



**ASCENDENT**  
**TECHNOLOGY GROUP**

# **X3NS Series DVR**



## **User's Manual**

Please read this manual before using your DVR, and retain it for future reference.

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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 MPEG4 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

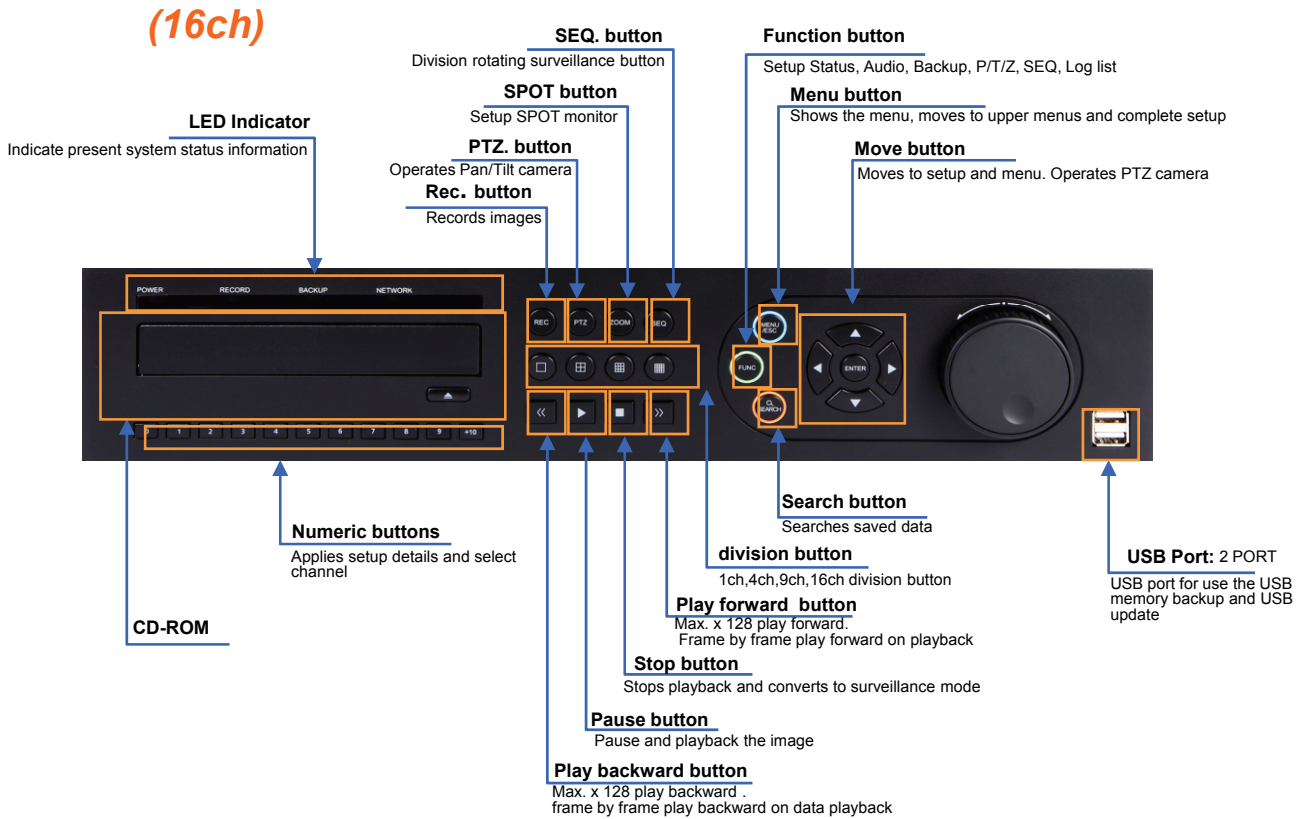
- ◆ Advanced hardware MPEG 4
- ◆ Embedded O/S ROM
- ◆ 16 Camera input
- ◆ Auto-sequence screen division and PIP/POP function.
- ◆ Real time display
- ◆ Recording : 480fps-NTSC (PAL 400fps)
- ◆ 4 CH audio recording and two way audio communication.
- ◆ CD, DVD RW, USB external saving devices
- ◆ Ethernet 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

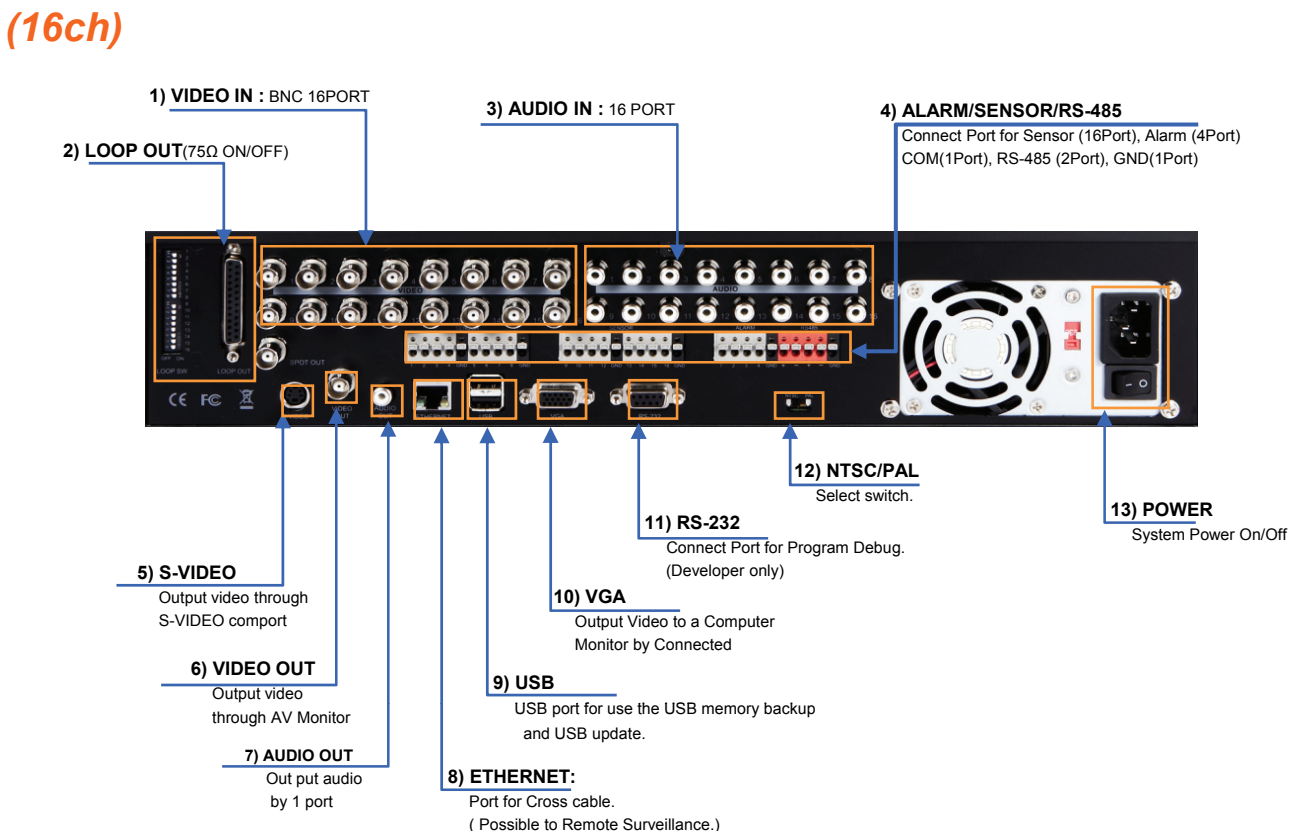
## Chapter 3 Basic Product Operation



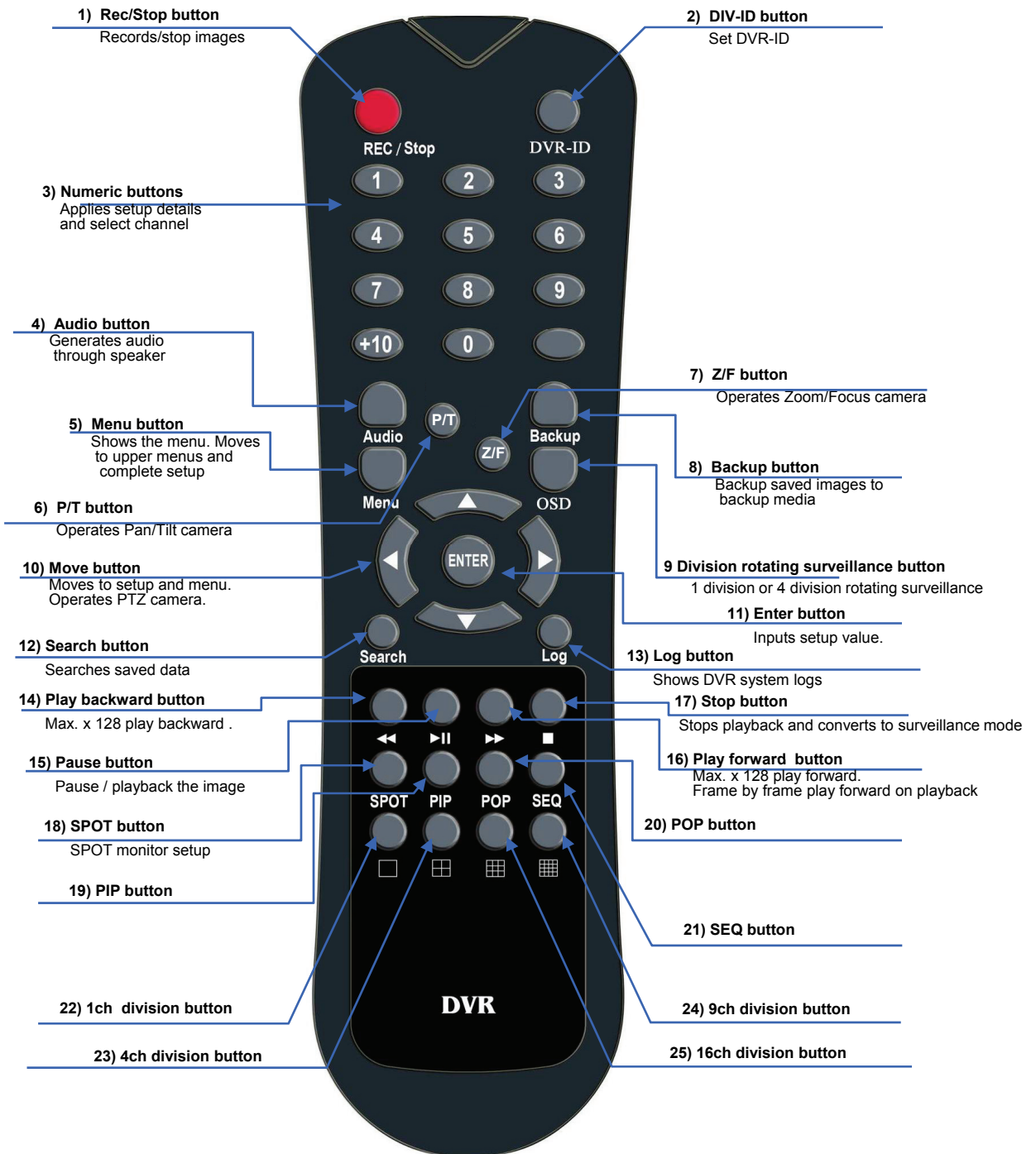
## FRONT CASE Button Description



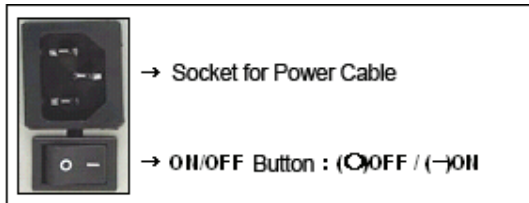
## REAR PANEL I/O Description



# Remote Controller Button Description



## Power on/off



### ●Power on

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

### ●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

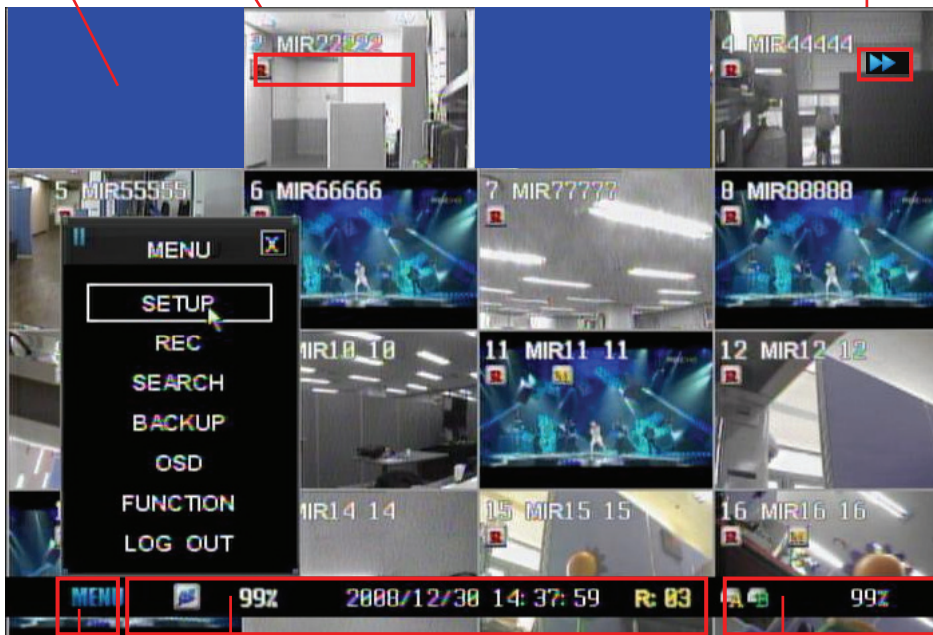
Camera name

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





[ 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

\* Covered Channel







[ Mouse ] [ Slide bar ]

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

[ HDD status ]

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

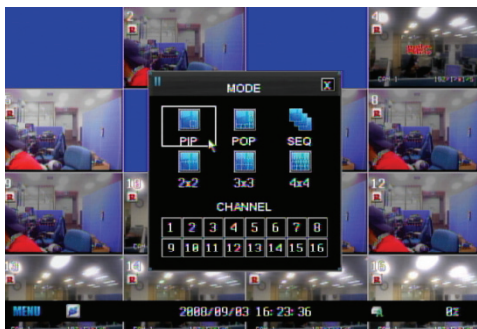
\* color icon indications

-  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)

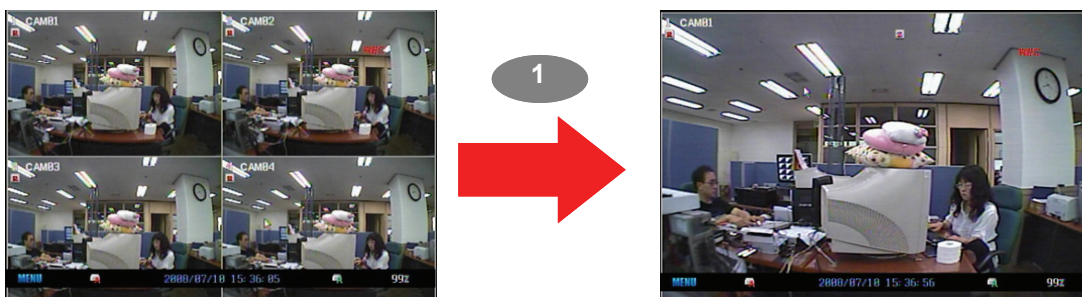


● Full screen mode

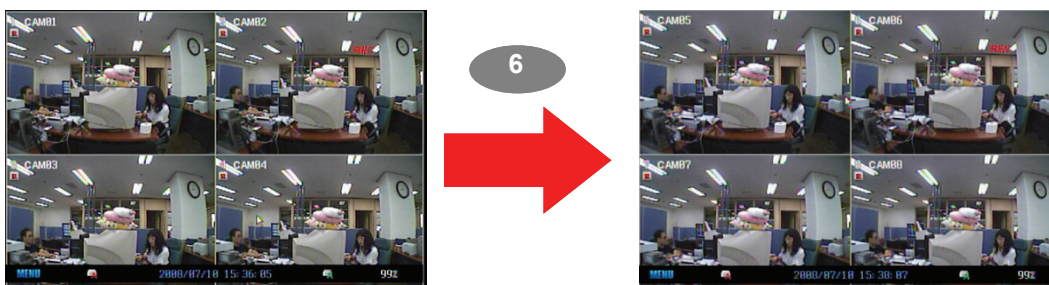
-  press this button.
-  shifts to next channel each time you press this button.

● 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 9Ch & 16Ch products**

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

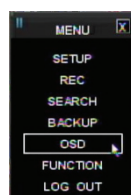


● **OSD mode**

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



OSD button  
or



● **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

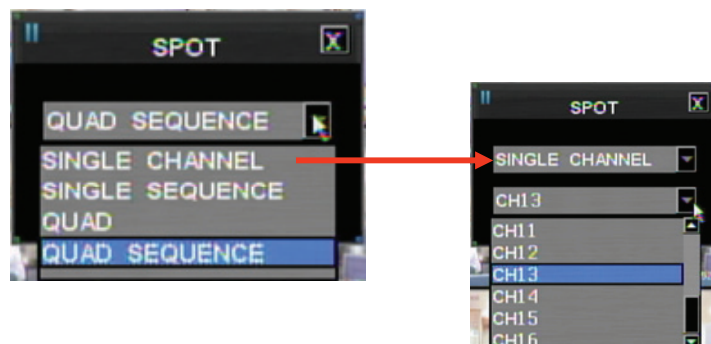
Display real time screen of another screen-mode in different monitor using 'SPOT OUT' port at the back of product.

▶ 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

9Ch



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

16Ch

▷ 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.  
(admin password is required, default value is '0000'.)

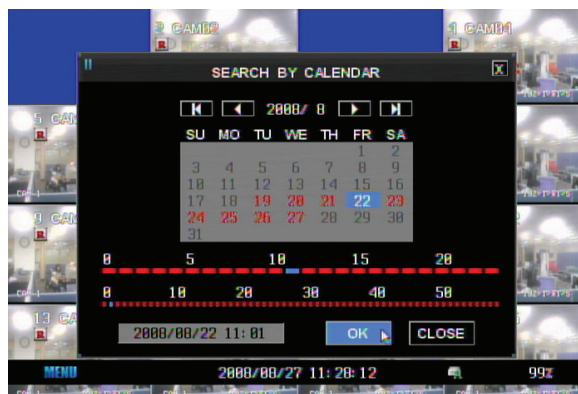


- Search by time

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

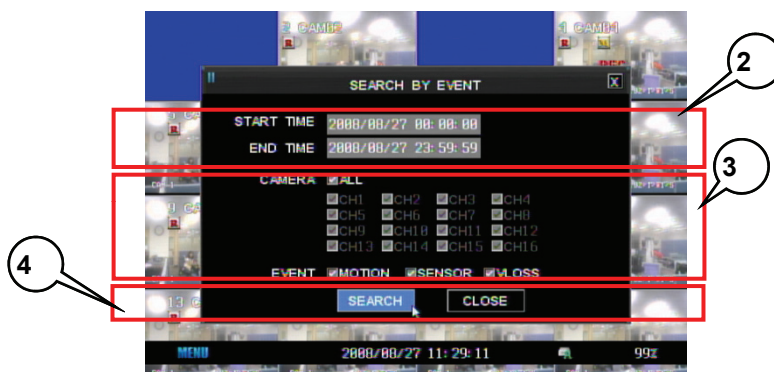
- Search by calendar

- (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'.

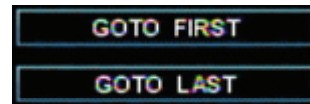


- Search by event

- (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.



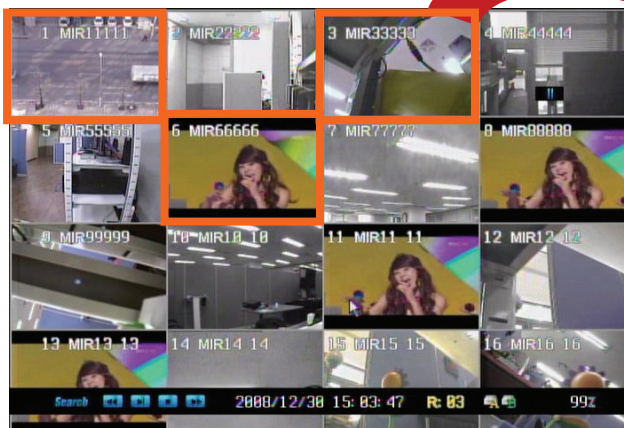
- **Go to first**  
playback from the beginning part of recorded.
- **Go to last**  
playback from the recent part of recorded.



● **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 device(or CD/DVD).

(1) Connect 'USB' device to the DVR's USB port.(or CD/DVD media into the ODD)



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

(3) Select options from menu.

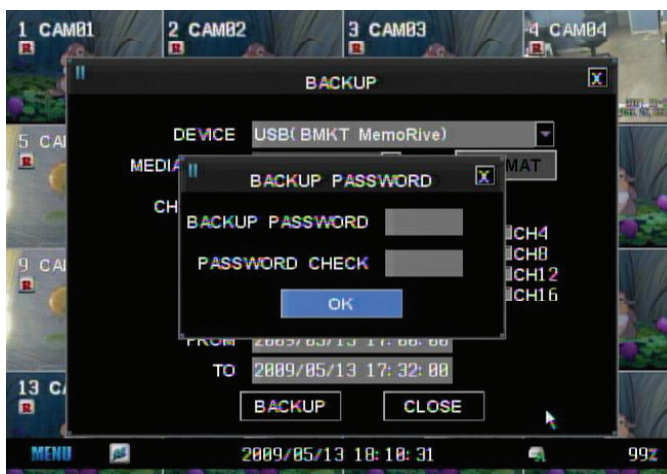


- ✓DEVICE – select the device to backup.
- ✓MEDIA TYPE– select media 'CD','DVD' etc to backup.
- ✓FORMAT – format the media before backup.
- ✓CHANNEL – select channels to backup.
- ✓FROM – input the date/time to start backup.
- ✓TO – input the date/time to finish backup.

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

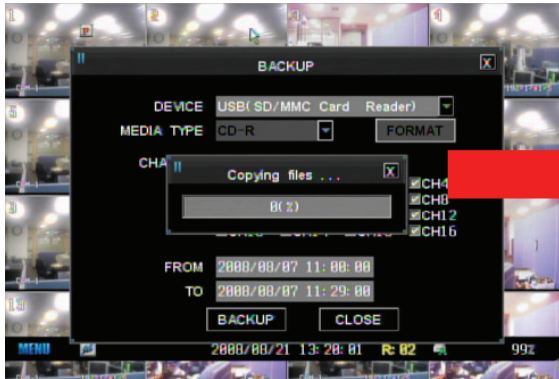
(5) Backup password window will show up and ask you to input the password. You must remember this password, and you will be asked to input this password when you playback the data.

- 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.

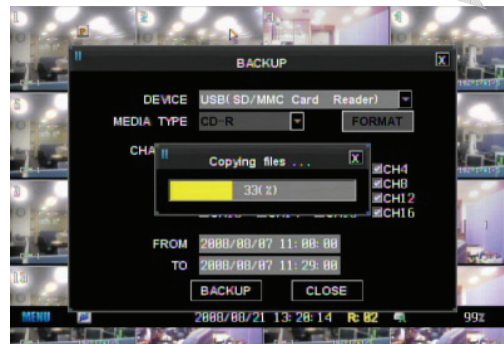




•NOTE: Do not remove USB device during Backup!



Note: In case backup data file size is too small, then backup will be completed shortly without showing this progress window.

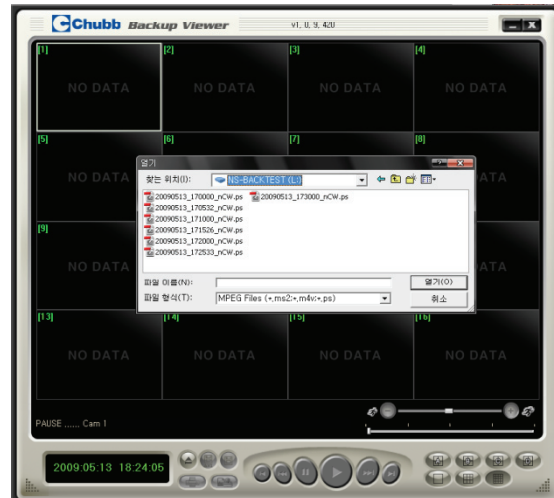
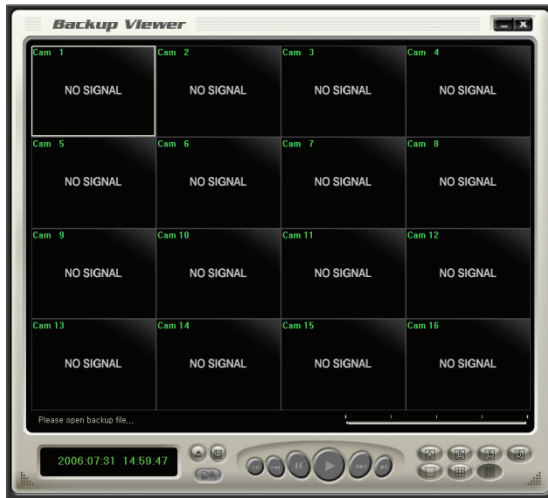


● Backup viewer

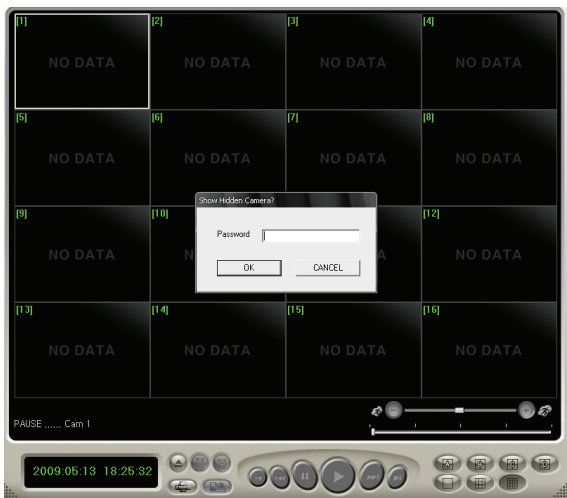


- (1) open file : Load the backup data.
- (2) AVI: save the selected channel to avi during playback  
Select channel → click this icon(start) → click again(finish)
- (3) save : save the playback images as bmp file.
- (4) Print screen image
- (5) watermark : check if there is any modification of data.
- (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

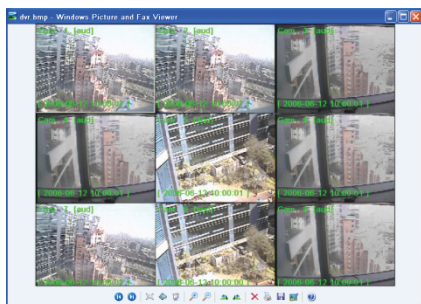
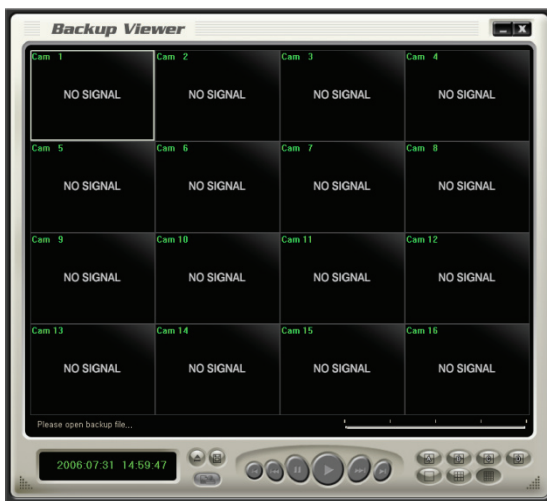
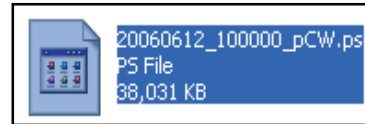


Image of saved bmp file as 9 division screen

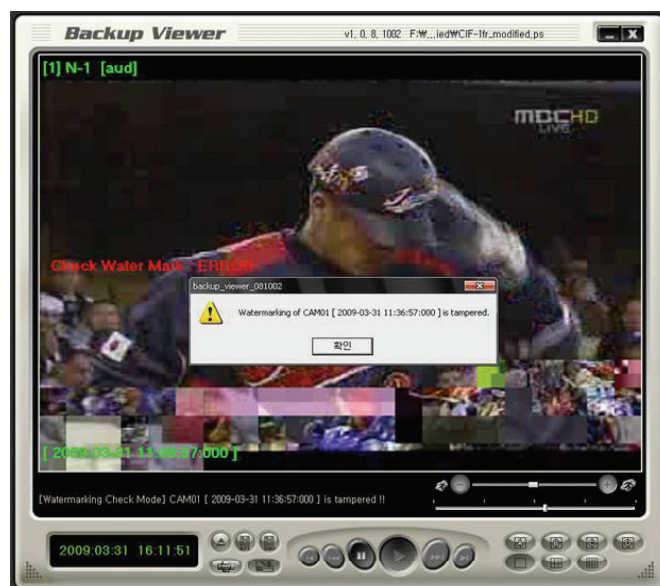
- (1) Save backup data.
- (2) Select screen division.
- (3) Click 'save' button.
- (4) Name the 'Bmp' file and save.



● 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.

## PTZ(FUNCTION)

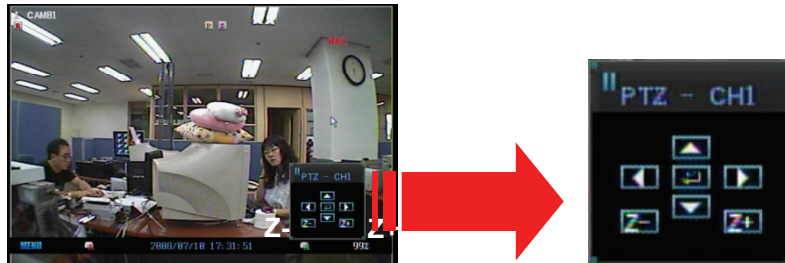
### ●PTZ operation

press  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

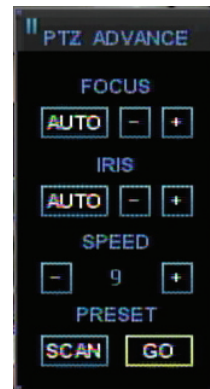
- ① + : Open iris
- ② - : Close iris
- ③ AUTO : Auto iris mode

(3) operating speed

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

(4) preset

- ① scanning
- ② shortcut



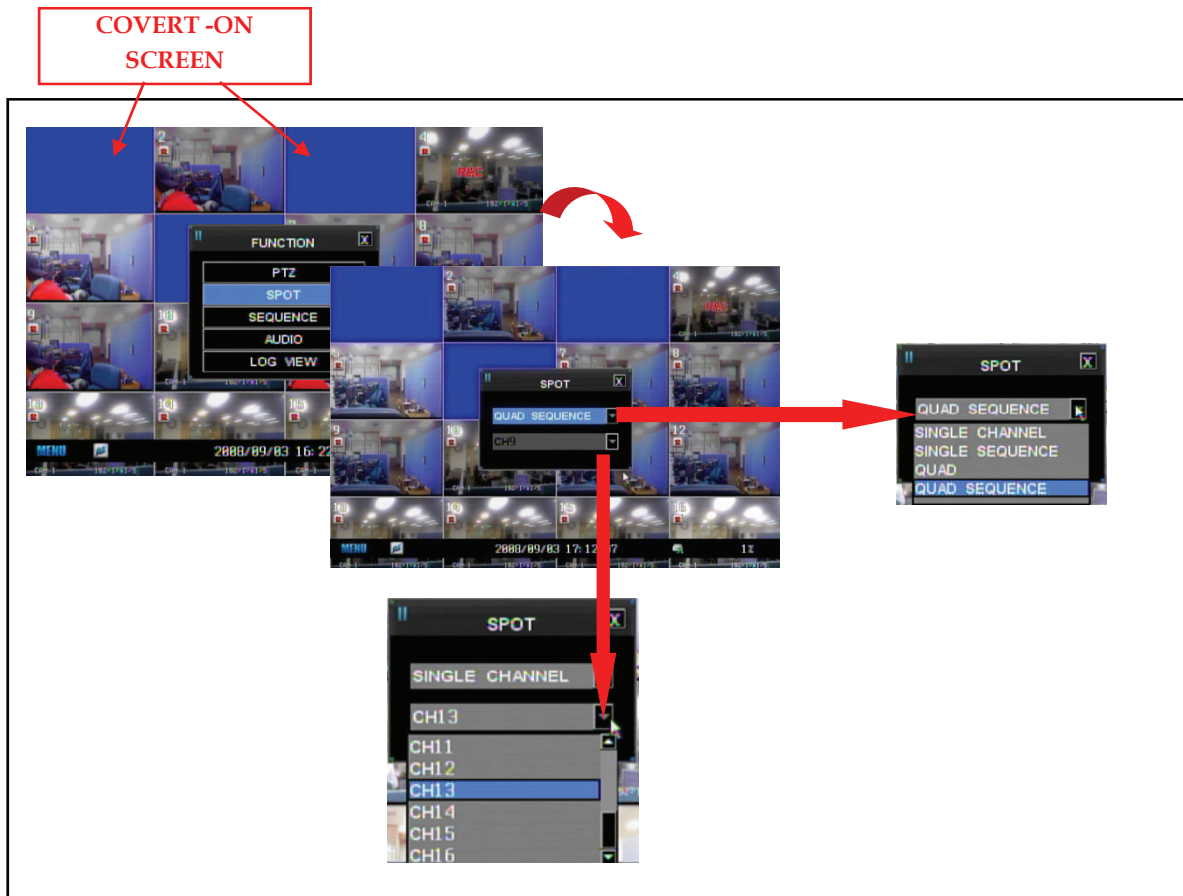
**NOTE:** you can set 'Preset' at System menu.  
[Menu camera setup preset]

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

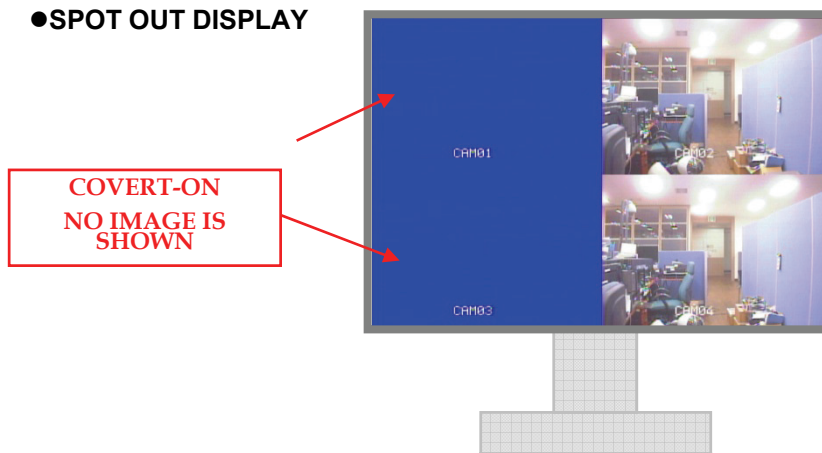
## SPOT(FUNCTION)

### ●SPOT operation

Press 'FUNCTION' button at the front panel, select 'SPOT' to setup.



### ●SPOT OUT DISPLAY



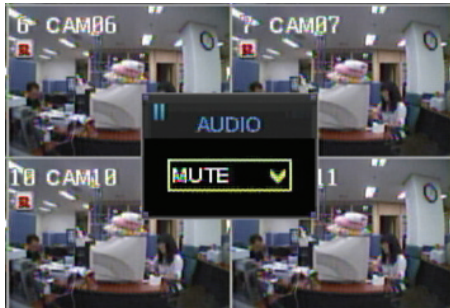
Note: Refer to page 30 in 'User Manual' to select Spot out channels.

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

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

### Audio(FUNCTION)

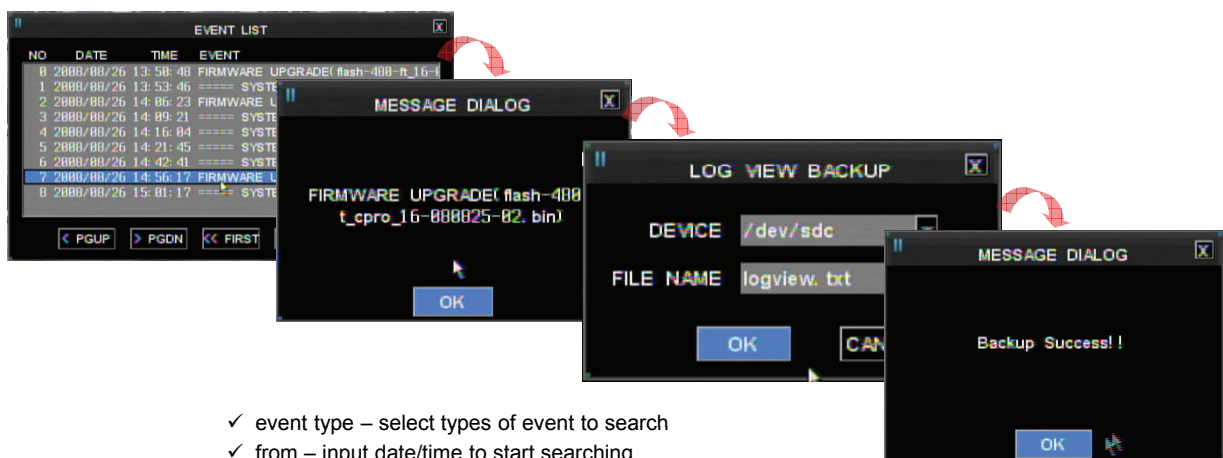
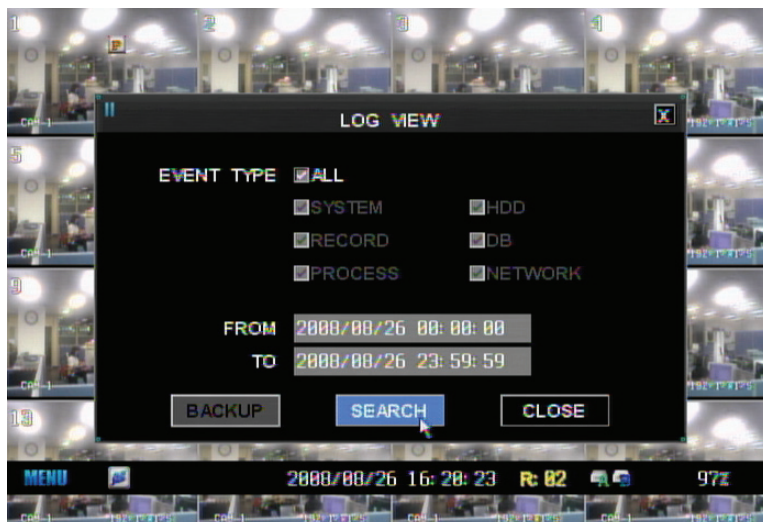
- Turn on/ off audio.
- N.B you can only playback audio in full screen mode.



Audio 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

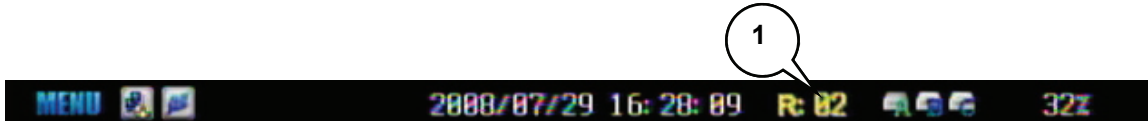
- select 'Search' and press 'ENTER/OK' button to start log search.



### Remote –controller ID

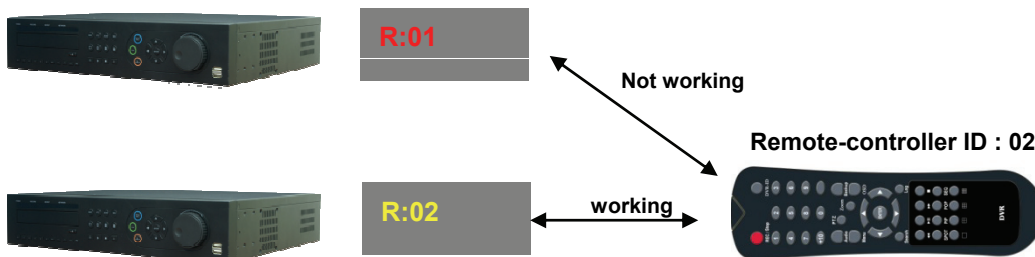
- **Remote-controller ID**

- (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.



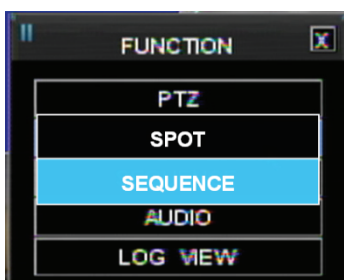
① DVR ID

- 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



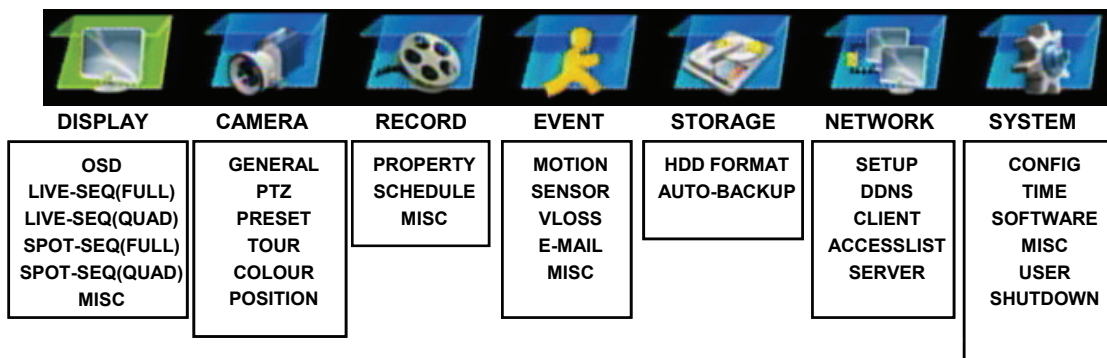
## Before setting up system

### ● Starting system menu

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

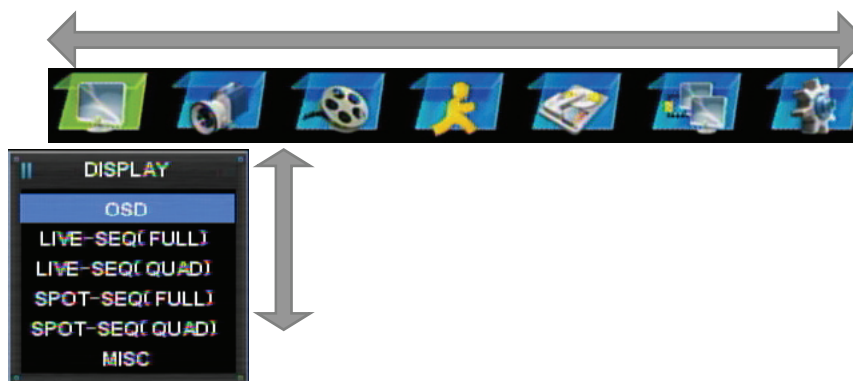
**NOTE:** default value: 0000

### ● 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.



● **Moving to the next menu page**

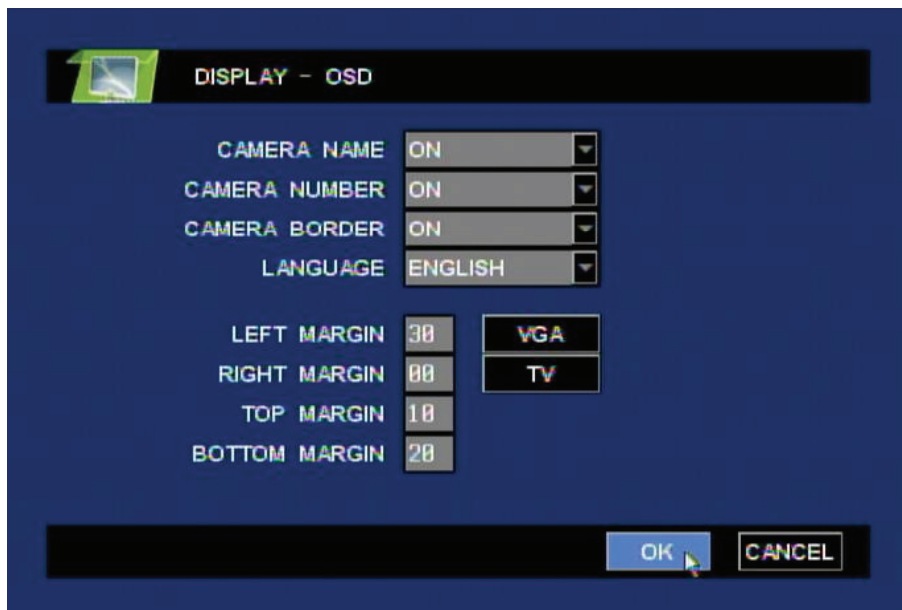
Ex)



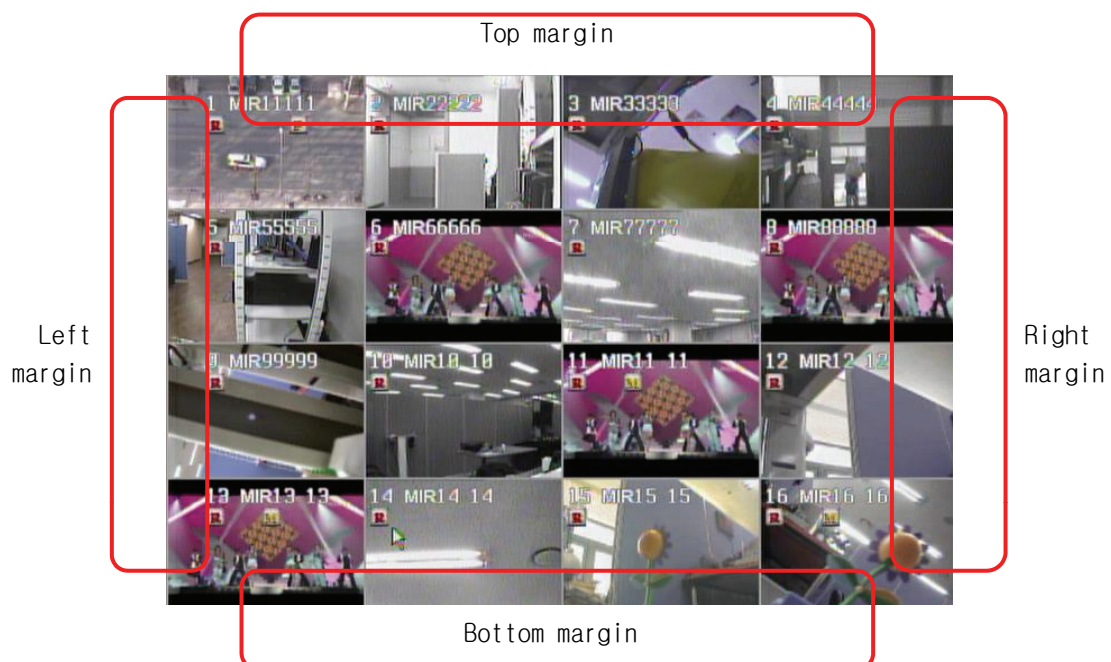
Press **1 ~ 8** or **9 ~ 16** button to move to the next menu page.

## Setting up screen display

### ●Screen display setup – On Screen Display



- ✓ Status bar – indicate the status bar on the bottom of screen.
- ✓ Camera title – indicate the name of each channel.
- ✓ Camera boarder – indicate the boarder-line of each channel.
- ✓Language – select menu language.
  
- ✓Left margin – adjust the left margin of OSD.
- ✓Right margin – adjust the right margin of OSD.
- ✓Top margin – adjust the top margin of OSD.
- ✓Bottom margin - adjust the bottom margin of OSD.



●Screen display setup – live sequence scanning (full 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
3	Camera 6 ~ Camera 9

9ch

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

16ch

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

Setup duration time for spot sequence scanning in full screen.

NOTE : can input maximum 99 second.



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

Setup duration time for spot sequence scanning in quad screen.

NOTE : can input maximum 99 second.



◆[Default]

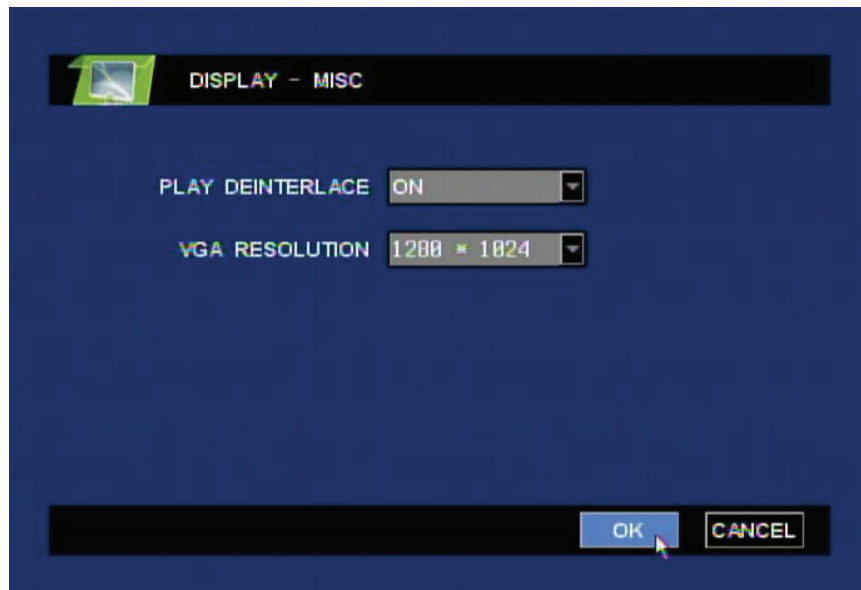
Quad screen number	camera
1	Camera 1 ~ Camera 4
2	Camera 5 ~ Camera 8

8ch

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

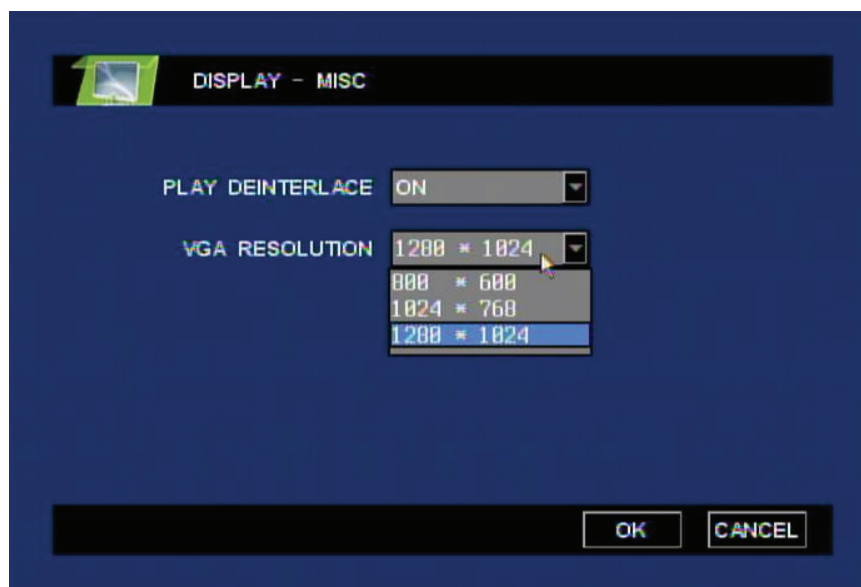
16ch

- **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.
- SHOW– show or hide channels.
- audio – select connected audio channels.

CH	TITLE	COVERT	AUDIO
1	CAM01	COVERT-OFF	CH-01
2	CAM02	COVERT-OFF	CH-02
3	CAM03	COVERT-OFF	CH-03
4	CAM04	COVERT-OFF	CH-04
5	CAM05	COVERT-OFF	CH-05
6	CAM06	COVERT-OFF	CH-06
7	CAM07	COVERT-OFF	CH-07
8	CAM08	COVERT-OFF	CH-08

Buttons: 1-8, 9-16, OK, CANCEL

### ●Camera setup – PTZ

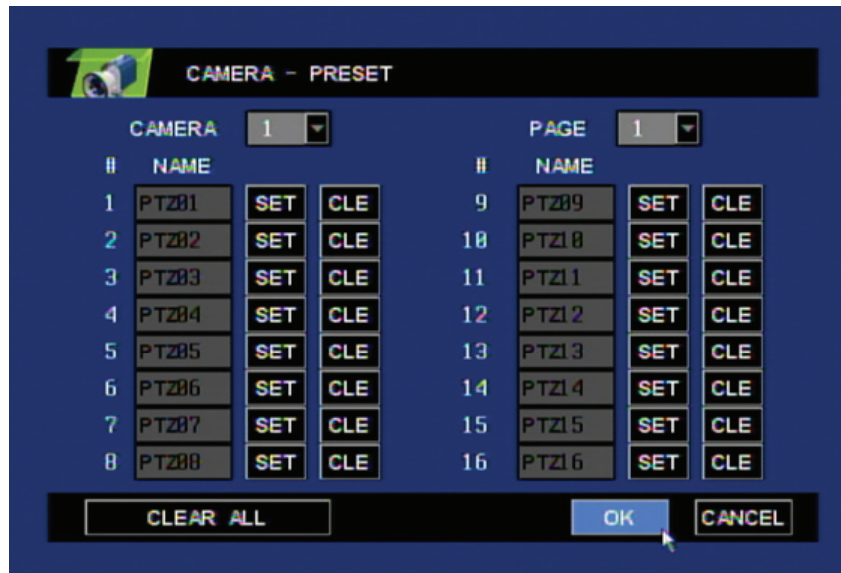
- ID – input camera IDs.
- protocol – select the registered protocol.
- baud – select the registered baud.

CH	ID	PROTOCOL	BAUD
1	001	PELCO_D	9600
2	000	PELCO_D	4800
3	000	PELCO_D	4800
4	000	PELCO_D	4800
5	000	PELCO_D	4800
6	000	PELCO_D	4800
7	000	PELCO_D	4800
8	000	PELCO_D	4800

Buttons: 1-8, 9-16, OK, CANCEL

● 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.

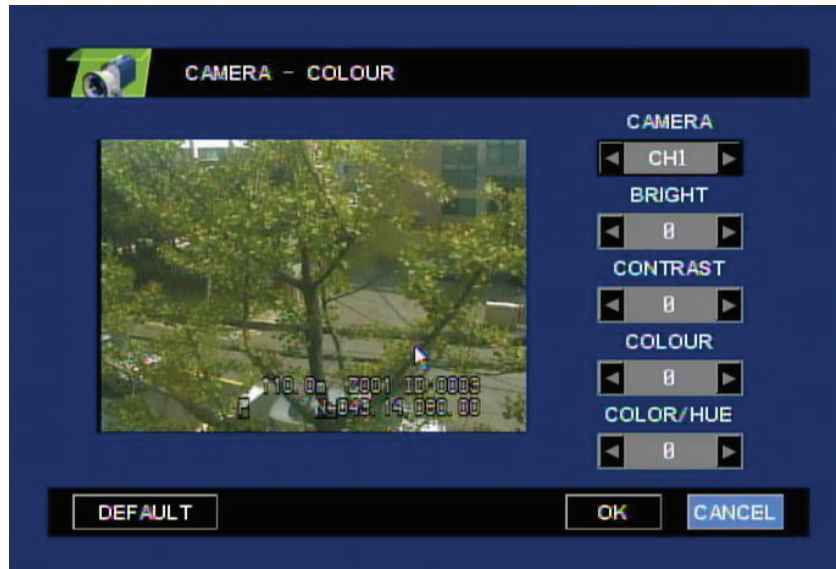
- preset – select preset position you want.
- clear all – clear all setup values.



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.

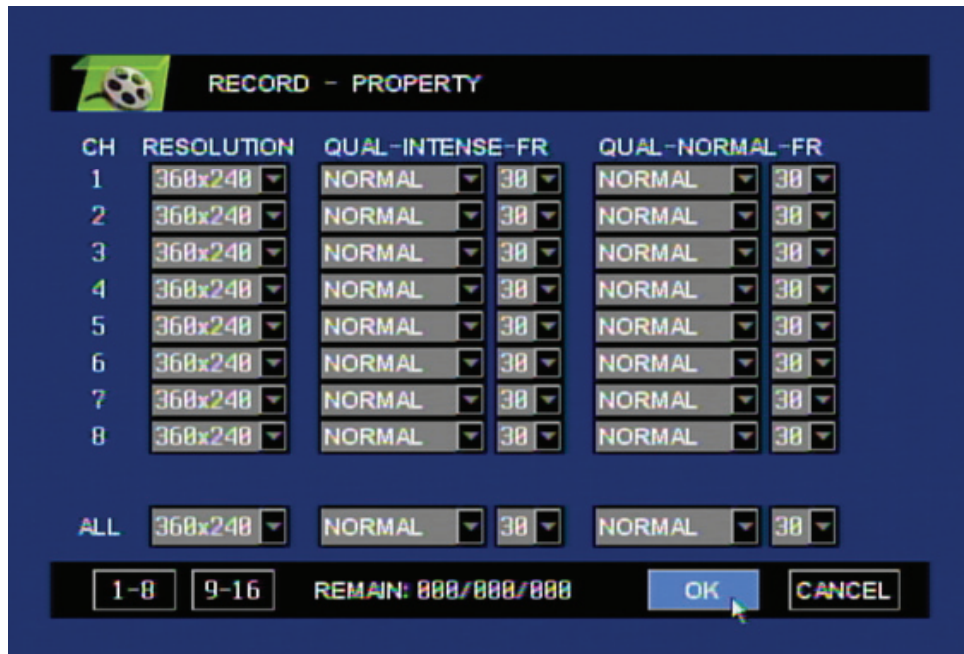
**●Camera setup – position**

- 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.

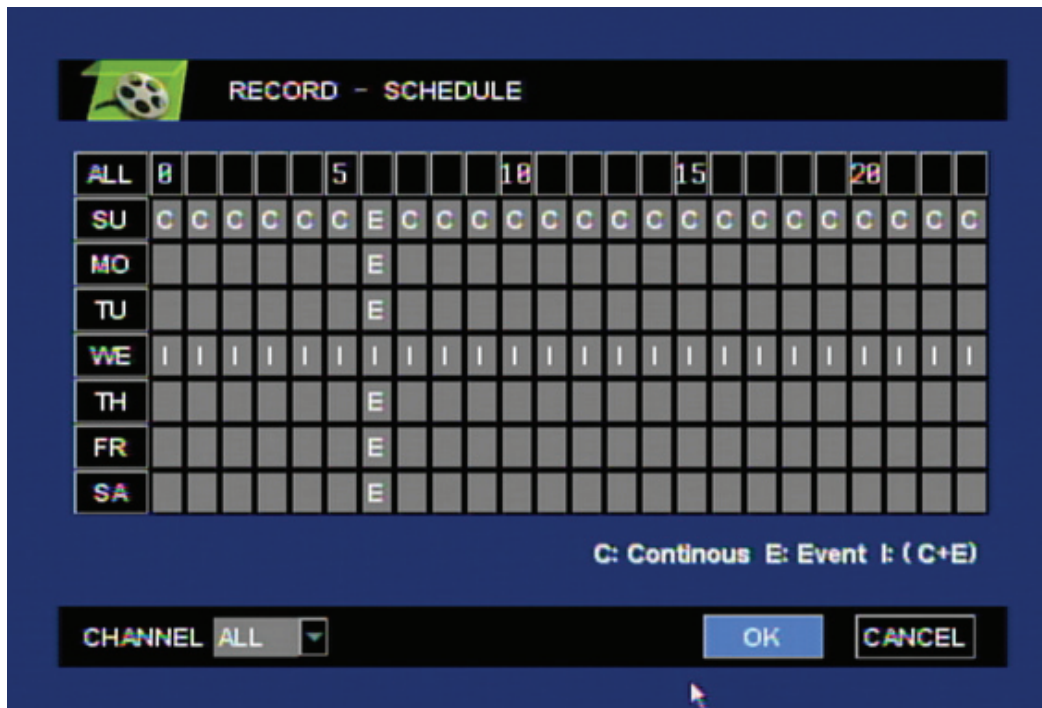


●Record setup – schedule

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

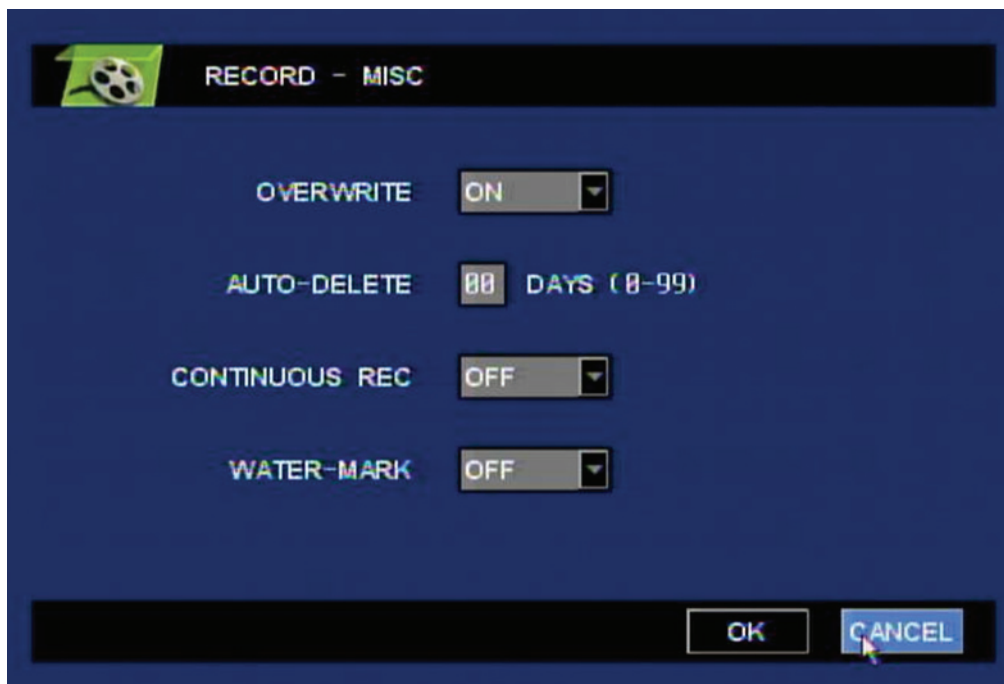
C	Continuous recording
E	Recording when even occurred
I	C(continue)+E(event)
(Blank)	Not recording

- (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.



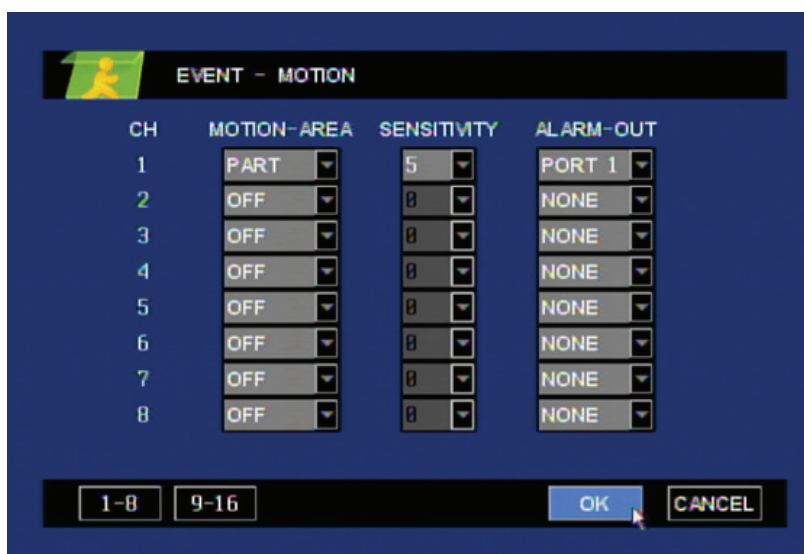
**Note)** when setting as 'on' for 'Water Mark' option, all recording files are applied with watermarking, this recorded file can be checked at Backup Viewer if someone is altered or edited recorded file with intentional purpose.  
(please check out Backup-watermark section of user manual.)

## 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.



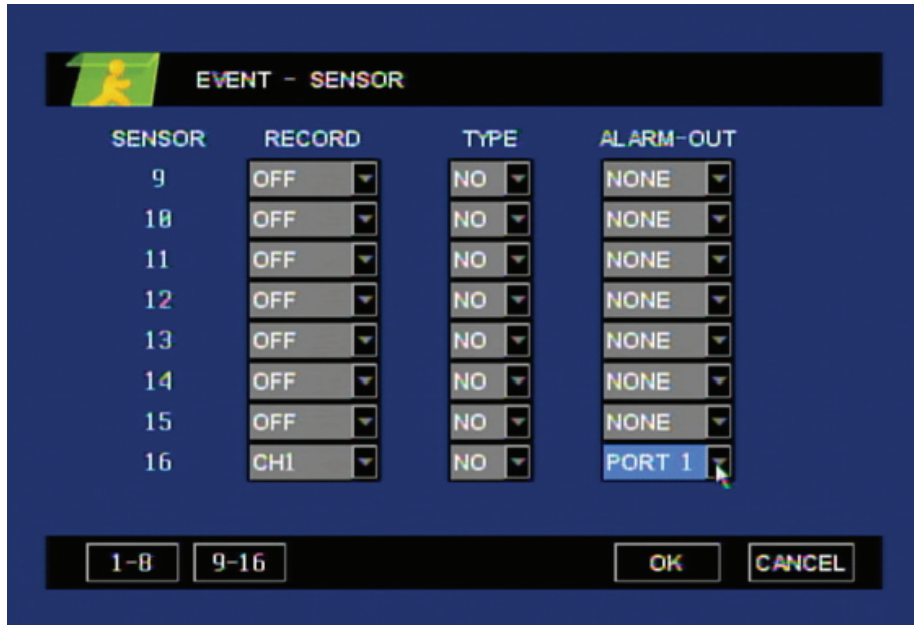
- (3) off – no motion detection.

- 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.



●Event setup – VLOSS (Video Loss)

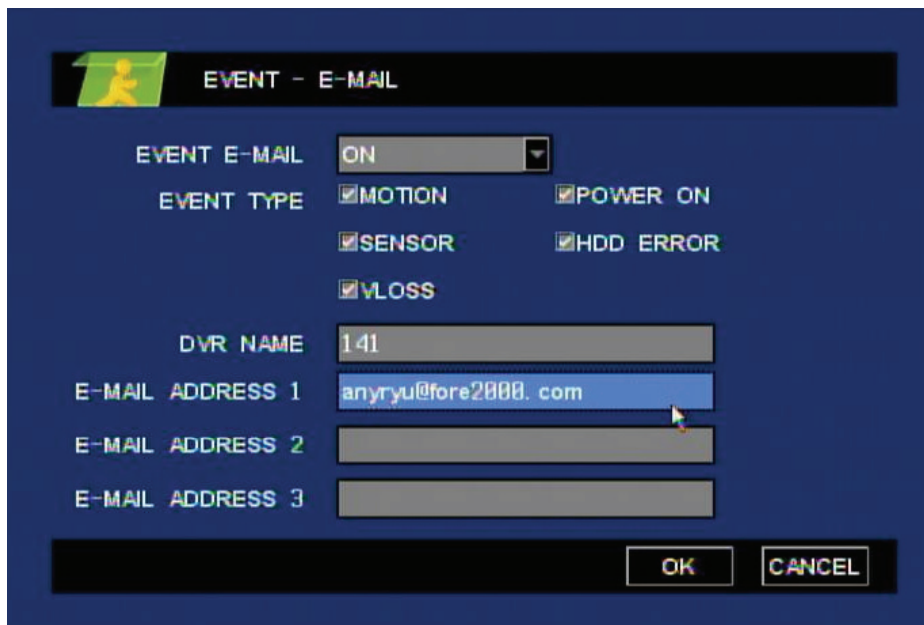
- ALARM-OUT – select alarm port.
  - NONE: disable alarm out.
  - PORT#(1~4): select alarm out port to generate beep sound
  - Multi : multiple camera mapping on alarm out to generate beep sound.



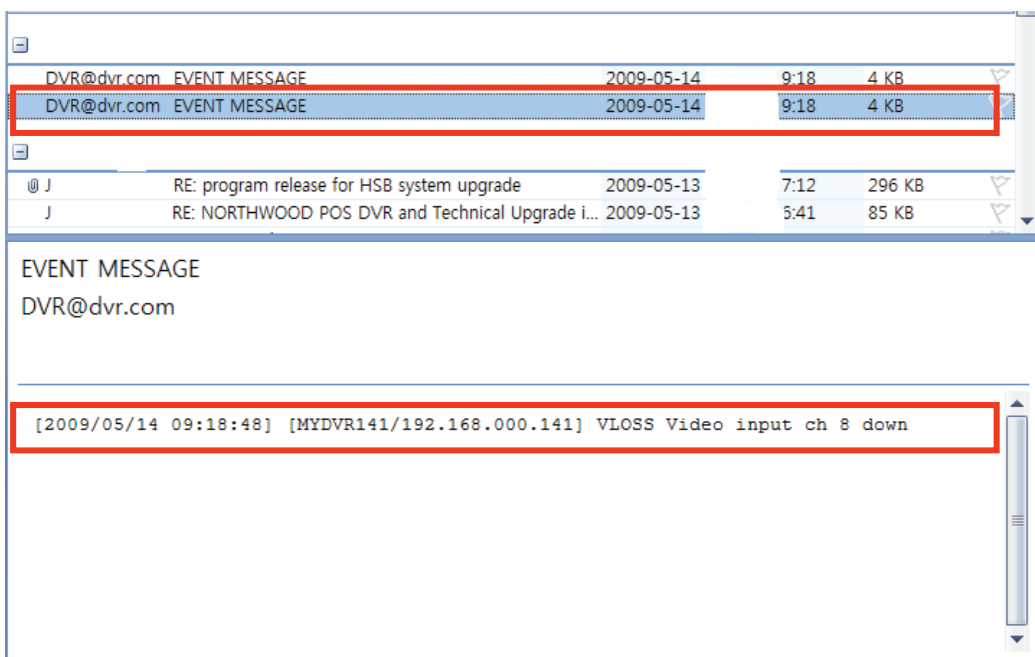
●Event setup – E-MAIL

- EVENT E-MAIL(ON/OFF): select 'on' to enable the function.
- MOTION(ON/OFF): select 'on' Motion event detection.
- SENSOR(ON/OFF): select 'on' Sensor event detection.
- VLOSS(ON/OFF): select 'on' Video Loss event detection.
- DVR NAME: input DVR name showing on E-mail.
- E-MAIL ADDRESS: input E-mail address maximum 3.

Note : when you apply this function on frequent motion detection or sensor detection, it will cause a lot of E-mail transmission, then it will affect to DVR system performance. Therefore we suggest you to escape this kind of case.



EX. E-mail notification you would receive.





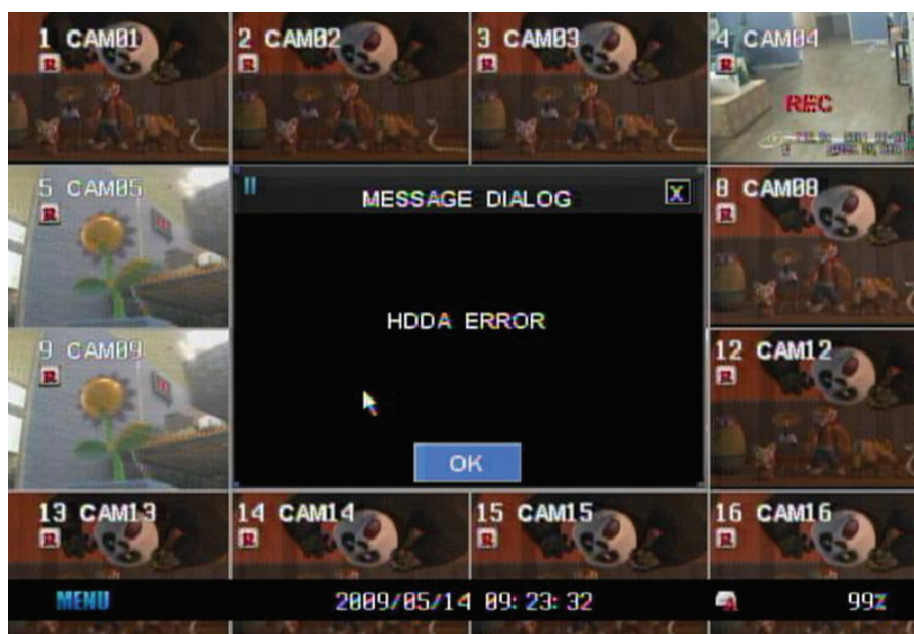
●Event setup – MISC

- 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.

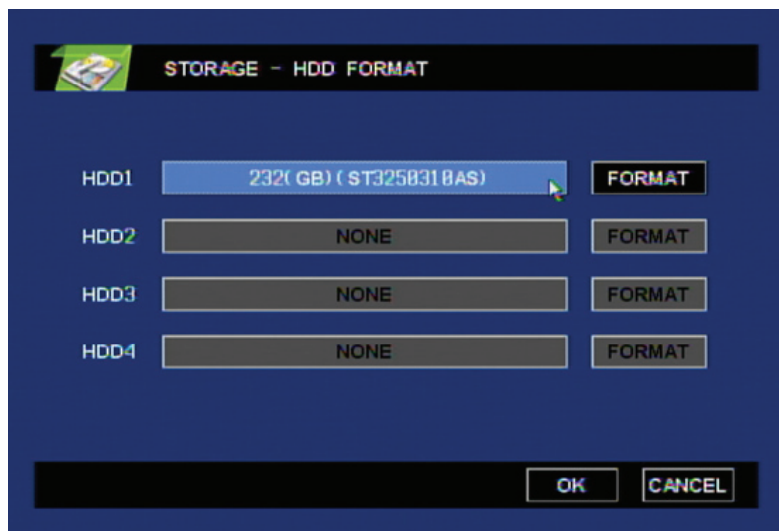


## Storage

### ●Storage – HDD format

➤ You must format HDD when you install HDD.

- (1) select installed HDD and format.
- (2) system will reboot after formatting is completed.



### ●Storage – AUTO-BACKUP

➤ AUTO-BACKUP – We provide external USB TYPE storage. You can backup data using.

TYPE : set operation types of AUTO-BACKUP.

- (1) OFF: turn off AUTO-BACKUP function.
- (2) EXTEND: when local hard is full, it will copy old data to USB hard to extend data save time.

USB1~4 : select HDD of connected USB type.

FORMAT: format HDD of connected USB type.

PASSWORD: Backup password(Temporary)

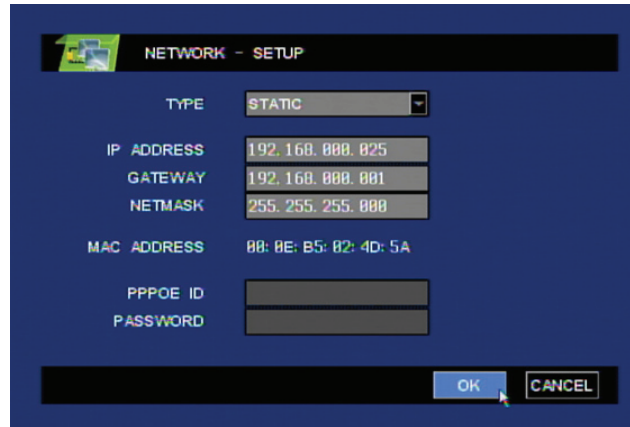
SHOW: show saved file info of HDD of connected USB type.



## Network

### ● Network – setup

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

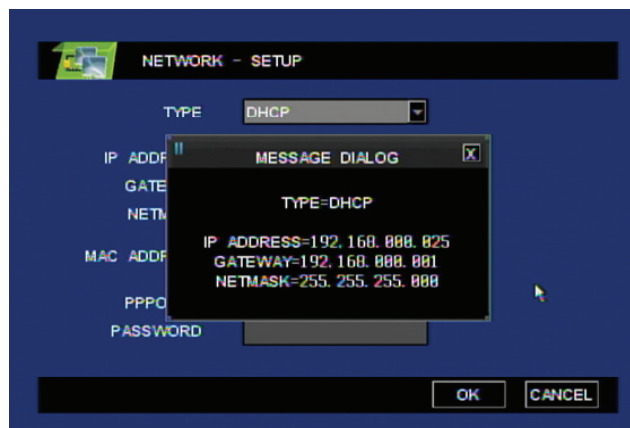


The screenshot shows the 'NETWORK - SETUP' window with the following fields:

TYPE	STATIC
IP ADDRESS	192.168.000.025
GATEWAY	192.168.000.001
NETMASK	255.255.255.000
MAC ADDRESS	00:0E:B5:02:4D:5A
PPPOE ID	
PASSWORD	

Buttons: OK, CANCEL

- DHCP – system automatically recognizes IP address.



The screenshot shows the 'NETWORK - SETUP' window with the following fields:

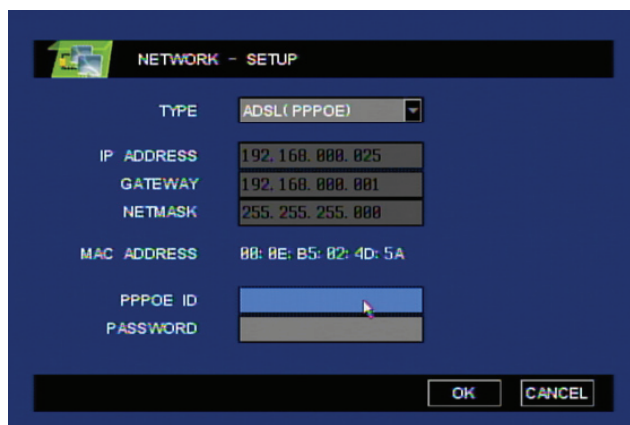
TYPE	DHCP
IP ADDRESS	
GATEWAY	
NETMASK	
MAC ADDRESS	00:0E:B5:02:4D:5A
PPPOE ID	
PASSWORD	

A MESSAGE DIALOG box is displayed with the following text:

```
TYPE=DHCP
IP ADDRESS=192.168.000.025
GATEWAY=192.168.000.001
NETMASK=255.255.255.000
```

Buttons: OK, CANCEL

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



The screenshot shows the 'NETWORK - SETUP' window with the following fields:

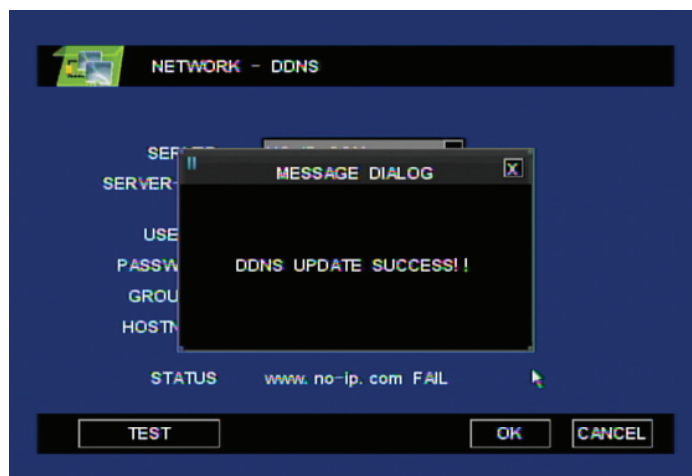
TYPE	ADSL(PPPOE)
IP ADDRESS	192.168.000.025
GATEWAY	192.168.000.001
NETMASK	255.255.255.000
MAC ADDRESS	00:0E:B5:02:4D:5A
PPPOE ID	
PASSWORD	

Buttons: OK, CANCEL

●Network - DDNS

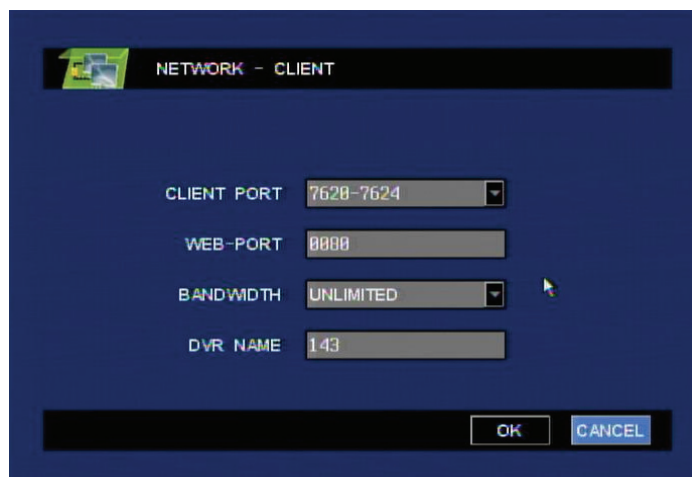
NOTE : system supports free DDNS sites such as dyndns.com, ipupdater.com.

- 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.




●Client

- password - input password to connect to CMS S/W (same as CMS Administrator's password.)
- 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.



- Access list

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



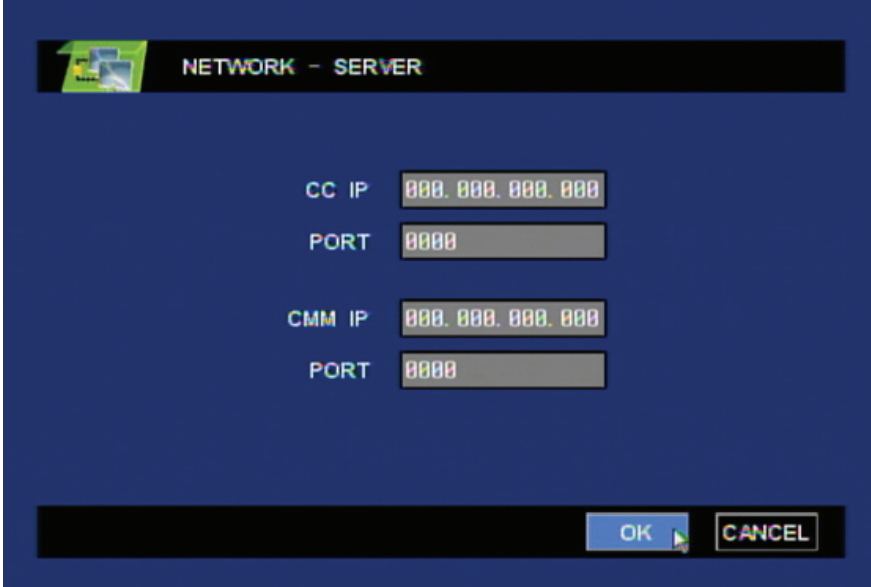
NETWORK - ACCESS LIST	
Client 1	000.000.000.000
Client 2	000.000.000.000
Client 3	000.000.000.000
Client 4	000.000.000.000
Client 5	000.000.000.000
Client 6	000.000.000.000
Client 7	000.000.000.000
Client 8	000.000.000.000
Client 9	000.000.000.000
Client 10	000.000.000.000

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)



NETWORK - SERVER

CC IP 000.000.000.000

PORT 0000

CMM IP 000.000.000.000

PORT 0000

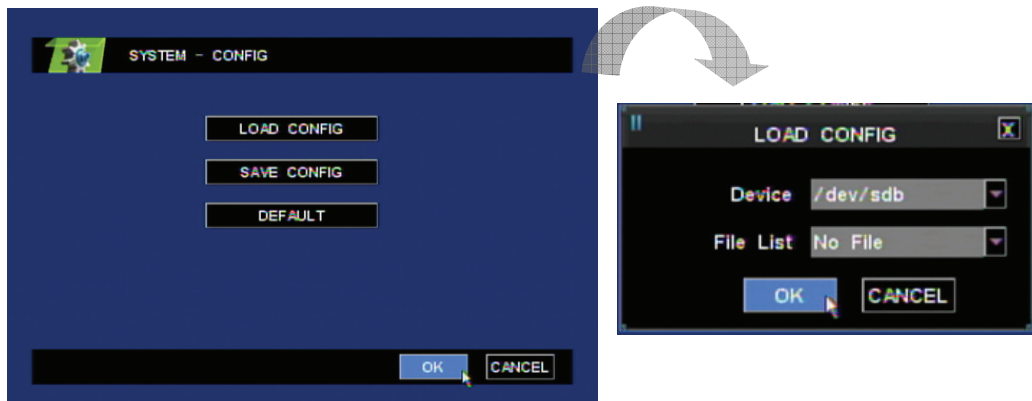
OK CANCEL

## System

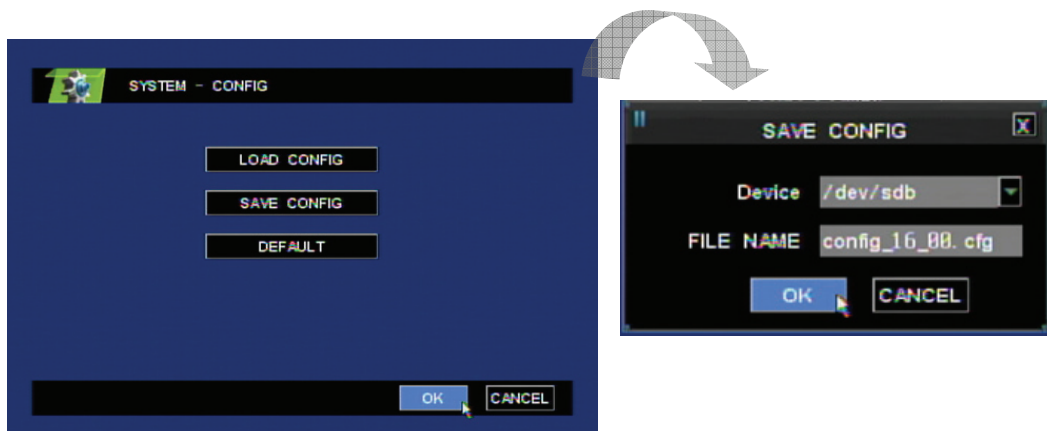
### ●System – Configuration info

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

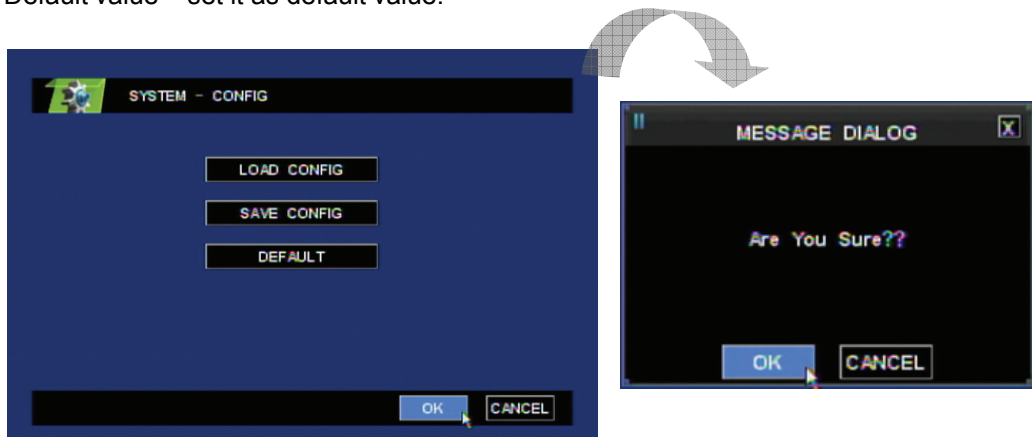
➤Load configuration – loads saved configuration information.



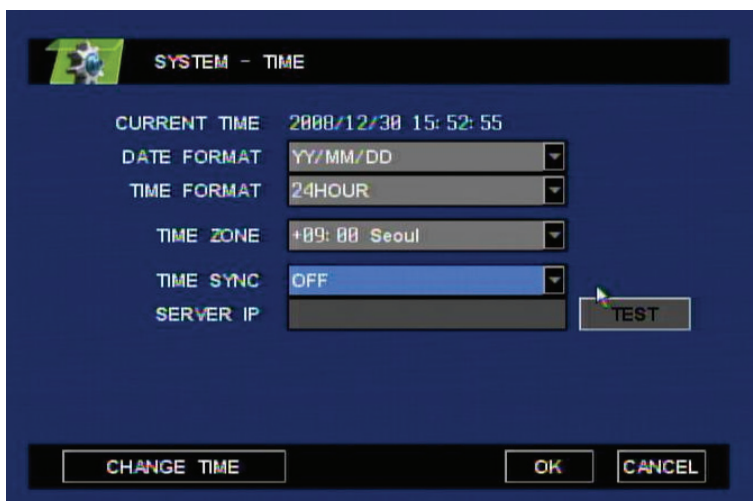
➤Save configuration – save the values set in the current menu.



➤Default value – set it as default value.



●System – Time management



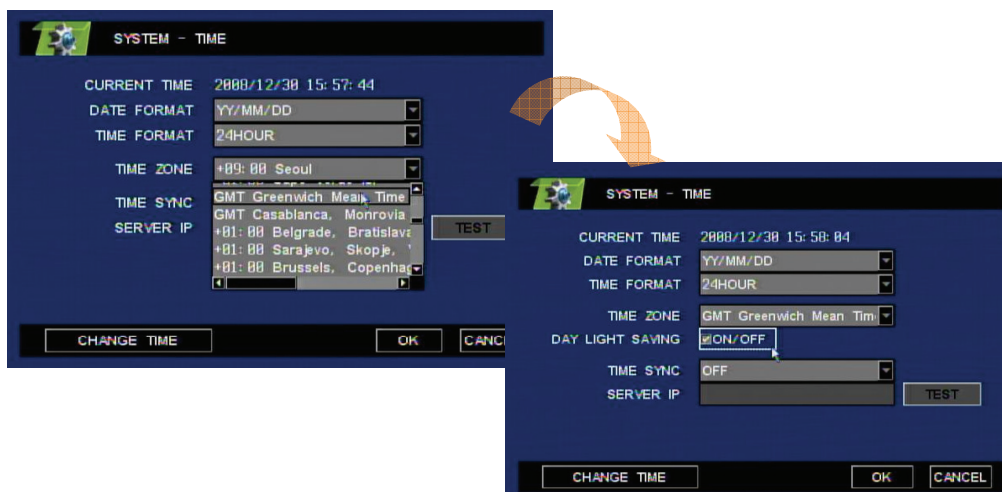
- Current time – indicates current time of system.
- Date format – select date format to display.

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.
- 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.

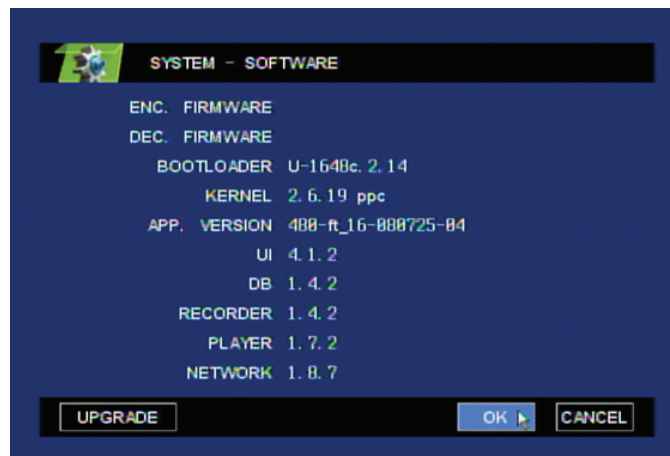
● System – USER/Password management



- ✓ 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.



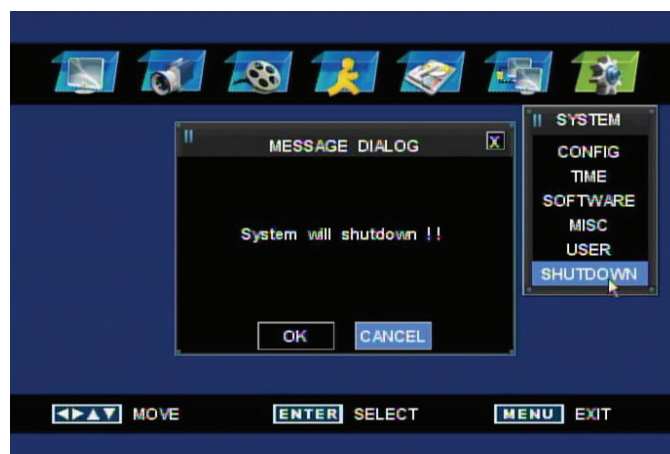
●System – Miscellaneous



- ✓ Remote-controller ID – input remote controller ID.
- ✓ KEYBOARD – control the system using keyboard controller.
- ✓ Key-tone – set buzzer sound on/off

●System – System shutdown

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





## Chapter 5 Firmware Upgrade



**NOTE** : There are two ways to upgrade firmware.

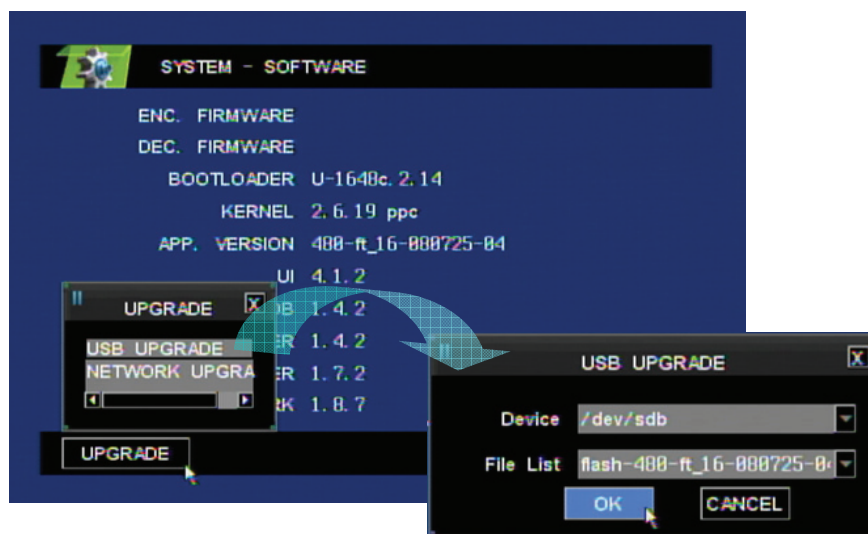
- (1) USB upgrade – upgrade system using USB memory stick.
- (2) NETWORK upgrade – upgrade system by internet connection.

## USB upgrade

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

**NOTE** : The firmware file should be saved in root 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'.

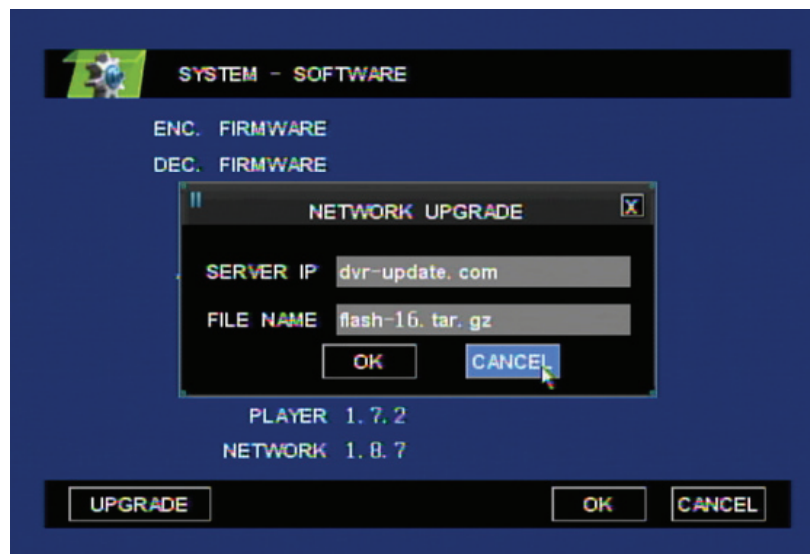


- (6) Device – select USB device with firmware file.
- (7) File list – select the right firmware file.
- (8) Select 'ENTER/OK'. System automatically upgrades. System will reboot after upgrade is completed.

## 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'.

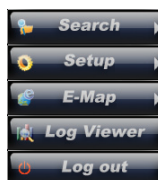


- (4) Select 'Server IP' with firmware file and file name. then select 'ENTER/OK'.
- (5) You can manually input server IP and file name if the system appointed server IP and file name is different.
- (6) System will automatically reboot after upgrade is completed.

Chapter 6  CMS – Display Mode



User Interface



**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

- **#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 10-12 16:30:14** : 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)



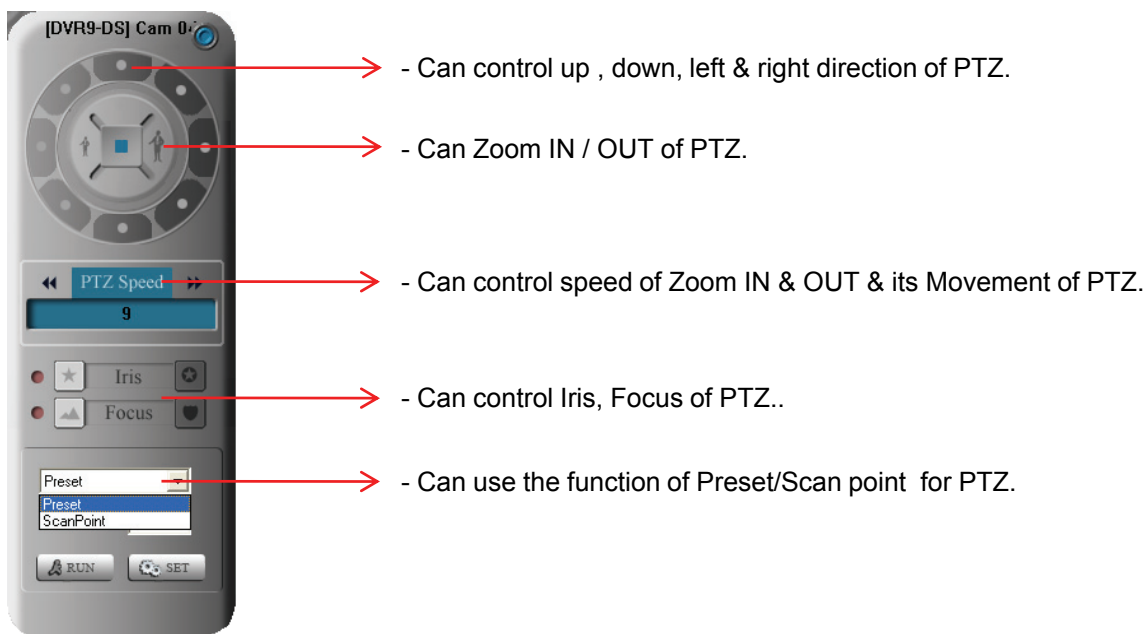
 E-Map, Print, Snapshot button shown on one division screen.

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

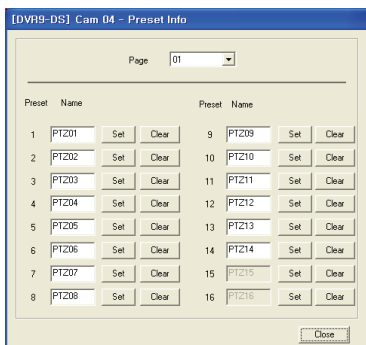
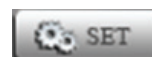




- **PTZ Controller:** can control PTZ from the remote site of CMS via network.



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



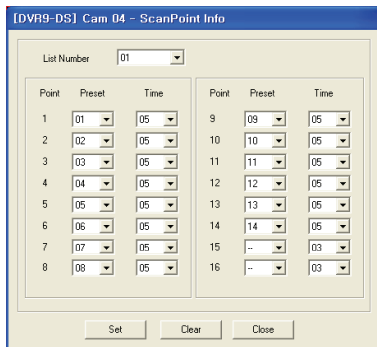
User move PTZ on the direction of up, down, left & right, with Zoom In & Out to the position which user want to move, and then click Set Button.

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..



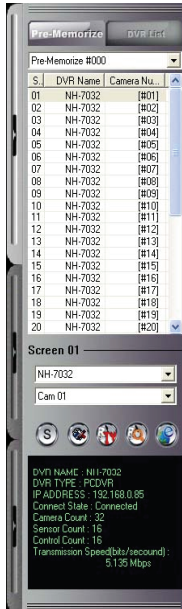
According to the order of the left image menu, select Preset number & dwell time.

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.



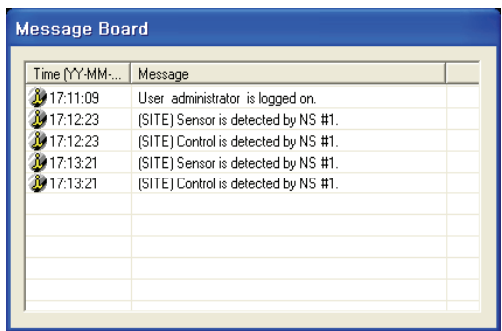
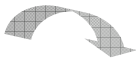
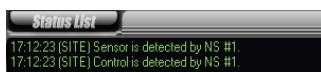
▪ **Screen Division**

- Various surveillance modes available through division buttons.

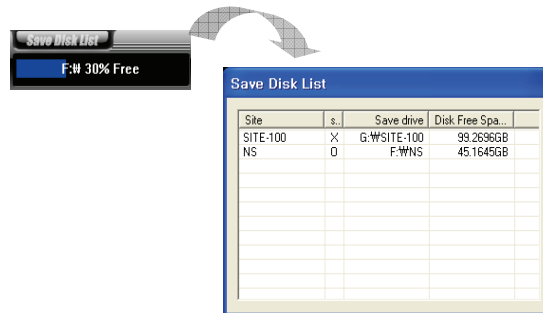
**Status**

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

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



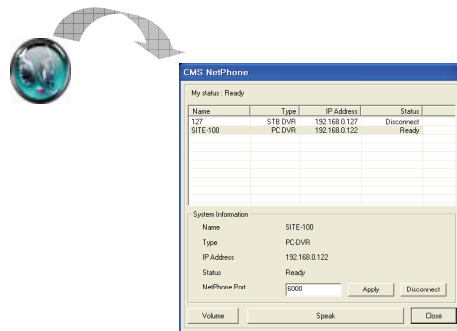
- **Save Disk List** : Select the drive to setup save disk for the data from each DVR site.  
**Save Disk List** : Free space of and the status of each drive can be checked.



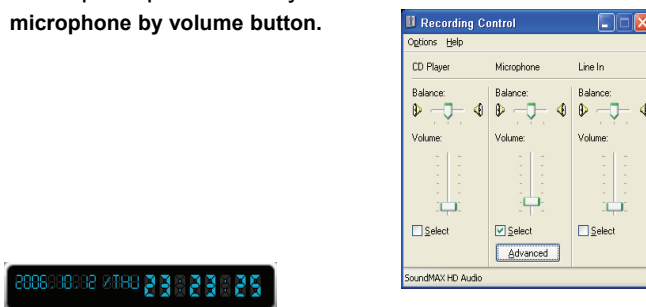
- **2WAY AUDIO** : Audio communication between CMS and DVR available.

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.

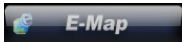
## System Utility



**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.

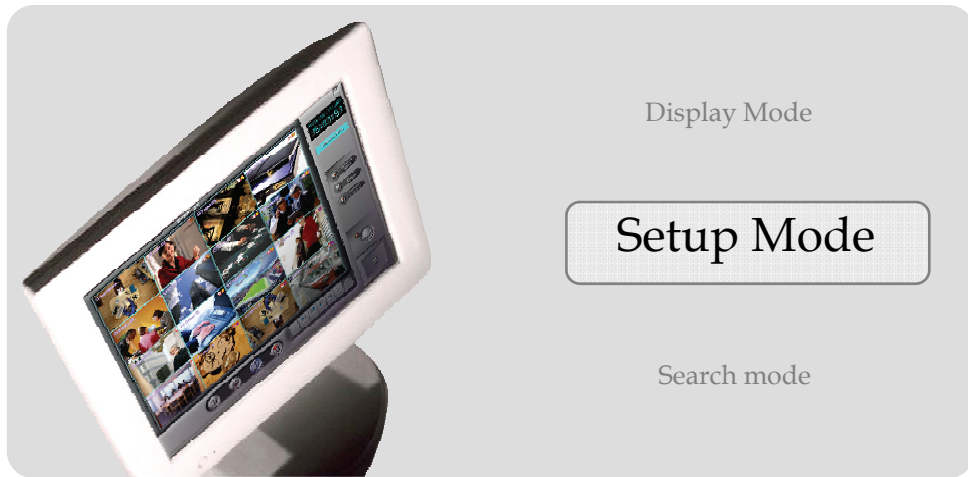


- **Logout** : log in or out, shutdown, EMC Standby , cancel the program.

<p><b>Default User ID : administrator / Password : 1234</b> <b>Ask administrator or dealer if you forgot ID or PW.</b></p>
--

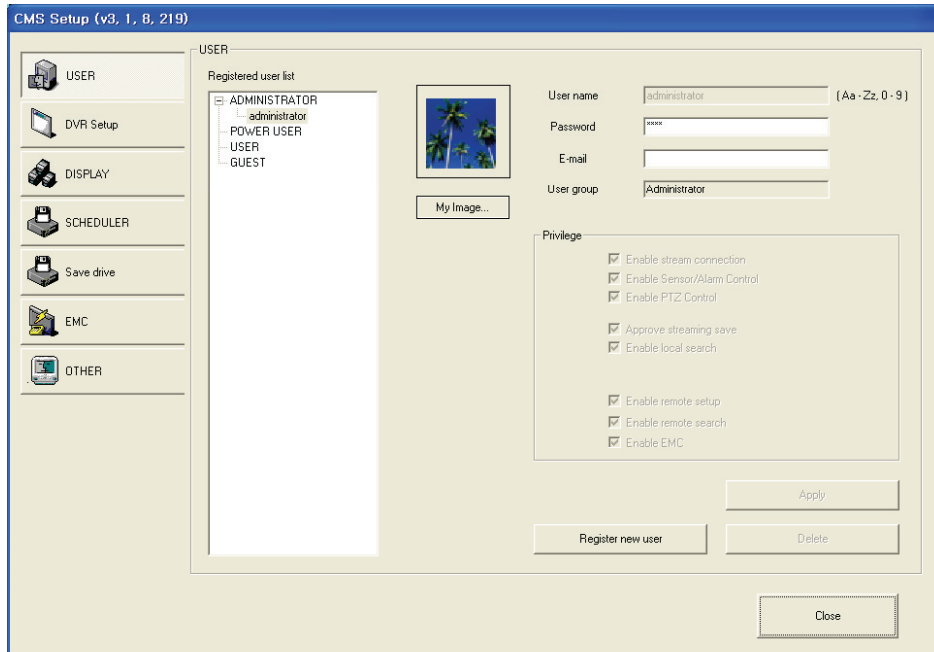


Chapter 6  CMS – Setup Mode



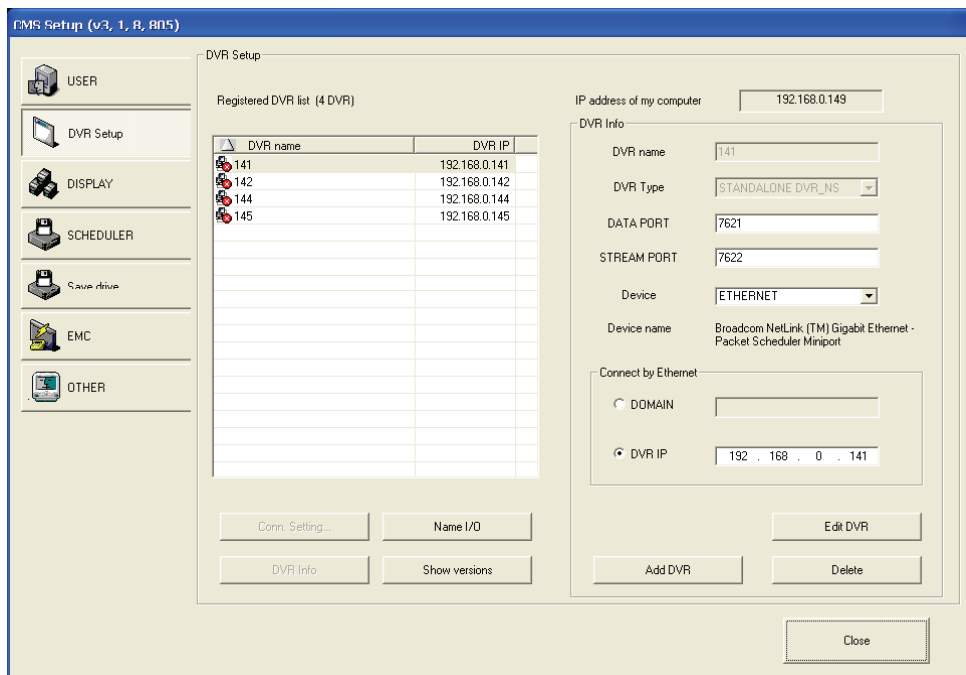
## Setup

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



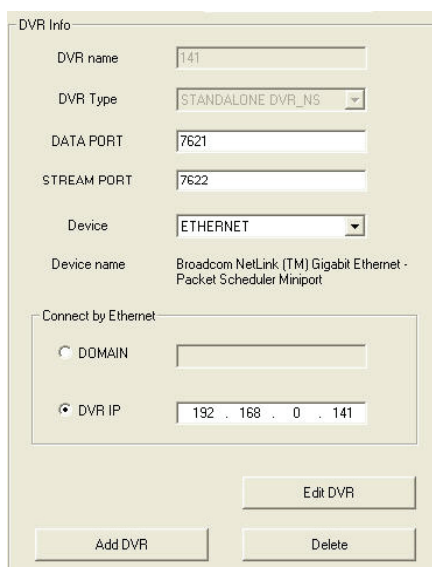
- **Registered user list** : It represents the group of registered users.
- **Register new user** : Register new user : click this button to add new user, and click 'Apply'.
- **Privilege** : you can assign different privilege to each user.
- **My image** : change the image with that you prefer such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

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

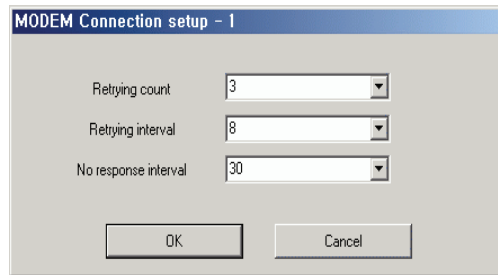


- **Registered site list** : It represents registered DVR LIST.
- **IP address of my computer** : It represents IP information of CMS System.
- **DVR Info** : Input the information of Network connection as DVR is registered.

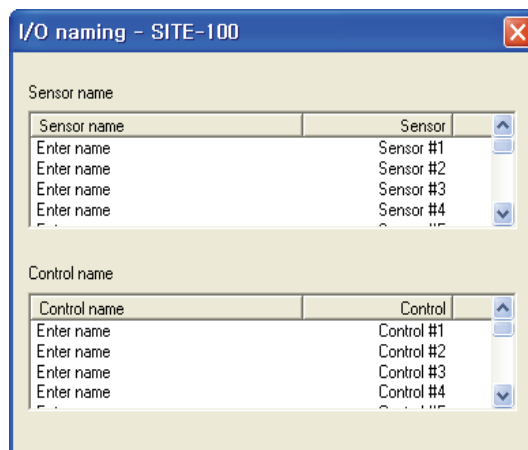
**Add site** : Input Site name, DVR Type, PORT, and Site IP.



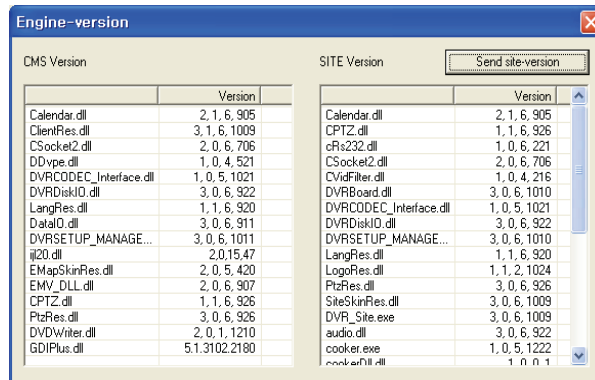
- **Delete** : click it to remove the registered site.
- **Edit site** : edit setup information.
- **Conn. Setting** : it is for modem connection setup. You should setup Modem on OS, and this button will be enabled. Adjust the time for retrying connection. If there is no response from the site system,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



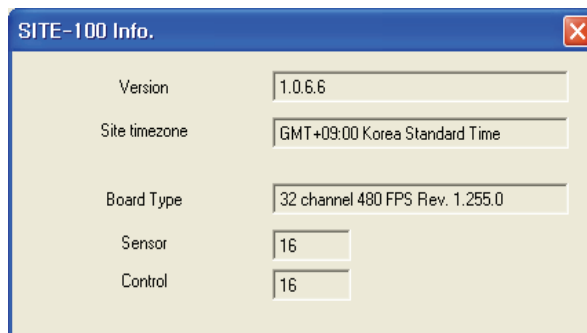
- **Name I/O** : you can change the name of sensor and control. Double click 'Enter name', and it will be enabled to put the name.



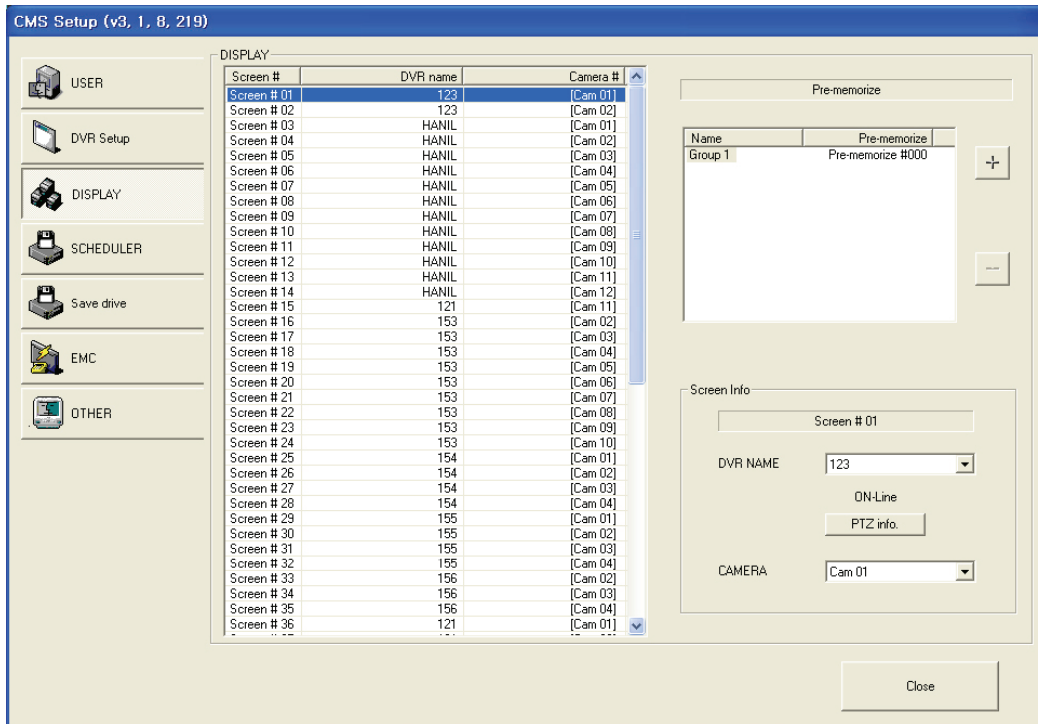
- **Show versions** : shows the version of CMS currently using, click 'Send site version' to show the information of site version.



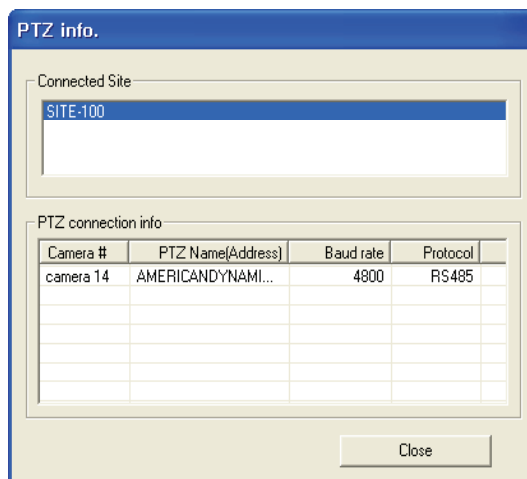
- **DVR Info.:** shows the information of connecting site, program version, time, capture card type, the number of sensor and control.



◆ Display

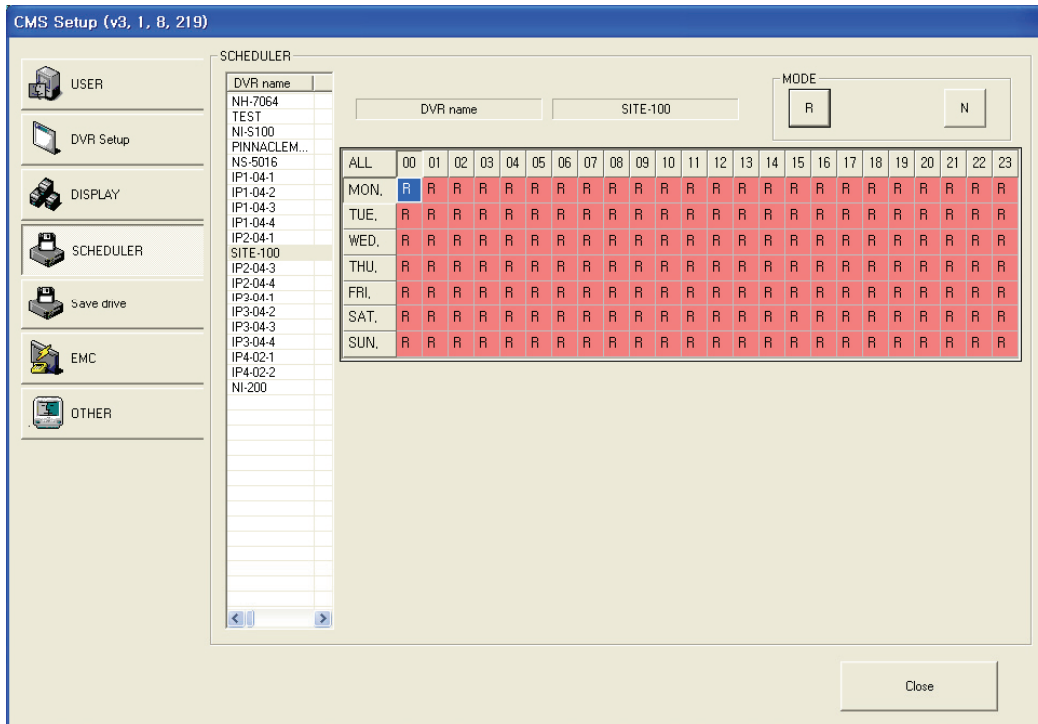


- **DISPLAY** : It represents CMS DISPLAY SCREEN and setup information on the LIST.
- **Setup Pre-Memorize** : Display list can be generated by clicking “+” and “-” after setup display.
- **SCREEN Info** : Select DVR name and camera after selecting Display List to monitor the appropriate image.
- **PTZ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



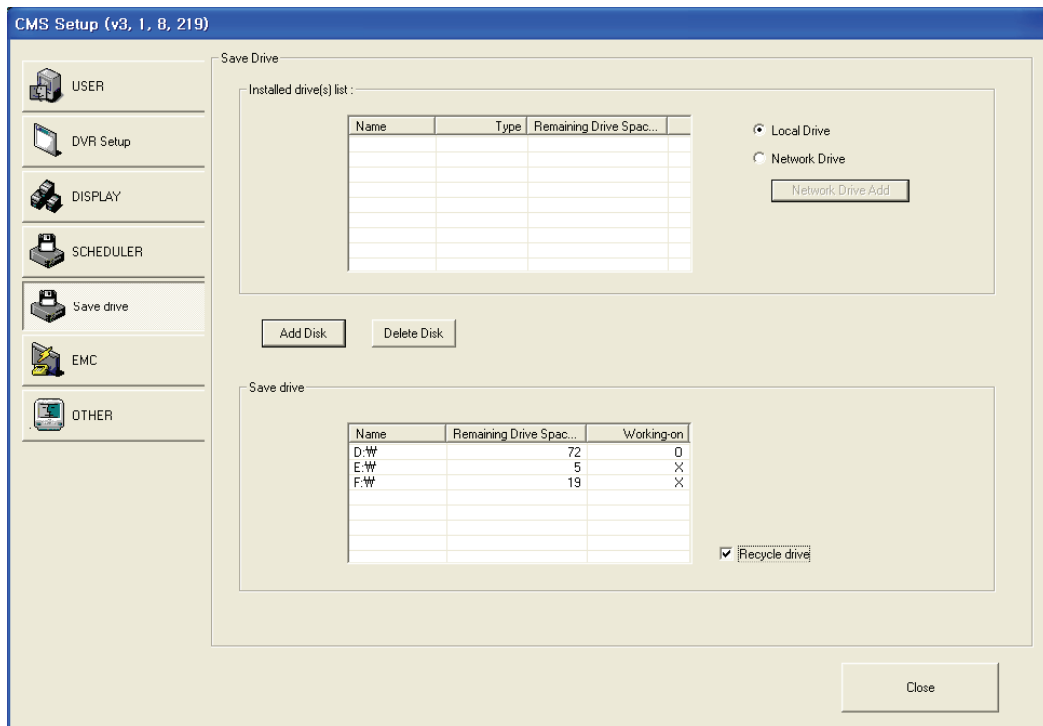


◆ SCHEDULER



- **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 'C' (Continue), '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'.

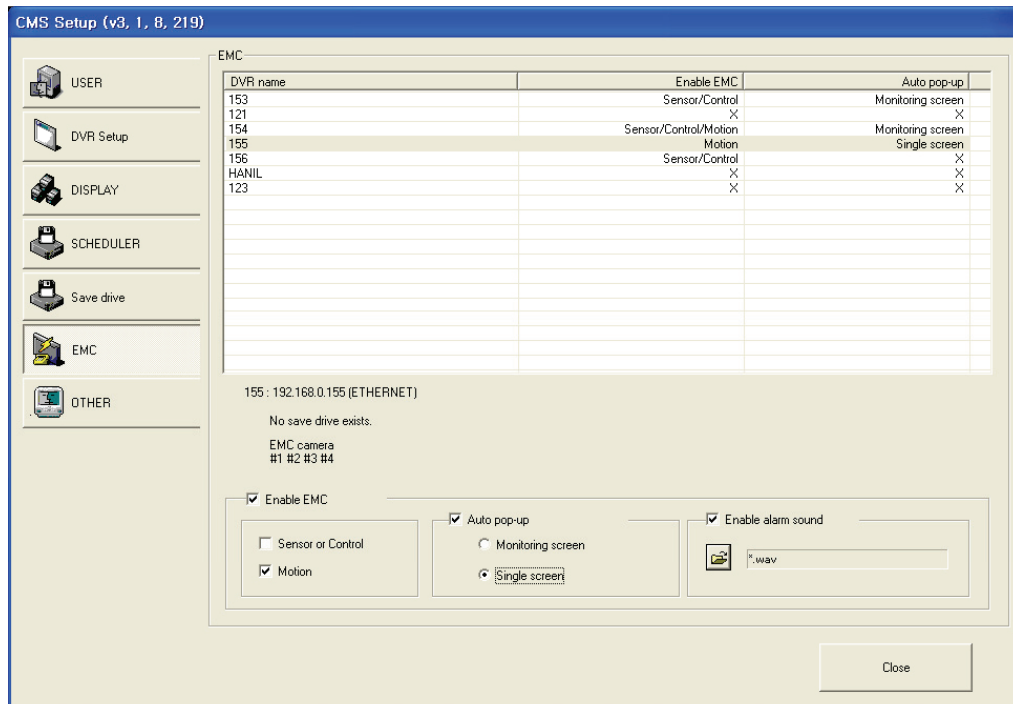
you can use 'Recycle drive' function when you added more than 2 drives.


## Setting up 'Network Drive'

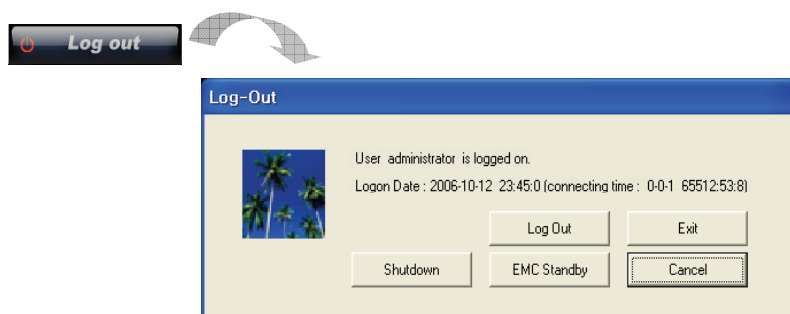
- 1) Checkmark 'Network Drive' and click 'Network Drive Add' button.
- 2) 'Network Drive' will be generated. Then, Click 'Add Disk' button to add it as 'Save drive' from the list.

You cannot use 'Recycle drive' function.

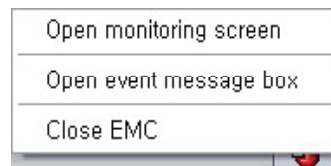
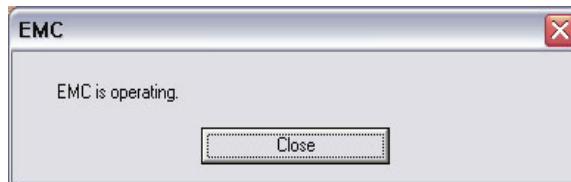
◆ EMC (Emergency Management Center)



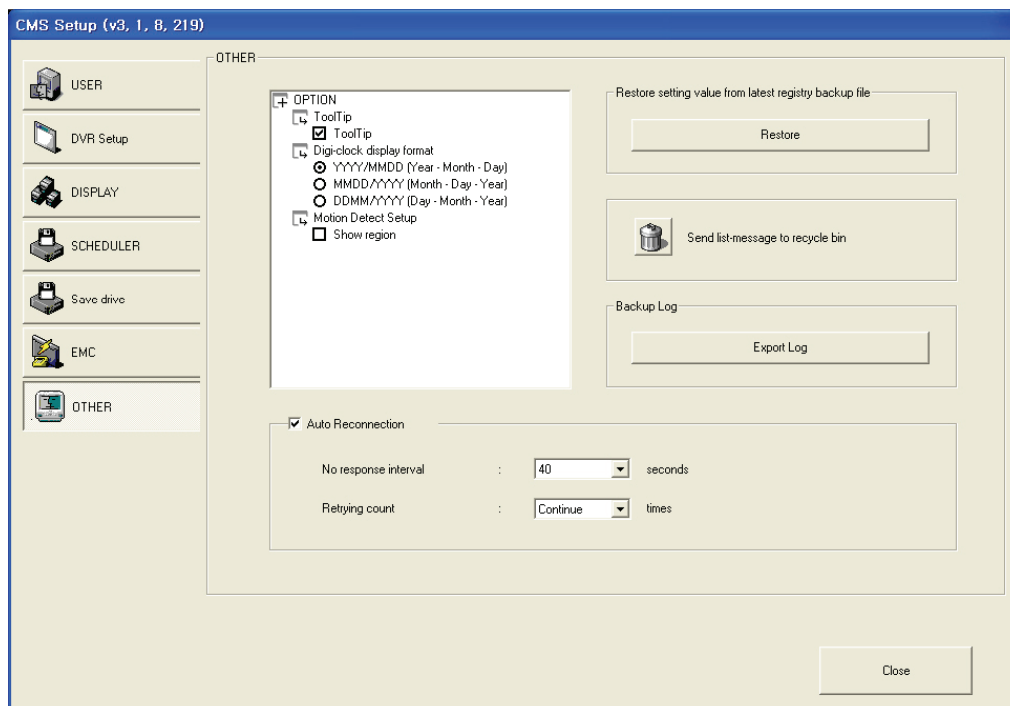
- **EMC mode** : when the emergency event happen on the site, the event image is sent to CMS system automatically with multiple or single screen.
- **Enable EMC** : checkmark to enable EMC. Select the event mode either by motion or by sensor or control.
- **Auto pop-up** : when EMC is activated by motion 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.

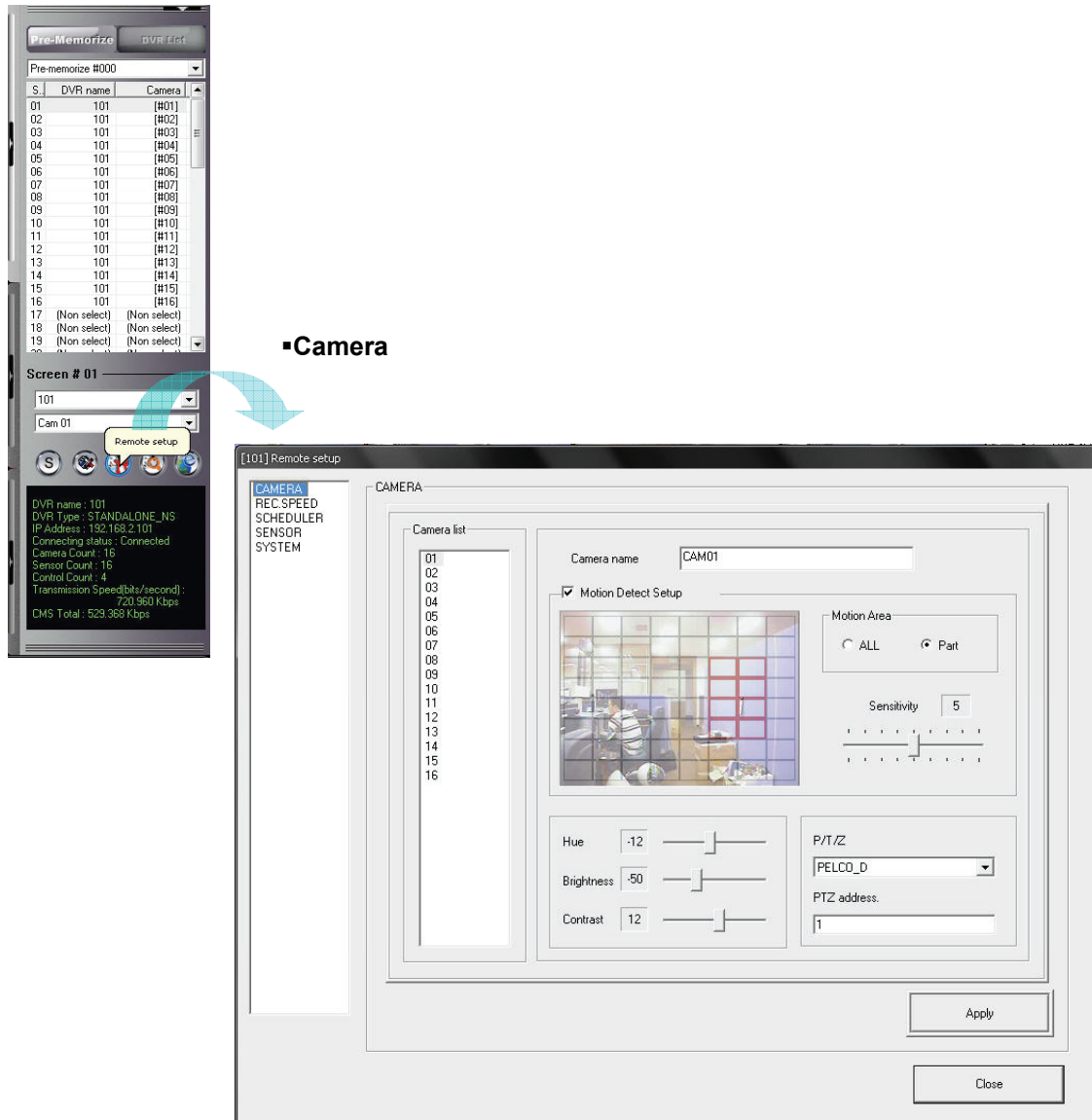


## ◆ Setting up OTHERS



- **Tool Tip** : shows function explanation if you put the mouse on the function key.
- **Digi-Clock display format** : select display format of digi-clock.
- **Motion Detection Setup**: shows the motion detected area if the transmitted data is motion Event
- **Restore setting value from latest registry backup file** : 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.
- **Backup Log** : 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.

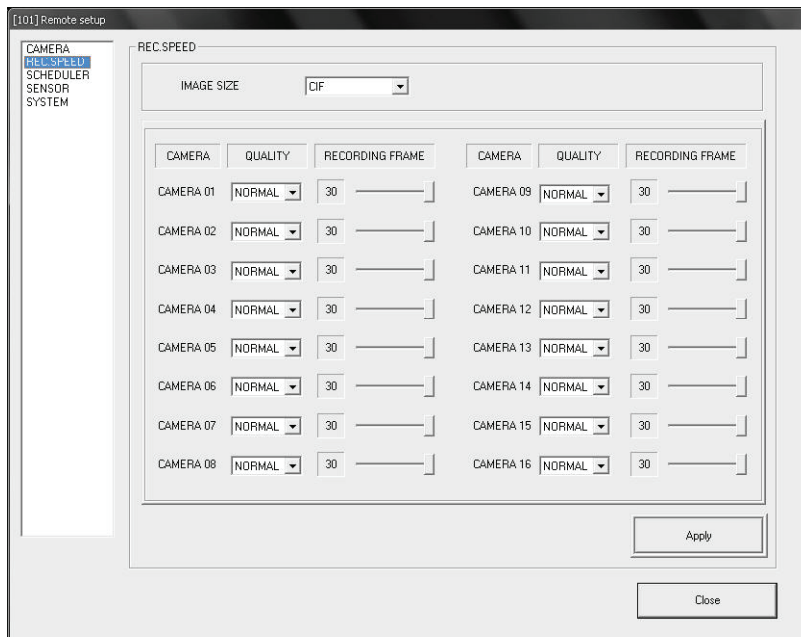
## Remote Setup



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

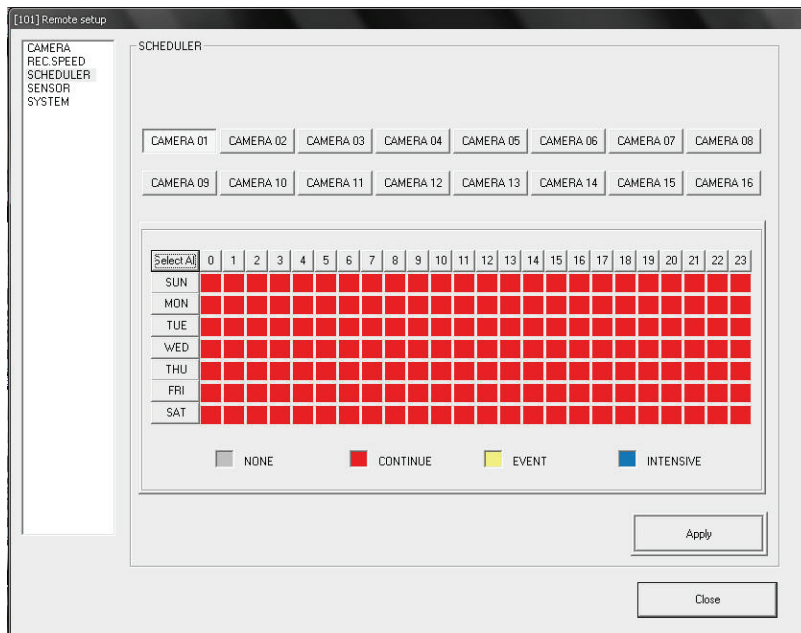


▪Record speed



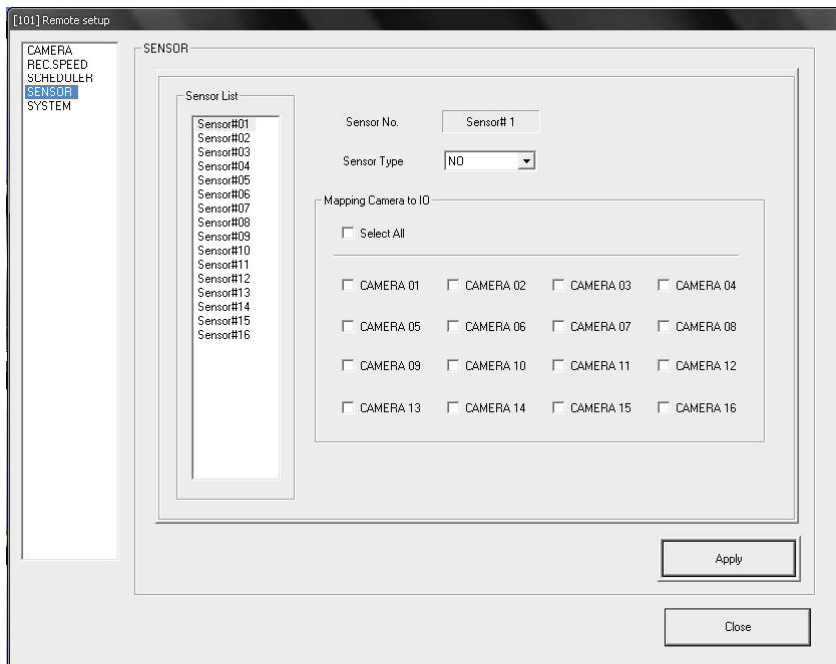
- 1) Image size : select image size for recording.
- 2) Individual camera recording setup : select image quality, frame rates for each camera.

▪SCHEDULER



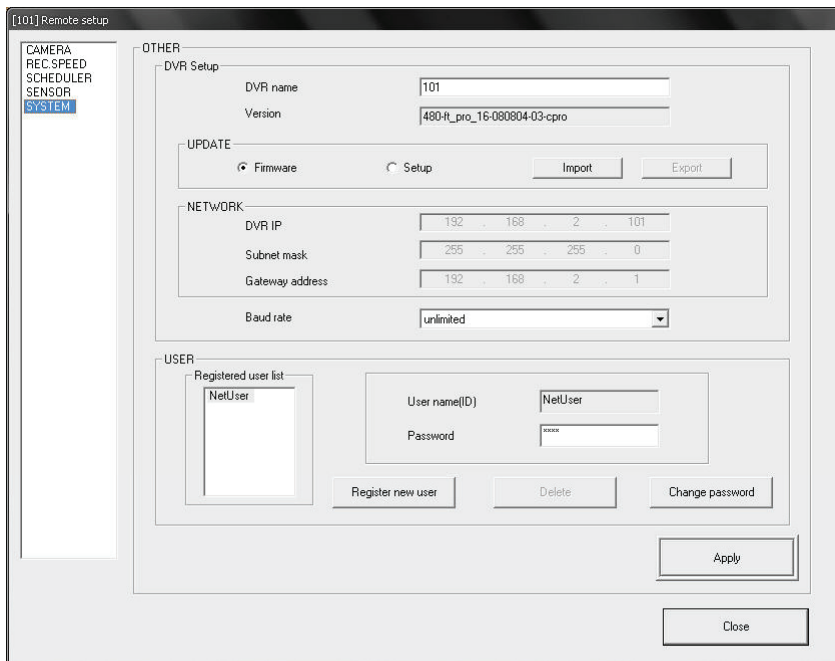
- 1) Recording schedule : select a date of a week, and setup recording schedule. Selected value will be shown in red mark. Click 'All' to apply the same setup for all cameras.

▪SENSOR



1) Connect SENSOR to CAMERA, and setup SENSOR TYPE.

▪SYSTEM



- 1) DVR info : shows the connected DVR information such as DVR name, program version.
- 2) Network info : shows network connection information such as IP address, subnet mask, gateway.
- 3) User info : shows user list of the connected DVR. You can change password, register new user, delete user depends on user privilege.
- 4) Network Transmission Speed : Setup Network transmission speed.

Chapter 6  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 of 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 right mouse button.
- **00:00:00:093 (M)** : hour: minute: second: millisecond (recording mode) .



## Digital-Clock / Calendar

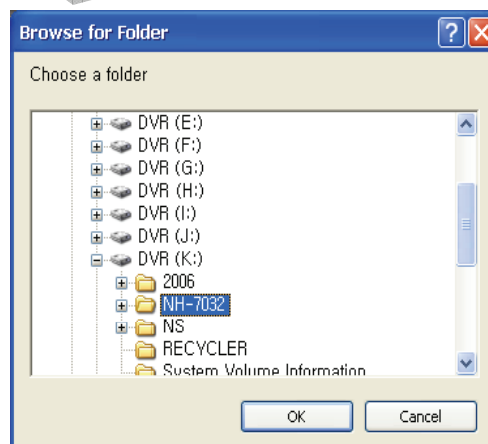
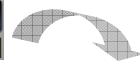
- **Digital-Clock** : displays current time of the system.
- **Calendar** : the date has save data is showed in orange color. If you select the date, it is selected with white square box.
-  : indicates today's calendar.



## Search

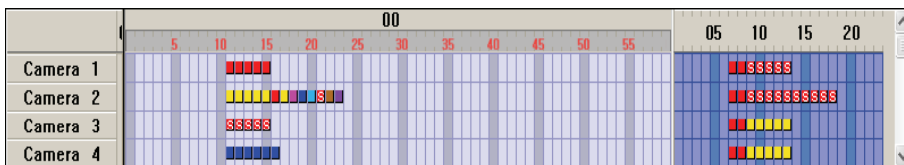
- **SEARCH** : Select the button to search the saved data.

Select the folder to be searched.



### 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** : 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 type 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 buttons and control bar as below.



Division Buttons

### System Utility buttons

- Speed, Zoom in/out,  
Brightness : 1) playback speed controller Zoom in/out controller



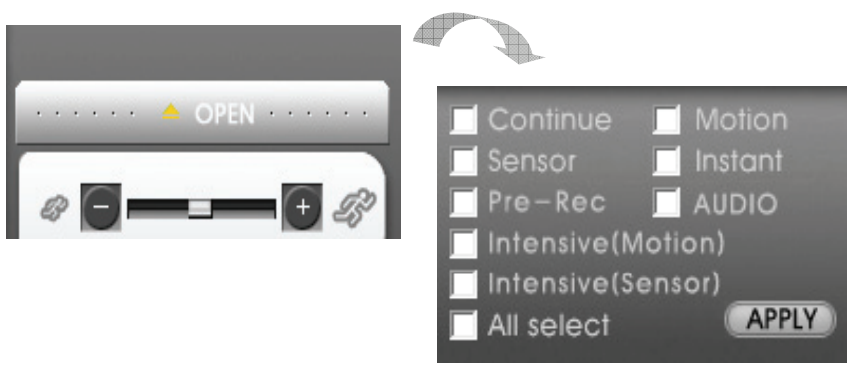
▪ **Playback control buttons :**



▪ **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.

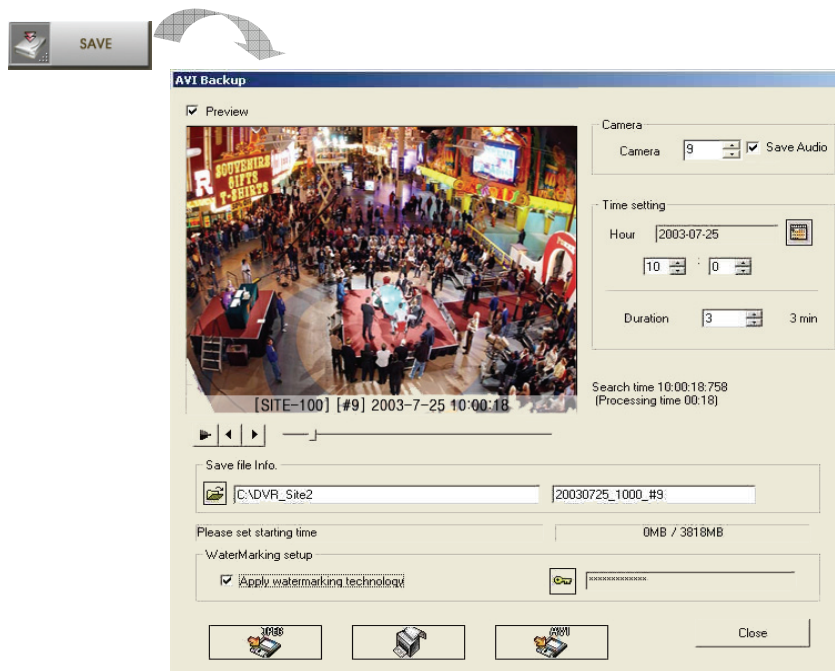


▪ **General search :** you can set as 'continue, motion, sensor, instant, pre-recording, audio, intensive, all'.





▪ **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.

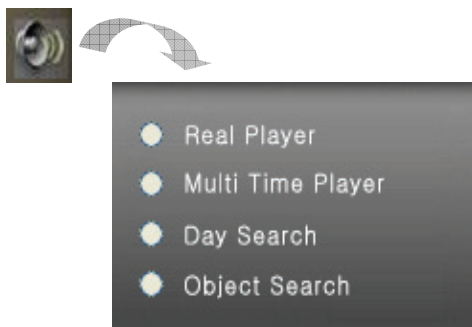
▪ **Size of save device** : displays total size of data, you can calculate the device capability.

▪ **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** : it is a special tool to playback audio data.  
 Audio data will be marked  inside of the data sell

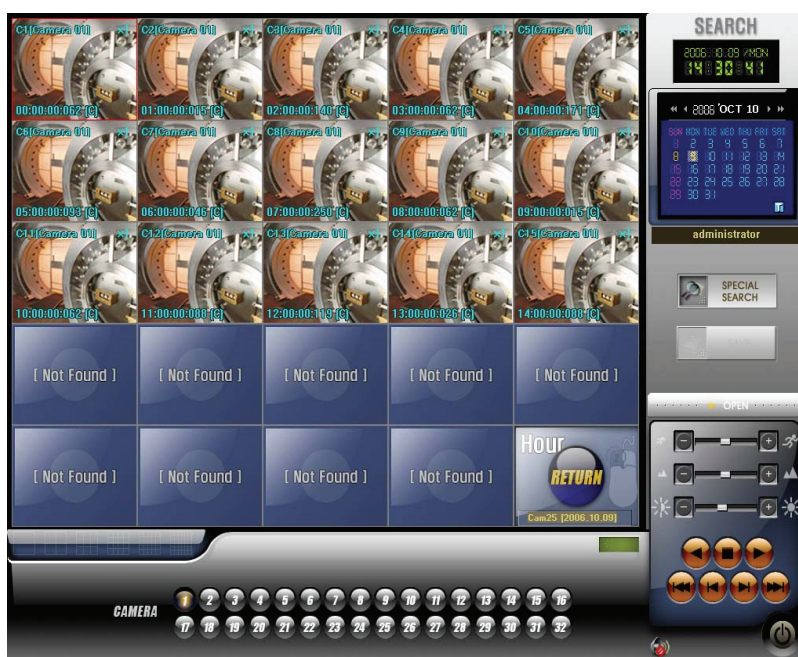


2) **Multi time Player** : you can playback the data on the multiple time zone on the same playback screen.

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.



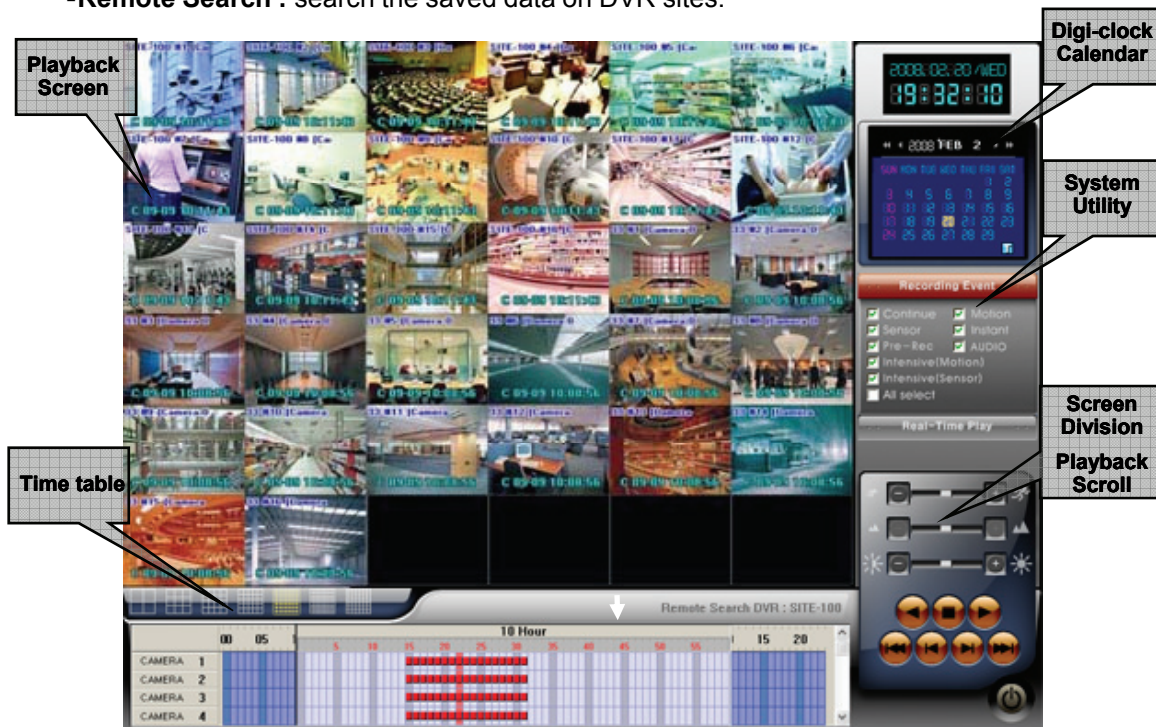
▪ **Sensitivity** : select the sensitivity from 0 to 24. Default is 13.

▪ **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'.



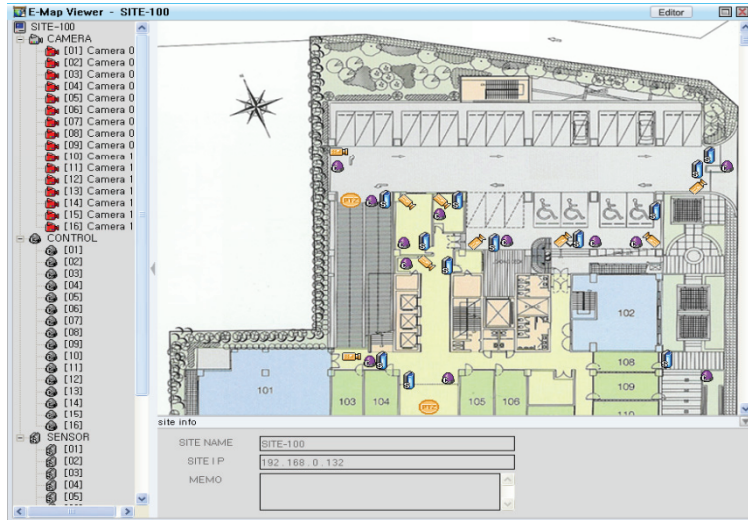
- **Real-Time Play** : playback 'Audio' and 'Video data' in real time.





## Chapter 7 CMS - eMAP Editor / Viewer

- **Site Map:** Drawing or map can be used as E-MAP for three-D surveillance of DVR sites.



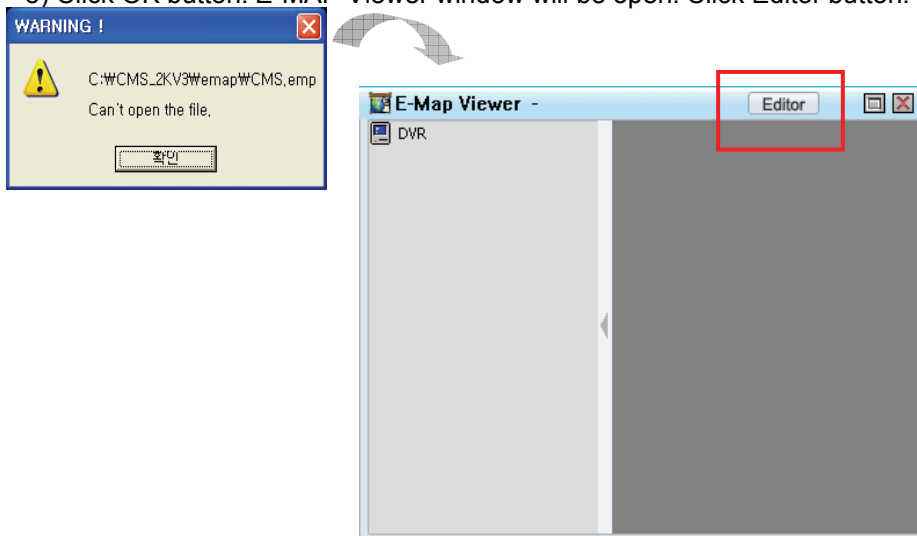
### ▪ Editing E-MAP

- 1) Click image on LIVE screen and SITE MAP button. The default E-MAP file will be open.  
(Default: E-MAP FILE→SITE-100)

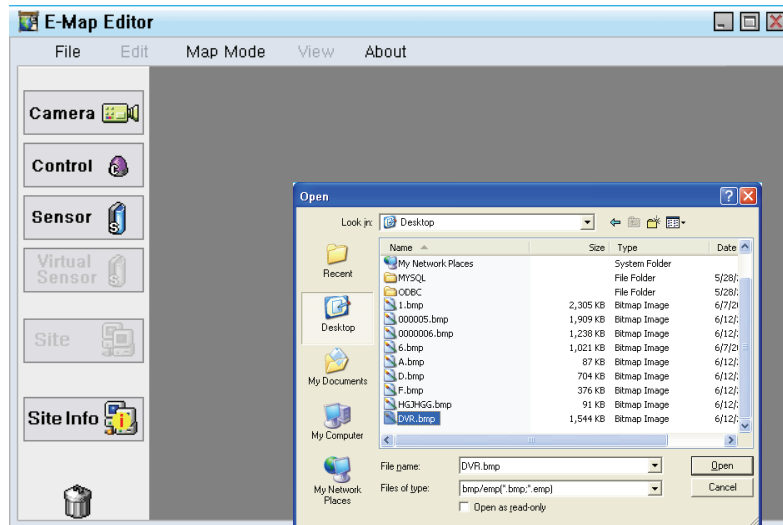
- 2) SITE NAME should be the same as the name of the E-MAP.

The below warning message is shown as the SITE NAME and EMAP name are not the same.

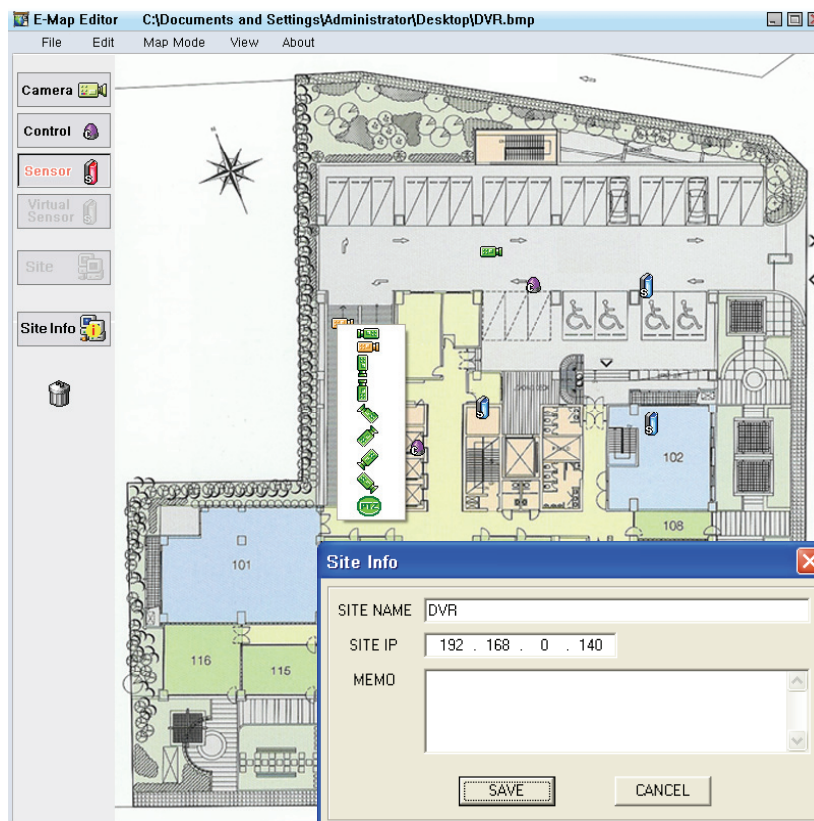
- 3) Click OK button. E-MAP Viewer window will be open. Click Editor button.



4) Click 'File → NEW' and select bmp/ JPG file for E-MAP.

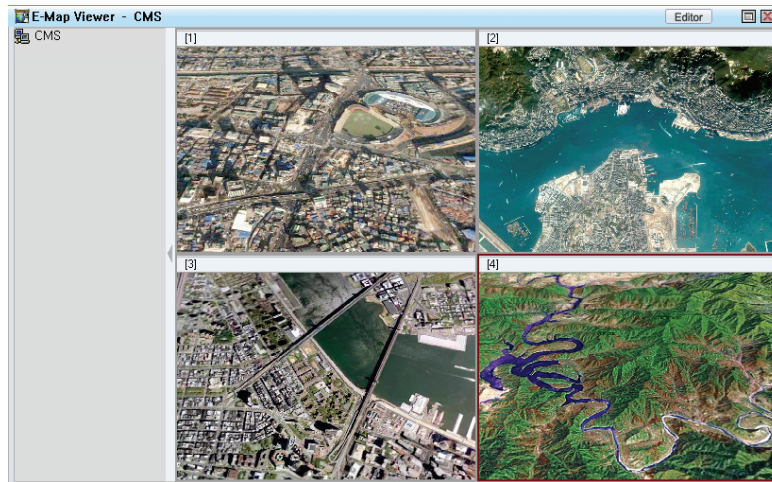


- 5) On the bmp/ JPEG file user can arrange camera, control, sensor by using CAMERA, CONTROL, SENSOR buttons.
- 6) Right mouse button can be clicked on the arranged cameras to change the direction or to change the original image to PTZ camera image.
- 7) Click SITE INFO button to add additional information on the DVR site.
- 8) Save the file in the EMAP folder in the directory where CMS\_2 is installed.  
(ex:C:\CMS\_2KV3\emap)
- 9) User can remove the arranged icons to drag them to





- **CMS Map:** DVR site maps can be managed by CMS MAP.

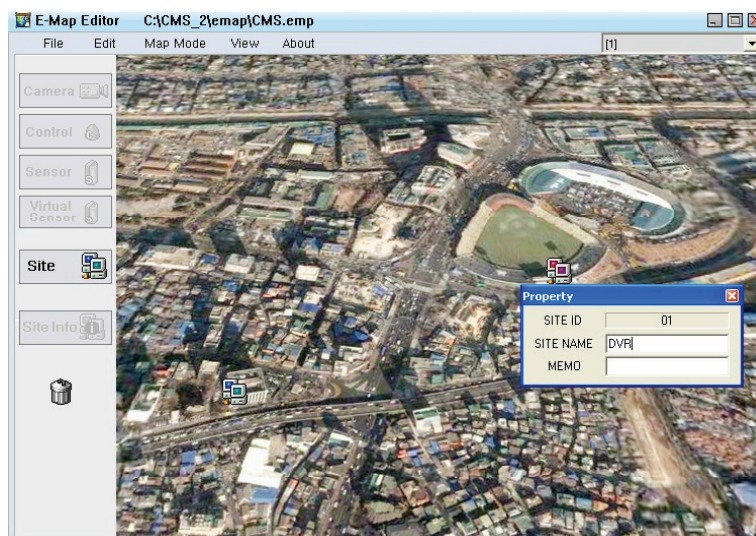


✓ Click CMS MAP button. The above map will be displayed and the name of this file is CMS.EMP.

#### ▪ CMS-MAP EDITOR

- 1) Click CMS MAP button and operate E-MAP Viewer.
- 2) Click Editor button.
- 3) Click 'File → NEW' and select bmp / JPG file for E-MAP.
- 4) Once bmp / JPG file is open SITE icons can be located on the map by using Site button.
- 5) Double click the located Site icons. Property window will appear.
- 6) Input the Site name that was saved in SITE MAP. SITE MAP will be linked with CMS MAP.

**If an event occurs at Site relative Site icon on the CMS MAP will flash.**



**◆ EMAP Basic menu****➤ File**

- 1) NEW: Find new bmp. file.
- 2) OPEN: Open bmp. file or previous EMAP file.
- 3) SAVE: Save file.
- 4) SAVE AS: Save file with another name.
- 5) CLOSE: Close EMAP file or bmp. file.
- 6) EXIT: Finish EMAP Editor.

**➤ Edit**

- 1) Edit Map Name: Edit name of each map.
- 2) ADD MAP: Add new EMAP file.
- 3) COPY MAP: Copy currently opened bmp. file or EMAP file.
- 4) PASTE MAP: Paste copied file.
- 5) DELETE MAP: Delete currently displayed map.
- 6) DELETE OBJECT: Delete selected icons.
- 7) Select All Object: Select all the icons on the current map.

**➤ Map Mode**

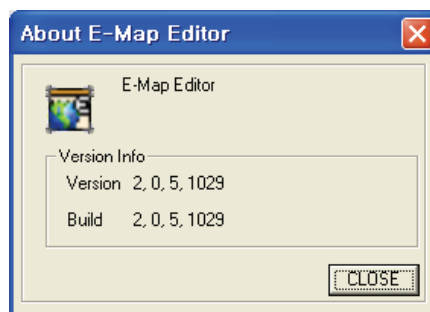
- 1) SITE MAP: Change Editor mode to SITE MAP.
- 2) CMS MAP: Change Editor mode to CMS MAP.

**➤ View**

- 1) CAMERA STATE: Camera information can be viewed.
- 2) CONTROL STATE: Control information can be viewed.
- 3) SENSOR STATE: Sensor information can be viewed.

**➤ About**

- 1) Display E-Map Editor version.



## 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.

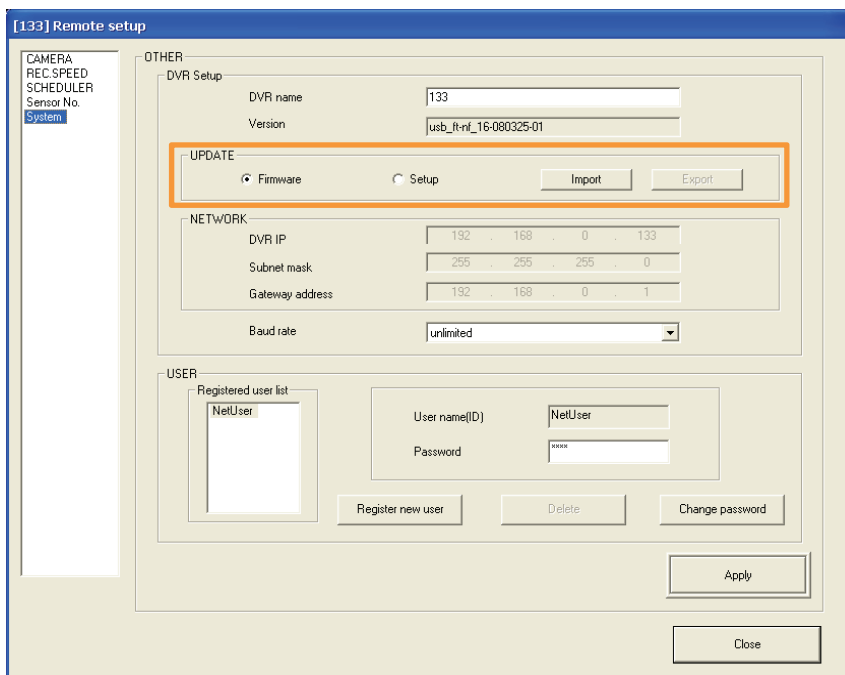
### ● How to use remote update function

1) Connect DVR that you want to update.

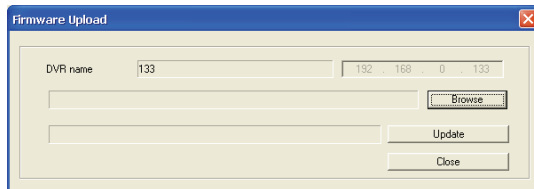
2) Select DVR that you want to update from DVR list.

3) Click 'REMOTE SETUP' button (  ).

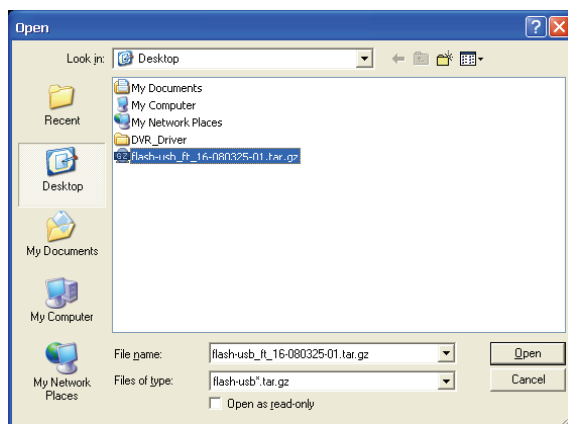
4) In 'SETUP', go to 'SYSTEM' and select 'Firmware' from Update options, click 'Import' button.



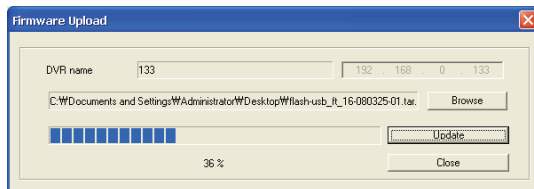
5) Click 'Browse' button from 'Firmware Upload' window.



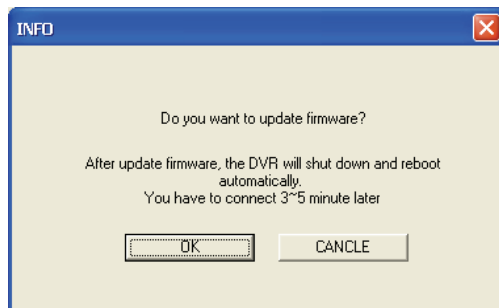
6) Search the file, provided from supplier or dealer. Click 'Open' button.



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

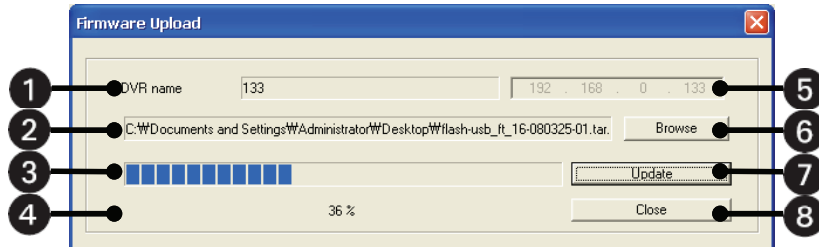


8) After uploading, the 'INFO' window will pop up. If you click 'Yes' it will start updating the DVR.  
(if you click 'No', it will cancel the update.)



[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.

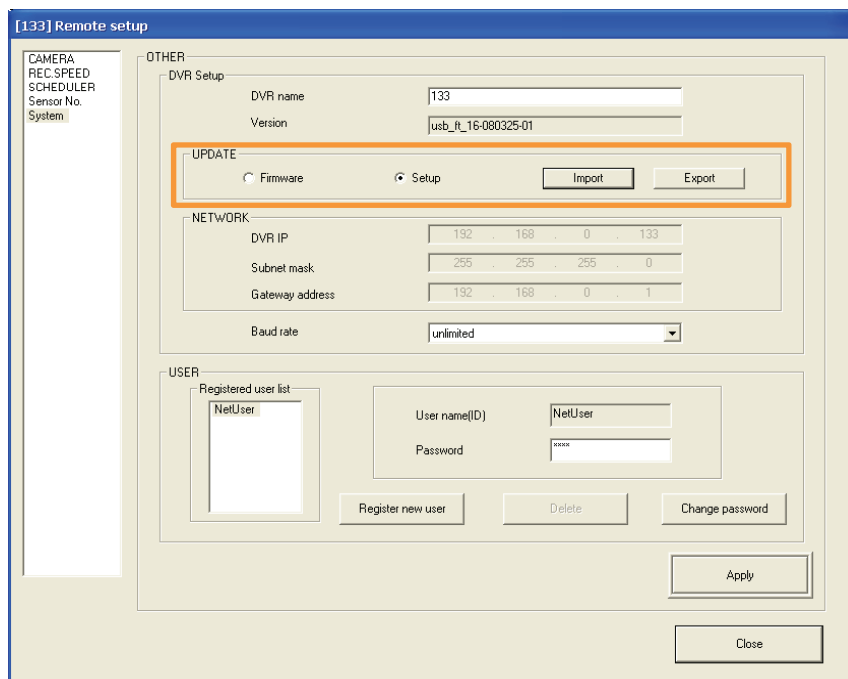
● **How to use Setup Upload function**

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

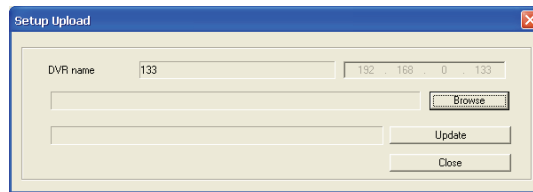
2) Select DVR that you want to setup upload, download from DVR list.

3) Click 'REMOTE SETUP' button (🌐).

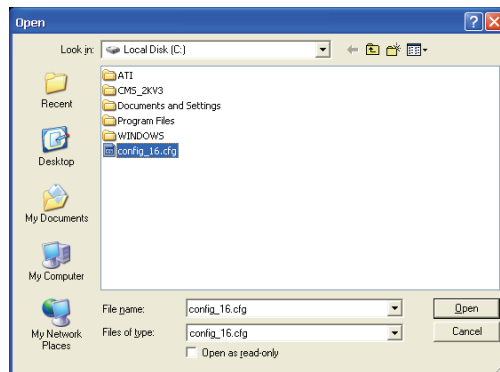
4) In 'SETUP', go to 'SYSTEM' and select 'Setup' from Update options, click 'Import' button.



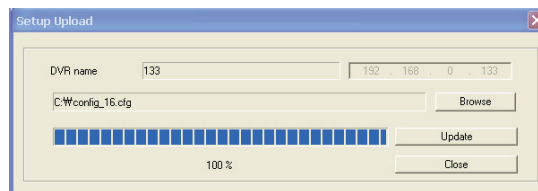
5) Click 'Browse' button from 'Setup Upload' window.



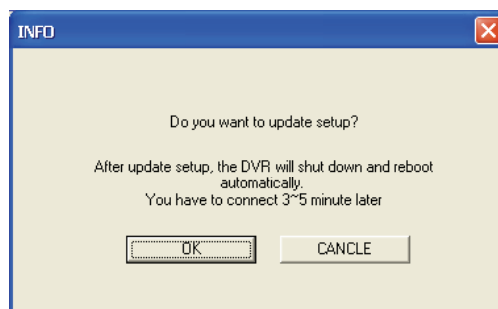
6) Select the saved NS DVR setup value from 'Open' window. Click 'Open' button.



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.)

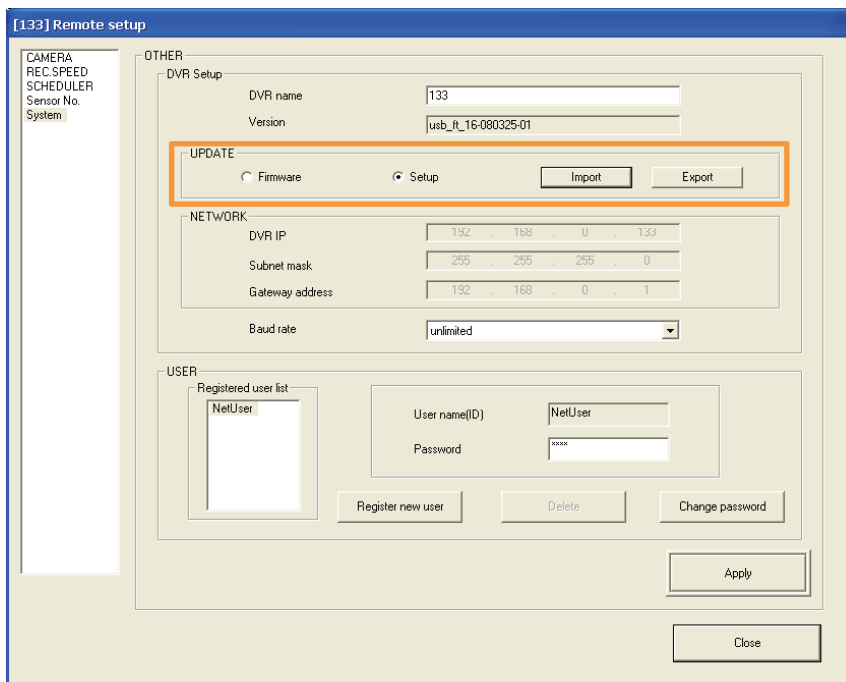


[consultation] After completing the DVR uploading, it will disconnect with CMS. You can connect to CMS after about 3 minutes and check or change updated DVR info.

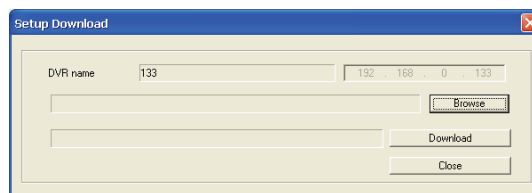


● **How to use Setup download function**

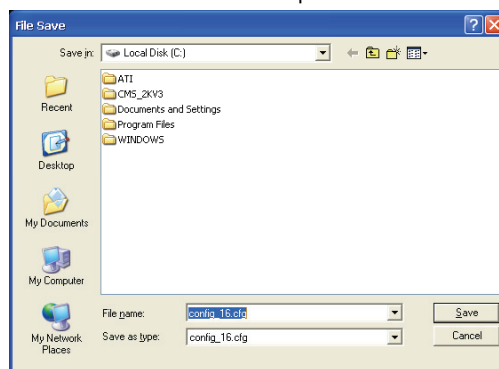
- 1) Connect DVR that you want to setup upload, download.
- 2) Select DVR that you want to setup upload, download from DVR list.
- 3) Click 'REMOTE SETUP' button (🌐).
- 4) In 'SETUP', go to 'SYSTEM' and select 'Setup' from Update options, click 'Export' button.



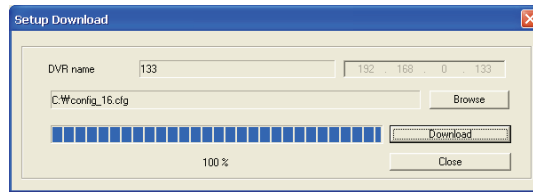
- 5) Click 'Browse' button from 'Setup Download' window.



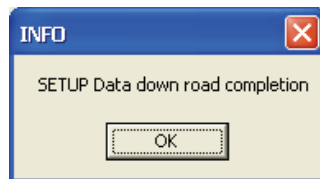
- 6) Select the folder to save NS DVR setup value from 'File Save' window, Click 'Save' button.



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

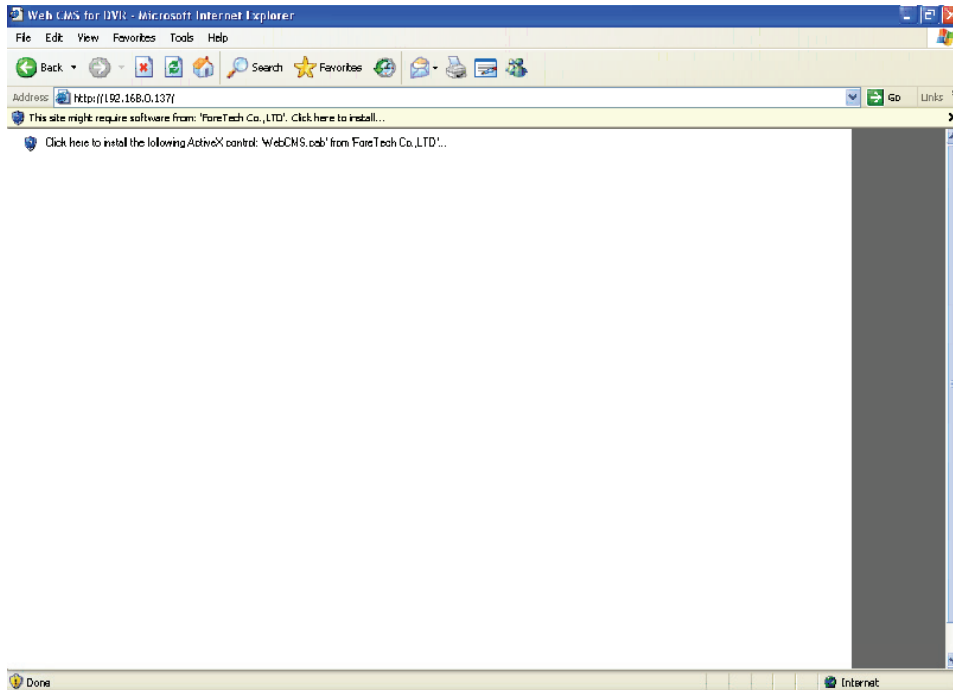


8) After downloading, the 'INFO' window will pop up. click 'OK' button.

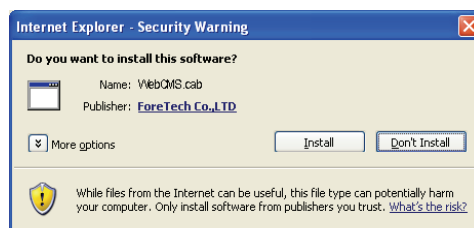


## Chapter 9 Web CMS user

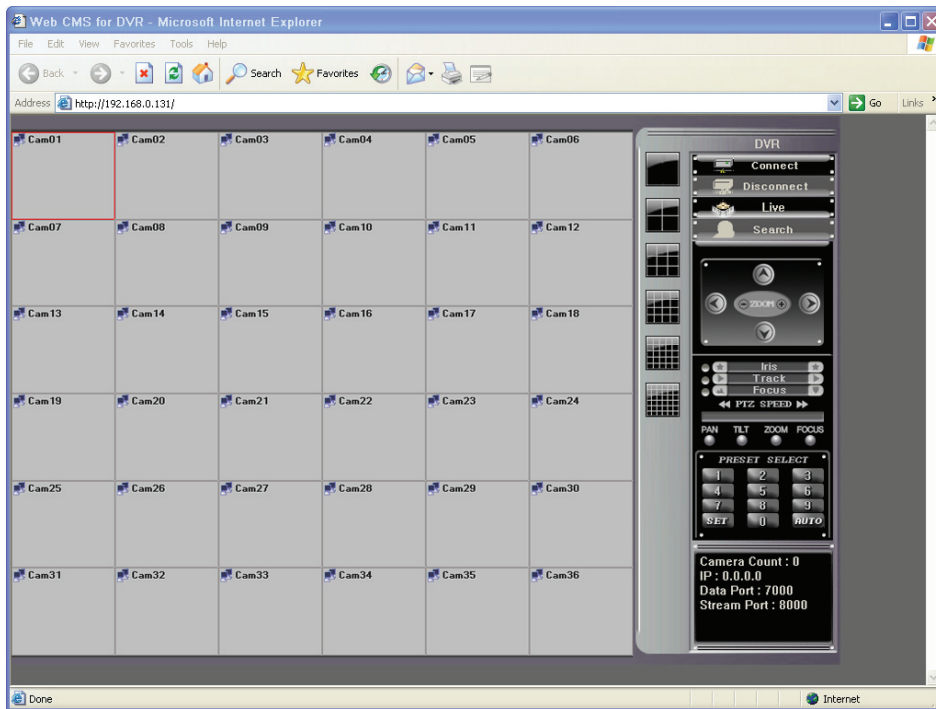
- Web CMS : Remote monitoring available through internet explorer without the specific software.
- 36 Display Screens, Division screens, PTZ Controller supported.



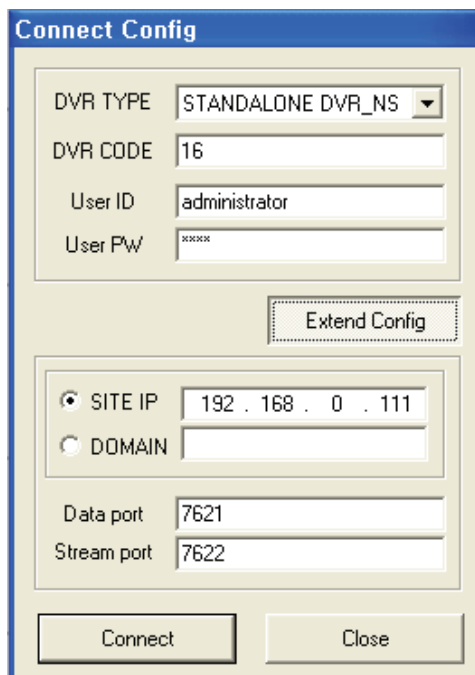
- Input IP or domain on the address.
- Install ActiveX file related to Web CMS.



▪ 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.



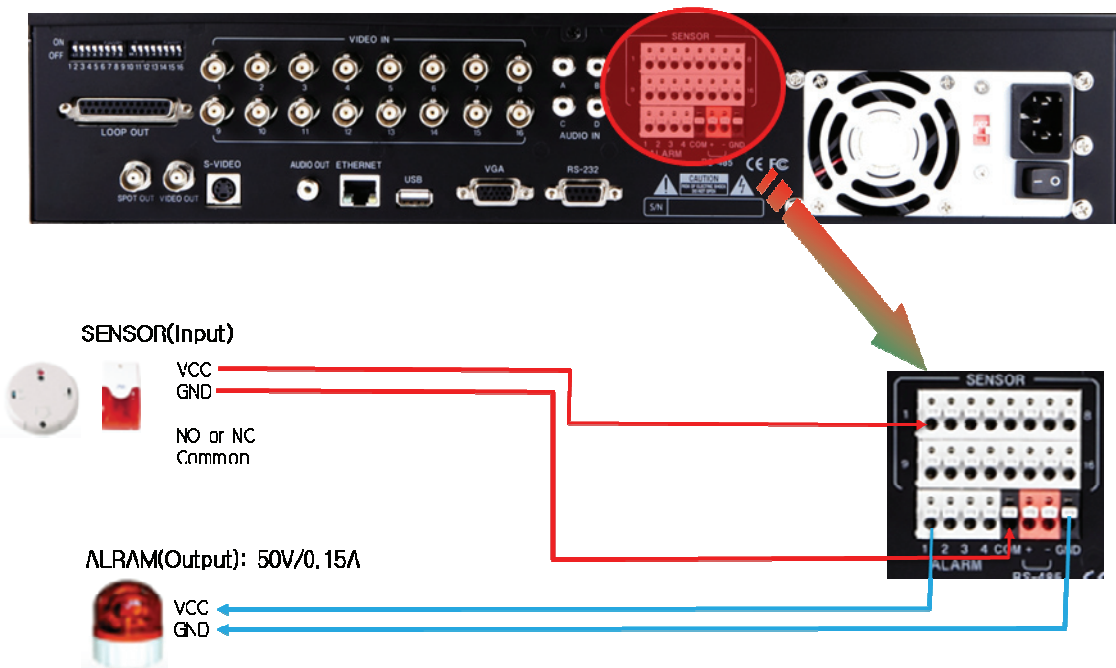
# Chapter 10 MISC

## [I/O CONFIGURATION]

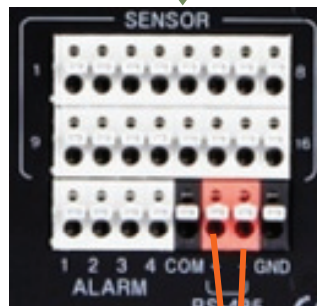
### 1. Number of supporting port

	X3S-9120	X3S-16120	X3S-8240	X3S-16480
Sensor	9ports	16ports	8ports	16ports
ALARM	4ports	4ports	4ports	4ports
RS-485	1port	1port	2port	2port

### 2. Connecting information of Alarm/Sensor



3. RS-485 connecting configuration  
 1) DVR-Key Board controller



Tx Rx

Cross

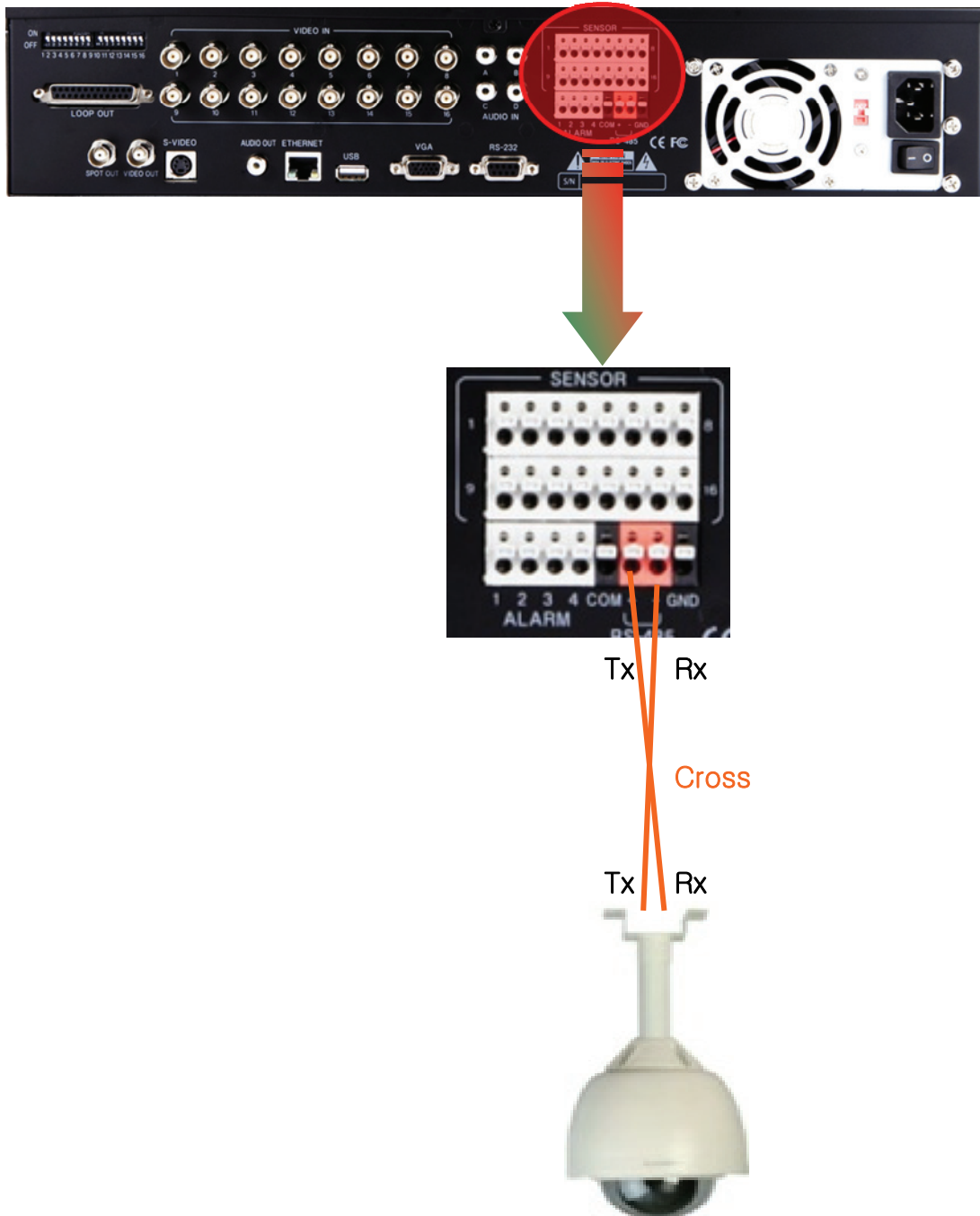
Tx Rx



[Key board controller]

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

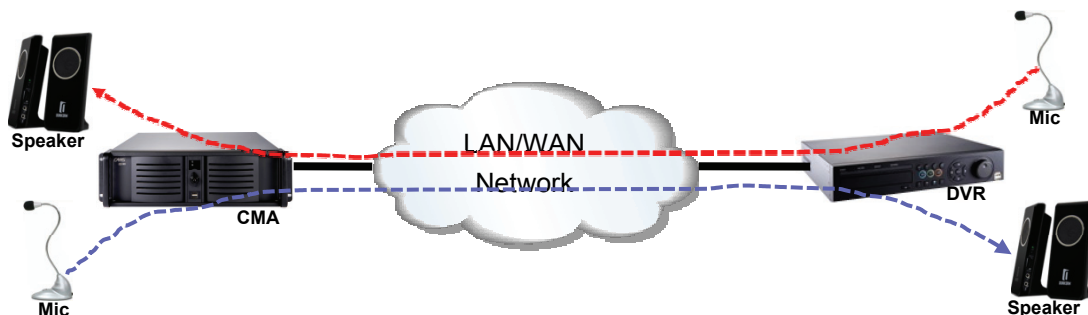
3. RS-485 Connecting Configuration  
 2) DVR-PTZ camera



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

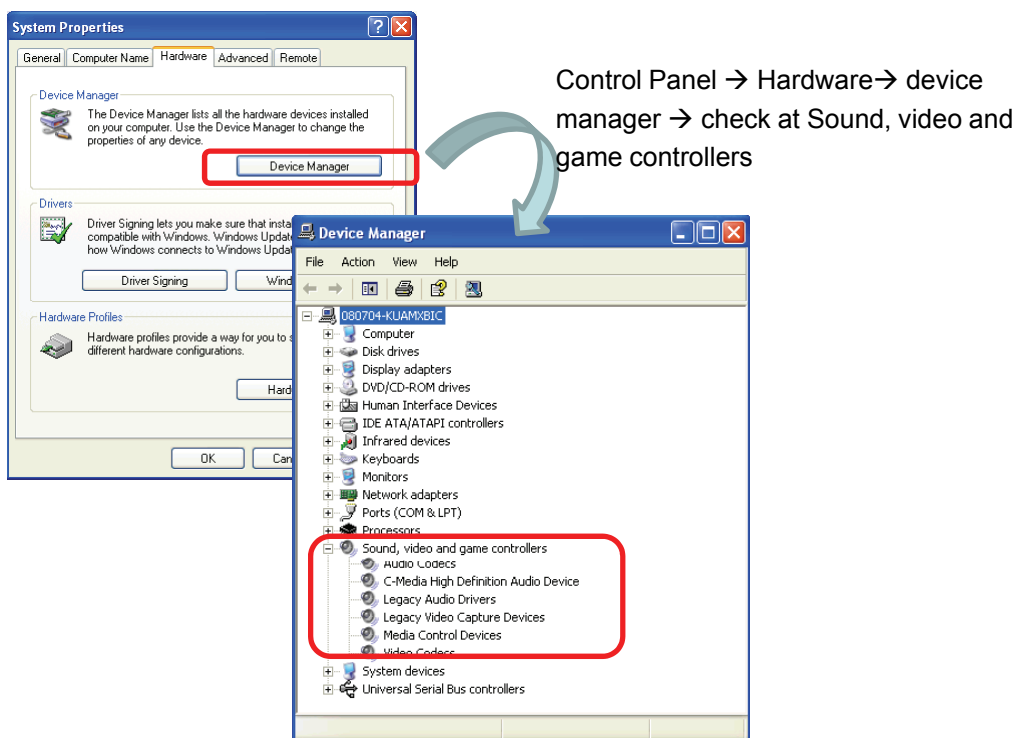


# 2-WAY Audio configuration

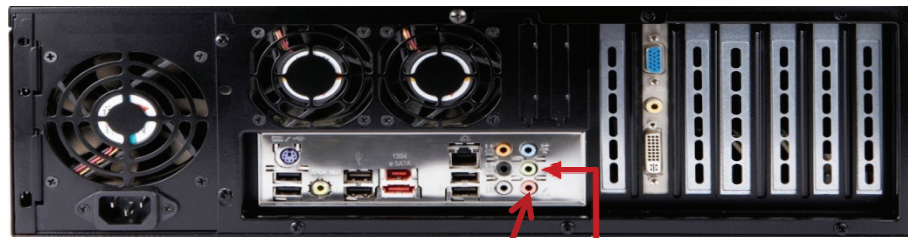


**Note: For using two way audio communication,**

**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 10 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.

