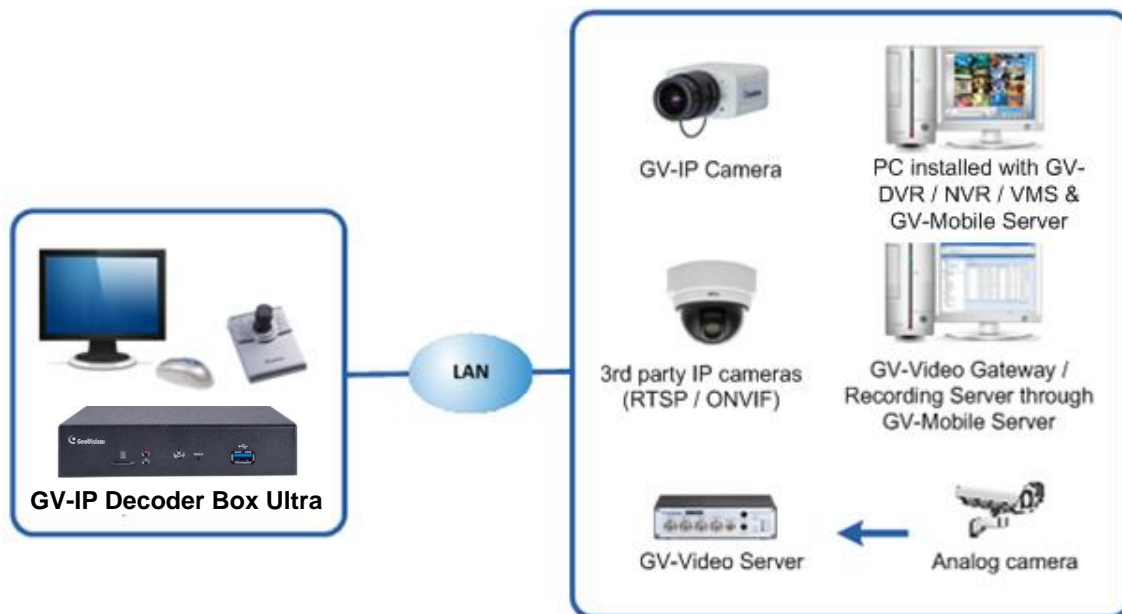

Figure 1-3

Note: GV-VMS V18.1 or later and GV-Control Center V3.8.0 or later support GV-IP Decoder Box Plus to be assigned with the desired camera channels of GV-VMS and GV-Control Center for remote display. See details in *Chapter 6 Integration to GV-Software*.

GeoVision

1.3.1   Features

- Decode video streams in H.264 codec at up to 30 fps

- Decode up to 4-megapixel IP cameras

- Decode up to 64 IP streams

- Automatically search for ONVIF IP devices

- Support for third-party IP cameras that adhere to RTSP or ONVIF

- Support for fisheye dewarping in Single View and Grid 1 of Quad View

- Single View, Quad View, and 9-Division View in sequential display

- Display of Matrix view through GV-Mobile Server

- Support for 10/100/1000 Ethernet over LAN

- VGA or HDMI video output resolutions up to 1080p

- Control PTZ and Speed Dome cameras using GV-Joystick V2

- Remote firmware upgrade, IP address configuration, and addition of new channel

- SD card slot and USB drive for snapshot storage and firmware upgrade

1.4   GV-IP Decoder Box Lite

GV-IP Decoder Box Lite can decode IP streams from GeoVision and third-party IP devices. It connects cameras and a monitor for video display in single or split screen divisions. It can detect ONVIF IP devices on the same LAN automatically. Enjoy a cost-effective alternative to conventional DVRs and PC-based video surveillance systems. With GV-IP Decoder Box Lite, you can monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. Additionally, GV-Joystick V2 can be installed to efficiently control GeoVision and third-party PT / PTZ / Speed Dome cameras.
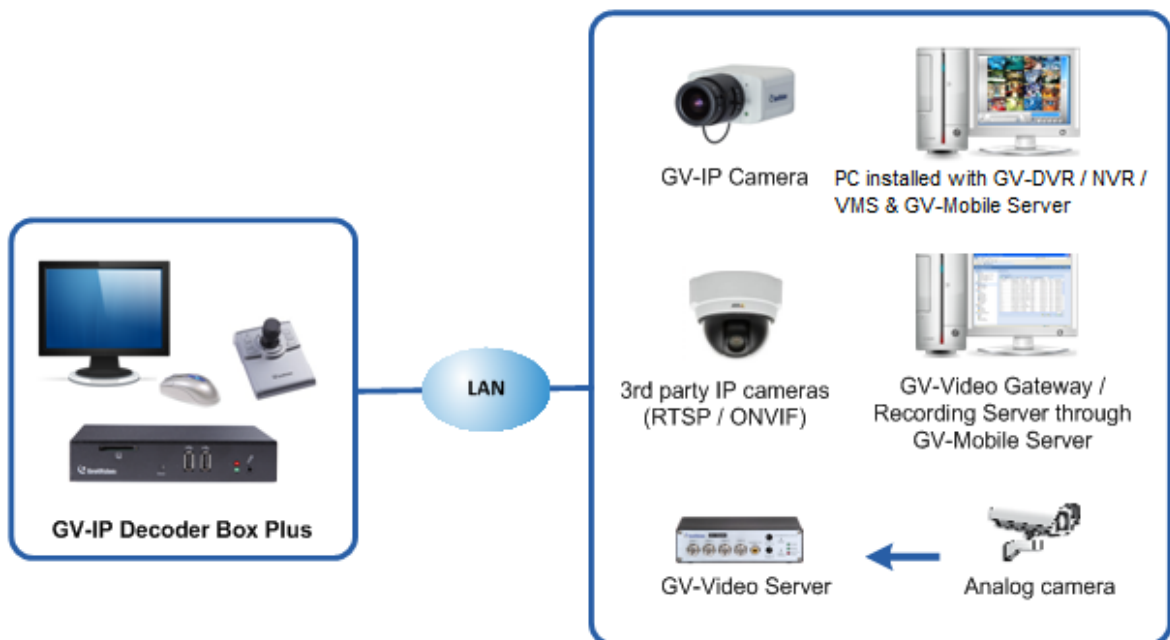

Figure 1-4

GeoVision

1.4.1 Features

- Decode video streams in H.264 codec at up to 30 fps
- Decode up to 2-megapixel IP cameras
- Decode up to 16 IP streams
- Automatically search for ONVIF IP devices
- Support for third-party IP cameras that adhere to ONVIF
- Single View and Quad View in sequential display
- Support for 10/100/1000 Ethernet over LAN
- VGA or HDMI video output resolutions up to 1080p
- Control PTZ and Speed Dome cameras using GV-Joystick V2
- Remote firmware upgrade, IP address configuration, and addition of new channel
- USB drive for firmware upgrade

1.5 GV-Pad Mini

GV-Pad Mini is a panel device capable of decoding and displaying up to 64 IP cameras in single or split screen divisions. It is light weighted and requires only a minimal amount of installation. GV-Pad Mini allows you to monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. In addition, GV-Joystick V2 can be installed to effectively control GeoVision and third-party PTZ / Speed Dome cameras.

Figure 1-5

GeoVision

1.5.1 Features

- Decode video streams in H.264 codec at up to 30 fps

- Decode up to 4-megapixel IP cameras

- Decode up to 64 IP streams

- Automatically search for ONVIF IP devices

- Support for third-party IP cameras that adhere to RTSP or ONVIF

- Single View, Quad View, and 9-Division View in sequential display

- Display of Matrix view through GV-Mobile Server

- Support for 10/100/1000 Ethernet over LAN

- Control PTZ and Speed Dome cameras using GV-Joystick V2

- Micro SD card slot and USB drive for snapshot storage and firmware upgrade

1.6   GV-IP Display 116

GV-IP Display 116 is a panel device capable of decoding and displaying up to 64 IP cameras in single or split screen divisions. It is light weighted and requires only a minimal amount of installation. GV-IP Display 116 allows you to monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. In addition, GV-Joystick V2 can be installed to effectively control GeoVision and third-party PTZ / Speed Dome cameras.
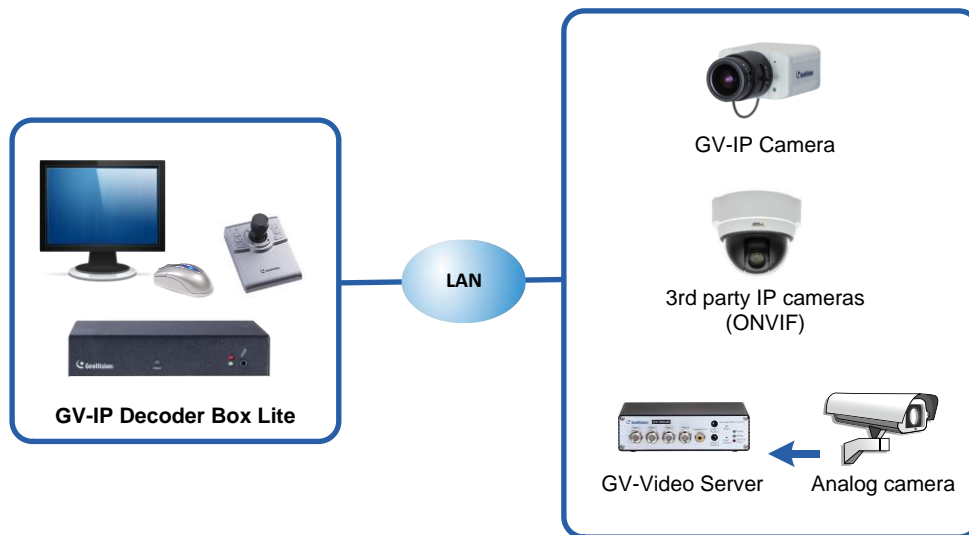

Figure 1-6

1.6.1 Features

- Decode video streams in H.264 / H.265 codec at up to 30 fps

- Decode up to 8-megapixel IP cameras

- Decode up to 64 IP streams

- Automatically search for ONVIF IP devices

- Support for third-party IP cameras that adhere to RTSP or ONVIF

- Single, 4-Divsion, 6-Division, 8-Division, and 9-Division View

- Display of Matrix view through GV-Mobile Server

- Support for 10/100 Ethernet over LAN

- Control PTZ and Speed Dome cameras using GV-Joystick V2

- Micro SD card slot and USB drive for snapshot storage and firmware upgrade

1.7   GV-IP Display 101

GV-IP Display 101 is a panel device capable of decoding and displaying up to 64 IP cameras in single or split screen divisions. It is light weighted and requires only a minimal amount of installation. GV-IP Display 101 allows you to monitor channels, capture snapshots of critical moments, and pause a channel when specific events occur. In addition, GV-Joystick V2 can be installed to effectively control GeoVision and third-party PTZ / Speed Dome cameras.
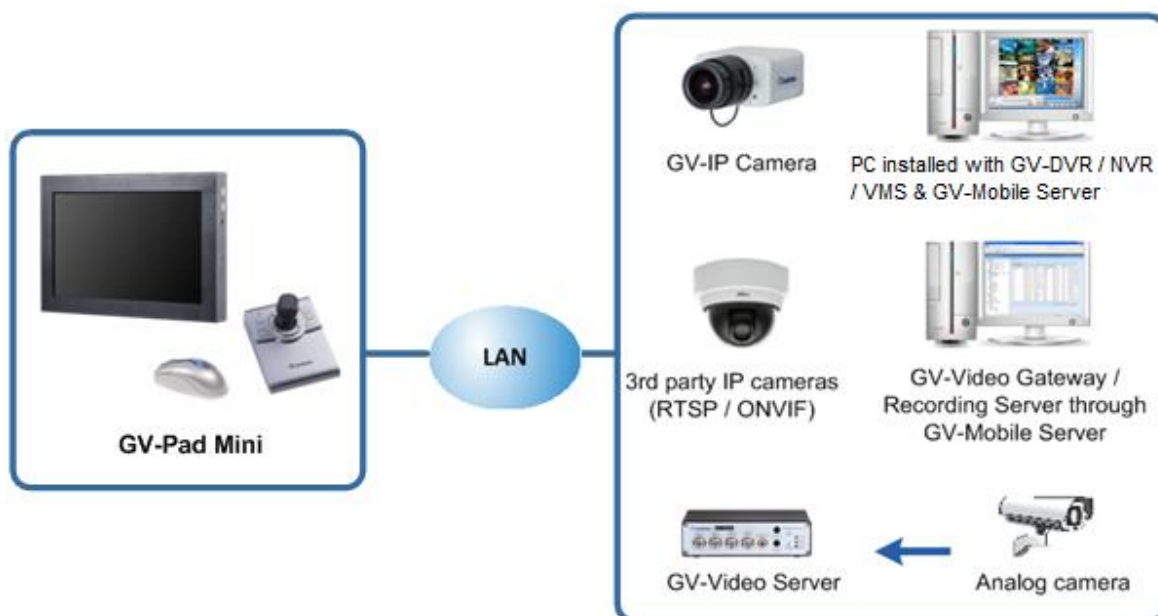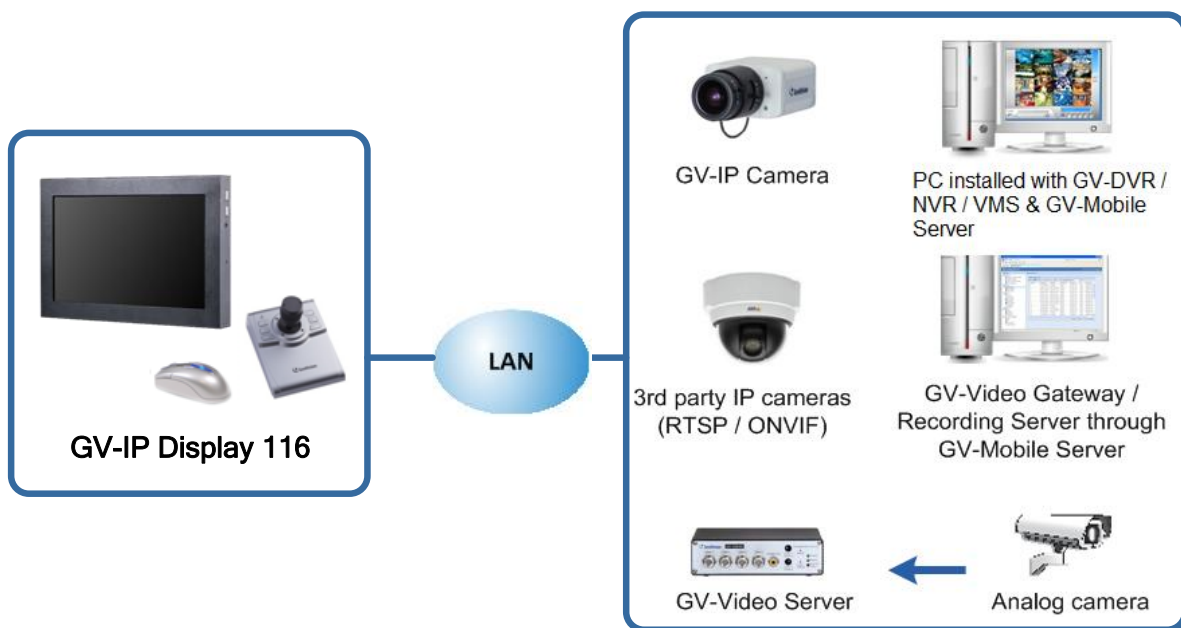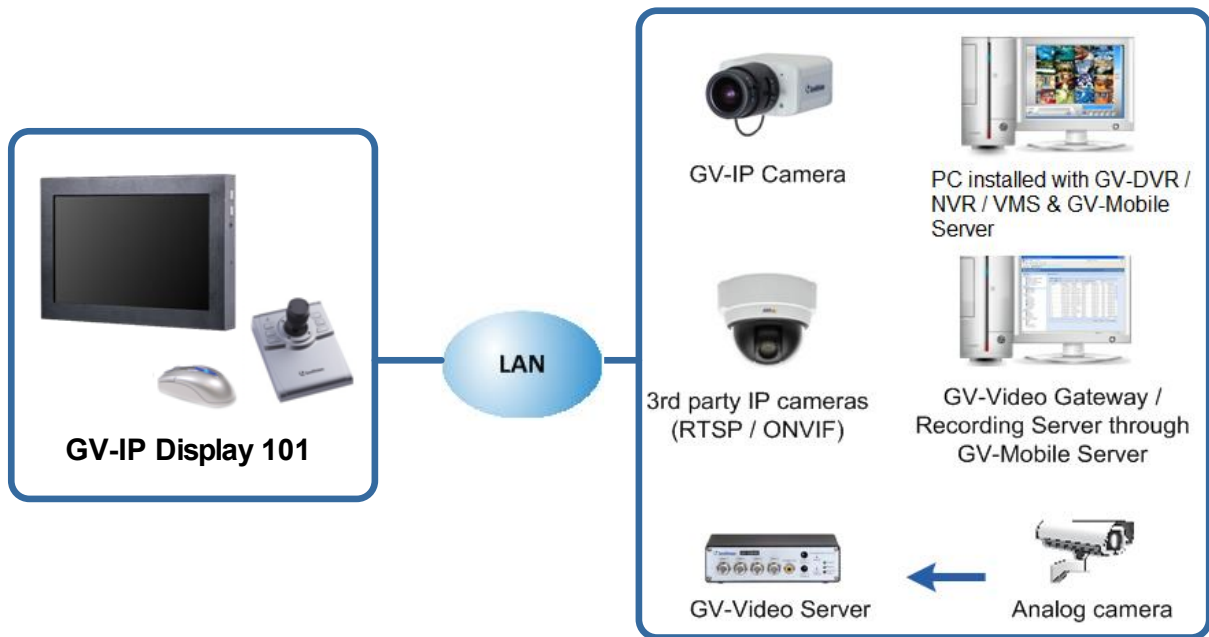

Figure 1-7

1.7.1 Features

- Decode video streams in H.264 / H.265 codec at up to 30 fps
- Decode up to 8-megapixel IP cameras
- Decode up to 64 IP streams
- Automatically search for ONVIF IP devices
- Support for third-party IP cameras that adhere to RTSP or ONVIF
- Single, 4-Divsion, 6-Division, 8-Division, and 9-Division View
- Display of Matrix view through GV-Mobile Server
- Support for 10/100 Ethernet over LAN
- Control PTZ and Speed Dome cameras using GV-Joystick V2
- Micro SD card slot and USB drive for snapshot storage and firmware upgrade

1.8 Compatible Devices

The compatible devices for GV-IP Decoder Box Series, GV-Pad Mini, and GV-IP Display 101 vary according to different models.

GV-IP Decoder Box Optimal / Ultra / GV-IP Display 101 / GV-IP Display 116

1. GV-IP Camera and GV-Video Server using H.264 / H.265 codec
2. Third-party IP devices that support H.264 / H.265 and adhere to RTSP or ONVIF
3. GV-Mobile Server

To decode and display **non-H.264** / **H.265** IP cameras, **analog** cameras or **GV-FER12203 / 12700**, connect the cameras to GV-DVR / NVR / VMS and access them through GV-Mobile Server.

GV-IP Decoder Box Plus / GV-Pad Mini

1. GV-IP Camera and GV-Video Server using H.264 codec
2. Third-party IP devices that support H.264 and adhere to RTSP or ONVIF
3. GV-Mobile Server

To decode and display **non-H.264** IP cameras or **analog** cameras, connect the cameras to GV-DVR / NVR / VMS and access them through GV-Mobile Server.

GV-IP Decoder Box Lite

1. GV-IP Camera and GV-Video Server using H.264 codec
2. Third-party IP devices that support H.264 and adhere ONVIF

To decode and display **analog** cameras, connect the cameras to GV-IP Decoder Box Lite through GV-Video Server.

Note:

1. GV-Mobile Server is an application that encodes up to **64** video channels and subsequently allows GV-IP Decoder Box Optimal / Ultra / Plus / GV-Pad Mini / GV-IP Display 101 / 116 to decode and display:

    ● Analog cameras and IP cameras connected to GV-DVR / NVR / VMS

    ● IP channels connected to GV-Recording Server / GV-Video Gateway

    ● Third-party IP cameras through ONVIF

    ● 4 matrix views

    For details, see *GV-Mobile Server User's Manual*.

2. Upgrade your GV-IP devices to the latest firmware version if you encounter any connection problems.

1.9 Packing List

GV-IP Decoder Box Optimal

1. GV-IP Decoder Box Optimal
2. GV-IR Remote Control
3. Download Guide
4. Warranty Card

GV-IP Decoder Box Ultra

5. GV-IP Decoder Box Ultra
6. GV-IR Remote Control
7. Download Guide
8. Warranty Card

GV-IP Decoder Box Plus

1. GV-IP Decoder Box Plus
2. AC/DC Adapter (12 V, 3 A, 36 W)
3. Power Cord
4. USB Mouse
5. Download Guide
6. Warranty Card

GV-IP Decoder Box Lite

1. GV-IP Decoder Box Lite
2. AC/DC Adapter (12 V, 3 A, 36 W)
3. Power Cord
4. USB Mouse
5. Download Guide
6. Warranty Card

GV-Pad Mini

1. GV-Pad Mini
2. AC/DC Adapter (12 V, 3 A, 36 W)
3. Power Cord
4. USB Mouse
5. Download Guide
6. Warranty Card

GV-IP Display 116

1. GV-IP Display 116
2. AC/DC Adapter (12 V, 3 A, 36 W)
3. Power Cord
4. Download Guide
5. Warranty Card

GV-IP Display 101

1. GV-IP Display 101
2. AC/DC Adapter (12 V, 3 A, 36 W)
3. Power Cord
4. Download Guide
5. Warranty Card

1.10 Optional Accessories

Optional Accessory	Details
Wall Mount Kit	The Wall Mount Kit is used to mount GV-IP Decoder Box Series to the wall.
	● L-type brackets x 2 ● Small screws x 4
GV-Joystick V2	GV-Joystick V2 facilitates focusing, zooming, panning, and tilting of GeoVision and third-party PT, PTZ, and Speed Dome cameras on GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101.
	● GV-Joystick V2 ● USB Type A to Type B Cable ● RJ-45 Cable ● Download Guide
HDMI Cable	Only available for GV-IP Decoder Box Ultra / Optimal. Use the HDMI cable to connect GV-IP Decoder Box Ultra / Optimal with a HDMI monitor for high-quality display of images. Length: 150 cm (4.92 ft) Version: 1.4a
GV-PoE Switch	GV-PoE Switch is designed to provide power along with network connection for IP devices. GV-PoE Switch is available in various models with different numbers and types of ports.
Power Adapter	For GV-IP Decoder Box Ultra / Optimal, contact our sales representatives for the countries and areas supported.

1.11 Overview

1.11.1 GV-IP Decoder Box Series

1.11.1.1 Front View

GV-IP Decoder Box Optimal
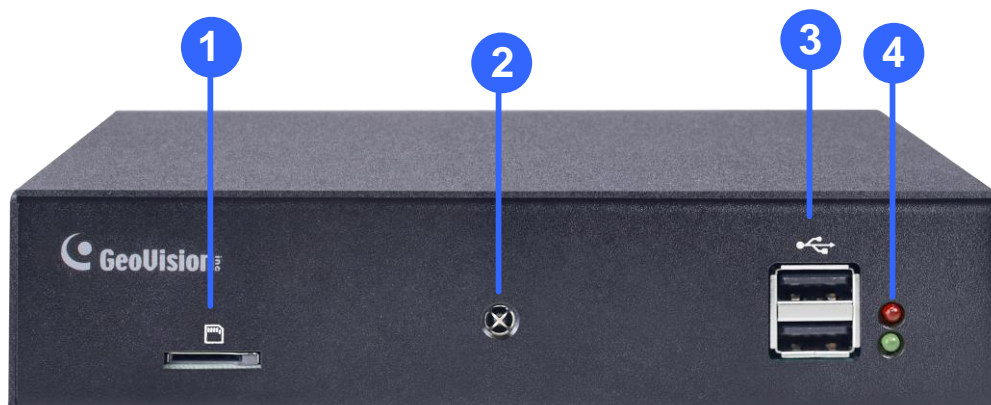
Figure 1-8

No.	Name	Function
1	Micro SD Card Slot	Connect to a micro SD card for local storage of snapshots and firmware upgrade.
2	IR sensor	Receive signal from GV-IR Remote Control for controlling the user interface at the maximum operation distance of 7 m (22.97 ft).
3	USB 2.0	Connect to a GV-Joystick V2, USB mouse, or USB storage device
4	LED Indicators	The red LED indicates the power is supplied. The green LED indicates the system is ready for use.

GV-IP Decoder Box Ultra

Figure 1-9

No.	Name	Function
1	Micro SD Card Slot	Connect to a micro SD card for local storage of snapshots and firmware upgrade.
2	LED Indicators	The red LED indicates the power is supplied. The green LED indicates the system is ready for use.
3	IR sensor	Receive signal from GV-IR Remote Control for controlling the user interface at the maximum operation distance of 7 m (22.97 ft).
4	Default	Reset the device to the default factory settings. Use a pin to press the default button for about 10 seconds. The system will then reset and reboot itself shortly. See *5.2 Restoring Default Settings*.
5	USB 3.0	Connect to a GV-Joystick V2, USB mouse, or USB storage device

GV-IP Decoder Box Plus
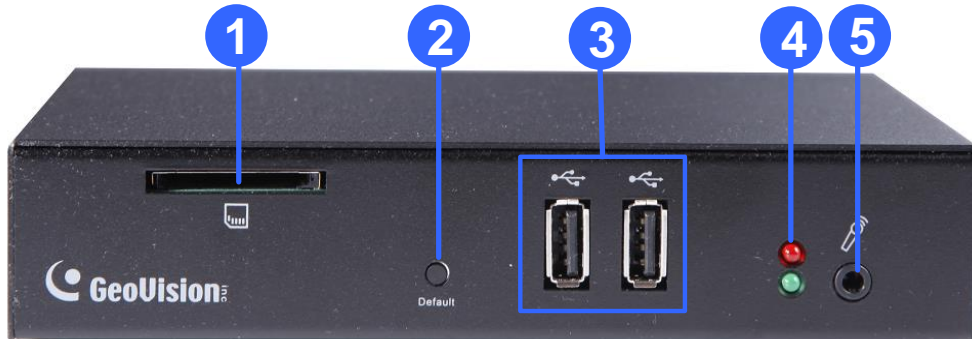
Figure 1-10

GV-IP Decoder Box Lite
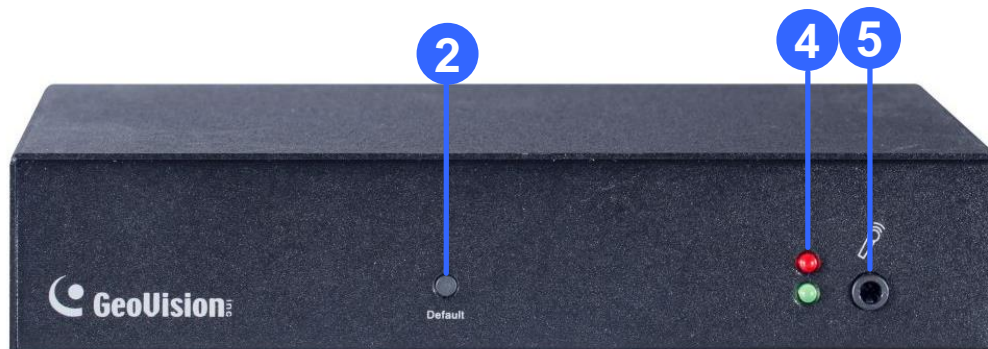
Figure 1-11

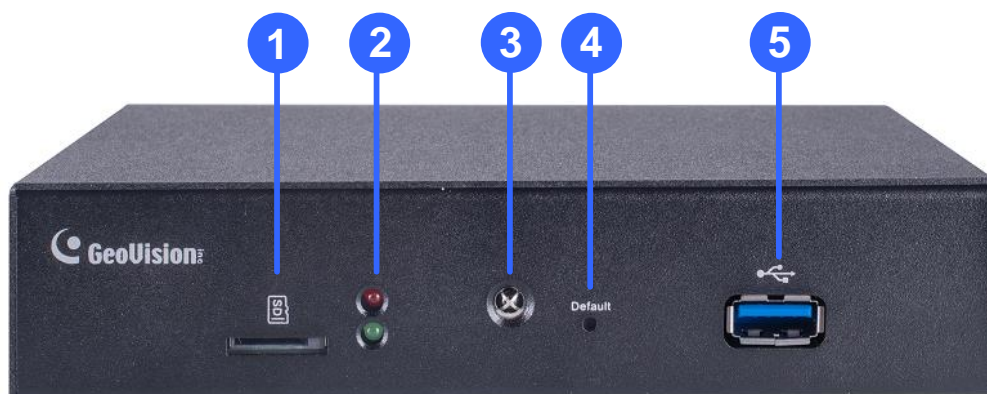| No.	Name	Function
1	SD Card Slot	Connect to a SD card for local storage of snapshots and firmware upgrade. Only supported by GV-IP Decoder Box Plus.
2	Default	Reset the device to the default factory settings. Use a pin to press the default button for about 10 seconds. The system will then reset and reboot itself shortly. See *5.2 Restoring Default Settings*.
3	USB	Connect to a GV-Joystick V2, USB mouse, or USB storage device. Only supported by GV-IP Decoder Box Plus.
4	LED Indicators	The red LED indicates the power is supplied. The green LED indicates the system is ready for use.
5	Audio In	Not functional.

1.11.1.2   Rear View

GV-IP Decoder Box Optimal
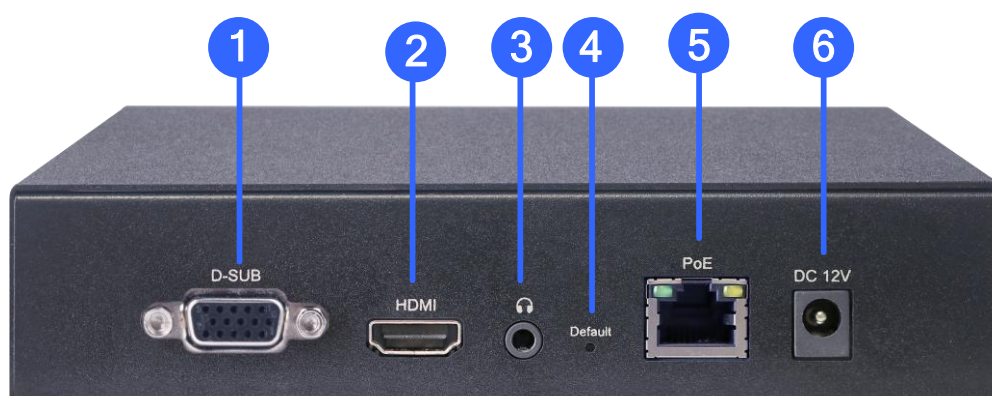
Figure 1-12

No.	Name	Function
1	VGA	Connect to a VGA monitor.
2	HDMI	Connect to an HDMI-compliant display device.
3	Audio Out	Connect to a speaker.
4	Default	Reset the device to the default factory settings. Use a pin to press the default button for about 10 seconds. The system will then reset and reboot itself shortly. See *5.2 Restoring Default Settings*.
5	Network / PoE	Connect to the network or a PoE adaptor.
6	DC 12V	Connect to power by using the supplied power adapter.

![GeoVision Inc. logo]

GV-IP Decoder Box Ultra
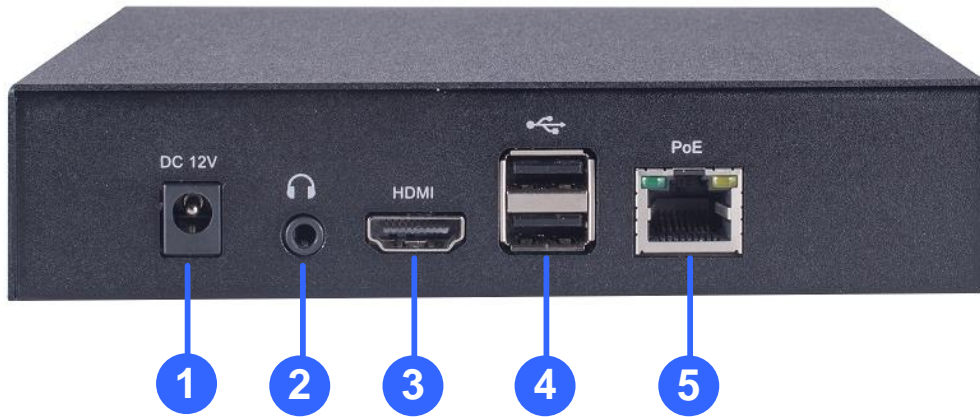
Figure 1-13

No.	Name	Function
1	DC 12V	Connect to power by using the supplied power adapter.
2	Audio Out	Connect to a speaker.
3	HDMI	Connect to an HDMI-compliant display device.
4	USB 2.0	Connect to a GV-Joystick V2, USB mouse, or USB storage device.
5	Network / PoE	Connect to the network or a PoE adaptor.

GV-IP Decoder Box Plus / Lite
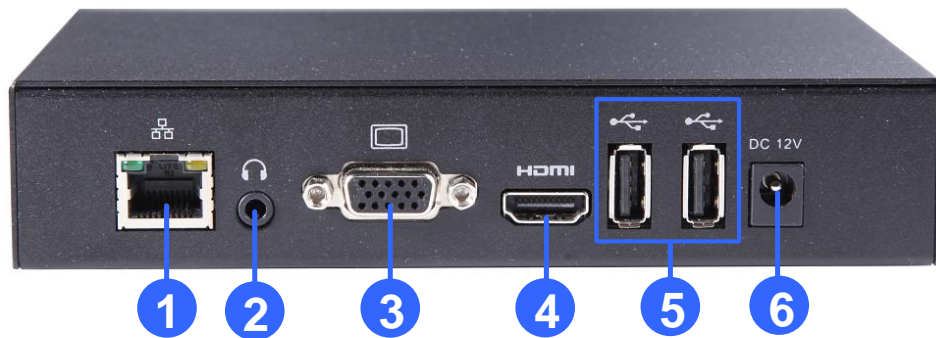
Figure 1-14

No.	Name	Function
1	Network	Connect to the network.
2	Audio Out	Connect to a speaker.
3	VGA	Connect to a VGA monitor.
4	HDMI	Connect to an HDMI-compliant display device.
5	USB	Connect to a GV-Joystick V2, USB mouse, or USB storage device.
6	DC 12V	Connect to power by using the supplied power adapter.

1.11.2   GV-Pad Mini / GV-IP Display 101 / GV-IP Display 116

1.11.2.1   Front and Rear Views
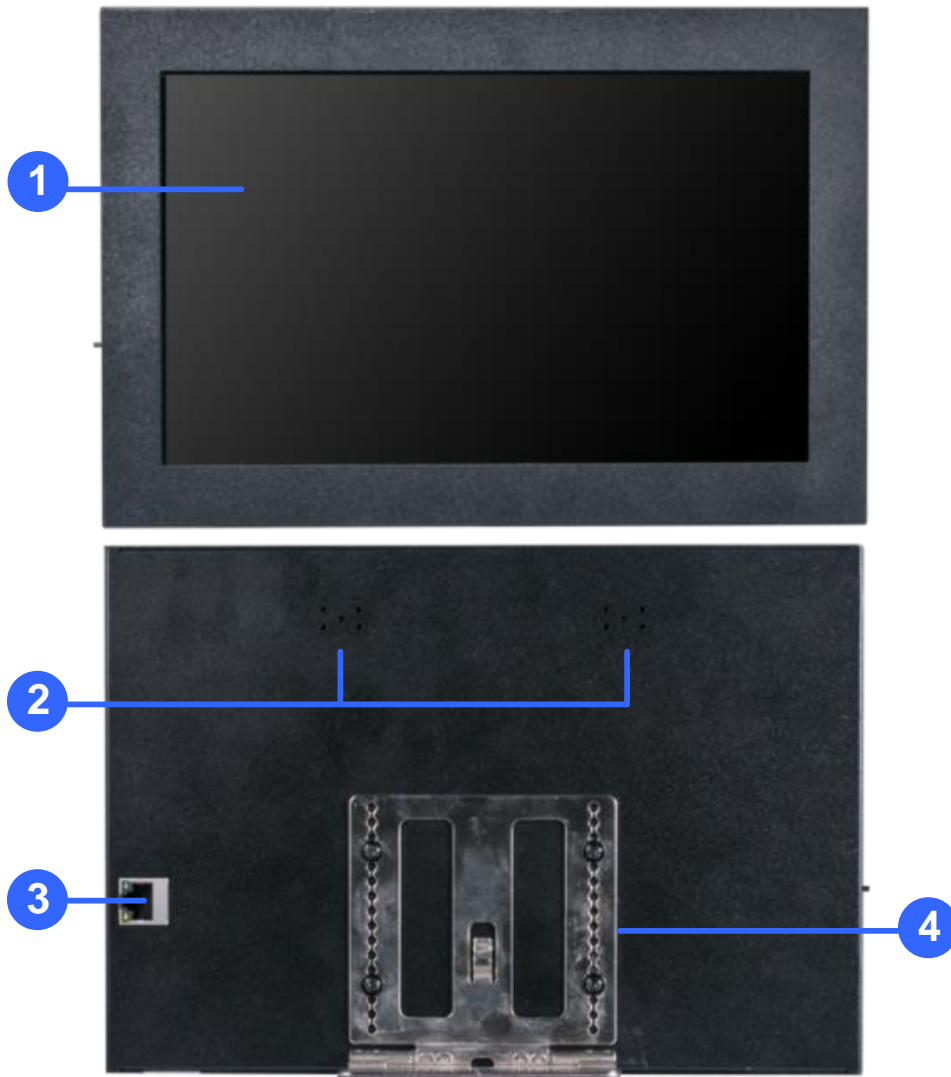
Figure 1-15

No.	Name	Function
1	LCD screen	Display the system settings of the device and the images of connected IP devices.
2	Speaker	Listen to the audio around the connected IP device.
3	Ethernet Port	Connect to the network.
4	Stand	Position GV-Pad Mini / GV-IP Display 101 / 116 to your preference.

1.11.2.2   Top, Left-Side and Right-Side Views
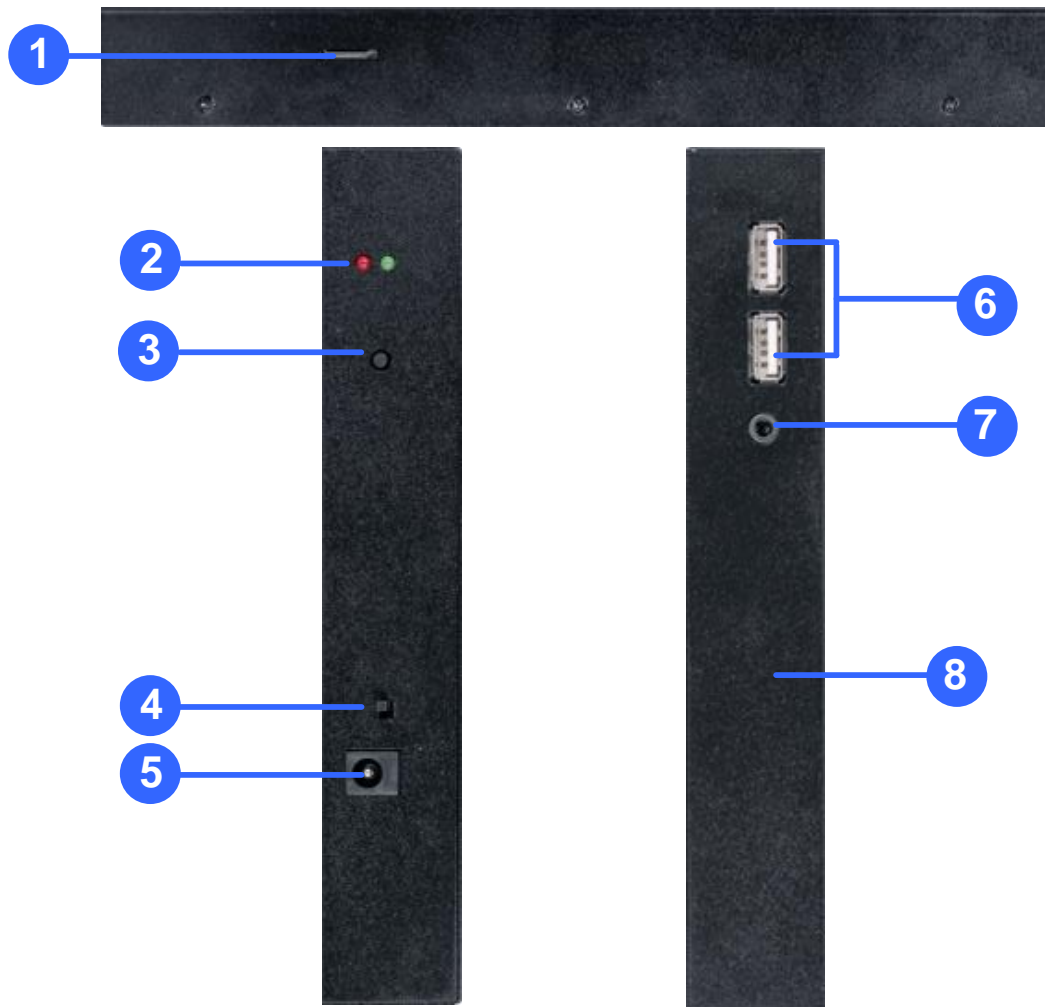
Figure 1-16

No.	Name	Function
1	Micro SD Card Slot	Connect to a micro SD card for local storage of content and firmware upgrade.
2	LED Indicators	The red LED indicates the power is supplied. The green LED indicates the system is ready.
3	Stand By	Press to enter Standby/Sleep mode. In standby mode, the screen turns off to minimize power consumption. Press the key again to enter ON mode.
4	Power Off/On	Switch the power on or off.

![Geovision logo]

No.	Name	Function
5	DC 12V	Connect to power using the supplied power adapter.
6	USB	Connect to a GV-Joystick V2, USB mouse, or USB storage device for local storage of content and firmware upgrade.
7	Line Out Port	Connect to a headphone or speaker.
8	Default	Reset the device to the default settings. Use a pin to press the default button for about 5 to 10 seconds. The system will then reset and reboot itself shortly. See *5.2 Restoring Default Settings*.

1.11.3 GV-IR Remote Control

GV-IR Remote Control is only supported by GV-IP Decoder Box Ultra / Optimal.

Figure 1-17

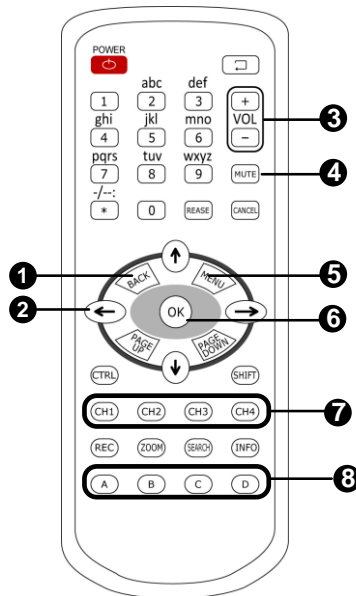| No.	Name	Function
1	Back	Return to the previous page in the Main Screen.
2	Menu Control	Move up, down, right and left in the Main Screen.
3	Volume Control	Increase or decrease the volume.
4	Mute	Mute the volume.
5	Menu	Switch to the Main Screen.
6	OK	Enter the setup options or save the settings in the Main Screen.

No.	Name	Function
7	Hotkeys	Use the following hotkeys to execute commands when a camera live view is selected in the main screen. CH1: Take a screenshot CH2: Activate the PTZ function. CH3: Enter in full screen mode. CH4: Activate the audio out function.

PTZ Controls

No.	Name	Function
2	Menu Control	Control PTZ movements (pan and tilt) on live view display when the PTZ function is enabled.
6	OK	Bring the camera to a home position when the PTZ function is enabled.

Press an alphabet key to adjust the zoom / focus.

No.	Alphabet Key	Function
8	A	Zoom In
	B	Zoom Out
	C	Focus In
	D	Focus Out

Chapter 2   Getting Started

2.1   Installing GV-IP Decoder Box Series

You can install GV-IP Decoder Box Series on the wall or simply use it as desk mount device.

Wall Mount Installation

For wall mount installation, you need to purchase the wall mount kit.

1. Unscrew the 4 screws on the back panel of GV-IP Decoder Box Series.
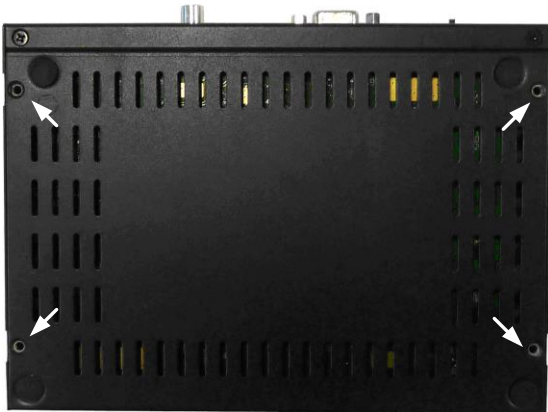
Figure 2-1

2. Use the 4 small screws in the package to tighten the L-type brackets on GV-IP Decoder Box Series.

Figure 2-2

3. Secure GV-IP Decoder Box Series to the wall with self-prepared screws.

2.2   Connecting GV-IP Decoder Box Series

Follow the steps below to connect GV-IP Decoder Box Series. Here we use **GV-IP Decoder Box Plus** as an example.
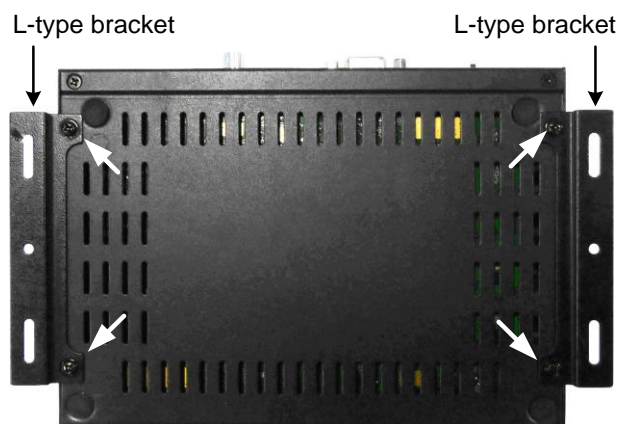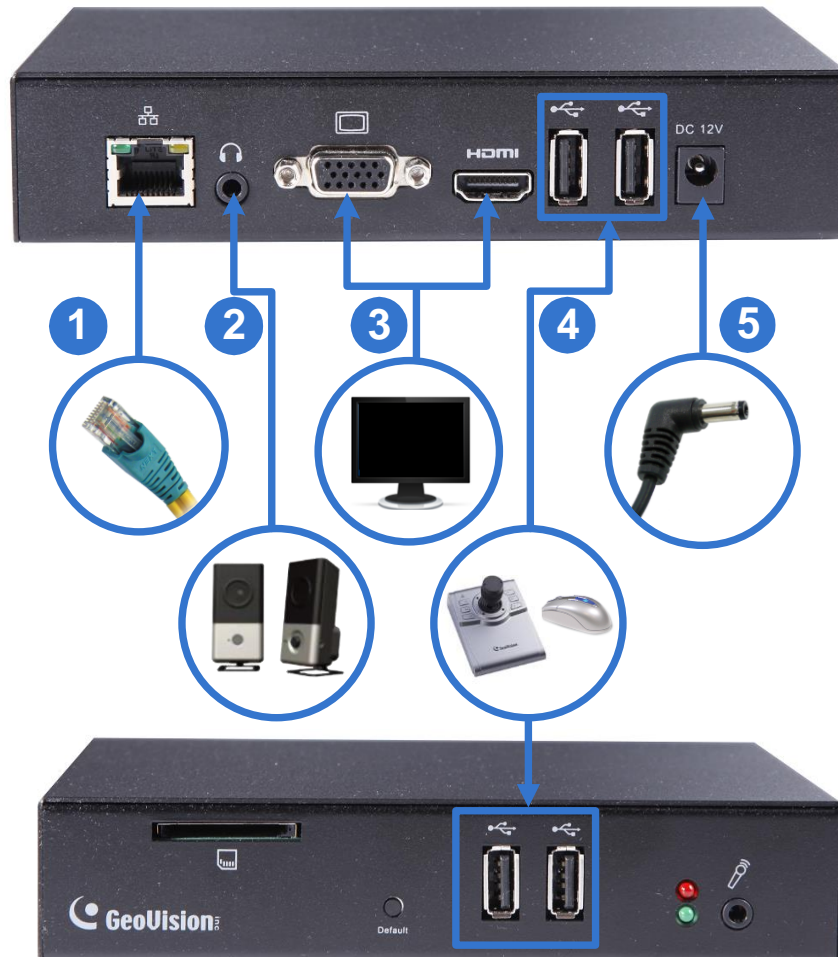

Figure 2-3

1. Connect the device to the LAN port using an RJ-45 cable.

2. Connect a speaker to the audio line out port if needed.

3. Connect a display device to VGA or HDMI connector for video output.

4. Connect a mouse and / or GV-Joystick V2 to the USB ports.

5. Connect to power using the supplied power adapter.

Note:

1. You can only connect GV-IP Decoder Box Ultra / Plus / Lite to one display device through either the HDMI or VGA connector at a time. Dual monitor display is only available for GV-IP Decoder Box Optimal.

2. The default video output resolution is set to 1080P for GV-IP Decoder Box Optimal and HD 720P for GV-IP Decoder Box Ultra / Plus / Lite. If you use a VGA monitor, be sure to change the output resolution to VGA 1920 x 1080. If you want to configure your GV-IP Decoder Box Optimal / Ultra to 4K resolution, make sure your monitor is 4K-capable and change the resolution to 3840 x 2160. To change the output resolution, see *4.1 System*.

2.3   Connecting GV-Pad Mini / GV-IP Display 101 / 116

Follow the steps below to connect GV-Pad Mini / GV-IP Display 101 / 116.
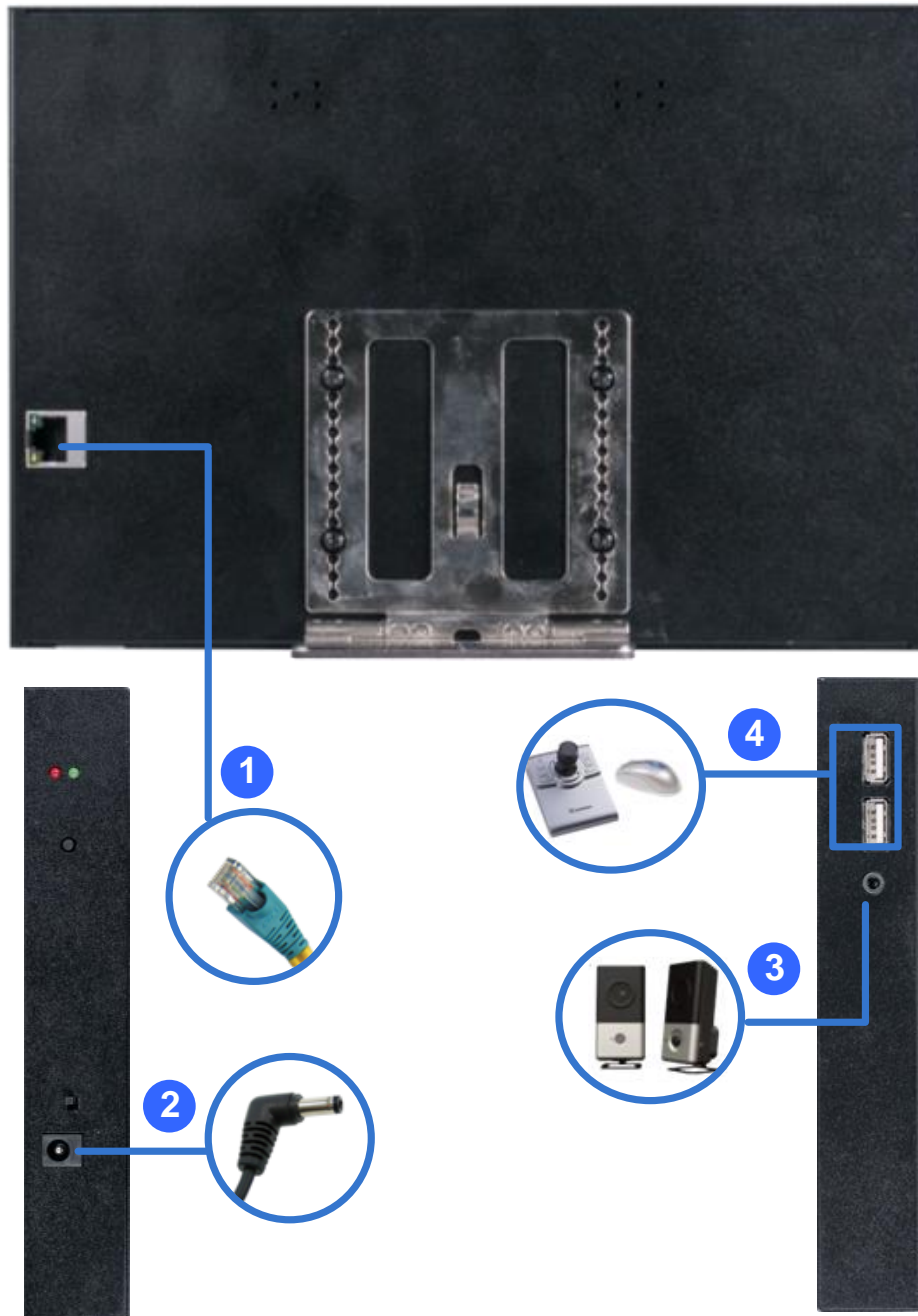
Figure 2-4

1. Connect the device to the LAN port using an Ethernet cable.

2. Connect to power using the supplied power adapter.

3. Connect a speaker / headphone to the line out port if needed.

4. Connect a mouse and / or GV-Joystick V2 to the USB ports.

2.4 The Main Screen

After you have connected the necessary wires and cables, GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 will power on and the main screen will display on the monitor.

Note: The user interfaces differ by models. Find the relevant settings corresponding to your device. Here we use **GV-IP Decoder Box Ultra / GV-IP Display 101** as an example.

Figure 2-5

2.5 Setting Up the Network

By default, GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 will be automatically assigned an IP address by the DHCP server without requiring additional settings. To change the IP address to a fixed one, follow the steps below.

Note: By default, if GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 is connected to LAN without the DHCP server, it will be assigned a static IP address: 192.168.0.100.

---

1. Click the **System Settings** icon 🛠 or ⚙ at the bottom of the main screen, and select **Network**. You will see the following window.
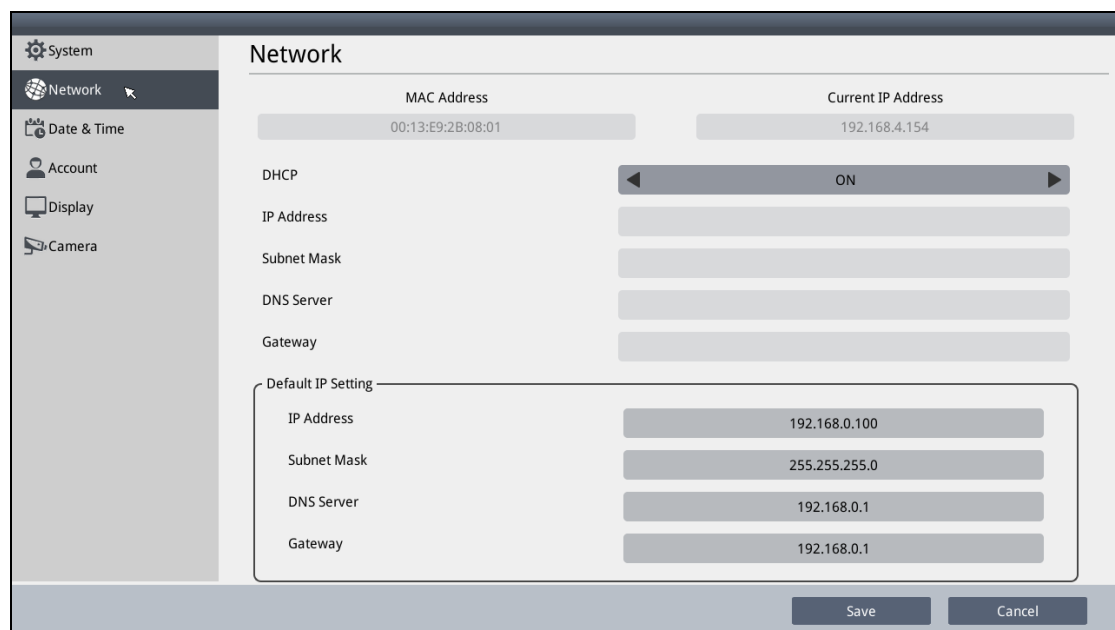
Figure 2-6

2. To configure the static IP address,

   - For GV-IP Decoder Box Ultra / Optimal / GV-IP Display 101 / 116, switch the DHCP option to **OFF**.

   - For GV-IP Decoder Box Plus / Lite / GV-Pad Mini, select **Static IP Address**.

3. Fill out the fields of **IP Address**, **Subnet Mask**, **DNS Server**, and **Default Gateway**.

4. Click **Save**. When the device is connected to the network, the IP address will be shown in the Connected IP Address field.

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![GeoVision logo]

Tip: You can also use GV-IP Device Utility downloaded from [GeoVision's website](). to modify the IP address by clicking on GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 and selecting **Configure**.
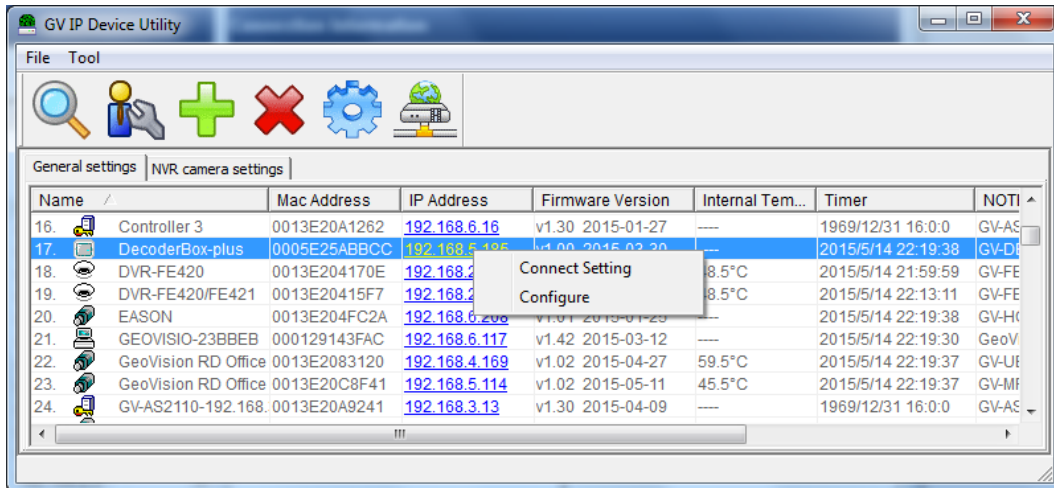
Figure 2-7

2.6 Adding IP Devices to Live View Grid

Before you start, make sure all the IP devices or GV-Mobile Server is under the same LAN as GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116.

2.6.1 Adding IP Devices through Automatic Search

1. Click the **Camera Search** icon [icon] / [icon] on the main page.
2. Search for GV-IP Devices, GV-Mobile Server, or the third-party devices that adhere to ONVIF under the same LAN by clicking the **Search Camera** icon [icon] / [icon]
3. Select a live view layout.

   For GV-IP Decoder Box Optimal / Ultra / GV-IP Display 101 / 116:

   Figure 2-8

   For GV-IP Decoder Box Plus / Lite / GV-Pad Mini:

   Figure 2-9

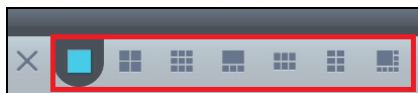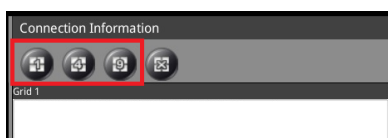4. Drag and drop an IP device from the camera list to the grid. To select multiple cameras at a time, click **Select Multiple Cameras** at the top and select more than one camera from the camera list.
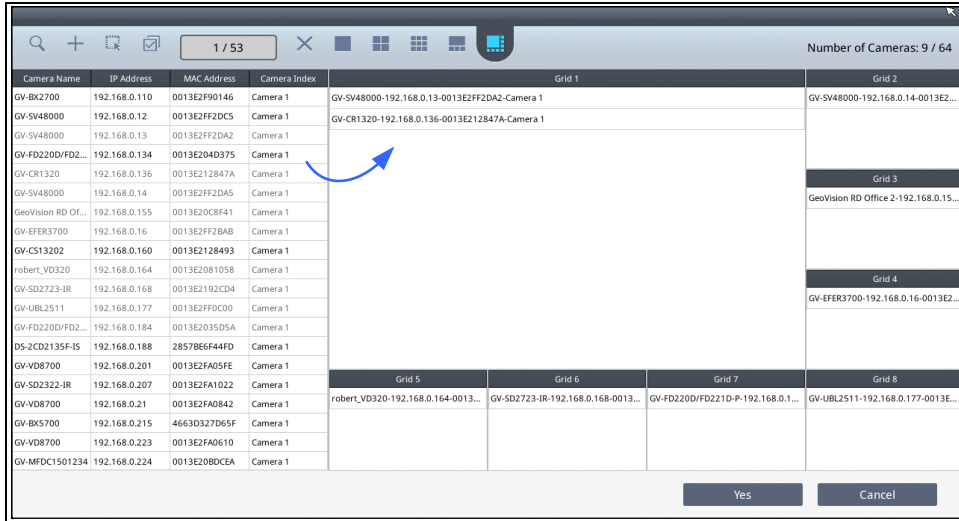

Figure 2-10

5. To change the device settings, hold for right-clicking on a device in the grid and select **Edit** to modify the following settings:

■ **Camera Name:** Type a customized name for the IP device.

■ **Port:** Change the port number if needed.

■ **Loop Time Interval:** Specify a time interval, ranging from 10 ~ 600 seconds, for the device to display before switching to the next one. The default value is 30 seconds.

■ **Login Information:** Change the login user name and password of the device if necessary.

■ **Stream Mode:** Only for GV-IP Decoder Box Optimal / Ultra / GV-IP Display 116, select one of the following modes.

⊙ **Single Stream**: Select this option for the highest image quality.

⊙ **Single Stream (Save bandwidth)**: Select this option for the lowest bandwidth.

⊙ **Dual Stream**: Select this option to automatically optimize the image quality when displaying multiple channels.

Note: When connecting, all cameras will have the default user name and password set as **admin**. To modify the default login settings, find the user name and password under **Camera** in System Settings (see *4.6 Camera)*.

---

6. To adjust the display order of the cameras, hold for right-clicking on a camera and click **Move Up** or **Move Down**.

7. To remove a camera, hold for right-clicking on a camera and click the **Delete** button.

8. To delete all the added devices at once, click the **Delete All** button ✕ / ⊠.

9. Click **Yes** or **Save** to apply the settings.

The selected channels will be displayed on the monitor and be looped at an interval of 30 seconds by default. To change the looping interval, hold for right-clicking on a camera and click **Edit**.

Note:

1. Refer to *3.1 Live View* for the maximum resolution supported in different live view layouts.

2. Fisheye dewarping is only supported by GV-IP Decoder Box Plus. To dewarp the fisheye view, you need to choose 1-division layout or assign the camera to Grid 1 of the 4-division view.

2.6.2 Adding IP Devices Manually

If GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 is unable to detect the IP device using the search function, you can search for the device manually.

1. Click the **Camera Search** icon ⚙ / ⊡ at the bottom of the main page.

2. Click the **Add Camera** icon + / ⊕. This dialog box appears.
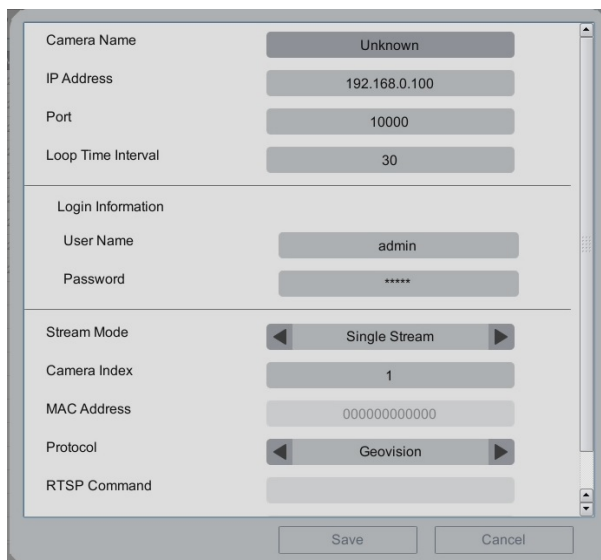

Figure 2-11

3. Fill out the following camera information.

   ■ **Camera Name:** Type a personalized name for the device.

   ■ **IP Address:** Type the IP address of the device.

   ■ **Port:** Change the port number if needed. The default port is 10000.

   ■ **Loop Time Interval:** Specify a time interval, ranging from 10 ~ 600 seconds, for the device to display before switching to the next one. The default value is 30 seconds.

   ■ **Login Information:** Type the ID and password of the IP device if needed. The default ID and Passwords are **admin**.

   ■ **Stream Mode:** Only for GV-IP Decoder Box Optimal / Ultra / GV-IP Display 116, select one of the following modes.

      ⊙ **Single Stream**: Select this option for the highest image quality.

      ⊙ **Single Stream (Save bandwidth)**: Select this option for the lowest bandwidth.

      ⊙ **Dual Stream**: Select this option to automatically optimize the image quality when displaying multiple channels.

   ■ **Camera Index**: Number the IP device for searching convenience.

   ■ **Protocol:** For GV-IP Devices, select **Geovision** as the protocol. For third-party devices, select **ONVIF** or one of the **RTSP** protocols.

   ■ **RTSP Command:** Type the RTSP link if you are connecting to the device through RTSP protocols.

4. Click **Save**. The IP device is now added to the camera list.

Note: When connecting, all cameras will have the default user name and password set as **admin**. To modify the default login settings, find the user name and password under **Camera** in System Settings (see *4.6 Camera)*.

![GeoVision logo]

2.7 Adding Devices Using GV-IP Device Utility

Use GV-IP Device Utility to add channels.

Before you start, make sure that all the IP devices / software must be under the same LAN as GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116.
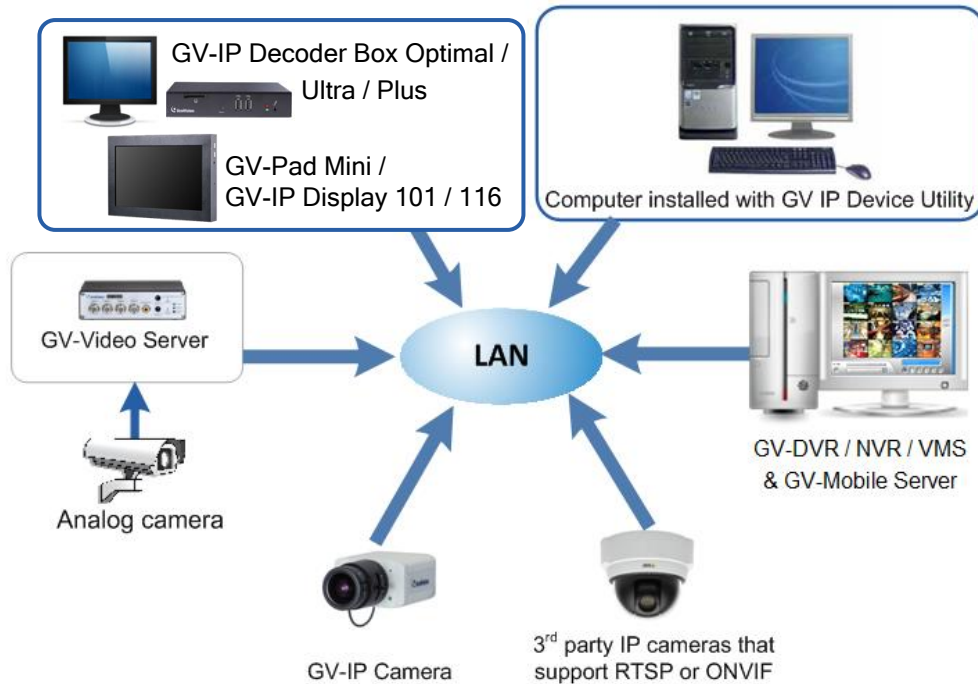

Figure 2-12

2.7.1 Adding a GV-IP Device

1. Run **GV-IP Device Utility** downloaded from GeoVision's website. Once started, the utility will automatically search for all GV devices under the same LAN.

2. Click on the IP address of GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116, and select **Connect Setting**. A login window appears.

3. Type the username and password of the device, and click **OK**. This window appears. By default, the username and password both are **admin.**
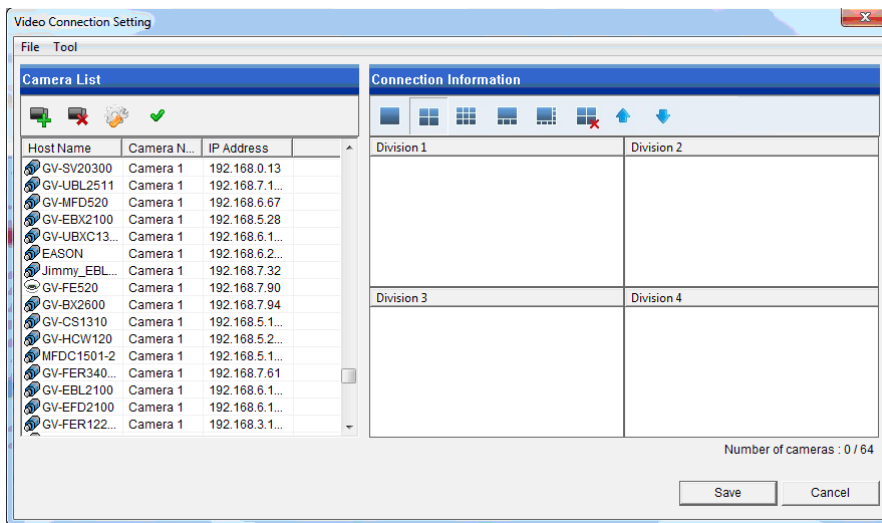

Figure 2-13

4. Use the Camera List toolbar to add, remove, or configure a camera in the Camera List.

5. Under Connection Information, select a live view layout.

6. Add channels to the Connection Information column.

    A. Drag and drop the camera from the Camera List to the Connection Information column.

    B. Use the **Move Up** and **Move Down** buttons to change the display order of these channels.

    C. To remove a selected camera, click the **Remove** button.

    D. If you have changed the default ID and password of the added GV-IP Devices / GV-Mobile Server, right-click the channel, select **Edit** and type the username and password to log in for connection. By default, the login ID and password for all GV-IP Devices are **admin**.
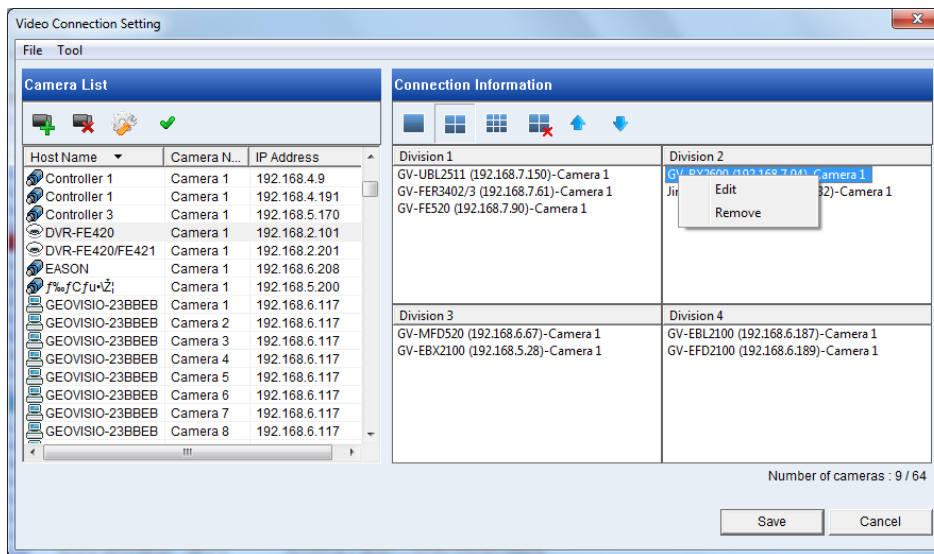
Figure 2-14

Note: Only for GV-Decoder Box Optimal / Ultra, you are also allowed to configure the stream mode and loop time interval for a specific or all IP devices connected on the **Edit** page.

---

7. Click **Save**.

The cameras in the Connection Information column will be updated to GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 and looped at a 30-second interval by default.

Note: Fisheye dewarping is only supported by GV-IP Decoder Box Plus. To dewarp the fisheye view, you need to choose 1-division layout or assign the camera to Grid 1 of the 4-division view.

2.7.2 Adding a Third-party Device

1. Click the **Add Camera** button 🖵 on the Video Connection Setting window (Figure 2-13). This dialog box appears.
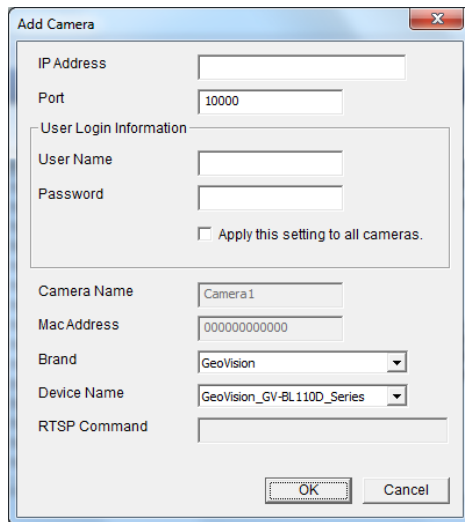
Figure 2-15

2. Type the IP address, user name, and password of the device.

3. Select **Protocol** for Brand and one of the following protocols for Device Name. Type the RTSP command if required. Refer to your third-party IP camera's manual for this command.
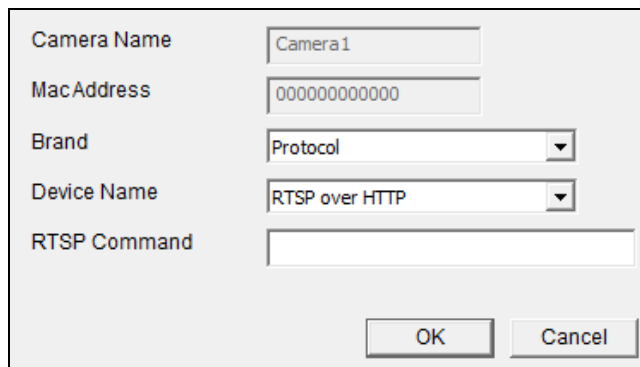
Figure 2-16

- **ONVIF:** Select this protocol if your camera adheres to ONVIF.

- **RTSP over HTTP:** The RTSP protocol uses an HTTP port for data streaming from the IP camera.

- **RTSP over TCP:** The RTSP protocol uses a TCP port for data streaming from the IP camera.

- **RTSP over UDP:** The RTSP protocol uses a UDP port for data streaming from the IP camera.

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Note: GV-IP Decoder Box Light does not support RTSP connection.

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4. Click **OK**. The camera is added to the list.

5. Add channels to the Connection Information column. See Step 6, *2.7.1 Adding a GV-IP Device.*

6. Click **Save**.

Chapter 3   Accessing Live View

3.1   Live View

After adding and assigning IP devices to the live view grid, the camera live views are displayed on the main screen. Hold for right-clicking on a live view grid to access the following options:

Note: The user interfaces are different by models. Find the relevant settings corresponding to your device. Here we use **GV-IP Decoder Box Ultra / GV-IP Display 101** as an example.
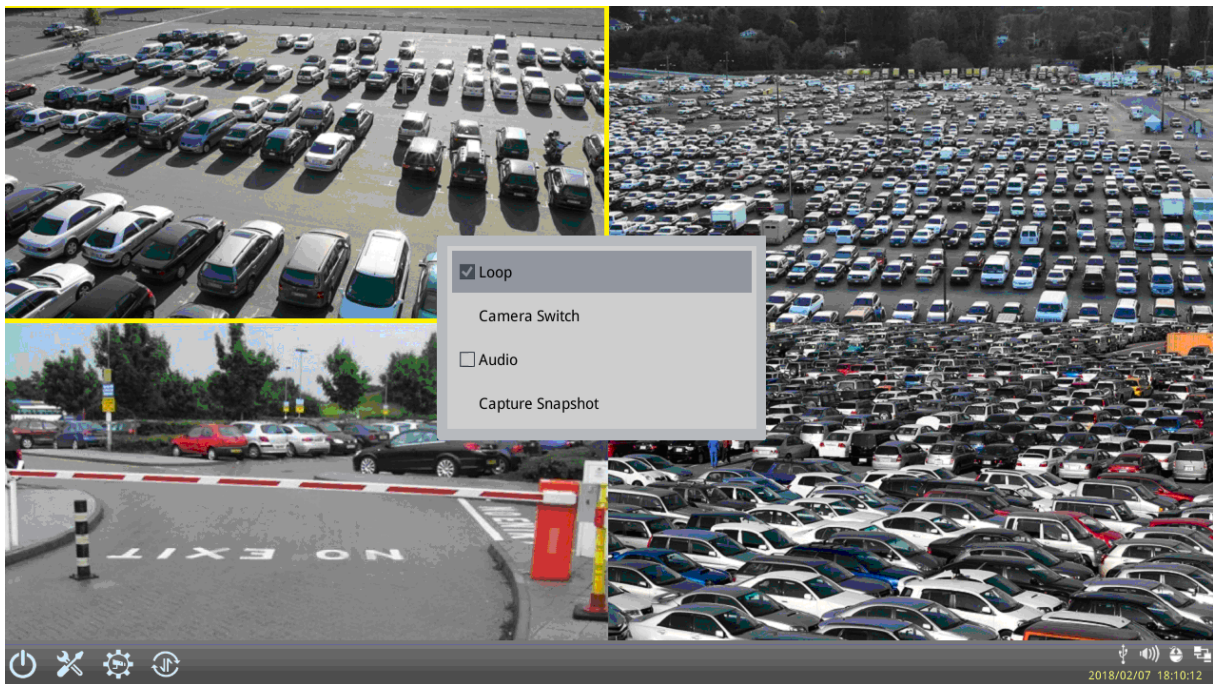
Figure 3-1

■ **Capture Snapshot:** Only supported by GV-IP Decoder Box Optimal / Ultra / Plus / GV-Pad Mini / GV-IP Display 101 / 116, capture a snapshot of the live view. This option is only available when the live view grid is not looping. See *3.2 Capturing Snapshots.*

■ **Play Mode:** When more than one device is added to a grid, select **Loop** to start looping through the devices or select a device number to fix the live view grid to the selected device. A looping icon ![icon] or ![icon] will appear on the live view grid if you select **Loop**.

    Note: To fix the live view grid to a selected device for GV-IP Decoder Box Optimal / Ultra, click **Camera Switch** and click the desired camera number.

■ **PTZ:** Select to allow GV-Joystick V2 / your mouse / GV-IR Remote Control to control the PTZ device. To pan and tilt the live view, click and hold the arrow on the image. This function is only available for devices with PTZ function and only one PTZ device can be enabled at a time.

■ **Audio:** Enables or disables the audio out function. You can only enable the audio out function of one device at a time.

■ **Visual PTZ Button:** Only for GV-IP Decoder Box Optimal / Ultra / Plus / GV-Pad Mini / GV-IP Display 101 / 116, select to activate the PTZ control buttons. This function is only available for devices with PTZ function.

Figure 3-2

- **Default Setting**: Selects to return to the camera's home position.
- **Auto Focus**: Automatically adjusts the sharpness of the camera view.
- **Focus In / Out**: Adjusts the sharpness of the camera view.

Only for GV-IP Decoder Box Ultra V1.05 or later, GV-IP Decoder Box Optimal, and GV-IP Display 116, the following functions become available when only one IP device is connected and assigned to a Single View layout.

Figure 3-3

■ **Video Rotate:** Adjust the image orientation by selecting **0°**, **90°**, **180°**, or **270°**.

■ **Video Flip:** Adjust the image orientation by selecting **Normal**, **Horizontal**, **Vertical**, or **Both**. (Not available for GV-IP Decoder Box Optimal / GV-IP Display 116)

Note the following live view specifications:

● The resolution of the added device must be lower than the maximum resolution listed below for each screen division. When the device resolution exceeds the maximum resolution supported, GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 will connect to stream 2 of the device instead. If stream 2 is unavailable, the message "Resolution Error" will appear on the screen.

● Fisheye dewarping is only supported by GV-IP Decoder Box Plus in Single View and the Grid 1 of Quad View.

GV-IP Decoder Box Optimal / Ultra			
Screen Division		**Maximum Resolution**	**Fisheye Dewarping**
1-Division (Single View)		3840 x 2160	Not supported
4-Division (Quad View)	**Grid 1**	2560 x 1920	
	Other 3 Grids	1920 x 1080	
6-Division		1280 x 720	
8-Division		1280 x 720	
9-Division		1280 x 720	

GV-IP Decoder Box Plus			
Screen Division		**Maximum Resolution**	**Fisheye Dewarping**
1-Division (Single View)		2048 x 1944	Supported
4-Division (Quad View)	**Grid 1**	2048 x 1944	Supported
	Other 3 Grids	1920 x 1080	Not supported
9-Division		1280 x 720	Not supported

![GeoVision logo]

GV-IP Decoder Box Lite		
Screen Division	**Maximum Resolution**	**Fisheye Dewarping**
1-Division (Single View)	1920 x 1080	Not supported
4-Division (Quad View)		

GV-Pad Mini			
Screen Division		**Maximum Resolution**	**Fisheye Dewarping**
1-Division (Single View)		2048 x 1944	Not supported
4-Division (Quad View)	**Grid 1**	2048 x 1944	
	Other 3 Grids	1920 x 1080	
9-Division		1280 x 720	

GV-IP Display 101 / 116			
Screen Division		**Maximum Resolution**	**Fisheye Dewarping**
1-Division (Single View)		3840 x 2160	Not supported
4-Division (Quad View)	**Grid 1**	2560 x 1920	
	Other 3 Grids	1920 x 1080	
6-Division		1280 x 720	
8-Division		1280 x 720	
9-Division		1280 x 720	

Note: The camera view will display the message "Connection Lost" if the login ID and password are incorrect.

3.2   Capturing Snapshots

You can take snapshots of the live view and the snapshots will be automatically saved to the selected storage device (USB drive or SD card) in JPEG format.

Before you start, be sure:

- You have inserted a USB drive or SD card for storage.

- You have at least 30 MB of space on your storage device.

- The storage type is configured as FAT32 format (or as NTFS format for GV-IP Decoder Box Optimal / Ultra).

- You have assigned a storage device in the System Setting page (see below).

Otherwise, the error icon or will appear when attempting to capture an image.

1. On the main menu, click the **System Setting** icon or and select **System** on the left.

2. Select a storage device from the **Storage Device** option to store the captured screenshots, and click **Save**.

3. If the live view grid is still under looping mode, hold for right-clicking on the live view grid, select **Camera Switch** / **Play Mode** and select the device number to stop the looping.

4. Hold for right-clicking on the live view grid again, and select **Capture Snapshot**.

When captured successfully, a snapshot icon or will appear at the top right corner of the screen.

Note: Capturing snapshots is not supported by GV-IP Decoder Box Lite.

3.3   Fisheye Dewarping

You can enable fisheye dewarping if the fisheye camera is in Single View or Grid 1 of the Quad View. Right-click the live view of the fisheye camera and select **Fisheye** to enable fisheye dewarping.

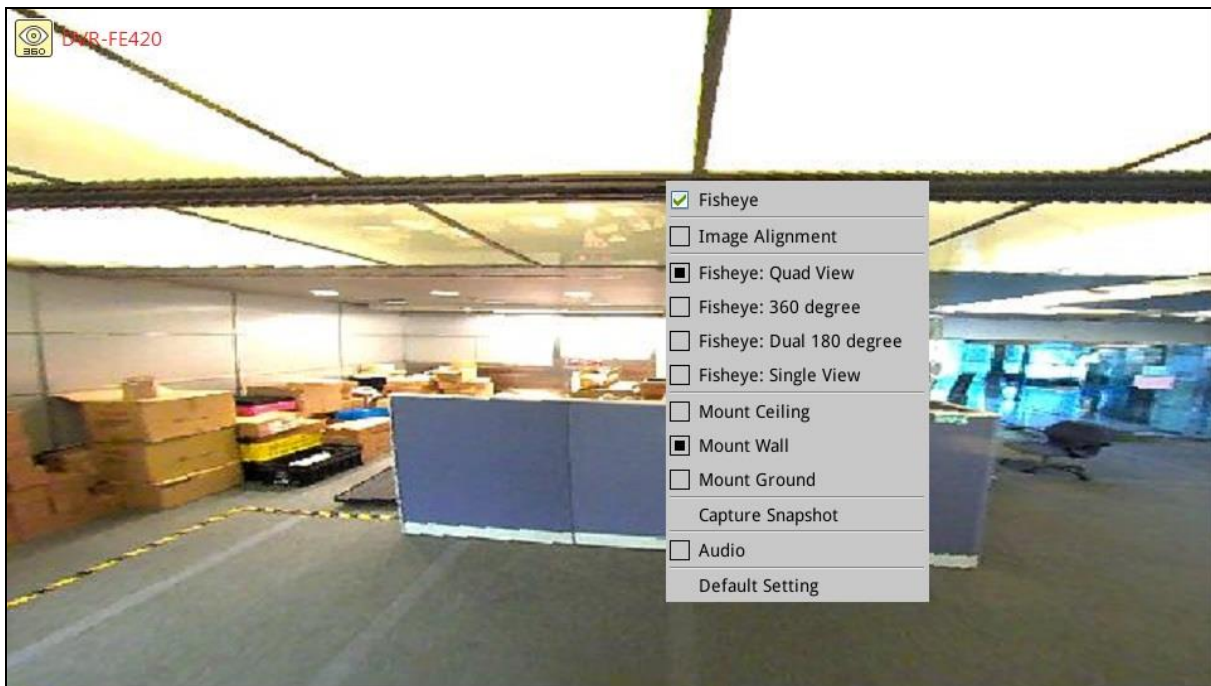**Note:** Fisheye dewarping is only supported by GV-IP Decoder Box Plus.

Figure 3-4

The following fisheye settings are available:

- **Image Alignment:** Align the red circle with the inner edge of the camera image if needed. You can adjust the red circle by dragging and by scrolling the mouse.

- **Camera Modes:**

    - **Fisheye: Quad view:** Composed of 3 PTZ views and a circular source image.

    - **Fisheye: 360 degree:** Composed of two PTZ views and one 360⁰ panoramic view.

    - **Fisheye: Dual 180 degree:** Composed of two 180⁰ views.

    - **Fisheye: Single view:** Composed of one PTZ view.

- **Mount Ceiling** / **Mount Wall** / **Mount Ground:** Select according to where the camera is mounted.

3.4   Controlling PTZ and Speed Dome Cameras with

GV-Joystick V2

GV-Joystick V2 can be connected to GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 to control GeoVision PT, PTZ, and Speed Dome cameras, and also third-party PTZ and Speed Dome cameras. The supported functions include zoom in, zoom out, tilt (vertical movement), pan (horizontal movement), focus in, focus out, and automatic focus. The functions corresponded to each button on GV-Joystick V2 are listed below:

Button	Function
F1	Focus In
F2	Focus Out
F3	Auto Focus
F4	Home
F5 / F6	No functions

Note: For PTZ control, GV-SD200 and third-party cameras must be connected through ONVIF. GV-Joystick V2 cannot control channels connected through GV-Mobile Server or RTSP.

1. Connect a GV-Joystick V2 to the USB port.
2. Right-click the live view of the PTZ device and select **PTZ**.
3. You can start to control the camera using GV-Joystick V2.

Note: For **GV-IP Decoder Box Optimal / Ultra**, you can also use GV-IR Remote Control to control PTZ movements. See *1.11.3 GV-IR Remote Control.*

Chapter 4　System Settings

On the main screen, click the **System Settings** icon ![icon] or ![icon] to access the following setting pages: System, Network, Date & Time, Account, Display, and Camera.

Note: The user interfaces are different by models. Find the relevant settings corresponding to your device. Here we use **GV-IP Decoder Box Ultra / GV-IP Display 101** as an example.

Figure 4-1

4.1 System

On the System page, you can change the device name, interface language, resolution, or the designated storage device for storing snapshots.

Note: Capturing snapshots is not supported by GV-IP Decoder Box Lite.
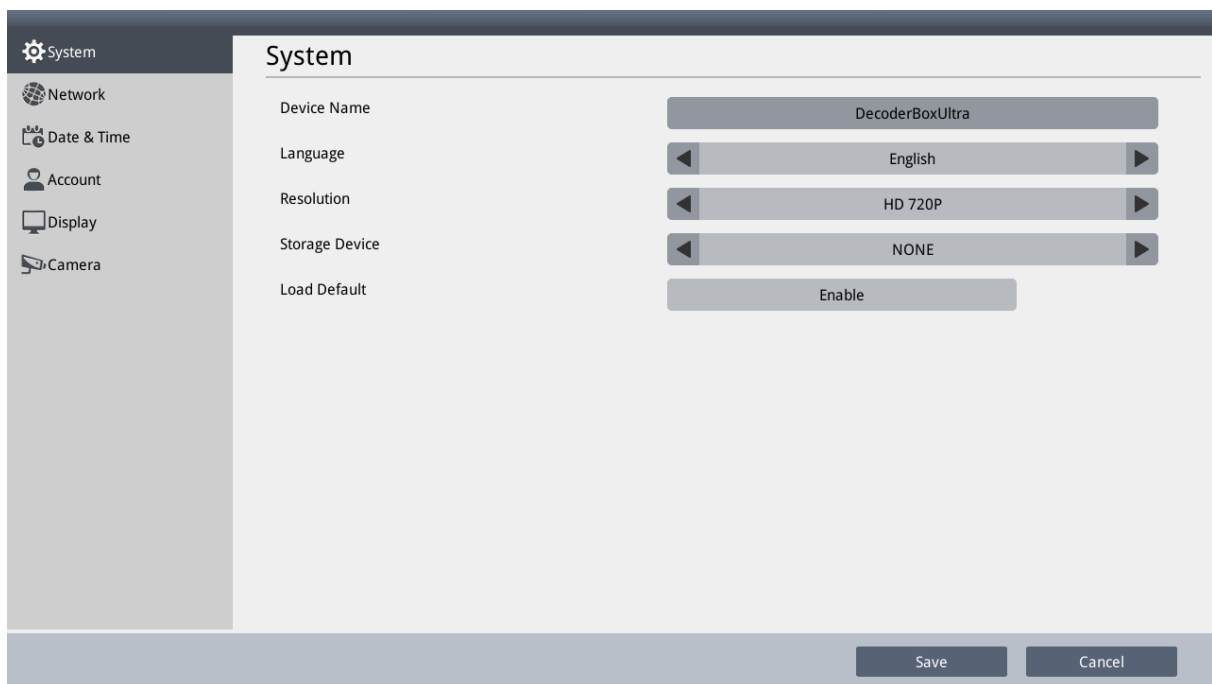

Figure 4-2

- **Device Name:** Click to change the device name.

- **Language:** Select a language for the user interface.

- **Resolution:** Only for GV-IP Decoder Box Series, select a resolution for your monitor. The default is HD 720P. If you are using a VGA monitor, select **VGA 1024 x 768 / HD 1080P**.

- **Storage Device:** Select the storage device you want to use for storing captured snapshots.

- **Load Default:** Only for GV-IP Decoder Box Optimal / Ultra and GV-IP Display 101 / 116, click **Enable** to restore the device to default settings. For details, see *5.2 Restoring Default Settings.*
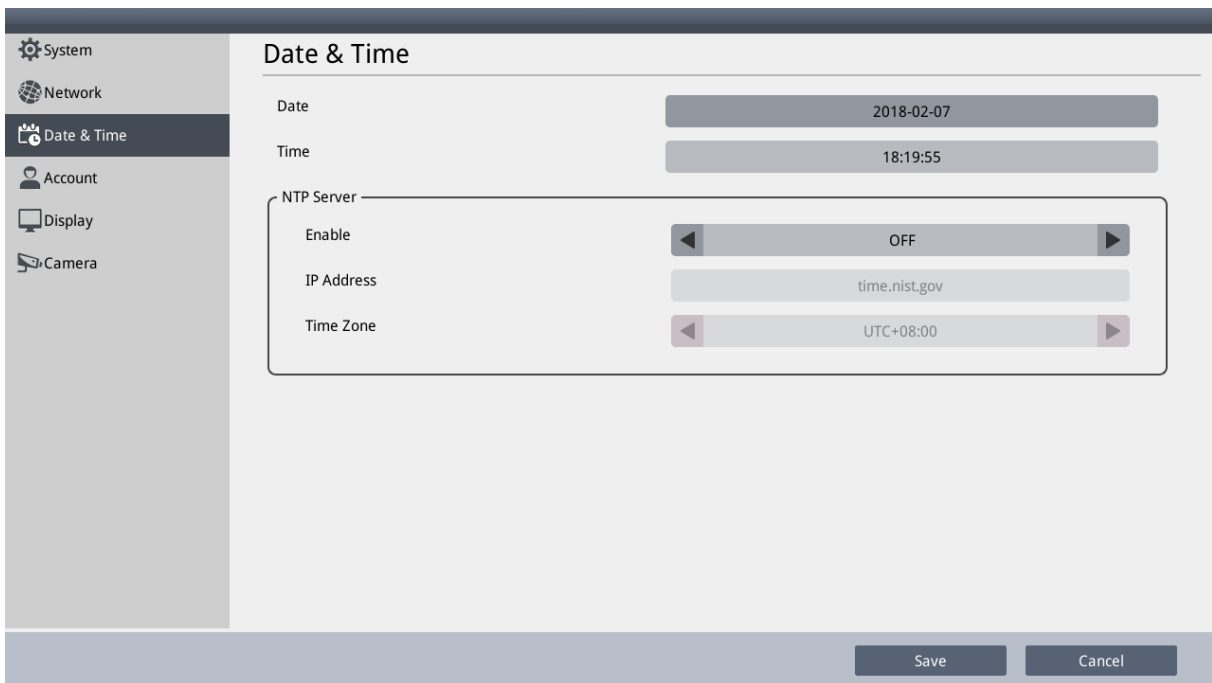
Click **Save** to apply the settings.

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4.2 Network

To configure the network settings for GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116, see *2.5 Setting Up the Network*.

4.3 Date & Time

On the Date & Time page, you can configure the date and time of GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116.

System	**Date & Time**
Network	
Date & Time	Date 2018-02-07
Account	Time 18:19:55
Display	NTP Server
Camera	Enable ◄ OFF ►
	IP Address time.nist.gov
	Time Zone ◄ UTC+08:00 ►
	Save Cancel

Figure 4-3

■ **Date & Time:** Click to adjust the date and time.

■ **NTP Server:** Switch the Enable option to **ON** or Select **Enable NTP** and type the URL of a network time server to synchronize the clock with the network time server.

■ **Time Zone:** Select a time zone for your location.

Click **Save** to apply the settings.

4.4 Account

On the Account page, you can configure the login account of GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116. The default user name and password are both **admin**. You will need the login information if you want to access GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 through GV-IP Device Utility.
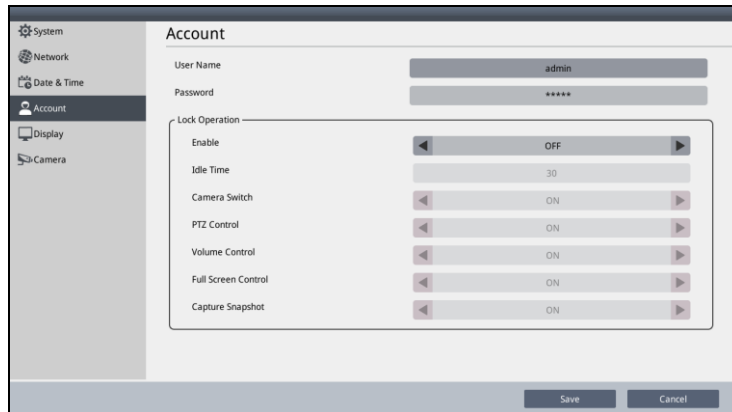

Figure 4-4

Configure the lock function by enabling **Lock Operation** (for GV-IP Decoder Box Optimal / Ultra / GV-IP Display 101 / 116) / **Login window** (for GV-IP Decoder Box Plus / Lite / GV-Pad Mini) to manage users' accessibility. Once you enable the function, you must enter the User Name and Password if the device has been idle for a specified time period.

■ **Idle** / **Wait Time**: Specify an idle time from 30 to 300 seconds.

Only for GV-IP Decoder Box Optimal / Ultra / Plus / GV-Pad Mini / GV-IP Display 101 / 116, you can specify the following functions to be locked or unlocked after the specified time period. Enter the User Name and Password again to unlock the functions.

■ **Camera Switch** / **Lock Play Control**

■ **PTZ Control** / **Lock PTZ Control**

■ **Volume Control** / **Lock Audio Control**

■ **Full Screen Control** / **Lock Full screen**

■ **Capture Snapshot** / **Lock Capture Snapshot**

■ **Lock Dewarp Control**

■ **Video Rotate** (only available for GV-IP Decoder Box Optimal / GV-IP Display 116)

■ **Video Flip** (only available for GV-IP Decoder Box Optimal)

Note: The Lock Dewarp Control function is only available for GV-IP Decoder Box Plus.

![GeoVision logo]

Click **Save** to apply the settings.

4.5 Display

On the Display page, you can adjust the orientation of the live view and specify what information to overlay on the live view.
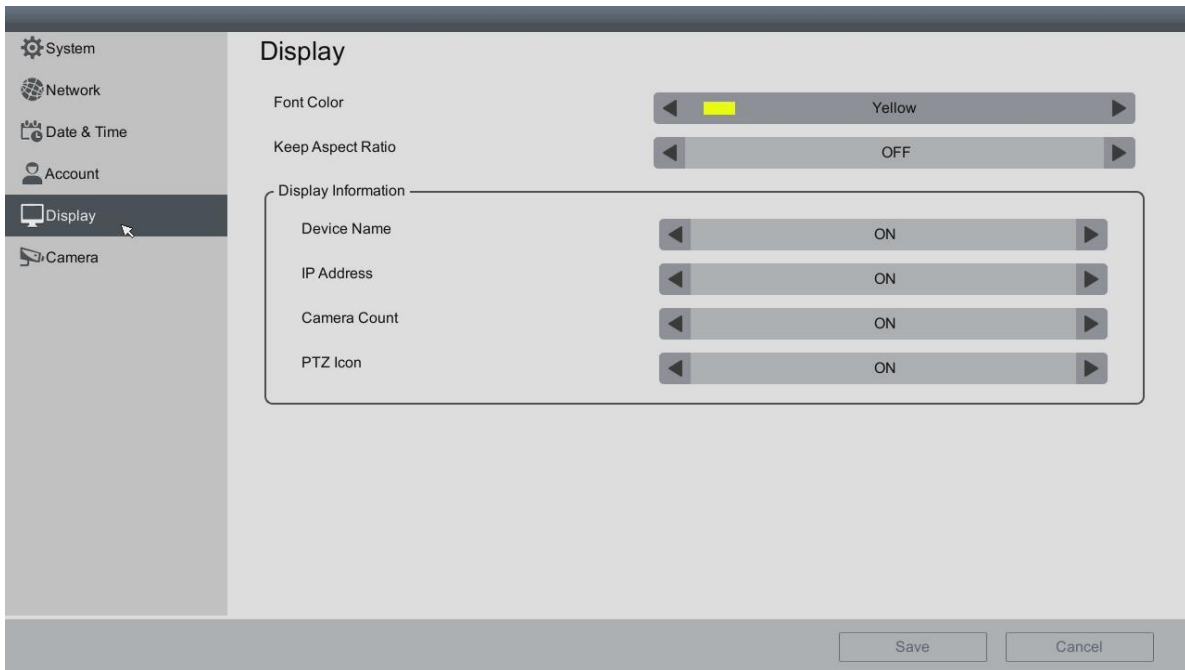

Figure 4-5

- **Font Color:** Change the font color of the text overlay.
- **Keep Aspect Ratio:** For GV-IP Decoder Box Ultra V1.05 or later, GV-IP Decoder Box Optimal, GV-IP Display 101 V1.01 or later, GV-IP Display 116 only, select **ON** to avoid enlarging the live view image to fit your screen size. This applies to all cameras connected.
- **Device Name** / **Display Name:** Select to display the device name of the camera.
  - ⊙ **Camera Name**: Select to display the camera name.
  - ⊙ **Custom Name:** Select to display the personalized camera name.
- **IP Address** / **Display IP Address:** Select to display the IP address of the camera on the live view.
- **Camera Count** / **Display Camera Count:** Select to display the camera count of the live view grid. For example, 7/8 indicates that there are 8 cameras assigned to the live view grid, and live view of the 7th camera is currently being displayed.
- **PTZ Icon** / **Display PTZ Icon:** Select to display a PTZ icon when the camera supports PTZ functions.

- ■ **Extend Screen:** Select **Enable** to rotate the cameras' live view in single division on the monitor connected via VGA port. When disabled, the cameras' live view on the monitor connected via the HDMI port will be cast to the other monitor simultaneously. (Only applicable to GV-IP Decoder Box Optimal).

- ■ **Loop Time Interval:** Specify a time interval, ranging from 10 ~ 600 seconds, for the device to display before switching to the next one. The default value is 10 seconds.

Click **Save** to apply the settings.

Note: After enabling / disabling the Extend Screen function, the device will reboot.

4.6   Camera

On the Camera page, you can specify an ID, password, stream mode and loop time interval to all newly-added IP devices. By default, user name and password both are **admin** and stream mode is **Dual Stream**.

Figure 4-6

Click **Save** to apply the settings.

Note: The stream mode and loop time interval functions are only available on GV-IP Decoder Box Optimal / Ultra and GV-IP Display 101 / 116.

Chapter 5   Advanced Applications

5.1   Upgrading the Firmware

GeoVision will periodically release firmware updates on the website. You can upgrade firmware locally using a USB drive or SD card or remotely through GV-IP Device Utility.

Note: SD card is not supported by GV-IP Decoder Box Lite.

5.1.1   Upgrading Firmware through a Storage Device

1. Copy the firmware file to the root folder of a USB drive or an SD card.

2. Insert the storage device to GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116.

3. On the main screen, click the **Firmware Update** 🔄 / 🔄 icon.

4. Select the storage device and select the firmware file.

Version	V1.00 2018-01-18
Storage Device	◀ USB3 ▶
Firmware	◀ UpdateFile-GV-DBULTRA-V100_180118 ▶
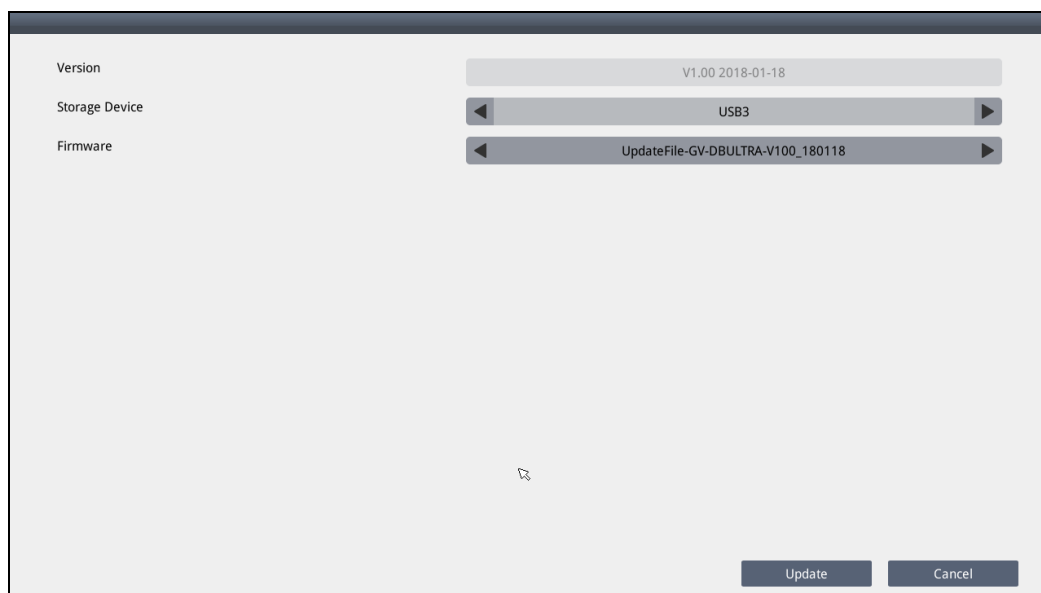
Figure 5-1

5. Click **Update** to begin upgrading the firmware. GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 will restart after the firmware upgrade is completed.

5.1.2 Upgrading Firmware through GV-IP Device Utility

1. Run GV-IP Device Utility. Once started, the utility will automatically search for GV devices connected in the same LAN.

2. Double-click the desired device in the list and select the **Firmware Upgrade** tab.

3. Click **Browse** to locate the firmware file downloaded saved on your local PC.

4. Type the username and password of the device under **User Login**.

5. Optionally, select **Upgrade all devices** to update the firmware of the devices, with the same username, password and model, in the list.

6. Click **Upgrade**. The system will restart itself when the upgrade is completed.

Mac Address	0013E211FE8B	IP Address 192.168.100.15

User Login

User Name	admin	VSS Port 10000
Password		

Set IP Address | **Firmware Upgrade** | Device Name | Export settings | Import settings | Camera a ◄ ►

Version   - - - -   Browse...

☐ Upgrade all devices
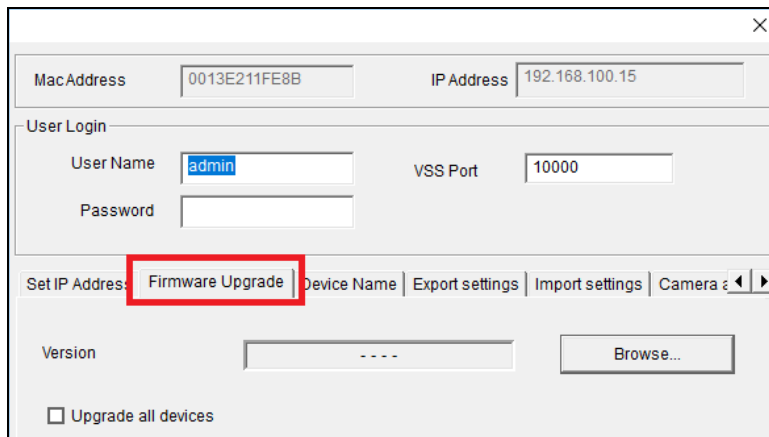
Figure 5-2

Note: The default username and password are both **admin**. To see how to change the login information of GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116, refer to *4.4 Account.*

![GeoVision Inc logo]

5.2 Restoring Default Settings

If for any reason GV-IP Decoder Box Series / GV-Pad Mini / GV-IP Display 101 / 116 is not responding correctly, there are two ways to restore the device to default settings.

1. Use the pin to press the load default button on the front / side panel for about 10 seconds.
2. Use the local interface to configure the setting.
   - For GV-IP Decoder Box Optimal / Ultra / GV-IP Display 101 / 116, click the **System Settings** icon 🛠 on the main page, click **System**, and enable **Load Default**.
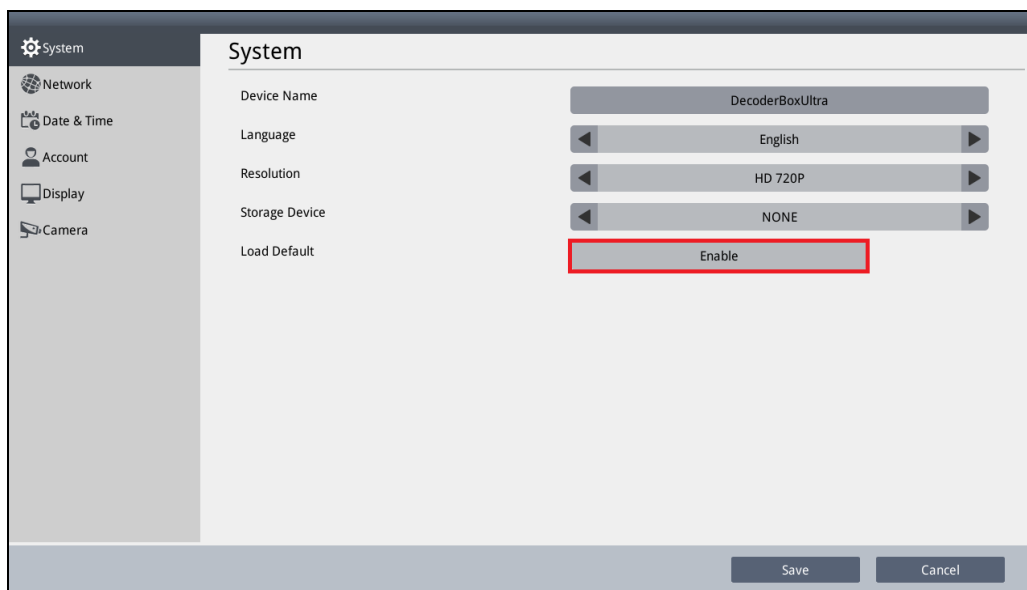
Figure 5-3

- For GV-IP Decoder Box Plus / Lite / GV-Pad Mini, click the **System Settings** icon ⚙ on the main screen and click the **Load Default** button on the bottom of any of the setting pages.
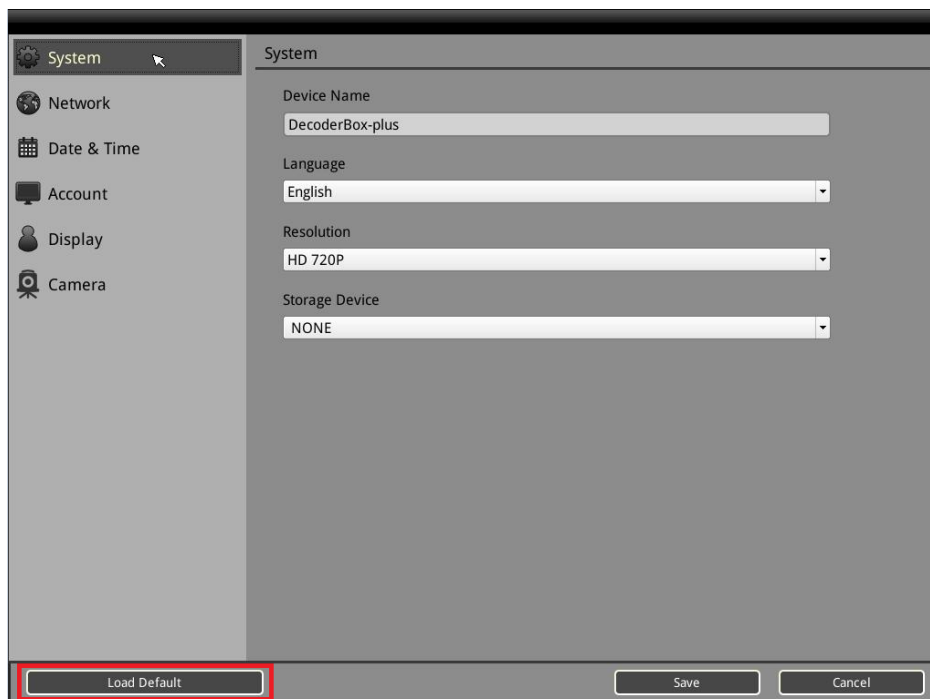
Figure 5-4

The system will restore default settings and reboot itself.

Chapter 6　Integration to GV-Software

GV-IP Decoder Box can be added to GV-VMS and GV-Control Center to be assigned with the desired camera channels and layouts for remote display.

Note:

1. This function is only supported by GV-IP Decoder Box Plus / Ultra V1.02 or later and only compatible with GV-VMS V17.4.0 / V18.1.0 or later and GV-Control Center V3.8.0 / V4.1.0 or later.

2. GV-IP Decoder Box Optimal only supports the integration with GV-VMS V17.4.5B / V18.3.1 or later and GV-Control Center V4.1.1.

3. Make sure GV-IP Decoder Box is within the same LAN as GV-VMS or GV-Control Center.

6.1　Connecting to GV-VMS

1. In the Content List of GV-VMS, (**Home** 👁 > **Toolbar** 🛠 > **Content List**), right-click **Decoder Box** and select **Add Decoder Box**.
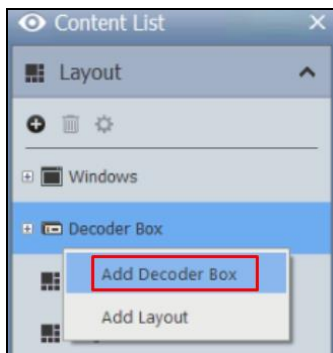
Figure 6-1

2. Type a desired **Name** for GV-IP Decoder Box you're connecting to, its **IP Address**, **Port**, **ID** and **Password**, and click **OK** to add it to GV-VMS.
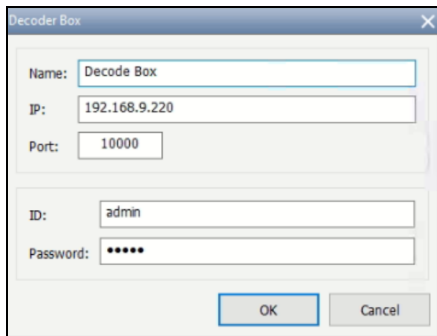

Figure 6-2

3. Once added, you're prompted to set the layout of GV-IP Decoder Box. Click **OK**. The **Layout Setup** dialog box appears.

4. Select a desired layout at the top, and drag the desired camera channels of GV-VMS to each of the layout divisions. When two or more camera channels are assigned to the same division, their live views will be displayed within the division in sequential order.
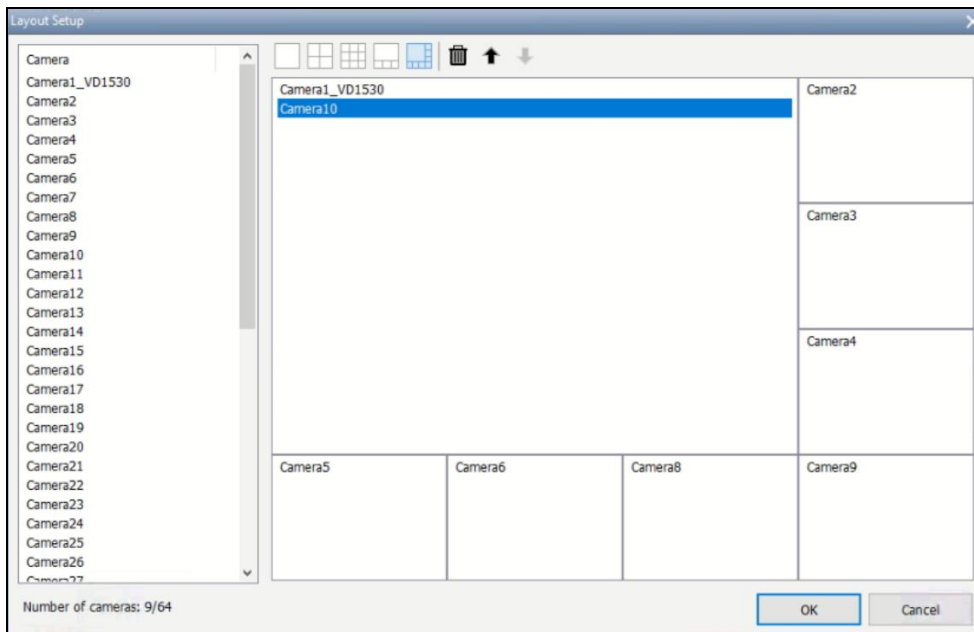
Figure 6-3

5. Optionally select a camera channel within a division to adjust its display order or remove it by using the **Up** ↑, **Down** ↓ or **Delete** 🗑 buttons.

6. Click **OK**. GV-IP Decoder Box added will display the camera channels assigned as configured.

7. You can add more layouts for GV-IP Decoder Box and alternate between them by right-clicking **Decoder Box** and clicking **Add Layout**. To apply a layout, right-click a layout, click **Apply to…** and select the decoder box.
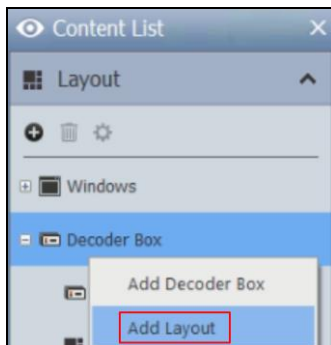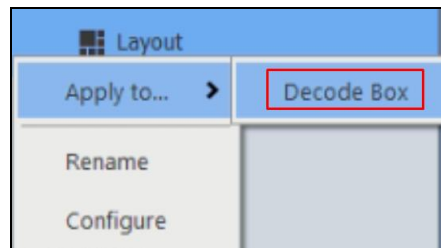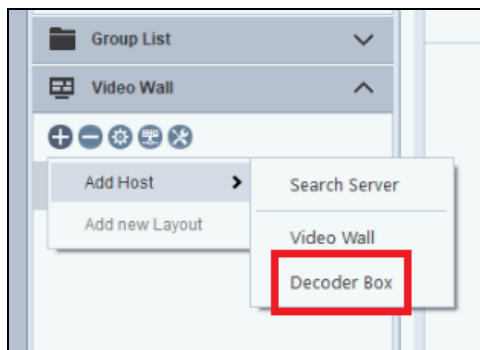

Figure 6-4

Figure 6-5

6.2   Connecting to GV-Control Center

Note: The following instructions are exemplified from GV-Control Center V4.1.0.

1.   Click the **Video Wall** tab and click the ⊕ button.

2.   Click the **Add Host** > **Decoder Box**.

Figure 6-6

3. Type a desired **Host Name** for the GV-IP Decoder Box you're connecting to, its **IP Address**, **Connect Port**, **Account** and **Password**, and click **OK**.
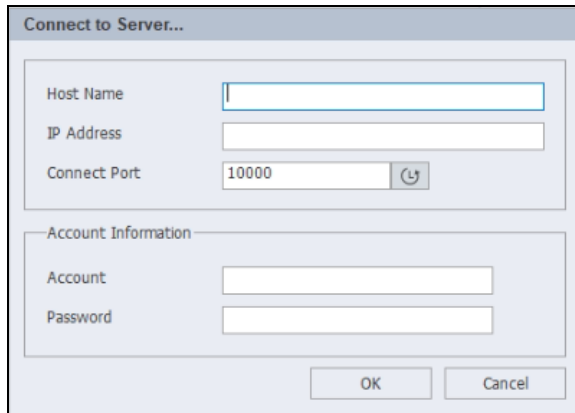

Figure 6-7

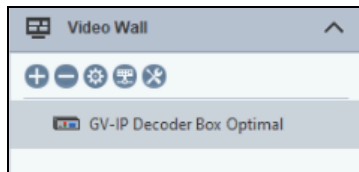4. Once connected, GV-IP Decoder Box will appear in the Video Wall list.

Figure 6-8

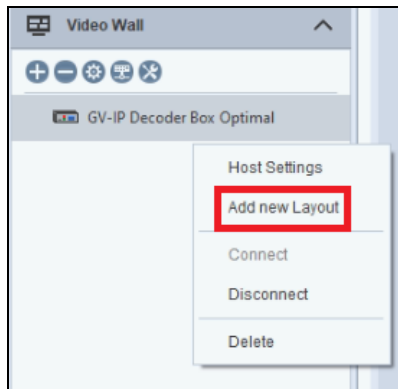5. Right-click on the connected IP Decoder Box and select **Add new Layout**.

Figure 6-9

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6. Select a desired layout at the top, and drag the desired camera channels to each of the layout divisions.
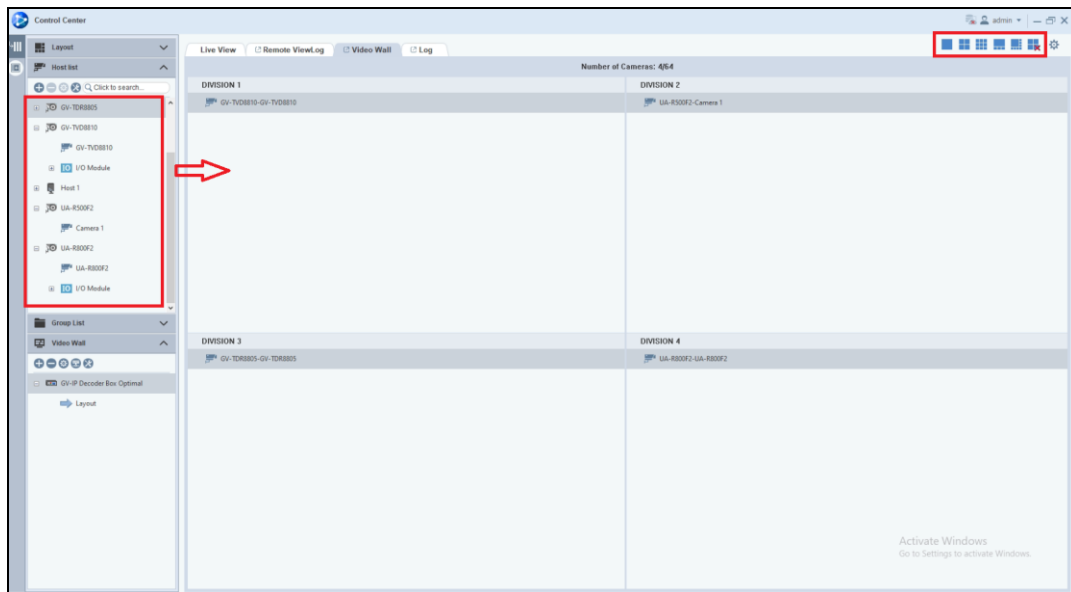

Figure 6-10

7. Click **OK**. The GV-IP Decoder Box added will display the camera channels as configured.