

Surveillance System

Quick Start Guide V8.5.5.0



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

DVRV8550-QG-A



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Important Notice

GPU Decoding Specifications

In V8.5 or later, support for GPU (Graphics Processing Unit) decoding is added to lower the CPU loading and to increase the total frame rate supported by a GV-System. GPU decoding only supports the following software and hardware specifications:

		Supported		Not Ourse orted
		Sandy Bridge	Ivy Bridge	Not Supported
32-Bit		Windows Vista / 7		Windows 2000 / XP /
Operating System 64-Bit		Windows 7 / Server 2008 R2	Windows 7	Server 2008
GV-System		V8.5.0.0 or later	V8.5.5.0 or later	
Resolution 1 MP / 2 MP 1 MP / 2 MP / 3 MP		1 MP / 2 MP / 3 MP	CIF / VGA / D1 / 4MP / 5MP	
Codec	Codec H.264		MPEG4 / MJEPG	
Stream	Single Stream		Dual Streams	
Note: To apply GPU decoding, the recommended memory (RAM) requirements is 8 GB or more for 64-bit OS and 3 GB for 32-bit OS.				

Software Specifications

Hardware Specifications

Motherboard	Intel chipset with onboard VGA Ex: Intel® Q77, Q75, Z77, Z75, H77, B75, Q67, H67, H61, Q65, B65, Z68 Express Chipset.		
Note: If you want to use an external VGA card, it is required to connect a monitor to the onboard VGA to activate GPU decoding.			

Multi-Channel Playback Specifications

In V8.5 or later, multi-channel playback in ViewLog has been enhanced to improve the smoothness of the video by producing higher frame rate. However, playing back multiple channels at high resolution can increase the CPU loading especially if the GV-System is processing other tasks simultaneously. As a result of the high CPU loading, dropped frames may sometimes occur in recorded video when playing back multiple megapixel channels.

To avoid the problem, it is recommended to play back megapixel video in single view.

Important Notice before Using GV-Video Capture Card

1. Exclusions:

- Currently all GV-Video Capture Cards are not compatible with **VIA series**, **ATI series** chipset motherboards.
- Currently GV-600(S), GV-650(S), GV-800(S), GV-600A, GV-650A and GV-800A, GV-1120, GV-1240, GV-1480 Cards are not compatible with VIA series, ATI series, Intel Sandy Bridge series and Intel Ivy Bridge series chipset motherboards.
- Currently GV-3008 Card is not compatible with VIA series, ATI series, NVIDIA series, Intel Sandy Bridge series and Intel Ivy Bridge series chipset motherboards.
- If your GV-Video Capture Card or GV-System works in conjunction with GV-Multi Quad Card or GV-Keyboard V1 / V2, note these accessories do not support 64-bit Windows versions.

2. Hard Disk Requirements:

- It is strongly recommended to use two separate hard disks. One is for installing Windows operating system and GV-System software, and the other is for storing recorded files.
- The total of recording frame rates that you can assign to a single hard disk is listed as below:

Software Compression				
Video Resolution (MPEG4) NTSC PAL				
CIF	960 FPS	800 FPS		
VGA/D1	480 FPS	400 FPS		
Turbo VGA	416 FPS	400 FPS		
Turbo D1	352 FPS	320 FPS		
Note:				

Frame rate limit in a single hard disk when connecting to analog cameras

1. The above data was determined using the default codec MPEG4 and hard disks with average R/W speed above 110 MB/s.

2. The data for Turbo VGA and Turbo D1 was determined using GV-1480A Card.

Hardware Compression					
H.264					
Video Resolution	NTSC	PAL			
D1	01 480 FPS 400 FPS				
Note: The above data was determined using the default codec H.264, default quality level Q3 and hard disks with average R/W speed above 110 MB/s.					

Frame rate limit in a single hard disk when connecting to IP cameras

Video resolution	H.2	264	MJPEG	
video resolution	Frame Rate	Bit Rate	Frame Rate	Bit Rate
5 MP (2560 x 1920)	220 FPS	8.5 Mbit/s	80 FPS	30.4 Mbit/s
4 MP (2048 x 1944)	330 FPS	10.4 Mbit/s	105 FPS	40.53 Mbit/s
3 MP (2048 x 1536)	440 FPS	9.83 Mbit/s	140 FPS	38.67 Mbit/s
2 MP (1920 x 1080)	660 FPS	12.59 Mbit/s	210 FPS	44.93 Mbit/s
1.3 MP (1280 x 1024)	660 FPS	6.16 Mbit/s	300 FPS	32.26 Mbit/s

Note: The data above was determined using the bit rate listed above and hard disks with average R/W speed above 110 MB/s.

Frame rate limit in a single hard disk when connecting to SDI cameras

Hardware Compression				
	H.264			
Video Resolution	NTSC	PAL		
1080p	360 FPS	300 FPS		
1080i	360 FPS 300 FPS			
720p 720 FPS 600 FPS				
Note: The above data was determined using the default codec H.264, default quality level Q3 and hard disks with average R/W speed above 110 MB/s.				

The frame rate limit is based on the resolution of video sources. The higher video resolutions the lower frame rates you can assign to a single hard disk. In other words, the higher frame rates you wish to record the more hard disks you need to install. For the information of recording frame rates, you may consult the user's manual of the GV-System or the IP camera that you wish to connect to.

- The hard disk space required to install GV-System must be at least 1 GB.
- To use Advanced Video Analysis, at least 1 GB of memory is required.
- To use two or more of the following functions simultaneously, at least 2 GB of memory is required: Advanced Video Analysis, Video Analysis, IP Camera and Pre-Record by Memory.

3. CPU Requirements:

• For recording resolution of 640 x 480 or above, Pentium 4 processor with Hyper Threading is required.

4. Default Settings:

• For software recording rates, all GV Cards are set to CIF. For hardware recording rates, GV-4008A / 4008 / 3008 Card is set to D1.

5. The Card with PCI-E Interface:

• GV-Video Capture Cards with x1 interface support the PCI Express x1, x4, x8 or x16 slot. GV-1120B, GV-1240B, GV-1480B Cards with x4 interface support x4, x8 or x16 slot.

6. GV-600A, GV-650A and GV-800A:

Starting from V8.3.2, GV-600 (V4), GV-650 (V4) and GV-800 (V4) are renamed to GV-600A, GV-650A and GV-800A. These V4 Cards and A Cards are the same video capture cards.

7. End of Support:

- Starting from V8.3, GV-System will not support GV-250 Card, GV-Hybrid DVR (MPEG2)
 Card and GV-DSP Card.
- Starting from V8.3.2, GV-System will not support **GV-2004 Card**.
- Starting from V8.3.2, GV-System will not support MPEG2 codec.
- Starting form V8.3.3, GV-System will not support GV-2008 Card.
- Starting from V8.4, GV-System will not support **Windows 2000**.

Chapter 1 Video Capture Cards

This chapter includes the following information:

- Minimum system requirements
- Packing list
- Connection diagrams
- Specifications
- Driver installation
- Comparison chart



1.1 GV-SDI-204

The GV-SDI-204 Card provides up to 4 video channels of HD-SDI cameras, recording up to 120 / 100 fps (NTSC / PAL) in total at 1080p with H.264 hardware compression. You can install up to four GV-SDI-204 Cards for a total of 16 channels. The new technology of resolution is employed to enhance the live image without DSP Overlay. Even in multi views, the image on the largest division view can remain at high-quality resolution without DSP Overlay.

32-bit		Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
OS	64-bit	Windows 7 / Windows Server 2008 R2			
		GV-SDI-204	Core 2 Duo E4400, 2.00 GHz		
0011		GV-SDI-204 x 2	Core 2 Quad Q9400, 2.66 GHz		
CPU		GV-SDI-204 x 3	Core i3-2130, 3.40 GHz		
		GV-SDI-204 x 4	Core i3-2130, 3.40 GHz		
		GV-SDI-204			
RAM		GV-SDI-204 x 4	2 x 1 GB Dual Channels		
		GV-SDI-204	500 GB		
HDD		GV-SDI-204 x 4	4 2 TB		
Graphic Ca	ard	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended bit color			
DirectX		9.0c			

Minimum System Requirements

Packing List

- **1.** GV-SDI-204 Card x 1
- **2.** SATA Power Converter Cable x 1
- **3.** Hardware Watchdog Jumper Wire x 1
- 4. USB Dongle x 1
- 5. Software DVD x 1
- 6. Surveillance System Quick Start Guide x 1



Connecting the GV-SDI-204 Cards

Up to four GV-SDI-204 Cards can be connected. GV-SDI-204 Cards can also be installed with other types of GV-Video Capture Cards including GV-900A, GV-800B, GV-650B, GV-600B, and GV-1480A / 1240A / 1120A Combo Cards, but the total number of channels cannot exceed 32 channels.

- Connect the HD-SDI cameras to the GV-SDI-204 Card using BNC cables.
- Using the supplied SATA Power Converter Cable, connect the GV-SDI-204 Card to power supply.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-2).
- After you turn on the computer, the Power LED (D1) and Status LED (D10 and D18) should be lit in green to indicate the card is ready for use.

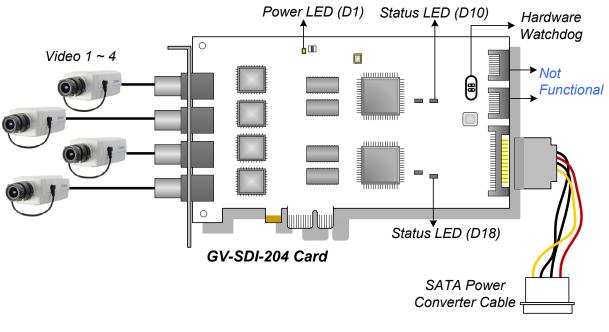


Figure 1-1

Note:

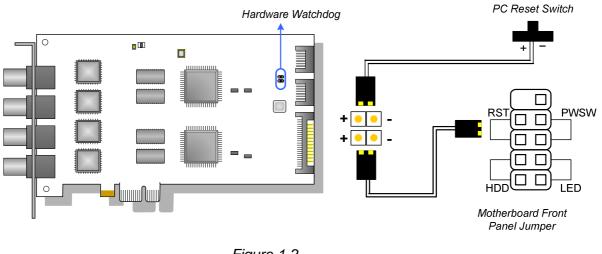
- 1. The GV-SDI-204 Card only works when the supplied USB Dongle is inserted to PC.
- 2. The connected HD-SDI cameras must have a resolution under 1080p_30, 720p_60 or 1080i_60. The Video Lost message will be displayed when the connected channels have higher resolution.



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

When installing multiple capture cards, the Hardware Watchdog can be connected to any of the GV-SDI-204 cards, no matter if the cards are all GV-SDI-204 cards or a combination of GV-SDI-204 cards and other capture cards. If you are installing GV-SDI cards in addition to existing video capture cards and the Hardware Watchdog has already been connected, you do not need to change the connection to a GV-SDI-204 card.





Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-SDI-204 Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select the following two options to install card and USB dongle drivers.

- Install or Remove GeoVision GV-Series Card Drivers: installs card drivers.
- Install GeoVision USB Device Drivers: installs USB dongle drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed. The image below is an example of installing one GV-SDI-204 card.



Figure 1-3

Expand the **DVR-Devices** field, you can see:

GV-SDI-204 Card	Entry
Single-card mode	GV-SDI-204
omgre-cara mode	GV-Series USB Protector
	GV-SDI-204
	GV-SDI-204
Four-card mode	GV-SDI-204
	GV-SDI-204
	GV-Series USB Protector



Adjusting the Video Settings in the Main System

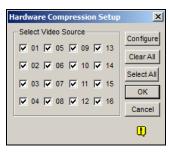
One distinct feature of GV-SDI-204 Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-SDI-204 Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

Setting up the video settings of the recorded files:

Considering computer performance or recording quality, you may adjust the settings to meet your needs.

 On the Main System, click the Configure button, select System Configure, select Camera Install, and click Hardware Compression Setup. This dialog box appears.





2. Select the cameras you want to set up, and click the **Configure** button. This dialog box appears.

Hardware Compression Setup	
Select Hardware-compressed Camera	
Camera1	
Record Quality .	
3 2614 Kbps	
Hardware-compressed data control	
✓ Enable hardware-compressed data FIFO.	
Recording codec format	
Standard codec	
	Video Resolution .
	704x576 OK Cancel

Figure 1-5

- 3. In the Select Hardware-compressed Camera section, select one camera to be configured.
- 4. Select the recording quality.



- 5. The Enable hardware-compressed data FIFO option is disabled by default. When the option is enabled, the hardware-compressed data from the video IP device, such as IP camera, video server and compact DVR, will be transmitted directly to remote servers instead of being compressed again on the DVR. The remote servers include CMS-related servers and WebCam Server. This feature can decrease the system load of DVR but increase that of remote servers.
- 6. To use standard H.264 codec in recording, enable **Standard codec** in the Recording codec format section.
- 7. To apply the same setting to all cameras, click the Finger button in each section.
- 8. To access the frame rate settings, on the Main System, click the **Configure** button, select **System Configure**, and select **Camera Configure**. This dialog box appears.

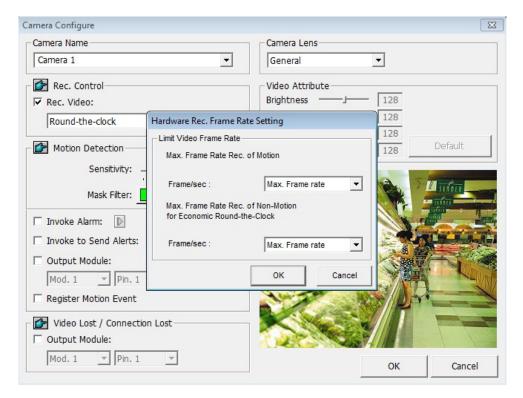


Figure 1-6

- 9. In the Rec Control section, click the **Arrow** button. The Hardware Rec. Frame Rate Setting dialog box appears.
- 10. Set the maximum frame rate for motion and non-motion periods to save disk space when possible.



Specifications

			GV-SDI-204	
Interface			PCI-E (x1)	
Input Type			BNC	
Video Input			4 Cams	
Audio Input			N/A	
	1090m	NTSC	120 fps	
	1080p	PAL	100 fps	
Recording Rate	7200	NTSC	240 fps	
and Display Rate	720p	PAL	200 fps	
	1080i	NTSC	120 fps	
	10001	PAL	100 fps	
	H/W	1080p	1920 x 1080	
		720p	1280 x 720	
Video		1080i	1920 x 1080	
Resolution	S/W	1080p	960 x 540, 480 x 270	
		720p	640 x 360	
		1080i	960 x 540, 480 x 270	
Video Compressio	on	H/W	H.264	
Format		S/W	Geo MPEG4, Geo H.264	
Bit Rate Range			10M ~ 20M	
GV-NET/IO Card Support			Yes (Note 2)	
GV-Multi Quad Card Support		oort	No	
GV-Loop Through Card Support		upport	No	
Dimensions (W x H)			158 x 111 mm / 6.22 x 4.37 in	

Note:

1. GV-SDI-204 does not support the TV-Out function.

2. To work together with GV-SDI-204, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB or DB9.



1.2 GV-5016

The GV-5016 Card provides up to 16 video and 16 audio channels, recording up to 480 / 400 fps (NTSC / PAL) in total with H.264 hardware compression. The new technology of resolution is employed to enhance the live image without DSP Overlay. Even in multi views, the image on the largest division view can remain at high-quality resolution without DSP Overlay.

	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008		
OS	64-bit	Windows 7 / Windows Server 2008 R2		
		GV-5016	Core 2 Quad, 2.4 GHz	
CPU		GV-5016 x 2	Core i5 650, 3.20 GHz	
		GV-5016		
RAM		GV-5016 x 2	2 x 1 GB Dual Channels	
HDD		GV-5016	500 GB	
		GV-5016 x 2	1 TB	
Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommendation bit color		300 x 600 (1280 x 1024 recommended), 32-		
DirectX		9.0c		

Minimum System Requirements

Packing List

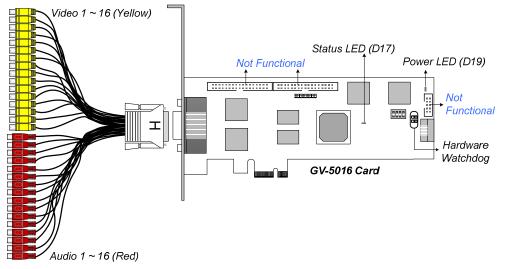
1. GV-5016 Card x 1

- 4. USB Dongle x 1
- 2. 1-16 LFH-Type Audio and Video Cable x 1 5. Software DVD x 1
- - 6. Surveillance System Quick Start Guide x 1
- **3.** Hardware Watchdog Jumper Wire x 1

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Connecting One GV-5016 Card

- Connect the video and audio cables to the GV-5016 Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-11).
- After you turn on the computer, the Power LED (D19) and Status LED (D17) should be lit in green to indicate the card is ready for use.





When connecting the cable, make sure the cable is connected correctly:

• The letter "H" on the connector should be on the same side as the chipsets.

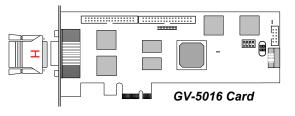
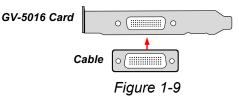


Figure 1-8

• The LFH connector on the cable is in the shape of a trapezoid and should match the trapezoid connector on the capture card.



Note:

- 1. The GV-5016 Card only works when the supplied USB Dongle is inserted to PC.
- 2. The GV-5016 Card cannot work with microphones which acquire power from the PC. Use microphones which have external power supply.



Connecting Two GV-5016 Cards

You can install two GV-5016 Cards for a total of 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

• Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-11).

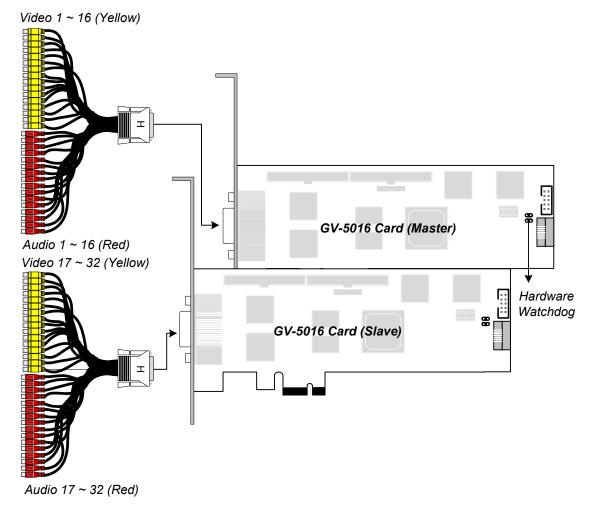
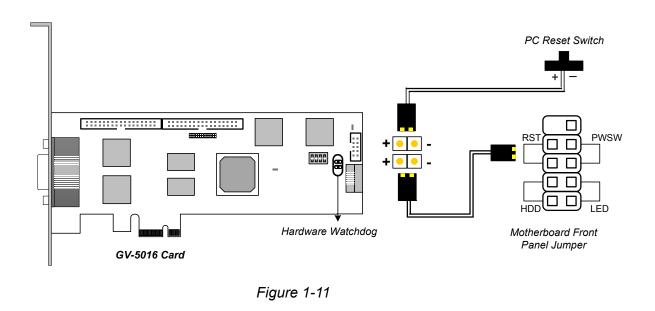


Figure 1-10



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.



Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-5016 Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select the following two options to install card and USB dongle drivers.

- Install or Remove GeoVision GV-Series Card Drivers: installs card drivers.
- Install GeoVision USB Device Drivers: installs USB dongle drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed. The image below is an example of installing one GV-5016 card.

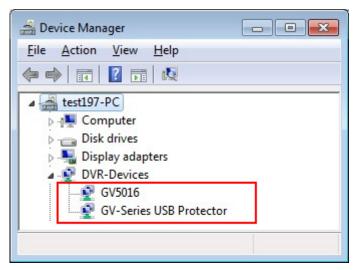


Figure 1-12

Expand the **DVR-Devices** field, you can see:

GV-5016 Card	Entry
Single-card mode	GV5016 GV-Series USB Protector
Two-card mode	GV5016 GV5016 GV-Series USB Protector



Adjusting the Video Settings in the Main System

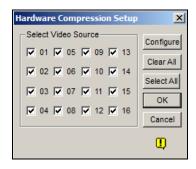
One distinct feature of GV-5016 Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-5016 Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

Setting up the video settings of the recorded files:

Considering computer performance or recording quality, you may adjust the settings to meet your needs.

 On the Main System, click the Configure button, select System Configure, select Camera Install, and click Hardware Compression Setup. This dialog box appears.





2. Select the cameras you want to set up, and click the **Configure** button. This dialog box appears.

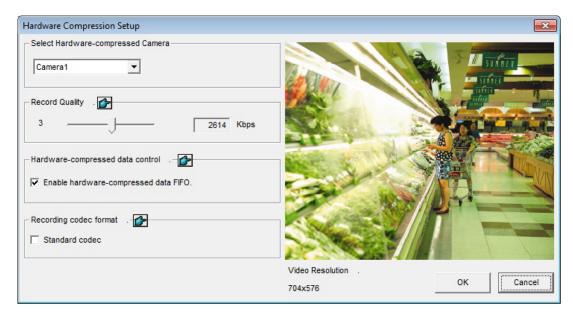


Figure 1-14



- 3. In the Select Hardware-compressed Camera section, select one camera to be configured.
- 4. Select the recording quality.
- 5. The Enable hardware-compressed data FIFO option is disabled by default. When the option is enabled, the hardware-compressed data from the video IP device, such as IP camera, video server and compact DVR, will be transmitted directly to remote servers instead of being compressed again on the DVR. The remote servers include CMS-related servers and WebCam Server. This feature can decrease the system load of DVR but increase that of remote servers.
- 6. To use standard H.264 codec in recording, enable **Standard codec** in the Recording codec format section.
- 7. If you want to apply the same setting to all cameras, click the **Finger** button in each section.
- 8. To access the frame rate settings, on the Main System, click the **Configure** button, select **System Configure**, and select **Camera Configure**. This dialog box appears.

Camera Configure					×
Camera Name		Camera Ler	ns		
Camera 1	-	General		•	
Rec. Control Rec. Video:	Hardware Rec	- Video Attri Brightness		130	
Motion Detection 9 Sensitivity: 9 Mask Filter: ••••••••••••••••••••••••••••••••••••	-Limit Video F Max. Fram Frame/sec Max. Fram	rame Rate — e Rate Rec. of : : e Rate Rec. of nic Round-the-	Motion 25 Frames Non-Motion	•	Default
Output Module: Mod. 1 Pin. 1 Pin. 1 Register Motion Event Video Lost / Connection Lost Output Module:			ок	Cancel	
Mod. 1 Y Pin. 1 Y				ОК	Cancel

Figure 1-15

9. In the Rec Control section, click the **Arrow** button. The Hardware Rec. Frame Rate Setting dialog box appears.



- 10. Set the maximum frame rate for motion and non-motion periods so as to save as much disk space as possible.
- 11. To adjust image quality, in the Video Attributes section, move the sliders to the desired values or click **Default** to apply default values.

Note: The default settings are as follows: Recording Quality is 3, Video Resolution is 704 x 480 (NTSC) or 704 x 576 (PAL), Codec is Geo H.264 and Frame Rate is 30 (NTSC) or 25 (PAL).



Specifications

		GV-5016		GV-5016 x 2		
Interface		PCI-E (x1)		PCI-E (x1) x 2		
Input Type		LFH				
Video Input		16 Cams		32 Cams		
Audio Input		16 Cł	nannels	32 Channels		
Descuding Data (D4)	NTSC	480 fps		960 fps		
Recording Rate (D1)	PAL	400 f	ps	800 fps		
Display Data	NTSC	480 f	ps	960 fps		
Display Rate	PAL	400 fps		800 fps		
	NTSC	H/W	704 x 480	704 x 480		
Video Possiution	NISC	S/W	352 x 240	352 x 240		
Video Resolution	PAL	H/W	704 x 576	704 x 576		
		S/W	352 x 288	352 x 288		
Video Compression	S/W	Geo MPEG4, Geo H264 H.264				
Format	H/W					
Audio Compression F	ormat	AAC (16 kHz / 16 bit)				
Bit Rate Range		5M ~ 10M				
GV-NET/IO Card Support		Yes (Note 2)				
GV-Multi Quad Card Support		Νο				
GV-Loop Through Card Support		No				
Dimensions (W x H)		168 x 70 mm / 6.61 x 2.75 in				
Noto		-				

Note:

1. GV-5016 does not support the TV-Out function.

2. To work together with GV-5016, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB or DB9.



1.3 GV-4008

The GV-4008 Card provides up to 8 video and 8 audio channels, recording up to 240 / 200 fps (NTSC / PAL) in total with H.264 hardware compression. The new technology of resolution is employed to enhance the live image of D1 without DSP Overlay. Even in screen divisions, the largest division can remain at the high-quality D1 resolution.

OS	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008 Windows 7 / Windows Server 2008 R2			
03	64-bit				
		GV-4008	Core 2 Duo, 2.33 GHz		
CPU		GV-4008 x 2	Core 2 Quad, 2.4 GHz		
		GV-4008			
RAM		GV-4008 x 2	2 x 1 GB Dual Channels		
		GV-4008	250 GB		
HDD		GV-4008 x 2	500 GB		
Graphic C	Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
DirectX		9.0c			
Power Su	pply	400 Watts			

Minimum System Requirements

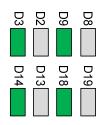
Packing List

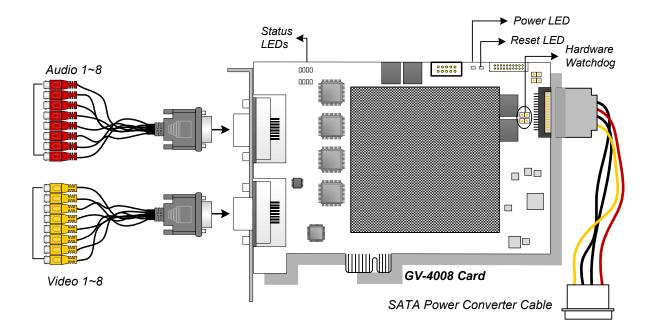
- 1. GV-4008 Card x 1
- 1-8 Cam Audio BNC Cable with BNC Male to RCA Female Adaptors x 1
- 3. 1-8 Cam Video BNC Cable x 1
- **4.** Hardware Watchdog Jumper Wire x1
- 5. SATA Power Converter Cable x 1
- 6. USB Dongle x 1
- 7. Software DVD x 1
- 8. Surveillance System Quick Start Guide x 1



Connecting One GV-4008 Card

- Connect the video and audio cables to the GV-4008 Card.
- Using the supplied SATA Power Converter Cable, connect the GV-4008 Card to power supply. The Power LED in the top right corner should be lit in green and the 4 status LEDs (D3, D9, D14, D18) in the left corner should be lit in green to indicate the normal functionality.







Note:

- 1. The GV-4008 Card only works when the supplied USB Dongle is inserted to PC.
- 2. The GV-4008 Card cannot work with microphones which acquire power from the PC. Use microphones which have external power supply.



Connecting Two GV-4008 Cards

You can install two GV-4008 Cards for a total of 16 channels. Master Card is the card with 1-8 channels and Slave Card is that with 9-16 channels. Normally, the card attached to the lower PCI slot number will act as Master, and the card attached to the higher PCI slot number will act as Slave.

- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-18).
- Accessory Card Connections: To work together with GV-4008 Cards, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB or DB9.

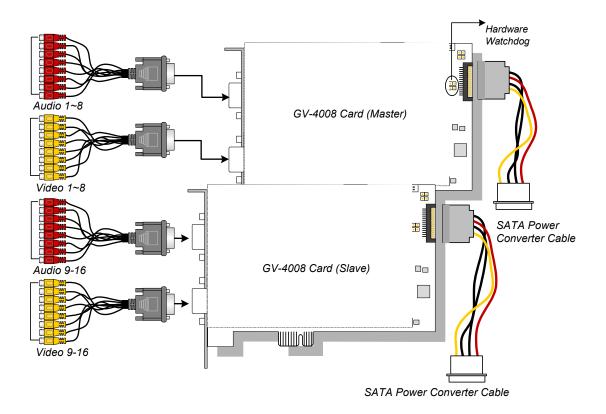


Figure 1-17



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will be damaged.

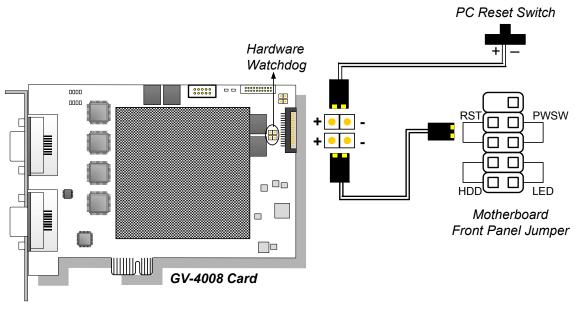


Figure 1-18

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-4008 Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select the following two options to install card and USB dongle drivers.

- Install or Remove GeoVision GV-Series Card Drivers: installs card drivers.
- Install GeoVision USB Device Drivers: installs USB dongle drivers.

Note: For the installation of two GV-4008 cards, it is required to restart the computer after the driver is installed.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed. The image below is an example of installing one GV-4008 card.

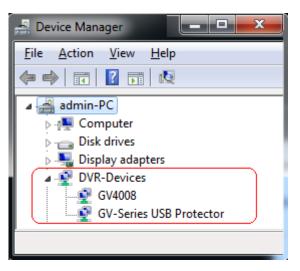


Figure 1-19

Expand the **DVR-Devices** field, you can see:

GV-4008 Card	Entry		
	GV4008		
Single-card mode	GV-Series USB Protector		
	GV4008		
Two-card mode	GV4008		
	GV-Series USB Protector		



Troubleshooting Power Supply Issues

When the **Reset LED** on the top of the Card is flashing red color or the four **Status LEDs** are not all on, it indicates that the GV-4008 Card is short of power supply. Make sure your power supply is of 400 watts at least. If not, replace it with the power supply of 400 or larger watts. The power supply issues should be solved.

Adjusting the Video Settings in the Main System

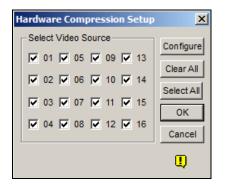
One distinct feature of GV-4008 Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-4008 Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

Setting up the video settings of the recorded files:

Considering computer performance or recording quality, you may adjust the settings to meet your needs.

 On the Main System, click the Configure button, select System Configure, select Camera Install, and click Hardware Compression Setup. This dialog box appears.







2. Select the cameras you want to set up, and click the **Configure** button. This dialog box appears.



Figure 1-21

- 3. In the Select Hardware-compressed Camera section, select one camera to be configured.
- 4. Select the recording quality.
- 5. The Enable hardware-compressed data FIFO option is disabled by default. When the option is enabled, the hardware-compressed data from the video IP device, such as IP camera, video server and compact DVR, will be transmitted directly to remote servers instead of being compressed again on the DVR. The remote servers include CMS-related servers and WebCam Server. This feature can decrease the system load of DVR but increase that of remote servers.
- 6. To use standard H.264 codec in recording, enable **Standard codec** in the Recording codec format section.
- 7. If you want to apply the same setting to all cameras, click the **Finger** button in each section.



8. To access the frame rate settings, on the Main System, click the **Configure** button, select **System Configure**, and select **Camera Configure**. This dialog box appears.

Camera Configure					×
Camera Name		Camera Le	ns		
Camera 1	•	General		•	
Rec. Control Rec. Video: Round-the-clock	Hardware Re	Video Attri Brightness ec. Frame Rate		130	Default
9 Sensitivity: Mask Filter:	Max. Fran Frame/se	me Rate Rec. of ec :	f Motion 25 Frames	•	9.1671
Invoke Alarm:		me Rate Rec. of omic Round-the			
☐ Invoke to Send Alerts: ▶	Frame/s	ec:	25 Frames	•	
Mod. 1 Vin. 1 V		[ОК	Cancel	TAN
Register Motion Event		100		S/D-	
Video Lost / Connection Lost		K			
Mod. 1 V Pin. 1 V				ОК	Cancel

Figure 1-22

- 9. In the Rec Control section, click the **Arrow** button. The Hardware Rec. Frame Rate Setting dialog box appears.
- 10. Set the maximum frame rate for motion and non-motion periods so as to save as much disk space as possible.
- 11. To adjust image quality, in the Video Attributes section, move the sliders to the desired values or click **Default** to apply default values.

Note: The default settings are as follows: Recording Quality is 3, Video Resolution is 704 x 480 (NTSC) or 704 x 576 (PAL), Codec is Geo H.264 and Frame Rate is 30 (NTSC) or 25 (PAL).



Specifications

		GV-4008		GV-4008 x 2	
Interface		PCI-E (x1)		PCI-E (x1) x 2	
Input Type		DVI			
Video Input		8 Can	ns	16 Cams	
Audio Input		8 Cha	nnels	16 Channels	
Recording Rate	NTSC	240 fp)S	480 fps	
(D1)	PAL	200 fp)S	400 fps	
Diaplay Pata	NTSC	240 fps		480 fps	
Display Rate	PAL	200 fps		400 fps	
	NTSC	H/W	704 x 480	704 x 480	
Video Resolution		S/W	352 x 240	352 x 240	
	PAL	H/W	704 x 576	704 x 576	
		S/W	352 x 288	352 x 288	
Video Compression	S/W	Geo MPEG4, Geo H264			
Format	H/W	H.264			
Audio Compression F	Format	AAC (16 kHz / 16 bit)			
Bit Rate Range		2.5M ~ 5M			
GV-NET/IO Card Support		Yes (Note2)			
GV-Multi Quad Card Support		No			
Dimensions (W x H)		169 x 99 mm / 6.65 x 3.9 in			

Note:

1. GV-4008 does not support the TV-Out function.

- 2. To work together with GV-4008, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB or DB9.
- 3. In screen divisions, the largest division is set to D1 resolution and the other divisions to CIF resolution.



1.4 GV-4008A

The GV-4008A Card provides up to 8 video and 8 audio channels, recording up to 240 / 200 fps (NTSC / PAL) in total with H.264 hardware compression. The new technology of resolution is employed to enhance the live image without DSP Overlay. Even in multi views, the image on the largest division view can remain at the high-quality resolution without DSP Overlay.

~~	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
OS	64-bit	Windows 7 / Windows Server 2008 R2			
		GV-4008A	Core 2 Duo, 2.33 GHz		
CPU		GV-4008A x 2	Core 2 Quad, 2.4 GHz		
RAM		GV-4008A			
		GV-4008A x 2	2 x 1 GB Dual Channels		
HDD		GV-4008A	250 GB		
		GV-4008A x 2	500 GB		
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-			
		bit color			
DirectX		9.0c			
Power Sup	ply	400 Watts			

Minimum System Requirements

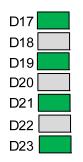
Packing List

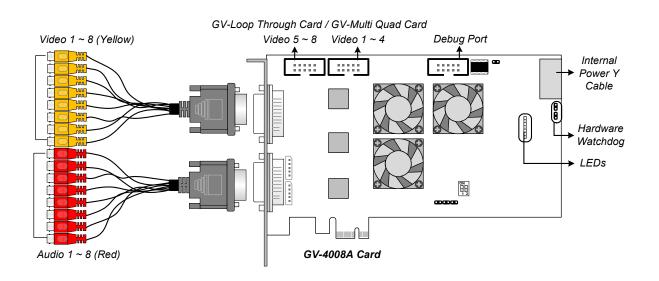
- 1. GV-4008A Card x 1
- 2. 1-8 DVI-Type Audio Cable x 1
- 3. 1-8 DVI-Type Video Cable x 1
- **4.** Hardware Watchdog Jumper Wire x 1
- 5. Internal Power Y Cable x 1
- 6. USB Dongle x 1
- 7. Software DVD x 1
- 8. Surveillance System Quick Start Guide x 1

GeoVision

Connecting One GV-4008A Card

- Connect the video and audio cables to the GV-4008A Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-16).
- Connect the computer's internal power supply to the GV-4008A Card. The LEDs (D17, D19, D21, D23) should be lit in green to indicate the card is ready for use.







Note:

- 1. The GV-4008A Card only works when the supplied USB Dongle is inserted to PC.
- 2. The GV-4008A Card cannot work with microphones which acquire power from the PC. Use microphones which have external power supply.



Connecting Two GV-4008A Cards

You can install two GV-4008A Cards for a total of 16 channels. Master Card is the card with 1-8 channels and Slave Card is that with 9-16 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-16).
- Accessory Card Connections:
 - GV-Loop Through Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.
 - GV-Multi Quad Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.

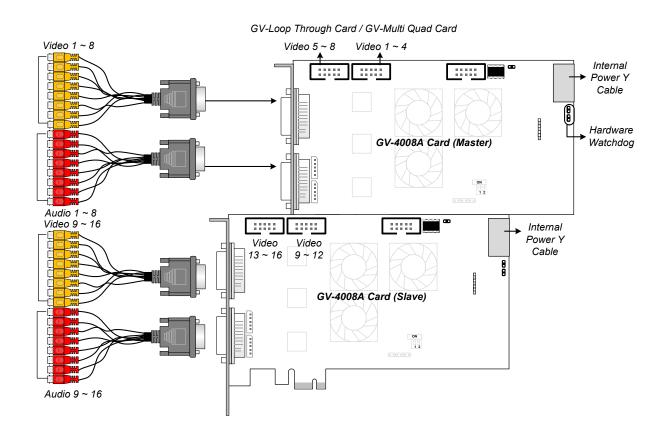


Figure 1-24



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

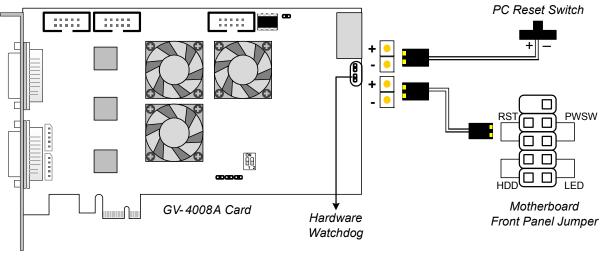


Figure 1-25

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-4008A Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select the following two options to install card and USB dongle drivers.

- Install or Remove GeoVision GV-Series Card Drivers: installs card drivers.
- Install GeoVision USB Device Drivers: installs USB dongle drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

GV-4008A Card	Entry		
	GV4008(A)		
Single-card mode	GV-Series USB Protector		
	GV4008(A)		
Two-card mode	GV4008(A)		
	GV-Series USB Protector		

Expand the **DVR-Devices** field, you can see:

Adjusting the Video Settings in the Main System

One distinct feature of GV-4008A Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-4008A Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

For details on adjusting the video settings, see Setting up the video settings of the recorded files in 1.1 4008 Card.



Specifications

		GV-4	008A	GV-4008A x 2
Interface		PCI-E (x1)		PCI-E (x1) x 2
Input Type		DVI		
Video Input		8 Car	ns	16 Cams
Audio Input		8 Cha	annels	16 Channels
Recording Rate	NTSC	240 f	ps	480 fps
(D1)	PAL	200 f	ps	400 fps
Diaplay Data	NTSC	240 f	ps	480 fps
Display Rate	PAL	200 f	ps	400 fps
	NTSC	H/W	704 x 480	704 x 480
Video Resolution		S/W	352 x 240	352 x 240
VIDEO RESOLUTION	PAL	H/W	704 x 576	704 x 576
		S/W	352 x 288	352 x 288
Video	S/W	Geo I	MPEG4, Geo H264	
Compression Format	H/W	H.264		
Audio Compressio	n Format	AAC (16 kHz / 16 bit)		
Bit Rate Range		2.5M ~ 5M		
GV-NET/IO Card Support		Yes (Note 2)		
GV-Multi Quad Card Support		Yes		
GV-Loop Through Card Support		Yes		
Dimensions (W x H	H)	169 x 112 mm / 6.65 x 4.41 in		
Note:		-		

Note:

1. GV-4008A does not support the TV-Out function.

2. To work together with GV-4008A, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB or DB9.



1.5 GV-3008

The GV-3008 Card provides up to 8 video and 8 audio channels, recording up to 240 / 200 fps (NTSC / PAL) in total with H.264 hardware compression. The GV-3008 Card provides the high-resolution live image with DSP Overlay. Even in multi views, the image on the largest division view can remain at the high-quality resolution.

OS 32-bit		Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
03	64-bit	Windows 7 / Windows S	Server 2008 R2		
CPU		GV-3008	Core 2 Duo, 2.33 GHz		
CFU		GV-3008 x 2	Core 2 Quad, 2.4 GHz		
RAM		GV-3008	2 x 1 GB Dual Channels		
		GV-3008 x 2			
HDD		GV-3008	250 GB		
		GV-3008 x 2	500 GB		
Graph	ic Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32 bit color			
Direct	X	9.0c			
Power	Supply	400 Watts			

Minimum System Requirements

Packing List

- 1. GV-3008 Card x 1
- 2. 1-4 D-Type Video and Audio Cable x 1 5. Software DVD x 1
- **3.** 5-8 D-Type Video and Audio Cable x 1
- 4. Hardware Watchdog Jumper Wire x1
- - 6. Surveillance System Quick Start Guide x 1

GeoVision:

Connecting One GV-3008 Card

- Connect the D-Type video and audio cables to the GV-3008 Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-28).
- Connect the computer's internal power supply to the GV-3008 Card. The Power LED should be lit in green to indicate the card is ready for use.

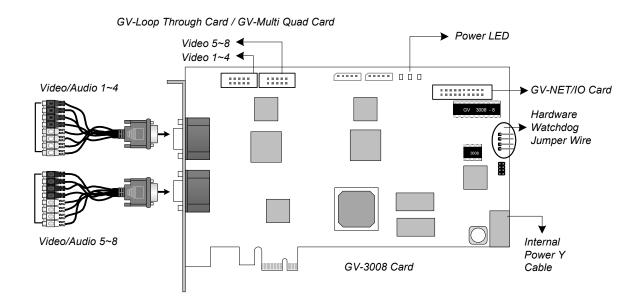


Figure 1-26



Connecting Two GV-3008 Cards

You can install two GV-3008 Cards for a total of 16 channels. Master Card is the card with 1-8 channels and Slave Card is that with 9-16 channels. The Master and Slave cards can be distinguished by the labels on cards, as shown below:



IMPORTANT:

- 1. The Slave Cards cannot work alone. They need to work in conjunction with the Master Cards.
- 2. If both GV-3008 Cards are Master Cards, it is required to identify which are Master and Slave by the PCI-E slot number. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.
 - Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-28).
 - Accessory Card Connections:
 - GV-NET/IO Card: Connect the card only to the Master Card.
 - GV-Loop Through Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.
 - GV-Multi Quad Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.



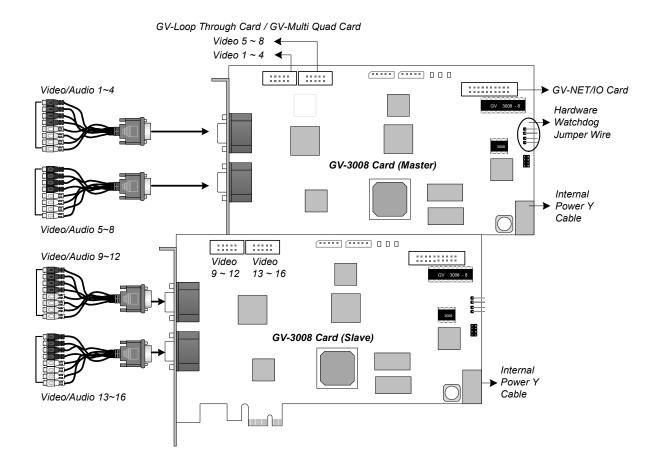


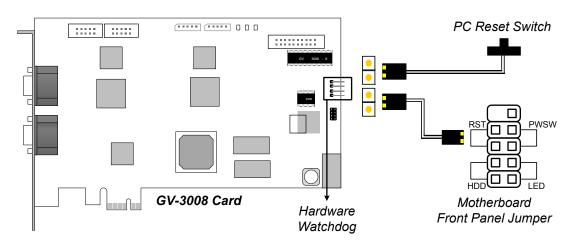
Figure 1-27



Connecting Hardware Watchdog

To restart the computer automatically by the hardware watchdog on the GV-Video Capture Card, a connection needs to be made from the card to the motherboard.

1. Using the supplied jumper wire, connect the reset jumper pins on the card and on the motherboard.





2. If the computer has a reset switch, the switch's jumper wire should already be connected to the motherboard's reset jumper pins. Remove the switch wire from the motherboard and connect it to the reset jumper pins on the card.



Installing Drivers

After installing the GV-3008 Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select Install or Remove GeoVision GV-Series Driver, and select Install or Remove GeoVision GV-Series Card Drivers to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

GV-3008 Card		Entry	
		GV3008 Capture	
Single-card mode		GV3008 Encode #1	
		GV3008 Encode #2	
		GV3008 Capture	
		GV3008 Capture	
	Two Master Cards	GV3008 Encode #1	
		GV3008 Encode #1	
		GV3008 Encode #2	
Two-card mode		GV3008 Encode #2	
Two-card mode		GV3008 Capture	
		GV3008 Capture	
	One Master and	GV3008 Encode #1	
	Slave Card	GV3008 Encode #2	
		GV3008 Encode #3	
		GV3008 Encode #4	

Expand the **DVR-Devices** field, you can see:

Adjusting the Video Settings in the Main System

One distinct feature of GV-3008 Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-3008 Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

For details on adjusting the video settings, see *Setting up the video settings of the recorded files* in *1.1 4008 Card*.



Specifications

			008	GV-3008 x 2	
Interface		PCI-E (x1) PCI-E (x1) x 2		PCI-E (x1) x 2	
Input Type		D-Typ	e		
Video Input		8 Can	าร	16 Cams	
Audio Input		8 Cha	nnels	16 Channels	
Recording Rate (D1)	NTSC	240 fp)S	480 fps	
Recording Rate (DT)	PAL	200 fp)S	400 fps	
Display Rate	NTSC	240 fp)S	480 fps	
Display Rate	PAL	200 fp)S	400 fps	
	NTSC	H/W	704 x 480	704 x 480	
Video Resolution		S/W	352 x 240	352 x 240	
	PAL	H/W	704 x 576	704 x 576	
		S/W	352 x 288	352 x 288	
Video Compression	S/W	Geo MPEG4, Geo H264			
Format	H/W	H.264			
Audio Compression Fo	rmat	AAC (16 kHz / 16 bit)			
Bit Rate Range		2.5M ~ 10M			
GV-NET/IO Card Supp	ort	Yes			
GV-Multi Quad Card Support		Yes			
GV-Loop Through Card	GV-Loop Through Card Support		Yes		
Dimensions (W x H)		180 x 112 mm / 7.09 x 4.41 in			
Note: GV-3008 does n	ne TV-C	Out function.			

GeoVision

1.6 GV-1120A, 1240A, 1480A

GV-Combo A Card (GV-1120A, GV-1240A and GV-1480A) are the three-in-one combo cards, providing one single card solution for 16 video / audio recording, real-time display and TV-out display.

	32-bit	Windows XP / Windows	s Vista / Windows 7	/ Windows Server 2008		
OS		Windows 7 / Windows Server 2008 R2				
	64-bit					
		GV-1120A		Hz with Hyper Threading		
				tium 4, 3.0 GHz, Dual Core		
		GV-1120A x 2	Pentium 4, 3.0 Gl	·		
				e 2 Quad, 2.4 GHz		
		GV-1240A	Pentium 4, 3.0 GI	Hz, Dual Core		
CPU			Turbo Mode: Cor	e 2 Duo, 3.0 GHz		
		GV-1240A x 2	Core 2 Duo, 2.53	GHz		
			Turbo Mode: Cor	e 2 Quad, 2.8 GHz		
		GV-1480A	Core 2 Duo, 3.0 0	GHz		
			Turbo Mode: Core 2 Quad, 2.4 GHz			
		GV-1480A x 2	Core 2 Quad, 2.4 GHz			
			Turbo Mode: Core i7-920, 2.66 GHz			
		GV-1120A / 1240A /	Windows XP	2 x 512 MB Dual Channels		
RAM		1480A	Windows Vista / 7 / Server 2008	2 x 1 GB Dual Channels		
		GV-1120A x 2 / 1240A x 2 / 1480A x 2	2 x 1 GB Dual Channels			
		GV-1120A	80 GB / Turbo Mo	ode: 120 GB		
		GV-1120 A x 2	160 GB / Turbo M	1ode: 250 GB		
		GV-1240A	120 GB / Turbo M	1ode: 160 GB		
HDD		GV-1240A x 2	250 GB / Turbo M	1ode: 320 GB		
		GV-1480A	250 GB / Turbo M	lode: 320 GB		
		GV-1480A x 2	500 GB / Turbo Mode: 750 GB			
Graphic	Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color				
DirectX		9.0c				

Minimum System Requirements



Packing List (D-Type)

- 1. GV-Combo A Card x 1
- 2. Audio Extension Card x 1
- **3.** 1-8 D-Type Video Cable x 1
- **4.** 9-16 D-Type Video Cable x 1
- 5. 1-8 D-Type Audio Cable x 1

- 6. 9-16 D-Type Audio Cable x 1
- 7. Internal Power Y Cable x 1
- 8. Hardware Watchdog Jumper Wire x 1
- 9. Software DVD x 1
- 10. Surveillance System Quick Start Guide x 1

Packing List (DVI-Type)

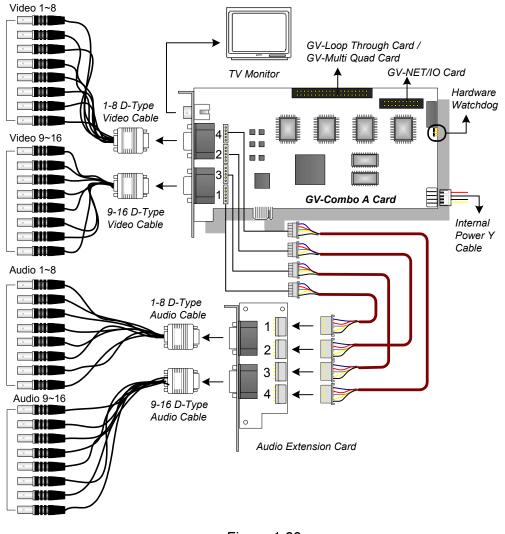
- 1. GV- Combo A Card x 1
- 2. 1-16 DVI-Type Video plus TV Out Cable x 1 6. Software DVD x 1
- **3.** 1-16 DVI-Type Audio Cable x 1
- 4. Internal Power Y Cable x 1

- 5. Hardware Watchdog Jumper Wire x 1
- 7. Surveillance System Quick Start Guide x 1

GeoVision

Connecting One GV-Combo A Card (D-Type)

- Plug the Audio Extension Card in the assigned connectors on the GV-Combo A Card.
- Connect D-Type video and audio cables to the GV-Combo A Card and Audio Extension Card respectively.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-33).
- Connect the PC's internal power supply to the GV-Combo A Card.
- Connect the TV monitor to the GV-Combo A Card if needed.





Note: The Card only works when it connects to PC's power supply using the supplied Internal Power Y Cable.

Connecting One GV-Combo A Card (DVI-Type)

- Connect the DVI video and audio cables to the GV-Combo A Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-33).
- Connect the PC's internal power supply to the GV-Combo A Card.
- Connect the DVI TV Out cable to the TV monitor if needed.

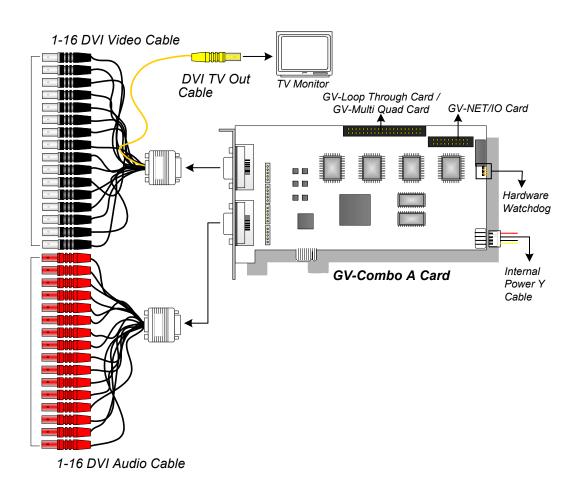


Figure 1-30

Note: The Card only works when it connects to PC's power supply using the supplied Internal Power Y Cable.



Connecting GV-NET/IO Card to GV-Combo A Card

Connect the GV-NET/IO Card to the 20-pin GV-NET/IO port on the GV-Combo A Card. Some GV-Combo A Cards are built in two 20-pin ports. Ensure to connect the GV-NET/IO Card to the correct port as illustrated below.

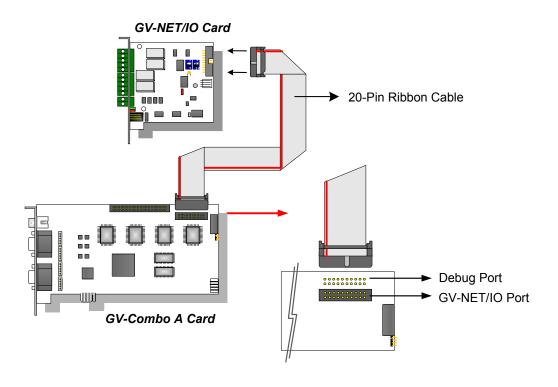


Figure 1-31

Note: If the GV-NET/IO Card is connected to the Debug port, it may lead to the GV-NET/IO Card to be damaged, or the GV-Combo A Card to burn out, causing Video Lost or an error message of "can't find keypro" to pop up.



Connecting Two GV-Combo A Cards

You can install two GV-Combo A Cards of the same model for up to 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

- **TV Output Connection:** The RCA connector in the Master Card is for displaying 1-16 channels, and the one in the Slave Card is for displaying 17-32 channels.
- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-33).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card only to the Master Card.
 - GV-Loop Through Card: Connect the card for each video capture card.
 - GV-Multi Quad Card: Only connect one card to any of two video capture cards.

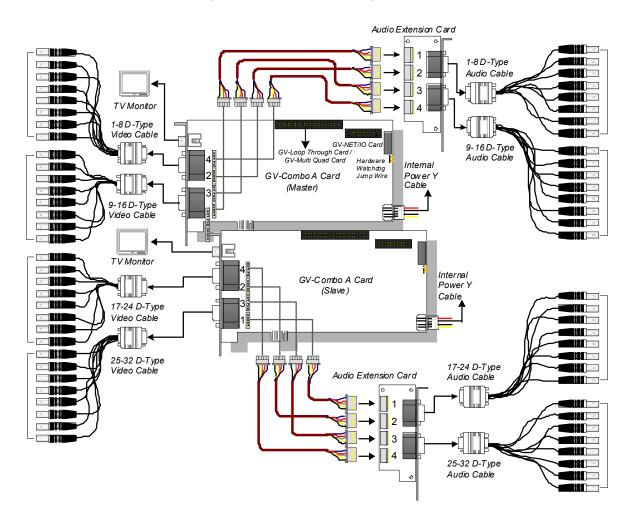


Figure1-32



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card and on the motherboard as illustrated below. Ensure the connection is correct; otherwise the hardware watchdog will not work.

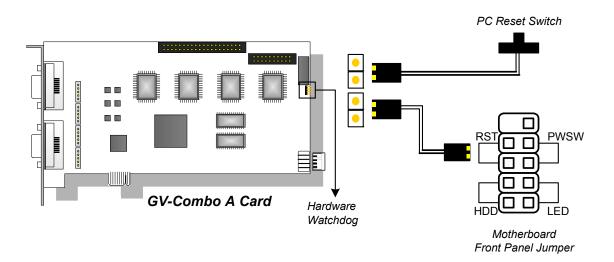


Figure 1-33



Installing Drivers

After installing the GV-Combo A Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

Card Model		Entry
	Single-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
GV-1120A		GV1480A/GV1240A/GV1248A/GV1120A/GV1008
	Two-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
	Single-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
GV-1240A	Two-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
		GV1480A/GV1240A/GV1248A/GV1120A/GV1008
	Single-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
GV-1480A	Two-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008
		GV1480A/GV1240A/GV1248A/GV1120A/GV1008

Expand the **DVR-Devices** field, you can see:



Specifications

			GV-1120A	GV-1240A	GV-1480A	
Interface Type			PCI-E (x1)			
Input Type			D-Type, DVI			
Video Input			8, 12, 16 Cams	8, 16 Cams	16 Cams	
Audio Input			8, 12, 16 Channels	8, 16 Channels	16 Channels	
TV Output		1	D-Type: RCA Connec DVI: BNC Connector	ctor		
	CIF	NTSC	120 fps	240 fps	480 fps	
		PAL	100 fps	200 fps	400 fps	
	D1	NTSC	80 fps	120 fps	240 fps	
Recording	וט	PAL	72 fps	100 fps	200 fps	
Rate	Turbo	NTSC	120 fps	240 fps	416 fps	
	VGA	PAL	100 fps	200 fps	400 fps	
	Turbo	NTSC	120 fps	240 fps	352 fps	
	D1	PAL	100 fps	200 fps	320 fps	
		NTSC	480 fps			
Display	CIF	PAL	400 fps			
Rate		NTSC	480 fps			
	D1	PAL	400 fps			
Video Resolu	ution	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
	uion	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Video Comp	ression F	ormat	Geo MPEG4, Geo H264			
Audio Comp	ression F	ormat	AAC (16 kHz / 16 bit)			
GV-Multi Qu	ad Card	Support	Yes			
GV-Loop Through Card Support		Yes				
GV-NET/IO Card Support		Yes				
.	D-Ty	ре	170 x 110 mm / 7 04	x 4.44 in		
Dimensions	DVI-	Гуре	179 x 112 mm / 7.04 x 4.41 in			
Note: Turbo Mode is only applied in VGA and D1 resolutions. To activate Turbo Mode, see <i>Activating Turbo Mode, Chapter 1, DVR User's Manual</i> on the Software DVD.						



			GV-1120A x 2	GV-1240A x 2	GV-1480A x 2		
Interface Type			PCI-E (x1) x 2				
Input Type			D-Type, DVI	D-Type, DVI			
Video Input			16, 20, 24, 28, 32 Cams	16, 24, 32 Cams	32 Cams		
Audio Input			16, 20, 24, 28, 32 Channels	16, 24, 32 Channels	32 Channels		
TV Output			D-Type: RCA Connec DVI: BNC Connector	ctor			
	CIF	NTSC	240 fps	480 fps	960 fps		
		PAL	200 fps	400 fps	800 fps		
	D1	NTSC	160 fps	240 fps	480 fps		
Recording	D1	PAL	144 fps	200 fps	400 fps		
Rate	Turbo	NTSC	240 fps	480 fps	832 fps		
	VGA	PAL	200 fps	400 fps	800 fps		
	Turbo	NTSC	240 fps	480 fps	704 fps		
	D1	PAL	200 fps	400 fps	640 fps		
		NTSC	960 fps				
Display	CIF	PAL	800 fps				
Rate		NTSC	960 fps				
	D1	PAL	800 fps	800 fps			
		NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240				
Video Resol	lution	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240				
Video Comp	pression I	Format	Geo MPEG4, Geo H264				
Audio Comp	pression I	Format	AAC (16 kHz / 16 bit)				
GV-Multi Qu	ad Card	Support	Yes				
GV-Loop Through Card Support			Yes				
GV-NET/IO Card Support			Yes				
Dimensions		ире Туре	- 179 x 112 mm / 7.04 x 4.41 in				

GeoVision

1.7 GV-1120B, GV-1240B, GV-1480B

GV-Combo B Card (GV-1120B, GV-1240B and GV-1480B) are of GV-Comb Card series, providing one single card solution for 16 video / audio recording and real-time display.

	32-bit	Windows XP / Windows Vista	/ Windows 7 / Windo	ows Server 2008			
OS	64-bit	Windows 7 / Windows Server 2008 R2					
		GV-1120B Pentium 4, 3.0 GHz with Hyper Threading					
		GV-1120B x 2	Core 2 Duo, E7200	, 2.53 GHz			
CPU		GV-1240B	Pentium 4, 3.0 GHz	, Dual Core			
CPU		GV-1240B x 2	Core 2 Duo, 3.0 G⊦	lz			
		GV-1480B	Core 2 Duo, 3.0 G⊦	lz			
		GV-1480B x 2	Core 2 Quad, 2.4 G	Hz			
		GV-1120B / 1240B / 1480B	Windows XP	2 x 512 MB Dual Channels			
RAM	1	GV-1120B7 1240B7 1460B	Windows Vista / 7 / Server 2008	2 x 1 GB Dual Channels			
		GV-1120B x 2 / 1240B x 2 / 1480B x 2	2 x 1 GB Dual Channels				
		GV-1120B 80 GB					
		GV-1120B x 2	160 GB				
HDD		GV-1240B	120 GB				
		GV-1240B x 2	250 GB				
		GV-1480B	250 GB				
		GV-1480B x 2	2 500 GB				
Grap Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color					
Dire	ctX	9.0c					

Minimum System Requirements



Packing List (DVI-Type)

- 1. GV- Combo B Card x 1
- **2.** 1-16 DVI-Type Video Cable x 1
- **3.** 1-16 DVI-Type Audio Cable x 1
- 4. Hardware Watchdog Jumper Wire x 1
- 5. Software DVD x 1
- 6. Surveillance System Quick Start Guide x 1

Connecting One GV-Combo B Card (DVI-Type)

- Connect the DVI video and audio cables to the GV-Combo B Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-36).

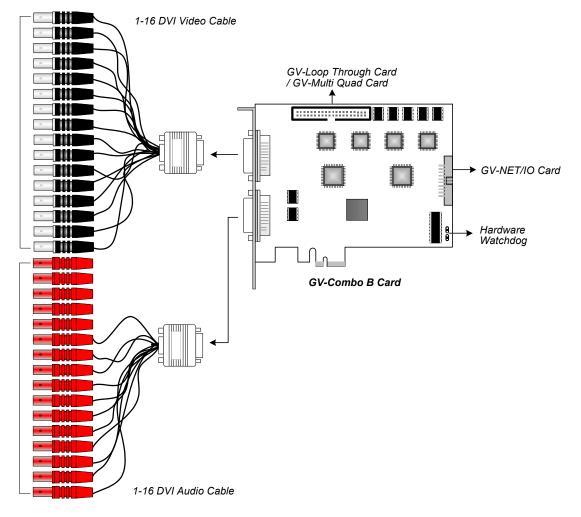


Figure 1-34

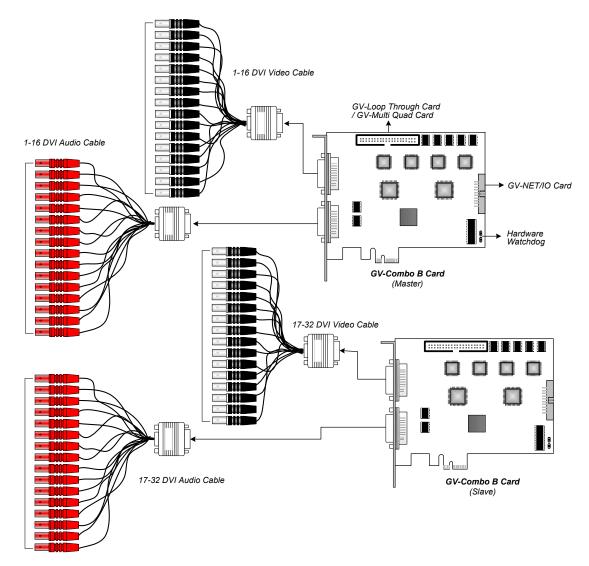
Note: Combo B Cards cannot work with microphones which acquire power from the PC. Use microphones that have external power supply.

GeoVision:

Connecting Two GV-Combo B Cards

You can install two GV-Combo B Cards of the same model for up to 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-36).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card only to the Master Card.
 - ⊙ GV-Loop Through Card: Connect the card for each video capture card.
 - ⊙ GV-Multi Quad Card: Only connect one card to any of two video capture cards.





Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card and on the motherboard as illustrated below. Ensure the connection is correct; otherwise the hardware watchdog will not work.

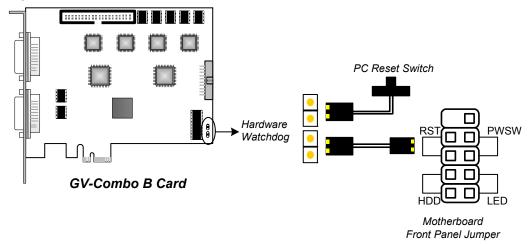


Figure 1-36



Installing Drivers

After installing the GV-Combo B Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed. The image below is an example of installing one GV-Combo B card.

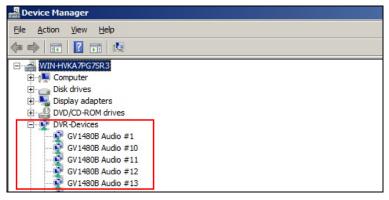


Figure 1-37

Expand the **DVR-Devices** field, you can see:

Card Model		Entry
	Single-card mode	GV-1120B Audio #1~#16 GV-1120B Video #1~#16
GV-1120B	Two-card mode	GV-1120B Audio #1~#16 GV-1120B Audio #1~#16 GV-1120B Video #1~#16 GV-1120B Video #1~#16
	Single-card mode	GV-1240B Audio #1~#16 GV-1240B Video #1~#16
GV-1240B	Two-card mode	GV-1240B Audio #1~#16 GV-1240B Audio #1~#16 GV-1240B Video #1~#16 GV-1240B Video #1~#16
	Single-card mode	GV-1480B Audio #1~#16 GV-1480B Video #1~#16
GV-1480B	Two-card mode	GV-1480B Audio #1~#16 GV-1480B Audio #1~#16 GV-1480B Video #1~#16 GV-1480B Video #1~#16



Specifications

			GV-1120B	GV-1240B	GV-1480B	
Interface Type			PCI-E (x4)			
Input Type			DVI			
Video Input			16 Cams	16 Cams	16 Cams	
Audio Input			16 Channels	16 Channels	16 Channels	
	CIF	NTSC	120 fps	240 fps	480 fps	
Recording	CIF	PAL	100 fps	200 fps	400 fps	
Rate	D 4	NTSC	120 fps	240 fps	480 fps	
	D1	PAL	100 fps	200 fps	400 fps	
		NTSC	480 fps			
Display	CIF	PAL	400 fps			
Rate	D1	NTSC	480 fps			
		PAL	400 fps			
Video Reso	ution	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
VIGEO RESO	lution	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Video Comp	pression	Format	Geo MPEG4, Geo H264			
Audio Com	pression	Format	AAC (16 kHz / 16 bit)			
GV-Multi Quad Card Support		Yes				
GV-Loop Through Card Support			Yes			
GV-NET/IO Card Support			Yes			
Dimensions	DVI-T	уре	156 x 111 mm / 6.14 x 4.37 in			



		GV-1120B x 2	GV-1240B x 2	GV-1480B x 2	
Interface Type			PCI-E (x4) x 2		
Input Type			DVI		
Video Input			32 Cams	32 Cams	32 Cams
Audio Input		32 Channels	32 Channels	32 Channels	
	CIF	NTSC	240 fps	480 fps	960 fps
Recording		PAL	200 fps	400 fps	800 fps
Rate		NTSC	240 fps	480 fps	960 fps
	D1	PAL	200 fps	400 fps	800 fps
	CIF	NTSC	960 fps		
Display		PAL	800 fps		
Rate	D1	NTSC	960 fps		
		PAL	800 fps		
Video Resolution PAL		704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
		PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240		
Video Compression Format			Geo MPEG4, Geo H264		
Audio Compression Format			AAC (16 kHz / 16 bit)		
GV-Multi Quad Card Support			Yes		
GV-Loop Through Card Support			Yes		
GV-NET/IO Card Support			Yes		
Dimensions DVI-Type		156 x 111 mm / 6.14 x 4.37 in			



1.8 GV-1008

The GV-1008, as a three-in-one combo card, provides one single card solution for 8 video / audio recording, real-time display and TV-out display. The Card can record each channel at D1 in real time or 30 fps. When the two Cards are installed in the system, it can be utilized to provide a single TV-out display of 16 cameras and maintain a high recording rate of 480 fps at D1 resolution.

Minimum System Requirements

05	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
OS	64-bit	Windows 7 / Windows Server 2008 R2			
		GV-1008	Core 2 Duo, 3.0 GHz		
CPU		GV-1008 x 2	Core i5-750, 2.66 GHz		
RAM		Windows VD	GV-1008	2 x 512 MB Dual Channels	
		Windows XP	GV-1008 x 2	2 x 1 GB Dual Channels	
		Windows Vista / 7	GV-1008	2 x 1 GB Dual Channels	
		/ Server 2008	GV-1008 x 2		
HDD		GV-1008	250 GB		
		GV-1008 x 2	500 GB		
Graphic	Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
DirectX		9.0c			

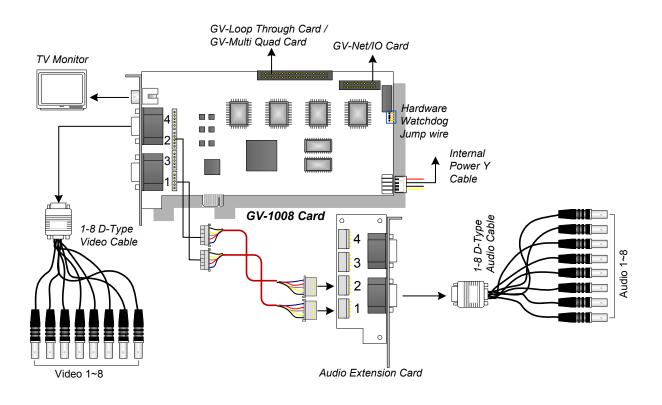
Packing List

- 1. GV-1008 Card x 1
- 2. Audio Extension Card x 1
- 3. 1-8 D-Type Video Cable x 1
- 4. 1-8 D-Type Audio Cable x 1
- 5. 40-Pin Ribbon Cable with 3 headers x 1
- 6. Internal Power Y Cable x 1
- 7. Hardware Watchdog Jumper Wire x1
- 8. Software DVD x 1
- 9. Surveillance System Quick Start Guide x 1

GeoVision:

Connecting One GV-1008 Card

- Plug the Audio Extension Card in the assigned connectors on the GV-1008 Card.
- Connect D-Type video cable and audio cable to the GV-1008 Card and Audio Extension Card respectively.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-40).
- Connect the PC's internal power supply to the GV-1008 Card.
- Connect the TV monitor to the GV-1008 Card if needed.





Note: The Card only works when it connects to PC's power supply using the supplied Internal Power Y Cable.



Connecting Two GV-1008 Cards

You can install the Master and Slave of GV-1008 Cards for a total of 16 channels. The Master and Slave are distinguished by the labels on cards, as shown below:

Master Card:



Slave Card:

Use the supplied 40-pin cable to connect the Master and Slave Cards together.

IMPORTANT:

- 1. The Slave Cards cannot work alone. They need to work in conjunction with the Master Cards.
- 2. If both GV-1008 Cards are Master Cards, it is required to identify which are Master and Slave by the PCI-E slot number. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.
- Video Channels: Connect only Video Channels 1~8 of the Master Card and Video Channels 9~16 of the Slave Card with the supplied D-Type Video Cables
- Audio channels: Connect only Audio Channels 1~8 of the Master Card and Audio Channels 9~16 of the Slave Card to Audio Extension Card.
- **TV Output Connection:** Connect a TV Monitor to any of the RCA connectors on the Master and Slave Cards for displaying 1-16 channels.
- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-40).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card only to the Master Card.
 - GV-Loop Through Card: Connect one card to the 40-pin cable which connects both Master and Slave Cards.
 - GV-Multi Quad Card: Connect one card to the 40-pin cable which connects both Master and Slave Cards.



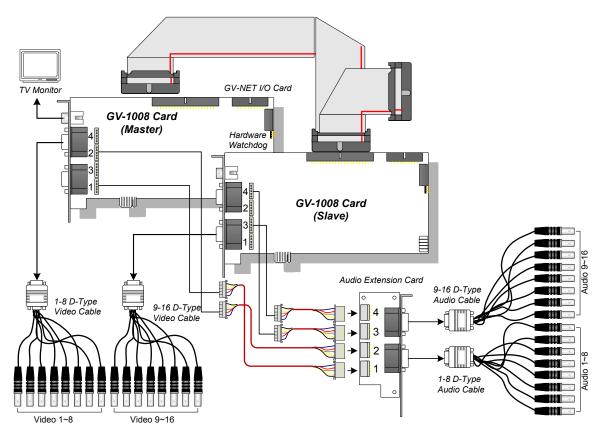


Figure 1-39



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

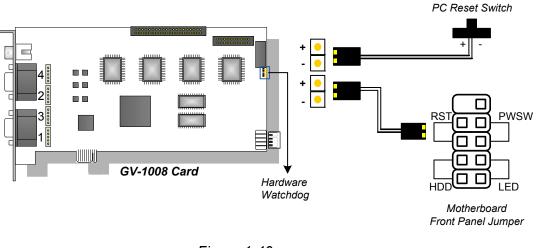


Figure 1-40

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-1008 Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

Expand the **DVR-Devices** field, you can see:

GV-1008 Card	Entry	
Single-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008	
Two-card mode	GV1480A/GV1240A/GV1248A/GV1120A/GV1008 GV1480A/GV1240A/GV1248A/GV1120A/GV1008	



Specifications

			GV-1008	GV-1008 x 2	
Interface			PCI-E (x1)	PCI-E (x1) x 2	
Input Type			D-Type, DVI		
Video Input			8 Cams	16 Cams	
TV Output			D-Type: RCA Connector DVI: BNC Connector		
Audio Input			8 Channels	16 Channels	
	CIF	NTSC	240 fps	480 fps	
Depending Date		PAL	200 fps	400 fps	
Recording Rate	D1	NTSC	240 fps	480 fps	
		PAL	200 fps	400 fps	
	CIF	NTSC	240 fps	480 fps	
Display Rate		PAL	200 fps	400 fps	
Display Rate	D1	NTSC	240 fps	480 fps	
		PAL	200 fps	400 fps	
	NTSC		704 x 480, 704 x 480 (De-interlace), 640 x 480,		
Video Resolution	NISC		640 X 480 (De-interlace), 352 x 240, 320 x 240		
Video Resolution	PAL		704 x 576, 704 x 576 (De-interlace), 640 x 480,		
			640 X 480 (De-interlace), 352 x 288, 320 x 240		
Video Compression Format			Geo MPEG4, Geo H264		
Audio Compression Format			AAC (16 kHz / 16 bit)		
GV-Multi Quad Card Support			Yes		
GV-Loop Through Card Support			Yes		
GV-NET/IO Card Support			Yes		
Dimensions (W x H)			179 x 99 mm / 7.04 x 3.89 in		



1.9 GV-900A

One GV-900A Card provides up to 32 video channels and 8 audio channels, recording up to 240 / 200 fps (NTSC / PAL) in total with H.264 software compression.

Minimum System Requirements

OS	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
03	64-bit	Windows 7 / Windows Server 2008 R2			
CPU		GV-900A	Pentium 4, 3.0 GHz with Dual Core		
		GV-900A x 2	Core i5-750, 2.66 GHz		
RAM		2 x 1 GB Dual Channels			
HDD		GV-900A	160 GB		
		GV-900A x 2	500 GB		
Graph	ic Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
Direct	Х	9.0c			

Packing List

- **1.** GV-900A Card x 1
- 2. 1-16 Cams with 4-Port Audio DVI-Type 4. Software DVD x 1 Cable x 2 / 1-8 Cams with 4-Port Audio DVI-Type Cable x 2 / 1-4 Cams with 4-Port Audio DVI-Type Cable x 2
- 3. Hardware Watchdog Jumper Wire x 1
- - 5. Surveillance System Quick Start Guide x 1

Note: The two 1-16 Cams with 4-Port Audio DVI-Type cables are supplied with the GV-900A card with 32 video inputs, the two 1-8 Cams with 4-Port Audio DVI-Type cables are supplied with the GV-900A card with 16 video inputs and the two 1-4 Cams with 4-Port Audio DVI-Type cables are supplied with the GV-900A card with 8 video inputs.



Connecting One GV-900A Card

Here we use the GV-900A Card of 8 channels to illustrate the connection.

- Connect the video / audio cables into the DVI ports of the GV-900A Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-43).

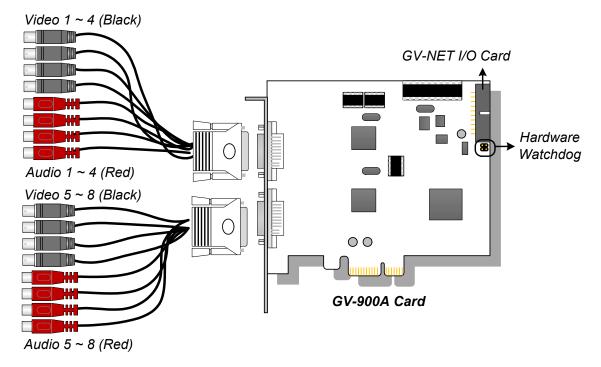


Figure 1-41



Connecting Two GV-900A Cards

You can install two GV-900A Cards for up to 32 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-43).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card to the Master Card only.

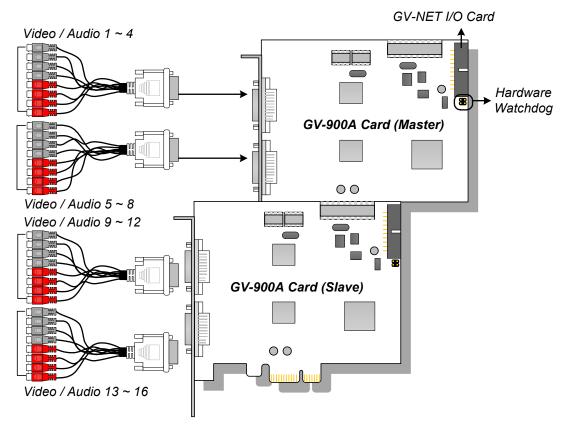


Figure 1-42



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

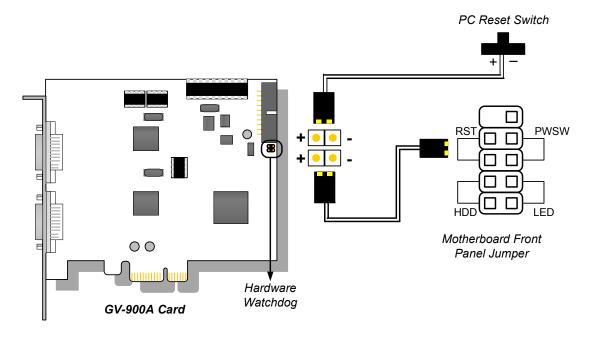


Figure 1-43

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-900A Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

GV-900A Card	Entry	
Single-card mode	GV900(A) Audio #1 ~ 8 GV900(A) Video #1 ~ 8	
Two-card mode	GV900(A) Audio #1 GV900(A) Audio #1 GV900(A) Audio #2 GV900(A) Audio #2 GV900(A) Audio #2 GV900(A) Audio #3 GV900(A) Audio #3 GV900(A) Audio #4 GV900(A) Audio #4 GV900(A) Audio #5 GV900(A) Audio #5 GV900(A) Audio #5 GV900(A) Audio #6 GV900(A) Audio #6 GV900(A) Audio #7 GV900(A) Audio #7 GV900(A) Audio #8 GV900(A) Audio #8	GV900(A) Video #1 GV900(A) Video #1 GV900(A) Video #2 GV900(A) Video #2 GV900(A) Video #3 GV900(A) Video #3 GV900(A) Video #4 GV900(A) Video #4 GV900(A) Video #5 GV900(A) Video #5 GV900(A) Video #5 GV900(A) Video #6 GV900(A) Video #6 GV900(A) Video #7 GV900(A) Video #7 GV900(A) Video #8 GV900(A) Video #8

Expand the **DVR-Devices** field, you can see:



Specifications

			GV-900A	GV-900A x 2
Interface		PCI-E (x1)	PCI-E (x1) x 2	
Input Type		DVI		
Video Input			8, 16, 32 Cams	16, 24, 32 Cams
Audio Input			8 Channels	16 Channels
	CIF	NTSC	8-port: 240 fps 32-port: 240 fps	8+8 port: 480 fps 16+16 port: 480 fps
Depending Date	CIF	PAL	8-port: 200 fps 32-port: 200 fps	8+8 port: 400 fps 16+16 port: 400 fps
Recording Rate	D1	NTSC	8-port: 240 fps 32-port: 120 fps	8+8 port: 480 fps 16+16 port: 240 fps
		PAL	8-port: 200 fps 32-port: 100 fps	8+8 port: 400 fps 16+16 port: 200 fps
	CIF	NTSC	8-port: 240 fps 32-port: 240 fps	8+8 port: 480 fps 16+16 port: 480 fps
Diaplay Data		PAL	8-port: 200 fps 32-port: 200 fps	8+8 port: 400 fps 16+16 port: 400 fps
Display Rate	D1	NTSC	8-port: 240 fps 32-port: 120 fps	8+8 port: 480 fps 16+16 port: 240 fps
		PAL	8-port: 200 fps 32-port: 100 fps	8+8 port: 400 fps 16+16 port: 200 fps
Video Resolution		NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240	
PAL		704x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240		
Video Compression Format		Geo MPEG4, Geo H264		
Audio Compressio	Audio Compression Format		AAC (16 kHz / 16 bit)	
GV-NET/IO Card Support		rt	Yes	
Dimensions (W x H	H)		120 x 112 mm / 4.7 x 4.4 in	

GeoVision

1.10 GV-650A, GV-800A

The GV-650A and GV-800A Cards have similar appearances, system requirements and packing list so that we introduce both together in this section. However, you may choose between the two according to your need for recording rate and audio channels.

00	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008					
OS	64-bit	Windows 7 / Windows Server 2008 R2					
		GV-650A	Pentium 4, 2.4 G	Hz			
CPU		GV-650A x 2	Pentium 4, 2.8 G	Hz with Hyper Threading			
GPU		GV-800A	Pentium 4, 3.0 G	Hz with Hyper Threading			
		GV-800A x 2	Pentium 4, 3.0 GHz Dual Core				
			Windows XP	2 x 512 MB Dual Channels			
RAM	l	GV-650A / GV-800A	Windows Vista / 7 / Server 2008	2 x 1 GB Dual Channels			
		GV-650A x 2 / GV-800A x 2	2 x 1 GB Dual Channels				
HDD		GV-650A / GV-800A	80 GB				
ייים ו		GV-650A x 2 / GV-800A x 2	160 GB				
Grap Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color					
Direc	ctX	9.0c					

Minimum System Requirements

Packing List

- **1.** GV-800A or GV-650A Card x 1
- 2. Audio Extension Card x 1 **
- **3.** 1-8 Cams with 4-Port Audio D-Type Cable x 1 **7.** Surveillance System Quick Start
- 4. 9-16 Cams D-Type Cable x 1 *

- 5. Hardware Watchdog Jumper Wire x 1
- 6. Software DVD x 1
 - Surveillance System Quick Start Guide x 1
- * Supplied with 12-16 Cams D-Type Video Capture Card
- ** Supplied with GV-800A Card only



Connecting One GV-650A / GV-800A Card

The GV-650A Card is designed with a D-Type connector while the GV-800A Card is designed with two types of connectors: BNC and D-Type. BNC type only provides four video channels; audio extension card is required for extension. D-Type can provide up to 16 video channels and four audio channels together.

For the D-Type video capture card, plug the black video/audio cable into the black connector on the GV-650A / 800A Card; the blue video cable into the blue connector, as illustrated below.

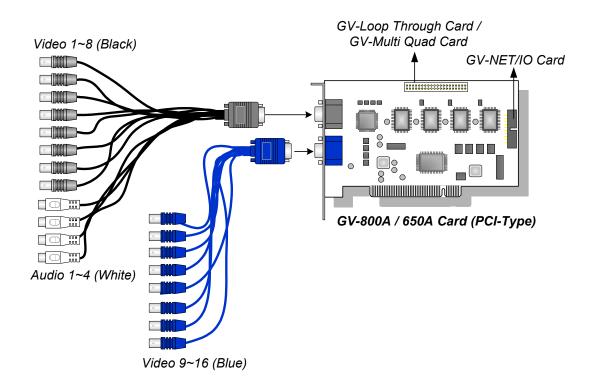


Figure 1-44 D-Type GV-650A / GV-800A Card with PCI interface

Note: The GV-650A Card only supports two audio channels so that only two audio ports can work in the supplied 1-8 Cams with 4-Port Audio D-Type cable.



For the BNC-type video capture card, plug the Audio Extension Card into the connector on the GV-804A Card, as illustrated below.

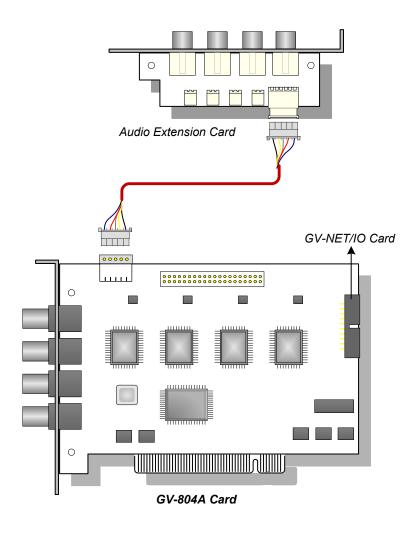


Figure 1-45 BNC-type GV-804A Card



Connecting Two GV-650A / GV-800A Cards

You can install two GV-650A / GV-800A of the same model for up to 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI slot number will act as Master, and the card attached to the higher PCI slot number will act as Slave.

Note: To install two GV-800A Cards, ensure one of both has PCI-E interface. For the detailed rules for two-card mode, see *1.10 Installing Two Cards*.

- **Two GV-650A Cards only support four audio channels:** Connect microphones to Audio 1 and Audio 2 connectors of the Master Card, and Audio 5 and Audio 6 connectors of the Slave Card.
- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-47).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card to the Master Card only.
 - GV-Loop Through Card: Connect the card for each video capture card.
 - GV-Multi Quad Card: Only connect one card to any of two video capture cards.

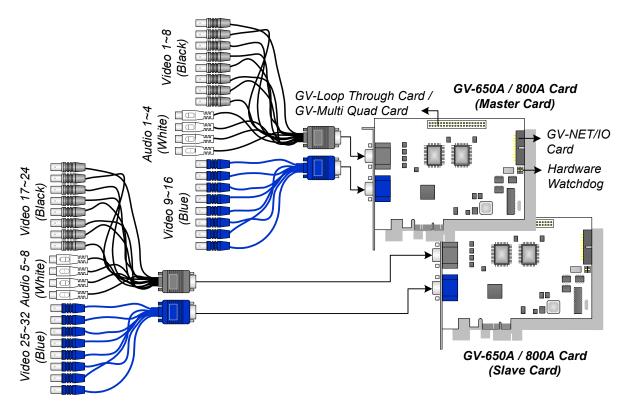


Figure 1-46 D-Type GV-650A / 800A Cards with PCI-E interface



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

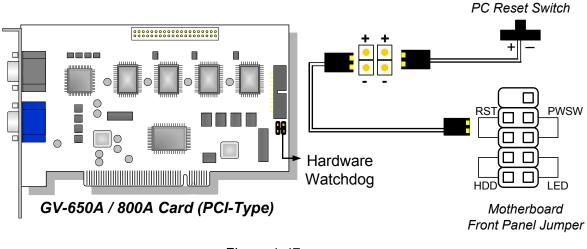


Figure 1-47

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-650A / GV-800A Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

Card Model		Entry
	Single-card mode	GV650(V4) Audio #1 ~ 2 GV650(V4) Video Capture #1 ~ 2
GV-650A Card	Two-card mode	GV650(V4) Audio #1 GV650(V4) Audio #1 GV650(V4) Audio #2 GV650(V4) Audio #2 GV650(V4) Video Capture #1 GV650(V4) Video Capture #1 GV650(V4) Video Capture #2 GV650(V4) Video Capture #2
	Single-card mode	GV800(V4) Audio #1 ~ 4 GV800(V4) Video Capture #1 ~ 4
GV-800A Card	Two-card mode	GV800(V4) Audio #1 GV800(V4) Audio #1 GV800(V4) Audio #2 GV800(V4) Audio #2 GV800(V4) Audio #3 GV800(V4) Audio #3 GV800(V4) Audio #4 GV800(V4) Audio #4 GV800(V4) Video Capture #1 GV800(V4) Video Capture #1 GV800(V4) Video Capture #2 GV800(V4) Video Capture #2 GV800(V4) Video Capture #3 GV800(V4) Video Capture #3 GV800(V4) Video Capture #4 GV800(V4) Video Capture #4

Expand the **DVR-Devices** field, you can see:



Specifications

			GV-650A		GV-800A
Interface		PCI, PCI-E (x1)			
Input Type			D-Type		BNC, D-Type
Video Input			4, 8, 12, 16 Cams		
Audio Input			2 Channels		4 Channels
		NTSC	60 fps		120 fps
Recording	CIF	PAL	50 fps		100 fps
Rate	D1	NTSC	30 fps		60 fps
		PAL	25 fps		50 fps
	CIF	NTSC	60 fps		120 fps
Display		PAL	50 fps		100 fps
Rate		NTSC	30 fps		60 fps
	D1	PAL	25 fps		50 fps
	4:	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240		
Video Resolu	tion	PAL	704x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240		
Video Compr	ession l	Format	Geo MPEG4, Geo H264		
Audio Compr	ession	Format	AAC (16 kHz / 16 bit)		
GV-NET/IO C	ard Su	pport	Yes		
GV-Multi Qua	d Card	Support	Yes		
GV-Loop Through Card Support		Yes			
		BNC	GV-804A	152 x 94	4 mm / 5.98 x 3.7 in
Dimensions (W x H)		DT	GV-650A	174 x 98	3 mm / 6.85 x 3.86 in
		D-Type	GV-800A	174 x 98 mm / 6.85 x 3.86 in	



			GV-650A x 2		GV-800A x 2	
Interface		PCI x 2, PCI-E (x1) x 2, PCI x 1 + PCI-E (x1) x 1		PCI-E (x1) x 2, PCI x 1 + PCI-E (x1) x 1		
Input Type			D-Туре		BNC, D-Type	
Video Input			32 Cams (Max.)			
Audio Input			4 Channels		8 Channels	
	CIF	NTSC	120 fps		240 fps	
Recording		PAL	100 fps		200 fps	
Rate	D1	NTSC	60 fps		120 fps	
		PAL	50 fps		100 fps	
	CIF	NTSC	120 fps		240 fps	
Display		PAL	100 fps		200 fps	
Rate		NTSC	60 fps		120 fps	
	D1	PAL	50 fps		100 fps	
	4:	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
Video Resolu	lion	PAL	704x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Video Compre	ession l	Format	Geo MPEG4, Geo H264			
Audio Compre	ession I	Format	AAC (16 kHz / 16 bit)			
GV-NET/IO C	ard Su	pport	Yes			
GV-Multi Qua	GV-Multi Quad Card Support		Yes			
GV-Loop Through Card Support		Yes				
		BNC	GV-804A	152 x 94	4 mm / 5.98 x 3.7 in	
Dimensions (W x H)		DTure	GV-650A	174 x 98	3 mm / 6.85 x 3.86 in	
		D-Type	GV-800A	174 x 98	174 x 98 mm / 6.85 x 3.86 in	



1.11 GV-600A

There are two types of GV-600A Cards: BNC and D-Type. BNC-Type only provides four video channels; video and audio extension cards are required for extension. D-Type can provide up to 16 video channels and one audio channel together.

OS 32-bit		Windows XP / Windows Vista / Windows 7 / Windows Server 2008			
03	64-bit	Windows 7 / W	indows Server 2008 R2	2	
		GV-600A	Pentium 4, 2.0 GHz		
CPU		GV-600A x 2	Pentium 4, 2.6 GHz with Hyper Threading		
			Windows XP	2 x 512 MB Dual Channels	
RAM		GV-600A	Windows Vista / 7 / Server 2008	2 x 1 GB Dual Channels	
		GV-600A x 2	2 x 1 GB Dual Channels		
HDD		GV-600A	80 GB		
ноо		GV-600A x 2	160 GB		
Graphic	Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
DirectX		9.0c			

Minimum System Requirements

Packing List

- 1. GV-600A Card x 1
- 2. Audio Extension Card x 1 **
- **3.** 1-8 Cams with 4-Port Audio D-Type
- 4. 9-16 Cams D-Type Cable x 1 *
- 5. Hardware Watchdog Jumper
- 6. Software DVD x 1
- Surveillance System Quick Start Guide x 1
- * Supplied with 10-16 Cams D-Type Video Capture Card
- ** Supplied with BNC Video Capture Card



Connecting One GV-600A Card

For the D-Type video capture card, plug the black video / audio cable into the black connector on the GV-600A Card; the blue video cable into the blue connector, as illustrated below.

Note: The GV-600A Card only supports one audio channel so that only one audio port can work in the supplied 1-8 Cams with 4-Port Audio D-Type cable.

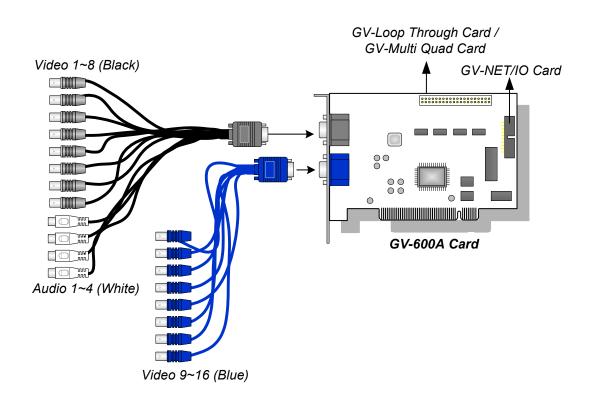


Figure 1-48



For the BNC-Type video capture card, plug the Audio Extension Card into the connector on the GV-600A Card, as illustrated below.

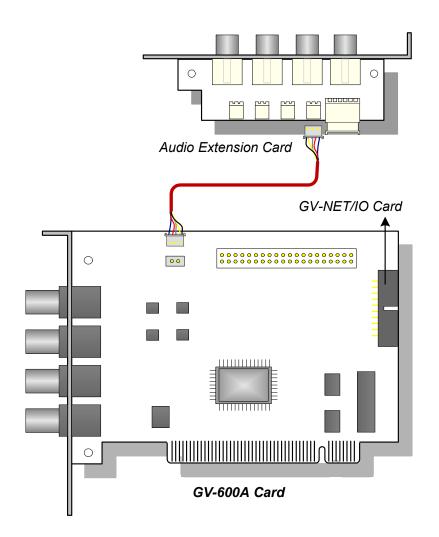


Figure 1-49



Connecting Two GV-600A Cards

You can install two GV-600A Cards for up to 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI slot number will act as Master, and the card attached to the higher PCI slot number will act as Slave.

- **Two GV-600A Cards only support two audio channels:** Connect microphones to Audio 1 connector of the Master Card, and Audio 5 connector of the Slave Card.
- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-51).
- Accessory Card Connections:
 - GV-NET/IO Card: Connect the card to the Master Card only.
 - GV-Loop Through Card: Connect the card for each video capture card.
 - GV-Multi Quad Card: Only connect one card to any of two video capture cards.

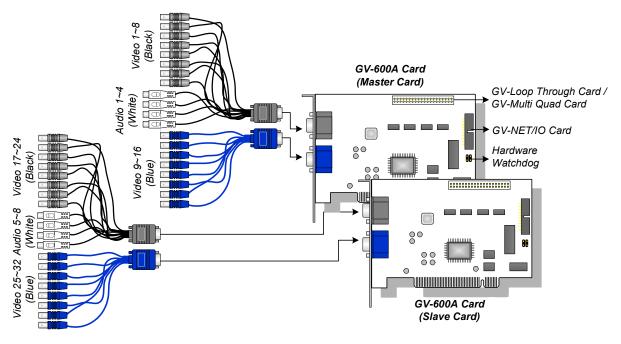


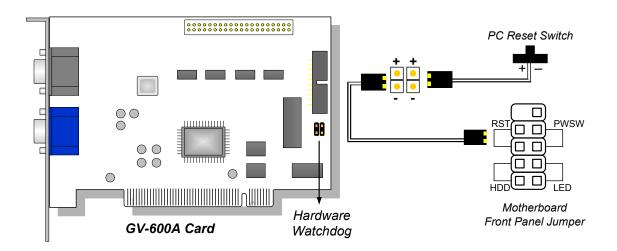
Figure 1-50

GeoVision:

Connecting Hardware Watchdog

To reboot the computer by the hardware watchdog on the GV-Video Capture Card, a connection needs to be made from the card to the motherboard.

1. Using the supplied jumper wire, connect the reset jumper pins on the card and on the motherboard.





2. If the computer has a reset switch, the switch's jumper wire should already be connected to the motherboard's reset jumper pins. Remove the switch wire from the motherboard and connect it to the reset jumper pins on the card.



Installing Drivers

After installing the GV-600A Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

GV-600A Card	Entry	
Single-card mode	GV600(V4) Audio GV600(V4) Video Capture	
Two-card mode	GV600(V4) Audio GV600(V4) Audio GV600(V4) Video Capture GV600(V4) Video Capture	

Expand the **DVR-Devices** field, you can see:



Specifications

			GV-600A	GV-600A x 2
Interface		PCI	PCI x 2	
Input Type			BNC, D-Type	
Video Input			1, 2, 4, 6, 8, 10, 12, 14, 16 Cams	32 Cams (Max.)
Audio Input			1 Channel	2 Channels
	CIF	NTSC	30 fps	60 fps
Recording		PAL	25 fps	50 fps
Rate	D1	NTSC	15 fps	30 fps
		PAL	12.5 fps	25 fps
	CIF	NTSC	30 fps	60 fps
Display		PAL	25 fps	50 fps
Rate	D1	NTSC	15 fps	30 fps
	וט	PAL	12.5 fps	25 fps
	4:	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240	
Video Resolu	lion	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240	
Video Compre	ession Fc	ormat	Geo MPEG4, Geo H264	
Audio Compre	ession Fo	ormat	AAC (16 kHz / 16 bit)	
GV-NET/IO Card Support		Yes		
GV-Multi Qua	GV-Multi Quad Card Support		Yes	
GV-Loop Through Card Support		Yes		
Dimensions ((W x H)		144 x 89 mm / 5.67 x 3.50 in	

1.12 GV-600B, GV-650B, GV-800B

There are two types of GV-600B / GV-650B / GV-800B Card: PCI and PCI-E. Both types of the GV-600B / GV-650B / GV-800B Card provide up to 16 video channels and 4 audio channels. The GV-600B, GV-650B and GV-800B Cards have the same appearances and similar system requirements so that we introduce the three cards together in this section. However, you may choose among the three according to your need for recording rate.

OS	32-bit	Windows XP / Windows V	ista / Windows 7 / Wi	indows Server 2008			
05	64-bit	Windows 7 / Windows Ser	ver 2008 R2				
		GV-600B	Pentium 4, 2.0 GHz				
		GV-600B x 2	Pentium 4, 2.6 GHz	with Hyper Threading			
CPU		GV-650B	Pentium 4, 2.4 GHz				
CFU		GV-650B x 2	Pentium 4, 2.8 GHz	with Hyper Threading			
		GV-800B	Pentium 4, 3.0 GHz	with Hyper Threading			
		GV-800B x 2	Pentium 4, 3.0 GHz Dual Core				
			Windows XP	2 x 512 MB Dual Channels			
RAM		GV-600B / 650B / 800B	Windows Vista / 7 / Server 2008	2 x 1 GB Dual Channels			
		GV-600B x 2 / 650B x 2 / 800B x 2	2 x 1 GB Dual Channels				
		GV-600B / 650B / 800B	/ 800B 80 GB				
		GV-600B x 2 / 650B x 2 / 800B x 2	[/] 160 GB				
Graph	ic Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color					
Direct	x	9.0c					

Minimum System Requirements



Packing List

- 1. GV-600B, GV-650B or GV-800B Card x 1
- 2. 1-16 Cams with 4-Port Audio DVI-Type Cable x 1 / 1-8 Cams with 4-Port Audio DVI-Type Cable x 1 / 1-4 Cams with 4-Port Audio DVI-Type Cable x 1
- 3. Hardware Watchdog Jumper Wire x 1
- 4. Software DVD x 1
- Surveillance System Quick Start Guide x 1

Note: The 1-16 Cams with 4-Port Audio DVI-Type cable is supplied with GV-600B / GV-650B / GV-800B card with 16 video inputs, the 1-8 Cams with 4-Port Audio DVI-Type cable is supplied with GV-600B / GV-650B / GV-800B card with 8 video inputs, while the 1-4 Cams with 4-Port Audio DVI-Type cable is supplied with GV-600B / GV-650B / GV-800B card with 4 video inputs.

Connecting One GV-600B / GV-650B / GV-800B Card

There are two types of GV-600B / GV-650B / GV-800B Card: PCI and PCI-E. Here we take the GV-600B / GV-650B / GV-800B Card with PCI interface for example to illustrate the connection.

- Connect the video / audio cables into the DVI ports of the GV-600B / GV-650B / GV-800B Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 1-54).

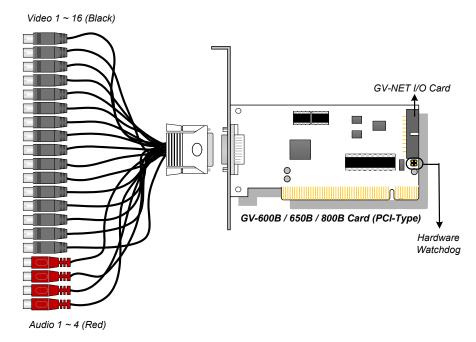


Figure 1-52

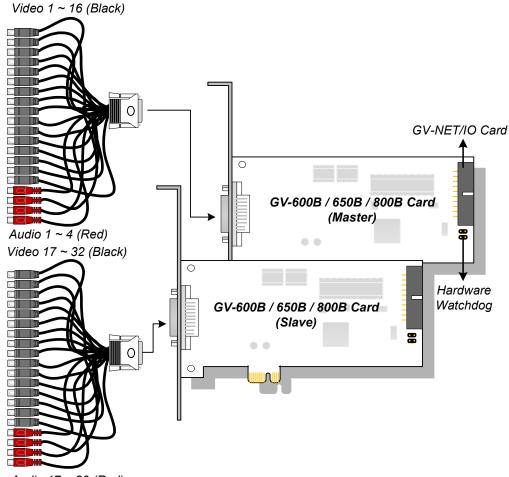
Connecting Two GV-600B / GV-650B / GV-800B Cards

You can install two GV-600B / GV-650B / GV-800B Cards of the same model for up to 32 channels. Master Card is the card with 1-16 channels and Slave Card is that with 17-32 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

Note: To install two GV-600B / GV-650B / GV-800B Cards, ensure one of both has PCI-E interface. For the detailed rules for two-card mode, see *1.10 Installing Two Cards*.

Here we take two GV-600B / GV-650B / GV-800B Cards with PCI-E interfaces for example to illustrate the connection.

- Hardware Watchdog Connection: Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 1-54).
- Accessory Card Connection: Connect the GV-NET/IO Card to the Master Card only.



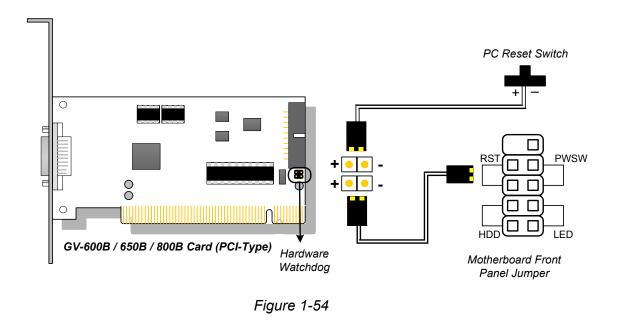
Audio 17 ~ 20 (Red)

Figure 1-53



Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.



Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.



Installing Drivers

After installing the GV-600B / GV-650B / GV-800B Card in the computer, insert the software DVD. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select **Install or Remove GeoVision GV-Series Card Drivers** to install card drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed.

Card Models	Entry		
GV-600B	GV600(B) Audio #1 ~ 4 GV600(B) Video #1 ~ 4		
GV-600B x 2	GV600(B) Audio #1 GV600(B) Audio #1 GV600(B) Audio #2 GV600(B) Audio #2 GV600(B) Audio #3 GV600(B) Audio #3 GV600(B) Audio #4	GV600(B) Video #1 GV600(B) Video #1 GV600(B) Video #2 GV600(B) Video #2 GV600(B) Video #3 GV600(B) Video #3 GV600(B) Video #4 GV600(B) Video #4	
GV-650B	GV650(B) Audio #1 ~ 4 GV650(B) Video #1 ~ 4		
GV-650B x 2	GV650(B) Audio #1 GV650(B) Audio #1 GV650(B) Audio #2 GV650(B) Audio #2 GV650(B) Audio #3 GV650(B) Audio #3 GV650(B) Audio #4 GV650(B) Audio #4	GV650(B) Video #1 GV650(B) Video #1 GV650(B) Video #2 GV650(B) Video #2 GV650(B) Video #3 GV650(B) Video #3 GV650(B) Video #4 GV650(B) Video #4	
GV-800B	GV800(B) Audio #1 ~ 4 GV800(B) Video #1 ~ 4		
GV-800B x 2	GV800(B) Audio #1 GV800(B) Audio #1 GV800(B) Audio #2 GV800(B) Audio #2 GV800(B) Audio #3 GV800(B) Audio #3 GV800(B) Audio #4	GV800(B) Video #1 GV800(B) Video #1 GV800(B) Video #2 GV800(B) Video #2 GV800(B) Video #3 GV800(B) Video #3 GV800(B) Video #4 GV800(B) Video #4	

Expand the **DVR-Devices** field, you can see:



Specifications

		GV-600B	GV-650B	GV-800B		
Interface		PCI, PCI-E (x1)				
Input Type			DVI			
Video Input			4, 8, 16 Cams			
Audio Input			4 Channels			
		NTSC	4-port: 30 fps 16-port: 30 fps	4-port: 60 fps 16-port: 60 fps	4-port: 120 fps 16-port: 120 fps	
Recording	CIF	PAL	4-port: 25 fps 16-port: 25 fps	4-port: 50 fps 16-port: 50 fps	4-port: 100 fps 16-port: 100 fps	
Rate	D1	NTSC	4-port: 30 fps 16-port: 15 fps	4-port: 60 fps 16-port: 30 fps	4-port: 120 fps 16-port: 60 fps	
		PAL	4-port: 25 fps 16-port: 12.5 fps	4-port: 50 fps 16-port: 25 fps	4-port: 100 fps 16-port: 50 fps	
	CIF	NTSC	4-port: 30 fps 16-port: 30 fps	4-port: 60 fps 16-port: 60 fps	4-port: 120 fps 16-port: 120 fps	
Display		PAL	4-port: 25 fps 16-port: 25 fps	4-port: 50 fps 16-port: 50 fps	4-port: 100 fps 16-port: 100 fps	
Rate	D1	NTSC	4-port: 30 fps 16-port: 15 fps	4-port: 60 fps 16-port: 30 fps	4-port: 120 fps 16-port: 60 fps	
	D1	PAL	4-port: 25 fps 16-port: 12.5 fps	4-port: 50 fps 16-port: 25 fps	4-port: 100 fps 16-port: 50 fps	
Video Bosolu	tion	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
	Video Resolution PAL		704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Video Compression Format			Geo MPEG4, Geo H264			
Audio Compression Format		AAC (16 kHz / 16 bit)				
GV-NET/IO Card Support		Yes				
Dimensions (W x H)			PCI-Type: 120 x 65 mm / 4.7 x 2.5 in PCI-E Type: 120 x 82 mm / 4.7 x 3.2 in			



		GV-600B x 2		GV-650B x 2	GV-800B x 2	
Interface		PCI-E (x1) x 2, PCI x 1 + PCI-E (x1) x 1				
Input Type		DVI				
Video Input			8, 12, 16, 20, 24, 32	Ca	ms	
Audio Input			8 Channels			
		NTSC	4+4 port: 60 fps 16+16 port: 60 fps		4 port: 120 fps +16 port: 120 fps	4+4 port: 240 fps 16+16 port: 240 fps
Recording	CIF	PAL	4+4 port: 50 fps 16+16 port: 50 fps		4 port: 100 fps +16 port: 100 fps	4+4 port: 200 fps 16+16 port: 200 fps
Rate		NTSC	4+4 port: 60 fps 16+16 port: 30 fps		4 port: 120 fps +16 port: 60 fps	4+4 port: 240 fps 16+16 port: 120 fps
	D1	PAL	4+4 port: 50 fps 16+16 port: 25 fps		4 port: 100 fps +16 port: 50 fps	4+4 port: 200 fps 16+16 port: 100 fps
	CIF	NTSC	4+4 port: 60 fps 16+16 port: 60 fps		4 port: 120 fps +16 port: 120 fps	4+4 port: 240 fps 16+16 port: 240 fps
		PAL	4+4 port: 50 fps 16+16 port: 50 fps		4 port: 100 fps +16 port: 100 fps	4+4 port: 200 fps 16+16 port: 200 fps
Display Rate	D 4	NTSC	4+4 port: 60 fps 16+16 port: 30 fps		4 port: 120 fps +16 port: 60 fps	4+4 port: 240 fps 16+16 port: 120 fps
	D1	PAL	4+4 port: 50 fps 16+16 port: 25 fps		4 port: 100 fps +16 port: 50 fps	4+4 port: 200 fps 16+16 port: 100 fps
Video Deseluti	0.0	NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
Video Resoluti	on	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Video Compression Format			Geo MPEG4, Geo H264			
Audio Compression Format			AAC (16 kHz / 16 bit)			
GV-NET/IO Card Support			Yes			
Dimensions (V	V x H)		PCI-Type: 120 x 65 mm / 4.7 x 2.5 in PCI-E Type: 120 x 82 mm / 4.7 x 3.2 in			

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1.13 Installing Two Cards

You can install two video capture cards of the same model for a total of 32 channels. For example, $2 \times \text{GV}$ -650A Cards (16 channels) = 32 channels.

It is also possible to implement two video capture cards of different channels. For example, GV-650A Card (12 channels) + GV-650A Card (16 channels) = 28 channels.

Note: Besides GV-804A Card, all GV video capture cards support two-card mode.

Rules to Use Two Cards

GV video capture cards have two interface types: PCI and PCI Express (PCI-E). When you install two video capture cards, ensure they are installed in the right slots as instructed in the following tables.

• GV-600A, GV-650A, GV-800A

Card Combination	V3.20 and later	V4.20 and later		
V3.20 and later	x	x		
		GV-600A	PCI x 2	
			PCI x 2	
V4.20 and later	x	GV-650A	PCI-E x 2	
V4.20 and later			PCI x 1+ PCI-E x 1	
		GV-800A	PCI-E x 2	
		GV-000A	PCI x 1+ PCI-E x 1	

- 1. The V3.20 (and later) Cards or the combination of V3.20 and V4.20 (and later) Cards do not support two-card mode.
- 2. For GV-600A cards, it is required to use two PCI slots.
- 3. For GV-650A cards, you can use two PCI slots, two PCI Express slots, or the combination of PCI and PCI Express slots.
- 4. For GV-800A cards, it is required to use two PCI Express slots, or the combination of PCI and PCI Express slots.



• GV-600B, GV-650B, GV-800B

Card Combination	GV-600B / 650B / 800B
GV-600B / 650B / 800B	PCI-E x 2
	PCI x 1+ PCI-E x 1

1. For GV-600B / 650B / 800B card, it is required to use two PCI Express slots, or the combination of PCI and PCI Express slots.

• GV-1120A, GV-1240A, GV-1480A

Card Combination	V1.02 / V2.00 and later	Combo A Cards (GV-1120A / 1240A / 1480A)
V1.02 / V2.00 and later	PCI-E x 2	x
	PCI x 1+ PCI-E x 1	
Combo A Cards (GV-1120A / 1240A / 1480A)	x	PCI-E x 2

- V1.02 / V2.00 (and later) and Combo A Cards all support two-card mode, but the combination of V1.02 / V2.00 (and later) and Combo A Cards does not support two-card mode.
- 2. When you install two V1.02 / V2.00 (and later) Cards, it is required to use two PCI Express slots or the combination of PCI and PCI Express slots.
- 3. When you install two Combo A Cards, it is required to use only two PCI Express slots.

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1.14 Installing Drivers

After you install the GV-Video Capture Card on the computer, the Found New Hardware Wizard will automatically detect the device. Ignore the wizard and follow these steps to install drivers:

- 1. Insert the software DVD. It will run automatically and pop up a window.
- 2. Select Install or Remove GeoVision GV-Series Cards Driver and select Install or Remove GeoVision GV-Series Card Drivers. This dialog box appears.

🖼 GeoVision Driver Installer							
Install	Remove	Exit					

Figure 1-55

- 3. Click **Install** to install the drivers. When the installation is complete, this message will appear: Install Successfully.
- 4. Click **Exit** to close the dialog box.

Note: In Windows XP, the wizard will disappear after installation. In Windows 2000, close the wizard manually.

				GV-SDI-204	GV-SDI-204 x 4		
Interface				PCI-E (x1)	PCI-E (x1) x 4		
Input Type				BNC			
Video Input	Video Input			4	16		
Recording	1000-	NTSC	120 fps		480 fps		
	1080p	PAL	100 fps		400 fps		
Rate	700-	NTSC		240 fps	960 fps		
and Display	720p	PAL		200 fps	800 fps		
Rate	1080i	NTSC		120 fps	480 fps		
	10601	PAL		100 fps	400 fps		
Video Codec		H/W		H.	264		
		S/W		Geo MPEG	4, Geo H.264		
			1080p	1	920 x 1080		
		H/W	720p		1280 x 720		
Video Resolu	ition		1080i	1080i 1920 x 1080			
			1080p	960 x	540, 480 x 270		
		S/W	720p		640 x 360		
			1080i	960 x	540, 480 x 270		
GV-Multi Qua	ad Card S	upport	X		X		
GV-Loop Thr	ough Car	d Support	X		X		
GV-NET/IO C	Card Supp	ort	O ¹		O ¹		
GV-I/O 12-In	Card Sup	port	O ¹		O ¹		
GV-I/O 12-Ou	ut Card Su	upport	O ¹		O ¹		
Hardware Wa	atchdog		0		0		
			linimun	n System Requirements	5		
OS		V	/indows	XP (32-bit) / Vista (32-bit Server 2008 (32-bit an	, , , ,		
DirectX				9.0c			
CPU		(Core 2 D	uo, 2.00 GHz	Core i3, 3.40 GHz		
RAM				2 x 1 GB Dual Ch	annels		
HDD			500 GB 2 TB				
Graphic Card		AGP or P	CI-Expr	ess, 800 x 600 (1280 x 1	024 recommended), 32-bit color		
connected	to the P	C through U	SB or D		be set in the I/O Box Mode and		

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			GV-5016	GV-5016 x 2		
Interface			PCI-E (x1)	PCI-E (x1) x 2		
Input Type			LFH			
Video Input			16	32		
Total Recording Rate	NTSC		480 fps	960 fps		
(D1)	PAL		400 fps	800 fps		
Display Rate	NTSC		480 fps	960 fps		
Display Nate	PAL		400 fps	800 fps		
Video Codec	H/W		Н	.264		
	S/W		Geo MPEO	64, Geo H.264		
	NTSC	H/W		704 x 480		
Video Resolution		S/W		352 x 240		
	PAL	H/W		704 x 576		
		S/W		352 x 288		
Audio Input		16		32		
Audio Codec		AAC (16 kHz / 16 bit)				
GV-Multi Quad Card S	upport	X		X		
GV-Loop Through Car	d Support	X		x		
GV-NET/IO Card Supp	ort	O ¹		O ¹		
GV-I/O 12-In Card Sup	port	O ¹		O ¹		
GV-I/O 12-Out Card St	upport	O ¹		O ¹		
Hardware Watchdog			0	0		
		Minimum System Requirements				
OS		Wir	. ,	(32-bit) / 7 (32-bit and 64-bit) / -bit and R2, 64-bit)		
DirectX			(9.0c		
CPU		Co	re 2 Quad, 2.4 GHz	Core i5 650, 3.20 GHz		
RAM		2 x 1 GB Dual Channels				
HDD		500 GB 1 TB				
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32- bit color				
Note: 1. To work together w	ith GV-5016), GV-NE	T/IO Card V3.1 must be	e set in the I/O Box Mode and		

connected to the PC through USB or DB9.



			GV-4008A	GV-4008A x 2		
Interface			PCI-E (x1)	PCI-E (x1) x 2		
Input Type			DVI			
Video Input			8	16		
Total Recording Rate	NTSC		240 fps	480 fps		
(D1)	PAL		200 fps	400 fps		
Diaplay Data	NTSC		240 fps	480 fps		
Display Rate	PAL		200 fps	400 fps		
Video Codoo	H/W		H	.264		
Video Codec	S/W		Geo MPEG	4, Geo H.264		
	NTCO	H/W		704 x 480		
Video Decelution	NTSC	S/W		352 x 240		
Video Resolution		H/W				
	PAL	S/W		352 x 288		
Audio Input		8		16		
Audio Codec		AAC (16 kHz / 16 bit)				
GV-Multi Quad Card S	upport	0		0		
GV-Loop Through Car	d Support	0		0		
GV-NET/IO Card Supp	oort	O ¹		O ¹		
GV-I/O 12-In Card Sup	port	O ¹		O ¹		
GV-I/O 12-Out Card S	upport	O ¹		O ¹		
Hardware Watchdog			0	0		
	Π	linimun	n System Requirements	S		
OS	V	/indows	XP (32-bit) / Vista (32-bi Server 2008 (32-bit an			
DirectX			9.0c			
CPU	Core 2 Duo, 2.33 GHz Core 2 Quad, 2.4					
RAM	2 x 1 GB Dual Channels					
HDD		250 GB 500 GB				
Graphic Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color					
Note: 1. GV-Net/IO Card V3	.1 must be s	set in the	e I/O Box Mode and conr	nected to the PC through USB or		

DB9.

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			GV-4008	GV-4008 x 2		
Interface			PCI-E (x1) x 2			
Input Type			DVI			
Video Input			8	16		
Total Recording Rate	NTSC	240 fps		480 fps		
(D1)	PAL		200 fps	400 fps		
Display Rate	NTSC		240 fps	480 fps		
Display Nate	PAL		200 fps	400 fps		
Video Codec	H/W		H	264		
	S/W		Geo MPEG	4, Geo H.264		
	NTSC	H/W		704 x 480		
Video Resolution		S/W		352 x 240		
	PAL	H/W		704 x 576		
		S/W		352 x 288		
Audio Input		8		16		
Audio Codec		AAC (16 kHz / 16 bit)				
GV-Multi Quad Card S	upport	X		X		
GV-Loop Through Car	d Support	X		X		
GV-NET/IO Card Supp	ort	O ¹		O ¹		
GV-I/O 12-In Card Sup	port	O ¹		O ¹		
GV-I/O 12-Out Card St	upport	O ¹		O ¹		
Hardware Watchdog		0		0		
	I	Minimun	n System Requirements	5		
OS		Wir	· · ·	(32-bit) / 7 (32-bit and 64-bit) / -bit and R2, 64-bit)		
DirectX			9	.0c		
CPU		Co	re 2 Duo, 2.33 GHz	Core 2 Quad, 2.4 GHz		
RAM			2 x 1 GB D	ual Channels		
HDD			250 GB	500 GB		
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32- bit color				
Note: 1. GV-Net/IO Card V3 DB9.	.1 must be	set in the	e I/O Box Mode and conr	nected to the PC through USB or		



			GV-3008	GV-3008 x 2			
Interface			PCI-E (x1)	PCI-E (x1) x 2			
Input Type			D-Type				
Video Input			8	16			
Total Recording Rate	NTSC		240 fps	480 fps			
(D1)	PAL		200 fps	400 fps			
Display Rate	NTSC		240 fps	480 fps			
	PAL		200 fps	400 fps			
Video Codec	H/W		H.2	264			
	S/W		Geo MPEG4	l, Geo H.264			
	NTSC	H/W	7	04 x 480			
Video Resolution		S/W	S/W 352 x 240				
	PAL	H/W	H/W 704 x 576				
		S/W	S/W 352 x 288				
Audio Input			8 16				
Audio Codec			AAC (16 k	Hz / 16 bit)			
GV-Multi Quad Card S	upport	0 0					
GV-Loop Through Card	d Support		0				
GV-NET/IO Card Supp	ort		0				
GV-I/O 12-In Card Sup	port	0		0			
GV-I/O 12-Out Card Su	upport	0		0			
Hardware Watchdog			0	0			
		Minimu	um System Requirements				
OS		Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)					
DirectX			9.	0c			
CPU		Core 2 Duo, 2.33 GHz Core 2 Quad, 2.4 GHz					
RAM			2 x 1 GB Du	al Channels			
HDD		250 GB 500 GB					
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color					
Note: All Specifications	s are subject	to char	nge without notice.				

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1.16 Comparison Chart (S/W Compression: Single Card)

			GV-600A	GV-650A	GV-800A		
Interface			PCI	PCI, PC	CI-E (x1)		
Input Type			BNC, D-Type	D-Type	BNC, D-Type		
Video Input			1, 2, 4, 6, 8, 10, 12, 14, 16	4 8 12 16			
	CIF	NTSC	30 fps	60 fps	120 fps		
Total Recording	CIF	PAL	25 fps	50 fps	100 fps		
Rate	D1	NTSC	15 fps	30 fps	60 fps		
		PAL	12.5 fps	25 fps	50 fps		
	CIF	NTSC	30 fps	60 fps	120 fps		
Display Rate	CIF	PAL	25 fps	50 fps	100 fps		
Display Nate	D1	NTSC	15fps	30 fps	60 fps		
	וט	PAL	12.5 fps	25 fps	50 fps		
Video Codec			G	Geo MPEG4, Geo H.26	4		
Video Resolution		NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240				
Video Resolution		PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240				
Audio Input			1	2	4		
Audio Codec			AAC (16 kHz / 16 bit)				
GV-Multi Quad Ca	ard Sup	oport	0	0	0		
GV-Loop Through	Card		0	0	0		
GV-NET/IO Card	Suppor	rt	0	0	0		
GV-I/O 12-In Card	I Supp	ort	0	0	0		
GV-I/O 12-Out Ca	rd Sup	port	0	0	0		
Hardware V	Vatchd	og	0	0	0		
		N	/linimum System Req	uirements			
OS			· ·	bit) / Vista (32-bit) / 7 (r 2008 (32-bit and R2,	,		
DirectX				9.0c			
CPU	CPU			Pentium 4, 2.4 GHz	Pentium 4, 3.0 GHz with HT		
RAM			2 x 512 M	IB Dual Channels (Win	dows XP)		
RAM			2 x 1 GB Dual Channels (Windows Vista / 7 / Server 2008)				
HDD				80 GB			
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32- bit color				
Note: All Specifica	tions a	re subject	to change without not	ice.			

			GV-600B	GV-650B	GV-800B	GV-900A	
Interface			PCI, PCI-E (x1) PCI-E (x1)				
Input Type			DVI				
Video Input				4, 8, 16		8, 16, 32	
•	CIF	NTSC	30 fps	60 fps	120 fps	240 fps	
Total Recording	CIF	PAL	25 fps	50 fps	100 fps	200 fps	
Rate	D1	NTSC	15 fps	30 fps	60 fps	120 fps	
	וט	PAL	12.5 fps	25 fps	50 fps	100 fps	
	CIF	NTSC	30 fps	60 fps	120 fps	240 fps	
Display Pata	CIF	PAL	25 fps	50 fps	100 fps	200 fps	
Display Rate	D1	NTSC	15fps	30 fps	60 fps	120 fps	
	וט	PAL	12.5 fps	25 fps	50 fps	100 fps	
Video Codec				Geo MPEG	4, Geo H.264		
Video Resolutio	n	NTSC		480, 704 x 480 480 De-interlac			
	// 1	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240				
Audio Input			4 8				
Audio Codec			AAC (16 kHz / 16 bit)				
GV-Multi Quad	Card S	Support	X	X	X	X	
GV-Loop Throu	gh Ca	rd	X	X	X	X	
GV-NET/IO Car	rd Sup	port	0	0	0	0	
GV-I/O 12-In Ca	ard Su	pport	Ο	Ο	0	0	
GV-I/O 12-Out	Card S	Support	Ο	Ο	0	0	
Hardware Watc	hdog		0	Ο	0	0	
			Minimum Syste	em Requiremen	ts		
OS				Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)			
DirectX				9	.0c		
CPU			Pentium 4, 2.0 GHz	Pentium 4, 2.4 GHz	Pentium 4, 3.0 GHz with HT	Pentium 4, 3.0 GHz Dual Core	
RAM		2 x 512 MB C	ual Channels (V	vindows XP)			
		2 x 1 GB Dual Channels (Windows Vista / 7 / Server 2008)			2 x 1 GB Dual Channels		
HDD				160 GB			
Graphic Card			AGP or PCI-Expr		1280 x 1024 reco blor	ommended), 32-bit	
Note: All specifi	ication	s are subj	ect to change with	nout notice.			

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			GV-1008	GV-1120A	GV-1240A	GV-1480A
Interface			PCI-E (x1)			
Input Type			D-Type, DVI			
Video Input			8	8, 12, 16	8, 16	16
	CIF	NTSC	240 fps	120 fps	240 fps	480 fps
Total Recording		PAL	200 fps	100 fps	200 fps	400 fps
Rate	D1	NTSC	240 fps	80 fps	120 fps	240 fps
		PAL	200 fps	72 fps	100 fps	200 fps
	CIF	NTSC	240 fps	480 fps	480 fps	480 fps
Display Rate		PAL	200 fps	400 fps	400 fps	400 fps
Dioplay Rate	D1	NTSC	240 fps	480 fps	480 fps	480 fps
		PAL	200 fps	400 fps	400 fps	400 fps
Video Codec		1		Geo MPEG	4, Geo H.264	
Video Resolution		NTSC			e-interlace, 640 x e, 352 x 240, 320	
		PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Audio Input			8	8, 12, 16	8, 16	16
Audio Codec			AAC (16 kHz / 16 bit)			
GV-Multi Quad Ca	ard Sup	oport	0	0	0	0
GV-Loop Through	Card		0	0	0	0
GV-NET/IO Card	Suppo	rt	0	0	0	0
GV-I/O 12-In Card	l Supp	ort	0	0	0	0
GV-I/O 12-Out Ca	rd Sup	port	0	0	0	0
Hardware Watchd	log		0	0	0	0
			Minimum Syste	em Requirements	6	
OS			Windows XP (3	2-bit) / Vista (32-b 2008 (32-bit a	bit) / 7 (32-bit and nd R2, 64-bit)	64-bit) / Server
DirectX				9.0	C	
CPU			Core 2 Duo, 3.0 GHz	Pentium 4, 3.0 GHz With HT	Pentium 4, 3.0 GHz Dual Core	Core 2 Duo, 3.0 GHz
DANA			2 x	512 MB Dual Cha	nnels (Windows >	(P)
RAM		2 x 1 GB Du	al Channels (Win	dows Vista / 7 / S	erver 2008)	
HDD			250 GB	80 GB	120 GB	250 GB
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
Note: All specifica	tions a	are subje	ct to change with	out notice.		



			GV-1120B	GV-1240B	GV-1480B	
Interface				PCI-E (x4)		
Input Type				DVI		
Video Input		16 16		16		
	CIF	NTSC	120 fps	240 fps	480 fps	
Total Recording		PAL	100 fps	200 fps	400 fps	
Rate	D1	NTSC	120 fps	240 fps	480 fps	
		PAL	100 fps	200 fps	400 fps	
	CIF	NTSC	480 fps	480 fps	480 fps	
Diaplay Pata	CIF	PAL	400 fps	400 fps	400 fps	
Display Rate	D1	NTSC	480 fps	480 fps	480 fps	
	וט	PAL	400 fps	400 fps	400 fps	
Video Codec			Geo MPEG4, Geo H.264			
Video Resolution		NTSC		04 x 480 De-interlace, De-interlace, 352 x 240		
		PAL	704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Audio Input			16 16 16			
Audio Codec			AAC (16 kHz / 16 bit)			
GV-Multi Quad Ca	ard Su	pport	0	0	0	
GV-Loop Through	n Card		0	0 0		
GV-NET/IO Card	Suppo	rt	0	0	0	
GV-I/O 12-In Card	d Supp	ort	0	0	0	
GV-I/O 12-Out Ca	ard Sup	oport	0	0	0	
Hardware Watcho	log		0	0	0	
			Minimum System Rec	quirements		
OS			· · ·	Vista (32-bit) / 7 (32-bit) 8 (32-bit and R2, 64-bi	,	
DirectX				9.0c		
CPU			Pentium 4, 3.0 GHz With HT	Pentium 4, 3.0 GHz Dual Core	Core 2 Duo, 3.0 GHz	
RAM			2 x 512 ME	3 Dual Channels (Wind	ows XP)	
			2 x 1 GB Dual Chann	els (Windows Vista / 7	/ Server 2008, R2)	
HDD	HDD 80 GB 120 GB 250 GE			250 GB		
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
Note: All specific	ations	are subj	ect to change without not	tice.		

1.17 Comparison Chart (S/W Compression: Two Cards)

			GV-600A x 2	GV-650A x 2	GV-800A x 2	
Interface	Interface		PCI x 2	PCIx 2, PCI-E(x1)x 2, PCIx 1 + PCI-E(x1)x 1	PCI-E(x1) x 2, PCI x 1 + PCI-E(x1) x 1	
Input Type			BNC, D-Type	BNC, D-Type		
Video Input				32 (Max.)		
	CIF	NTSC	60 fps	120 fps	240 fps	
Total Recording		PAL	50 fps	100 fps	200 fps	
Rate	D1	NTSC	30 fps	60 fps	120 fps	
	וטן	PAL	25 fps	50 fps	100 fps	
	CIF	NTSC	60 fps	120 fps	240 fps	
Dianlay Data		PAL	50 fps	100 fps	200 fps	
Display Rate	D1	NTSC	30 fps	60 fps	120 fps	
	D1	PAL	25 fps	50 fps	100 fps	
Video Codec				Geo MPEG4, Geo H.2	64	
		NTSC	704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240			
VIDEO RESOLUTION	Video Resolution PAL		704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240			
Audio Input			2	4	8	
Audio Codec				AAC (16 kHz / 16 bit)	
GV-Multi Quad Ca	ard Sup	port	0	0	0	
GV-Loop Through	Card	Support	0 0		0	
GV-NET/IO Card	Suppor	rt	Ο	0	0	
GV-I/O 12-In Card	d Supp	ort	0	0	0	
GV-I/O 12-Out Ca	rd Sup	port	0	0	0	
Hardware Watchd	log		0	0	0	
			Minimum System	Requirements		
OS			Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)			
DirectX				9.0c		
CPU			Pentium 4, 2.6 GHz with HT	Pentium 4, 2.8 GHz with HT	Pentium 4, 3.0 GHz Dual Core	
RAM 2 x 1 GB Dual C			2 x 1 GB Dual Channe	els		
HDD				160 GB		
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			
Note: All specific	ations	are subje	ect to change withour	t notice.		

Input Type DVI Video Input 8, 12, 16, 20, 24, 32 16, 24, 32 Total Recording Rate NTSC 60 fps 120 fps 240 fps 480 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 400 fps PAL 50 fps 100 fps 200 fps 400 fps 200 fps 200 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 240 fps Display Rate D1 NTSC 30 fps 60 fps 120 fps 240 fps 480 fps Display Rate D1 NTSC 30 fps 60 fps 120 fps 240 fps 240 fps Video Codec FPAL 25 fps 50 fps 100 fps 200 fps 200 fps Video Resolution PAL 25 fps 50 fps 100 fps 220 ps 240 Video Codec NTSC 704 x 480 De-interlace, 352 x 240, 320 x 240 240 240 240 240 240 240 240 240 240				GV-600B x 2	GV-650B x 2	GV-800B x 2	GV-900A x 2	
Number of the second	Interface					PCI-E ((x1) x 2	
Video input 8, 12, 16, 20, 24, 32 16, 24, 32 Total Recording Rate CIF NTSC 60 fps 120 fps 240 fps 480 fps D1 PAL 50 fps 100 fps 200 fps 400 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 480 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 400 fps D1 NTSC 60 fps 120 fps 240 fps 480 fps D1 NTSC 60 fps 120 fps 240 fps 480 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 480 fps Video Codec Video Codec Geo MPEG4, Geo H.264 240 fps 200 fps	Lange of Tampa			(X1) X 1				
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Rate D1 NTSC 30 fps 60 fps 120 fps 240 fps Display Rate CIF PAL 25 fps 50 fps 100 fps 200 fps 480 fps Display Rate CIF NTSC 60 fps 120 fps 240 fps 480 fps Display Rate CIF NTSC 60 fps 100 fps 200 fps 400 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 480 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps 240 fps Video Codec TSC 30 fps 60 fps 120 fps 240 fps 240 fps Video Codec NTSC 30 fps 60 fps 100 fps 200 fps 200 fps Video Resolution NTSC Geo MPEG4, Geo H.264 X80, 640 x 480 De-interlace, 640 x 480, 640 x 480, 640 x 480, 640 x 480, 640 x 480 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 640 x 480,	Total Departing	CIF		•	•	•	•	
D1 PAL 25 fps 50 fps 100 fps 200 fps Display Rate CIF NTSC 60 fps 120 fps 240 fps 480 fps D1 D1 NTSC 30 fps 60 fps 120 fps 240 fps 480 fps D1 D1 NTSC 30 fps 60 fps 120 fps 240 fps 240 fps Video Codec PAL 25 fps 50 fps 100 fps 200 fps 200 fps Video Codec FAL 25 fps 50 fps 100 fps 200 fps Video Codec FAL 25 fps 50 fps 100 fps 200 fps Video Resolution NTSC Geo MPEG4, Geo H.264 704 x 480, F64 x 48	•			-	•		•	
Display Rate CIF NTSC 60 fps 120 fps 240 fps 480 fps D1 D1 NTSC 30 fps 60 fps 120 fps 200 fps 400 fps D1 D1 NTSC 30 fps 60 fps 120 fps 240 fps 240 fps Video Codec PAL 25 fps 50 fps 100 fps 200 fps 200 fps Video Codec Geo MPEG4, Geo H.264 Geo MPEG4, Geo H.264 704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240 704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240 Audio Input A 8 8 16 Audio Codec AAC (16 kHz / 16 bit) GV-Multi Quad Card Support X X X GV-Loop Through Card Support O O O O O O GV-I/O 12-In Card Support O O O O O O O GV-I/O 12-Ut Card Support O O O O O O O O	Rate	D1		•	•	•	•	
Display Rate CIF PAL 50 fps 100 fps 200 fps 400 fps D1 NTSC 30 fps 60 fps 120 fps 240 fps Video Codec Geo MPEG4, Geo H.264 200 fps 200 fps 200 fps Video Resolution NTSC 704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240 Audio Input A 8 8 16 Audio Codec AAC (16 kHz / 16 bit) GV-Multi Quad Card Support X X X GV-Multi Quad Card Support X X X X X X GV-NDT/IO Card Support O O O O O O GV-I/O 12-In Card Support O O O O O O O GV-I/O 12-In Card Support O </td <td></td> <td></td> <td></td> <td>-</td> <td>•</td> <td>•</td> <td></td>				-	•	•		
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D1 NTSC 30 fps 60 fps 120 fps 240 fps Video Codec PAL 25 fps 50 fps 100 fps 200 fps Video Codec Geo MPEG4, Geo H.264 Geo MPEG4, Geo H.264 704 x 480, 704 x 480 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 352 x 240, 320 x 240 704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240 Audio Input R 8 8 16 Audio Codec AAC (16 kHz / 16 bit) GV-Loop Through Card Support X X X X GV-Loop Through Card Support O <td>Display Rate</td> <td></td> <td>PAL</td> <td>50 fps</td> <td>100 fps</td> <td>200 fps</td> <td>400 fps</td>	Display Rate		PAL	50 fps	100 fps	200 fps	400 fps	
PAL 25 fps 50 fps 100 fps 200 fps Video Codec Geo MPEG4, Geo H.264 Geo MPEG4, Geo H.264 France Fran		D1	NTSC	30 fps	60 fps	120 fps	240 fps	
NTSC $704 \times 480, 704 \times 480$ De-interlace, $640 \times 480, 640 \times 480$, 640×480 De-interlace, $352 \times 240, 320 \times 240$ Video ResolutionPAL $704 \times 576, 704 \times 576$ De-interlace, $640 \times 480, 640 \times 480$ De-interlace, $352 \times 288, 320 \times 240$ Audio Input88816Audio CodecAAC (16 kHz / 16 bit)GV-Multi Quad Card SupportXXXGV-Loop Through Card SupportXXXGV-I/O 12-In Card SupportOOOGV-I/O 12-Ut Card SupportOOOGV-I/O 12-Out Card SupportOOOMinimum System RequirementsOSWindows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)DirectX9.0cCPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 GC is 6-750, 2.66 GHzRAM2 x 1 GB Dual ChannelsHDD160 GB500 GBGraphic CardAGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color		51	PAL	25 fps	50 fps	100 fps	200 fps	
Video ResolutionNTSC 640×480 De-interlace, 352×240 , 320×240 PAL 704×576 , 704×576 De-interlace, 640×480 , 640×480 De-interlace, 352×288 , 320×240 Audio Input8816Audio CodecAAC (16 kHz / 16 bit)GV-Multi Quad Card SupportXXXGV-Loop Through Card SupportXXXGV-NetT/IO Card SupportOOOGV-I/O 12-Out Card SupportOOOGSWindows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)DirectX9.0cCPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 GHz Dual CoreCore i5-750, 2.66 GHzRAM 2×1 GB Dual ChannelsHDD160 GB500 GBGraphic CardAGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	Video Codec				Geo MPEG4	, Geo H.264		
Video Resolution PAL 704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240 Audio Input 8 8 8 16 Audio Codec AAC (16 kHz / 16 bit) X			NTSC					
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Audio Input 8 8 8 16 Audio Codec AAC (16 kHz / 16 bit) GV-Multi Quad Card Support X			PAL					
Audio Codec AAC (16 kHz / 16 bit) GV-Multi Quad Card Support X X X GV-Loop Through Card Support X X X X GV-NET/IO Card Support O O O O GV-I/O 12-In Card Support O O O O GV-I/O 12-In Card Support O O O O GV-I/O 12-Out Card Support O O O O GV-I/O 12-Out Card Support O O O O Hardware Watchdog O O O O OS Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit) Server 2008 (32-bit and R2, 64-bit) DirectX 9.0c Pentium 4, 2.6 GHz with HT Pentium 4, 3.0 Core i5-750, 2.66 GHz CPU Pentium 4, 2.6 GHz with HT Pentum 4, 3.0 Core i5-750, 2.66 GHz 2 x 1 GB Dual Core 2.66 GHz RAM 2 x 1 GB Dual Channels 160 GB 500 GB 30 GB HDD 160 GB 500 GB 60 GPZ 120 GPZ 120 GPZ 120 GPZ Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1	Audio Input							
GV-Multi Quad Card SupportXXXXGV-Loop Through Card SupportXXXXGV-NET/IO Card SupportOOOOGV-I/O 12-In Card SupportOOOOGV-I/O 12-Out Card SupportOOOOGV-I/O 12-Out Card SupportOOOOHardware WatchdogOOOOOMinimum System RequirementsOSWindows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)DirectX9.0cCPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 				0	-	-	10	
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GV-NET/IO Card Support O								
GV-I/O 12-In Card Support O <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
GV-I/O 12-Out Card SupportOOOHardware WatchdogOOOOMinimum System RequirementsOSWindows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)DirectX9.0cCPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 GHz Dual CoreCore i5-750, 2.66 GHzRAM2 x 1 GB Dual ChannelsHDD160 GB500 GBGraphic CardAGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color								
Hardware WatchdogOOOOMinimum System RequirementsOSWindows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)DirectX9.0cCPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 GHz Dual CoreCore i5-750, 2.66 GHzRAM2 x 1 GB Dual ChannelsHDD160 GB500 GBGraphic CardAGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color		<u> </u>						
Minimum System Requirements OS Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit) DirectX 9.0c CPU Pentium 4, 2.6 GHz with HT Pentium 4, 2.8 GHz with HT Pentium 4, 3.0 Core i5-750, 2.66 GHz RAM 2 x 1 GB Dual Core 2.66 GHz HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color			pport					
OS Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit) DirectX 9.0c CPU Pentium 4, 2.6 Pentium 4, 2.8 Pentium 4, 3.0 Core i5-750, GHz with HT GHz with HT GHz Dual Core 2.66 GHz RAM 2 2 x 1 GB Dual Channels HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	Hardware Watch	dog		-			0	
2008 (32-bit and R2, 64-bit) DirectX 9.0c Pentium 4, 2.6 Pentium 4, 2.6 Pentium 4, 2.8 Pentium 4, 3.0 Core i5-750, 2.66 GHz CPU RAM 2 x 1 GB Dual Core 2.66 GHz HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color								
CPUPentium 4, 2.6 GHz with HTPentium 4, 2.8 GHz with HTPentium 4, 3.0 GHz Dual CoreCore i5-750, 2.66 GHzRAM2 x 1 GB Dual Core2 x 1 GB Dual Core2.66 GHzHDD160 GB500 GBGraphic CardAGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	OS							
GHz with HT GHz with HT GHz Dual Core 2.66 GHz RAM 2 x 1 GB Dual Channels 2 x 1 GB Dual Channels HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	DirectX							
RAM 2 x 1 GB Dual Channels HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	CPU							
HDD 160 GB 500 GB Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color	RAM							
Graphic Card AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color				160			GB	
	Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit					
	Note: All specific	ations	are subjec	ct to change witho	ut notice.			

GeoVision

			GV-1008 x 2	GV-1120A x 2	GV-1240A x 2	GV-1480A x 2	
Interface			PCI-E (x1) x 2				
Input Type			D-Type, DVI				
Video Input			16	16, 20, 24, 28, 32	16, 24, 32	32	
· ·	CIF	NTSC	480 fps	240 fps	480 fps	960 fps	
Total Recording		PAL	400 fps	200 fps	400 fps	800 fps	
Rate	D1	NTSC	480 fps	160 fps	240 fps	480 fps	
		PAL	400 fps	144 fps	200 fps	400 fps	
		NTSC	480 fps	960 fps	960 fps	960 fps	
Diaplay Data	CIF	PAL	400 fps	800 fps	800 fps	800 fps	
Display Rate	D1	NTSC	480 fps	960 fps	960 fps	960 fps	
	וט	PAL	400 fps	800 fps	800 fps	800 fps	
Video Codec	•			Geo MPEG4	, Geo H.264		
		NTSC	704 :	x 480, 704 x 480 C	e-interlace, 640 x	480,	
Video Resolution		NISC	640	x 480 De-interlace	e, 352 x 240, 320 x	x 240	
	I	PAL	704 x 576, 704 x 576 De-interlace, 640 x 480,				
			640 x 480 De-interlace, 352 x 288, 320 x 240				
Audio Input			16	16, 20, 24, 28, 32	16, 24, 32	32	
Audio Codec			AAC (16 kHz / 16 bit)				
GV-Multi Quad C	ard S	Support	0	0	0	0	
GV-Loop Throug	h Car	ď	0	0	0	0	
GV-NET/IO Card	l Supp	oort	0	0	0	0	
GV-I/O 12-In Car	d Su	oport	0	0	0	0	
GV-I/O 12-Out C	ard S	upport	0	0	0	0	
Hardware Watch	dog		0	0	0	0	
			Minimum Sys	tem Requiremen	ts		
OS			Windows XP (32-bit) / Vista (32-bit) / 7 (32-bit and 64-bit) / Server 2008 (32-bit and R2, 64-bit)				
DirectX				9.	0c		
CPU		Core i5-750, 2.66	Pentium 4, 3.0	Core 2 Duo,	Core 2 Quad, 2.4		
		GHz	GHz Dual Core	2.53 GHz	GHz		
RAM				2 x 1 GB Du	al Channels		
HDD			500 GB	160 GB	250 GB	500 GB	
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color				
Note: All specifi	catior	ns are su	bject to change w	ithout notice.			



			GV-1120B x 2	GV-1240B x 2	GV-1480B x 2		
Interface				PCI-E (x4) x 2			
Input Type				DVI			
Video Input	Video Input			32	32		
	CIF	NTSC	240 fps	480 fps	960 fps		
Total Recording	CIF	PAL	200 fps	400 fps	800 fps		
Rate	D1	NTSC	240 fps	480 fps	960 fps		
		PAL	200 fps	400 fps	800 fps		
	CIF	NTSC	960 fps	960 fps	960 fps		
Display Rate		PAL	800 fps	800 fps	800 fps		
Display Rate	D1	NTSC	960 fps	960 fps	960 fps		
	יט	PAL	800 fps	800 fps	800 fps		
Video Codec			Geo MPEG4, Geo H.264				
		NTSC		704 x 480 De-interlace, De-interlace, 352 x 240			
VIDEO RESOlUTION	deo Resolution PAL		704 x 576, 704 x 576 De-interlace, 640 x 480, 640 x 480 De-interlace, 352 x 288, 320 x 240				
Audio Input			32	32	32		
Audio Codec			AAC (16 kHz / 16 bit)				
GV-Multi Quad Ca	ard Su	pport	0	0	0		
GV-Loop Through	n Card		0	0	0		
GV-NET/IO Card	Suppo	ort	0	0	0		
GV-I/O 12-In Care	d Supp	ort	0	0	0		
GV-I/O 12-Out Ca	ard Su	oport	0	0	0		
Hardware Watcho	dog		0	0	0		
			Minimum System	Requirements			
OS			,	/ Vista (32-bit) / 7 (32-b 008 (32-bit and R2, 64-b	,		
DirectX				9.0c	-		
CPU			Core 2 Duo, E7200, 2.53 GHz	Core 2 Duo, 3.0 GHz	Core 2 Quad, 2.4 GHz		
RAM		2 x 1 GB Dual Channels			;		
HDD			160 GB	250 GB	500 GB		
Graphic Card			AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color				
Note: All specific	ations	are subj	ect to change without r	notice.			

Chapter 2 Software Installation

This chapter includes the following information:

- Important notice
- Installing a program
- Program list
- User's Manual

2.1 Before You Start

For optimal performance of your system, it is important to follow these recommendations before installing GV-System software:

- It is strongly recommended to use two separate hard disks. One is for installing Windows OS and GV-System software, and the other is for storing recorded files and system logs.
- When formatting the two hard disks, select NTFS as the file system.
- GV-System is a multi-channel video recording system. With normal use of the system, the drive containing video files will become fragmented. This is because GV-System constantly stores video files of multi channels simultaneously, and video files will be scattered all over the drive. It is not necessary to regularly perform disk defragmentation. Since GV-System software and video files are stored on two separated hard disks, the performance of GV-System will not be affected.

GeoVision:

2.2 Installing the System

When you insert the Surveillance System Software DVD, the Install Program window will pop up automatically:

🚰 V8.5.5.0 install program	
GeoUision:	
Click Import Translation	1. Install or Remove GeoVision GV-Series Driver
Revision to import MRevise.exe to modify the UI texts.	2. Install DirectX 9.0c
	3. Install GeoVision V8.5.5.0 System
	4. Browse User's Manual (PDF Format)
	5. Download Adobe Acrobat Reader
	6. Download Microsoft iSCSI Software Initiator
	7. Download Microsoft .NET Framework 3.5
	8. Download Microsoft Chart Controls (For Microsoft .NET Framework 3.5)
	9. Product Demonstrations
	10. Import Translation Revision

Figure 2-1 The Install Program Window

Installing DirectX

Before installing the system software, make sure **DirectX 9.0c** is already installed on your computer. If your computer doesn't have the latest version of Direct X, click **Install DirectX 9.0c** in the Install Program window.



Installing the System

To install the GV-System, follow these steps:

- 1. In the Install Program window, click **Install GeoVision xxx System** (ex. Install GeoVision V8.5.5.0 System).
- 2. To install the Main System, select **GeoVision Main System**, and follow the on-screen instructions.
- 3. Follow the above steps to install other programs one by one.

Uninstalling the System

To uninstall the GV-System, follow these steps:

- 1. Close any open programs because your computer will restart during the uninstalling process.
- 2. On the taskbar, click **Start**, point to **Programs**, select the system folder, and then click **Uninstall GeoVision System**.

Note: Uninstalling the system will not delete video files and log files previously saved in the computer.



2.3 Program List

The Surveillance System Software DVD includes the following programs:

First Page:

- 1. Main System
- 2. Remote ViewLog
- 3. Fast Backup and Restore Multicam System
- 4. Skype Video Utility
- 5. GV-IP Device Utility
- 6. GV-SDCardSync Utility
- 7. MultiLang Tool
- 8. Multi View
- 9. E-Map Server
- 10. Remote E-Map



Figure 2-2 First page of program installation

Second page:

- 11. Center V2
- 12. Dynamic DNS Service
- 13. Mcamctrl Utility (Only for GV-Joystick)
- 14. POS Data Sender (Only for Graphic Mode POS device)
- POS Text Sender (Only for Windows-Based and Text Mode POS device)
- 16. Authentication Server
- 17. SMS Server
- 18. Audio Broadcast
- 19. Multicast
- 20. Bandwidth Control Client Site



Figure 2-3 Second page of program installation



Third page:

- 21. Backup Viewer
- 22. Mobile Server
- 23. Local DDNS Server
- 24. GV-AView for Android Smartphone in Android Market
- 25. GV-iView for iPhone and iPod Touch in iTunes Store
- 26. GV-iView HD for iPad in iTunes Store
- 27. GV-Remote View for BlackBerry Smartphone in BlackBerry App World

W8.5.5.0 install program	
GeoUision:	
You need an Internet	GeoVision Backup Viewer
connection to access BlackBerry App World.	GeoVision Mobile Server
	GeoVision Local DDNS Server
	GeoVision GV-AView for Android Smartphone in Android Market
	GeoVision GV-iView for iPhone and iPod Touch in iTunes Store
	GeoVision GV-IView HD for iPad in iTunes Store
	GeoVision GV-Remote View for BlackBerry Smartphone in BlackBerry App World

Figure 2-4 Third page of program installation

GeoVision:

2.4 User's Manuals

For detailed information on hardware accessories, see the *Installation Guide* on the Surveillance Software DVD.



For configuration and usage of the GV-System, see the *DVR User's Manual* on the Surveillance Software DVD.

5**1'em** le V8.5.5.0

C GeoUision		
	Installation Guide DVR Quick Start Guide	<u>Surveilla</u> Sy
	NVR Quick Start Guide New Feature Guide DVR User's Manual	Quick Start Gu
	CMS User's Manual	
	* *	Bolary animpating to connect or oppose the product. places read these instructions cannot be and use this manual for balance one.

Chapter 3 Basic Operation

This chapter includes the following information:

- Main screen
- Setting video storage
- Changing camera names and attributes
- Choosing the recording mode
- Changing the recording resolution
- Setting a recording schedule
- Playing the video
- Backing up the video

GeoVision:

3.1 Main Screen

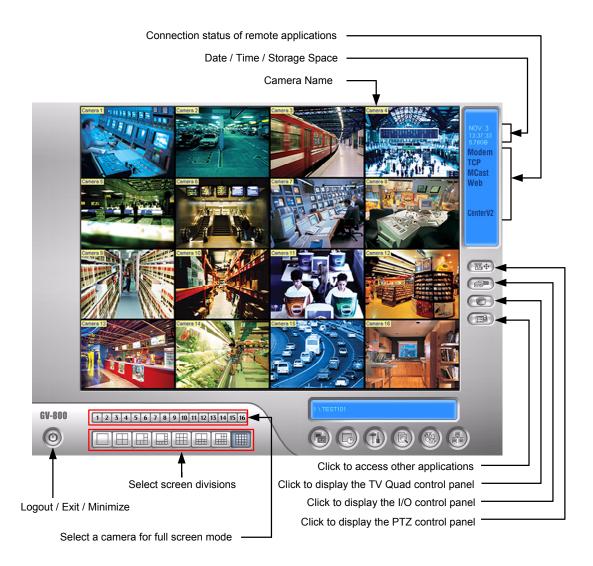
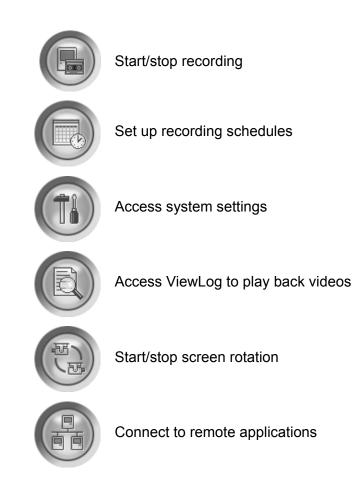


Figure 3-1



Basic Operation



GeoVision:

3.2 Setting Video Storage

You can create a maximum of 16 storage groups, each with a set of storage location, keep day and recycle size to store your recording files.

1. Click (1) on the main screen, select System Configure and select General Setting.

General Setting	
Location Name TEST140-PC Caption ID + Name Monitor Option	Video Record Max Video Clip: 5 Vin. Post-Rec: 3 Sec. Pre-Rec: 0 Use Digital Watermark Protection
□ Start Delay: 6 Sec. Camera Scan Interval: 3 ▼ Interval: 3 ▼ Sec. ▶ Exit Option □ Auto Shut down Windows ▼	Video Log Storage Available: 44.84GB Recycle Log: 3/19/2002 01:30 Set Location ▼ Recycle
	OK Cancel

This dialog box appears.

Figure 3-2



 In the Video Log Storage section, click the Set Location button and select Storage Group Folder. This dialog box appears.

Add Log	Location				×
*	Storage 1	Camera –			
*		⊠ 1	₩ 5	🔲 9 🔲 13	
		፼ 2	⊠ 6	🗖 10 🔲 14	
		🗹 З	7	🗖 11 🔲 15	
		₩ 4	8	🗖 12 🔲 16	
*	Path			Size	
	✓ E:\GV-1008\			44.84 GB	
	Keep Days: 30			OK Can	cel

Figure 3-3

- 3. Click the **Add Storage Group** icon _____. The first storage group is created by default.
- 4. Click the new storage group and select the cameras to be added to it. Note that a camera can only be added to one storage group.
- 5. Click the **Add New Path** icon **is** to specify the storage location in a hard drive which is not used for other storage groups.
- 6. Select **Keep Days** and specify the number of days to keep the video files in storage.
- 7. Click OK.

For details on setting storage, recycle and keep days, see *1.2.2 Setting Data Storage*, *DVR User's Manual* on the Surveillance Software DVD.

3.3 Changing Camera Names and Attributes

You can give a new name for each camera and adjust camera attributes.

1. Click (1) on the main screen, select System Configure and select Camera

Configure. This dialog box appears.

Camera Configure	×
- Camera Name	Camera Lens
Geo	General
Rec. Control	- Video Attribute
Rec. Video:	Brightness 127
Motion Detect	Contrast 1 Advanced
Motion Detection 9	Hue 128 Default
Sensitivity: ——— 🕞	
Mask Filter: 🗾 🕇 🎛 🗱	
🗆 Invoke Alarm: 🕞	
Invoke to Send Alerts:	
Output Module:	
Mod. 1 v Pin. 1 v	
Register Motion Event	
Video Lost / Connection Lost	
Output Module:	
Mod. 1 💌 Pin. 1 💌	OK Cancel

Figure 3-4

- 2. In the Camera Name field, type a new name for the camera.
- 3. In the Video Attributes section, use the sliders to adjust video attributes.
- 4. Click OK.

For details, see *1.2.3 Adjusting Camera Configuration, DVR User's Manual* on the Surveillance Software DVD.

3.4 Choosing the Recording Mode

You can set the recording mode of each camera as Motion Detection, Round-the-Clock or Day and Night. The Day and Night mode allows you to have different recording modes for different time frames of the day.

1. Click (1) on the main screen, select System Configure and select Camera

Camera Configure	
Camera Name	Camera Lens
Geo	General
- 🛃 Rec. Control	Video Attribute
🔽 Rec. Video:	Brightness 127
Day-Night 🗾 🕨	Contrast 1 Advanced
Motion Detection	Hue 128 Default
Sensitivity: ————————————————————————————————————	
Mask Filter: 🗾 🚽 🖽 💭	
🗆 Invoke Alarm: 🕞	
🔽 Invoke to Send Alerts: D	
🔽 Output Module:	
Mod. 1 🔽 Pin. 1 🔽 Ď	
Register Motion Event	
Video Lost / Connection Lost	
Output Module:	
Mod. 1 v Pin. 1 v	OK Cancel

Configure. This dialog box appears.

Figure 3-5

- 2. From the Camera Name drop-down list, select a camera.
- In the Rec. Control section, select Rec. Video, and use the drop-down list to select Motion Detection, Round-the-Clock or Day-Night.
- 4. If you select Day-Night, click the **Arrow** button to set up time frames.
- 5. Click **OK**.

For details, see *1.2.3 Adjusting Camera Configuration* and *1.2.4 Setting Day and Night Recording Mode, DVR User's Manual* on the Surveillance Software DVD.



3.5 Changing the Recording Resolution

The default recording resolution is 320 x 240. You can set the recording resolution of each analog camera individually.

1. Click (1) on the main screen, select A/V Setting and select Video Source. This

dialog box appears.

V	ideo Source	\mathbf{X}
	Video Setup	
	Video Standard:	NTSC_M
	Video Resolution:	704×480
	ок	Cancel

Figure 3-6

- 2. Select the desired video standard and resolution from the drop-down list, and click **OK**.
- 3. Click (1) on the main screen, select System Configure, and select Camera

Configure. This dialog box appears.

Camera Name	Camera Lens
Camera 1	Wide Angle
🚰 Rec. Control	Video Attribute
Rec. Video:	Brightness 130
	Frame Rate Setting
Motion Detection Re	ding Resolution
Sensitivity:	
Mask Filter:	
Invoke Alarm: D	
Invoke to Send Alerts: D	
Output Module:	
Mod. 1 💌 Pin. 1 💌 🕑	
Register Motion Event	
🚰 Video Lost / Connection Lost	
Output Module:	
Mod. 1 👻 Pin. 1 👻	

Figure 3-7



- 4. Select a desired camera from the Camera Name drop-down list.
- 5. Click the **Arrow** button and click **Recording Resolution** to select the desired resolution.
- 6. Repeat steps 4 and 5 to set up each camera.
- 7. Click OK.

For details, see *1.3.1 Setting Video Source and Resolution, DVR User's Manual* on the Surveillance Software DVD.

3.6 Setting a Recording Schedule

You can schedule the system to record at a specific time each day.

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

	End : PM 17:00	Remote	Cound-the-clo	▼ 3 ▼ 7 ▼ 4 ▼ 8	□ 9 □ 13 □ 10 □ 14 □ 11 □ 15 □ 12 □ 16
	Time Period	Apply Day(s)	Operation	n(s)	Camera
. 1 . 2				ок	Cancel



For details, see *1.8 Recording Schedule, DVR User's Manual* on the Surveillance Software DVD.



3.7 Playing the Video

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

- 1. Click (on the main screen, and select Video/Audio Log. The ViewLog window appears.
- 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.

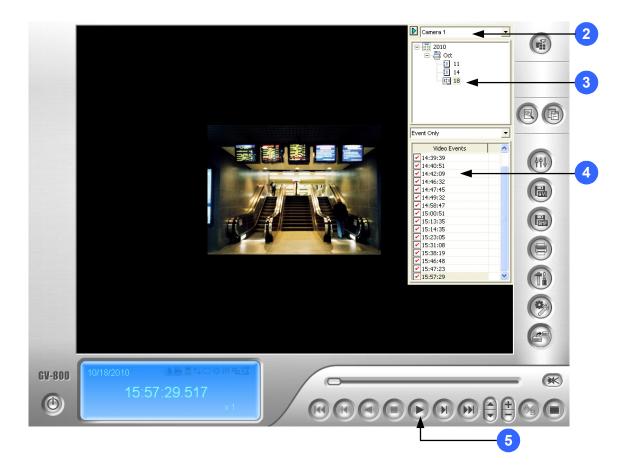


Figure 3-9



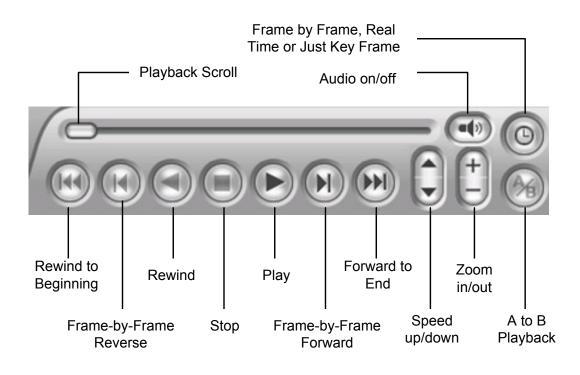


Figure 3-10

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.

For details, see *Playing Back on ViewLog,* Chapter 4, *DVR User's Manual* on the Surveillance Software DVD.



3.8 Backing up the Video

You can back up videos 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 **Using OS-Burning** to burn files using the inbuilt software of Windows.
- 5. Click Add time frame.

	Media	Add time frame
	O Using Hard Disk	
	C:\SIBK20120113\	
	Backup Folder Name :	
	SIBK20120113	1
	O Using CD / DVD / BD	
	F:\[DRW-1608P : 4.70 GB] -	
	Burning Software :	
	Media Information	
	Used Size : 155.07 MB	Export to DVD Format
	Used Size : 155.07 MB Free Size : 4.55 GB	
		Include Player
[Free Size : 4.55 GB	Include Player

Figure 3-11



- 6. Enter the **Start Time** and **End Time**.
- 7. Select the desired camera(s) for backup.
- 8. Use the drop-down list to 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 to 8 to create up to 10 time frames.

Time Period		(2	Select Camera(s)		
	· · · · · · · · · · · · · · · · · · ·			Camera 1	5 + 0	
Start Time :	12/ 1/2011 👻	- 00:00:00	*	Camera 2	0 + 0	
End Time :	1/13/2012 👻	- 23:59:59	•	Camera 3	0 + 0	
nformation						
📃 Database Files						
🔲 Object Index Fil	es					
Never-recycle e	vents only					
Unmark th	ese events to be	recycled after	r			
the backup	is complete					
Include davlight	t saving rollback e	events.				
Bookmarked file	-					
Status		Search E	nd.			
Total Event :		Searche	5			
Total MDB :			о 0			
Total Object Index :			0			
Total Bookmarks :			0			
Used Size :		538,15	Ŭ	Video + Audio Event	•	
0360 0126 .		556.15		VIGEO · Addio Event		Л
		ок		Cancel		

Figure 3-12



Playing the Backup Videos

Open the backup folder, run **EZViewLog500.exe** , and then follow the instructions in the *Playing the Video* section earlier in this Quick Guide.

For details, see *Backup, Deletion and Repair*, Chapter 5, *DVR User's Manual* on the Surveillance Software DVD.