

STANDALONE DVR v2.2

A decorative graphic consisting of several horizontal bars of varying lengths and shades of gray, arranged in a descending staircase pattern from left to right.

Standalone DVR USER MANUAL

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Chapter 1 **Service Requirement**

Limitation of warranty

We warrant that Standalone DVR series will be free from defects in materials and workmanship under normal use and service for all parts excluding hard drives for a period of one year after the date that the customer purchased the product.

If such a defect occurs, you should contact where you purchased and return the product to us accompanied with the proof of purchase, we will either repair or replace the product through our inspection. It is your exclusive remedy for breach of this warranty. However this warranty shall not apply on repairs or replacements necessitated by any cause as listed below.

- 1) improper installation
- 2) acts of nature
- 3) accident
- 4) lack of proper maintenance
- 5) voltage fluctuations
- 6) unauthorized repair or modifications.

For more details on the limitation of warranty, refer to entire limited warranty as appendix at the end of this manual.

Service Information

- To avoid additional defects, do not attempt to repair this unit by yourself. Please contact a Standalone local dealer/distributor/certified installer to get service from authorized technician. Unauthorized repairs will void the warrantee, may result in fire, electronic shock or other hazards.
- All shipment for repair should be prepaid and properly packed with a note outlining the defect.
- Send the product with purchase number or other related documents obtaining from Fore Tech or its agent as proof purchasing the product.

Chapter 2 Product Information

● Features

- ◆ Enable integrated video monitoring and system management by networking with maximum 1000DVRs systems through CAMS(Central Automated Monitoring System) interface.
- ◆ High quality video display and system stability through embedded operating system with hardware H.264 video compression chip.
- ◆ Support the max D1(720*480) quality resolution video display and 480FPS recording.
- ◆ 16 CH video input and 16CH audio input.
- ◆ X-Triplex multitasking for video recording, playback, transmission and backup.
- ◆ Easy operation using remote-controller, full-page panel, GUI support.
- ◆ Network transmission of 30 different types of system error management information per system.
- ◆ High-speed transmitted video monitoring of ST DVRs up to 64 channels through CMS software network.
- ◆ High-speed network video monitoring by internet explorer through WEB CMS server within the system.

● System Design

- ◆ Watchdog function for hardware & software error
- ◆ Robust design for physical impact and temperature
- ◆ Generating 30 different types of network messages for system errors.
- ◆ Application of low power and low heat features for industrial environment

● General Specifications

- ◆ Advanced hardware H.264
- ◆ Embedded O/S ROM
- ◆ 16 Camera input
- ◆ Auto-sequence screen division and PIP/POP function.
- ◆ Real time display
- ◆ Recording : 480fps-NTSC (PAL 400fps)
- ◆ 4 CH audio recording and two way audio communication.
- ◆ CD, DVD RW, USB external saving devices
- ◆ Ethernet 10/100Mbps, RS-232C network support
- ◆ Maximum 16 ports sensor input and 4 port alarm output
- ◆ X-plex multitasking, recording, playback, backup and network.
- ◆ STATIC, DHCP, PPPOE support

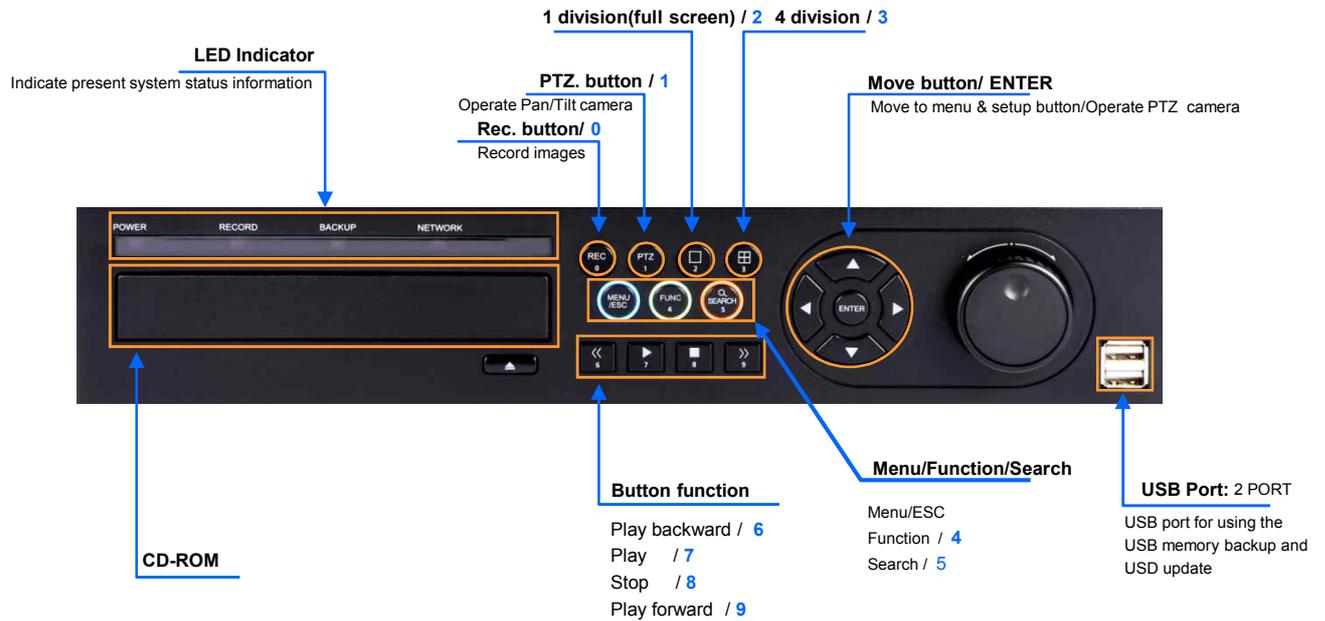
- ◆ Firmware upgrade using network and USB port.
- ◆ Remote upgrade using CMS
- ◆ Free alarm (max 30secs), port alarm (max 120secs) recording
- ◆ Watermarking
- ◆ Private backup viewer
- ◆ E-Map's layout mapping
- ◆ able to install maximum 4 HDDs or 1 ODD and 3HDDs(NS-80XX series only)

Chapter 3 Basic Product Operation



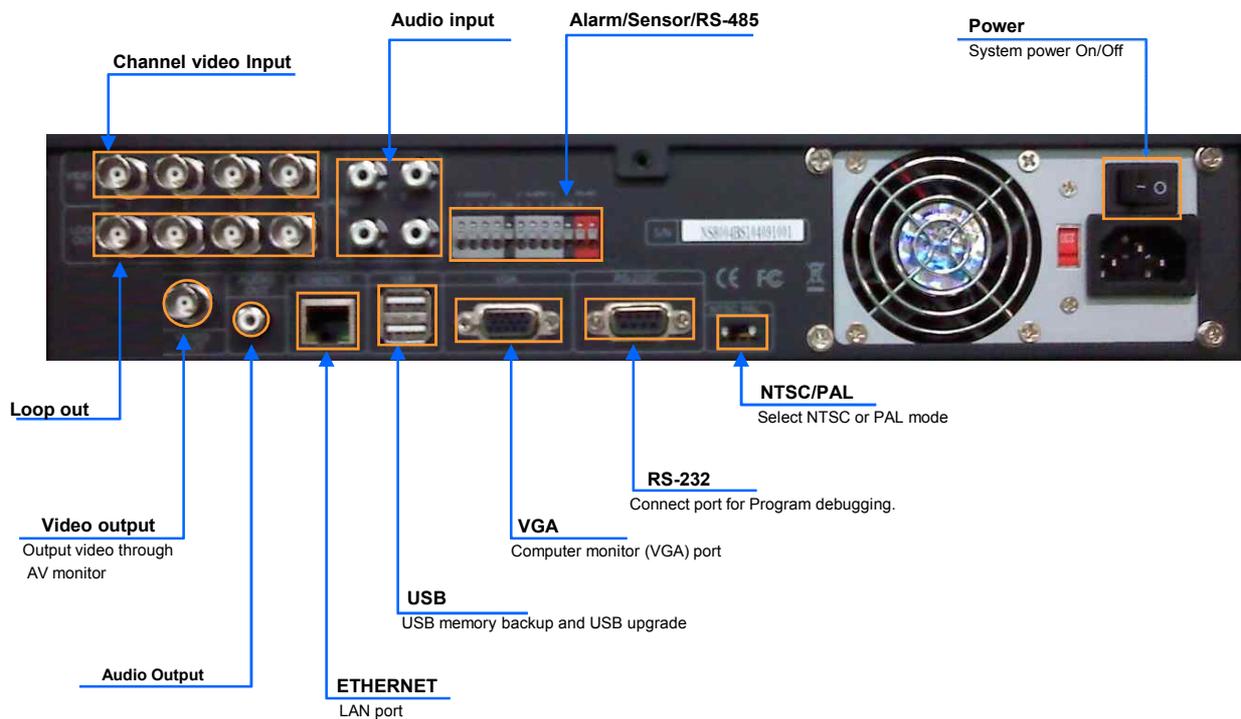
FRONT CASE BUTTON Description

8004(4ch)



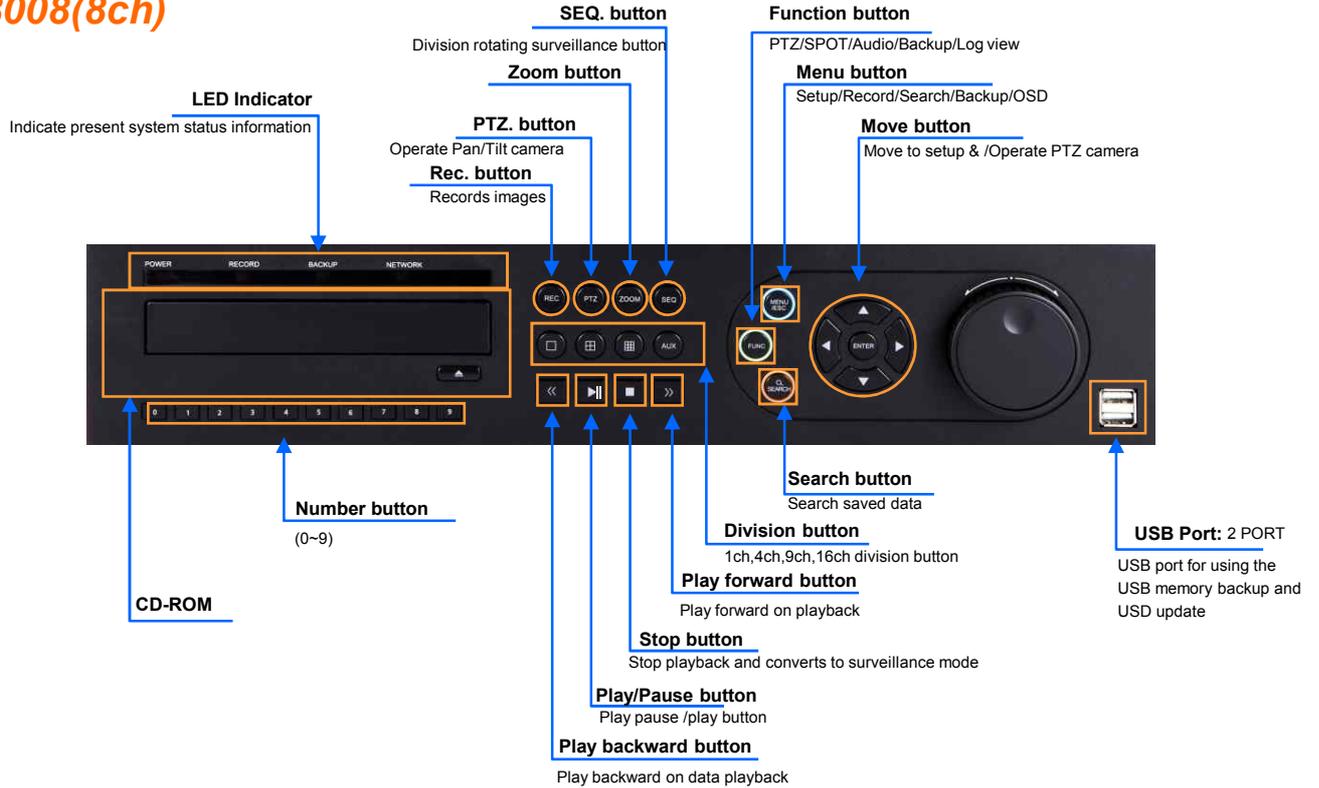
REAR PANEL I/O Description

8004(4ch)



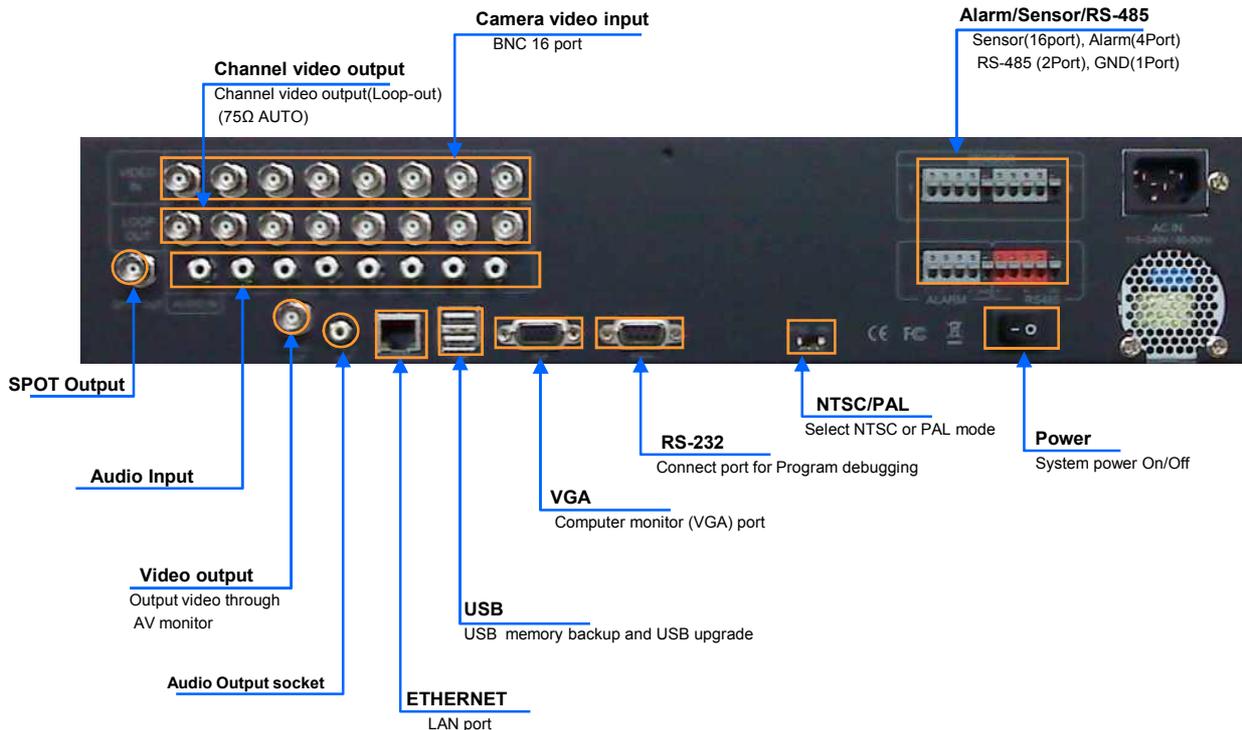
FRONT CASE BUTTON Description

8008(8ch)



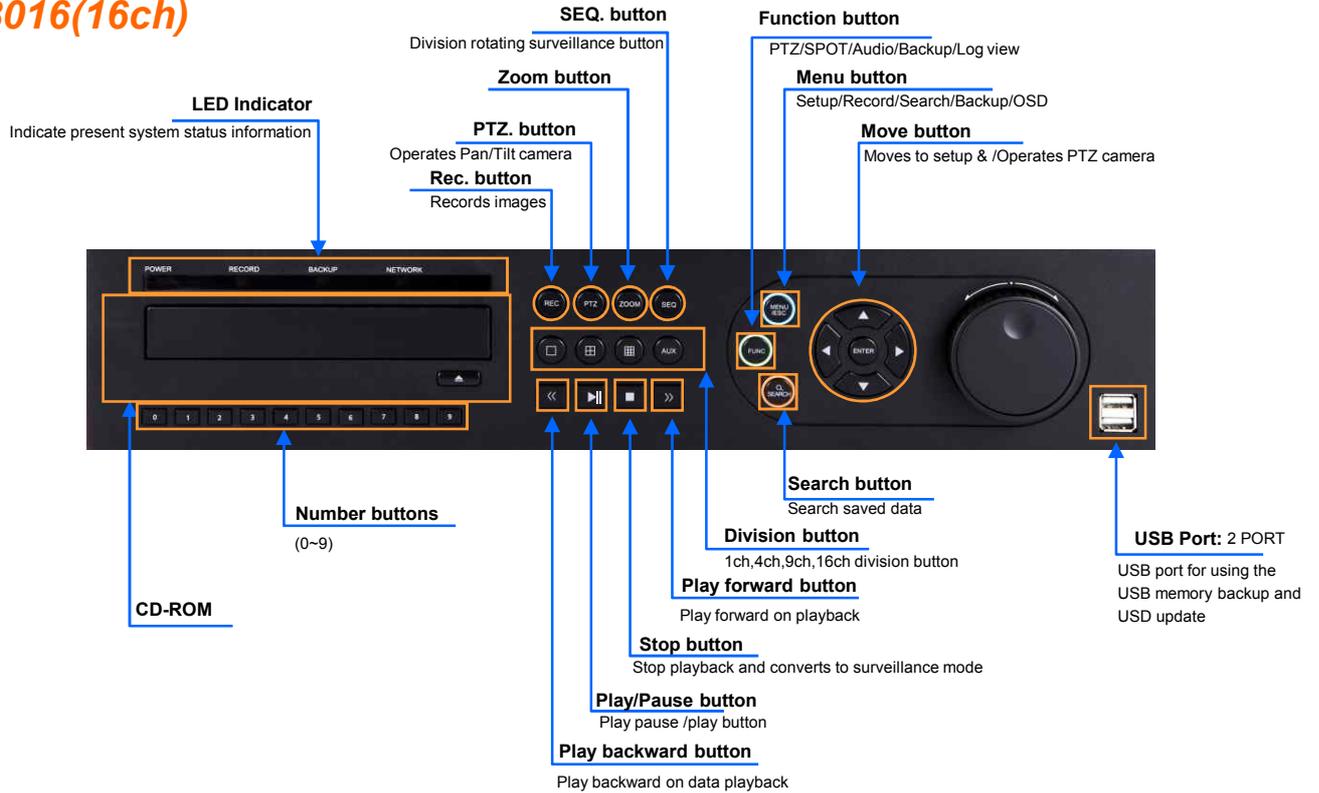
REAR PANEL I/O Description

8008(8ch)



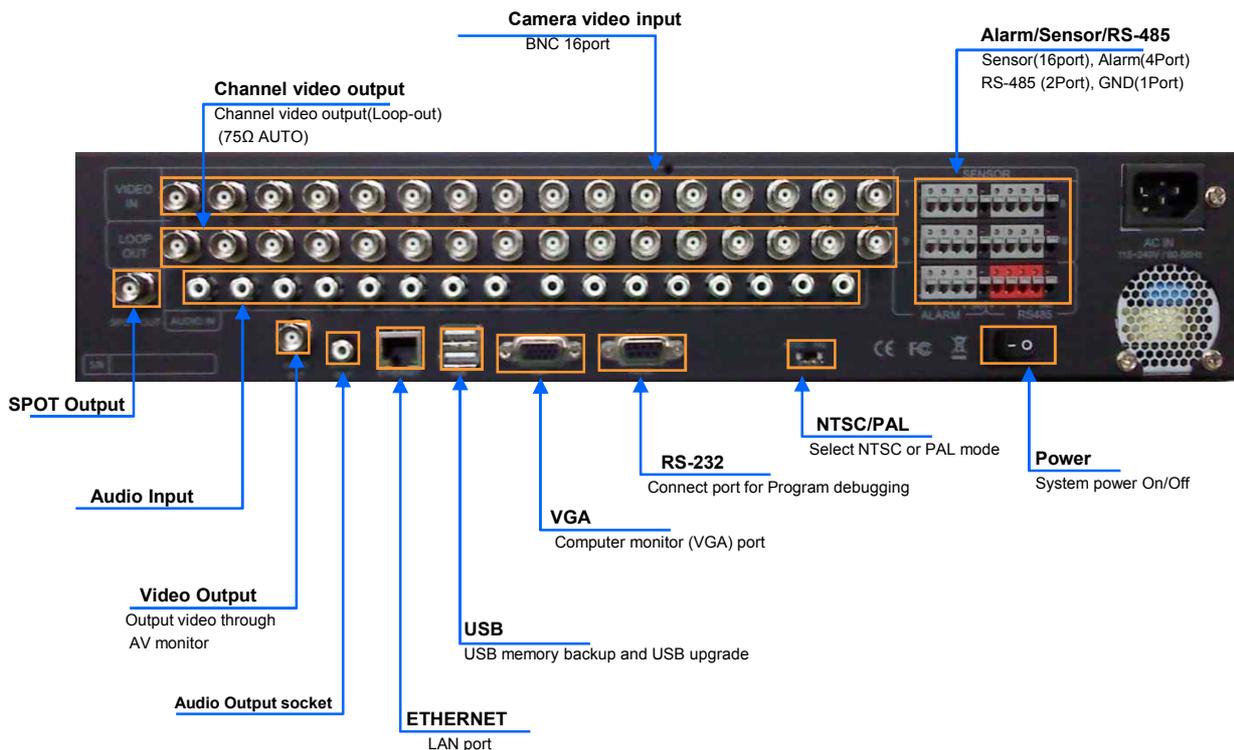
FRONT CASE BUTTON Description

8016(16ch)



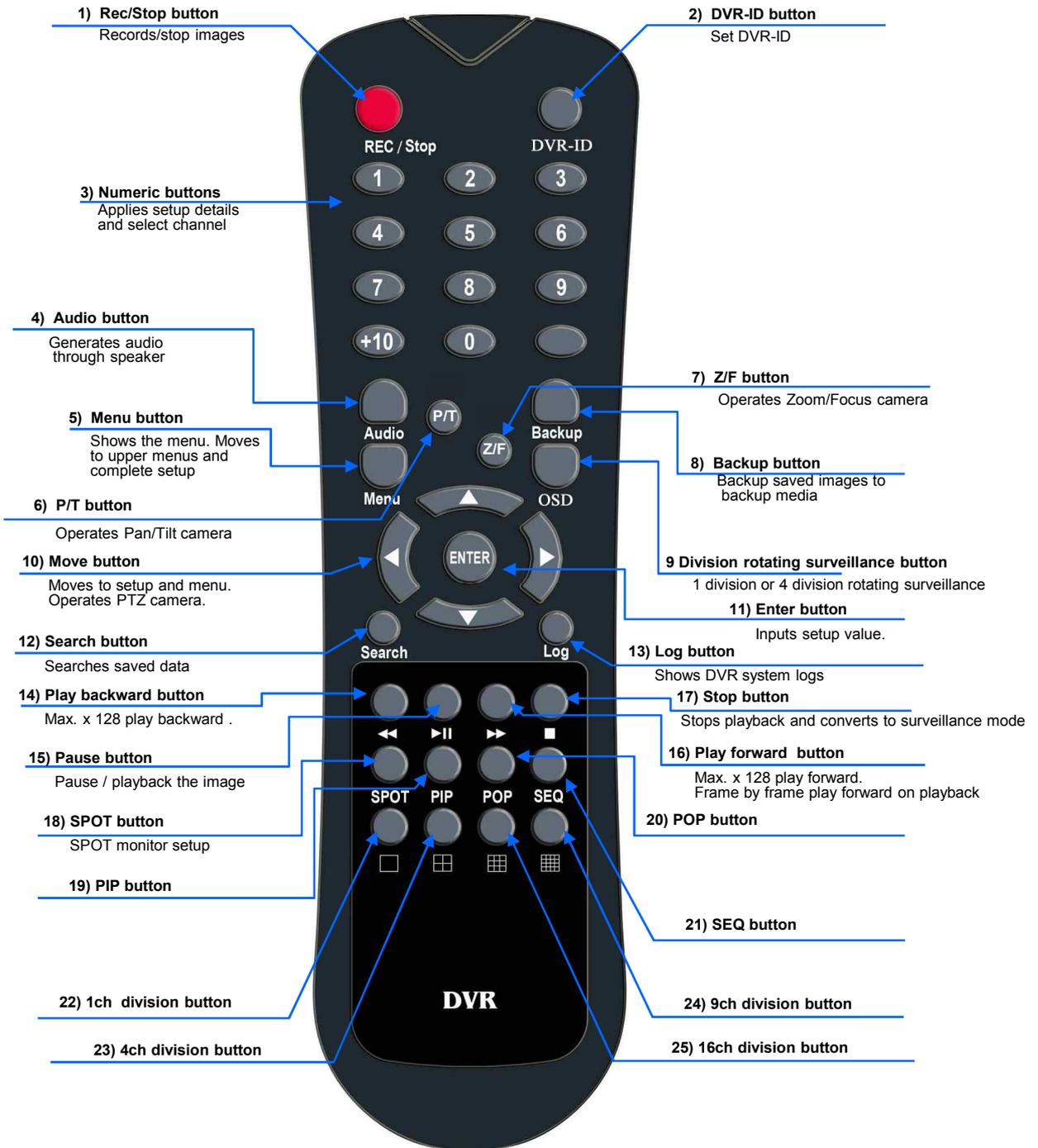
REAR PANEL I/O Description

8016(16ch)

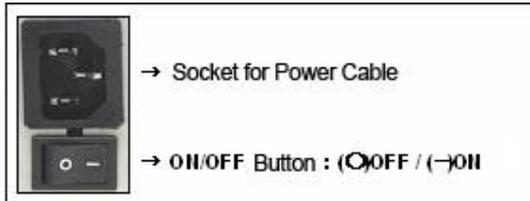


Remote Controller Button Description

(NSDVR 8004/8008/8016)



Power on/off



●Power on

Press the power button at the back to be 'ON' to turn it on after connecting the power cable.

* If you use this model with adapter, there is no power switch.

●Power off

- ① press 'Menu' button [menu → system → shutdown]
- ② select 'Shutdown' and press 'ENTER/OK' button.
- ③ select 'ENTER/OK' button after the message " system will shutdown". Press 'ENTER/OK' button.
- ④ press the power switch at the back to be 'Off'.

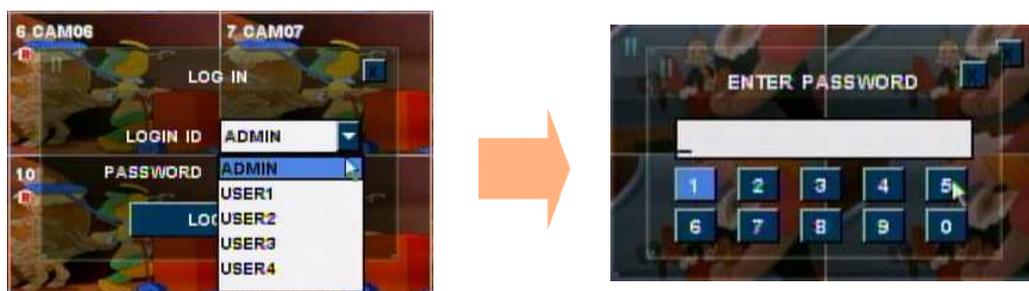
System Login



●Input password

Input the password using number buttons at the password box.

☞ The default value is '0000'.



Screen display

[Channel status]

Channel number

Camera name

- : Recording
- : Motion detection in process
- : Sensor detection in process
- : Channel sequence indication
- : PTZ indication
- : Zoom button

* Covered Channel

[Playback status]

- : Playback in progress
- : Pause
- : Playback per frame
- : Play backward per frame
- : Speed playback
- : Speed play backward
- : Double speed playback
- : Double speed play backward
- : Triple speed playback
- : Triple speed play backward



[Mouse]

- : CMS connection status
- : USB device connection status
- : Date & time
- : Backup

[Status bar]

[HDD status]

- HDD indication
- : hard disk#1
- : hard disk#2
- : hard disk#3
- : hard disk#4

* color icon indications

- : Green : HDD installed & Active.
- : Blue : recording in progress
- : orange : Hard disk is full
- : red : Hard disk error

MODE(Screen setup)

❖CLICK right Mouse button(Only for 8ch/16ch product)

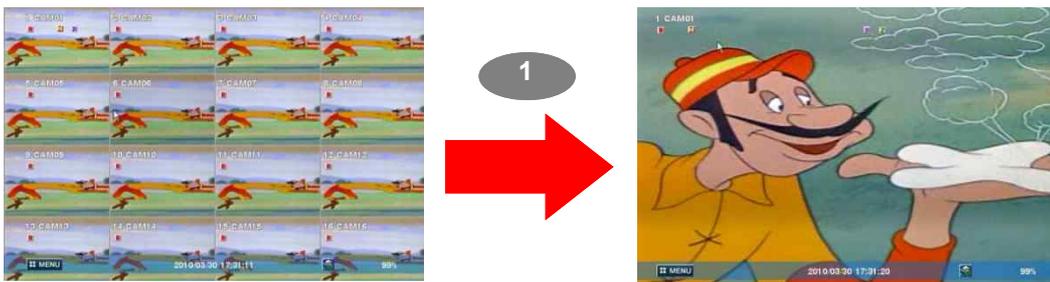


● Full screen mode

-  press this button.
-  shifts to next channel each time you press this button.

● Quad screen mode

-  press this button.
-  shifts to the next channel each time you press this button.
- If you press a channel number button on remote-controller while being displayed in the current quad screen, the selected channel turns full screen.



-If you press another channel number that is not being displayed in the current quad screen, it turns another quad screen including the channel you selected.



● **9 division screen mode**

-  press this button

● **16 division screen mode**

-  press this button

●  **POP screen mode *only for 8Ch & 16Ch products**

- press 'POP' button, it will display a certain channel larger than other channels.



● **OSD mode**

- press 'OSD' button, icons and channel status phrases will appear or disappear.



● **PIP screen mode**

You can monitor 2 screens at the same time with small screen inside of one screen.

- (1) press 'PIP' button on the remote control.
- (2) press 'PIP' button one more time the display channels will be exchanged.



- (3) If you press a channel number button on the controller, the channel will be displayed in small screen.

Ex)



- (4) you can move the small screen using arrow buttons.



● **Sequence playback screen mode**

- If you press 'SEQ' button, full screen or quad screen will be displayed in sequence.
- you can setup duration time at system menu.

●SPOT screen

Display real time screen of another screen-mode in different monitor using 'SPOT OUT' port at the back of product.

- ▶ Press 'Function' button and select 'Spot' to set up 'SPOT' screen.

(1) type

① single channel

- ▷ playback only one selected channel in full screen mode.



② sequence single

- ▷ playback each channel in full screen mode in sequence.
- ▷ you can setup duration time at system menu.

③ sequence quad

- ▷ playback channels in quad screen mode in sequence.

No.	Camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8
3	Camera 6 ~ Camera 9

[NS-8008]

Quad No.	Camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8
3	Camera 9 ~ Camera 12
4	Camera 13~ Camera 16

[NS-8016]

- ▷ you can setup duration time at system menu.

Digital zoom

- press  (ZOOM) button in full screen mode to active digital zoom.
- zoomed area moves as you press arrow buttons.
- size of zoomed area gets bigger and smaller as you press  (ZOOM) button one more time.
- press 'ENTER/OK' button, it shows the selected area bigger like the images below.



Recording

- press 'REC' button to start recording.

Check before recording !!

- (1) Check if hard disk is formatted.
- (2) Check the camera output.
- (3) Check if each channel names are correct.
- (4) Set each channel's recording quality.
- (5) Set each channel's recording frames.

Search

- press 'SEARCH' button. Then you can see the 'Search' menu like below.



- **Search by time**

- (1) input the date and time to search. Press 'ENTER/OK' button.

- **Search by calendar**

- (1) you can see 'calendar' menu like below if you select 'Search by calendar'.
- (2) select the date and time using arrow keys. Press 'ENTER/OK' button.
- (3) lastly, select 'ENTER/OK' and press 'ENTER/OK button'.



- **Search by event**

- (1) you can see the menu like below if you select 'Search by event'.
- (2) input the beginning date/time and ending date/time to search.
- (3) select channels to search.
- (4) select events to search.
- (5) lastly, select search and press 'ENTER/OK' button.



- **Go to first**
playback from the beginning part of recorded.
- **Go to last**
playback from the recent part of recorded.



● **How to view 'Covert-on (Hidden)' channel**

Click this icon,
Or 'Search' button at the front panel.
Or 'Search' button in remote controller

Select 'SHOW HIDDEN CH'.

Hidden channels will be displayed.

Playback

- press 'Playback' button to start playback from the recent part of recording.
- you can choose various playback screen modes by screen mode buttons.

	Rewind Frame playback	- Rewind during playback. - Playback by frame during pause.
	Playback	Playback and pause the recorded screen.
	Fast forward Frame playback	-Fast forward during playback. -Playback by frame during pause.
	stop	Stop the playback.

Backup data protection with virtual password

- backup data using USB Memory stick.

There are two ways to backup.

A. How to back up the original data for all or some channels .

Backup file can be run as a backup viewer in this way.

To back up, you should input a back up password.

B. AVI back up

AVI back up must use USB memory. Also you can only back up for a single channel.

You can play for Window system on your PC as for AVI backed up file.

You do not have to input a back up password when you back up for AVI .

Note: When you play AVI backup data, some the PC s need H.264 codec.



(2) Press 'Function' button and select 'Backup'

(3) Select options from menu.



- ✓DEVICE – select the device to backup.
- ✓MEDIA TYPE– select media 'CD', 'DVD' etc to backup.
- ✓FORMAT – format the media before backup.
- ✓CHANNEL – select channels to backup.
- ✓FROM – input the date/time to start backup.
- ✓TO – input the date/time to finish backup.

(4) Select 'BACKUP' and press 'ENTER/OK' button.

(5) Backup password window will show up and ask you to input the password. You must remember this password, and you will be asked to input this password when you playback the data.

- NOTE:
- 1) Both Admin and user can backup the data with this function. Admin can backup and playback the hidden camera data, but user can't access to backup the hidden camera data.
 - 2) Backup password is not related with DVR password, you can input the virtual password for backup only, and it must be 4 digit numbers.
 - 3) This function is available from the DVR firmware version, 090427-q2g8 and BackupViewer V1.0.9.420.

- Note : If NS-20XX model, Data backup must be used USB memory stick and back panel's USB port.



- 1) You can backup a hidden channel while logged in as an Admin.
- 2) If logged in as a general User, hidden channels cannot be backed up.

•NOTE: Do not remove USB device during Backup!



• Checking backup file size

Note: If back up size is small, you cannot view progress rate.



2) File storage display

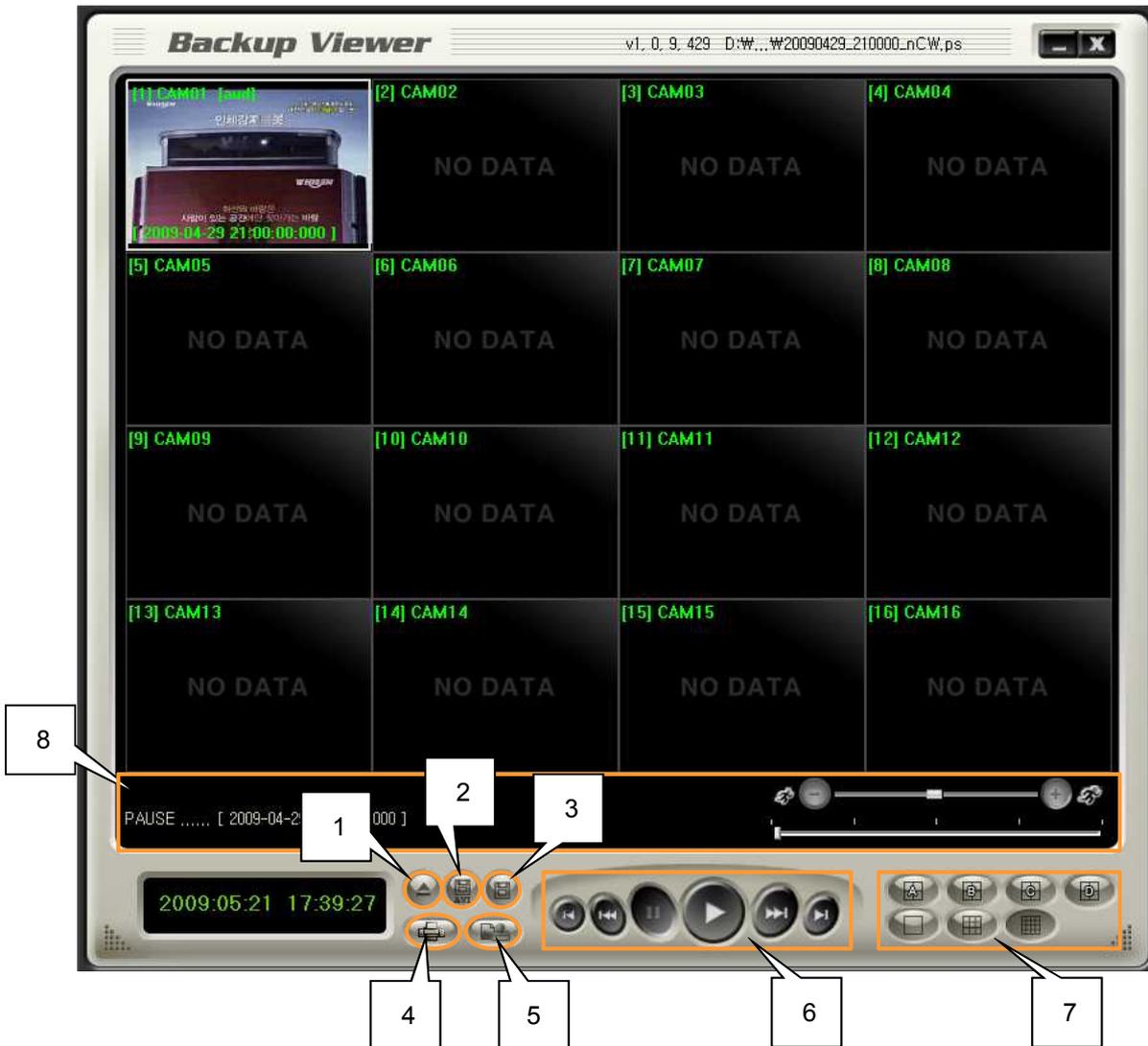


3) Copy files progress



4) Back up complete

● Backup viewer



(1) open file : Load the backup data.

(2) AVI: save the selected channel to avi during playback
Select channel → click this icon(start) → click again(finish)

(3) save : save the playback images as bmp file.

(4) Print screen image

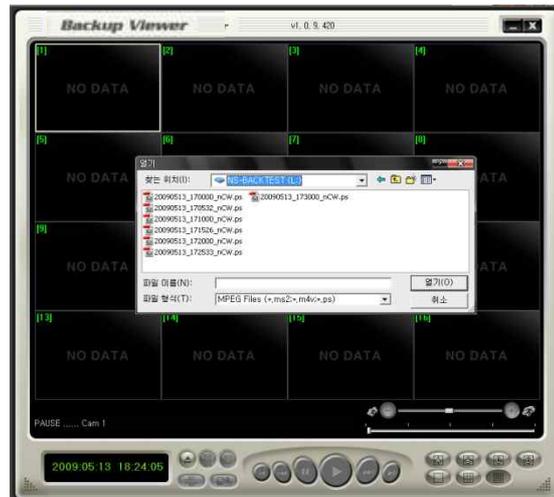
(5) watermark : check if there is any modification of data.

(6) playback : playback the backup data. (playback, pause, speed playback, playback by frame)

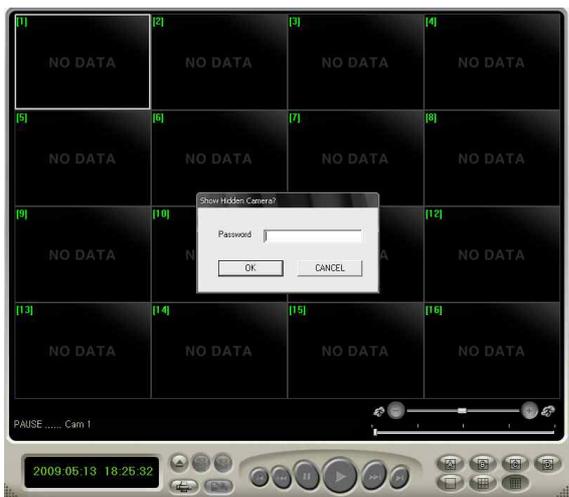
(7) division : 1 division, 4 division, 9 division, 16 division

(8) status box : display the status of backup viewer.

● Open file



- (1) Click 'Open file' button from the main screen.
- (2) Select files to playback.
- (3) Input **backup password**



- (4) After it completes to load the backup file, you can playback it, and save it as bmp files.

NOTE: 1) Both Admin and user can backup the data with this function. Admin can backup and playback the hidden camera data, but user can't access to backup the hidden camera data.
 2) Backup password is not related with DVR password, you can input the virtual password for backup only, and it must be 4 digit numbers.
 3) This function is available from the DVR firmware version, 090427-q2g8 and BackupViewer V1.0.9.420.

● Audio playback



- (1) Load files with audio data.
- (2) Select and playback the channel, which audio is saved, it playbacks audio data at the same time.

● Save

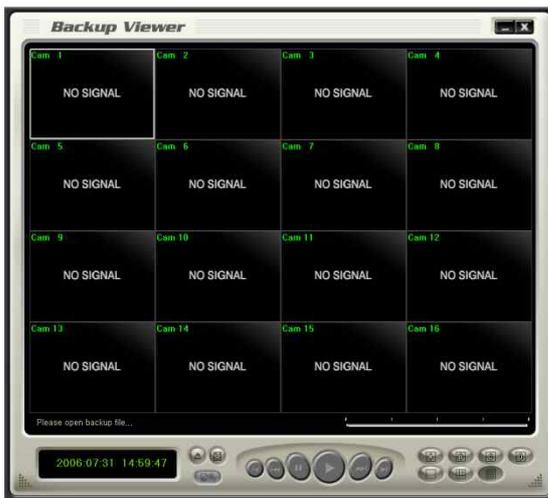


Image of saved bmp file as 9 division screen

- (1) Save backup data.
- (2) Select screen division.
- (3) Click 'save' button.
- (4) Name the 'Bmp' file and save.

● Watermark



- (1) Load files to check watermarking
- (2) Click 'watermark check' button.
- (3) Click playback or speed playback button.



- (4) It shows the image with error message if there is any modification of data. It shows 'ENTER/OK' in the status box if there is no modification of data.

NOTE: If you play to recording file from watermarking OFF, you can view this message as above while the file header part and audio part are checking. So this message is not for modulation data.

PTZ(FUNCTION)

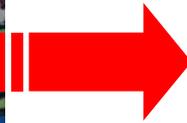
●PTZ operation

press **PTZ** button to display in full screen and you can operate PTZ cameras.

press 'ENTER/OK' button in PTZ mode, you will see 'PTZ-ADVANC' menu.

●PTZ general movement

- (1) moves pan/tilt camera from up/ down and right/ left using arrow keys.
- (2) enlarge or reduce the screen size by Z- /Z+buttons while using zoom camera.
- (3) can move to other channels by number button on remote controller.



●PTZ ADVANCE

(1) adjust focus

- ① + : Focus in
- ② - : Focus out
- ③ AUTO : Auto focus mode

(2) Iris control

- ① + : Open iris
- ② - : Close iris
- ③ AUTO : Auto iris mode

(3) operating speed

- ① + : increase the speed.
- ② - : decrease the speed.

(4) preset

- ① scanning
- ② shortcut



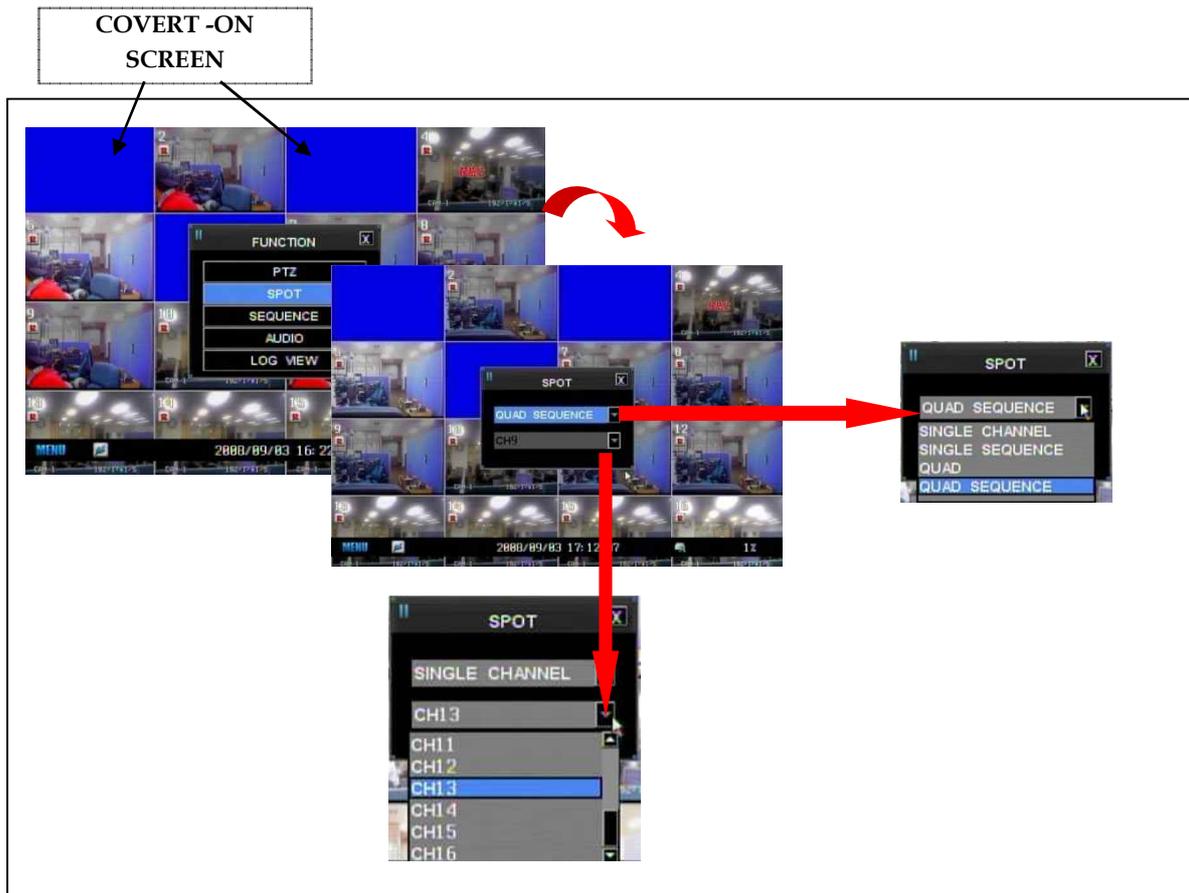
NOTE: you can set 'Preset' at System menu.
[Menu → camera setup → preset]

you can set 'Scan list' at System menu.
[Menu → camera setup → scan point]

SPOT(FUNCTION)

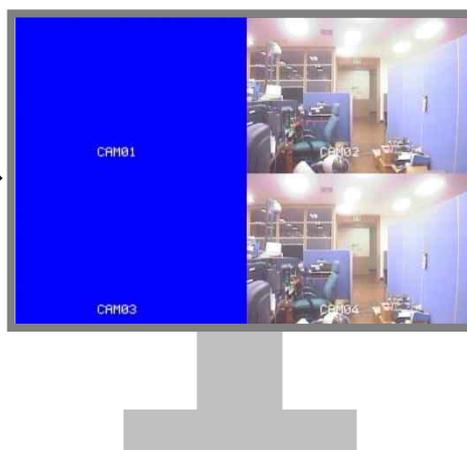
●SPOT Operation

Select "SPOT" after clicking "FUNCTION" on DVR system .



●SPOT OUT DISPLAY

COVERT-ON
NO IMAGE IS
SHOWN



Note: Refer to page 30 in 'User Manual' to select Spot out channels.

*Screen display setup – spot sequence scanning (full screen)

*Screen display setup – spot sequence scanning (quad screen)

Audio(FUNCTION)

- Turn on/ off audio.
- You can only playback audio in full screen mode.



ON : Turn on audio
MUTE : Turn off audio

Log View(FUNCTION)

- search the system event log.



- ✓ event type – select types of event to search
- ✓ from – input date/time to start searching
- ✓ to – input date/time to finish searching

- select 'Search' and press 'ENTER/OK' button to start log search.

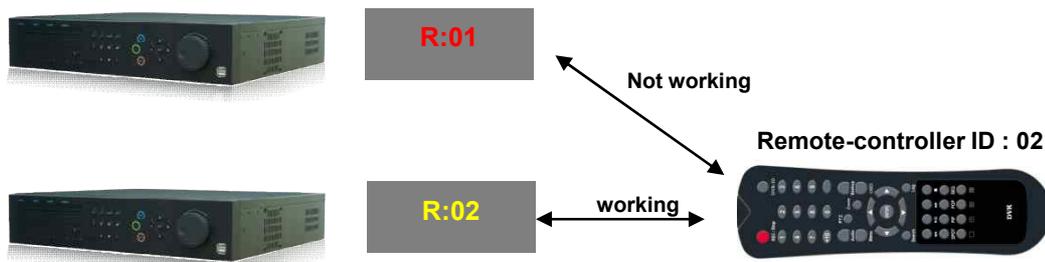
Remote –controller ID

- **Remote-controller ID**

- (1) can use to operate several DVRs at one site with one remote-controller.
- (2) can operate a certain DVR according to the registered ID value.



- It will turn yellow if remote controller's ID matches with DVR ID. Then you can operate the DVR.
- It will turn red if remote controller's ID does not match with DVR ID. Then you cannot operate the DVR.
- you can set the DVR IDs at System menu.
[menu → system → miscellaneous]
- setting up remote-controller ID
 - (1) press 'DVR-ID' button on the remote-control.
 - (2) it will beep. Then you can input 'Remote-control ID'.
 - (3) press the DVR ID to operate using number buttons.



SEQUENCE(FUNCTION)

- Show each channel sequentially.



Chapter 4 System setup



Before setting up system

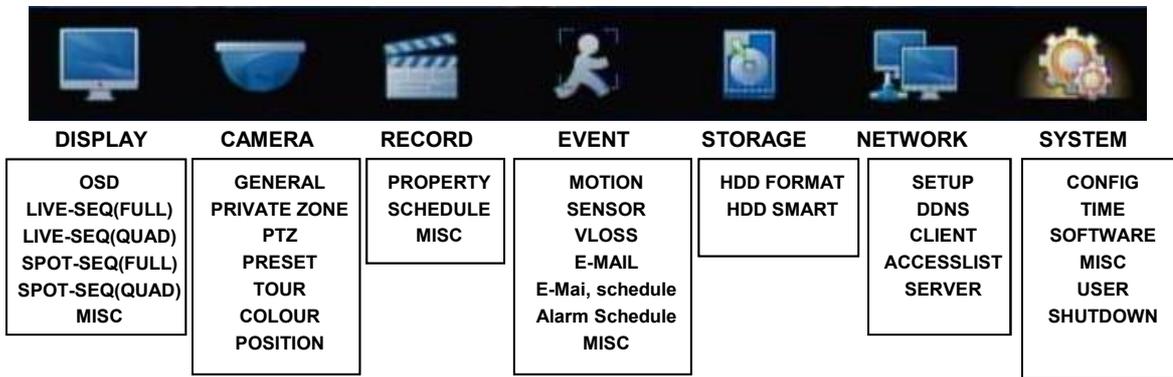
● **Starting system menu**

- (1) press 'Menu' button.
- (2) input administrator's password in password box.

* Menu type may vary different according to model.

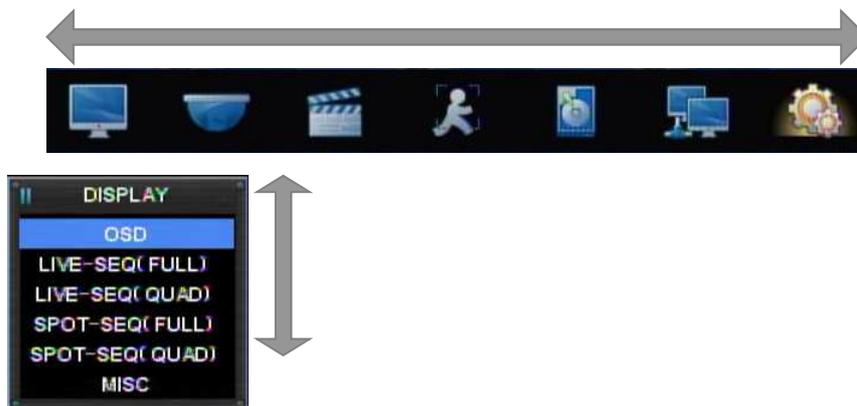
NOTE: default value: 0000

● **Menu format**



● **How to use Menu**

- ✓ you can move menu cursor using arrow buttons.
- ✓ press 'ENTER/OK' button to activate the selected menu or to go to sub menu.
- ✓ press 'Menu' button to close system setup or go to the previous menu.



● **Saving/Canceling menu setup**

- saving menu setup : select 'ENTER/OK' button.
- canceling menu setup : select 'Cancel' or 'Menu' buttons.



● **Text input box**

- (1) select letters/symbols using arrow buttons.
- (2) press 'ENTER/OK' button to select the letter/symbol.
- (3) the selected letters/symbols will show on the top text box.
- (4) click "CAP" to convert case – sensitive.



● **Moving to the next menu page**

Ex)



Press **1 ~ 8** or **9 ~ 16** button to move to the next menu page.

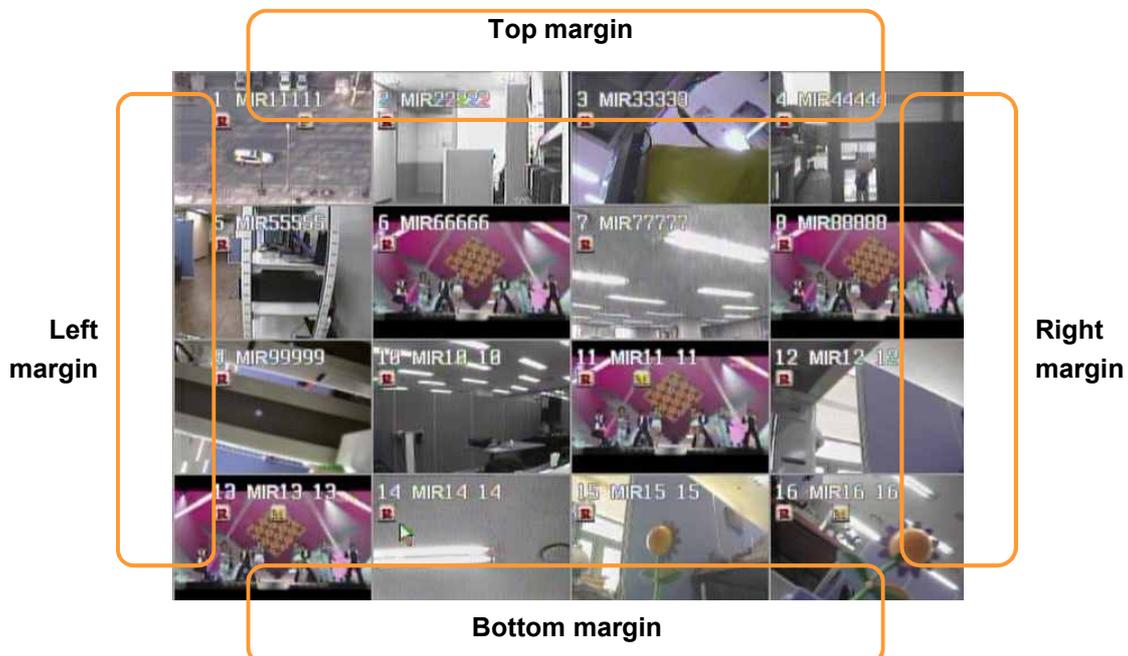
Setting up screen display

● Screen display setup – On Screen Display



- ✓ Camera name – Display each channel of camera name.
- ✓ Camera number – Display channel number.
- ✓ Camera border – Display each channel's border.
- ✓ Language – Choose menu language.
- ✓ OSD HIDE – Turn on or off on OSD screen.
 - ALL: All display
 - STATUS BAR: status bar can be hidden after a certain time.
- ✓ Left margin – Adjust the OSD's left margin.
- ✓ Right margin – Adjust the OSD's right margin.
- ✓ Top margin – Adjust the OSD's top margin.
- ✓ Bottom margin – Adjust the OSD's bottom margin.

* VGA: VGA monitor margin setting, TV: TV output margin setting



● **Screen display setup – live sequence scanning (single screen)**

Setup duration time for live sequence scanning in full screen.

NOTE : can input maximum 99 second.



● **Screen display setup – live sequence scanning (quad screen)**

Setup duration time for live sequence scanning in quad screen.

NOTE : can input maximum 99 second.



◆ **Default**

Quad screen number	camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8

[NS-8008]

Quad screen number	camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8
3	Camera 9 ~ Camera 12
4	Camera 13~ Camera 16

[NS-8016]

● **Screen display setup – spot sequence scanning (full screen)**

This function does not apply to some models.

Setup duration time for spot sequence scanning in full screen.

NOTE : can input maximum 99 second.



● **Screen display setup – spot sequence scanning (quad screen)**

This function does not apply to some models.

Setup duration time for spot sequence scanning in quad screen.

NOTE : can input maximum 99 second.



◆ **[Default]**

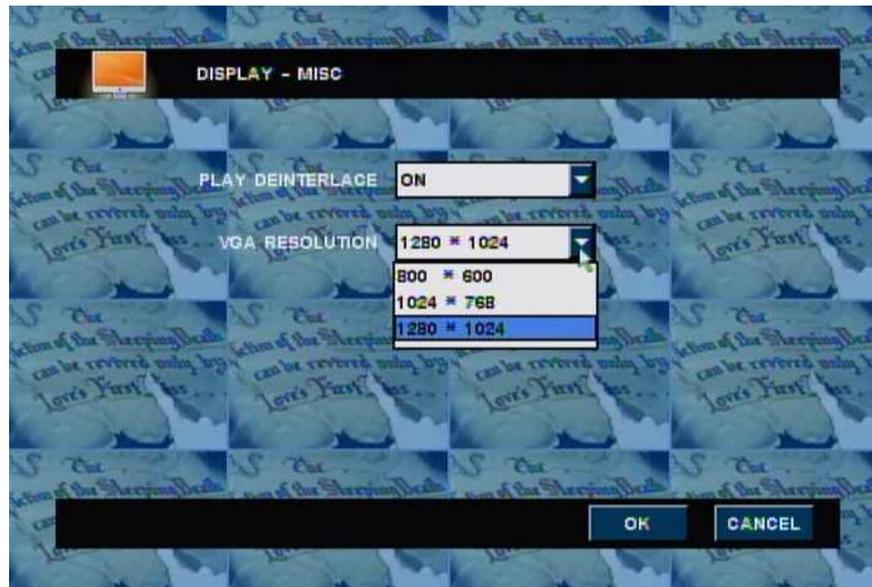
Quad screen number	camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8

[NS-8008]

Quad screen number	camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8
3	Camera 9 ~ Camera 12
4	Camera 13~ Camera 16

[NS-8016]

- **Screen display setup – miscellaneous**



- **Deinterlace**

- prevent screen twittering during playback of image which is recorded in low frame rate and 720X480 or 720X576 resolution.

- **VGA frequency**

- setup the frequency of connected VGA monitor.

- 800 * 600
 - 1024 * 768
 - 1280 * 1024

Camera Setup

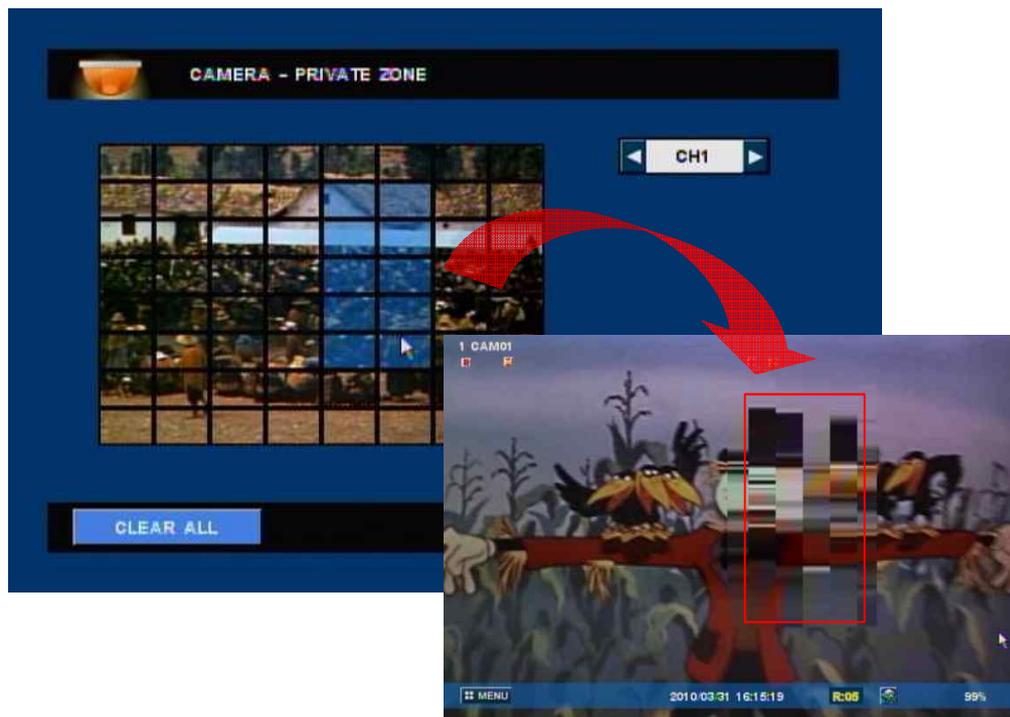
● Camera setup – general

- title – input channel names.
- COVERT on/off – show or hide channels.
- audio – select connected audio channels.



● Camera set up – PRIVATE ZONE

- Zone set up – Censor the selected Cell zone.
- Clear all – Clear the selected Cell zone.



The on- screen image will be censored as above picture.

● Camera setup – PTZ

- ID – input camera IDs.
- protocol – select the registered protocol.
- baud – select the registered baud.



- The supported protocol type's DVR

- PELCO-D
- PELCO-P
- SCC641
- SK2161
- CNB102
- ADTECH
- 15-CD51M
- COP1
- COP2
- DSC230
- LININ
- CYNIX
- NITRO
- PTC-400C
- TeleEye
- TecVoz

- Communication speed(bps)

- 1200
- 2400
- 4800
- 9600
- 19200
- 38400
- 115000

● Camera setup – preset

NOTE : system will record according to preset positions of camera.
check if camera supports preset function before setting up.
can setup 64 preset positions for each channel.



- ✓ camera – select cameras to setup preset positions.
- ✓ page – move to the next page.
- ✓ clear all – clear all the setup values.
 - (1) Select camera.
 - (2) Select 'Set' button.
 - (3) Then the channel turns PTZ mode.
 - (4) Move the camera to get the position you want.
 - (5) Press 'ENTER/OK' button to save the preset.



● Camera setup – TOUR

NOTE : you can move camera to follow the path by saved preset positions for each channel. You can set 4 scan point list for each channel.

- camera – select a camera to set scan point.
- list – select a list to save scan point.

NOTE : you can setup total 4 lists.
one scan list is consist of total 16 preset position.

- preset – select preset position you want.
- clear all – clear all setup values.



Ex)

Camera 1 will move following the path as below.

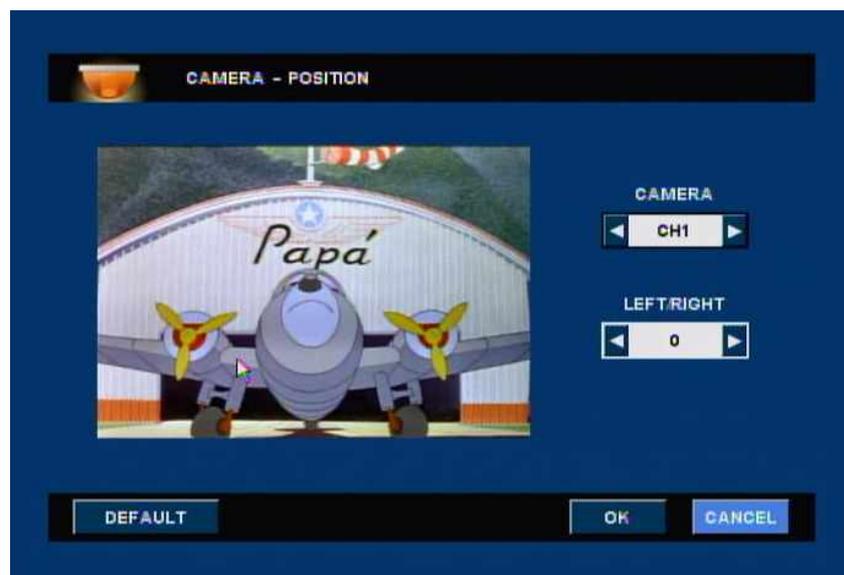
PTZ01 → 3sec→ PTZ09 → 3sec→ PTZ04 → 3sec→ PTZ15 → 3sec→ PTZ01 →.....

●Camera setup – COLOUR

- camera – select a camera.
- bright – adjust color brightness.
- contrast – adjust color contrast.
- color – adjust camera color
- default value – set it as default value.

**●Camera setup – position**

- camera – select a camera
- right/left – move the camera to right and left.
- default value – set it as default value.



Record setup

●Record setup – Property



➤ resolution – set recording resolution for each channel.

NTSC	PAL
720 x 480	720 x 576
720 x 240	720 x 288
352 x 240	352 x 288

➤ quality – set recording quality for each channel.

Recording quality	Display quality	HDD capacity needed
Basic	Low	Small
Normal	Normal	Medium
High	Good	Large
best	Very good	Very large

➤ Frame rate
set frame rate for each channel.

●Record setup – schedule

- system records according to set schedule.
- see below to see how to set up schedule.

C	Continuous recording
E	Recording when even occurred
I	C(continue)+E(event)
(Blank)	Not recording

- (1) Select a channel to set up schedule.
- (2) Select day/time to record and press 'ENTER/OK' button.
- (3) it shifts to different type as you press 'ENTER/OK' button.



● Record setup – miscellaneous

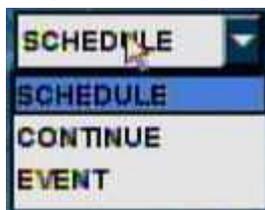
- overwrite – erase previous video data and record over it when HDD is full.
- auto delete – automatically delete data after set date.
- continuous record – you cannot stop recording while it is in process as it continuously records.
- watermark – activate watermarking function.



Note) when setting as ‘ON’ for ‘Water Mark’ option, all recording files are applied with watermarking, this recorded file can be checked at Backup Viewer if someone is altered or edited recorded file with intentional purpose.

(please check out Backup-watermark section of user manual.)

[REC MODE]



SCHEDULE: Record according to schedule setting.

CONTINUE: Continuous recording for all day / time.

EVENT: Only recording when the event occurred.

Event recording time PRE/POST only records during recording setting time.

(In reference to event setup-misc set up page.46)

Event setup

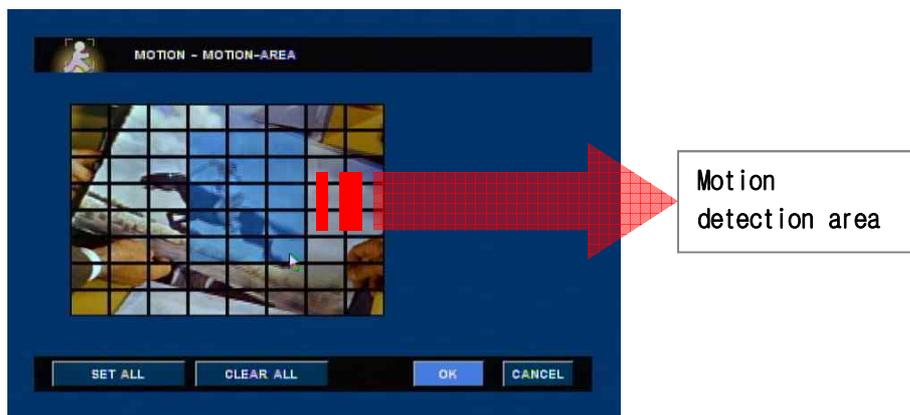
NOTE : you have to set it as 'Even recording' at 'Schedule record setup' to use this function.

When the event (sensor/motion/video loss) is detected on DVR side, DVR alerts by message pop-up, beep sound or E-mail notification. You must setup event recording on schedule record setup to use this function.

● Event Setup - Motion



- Motion area – select detecting area.
 - (1) all – detect the whole camera screen.
 - (2) part – detect motion detection area.



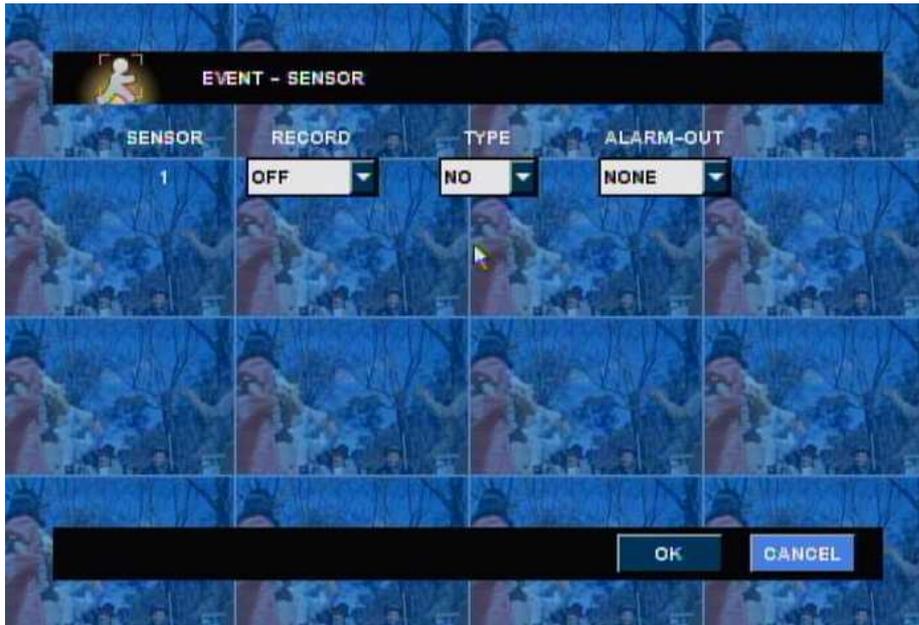
- (3) off – no motion detection.

- sensitivity – select a level of detection sensitivity.
level of sensitivity : 0 < 1 < 2 < < 9

- Alarm out – activate alarm on motion detection.

● **Event setup - sensor**

- Record – select camera to record on sensor detection.
- Type – select sensor type.
- Alarm out – activate alarm out on sensor detection.



- If you choose 'multi' in the previous record menu, you can record all channel or specific channel.
Click channel you want to choose after unchecked "All".



● Event set up – VLOSS

➤ ALARM-OUT – Select Alarm port.

NONE: Alarm port does not output.

PORT 1: Beep occurs to the specified Alarm port.

Multi : Beep occurs to the selected Alarm port.

(Some models do not apply.)

**•Note:**

- 1) Alarm output port can be specified by the overlap.
- 2) Alarm port number can be different according to model.

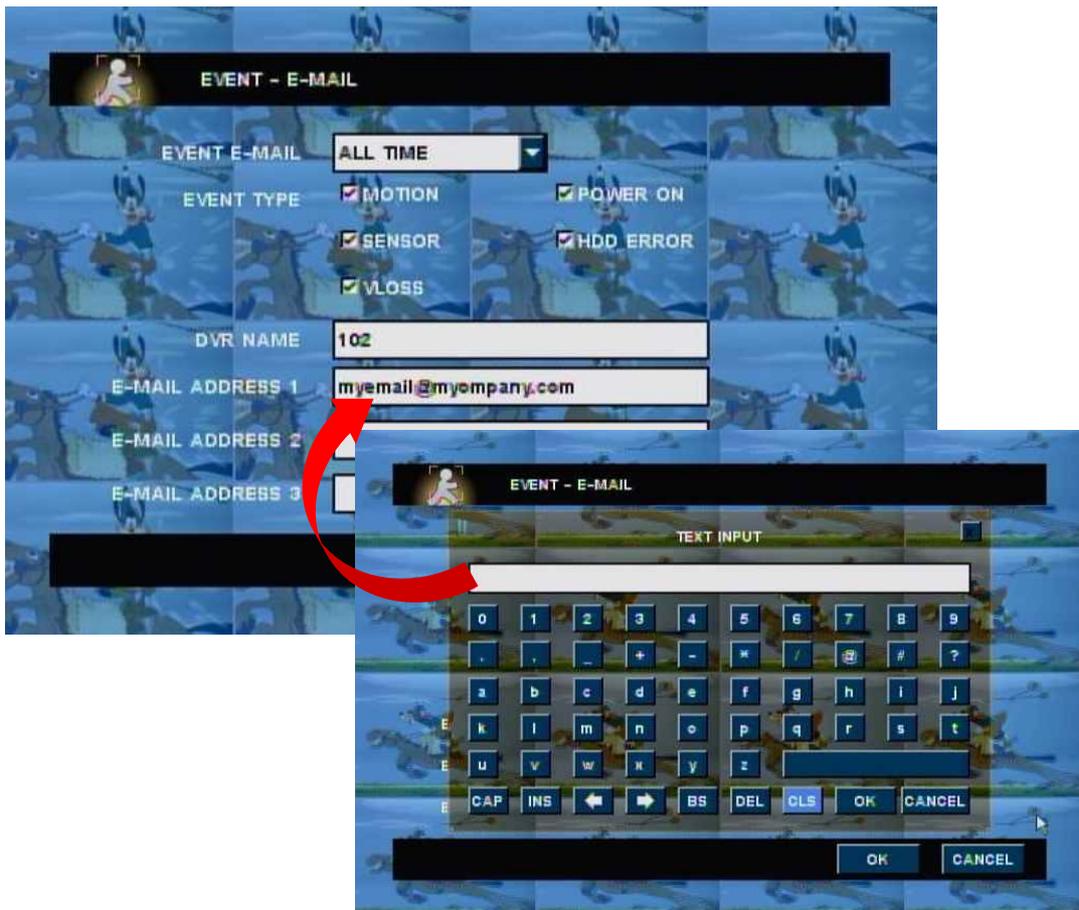
● **Event setup – E-MAIL**

- EVENT E-MAIL(OFF/ALL_TIME/Schedule)): Choose an e-mail sending function.
If you select 'schedule', you can receive e-mail which is desired day/time as setting 'E-MAIL SCHEDULE'.

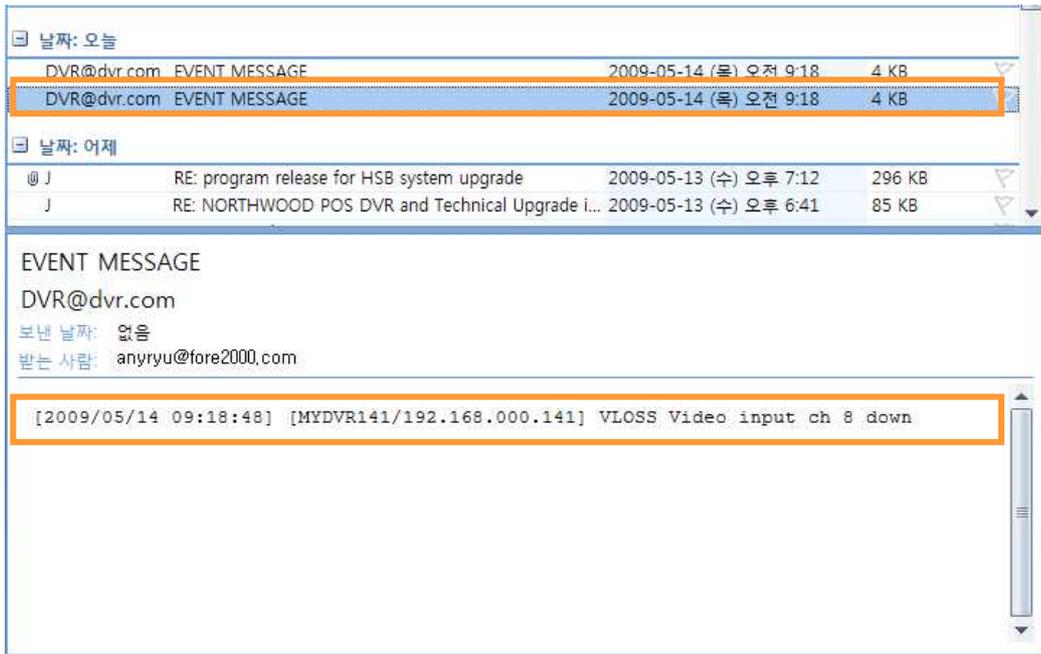


- Choose EVENT TYPE
 - MOTION(ON/OFF): When motion is detected, you can notice by e-mail.
 - POWER ON : When power is on or booting, you can notice by e-mail.
 - SENSOR(ON/OFF): When sensor is detected, you can notice by e-mail.
 - HDD error: When Internal HDD fails, you can notice by e-mail.
 - VLOSS(ON/OFF): You can notice about camera input down/up.
- DVR NAME: E-mail as selected DVR-Name.
- E-MAIL ADDRESS: You can specify up to 3 recipient.

NOTE: If Motion or SENSOR often detect, you might receive many e-mails.
So we recommend this setting when you are necessary.



EX. E-mail notification you would receive.



[Example for received email]

● **Event setup – E-MAIL SCHEDULE**

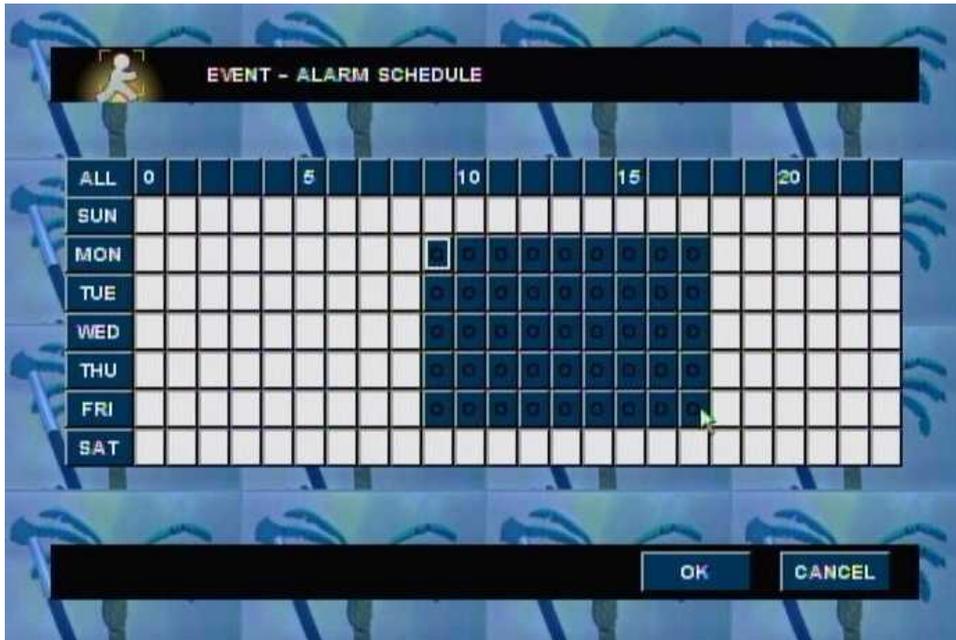
➢ You can set up schedule for 24 hours a week.



This schedule setting is for received e-mail from Saturday to Sunday at 8:00pm~6:00am. You can notice event happening by an e-mail while you don't work.

● Event setup – ALARM SCHEDULE

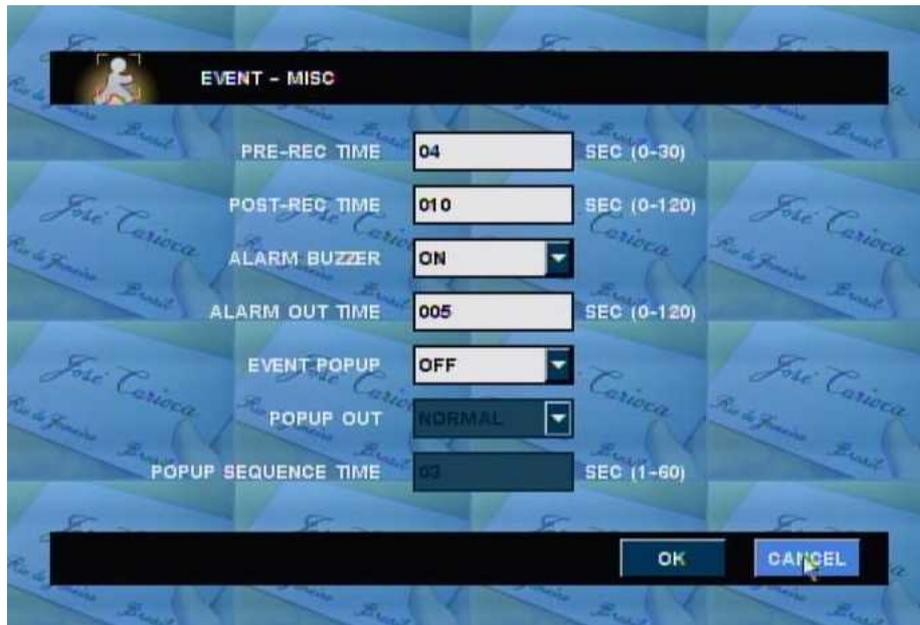
➤ You can set up schedule for 24 hours a week.



This setting is for alarm from Friday to Monday at 09:00am-5:59pm.
You can recognize any events by alarm during working.

● Event setup – MISC

- pre-recording time – setup pre-recording time on the selected event detection.
- post-recording time –setup post-recording time on the selected event detection.
- ALARM buzzer – enable alarm buzzer on the selected event detection.
- alarm out time – setup duration to activate alarm out on the selected event detection.
- EVENT POPUP – select 'on' to enable message pop-up on the selected event detection.
- POPUP OUT - select type of video out for message pop-up ; VGA or SPOT.
- POPUP Sequence time – setup POPUP sequence time. (1~10sec)



● HDD Failure – alert by E-mail notification

When HDD fails, the system alerts by error message pop-up, beep sound as well as E-mail notification.



Storage

● Storage – HDD format

➤ You must format HDD when you install HDD.



! All saved data will be removed after HDD format process!

● Storage – AUTO-BACKUP

Format: Format HDD the connected USB TYPE.

View: Display file info the connected USB TYPE's External HDD.

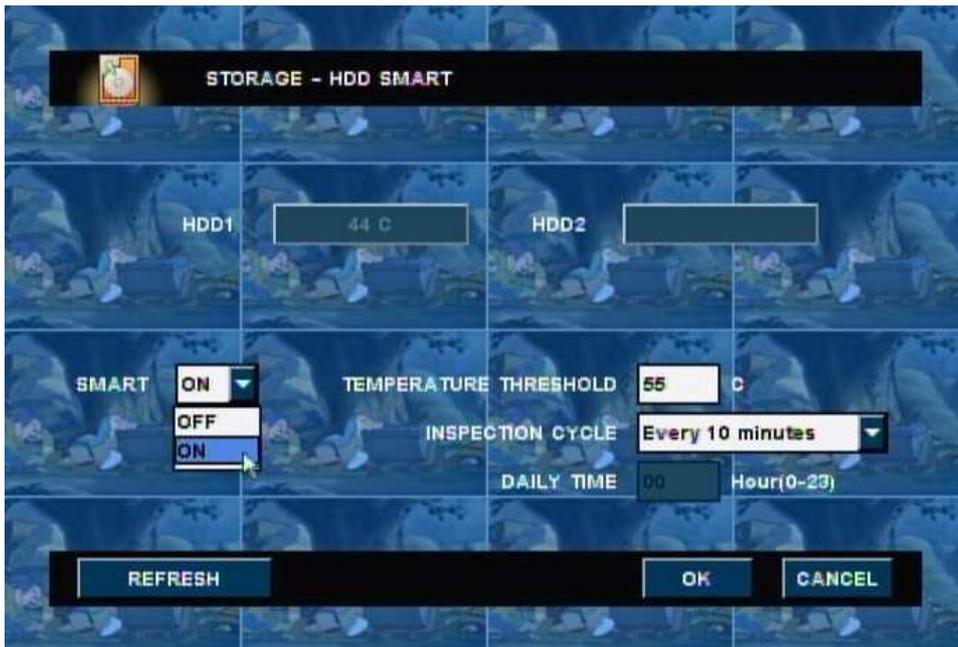
Password: Backup file is a temporary password.

(Only use back up view.)



● STORAGE- HDD SMART

- You can check HDD's temperature and if temperature is higher than setting , you can set the alarm.



- (1) HDD1, HDD2 : Inform the current temperature and displays for installed HDD.
- (2) SMART ON/OFF: If temperature is higher than setting, you can also set the alarm or not.
- (3) TEMPERATURE THRESHOLD: You can set up when SMART menu is ON.
- (4) INSPECTION CYCLE: Set up inspection cycle .
 - EVERY 10 minutes : Check up each 10 minutes.(00, 10, 20, 30,40,50)
 - Hour : Check up regular time.(00 hour, 01 hour, 02 hours,.....22 hours, 23 hours)
 - Daily : Check up every days as a fixed time.
Example) If you set up 09a.m, Check up every 09:00 a.m.

'REFRESH' button: Display HDD's current temperature as refresh.

● STORAGE- AUTO-BACKUP

- Auto-Backup function with internal HDD and external HDD to prevent Data loss.



EXTEND: User can use EXTEND backup through connected USB external HDD.

Data(which is need to be deleted) will be send to USB external HDD if Main HDD is full.

MIRROR: User can use MIRROR backup through connected USB external HDD.

Main HDD and external HDD will save same data at the same time.

SATA MIRROR: Save same data on 2 separated HDD.(with internal HDD)

● STORAGE- MISC

- Beep sound setting for warning message form Disk error.
 - OFF: No beep sound and activate error message.
 - ON : Beep sound on and activate error message.

Network

● Network – setup

- static – Input static IP address and gateway, net mask.

NETWORK - SETUP

TYPE: STATIC

IP ADDRESS: 192.168.000.102

GATEWAY: 192.168.000.001

NETMASK: 255.255.255.000

MAC ADDRESS: 00:0E:B5:02:7E:7E

PPPOE ID: [Empty]

PASSWORD: [Empty]

OK CANCEL

- DHCP – System automatically recognizes IP address. Click “OK”, after selecting DHCP. You will have IP address.

NETWORK - SETUP

TYPE: DHCP

MESSAGE DIALOG

TYPE=DHCP

IP ADDRESS=192.168.000.017

GATEWAY=192.168.000.001

NETMASK=255.255.255.000

OK CANCEL

- PPPOE – ADSL only, input registered ID and password.

NETWORK - SETUP

TYPE: ADSL(PPPOE)

IP ADDRESS: 192.168.000.017

GATEWAY: 192.168.000.001

NETMASK: 255.255.255.000

MAC ADDRESS: 00:0E:B5:02:7E:7E

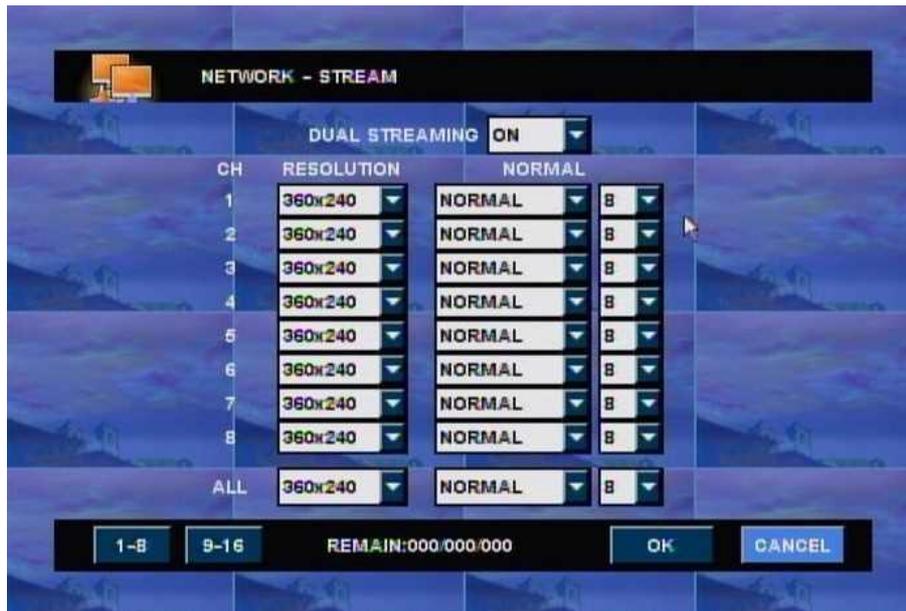
PPPOE ID: [Empty]

PASSWORD: [Empty]

OK CANCEL

● NETWORK- STREAM

- If CMS or web CMS access, Dual stream function offers in order to reduce the load on the network.(default rate is ON.)



(1) DUAL STREAM

- ON: Transmit to each channel's setting value.
- OFF: Transmit according to DVR Set's recording setting value.

(2) Resolution: You can choose 3 kinds of resolution.

- 720x480 / 720x240 / 360x240.

(3) Normal: You can choose 4 kinds of video quality.

- Basic / Normal / High/Best

(4) Frame : You can choose the number of transmitted frame for each channel.

The total number of frame can be different according to model.

(5) If you want to apply all channels, select " All".

Note: If DUAL STREAM is "ON ", network can take the load.

Please use properly this function according to network status.

●Network - DDNS

NOTE : We have own our DDNS Server.(DDNS.FTDVR.COM)

- SERVER – select registered server.
- SERVER-URL – indicate registered server URL
- USER ID – input ID registered to server.
- PASSWORD – input password registered to server.
- GROUP ID – input group ID registered to server.
- STATUS – indicate operation status of DDNS.
- TEST– try to connect with ID and password registered to server.

The screenshot shows the 'NETWORK - DDNS' configuration window. It contains the following fields and values:

SERVER	DYNDNS.COM
SERVER-URL	www.dyndns.com
USER ID	my_id
PASSWORD	mypassword
GROUP ID	
HOSTNAME	mydvr.dyndns.org
STATUS	www.no-ip.com FAIL

Buttons: TEST, OK, CANCEL

●Client

- Client port – select port to connect.
- Web port – select web port to connect to web browser.
- Bandwidth - limit transmitting data capacity through the network.
- DVR-Name - input DVR name to connect CMS S/W.

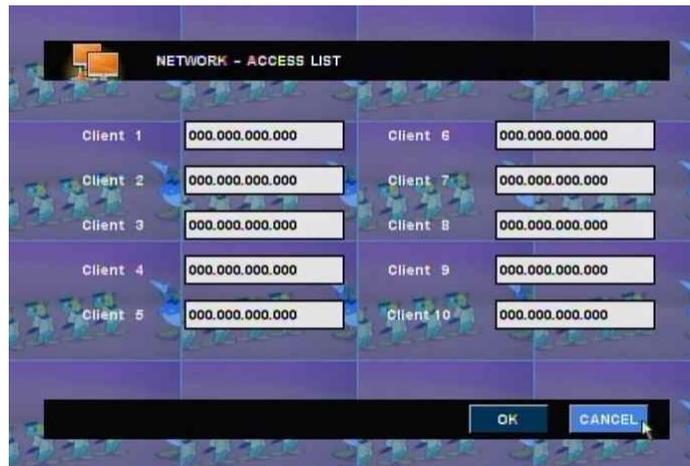
The screenshot shows the 'NETWORK - CLIENT' configuration window. It contains the following fields and values:

CLIENT PORT	7620-7624
WEB-PORT	0080
BANDWIDTH	UNLIMITED
DVR NAME	102

Buttons: OK, CANCEL

- Access list

- System can limit remote-PC, accessing network.
- Able to register Static IP and only remote-PC with registered IP can access system.



NETWORK - ACCESS LIST	
Client 1	000.000.000.000
Client 2	000.000.000.000
Client 3	000.000.000.000
Client 4	000.000.000.000
Client 5	000.000.000.000
Client 6	000.000.000.000
Client 7	000.000.000.000
Client 8	000.000.000.000
Client 9	000.000.000.000
Client 10	000.000.000.000

OK CANCEL

NOTE : the system restricts all the other IPs, those are not registered if you once register an IP. If you want to access with all IP addresses, do not register any IP.

● Server

- CC IP – input connection info of CAMS CC.
- PORT – input connection port of CAMS CC. (default value: 6500)

- CMM IP – input connection info of CAMS CMM.
- PORT – input connection port of CAMS CMM. (default value:7600)

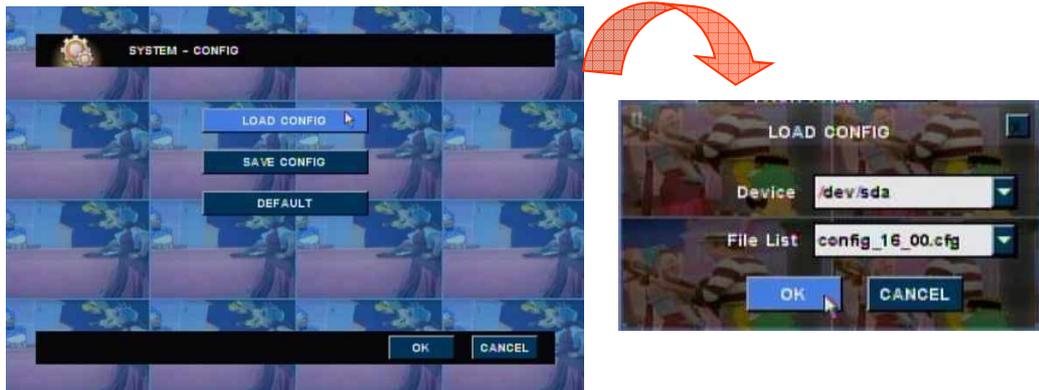


System

●System – Configuration info

NOTE : you can save the set values for menu to USB storage.

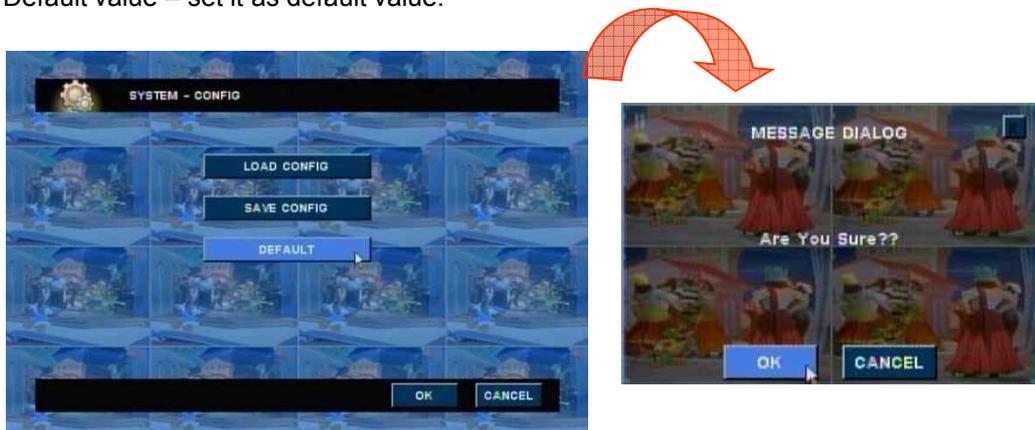
➤Load configuration – loads saved configuration information.



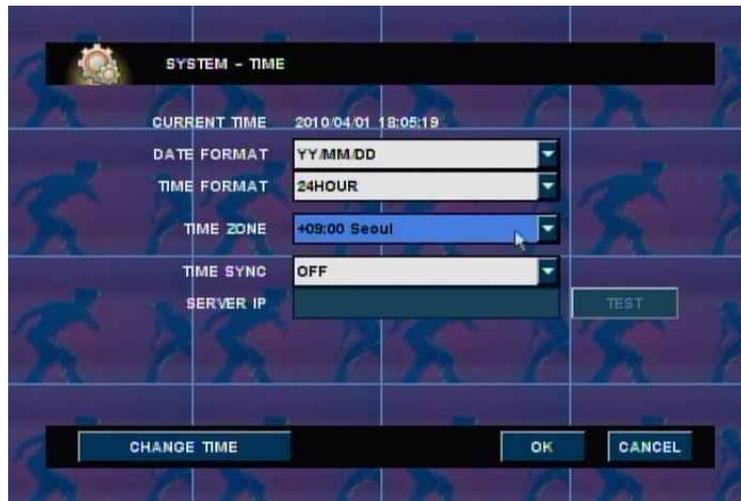
➤Save configuration – save the values set in the current menu.



➤Default value – set it as default value.



●System – Time management



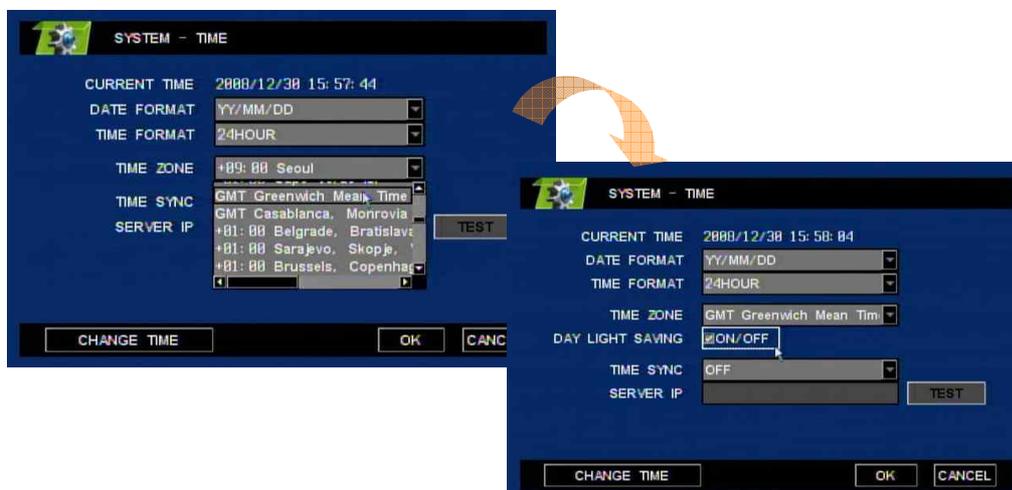
- Current time – indicates current time of system.
- Date format – select date format to display.

classification	display
YY/MM/DD	2008/03/03
MM/DD/YY	03/03/2008
DD/MM/YY	03/03/2008

- Time format – select time format to display.

classification	display
AM/PM	01:39:01 PM
24 HOURS	13:39:01

- Day Light Saving – Day light Saving Time area sets up automatically.
- Time zone – Select the time different from standard time of Time-Server then check automatically the check-box of on/off option.



➤ Time synchronization

When using TIME SYNC Function, please select “SNTP”. And then, System can Automatically connects to internet time-server to check current time.

➤ Server IP – input time-server IP address.

Omit ‘www’.

Select ‘ENTER/OK’ and check if time-server works.

example) time.kriss.re.kr → correct input

www.time.kriss.re.kr → wrong input

➤ Change time – change system time.

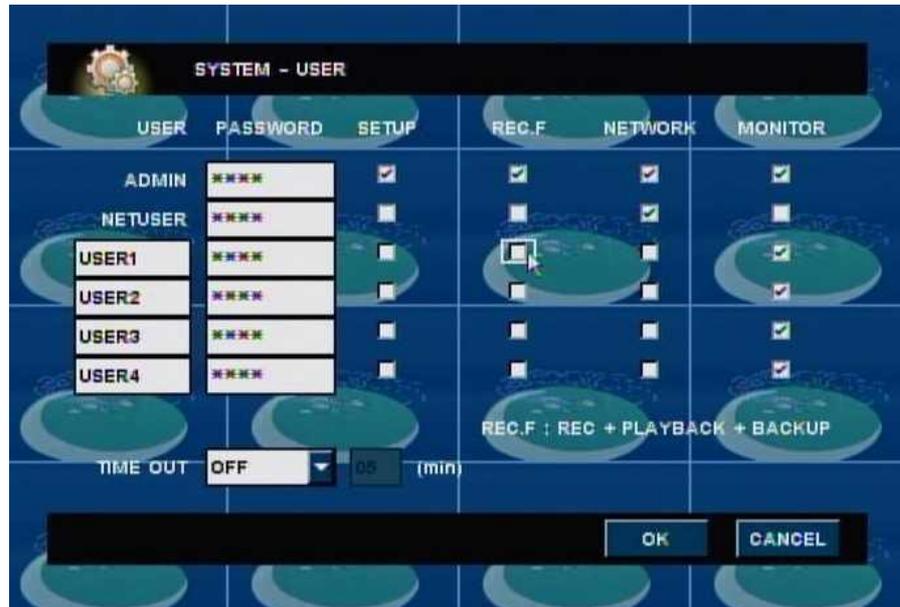
NOTE : be cautious when you change system time. Because if you set the system time earlier than the time originally set, the saved data after changed system time will be deleted.

● **SYSTEM – MISC**



- SYSTEM- ID – To use RS-485 or remote control, you must input SYSTEM ID.
- KEYBOARD – You can use keyboard controller.
Supported keyboard controller as follows.
 - WONWOOD
 - CHUBB
 - HISHARP
- Key -TONE : When you use a mouse, front keyboard or remote control etc,
you can turn on/off the sound.

● System – USER/Password management



- ADMIN password – change the administrator password.
- NETUSER password – from network user password by CMS.
- USER password – change the USER and user password for CMS.
- SETUP check – set whether to input user password or not before accessing system menu.
- REC.F check – set whether to Record + Playback + Network and Backup.
- NETWORK check – via network user by CMS.
- MONITOR check – Monitor this DVR system.
- TIME OUT – If there is no input during schedule time, automatically logout.

● System – Software

- Show current software version.
- Upgrade firmware software.



●System – System shutdown

- Select "System shutdown". If you see the message "system will shutdown", you can shutdown system.



Note: To protect your computer system,
If you want to you turn off on your computer's power,
you must turn off after selecting shutdown on system menu.

If you don not follow up, your computer can be damaged firmware or
can be occurred a fatal error in the system.

Chapter 5 Firmware Upgrade



NOTE : There are two ways to upgrade firmware.
 (1) USB upgrade – upgrade system using USB memory stick.
 (2) NETWORK upgrade – upgrade system by internet connection.

USB upgrade

(1) Copy the provided firmware file to USB memory stick.

NOTE : The firmware file should be saved in route directory of the USB device.

(2) Connect USB memory stick to system USB port.

(3) Press 'Menu' button and move to the next software.
 [menu → system → software]

(4) You will see a new box if you select 'Upgrade'

(5) You will see menu like below if you select 'USB upgrade'.



(6) Device – select USB device with firmware file.

(7) File list – select the right firmware file.

(8) Select 'ENTER/OK'. System automatically upgrades. System will reboot after upgrade is completed.

Network upgrade

● Network upgrade

(1) Press 'Menu' button and move to the next software.
[Menu → system → software]

(2) You will see a new box if you select 'Upgrade'.

(3) Select 'Network upgrade'.



(4) Select 'Server IP' with firmware file and file name. then select 'ENTER/OK'.

(5) You can manually input server IP and file name if the system appointed server IP and file name is different.

(6) System will automatically reboot after upgrade is completed.

NOTE : Network upgrade function is an upgrade method by using internet.
It depends on network place or internet status, user cannot be accessed.

Chapter 6  CMS – Display Mode



User Interface



- Search
- Setup
- E-Map
- Log Viewer
- Log out

Search : search saved image by remote or local search.

Setup : setup on CMS system.

E-Map : Monitor DVR sites, Camera, Sensor, and Control through E-MAP.

Log Viewer : can check or print 'Log file' in the CMS system.

Log out : Log in/out



Start : can execute overall CMS functions such as log in/out, Setup, Search.

Display screen

- **DVR #1 [CAM01]** : It represents site code, screen number, and camera name.
- **R** : "R" It represents this image is saving on CMS.
-  : It represents this image is with audio data.
- **C 10-18 16:41:15** : It represents the time of data transmitted.
 "10-12 16:30:14" DVR System time
- **E-Map** :  Click this button to enable 'E-MAP'.
- **Print** :  Click the button to print the image.
- **Snapshot**:  Click the button to save the appropriated image.
 (Location for saving - C:\CMS_2KV3\Image)



 E-Map, Print, Snapshot button shown on one division screen.

- **Screen Switch on Display mode** : put the mouse on the screen, and click right mouse button and drag to the desired screen to display.



- **Full Screen Mode** : Only normal main screen is available to apply full screen mode in CMS function.
- **Normal Mode → Full Screen Mode**
 - Double click right button of mouse on normal main screen.
 - Enter ID and password and click “OK”.



- **Full Screen Mode → Normal Mode**
 - Double click right button of mouse on full screen mode.
 - Enter ID and password and click “OK”.

- **PTZ Controller:** can control PTZ from the remote site of CMS via network.



- Click ICON of PTZ as the left image.



- Can control up , down, left & right direction of PTZ.

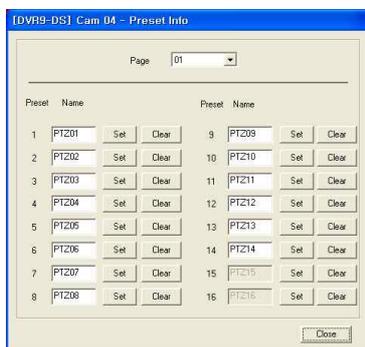
- Can Zoom IN / OUT of PTZ.

- Can control speed of Zoom IN & OUT & its Movement of PTZ.

- Can control Iris, Focus of PTZ..

- Can use the function of Preset/Scan point for PTZ.

- Preset Setting: after selecting Preset, click SET button.



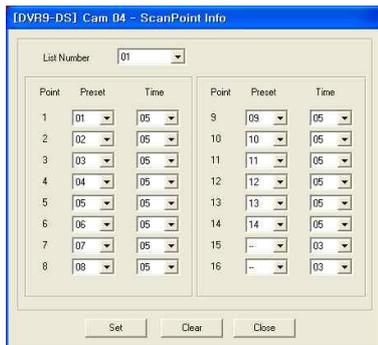
User move PTZ on the direction of up, down, left & right, with Zoom In & Out to the position which user want to move, and then click Set Button.

Preset setting can be available up to 64 times.

-Preset Operation: select Preset at PTZ Main controller, and then input Preset number at Number, if click RUN Button, move to Preset position which was input number.



- ScanPoint Setting: after selecting ScanPoint click SET Button. 



According to the order of the left image menu, select Preset number & dwell time.

ScanPoint can be set up to 4 times per camera.

- ScanPoint Operation: Select ScanPoint at PTZ Main controller, input ScanPoint number on number, and then click RUN Button, can be operation for Scanpoint function. 

Connection list & Sensor/Control & Screen Division



◆ Connection list

- There are two ways which are Pre-Memorize and DVR list on the connection list.

▪ Pre-Memorize

show the information for each DVR site on the list.

▪ Screen list:

can change the position of camera after selecting screen or list.



◆ DVR list

Monitor each screen in order without extra display setup.

- Single / Multiple Mode** : Click the button to activate single or multiple mode as pre memorize access.
- Connection** : Click the button to connect or disconnect to DVR.
- Remote Setup** : Click the button to use remote setup for selected DVR.
- Remote Search** : Click the button to use remote search for selected DVR.
- E-map** : Click the button to use E-MAP for selected DVR.
- Status** : It represents the information and the status of accessed DVR.



▪ **Sensor/Control**

- Select the registered site name, then, click each button of sensor and control to activate.



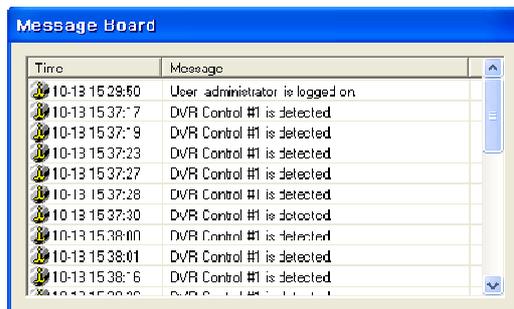
▪ **Screen Division**

- Various surveillance modes available through division buttons.

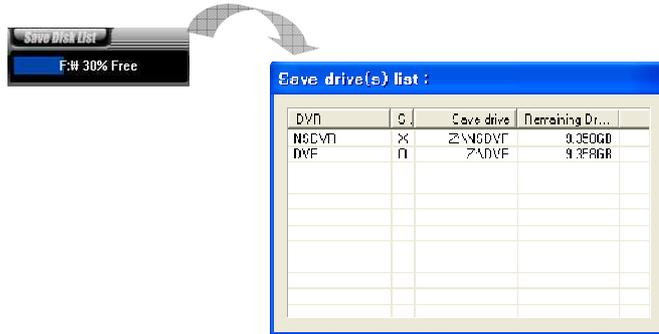
Status

▪ **Status List** : It represents the event message of CMS program.

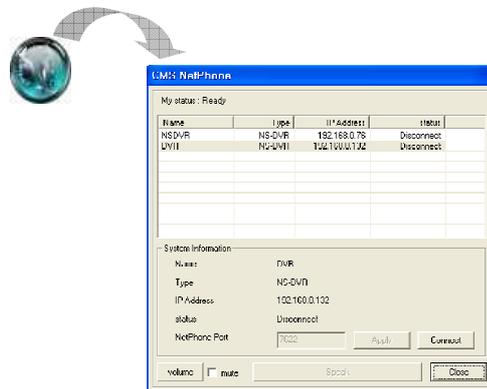
Status List : Click the button to check the details of event message.



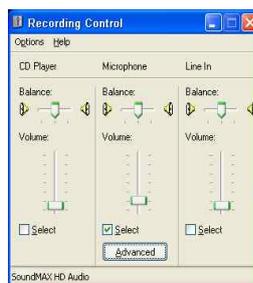
- **Save Disk List** : Select the drive to setup save disk for the data from each DVR site.
 Save Disk List : Free space of and the status of each drive can be checked.



- **2WAY AUDIO** : Audio communication between CMS and DVR available.
 Click 'AUDIO CHAT' button on CMS, and select DVR name to talk, then, click 'Talk' button to send
- * **request to DVR site**: Audio chat button will be flashed on/off on DVR site by requesting audio communication from CMS.



- Setup the port for 2way audio communication. **Control the setup and volume of microphone by volume button.**



- **Digital-Clock** :  It represents the date of CMS system. Display format can be changed.

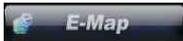
System Utility



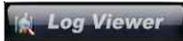
Search : access to various search mode, general search, special search (real time, multi time, day search), object search etc.



▪ **Setup** : Setup on CMS system.



- **E-Map** : Monitor the position of DVR, Camera, Sensor, and Control through E-MAP.



- **Log Viewer** : Check 'Log file' in the CMS system by clicking the button.



- **Logout** : log in or out, shutdown, EMC Standby , cancel the program.

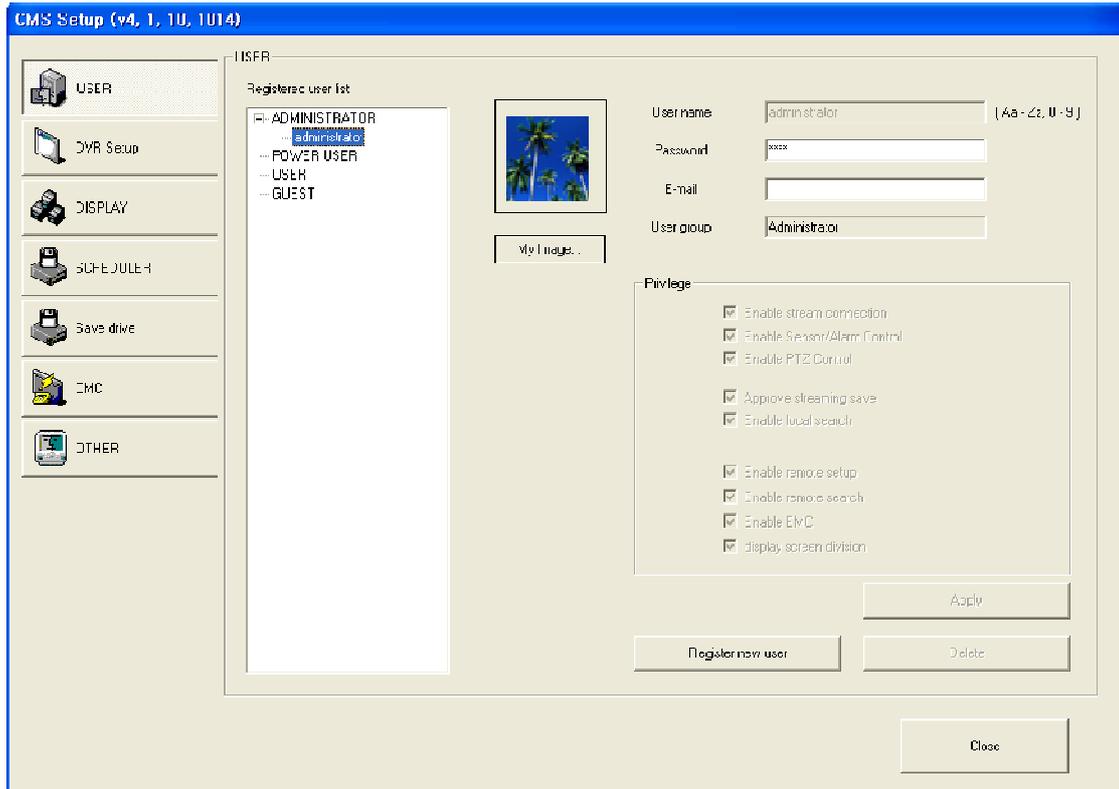
Default User ID : administrator / Password : 1234
Ask administrator or dealer if you forgot ID or PW.

CMS – Setup Mode



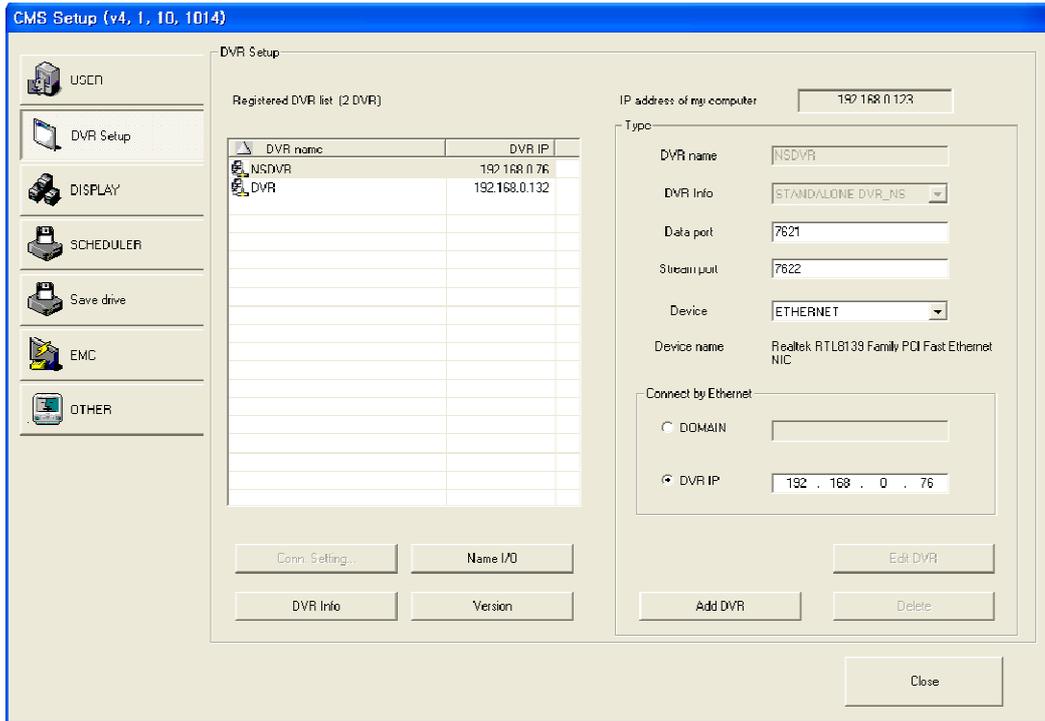
Setup

- **USER** : make the user group with different privilege. Default is 'ADMINISTRATOR'.



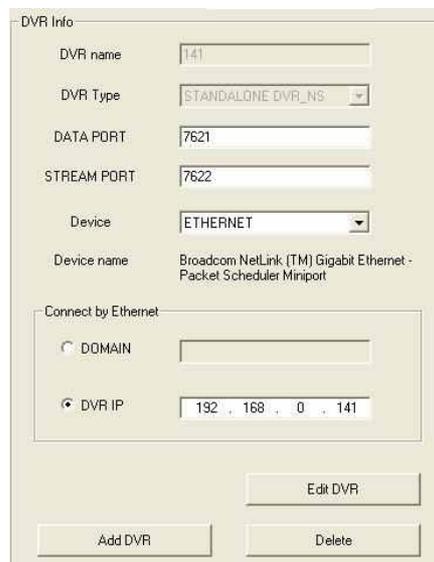
- **Registered user list** : It represents the group of registered users.
- **Register new user** : Register new user : click this button to add new user, and click 'Apply'.
- **Privilege** : you can assign different privilege to each user.
- **My image** : change the image with that you prefer such as company logo.

- **DVR Setup** : setup the network connection.

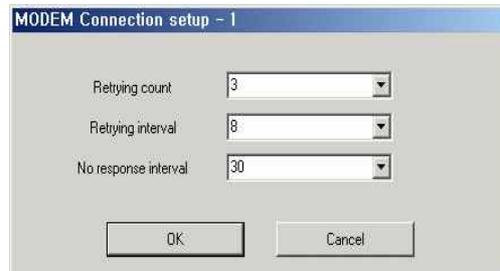


- **Registered site list** : It represents registered DVR LIST.
- **IP address of my computer** : It represents IP information of CMS System.
- **DVR Info** : Input the information of Network connection as DVR is registered.

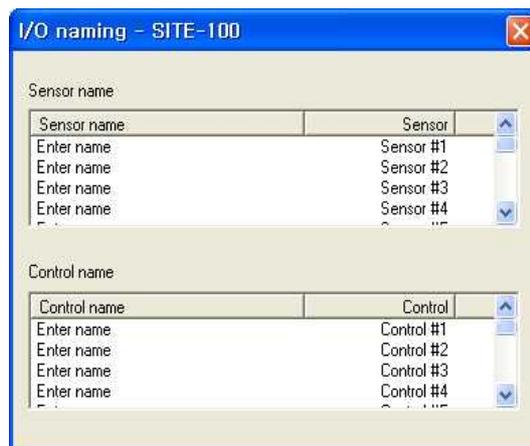
Add site : Input Site name, DVR Type, PORT, and Site IP.



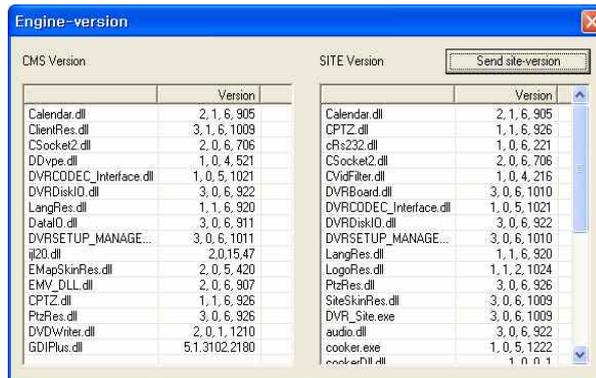
- **Delete** : click it to remove the registered site.
- **Edit site** : edit setup information.
- **Conn. Setting** : it is for modem connection setup. You should setup Modem on OS, and this button will be enabled. Adjust the time for retrying connection. If there is no response from the site system, the system will retry connection as you set up.



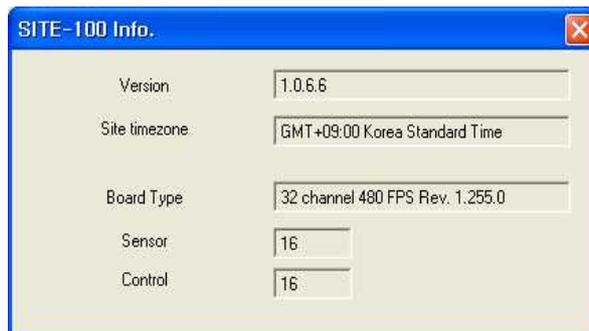
- **Name I/O** : you can change the name of sensor and control. Double click 'Enter name', and it will be enabled to put the name.



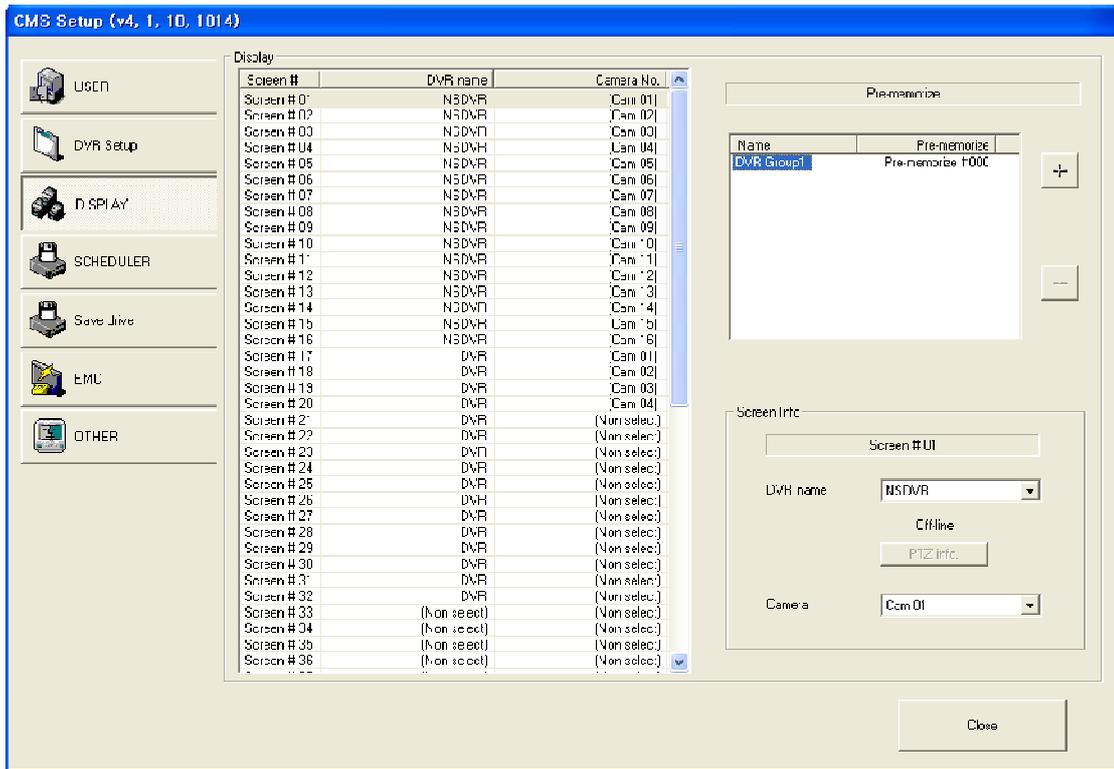
- **Show versions** : shows the version of CMS currently using, click 'Send site version' to show the information of site version.



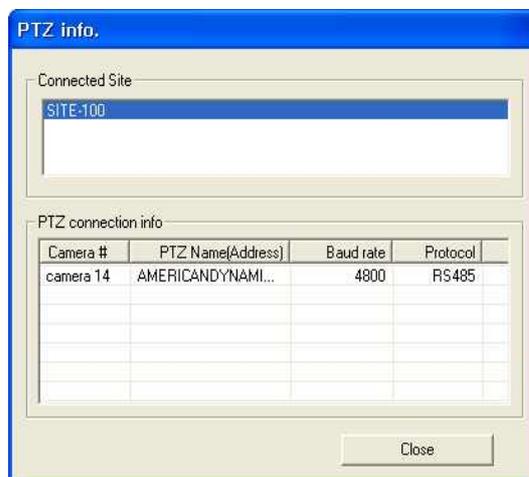
- **DVR Info.:** shows the information of connecting site, program version, time, capture card type, the number of sensor and control.



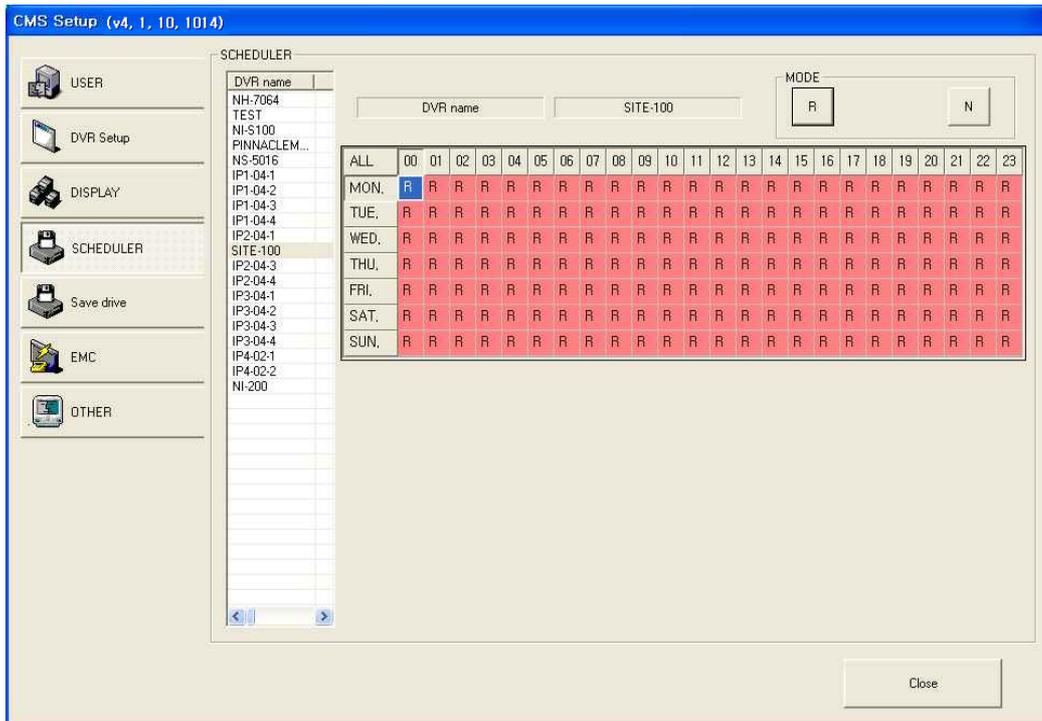
◆ Display



- **DISPLAY** : It represents CMS DISPLAY SCREEN and setup information on the LIST.
- **Setup Pre-Memorize** : Display list can be generated by clicking “+” and “-” after setup display.
- **SCREEN Info** : Select DVR name and camera after selecting Display List to monitor the appropriate image.
- **PTZ info** Check the information of PTZ setup of each DVR.

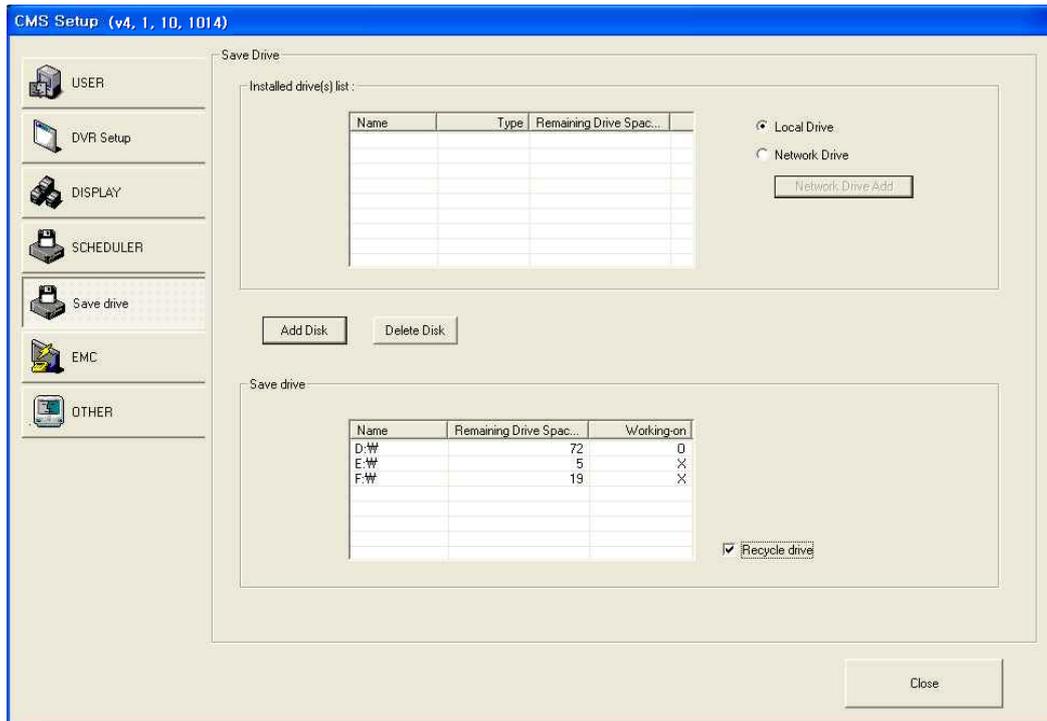


◆ SCHEDULER



- **DVR list** : shows a list of registered DVR.
- **Recording Schedule** : setup save schedule for the selected DVR from the DVR
 - Select DVR to save from DVR List.
 - Drag or click to select the date/time to change the schedule.
 - Click 'R' (Recording), 'N' (Not Recording) buttons to change the schedule.

◆ SAVE DISK



- **Install drive(s) list: shows a drive list of CMS system.**
- **Save drive: shows the list of drives to DVR data, transmitted to CMS.**

Setting up 'Local Drive'

- 1) Select a drive to save data from 'Installed drive(s) list'
- 2) Click 'Add Disk' button to add it as 'Save drive'.

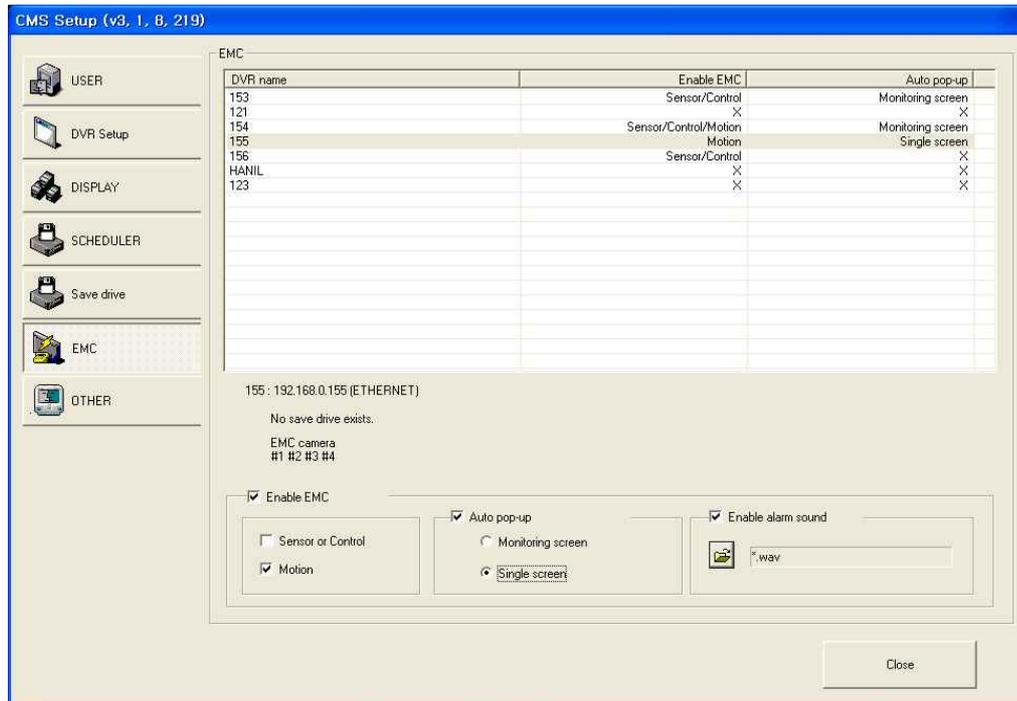
you can use 'Recycle drive' function when you added more than 2 drives.

Setting up 'Network Drive'

- 1) Checkmark 'Network Drive' and click 'Network Drive Add' button.
- 2) 'Network Drive' will be generated. Then, Click 'Add Disk' button to add it as 'Save drive' from the list.

You cannot use 'Recycle drive' function.

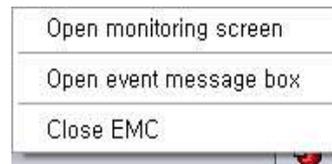
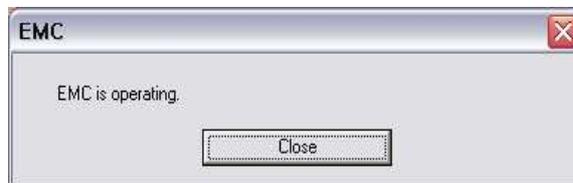
◆ EMC (Emergency Management Center)



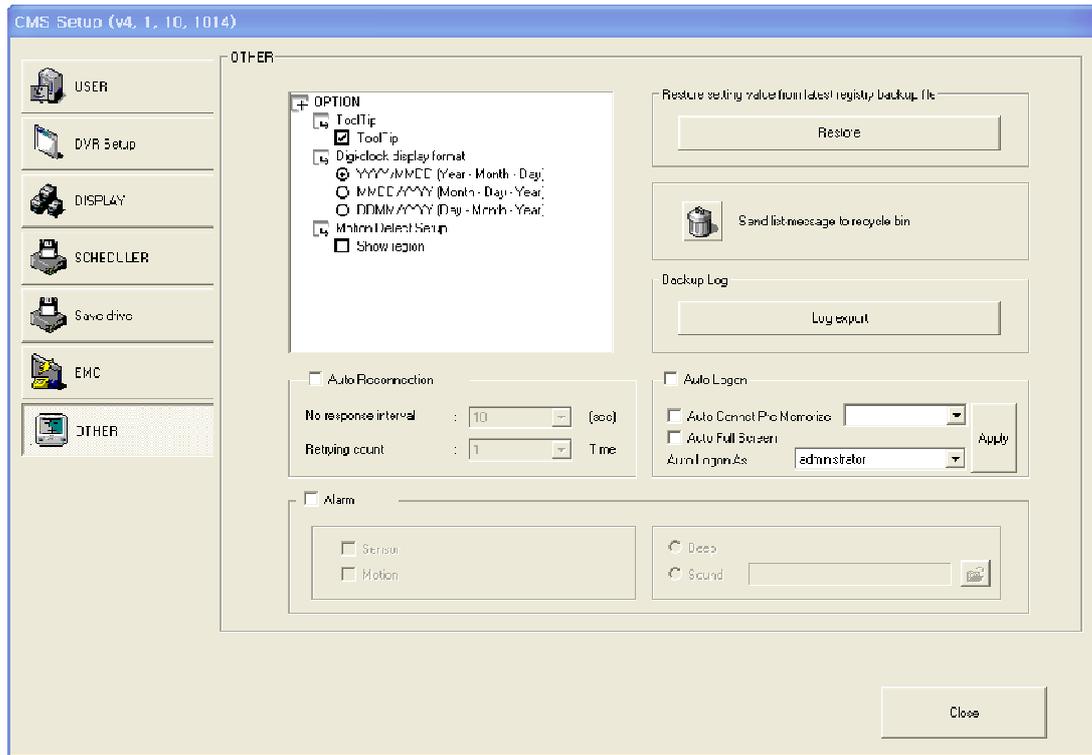
- **EMC mode** : when the emergency event happen on the site, the event image is sent to CMS system automatically with multiple or single screen.
- **Enable EMC** : checkmark to enable EMC. Select the event mode either by motion or by sensor or control.
- **Auto pop-up** : when EMC is activated by motion or sensor/control, the event will come up with monitoring screen or single screen.
- **Enable alarm sound** : checkmark to enable alarm sound when EMC is activated. Open the folder and select wave file.
- **EMC activation** : after setup is completed, go to monitoring mode. Click 'log out' button, and you can see 'EMC standby' button. Select it, it will go to EMC mode. EMC icon will be generated on the right corner of the bottom.  When EMC mode is activated by motion or sensor/control, the event screen will automatically pop-up, and the icon will be turn in red.



- **EMC single screen pop-up** : automatically pop up with site name and camera number.



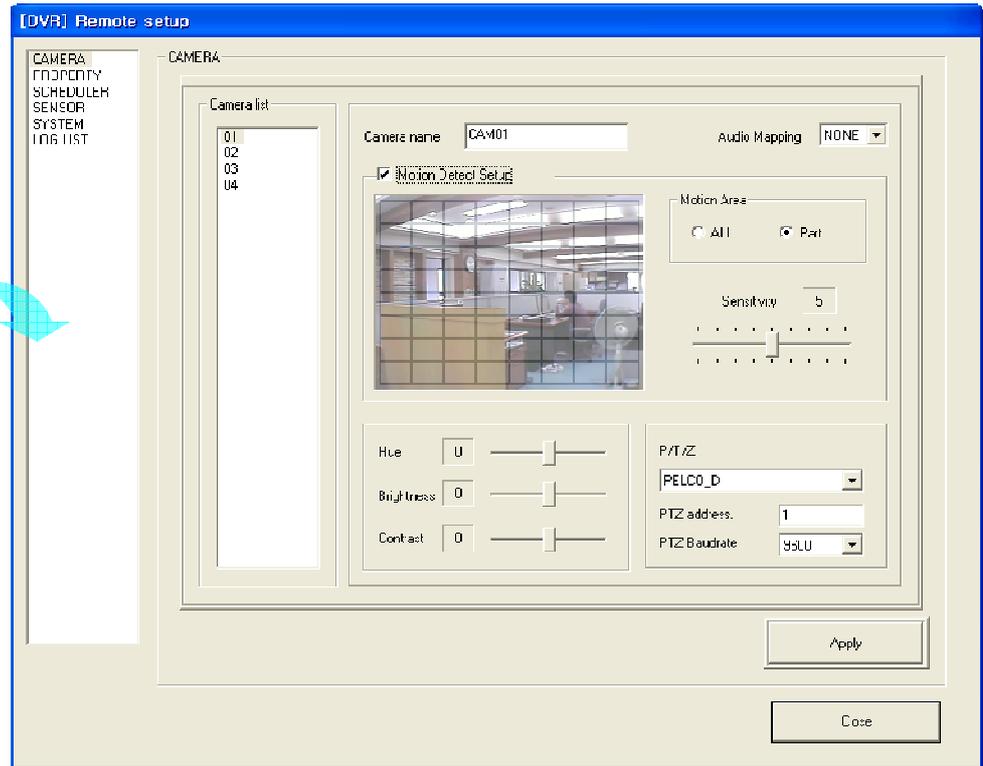
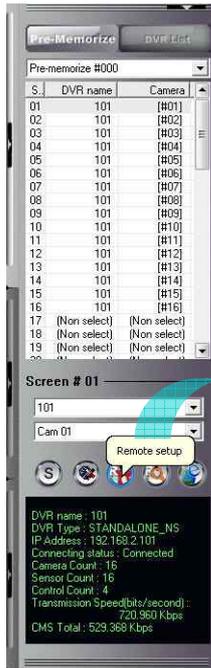
◆ Setting up OTHERS



- **Tool Tip** : shows function explanation if you put the mouse on the function key.
- **Digi-Clock display format** : select display format of digital-clock.
- **Motion Detection Setup**: shows the motion detected area if the transmitted data is motion Event.
- **Restore** : in case of system shutdown, changes in system setting value or other functions, you can restore the latest setting value.
- **Send list-message board to recycle bin** : send the all messages on 'Message board' to recycle bin.
- **Log export** : shutdown all the generated log files.
- **Auto reconnection** : if network is unstable and disconnect for a period of time, CMS retry connection with site system. Adjust waiting time and retrial count.
- **Auto Logon** : Connect to Pre-Memorize data automatically when user Log in on CMS.
(Log in account must be selected)
- **Alarm** : Beep out or specified way file output when sensor or motion detected.

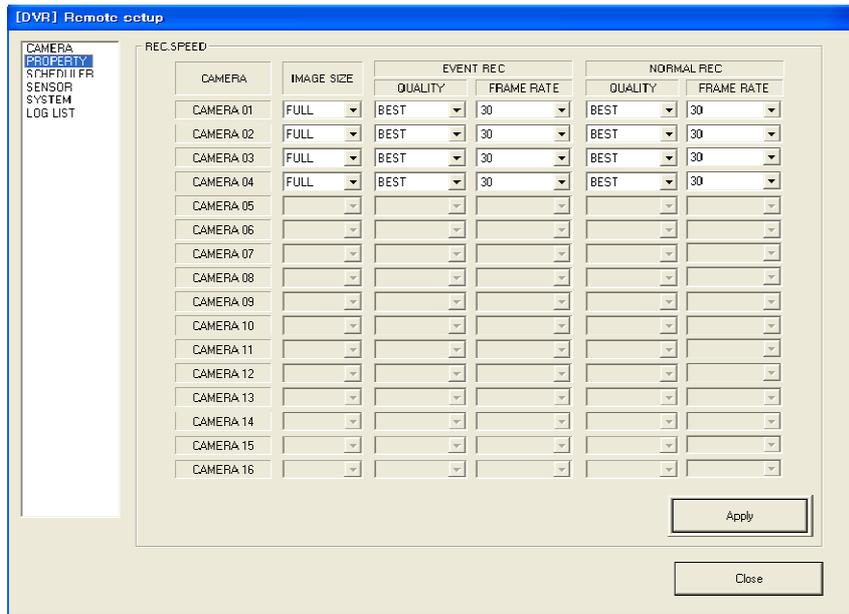
Remote Setup

◆ Camera



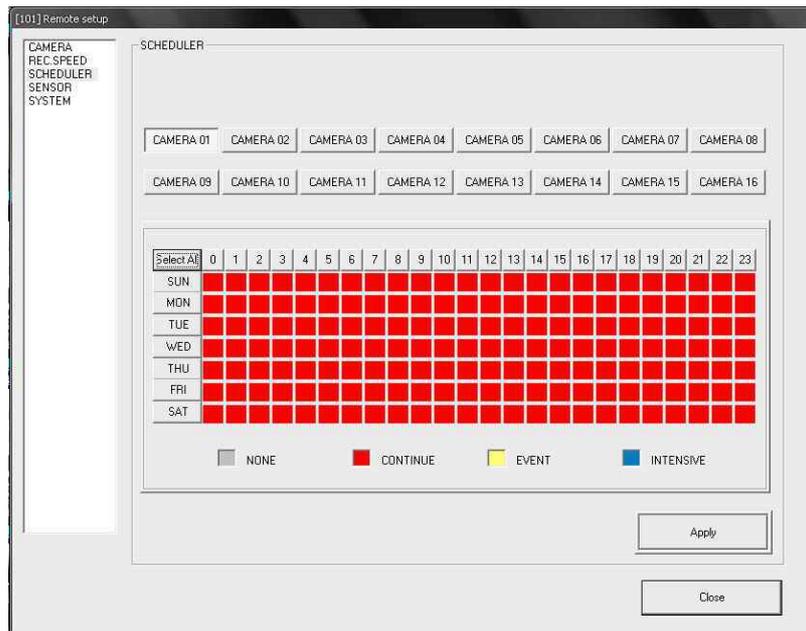
- **Camera list** : shows camera list installed on the site, and you can make the setup on the network. Select a camera to setup.
- **Camera name** : change the camera name, and adjust color, brightness, contrast of the camera.
- **Use Motion** : select the full or part of motion area, and also control motion sensitivity.
- **Color** : control color, bright, and contrast.
- **Use PTZ** : select PTZ and put the address and PTZ Baudrate.

◆ Record speed



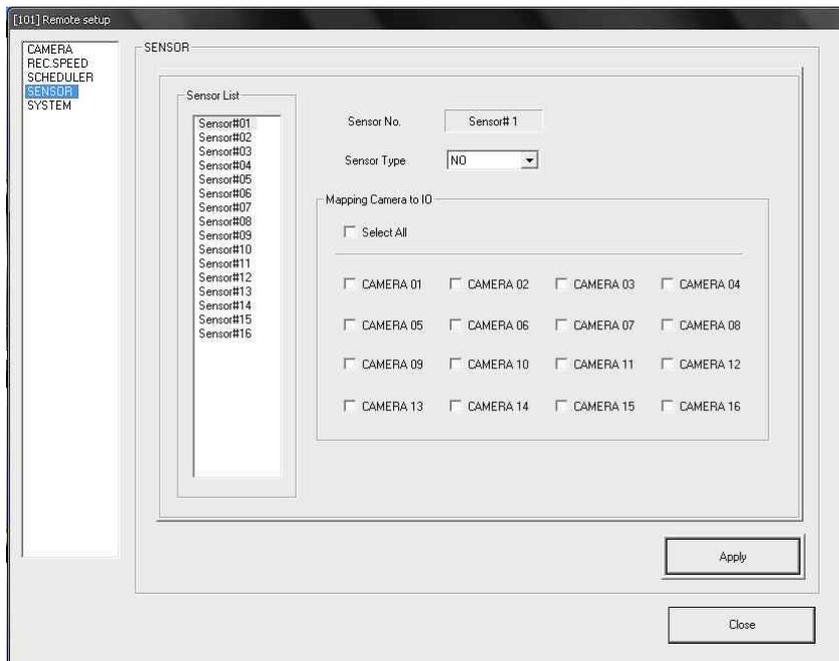
- 1) Image size : select image size for recording.(EVENT REC / NORMAL REC)
- 2) Individual camera recording setup : select image size, quality, frame rates for each camera.

◆ SCHEDULER



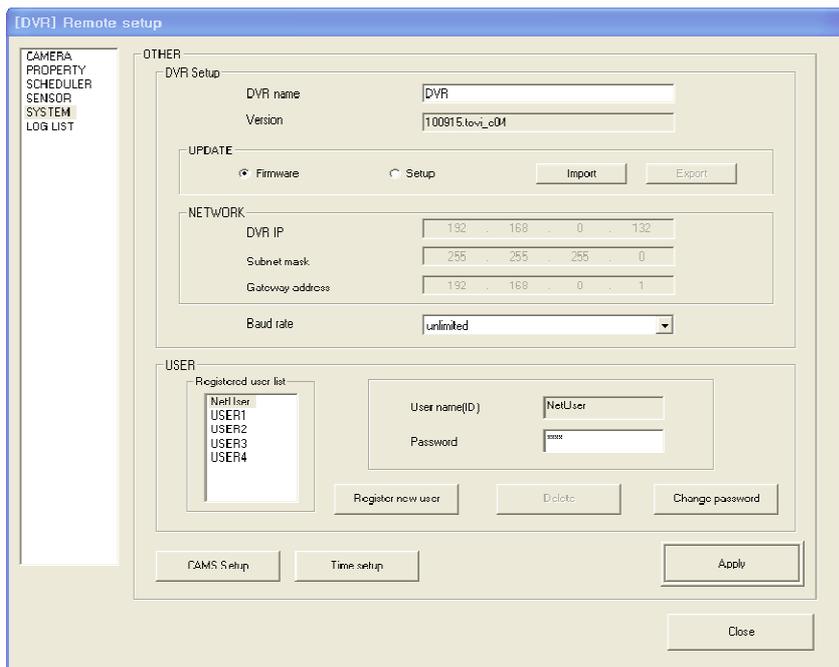
- 1) Recording schedule : select a date of a week, and setup recording schedule. Selected value will be shown in red mark. Click 'All' to apply the same setup for all cameras.

◆ **SENSOR**



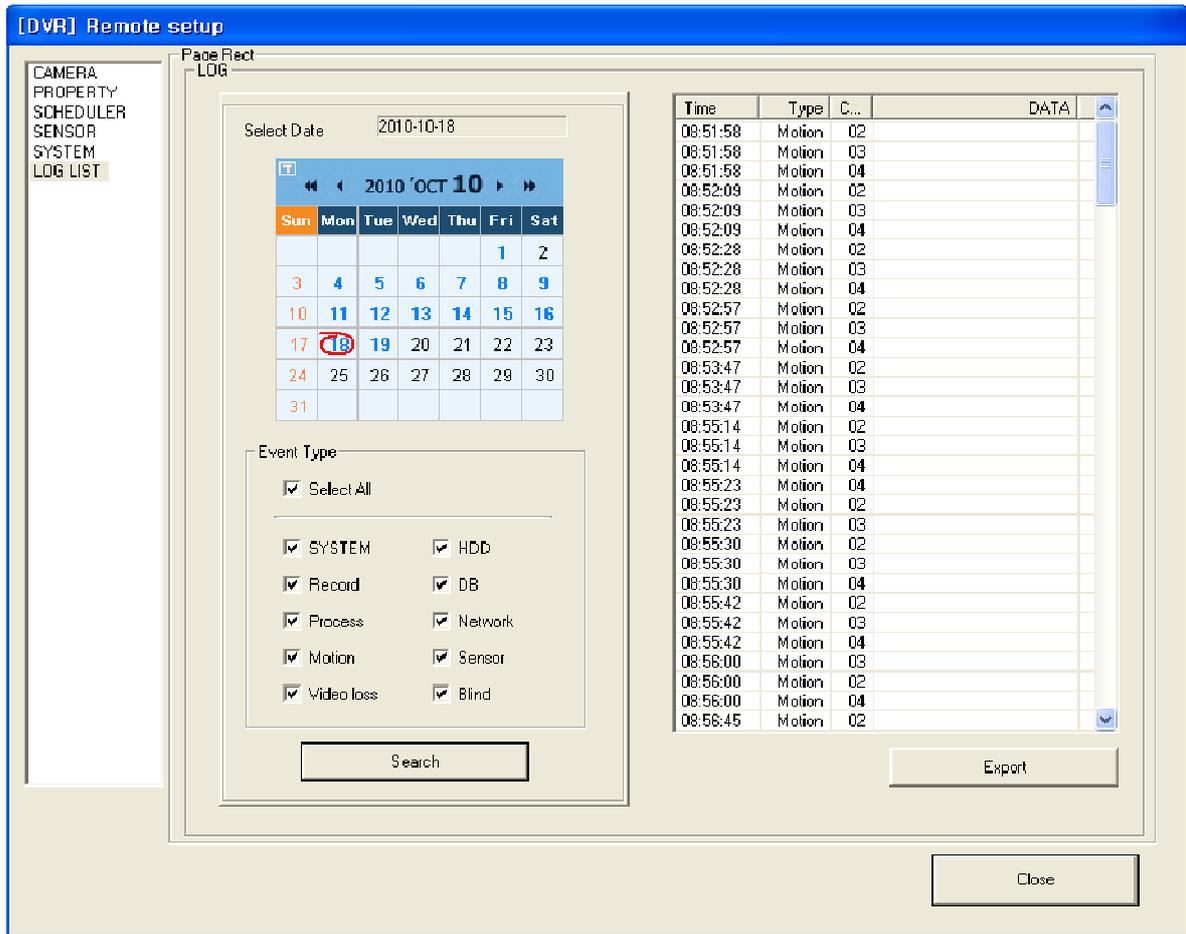
- Map sensors to cameras, and select the sensor type.

◆ **SYSTEM**



- DVR info : shows the connected DVR information such as DVR name, program version.
- Network info : shows network connection information such as IP address, subnet mask, gateway.
- User info : shows user list of the connected DVR. You can change password, register new user, and delete user.
- Network Transmission Speed : Setup Network transmission speed.
- CAMS Setup : setup for CAMS monitoring.
- Time setup : setup for DVR time (Manual input – input the time manually.
Client time setup – synchronize the DVR time to CMS server time)

◆ LOG LIST



- LOG LIST : search for DVR event log.
(System, HDD, Record, DB, Process, Network, Motion, Sensor, V-loss, Blind)
 - Select data on the calendar.
 - Select event type and click "Search" button.
 - Event search result will show up on log list window on the right side.

CMS – Search Mode



Search Mode



- **Playback screen** : displays playback image of the screen.
- **Digi-clock/ Calendar** : digi-clock shows current system time. The date which has save data is shown with different color. Select the date to search, and then, system will start to load data.
- **Search** : select a folder to search data.
- **Time table** : after data loading is completed, the data save location will be shown on the time table. You can select camera and time to playback.
- **System Utility buttons** : access to 'Special Search' and 'Save' function. 'Special Search' provides 'real player', 'multi time player', 'day search', 'object search'. Click 'OPEN', it provides more search conditions. Therefore, you can do more detailed search effectively.
- **Screen division/Playback scroll** : it provides various screen divisions, and 'playback scroll' shows the progress of data playback.
- **Audio playback speaker** : playback Audio data.
- **Camera number** : when you use 'special search', this camera number bar will show up. Click any camera you want to playback.

Playback Screen

- **C10(Camera 10)** : 'C10' is screen number, 'Camera10' is the camera name of save data.
- **x 1** : shows how many times the picture zoomed in. Move the mouse on a screen, and double click the right mouse button to select. You can playback the single screen or zoom in the image up to 5 times (x5). If you want to go back to the 16division mode, double click the right mouse button.
- **00:00:00:093** : hour: minute: second: millisecond (recording mode) .
- **(M)**: Indicates event mode. Please see below event mode for the each letter.



(C) : Continuous Recording (M) : Motion detect Recording
(I) : Intelligent Recording (S): Sensor detect Recording

Digital-Clock / Calendar

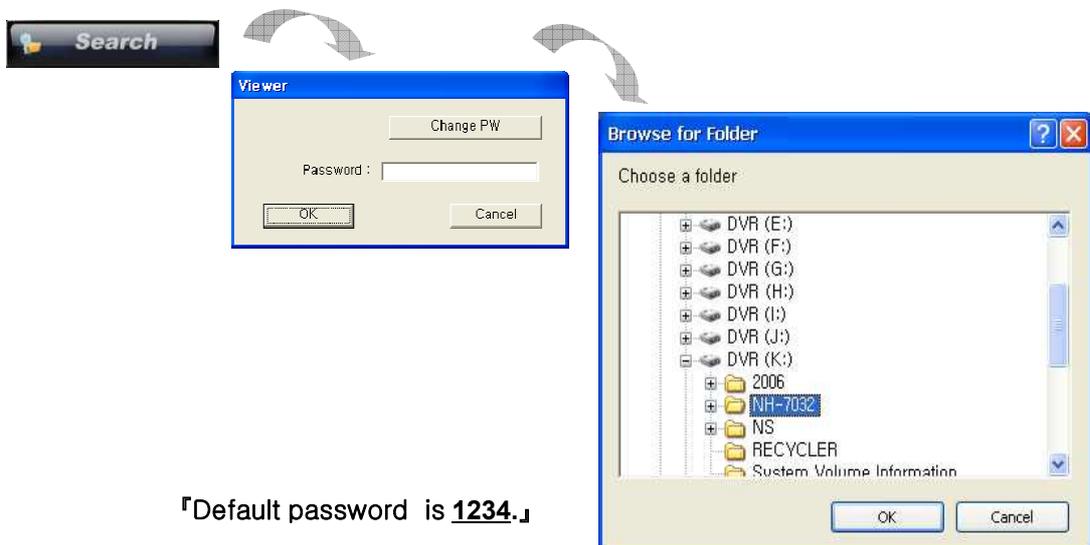
- **Digital-Clock** : displays the current time of the system.
- **Calendar** : the date has save data is showed in orange color. If the date is selected, it is shown in white square box.
-  : indicates today's calendar.



Search

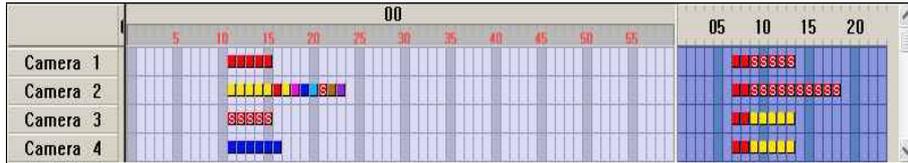
- **SEARCH** : Select the button to search the saved data.

Select the folder.



Time table

- When you click 'Search' button, the system is loading the save data, and the data save location will be shown on the time table with different color of the event. Double click each cell to playback the data.



- Camera zone** : displays all cameras installed on the system.
- Hour zone** : select hour from 00 to 23.
- Minutes zone** : select minute from 00 to 59.
- Event data cell** : each event data cell indicates different recording mode, so you can find the event mode easily on the time table.

- | | |
|--|---|
|  : (Blue), Instant recording |  : (S- light red), Audio recording |
|  : (Light blue), Pre-Recording |  : (Pink), Sensor recording |
|  : (Violet), Intensive/sensor recording |  : (Red), Continue recording |
|  : (Brown), Intensive/motion recording |  : (Yellow), Motion recording |

Screen division buttons / Playback scroll bar

- You can select the screen division button and control bar as below.



Division Buttons

System Utility buttons

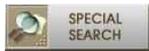
- Speed, Zoom in/out,
Speed : Playback speed controller (from 1 to 5 levels.)
- Zoom : Playback Zoom in/out controller
- Brightness : Screen brightness controller



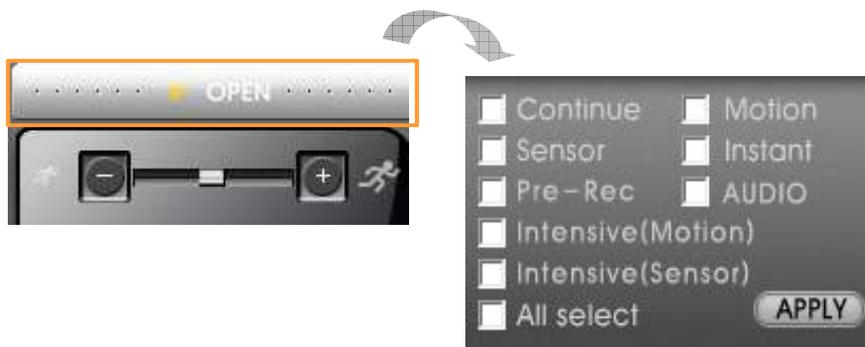
▪ **Playback control buttons :**

-  - Move to the first image of the data.
-  - Play backward per frame.
-  - Play backward.
-  - Stop to playback.
-  - Playback
-  - Play forward per frame.
-  - Move to the last image of the data.

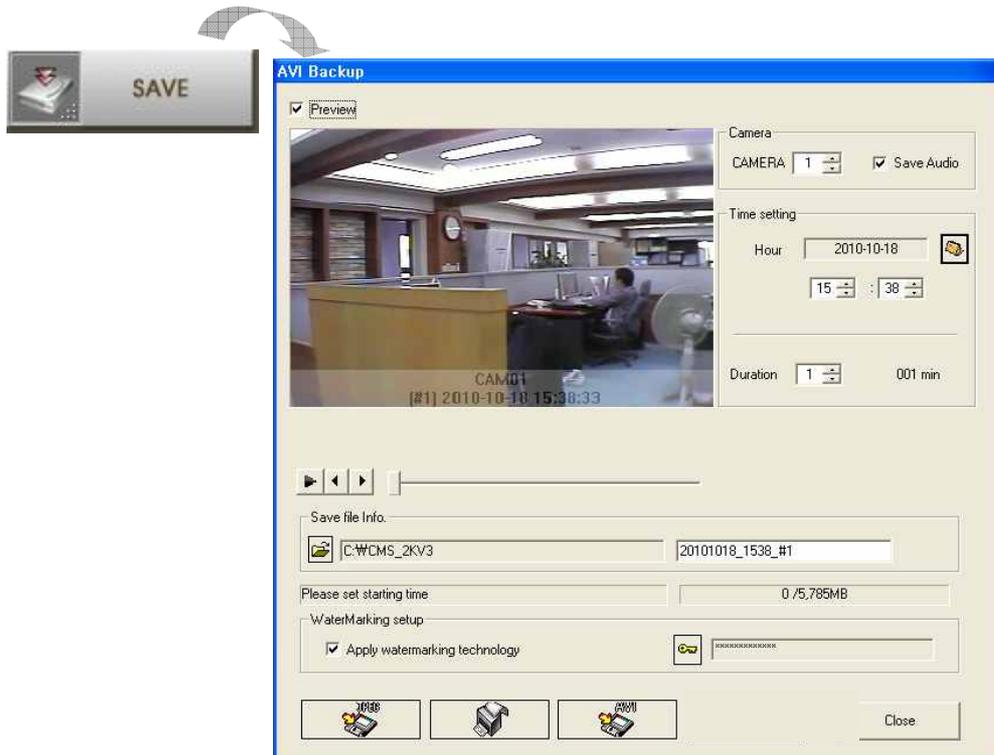
- **Special search :** click 'Special search' button, and open the 'sub menu' to access to the advanced search tool, Real time player, Multi time Player, Day search, Object Search.



- **General search :** you can set as 'continue, motion, sensor, instant, pre-recording, audio, intensive, all'.



▪ **Save** : click to save the data as JPEG, AVI, print format. Data will be saved with viewer, so it will auto-run and you can view it on any PC without special program.



▪ **Camera** : select a camera. Save Audio data

▪ **Time setting** : setup the time of the data which you're going to save. Click the calendar on the right. It will show the data saved calendar. The data saved date will be 'blue block'. Check the date and it will show the hour and minutes of the first saved data.

▪ **Preview** : preview the save data before data save process.

▪ **Save file folder** : you can select the folder to save. Click the folder icon on the left, it shows all the folders to save. Default is C:\DVR_Site2, and file name is the time of data save. It can be changed by administrator.

▪ **Size of save device** : displays total size of data, you can calculate the device capability.

▪ **Watermarking setup** : check it to apply watermarking technology. In case of watermarking is applied and created saved file, there will be another watermarking applied file saved in saving folder(C:\DVR_Site2).

Save format : you can select the format of data save among JPEG, AVI, Print.

▪Special Search

1) **Real Player** : You can search the audio data.

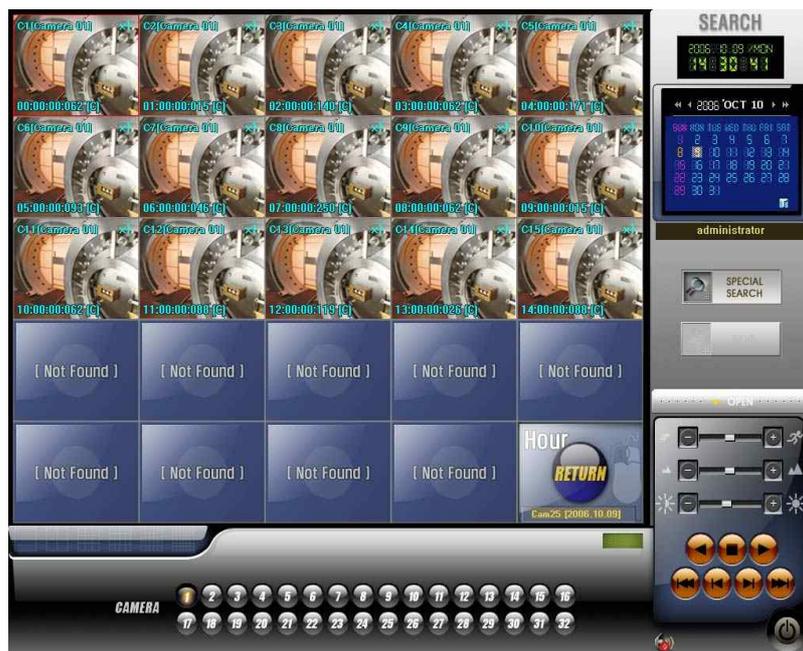


2) **Multi time Player** : you can playback the data on the multiple time zone on the same playback screen.

3) **Day Search** : you can search a day of data(00:00~23:59) per camera by hour, by minute. For example, if you want to see the data by minute, select one screen of specific time by mouse double click,

👁️ If you want to go back to the previous step, click 'RETURN' icon.

👁️ 'Not Found' will be shown if there is no data on that time zone.



- 4) **Object Search** : you can quickly search movement or missing of an object on the specific zone.
Select a camera to search and then click 'scan button'. Drag to designate the area to search.



▪ **Sensitivity** : select the sensitivity from 0 to 24. Default is 13.

▪ **SEC/MIN** : select search by minute or by second.

- **Time Scope** : setup searching time.
- **Scan button**: click the button when you designate the area, and click again to start search.
- **Result** : search result will be shown. Click each result to check the movement. If you click playback control button, you can do normal playback.

Remote Search

▪ **Remote Search** : search the saved data on DVR sites.



▪ **Playback screen** : displays playback image of the screen.

▪ **Digi-clock/ Calendar** : digi-clock shows current system time. The date which has save data is shown with different color. Select the date to search, and then, system will start to load data.

▪ **Time table** : after data loading is completed, the data save location will be shown on the time table. You can select camera and time to playback.

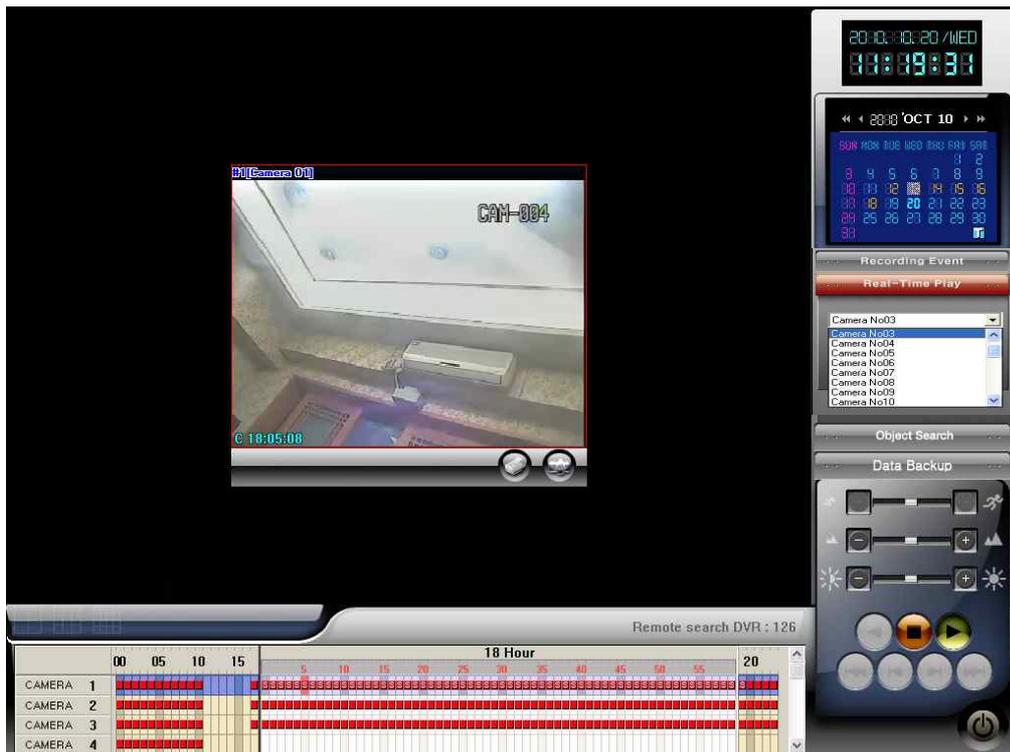
▪ **System Utility buttons** : provides 'real play' for event search and audio playback.

▪ **Audio playback speaker** : playback Audio data.

- **Recording event** : Search by event. It playbacks only the selected event data if you checkmark 'Event Mode'.



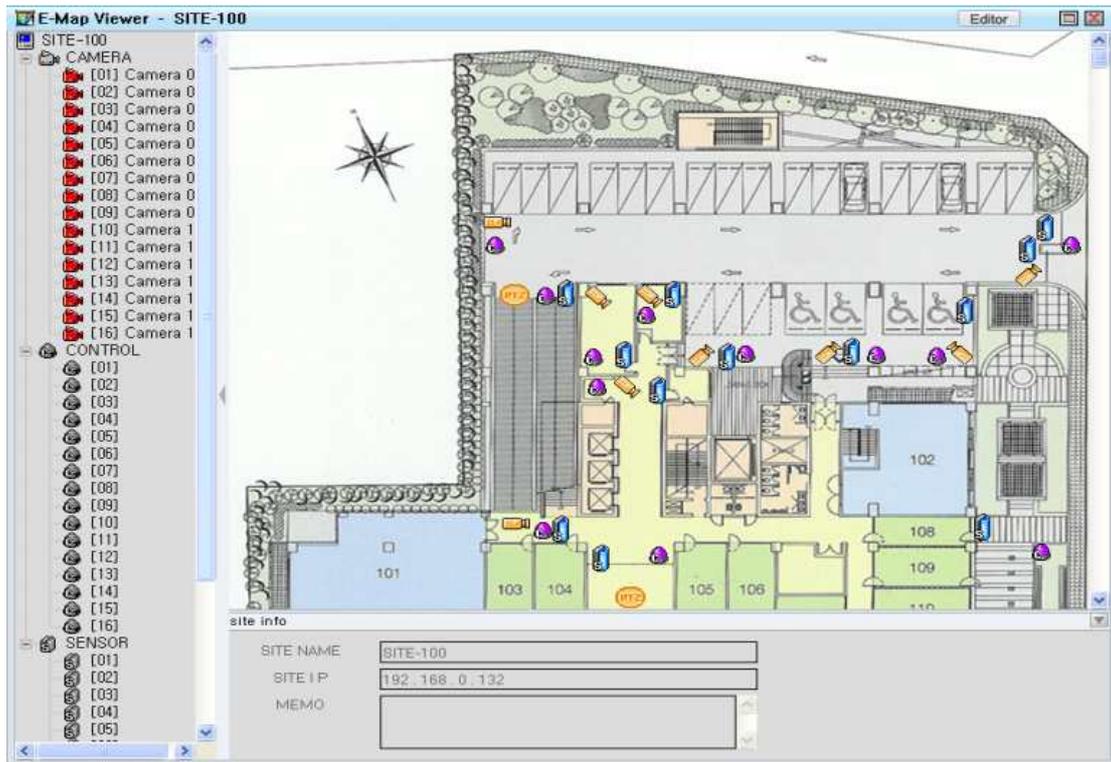
- **Real-Time Play** : playback 'Audio' and 'Video data' in real time.(PCDVR Only)



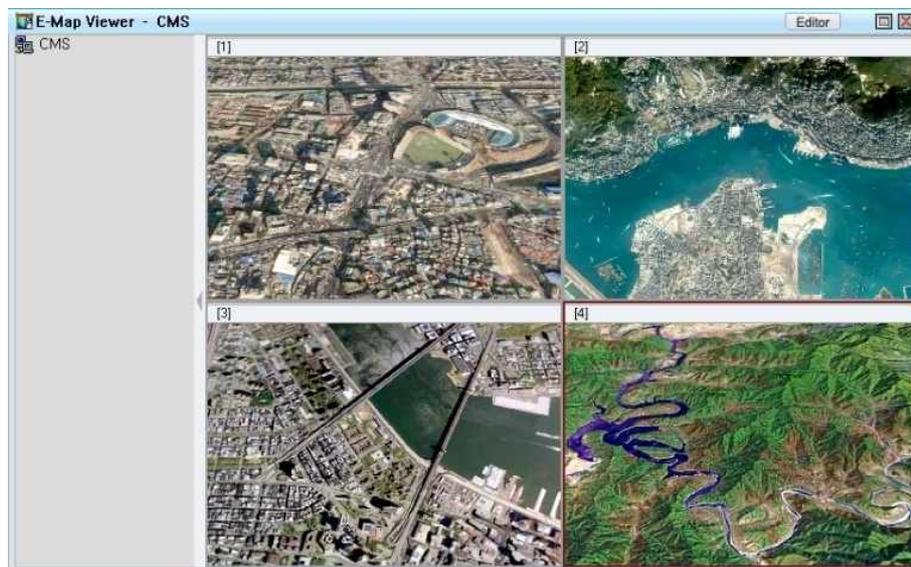
Chapter 7 E-MAP Editor / Viewer

- **E - Map:** EMAP using pictures or images can be monitored.

* There are 2types like CMS Map and Site Map on the E – Map



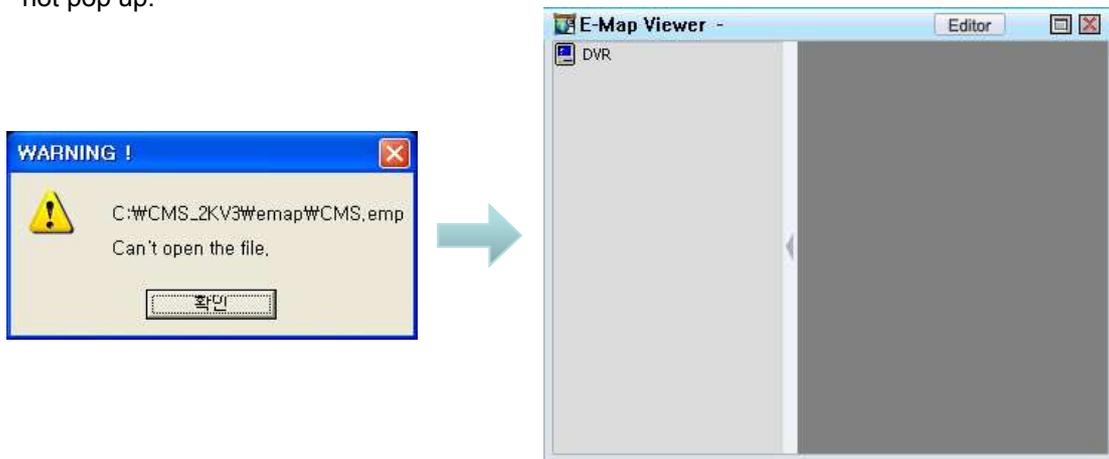
1. CMS E-MAP creation and editing.



1) Click 'start → E – Map' . When E – Map executes, default CMS E-MAP(CMS.emp) file will open.

- 2) E – Map should be saved to C:\CMS_2KV3\emap. Basically, CMS E-Map (4 areas are registered as an example.)
Each of the internal file name is CMS.emp and SITE-100.emp.

If there is no CMS.emp file or Site name and Site Map name does not match, Warning message will pop up as below.
(When you run first time, there is default E-Map (CMS.emp) so the warning message will not pop up.



- 3) Click 'OK'. E – Map Viewer will open and then click 'Editor'.
(To create and edit E – Map, click 'Editor'.)

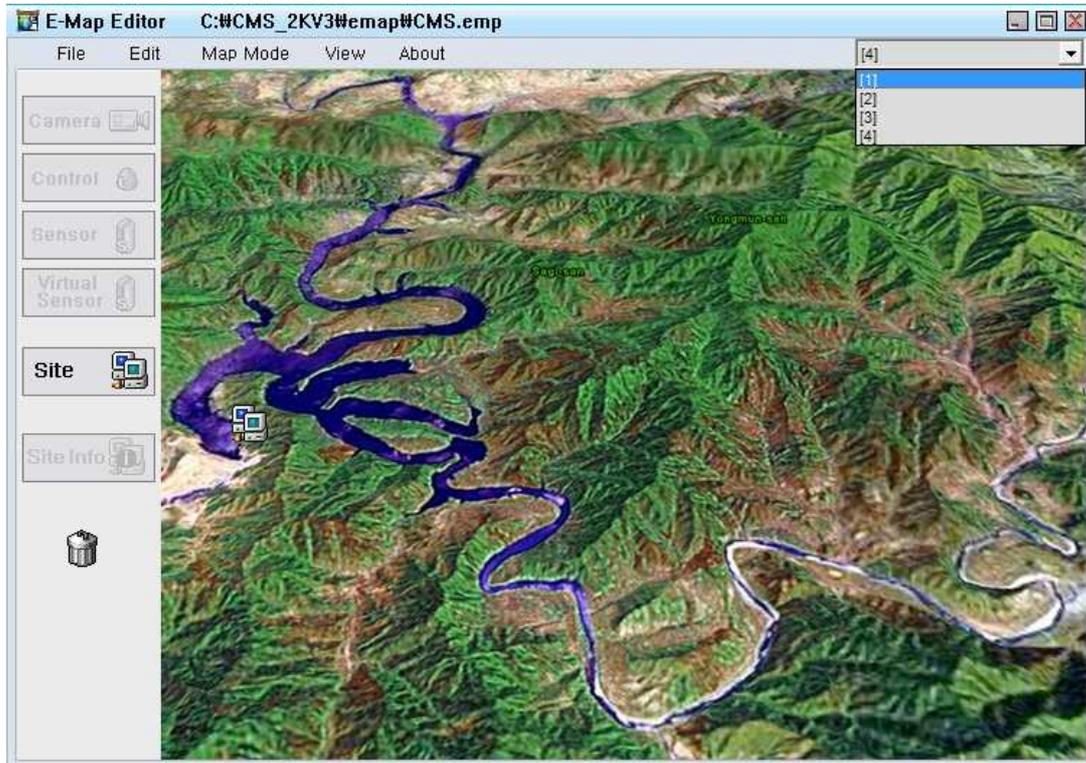
Tip : Although you can create both CMS map and Site map as required, existing site name and generate site name must be the same.

Basically, CMS.emp file can only exist. So when you run Start → E – Map, CMS MAP with CMS.emp only runs, so if you want to create new CMS map, you must delete existing CMS.emp files as an example with 4 area picture. And then you can register pictures.

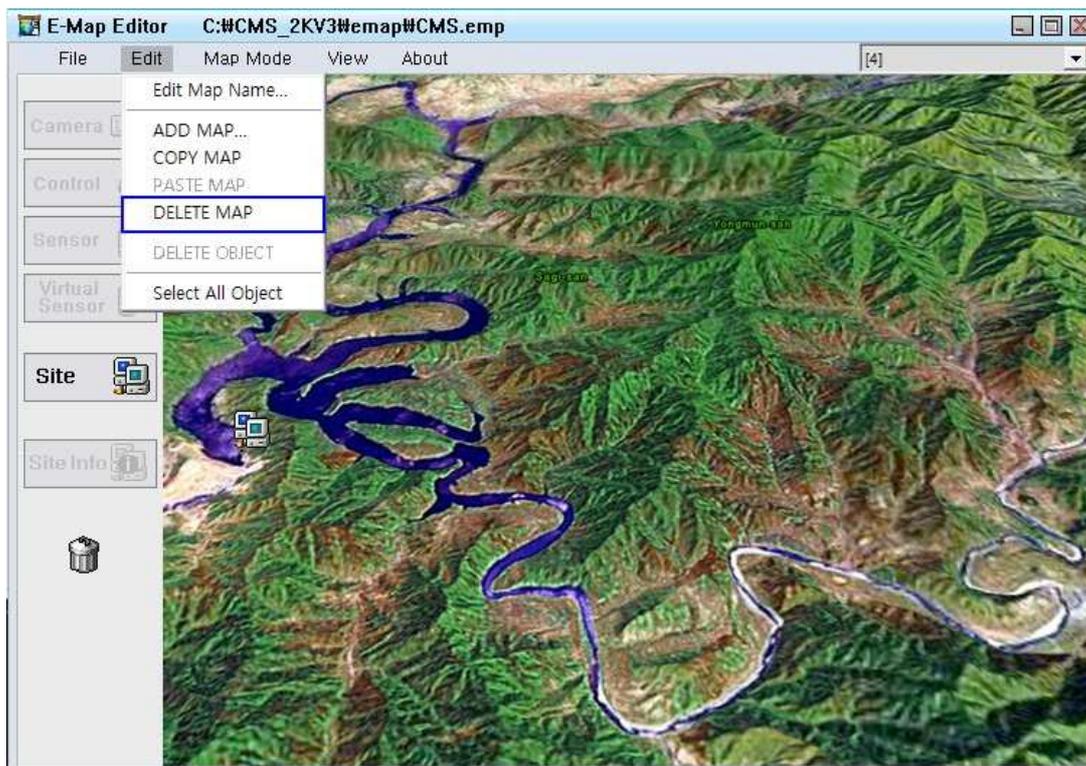
* Please note that CMS Map should be registered at least one map.

How to add map.

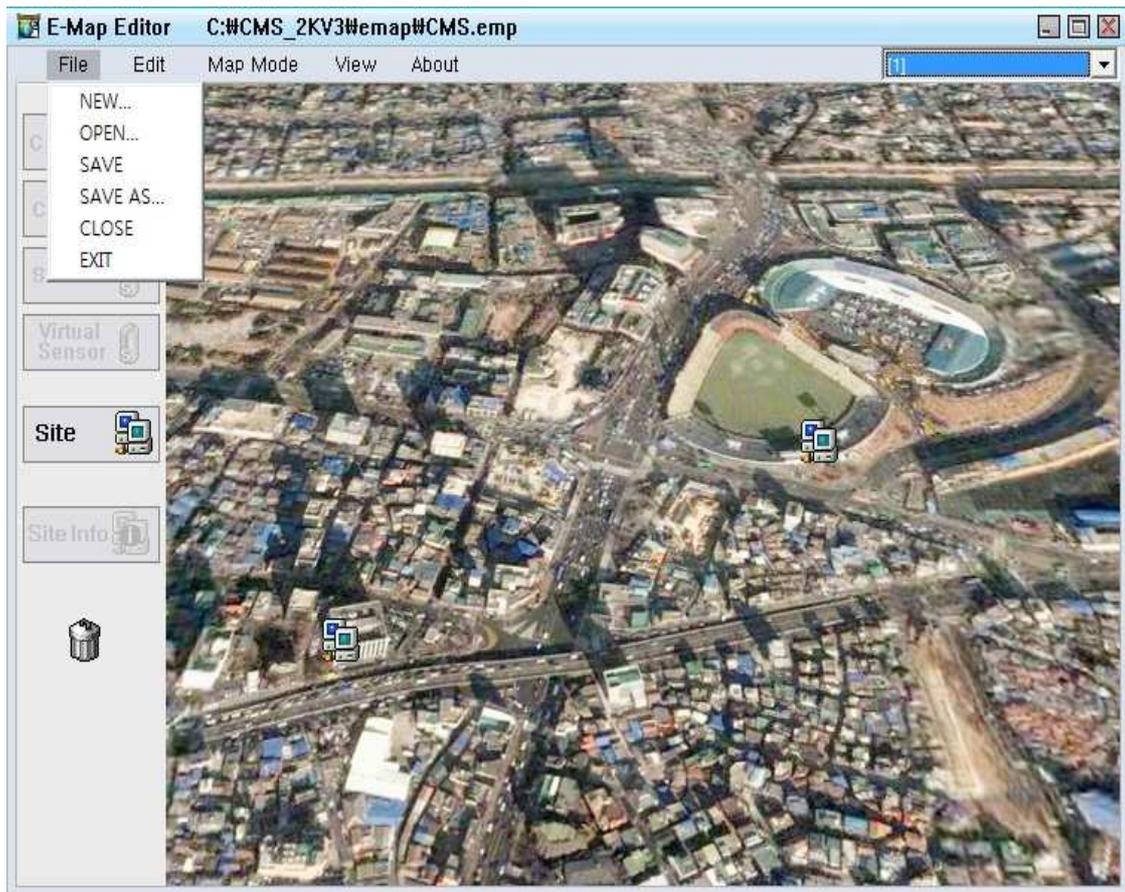
Editor → EDIT MAP → DELETE MAP → ADD MAP.



4) This picture shows when running Start → E – Map → Editor. To edit CMS map, if you use one of 4 images on CMS map, CMS Map image with CMS.emp will appear when you click the top right of the tab.



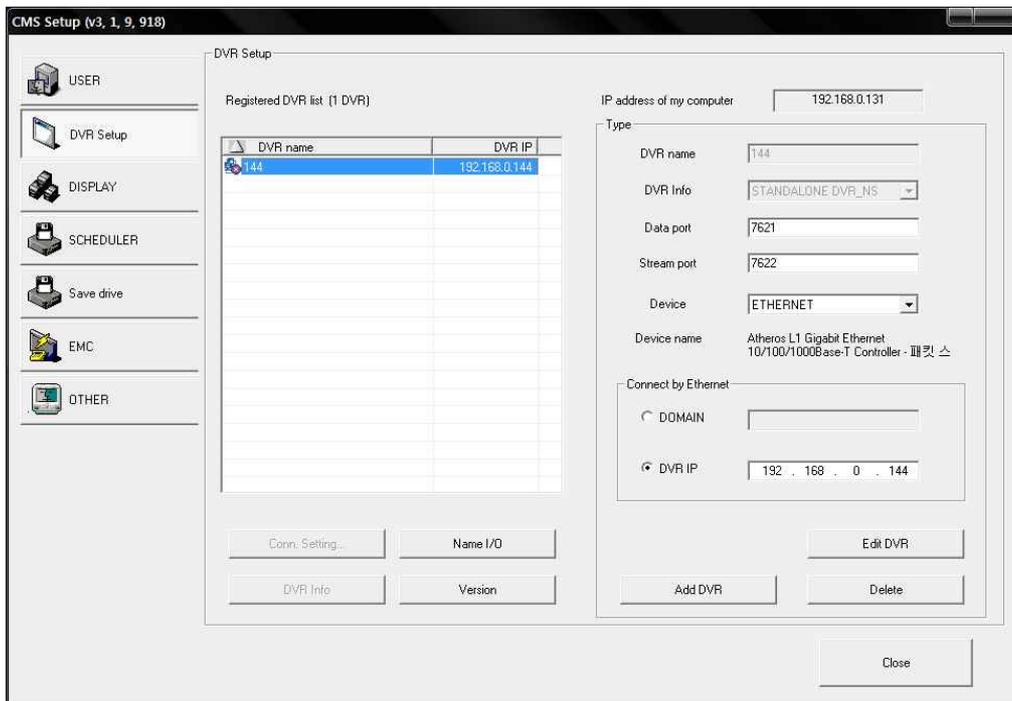
5) After selecting an unnecessary map, click Edit → DELETE MAP, and then File → SAVE.



*File menu

6) Click the File tab of the main menu.

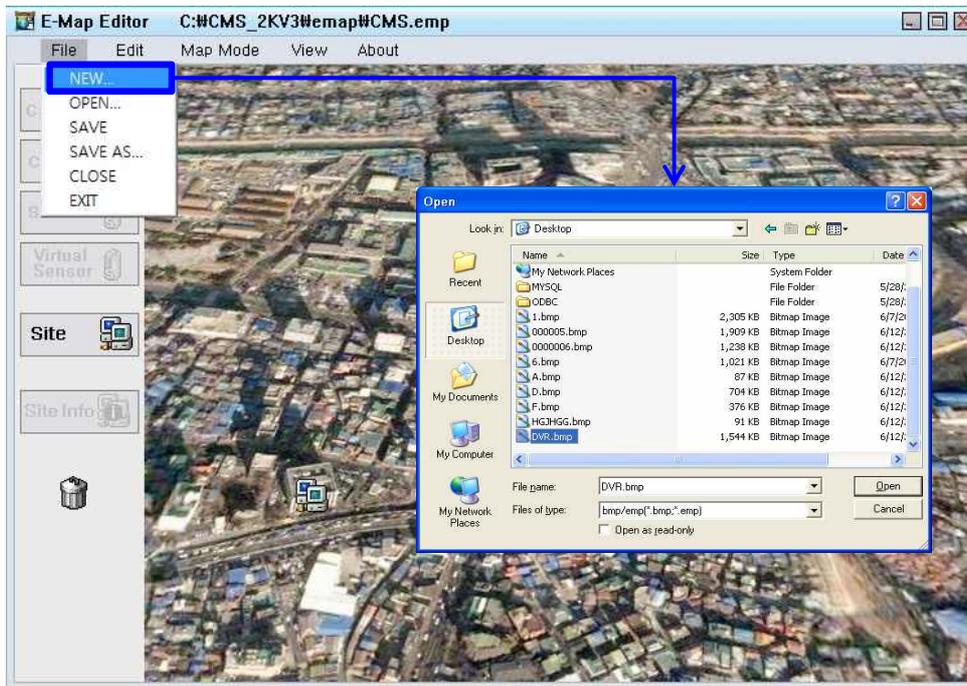
- File (There are 2 types image files format like Bitmap and JPEG to use to E – Map Editor.)
 - NEW : Open new image file OPEN : Open old E – Map(*.emp) file or new image file
 - SAVE : Save files SAVE AS : Save as another name
 - CLOSE : E - Map and image file close EXIT : End E - Map Editor



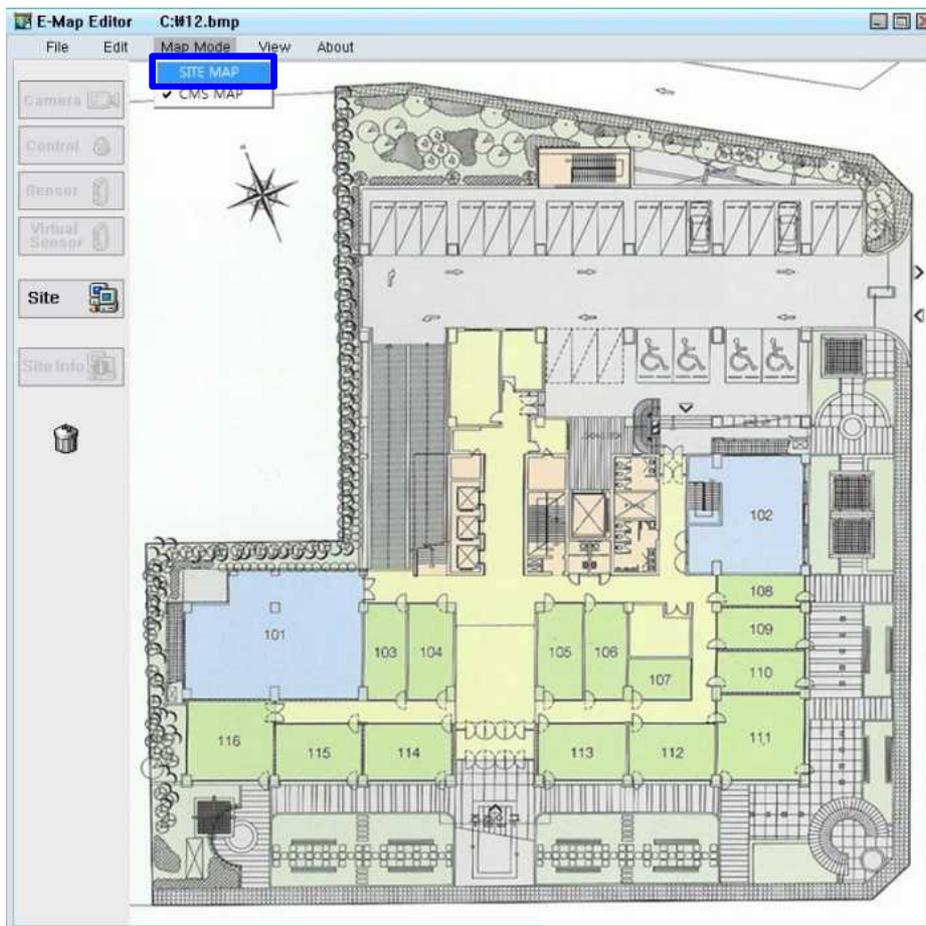
- 7) Arrange Site on CMS E-Map Editor, double click and then enter Site property.
Please make sure that the Site name as above picture name and DVR setting info on CMS must be the same.

SITE NAME must be the same with DVR name. if the name is different, CMS MAP can run but previously arranged Site icon will not appear so you cannot view the Site map.
When you are finished to arrange site, enter property and then save.

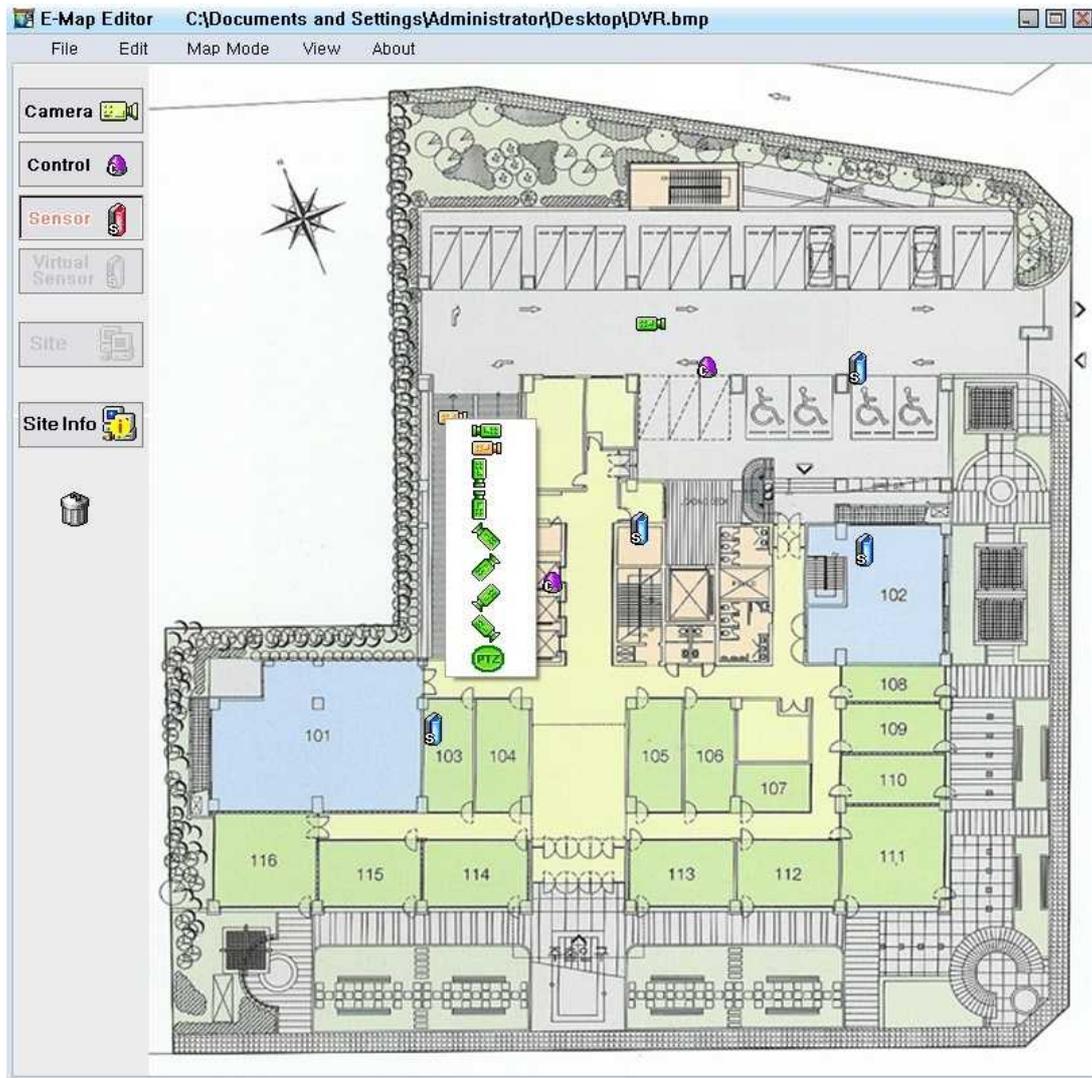
2. Site Map creation and editing.



1) Click 'File' -> NEW -> Choose BMP or JPG files for using to Site Map.



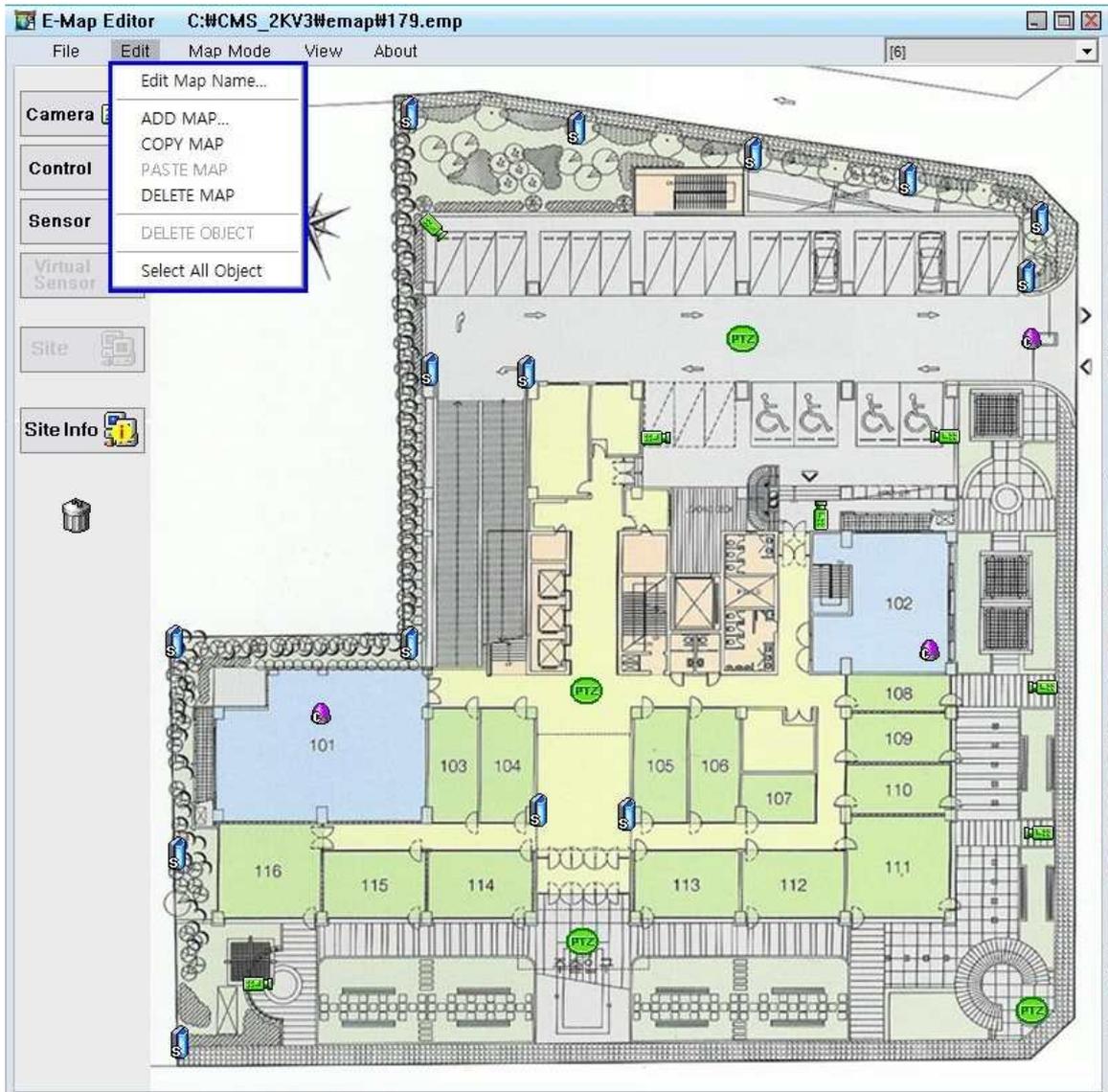
2) Imported files will be used Site Map, so Map Mode will change to SITE MAP at CMS MAP.
 (When Site button on the left is disable, the other button can use for editing.)



SITE NAME	144
SITE IP	192 . 168 . 0 . 144
MEMO	Document Room

SAVE CANCEL

- 3) Arrange it by using a camera, control, sensor etc. After opening BMP files or JPEG file.
- 4) To change place or icon image, right click on arranged camera..
- 5) If you click 'SITE INFO' button, you can add DVR site's additional information.
- 6) User can be moved or deleted by dragging arranged the icon.
- 7) When you are finished to edit Site map, make sure to use the Save as to E-MAP folder for current registered DVR Site and same name with installed CMS_3 in a directory.
(ex : C:\CMS_2KV3\emap\144.emp)



▪ Edit

Edit Map Name: Edit the name of each map.

ADD MAP: Add new EMAP files.

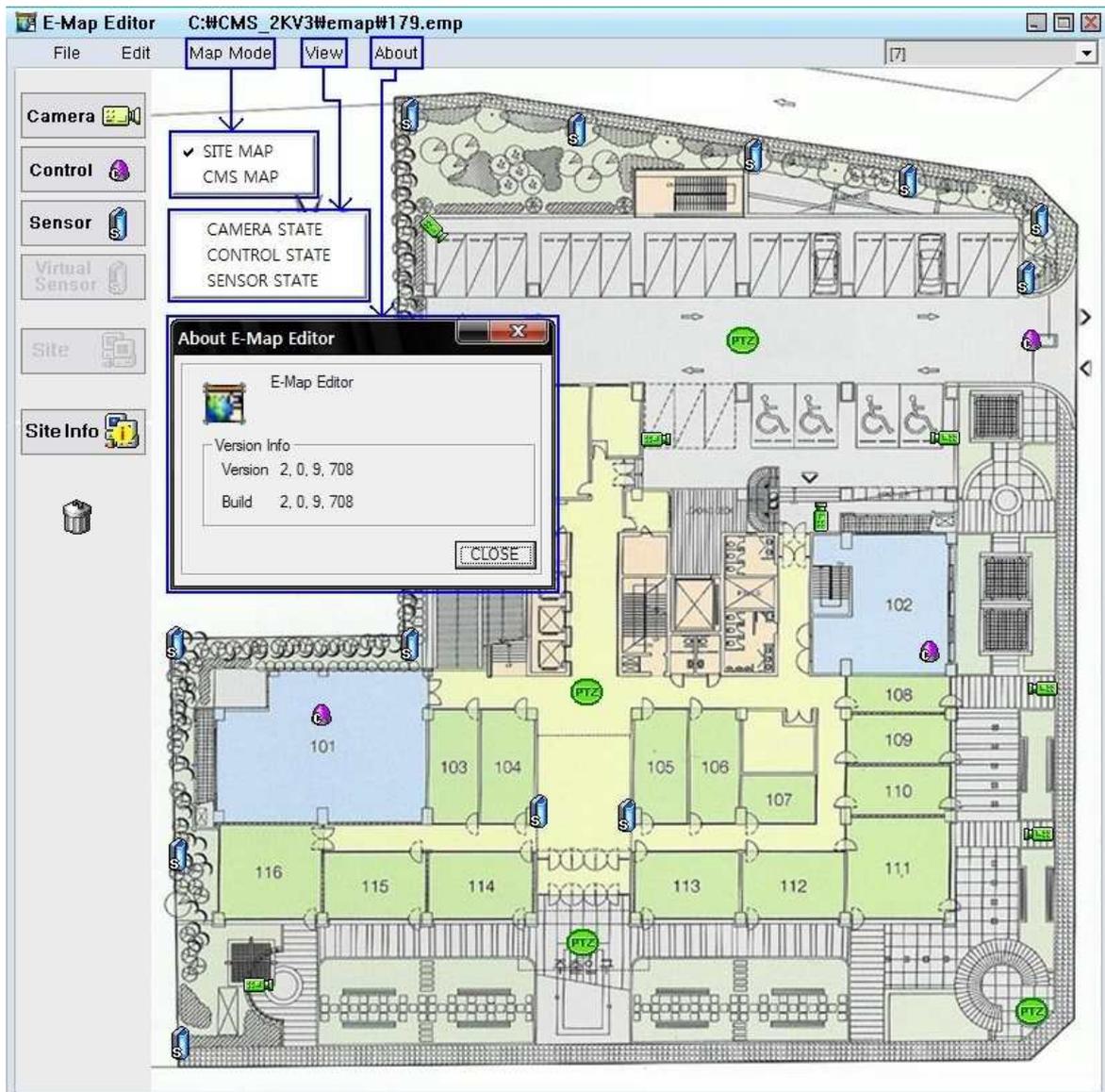
COPY MAP: Copy current opening BMP files or EMAP files.

PASTE MAP: Paste copied files.

DELETE MAP: Delete current displayed map.

DELETE OBJECT: Delete the selected icon.

Select All Object: Select all icons on the map.



- **Map Mode**

- SITE MAP: Change Editor mode to SITE MAP.

- CMS MAP: Change Editor mode to CMS MAP.

- **View**

- CAMERA STATE: Can check camera information.

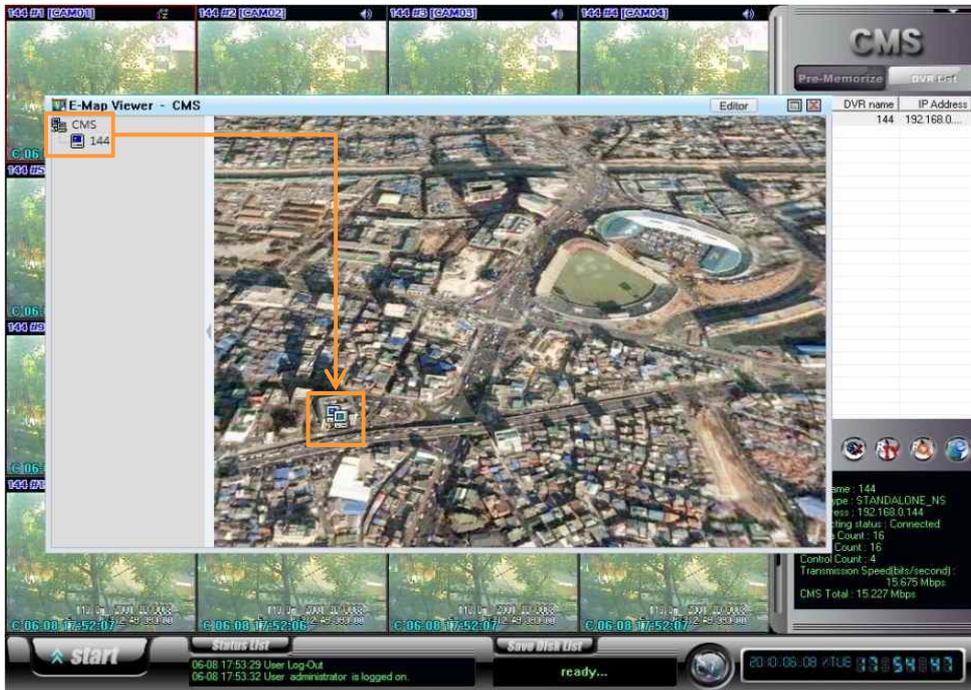
- CONTROL STATE: Can check control information.

- SENSOR STATE: Can check sensor information.

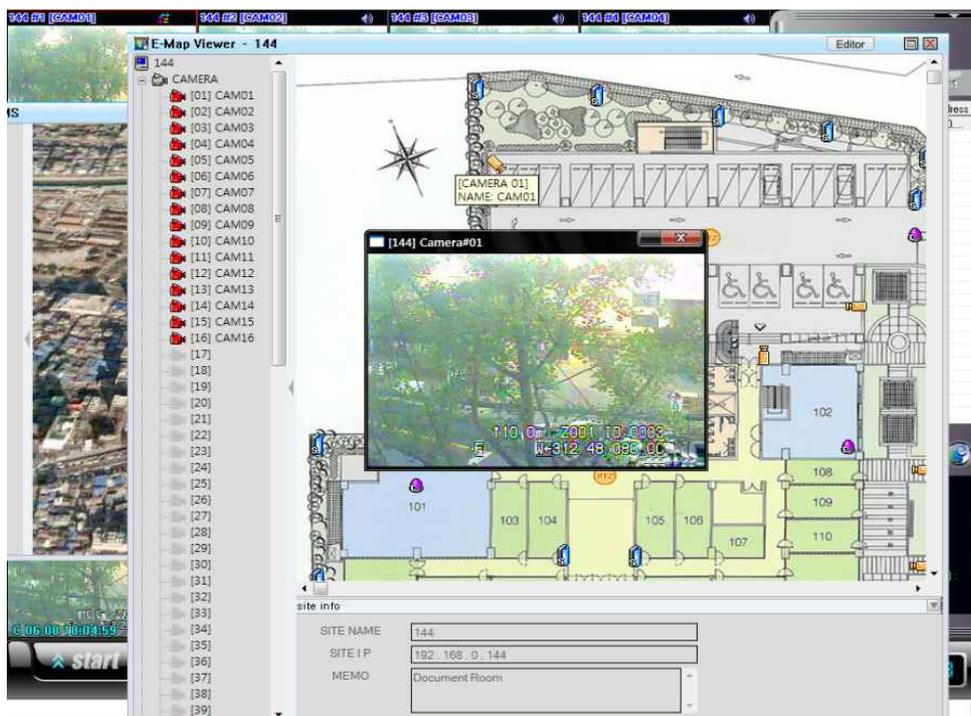
- **About**

- You can check E-Map Editor version.

3. E – Map execute.



- 1) When you are finished to edit for CMS Map, Site Map, access the DVR Site -> Start → E – Map-> run.
 - ※ If you want to use directly Site Map, click 'DVR E – Map'. And then CMS Map viewer will run.
 - If DVR Site registers , file will show on the top left of CMS category as pictured.



- 2) When you double click to arranged Site icon, the Site Map viewer will run, and then registered camera , sensor and control will be marked site info on the bottom.
 - If you click the list on the left of the camera or camera icon on the placed map, as pictured you can check camera's image. If sensor and control connect to DVR, when the event occur, the icon will be blinking. If you execute CMS map viewer not site map, the CMS Map's Site icon will be blinking instead.

Chapter 8 CMS - Remote Update

◆ Firmware Update

- You can remote-update NS DVR programs, those are connected through network, using CMS.

● Check points before use

1) check if the version of NS DVR is later than 'usb_ft_16-080311-01'.

[consultation] you can check the version as follow; 'NS DVR→FRONT 'FUNCTION' KEY →STATUS→STATUS BOX'
you cannot use 'firmware update' function if it is an earlier version.

* How to check the version of NS DVR by CMS.

- connect to NS DVR→ select 'REMOTE SETUP' button→ move to 'SYSTEM'→ check 'NS DVR' version at 'DVR Setup'.

2) check if the version of CMS is later than '3.1.8.325' version.

[consultation] you can check the version as follow 'CMS→START→SETUP→on left top screen'
you cannot use 'firmware update' function if it is an earlier version.

3) check if you have the upgrade file from supplier or dealer.

[consultation] the upgrade file name is gz file.

Dealer or supplier will not be responsible for problems caused due to changes of file made by user.

4) if you made all request from above, you are ready to use remote firmware update function and the process of remote update will be proceeded by CMS.

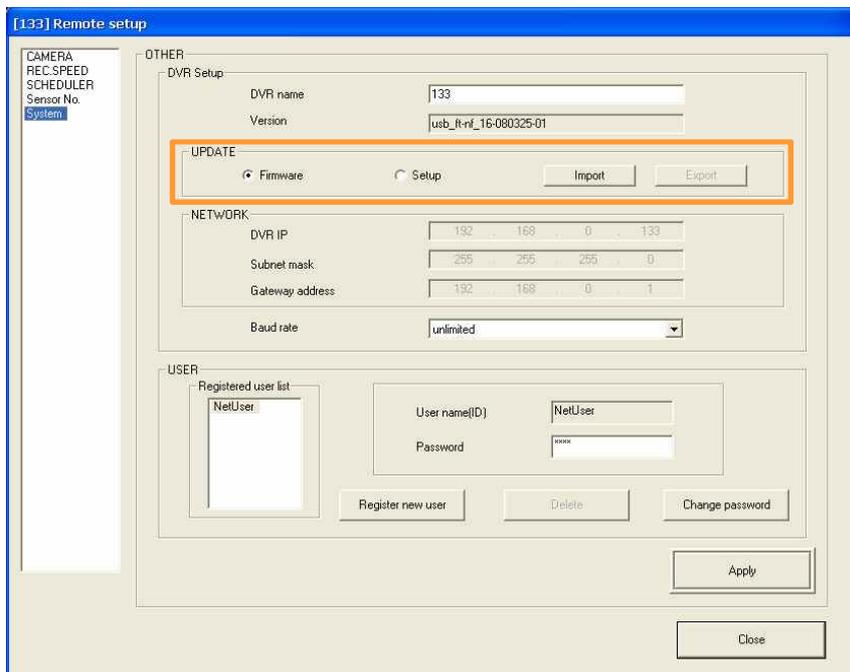
● How to use remote update function

1) Connect DVR that you want to update.

2) Select DVR that you want to update from DVR list.

3) Click 'REMOTE SETUP' button ().

4) In 'SETUP', go to 'SYSTEM' and select 'Firmware' from Update options, click 'Import' button.



[133] Remote setup

CAMERA
REC.SPEED
SCHEDULER
Sensor No.
System

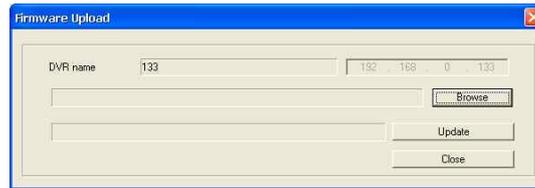
OTHER
DVR Setup
DVR name: 133
Version: usb_ft_16-080325-01

UPDATE
 Firmware Setup

NETWORK
DVR IP: 192 168 0 133
Subnet mask: 255 255 255 0
Gateway address: 192 168 0 1
Baud rate: unlimited

USER
Registered user list
NetUser
User name(ID): NetUser
Password: xxxx

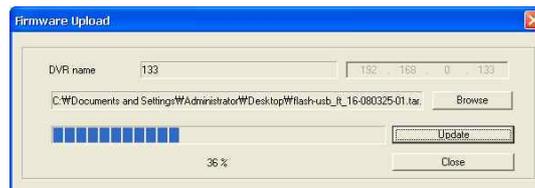
5) Click 'Browse' button from 'Firmware Upload' window.



6) Search the file, provided from supplier or dealer. Click 'Open' button.



7) Click 'Update' button from 'Firmware Upload' window. Then it will start uploading the update file to the selected DVR.

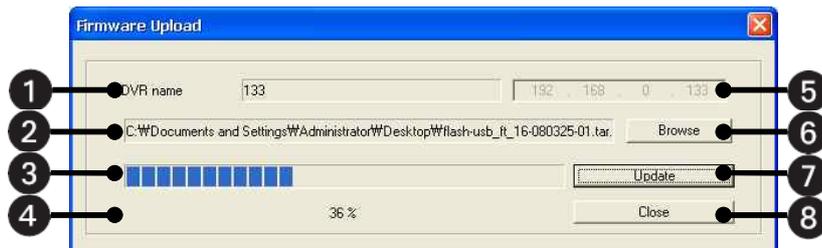


8) After uploading, the 'INFO' window will pop up. If you click 'Yes' it will start updating the DVR.
(if you click 'No', it will cancel the update.)



[consultation] After completing the DVR update, it will disconnect with CMS. You can connect to CMS after about 3 minutes and check or change updated DVR info.

- Firmware Upload window



- 1) display the name of update DVR.
- 2) display the update file folder that you selected.
- 3) display uploading status of update file.
- 4) display the uploading progress of update file by %.
- 5) display the update DVR IP information.
- 6) select update file location.
- 7) upload the file on the DVR to be updated.
- 8) cancel file uploading.

◆ **Setup Upload, Download**

- You can upload, download the setup value of NS DVR connected to network by CMS.

● **Check points before use**

1) check if the version of NS DVR is later than 'usb_ft_16-080311-01'.

[consultation] you can check the version as follow; 'NS DVR→FRONT☐ FUNCTION KEY →STATUS→STATUS BOX'
you cannot use 'Setup Upload, Download' function if it is an earlier version.

* How to check the version of NS DVR by CMS.

- connect to NS DVR→ select 'REMOE SETUP' button→ move to 'SYSTEM'→ check 'NS DVR' version at 'DVR Setup'.

2) check if the version of CMS is later than '3.1.8.325' version.

[consultation] you can check the version as follow 'CMS→START→SETUP→on left top screen'
you cannot use 'setup upload, download' function if it is an earlier version.

3) if you made all request from above, you can use " function and the process of remote update will be proceeded by CMS.

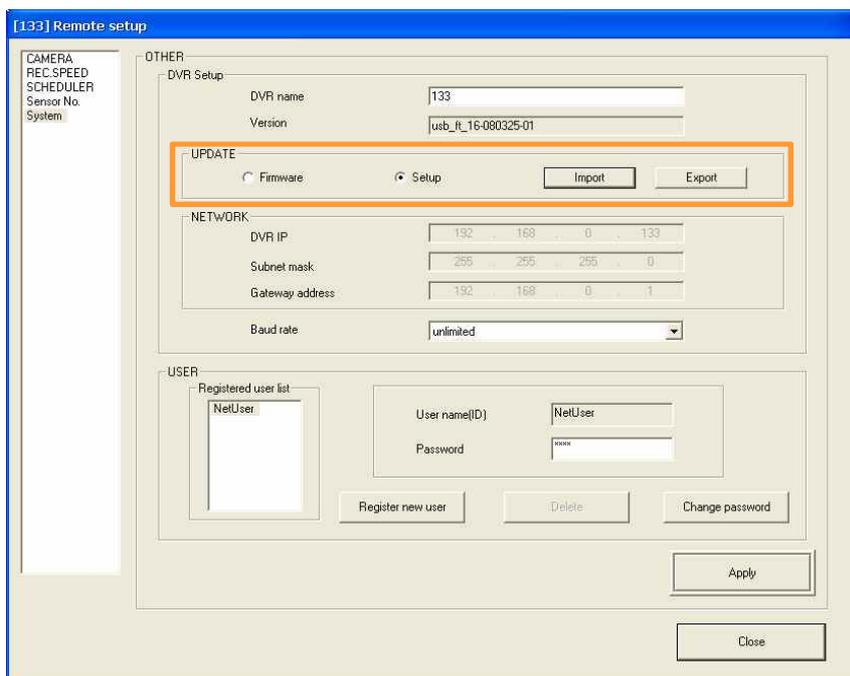
● **How to use Setup Upload function**

1) Connect DVR that you want to setup upload, download.

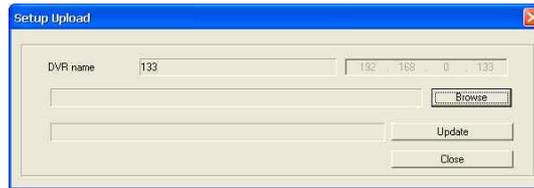
2) Select DVR that you want to setup upload, download from DVR list.

3) Click 'REMOTE SETUP' button (🌐).

4) In 'SETUP', go to 'SYSTEM' and select 'Setup' from Update options, click 'Import' button.



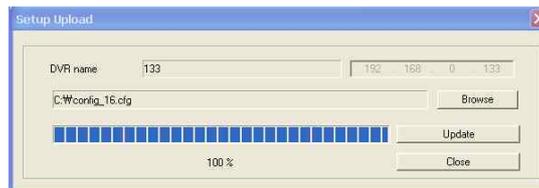
5) Click 'Browse' button from 'Setup Upload' window.



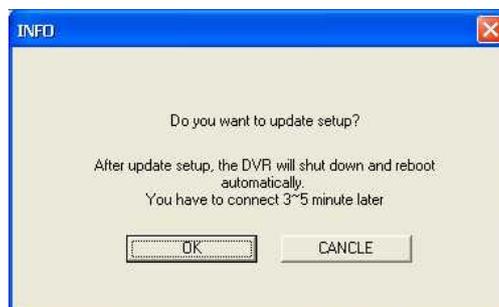
6) Select the saved NS DVR setup value from 'Open' window. Click 'Open' button.



7) Click 'Update' button from 'Setup Upload' window. Then it will start uploading the NS DVR setup value to the selected DVR.



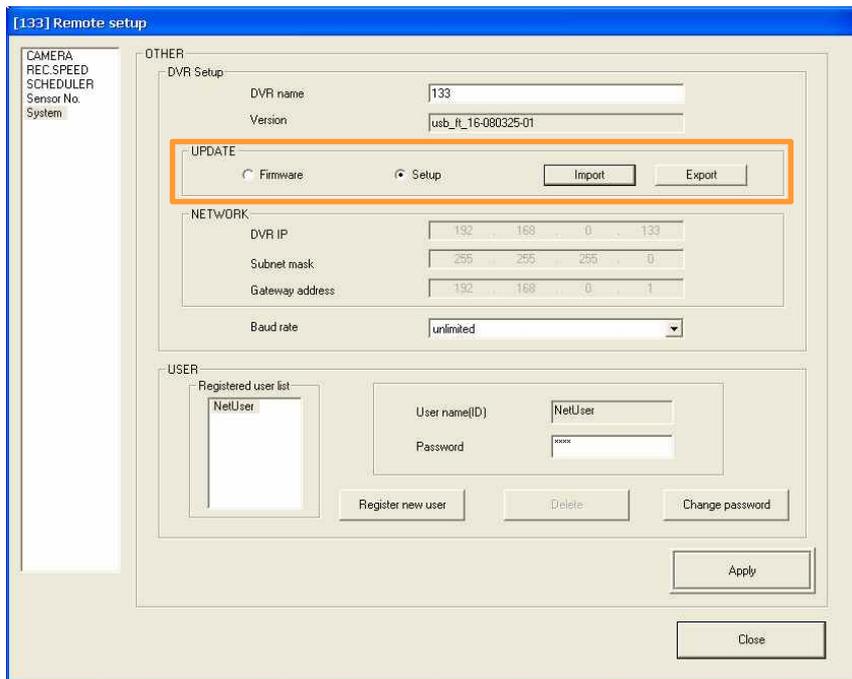
8) After uploading, the 'INFO' window will pop up. If you click 'Yes' it will start uploading the DVR.
(if you click 'No', it will cancel the uploading.)



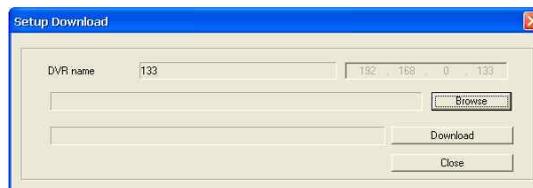
[consultation] After completing the DVR uploading, it will disconnect with CMS. You can connect to CMS after about 3 minutes and check or change updated DVR info.

● **How to use Setup download function**

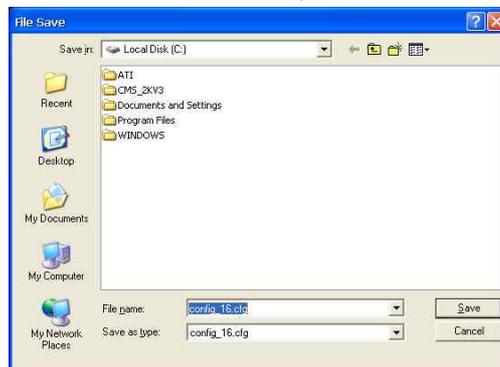
- 1) Connect DVR that you want to setup upload, download.
- 2) Select DVR that you want to setup upload, download from DVR list.
- 3) Click 'REMOTE SETUP' button ().
- 4) In 'SETUP', go to 'SYSTEM' and select 'Setup' from Update options, click 'Export' button.



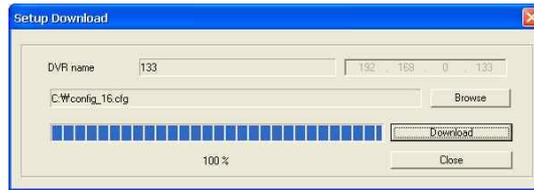
- 5) Click 'Browse' button from 'Setup Download' window.



- 6) Select the folder to save NS DVR setup value from 'File Save' window, Click 'Save' button.



7) Click 'Download' button from 'Setup Download' window. Then it will start downloading NS DVR setup value.

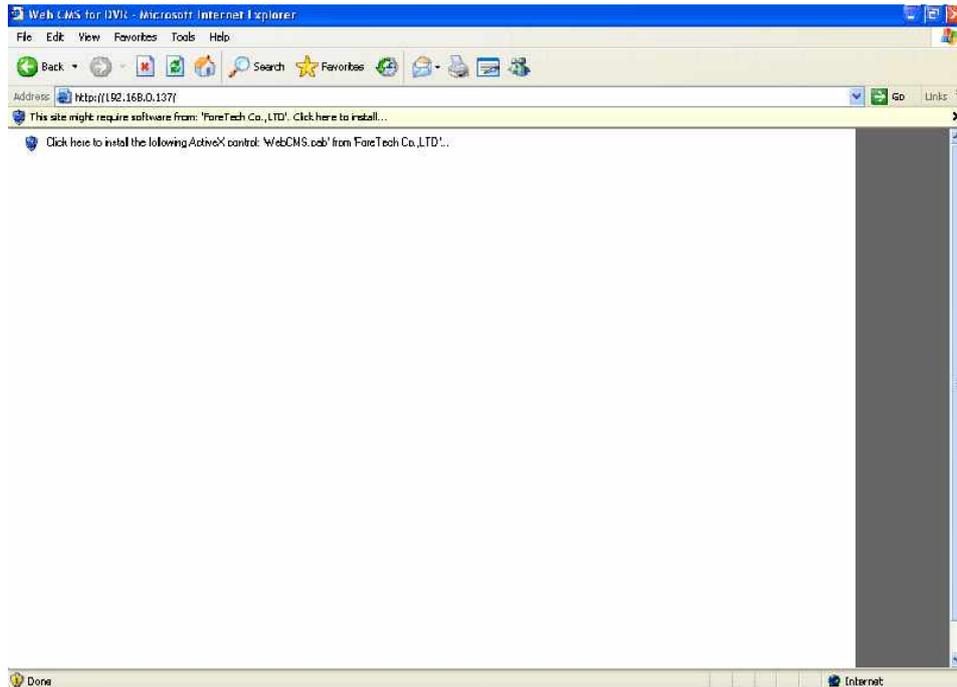


8) After downloading, the 'INFO' window will pop up. click 'OK' button.



Chapter 9 Web CMS user

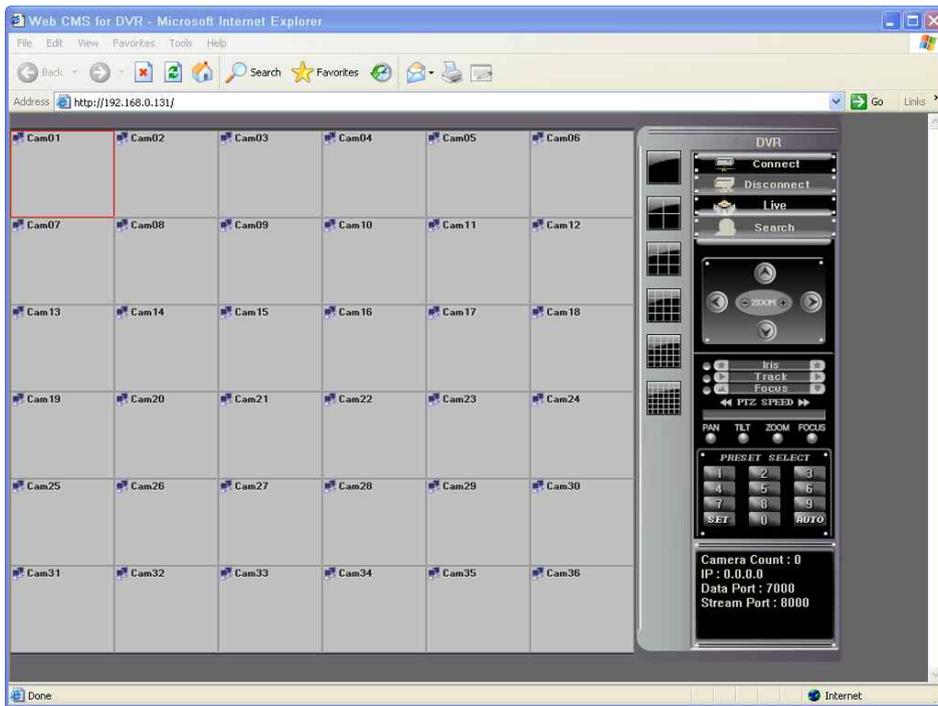
- Web CMS : Remote monitoring available through internet explorer without the specific software.
- 36 Display Screens, Division screens, PTZ Controller supported.



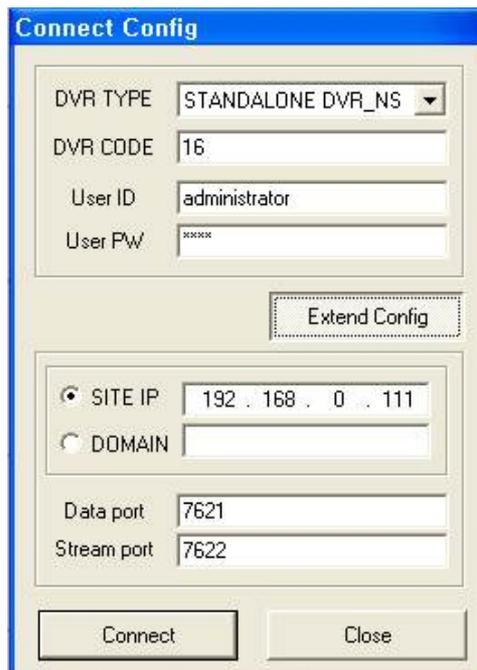
- Input IP or domain on the address.
- Install ActiveX file related to Web CMS.



▪ starting screen of connection



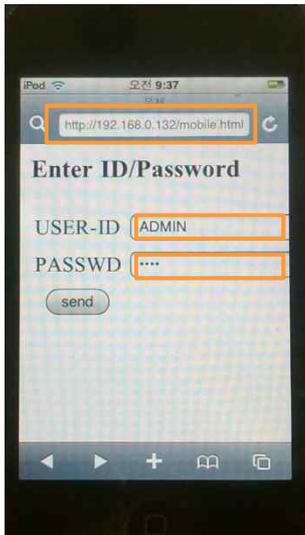
- Click 'Connect' button to input each information and IP address for connection.
- Click 'Connect' button after input DVR Type, name, user's ID, password, Site IP, port number etc.



Chapter 10 Mobile Access

▪ Mobile View (In case of no application.)

This product supports to access IPOD, 3G phone's mobile.
3G phone must have access to internet via wireless LAN.



Please follows as below when you have access to the internet.

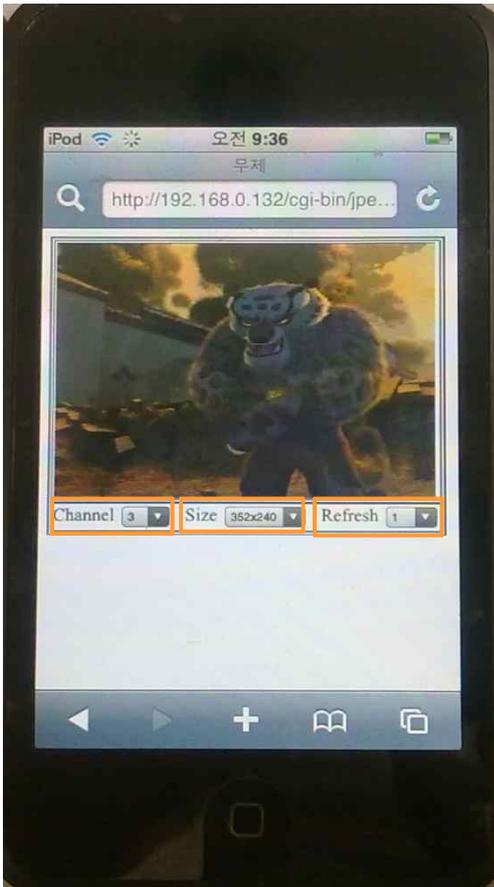
- 1) Please input the address as below.
http://my_dvr_address/mobile.html
- 2) USER-ID: Input user ID '**ADMIN**' (default).
- 3) PASSWORD: Default password is '0000'.



When you have access to DVR, the picture will show up.

Adjust screen size.

For more detailed operation guide, please refer to the Mobile device's manual section.



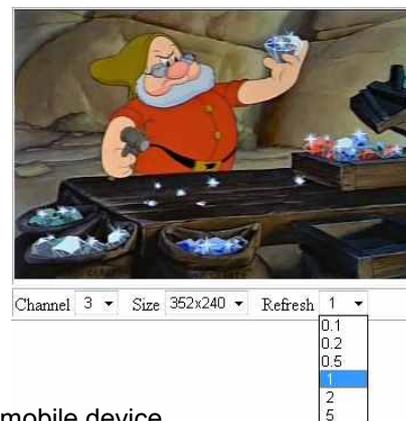
- 1) How to change the channel
If you select "Channel" menu,
DVR's channel list will show up.
You can select on the desired channel.



- 2) How to change the screen size
To change the channel video size, select "Size" menu.



- 3) How to change refresh time
You can change the frame of refresh time as displayed
on the screen.
Please refer on the right picture.



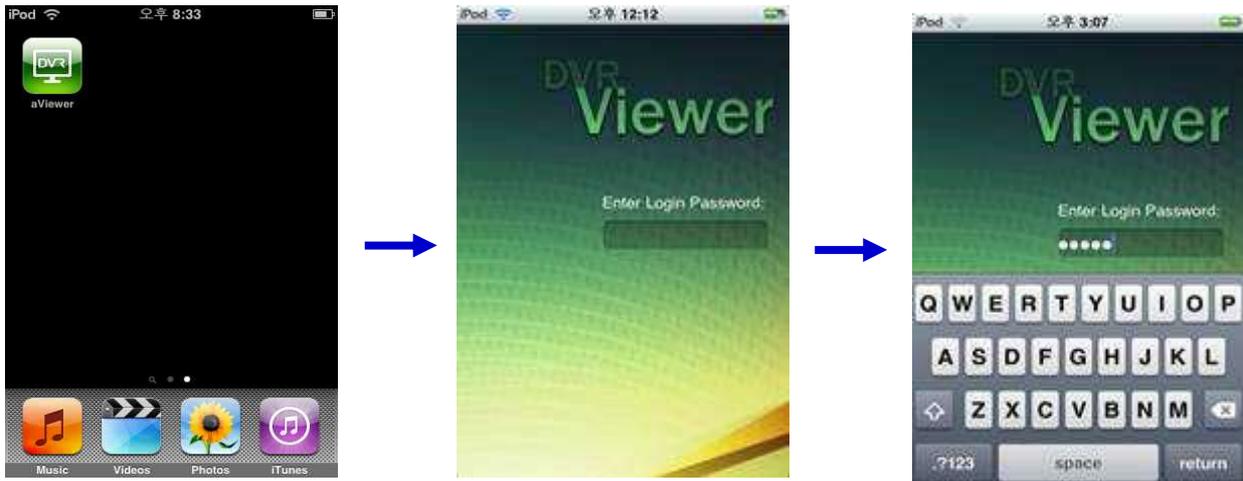
Note: Access method may vary different according to mobile device.
Please refer Mobile device's manual.

*** Mobile Viewing through our mobile viewer (iphone)**

We support our mobile viewer for iPhone.

[How to install] : You can download and install “A Viewer“ through iPhone application store.
 Click application store → Search “a viewer” → Click a project’s A Viewer icon → Click Install
 Then A Viewer icon will be generated in your iPhone.

[How to start]



Click **A Viewer** icon

Enter Login password : default password is “admin”



Then ‘Edit DVR List’ menu will show up.

You should register DVR that you wish to access to remotely.

- DVR name : Input DVR name.
- Address : Input DVR IP address or host name.
- Port : Input DVR port number that of DVR Setup menu → Network → Client → Client Port.
- User ID & Password : Input User ID and Password that of DVR side.

Click the  button, the DVR List window will show up with the DVR name as you input.

 : Save it and return to DVR List menu

 : Do not save it and return to DVR List menu

Click the 'DVR Name', then the mobile viewer will be activated as below.



 : Zoom in on 1ch screen mode

 : Zoom out on 1ch screen mode

 : Change a channel to the very previous channel

 : Change a channel to the very next channel

 : 1ch screen mode

 : Version information

 : 4ch screen mode

 : DVR list setup menu

 : 9ch screen mode

 : Delete DVR name

 : 16ch screen mode

 : Add / modify DVR name

 : Close live screen

*** Mobile Viewing through our mobile viewer(Android phone)**

We support our mobile viewer for Android phone.

[How to install] : You can download and install “dvroid” through Android market.
 Click Android market → Search “dvroid” → Click a project’s dvroid icon → Click Install
 Then dvroid icon will be generated in your Android phone.

[How to start]



Click E Viewer icon

Enter Login password : default password is “admin”



Then ‘Edit DVR List’ menu will show up.

You should register DVR that you wish to access to remotely.

- DVR name : Input DVR name.
- Address : Input DVR IP address or host name.
- Port : Input DVR port number that of DVR Setup menu → Network → Client → Client Port.
- User ID & Password : Input User ID and Password that of DVR side.

Click the  button, the DVR List window will show up with the DVR name as you input.

 : Save it and return to DVR List menu

 : Do not save it and return to DVR List menu

Click the 'DVR Name', then the mobile viewer will be activated as below.



 : Zoom in on 1ch screen mode

 : Zoom out on 1ch screen mode

 : Change a channel to the very previous channel

 : Change a channel to the very next channel

 : 1ch screen mode

 : Version information

 : 4ch screen mode

 : DVR list setup menu

 : 9ch screen mode

 : Delete DVR name

 : 16ch screen mode

 : Add / modify DVR name

 : Close live screen

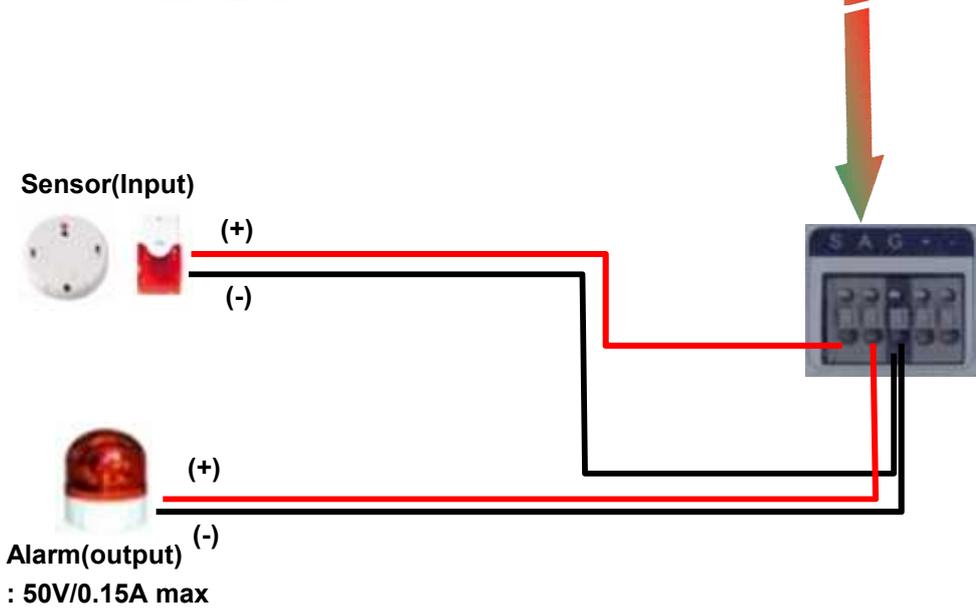
Chapter 11  MISC

[NS I/O CONFIGURATION]

1. Number of supporting port

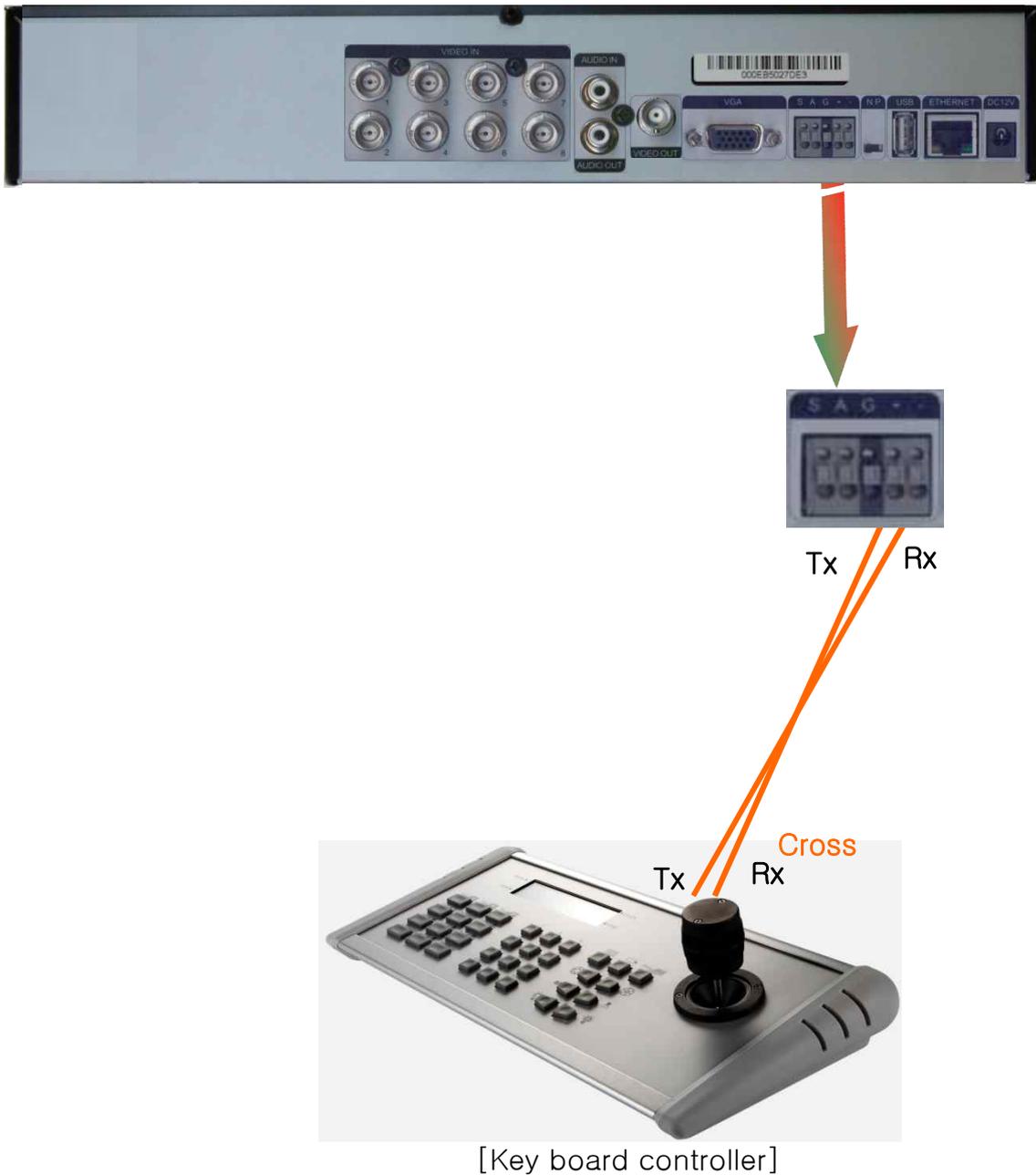
	NS-2004	NS-2008	NS-2016	NS-8008	NS-8016
Sensor	1port	1port	1port	8ports	16ports
ALARM	1port	1port	1port	4ports	4ports
RS-485	1port	1port	1port	2port	2port

2. Connecting information of Alarm/Sensor



3. RS-485 connecting configuration

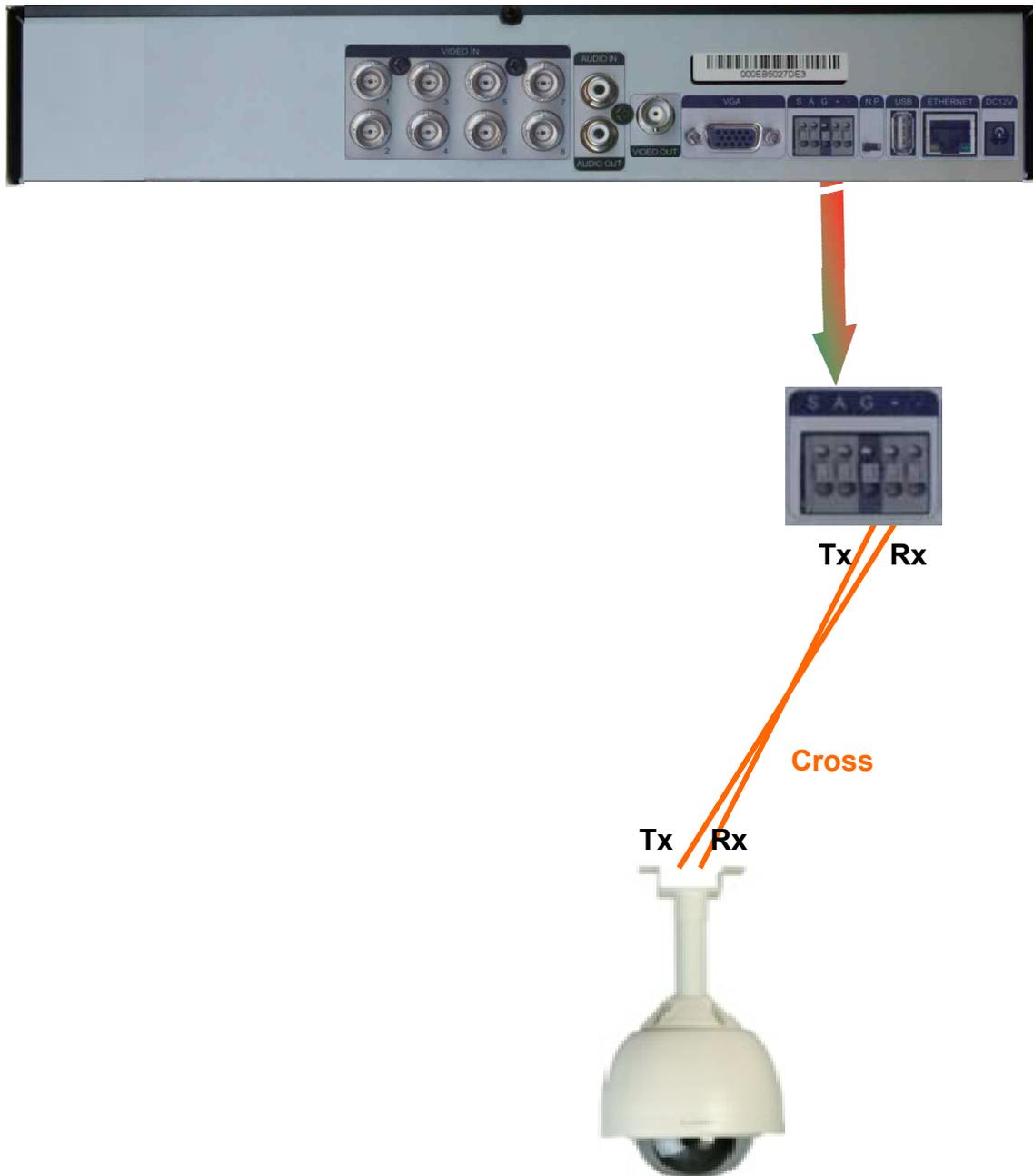
1) DVR-Key Board controller



Note) For correcting operation of DVR when using this function, user must setup System-ID. (SETUP→SYSTEM→MISC)

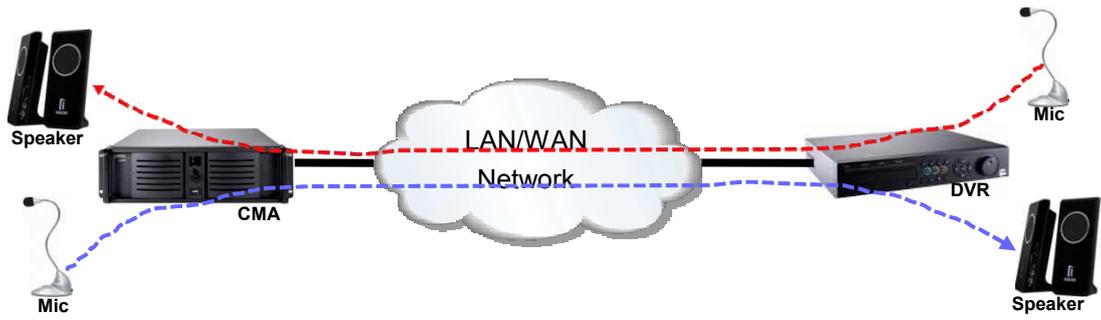
3. RS-485 Connecting Configuration

2) DVR-PTZ camera



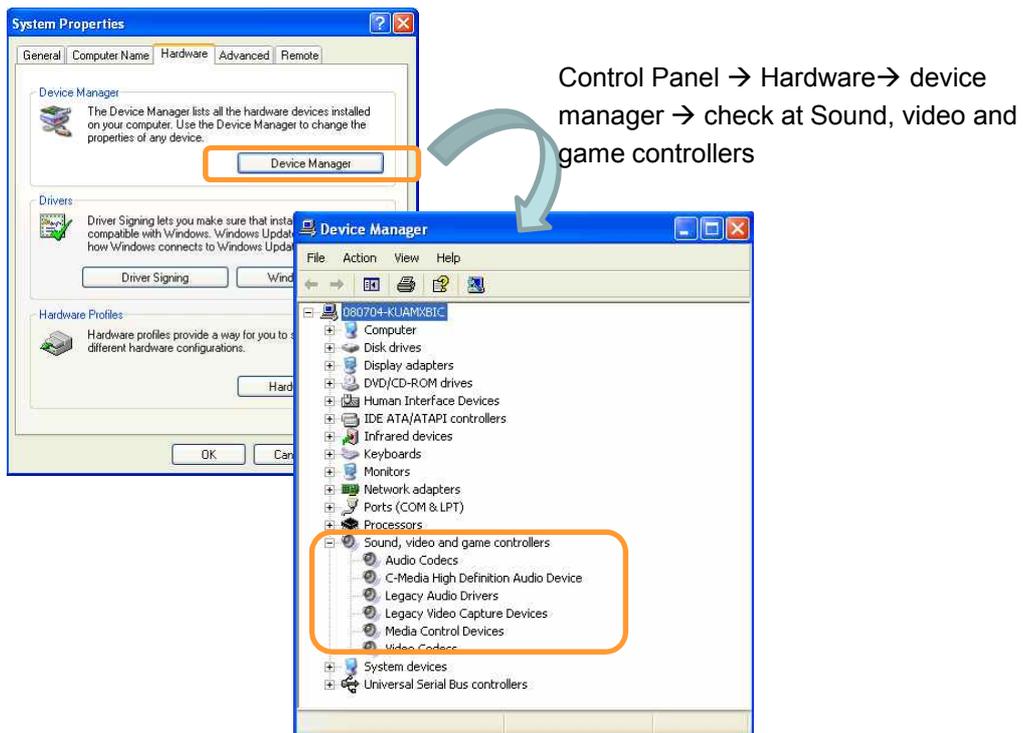
Note) For correcting operation of DVR when using this function, user must setup System-ID. (SETUP→SYSTEM→MISC)

2WAY Audio configuration



Note: For using two way audio communication,

at Windows system, it must be operated correctly for Audio device without problem.



☞ after preparing MIC / Speaker or Headset , it must be connected with CMA system.



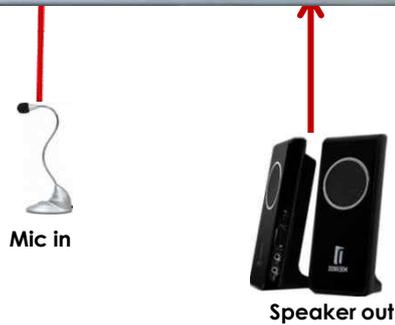
[CAMS/CMA Rear Panel]



☞ after preparing MIC / Speaker or Headset , it must be connected with DVR system.



[NS DVR]



Chapter 12  Specification

NS-8004 / 8008 / 8016

Item		NS-8004	NS-8008	NS-8016	
Connection	Video Input(BNC)	4	8	16	
	Audio In(RCA)	4	8	16	
	Audio Out(RCA)	1	1	1	
	Video Output(BNC)	1	1	1	
	VGA	1	1	1	
	Alarm Input	4	8	16	
	Alarm Output(relay)	4	8	16	
	USB port	4	4	4	
	PTZ(485)	1	1	1	
	Ethernet	RJ-45, 10/100Mbps			
Live	Resolution	NTSC	720(H)×480(V)		
		PAL	720(H)×576(V)		
	Live Mode	1,4 screen, Seq	1,4,9 screen, Seq	1,4,9,16 screen, Seq	
	Playback mode	1,4 screen	1,4,9 screen	1,4,9,16 screen	
	Digital Zoom	X2	x2	x2	
	PIP	○	○	○	
	Camera name	English 12 characters Available with national language			
	Language	English, Korea, Chinese, Japanese, Spanish, Polish, Portuguese, Russian, Other Languages can be available			
Record	Resolution	D1 / Half D1 / CIF			
	Frame speed	NTSC	4ch/120@D1	8ch/240@D1	16ch/480@HD1
		PAL	4ch/100@D1	8ch/200@D1	16ch/400@HD1
	Record Mode	Manual / Continuous / Schedule / Motion / Sensor			
	Quality	Best / High / Normal / Basic			
	Pre-recording	0~15 seconds			
	Post-recording	10~120 seconds			
	Intensive recording	○	○	○	
Record limit	Automatic data delete(0~99 days)				
Backup	USB device Backup	○	○	○	
	Play backup file	Playback software is copied automatically with backup data			
Network	Network interface	Static / DHCP / PPPOE			
	Web Monitoring	Live / Playback / Audio / PTZ control / Snapshot			
	CMS	Live / Playback / Audio / PTZ control / Remote backup / Site Management Remote firmware upgrade / Config upload / Config download / Recording setup Input of camera name / Log-view / Snapshot / Central monitoring			
	DDNS	Support free DDNS server(dyndns.com / no-ip.com)			
	Mobile view	Support -3G phone, Smart phone			
Alarm	Sensor input setup	NC/NO	NC/NO	NC/NO	
	MISC	Email notification, Detection of HDD temperature			
PTZ	PTZ protocol	Pelco-D, Pelco-P, Other protocol can be supported			
	Preset control	○	○	○	
HDD	Internal HDD	4	4	4	
	Type	SATA	SATA	SATA	
System	OS	Embedded Linux			
	Compression	H.264	H.264	H.264	
	Menu type	Graphic user interface			
	Control	USB Mouse / Remote controller / External keyboard			
	User management	Administrator and 4 users with limit access function.			
	Firmware upgrade	USB flash memory, Network, CMS			
	Log view	○	○	○	

Chapter 13 Warranty

WARRANTY

We warrant that Standalone DVR series(Product) will be free from defects in materials and workmanship for a period of one year from the date the customer acquires the Product. If such a defect occurs, return the Product to us and we will, at our opinion, either repair or replace Product. This remedy is your exclusive remedy for breach of this warranty. The proof of purchase is required for the warranty. This warranty shall not apply to repairs or replacements necessitated by any cause beyond the control of ForeTech Co., Ltd., including, but not limited to,

- 1) improper installation
- 2) acts of nature
- 3) Accident
- 4) misuse,
- 5) lack of proper maintenance
- 6) voltage fluctuations
- 7) unauthorized repairs or modifications.

This warranty gives the customer certain legal rights. Other rights, which vary from state to state or province to province, may be available to the customer.

LIMITATION OF WARRANTIES AND LIABILITY :

Except for the expressed warranty above, the Product is provided on an as is basis without an other warranties or conditions express or implied, including but not limited to warranties of

- 1) Merchantable quality
- 2) Merchant ability or fitness for a particular purpose
- 3) Those arising by law, statute, usage of trade or course of dealing.

The entire risk as to the results and performances of the Product is assumed by you. Neither we nor our dealers or suppliers shall have any liability to you or any other person or entity for any indirect, incidental, special or consequential damages whatsoever, including but not limited to, loss of revenue or profit, or other commercial or economic loss, even if we have been advised of the possibility of such damages or they are foreseeable: or for claims by a third party. Our maximum aggregate liability to you, and that of our dealers and suppliers, shall not exceed the amount paid by you for the product. The limitations in this section shall apply whether or not the alleged breach or default is a breach of a fundamental condition or term, or a fundamental breach. Some states/countries do not allow the exclusion or limitation of liability for consequential or incidental damages so the above limitation may not apply to you.

Standalone DVR
User Manual