

**MAX**

*User's Manual*



## 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 hazards, do not expose unit 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 cover. 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 these steps first, you may experience errors while recording to the HDD or saving setting values. Even though it is recorded, you will not be able to search recorded data.
2. HDD capacity varies.
3. This unit records as per the Record type & Schedule setup. When you set the record setup, you have to set the Record Configuration as well as Schedule Setup. The default setting value for Schedule setup is Continuous mode.
4. Windows Vista Users will need a minimum of 2 gigabytes of RAM.
5. All users must verify with their ISP that they have a minimum uplink speed of 700 Kbytes/sec.

### 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**

DW remote center  
Simple DDNS supported

#### **Playback**

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

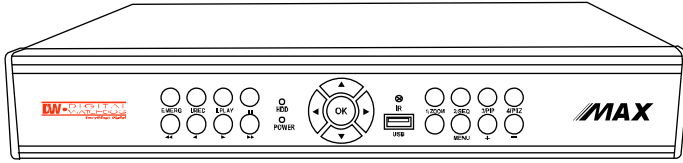
#### **Data backup**

Backup via USB memory stick / via network

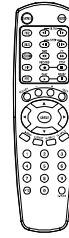
#### **Others**

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

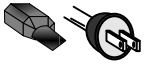
## 1-2. Package Contents



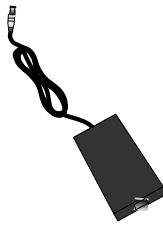
1. DVR Main Unit



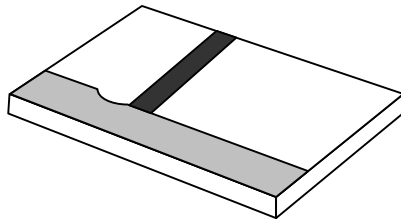
2. Remote Controller



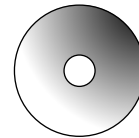
3. Power Cable



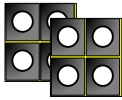
4. Power Adapter



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 with an adapter for 12V DC power
4. Power Adapter	DC power supply
5. User's Manual	User's Manual
6. Software CD	DW remote center program
7. HDD absorber	Absorbs the mechanical shock of HDD against the case bottom.
8. Bolts	Bolts for securing HDD.
9. Mouse	Enables user to control all functions of DVR.

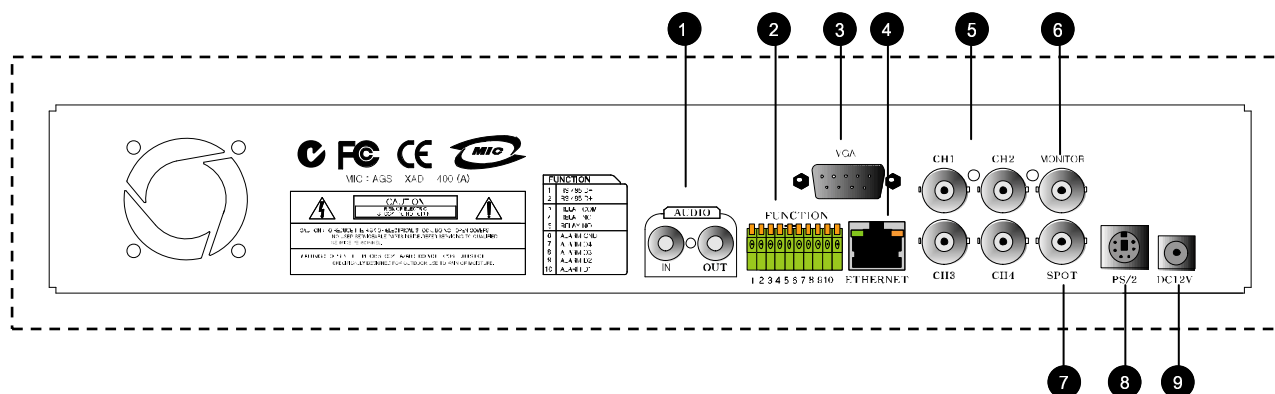
## CHAP 2. Function of Each Button

## 2-1. Front



Name	Function	
① USB HOST	Used for data backup & firmware upgrade.	
② LED Lamps	Displays current operation status.	
③ Record/playback	EMERG	Activates emergency recording mode or stops recording at live mode. Returns to live model from playback mode.
	I.REC	Timer function for EMERG Rec. (During EMERG Rec.) The I.REC button allows user to set a 1/2/3/4/5min long timer as well as turn I.REC off (Timer off).
	I.PLAY	Backward playback from the latest recorded data
	◀◀	Increases playback speed
	◀	Backward playback
		Pause
	▶	Forward playback
	▶▶	Decreases playback speed
④ Operation buttons	Double-key : 'short press' or 'press & hold'.	
	CH1 / ZOOM	Short press : selects channel no. 1. Press & hold : goes to ZOOM function mode.
	CH2 / SEQ	Short press : selects channel no. 2. Press & hold : goes to sequence function.
	CH3 / PIP	Short press : selects channel no.3 Press & hold : goes to PIP (picture in picture) mode.
	CH4 / PTZ	Short press : selects channel no. 4. Press & hold : goes to PTZ operation mode.
	MENU	Short press : goes to system menu setup mode. Press & hold : Menu off
	4-split icon	Selects 4-split display or one channel display.
	+ -	Increase or decrease each value. PTZ ZOOM control
⑤ Arrow buttons	▲▼▶▶	Moves a mouse cursor at system menu / PTZ control
	OK	Works like clicking mouse. Selects each category at system menu setup mode.

## 2-2. Rear

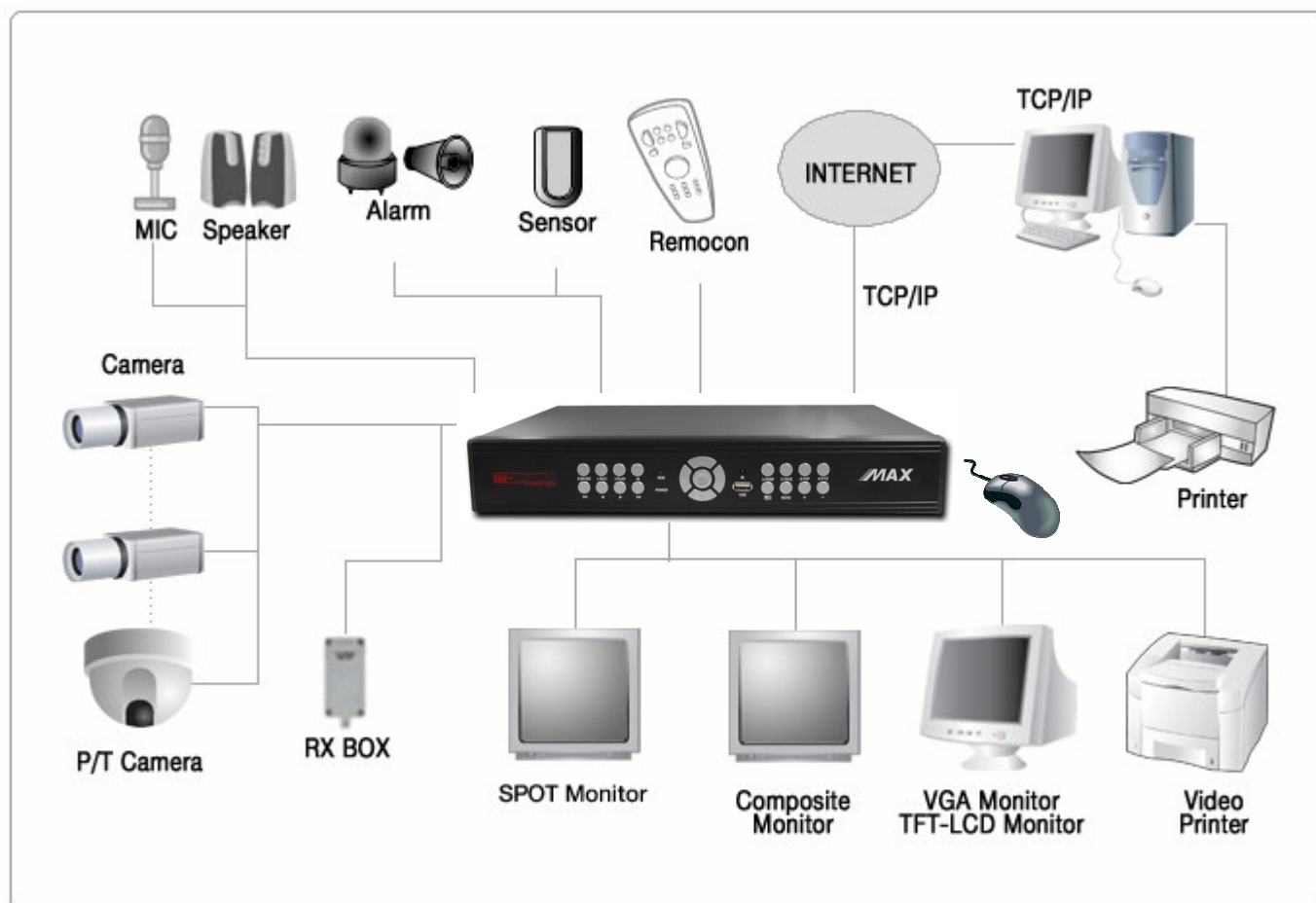


	Name	Function
1	Audio input	1ch audio input
	Audio output	1ch audio output
2	RS 485	Connection for PTZ camera or other external device using RS 485
	Relay output	Relay out terminal
	Sensor input	Sensor input terminal
3	VGA	Connection for VGA monitor (CRT or TFT LCD monitor)
4	Ethernet	Connection for 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



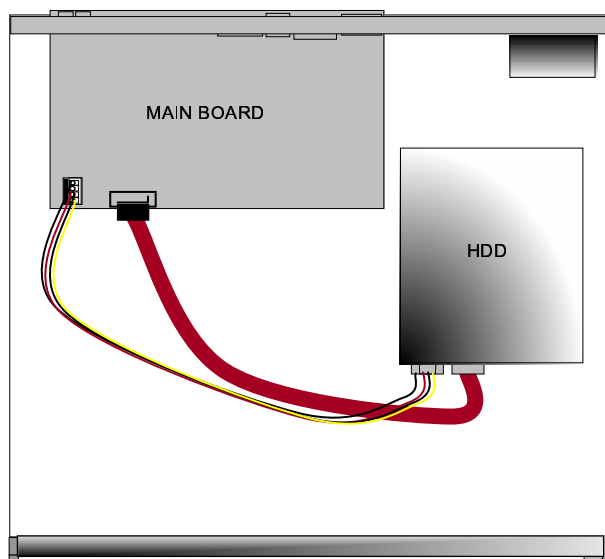
## CHAP.3 Installation

### 3-1. Installation configuration



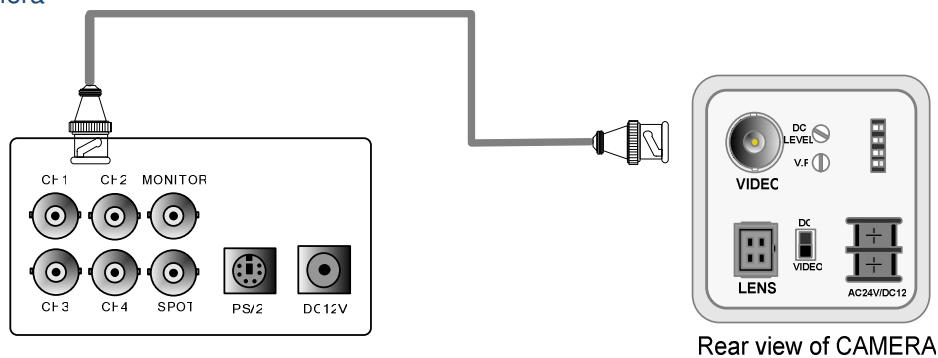
### 3-1. Installation

#### 1) HDD



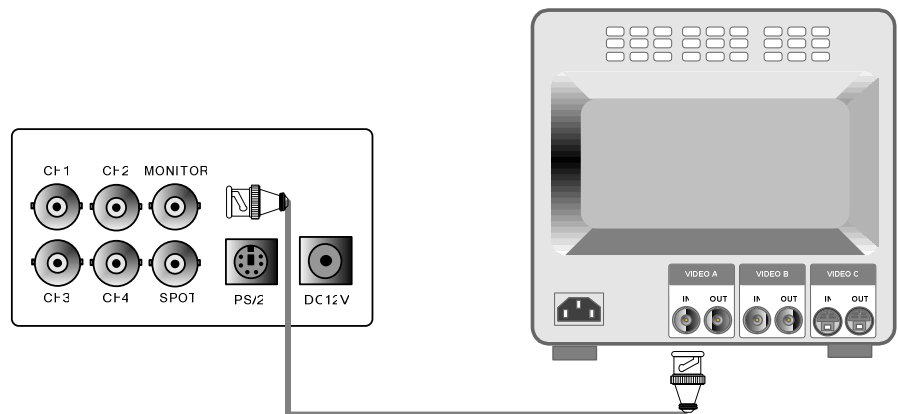
1. Connect Main Board and HDD using SATA data cable and HDD power cable.
2. Stick the HDD absorbers (included in package) on the bottom of case and then install the HDD on top of them by using the bolts (included in package).
3. Screws must be inserted from outside of the case bottom.

#### 2) Camera



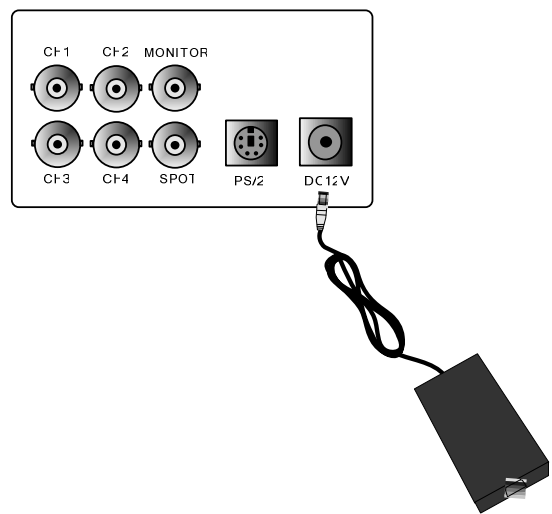
Connect camera to the camera input on rear panel of DVR marked CAMERA IN.

3) Monitor



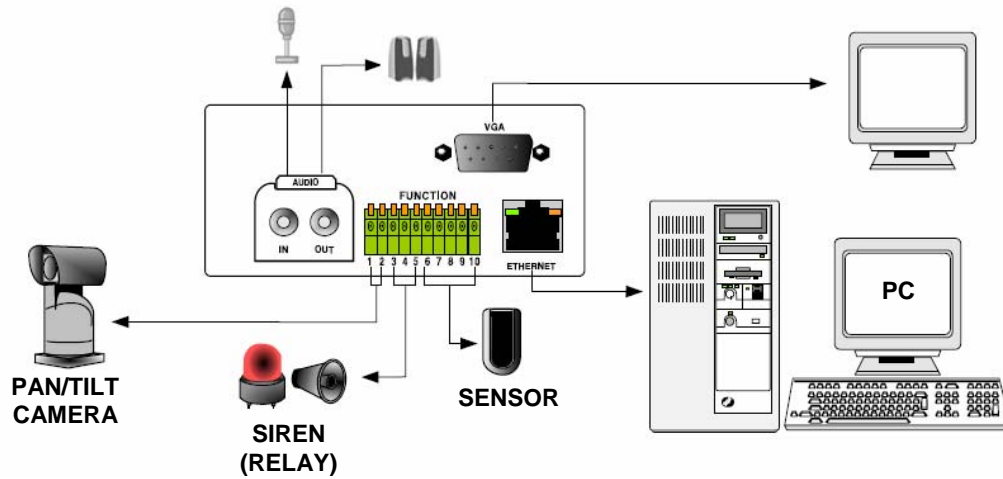
Connect the video output marked MONITOR to Video-In of Main monitor.

4) Power



DC over 12V adapter

### 5) Other External Devices



**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 for LAN, WAN

**Audio Input:** Connection for a microphone

**Audio Output:** Connection for a speaker

**VGA** : Connection for 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 in Menu mode
Right	Decreases setup value in Menu mode
Left	Increases setup value in Menu mode Executes all of the functions (clicking icons)

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

- 1) After power is on, right-click the mouse to show an icon bar on the screen. Then click the [Menu] icon to log in.
- 2) Then, you will see the 'DVR Log-In' message shown to the right.
- 3) You may log in as 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								ADMIN	
USER PW								_____	
1	2	3	4	5	6	7	8	9	
ENTER								EXIT	

If the password entered matches the 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 passwords  
 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'.

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

(2) Click 'CONFIGURATION'.

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

(3) Click 'HDD MANAGEMENT'.

CONFIGURATION	
HDD MANAGEMENT	
CAMERA SETUP	
MOTION SETUP	
ALARM SETUP	
INTERVAL SETUP	
TIME/DATE SETUP	
PASSWORD SETUP	
BUZZER SETUP	
SYSTEM INFORMATION	ESC

(4) Click 'CLEAR'.

HDD MANAGEMENT	
MODEL	WDC WD3200JS-60PDB0
SERIAL	WD-WCAPD3768692
BLOCKS	1048576 LBA
SIZE	250 GB
SPEED	PIO4
-----	
OVERWRITE	ENABLE
CLEAR	ESC

(5) 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	

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

HDD MANAGEMENT	
MODEL	WDC WD3200JS-60PDB0
SERIAL	WD-WCAPD3768692
BLOCKS	1048576 LBA
SIZE	250 GB
SPEED	PIO4
-----	
OVERWRITE	ENABLE
HDD CLEAR IS COMPLETED	
CLEAR	ESC

## 2) Factory Default

Factory default setting initializes DVR system.

(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				

(2) Click 'FACTORY DEFAULT'.

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

(4) Choose ON for 'ALL'.

FACTORY DEFAULT	
ALL	OFF
-----	
DISPLAY SETUP	OFF
RECORD SETUP	OFF
SCHEDULE SETUP	OFF
CAMERA SETUP	OFF
CONFIGURATION	OFF
EXTERNAL DEVICE	OFF
DEFAULT	ESC

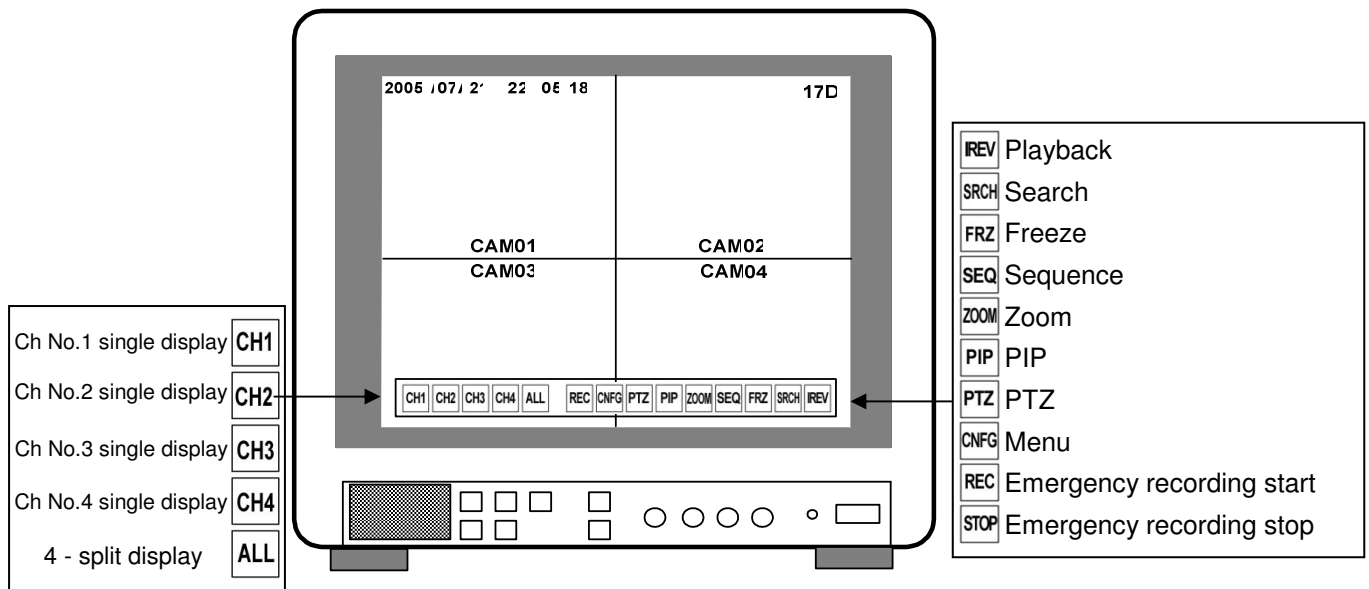
(5) Click 'DEFAULT'.

FACTORY DEFAULT	
ALL	ON
-----	
DISPLAY SETUP	ON
RECORD SETUP	ON
SCHEDULE SETUP	ON
CAMERA SETUP	ON
CONFIGURATION	ON
EXTERNAL DEVICE	ON
ON	
DEFAULT	ESC

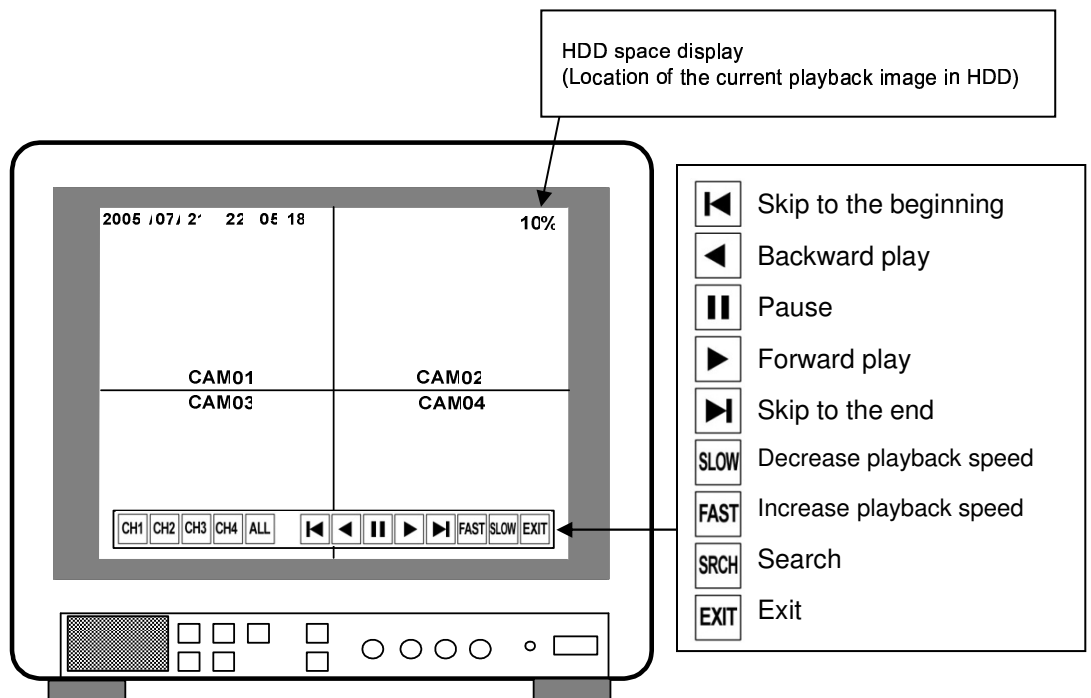
(6) Now you can see "FACTORY DEFAULT COMPLETED" as shown below.

FACTORY DEFAULT	
ALL	ON
-----	
DISPLAY SETUP	ON
RECORD SETUP	ON
SCHEDULE SETUP	ON
CAMERA SETUP	ON
CONFIGURATION	ON
EXTERNAL DEVICE	ON
FACTORY DEFAULT COMPLETED	
DEFAULT	ESC

### 4-3. Display Configuration



Live Display



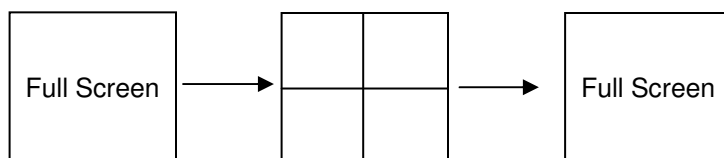
Playback Display



#### 4-4. Live View Setup

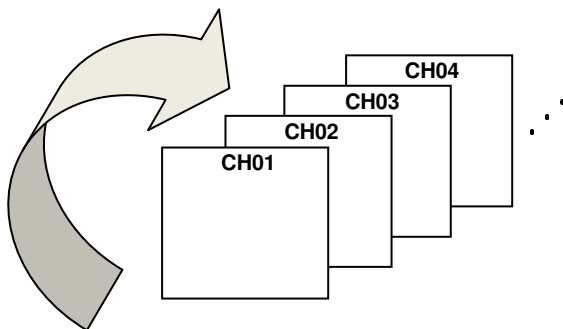
##### 1) Full / Multiple View

Move the cursor over [4 - split icon] **ALL** on 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.



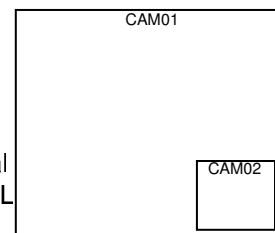
##### 2) SEQ

Click 'SEQ' icon **SEQ** to automatically display full screen images in sequence.  
You can setup SEQ time intervals in the setup menu.  
(MAIN MENU -> CONFIGURATION -> INTERVAL SETUP -> SEQUENCE SCREEN)



##### 3) Picture in Picture (PIP View)

When in full screen display mode, you can see another camera in a small window by clicking [PIP] icon **PIP**, the other cameras in small window will rotate in sequence to next 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 **ZOOM**, 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.

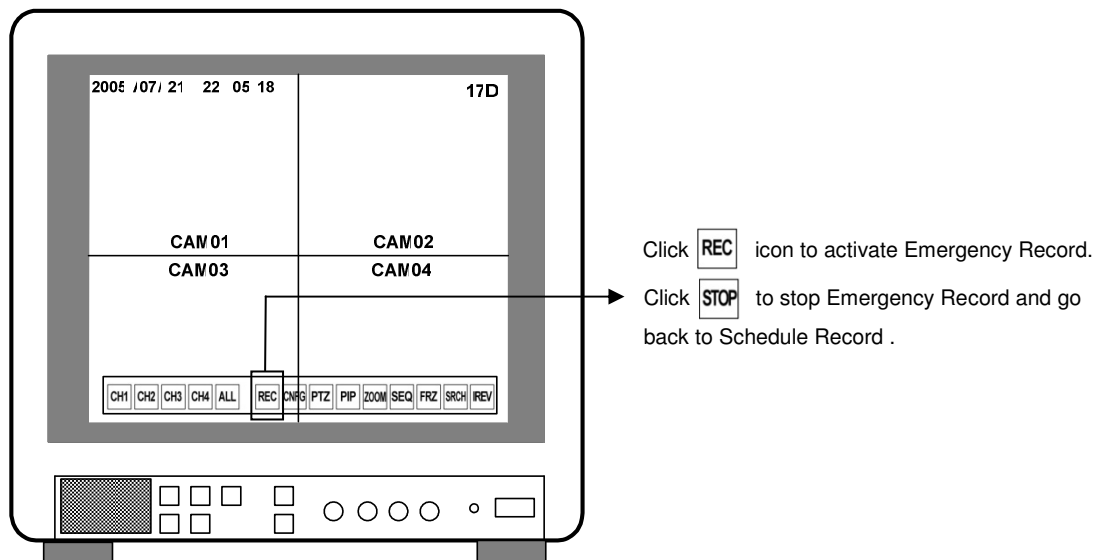
##### 5) Freeze

Click [FRZ] icon **FRZ** 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 configured in the Schedule Record mode except when in emergency record mode.

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




- **This DVR unit does not record in the following conditions ;**
  - ※ When overwrite function is off and HDD is full
  - ※ When there is no recording schedule
  - ※ When you update the 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

In 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 the mouse. When you click [SEARCH] icon  you then see a window shown as shown below.

Select 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	
PERCENT SEARCH	
TIME/DATE SEARCH	
EVENT SEARCH	
EXIT	

SEARCH MAIN  
MENU

PERCENT SEARCH	
START	2006 / JUL / 09 PM 01 : 58 : 56
END	2006 / JUL / 10 PM 11 : 58 : 56
TARGET	2006 / JUL / 09 PM 05 : 58 : 56
PERCENT	20%
	
PLAY      ESC	

PERCENT SEARCH


TIME/DATE SEARCH	
START	2006 / JUL / 09 PM 01 : 58 : 56
END	2006 / JUL / 10 PM 11 : 58 : 56
TARGET	2006 / JUL / 09 PM 05 : 58 : 56
PLAY      ESC	

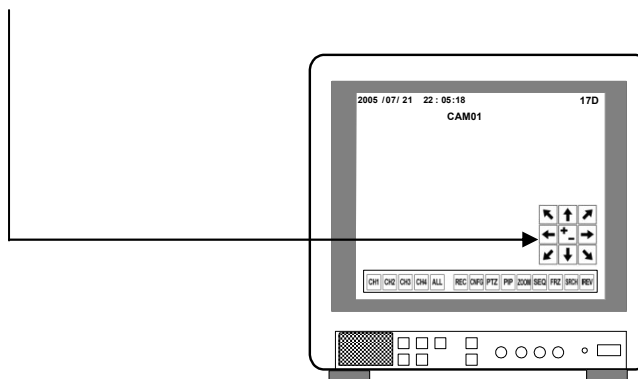
TIME/DATE SEARCH

EVENT SEARCH		
DATE/TIME	CHANNEL	EVENT
-----		
/ / : :	-	--
/ / : :	-	--
/ / : :	-	--
/ / : :	-	--
/ / : :	-	--
/ / : :	-	--
PAGE	000/000	ESC

EVENT SEARCH

#### 4-8. PAN/TILT/ZOOM Camera Operation

Click [PTZ] icon  in the icon bar, then you will 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)



#### 4-9. Data Backup

Right-click to see the icon bar and click [MENU] icon  and go to 'Backup'.

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

(2) Click 'BACK-UP'.

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

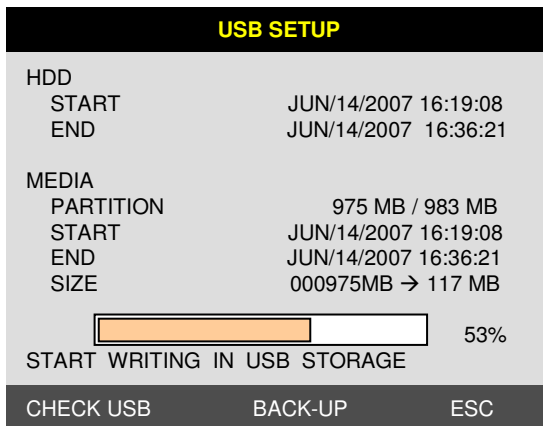
(3) Insert USB memory stick and click 'CHECK USB'.

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

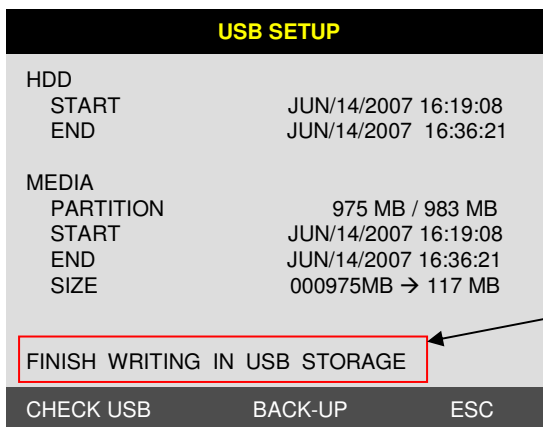
USB SETUP			
HDD			
START	JUN/14/2007 16:19:08		
END	JUN/14/2007 16:36:21		
MEDIA			
PARTITION			
START	/	/	:
END			
SIZE	MB →		MB
CHECK USB      BACK-UP      ESC			

※ 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 the 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					<hr/>				
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', you can then change setting values for display as shown below.

DISPLAY SETUP	
VGA SETUP	
SCREEN DISPLAY	
OSD SETUP	
	ESC

### 1) VGA Setup

VGA SETUP	
RESOLUTION	800 X 600 /
60Hz	
	DEFAULT ESC

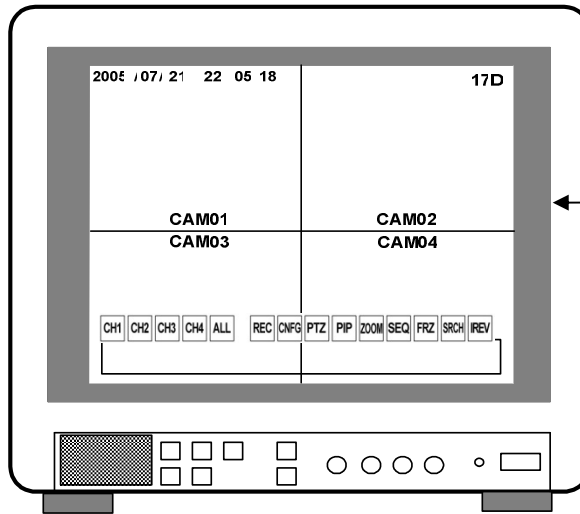
VGA SETUP : Sets RESOLUTION for a VGA monitor (TFT LCD or CRT) as shown below.  
Default Resolution for VGA is 800x600.

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 a VGA monitor that  
does NOT support those high resolutions, the image display may NOT be seen properly.**

2) Screen Display Setup

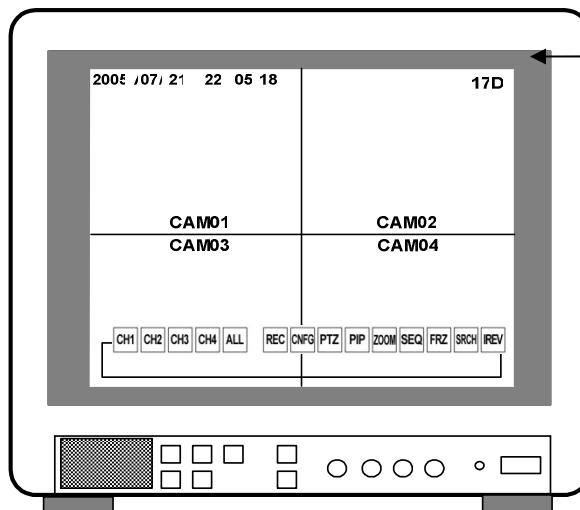
SCREEN DISPLAY	
VERTICAL POSITION	24
HORIZONTAL POSITION	00
BORDER ENABLE	ON
BORDER COLOR	GRAY
ESC                      DEFAULT	



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
ESC                      DEFAULT	



TOP OSD OFFSET : -1 ~ 1



### 5-3. Record

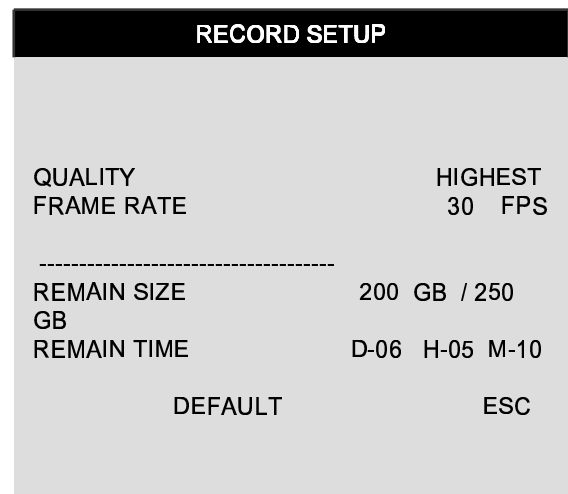
This is the most important configuration of the DVR.  
When you select 'RECORD' in the main menu, you will see the window as shown on the right.

#### 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 MAX remote center program. (Please refer to page 44 for more information.)

#### (3) REMAIN SIZE

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

#### (4) REMAIN TIME

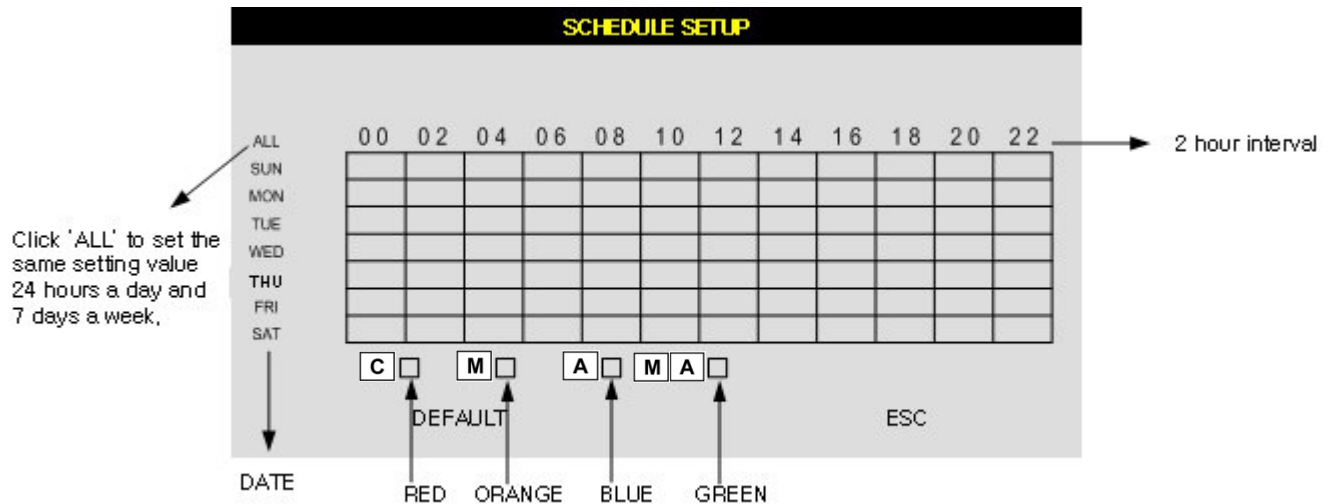
Indicates remaining HDD capacity by time.

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 in 2 hour intervals 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.



- C** 24 hour continuous recording (Red color)
- M** Motion recording (Orange color)
- A** Alarm recording (Blue color)
- MA** Motion & Alarm recording (Green color)

※ Default setting is continuous recording.

※ Each recording type is identified with different color boxes.

You can set up schedule by clicking and dragging the mouse. In this case, the recording type of the boxes dragged is the same as the one that you initially selected. 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 situations, you can click **REC** icon to make DVR record continuously.

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

## 5-4. Configuration

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

CONFIGURATION	
HDD MANAGEMENT	
CAMERA SETUP	
MOTION SETUP	
ALARM SETUP	
INTERVAL SETUP	
TIME/DATE SETUP	
PASSWORD SETUP	
BUZZER SETUP	
SYSTEM INFORMATION	ESC

### 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 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.

HDD MANAGEMENT	
MODEL	WDC WD3200JS-60PDB0
SERIAL	WD-WCAPD3768692
BLOCKS	1048576 LBA
SIZE	250 GB
SPEED	PIO4
-----	
OVERWRITE	ENABLE
	CLEAR      ESC

## 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	
DEFAULT	ALL-DEFAULT	ESC

(1) CHANNEL : You can select the 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 = 1 ]

CONTRAST : Adjust contrast ( -32 ~ 31 ) [ DEFAULT = 7 ]

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

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

(4) Executing Buttons

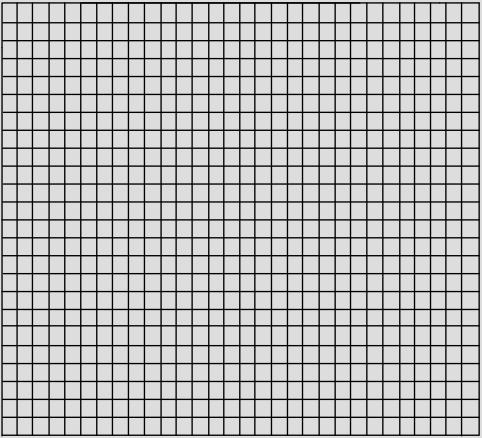
ALL-DEFAULT : Initializes all values for all channels as the default setting value.(CH1 ~ CH4)

DEFAULT : Initializes 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 using the mouse wheel and left/right button of the mouse.

- **SENSITIVITY:** Adjust the sensitivity of a movement. You can adjust level 1 ~ level 7.  
[DEFAULT : 6]
- **DURATION :** Whenever motion is detected (in Motion Recording mode),  
DVR records for a selected 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

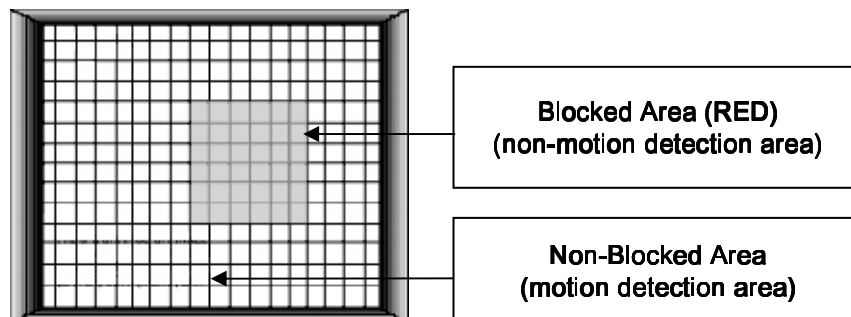
**MOTION MASK SETUP :** Set motion detection area.

- **CELL :** Move to the cell and then activate or deactivate 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

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

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

**PIP SCREEN** : Sets the sequencing switch time interval of PIP window.

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

If **EVENT UPDATE** time is set at 10 sec, only the 10 sec following the event will be contained in initial event listing. Subsequent event footage will be listed as separate events in 10 sec intervals on EVENT LIST.

## 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** : Sets the duration of alarm when an ALARM is activated. (2 sec. ~ 99 sec.)

## INTERVAL SETUP

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

## ALARM SETUP

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

## 7) Password Setup

Set user ID and Password.

Passwords can be up to an 8-digit number combination ('1' ~ '9' on password setup menu.)

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

You must input current password and then input new password. Then 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.

## 8) Buzzer Setup

You can select Buzzer OFF/ON on this setup menu.

BUZZER SETUP	
KEY TONE	ON
VIDEO LOSS	ON
ALARM ACTIVE	ON
MOTION DETECT	ON
DEFAULT	ESC

## 9) SYSTEM INFORMATION

Displays Firmware version, HDD information, Recording setting (Quality & Frame Rate) and possible recording time of DVR at one screen.

SYSTEM INFORMATION	
VERSION	
F/W1	V 2.01_13_KT
F/W2	10049
H/W	M32
HDD	
MODEL	ST3750640AS
RECORD	
QUALITY	NORMAL
FRAME RATE	30 FPS
REMAIN SIZE	150GB / 160GB
REMAIN TIME	D-05 H-05 M-53
	ESC

## 5-5. External Device Setup

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	

Click 'EXTERNAL DEVICE'

Sets parameters of external devices connected to DVR such as Ethernet, Mouse, etc.  
If you click EXTERNAL DEVICE at the main menu, you will then see the window shown on the right.

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

EXTERNAL DEVICE	
TCP/IP SETUP	
PAN/TILT SETUP	
MOUSE SETUP	
AUDIO SETUP	
	ESC

TCP/IP SETUP	
IP SETUP	
DDNS SETUP	
BAUD RATE	
	ESC

## 1) TCP/IP Setup

TCP/IP function enables you to see live pictures and recorded pictures via the Internet.

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

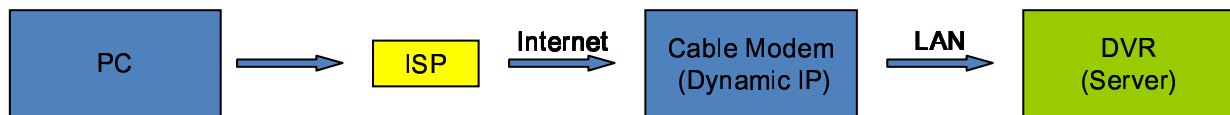
- 1) Verify if IP address is valid with PC before connecting DVR.  
(or verify through the ISP that assigned IP address, GATEWAY, SUBNET MASK)
- 2) Connect LAN cable to DVR after confirmation.
- 3) DVR : MENU → LOG IN DVR → EXTERNAL DEVICE → TCP/IP SETUP → IP SETUP .
- 4) Set DHCP to MANUAL.
- 5) Verify that 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	00-0A-A2-**-**-**
ADDRESS	MANUAL
DHCP MODE	IP DETECT
	50000
IP PORT	211.118.047.160
IP ADDRESS	211.118.047.001
GATEWAY	255.255.255.255
SUBNET	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.

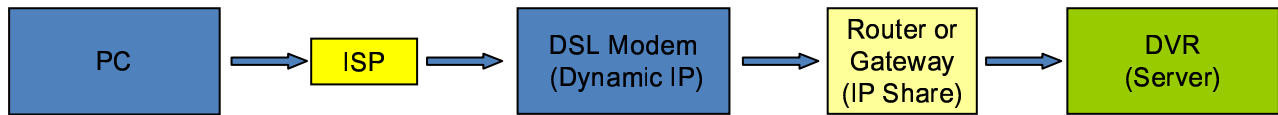
- 1) Verify if IP address is OK or not with PC before connecting DVR.  
(The internet connection confirmation)
  - 2) Connect LAN cable to DVR after confirmation.
  - 3) Turn off and on Modem ( Router ) which is provided by ISP company.  
-> This is to reset client of MAC from ISP company.  
Wait 30 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	
MAC	00-0A-A2-**-**-**
ADDRESS	AUTOMATIC
DHCP MODE	IP DETECT
	50000
IP PORT	211.118.047.160
IP ADDRESS	211.118.047.001
GATEWAY	255.255.255.255
SUBNET	
	ESC

IP SETUP	
MAC	00-0A-A2-**-**-**
ADDRESS	MANUAL
DHCP MODE	IP DETECT
	50000
IP PORT	211.118.047.160
IP ADDRESS	211.118.047.001
GATEWAY	255.255.255.255
SUBNET	
	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	00-0A-A2-**-**-**
ADDRESS	AUTOMATIC
DHCP MODE	IP DETECT
	50000
IP PORT	192.168.001.160
IP ADDRESS	192.168.001.001
GATEWAY	255.255.255.255
SUBNET	
	ESC

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

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

If you are using a router, please set up DMZ and Port Forwarding using the 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.

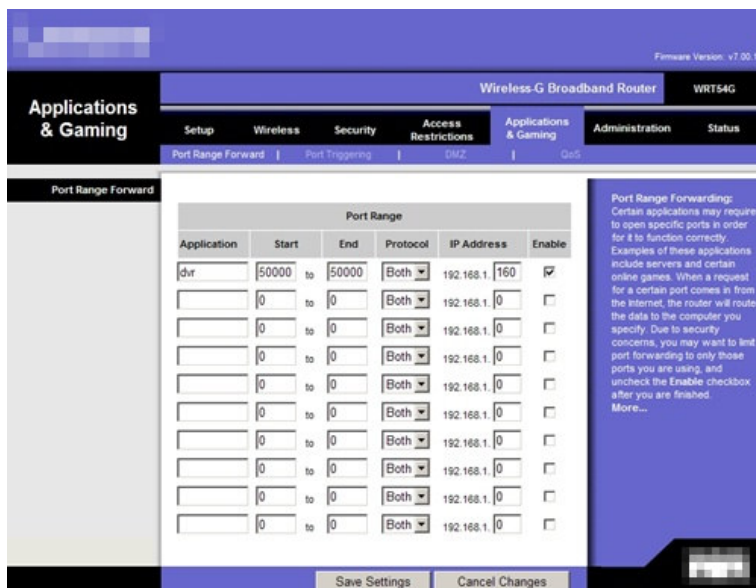


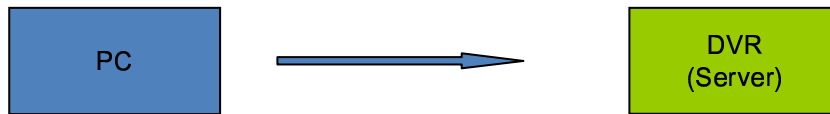
#### [How to do Port Forwarding]

- Set Port Forwarding as per router manual, if you want to connect to several DVRs by using one internet line.
- Setting procedures and name of Port Forwarding may vary among router manufacturers.
- For more detailed 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 router manufacturer.)
- 2) Find 'Applications & Gaming' and go to 'Port Range Forward' on the menu.
- 3) Input Port number of your DVR in 'Start' / 'End' section below.
- 4) Input IP Address and check 'Enable'. Then, click 'Save Settings' to save.

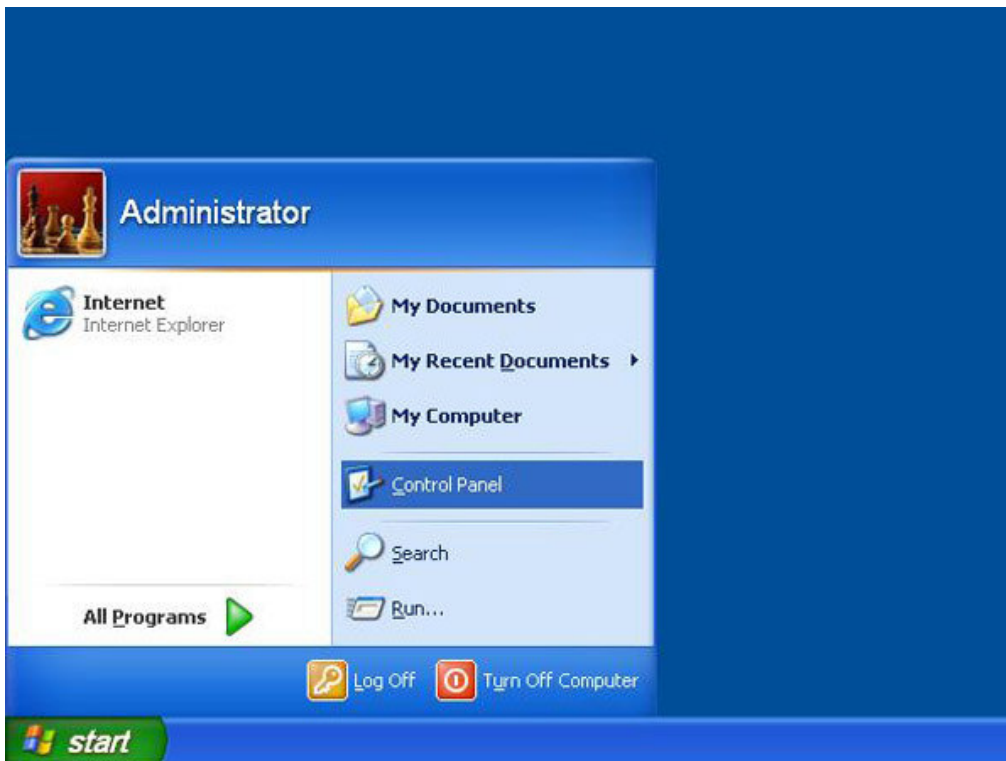


**D. Direct connect to DVR**

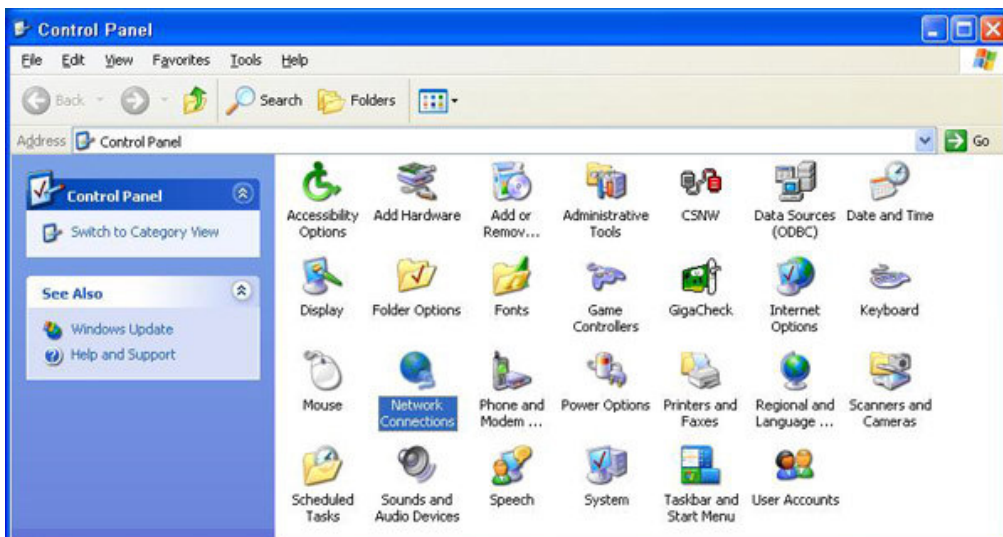
When you try to connect to DVR directly, you must use DIRECT CABLE.

**a. PC's TCP/IP Setting**

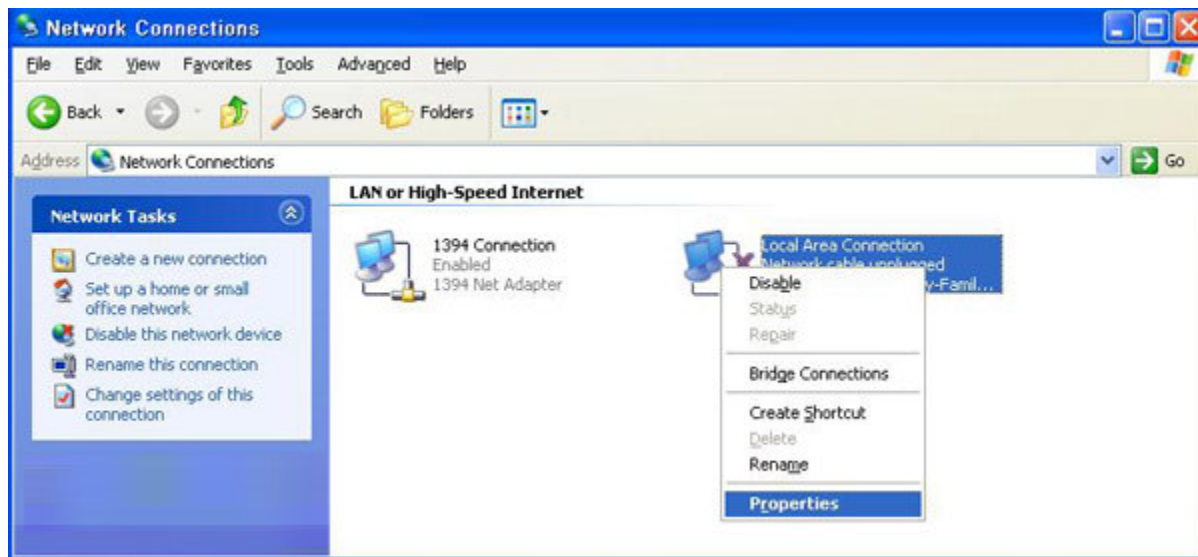
1. For WindowsXP/2000, Click [start] – [Control Panel] click



2. Double click [Network Connections]



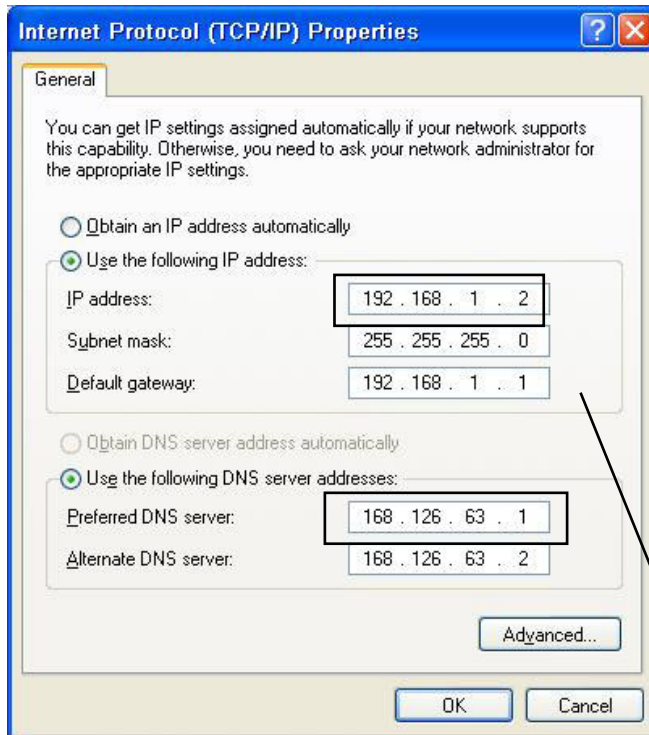
## 3. Right-button click [Local Area Connection]



## 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 differs from DVR setting.

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 confirm DVR setting

EXTERNAL DEVICE	
<u>TCP/IP SETUP</u>	
PAN/TILT SETUP	
MOUSE SETUP	
AUDIO SETUP	
ESC	



TCP/IP SETUP	
<u>IP SETUP</u>	
DDNS SETUP	
BAUD RATE	
ESC	



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

## (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
USER ID	REGISTER
DDNS STATUS	REMOTE
IP ADDRESS	
IP PORT	
REMAIN TIME	
LAST REGISTRATION DATE	
ESC	

## (3) BAUD RATE : 5 step selectable

-500 Kbps

-700 Kbps

-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 over a network.

For example, if the network speed of your DVR (upload speed) is 1.0 Mbps, you'd choose 1.0 Mbps in this setup. If it is 512Kbps, you'd 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 DW remote center program.

(Please refer to page 43 for more information.)

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

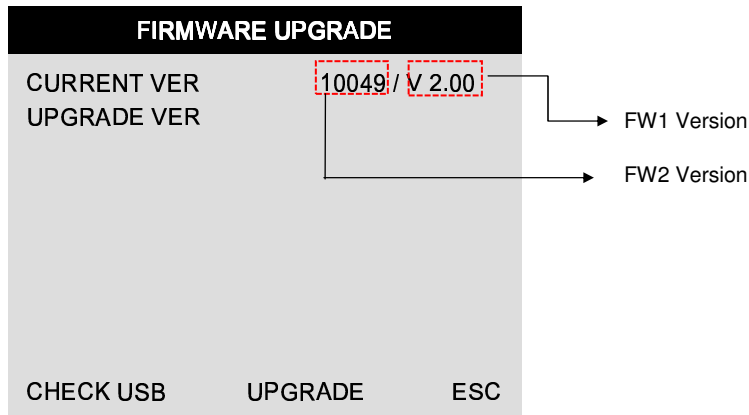
## ※ EVENT POP-UP DURATION

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.



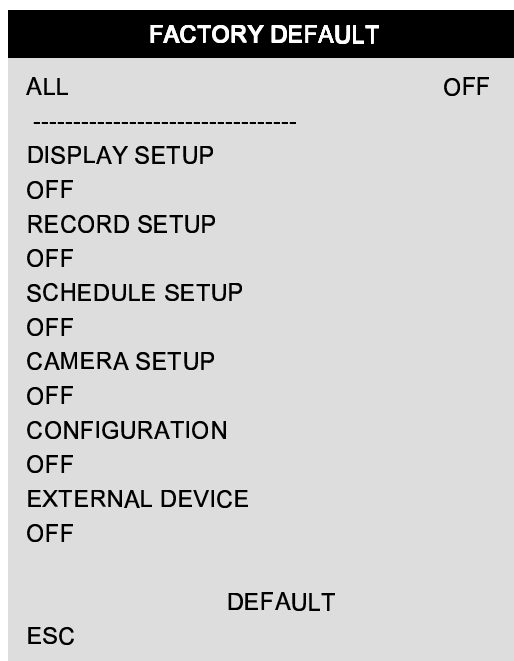
### 5-7. Factory Default

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)



## CHAP 6. DW MAX Remote Center

## MAIN INTERFACE

**NETWORK SETUP**

Inputs information for MAX Remote Center network connection.

**DVR CONFIG**

Changes DVR setting over a network.

**LIVE**

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.

**BACKUP VIEWER**

Enables to play the backup images on your PC. (AM4 file)

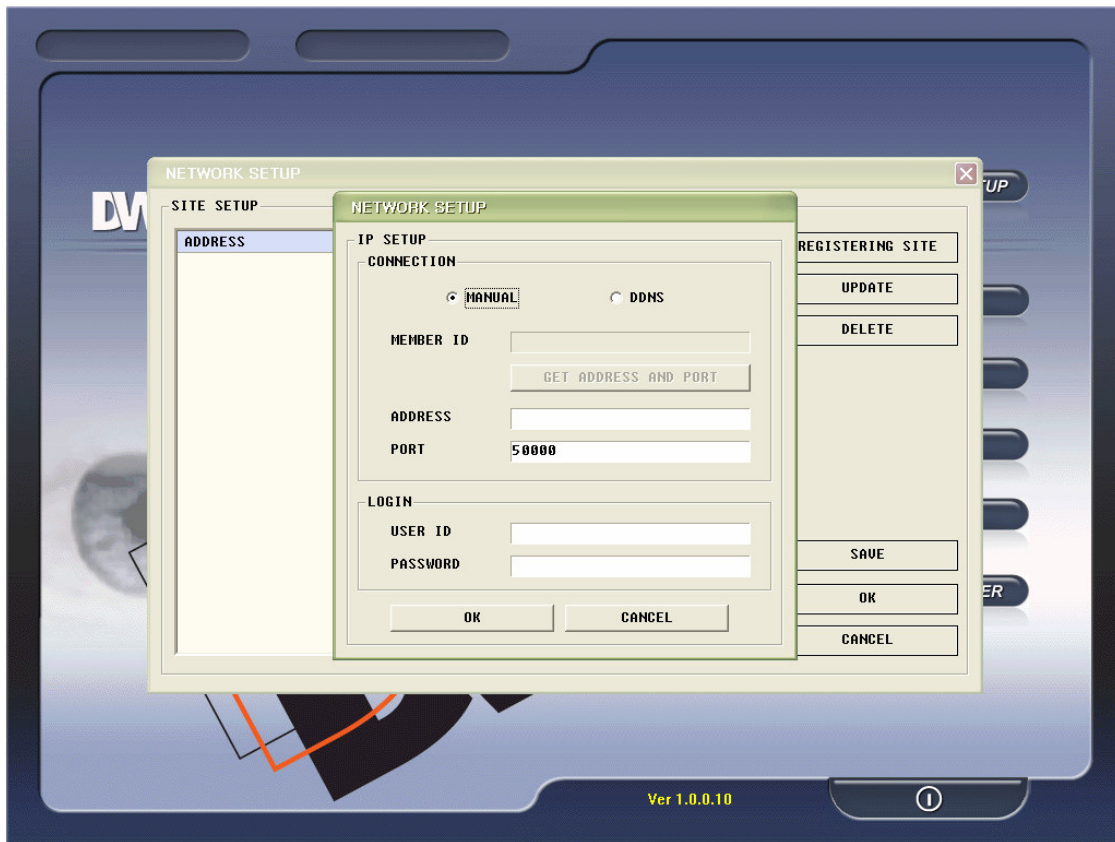
## ※ System Requirement

For the full performance of DW remote center program...

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

※ Interface and functions of DW remote center are subject to change without prior notice.

## 6-1. NETWORK 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.
- 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 DW remote center are subject to change without prior notice.

**6-2. DVR CONFIG**

Wait To Connection

**MANUAL**

**ADDRESS**

**PORT NUMBER**  
50000

**ID**

**PASSWORD**

**CONNECT** **DISCONNECT**

Ver 1.0.0.3

**CLOSE**

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**

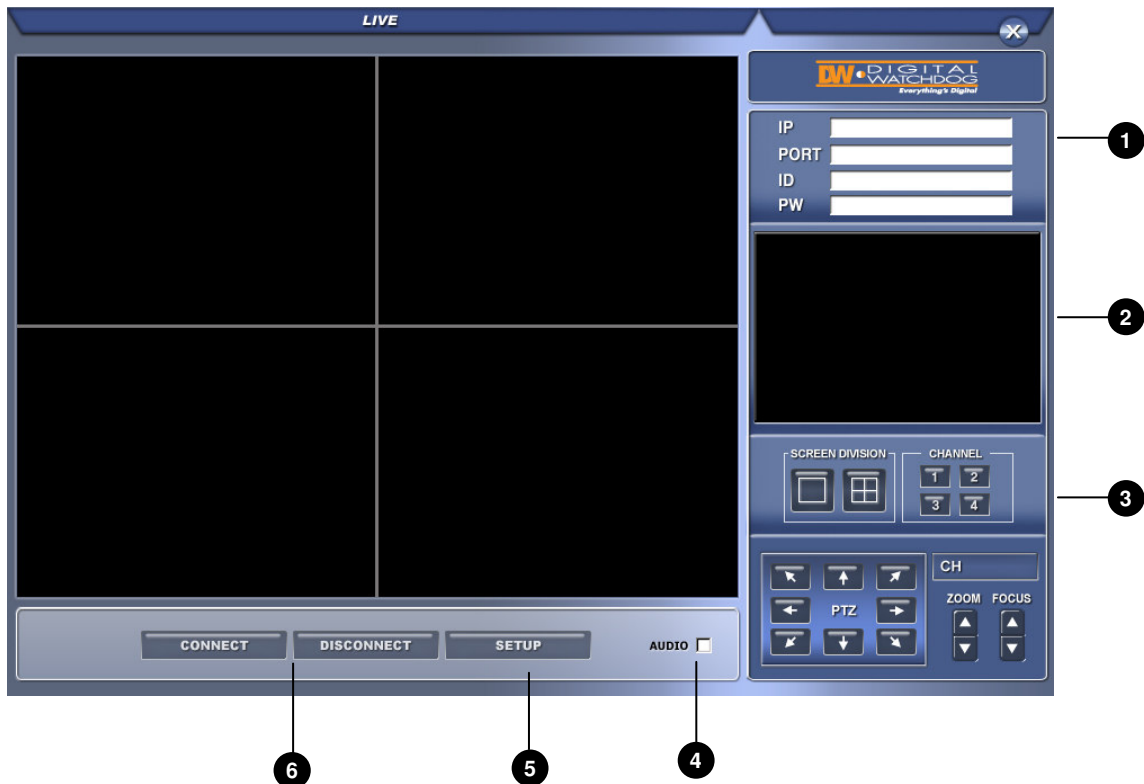
**ID** Input DVR ID which has been set in DVR already. (Input 'admin'.)

**PASSWORD** Input password of DVR.

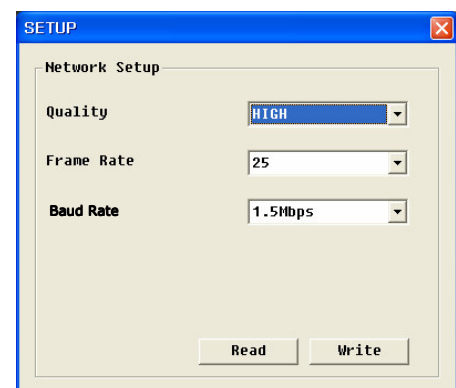
**CLOSE** Click "CLOSE" to exit.

※ Interface and functions of DW remote center are subject to change without prior notice.

## 6-3. LIVE



- 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 **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



- ❶ **DVR connection setup** : Input network information to connect.  
(IP / PORT / ID / PW)
- ❷ **Screen display**
  - a) SCREEN DIVISION : Selects full screen mode or 4-split mode
  - b) CHANNEL : Displays full screen for each channel.
- ❸ **System information** : Displays connection status and operating information.
- ❹ **Recorded data display** : Displays start time & end time of recorded data.
- ❺ **Operation buttons I**
  - 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 search and playback event lists such as MOTION, ALARM, VIDEO LOSS of DVR.
  - d) SETUP : Click this button to change setting for network.
- ❻ **Search time** : Input time and date to search images.
- ❼ **Operation buttons II**
  - a) Fast backward playback
  - b) Backward playback
  - c) Pause
  - d) Forward playback
  - e) Fast forward playback
- ❽ **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.

**BACKUP** Ver 1.0.0.2

**Backup Information**

- IP Address: 218.146.26.21
- Network Port: 40000
- User ID: admin
- User Password:
- Save File Path: C:\Documents and Settings\
- Start Backup Time: 0000/00/00 00:00:00
- End Backup Time: 0000/00/00 00:00:00

**DVR Server Information**

- Recorded Start Time:
- Recorded End Time:
- Update

**Backup Status**

- Message:
- Receive Rates:
- Backup Rates:
- Receive bps:
- Save Size:

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.

**BACKUP** Ver 1.0.0.2

**Backup Information**

- IP Address: 218.146.26.21
- Network Port: 40000
- User ID: admin
- User Password:
- Save File Path: C:\Documents and Settings\
- Start Backup Time: 0000/00/00 00:00:00
- End Backup Time: 0000/00/00 00:00:00

**DVR Server Information**

- Recorded Start Time:
- Recorded End Time:
- Update

**Backup Status**

- Message: Success Connect Test !
- Receive Rates:
- Backup Rates:
- Receive bps:
- Save Size:

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'.

**BACKUP** Ver 1. 0. 0. 2

**BACKUP INFORMATION**

Recorded Start Time: 2007/10/11 11:34:46

Recorded End Time: 2007/10/15 10:59:56

Save File Path: d:\\My Documents\\My Pictures\\Wradui **Find**

Maximum Save File Size: 10 MB

Start Backup Time: 2007/10/11 11:34:46

End Backup Time: 2007/10/15 10:59:56

**Apply** **Close**

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

**BACKUP** Ver 1. 0. 0. 2

**Backup Information**

IP Address: 218.146.26.21

Network Port: 40000

User ID: admin

User Password:

Save File Path: C:\\Documents and Settings\\

Start Backup Time: 2007/10/11 11:34:46

End Backup Time: 2007/10/15 10:59:56

**Connect Test** **Unlock**

**Set Backup Time** **Start Backup**

**DVR Server Information**

Recorded Start Time: 2007/10/11 11:34:46

Recorded End Time: 2007/10/15 10:59:56

**Update**

**Backup Status**

Message: Update Record Time !

Receive Rates:

Backup Rates:

Receive bps:

Save Size:

**Close**

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



## 6-6. BACKUP VIEWER

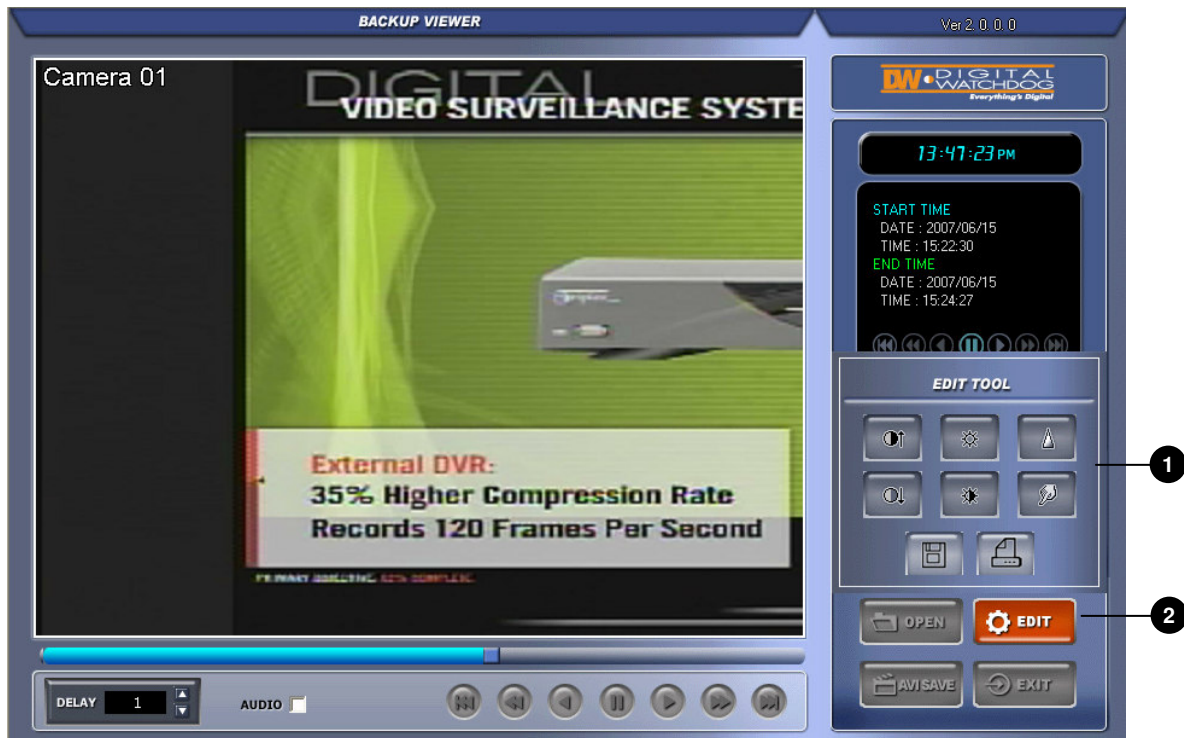


- ① **Time display** : Displays current time.
- ② **Recorded data display** : Displays start time & end time of recorded data.  
Also, displays operating status during playback.
- ③ **Screen display**
  - a) SCREEN DIVISION : Selects full screen mode or 4-split mode
  - b) CHANNEL : Displays full screen for each channel.
- ④ **Audio** : set Audio ON/OFF
- ⑤ **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.
- ⑥ **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.
- ⑦ **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)
- ⑧ **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. Simple DDNS**

\* 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.

Create "USER ID" without a space by using a mouse. (The first 3 digit number or characters must be input.)

DDNS SETUP	
DDNS ENABLE	ON
DNS SERVER	72.243.193.254
INTERVAL	D-00 H-00 M-20
	REGISTER
<DDNS USER ID> USER ID	XAD00000
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	72.243.193.254
INTERVAL	D-00 H-00 M-20
	REGISTER
USER ID	REMOTE
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
<DDNS status messages> SUCCESS TO REGISTER DVR INFO	
	ESC

<DDNS error messages>

FAIL TO COMMUNICATE WITH DDNS SERVER :

(In this case, check out whether DNS server IP address is 72.243.193.254. 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 <http://za.dwddns.com>. And also check out your MAC address in your DVR is same as the one that has been registered in <http://za.dwddns.com>.)

6) To use simple DDNS service, open web browser and type in <http://za.dwddns.com/User ID>. <USER ID> should be created before using DDNS service. (Please refer to page52.)  
For example, if user ID is "remote", you need to type <http://za.dwddns.com/remote> in web browser.



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

7) If User ID is correct one, you will see the interface as shown below.



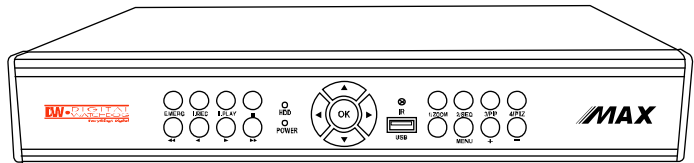
For more detail operational guide, please refer to 'Chap 6. DW MAX Remote Center'.

<b>DVR CONFIG</b>	Changes DVR setting over a network.
<b>LIVE</b>	Enables to show live image display.
<b>SEARCH</b>	Enables to search and show recorded image display.
<b>BACKUP</b>	Enables to back up recorded images in DVR to your PC.
<b>BACKUP VIEWER</b>	Enables to play the backup images on your PC. (AM4 file)

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

## CHAP. 8 Specifications

- MPEG4 Part 10 Hardware Codec
- Simple DDNS
- Timer setting during Emergency Recording
- 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



Multiplex function		Triplex ( Playback / Recording / Ethernet )	
Storage Capacity	Internal	HDD	1 SATA HDD (no limit in capacity of HDD)
Video	Inputs		4Ch
	Output	Composite	2Ch (Monitor, SPOT)
	Compression		MPEG4 Part 10
	Picture Quality		3 step selectable
	Frame Rate		5 step selectable
	Live Display Speed		Real Time Live Display
Recording / Search	Recording Mode		Schedule Record (Continuous/Motion/Alarm)
	Search		Event Search, Date/time Search, Percent Search
	Recording Speed (NTSC/PAL)		Max. 120IPS(NTSC) 100IPS(PAL)
	Recording Resolution		CIF (352x240/352x288)
Audio Recording			1 Ch Input / 1 Ch Output
Language			English, Spanish, French, Italian, German, Russian, Japanese, Chinese To be added more
Switching Interval			1~99 Sec selectable
Live View Display			Full screen / 4-Split
			Digital Zoom, PIP, Freeze, Sequence in live mode
Alarm	Inputs		4 Alarm (NO/NC Selectable )
	Outputs		1 ( NO / NC )
	Post Alarm		Alarm output duration : 2 ~ 99 Sec selectable
Motion Area			30x24
Network			Ethernet (TCP/IP)
			Web Solution (DDNS) : DVR Setup, Viewer, Backup, Search
Backup			USB Memory Stick / Download via IP Network
PTZ Control			Via RS-485
Firmware upgrade			Via USB
Operation			P/S2 mouse, network
Power Requirements			DC 12V 3.33A Adaptor
Weight			2kg
Dimensions (W x H x D) mm			370 X 260 X 62

Design and specifications are subjected to change without notice.

## Warranty Information

**Digital Watchdog** (referred to as “the Warrantor”) warrants the Digital Video Recorder against defects in materials or workmanship as follows:

**LABOR:** For the initial two (2) years from the date of original purchase, if the Digital Video Recorder is determined to be defective, the Warrantor will repair or replace the unit, with new or refurbished product at its option, at no charge. Labor will not be covered by the Warranty the subsequent three (3) years.

**PARTS:** In addition, the Warrantor will supply replacement parts for the initial two (2) years. The subsequent three (3) years of the Warranty will only cover the Hard Drives.

To obtain warranty or out of warranty service, please contact a Technical Support Representative at 1-866-446-3595 Ext 242 Monday through Friday from 9:00 AM to 5:00 PM Eastern.

A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered. This warranty only covers failures due to defects in materials and workmanship which arise during normal use. This warranty does not cover damage which occurs in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than a Digital Video Recorder authorized repair facility or damage that is attributable to acts of God.

### LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages (including, without limitation, damage to recording media) resulting from the use of these products, or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

If the problem is not handled to your satisfaction, then write to the Address above.

Service calls which do not involve defective materials or workmanship as determined by the Warrantor, in its sole discretion, are not covered. Costs of such service calls are the responsibility of the purchaser.



MEMO :

MEMO :

MEMO :



DW-MAX