GeoVision inc
The Vision of Security

Quick Start Guide

The Vision of Security

GV-Hot Swap Surveillance System V5 (Rev. B)

Listed Product including appearances and images are samples and for reference only.
Features and specifications are subject to change without notice.

2015/02
English
DVRHV5B-QG-S

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Notice

1. The **back panel** of GV-Hot Swap Surveillance System V5 is subject to change without prior notice.
2. You can access the **digital copies of User's Manuals and Quick Start Guides** from the system.
   - For GV-Hot Swap DVR/NVR System V5, go to GV-Desktop, click the Program button and select User Manual.
   - For GV-Hot Swap VMS System V5, go to GV-Desktop, click the Program button and select User Manual.
   - For GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5, the documentation is saved at C:\User Manual.

1. Basic Installation

1.1 Packing List

GV-Hot Swap DVR/NVR System V5

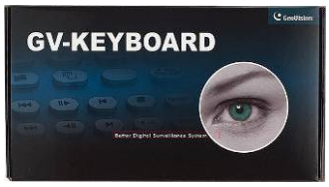
1. GV-Hot Swap DVR/NVR System V5 x 1
2. Video and Audio Cable

GV-5016H V5 (32-Ch)	GV-5016H V5 (16-Ch)
• LFH Video and Audio Cable x 2	• LFH Video and Audio Cable x 1
GV-3008H V5 (16-Ch)	**GV-3008H V5 (8-Ch)**
• D-Type Video and Audio Cable x 4	• D-Type Video and Audio Cable x 2
GV-1480H / 1240H / 1120H V5 (32-Ch)	**GV-1480H / 1240H / 1120H V5 (16-Ch)**
• DVI Video Cable x 2 • DVI Audio Cable x 2	• DVI Video Cable x 1 • DVI Audio Cable x 1

GV-900H V5 (32-Ch)	GV-900H V5 (16-Ch)
• DVI Video and Audio Cable x 4	• DVI Video and Audio Cable x 2
GV-800H V5 (32-Ch)	**GV-800H V5 (16-Ch)**
• DVI Video and Audio Cable x 2	• DVI Video and Audio Cable x 1

3. AC Power Cord x 1

4. GV-Keyboard Package x1



5. GV-IR Remote Control x 1

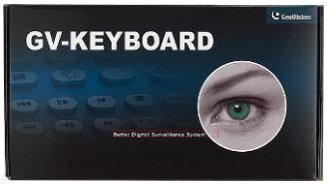
6. Self-Stick Rubber Pad x 4
7. Quick Start Guide x 1

Note: Keyboard package is not included for 3U (16 / 8-bay) of GV-3008H V5 models, but it could be purchased as an optional accessory.

GV-Hot Swap VMS System V5

1. GV-Hot Swap VMS System V5 x 1
2. AC Power Cord x 1

3. GV-Keyboard Package x 1



4. GV-IR Remote Control x 1

5. Self-Stick Rubber Pad x 4
6. Quick Start Guide x 1

GV-Hot Swap Recording Server System V5 / Backup Center System V5

1. GV-Hot Swap Recording Server System V5 / Backup Center System V5 x 1
2. AC Power Cord x 1
3. Self-Stick Rubber Pad x 4
4. Quick Start Guide x 1

1.2 Software License

The following Maximum License is available as a paid service. The license is based on your requirements for the number of connection channels. The USB dongle for software license will be inserted to the system before shipment.

GV-Hot Swap DVR/NVR System V5

Free License	32 channels from GV-IP Devices
Maximum License	32 channels from third-party IP devices
Increment for Each License	1 to 32 third-party IP cameras at an increment of 2
Optional Combinations	N/A
Dongle Type	Internal

GV-Hot Swap VMS System V5

Free License	32 channels from GV-IP Devices	
Maximum License	64 channels from third-party IP devices	
Increment for Each License	**GV IP Devices Only**	GV-VMS Pro license required, 32 ch per license.
	GV + 3rd-Party IP Devices	2 licenses required for up to 64 channels: • **GV-VMS Pro** license, 32 ch per license. • **3rd-Party** license, in increments of 1 ch.
Optional Combinations	N/A	
Dongle Type	Internal	

GV-Hot Swap Recording Server System V5

Free License	N/A
Maximum License	128 channels
Increment for Each License	1. **GV-IP video devices only**: 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128 IP channels. 2. **Third-party IP devices (Includes GV-IP video devices)**: 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128 IP channels.
Optional Combinations	N/A
Dongle Type	Internal

1.3 Recommended Hard Disks

For system efficiency, we recommend the following enterprise level hard disk drives. Avoid using desktop level or green HDD which may affect system efficiency.

- WD RE series
- Seagate Constellation ES.3 series
- HGST Ultrastar series

1.4 Options

Optional devices can expand your GV-Hot Swap Surveillance System V5 's capabilities and versatility. For details on combining options for your system, see *Appendix C. Combining Optional Accessories* in the *GV-Hot Swap* Surveillance *System V5 (Rev. B) User's Manual*.

GV-Video Loop Through Card	This card can take the video signal from the GV-Hot Swap Surveillance System V5 and then split it into 16 signals while maintaining video quality. It can meet the need for multiple spot monitors. ** This device is not available for GV-SDI-204H V5, GV-5016H V5, GV-900H V5, GV-800H V5 models and GV-Hot Swap VMS System V5.
GV-IO 12-In Card	With 12-point digital inputs, this card can expand the GV-Hot Swap Surveillance System V5 up to 16 sensor inputs.
GV-IO 12-Out Card	With 12-point relay outputs, this card can expand the GV-Hot Swap Surveillance System V5 up to 16 alarm outputs.
GV-Data Capture V3 Box	GV-Data Capture V3 Box can integrate the GV-Hot Swap Surveillance System V5 to an electronic POS system, while GV-Data Capture V3E Box can establish such integration through LAN or Internet. ** This device is not supported by GV-Hot Swap VMS System V5 / Recording Server System V5 / Backup Center System V5.
GV-Hub V2	An easy way for serial port extension. This hub can add 4 RS-232/RS-485 serial ports through the GV-Hot Swap Surveillance System V5's USB port.
GV-COM V2	This unit can add 1 RS-232/RS-485 serial port through the GV-Hot Swap Surveillance System V5's USB port.
GV-IO Box (4 Ports)	GV-IO Box 4 provides 4 inputs and 4 relay outputs, and supports both DC and AC output voltages. A USB port is also provided for PC connection.
GV-IO Box (8 Ports)	GV-IO Box 8 provides 8 inputs and 8 relay outputs, and supports both DC and AC output voltages. A USB port is also provided for PC connection.
GV-IO Box (16 Ports)	GV-IO Box 16 provides 16 inputs and 16 relay outputs, and supports both DC and AC output voltages. A USB port is also provided for PC connection.

GV-Joystick	GV-Joystick facilitates the PTZ camera control. It can be either plugged into the GV-Hot Swap Surveillance System V5 for independent use or connected to GV-Keyboard to empower the operation. However, this device can only work on GV-System version 8.2 or later.
GV-Keyboard V3	The GV-Keyboard V3 is designed to program and operate GV-System and GV-VMS, and it can also be connected with PTZ cameras directly for PTZ control. ** This device is a standard package item, except 3U (16 / 8-bay) models of GV-3008H V5.
Graphic Card	The Graphic Card comes with HDMI, DVI-D, and VGA ports to support additional displays. The number of monitors supported varies based on models and combination of optional cards. Up to 5-7 monitors can be supported. For details, see *3.13.5 Graphic Cards* in the *GV-Hot Swap* Surveillance *System V5 (Rev. B) User's Manual*. ** Currently, these models do not support optional Graphic Cards: • GV-3008H V5 • 4U (20-bay) and 3U (16-bay) models with 2 built-in GV-Capture Cards • 3U (8-bay) models with 2 built-in GV-1480 / 1240 / 1120 Cards or 3 built-in GV-SDI-204 Cards • GV-Hot Swap Recording Server / Backup Center 4U (20-bay) and 3U (16-bay) models
Gigabit Network Card	The Gigabit Network Card can support 2 gigabit ports. The number of gigabit ports supported varies based on models and combination of optional cards. Up to 5 gigabit ports can be supported. For details, see *3.13.6 Gigabit Network Cards* in the *GV-Hot Swap* Surveillance *System V5 (Rev. B) User's Manual*. ** Currently, these models do not support optional Gigabit Network Cards: • GV-3008H V5 • 4U (20-bay) and 3U (16-bay) models with 2 built-in GV-Capture Cards or 3 built-in GV-SDI-204 Cards
RAID Card	The RAID Card supports a maximum of 20 SATA hard drives and enhances data protection. The supported RAID types include RAID 0, RAID 1, RAID 5, RAID 6, RAID 00, RAID 10, RAID 50 and RAID 60. ** Currently, these models do not support optional RAID Card:

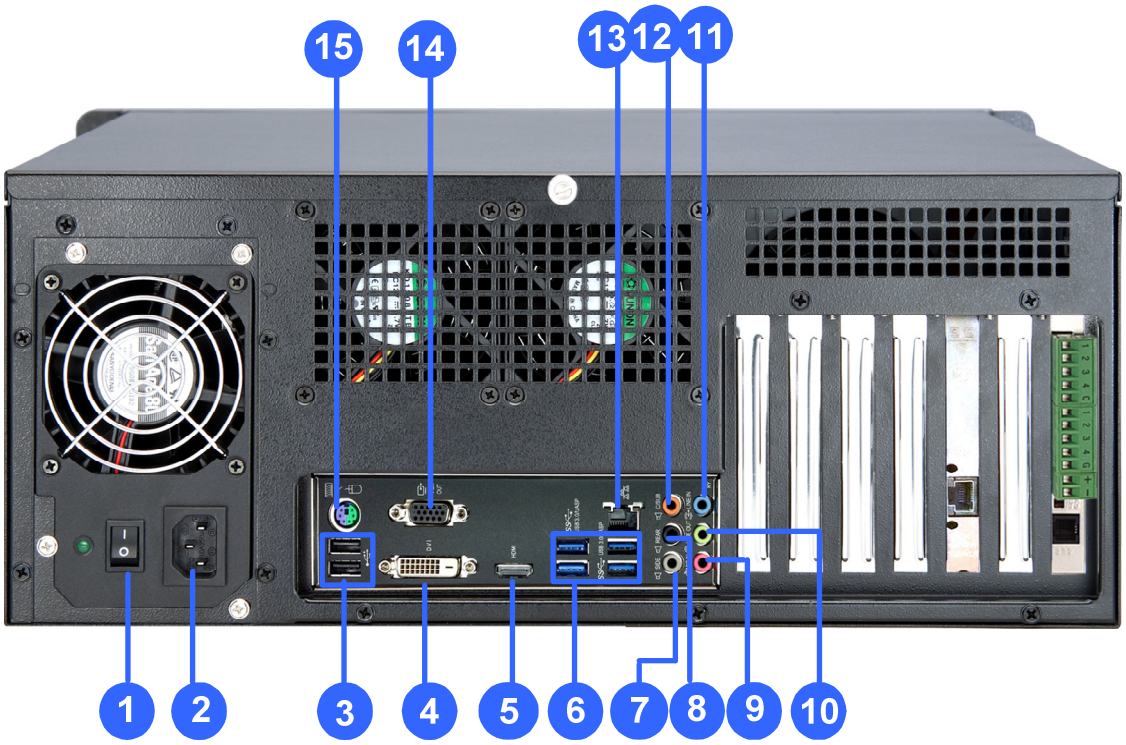
	• GV-3008H V5 • All models with 2 built-in GV-1480 / 1240 / 1120 Cards
Redundant Power Supply	The Redundant Power Supply comes with 2 hot-swap modules for 3U models and 3 hot-swap modules for 4U models. When 1 module is down, the remaining module(s) can still supply full power to the system. For details, see 3.13.7 Redundant Power Supply in the GV-Hot Swap Surveillance System V5 (Rev. B) User's Manual. - 3U models: 600 W 1+1 mode; 100 ~ 240 V, 47-63 Hz - 4U models: 1000 W N+1 mode; 100 ~ 240 V, 47-63 Hz

Note:

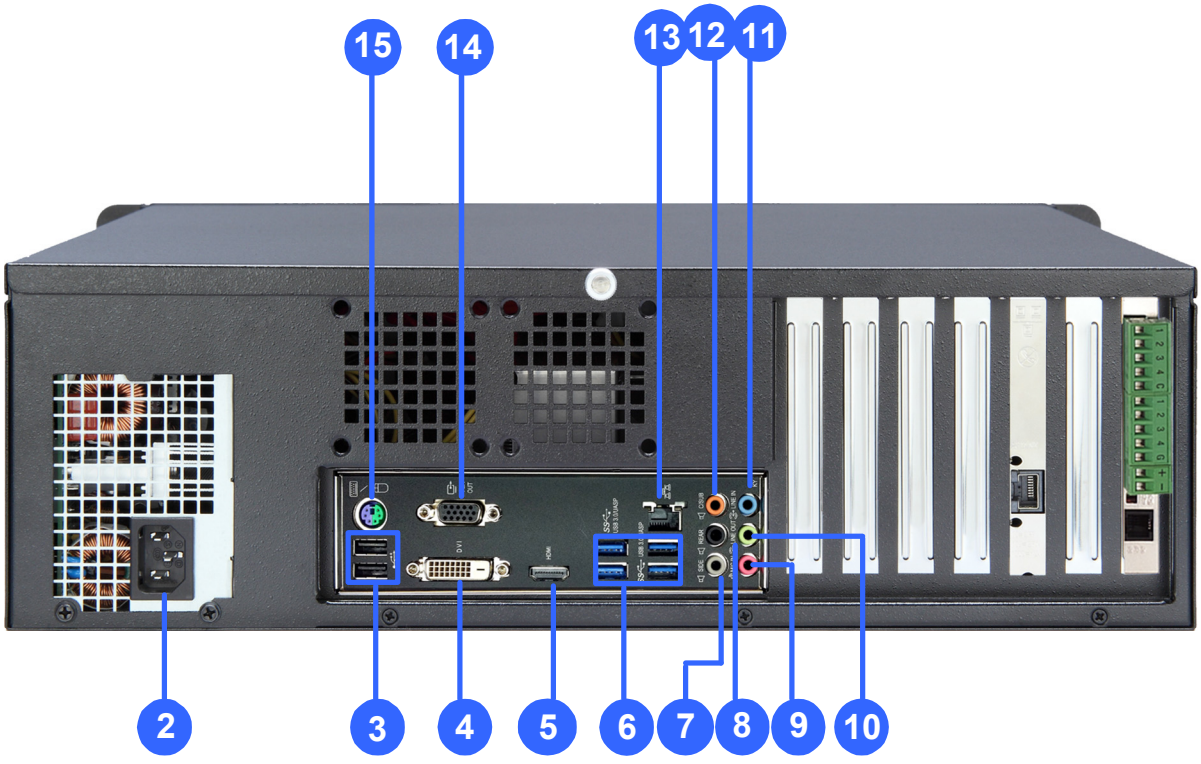
1. The GV-IO 12-In and GV-IO 12-Out Cards must work and be purchased together.
2. The optional accessories will be built in the GV-Hot Swap Surveillance System V5 (Rev. B) and tested before shipment. Opening the case and installing the accessories yourself will void the warranty.
3. The optional accessories are only supported in GV-Hot Swap Surveillance System V5 (Rev. B) or later.

1.5 Rear Panel

4U (20-Bay)



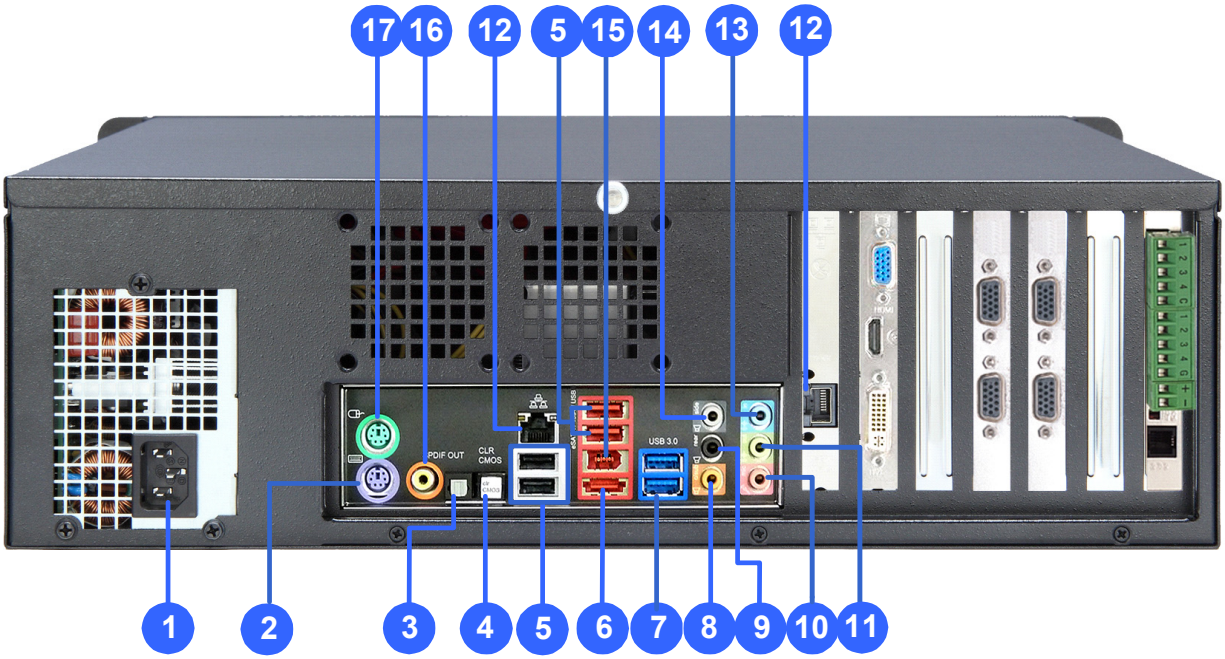
3U (16 / 8-Bay)



No.	Name	No.	Name
1	AC Power Switch	9	Audio Microphone In Port
2	AC Power Input (Full Range)	10	Audio Line Out Port
3	USB 2.0 Port x 2	11	Audio Line In Port
4	DVI-DL Output (DVI-D Signal Only)	12	Center / Subwoofer Port
5	HDMI Port	13	Gigabit Ethernet Port
6	USB 3.0 Port x 4	14	VGA Monitor Output
7	Side R/L Port	15	PS/2 Keyboard or Mouse
8	Rear R/L Port		

For details, see *Overview*, Chapter 2, *GV-Hot Swap* Surveillance *System V5 (Rev. B) User's Manual*.

3U (16 / 8-Bay) of GV-3008H V5 Model

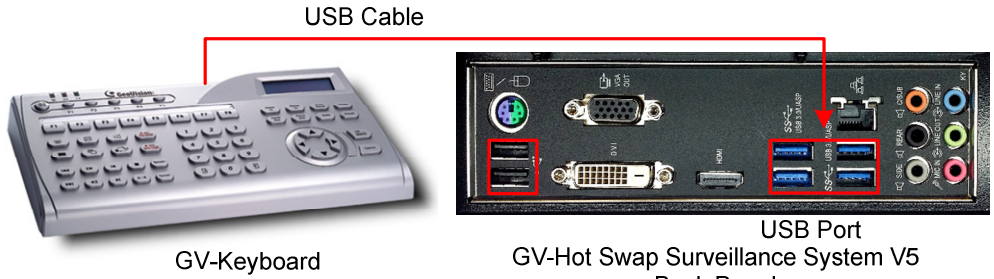


No.	Name	No.	Name
1	AC Power Input (Full Range)	10	Audio Microphone in Port
2	PS/2 Keyboard Port	11	Audio Line Out Port
3	S/PDIF Port	12	Gigabit Ethernet Port x 2
4	Clear CMOS Switch	13	Audio Line In Port
5	USB 2.0 Port x 4	14	Side R/L Port
6	eSATA	15	IEEE 1394 Port
7	USB 3.0 Port x 2	16	S/PDIF Port
8	Center / Subwoofer Port	17	PS/2 Mouse Port
9	Rear R/L Port		

For details, see *Overview*, Chapter 2, *GV-Hot Swap Surveillance System V5 (Rev. B) User's Manual*.

1.6 Connecting GV-Keyboard

Use the USB cable supplied with the GV-Keyboard, plug one end into the GV-Keyboard and the other end into any one of the USB ports on the back of the GV-Hot Swap DVR/NVR System V5 / GV-Hot Swap VMS System V5.



GV-Keyboard

USB Port
GV-Hot Swap Surveillance System V5
Back Panel

For details, see *GV-Keyboard*, Chapter 3, *GV-Hot Swap* Surveillance *System V5 (Rev. B) User's Manual*.

Note: The GV-Keyboard is not available for GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5.

1.7 Connecting GV-IR Remote Control

The GV-IR Remote Control provides easy control of the GV-Hot Swap DVR/NVR System V5 / GV-Hot Swap VMS System V5. Its receiver is built in all models.

GV-IR Remote Control

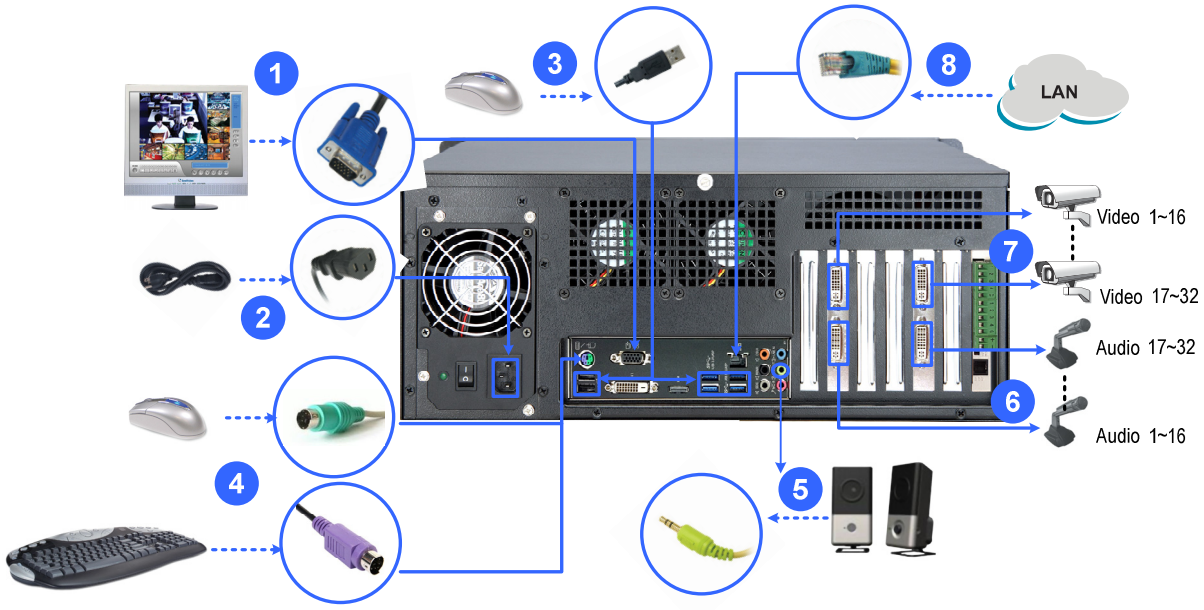
GV-Hot Swap DVR/NVR System V5

Note: The GV-IR Remote Control is not available for GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5.

1.8 Installation

All Models (excluding GV-3008H V5)

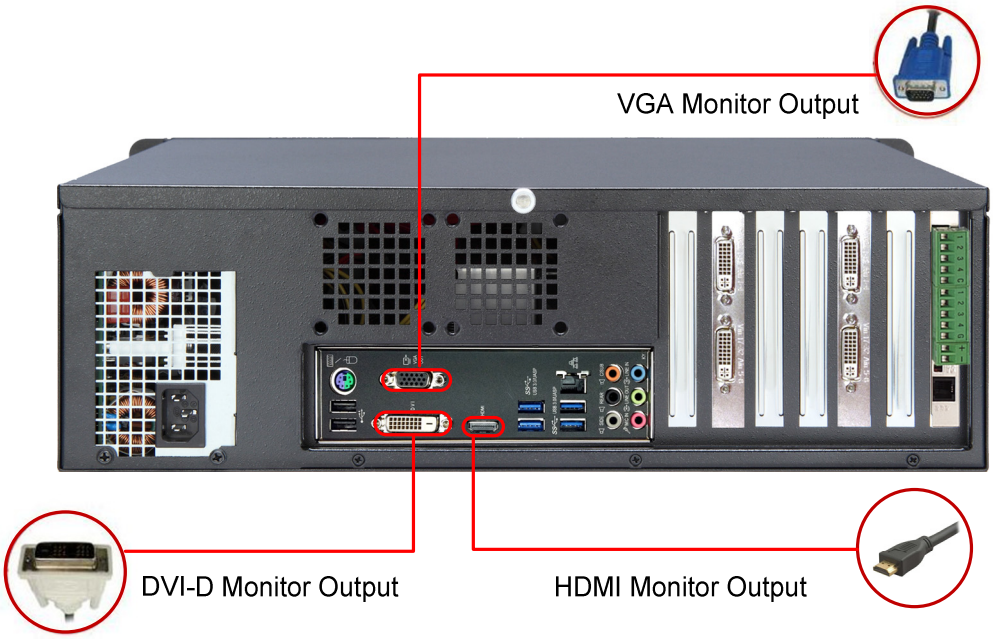
Here we use the 4U (20-bay) models of GV-1480H / GV-1240H / GV-1120H V5 (32-Ch) as the example.



1. Using the VGA cable supplied by the monitor manufacturer, connect the VGA monitor.
2. Using the supplied power cord, connect one end to the AC input and the other end to the power outlet.
3. Connect the mouse to the PS/2 mouse port or USB port.
4. Connect the keyboard to the PS/2 keyboard port.
5. Connect speakers to the Audio Line Out port.
6. Using the supplied DVI audio cables, connect one end to the DVI audio ports and the other end to the microphones.
7. Using the supplied DVI video cables, connect one end to the DVI video ports and the other end to the cameras.
8. Using the RJ-45 cable, connect one end to the Ethernet port and the other end to Network.

Connecting to 3 Monitors

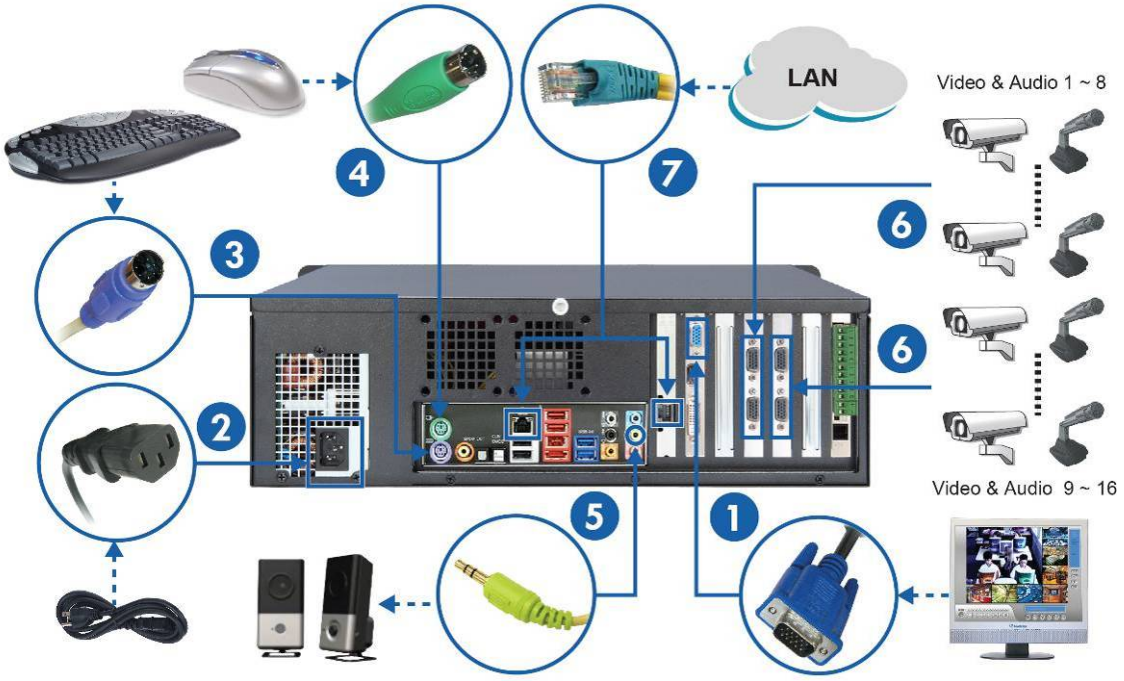
You can connect up to 3 monitors to the ports labeled below on the back panel of the GV-Hot Swap Surveillance System V5. Here we use the 3U (16 / 8-bay) model as the example.



Note: To connect more monitors, see *3.13.5 Graphic Cards* in the *GV-Hot Swap Surveillance System V5 (Rev. B) User's Manual*.

GV-3008H V5

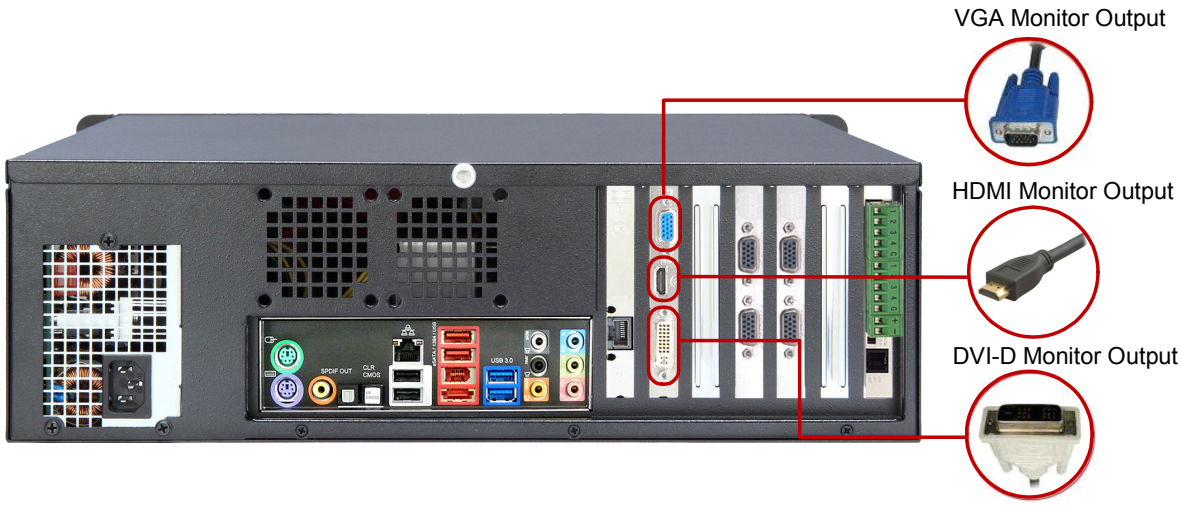
Here we use the 3U (16 / 8-bay) model as the example.



1. Using the VGA cable supplied by the monitor manufacturer, connect the VGA monitor.
2. Using the supplied power cord, connect one end to the AC input and the other end to the power outlet.
3. Connect the keyboard to the PS/2 keyboard port.
4. Connect the mouse to the PS/2 mouse port.
5. Connect speakers to the Audio Line Out port.
6. Using the supplied D-Type audio and video cables, connect the white ends to the microphones, and the black ends to the cameras.
7. Using the RJ-45 cable, connect one end to the Ethernet port and the other end to Network.

Connecting to 2 Monitors

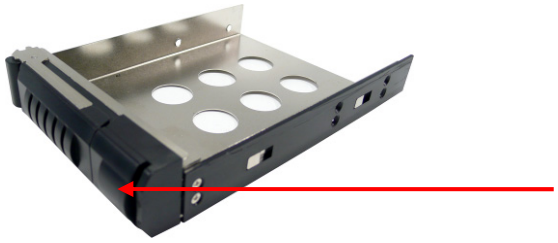
You can connect up to 2 monitors to 2 of the 3 ports labeled below on the back panel of the GV-Hot Swap Surveillance System V5.



2. Install the Hard Drive

The GV-Hot Swap Surveillance System V5 uses SATA hard drives for video and audio data storage.

1. Slide the release latch to the right. The drawer handle pops up.



2. Pull out the drive drawer.
3. Insert the hard drive in the drawer.

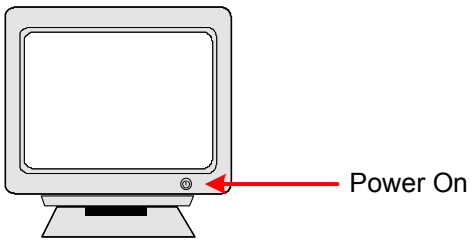
4. Secure the hard drive with the 4 screws (included in the drawer), and make sure all screw heads flush with the surface.

5. Put the drawer back in the drive bay of the system, and push the latch until it locks. The white LED on the drawer shines, and the hard drive is now ready to use.

3. Turn on the Power

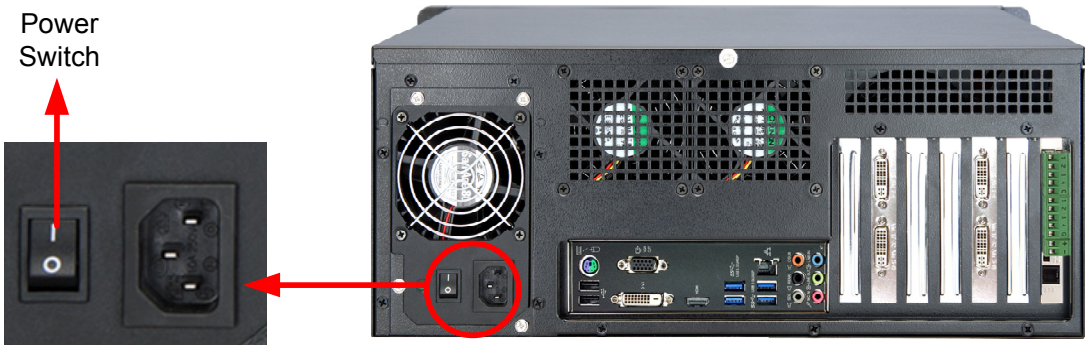
Once the above hardware is properly connected, follow the steps below to turn on the GV-Hot Swap Surveillance System V5.

1. Turn on the monitor.



2. For 4U (20-bay) models, turn on the AC power switch on the rear panel first.

4U (20-Bay) Models

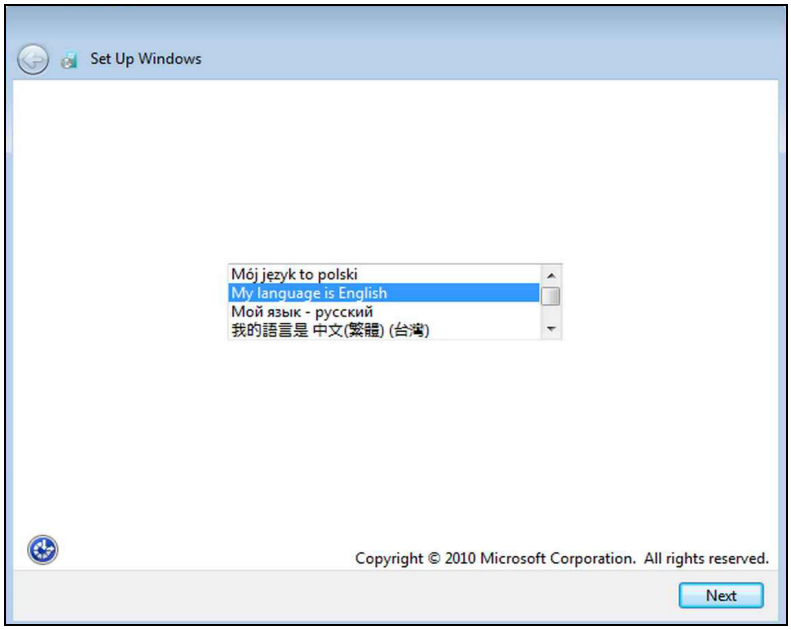


3. Turn on the main power switch on the front panel.

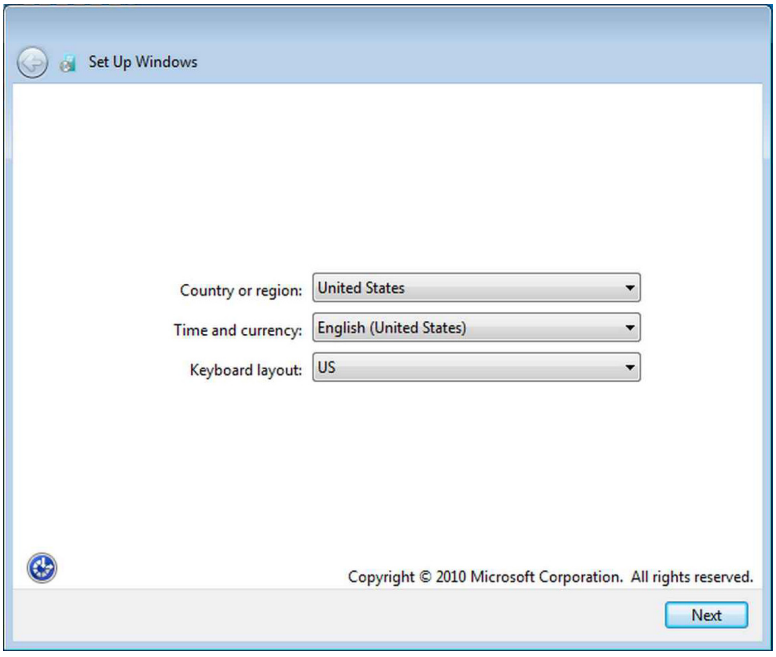
3,1 Starting up Windows

The Windows setup is preparing your computer for first use.

1. After the Windows starts, this setup screen appears. Select your language and click **Next** to continue.

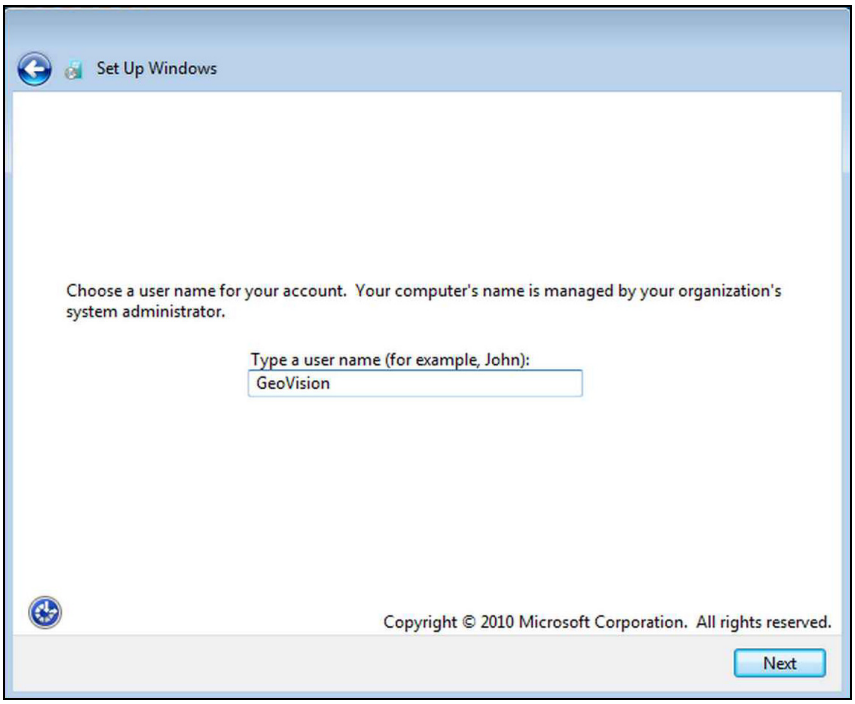


2. Select your Country or region, Time and currency, and Keyboard layout and click **Next** to continue.



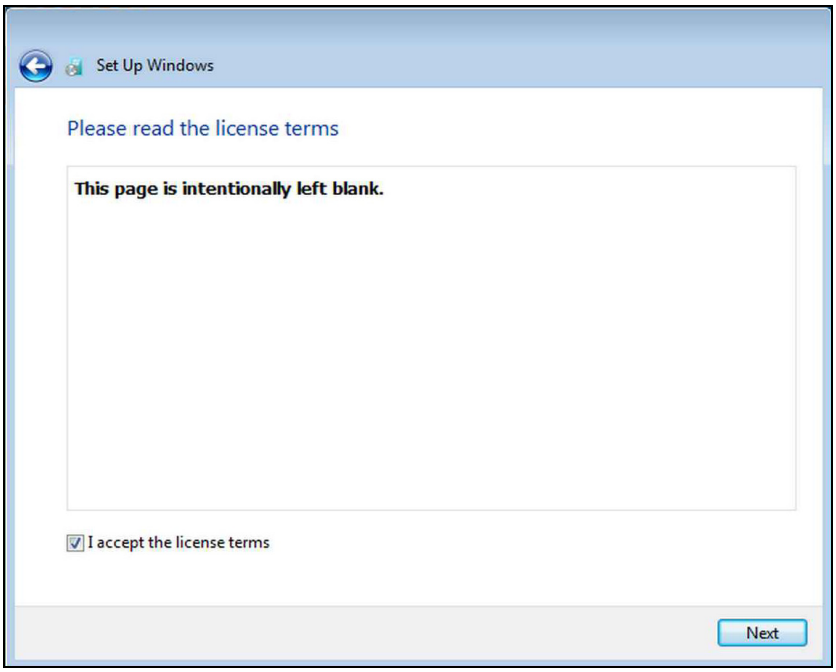
3 Turn on the Power

3. Type a user name for your account and then click **Next** to continue.

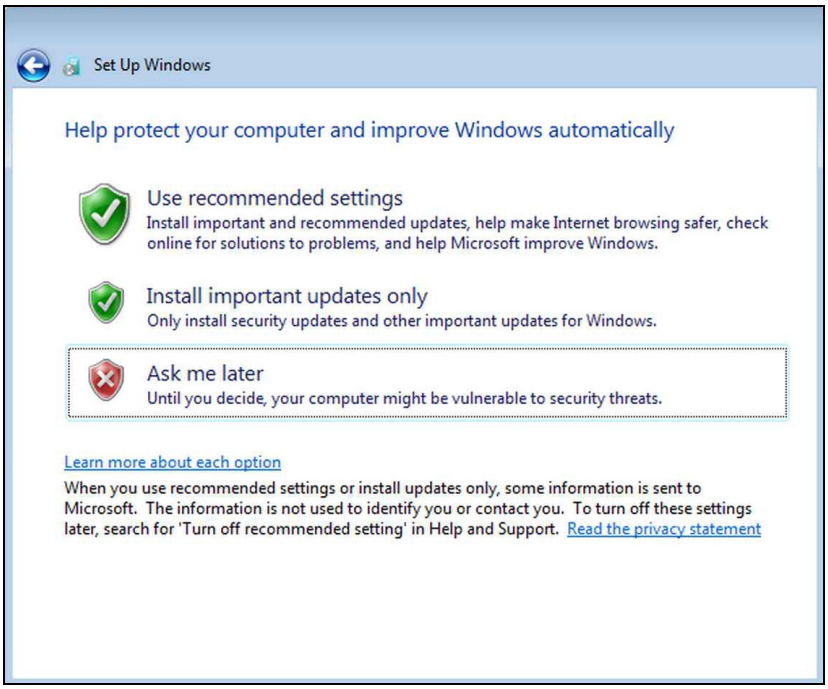


4. It is recommended that you create a password for your account and then click **Next** to continue.

5. Since no license terms are specified, the page is left blank intentionally. Select **I accept the license terms** and click **Next** to continue.

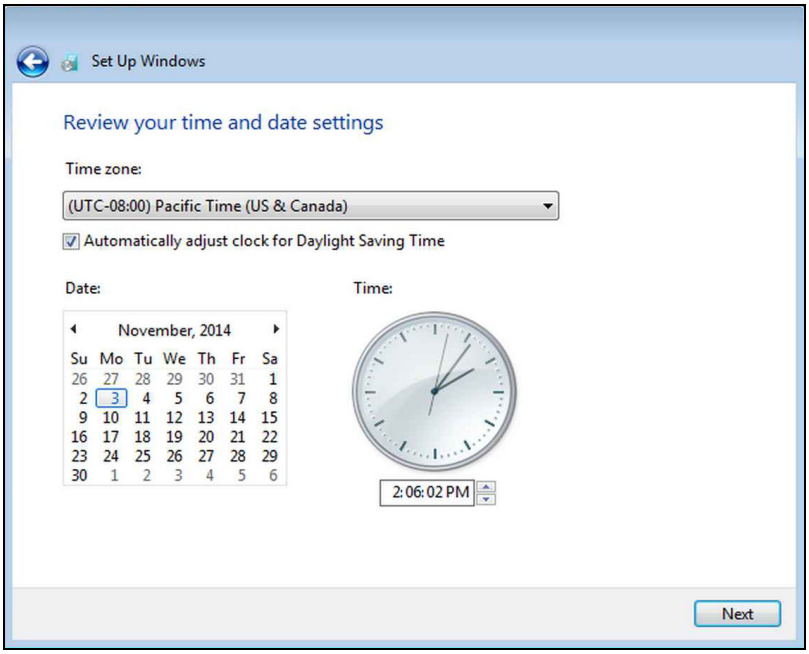


6. It is recommended that you choose **Ask me later** to disable Windows automatic updates.

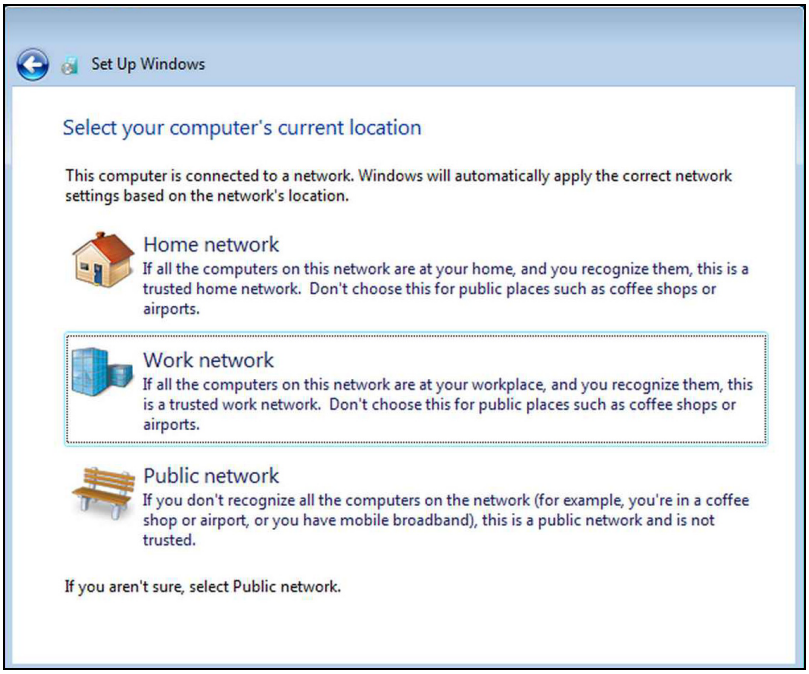


3 Turn on the Power

7. Choose the correct Time zone, Date, and Time and click **Next** to continue.



8. You may see the below screen if a network connection is detected by your computer. It is recommended that you select the **Work network** for security purposes and click **Next**.



When the above setup process is complete, Windows will finalize your settings automatically in the background and restart.

3.2 Configuring the IP Address

GV-Hot Swap Surveillance System V5 supports remote monitoring, control and configuration over a network connection. The following default IP addresses will automatically be assigned.

- **192.168.0.200**
- **192.168.0.201** (Only available for GV-3008H V5, GV-Hot Swap NVR System V5, GV-VMS System V5, GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5)
- **192.168.0.202** (Only available for GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5)
- **192.168.0.203** (Only available for GV-Hot Swap Backup Center System V5)

The system supports up to 4 Ethernet ports. The number of Local Area Connection is assigned from the left to the right. Here we use the 4U (20-bay) model of GV-Hot Swap Backup Center System V5 as illustration.

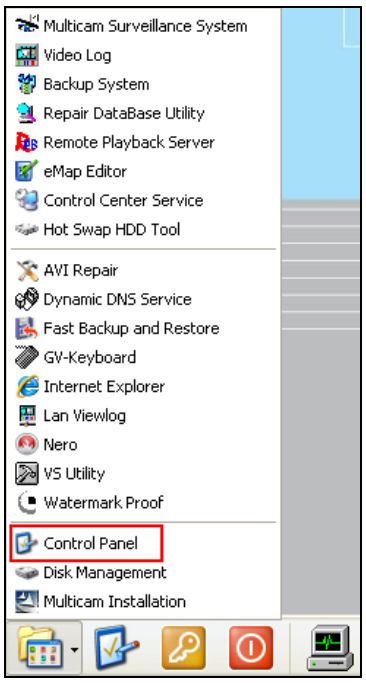
Default Subnet Mask: 255.255.252.0

To change the static IP addresses or to enable a dynamic IP address, follow the steps below.

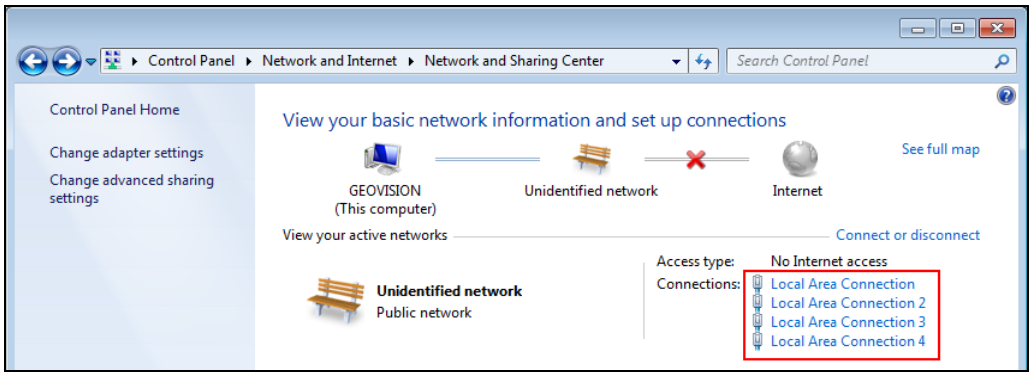
- For GV-Hot Swap DVR/NVR System V5 and GV-Hot Swap VMS System V5, start from step 1.
- For GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5, select **Control Panel** and skip to step 3.

3 Turn on the Power

1. On the GV-Desktop, click the **Programs** button and select **Control Panel**.



2. Type the ID and password. The default ID and password are “0000”. The Control Panel window appears.
3. Under Network and Internet, click **View network status and tasks**.
4. Under Connections, select the **Local Area Connection** you want to configure.



5. Select **Internet Protocol Version 4 (TCP/IPv4)** and then click **Properties**.
6. Select **Use the following IP address** and type the new IP information in the fields or select **Obtain an IP address automatically** to enable dynamic IP address.
7. Click **OK** to finish the setting.

Note: For **GV-Hot Swap Recording Server V5 / Backup Center System V5**, to avoid network bottleneck, refer to *Appendix B. Assigning Network Card*, *GV-Hot Swap Surveillance System V5 (Rev. B) User’s Manual*.

3.3 Exiting to Windows

The unit is protected by GV-Desktop that is limited to run the selected programs. If you need to exit to Windows desktop, follow these steps.

Note: The GV-Desktop is not available for GV-Hot Swap Recording Server System V5 and GV-Hot Swap Backup Center System V5.

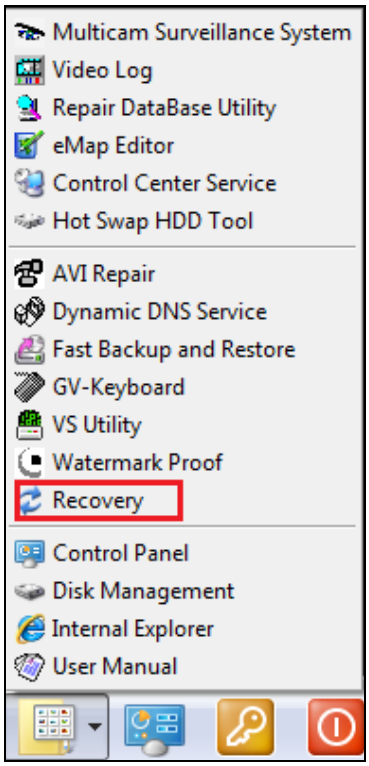
1. On the GV-Desktop, click the **Settings** button, and type the valid ID and password. The default ID and Password are "**0000**". The Settings dialog box appears.
2. Under Desktop Type, select **Windows** from the drop-down list, and click **OK**.
3. Click the **Log Off** button, and type the ID and Password to display the Windows desktop.

4. Restore the System

You can restore preinstalled files once they are damaged by running the recovery from the hidden partition. To restore the operating system and all preinstalled software, follow the steps below.

Note: After recovery, you need to re-install all settings and passwords. But the recovery will not delete your recording files saved on the GV-Hot Swap Surveillance System V5 since it only reformats the partition C and all of your files are still stored on other partitions.

1. Remove or turn off the power of any connected USB devices.
2. Turn off the power of all drive bays.
3. On the GV-Desktop, click the **Program** button and select **Recovery**. The system will run this command by itself.



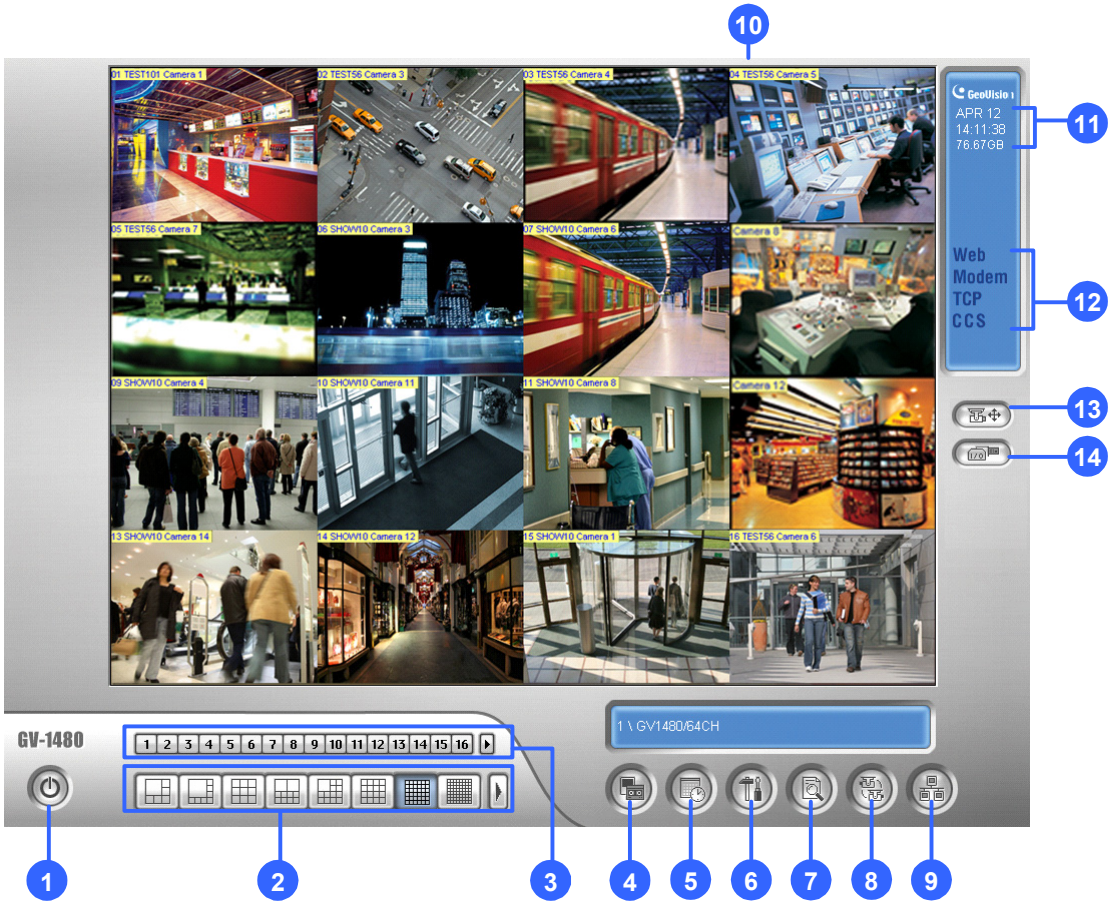
4. Restart the GV-Hot Swap Surveillance System V5.
5. Press **F11** button several times to avoid accessing the system.

6. When this screen appears, click the **Recovery** button. Once the restoration is complete, click **Quit** to leave the recovery system and restart the Windows automatically.

For the recovery system part, see steps 1 – 6 in *3.1 Starting up Window* in the *Quick Start Guide*.

5. GV-Hot Swap DVR/NVR System V5

5.1 Main Screen



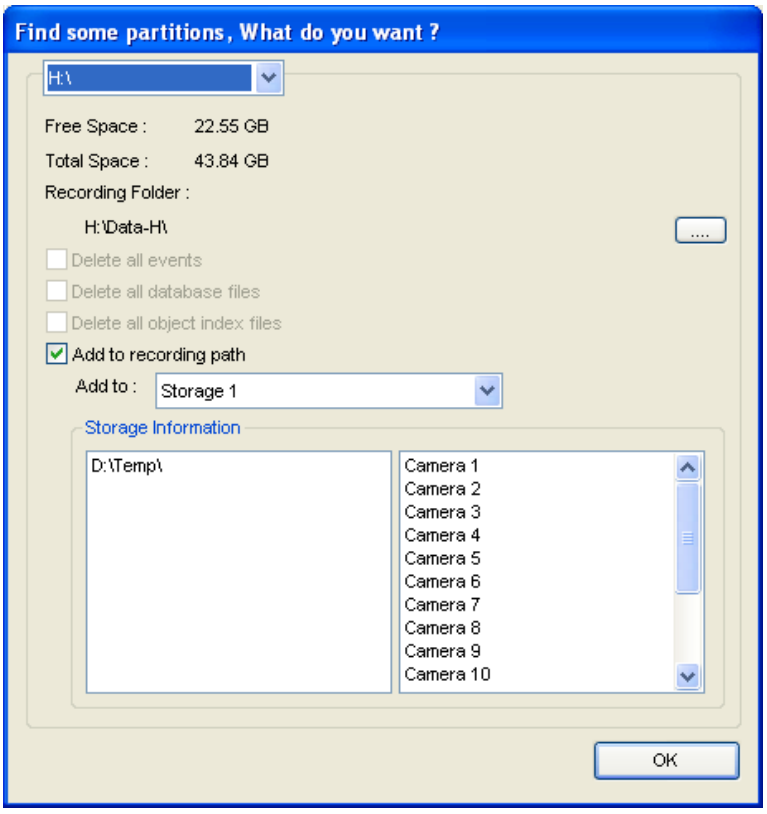
1. Logout / Exit / Minimize
2. Select screen divisions
3. Select a camera for full screen mode
4. Start/stop recording
5. Set up recording schedules
6. Access system settings
7. Access ViewLog to play back video
8. Start/stop screen rotation
9. Access remote applications
10. Camera Name
11. Date / Time / Storage Space
12. Status indicators for remote applications
13. Click to call up PTZ Control Panel
14. Click to call up I/O Control Panel

5.1.1 Adding Hot Swap Drive to Recording Path

Before recording, you need to add the formatted hard drive to the recording path.

Note: The default recording path for the hot-swap drives starts from F:\

1. On the GV-Desktop, click the **Programs** button, and select **Hot Swap HDD Tool**.
2. If a hard drive is already inserted, right-click it in the MediaMan Tools window, select **Add for recording**, and then select the storage group from the drop-down list.
3. If a hard drive is not inserted, follow these steps:
   A. Insert a hot-swap hard drive or plug a portable hard drive to the GV-Hot Swap DVR/NVR System V5. This dialog box appears.



   B. Select **Add to recording path**, and select the storage group from the drop-down list.
4. Click **OK** to automatically configure the hard drive to the recording path.

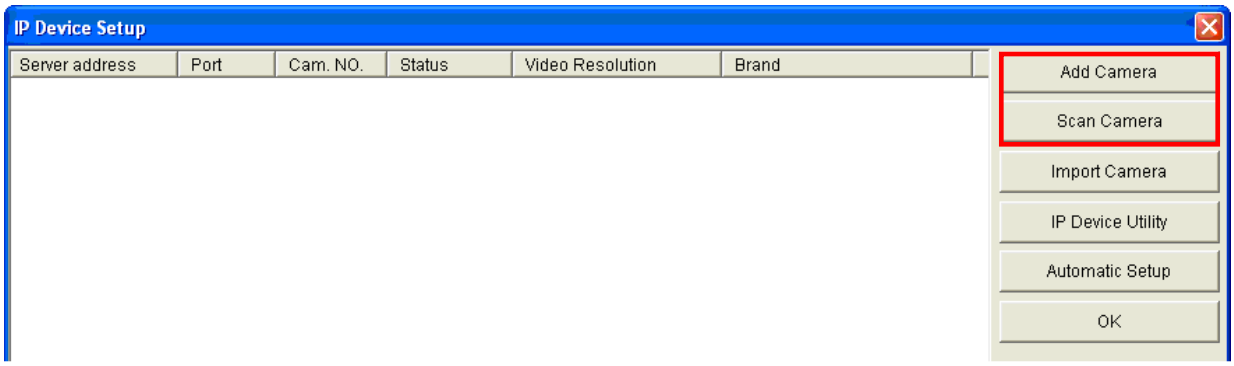
5. When the hard drive is successfully added to store data, its Status field should display "Standby".

6. To add another formatted hard drive for storage, repeat the above steps.

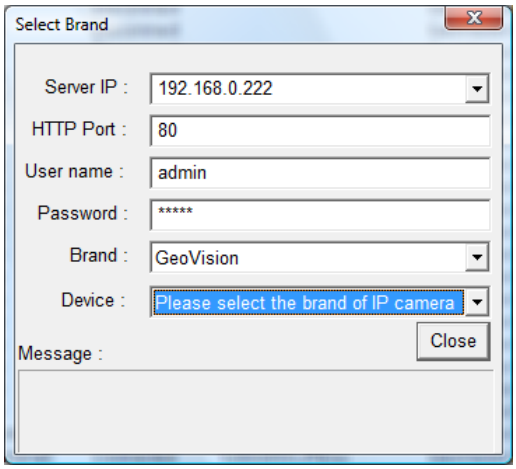
5.1.2 Adding IP Video Devices

The procedures for adding an IP camera, Video Server and Compact DVR may vary. The following instructions are the setup procedure for adding an IP camera in the system.

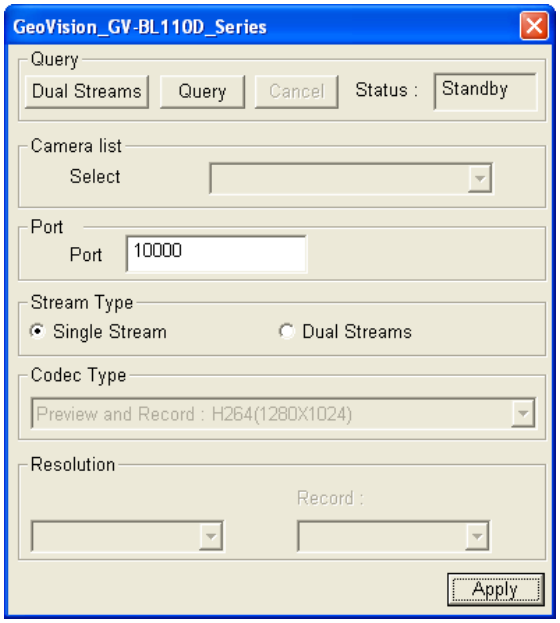
1. On the main screen, click the **Configure** button, select **System Configure** and click **IP Camera Install**.
2. To automatically add an IP camera on the LAN, click **Scan Camera.** To manually set up an IP camera, click **Add Camera** and follow the steps below.



3. Type the IP address, username and password of the IP camera. Keep or modify the default HTTP port 80.

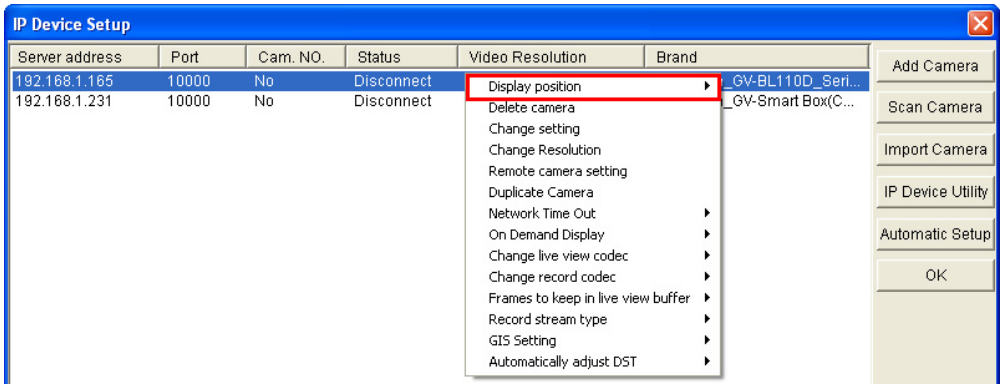


4. Select a camera brand and model from the **Brand** and **Device** drop-down lists respectively. This dialog box appears.



5. The options in the dialog box may vary depending on camera brands.
   - **Dual Streams:** Click the button to apply the default codec and resolution of the GV-IP camera.
   - **Query:** Use the current codec and resolution setting on the GV-IP camera.
   - **Camera list:** Select a camera number.
   - **Port:** Keep or modify the default video streaming port 10000.
   - **Stream Type:** You may have the option of single or dual streaming depending on camera models.
   - **Codec Type:** You may have different codec options depending on camera models. If the selected camera supports dual streaming, the preview codec and recording codec can be set differently.
   - **Resolution:** Select the resolutions for preview and recording.
6. Click **Apply**. The IP camera is added to the list.

7. Right-click the camera and select **Display position** to map the camera to a channel.



8. The Status column now should display "**Connected**". Click **OK**.

For details, refer to *Hybrid and NVR Solution,* Chapter 2, *GV-DVR User's Manual* (GV-Desktop > **Program** button > **User Manual**).

5.1.3 Renaming the Camera

1. Click on the main screen, click **System Configure** and select **Camera Configure**.
2. In the Camera Name field, type a new name for the camera.
3. Click **OK.**

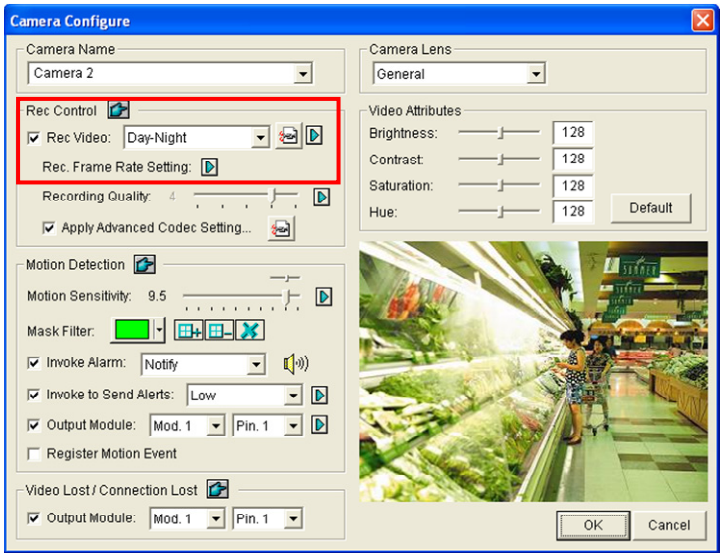
5.1.4 Choosing Recording Mode

You can set each camera's recording mode individually for Motion Detection,

Round-the-Clock or Day-Night.

1. Click on the main screen, click **System Configure** and select **Camera Configure**.
2. From the Camera Name drop-down list, select one camera.
3. In the Rec Control field, select **Rec Video**, and use the drop-down list to select **Motion Detect**, **Round-the-Clock** or **Day-Night**.
4. If you select **Day-Night**, click the **Arrow** button after the Rec Video option to set up time frames.
5. Click **OK**.

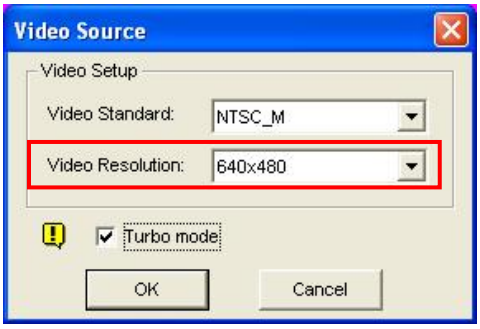
For details on setting camera properties, refer to *Adjusting Individual Camera*, Chapter 1, *GV-DVR User's Manual* (GV-Desktop > **Program** button > **User Manual**).



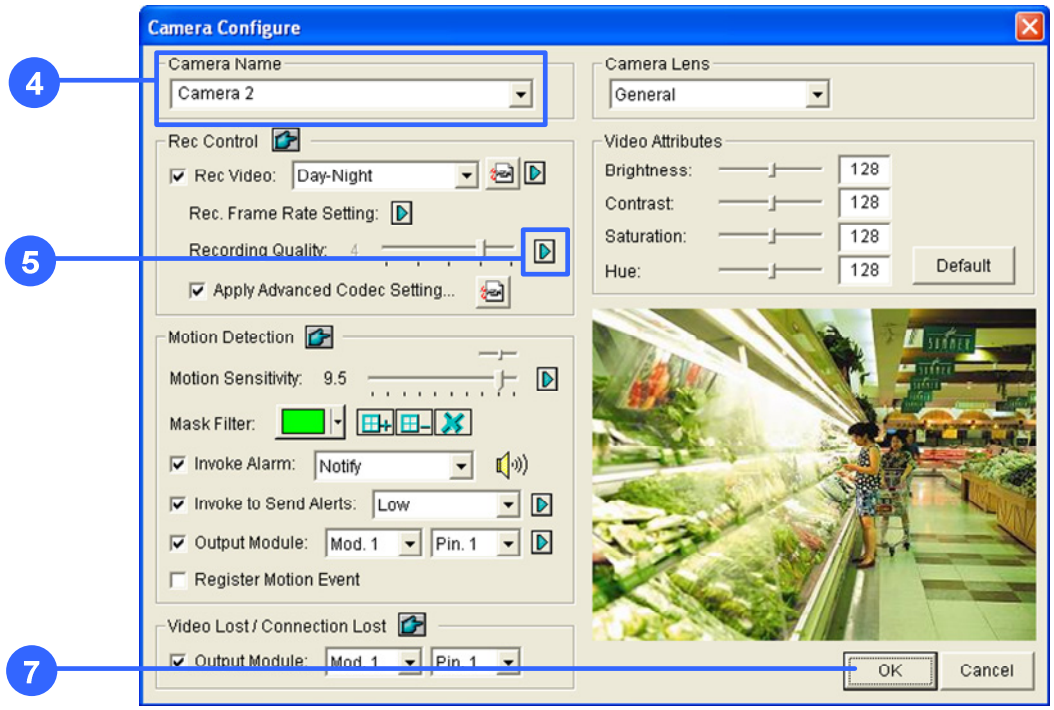
5.1.5 Changing Recording Resolution

You can set each camera's recording resolution individually.

1. Click on the main screen, click **A/V Setting** and select **Video Source**.
2. Select the desired video resolution from the drop-down list, and click **OK**.



3. Click on the main screen, click **System Configure** and select **Camera Configure**.
4. From the **Camera Name** drop-down list, select one camera.
5. Click the arrow button next to **Recording Quality** to select the desired resolution.
6. Repeat step 4 and 5 to set up each camera.
7. Click **OK**.

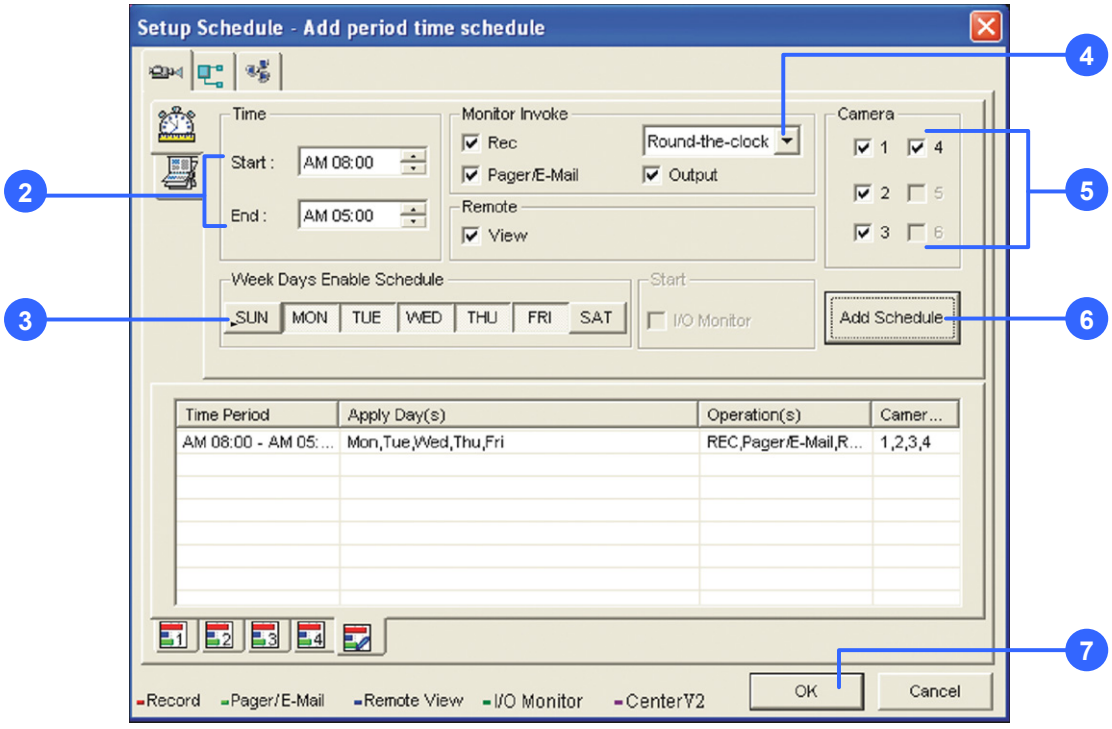


5.2 Setting up a Recording Schedule

You can program recording to turn on and off at a specific time each day.

1. Click on the main screen, and select **Schedule Edit**.
2. Select or enter the Start and End time of the schedule.
3. Select day(s).
4. Select **Rec**, and use the drop-down list to select **Round-the-Clock** or **Motion Detect** for recording
   mode.
5. Select camera(s).
6. Click **Add Schedule**.
7. Click **OK**.

For details, refer to *Recording Schedule*, Chapter 1, *GV-DVR User's Manual* (GV-Desktop > **Program** button > **User Manual**).

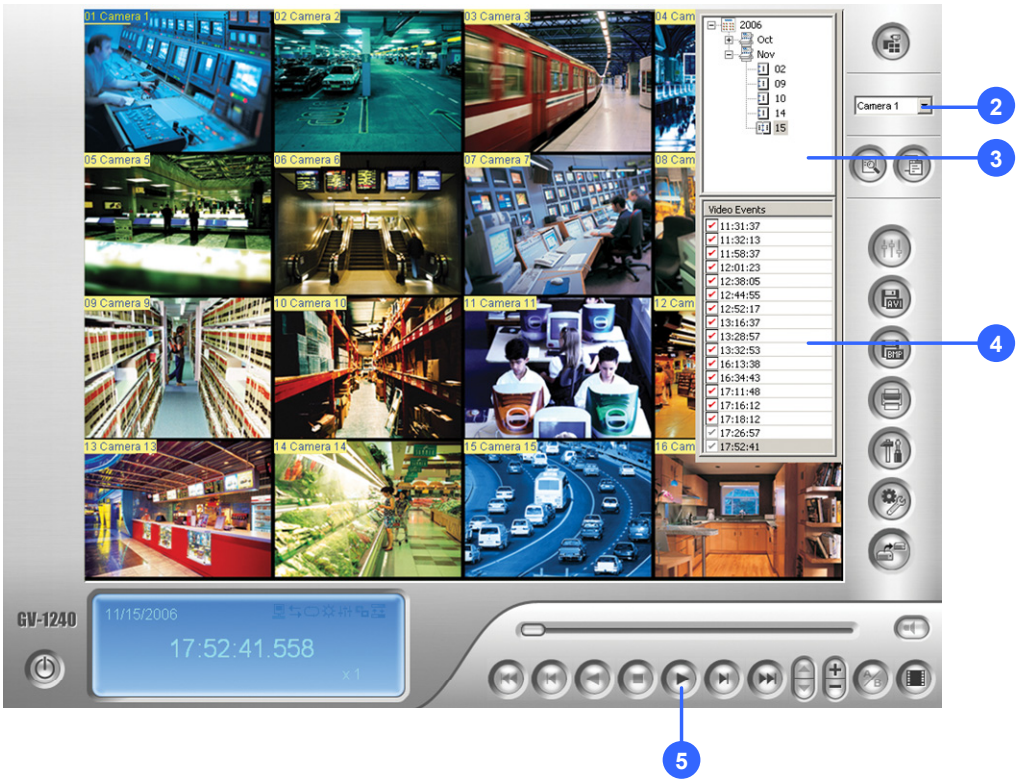


5.3 Playing Back Video

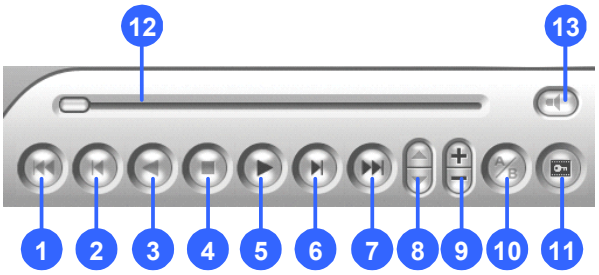
You can play back video recorded during a particular date and time.

1. Click on the main screen, and select **Video/Audio Log.**
2. Select the camera you wish to view.
3. Select a date folder from the date tree.
4. Select a time from the Video Events list.
5. Click to begin playback.

For details, refer to *Playing Back on ViewLog*, Chapter 4, *GV-DVR User's Manual* (GV-Desktop > **Program** button > **User Manual**).



5.3.1 Playback Controls



No.	Description	No.	Description
1	Rewind to Beginning	8	Speed up/down
2	Frame-by-Frame Reverse	9	Zoom in/out
3	Rewind	10	A to B Playback
4	Stop	11	Frame-by-Frame / Real Time Playback
5	Play	12	Playback Scroll
6	Frame-by-Frame Forward	13	Audio on/off
7	Forward to End		

Using the Zoom

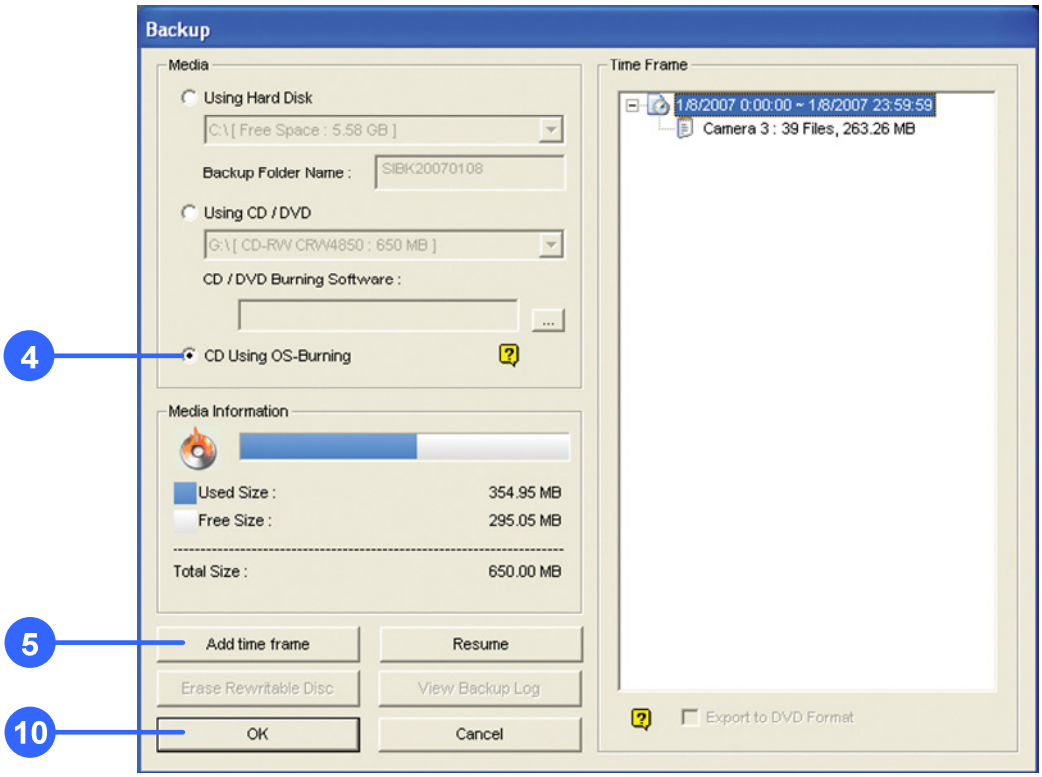
- **Zoom in:** Click the **Zoom-in** button, and then click on the area you want to magnify. Each click will increase the zoom level.
- **Zoom out:** Click the **Zoom-out** button, and then click on the image to zoom out. Each click will decrease the zoom level.

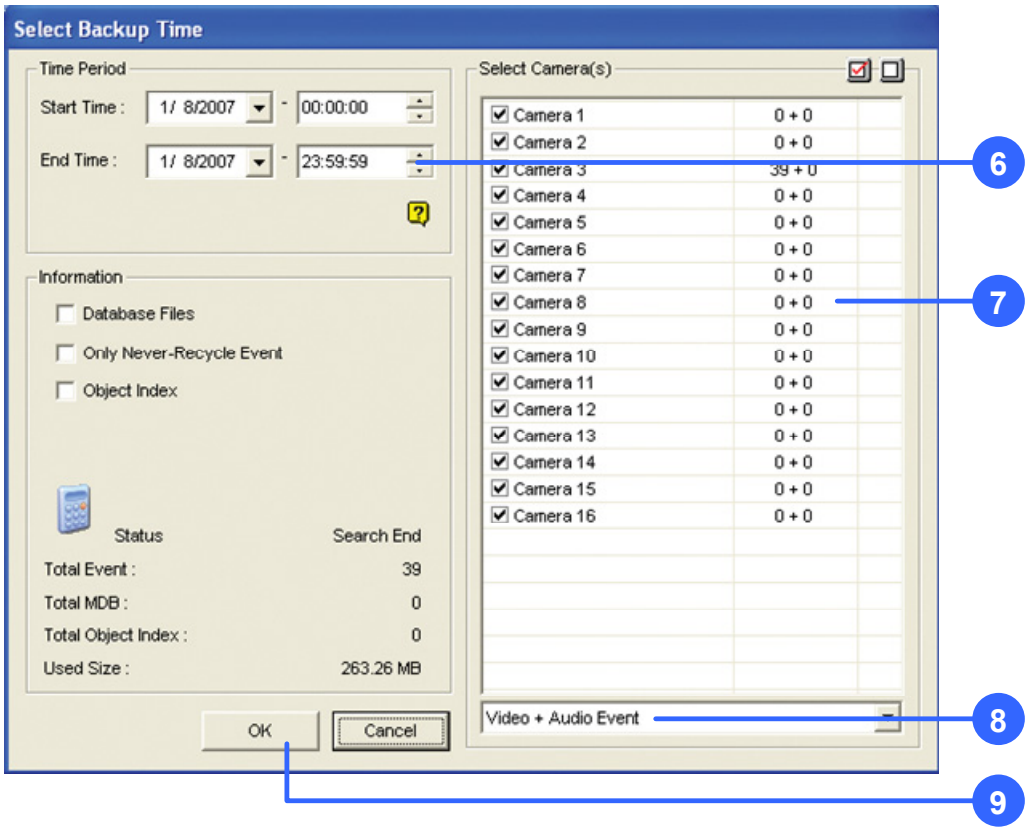
5.4 Backing Up Video Files

You can back up video files of the desired time to CD / DVD.

1. Insert the CD / DVD media into the drive.
2. Click on the main screen, and select **Video/Audio Log**.
3. Click on the functional panel.
4. Select **CD Using OS-Burning** to burn files with the inbuilt software of Windows.
5. Click **Add time frame**.
6. Enter the Start Time and End Time for backup.
7. Select the desired camera(s) for backup. The number of video and audio files of each camera is
   indicated respectively, e.g. “Camera 3 39+0” means the camera 3 has 39 video files and 0 audio file.
8. Select the types of events for backup, e.g. video, audio or both together.
9. Click **OK** to add the time frame. You can repeat steps 5-8 to create up to 10 time frames.
10. Click **OK** to start burning.

For details, refer to *Backing Up Video Files Using ViewLog,* Chapter 5, *GV-DVR User's Manual* (GV-Desktop > **Program** button > **User Manual**).


Backup
Media
Using Hard Disk
C:\[Free Space : 5.58 GB]
Backup Folder Name :
SIBK20070108
Using CD / DVD
G:\[CD-RW CRW4850 : 650 MB]
CD / DVD Burning Software :
CD Using OS-Burning
Media Information
Used Size : 354.95 MB
Free Size : 295.05 MB
Total Size : 650.00 MB
Add time frame
Resume
Erase Rewritable Disc
View Backup Log
OK
Cancel
Time Frame
1/8/2007 0:00:00 ~ 1/8/2007 23:59:59
Camera 3 : 39 Files, 263.26 MB
Export to DVD Format
4
5
10


Select Backup Time
Time Period
Start Time : 1/ 8/2007 00:00:00
End Time : 1/ 8/2007 23:59:59
Information
Database Files
Only Never-Recycle Event
Object Index
Status
Search End
Total Event : 39
Total MDB : 0
Total Object Index : 0
Used Size : 263.26 MB
OK
Cancel
Select Camera(s)
Camera 1 0 + 0
Camera 2 0 + 0
Camera 3 39 + 0
Camera 4 0 + 0
Camera 5 0 + 0
Camera 6 0 + 0
Camera 7 0 + 0
Camera 8 0 + 0
Camera 9 0 + 0
Camera 10 0 + 0
Camera 11 0 + 0
Camera 12 0 + 0
Camera 13 0 + 0
Camera 14 0 + 0
Camera 15 0 + 0
Camera 16 0 + 0
Video + Audio Event
6
7
8
9

6. GV-Hot Swap VMS System V5

6.1 Main Screen

Name	Description
Login ID	Click to manage accounts and passwords for accessing GV-VMS.
Home	Shows the live view of connected cameras.
ViewLog	Shows a timeline of recorded events for playback.
Toolbar	Brings up these options when **Home** is selected: • **Monitor:** Start / Stop monitoring, I/O monitoring and schedule monitoring • **Network:** Enable Webcam Server and connection to other GeoVision software. • **Tools:** Show / hide volume indicator and set up Object Index. • **Configure:** Set up camera, recording, system, schedule, video processing and I/O devices • **Content List:** Access live view layout, camera list, I/O device list and Panorama view.

	Brings up these options when **ViewLog** is selected: • **Display Play Panel:** Display or hide the ViewLog timeline. This function is grayed out when the **Pinned** button is selected in the bottom-right corner. • **Tools:** Manage event search, system log, event backup and event export. • **Configure:** Apply video effects and text overlay during playback. • **Content List:** Manage playback layout and access camera list.
Exit	Brings up these options: Minimize and Exit.

6.1.1 Adding Hot Swap Drive to Recording Path

Before recording, you need see section *5.1.1* to add the formatted hard drive to the recording path.

1. On the GV-VMS, click **Home**, select **Toolbar**, select **Configure**, select **System Configure**, and click **Record Setting.** The Record Setting dialog box appears.
2. Click the Arrow button next to **Storage**.

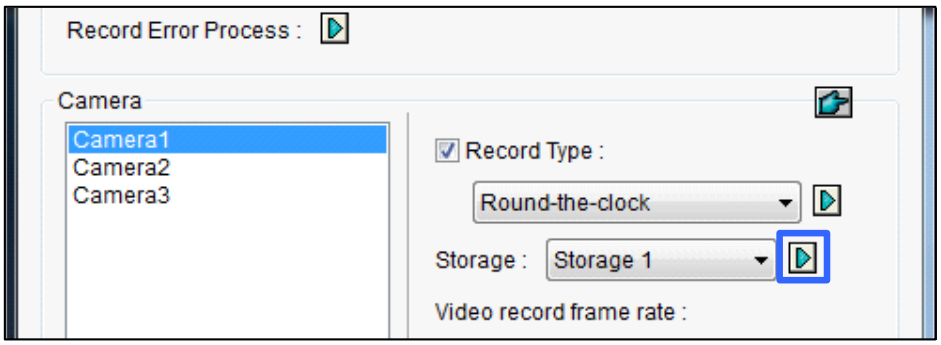


Figure 3-32

3. To add a folder in the first storage group, click the **Add** button above Path and select a folder. Only 1 folder can be assigned as storage folder per partition (e.g. only 1 folder in D drive).

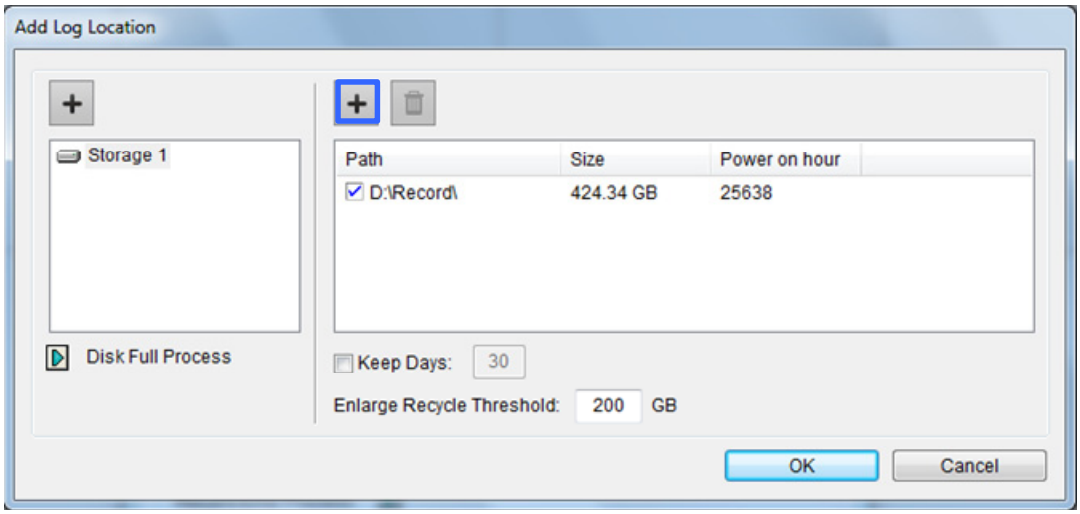


Figure 3-33

4. To create a new storage group, click the **Add** button + in the top-left corner.

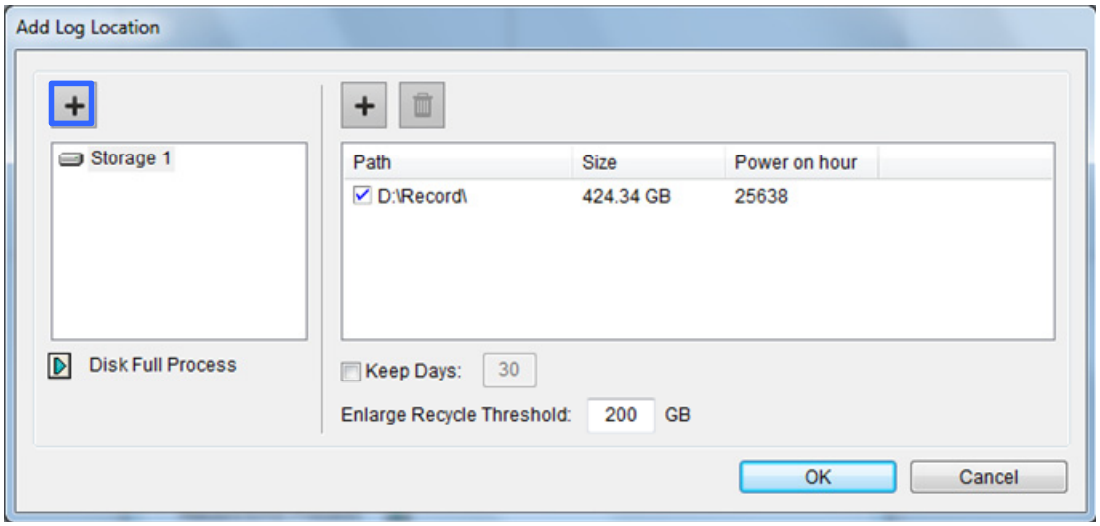


Figure 3-34

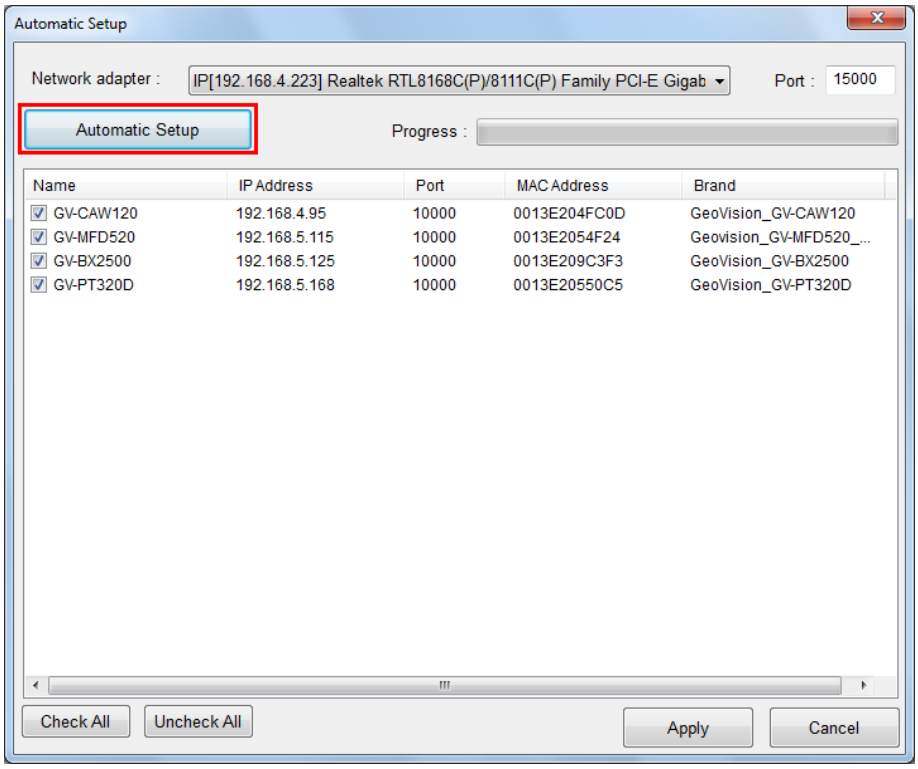
5. To add a recording folder to a newly created storage group, repeat step 3.
6. Select **Keep Days** and specify the number of days to keep the video files in storage.

Note: If the designated storage space is not big enough to keep all video files for the defined days, the **Recycle Threshold** setting will override the **Keep Days** setting.

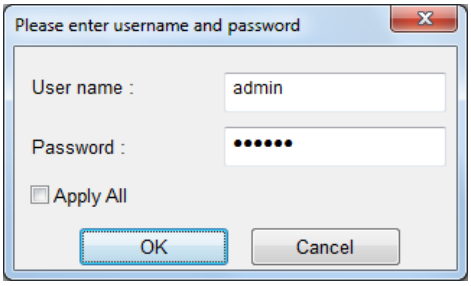
6.1.2 Adding IP Video Devices to GV-VMS

The **Automatic Setup** dialog box appears automatically.

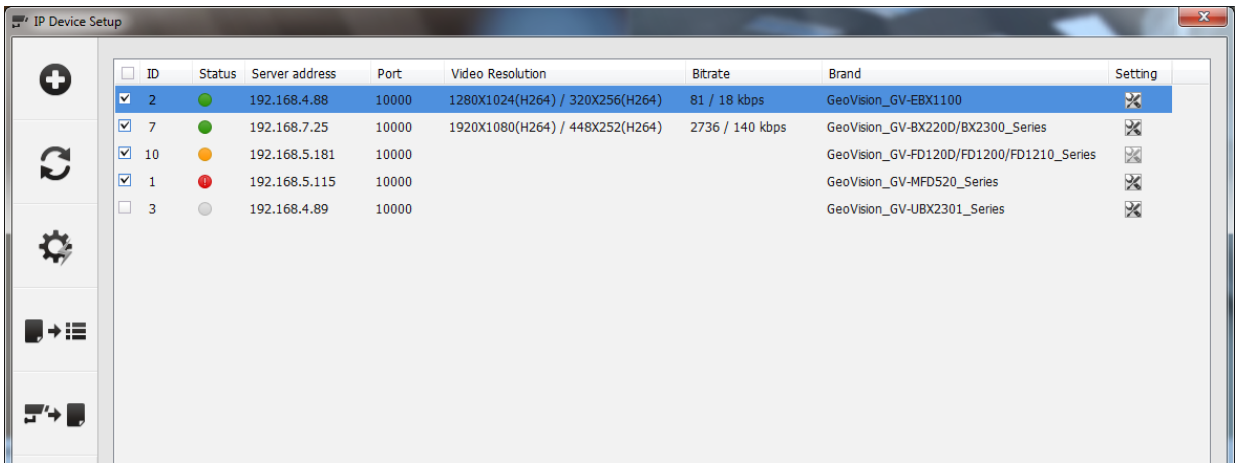
1. Click **Automatic Setup** to see the list of IP cameras detected on the LAN.



2. The default login information for cameras is **admin** / **admin**. Double-click the camera to type different ID and password in the dialog box below if needed.



3. Make sure the cameras you want to add are selected and click **Apply**. The cameras added are now listed in the IP Device List.



Status icons available:

	Connected	The camera is connected.
	Connecting	GV-VMS is trying to connect to the camera.
	Connection Failed	Unable to connect to the camera. Place the cursor on the red icon to see the error message.
	Inactive Camera	The camera is inactive. Click the checkbox to connect.
	Started Monitoring	The camera is under monitoring.
	Pre-Rec Enabled	Pre-recording is enabled.

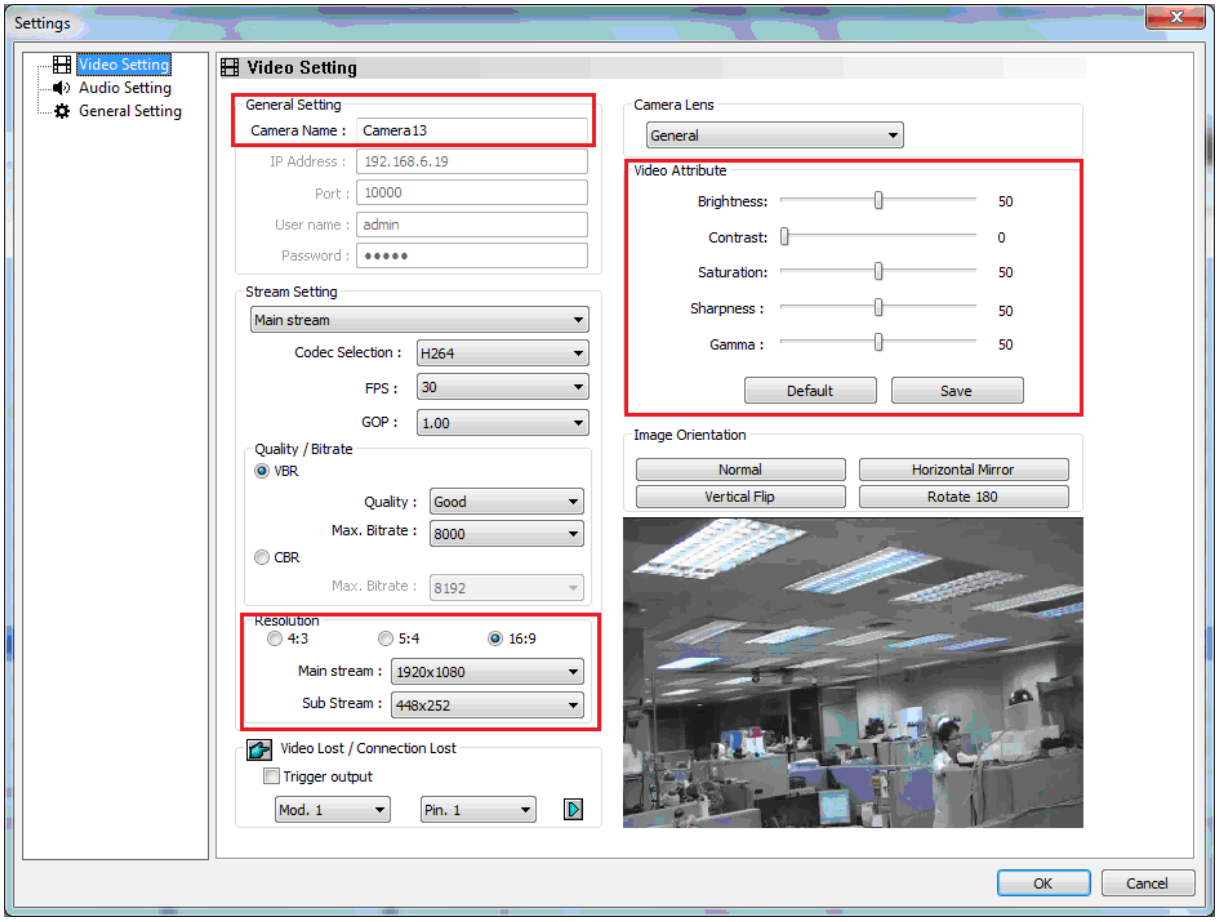
4. To adjust camera settings, click the **Setup** button of a camera. Refer to *3.2 Configuring Camera Settings* for details.
5. Close the dialog box by clicking X on top-left corner. When adding camera for the first time, the cameras will be automatically assigned to the live view grid.

For details, refer to *IP Camera Setup,* Chapter 2, *GV-VMS User's Manual* (GV-Desktop > **Program** button > **User Manual**).

6.2 Configuring Camera Setting

After the cameras are added, you can configure their settings, such as video, audio and other general settings. Click the Setup button of an active camera in the IP Device List (**Home** > **Toolbar** > **Configure** > **Camera Install**).

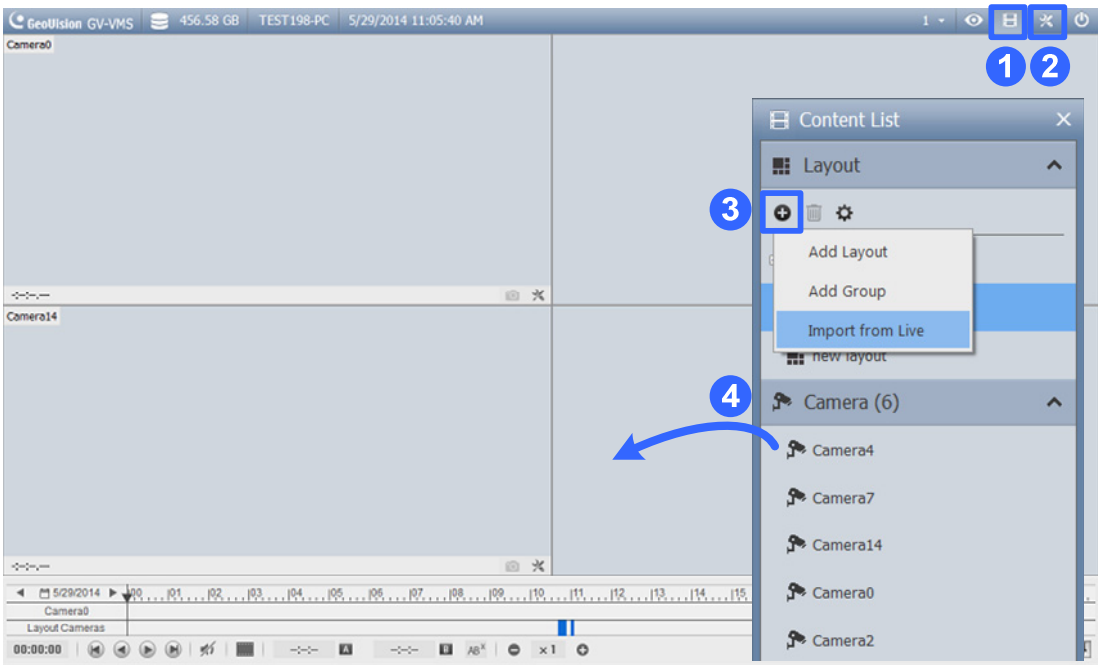
In the Video Setting, you can change the camera name, the display ration and resolution of the videos and adjust video attributes.



For details, refer to *Configuring Individual IP Cameras,* Chapter 2, *GV-VMS User's Manual* (GV-Desktop > **Program** button > **User Manual**).

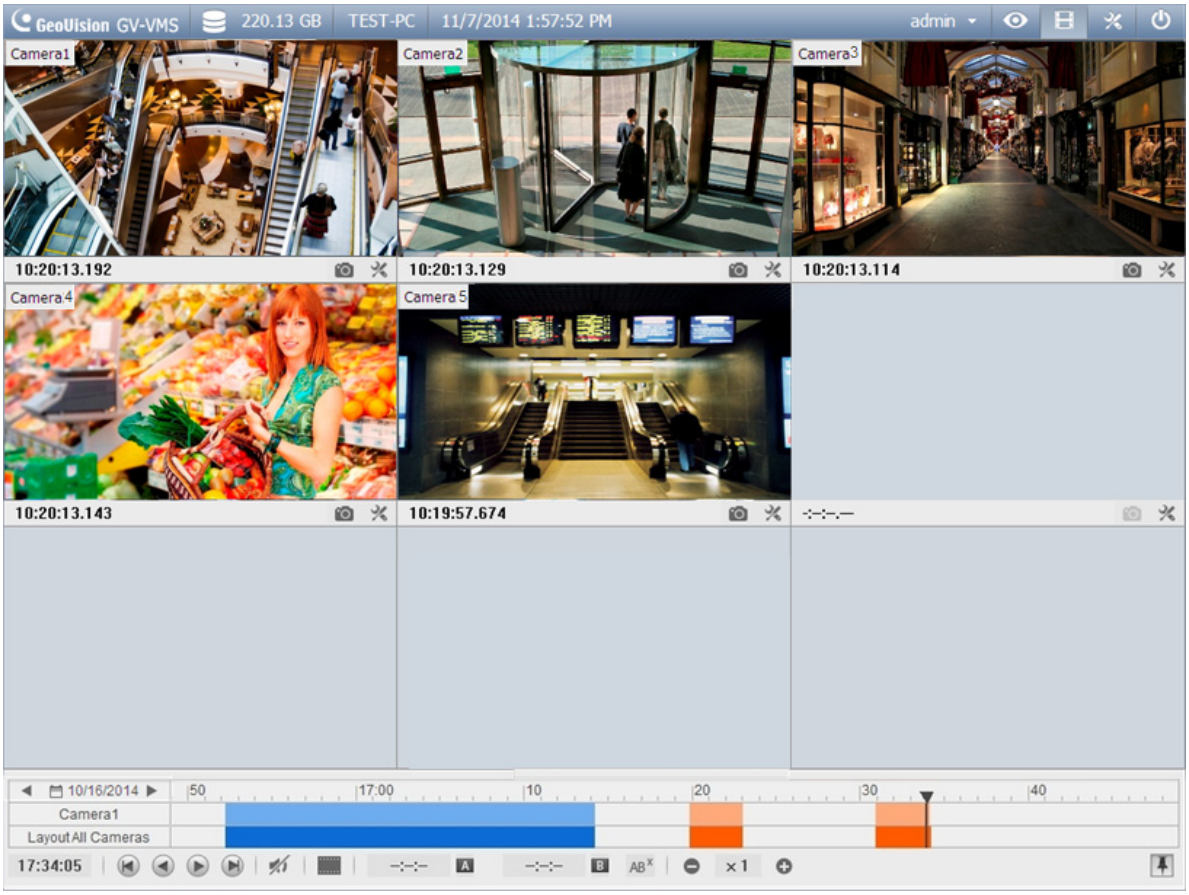
6.3 Playing Back Recorded Videos

1. To access recorded videos, click the **ViewLog** icon in the top-right corner.
2. Open the Content List by clicking **Toolbar** and selecting **Content List**.
3. Click **Layout** in the Content List, click the **Add** button, and select **Add Layout** to create a new layout or select **Import from Live** to import existing layouts from live view.
4. You can also drag camera you want to play back onto the playback screen from the Content List if needed.

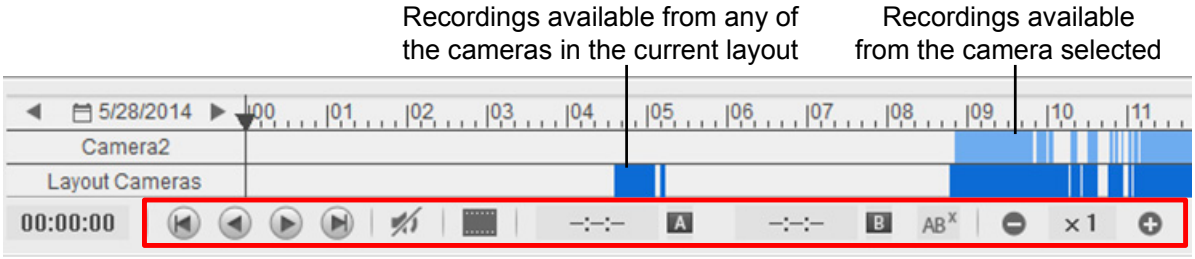


5. On the left of the timeline, select a date.

6. Click on the timeline to select a time with video recordings. You can scroll the mouse to zoom in and out on the timeline.



7. Use the playback control buttons to play back recordings. Place the cursor on the buttons to see the name of the function.



6.4 Back up Recorded videos

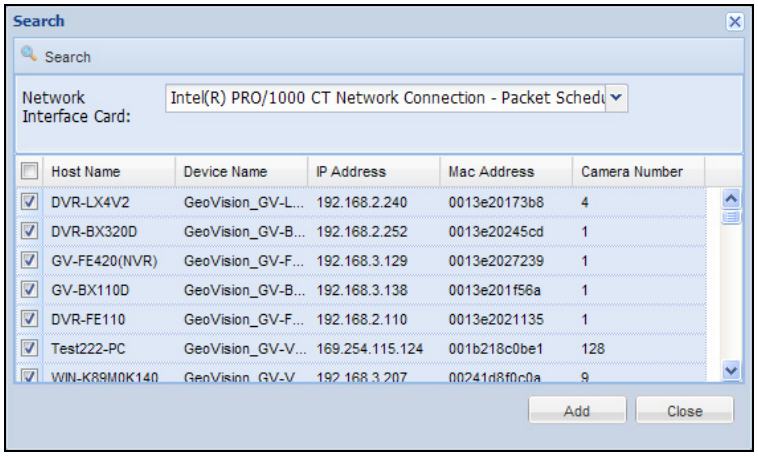
1. In ViewLog, click **Toolbar** , select **Tools** and select **Backup**. This dialog box appears.
2. Click **Add time frame** to select the time period and the cameras you want to back up and click **OK**.
3. Select a media to back up the recorded files using **Hard Disk**, **CD / DVD/ BD** or **OS-Burning**. The supported software for burning to CD / DVD / BD is Nero Burning Rom version 9 or before.
4. To include the ViewLog player to the backed up files, select **Include Player** at the bottom-right of the dialog box. If no player is selected, you can only play the recordings using computer installed with GV-VMS or GeoVision video code.

7. GV-Hot Swap Recording Server System V5

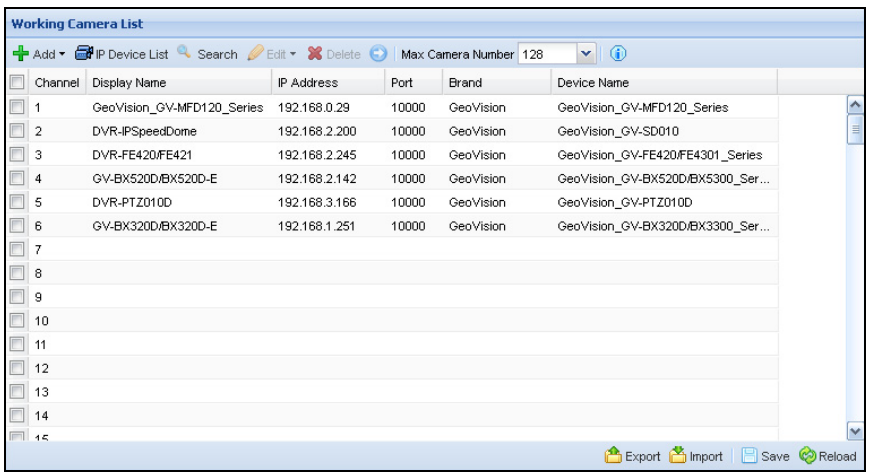
After the GV-Hot Swap Recording Server System V5 is powered on, you will be prompt with a login interface. The default login name and password are **admin.** For the first-time user, the **Install Wizard** will appear to help you add IP video devices, assign storage path and start connections to IP devices.

7.1 Adding IP Video Devices

1. When the Install Wizard is launched, the GV-Recording Server automatically detects available IP video devices under LAN.



2. Select one **Network Interface Card** and click **Search**.
3. Select the IP video devices you want to establish connection with.
4. Click **Add** and map the device to a channel. The Working Camera List appears.



5. The GV-Recording Server will try to connect to the devices using **admin** as the default ID and password. To connect with other ID and password, select the camera, click the **Edit** button

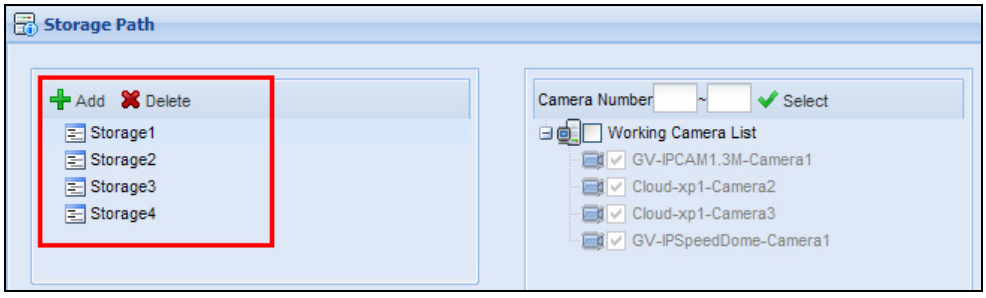
and select **Host Setting**.
6. Click **Save** and click **Next Page**.

Note:

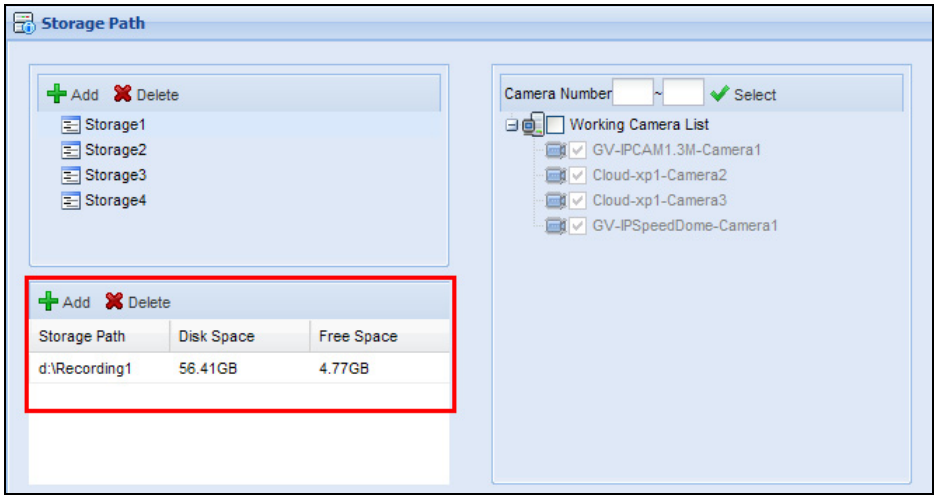
1. There are two ways to establish connection with GV-IP video devices, active connection where the GV-Recording Server initiates the connection and passive connection where the GV-IP video device initiates the connection. The GV-IP Devices added with the Install Wizard are using active connection. For details, see *Active and Passive Mode,* Chapter 4, *GV-Recording Server User's Manual*.
2. The GV-Recording Server is compatible with the third-party IP device brands Arecont Vision, AXIS, Hikvision, Panasonic, Sony, Vivotek and protocols ONVIF, PSIA, RTSP. To see how to add IP devices using protocols, see *5.2.1 Install Camera*, *GV-Recording Server User's Manual*.

7.2 Assigning Storage Paths

1. In the Storage Path page, click the **Add** button to add a new storage folder in a different disk drive, or select an existing storage folder.

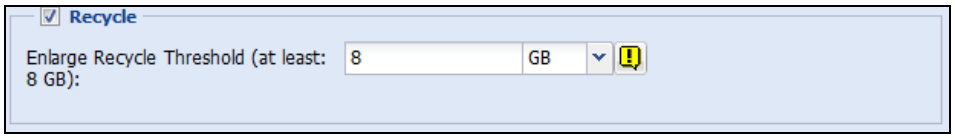


2. Use the default storage path, or click the **Add** button to select a new storage path.



3. In the Working Camera List section, type a range of camera number and click the **Select** button. You can also select the **Working Camera List** checkbox to select cameras individually. The videos of the cameras selected will be recorded to the storage path indicated.

4. To specify a recycle threshold, select **Recycle** and type a minimum free space. When the remaining free space falls below the threshold, the oldest files will be overwritten.



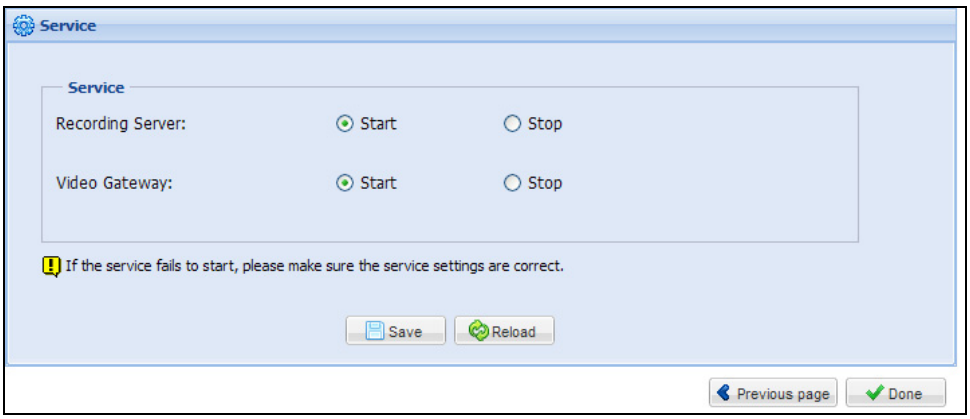
5. Click **Save** and click **Next Page** at the lower-right corner of the page.

Note:

1. When multiple hard disks are added to a storage group, recycling of the oldest files will begin when the remaining free space of all hard disks in the storage group fall below the recycle threshold.
2. For details on the maximum number of channels for a single hard disk, see *1.1.2 Recommended Hard Disk Requirements*, *GV-Recording Server System User's Manual*.

7.3 Starting the Service

1. In the Service page, to be able to receive and record IP channels, select **Start** for Recording Server.
2. To enable the Video Gateway to transmit video to clients, select **Start** for Video Gateway.



3. Click **Save** and click **Done**. The Camera Connection Information page appears and shows the connection status of the camera added.

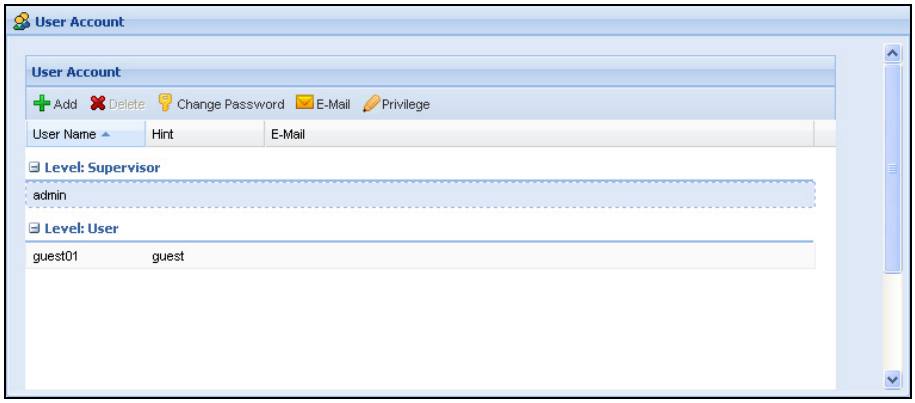
After adding the camera, refer to *5.2.2 Camera Setting* in *GV-Recording Server User's Manual* to see how to customize camera settings such as setting video attributes, recording policy and schedule.

Note: The default recording policy is round-the-clock recording.

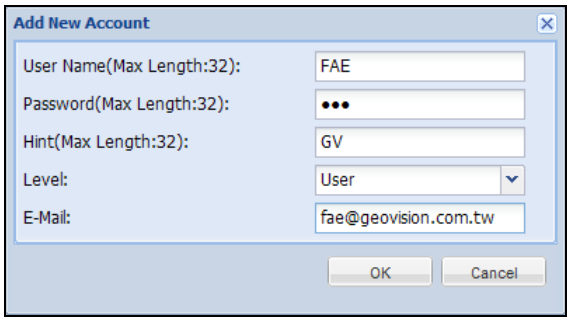
7.4 Creating User Account

The GV-Recording Server can simultaneously transmit up to 300 channels to clients. Follow the steps below to create user accounts with different access rights for client connection. Up to 1000 user and supervise accounts can be created.

1. In the left menu, click **User Account**. This dialog box appears.



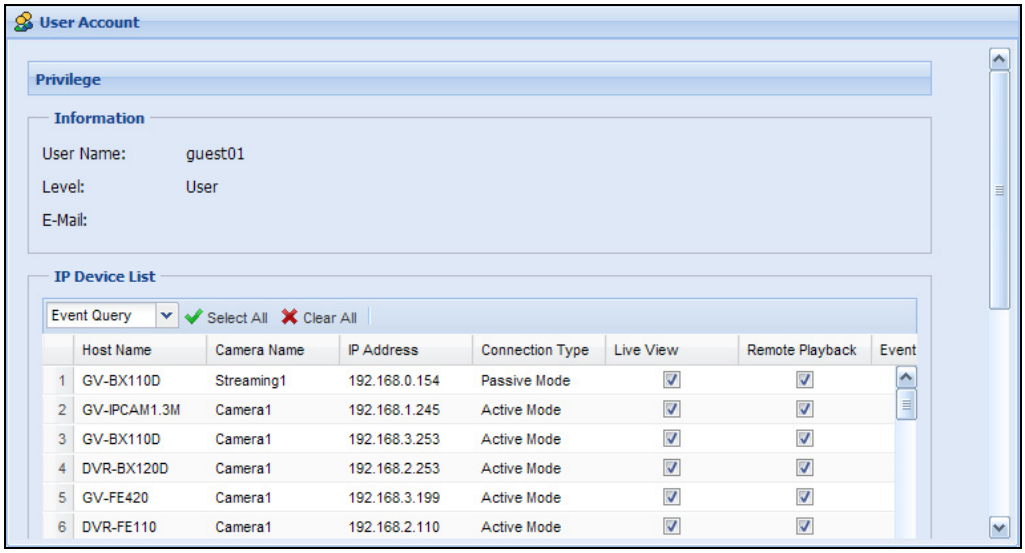
2. Click the **Add** button . This dialog box appears.



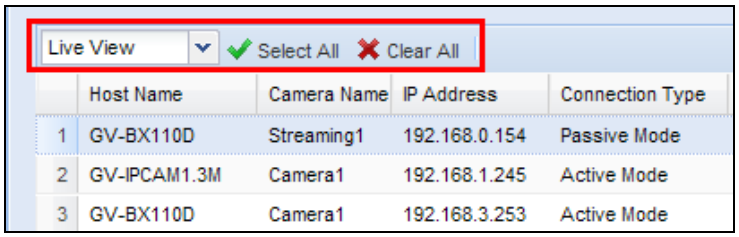
3. Type the **User Name**, **Password** and a password **Hint** for the account.
4. Use the **Level** drop-down list to select **Supervisor** or **User**.
5. Type an e-mail address for the account. When you forget the password, the password can be sent to your e-mail account using the Forget Password link in the login page.
6. Click **OK**.

7. To set access rights, select a user account and click the Privilege button

. This dialog box appears.



8. The cameras listed in the IP Device List are displayed. Select to allow the user to access the **Live View**, **Remote Playback** and **Event Query** of the camera.
9. You can **Select All** cameras or **Clear All** selected cameras for each function by using the drop-down list above the camera list.



10. Click **Save**.

7.5 Connecting with GV-System / GV-VMS

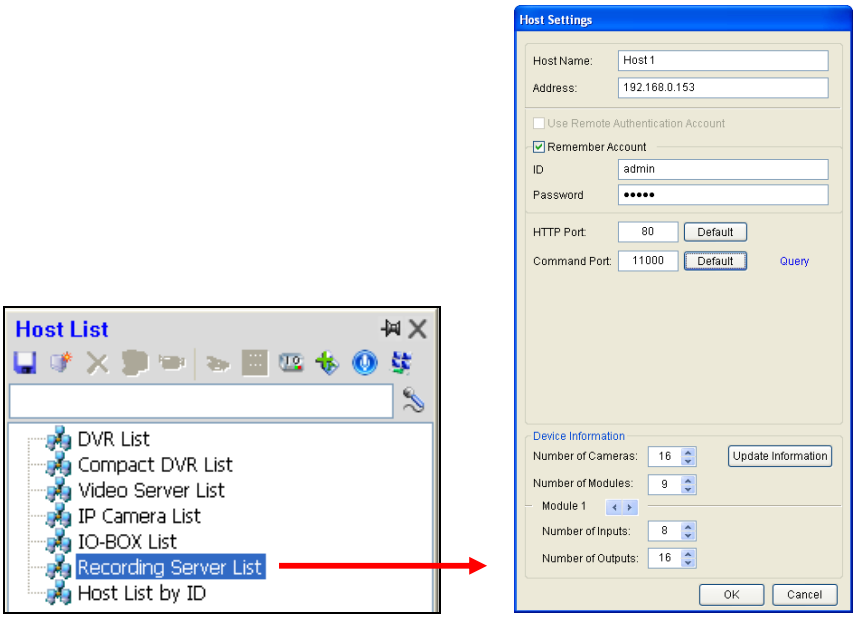
For details on configuring the GV-System / GV-VMS to access video streaming from the GV-Recording Server, refer to *5.1.2 Adding IP Video Devices* and *6.1.2 Adding IP Video Devices to GV-VMS*.

7.6 Connecting with GV-Control Center

Configure the GV-Control Center to access video streaming from the GV-Recording Server.

Note: The GV-Recording Server is only compatible with the GV-Control Center version 8.5.6.0 or later.

1. On the Host List, right-click **Recording Server List** and select **Add Recording Server**. The Host Settings dialog box appears.



2. Name the host of GV-Recording Server.
3. Type the IP address or domain name of the GV-Recording Server.
4. Type the client's username and password created on the GV-Recording Server.
5. Keep the communication ports as default settings; otherwise modify them to match the HTTP (default value: 80) and TCP/IP (default value: 11000) ports on the GV-Recording Server.
6. Click the **Update Information** button to request the number of cameras from the GV-Recording Server. When the update is complete, the message "Update system information successfully" will appear.
7. Click **OK**. The host is created under the Recording Server List.

Note: To see how to connect with clients Multi View, Multicast, Remote ViewLog and GV-Mobile Server, see *Connections with Clients*, Chapter 7, *GV-Recording Server User's Manual*.

8. GV-Hot Swap Backup Center System V5

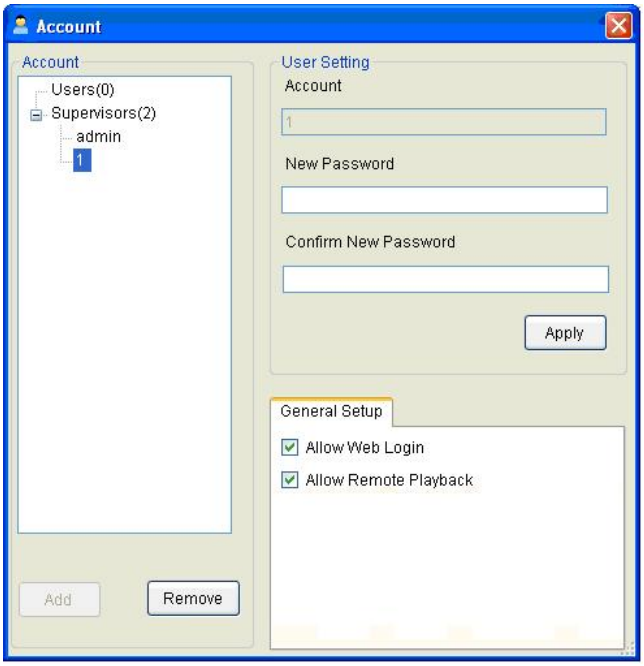
8.1 Starting the GV-Backup Center

After the device is powered on, the main screen of the GV-Backup Center will be automatically displayed. To start backup services, click **Service** from the menu bar and select **Start all services**.

8.2 Creating Accounts

You can create up to 100 User and Supervisor accounts for the connected GV-System and GV-IP Devices.

1. From the menu bar in the GV-Backup Center, click **Tools**.
2. Click **Setting** and select **Account**.

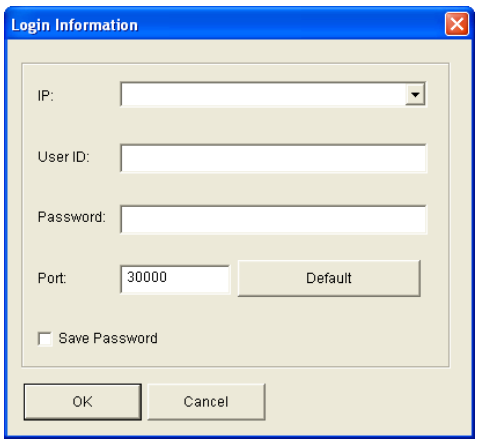


3. Click **Add** to create an account.
4. Type the account and password and click **Apply**.
5. To allow the user to access the Web interface of GV-Backup Center, click **Allow Web Login**.
6. To allow the user to remotely access the backup recordings on the GV-Backup Center, click **Allow Remote Playback**.

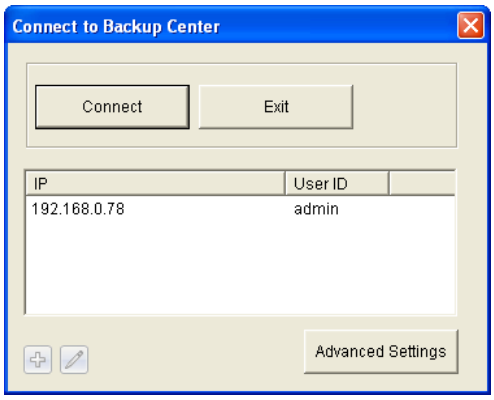
8.3 Connecting GV-System

Configure the GV-System in order to back up the recordings to the GV-Backup Center remotely over a network.

1. Click the **Network** button and select **Connect to Backup Center**.



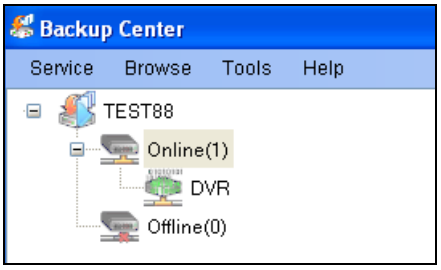
2. Type IP address or domain name of GV-Backup Center.
3. Type the **User ID** and **Password** to log in the GV-Backup Center. These entries must match the account and password created on the GV-Backup Center. See *7.1 Starting the GV-Backup Center* earlier.
4. Keep the default port number **30000**.
5. Click **OK**. The login information is added.



6. Click **Advanced Settings** to specify the interval between each connection retry when connection is interrupted.

7. Click **OK** and click the **Connect** button to connect to GV-Backup Center.

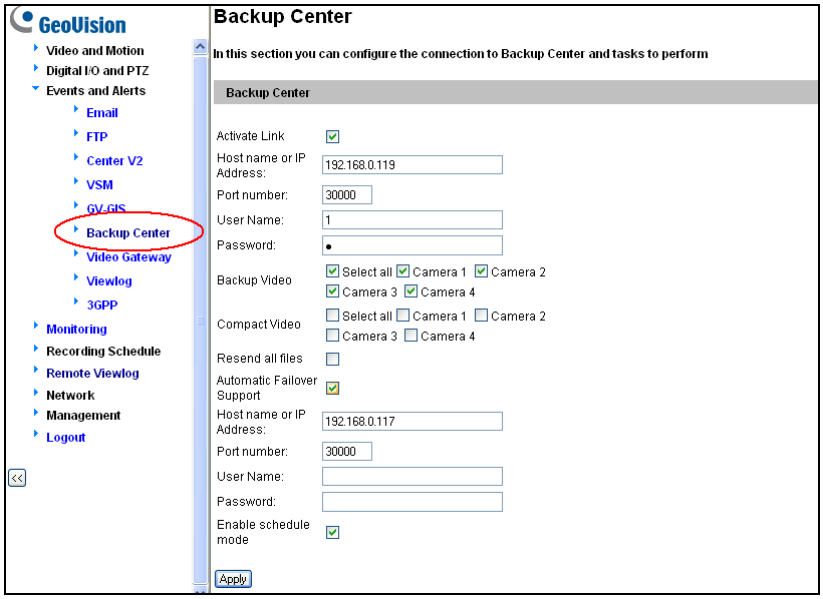
Ensure **Data Service** on the GV-Backup Center has been enabled, otherwise the connection attempt will fail. When the connection is established, you can see the online DVR icon on the GV-Backup Center, as the example below.



8.4 Connecting IP Video Devices

Configure the GV-IP Devices to back up data to the GV-Backup Center remotely over a network. Different backup schedules are definable on each GV-IP Device. Every GV-IP Device can be set up with two GV-Backup Center in case of a failure in the primary center.

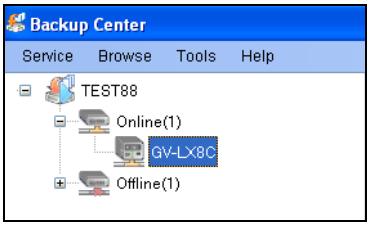
1. Access the Web interface of GV-IP Devices, and select **Backup Center**.



2. Enable **Activate Link**.
3. Type the IP address or domain name of GV-Backup Center.
4. Keep the default port number **30000**.
5. Type the **User Name** and **Password** to log in the GV-Backup Center. These entries must match the account and password created on the GV-Backup Center. See *7.1 Starting the GV-Backup Center* earlier.
6. In the **Backup Video** section, select the cameras that you want to back up their recordings to the GV-Backup Center.
7. In the **Compact Video** section, select the cameras that you only want to back up their **Key Frames** to the GV-Backup Center, instead of full recordings. This option is useful to save the backup time.
8. Select **Reset all files** in case of the network interruption. After the network is recovered, all the missing data will be resent to the GV-Backup Center again.
9. If there is the other GV-Backup Center for failover support, select **Automatic Failover Support** and type its connection information.
10. Optionally, set up the schedule to back up data to the GV-Backup Center.
11. Click **Apply** to start the connection.

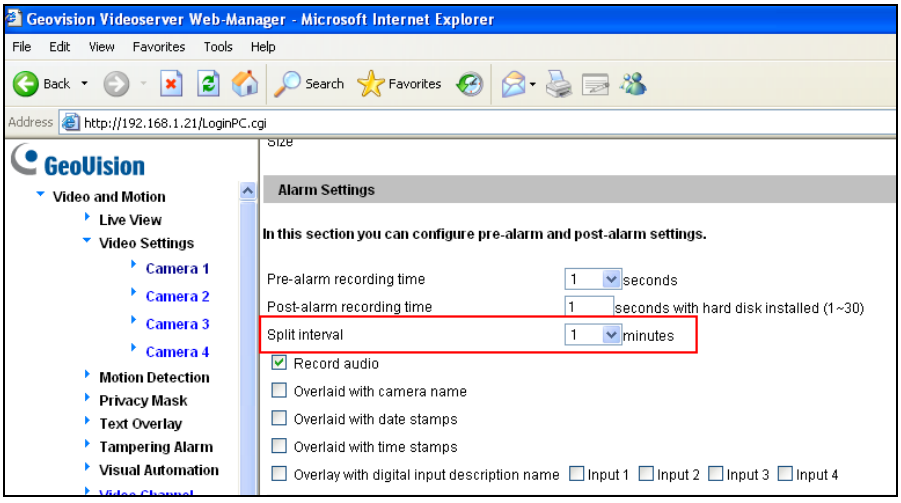
Ensure **Data Service** on the GV-Backup Center has been enabled, otherwise the connection attempt will fail. When the connection is established, a message "*Status: Connected. Connected Time:xxx*" will be displayed at the bottom of the GV-IP Device's Web interface.

On the GV-Backup Center, you can also see the online GV-IP Device icon, as the example below.



Setting Backup Frequency

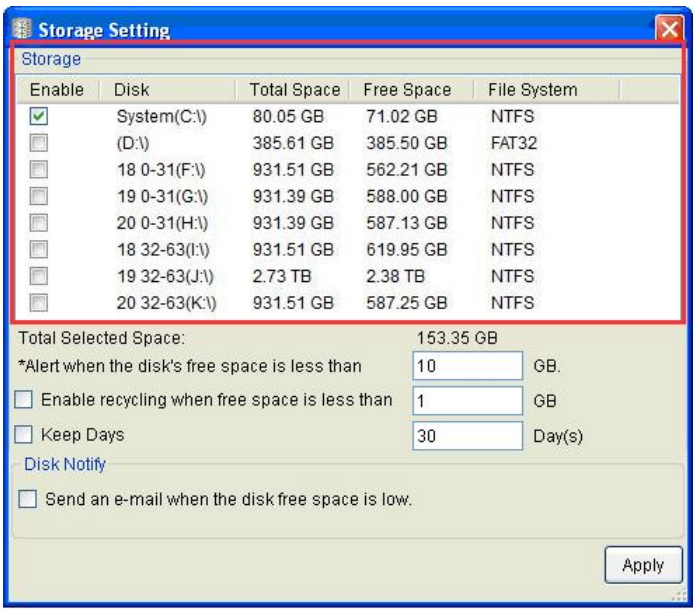
The backup is created soon after the recordings are stored to the hard drive of GV-IP Devices. In the **Split Interval** field**,** specify the backup frequency between 1 and 5 minutes for each event file on the GV-IP Devices.



8.5 Assigning Backup Locations

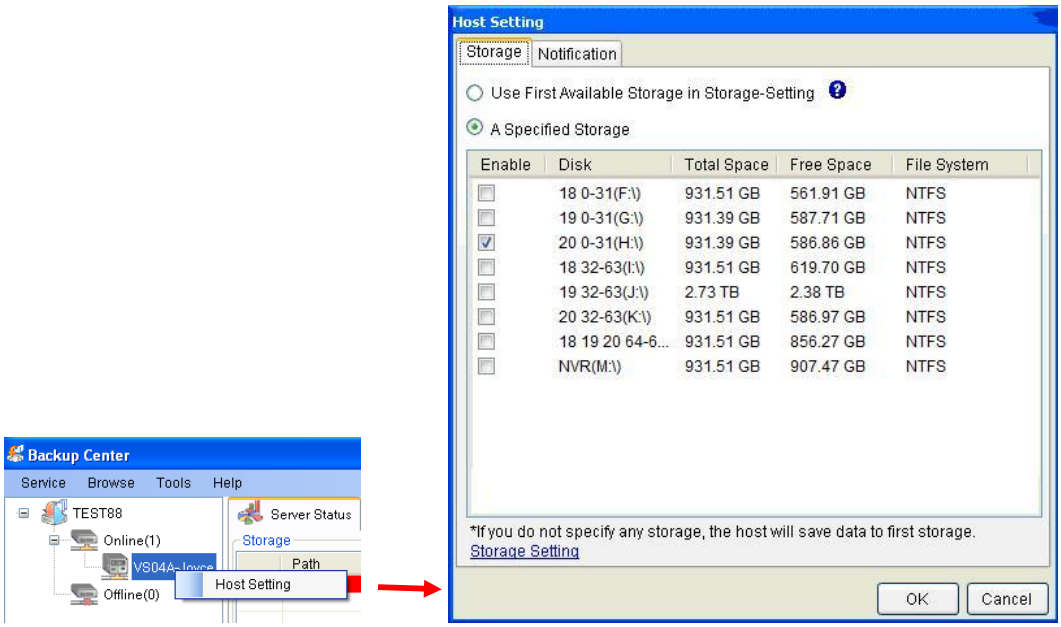
The backup location is where the recordings from GV-System and GV-IP Devices will be stored on the GV-Backup Center. You can assign different backup locations for each GV-IP Device and GV-System to back up its own recordings. The default backup location is at **C:\BackupSvr**.

1. Click **Tools** from the menu bar, select **Setting** and click **Storage**.



2. In the Storage list, select the **Disk** that you want to use as the backup location on the GV-Backup Center.
3. Click **Apply**.

4. To assign a disk for the GV-IP Device or GV-System, right-click one host on the Host List, and select **Host Setting**.
5. Select **Use First Available Storage in Storage Setting** to use the first available disk as the backup location for the GV-IP Device. Otherwise, select **A Specified Storage** and select one disk to be the backup location for the GV-IP Device or GV-System.
6. Click **OK**.



Note:

1. For the number of GV-System, GV-Recording Server and GV-IP Cameras supported by every hard disk, see *Network and HDD Requirements for GV-System and GV-IP Devices* and *Requirements for connecting to GV-Recording Server,* chapter 1, *GV-Backup Center User's Manual*.
2. It is recommended to install one hard disk for every 50 connected GV-Video Server V5 and GV-Compact DVR due to the data transfer limit of the hard disk. For the maximum of 200 connected GV-Video Server and GV-Compact DVR, you need to install at least 4 hard disks.