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The Vision of Security

Quick Start Guide

GV-NVR System Lite V2 (Rev. B)

The Vision of Security

Thank you for purchasing GV-NVR System Lite V2. This guide is designed to assist the new user in getting immediate results from the GV-NVR System Lite V2. For advanced information on how to use the GV-NVR System Lite V2, please refer to *GV-NVR System Lite V2 User's Manual* (GV-Desktop < **Program** button < **User Manual**).

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English
NVRLV2BV10-QG-B

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GeoVision, Inc.
9F, No. 246, Sec. 1, Neihu Rd.,
Neihu District, Taipei, Taiwan
Tel: +886-2-8797-8377
Fax: +886-2-8797-8335
http://www.geovision.com.tw

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Preface

Welcome to the *GV-NVR System Lite V2 (Rev. B) Quick Start Guide*.

The GV-NVR System Lite V2 (Rev. B) has two models:

Models
GV-NVR Lite V2 (Rev. B) 1 TB
GV-NVR Lite V2 (Rev. B) 1.5 TB

This Quick Start Guide is designed for the Revision B of GV-NVR System Lite V2. It provides the basic instructions to guide you through the installation and use of the GV-NVR System Lite V2.

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1. Packing List

Important: Please keep the original carton and all packing materials for future shipping need.

- GV-NVR System Lite V2 x 1
- AC Power Cord x 1
- Power Adapter x 1
- Standing Mount Kit (1 Base Stand and 1 Base Stand Screw included) x 1
- VESA Monitor Mount Kit (1 Stand Screw and 4 Fix Screws included) x 1
- GV-NVR System Lite V2 Quick Start Guide x 1
- GV-NVR Lite V2 Dongle for third-party IP cameras (optional)

2. Supported IP Cameras and Dongle Options

The GV-NVR Lite V2 supports connections to GV-IP devices and third-party IP cameras. You can adopt one of the following combinations:

IP cameras excluding GV-Fisheye cameras

- Connect up to 16 GV-IP cameras. See **Section A**.
- Connect up to 8 third-party cameras (of 640 x 480 resolution, H.264). See **Section C**.
- Connect up to 10 third-party cameras (of 1280 x 720 resolution, H.264). See **Section C**.
- Connect up to 10 third-party cameras (of 1280 x 1024 resolution, H.264). See **Section C**.
- Connect up to 8 third-party cameras (of 1920 x 1080 resolution, H.264). See **Section C**.
- Connect up to 2 third-party cameras (of 2048 x 1536 resolution, H.264). See **Section C**.
- Connect 1 third-party camera (of 2048 x 1944 resolution, H.264). See **Section C**.
- Connect 1 third-party camera (of 2560 x 1920 resolution, H.264). See **Section C**.
- Connect up to 8 cameras from GV-IP cameras and third-party IP cameras (of 640 x 480 resolution, H.264). See **Section A and C**.
- Connect up to 10 cameras from GV-IP cameras and third-party IP cameras (of 1280 x 720 resolution, H.264). See **Section A and C**.
- Connect up to 10 cameras from GV-IP cameras and third-party IP cameras (of 1280 x 1024 resolution, H.264). See **Section A and C**.
- Connect up to 8 cameras from GV-IP cameras and third-party IP cameras (of 1920 x 1080 resolution, H.264). See **Section A and C**.
- Connect 2 cameras from GV-IP cameras and third-party IP cameras (of 2048 x 1536 resolution, H.264). See **Section A and C**.
- Connect 1 camera from GV-IP cameras and third-party IP cameras (of 2048 x 1944 resolution, H.264). See **Section A and C**.
- Connect 1 camera from GV-IP cameras and third-party IP cameras (of 2560 x 1920 resolution, H.264). See **Section A and C**.

IP cameras including GV-Fisheye cameras

- **GV-Fisheye Camera 1.3 MP** + one of the following options:
  - GV-IP Camera x 15
  - Third-party Camera (VGA) x 6
  - Third-party Camera (1 / 1.3 / 2 MP) x 8
  - Third-party Camera (3 / 4 / 5 MP) x 1

- **GV-Fisheye Camera 2 MP** + one of the following options:
  - GV-IP Camera x 15
  - Third-party Camera (VGA) x 5
  - Third-party Camera (1 / 1.3 / 2 MP) x 6
  - Third-party Camera (3 / 4 / 5 MP) x 1

- **GV-Fisheye Camera 4 MP** + one of the following options:
  - GV-IP Camera x 11
  - Third-party Camera (VGA) x 5
  - Third-party Camera (1 / 1.3 / 2 MP) x 4
  - Third-party Camera (3 / 4 / 5 MP) x 1

- **GV-Fisheye Camera 5 MP** + one of the following options:
  - GV-IP Camera x 8
  - Third-party Camera (VGA) x 3
  - Third-party Camera (1 / 1.3 / 2 MP) x 3
  - Third-party Camera (3 / 4 / 5 MP) x 1

Analog cameras through GV-Compact DVRs and GV-Video Servers

- Connect up to 14 analog cameras through GV-Video Servers (of 704 x 480 resolution, H.264). See **Section D**.
- Connect up to 14 analog cameras through GV-Video Servers (of 352 x 240 resolution, H.264). See **Section D**.
- Connect up to 10 analog cameras through GV-Compact DVR V3 Series (of 704 x 480 resolution, de-interlace). See **Section D**.

The number of supported channels is based on the following resolution:

Section A		Dual-stream Resolution		Max. Frame Rate	Total Frame Rate
		Stream 1	Stream 2		
GV-IP Camera	D1	704 x 480 / 704 x 576	352 x 240 / 352 x 288	30 / 25 fps	480 / 400 fps
	1 MP	1280 x 720	448 x 252	15 fps	240 fps
	1.3 MP	1280 x 1024	320 x 256	15 fps	240 fps
	2 MP	1920 x 1080	448 x 252	10 fps	160 fps
	3 MP	2048 x 1536	320 x 240	10 fps	160 fps
	4 MP	2048 x 1944	320 x 240	10 fps	160 fps
	5 MP	2560 x 1920	320 x 240	10 fps	160 fps
Section B		**Single Stream Resolution (H.264)**		**Max. Frame Rate**	**Total Frame Rate**
GV-Fisheye	1.3 MP	1280 x 1024 (4:3)		7 fps	63 fps
	2 MP	1440 x 1376 (4:3)		7 fps	21 fps
	4 MP	2048 x 1944 (4:3)		6 fps	12 fps
	5 MP	2560 x 1920 (4:3)		6 fps	6 fps
Section C		**Single Stream Resolution (H.264)**		**Max. Frame Rate**	**Total Frame Rate**
Third-Party Camera	VGA	640 x 480		30 fps	240 fps
	1 MP	1280 x 720		15 fps	150 fps
	1.3 MP	1280 X 1024		15 fps	150 fps
	2 MP	1920 X 1080		10 fps	80 fps
	3 MP	2048 x 1536		10 fps	20 fps
	4 MP	2048 X 1944		10 fps	10 fps
	5 MP	2560 X 1920		10 fps	10 fps
Section D		**Dual-stream Resolution**		**Max. Frame Rate**	**Total Frame Rate**
		Stream1	**Stream 2**		
GV-Video Server V2	GV-VS11 / GV-VS14	704 x 480	352 x 240	30 fps	420 fps
	GV-VS12 / GV-VS04H	352 x 240	N/A	30 fps	420 fps
GV-Compact DVR V3		704 x 480 De-interlace	N/A	30 fps	300 fps

Note:

GV IP cameras

1. GV IP cameras (excluding GV Fisheye), stream 1 is used for recording and single view, and stream 2 for live viewing in multi divisions.
2. The default resolution for stream 1 is set at its maximum. Several resolution, aspect ratio and codec options are available for each IP camera, except GV-Fisheye cameras.
3. It is highly recommended to set the panel resolution to 1280 x 1024 (default) or lower when connecting to GV Fisheye to get better CPU performance.

Third-party cameras

4. For third-party cameras, be sure the resolution and codec are configured as specified above to achieve the best performance and maximum frame rate. To find the supported third-party cameras, go to http://www.geovision.com.tw/english/4_21.asp.

Frame Rate

5. Total Frame Rate equals to the Max. Frame Rate multiplies the supported channel numbers.
6. If you record the images, access live view and see the playback simultaneously, the CPU loading will increase massively. Therefore, the frame rates may drop.

GV-NVR System Lite V2 Dongle

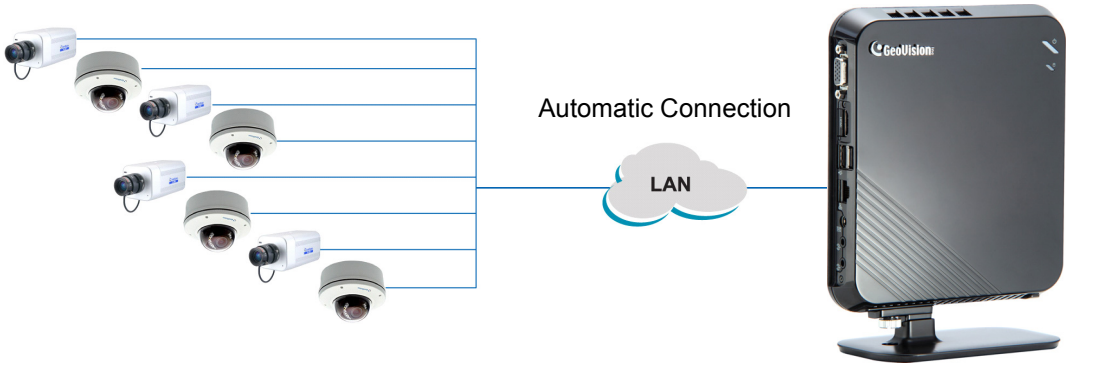
A dongle is required when connecting to third-party IP cameras.

Dongle Options: 2, 4, 6, 8 or 10 IP channels.

3. Basic Installation

1. Connect the speakers to the GV-NVR System Lite V2.
2. Connect the microphone to the GV-NVR System Lite V2.
3. Optionally connect the GV-USB Dongle for third-party IP cameras' connection.
4. Using the USB cables, connect a keyboard and a mouse to the GV-NVR System Lite V2.
5. There are two ways to connect the monitor to the GV-NVR System Lite V2.
   - Using the VGA cable, connect the computer monitor to the GV-NVR System Lite V2.
   - Using HDMI cable, connect the HDTV to the GV-NVR System Lite V2.
6. Using the RJ-45 cable, connect a switch or a hub to the GV-NVR System Lite V2.
7. Using the supplied power adapter, connect the GV-NVR System Lite V2 to the power outlet.

For automatic setup, connect GV IP cameras under the same LAN with the GV-NVR System Lite V2. After the power is turned on, the GV-NVR System Lite V2 will search for GV IP cameras with the default IP address, ID and password. The GV IP cameras will be displayed on the main screen without any further configuration.



IP Address: 192.168.X.X
Subnet Mask: 255.255.255.0

Default IP Address: 192.168.0.200
Subnet Mask: 255.255.255.0

- For automatic setup, see *5. Basic Configuration* in the *Quick Start Guide*.
- For manual setup, see *3.4 Setting Up IP Cameras* in the *GV-NVR System Lite V2 User's Manual*.
- To connect third-party IP cameras, see *Setting Up Third-Party IP Cameras* in the *Quick Start Guide*.

IMPORTANT: For automatic setup, make sure all the devices (GV IP cameras and GV-NVR System Lite V2) are connected under the same LAN before you turn on the power of GV-NVR System Lite V2.

Note: The monitor you use must support screen resolution of 1280 x 1024 and display color of 32 bits. And the HDTV must be capable of Full HD 1080P resolution.

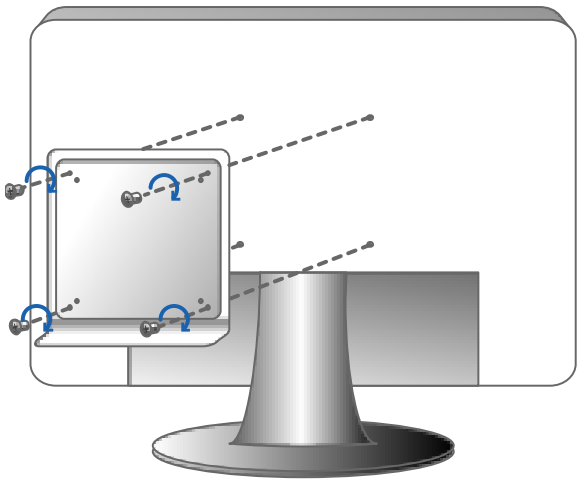
4. Mounting Method

Standing Mount

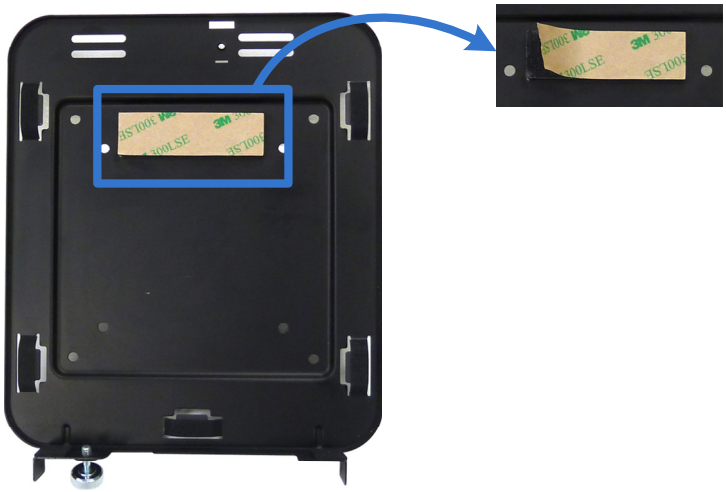
1. Attach the base stand to the GV-NVR System Lite V2.
2. Tighten the base stand screw.

Monitor Mount

1. Using the 4 fix screws, tighten the VESA monitor mount on the back of the computer monitor.



2. Peel off the liner from the Velcro.



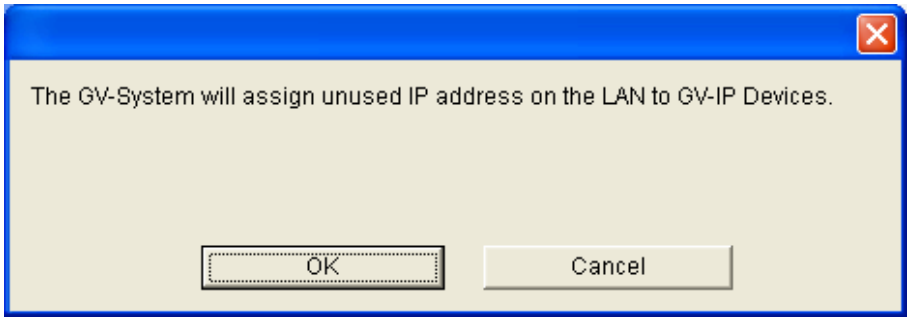
3. Attach the GV-NVR System Lite V2 to the VESA monitor mount and tighten the stand screw.

5. Basic Configurations

After you have installed the necessary cables and IP cameras, you are ready to access the channels on GV-NVR System Lite V2. For details, see *3.4 Setting Up IP Cameras* in the *GV-NVR System Lite V2 User's Manual*.

Assigning the IP Address Automatically

1. Power on the GV-NVR System Lite V2. The GV IP cameras with the default IP address (192.168.0.10), ID (admin) and password (admin) are detected, this message appears.



2. Click **OK**. The GV-NVR System Lite V2 will assign unused IP addresses and connect to each of the GV IP camera in the form of 192.168.X.X. The channel will then be displayed on the main screen.

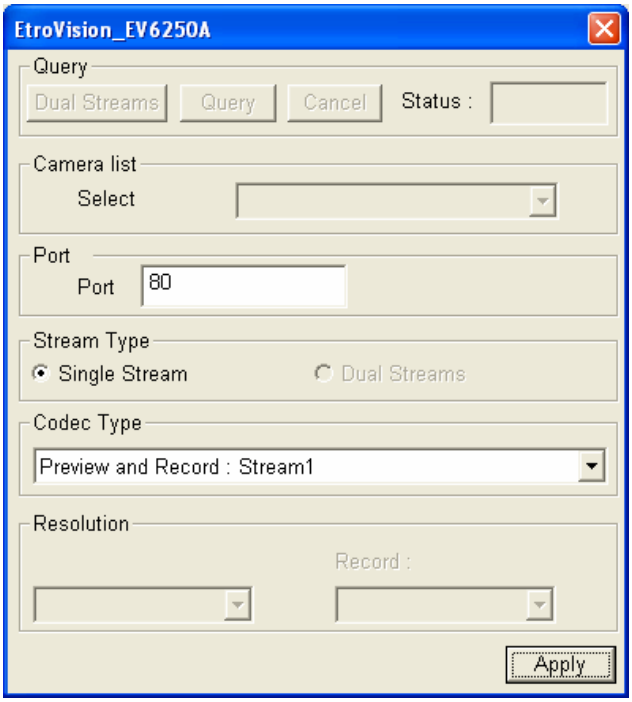
Note:

1. You can change the automatically assigned IP address of a GV IP camera. See *Changing the IP address of the GV IP Cameras* later in the *Quick Start Guide*.
2. If you select **Cancel** for manual IP assignment, see *3.4 Setting Up IP Cameras* in the *GV-NVR System Lite V2 User's Manual*.

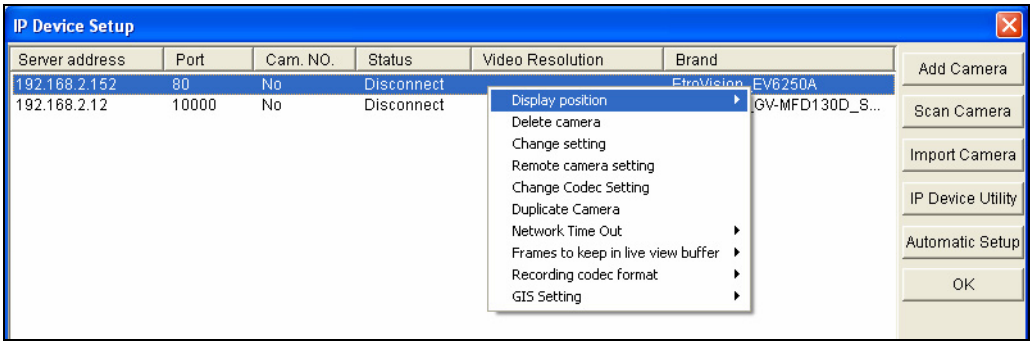
Setting Up Third-Party IP Cameras

1. On the main screen, click the **Configure** button, select **System Configure**, and click **IP Camera Install**.
2. Click the **Scan Camera** button.
3. Click the **Start Scan** button. The IP devices under the same LAN with the GV-NVR System Lite V2 will be searched and listed.
4. Double-click the IP camera.
5. Type the ID and password of the IP camera and click **OK**.

6. Click **Query** to detect the IP camera again. The settings accessible on this interface may vary depending on the camera brand.
   - **Port:** Video streaming port number.
   - **Stream Type:** The GV-NVR System Lite V2 only supports a single stream when connecting to a third-party IP camera.
   - **Codec Type:** It is highly recommended to choose H.264 codec type for best performance.



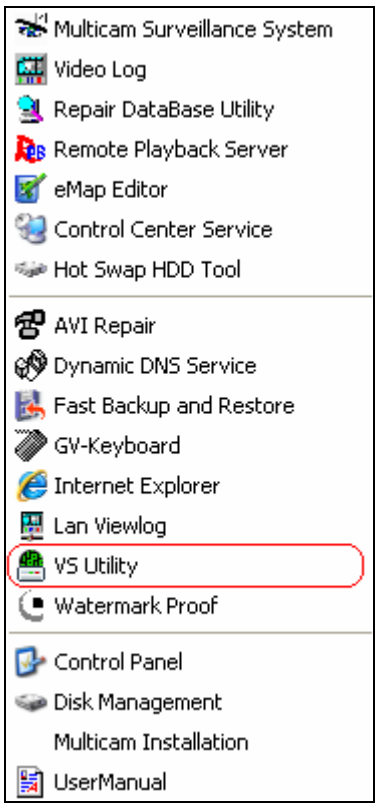
7. Click **Apply**. The IP camera will be added to the IP Device Setup window.
8. Click the listed camera, and select **Display position** to map the IP camera to a channel on the GV-NVR System Lite V2.



9. The Status column now should display “Connected”. Click **OK**. The channel should be displayed on the main screen.

Changing the IP Address of GV IP Cameras

1. On the GV-Desktop, click the **Programs** button and select **VS Utility**. The GV IP Device Utility appears and automatically detects the GV IP cameras on the LAN.



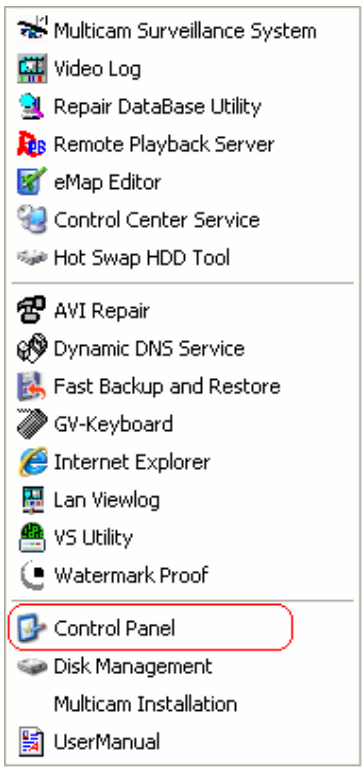
2. Double-click one camera in the list.
3. Type the user name and password of the GV IP camera. By default both values are **admin**.
4. Type the new IP information.
5. Click **OK**. The new IP address is updated to the camera.

Changing IP Address of GV-NVR System Lite V2

The GV-NVR System Lite V2 has a default IP address of 192.168.0.200 for connecting with GV IP cameras automatically. You can also change the IP address of GV-NVR System Lite V2 by following the steps below.

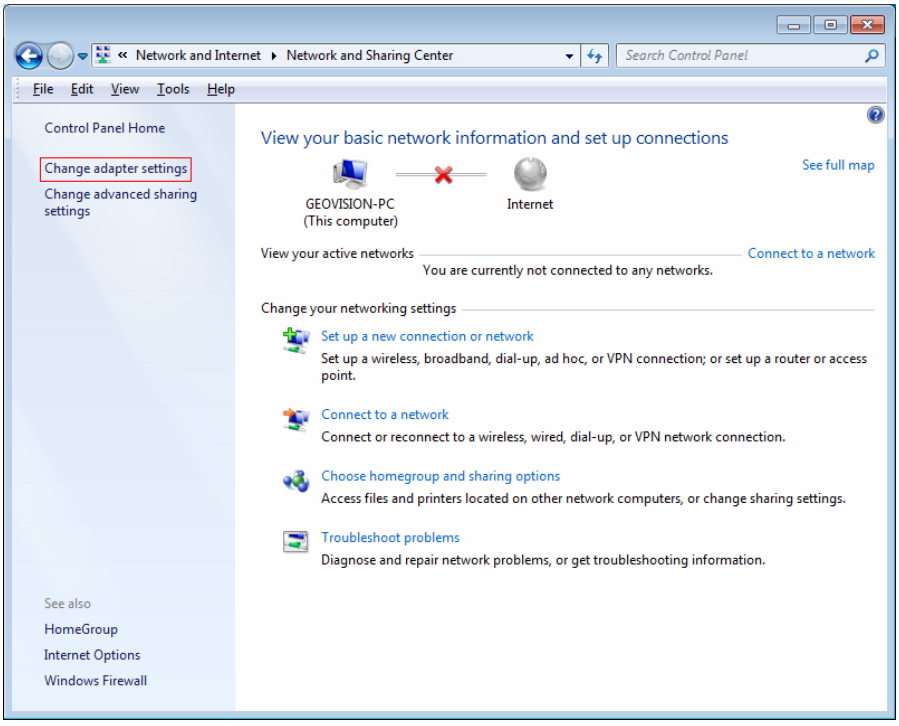
Note: After you change the IP address of GV-NVR System Lite V2, you should also change the IP addresses of GV IP cameras to the same network; otherwise, the GV-NVR System Lite V2 will not detect the cameras for automatic connection.

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

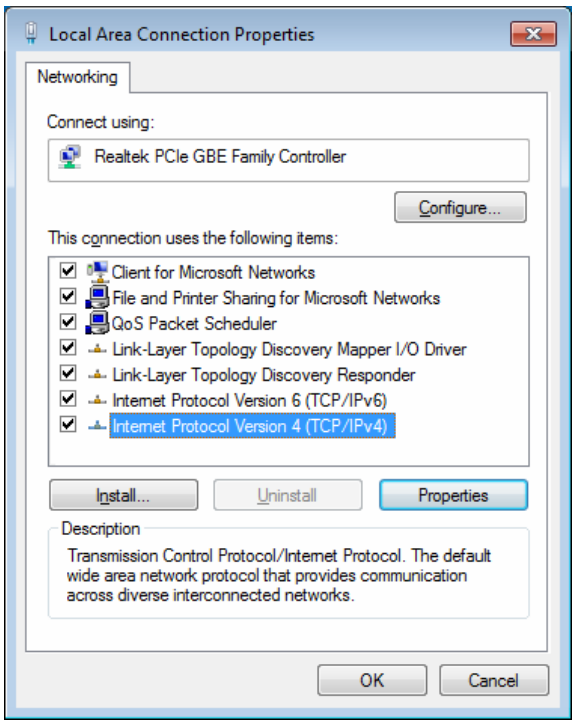


2. Type the ID and password. The default ID and password are "**0000**". The Control Panel window appears. Click the **View network status and tasks** option under the **Network and Internet** setting.

3. Click the **Change the adapter settings** option.



4. In the Local Area Connection Properties dialog box, select **Internet Protocol (TCP/IP)** and click **Properties**.

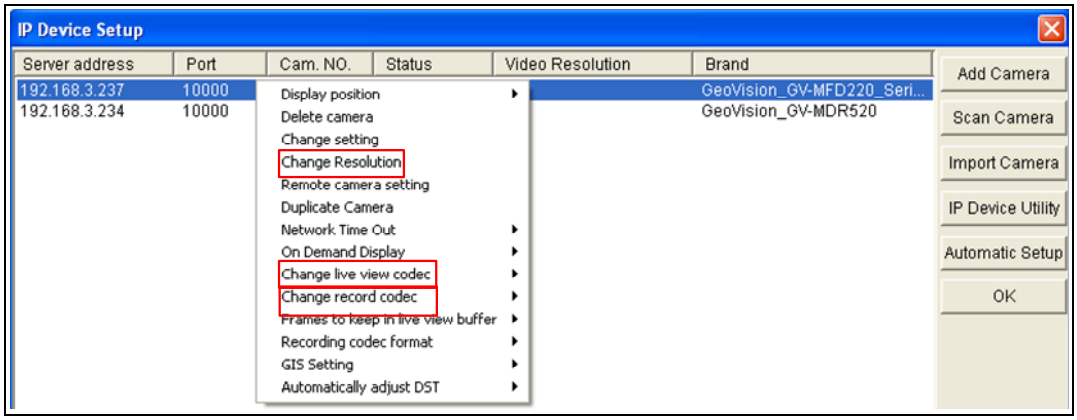


5. Select **Use the following IP address**, type the new IP information, and click **OK** to finish the setting.

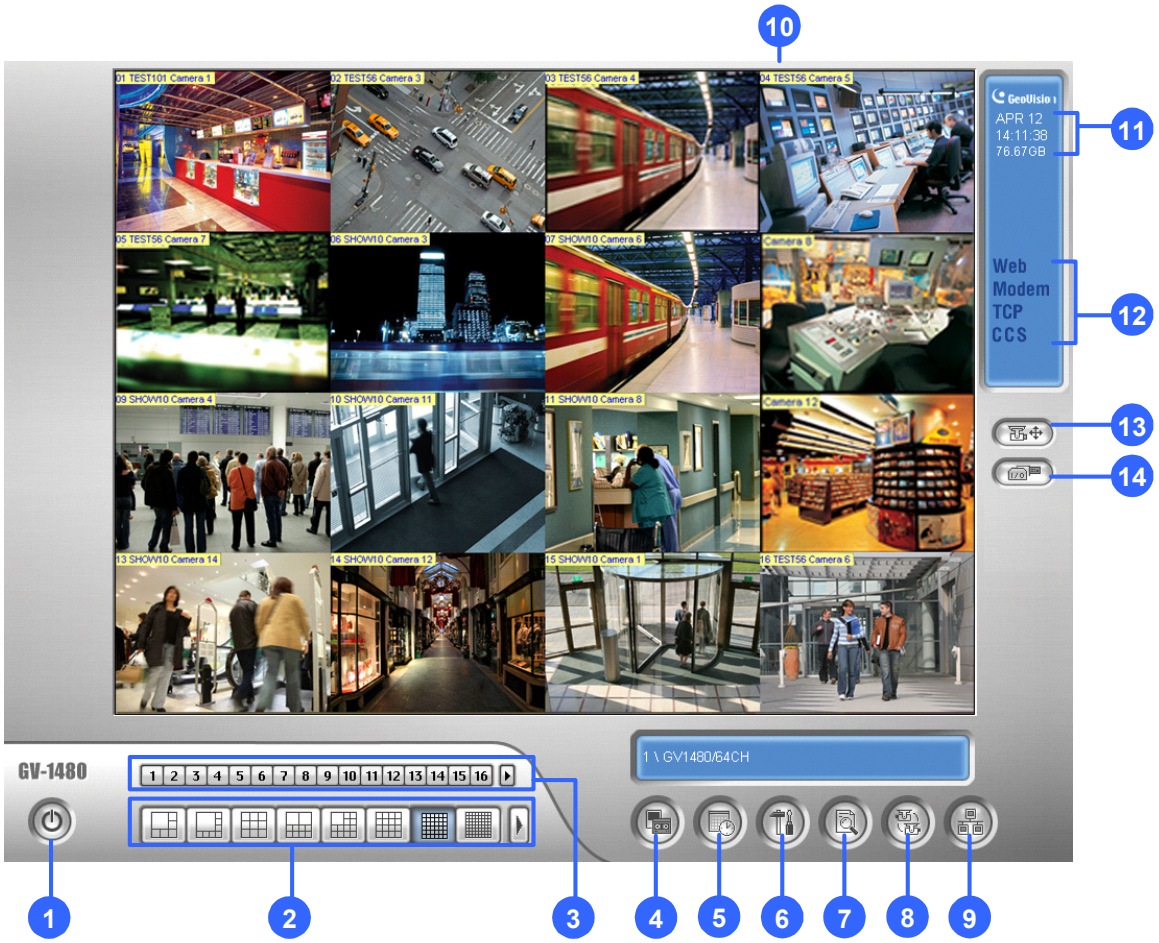
Changing Codec and Resolution of GV IP Camera

Several resolution, aspect ratio and codec options are available for GV IP cameras, except GV-Fisheye cameras.

1. On the main screen, click the **Configure** button, select **System Configure**, and click **IP Camera Install**.
2. Click the listed camera, and select **Change live view codec**, **Change record codec** or **Change Resolution**.



6. 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

Formatting the External Hard Drive

The GV-NVR System Lite V2 records audio and video to the internal hard drive. You can also use an external hard drive to expand recording space. You must format the hard drive before you can use it.

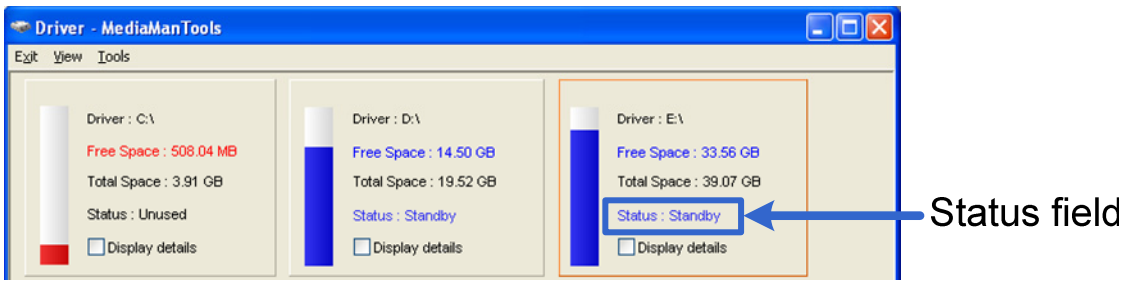
To format an external hard drive, use Windows' **Disk Management**. To start initializing and formatting an external hard drive, click the **Programs** button on the GV-Desktop and select **Disk Management**. The feature is protected by an ID and a password. The default ID and password are "**0000**". For details to format an external hard drive, see *3.5 Formatting the Hard Drive* in *GV-NVR System Lite V2 User's Manual* (GV-Desktop < **Program** button < **User Manual**).

Adding the External Hard Drive to the Recording Path

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

Note: The default recording path for external hard drives starts from E:\

1. On the GV-Desktop, click the **Programs** button, and select **Hot Swap HDD Tool**.
2. Right-click the hard drive in the MediaMan Tools window, select **Add for recording**, and then select the storage group from the drop-down list. Storage 1 is created by default.
3. Click **OK** to automatically configure the hard drive to the recording path.
4. In the MediaMan Tools window, if the hard disk drive is successfully added to store data, its Status field will display "*Standby*".



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

For details, see *3.6 Adding the External Hard Drive to the Recording Path* in *GV-NVR System Lite V2 User's Manual* (GV-Desktop < **Program** button < **User Manual**).

Renaming the Camera

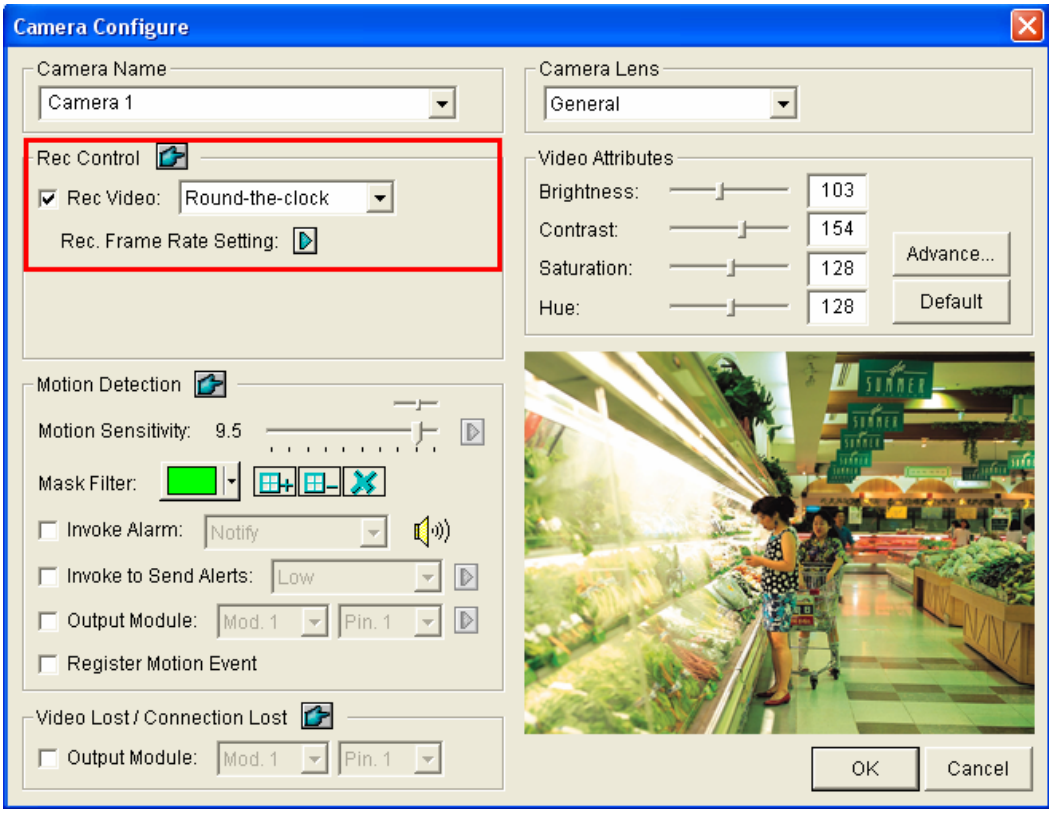
You can give a new name for each camera.

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

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. Click **OK**.

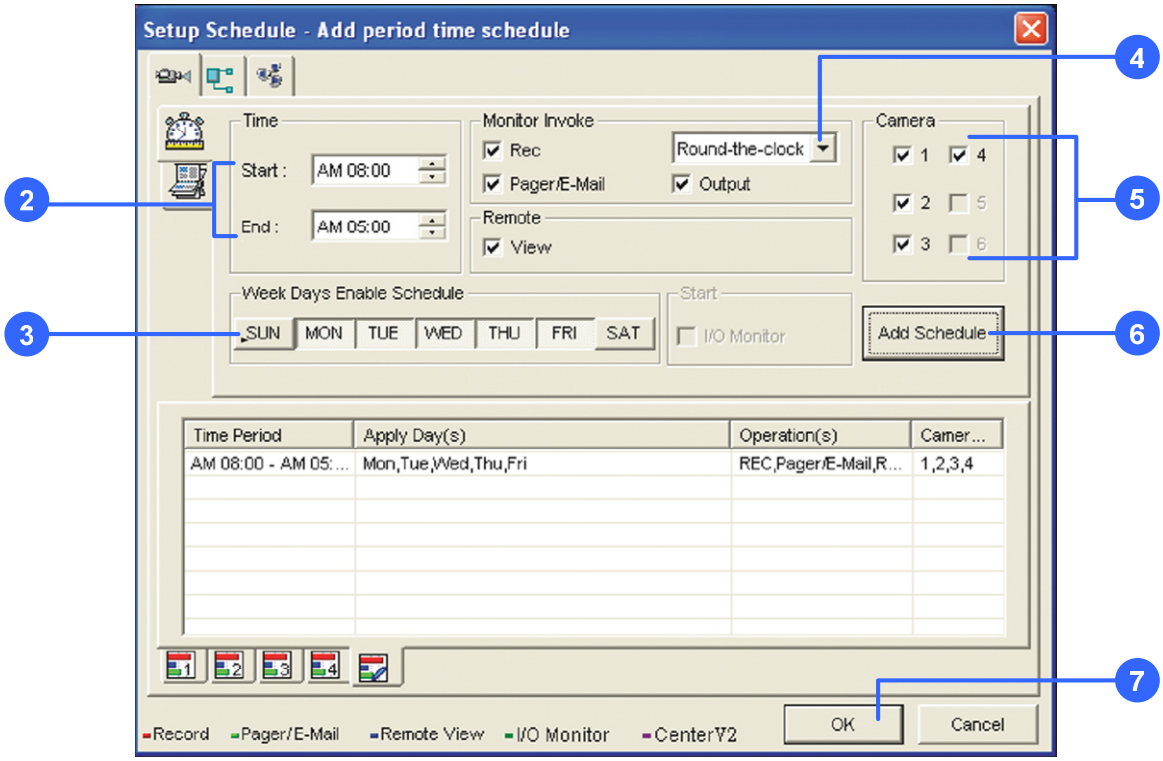
For details on setting camera properties, refer to *Adjusting Individual Camera*, Chapter 1, *DVR User's Manual* (GV-Desktop < **Program** button < **User Manual**).

7. Recording Schedule Setup

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* on Software DVD.

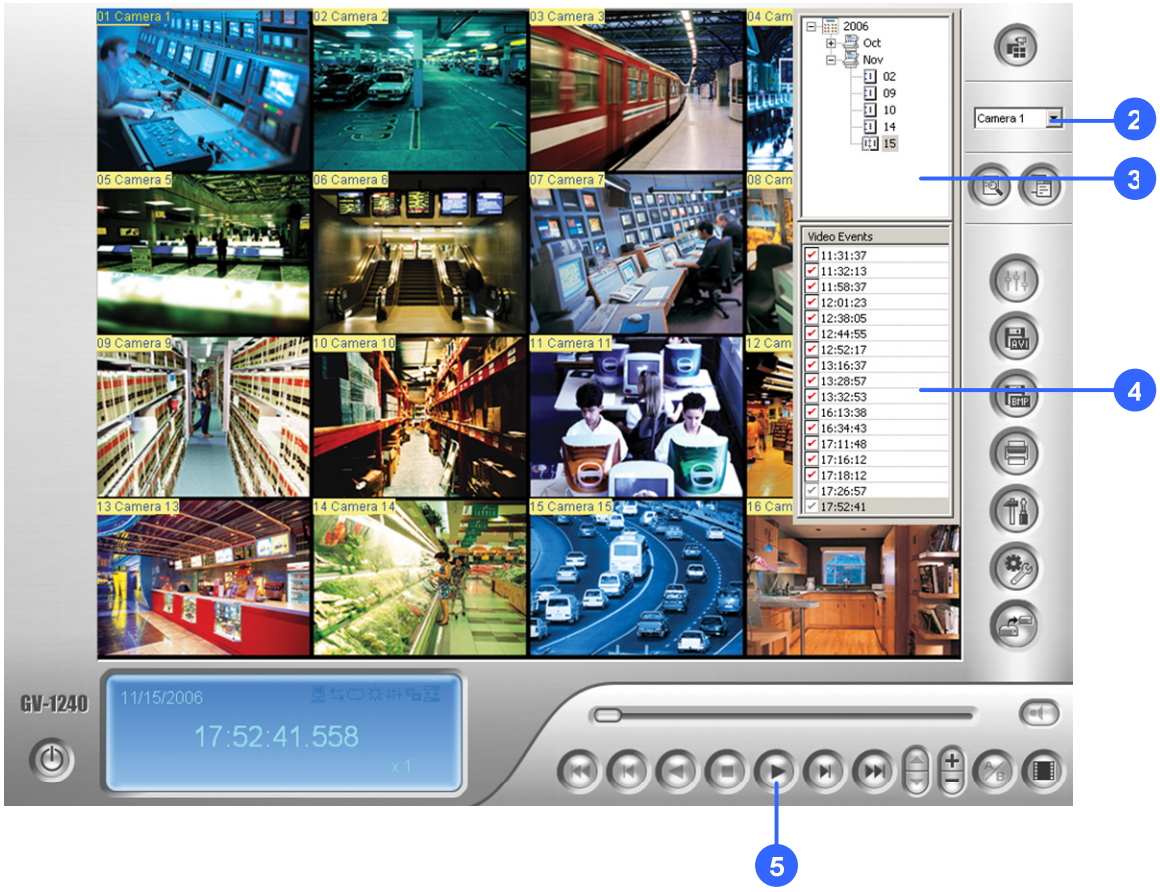


8. Video Playback

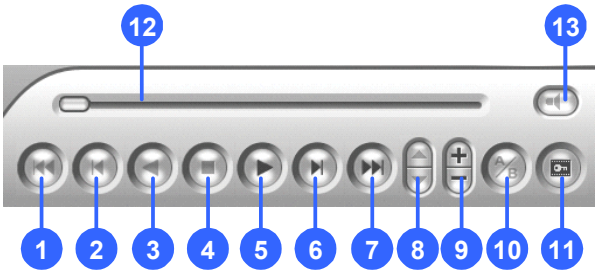
You can play back video recorded during a particular date and time.

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* on Software DVD.



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.

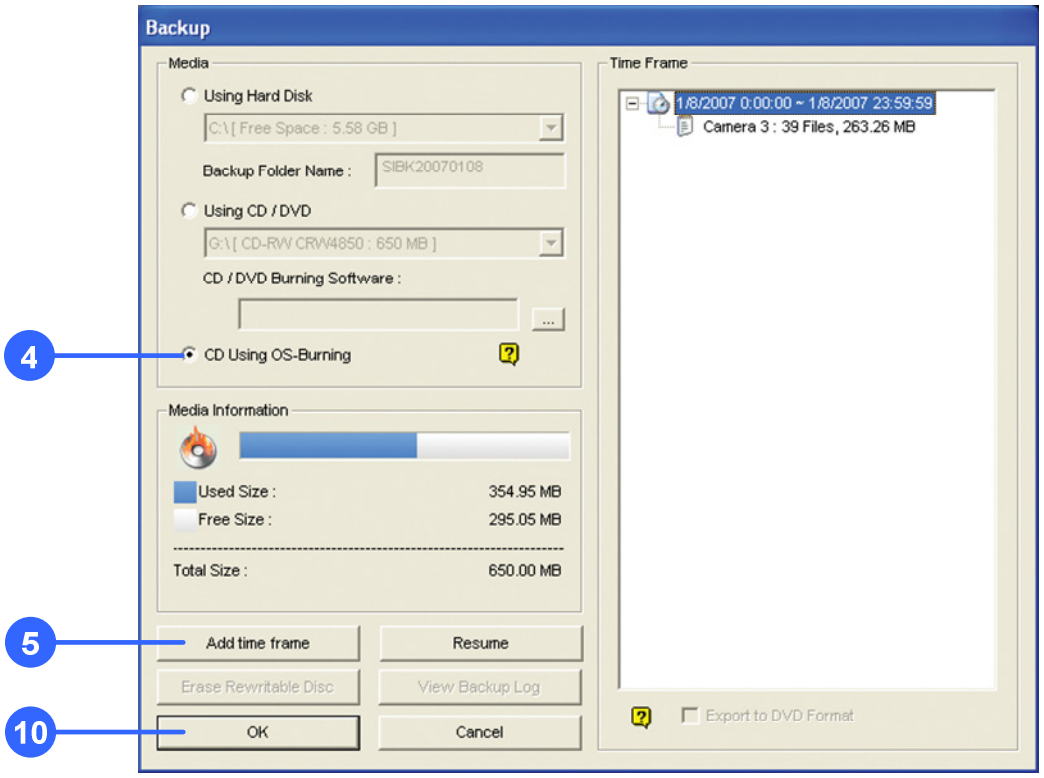
9. Video Files Backup

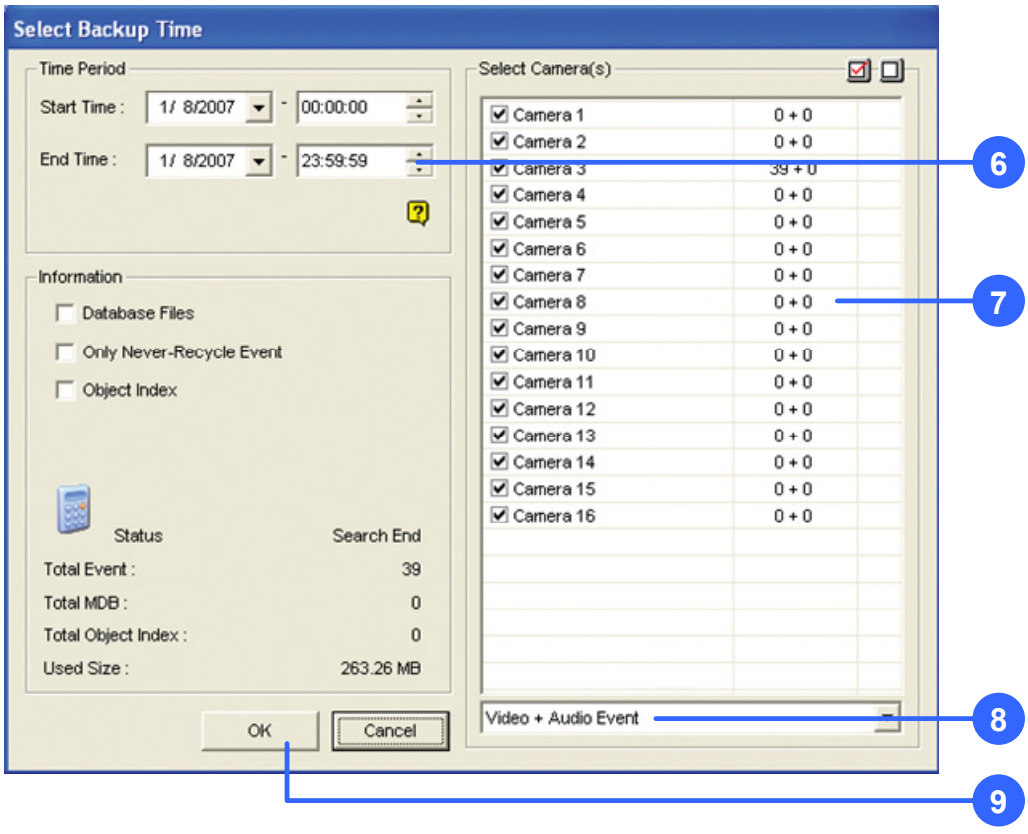
You can back up video files of the desired time to CD / DVD.

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 Recorded Files,* Chapter 5, *GV-DVR User's Manual* on Software DVD.

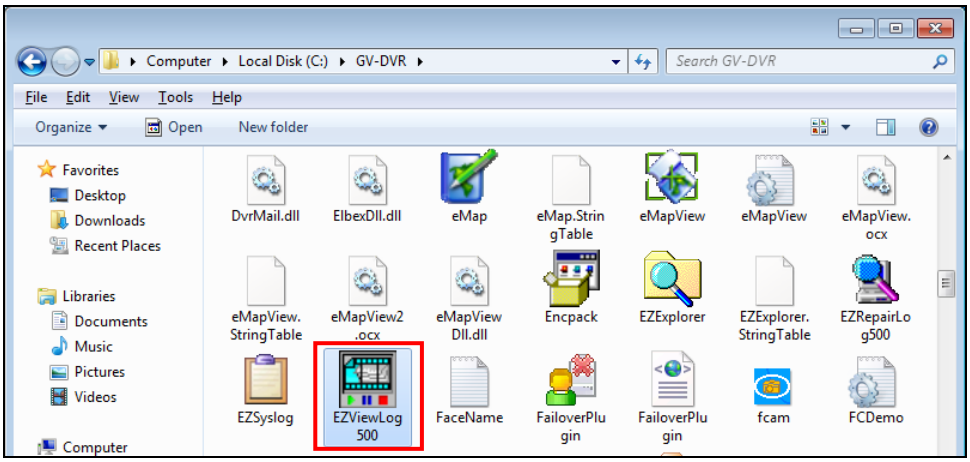
Note: You have to connect a USB DVD RW device to the GV-NVR System Lite V2 for video files backup.


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

Playing Backup Files

Open the backup folder, run **EZViewLog500.exe**, and then follow the instructions in the *Play Back Video* section.

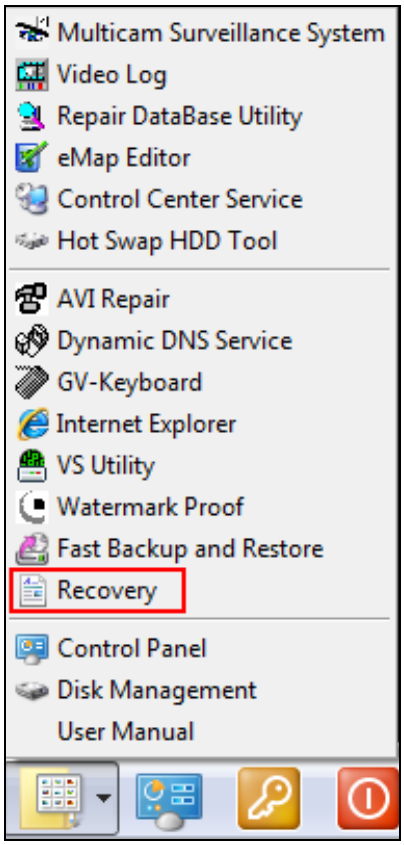


10. System Restoration

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 in the partition D since it only reformats the partition C.

1. On the GV-Desktop, click the **Program** button and select **Recovery**. The system will run this command by itself.



2. Restart the GV-NVR System Lite V2.
3. Press **F11** button several times to avoid accessing the system.

4. When the below screen appears, press the **Recovery** button.

5. If you can't successfully start the Recovery Wizard, you may see the below screen. Select **SATA PM** to start the Recovery Wizard.

6. When the restoring process is completed, the screen will automatically show the GV-Desktop. And the system will restore the default values.