

4Ch H.264 Hardware Codec

H.264 Network DVR

User's Manual **VER 2.1**



4 Channel Network DVR
Real-time playback / USB backup

The most stable and reliable real stand alone Digital Video Multiplex Recorder

INSTALLATION & SAFEGUARDS

All the safety and operating instructions should be read before the unit is operated.

Environment Condition for Installation

1. To prevent electric shock or other hazard, do not expose units to rain, moisture, or dust.
2. Place this unit in a well-ventilated place and do not place heat-generating objects on this unit.
3. This unit should not be located in an area where it is likely to be subjected to mechanical shocks.

Before You Start



1. Ensure the power switch is in the OFF position prior to starting.
2. Do not attempt to open or remove the covers. That may expose you to dangerous voltage or other hazards.
3. Installation should be performed by qualified service personnel only.
4. This unit should be operated only from the type of power source indicated on the manufacturer's label and with the power supply included with the unit.

Notice



1. Before initial configuration or operation you must first set the TIME/DATE, followed by HDD clear. If you don't follow this steps first, that may cause non recording on the HDD or non saving setting value. Even though it is recorded, you cannot search recorded data.
2. When it comes to HDD capacity, you can use a big size of HDD.
3. When you set the record setup, you have to set the Record Configuration and also Schedule Setup. This unit records as per the Record type & Schedule setup. The default setting value for Schedule setup is Continuous mode.

Notice



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference in which case the manufacturer of the device is not responsible and the user would be responsible to correct the interference.

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CHAP 1. Features & Package Contents

1-1. Features

Live Display

- Real time display per camera
- Auto Sequence
- PIP (Picture in picture)
- Digital Zoom of display (2X ZOOM)
- Freeze
- Simple playback mode
- Simple PTZ camera control

Record

- Efficient Image Quality in 3 steps
- Adjustable Frame Rate in 5 steps
- Audio recording
- Schedule recording
- Event record by alarm and motion detection
- Emergency recording

Network

- IRS (Integrated Remote Station)
- DDNS supported

Playback

- Search and playback by recorded data size, date/time, and event
- Various playback speed (forward and backward)
- Event Search

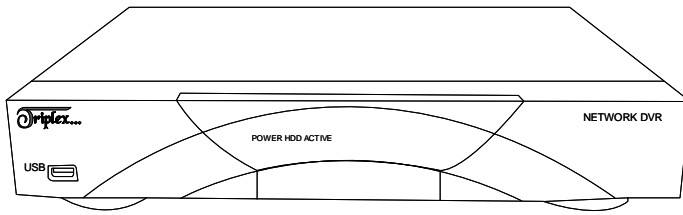
Data backup

- Backup via USB memory stick / via network

Others

- Supports UNI-CODE
- Supports SPOT Monitor
- PAL/NTSC Auto detection
- Video loss detection

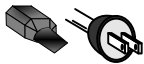
1-2. Package Contents



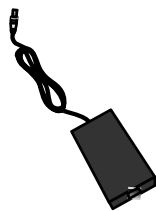
1. DVR Main Unit



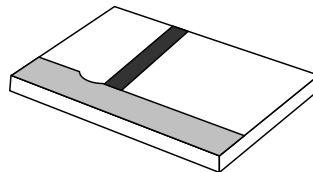
2. Remote Controller



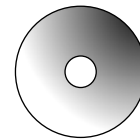
3. Power Cable



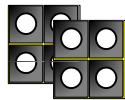
4. Power Adapter



5. User's Manual



6. Software CD



7. HDD absorber



8. HDD Bolts

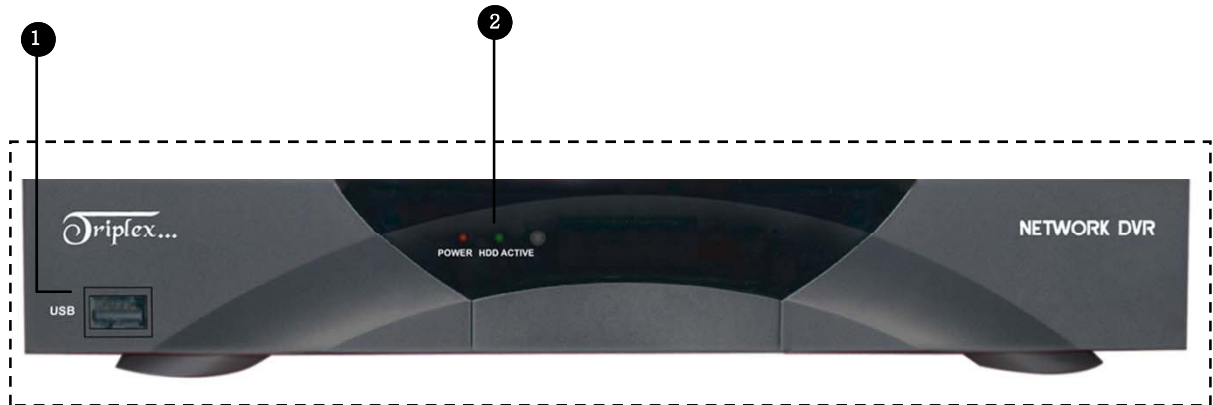


9. Mouse

Package Contents	Description
1. DVR Main Unit	Stand-Alone Digital Video Recorder
2. Remote Controller	Remote controller
3. Power Cable	AC power supply to adapters for 12V DC power
4. Power Adapter	DC power supply
5. User's Manual	User's Manual
6. Software CD	IRS (Integrated Remote Station) program
7. HDD absorber	Absorbs the mechanical shock of HDD against the case bottom.
8. Bolts	Bolts for fixing HDD.
9. Mouse	Enables to control all functions of DVR.

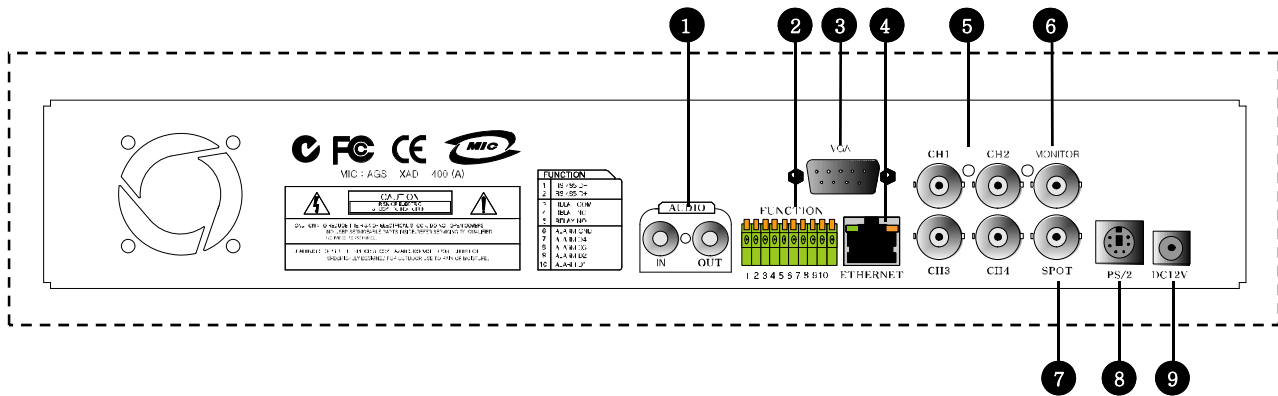
CHAP 2. Function of Each Button

2-1. Front



Name	Function
① USB HOST	Used for Data Backup and Firmware Update (Only USB memory stick should be used.)
② LED Lamps	Shows status of operation POWER : Power status HDD Active : HDD status

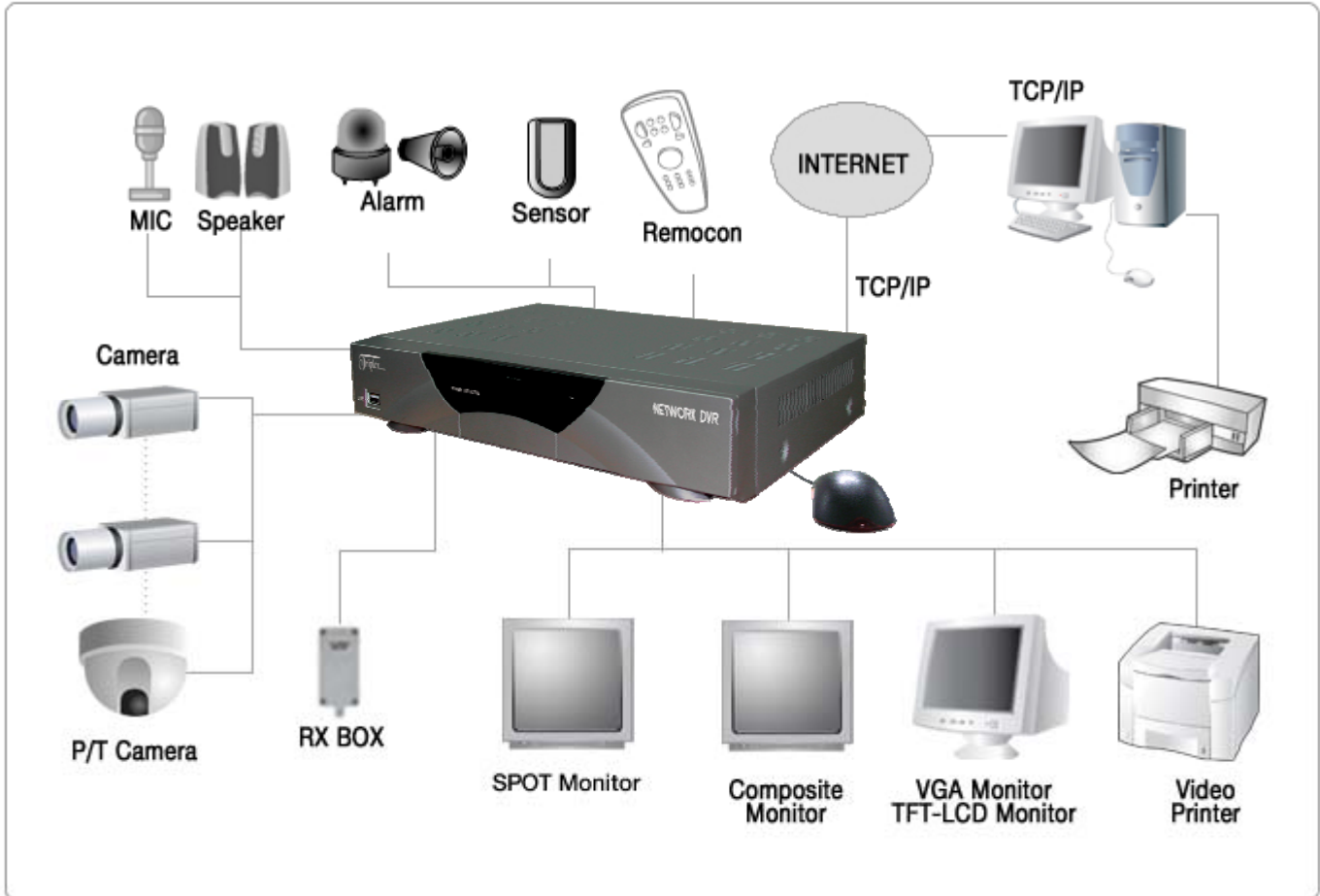
2-2. Rear



	Name	Function
1	Audio input	1ch audio input
	Audio output	1ch audio output
2	RS 485	Connection with PTZ camera or other external device using RS 485
	Relay output	Relay out terminal
	Sensor input	Sensor input terminal
3	VGA	Connection to VGA monitor (CRT or TFT LCD monitor)
4	Ethernet	Connection to Ethernet device
5	Camera input	4ch camera input (NTSC/ PAL)
6	Monitor output	1ch composite monitor output (NTSC/ PAL)
7	Spot monitor output	1ch spot monitor output (NTSC/ PAL)
8	PS/2	Connection to PS/2 Mouse
9	DC power	DC 12V

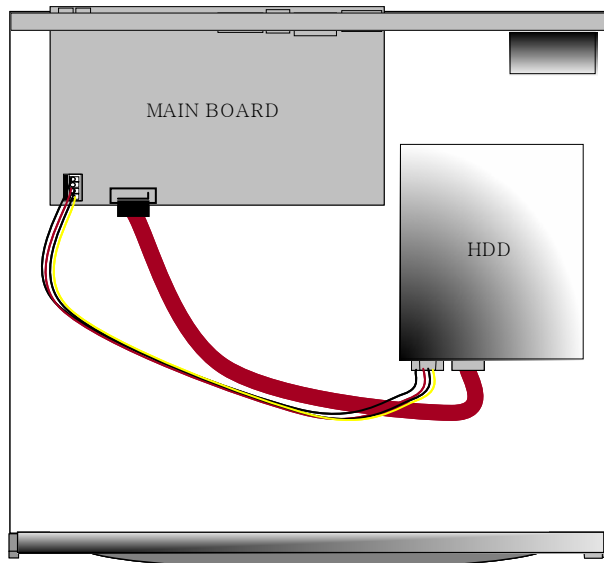
CHAP.3 Installation

3-1. Installation configuration



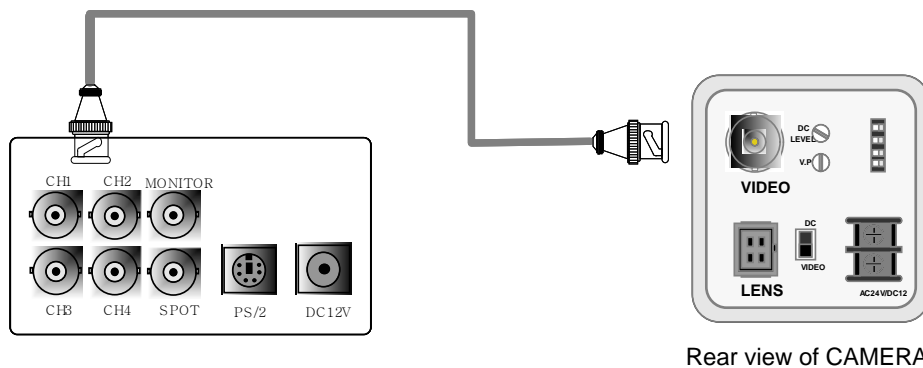
3-1. Installation

1) HDD



1. Connect Main Board and HDD using SATA data cable and HDD power cable.
2. Stick the HDD absorber (included in package) on the bottom of case and then install the HDD on top of them by using the bolts (included in package).
3. Screws must be inserted from outside of the case bottom.

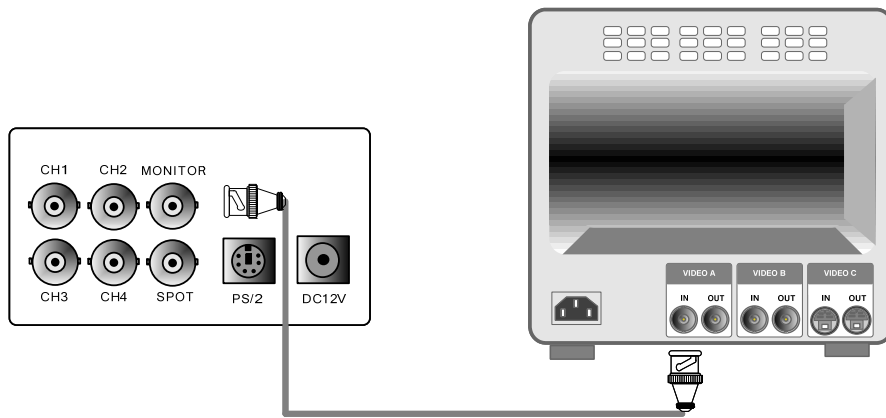
2) Camera



Rear view of CAMERA

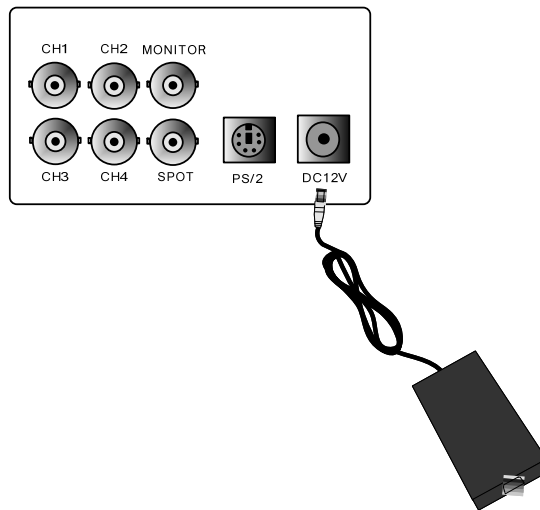
Connect camera to the camera input on rear panel of DVR marked CAMERA IN.

3) Monitor



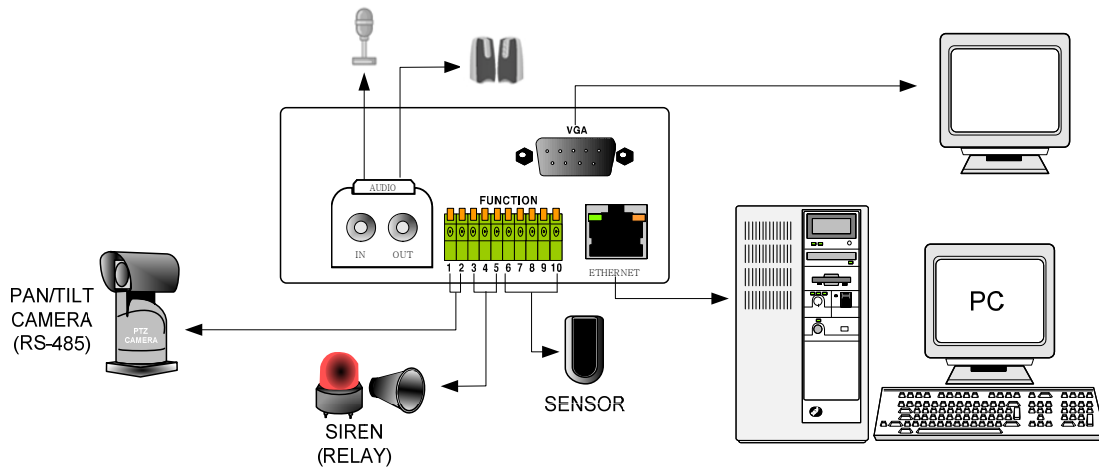
Connect the video output marked MONITOR to Video-In of Main monitor.

4) Power



DC 12V adapter (3.33A)

5) Other External Device



RS-485 : Controls external device like PTZ camera.
(Pin No.1 & No.2)

RELAY Output : Relay Output (Pin No.3 & No.5).

SENSOR Input : Sensor Input – Alarm Input (Pin No.6 ~ No.10).

ETHERNET: Connection to LAN, WAN

Audio Input: Connection to a microphone

Audio Output: Connection to a speaker


VGA : Connection to CRT or TFT LCD monitor (D-SUB)

4-1. System Log-In

GENERAL USE OF MOUSE

Mouse buttons	Functions
Mouse Wheel	Increases or decreases setup value on the Menu mode
Right	Decreases setup value on the Menu mode
Left	Increases setup value on the Menu mode Execute all of the functions (clicking icons)

* Please use a mouse pad for proper operation of the mouse.

- 1) After power on, a right-click of the mouse shows an icon bar on the screen. Then click the [Menu] icon  to log in.
- 2) Then, you will see 'DVR Log-In' message shown at right.
- 3) You may log in as an ADMIN, MANAGER, or USER1 ~ USER8.
- 4) Input your password (Max. 8 digits are available for password) and click 'ENTER'.
- 5) To exit, click 'EXIT' button.

DVR LOG-IN

USER ID

USER PW

ADMIN

1	2	3	4	5	6	7	8	9
ENTER							EXIT	

If the password entered matches previously set password, you can log into 'MAIN MENU'. If an incorrect password is entered, you will see "PW IS NOT CORRECT" message on display. The factory default password is none. Just click 'ENTER' for first time initial log in.

-Factory default password
 ADMIN : (Blank)
 MANAGER : '1'
 USER1~USER8 : '2'~'9'

- ※ For security reasons, be sure to make note of your own password.
- ※ The authority of MANAGER & USERS for changing critical settings of DVR is limited due to security reasons.

4-2. HDD Clear & Factory Default

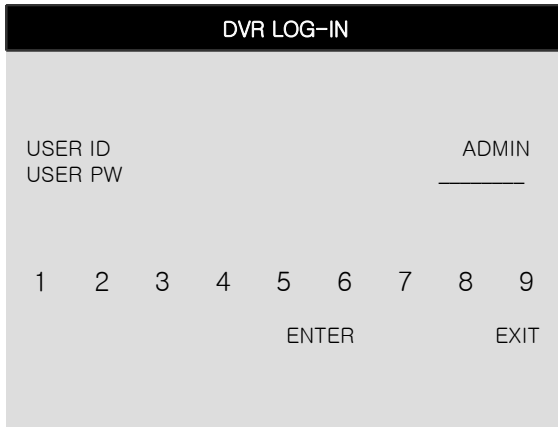
Before first operation, you must check that each channel is displaying properly and log in 'Main Menu' and set Time/Date and set HDD clear.

1) HDD Clear

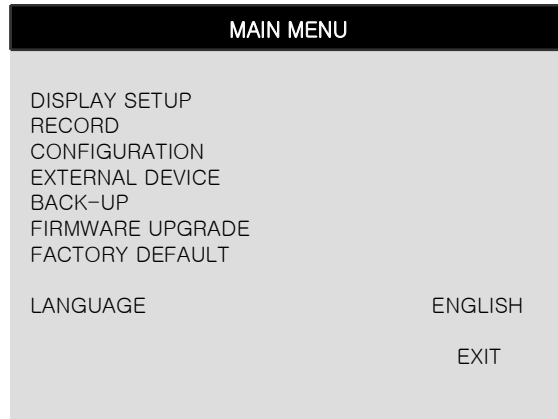
You can see HDD Model name, serial number, number of blocks and size of HDD. In order to clear HDD, click 'CLEAR' at the bottom as shown below.

(1) Please refer to 4-1. System Log in again.

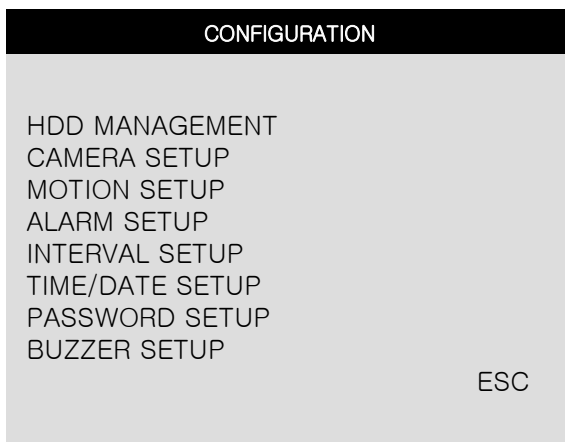
Then, click 'ENTER'.



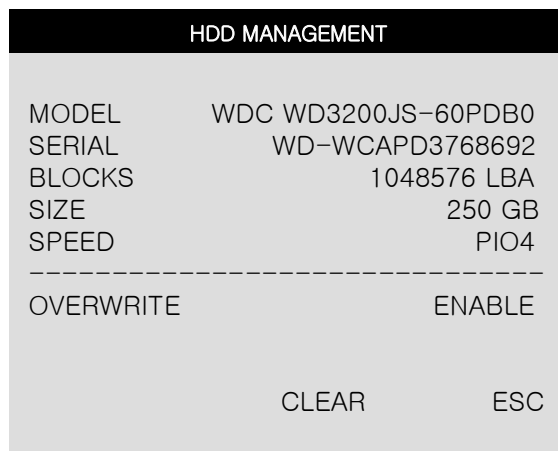
(2) Click 'CONFIGURATION'.



(3) Click 'HDD MANAGEMENT'.

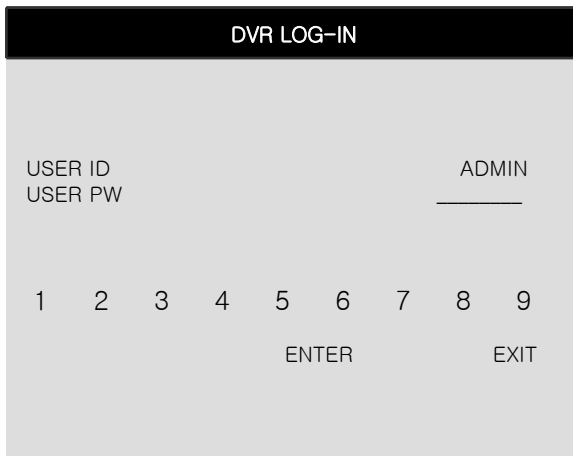


(4) Click 'CLEAR'.

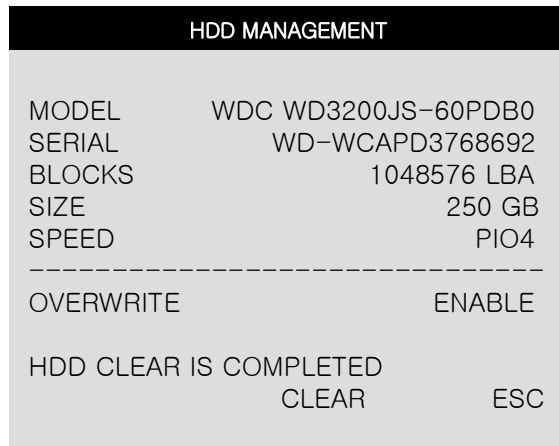


(5) Please refer to 4-1. System Log in again.

Then, click 'ENTER'.



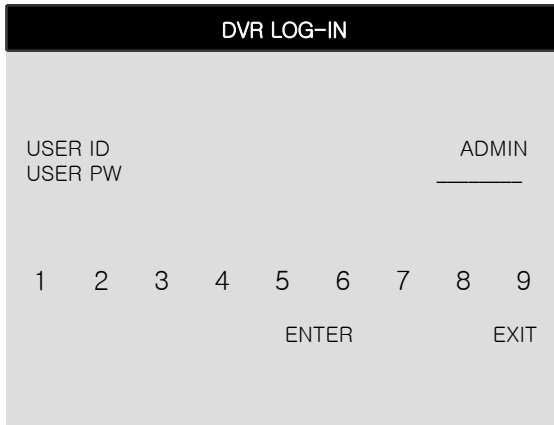
(6) Now you can see "HDD CLEAR IS COMPLETED".



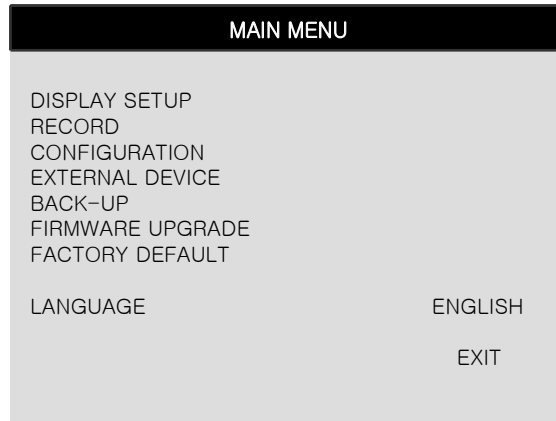
2) Factory Default

Factory default setting initializes DVR system.

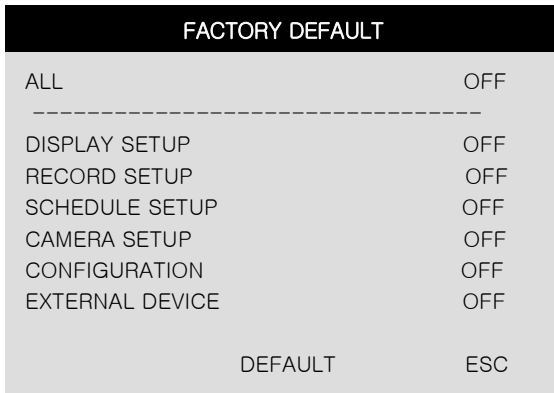
(1) Please refer to 4-1. System Log in again.
Then, click 'ENTER'.



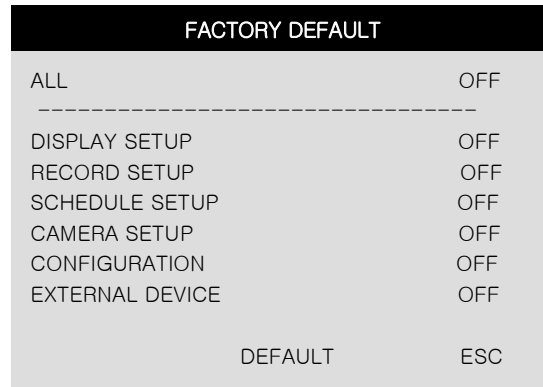
(2) Click 'FACTORY DEFAULT'.



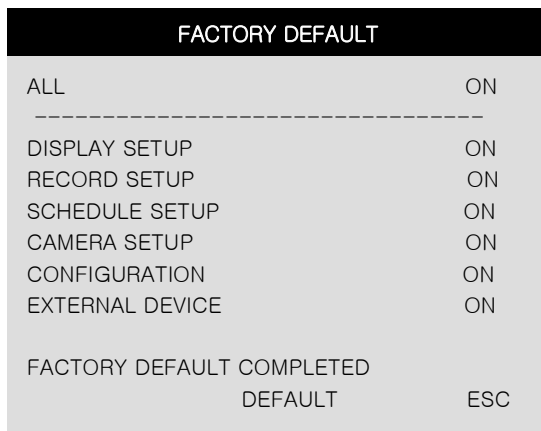
(4) Choose ON for 'ALL'.



(2) Click 'DEFAULT'.



(5) Now you can see "FACTORY DEFAULT COMPLETED" as shown below.



4-3. Display Configuration

Operation display

- Audio Off
- Audio On
- Volume Off
- PTZ mode
- PIP mode
- ZOOM mode
- SEQ mode
- FRZ mode

Live Display

ETHERNET connection status icon

- Disconnected
- Connected
- Network search

- Emergency Record & Schedule Record [RED]
- Stop Recording [GREEN]

HDD space display
(Possible recording days)

OVERWRITE status icon

- * shows when overwrite is ENABLE
- * nots show when overwrite is DISABLE
- * blinking during OVERWRITE

- Playback
- Search
- Freeze
- Sequence
- Zoom
- PIP
- PTZ
- Menu
- Emergency recording start
- Emergency recording stop

- Ch No.1 single display
- Ch No.2 single display
- Ch No.3 single display
- Ch No.4 single display
- 4-split display

× Click , it goes back to Schedule Record mode.

Playback display

- FASTEST PLAY
- FAST PLAY
- FORWARD PLAY
- PAUSE
- BACKWARD PLAY
- FAST BACKWARD
- FASTEST BACKWARD PLAY


Playback Display

HDD space display
(Location of the current playback image in HDD)

- MOVE TO THE BEGINNING
- BACKWARD PLAY
- PAUSE
- FORWARD PLAY
- MOVE TO THE END
- INCREASE PLAYBACK SPEED
- DECREASE PLAYBACK SPEED
- SEARCH
- EXIT


4-4. Live View Setup

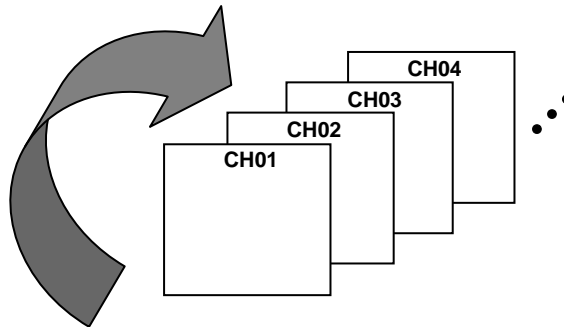
1) Full / Multiple View

Move the cursor onto [4 – split icon]  in the icon bar and click it to view 4 channel division. To enlarge each channel, click 1,2,3,4 Icon. Then, you will see a channel in full screen mode.




2) SEQ

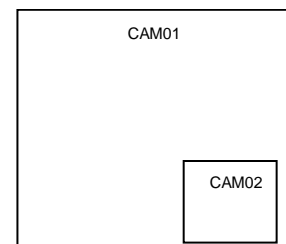
Click 'SEQ' icon . It automatically displays full screen images in sequence. You can setup SEQ time interval on setup menu. (MAIN MENU -> CONFIGURATION -> INTERVAL SETUP -> SEQUENCE SCREEN)



3) Picture in Picture (PIP View)

When it is in full screen display mode, you can see other camera in a small window by clicking [PIP] icon , the other camera in small


window is rotating in sequence to next number of camera and you can set the rotating time interval as per the procedure in MAIN MENU -> SCREEN SETUP -> PIP INTERVAL -> PIP SCREEN.



4) ZOOM View


In live mode, if you click [ZOOM] icon , images are displayed in two times larger size. While using [ZOOM] mode, you can move the enlargement area by using the mouse. To exit ZOOM mode, click ZOOM icon again.

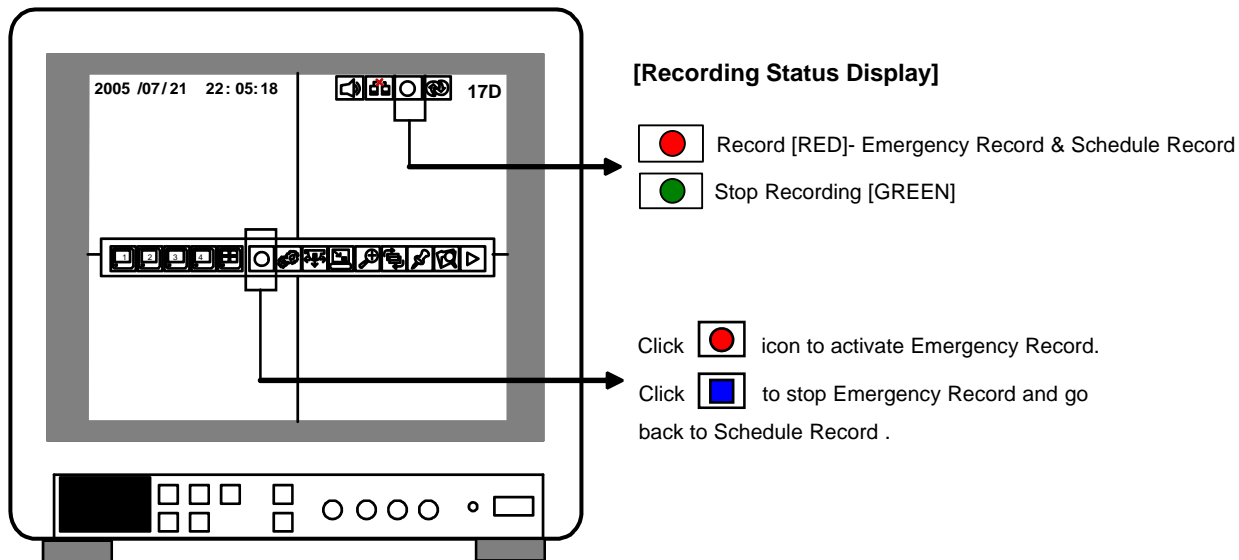
5) Freeze

Click [FRZ] icon  and click a channel that you want to freeze temporarily in live mode. If you click [FRZ] icon again, it will cancel all.

4-5. Record

It basically records as a setting made in Schedule Record mode except for emergency record mode.


- Emergency Record
Once you click this icon , it keeps recording continuously regardless of schedule setting.
- Schedule Record (Continuous, Motion, Alarm and Motion/Alarm)
Go to MAIN MENU→ RECORD → SCHEDULE SETUP and setup schedule as you want.
It records as a setting.
- Record Icon in Red indicates Emergency Record and Schedule Record.




- This DVR unit does not record in following conditions ;

- ※ When overwrite function is off and HDD is full
- ※ When there is no scheduled recording
- ※ When you update a firmware
- ※ When there is no event detected in motion, alarm and motion/alarm record mode of schedule record setting.
- ※ During backup process

4-6. Playback

On record mode or live mode, click [playback] icon  to play the recorded data in 1x speed.

4-7. Search

There are three search methods controlled by a mouse wheel button, left and right button of a mouse. When you click [SEARCH] icon  , then you see a window shown as below.

Select a target data by using the mouse.

In PERCENT SEARCH Mode, you can select certain data by clicking on the bar.

To move to the previous mode, click 'ESC'.

1. PERCENT SEARCH

Search by percentage of total recorded data. It starts from image corresponding to set % of data on the search bar.

2. TIME/DATE SEARCH

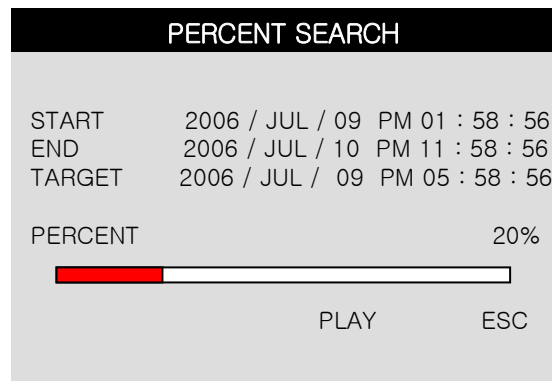
Search by time & date. Playback starts from the time & date selected.

3. EVENT SEARCH

Search by event list (Motion, Alarm, Video Loss)



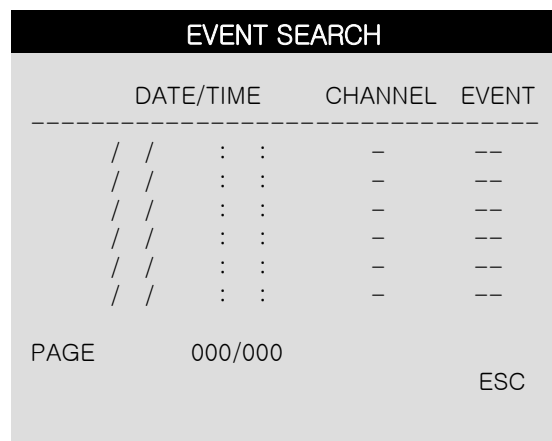
SEARCH MAIN MENU



PERCENT SEARCH




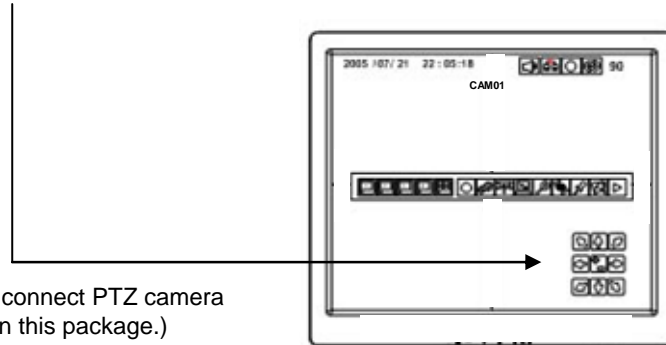
TIME/DATE SEARCH



EVENT SEARCH

4-8. PAN/TILT/ZOOM Camera Operation

Click the [PTZ] the icon  in the icon bar, then you can see 'arrow' keys & '+/-' key shown below. Click these arrow keys to move a PTZ camera to each direction. By using '+/-' key, you can control ZOOM IN/OUT function. ('+' : ZOOM IN / '-' : ZOOM OUT)

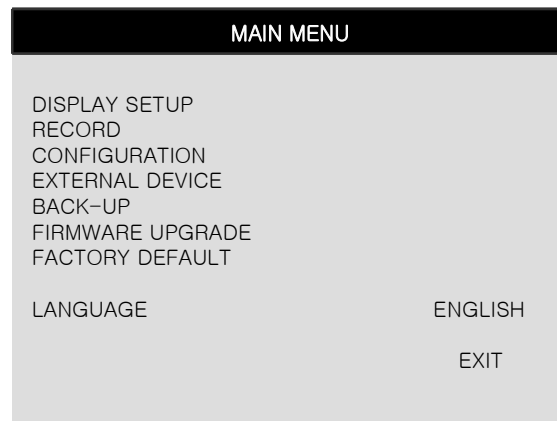
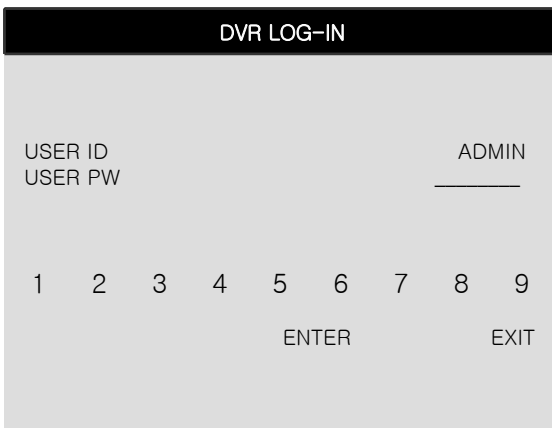


•If you would like to use PTZ function, please connect PTZ camera to RS-485port. (PTZ camera is not included in this package.)

4-9. Data Backup

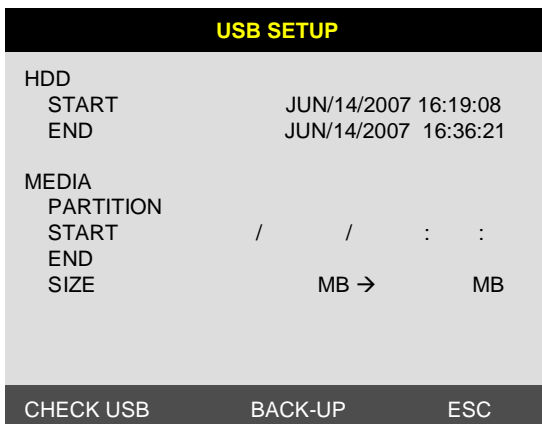
Right-click to see the icon bar and click [MENU] icon  and go to 'Backup'.
 (1) Please refer to 4-3. System Log in again. (2) Click 'BACK-UP'.

Then, click 'ENTER'.



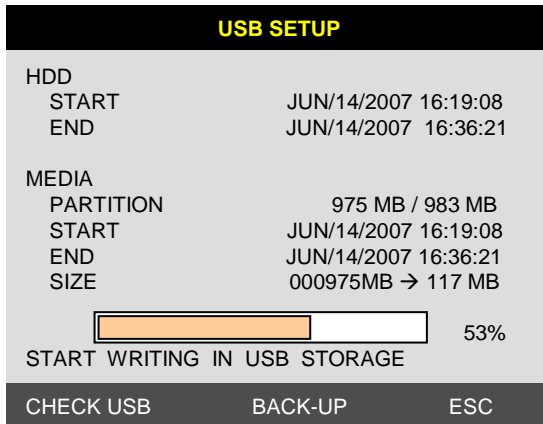
(3) Insert USB memory stick and click 'CHECK USB'.

※ The START & END time / date in HDD sub-menu only shows start and end of recording. This is not selectable and editable.

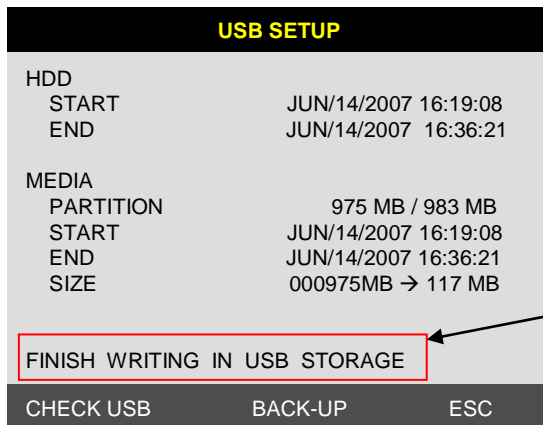


※ Only USB memory stick should be used for backup.

- (4) To set start time of back-up and back-up data size in MEDIA sub-menu, use the mouse (left/right/wheel button).
- ※ End time of back-up will be calculated automatically as per start time & date and the back-up data size you set.
 - ※ You can select the back-up data size (size of back-up data from start of back-up), but END of back-up time is automatically determined by DVR itself.
- (5) Click 'Back-up' to start USB back-up.



- (6) You can verify the back-up by installing and running the Player on your PC.
Refer to 6-3. Viewer



System Status Messages

- (1) When MEMORY STICK is recognized
 - USB STORAGE IS CHECKING ...
 - USB STORAGE IS AVAILABLE
- (2) During Back-Up
 - START WRITING IN USB STORAGE
 - FINISH WRITING IN USB STORAGE
- (3) Error Messages
 - THERE IS A PROBLEM ON USB PORT
(If USB PORT fails to work properly or not connected)
 - INPUT DATE TIME ERROR
(If you select incorrect date & time, not in between START and END time in HDD.)
 - RECORD DATA IS NOT AVAILABLE
(When USB memory stick is full or backup data file size is 0MB)

CHAP 5. Setup

5-1. General Operation

Click the [MENU] icon  and input user password to log in.

- (1) Please refer to 4-1. System Log in again.
Then, click 'ENTER'.

DVR LOG-IN									
USER ID								ADMIN	
USER PW									
1	2	3	4	5	6	7	8	9	
				ENTER				EXIT	

MAIN MENU	
DISPLAY SETUP	
RECORD	
CONFIGURATION	
EXTERNAL DEVICE	
BACK-UP	
FIRMWARE UPGRADE	
FACTORY DEFAULT	
LANGUAGE	ENGLISH
	EXIT

MAIN MENU

5-2. Display Setup

This is setup menu for display on the screen.
If you click 'DISPLAY SET UP', then you change setting values for display as shown below.



1) VGA Setup



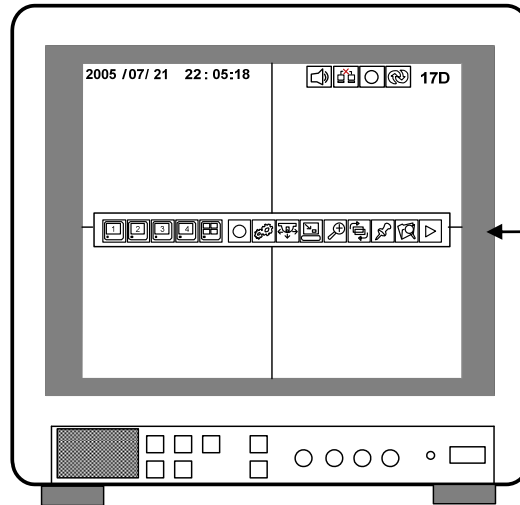
VGA SETUP : Sets RESOLUTION for a VGA monitor (TFT LCD or CRT) as shown below.
Default Resolution for VGA is 800x600.

640X480 / 60Hz	640X480 / 75Hz
800X600 / 60Hz	800X600 / 75Hz
1024X768 / 60Hz	1024X768 / 75Hz
1280X1224 / 60Hz	1280X1024 / 75Hz

**** Please check the resolution range that your VGA monitor supports first before you use VGA monitor. If you select high resolution such as 1024X768, 1280X1024 on VGA SETUP with VGA monitor that does NOT support those high resolutions, image display may NOT be seen properly.**

2) Screen Display Setup

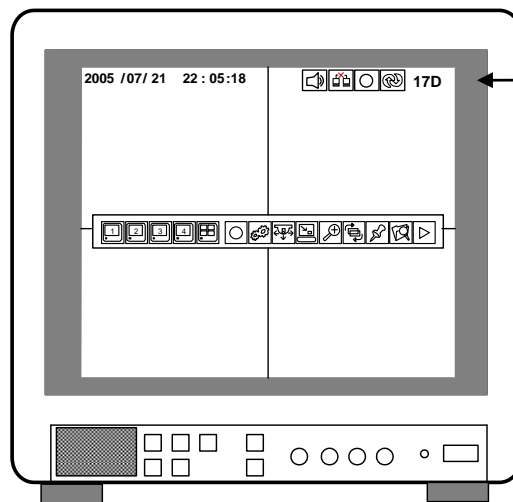
SCREEN DISPLAY	
VERTICAL POSITION	24
HORIZONTAL POSITION	00
BOARDER ENABLE	ON
BOARDER COLOR	GRAY
DEFAULT	ESC



VERTICAL POSITION : -5 ~ 5
 HORIZONTAL POSITION : -31 ~ 31
 BORDER ENABLE : ON/OFF
 BORDER COLOR : COLOR SELECT

3) OSD Setup

OSD SETUP	
TOP OSD OFFSET	0
DEFAULT	ESC



TOP OSD OFFSET : -1 ~ 1

5-3. Record

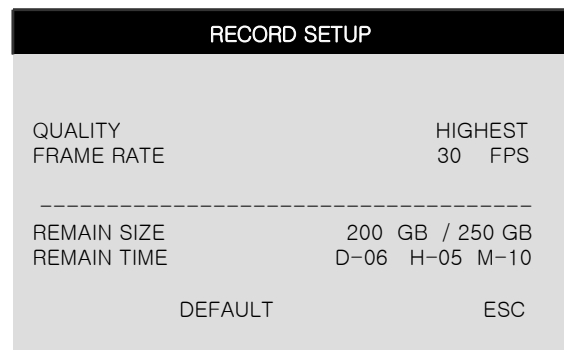
This is the most important configuration of the DVR. When you select 'RECORD' in the main menu, you can see the window as shown on the right.

1) Record Setup



(1) QUALITY : 3 step selectable

- Highest
- High
- Normal



(2) FRAME RATE : 5 step selectable / NTSC(PAL)

※ By adjusting frame rate, you can adjust recording time.

- 3(3) FPS
- 5(5) FPS
- 10(8) FPS
- 15(12) FPS
- 30(25) FPS

※ Quality and Frame Rate can be adjusted not only in this setting, but also from viewer of IRS program.

(Please refer to page 44 for more information.)

(3) REMAIN SIZE

Indicates HDD capacity remains by size (GB). / Indicates total HDD capacity (GB).

(4) REMAIN TIME

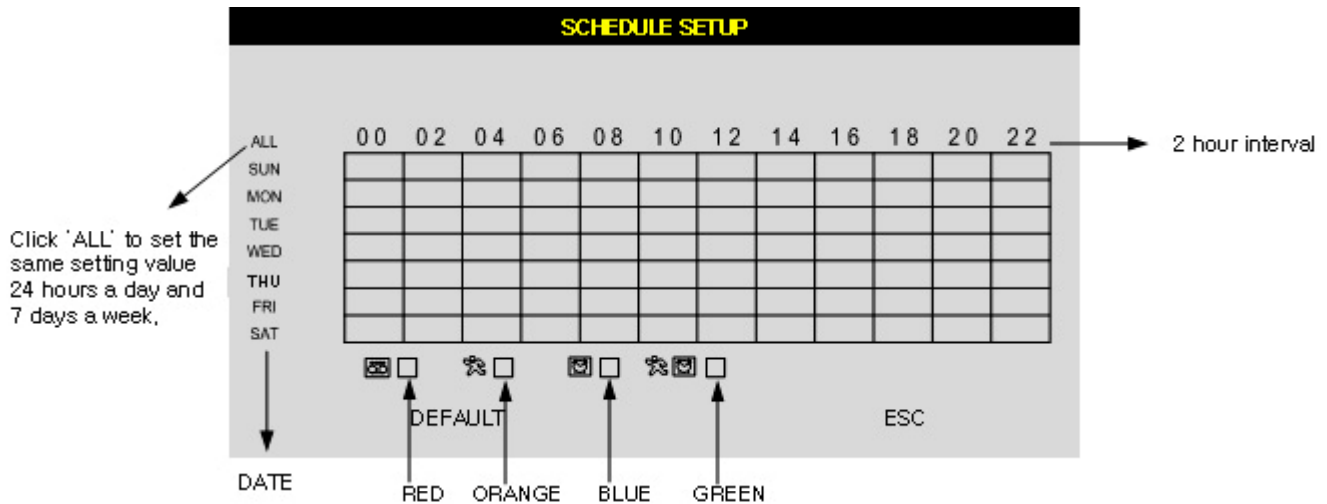
Indicates HDD capacity remains by time.





D- days, H- hours, M- Minutes

2) Schedule Setup

DVR system records in Schedule Recording mode. In Schedule Recording mode, you can choose four different types of recording modes and schedule by 2 hour interval from Sunday to Saturday. Default recording mode is continuous recording.

Set Recording time interval for a day of the week (Time interval : by 2 hour) and recording type.




-  : 24 hour continuous recording (Red color)
-  : Motion recording (Orange color)
-  : Alarm recording (Blue color)
-  : Motion & Alarm recording (Green color)

※ Default setting is continuous recording.

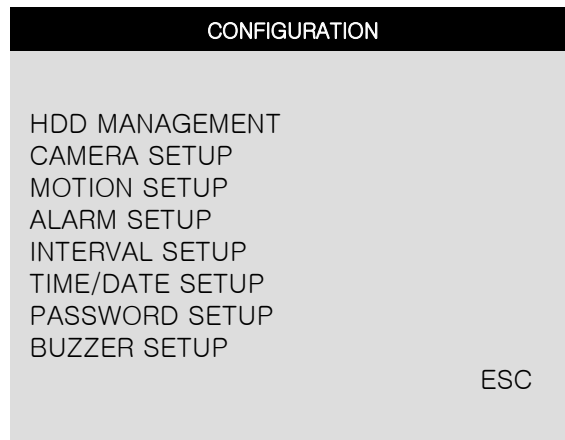
※ Each recording type is indicated in different color of boxes. You can set up schedule by dragging the mouse. In this case, the recording type of the boxes dragged is same as the one that you initially select. All blocks can be activated or deactivated by using 'ALL' button.

※ Once you set up schedule record, DVR records as it is scheduled in normal times. In emergency situation, you can click  icon to make DVR record continuously.

To exit emergency recording mode and go back to scheduled recording mode, click  icon. (please see page 15)

5-4. Configuration

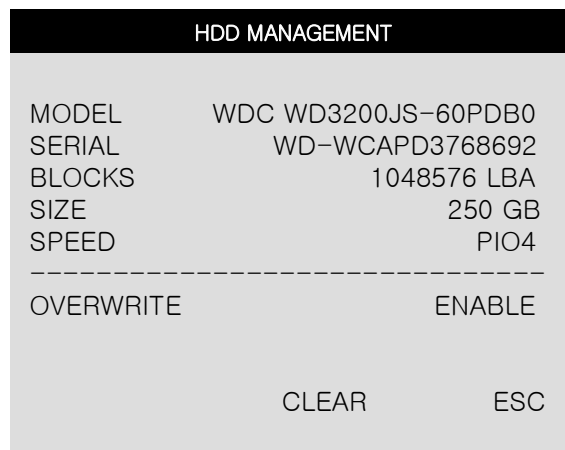
When you click 'CONFIGURATION' on the main menu, you can go to 'CONFIGURATION' menu as shown on the right.



1) HDD Management

You can see HDD Model name, serial number, number of blocks and size of HDD. You can also clear HDD. (While you are in this HDD MANAGEMENT Mode, DVR does NOT record.)

MODEL : HDD MODEL NAME
 SERIAL : HDD SERIAL No.
 BLOCKS : HDD LBA BLOCK Number
 SIZE : HDD TOTAL SIZE
 SPEED : HDD MODE
 OVERWRITE : ENABLE, DISABLE



What is OVERWRITE?

- When HDD is full, the oldest data in HDD is automatically deleted as DVR records new data.

2) Time/Date Setup

In this setup, you can select date/time of DVR system and display format.

You can adjust values by using the mouse wheel or left/right button of the mouse.

※ For the first time installation, date/time setup must be completed first.

DATE FORMAT : DATE(ASIAN/EUROPEAN
/AMERICAN)
HOUR FORMAT : (12H/24H)
MONTH FORMAT : (ENGLISH,NUMERIC)

TIME/DATE SETUP	
DATE	JUN/15/2007
TIME	15:41 :45
DATE FORMAT	AMERICAN
HOUR FORMAT	24HOUR
MONTH FORMAT	ENGLISH
	DEFAULT ESC

3) Camera Setup

You can setup values for each camera.

CAMERA SETUP	
CHANNEL	CH1
TITLE	CAM01__
BRIGHTNESS	1
CONTRAST	7
SATURATION	14
HUE	-32
HORIZONTAL POSITION	0
DEFAULT	ALL-DEFAULT ESC

(1) CHANNEL : You can select a channel which you want to change values.

(2) TITLE : You can name each camera with 8-digit number or letter combination.

Move the cursor onto a location that you want and choose numbers or letters by using mouse wheel or left/right button of the mouse. To exit to the previous menu mode, click 'ESC'.

DEFAULT = CAM01__ ~ CAM03__

(3) COLOR : You can adjust color, for each camera, by using the mouse.

BRIGHTNESS : Adjust brightness (-32 ~ 31) [DEFAULT = -10]

CONTRAST : Adjust contrast (-32 ~ 31) [DEFAULT = 10]

SATURATION : Adjust saturation (-32 ~ 31) [DEFAULT = 14]

HUE : Adjust hue (-32 ~ 31) [DEFAULT = -32]

(4) HORIZONTAL POSITION : You can adjust display position horizontally. (-7 ~ 7)

(5) Executing Buttons

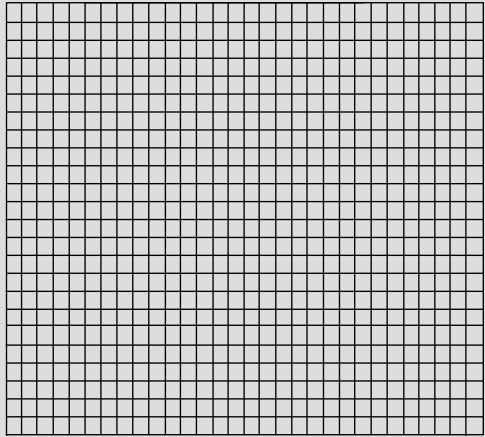
ALL-DEFAULT : Initializing all values for all channel as a default setting value.(CH1 ~ CH4)

DEFAULT : Initializing all values, for the applied channel, only as a default setting value.

ESC : Use to exit

4) Motion Setup

MOTION SETUP	
CHANNEL	CH1
SENSITIVITY	6
DURATION	05
SIZE	2



DEFAULT ALL-DEFAULT ESC

MOTION SETUP: You can change values by mouse wheel and left/right button of the mouse.

- SENSITIVITY: Adjust sensitivity of a movement. You can adjust level 1 ~ level 7.
[DEFAULT : 6]
- DURATION : Whenever motion is detected (set in Motion Recording mode),
DVR records for a certain time from the point when motion is detected.
(2 sec.~99 sec.) [DEFAULT : 5 sec.]
- SIZE : Select the CELL SIZE for Blocked Area (RED).
(1,2,3,6, and ALL) [DEFAULT : 2]
- ALL-DEFAULT: Default setup for all channels

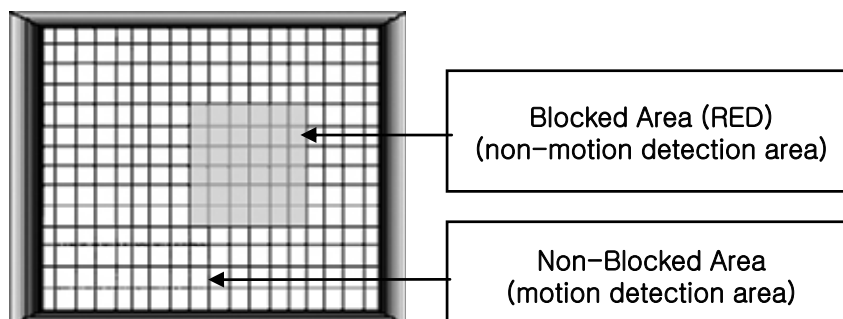
MOTION MASK SETUP : Set motion detection area.

- CELL : Move to the cell and then decide to make it activated or deactivated by clicking it.
When the cell is activated, motion is detected. Motion is not detected on
deactivated cells.
Whenever you click a cell, it changes between activated and deactivated.

BLOCK SETUP: First, you decide 'Activated' or 'Deactivated' by clicking a cell.

Then, if the initial cell is 'Activated', the blocks dragged by the mouse are also activated.

If the initial cell you select is deactivated, the blocks dragged are also deactivated.



5) Interval Setup

See the switching time interval for SEQ or PIP function.
(1 sec. ~99 sec.)

SEQUENCE SCREEN :Set the sequencing switch time interval in live full screen.

PIP SCREEN : Set the sequencing switch time interval of PIP window.

EVENT UPDATE : Set the minimum time interval of event to be listed on EVENT LIST.

If EVENT UPDATE time is set at 10 sec, only following event happened 10 sec or more than 10 sec later previous event shall be listed on EVENT LIST.

INTERVAL SETUP			
SEQUENCE SCREEN		01 SEC	
PIP SCREEN		01 SEC	
EVENT UPDATE		600 SEC	
	DEFAULT		ESC

6) Alarm Setup

Set type of alarm sensors connected to DVR unit.
N.O represents Normal Open type and N.C Normal Close type.

INPUT : Select NORMAL OPEN, NORMAL CLOSE, or DISABLE.
DISABLE represents no use of alarm sensor connected to DVR.

DURATION : Set the duration of alarm when an ALARM is activated. (2 sec. ~ 99 sec.)

ALRAM SETUP			
CHANNEL		CH1	
INPUT		DISABLE	
DURATION		01 SEC	
	ALL-DEFAULT	DEFAULT	ESC

7) Password Setup

Set user ID and Password.
You can make up to 8-digit number combination for a password by clicking number '1' ~ '9' on password setup menu.

To change password, you need to click 'USER PW' first to activate the menu.

You must input current password and then input new password.
And input again new password to confirm.

PASSWORD SETUP										
USER ID									ADMIN	
USER PW	-----									
NEW PW	-----									
CONFIRM	-----									
	1	2	3	4	5	6	7	8	9	
									ENTER	ESC

Number selection for password

※ Changing the user Password in the first operation is recommended.

(1) IP Setup :

Shows the network information assigned to the DVR unit. If the DHCP setup status is AUTOMATIC, you can set the IP port only. If the DHCP setup status is MANUAL, you must set all parameters. If IP port number is blocked, a network specialist's advice is needed.

IP SETUP	
MAC ADDRESS	00-0A-A2-00-FD-63
DHCP MODE	MANUAL IP DETECT
IP PORT	50000
IP ADDRESS	192.168.001.160
GATEWAY	192.168.001.001
SUBNET	255.255.255.255
	ESC

A. Static IP



A static IP address is a number (in the form of a dotted quad) that is assigned to a computer by an Internet service provider (ISP) to be its permanent address on the Internet. Input IP address which is assigned by your ISP in IP CONFIG SETUP.

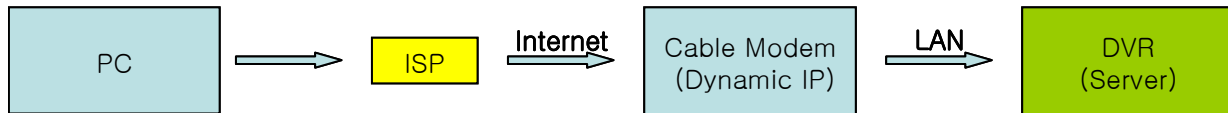
- 1) Verify if IP address is OK or not with PC before connecting DVR.
(or inquires to Internet service provider that assigned IP address, GATEWAY, SUBNET MASK)
- 2) Connect LAN cable to DVR after confirmation.
- 3) DVR : MENU → LOG IN DVR → EXTERNAL DEVICE → TCP/IP SETUP → IP SETUP .
- 4) Set DHCP to MANUAL.
- 5) Verify if MAC ADDRESS starts from 00-0A-A2...
- 6) Input the assigned IP address.
- 7) Set IP PORT. (50000 recommended)
- 8) Input GATEWAY (which is assigned by your ISP).
- 9) Input SUBNET MASK (which is assigned by your ISP).
- 10) Go out of MENU SETUP.
- 11) Turn off and on Modem (Router) which is provided by your ISP.
→ This is to reset client of MAC from your ISP.
Wait 30 seconds after turning on.
- 12) Access DVR with Remote Viewer Software.
See a chap.6 IRS

IP SETUP	
MAC ADDRESS	00-0A-A2-**-**-**
DHCP MODE	MANUAL IP DETECT
IP PORT	50000
IP ADDRESS	211.118.047.160
GATEWAY	211.118.047.001
SUBNET	255.255.255.255
	ESC

Assigned by your Internet Service Provider

* If user fails to access, please verify 1,6,7,8,9,11 again.

B. Dynamic IP



This contrasts with a Dynamic IP address, wherein an IP address is assigned to a computer, usually by a remote server which is acting as a Dynamic Host Configuration Protocol server. IP addresses assigned using DHCP may change depending on the addresses available in the set scope. Dynamic IP Addresses assigned by Dynamic Host Configuration Protocol servers are used because it creates efficiency within a network.

If you set 'AUTOMATIC' for DHCP Type on TCP /IP setup menu, IP information is automatically assigned from ISP's DHCP.

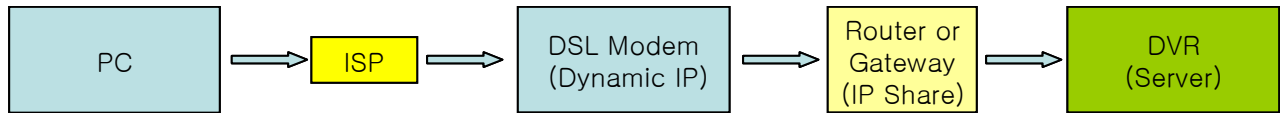
- 1) Verify if IP address is OK or not with PC before connecting DVR.
(The internet connection confirmation)
- 2) Connect LAN cable to DVR after confirmation.
- 3) Turn off and on Modem (Router) which is provided by ISP company.
-> This is to reset client of MAC from ISP company.
Wait 30 seconds after turning on.
- 4) Turn off and on DVR.
- 5) DVR: MENU → LOG IN DVR → EXTERNAL DEVICE→TCP/IP SETUP → IP SETUP.
- 6) Verify if MAC ADDRESS starts from 00-0A-A2...
- 7) Set DHCP to AUTOMATIC and click 'IP DETECT'.
- 8) Set DHCP to MANUAL
- 9) Go out of MENU SETUP after getting IP successfully.
- 10) Access DVR with Remote Viewer Software.
See a chap.6 IRS

IP SETUP		IP SETUP	
MAC ADDRESS	00-0A-A2-**-**-**	MAC ADDRESS	00-0A-A2-**-**-**
DHCP MODE	AUTOMATIC	DHCP MODE	MANUAL
	IP DETECT		IP DETECT
IP PORT	50000	IP PORT	50000
IP ADDRESS	211.118.047.160	IP ADDRESS	211.118.047.160
GATEWAY	211.118.047.001	GATEWAY	211.118.047.001
SUBNET	255.255.255.255	SUBNET	255.255.255.255
	ESC		ESC

Assigned by your Internet Service Provider

* If user fails to access, please verify 1,3,4,7,8 again.

C. Dynamic IP of PPPoE (DSL)



DVR doesn't support DSL (PPPoE), user will need to set NETWORK with IP SHARE in order to access DVR remotely. At this time, user will need to port forward on DVR. Please contact IP SHARE Manufacturer if you need to know how to forward port.

Even though the user may have a Static/Dynamic IP, if you want to use another device (PC) through IP SHARE, set NETWORK as follows

- 1) Verify if IP address is OK or not with PC before connecting DVR.
(The internet connection confirmation)
- 2) Connect Router (IP SHARE) to DSL modem as shown the following picture.
- 3) Set the Internet connection on Router (IP SHARE). (Refer to the Router Manual).
- 4) Verify if sub-group of network in Router is OK or not.
- 5) Connect DVR to Router.
- 6) DVR : MENU → LOG IN DVR → EXTERNAL DEVICE → TCP/IP SETUP → IP SETUP.
- 7) Set DHCP to AUTOMATIC and click IP DETECT.
- 8) Set DHCP to MANUAL
- 9) Verify if MAC ADDRESS starts from 00-0A-A2...
- 10) Set IP PORT, (50000 recommended)
- 11) Go out of MENU SETUP.
- 12) Forward port from Router (Refer to the next page).
- 13) Access DVR with external IP and Port (Port forwarded).

* If Router supports DDNS, user can access Remote Viewer using Domain Information.

IP SETUP	
MAC ADDRESS	00-0A-A2-**-**-**
DHCP MODE	AUTOMATIC IP DETECT
IP PORT	50000
IP ADDRESS	192.168.001.160
GATEWAY	192.168.001.001
SUBNET	255.255.255.255
	ESC

IP SETUP	
MAC ADDRESS	00-0A-A2-**-**-**
DHCP MODE	MANUAL IP DETECT
IP PORT	50000
IP ADDRESS	192.168.001.160
GATEWAY	192.168.001.001
SUBNET	255.255.255.255
	ESC

* If user fails to access, please verify 1,4,7,8,12 again.

If you are using a router, please setting up DMZ and Port Forwarding instructions below.

[How to set DMZ]

- Set DMZ as per router manual, if you want to connect a DVR by using one internet line.
- Setting procedure and name of DMZ may be various from router manufacturers.
- For more detail information, please refer to router manual.

One example of how to set DMZ is shown below.

- 1) Access to your router. (Please refer to router manual provided by a router manufacturer.)
- 2) Find 'Applications & Gaming' and go to 'DMZ'.
- 3) Click 'Enable' and input IP address on 'DMZ Host IP Address'.
- 4) Click 'Save Settings' to save.

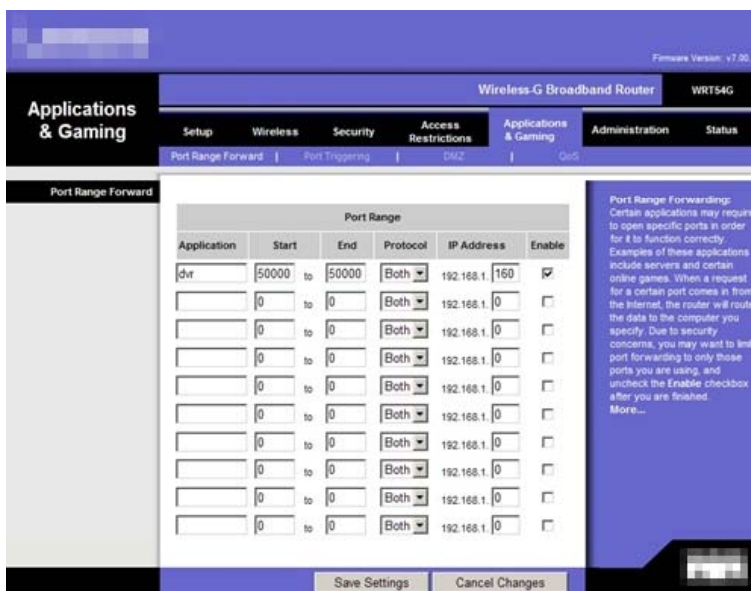


[How to do Port Forwarding]

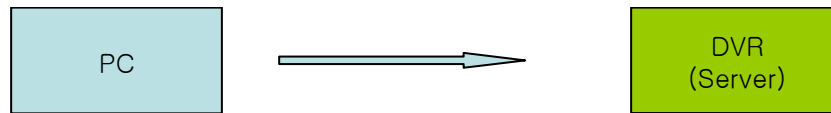
- Set Port Forwarding as per router manual, if you want to connect to several DVRs by using one internet line.
- Setting procedure and name of Port Forwarding may be various from router manufacturers.
- For more detail information, please refer to router manual.

One example of how to do Port Forwarding is shown below.

- 1) Access to your router. (Please refer to router manual provided by a router manufacturer.)
- 2) Find 'Applications & Gaming' and go to 'Port Range Forward' on the menu.
- 3) Input Port number of your DVR on 'Start' / 'End' section below.
- 4) Input IP Address and check 'Enable'. Then, click 'Save Settings' to save.



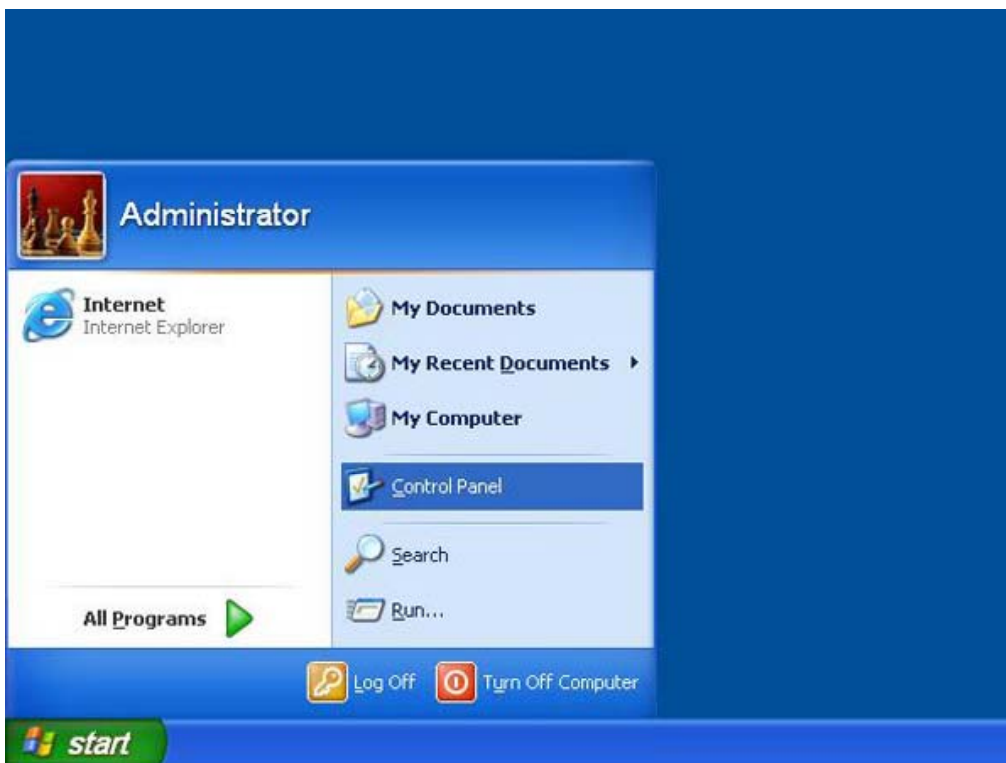
D. Direct connect to DVR



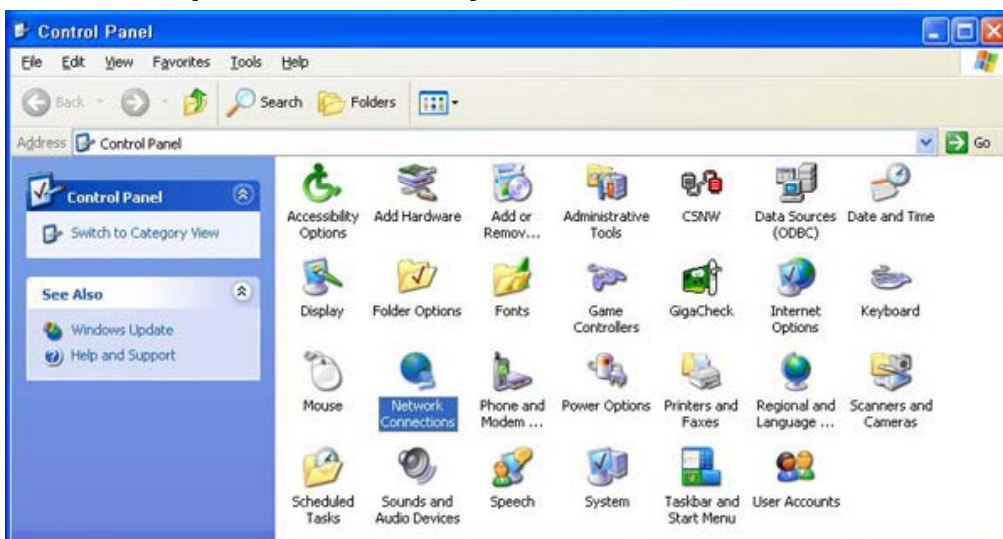
When you try to connect to DVR directly, you must use DIRECT CABLE.

a. PC's TCP/IP Setting

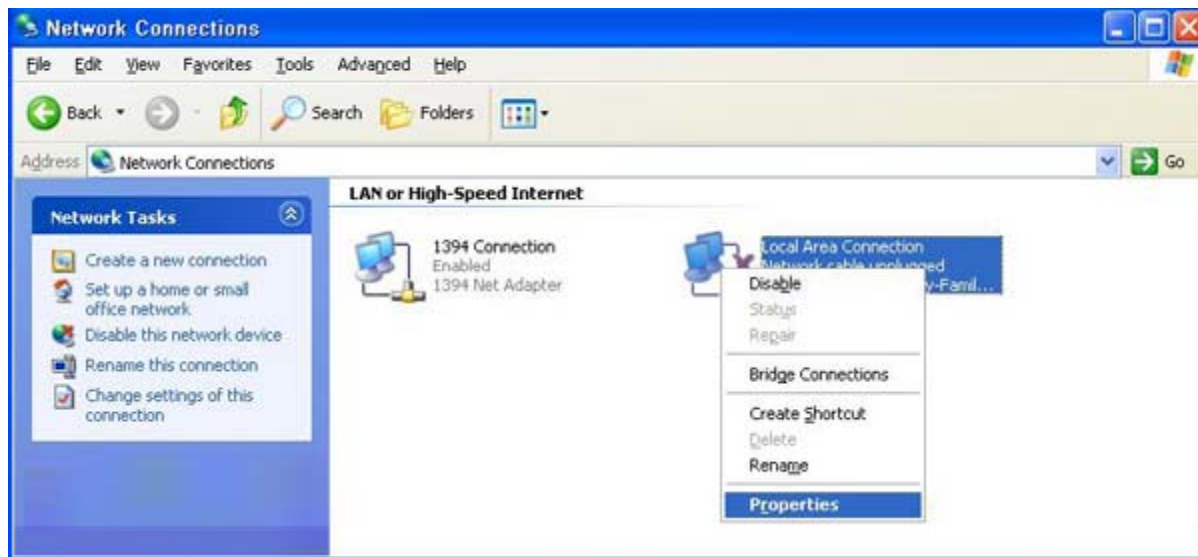
1. For WindowsXP/2000, Click [start] – [Control Panel] click



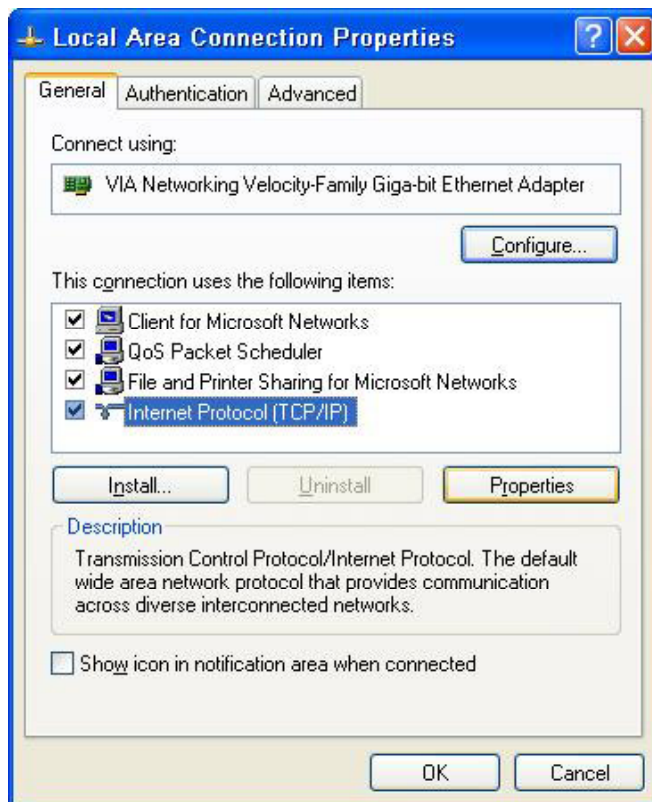
2. Double click [Network Connections]



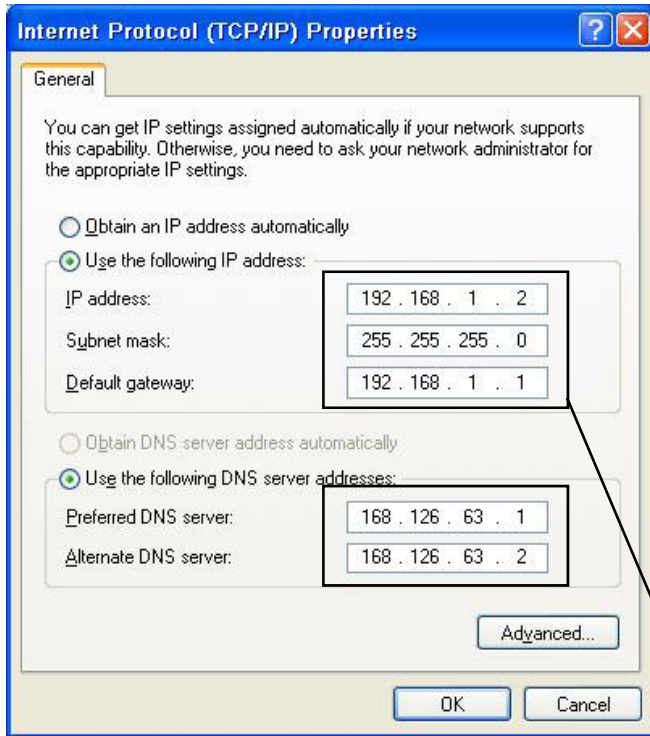
3. Right-button click [Local Area Connection]



4. Click 'Properties' [General] – [Internet Protocol (TCP/IP)]



5. IP Address Setting



IP Address : AAA.BBB.CCC.DDD
 AAA.BBB.CCC is identical with DVR's setting
 DDD with DVR's setting is not same

Subnet mask must be 255.255.255.0

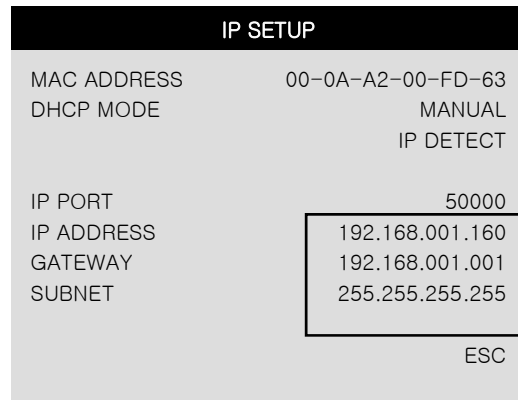
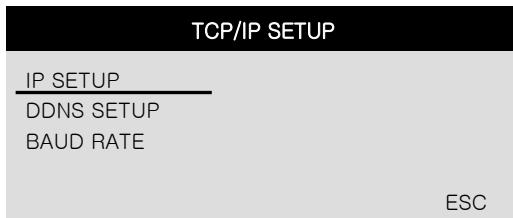
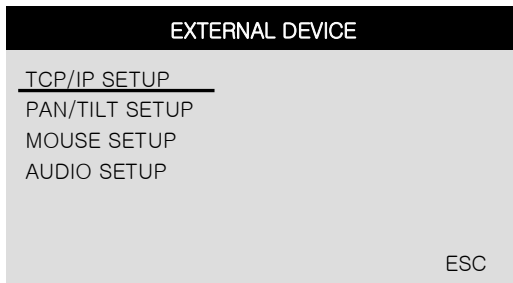
Default gateway is AAA.BBB.CCC.1
 AAA.BBB.CCC is identical with HUB's Address

DNS Server is different in the country and ISP Supplier.
 When PC does not using internet, if it does not input, it is irrespective.

Setting example

b. DVR Setting

Please reaffirm DVR setting



(2) DDNS Setup :

Please refer to CH.8 DDNS Setup
for more information.

Refer to CH7-2 DDNS set up in DVR on page 53.

DDNS SETUP	
DDNS ENABLE	OFF
DNS SERVER	192.168.063.001
INTERVAL	D-00 H-00 N-20 REGISTER
DDNS STATUS	
IP ADDRESS	
IP PORT	
REMAIN TIME	
LAST REGISTRATION DATE	
ESC	

(3) BAUD RATE : 5 step selectable

- 500 Kbps
- 700 Kbps (Default)
- 850 Kbps
- 1.0 Mbps
- 1.5 Mbps

BAUD RATE	
BAUD RATE	700 Kbps
ESC	

※ You can select Baud Rate (Kbps) in accordance with upload speed of your DVR to optimize data transferring condition over a network.

For example, if network speed of your DVR (upload speed) is 1.0 Mbps, you'd better choose 1.0 Mbps in this setup. If it is 512Kbps, you'd better choose 500 Kbps in this setup.

Default setting for SPEED SETUP is 700Kbps.

※ Baud Rate Setup value can be adjusted not only in this setting, but also from viewer of IRS program.
(Please refer to page 43 for more information.)

2) Pan/Tilt Setup

PAN/TILT SETUP	
COMMAND SETUP	← PTZ Camera setup
SPEED SETUP	← PTZ Speed setup
ESC	

PAN/TILT SETUP	
PAN SPEED	7
TILT SPEED	7
ZOOM SPEED	7
DEFAULT ESC	

COMMAND SETUP	
CHANNEL	01
MODEL	PELCO-D
PTZ ID	000
BAUDRATE	002400 BPS
CMD DELAY	1 MSEC
COMMAND	PAN/TILT STOP
LENGTH	16
CODE	00 00 00 00
	00 00 00 00
	00 00 00 00
	00 00 00 00
DEFAULT ALL-DEFAULT ESC	

- (1) CHANNEL : Selects channel
- (2) MODEL : Selects camera model (protocol type) per each channel
- (3) PTZ ID : Selects PTZ ID (per each channel)
- (4) BAUDRATE : Selects data transmission speed
- (5) CMD DELAY : Selects command delay time

3) Mouse Setup

If you increase sensitivity, mouse cursor moves fast.

MOUSE SETUP	
SENSITIVITY	3
DEFAULT ESC	

4) Audio Setup

If you select a channel, the audio of the selected channel is recorded.

- (1) CHANNEL : By selecting a channel, you can set audio recording ON/OFF.
- (2) INPUT VOLUME : Volume setup for microphone
- (3) OUTPUT VOLUME : Volume setup for speaker

AUDIO SETUP	
CHANNEL	CH1
INPUT VOLUME	00
OUTPUT VOLUME	00
DEFAULT ESC	

5) Spot Setup

- (1) SWITCHING INTERVAL
Channel switching time (01 sec. ~ 99 sec.)
- (2) ALARM POP-UP
When ALARM is detected, the image of channel connected with Alarm sensor pops up.
Set ALARM detection pop-up (ON/OFF)
- (3) MOTION POP-UP
Set MOTION detection pop-up (ON/OFF)

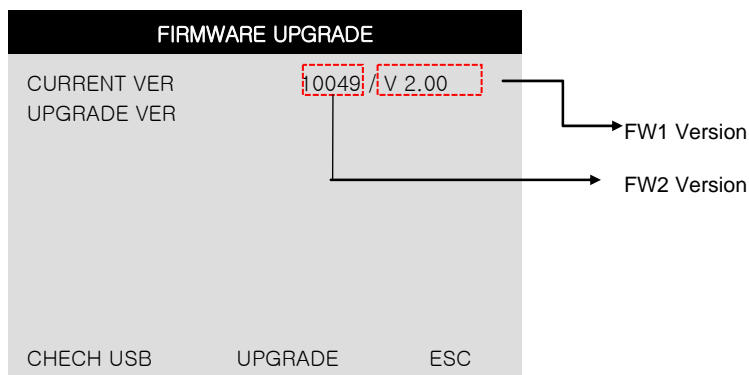
SPOT SETUP	
SWITCHING INTERVAL	01 SEC
ALARM POPUP	ON
MOTION POPUP	ON
EVENT POPUP DURATION	05 SEC
DEFAULT ESC	

※ EVENT POP-UP DURATION

If events (MOTION or ALARM) happen on several channels at the same time, channel No. 1 has the first priority to pop up. For example, if events happen on channel No. 1, channel No. 2, and channel No. 4 at the same time, channel No. 1 pops up. If the motion disappears on channel No. 1, then channel No. 2 pops up for the time duration that you set. However, even though motion happens on channel No. 1 again within the duration, channel No. 2 still displays. If motion on channel No.1 keeps on going even after the duration, channel No. 1 pops up again.

5-6. Firmware Upgrade

When it comes to firmware upgrade, you may ask your local dealer.



5-7. Factory Default

Factory default setting initializes DVR system.

Select categories below that you want to initialize and choose ON. Then, click 'Default' button.

In order to initialize all of the categories below, choose ON for 'ALL'. Then, click 'Default' button.

Please refer to CH.4-2 Factory default again. (see page14)

FACTORY DEFAULT	
ALL	OFF

DISPLAY SETUP	OFF
RECORD SETUP	OFF
SCHEDULE SETUP	OFF
CAMERA SETUP	OFF
CONFIGURATION	OFF
EXTERNAL DEVICE	OFF
DEFAULT	ESC

CHAP 6. IRS (Integrated Remote Station)

MAIN INTERFACE



IRS SETUP	Inputs information for IRS network connection.
DVR SETUP	Changes DVR setting over a network.
VIEWER	Enables to show live image display.
SEARCH	Enables to search and show recorded image display.
BACKUP	Enables to back up recorded images in DVR to your PC.
PLAYER	Enables to play the backup images on your PC. (AM4 file)

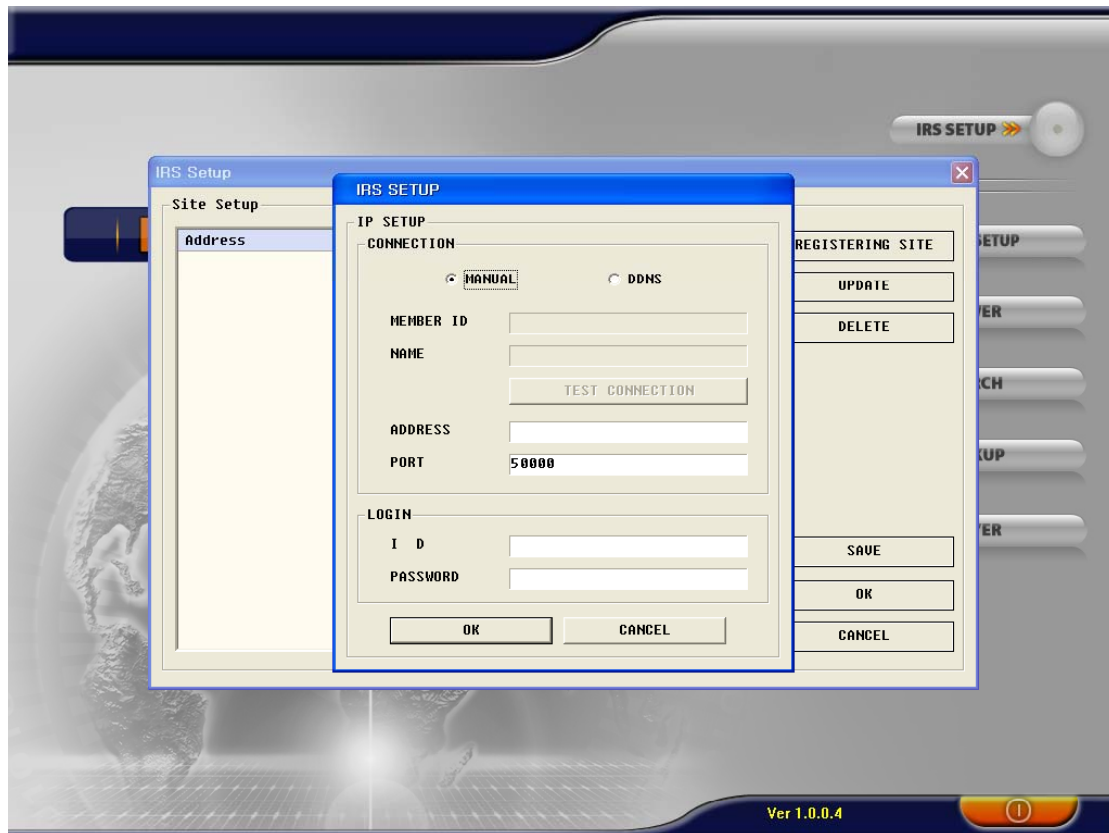
※ System Requirement

For the full performance of IRS program...

- 1) Dual Core CPU or Pentium IV 3.0 GHz (Hyper Threading supportable)
- 2) Memory : 1.0 GB

※ Interface and functions of IRS are subject to change without prior notice.

6-1. IRS Setup



- MANUAL** Select "Manual" to input IP address and port number manually.
- DDNS** Select "DDNS" to use IP address and port number that you already registered in DDNS server. (For more information about DDNS, please refer to page 54~59.)
- MEMBER ID** Input member ID that you registered in DDNS server.
- NAME** Input DVR name that you registered in DDNS server.
- ADDRESS** Input IP address manually.
- PORT** Input port number manually.
- LOGIN**
- ID** Input DVR ID which has been set in DVR already. (Input 'admin'.)
- Password** Input password of DVR.

※ Interface and functions of IRS are subject to change without prior notice.

6-2. DVR Setup

The screenshot shows a web-based interface for setting up a Network DVR. The central area is a large grey box with the text "Wait To Connection". To the right is a control panel with a "MANUAL" radio button selected. Below it are four input fields: "ADDRESS" (empty), "PORT NUMBER" (containing "50000"), "ID" (empty), and "PASSWORD" (empty). There are two buttons: "CONNECT" and "DISCONNECT". Below these is the text "Ver 1.0.0.1" and a "CLOSE" button at the bottom right.

You can change some settings of DVR listed below over a network.

(Alarm, Buzzer, Interval, Record Configuration, Record Schedule, Audio)

MANUAL Input IP address and port number of DVR manually.

ADDRESS Input IP address of DVR manually.

PORT NUMBER Input port number of DVR manually.

LOGIN

ID Input DVR ID which has been set in DVR already. (Input 'admin'.)

PASSWORD Input password of DVR.

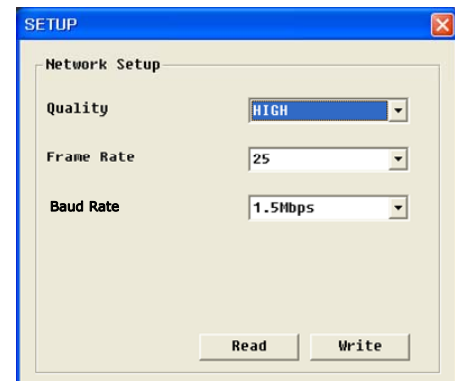
CLOSE Click "CLOSE" to exit.

※ Interface and functions of IRS are subject to change without prior notice.

6-3. Viewer

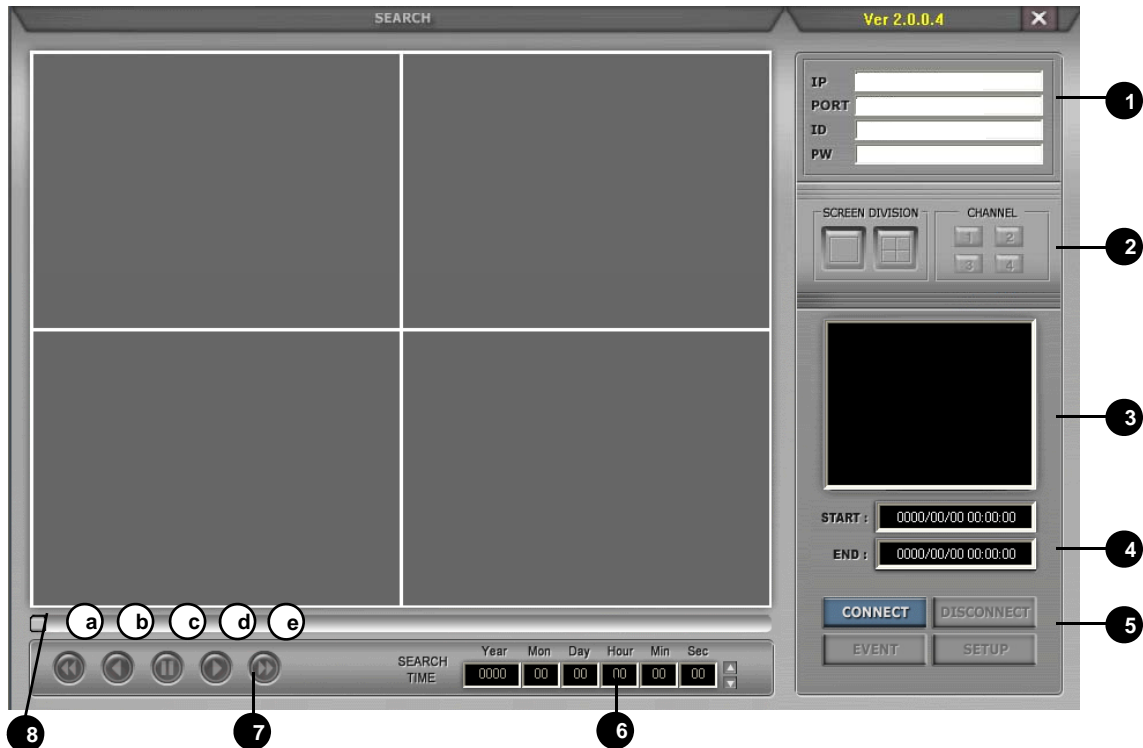


- 1 **DVR connection setup** : Input network information to connect.
(IP / PORT / ID / PW)
- 2 **System information** : Displays connection status and operating information.
- 3 **Screen display**
 - a) SCREEN DIVISION : Selects full screen mode or 4-split mode.
 - b) CHANNEL : Displays full screen for each channel.
- 4 **Audio** : check box for audio (1ch audio out)
- 5 **Setup** : Adjusts Quality, Frame Rate, Baud Rate.
 - ※ In order to improve image transferring condition over a network, you may lower down Quality and Frame Rate.
 - ※ Please set Baud Rate in accordance with upload speed of your DVR. For example, If the upload speed of DVR is 500Kbps, set Network speed 500Kbps
 - ※ If you change setting values in this setup, that will be applied to settings in your DVR set also.
- 6 **Time** : Displays time & date information of DVR.
- 7 **Network connection**
 - a) CONNECT : Click this button to connect to DVR & see live view over a network.
 - b) DISCONNECT : Click this button to disconnect.



※ Interface and functions of Viewer are subject to change without prior notice.

6-4. Search



- 1 **DVR connection setup** : Input network information to connect.
(IP / PORT / ID / PW)
- 2 **Screen display**
 - a) SCREEN DIVISION : Selects full screen mode or 4-split mode.
 - b) CHANNEL : Displays full screen for each channel.
- 3 **System information** : Displays connection status and operating information.
- 4 **Recorded data display** : Displays start time & end time of recorded data.
- 5 **Network connection**
 - a) CONNECT : Click this button to connect to DVR & see live view over a network.
 - b) DISCONNECT : Click this button to disconnect.
 - c) EVENT : Click this button to see Event list.
 - d) SETUP : Click this button to change setting for network.
- 6 **Search time** : Input time and date to search images.
- 7 **Operation buttons**
 - a) Fast backward playback
 - b) Backward playback
 - c) Pause
 - d) Forward playback
 - e) Fast forward playback
- 8 **Search bar** : Enables to search recorded data by using this bar.

※ Interface and functions of Search are subject to change without prior notice.

6-5. Backup

1) To execute BACKUP, input IP Address & Port and click 'Connect Test' button.

The screenshot shows the 'Backup' configuration window (Ver 1.0.0.19) with the following fields and buttons:

- Backup Information:**
 - IP Address: 192.168.1.143
 - Network Port: 50000
 - User ID: admin
 - User Password: (empty)
 - Save File Path: C:\W(3)CD\WX\Network_X_Ba
 - Start Backup Time: 0000/00/00 00:00:00
 - End Backup Time: 0000/00/00 00:00:00
- DVR Server Information:**
 - Recorded Start Time: (empty)
 - Recorded End Time: (empty)
 - Update button
- Backup Status:**
 - Message: (empty)
 - Receive Rates: (empty)
 - Backup Rates: (empty)
 - Receive bps: (empty)
 - Save Size: (empty)
- Buttons:** Connect Test, Lock, Set Backup Time, Start Backup, Close.

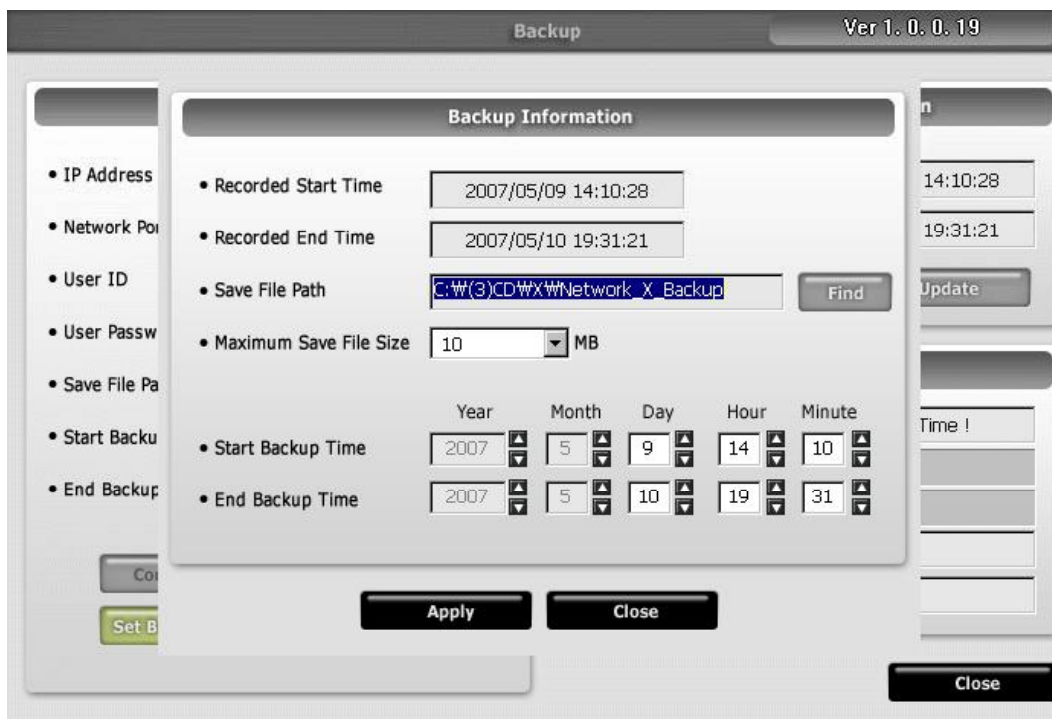
2) After Connect Test is done, you can see 'Success Connect Test!' message. Then, click 'lock' button and click 'Set Backup Time' button.

The screenshot shows the 'Backup' configuration window (Ver 1.0.0.19) after a successful connection test. The fields and buttons are the same as in the previous screenshot, but with the following changes:

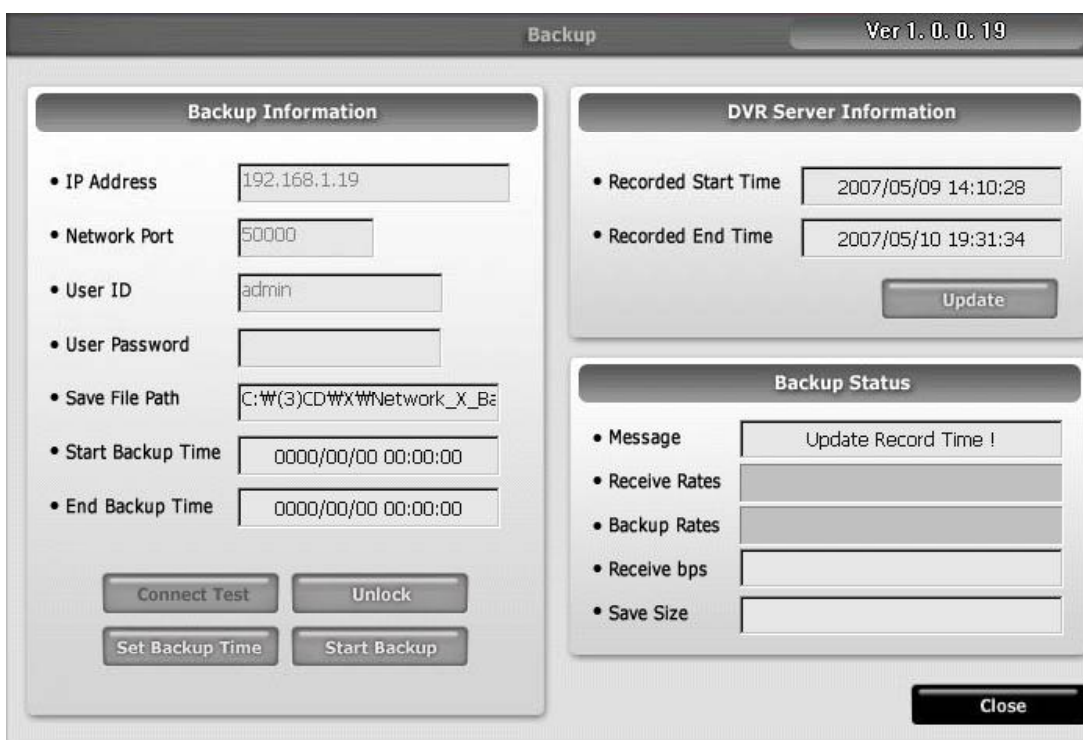
- Backup Status:**
 - Message: Success Connect Test !
- Buttons:** Connect Test, Lock, Set Backup Time, Start Backup, Close.

※ Interface and functions of Backup are subject to change without prior notice.

3) Now you set 'Start Backup Time', 'End Backup Time', 'Save File Path', 'File Size' and click 'Apply'.



4) After finishing time setting, click 'Start Backup' to start backup. Then, you can see the backup file on the path that you chose.



※ Interface and functions of Backup are subject to change without prior notice.

6-6. Player



- ❶ **Time display** : Displays current time.
- ❷ **Recorded data display** : Displays start time & end time of recorded data.
Also, displays operating status during playback.
- ❸ **Screen display**
 - a) SCREEN DIVISION : Selects full screen mode or 4-split mode
 - b) CHANNEL : Displays full screen for each channel.
- ❹ **Operation buttons I**
 - a) OPEN : Selects backup AM4 file.
 - b) EDIT : Enables to edit backup image, save and print.
*Edit function is available when one channel is selected.
 - d) AVI SAVE : Save backup images in AVI file format.
**AVI save function is available when one channel is selected.
 - c) EXIT : Ends backup player.
- ❺ **Operation buttons II**: Search for recorded data.
 - a) Go to the beginning of recorded data and play.
 - b) Fast backward playback
 - c) Backward playback
 - d) Pause
 - e) Forward playback
 - f) Fast forward playback
 - g) Go to the end of recorded data and play.
- ❻ **Playback speed setting button** : Able to adjust playback speed by using upper/ lower buttons.
DELAY : Adjusts playback interval. The higher, the slower. (1, 2, 4, 8, 16, 32)
- ❼ **Play bar** : Enables to search recorded data by using this bar.

※ Interface and functions of Player are subject to change without prior notice.

Image EDIT

Click “EDIT” to go to image edit mode.



1 EDIT TOOL : User can adjust color tone of copied images using this buttons.


- Contrast

 : make bright part of image brighter and dark part of image darker

 : To reduce light and shade, lower contrast a little.

- Brightness


 : make an image brighter

 : make an image darker


- Sharpness

 : gives sharp-edge effect


- Blur

 : make an image soft

- Operation buttons

 : saves data in JPEG file format.

It is saved in the folder where player is installed. ('C:WEB_BACKUP')

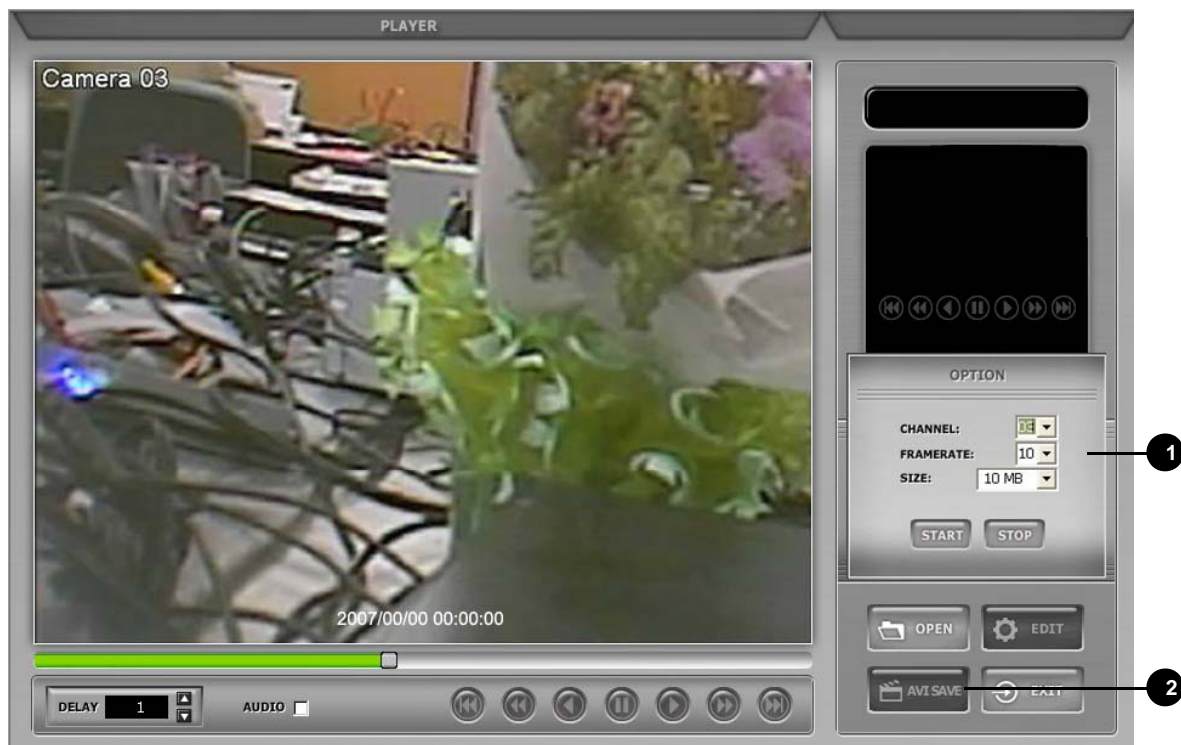
 : User can print current image selected.

2 EDIT : Return to player mode.

※ Interface and functions of Edit are subject to change without prior notice.

AVI SAVE

Click “AVI SAVE” to go to AVI saving mode.



- ❶ **OPTION** : Used to save data in AVI file format.
 - CHANNEL : Selects channel
 - FRAMERATE : Decides frames per second of data to be saved.
 - SIZE : Decides the size of data to be saved automatically.
 - START : Starts saving
 - STOP : Stops saving. Once it is stopped, ‘C:\WEB_BACKUP’ folder is opened automatically.
- ❷ **AVI SAVE** : Opens ‘Option’ setting to start AVI saving.
Closes ‘Option’ setting after finishing AVI saving and go back to player mode.

※ Interface and functions of AVI SAVE are subject to change without prior notice.

CHAP 7. DDNS Web-server

7-1. Registering DVR for DDNS (DDNS Web-server)

1) Please access www.h264ip.com and click Register Member ID.

Member Login

This website was created to provide a dynamic domain name system (DDNS) that allows DVR Systems to operate without a static IP from an Internet provider. This has been created exclusively for use with the Argus line of products. Complete the registration process to add your DVR to the system and enjoy the many benefits of DDNS.

Member ID

Password

[Forgot Password](#)

[Register](#)

Member Register > New user

* ID and Password must be three characters or more
* We use User Email address to send information(User ID and Password) about your account.

Member Id

User Email

User Password

Confirm Password

2) Please click 'DVR Add' or 'MY DVR Register' to register DVR.

DDNS service
DYNAMIC DOMAIN NAME SYSTEM

[Home] [Logout] [Member Edit]

Welcome web

DYNAMIC DOMAIN NAME SYSTEM

Member

- [Member Register](#)
- [My DVR List](#)
- [My DVR Register](#)
- [DVR Setup](#)
- [Viewer](#)
- [Search](#)
- [Backup](#)
- [Player](#)

My DVR List

* Click Viewer icon on the right to operate Viewer.
* You should add www.h264ip.com on Trusted Sites(Tools -> Internet Options -> Security) at the first Viewer installation.
* : DVR Setup : Viewer : Search : Backup : Player : DVR Edit : DVR Delete

DVR Name

Name	MAC	IP:Port	Last Modified	Tool	Edit
Wallmart_XAD	00-0A-A2-06-D3-65	210.126.14.153:50000	2007-05-22 11:52:05		

※ Interface and functions of DDNS service are subject to change without prior notice.

3) Please click confirm after inputting DVR information (DVR Name and MAC Address only). Then, Click "Confirm" button.

My DVR Register

* Mac Address should be listed correctly without dash "-".
* Mac Address already listed can not be registered again.

DVR Name	<input type="text" value="superman"/>
MAC Address	<input type="text" value="000AA200F00C"/> *without dash "-"
IP Address	<input type="text"/>
IP Port	<input type="text"/>

4) Now, DVR is listed on DDNS web server without IP and Port number.

DDNS service
DYNAMIC DOMAIN NAME SYSTEM

[Home] [Logout] [Member Edit]

Welcome web

DYNAMIC DOMAIN NAME SYSTEM
Member

- Member Register
- My DVR List
- My DVR Register
- DVR Setup
- Viewer
- Search
- Backup
- Player

My DVR List

* Click Viewer icon on the right to operate Viewer.
* You should add www.h264ip.com on Trusted Sites(Tools -> Internet Options -> Security) at the first Viewer installation.
* : DVR Setup : Viewer : Search : Backup : Player : DVR Edit : DVR Delete

DVR Add

Name	MAC	IP:Port	Last Modified	Tool	Edit
Wallmart_XAD	00-0A-A2-06-D3-65	210.126.14.153:50000	2007-05-22 11:52:05		

※ Interface and functions of DDNS service are subject to change without prior notice.

7-2. DDNS set up in DVR

* The following setting is a sample for a cable modem connected to DVR directly.

1) Go to Menu

2) Go to IP SETUP menu, if you set DHCP AUTOMATIC then it detects IP address automatically.

IP SETUP	
MAC ADDRESS	00-0A-A2-00-00-00
DHCP MODE	AUTOMATIC
IP PORT	50000
IP ADDRESS	192 168 001 160
GATEWAY	192 168 001 001
SUBNET	255 255 255 000
	DEFAULT ESC

3) Go to the previous menu and click DDNS SETUP.

TCP/IP SETUP	
IP SETUP	
DDNS SETUP	
BAUD RATE	
	ESC

4) Set DDNS ON/OFF 'ON'.

IP address which is assigned from DHCP server is automatically input on DNS SERVER.

DDNS SETUP	
DDNS ENABLE	ON
DNS SERVER	168.126.063.001
INTERVAL	D-00 H-00 M-20
	REGISTER
DDNS STATUS	REGISTER OK
IP ADDRESS	192.168.001.160
IP PORT	50000
REMAIN TIME	D-00 H-00 M-20
LAST REGISTRATION DATE	
> WED.	12 JUL 2006 09 : 21 : 36 GMT
	ESC

5) Go down to REGISTER and push ENTER button to renew IP registered on DDNS SERVER.

(Interval : connection interval time between DVR and DDNS SERVER)

D = Day, H = Hour, M = Minute

DDNS SETUP	
DDNS ENABLE	ON
DNS SERVER	168.126.063.001
INTERVAL	D-00 H-00 M-20
	REGISTER
DDNS STATUS	REGISTER OK
IP ADDRESS	192.168.001.160
IP PORT	50000
REMAIN TIME	D-00 H-00 M-20
LAST REGISTRATION DATE	
> WED.	12 JUL 2006 09 : 21 : 36 GMT
	SUCCESS TO REGISTER DVR INFO
	ESC

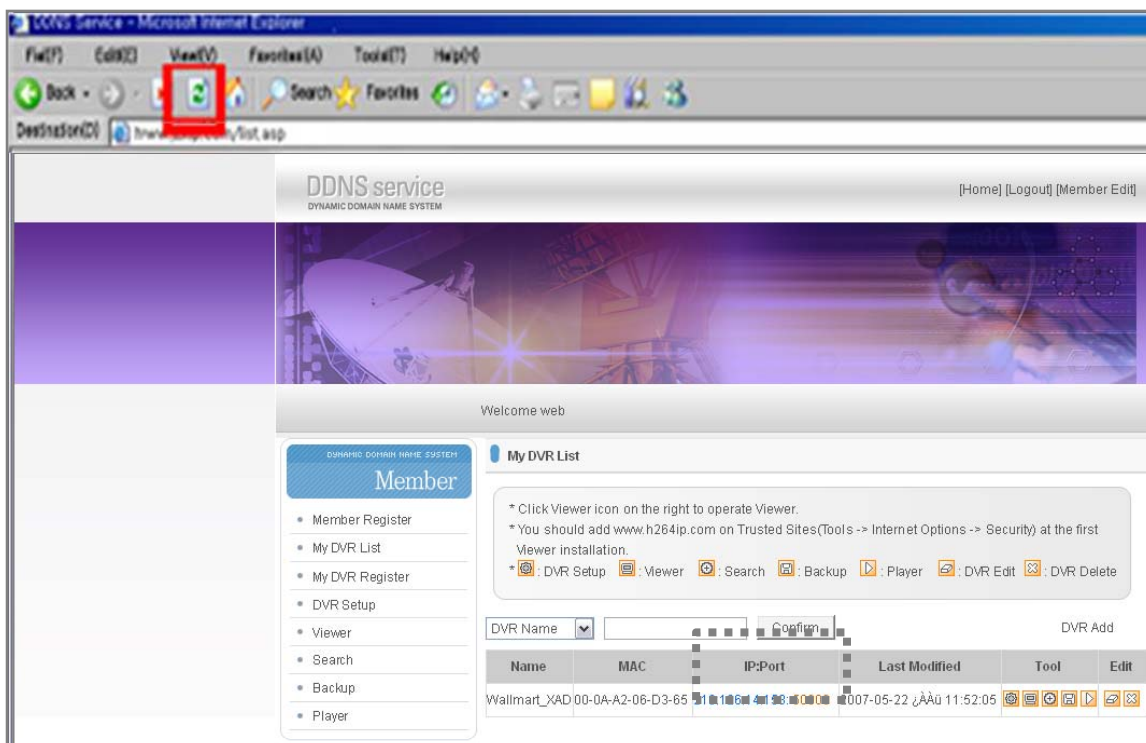
<DDNS status messages>

<DDNS error messages>

FAIL TO COMMUNICATE WITH DDNS SERVER :
(In this case, check out whether DNS server IP address is 168.126.063.001. If the IP address is same, please try another DNS server IP address provided by your ISP.)

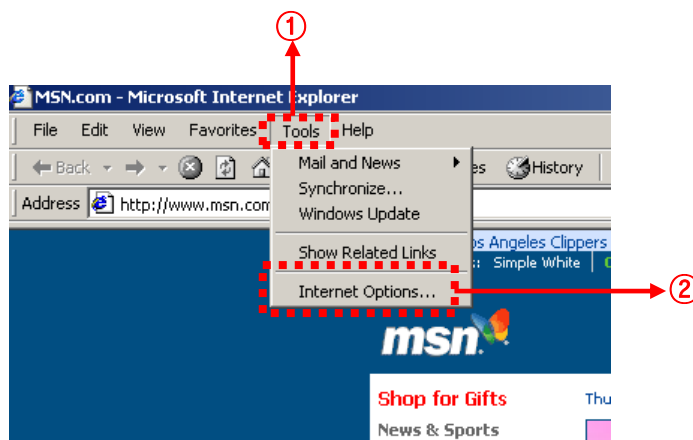
FAIL TO REGISTER DVR INFO :
(In this case, please check out whether you registered your DVR in www.h264ip.com. And also check out your MAC address in your DVR is same as the one that has been registered in www.h264ip.com.)

- 6) Go to your computer again after you see “SUCCESS TO REGISTER DVR INFO” and then Click ‘refresh’ button. Then, DDNS server automatically catches your DVR’s IP address and Port number.

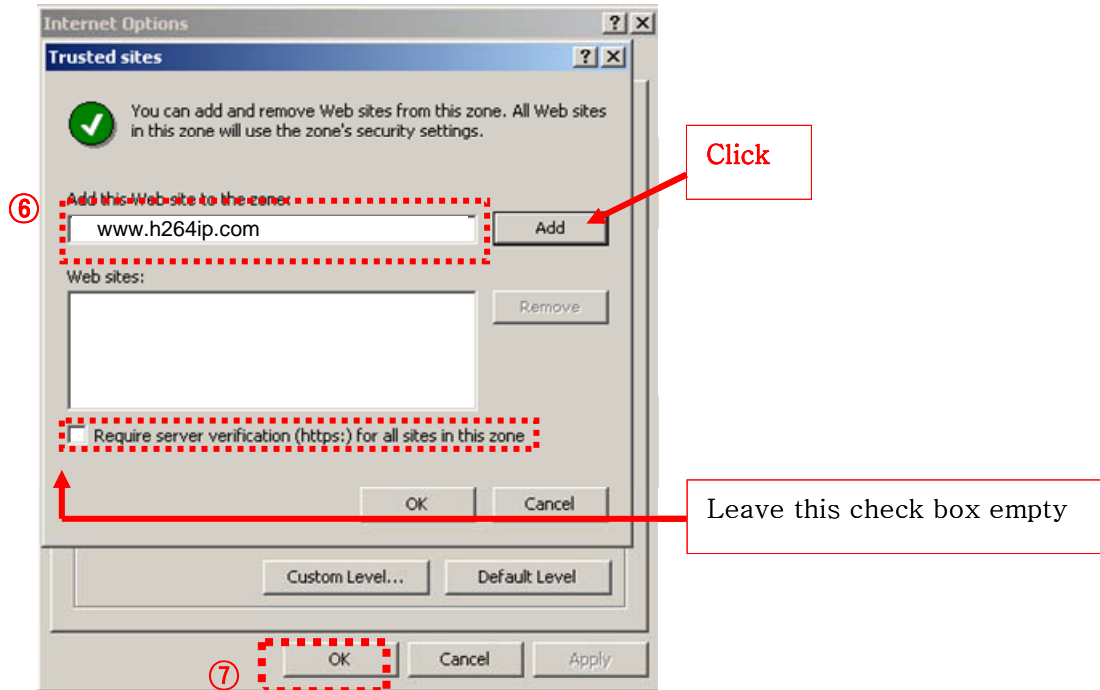
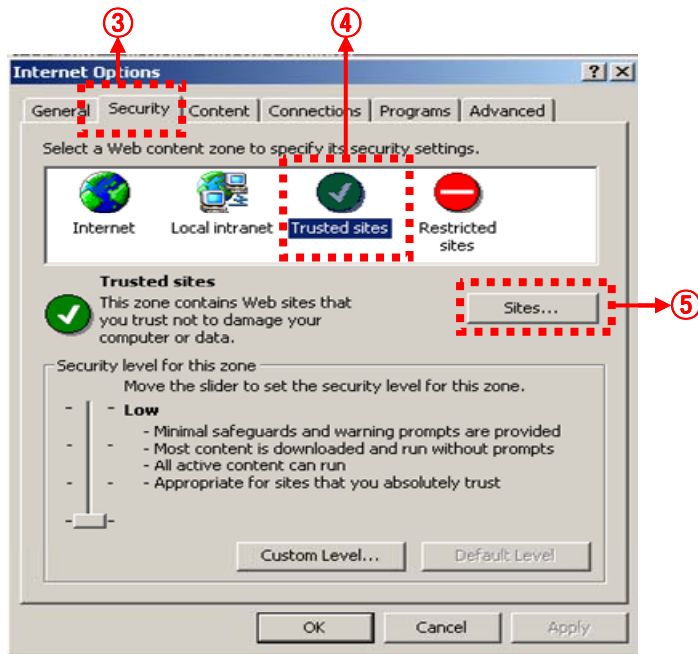


Note.

Before using Web-Viewer, please add www.h264ip.com on Trusted Sites at first installation as follows. (Tools -> Internet Options -> Security)



※ Interface and functions of DDNS service are subject to change without prior notice.



7-3. Web program

Some functions of IRS (Integrated Remote Station) such as Viewer, Search, Backup and Player are also available on the web.

*If ActiveX control installation is required for the first time access, please click 'Yes'.

Click and input information needed for internet connection to DVR manually.

Click these icons, then it connects to DVR automatically via DDNS server.

My DVR List

* Click Viewer icon on the right to operate Viewer.
 * You should add www.h264ip.com on Trusted Sites(Tools -> Internet Options -> Security) at the first Viewer installation.
 * : DVR Setup : Viewer : Search : Backup : Player : DVR Edit : DVR Delete

DVR Name DVR Add

Name	MAC	IP:Port	Last Modified	Tool	Edit
Walmart_XAD	00-0A-A2-06-D3-65	210.126.14.153:50000	2007-05-22 11:52:05		

These functions such as Viewer, Search, Backup and Player are same as the ones in IRS. (Please refer to 'Chap 7. IRS' section from page 47 to 51.)

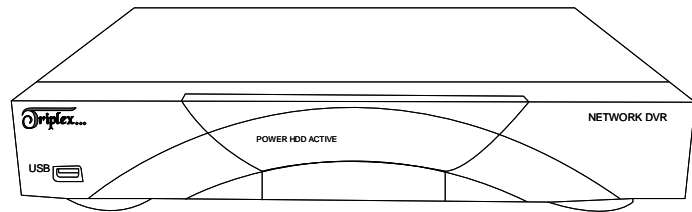
- DVR Setup** Enables to setup DVR remotely.
- Viewer** Enables to show live image display.
- Search** Enables to search and show recorded image display.
- Backup** Enables to back up recorded images in DVR to your PC.
- Player** Enables to play the backup images on your PC. (AM4 file)

※ If you are using a router, you need to do "port forwarding" or "DMZ setting".

※ Interface and functions of DDNS service are subject to change without prior notice.

CHAP. 8 Specifications

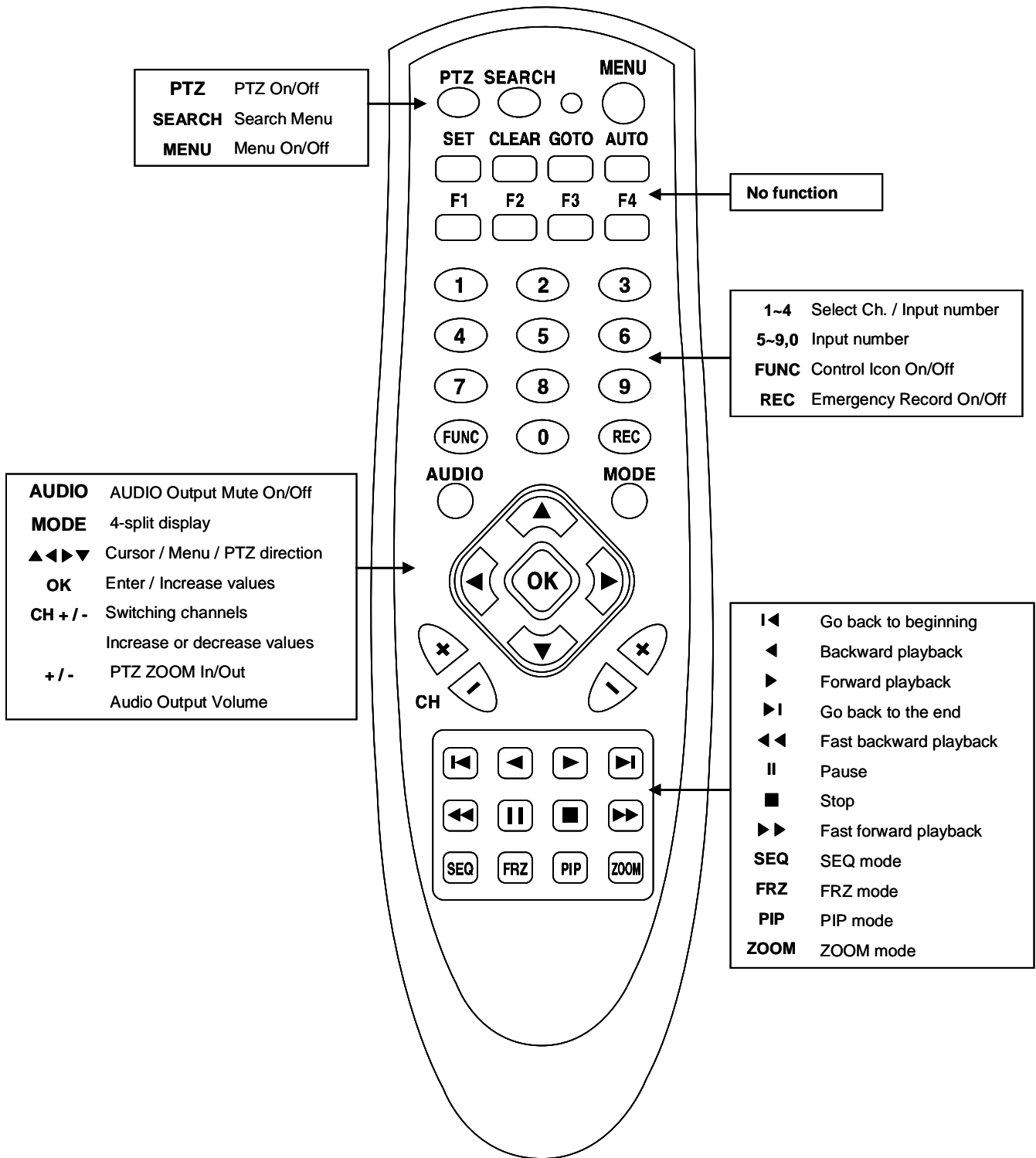
- H.264 Hardware Codec
- Real time live display in all channels
- Triplex (Playback / Recording / Ethernet)
- Web monitoring
- Easy control by Mouse
- USB memory stick for data backup.
- Easy PTZ Camera (MOUSE)
- Password protection
- Multi-language support



SPECIFICATION		XAD-400	
MONITORING			
	Video Inputs	4 BNC	
	Video Outputs	1 BNC, 1 VGA, 1 Spot	
	Display Resolution	N/A	
		720 X 480 (N), 720 X 576 (P)	
RECORD & PLAYBACK			
	Compression	H.264	
	Recording/Playback (NTSC / PAL)	352x240(352x288)	120/100fps
	Concurrent Multi-Channel Playback	4ch	
	Recording Mode	Continuous, Motion, Alarm, Pre Alarm	
	Search Mode	Date/Time, Event, HDD %	
SYSTEM			
	Database File System	Own file system	
	Storage	1ea HDD (SATA)	
	Data Export	External :USB (Flash Drive)	
NETWORK			
	Connection	Ethernet (10/100Base)	
	Protocols	Static IP, DHCP, DDNS	
	Remote Software	Client S/W	
INTERFACE			
	Audio In / Out	1 RCA / 1 RCA	
	Alarm In / Out	4 / 1Relay	
	Serial Interface	RS485	
	External Interface	USB 1.0	
	User Interface	IR Remote control, PS/2 Mouse	
Advanced feature			
	Remarkable Stability	Market proven H.264 DVR	
	Easy to use	Intuitive menu instructure driven by mouse	

* Design and specifications are subjected to change without notice.

CHAP. 9 Remote Controller



MEMO :



4Ch H.264 Hardware Codec – Network DVR