User Manual

DVR Server v2.0



Digital CCTV System

Safety Precaution:

- Make sure switching the power off before you install the DVR board
- There is possibility of electric shock inside of the DVR, please avoid opening the unit if you are not qualified service personnel
- While the DVR is under removing, storing or using, please avoid any vibration or strike
- Do not store under the direct sunlight or near by heating
- Avoid humid, dusty or smoky environments
- Avoid extremly hot or cold areas
- This equipment should not be exposed to water or other liquids
- Install the DVR in a well-ventilated area
- Avoid excessive electronic or magnetic fields

Limited Warranty

This product is warranted against manufacturing defects for the period of one year.

The warranty period commences on the date of purchase from the authorized reseller/retailer.

You original purchase invoice, showing the date of purchase of the product is your proof of the date of purchase.

During the warranty period, defective parts will be repaired or replaced. There will be no charge for labor or pats during the one-year warranty period from the date of purchase. Any shipping or other cost such as customs incurred costs, etc.... is customers' responsibility.

This warranty does not cover any failure resulting in loss to SW, data, lost profits, lost saving any incidental damages or other economic consequential damages due to accident, abuse, misuse, and negligence.

Technical Support and Service

For warranty service and assistance, it is recommended that you contact the place of purchase to arrange for return and/or repair the product.

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Chapter 1

Chapter 1: Introduction

Thank you for purchasing DVR. This manual will provide detailed instructions on how to install and program the DVR to your specific application. Please read this manual carefully prior to install and programming the DVR.

1-1. General Guidelines

- Chapter 1: System Requirements and Compatible H/W information
- Chapter 2: DVR Hardware, Software Installation
- Chapter 3: How to use DVR Server program
- Chapter 4: Warranty

1-2. DVR System Requirements

PC

- OS : Windows 2000 (Require DirectX 8.1 or higher) and Windows XP
 Please install 8.1 version of DirectX before install DVR Server Program
 on Server PC for Windows 2000 Only
- CPU : Intel Pentium IV 2.4GHz/ Cel 1.7GHz or higher
- RAM : 256MB or higher
- Network : 10 /100Mbps LAN, Modem, xDSL

System Description

Digital Surveillance System is a PC based monitoring system. It exceeds the capabilities of traditional analog switchers, multiplexers, and time-lapse VCRs. The system is able to connect up to 16 cameras with each at the highest frame rate, records high-quality digital video based on motions. The system offers digital recording, remote camera viewing access, video archiving, and multi-camera display. The system supports PTZ camera.

1-3. Compatible HW Device

Compatible

	Compatible	Incompatible
CPU	Intel Pentium Process (x86, 1.7GHz or higher) - Intel Celeron 1.7GHz or higher - Intel Pentium IV	- Lower than Intel Pentium Process 1.7GHZ - Other than x86
Main Board	With one or more PCI slot, supporting Intel Pentium processor - Intel 84x Chipset - Intel 85x Chipset	- Other than Intel Chipset Boards
Graphic Card	With 8MB or higher memory, Supporting 16Bit Color and YuY2 DirectX Mode (8.0 or higher) - ATI Expert 2000 32MB SDRAM - ATI Radeon System - nVidia Riva TNT2 System - nVidia Geforce System - Intel 845G/GL Graphics controller (OnBoard).	 Intel 81x Graphics controller(OnBoard) or Intel i740 VIA Chipset(OnBoard) Graphics controller. SIS Chipset(OnBoard) Graphics controller.
Sound Card	All PCI & OnBoard Type	
HDD	HDD 5400RPM or higher	

Chapter 2: Installation



2-1 Hardware Installation

Caution: Static electricity can damage electronic circuitry. To avoid static discharge, touch a grounded metal object (i.e. your PC case) or wear a grounding strap connected to a ground source.

Make sure Power and cables are connected properly otherwise it may cause damage to the equipment (not cover under warranty). Always turn off the PC power before connecting or disconnecting any jumper or cable on the drive.

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2-1-1. DVR Board Installation

- 1. Prepare your computer for installation.
- : Before working on your computer, make sure all electrical cords are unplugged.
- 2. Remove the system unit cover.
- : You can easily find how to remove the system unit cover if you look carefully at the back of the system.
- 3. Locate the PCI bus slot. Make sure this slot is unobstructed.
- : You need empty PCI slot as many as the boards including DVR and channel boards.





4. Place the board directly over PCI slot and insert one end of the card down into the slot firmly but gently. Make sure that the metal contacts on the bottom of the host adapter are securely seated in the slot.





- 5. Fasten the bracket screw.
- Connect channel board to 5~8ch parallel connector on DVR board
 Position of 'channel parallel connector' might be different up to DVR model.
 Please refer to '2.1 DVR board is drawing' for parallel connector position.

All the optional channel boards and channel board cables are same and alternative.

2-1-2. Extension board Installation



- 1: Channel Cable
- 2: Parallel Connector on channel board
- 3: 5~8ch Parallel Connector on DVR board.

- Next page -

7. Connect channel board to '9~12ch parallel connector on DVR board' and insert the channel into the PCI slot.



8. Connect channel board to '13~16ch parallel connector on DVR board' and insert the channel into the PCI slot.



2-1-3. PTZ installation

1: 13~16ch parallel connector on DVR

1. Insert the plug of PTC cable into the PC case through proper hole.



Plug of PTZ cable
 485 cable of PTZ cable
 Serial Port of PTZ cable

 Insert the plug of PTC cable into the 'PTZ parallel connector on DVR board'.
 Position of 'PTZ parallel connector' might be different up to DVR model. Please refer to '2.1 DVR board drawing' for parallel connector position.



1: PTZ parallel connector on DVR board

3. Locate the empty serial comport on rear side of PC.



4. Insert the serial port of PTZ cable into empty serial port of PC.



5. Connect 485+ cable of PTZ cable with 485+ cable of PTZ camera and 485- cable of PTZ cable with 485- cable of PTZ camera. And, insulate them with insulating tape.



1 : **485+** cable connection 2 : **485-** cable connection

- 6. Connect video signal cable of PTZ camera with BNC jack on DVR.
- 7. Address of PTZ camera should be identical to DVR channel. In the Fig 4.11, the address of PTZ camera should be set as '1', because camera is connected to No.1 channel.

- Next page -





8. Connect the adaptor with PTZ camera.

2-1-4. Audio installation

1. Insert MIC to sound card OR DVR board.

<The following description is of 1CH Audio example.>

MIC is inserted to PC Mainboard. (Standard color red hole)



OR Insert MIC to DVR Board.



2. Insert Speaker to Sound Card of motherboard. (standard Green color hole)



2-1-5. Board Connection

1. Please notify board connection differs according to DVR Board.

- SDVR Board



- HDVR Board



Please notify HDVR Board requires additional Audio Connector to support 5CH Audio. (Sound Card 1CH + DVR Board 4CH)



- The picture on the left is 4CH audio connector. The picture on the right is 8CH audio connector. (used with HPLUS Board.)





2-2 DVR Server Software Installation

Select one application to install at a time

2-2-1. Preview Installation Procedure



Attention: If an older version of SW has been already installed on your computer, you should uninstall the older version first.

2-2-2. Install DVR	Server Software (Important)	
Installation Procedure	 Install DVR Server SW Install Apache HTTP SW Install WebClient SW 	
Run the Setup.exe (😂) file.	
InstallShield Wizard		
	Welcome to the InstallShield Wizard for DVR System Plus The InstallShield® Wizard will install DVR System Plus on your computer. To continue, click Next.	
	<back next=""> Cancel</back>	

1. Install Shield Wizard is executed. Press the [Next] button

InstallShield Wizard
License Agreement Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
END-USER LICENSE AGREEMENT IMPORTANT-READ CAREFULLY BEFORE OPENING, INSTALLING, USING, ACCESSING, OR MANIPULATING THE SOFTWARE SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install DVR System Plus, you must accept this agreement.
InstallShield

2. If you accept all the terms of the License Agreement, Press the [Yes] button

InstallShield Wizard	
Choose Destination Location Select folder where Setup will install files.	
Setup will install DVR System Plus in the following folder.	
To install to this folder, click Next. To install to a different folder, click Bro another folder.	wse and select
Destination Folder	
D:\Program Files\DVRS\	Browse
InstallShield ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰	Cancel

3. Select the folder of destination and Press the [Next] button.

InstallShield Wizard	
	InstallShield Wizard Complete Setup has finished installing DVR System Plus on your computer.
	< <u>B</u> ack Finish Cancel

4. Press the [Finish] button to complete installation.

5. Press the Install button to run Driver Auto installer for Win 2000/XP.



6. Press the [Yes] button to complete Auto Driver Installation

🗖 Ques	tion 🛛 🔀
2	Reboot required for correct working. Do you want to reboot your system now?
	Yes No

Reboot system for stable operation

2-2-3. Apache Web Server Installation

1. Run Apache Web Server[

2. The screen will display as following: Click [Next] button.

🛃 Apache HTTP Server - In	stallation Wizard 🛛 🔀
	Welcome to the Installation Wizard for Apache HTTP Server 1.3.24
	The Installation Wizard will install Apache HTTP Server 1.3.24 on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel

3. Read the license agreement. If you agree click [I accept...] and click [Next] button.

🔂 Apache HTTP Server - Installation Wizard	×
License Agreement Please read the following license agreement carefully.	9
The Apache Software License, Version 1.1	
Copyright (c) 2001 The Apache Software Foundation. All rights reserved.	
Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:	
 Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. 	
2. Redistributions in binary form must reproduce the above copyright notice, this	
I accept the terms in the license agreement	
I do not accept the terms in the license agreement	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	

4. Confirm Apache Server information and click [Next] button.

R	Apache HTTP Server - Installation Wizard
	Read This First Read this Before Running Apache on Windows.
	Apache 🗾
	What is it? Apache is an HTTP server, originally designed for Unix systems. This is the version of Apache for Microsoft Windows 2000, NT, 98, and 95 systems. Like the Unix version, it includes many frequently requested new features, and has an API that allows it to be extended to meet users' needs more easily. It also allows limited support for ISAPI extensions.
	The Latest Version Details of the latest version can be found on the Apache HTTP server project page under http://httpd.apache.org/.
Ir	istallShield <u>Rack Next > </u> Cancel

5. Insert Network Domain, Server Name, Administrator's Email Address.

(For formality purpose only. Insert any address.)

Select [Run as a service for All Users – Recommended]. Click [Next] button.

👹 Apache HTTP Server - Installation Wizard	new and the formation of the formation o		
Server Information			
Please enter your server's information.	A		
Network Domain (e.g. somenet.com)			
abc.co.kr			
Server Name (e.g. www.somenet.com):	, so a los a		
abc.co.kr			
Administrator's Email Address (e.g. webmaster@somenet.com):			
admin@abc.co.kr			
Install Apache HTTP Server programs and shortcuts to:			
Run as a service for All Users Recommended			
O Run when started manually, only for me (cream)	S an an and		
TostallShield	P		
< Back	ext > Cancel		

6.Select [Complete] for Setup Type. Click [Next] button.

🔂 Apache HTT	🛃 Apache HTTP Server - Installation Wizard 🛛 🛛 🔀				
Setup Type Choose the setup type that best suits your needs.					
Please select a	setup type.				
• Complete	All program features will be installed. (Requires the most disk space.)				
Custom	Choose which program features you want installed and where they will be installed. Recommended for advanced users.				
InstallShield	< <u>B</u> ack Next > Cancel				

7. Click [Next] button. Attention: Do not change directory.

🙀 Apache	HTTP Server - Installation Wizard 🛛 🔀
Destinati Click Cha	on Folder ange to install to a different folder
	Install Apache HTTP Server to the folder: D:\Program Files\Apache Group\
InstallShield -	< <u>Back</u> Cancel Cancel

8. Click [Install] button and start installation.

🔂 Apache HTTP Server - Installation Wizard	K
Ready to Install the Program The wizard is ready to begin installation.	*
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.	
InstallShield]

9. Click [Finish] button when completion of installation program.



10. Change the port of Apache HTTP Server.

(Windows - Start - Program - Apache Http Server

- Select Configure Apache Server - Edit the Apache Http conf...



11. The screen will display as following: Select Edit – Find.



12. Insert "port 80" and press enter. Port 80 will view as following:

t t	⊧ ⊧Exte	endedStat	us contro	ols whether Apacl	he will gene	rate "fu
ň	≠ inti ŧ off	Find			? 🛛	The def
Ť	⊧ ŧExtei	Fi <u>n</u> d what:	port 80		<u>F</u> ind Next	
#	⊭## Sα ⊧			Direction	Cancel	
*	ŧ The ŧ sern ŧ <vi< th=""><th>Match <u>c</u>a</th><th>ase</th><th><u>○</u><u>U</u>p <u>○</u>Down</th><th></th><th>used by t handl vide def</th></vi<>	Match <u>c</u> a	ase	<u>○</u> <u>U</u> p <u>○</u> Down		used by t handl vide def
t de la companya de l	<pre># any <virtualhost> containers you may define later in the # # all of these directives may appear inside </virtualhost></pre>					r in the alHost>
* * *	<pre># in which case these default settings will be overridden # virtual host being defined. #</pre>				rridden	
* * * *	<pre># # Port: The port to which the standalone server listens. # products must be configured before Apache can listen to # Other running httpd servers will also interfere with thi # all firewall, security, and other services if you encoun # To help diagnose problems use the Windows NT command NET</pre>					
Ť	ب Port 8	30				
	 Image: A second s					

13. Change Port 80 to Port 26540 and save Notepad.



14. Exit Notepad after Save.

- Attention: Must add port number after IP address to view in Internet Web Browser.
- Ex) http://211.104.32.107:26540

2-2-4.Web Client Installation

- 1. Run Web Client installation file (
- 2. The InstallShield Wizard will display as following: Click [Next] button.



3. Read License Agreement carefully. When accept of agreement click [Yes] button.

InstallShield Wizard 🛛 🛛 🔀
License Agreement Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
END-USER LICENSE AGREEMENT IMPORTANT-READ CAREFULLY BEFORE OPENING, INSTALLING, USING, ACCESSING, OR MANIPULATING THE SOFTWARE SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install WebClient, you must accept this agreement.
< <u>Back</u> <u>Y</u> es <u>N</u> o

4. Click [Finish] after completion of installation.



2-2-4. Uninstall DVR Server program

- 1. Under the Start menu in Windows, go to Setting and then to Control Panel
- 2. Double click the Add or Remove Programs
- 3. Select DVR System Plus and Click on Change/Remove button.

🐻 Add or Rei	nove Programs			X
5	Currently installed programs:	Sort by: Name		*
Change or Remove Programs Add New Programs Add/Remove Windows Corposepte	 DVR System Plus <u>Click here for support information.</u> To change this program or remove it from your computer, click Change/Remove. Internet Explorer Q813489 Microsoft Office XP Professional with FrontPage NetClient Plus Outlook Express Update Q330994 	Used Last Used On Chang Size Size Size	frequently 6/12/2003 e/Remove 0.96MB 348.00MB 10.80MB	
Components	PCI Audio Driver WebClient Windows XP Application Compatibility Update[Q319580] Windows XP Hotfix (SP1) [See Q309521 for more information] Windows XP Hotfix (SP1) [See Q311889 for more information] Windows XP Hotfix (SP1) [See Q311967 for more information] Windows XP Hotfix (SP1) [See Q311967 for more information] Windows XP Hotfix (SP1) [See Q313450 for more information] Windows XP Hotfix (SP1) [See Q314862 for more information] Windows XP Hotfix (SP1) [See Q315000 for more information]	Size	4.83MB	
			Cl <u>o</u> se	

3. Click Remove button and Press the [Next] button.

4. Press the Finish button to complete uninstalling DVR program.

* The uninstall program will delete all DVR system files on your hard disk. However, it does not delete the video images and the log files already saved in the hard drive of your DVR PC.

Chapter 3 User Manual for DVR Server v2.0





3-1 Main features and functions

1. Operating System (O/S)

DVR system uses Windows 2000/XP as a basic OS and is designed to operate all needed functions of DVR System properly.

2. Main Program

The main program operates Search, Backup, Recording, and every function to control DVR System and it has the following functions and features

1) Easy to search

According to date, time, and camera, the user is able to execute instant, speedy, conditional, and magnified searched video images.

2) Backup & Print function

Able to print out searched images and provides Backup function

- 3) Switcher (Auto -Selector) function
- 4) Split-screen display Function

The user is able to select the following screen division: 1, 4, 6, 8, 9, 10, 13, 16, and full screen

5) Recording speed adjustment function

The user is able to adjust recording rate

6) Recording image quality setup function for each CH

Able to manage HDD space efficiently by adjusting recording image quality for each channel

7) Motion Detection Function (MD)

The user is able to setup motion area, and record the image when the motion image is

detected in the area.

(Motion-driven recording)

8) PAN/TILT/ZOOM Control Function

P/T/Z built in the system (Requirement of Receiver Device)

9) Alarm connection with Camera & Sensor

Connect with emergency bell and alarm while MD & Sensor are operating

10) Watch Dog

When system function does not operate properly or in case of emergency shutdown, watchdog

function enables auto-rebooting/restoration of existing data

11) WaterMark

A copyright-protection of embedding a code into a digital audio or video file to attempt to

prevent image tampering

12) Image Transmission

Image transmission to remote site by using PSTN network

(Able to monitor remote sites from Web Browser OR NetClient program)

13) Resolutions

Support 320×240 pixels, 640x480 pixels

14) Schedule

Schedule setup by date/time

(recording by time, MD schedule recording, sensor schedule recording)

- 15) Sensor Input, Digital-Output via alarm
- 16) Basic ID/Password function

3-2 Access Prevention

TIP>

- Q : "Cannot access" message is on the screen.
- A : DVR is set to lock on mode.

<How to unlock DVR server>



1. Click configuration button.

LOGIJ ID PW OK Cance	
2. Insert ID and PW.	
< Default ID = admin	PW = admin >

3-3 Monitoring Screen Mode



- 1 : Standard Display Screen
- 2 : 1CH recording screen (represented by REC)
- 3 : Schedule Motion Detection Recording Screen (represented by SCHMO)
- 4 : Motion Detection Store Screen (represented by
- 5, 6 : Please refer to full description as below

- Next Page -

5 Full Description (Part A)



6 : Full Description (Part B)



- 1 : Search Mode
- 2 : Configuration button
- 3 : Lock button
- 4 : Check Log record

Indicate item under LAN / MODEM connection

LAN: support simultaneous connection up to max. 100 users MODEM: support one user

- 5 : DVR Power (On / Off)
- 6 : Audio Volume Control.

Double Click on configuration (

) icon in Main View Screen

Configuration

1) General

Configuration							
General	Channel	el Store		Network	Network		e
Maintenance	Event	Receive	Receiver VideoOut		User management		
- Mideo Audio Setting							
- <u>(S</u>)tart			sr	Video		Audio	
Auto start at Windows s	tarting.						
Max Size at Starting.	Fixed Resolution		Select all	Apply all		Disable all	
	,		1	320x240	-	Disable	-
- (E)xit-			2	320x240	-	Disable	-
When DVB Fuit	Do Nothing		3	320x240	-	Disable	-
WIGHD WITE AR,	portioning	- 2	4	320x240	-	Disable	-
– (A)udio Input			5	320x240	-	Disable	•
			6	320x240	-	Disable	•
AUD 1 AUD 2	AUD 3 AUD 4 Sn	d Card	7	320x240	-	Disable	-
			8	320x240	-	Disable	-
			9	320x240	•	Disable	-
			10	320x240	•	Disable	-
10 10	10 10		11	320x240	•	Disable	<u> </u>
AUD5 AUD6	AUD 7 AUD 8		12	320x240	-	Disable	-
			13	320x240	-	Disable	-
		_	14	320x240	-	Disable	-
		<u>'</u>	15	320x240	-	Disable	•
10 10	10 10	10 3	16	320x240	-	Disable	4
Technical Support							
Digital Video Recording System V	Version 2.0 Build 0808a					(A)pply	(C)ancel

1. Start Windows

Auto start at Windows starting.

Max Size at Starting.

2. Exit DVR program

Do Nothing Reboot System Shutdown System

3. Audio volume control



- : Automatically execute program when start of Windows
- : Execute Full Screen Size when run DVR program
 - : Only exit DVR Program
 - : Restart Windows when exit DVR program
 - : Shutdown Windows when exit DVR program
 - : Audio volume setting
 - : Setup volume for AUD 1 ~ AUD8
 - : Snd Card = Setup Sound Card volume.

4. Camera and audio configuration

NTSC 1	3 Video		4 Audio
2 Select all	Apply all		Disable all
1	320x240	-	Disable 💌 🔻
2	320x240	-	Disable 💌 🔻
3	320x240	-	Disable 💌 🔻
4	320x240	-	Disable 💌 💌
5	320x240	-	Disable 💌 💌
6	320x240	-	Disable 💌 💌
7	320x240	-	Disable 💌
8	320x240		Disable 💌 💌
9	320x240	-	Disable 💌 💌
10	320x240	-	Disable 💌 💌
11	320x240	-	Disable 💌 💌
12	320x240	-	Disable 💌 💌
13	320x240		Disable 💌 💌
14	320x240	-	Disable 🔹
15	320x240	-	Disable 🔹
16	320x240	-	Disable 🗾 💌

- 1 : Select camera type (NTSC, PAL)
- 2 : Select camera channel
- 3 : Select display resolution for each camera channel
- 4 : Select audio device

HPLUS

5 : Indicate technical support information

<TIP> 1. Video Resolution 320x240 640x480 SDVR 16CH 16CH 16CH HDVR 16CH HPLUS 16CH Support up to 6CH 2. Audio SDVR Support up to 2CH HDVR Support up to 5CH

Support up to 9CH

2) Channel

Configuration				
General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
Channel 1	•	Apply All 1	Chill SCH MD	REC
– (<u>C</u>)hannel Place		2	A second se	lin.
- (<u>S</u>)witching Time Gap	3 🔆 Sec	3		
– (C)aption Surveillance	Playback		-	
Channel Numb	er Pla <u>i</u>	yback Channel Number	111 1112	
Camera Place	•	Playback Time 4		7
C)olor	Caption [Shadow	∼ (⊻)ideo Source Bright Contrast	Hue Saturation Sharpness
Select Line General Caption Schedule Motion Detection		Default		
Recording		5		
E)ont Type The Tahoma abcdeABC	CDE	Font Size		Default 8
Digital Video Recording System V	√ersion 2.0 Build 0808a			(A)pply (C)ancel

- 1. Selecting the camera CH/Apply change to all camera CH
- 2. Insert the place name of selected camera
- 3. Switching delay time for screen-partition mode
- 4. (Search Screen)



(Monitoring Screen)



5 : Assign control color tone

(Direction)

Click color you wish to change

Color	? 🛛
Basic colors:	
Custom colors: Define Custom Colors >>	Hug: 160 Red: 255 Sat: 0 Green: 255 Color/Solid Lum: 240 Blue: 255
OK Cancel	Add to Custom Colors

Select Color you wish to change and then click confirmation button

- 6 : Select you wish to change character form, and size
- 7 : Preview selected result from step $(1) \sim to step (6)$
- 8 : Adjust Picture Quality

3) Store

Configuration				
General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
_ (S)tore Disk ✓ Korean (C:) – English (D:) – Korean_backup (E:) – English_backup (F:)		Disk Infomation C:VIVADATA If you want this, Check y Free Total Disk Space Free Disk Space	your button. : 44% 20002 8: 2	(D)verwrite ✓ Use OverWrite Minimum free space 1024 → MB ✓ Use the warning sound 3
Store (M)ethod Channel 1	Set max stored-frame per second Set compress quality.	ond.	se Mark Leset	rk Setup Normal User Define Mark
Digital Video Recording System	Version 2.0 Build 0808a			(A)pply (C)ancel

- 1 : Check the HDD where you want to use for storage
- 2 : Indicates total HDD space for selected HDD in [1].
- 3 : Select to use overwrite function



Start to overwrite when HDD Free space becomes 512 MB

4 : Display Picture Quality and Setting stored-frame

 Store (M)ethod 			
Channel 1	•	Set max stored-frame per second.	
·]	30FPS

Display frame number of each channel (30Frame per Second)

: Higher FPS provides more natural image

Set compress quality.	

Medium Setting compress quality

5 : Watermark Setup



4) Network

Configuration				
General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
Maintenance	E vent ver. // 204 force. Register Dynamic IP U	Receiver Network Inform IP Address MAC Address MAC Address II II II II III III IIIIIIIIIIIIIII	VideoOut Anation 61 00-C0-26-28 C White IP ddress IP IP IP Blac	User management 32 . 177 D0-6F 2 C Black IP Add IP k List
Digital Video Recording System	Version 2.0 Build 0808a	3	<u>R</u> emove IP from lis	(A)pply (C)ancel

1.: Network Server

Enable the network server. : Use LAN

Enable the Modern Server. : Use MODEM

2 : Indicates DVR IP address and MAC address.

3.: Limit of possible simultaneous client connection

Network port (1024 - 32767)	20408	•
Allow user to connect up to	100	•

Network Access Port: Select Port No. while Client is accessing to Server

Max. Accessing User Number: Assign Accessing User Number (Max. 100 Client number)

★ Register Dynamic IP

: Service for dynamic IP users

DHS (Dynamic Host Services)

Dynamic IP users IP address changes frequently which causes inconvenience to check IP address each time when connection. DHS executes a role as fixing Dynamic IP to Static IP.

For DHS(Dynamic Host Services) registration please visit <u>http://chainip.com/eng</u>.

* Please notify DHS is paid services.

Register Dynamic IP by force.			
User of Sharing IP			
	Register Dynamic IP L	Iser ID	
For Dynamic IP users when (Register Dynamic IP User ID) part is not activated:
Please click 'register Dynamic	c IP by force'		
For Sharing IP users			
: Please click 'User of Sharing	g IP'		

4. IP Manager setup

-IP (<u>M</u>)anager . Disable	€ White IP	C Black IP	
P Manager configu	ration D	isable : Allow any IP for cor	nnection.
		Vhite IP : Allow selected IP	for connection.
	E	Black IP : Prohibit connectio	on of selected IP.

 \star Network Configuration \star

(White IP setup)

IP (M)anager O Disable I White IP O Black IP	□ IP (<u>M</u>)anager C Disable
Append (I)P Address 61 . 107 . 32 . 177 (A)dd IP 2	Append (I)P Address (A)dd IP
Cwijhite/Black IP IP White List IP Black List	W]hite/Black IP IP White List 61.107.32.177
<u>R</u> emove IP from list	<u>R</u> emove IP from list

< After setup >

< Before setup >

- 1 : Click White IP in [1].
- 2 : If 'Add IP' is activated please insert IP address.
- 3 : Cllick [2] button and IP address will be added to White IP List.

(Black IP setup)

C Disable C White IP	C Disable C White IP @ Black IP
Append (I)P Address 61 . 107 . 32 . 177 (A)dd IP 2	Append (I)P Address Append I)P Address Append I P
W_hite/Black IP IP White List IP Black List	CW]hite/Black IP IP White List 61.107.32.177
<u>R</u> emove IP from list	Idre

3 : Click [2] button to add IP in Black IP List.

5) Schedule

Configuration				
General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
Maintenance (S)chedule Chart Channel 1 SUN 0 1 2 3 4 5 6 7 8 9 10 11 12 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Event	Receiver (A)pply all THU FRI SAT I I I I I <td>VideoOut Set Schedule (E)unction Enable the schedule. Schedule Type Reco Motion D Sen</td> <td>User management 2 rding Schedule etection Schedule sor Schedule</td>	VideoOut Set Schedule (E)unction Enable the schedule. Schedule Type Reco Motion D Sen	User management 2 rding Schedule etection Schedule sor Schedule
21 22 23 Digital Video Becording Sustem	Version 2.0 Build 0808a		1	(Abolu Classel

1, 3 : Setup Recording, MD, Sensor schedule.

2 : Choose channel in [1].

[1, 3 Schedule setup]





6) Maintenance

Configuration						
General	Channel	Store	9	Network		Schedule
Maintenance	Event	Receiv	/er	VideoOut		User management
-Windows Info OS Type Windows XP CPU Intel(R) Pentiu RAM 312 MB (free)	o DVR Version Info Windows XP Build 2600 DVR System Version 2.0 Build 0808a Intel(R) Pentium(R) 4 CPU 1.70GHz Video Driver Version 4.0 Build 0807a 312 MB (free) / 503 MB (total) Board Type HDVR-1216 Audio 4+1Ch		308a 307a 520a 6 Audio 4+1Ch 2			
- DVR System-						
FileName D:\Program Files\DVRS\D D:\Program Files\DVRS\D D:\Program Files\DVRS\B D:\Program Files\DVRS\L D:\Program Files\DVRS\L D:\Program Files\DVRS\W D:\Program Files\DVRS\W	vrSystem.exe vrSearch.exe ackup.exe octor.exe igAnalyzer.exe artManager.exe MViewer.exe	Size 5828 KB 4140 KB 76 KB 32 KB 44 KB 28 KB 44 KB	File Time 2003-08-08 11 2003-08-08 13 2003-08-08 10 2003-07-25 11 2003-06-18 17 2003-06-19 15 2003-06-18 17	54 38 01 13 42 52 11		
System Maintain Data Verify Check At Starting Check Mode Full Check Mode Full Check Mode 4 System Auto Reboot Launch Log Analyzer 5					sk 🔽	
Digital Video Recording System V	/ersion 2.0 Build 0808a					(A)pply (C)ancel
: Display Windows	Information (OS, C	CPU, RAM)				
: Display DVR Info	rmation					
 Display operating program contents of DVR System Select Data Verification as run DVR program Normal Check Mode: Ordinary Check (Fast Checking Speed) Full Check Mode: Detail Check (Slow Checking Speed) 						

5 : Auto reboot system

Enable the Auto reboot.		
Reboot system at	3 o'clock	-

Result

Cancel

7) Event

General Channel Store Network Schedule Maintenance Event Receiver VideoOut User management Channel 1 Apply All 1 Image: Comparison of the sensor(s) Image: Comparison of the sensor	nngur	acion										
Maintenance Event Receiver VideoOut User management Drannel 1 Apply All 1 1 Image: Construction of the sensor(s) 1 1 2 3 4 5 6 7 8 1 1 1 2 3 4 5 6 7 8 1	G	eneral			Channel			Store		Networl	k	Schedule
Channel 1 Apply All 1 Sciensor Enable the Sensor(s) 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 1 11 12 13 14 15 16 1 1 11 12 13 14 15 16 1 1 1 13 14 15 16 1 1 1 13 14 15 16 1 1 1 13 14 15 16 1	Main	ntenance			Event]	Receive	r	VideoOu	ut	User management
Apply All Imposite Control of the c					1 [A 1 AU		– (M)etie	n Detection		
Stensor Enable the Sensor(s) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 NC NC NC NC NC NC NC 10 Image: Sensor Image: Sensirivity	L'hannel 1						Apply All	Ľ		TDetection		
1 2 3 4 5 6 7 8 NC NC NC NC NC NC NC 9 10 11 12 13 14 15 16 According NC NC NC NC NC NC NC Brable Event Recording Enable Event Recording Image: Context Recording <td>(<u>S</u>)ensor Enable</td> <td>e the Sens</td> <td>sor(s)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>N</td>	(<u>S</u>)ensor Enable	e the Sens	sor(s)									N
NC NC NC NC NC 9 10 11 12 13 14 15 16 NC NC NC NC NC NC 12 14 15 16 Choice NC	1	2	3	4	5	6	7	8		A DECEMBER OF A		AA
9 10 11 12 13 14 15 16 NC NC <td< td=""><td>NC</td><td>NC</td><td>NC</td><td>NC</td><td>NC</td><td>NC</td><td>NC</td><td>NC</td><td></td><td>And And</td><td></td><td>Illea</td></td<>	NC	NC	NC	NC	NC	NC	NC	NC		And And		Illea
NC NC <th< td=""><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>\sim</td><td>and the second</td><td></td><td></td></th<>	9	10	11	12	13	14	15	16	\sim	and the second		
(A)ction//Digital Output Enable Event Recording Enable the Warning Sound 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 1 1 12 13 14 15 16 NC NC NC NC NC NC NC NC NC Warning Sound Find Default Motion Recording Sensitivity Image: Construction of the sensitivity of the	NC	NC	NC	NC	NC	NC	NC	NC 🤈		- 222 H		
NC 9 10 11 12 13 14 15 16 NC NC NC NC NC NC NC Waring Sound Select a alarm wave file. Find Default Duration 5 Sec 5		••	ning boun	iu ii					States and	Contraction of the second	C a m	THE REPORT OF THE PARTY OF THE
No No <th< th=""><th>Enable</th><th>e the Digita</th><th>al Output(</th><th>s)</th><th>F</th><th></th><th>[7</th><th></th><th>122</th><th>2º</th><th>able</th><th></th></th<>	Enable	e the Digita	al Output(s)	F		[7		122	2º	able	
NC <	Enable	e the Digita	al Output(3 NC	s)	5 NC	6 NC	7 NC	8 NC	000	×°	able	
Warnig Sound Select a alarm wave file. Find Default Units on Warning Time 5 5	Enable	e the Digita	al Output(3 NC 11	s) 4 NC	5 NC	6 NC 14	7 NC 15	8 NC	222	Motion Display	able Dra	aw Small MD box
Select a alarm wave file.	Enable	e the Digit 2 NC 10 NC	al Output(3 NC 11 NC	s) 4 NC 12 NC	5 NC 13 NC	6 NC 14 NC	7 NC 15 NC	8 NC 16 NC 3	555	Motion Display Motion Recording		aw Small MD box
4 Dull Sensitive 7 (D)uration 7 7 7 Warning Time 5 5 6	Enable	e the Digit:	al Output(3 NC 11 NC	s) 4 NC 12 NC	5 NC 13 NC	6 NC 14 NC	7 NC 15 NC	8 NC 16 NC 3	Sens	Motion Display Motion Recording		aw Small MD box
Djuration Warning Time 5 3 Sec 5	Enable	e the Digita 2 NC 10 NC Sound	al Output(3 NC 11 NC	s) 4 NC 12 NC	5 NC 13 NC Fi	6 NC 14 NC	7 NC 15 NC De	8 NC 16 NC 3		Motion Display Motion Recording		aw Small MD box
Duration Warning Time 5 5 6	Enable	e the Digita 2 NC 10 NC Sound	al Output(3 NC 11 NC	\$) 4 NC 12 NC	5 NC 13 NC	6 NC 14 NC nd	7 NC 15 NC De	8 NC 16 NC 3	F Sens , Dull	Motion Display Motion Recording itivity		aw Small MD box
Warning Time 5 2 Sec 5	Enable I NC G Select a a	e the Digit	al Output(3 NC 11 NC	\$) 4 NC 12 NC	5 NC 13 NC	6 NC 14 NC	7 NC 15 NC	8 NC 16 NC 3	l Sens , Dull	Motion Display Motion Recording itivity		aw Small MD box
	Enable	e the Digit	al Output(3 NC 11 NC file.	s) 4 NC 12 NC	5 NC 13 NC Fi	6 NC 14 NC	7 NC 15 NC	8 NC 16 NC 3	Sens , Dull	Motion Display Motion Recording itivity		aw Small MD box
al) (idea Benerating Sustem) (arrian 2.0 Build 0000a	Enable	e the Digit. 2 NC 10 NC Sound Sound Time	al Output(3 NC 11 NC file.	s) 4 NC 12 NC	5 NC 13 NC Fi	6 NC 14 NC	7 NC 15 NC De	8 NC 16 NC 3	Sens Dull	Motion Display Motion Recording itivity		aw Small MD box
	Enable	e the Digit. 2 NC 10 NC Sound Sound Time	al Output(3 NC 11 NC file.	s) 4 NC 12 NC 5	5 NC 13 NC Fi	6 NC 14 NC nd Sec	7 NC 15 NC	8 NC 16 NC 3 ifault 4	Sens - - - - - - - -	Motion Display Motion Recording itivity		aw Small MD box

1 : Select camera channel you wish to change

Click Apply All button to apply all channels

- 2 : Setting up Sensor of existing operating camera channel (Optional)
- 3 : Setting up Digital Output(Optional)
- 4 : Select any Warning Sound.



5 : Duration of warning time when sensor input.

Motion Detection Store

Motion detection is to detect any relevant changes in the image or video.

Motion detection demonstrates how sensitive peripheral version is to motion.

At a certain point, you can no longer see the object. If the object starts moving, you will become aware of it, even though you could not see it while it was stationary.



<Picture 1> MD Setting Area Mouse-Left button Drag and Drop: Select MD Area Mouse-Right button Drag and Drop: Unselect MD Area Mouse Left button Double Click: Select all of the Area Mouse Right button Double Click: Unselect all of the Area

<Picture 1>

6 : Motion Detection Configuration

- Check Point : Motion Detection Display, MD Driven-Recording, Draw Small MD Box



- Check Point : Display MD, Record MD images



- Check Point : Record MD images



7 : MD Sensitivity Setting



8) Receiver



- 1 : Select the serial port to use (COM1,COM2))
- 2 : Display current receiver information
- 3 : For expansion of Pan/Tilt function



- : Swap vertical command of P/T protocol.
- : Swap horizontal command of P/T protocol.
- 4 : Available receiver list: (Select the receiver to use)

Address of Receiver has to be equal to the channel number. Also you have to use same device. (EX: Channel 1 => HW Address)

9) VideoOut

onfiguration				
General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
 ♥ Jideo Output Enable the TvOut Rotation (S)ingle Mode Channel 1 (R)otation Mode 	on	1	Han	
Time Gap	3 · Sec 9 10 11 12 13 14 15 16	- (c (Jatend Function Dither device is not supported yet.	
gital Video Recording System V	/ersion 2.0 Build 0808a		Γ	(A)pply (C)ancel

- 1 : Setting Output CH number through TV-Out (Option)
- 2 : Select TV-Out CH
- 3 : Setup time of Switching Mode
- 4 : Appear Preview Screen

10) User Management

General	Channel	Store	Network	Schedule
Maintenance	Event	Receiver	VideoOut	User management
User (L)ist Number Usable 01 02 Used 02 Used 03 Not used 04 Not used 05 Not used 06 Not used 07 Not used 08 Not used 10 Not used 11 Not used 12 Not used 12 Not used 13 Not used 14 Not used 15 Not used 15 Not used 16 Not used 17 Not used 18 Not used 20 Not used 20 Not used 21 Not used 20 Not u	User ID	User ([)nformation User ID Password Confirm (M)odify u -Accessable (L)ocal Fund Accessibility of User Accessibility of User Accessibility of VR Accessibility of VR Accessibility of PTZ Accessibility of the S Accessibility of the S Accessibility of the F Accessibility of the S Accessibility of the S	admin xxxxxx xxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	Delete user

1 : User List

2 : Log In/Out management

Enable logging out automatically by timer

5 • Minute(s)

- : Automatic log out function after setup time
- : Enable login & out function.
- ☑ Log in automatically at Starting (Adminstrator)
- 3 : Authorization of local functions and remote control

< Add users >

User ([)nformation				
User ID	guest			
Password	*****	Add "	guest" account.	
Confirm	*****			
(<u>M</u>)	odify user information		(D)elete user	
: Insert User ID	and Password	Click	'Modify user informatio	n.'

Accessable (L)ocal Functions	
Accessibility of User Management	
Accessibility of DVR System's configuration	
Accessibility of the Search&Playback mode	
Accessibility of the system shutdown	
Accessibility of PTZ Cameras	
Accessibility of the System log	
Accessibility of the Recording	Setup "guest" user
	accessibility.
: Choose accessibility for	DVR Server.
Accessable (N)etwork Functions	
Accessibility of the server via Network	
Accessibility of the Network user manageme	nt
	Setup "guest" user remote accessibility.

: Choose accessibility for remote Client program..

3-3 Search Screen Mode





Playback, Rewind, 2X Playback

2 : Save selected screen as image

Save As			? ×
Savejn: 🔀	Images	▼ ← €	≝
1			
File <u>n</u> ame:	2003_06_13_11_03_27-03Ch		<u>S</u> ave
Save as <u>t</u> ype:	BMP Files (*.bmp)	-	Cancel

Choose where to save image file and write file name

Print



Print Setup

Print	
	(P)rint Channel 1 ▼ 3 ▼ 3 ▼ 5 ▼ 6 ▼ 7 ▼ 8 ▼
1	
Print (P)	Cancel (<u>C</u>)

- 1 : Preview Printing Images
- 2 : Able to print maximum of 8 selected camera channels
- 3 : Printer Setup Option

<Print Configuration>

Pr	int		<u>? ×</u>
	Printer —		
	<u>N</u> ame:	₩₩Backup_server₩hp Laser	Jet 1000 💌 <u>P</u> roperties
	Status:	Ready	
	Туре:	hp LaserJet 1000	
	Where:	USB001	
	Comment:		
	– Print range		Copies
	 ▲I 		Number of <u>c</u> opies: 1 📑
	C Pages	from: to:	
	C <u>S</u> elect	ion	
			OK Cancel

Click the [OK] button to print

4 : 1 CH original copy size



Watermark





1. Save image from search screen and view screen



- Next Page -

2. Click the watermark (

) icon from searched Screen Mode

Open File to bring saved data

🙅 WaterMa	rk Viewer	
File Sett	Open File	k User Defined Mark
	Open	? 🔀
	Look in: 🗁 Images	▼ ← 🗈 📸 🎟 -
	Search_2003_06_09_13_16_00-01Ch	
	∑ s	ave image from View
	s	creen and Search Screen
	File name: Search_2003_06_09_13_16_00-0	1Ch <u>O</u> pen
	Files of type: BMP File(.bmp)	Cancel
	Dpen as <u>r</u> ead-only	
		WM Detect

% (Watermark)

A copyright-protection of embedding a code into a digital audio or video file to attempt to thwart piracy or unlicensed use

A watermark is a normally invisible pressure mark in expensive paper which can be seen only when the paper is held up to the light. Some computer files have digital watermarks embedded in them as a pattern of bits which appear to be part of the file and are not noticeable to the user. These patterns can be used to detect unauthorized copies.

An identification code or bit pattern integrated into multimedia data that aids copyright owners in identifying illegally distributed audio, video, or image data.

3.Click the [WM Detect] to watermark



- 1 : Show saved image.
- 2 : Show defined Mark by user at Configuration Mode
- 3 : Show Mark hidden in real image
- 4 : Show information related to image (Size, file formation time, modified time, process time)
 RESULT : It is an Original Image !! = Show that images has not been tampered
- 5 : WM Detect button



- 1 : Show saved image
- 2 : Show defined value of Watermark from Configuration Mode

Display X Mark as tampered image was detected

- 3 : Show Mark hidden in image (Display read color at tampered area)
- 4 : WM Detect Button
- 5 : Show image information size, reading time, writing time)

RESULT : The Image File was abused!! (Image has been tampered)

Search

1. Move to Search Screen Mode and then Click the calendar (





2. Select Search Date and then Click [Load] button



Click the view mode (

) icon to return to Monitoring Screen (Main View Screen)

	/arranty
Model	DVR Server v2.0
Manufactured Date	
Lot. No	
Period of Warranty.	1 Year after purchasing
Purchased Date	
was a qualified item to pass a strict it happen any problem, it will be gu pllowing written description.	inspection and Quality control. aranteed according to the
. The period of warrant is one year fror	n the date of purchasing this item.
. In case of deficit in manufacture, whe	n happening trouble spontaneously,
We are ready to exchange or free-r	epairing refund or compensation.
. If will fix up the system at Actual expe	ense even though it in the period of
Warranty as following cases;	
A. Mistake in using this system or	trouble by handling carelessness
B. Trouble by repairing and reorga	anizing without our company is Permission,
Trouble to repair and reorganizir	ng system by other companies Service
C. Troubles or Damages by due to	the natural disaster Fire, earthquake, flood etc.
D. A case of Troubles by Custome	er's attention of mistakes
	ation of A/S. Please contact below