



Stand-Alone Type

DVR SYSTEM

USER'S MANUAL

SDS SERIES(4,8,16CH)

Before Start

This manual is made to give users full information on SDS series (SDS-1204/1208/1216)

This is composed of <Introduction> of SDS Stand Alone, description of each part with feature, and instruction on <Setup> and running, and others information which will be helpful to use SDS Stand Alone.


- It is strongly prohibited to copy and use this manual for other purpose.
- Before using SDS series, please study this manual first.
- When users found any problems, please contact Tech Support Team or the one you purchase this product before taking it apart, which can make a serious problem.


Cautions

Read Before System Operation

Follow these details to prevent material damage or personal injury.

Signs of Caution and Warning

 **Warning:** This sign indicates that the user could die or be seriously wounded if not used or installed properly.

 **Caution:** This sign indicates that the user could be wounded or could expect property damage if not used or installed properly.

 **Warning:** Do not expose the product to fog, rain or too much humid to decrease danger from electric shock or fire.

Important Safeguards

 **Warning**

1. Change the battery after turning the off the power of the product.
2. Check the polarity of the lithium battery while changing.
3. Change the battery with the same one, which is in the product or with the similar type recommended by your vendor.
4. Dispose of the changed battery according to the instructions of the battery manufacturer.
5. There is danger of explosion when instructions are not followed.

General Warning

 **Warning**

1. Use the power cord, which is supplied or recommended by the supplier.
It may cause fire.
2. Do not dismantle or assemble the product.
It may cause malfunction or fire.
3. Enquire from your vendor for repair.
It may cause electric shock or fire if the repair is not done properly.
4. Do not touch the product with wet hands.
It may cause malfunction or electric shock.
5. Matters must be ensured to a professional for product installation.
It may cause malfunction, electric shock or fire.
6. Consult the place of purchase if the need for installation arises.
Delinquent installation may be the reason for malfunction, electric shock or fire.
7. Ground applies to video products equipped with a 3-wire grounding type plug having a third (grounding) pin. This plug only fits into a grounding-type power outlet.
If grounding is not done, it may cause malfunction or electric shock.
8. Ground connection must not touch gas pipe, water pipe or telephone line.
If grounding is not done properly, it may cause electric shock.
9. Prevent metallic foreign substance from going inside the product.
It may cause malfunction or electric shock.
10. Do not spray insecticide or flammable spray while driving.
It may cause fire.
11. Prevent water from entering inside electrical parts.
Clean with a dry towel or malfunction or electric shock could result.



Caution

1. Use the power cord, which is supplied or recommended by the supplier.
The internal fan rotates at high speed and may cause an accident.
2. Do not drop, give strong vibration, or shock to the product.
It may cause malfunction.
3. The air inhaler of the front panel and air outlet of the back panel must not be blocked during installation. The internal temperature of the product would be greater than allowable and could cause malfunction or fire.
4. Do not touch the product or the power cord when there is thunder.
It may cause electric shock.
5. Do not install the product near or on top of heating source.
The internal temperature of the product would be greater than allowable and could cause malfunction or fire.
6. Do not install the product on inclined or unstable location or where vibration could be committed.
It may cause malfunction.

Cautions about the Power



Warning

1. Must use the outlet of the grounding to connect the power cord.
It may cause fire.
2. Do not connect on the middle of power cord or use extension cord.
It may generate heat or cause fire.
3. Do not touch the power cord with wet hands.
It may cause electric shock.
4. Keep power cord dry and protect from humidity.
It may generate heat or cause fire. The power cord is not waterproof.
5. Hold the body of the plug while removing the power plug.
Do not pull the power cord. Damage to the power cord may generate heat or cause fire.
6. Check the power plug regularly.
Humidity and moderation in smoking may cause fire.
7. Remove power cord from outlet when product is not used for a long time.
It may cause short-circuit or electric shock.



Caution

1. Do not turn off the power by removal of the power plug.
To turn off the power, click the power button from the front panel.
When the system stops abnormally, the power button might not work. Click power button for 5 full seconds to turn power off.
2. Do not cut off the power artificially, or give shock or vibration to unit while the hard disk is activating.
It may cause hard disk failure or loss of data.



Remarks

- * Pictures & Buttons are subject to be changed or modified up to different channel of models, KE-7004/7008/7016.
- ** Picture & Buttons here are based on KE-7008.

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Chapter1 – Overview

1-1 Product Feature

- In Remote Client , users can <Monitor> and <Setup> and <Search> data (Video and Audio) very stably.
- Unique Digitalized <DSP> programmed SDS Stand Alone system gives fully stable and trustworthy system.
- High-Compressed Mpeg-4 Algorithm make HDD used more effectively and save the data safely.
- Other features are all described specifically in Manual.

1-2 Tech Summary

Our SDS series Stand Alone DVR can record and search 4/8/16 CH Video and Audio Data (8/16CH with 4 CH Audio) based on High-Quality Image.

Major Features are like Below.

- 4/8/16 CH with <Audio> Recording and Search
- DDNS Support (Use Dynamic IP like Fixed IP)
- Remote Agent (Remote Live View, Audio)
- Simple and Powerful USB, CD/DVD Data Backup
- Individual Resolution Setup per each CH.
- Individual Motion Recording Setup per CH.
- Screen Division : Full, 4,6,8,9,13,16 Division
- Powerful **Triplex** (In Search, users can Record, and <Live> view in Remote Agent)
- Stable and Unique RTOS System
- Password Setup
- Simple and User-Friendly GUI (Graphic User Interface)

- IR Remote Controller
- Various PTZ protocol Available
- 4/8/16CH Division
 - Stable <Live> Monitoring and Various Screen Division Supports.

- High-Quality Frame Recording
 - (30fps(NTSC) per CH : 352 x 240 Res, Max 120 FPS rec)

- D1 (NTSC 704 x 480 Res) supported

- Various Recording Way (Manual/Schedule)
- Simple and Perfect Fast/Slow Search Functions (Search List & Fast Search)

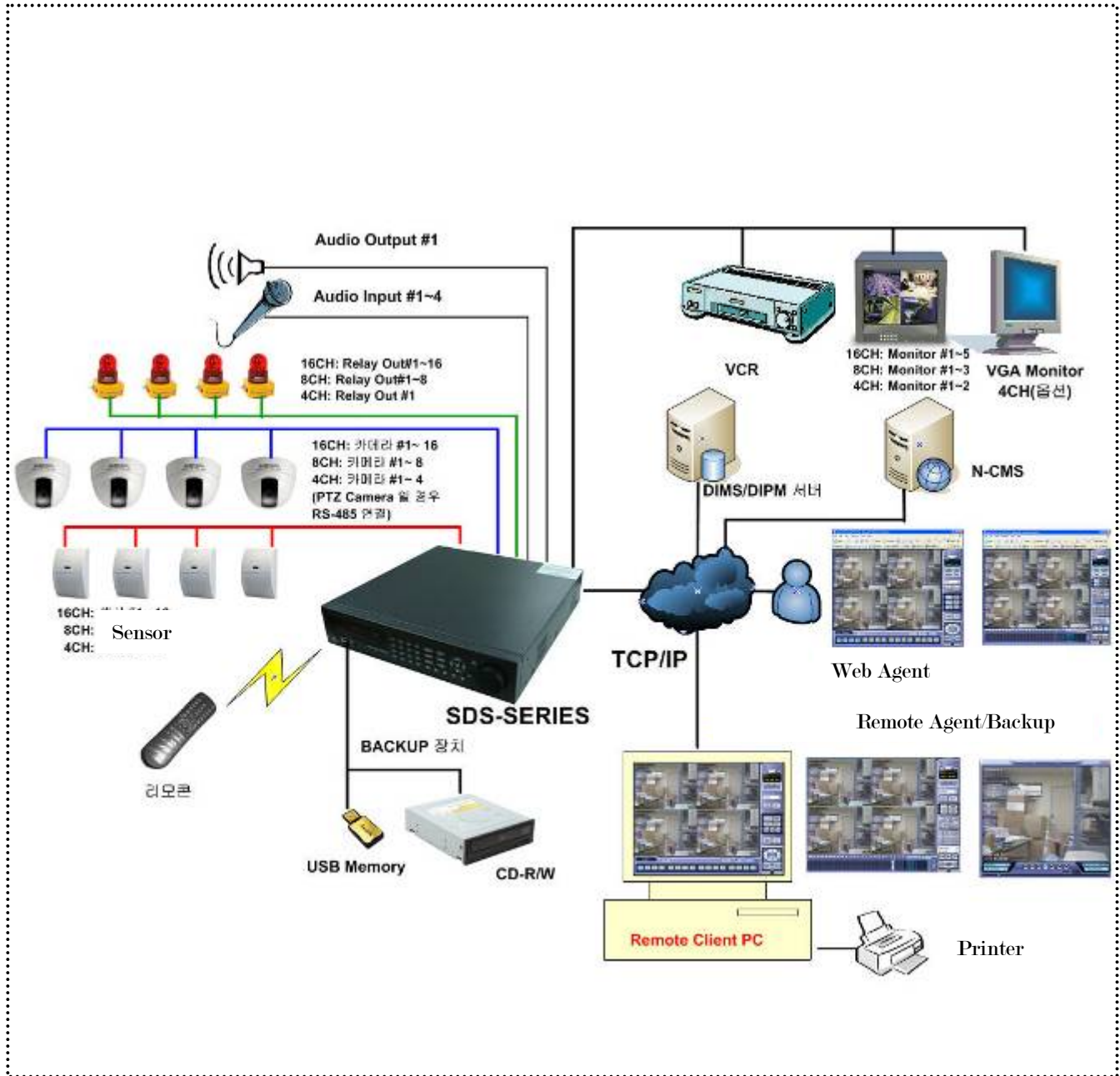
- Internal Alarm Beep
- Re-Wring (Over-Writing) Mode

Chapter 2 – Specification & System Organization

2-1 System Specification

Item	4CH	8CH	16CH
Camera (Video) Type	NTSC(PAL)		
Audio	4CH Audio Input, 2-way Audio 1EA		
Live Display	120(100)FPS	240(200)FPS	480(400)FPS
Covert (Hidden) Camera	Programmable		
Event /Log Search	Up to 1,000,000 for user login/out, configuration changes, remote access, connects/disconnects		
REC Schedule	Daily, Weekly adjustable specific hour per channel		
Remote Access	TCP/IP, View, Search, Recording & Control by Client Program or I.E.		
Playback	1,4 CH	1,4,5,8 CH	1,4,5,8,9,16 CH
Pre/Post alarm REC	5 secs (Pre), 3 mins (Post), programmable per camera		
Activity (Motion) detection	12*12 Grid, Sensitivity Level :10	16*16 Grid, Sensitivity Level :10	16*16 Grid, Sensitivity Level :10
Simplex/Duplex	Triplex (REC, Search, Network) at the same time		
Video inputs	4*1Vp-p, CVBS, 75ohms BNC Port	8*1Vp-p, CVBS, 75ohms BNC Port	16*1Vp-p, CVBS, 75ohms BNC Port
Video Out	1*CVBS/S-VHS, 1*VGA(4CH Option), Loop-Out		
Audio Input	4CH In, RCA Socket		
Audio Out	1CH Line Out, RCA Socket		
Resolution	352x240,704x240,704x480(NTSC),		
Compression Type	MPEG-4		
Recording Frame (FPS)	352x240 : 120/100 (NTSC/PAL) , 704x240 : 60/50 (NTSC/PAL), 704x480 : 30/25 (NTSC/PAL)		
Image size	3-5 Kbyte (352x240, 352x288), 5-10 Kbyte (704x240, 704x288), 6-16 Kbyte (704x480, 704x576)		
Max HDD	HDD: Max 2 EA	Max 3 HDDs: With CD R/W ,Without CD-R Max 4 HDDs	
Secondary Storage	USB		
Alarm input	4CH NO/NC Type	8CH NO/NC Type	16CH NO/NC Type
Alarm outputs	1CH Relay Out	8CH Out	16 CH Out
Back-up file formats	AVI, JPG, BMP		
Network Speed Control	8 Level		
Ethernet interface	10/100-Base-TX, RJ-45		
PTZ Control	RS-485		
Power Supply	100VAC~240VAC, 1/0.5A, 60/50 Hz		
Power Consumption	Around 60 watts		
Temperature range	5℃~50℃		
Case	Steel/Black		
Dimension (L*W*D)	315*350*65mm	423*460*86mm	423*460*86mm
Weight	7Kg	8Kg	8Kg

2-2 System Organization



[PIC 1- System Configuration]

Chapter 3 – Installation

3-1 Contents List

Parts below are packed together

① Basic Contents



SDS-1204

DC12V
Adaptor

Or



SDS-1208, SDS-1612

AC Code



Remote Client
Program CD



User Manual



Remote Controller



AAA Battery X 2

② Option



HDD



CD-RW

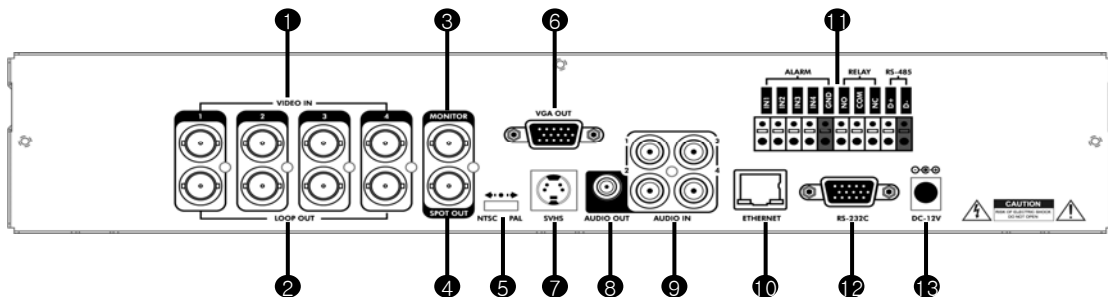


USB MEMORY

[PIC2-Packages]

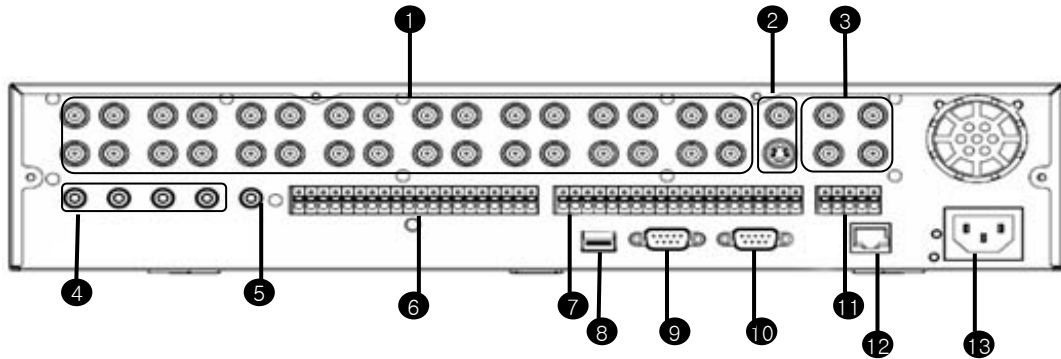
3-2 Installation Things

For installing SDS Stand Alone DVR, user do not need any specific tools.
Please connect all devices before <Power Connecting>.



[PIC 3-SDS-1204 Back Panel]

- ① Video Input : Video In : BNC Port for Camera Input.
- ② Loop Out (Back) : Camera Loop Out. 1-8channel and 9-16channel options
- ③ Monitor Out : BNC main monitor output. Spot output for Sequenced spot output monitor.
- ④ Spot Out : Spot-out Video to <AV Monitor>.
- ⑤ NTSC/PAL : NTSC or PAL Type Selection
- ⑥ VGA Out : Video Out to VGA Monitor (Option)
- ⑦ SVHS : Video Out through <SVHS>: S-video main monitor output
- ⑧ Audio Out : Audio Out.
- ⑨ Audio In : 4 RCA audio outputs.
- ⑩ Ethernet (TCP/IP) : Ethernet (TCP/IP) : Port for LAN / Internet (for Remote Surveillance)
- ⑪ Alarm/Relay/RS-485 : 8 sensor inputs, 4 alarm outputs (Terminal)
RS-485/ Serial interface for PTZ device connection and control.
- ⑫ RS-232C : Only for Debugging Use.
- ⑬ DC Power Input(Voltage) : Power voltage switching button, 110V or 230V.

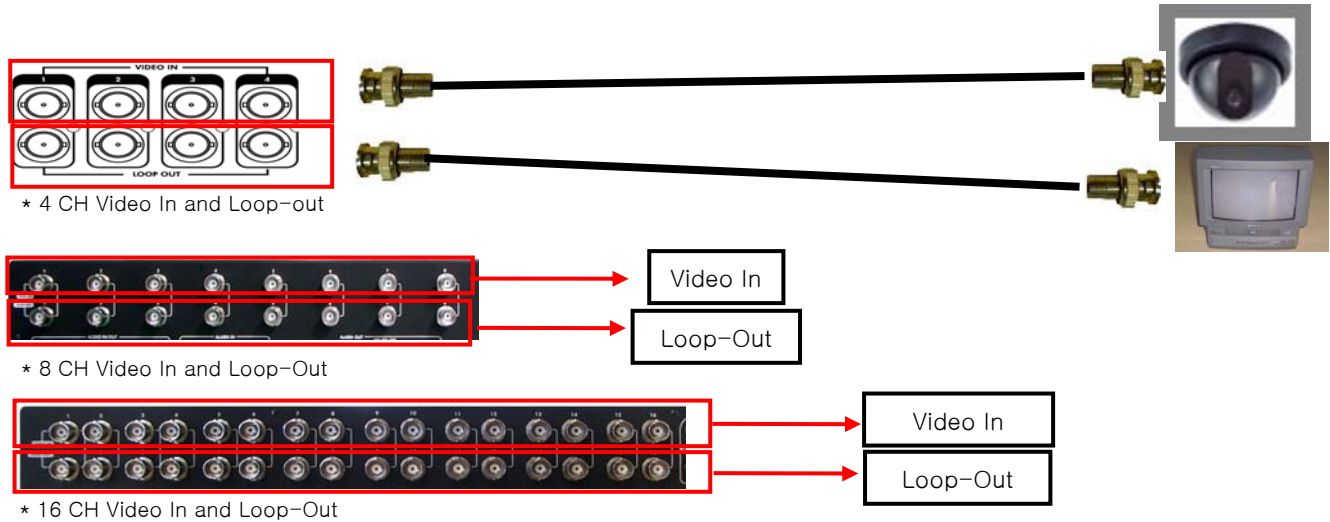


[PIC 4- SDS-1208, SDS-1216 Back Panel]

- ① Video In/Out : Video In and Loop-Out
- ② Monitor Out : BNC main monitor output. Spot output for Sequenced spot output monitor
SVHS Out : Video Out through (SVHS): S-video main monitor output
- ③ Spot Out : Spot Out : Spot-out Video to (AV Monitor).
- ④ Audio In : Audio In Port.
- ⑤ Audio Out : 1CH Audio Out
- ⑥ Alarm In : Alarm Sensor Connection
- ⑦ Alarm Out : Alarm Sensor Out Port
- ⑧ USB : USB port for the use of USB memory stick and USB HDD backup
- ⑨ VGA Out : Output Video to Computer Monitor via VGA Port.
- ⑩ RS-232C : Only for Debugging Use.
- ⑪ RS-485 : RS-485/Serial interface for PTZ device connection and control
- ⑫ Network (TCP/IP) : Ethernet (TCP/IP) : Port for LAN / Internet (for Remote Surveillance)
- ⑬ Power : Connect AC Power Code

3-3 Camera, Loop-out, and Audio Connection

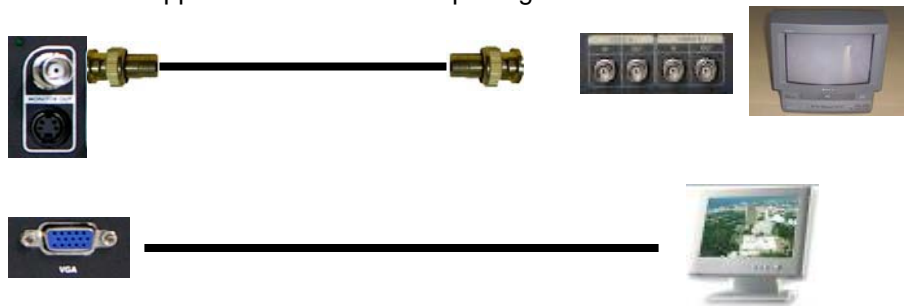
Connect Camera at BNC Port in Back Side Panel.
Connect BNC cables like below for Loop-Out (monitor)



[PIC 5-Camera Connection]

3-4 Monitor Connection

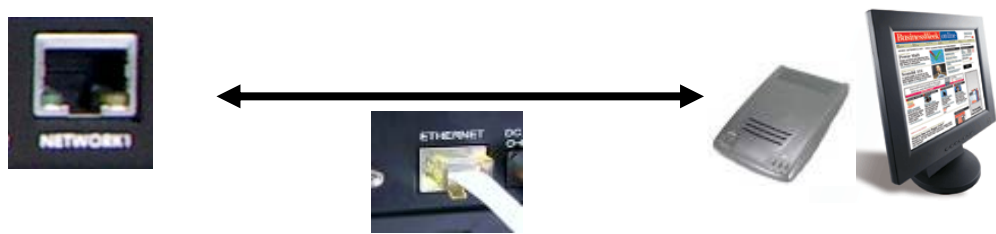
SDS series DVR supports AV and VGA Output together.



[PIC 6-Monitor Connection]

3-5 Network Connection

Users can connect <10/100Mbps Ethernet> cable. By this users can Remote Search, <Live> monitoring, and Setup through Network.
Pleaser refer to <Network> for more discussion. (P 35)



[PIC 7-Network Connection]

3-6 Alarm Connection

To connect <Alarm>, users have to put <Alarm> cables to the holes (IN1 ~ IN4 or A1, A2~,A15, A16) while pushing buttons on Alarm Block like below.
And connect cables to <GND> hole <ground connection>.

After connecting, to make sure, please check the right connection.
* (4CH – 4EA, 8CH-8EZ, 16CH-16EA Alarm Inputs are available)



[PIC 8 – 4 CH, 16CH Alarm]

3-7 Relay Connection

In 8CH, 16CH , users have to use <Alarm> outputs.
In 4CH , just use <Relay> outputs.
'NO, NC' : Connect to<Normal Open> or <Normal Close> type after checking the right type.

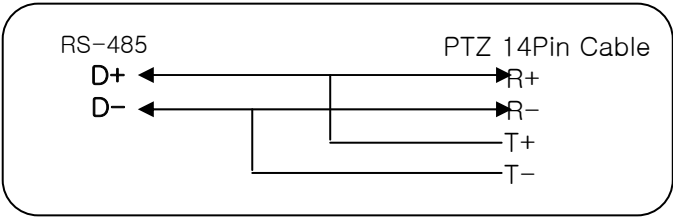
- Normal Open : <Normal Open> goes to <Close> when getting <Alarm> signal.
- Normal Close : <Normal Close> goes to <Open> when getting <Alarm> signal.
'COM' : Connect the cable for <Ground Connection>.

※ Refer to <Alarm Input and Output> Chapter page 41.

3-8 RS-485 Connection

To connect <PTZ> cameras

'D+, D-' : Connect <D+> and <D-> terminal to <PTZ> camera.
For more information on <RS-485> connection, please refer to <PTZ> cameras' manual.



Connection Ex) PTZ cables' connection with 14 Pin Connector

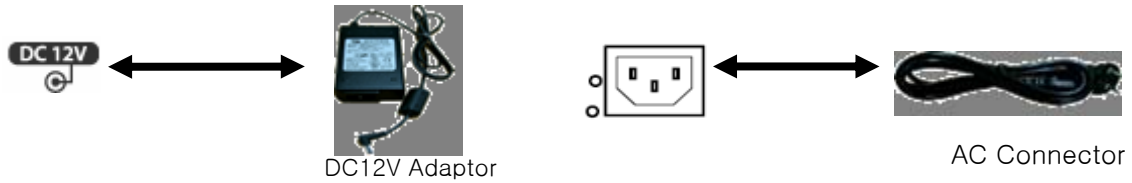
[PIC 9 – RS-485 Connection]

3-9 Power Connection

For 4CH, users have to connect Adaptor to DC power like below.

For 8, 16CH , users have to connect AC Code like below

To <Power-On>, please refer to Power-On chapter



[PIC 10 – Power Connection]

3-10 USB Connection

Users can use this for <Firmware Upgrade>, and save the recorded Data as <AVI> file.

In 4CH, it has 1 USB (Ver 1.1) I front panel. In 8, 16 CH, they have 2 ports in front panel, and 2 ports in back panel.

For more details , please refer to 50페이지 <Backup>(p 50) and <Firmware Update, and Save Backup Data and play Backup Data> (pp 38~9).

3-11 Finishing Installation

After finishing ,users can start product when clicking

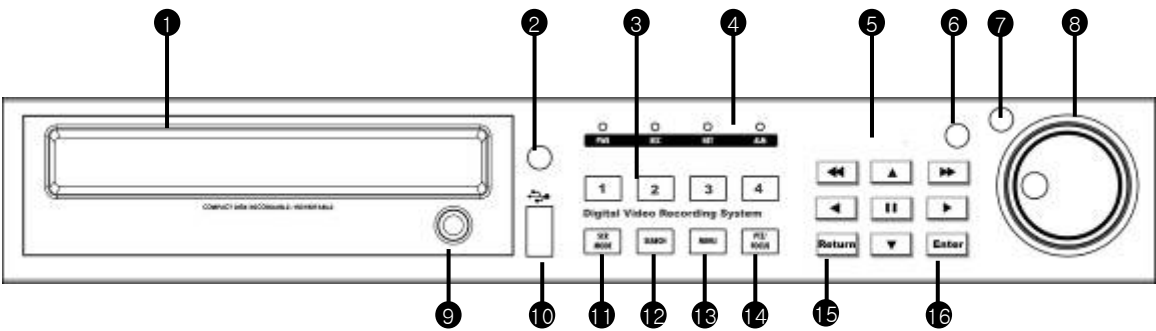


Power Button

In 4CH, users can start system just clicking any button in Front Panel.

Chapter 4 – System Connection and Configuration

4-1 Front Panel Buttons (4 CH)



[PIC 11 – 4CH Front Panel]

1. CD-RW

CD-RW for Back-up

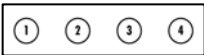
2. Remote Controller Sensor



When this is blocked, Remote Controller does not work, please note this.

3. CH Selection Buttons

Buttons for CH selection and Password



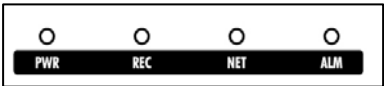
In <Live> Monitoring and Search Mode, users can see each CH video in Full View when clicking these buttons. This has the priority over SCR Mode.

When entering <Password>, users can use this entering <1~4>.

4. LED Window

LED shows the information indicating System Operation.

- * PWR: Power On
- * REC: In Recording
- * NET: Network is in Connection
- * ALM: Alarm is in connection and working.



5. Search Control Button

Search and Playback REC data

Menu Control,

For PTZ/Focus control.

6. POWER

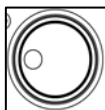
To Power-On/Off. Before Power Off, users have to enter Password

7. Hold Button



To Hold <Jog-Shuttle> function when

8. Jog Shuttle



In <Search> Mode, users can go to Previous/Next Images.

9. Eject



CD-RW Open/Close

10. USB Port



For USB Memory or HDD backup **(N.B 4CH is Ver.1.1, and 8 and 16 CH are Ver.2.0)**

11. SCR MODE



When clicking this, users can select <Screen Division> and <Auto-Change> as wanted.

Full Screen for each CH/Quad/Auto-Change

12. SEARCH



Clicking this, users can go to <Search> menu easily.

In this case, users have to enter <ID/Password>.

13. MENU



When clicking this, users go to <Menu> directly.

14. PTZ/FOCUS



When clicking this, users go to <PTZ/Focus> Menu directly.

15. RETURN



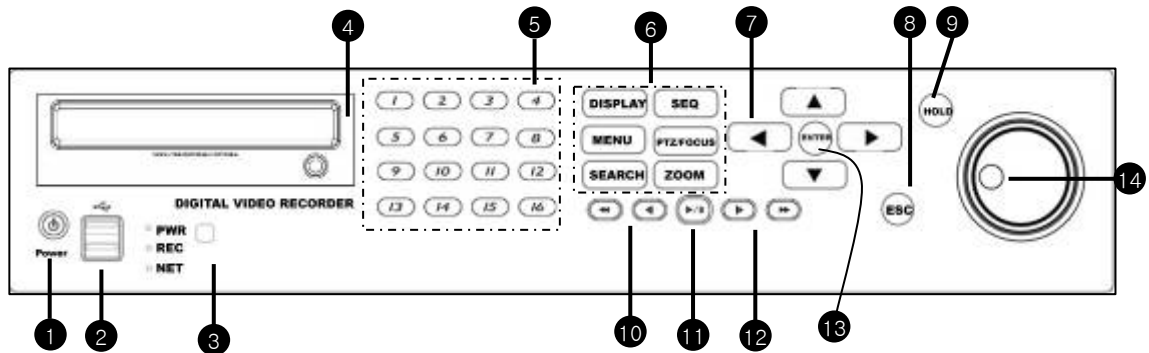
Users can go out of current Menu, when clicking this.

16. ENTER



Users can enter each <Menu> by clicking this.

4-2 Front Panel Button (8, 16 CH)



[PIC 12 – 8/16CH Front Panel]

1. POWER

To Power On/Off. The button is made of Soft material, which prevent System abnormal operation.

2. USB Port

For USB Memory or HDD backup
(N.B 4CH is Ver.1.1, and 8 and 16 CH are Ver.2.0)



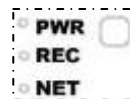
3. LED Indicator/Remote Controller Sensor

LED shows the information indicating System Operation.

* PWR: Power On

* REC: In Recording

* NET: Network is in Connection

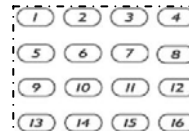


4. CD R/W

To open or close CD-RW

5. CH Button

To choose CH or enter Password



6. SHORTCUT Buttons

This helps a lot when users want to go frequently used Menu easily and directly.

* DISPLAY : Can go and select <Screen Division> directly

* MENU : Can go <Menu> directly

* SEARCH : Can go <Search> directly

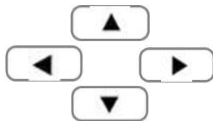
* SEQ : Users can change <Screen Division> according to Setting

* PTZ : Can go <PTZ> directly.

* ZOOM : Can go <Zoom> directly.



7. Direction Buttons



Users use this, when goes to wanted menu or PTZ controlling in PTZ menu.
When clicking this for more than 2 secs, it shows the System Information.

8. ESC Button (RETURN)



Users can go out of current Menu, when clicking this.

9. HOLD



It stop <Jog Shuttle> function to prevent mistakes .

10. FOCUS



To control <Focus> and <Back-Play> and <Fast Backward> (2 ~ Max 64 Times).

11. PAUSE



<Play> and <Pause>

12. IRIS



To control <IRIS> and <Play> and <Fast Forward> (2 ~ Max 64 Times).

13. ENTER



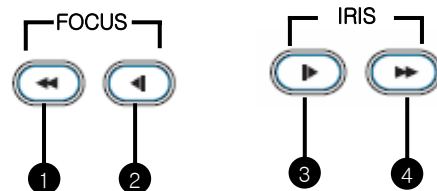
Just click selected Menu

14. Jog Shuttle



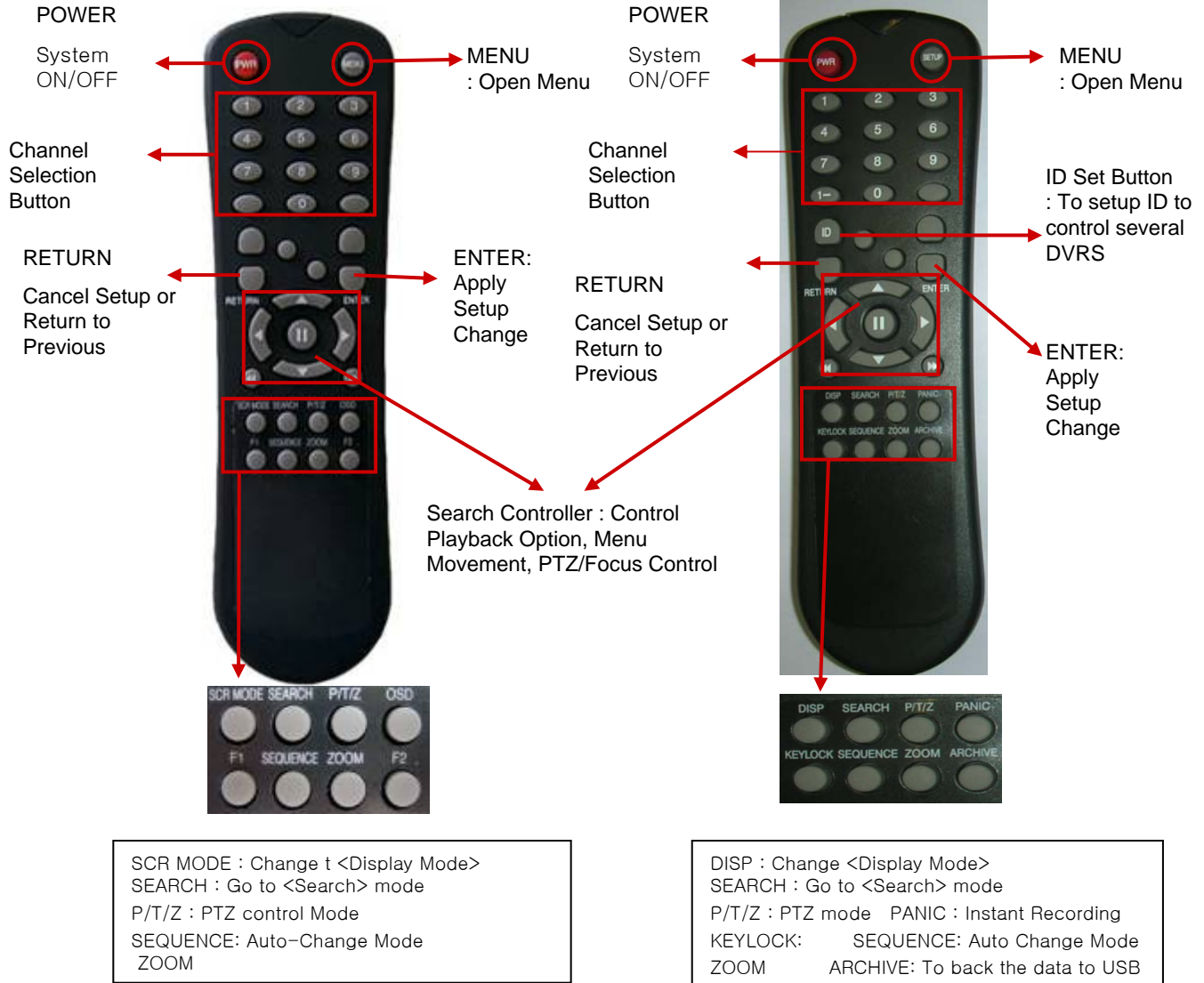
To Search next/previous easily Images by this.
In <Digital Zooming> , you can control Zoom Area size.

* FOCUS / IRIS button



- ① NEAR : Set camera focus nearly.
- ② FAR : Set camera focus far.
- ③ CLOSE : Close camera iris.
- ④ OPEN : Open camera iris.

4-3 Remote Controller Button (4CH , 8/16 CH)



[4 CH Remote Controller]

[8,16 CH Remote Controller]

[PIC 13 –Remote Controller]

- Unused Button's Description is Omitted.
 - Every Button is Operated Same as Front Panel Button.
 - Remote Controller can Operate when Remote Controller Sensor Input Part Reacted Each Other.
- ※ If there are many DVR at the same place, they are reacted together when press remote controller.

※ ID Button

Using this ID button, users can control several SDS at the same time (Max 255).

To control each SDS, firstly go to 39 page <Control Device> menu (p 39), and enter <System IP>. If this system ID is <2>, users can control this when changing ID as <2>. For this, users have to click <ID button> and enter <2> in <ID INPUT> message window .

By this, users can control individual SDS as you want in the place where many SDSs are installed.

※ When System No is different with the No in <Control Device> setup, that Remote Controller can not work except <ID button>.

※ When user enter <ID button> as <255> and go out of Menu, users can control all SDSs at the same time.

※ Default Remote Controller ID is <1>.

4-4 Power ON



<Camera Name and REC status>

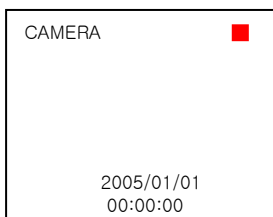


Status ICON Bar

[PIC 14 – Power On]

- Press  power button to start system.

- After Checking Hard Disk, display mode is shown.
- Initial Screen View Mode is Quad Division Mode and Recording Mode.



- Each Channel Indicates Camera Name & Recording Status.
- Present Time & Date shown on Status Bar at a bottom of screen.

Tip

- Check System status LEDs
 Power : Indicates System (On/Off)
 Record : Indicates Recording (On/Off)
 Network : Indicates Network/LAN Client connection Status

4-5 Entering <Setup Menu>



[PIC 15 – Entering Setup]

- ① Press Menu Button on Front Panel in Watch Mode
- ② It will ask for Password
- ③ Input Password Using by Channel Select Button [1][2][3][4]~[16]
- ④ After input Password, press Enter to display Menu

Tip

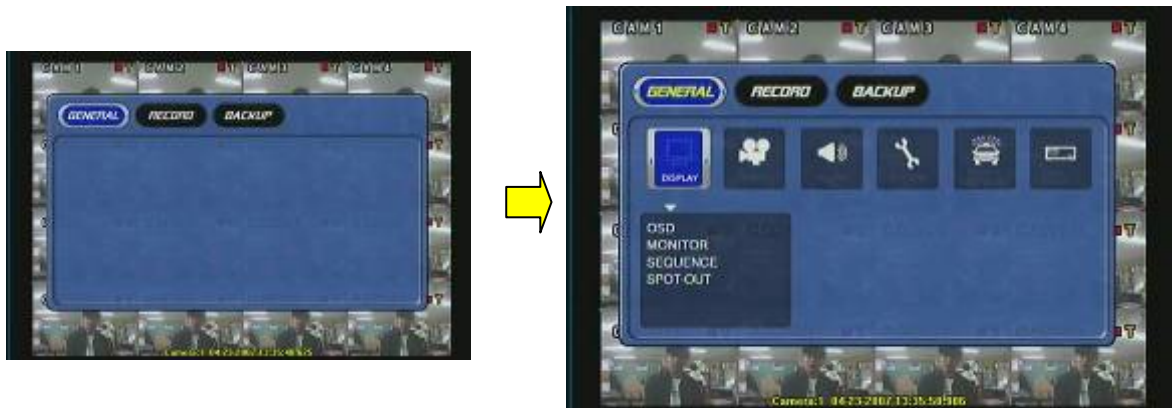
- Initial Administrator, Manager, User Password is 1234.
- Showing Password as *
- Password can be changed in System setup→System → User management.
- In only <Live View> Mode, users can go to Setup Menu.

(Search & PTZ/Focus Mode can't go to Menu)



- In case of <entering wrong Number>, please delete it by



4-6 System (General) Setup







[PIC 16 – General System Setup]


- 1) Only inn <Live View>(or Live Monitoring) mode, users can go to <General> System Setup mode by Clicking  or button. 

It will ask for ID/Password. (Default ID/PWD is **ADMIN / 1234**)

- 2) Can change 6 kinds of Setup here.

- 3) Goes to wanted menu by    and <click> .

- 4) Enter Button : Detail setup / Input / Input complete

- 5) Users can go to <previous> menu or go out of Setup Menu by  (or Return) button.

- 6) After setting, users have to enter  to save the <setup>.

4-6-1 Display

- Video (Camera) Setup for Live Monitoring Mode

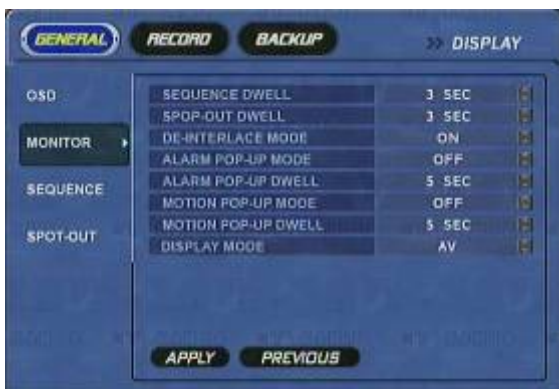
4-6-1-1 OSD (On Screen Display)



[PIC 17 – OSD Setup]

- Status Bar : Recording mode icon (on/off), (Recording: Red, Pre-recording : Green)
- Camera Title: Show/Hide camera name (on/off).
- Event Icon: Show/Hide event icon (on/off).
- Border : Show/Hide border Grid (on/off) in multi-channel mode.
- Border Color : Select color of border Grid. (White, Blue, Red, Yellow, Green, Gray)
- Menu transparency : Setup menu transparency.
- Motion Sensor : Toggle Motion Detection (Off/Active / Inactive)
 - Active : Display motion sensor of motion detection area.
 - Inactive : Display motion sensor except motion detection area.
 - Off : No display of motion sensor.
- Motion sensor color : Setup motion sensor color.
- Motion transparency : Setup motion transparency.

4-6-1-2 Monitor Setup



[PIC 18 – Monitor Setup]

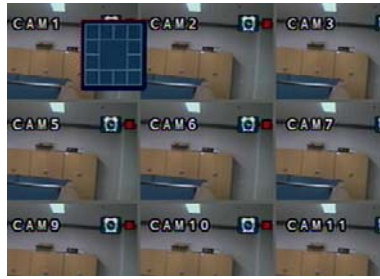
- Sequence dwell : Set up channel sequence cycle time (1~60 sec).
- Spot-out dwell : Setup spot-out time cycle(1~60 sec.).
- De-interlace mode : Remove interlacing in high resolution & low frame.
 - * This applies only D1 resolution. (704X480)
- Alarm pop-up mode: alarm channel will go full screen on activation.
- Alarm pop-up dwell: alarm pop-up time (1~60sec.)
- Motion pop-up mode : motion channel will go full screen on activation.
- Motion pop-up dwell : motion pop-up time(1~60sec.)
- Display mode : select display mode. (VGA/AV)

4-6-1-3 Screen Division Setup

* How to setup Sequence function



① Press Enter, then red border line will disappear. Setup mode will be activated.



② Select display mode type for sequence via navigation key.



③ Input channel No. for sequence function via virtual keyboard.



④ User will add up new sequence type as different type



⑤ Press return button after finishing setup. Finally, select Save & Exit / Exit / Cancel



⑥ User can check sequence function by pressing sequence button of key pad.

[PIC 19 – Sequence Setup]

4-6-1-4 Display Output



• Channel : Select spot out channel (4CH=> 1 SPOT, 8CH=> 2 SPOT, 16CH=> 4 SPOT)

• Select camera channel for spot out

• User can see the selected channel via AV monitor

[PIC20 – Spot Out]

4-6-2 Camera Setup

- Setup Camera

For more details on Video/Audio REC per CH, please refer to <Continuous/Motion> at p.45

4-6-2-1 Camera Name



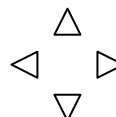
[PIC 21 – Camera Title]


- Covert : Setup Covert On/Off
 *What's Covert?
 When Covert On, Display Video is Hidden in Watch mode, but Recording is On.
- Title : Setup Camera Name by Virtual keyboard



[PIC 22 – Virtual Keyboard]

- Choose character by arrow buttons, and then press [Enter] button.



- Press the  button for shift then choose the other characters.

4-6-2-2 Color Setup



[PIC 23 – Color Setup]


- Control the Monitor Bright, Contrast, Color, Tint
- Setup value from 0~100
- Color Setup is done channel by channel

4-6-2-3 PTZ Setup



[PIC 24 – PTZ Setup]

- PTZ Address : Select PTZ Camera Address
- PTZ Protocol : Select protocol of PTZ Camera
- Baud Rate : Setup PTZ Communication Speed
(2400, 4800, 9600,19200, 38400 BPS)

- Press  button and setup the detailed PTZ

※ PTZ Supplied Protocol : Samsung(MRX-1000), Samsung(SCC641),Honeywell(SD1)
Honeywell ((GMC), Lilin (Fastdome), Fastrax(II), GC(655N),
D-MAX, Sunin DSC-230, Scan Dome- II , Vicon,Philips8560-700
Sensormatic,Panasonic(WV-CS850), Panasonic(WV-CSR604),VRX-2101
Kalatel(KTD-312), PELCO-D, PELCO-P,Dynacolor(D7722)

※ Available PTZ Protocols are added and changed on Demands.

HSD-251N	CRX-1401	LG-MULTIX
GSP	i3DVR – Z2200	i3DVR-Z1200
i3DVR – SD	LPT-A100L	VC-C4
GANZ ZC-PT	CBC(GANZ)	PTC-400C
SENSORMATIC	SAMSUNG MRX1000	FASTRAX II-2
HD600	VRX – 2101	PHILIPS8560-700
SAMSUNG SCC641	LILIN FASTDOME	FASTRAX II
GC-655N	D-MAX	SUNIN DSC-230
SCAN DOME II	VICON	PANASONIC 604
PANASONIC 850	KALATEL KTD-312	HONEYWELL SD1
PTC-200C	HRX-2000	PELCO-P
PELCO-D	EVI – D70/D100	

4-6-2-4 Motion & Sensor Setup

- This <Motion Setup> works properly only when <Alarm Output> Setup (p.41) and <Continuous/Motion> REC Setup (p.45) is done rightly.



[PIC 25 – Motion Sensor Setup]

- Choose the Partial Motion Region channel by channel
- Sensitivity: 1~10



[PIC 26 – Motion Area Setup]

* Area Setup

- Move Cursor by Direction Key and Press Enter at Selected Region



[PIC 27 – Motion Area Setup]

- Select All : Select Entire Region
- Deselect All : Cancel Region Setup
- Cancel : Cancel Change Setup & Exit
- Save & Exit : Save the Changes & Exit

4- 6-3 Audio Setup

- Audio and Beep Sound Setup

4-6-3-1 Audio

-Audio and Buzzer Setup



- Live Audio : Audio Output ON/OFF

Live Audio Output from Audio In Terminal

- Audio Monitoring Channel: Select Channel for Audio Output Nr. 1~4 Audio In
- Network Audio TX: Choose the Audio transmission
- Network Audio RX: Choose the Audio receive

[PIC 28 – Audio]

4-6-3-2 Beep Setup



- 1) Key Pad :Setup Key Pad sound as <ON/OFF>
- 2) Remocon : Setup Remote Controller sound as <ON/OFF>.

[PIC 29 – Buzzer]

4-6-4 System Setup

- Basic Environment Setup

4-6-4-1 date/time



[PIC 30 – Date/Time 1]

※ User should set the proper Time zone for your geographic location before adjusting the other settings.

- Date time : Set the present date & time.
- Date Format : Select the style of date display. (Ex: 2005-00-00, 2005/00/00)
- Time Format : Setup time display as either 12 Hour or 24 Hour base.
- Network time server : Setup on NTP time server, to synchronize date/Time with other devices on the network
- D.S.T: Daylight Saving Function (On/Off).



- Time Zone: Choose the time by GMT standard.

[PIC 31 – Date/Time 2]

Tip

※ How to Time setup

1. Setup Time zone as your location.
2. Setup the Network Time server and press the “Sync” button.
3. If correct time is not set automatically, setup the date/time manually.
4. If don't follow instruction as above, you may have the time error and the recording data search error.

4-6-4-2 Network

[PIC 32 – Network]

- IP Address : Input the unit IP Address.
- Gateway : Input the IP address of Internet-connected Router
- Subnet Mask : Input the Subnet Mask IP.
- DNS Server: Input 1ST AND 2ND DNS Server IP Addresses.
- DDNS Server: Input DDNS server IP address
- Net Client Port : Input net client Service Port # (Default:6100)
- Web Server Port : Input the Web server port # (Default: 80)
- Max TX Speed : Setup Max Network TX Speed. (56k – 8mbbs)
** After making changes to the Network setup, click Apply.
(The system will prompt you to reboot in order to save change.)

- DHCP (Dynamic Host Configuration Protocol) : IP address is set on the DVR automatically by DHCP server/router.

1. Set DHCP setting (On/Off)
2. DHCP Off : User will input IP address manually.
3. DHCP On : IP address will be assigned automatically. After DHCP is set to On, the system will reboot.
4. After the system has restarted, you can view the new IP address from this menu or in ' System information '

- DDNS (Dynamic DNS): This is used with a Dynamic IP address, which may be changed by the ISP at any time.

※ With DDNS, there is no need to enter the IP address on every connection, A name server address is used instead of.

1. Setup DHCP to on or manually input the unit IP address.
2. Setup DDNS to On, set the DDNS properties (user name, password, and domain name) and reboot the system.
3. To access the DVR using the name server address, the format for the address is :
http:// [user name] . [domain]
([Example: http://mydvr.dyndns.org] (user name: mydvr.domain: dyndns.org)
4. User will need to input all of the correct DDNS information into the Network setup in order for the DVR to be able to update its new IP address to the DDNS server whenever a change occurs.
5. If user is using a router in your network configuration, it is the router which must be setup for DDNS, not the DVR.

※ About Network Configuration

1. If your DVR is connected to the Internet via a Router, you must use Port Forwarding in order for users outside of your Local Area Network (LAN) to access the DVR remotely over the Internet.
2. Forward the Web and Client Service Port #'s to the Private (LAN) IP Address of the DVR.
3. The Router and DVR must have IP Addresses that are located on the same network subnet.
Example: Router IP: 192.168.0.1 DVR IP: 192.168.0.x (x is any number from 2 ~ 254)
4. Users connect to the DVR over the Internet using the Router's Public (WAN) IP Address.
5. If the Port Forwarding settings are correct in the Router, it will forward all data to/from the DVR.
6. If the DVR is the only device using your Internet Connection, it will be assigned the Public (WAN) IP Address that is given to you by your Internet Service Provider (ISP).

Tip

※ DDNS Setup 2

– When connecting through Router or Private IP.

1. Go to 'System -> Network'
2. Select <DHCP> and reboot the system.
3. After booting, go to 'System -> Network'.
4. Uncheck <DHCP>.
5. Check IP address, when IP is not correct, please check with Network Manager.
(Private IP Ex: 192.168.100.113)
6. Setup as <DDNS>
7. Check DDNS Server .(EX: DDNS.DVRLINK.NET)
8. Check MAC address.
9. Reboot the system.
10. Users have to <Port forward> in Router. (DVR Port 6100).
11. Users have to setup <Router> Port 6100 and SDS IP address as the same one.
12. DDNS Server domain Name is 'MAC address'.
EX When MAC address is 00-11-5f-00-b5-a7, domain name is the same as this MAC address.
13. When connection by Remote Agent, users have to enter <Mac Address>(12 byte)
(EX: 00115f00b5a7.dvrlink.net)

* To check DDNS server information, users can check just entering
<ping 00115f00b5a7.dvrlink.net -t> in Window <Run>.

4-6-4-3 Email



[PIC 33 – Email]

These settings allow the DVR to send outgoing E-mail notifications to the list of recipients listed within the DVR

- Server: Setup the outgoing Mail server address.
- Input the server address using the Virtual Keyboard.
- Port: Mail server port number (default is port 25).
- Security: For a mail server the requires outgoing SMTP Authorization (On/Off).
- User & password: Input the username and password (if required for outgoing SMTP Authorization).

4-6-4-4 User Setup



User Setup

- It consists of 3 User Groups
Administrator: All Authority
Manager: Max 5
User
- Total 7 users for 3 User Groups can be made.

[PIC 34 – User Management1]



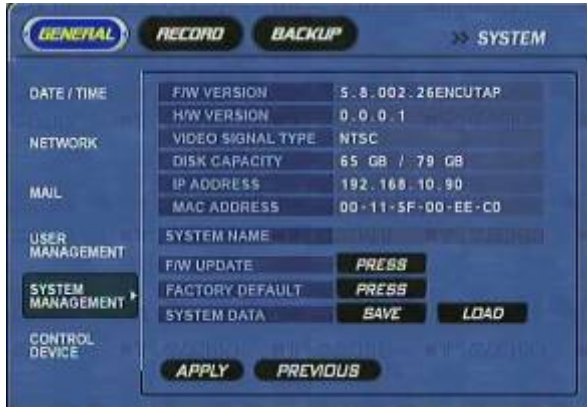
* User ADD

- Input User ID, Password.
- Choose the Group.
- Input the E-mail Address.
- It can edit User ID information.
- E-mail notification On/Off
- Input the E-mail by Virtual Keyboard.

[PIC 35 – User Management 2]

※ Password can be made of Max 7 numbers (4CH 1~4, 8CH 1~8, 16CH 1~9)

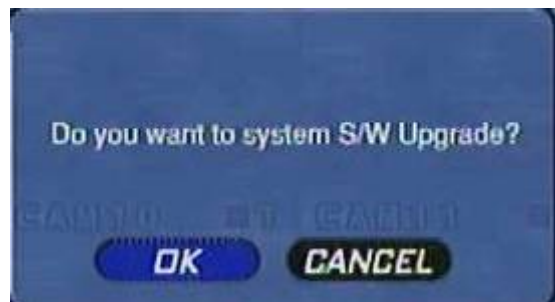
4-6-4-5 System Information



- F/W version: DVR Server firmware version.
- H/W version : DVR Hardware version.
- Video signal type: NTSC or PAL.
- Disk capacity: Used HDD capacity/ total HDD capacity.
- IP address: Current IP address of the DVR.
- MAC address: Fixed MAC address of the DVR.

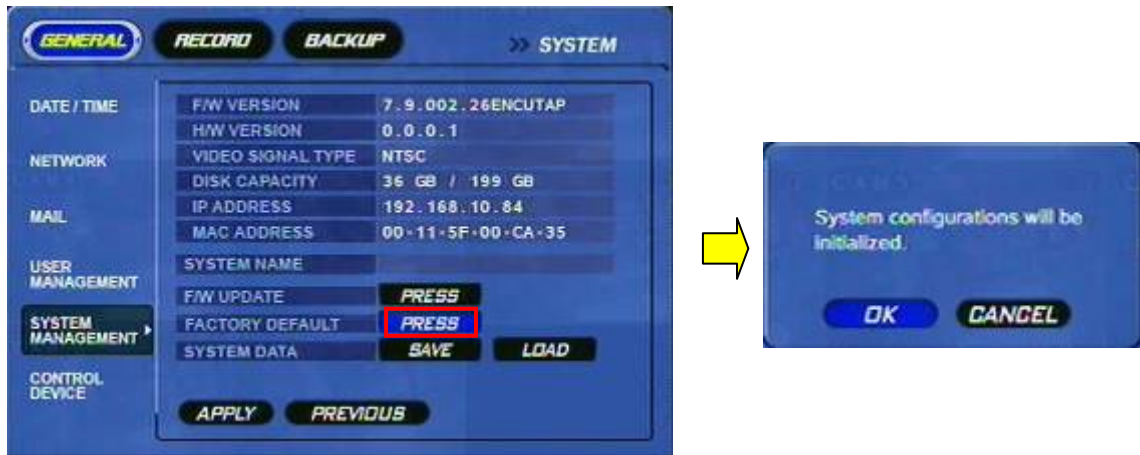
[PIC36 – System Information]

※ In <Live Monitoring> mode, when users click  for more than 2 seconds, users can go to <System Information> directly, and goes out of here when clicking <Enter>.



[PIC 37 – Firmware Update]

- F/W update (USB Upgrade and Network)
 - User can do F/W update by USB (or CD) device.
 - Press 'Press'
 - Select F/W from the list.
 - Press 'START'



[PIC38 – Factory Initialization]

Factory Default

- When clicking this, users can see <Initialized> window, and all setup values return to <Factory Default> values.
- When initialized, all setup will be initialized, but REC data not delete.

Save <System Data>

- Using USB users can save <System Data> and export and apply this <Setup Values> to another SDS systems. Save the <System Data> and <Load> this on another SDS.

4-6-4-6 Control Device

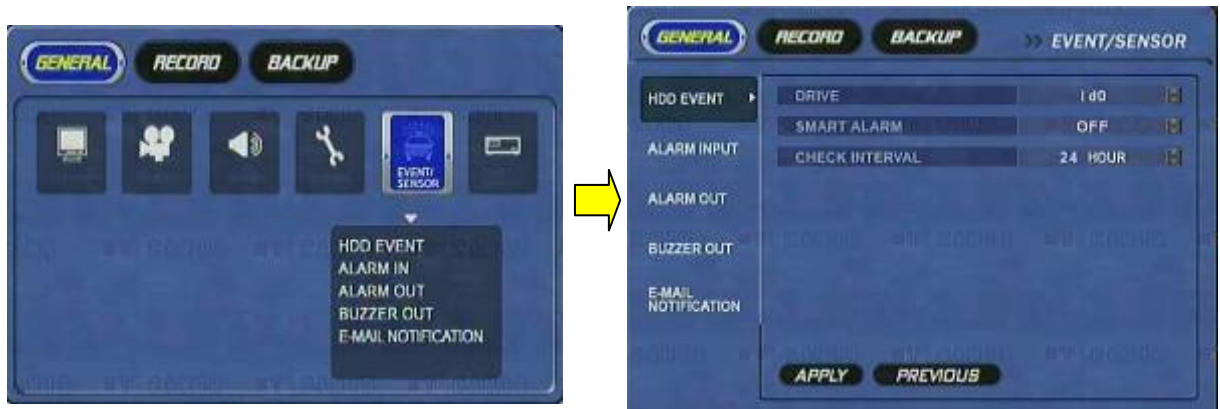


[PIC39 – Control Device]

- System ID : Select system ID. (1~254)
- Protocol : Select protocol.
- Baud rate : Setup baud rate.

4-6-5 Event / Sensor Setup

4-6-5-1 HDD Event



[PIC40 – HDD Event]

- Drive: HDD connected location
- Smart Alarm: On/Off (Self-Monitoring, Analysis and Reporting Technology)
- Check interval: HDD checking Time(1~24 Hour)

※ When selecting <Smart Alarm>(in this case, HDD has to support HDD), SDS gives <Alarm> or <Buzzer> or <Email> notification when HDD has a risk to break down within 24 hours.

In this case, <Alarm> or <Buzzer> or <Email> Notification has to be setup.

For more information, please refer to other Setup.

4-6-5-2 Alarm Input



- Operation: Setup Alarm Sensor Connection Status (enable/disable)
- Type : Setup Alarm Sensor Normal Open, or Normal Close Type

[PIC41 – Alarm Input]

4-6-5-3 Alarm Output

※ Setup each channel when alarm, video loss, motion are happened.

- HDD Event: Alarm On/Off when HDD has the problem.
- Operation: Setup Relay Connect with Alarm Sensor.
- Mode: Setup Reacted Relay as Latched/Transparent Mode.
- Type: Setup Relay Type N/Open or N/Close.

- Duration: Setup Reacted Relay Time.
(5sec~5min or Until key-in)



[PIC42 – Alarm Output]

Tip

- Latched/Transparent
Latched – When Sensor Alarm Activated, Relay Reacted in Setup Duration
Transparent – Relay Reacted Temporary During Sensor Alarm Activate

4-6-5-4 Beep Input



[PIC43 – Buzzer Output]

- Buzzer: On/Off
- Duration: Buzzer time (5sec~5min or Until key-in)
- Setup each channel when alarm, video loss, motion are happened.
- HDD Event: Buzzer On/Off when HDD event is happened.
- Keypad : Setup Key Input Sound.
- Remocon: Setup Remocon Input Sound.

4-6-5-5 Email Notification



- E-Mail Notification will send an e-mail to a list of recipients, based on alarm, video loss, motion, or HDD events.

- Check or uncheck each type of condition that you want to trigger an E-mail notification, on each channel.

- The list of recipients is configured within the System → User Management menu.

- Make sure that all of the outgoing mail server settings are correct, within the system → Mail menu, in order to ensure delivery.

[PIC44 – Email Notification]

4-6-6 HDD Management



[PIC45 – Disk Management]

- Disk Overwrite : (ON/OFF) overwrite permission (when HDD is full)
 ON: Overwrite HDD, starting with the oldest data first (also known as FIFO – first in, first out)
 OFF: When HDD is full, recording will be halted and the system buzzer will activate
- Format : (Click START to Format HDD). All Recorded data will be deleted from the HDD.

[NOTE: Any newly-installed HDDs will be detected during the Power-On Self Test (POST), and the system will prompt you to Format the new HDD before entering into the DVR system GUI. You can't format new HDDs from the disk management menu, until they have been formatted first during the startup sequence.]

4-7 Entering Recording Menu

- Schedule Mode: Choose the DAILY or WEEKLY.
- Pre-Event Recording Time : Setup Pre-Event recording Time. (1~5 sec)
- Post-Event Recording Time: Setup Post-Event recording Time.(1~5 sec)



[PIC46 – Go to Record]

4-7-1 Record Setup



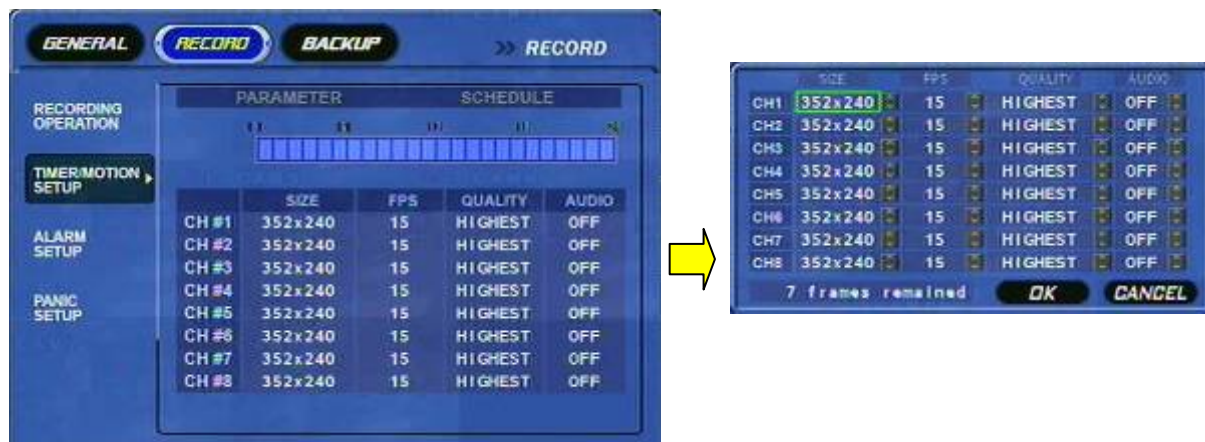
[PIC47 – REC Setup]

- Schedule Mode: Choose the DAILY or WEEKLY.
- Pre-Event Recording Time : Setup Pre-Event recording Time. (1~5 sec)
- Post-Event Recording Time: Setup Post-Event recording Time. (1~5 sec)

- Pre-Event Recording : When alarm detected, record image including setting time before alarm happened.
- Post-Event Recording : When alarm detected, record image including setting time after alarm happened.

4-7-2 Continuous /Motion Recording

- Parameter



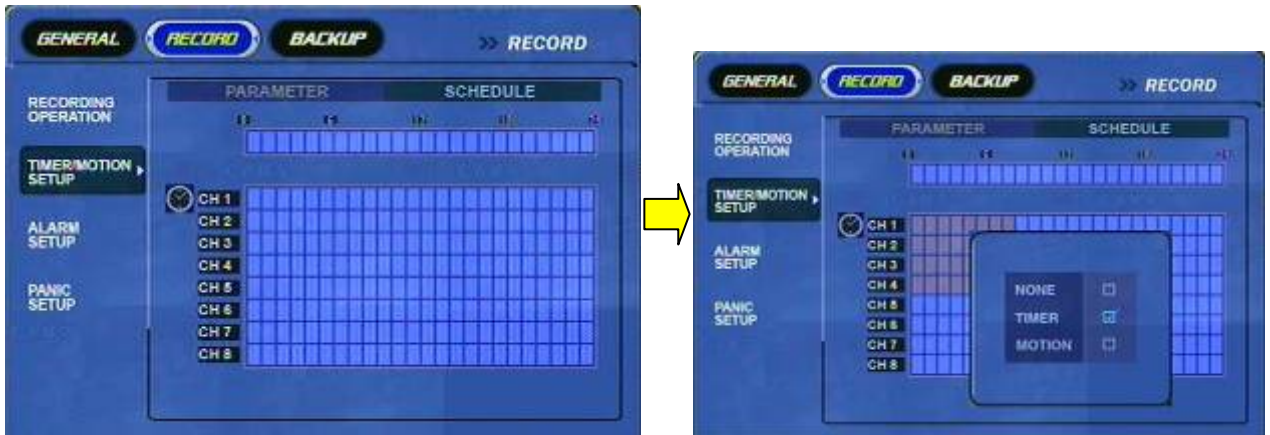
[PIC48 – Continuous/Motion – Daily/Resolution]

- Select parameter mode.
- Press “Enter” twice to setup, Move with right/left direction key.
- Press “Enter” to select area, and Press “Enter” for setup.
- Setup each channel. (Size, FPS, Quality, Audio)
- Setup each day when weekly mode.

Resolution	Max FPS	Image Quality	REC With Audio
352 x 240	120 Frame	Very High	ON
704 x 240	60 Frame	High	OFF
704 x 480	30 Frame	Normal	
		Low	

※ REC Quality and Speed can be influenced by HDD

- Schedule



[PIC49 – Continuous /Motion– Schedule]



- Continuous recording Icon (or T)



- Motion recording Icon

- Select an area (channel / time of day) on the schedule grid and press enter to adjust its properties.
- Set area as 'Timer' (Continuous), 'Motion', or None.

- If 'WEEKLY' recording is enabled, you must set up each day of the week individually.
- If 'DAILY' recording is enabled, you will set up one schedule for every day of the week.

4-7-3 Alarm Recording Setup

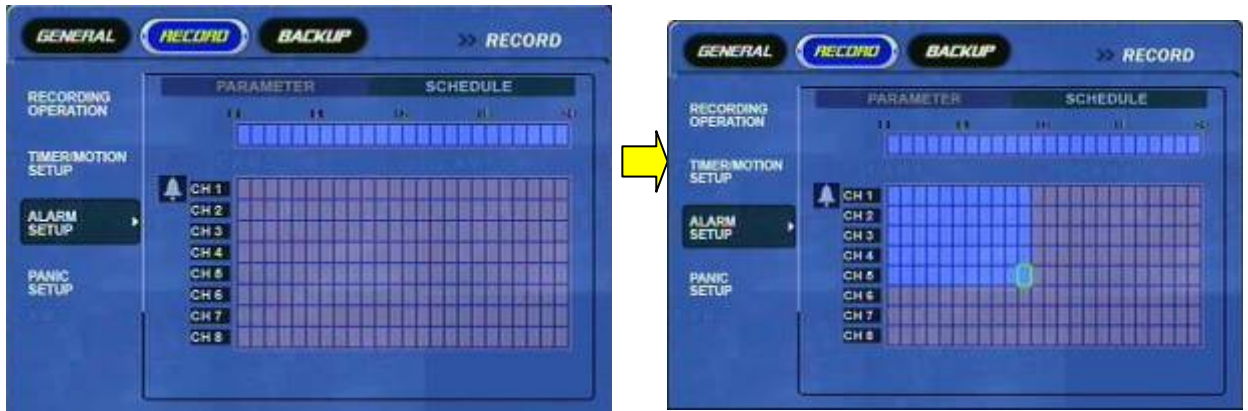
- Parameter



[PIC50 – Alarm REC – Schedule]

- Select parameter mode.
- Press “Enter” twice to setup, Move with right/left direction key.
- Press “Enter” to select area, and Press “Enter” for setup.
- Setup each channel. (Size, FPS, Quality, Audio)
- Setup each day when weekly mode.

- Schedule



[PIC51 – Alarm REC – Schedule]

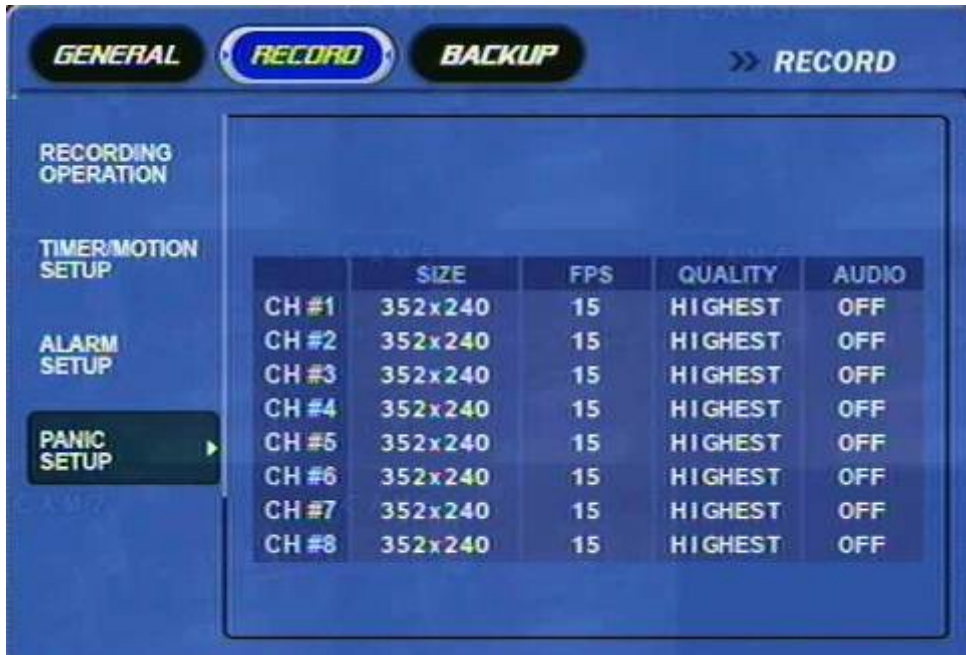


- Alarm recording icon

- Select an area (channel / time of day) on the schedule.
- Press enter to select (or deselect) alarm recording.

- If 'WEEKLY' recording is enabled, you must set up each day of the week individually.
- If 'DAILY' recording is enabled, you will set up one schedule for every day of the week.

4-7-4 <Panic> Recording (Only apply to 8 and 16 CH)



[PIC52 – Panic Setup]

- To setup each channel, press enter.
- Setup each channel. (Size, FPS, Quality, Audio)
- By using panic button of front panel can record urgently as setup.

4-8 Backup



[PIC53 – Backup 1]

① Device : Indicate CD-RW Model and USB MEMORY Model Automatically.

If you use the CD-RW and USB memory (or USB HDD) together,
it can choose the CD-RW and USB by Up & Down Button.

② Start Time : Select Start Backup Time.

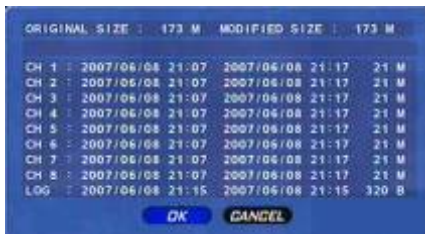
③ End Time : Select End Backup Time.

④ Channel & Video/Audio Selection : Select Channel, Video, & Audio for Backup.

⑤ Title : Change the Title of Backup by virtual keyboard.

⑥ Event : Select Attach Event Text File in Backup.

⑦ Start : Start Backup.



Tip

- Compatible CD Writer Models are LG(GCE-8526B,GCE-8527B), SAMSUNG(SW-252F, TS-H292A, SH-522C),ASUS(CRW-5232AS),GIGABYTE(GO-R5232B)
- Compatible USB memory stick Models are LG(Royal,mobile,mirror), IMATION (I flash),Memorive PRO+ and Compatible USB HDD is CUTIE(FHD-254).
- Necessary Codec for Playback (IMM4 Install File) will be included inside of Backup CD, USB media
- In case of CD-RW, Please Delete Previous Data on PC for Recording Again.

4-9 Digital Zooming

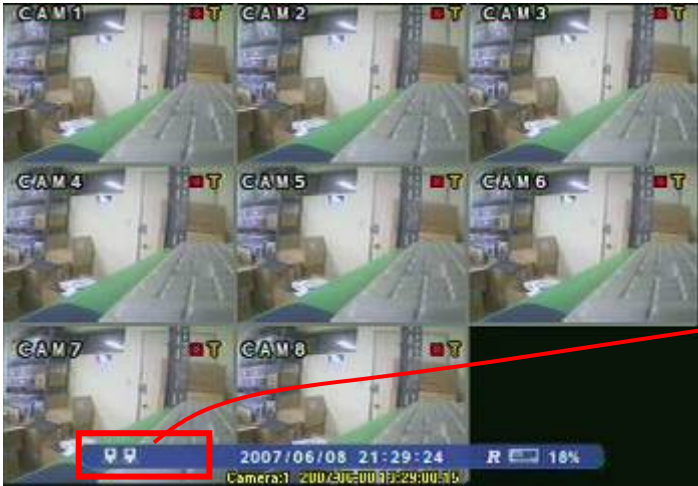


[PIC55 – Digital Zoom]

- 1) When pushing <Zoom> button on Front Panel, users can <Zoom> the image like above.
- 2) With <Jog Dial> users can control the <Area> of Zooming, and move the area by < Direction Buttons>.
- 3) In Zoom mode, users move the CH by clicking other CH button
- 4) To end, please push <Escape>(Return) button.

*This is not available in 4 CH

Chapter 5 – System Running



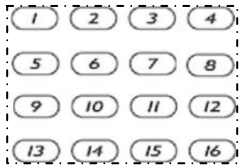
When SDS is connected through network, users can see the ICON below.

- Network Status
 - Green: Stable
 - Blue: Unstable
 - Red: Very Unstable

[PIC56 – Network Status]

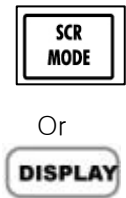
5-1 Screen Division Selection

When clicking CH button, users can see each CH in Full Screen.



[PIC57 – CH Buttons]

5-2 Screen Rotation Mode (SCR Mode)



Or

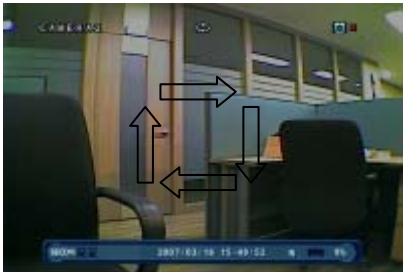
- 1) Users can select 3 Mode
 - ① Multi Screen Mode : Can see Multi-CH on one Screen
 - ② Full Screen : Show each CH on Full Screen
 - ③ Auto Change : Shows each CH in sequence automatically
- 2) Default is <Multi Screen> mode



Multi Screen Mode
(4CH, 8CH, 16CH)



Full Screen



Auto-Change

[PIC58 – Screen Rotation]

5-3 PTZ / FOCUS



or



- Control Camera Movement of PTZ (Pan/Tilt/Zoom) devices.
- Press PTZ Button to switch into PTZ mode. (Status Bar is replaced by PTZ controls)
- Each PTZ function is manipulated by using a button on the Front Panel or on the Remote controller.
- Some of the notations on the PTZ menu are abbreviated. (P: Pan, T: Tilt, Z: Zoom, F: Focus, I: Iris)
- All of the functions on the PTZ menu are labeled along with the Front Panel/ Controller button that control it.



[PIC59 – PTZ/FOCUS Control]


5-4 Selection <Live> View Screen Layout

In <Live View> mode, users can change cameras' position in <Live View> mode.

- 1) Select wanted Display Division
 - 2) When pushing <Enter> button, <Live View Edit Mode> will be shown on the bottom.
 - 3) If you select and push CH want to change, that video will be disappear.
 - 4) When pushing wanted CH button, that CH Video will be shown at that channel.
- After setting up this, users can go out by clicking <RETRUN> button, or other <Display> screen.

5-5 Power Off



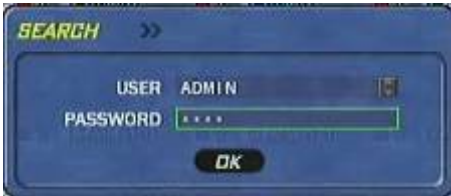
- Press power button to power system off. 
- Input password and press enter to shutdown system.
- Don't disconnect AC power without completing shutdown.

[PIC60 – System Power Off]

Tip

- System Log-On User Account Types are 'Administrator', 'Manager', 'User'
Administrator: Access All Function (Power On, Shutdown, Setup, Search, Backup)
Manager: System Power On, Live View, Search, Playback
User: System Power on and Live View

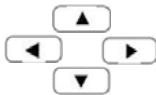
5-6 Goes to Search Mode



[PIC61 – Go to Search Mode]



- Press [Search] button and Log-In as Administrator or Manager



- Use Direction Key to select Menu



- To open each Menu by pressing [Enter] button or [Play] Button



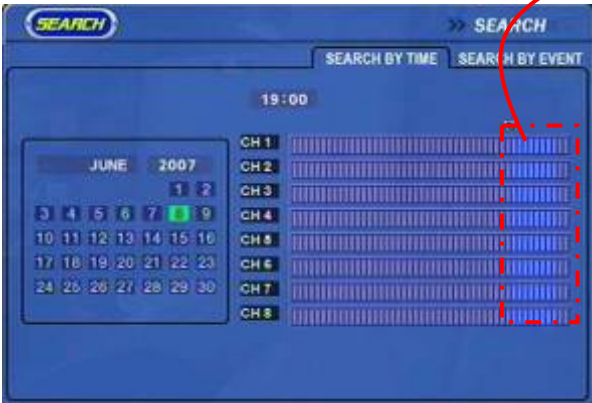
- Press [Return] button to go back to previous mode. (Move to Previous Menu or Exit Search Mode and Return to Watch Mode)

5-6-1 Search by Date/Time

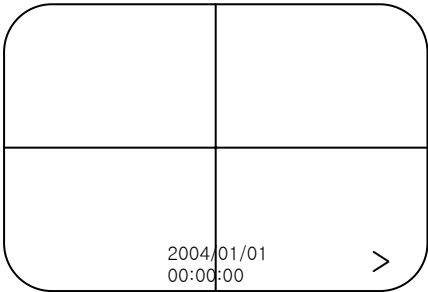
- To Search Recorded Date & Time (by 15 Min)

Recorded Data

- ① Move Cursor to Selected Date in Calendar (Recorded Date & Time Indicated by Gray Color)
- ② Press Enter to Open Selected Date
- ③ Recorded Time Appear at Under Side
- ④ Press Enter at Selected Time (One Scale is 15 Minutes)
- ⑤ Menu Disappear and Output Recorded Video



[PIC62 Search by Time]



- Showing Recorded Date & Time at Left-Upper Side as Watch Mode.
- Showing Playing Condition at Right-Under Side.
- Channel Selection Button application in Watch Mode & SCR Mode are same as Search Mode. (But Menu, Search, and PTZ/Focus Buttons are Exception)

- Control Playing Video



① Basic Playing Mode
(Normal Speed 1X Forward Playing)



② Normal Speed Backward Playing



③ Pause Video



④ Fast Forward (2 ~ 64 Speed)



⑤ Fast Backward (2 ~ 64 Speed)



⑥ Same Function as # ④,⑤



※ Press Normal Forward/Backward Button in Pause Mode, it will Move to Next/Previous Frame.

5-6-2 Search by Event

- Searching Video with Event Occurrence

Select Start Date & Finish Date for Searching Event

Alarm : Searching Alarm Event during the Selected Period

Motion : Searching Motion Detected Event during the Selected period .

Timer : Searching Schedule Change or Recording Setup Change Event

System : Searching Power On/Off Event (etc.) and related System Event

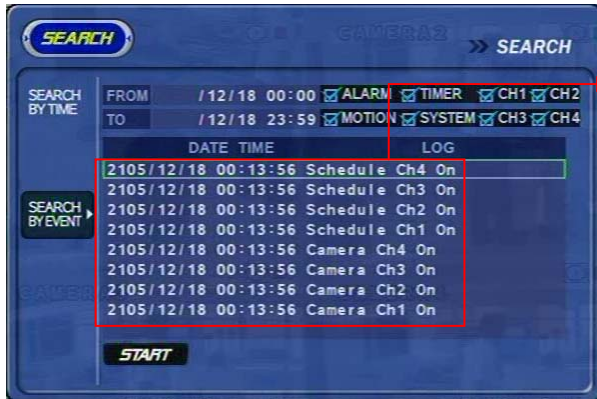
Channel: Choose the channel for searching.

Start: Start to search

[PIC64 – Search by Event]

Tip

- Alarm, Motion, System can be selected at the same time
- To Change Setup, press Enter and press Direction Key.
After changing setup, press Enter to exit.



- Date : Indicate Event Occurrence Order & Date
- Time : Indicate Event Occurrence Time
- Event : Indicate Event Contents & Camera No.

• Event Searching Method

- ① User can Search Event by using Direction key
- ② Search Event: press Enter at Selected Event from Event Occurrence Time
- ③ Control Video is the same way as Time Mode Control

[PIC65 – Event List]

Tip

- The Search by Event is not base on Video, but Event Occurrence Time.

Chapter 6 – Appendix

Appendix-A HDD Installation

1. Hard Disk Installation

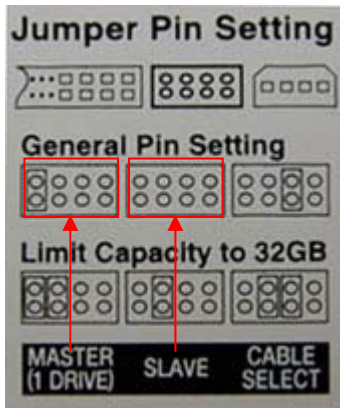
① Jumper Setup as Master or Slave



- Jumper Setup as master or Slave, Following the Instruction shown on Hard Disk.
- Jumper located next to Hard Disk's data cable or rear side of Hard Disk.
- If One Hard Disk is installed, set it as Master.
If Two Hard Disk are installed, set second one as Slave.

!! When Add or Exchange Hard Disk, **Must Power OFF System First**. If not, it will cause Fatal Hard Disk Error.!!

※ Example of Samsung HDD Jumper Setup



- Refer to General Pin Setting in Jumper Pin Setting on HDD Surface.
- When One HDD is installed, Setup Pin as Master and connect Pin at the Left End of Jumper.
- When Two HDD are installed or add new HDD, set First One as Master and the Other as Slave. Slave Setup has No Pin.
- When More than Two HDD are installed, connect to another IDE cable at the same method of above.

!!Please Use Hard Disk with **UDMA66 or higher spec**.!!

② IDE Cable Connection to Main Board



- Confirm the IDE Cable inside of DVR
- Among the Three Connectors, Blue Color Connector must be connected with Main Board. Others connect with HDDs.

Appendix-A HDD Installation

② After set jumper, attach Hard Disk with Screw & Bracket



HDD Bracket (Max. for 2 HDD)

③ Connect IDE Cable to Hard Disk

- Connect Power Cable to Hard Disk
- ※ If One HDD is installed, connect it to the End of Connector (Black color)
- If Add 1 more HDD, connect it to the Middle Connector (Gray color)



Tip



For Rear Panel

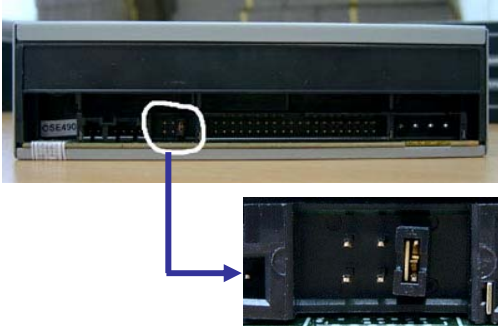


- When install Master HDD, please connect at IDE1 Port by Master Cable.
 - It means, Master Connector which connected with IDE1 Cable must connect with HDD (Master).
- Master, Slave?
- It can connect two IDE Hard Disk at one cable (port). For the purpose of prevent confusing, two equipments named 'Master' & 'Slave'. 'Master' is one hard disk or first hard disk and 'Slave' is second hard disk.

Appendix-B CD-RW Installation

1. CD-RW & Hard Disk Installation

① Jumper Setup as Master or Slave



In case of LG-8526B, MASTER

- Jumper Setup as Master or Slave (Refer to Instruction shown on CD-RW).
- If install One CD-RW at One IDE Cable, setup as Master.
If install One CD-RW & HDD at One IDE Cable, set CD-RW as Slave.

**!! When install, exchange or remove CD-RW, please
System Off Properly and Disconnect DVR Power First. !!**

② Install CD-RW at the bracket



③ After Assemble with Bracket, Attach to the Case



Appendix-B CD-RW Installation

④ Connect IDE Cable & Power Cable at the CD-RW



Tip



For Rear Panel



- When Install Master HDD, please connect at IDE1 Port by Master Cable.
- It means, Master Connector which connected with IDE1 Cable must connect with HDD (Master).

⑥ Example of Install CD RW & HDD



HDDx1 and CD-RW

Appendix-C Quick Problem Shooter Guide

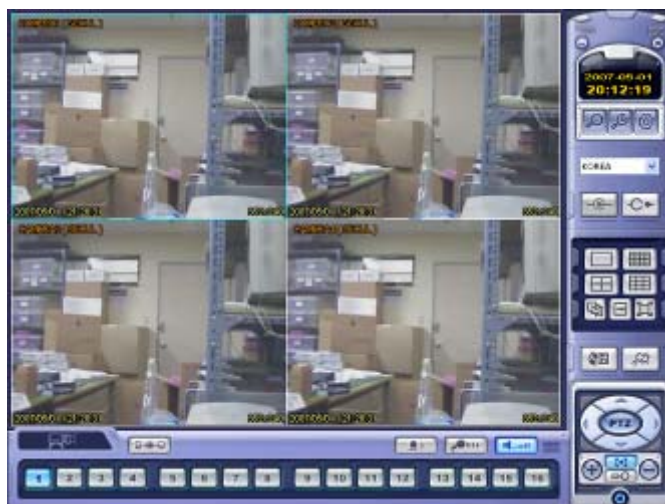
Problems	Shooting Points
Can not Power-On	1. Check Power (220VAC) Connection.
LED Lamp (Power, REC, Network, Alarm) does not work	1. Check the Power 2. Check the REC Setup 3. Check the LAN Cable Connection 4. Check the Alarm Setup
Buttons in Front Panel do not work.	1. Check the status of right connection of Buttons. 2. Check the right connection of Front Panel and PCB.
Can not recognize HDD correctly	1. In first booting of HDD, users have to Format HDD. 2. Check the right connection of HDD cables and PCB. 3. Please try others HDDs after several times
Can not recognize USB Memory	Check the USB compatibility (Version and Company) with SNT sales Team
LED Lamps are always <On> (REC, Network, Alarm)	1. Check the Firmware and update it to latest one 2. Try to connect Power Code again and reboot.
When some keys do not work correctly. (In Setup and Search)	1. Check the right <Format> in first Booting 2. Check the right connection of HDDHDD 3. Check the Jumper connection of HDD
Can not get Video	1. Check the condition of BNC cable and camera 2. Check the right setup of camera
Green Light Lines are shown and and Video is not normal condition	Check the camera and Video Type (NTSC or PAL)
Can not get VGA Display	Check the right connection of VGA
Remote Controller does not work	Check the Battery of Remote Controller and change
Can not get Audio	Check the right connection of Audio and Setup
Network does not work.	1. Check LAN connection with the Router 2. Check the Internet status and SDS setup. 3. Check the right setup of <Port forward> and IP information
Network does not work when connected by Router.	Check the right setup of Router and SDS (Port forward and port No)

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Spot Out		28
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Camera Title		29
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REMOTE SOFTWARE USER MANUAL

SDS-I204(4CH). SDS-I208(8CH). SDS-I216(16CH)



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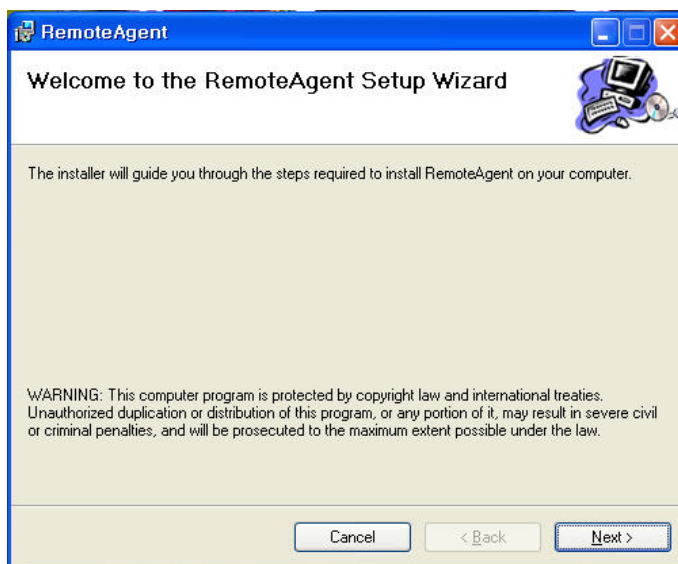
1. INSTALLATION

• System Requirement

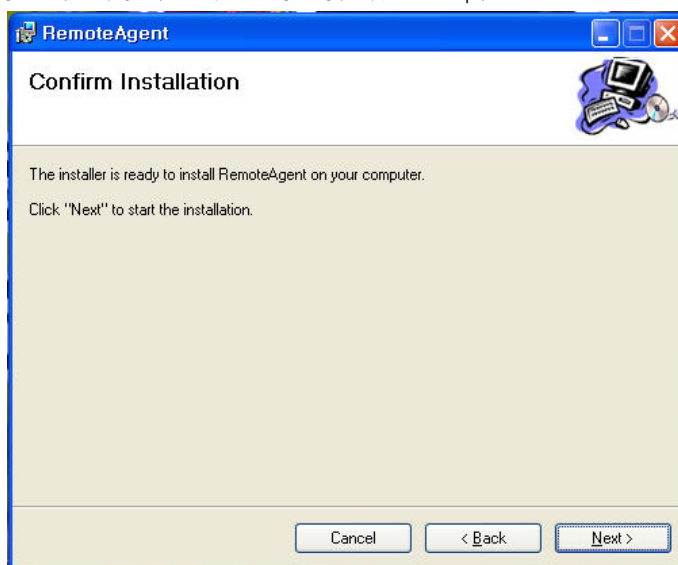
- ① Main Board (CPU): Pentium-500(Minimum), Pentium 4 recommend
- ② OS: Higher than Windows 2000, DirectX 7.0A
- ③ Memory (RAM): More than 128 M
- ④ VGA: Graphic card that support the DIRECT-X
※IMM4 Codec (When Playback Backup File)

• DVR Remote Agent Install

- ① Open CD-ROM Drive and Run 'ragent_v1.0.0.0-0.0.0.0.exe' then Appear Setup Menu.

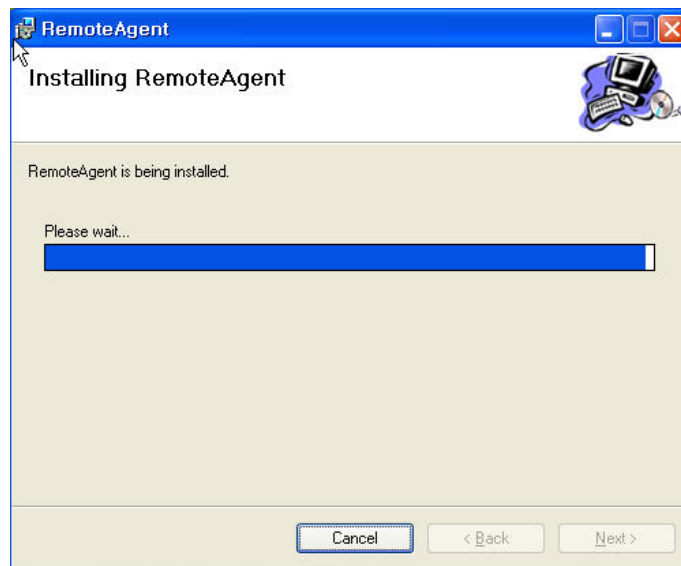


- ② Close All Running Software and Press Next to Move Next Step.

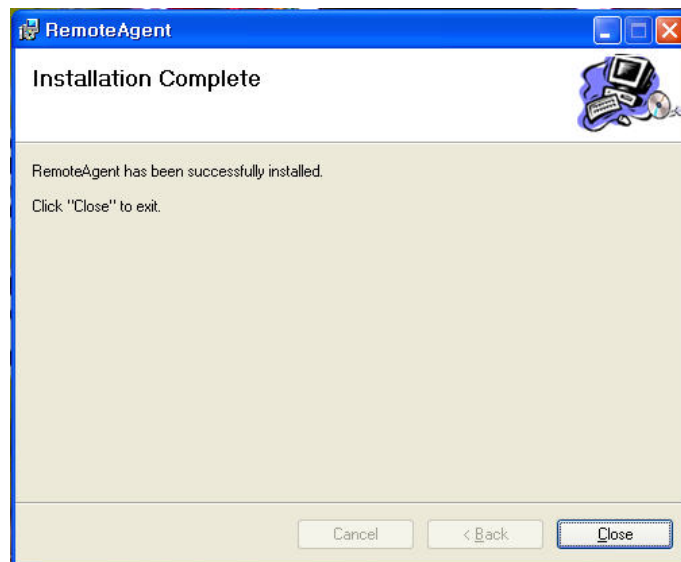


1. INSTALLATION

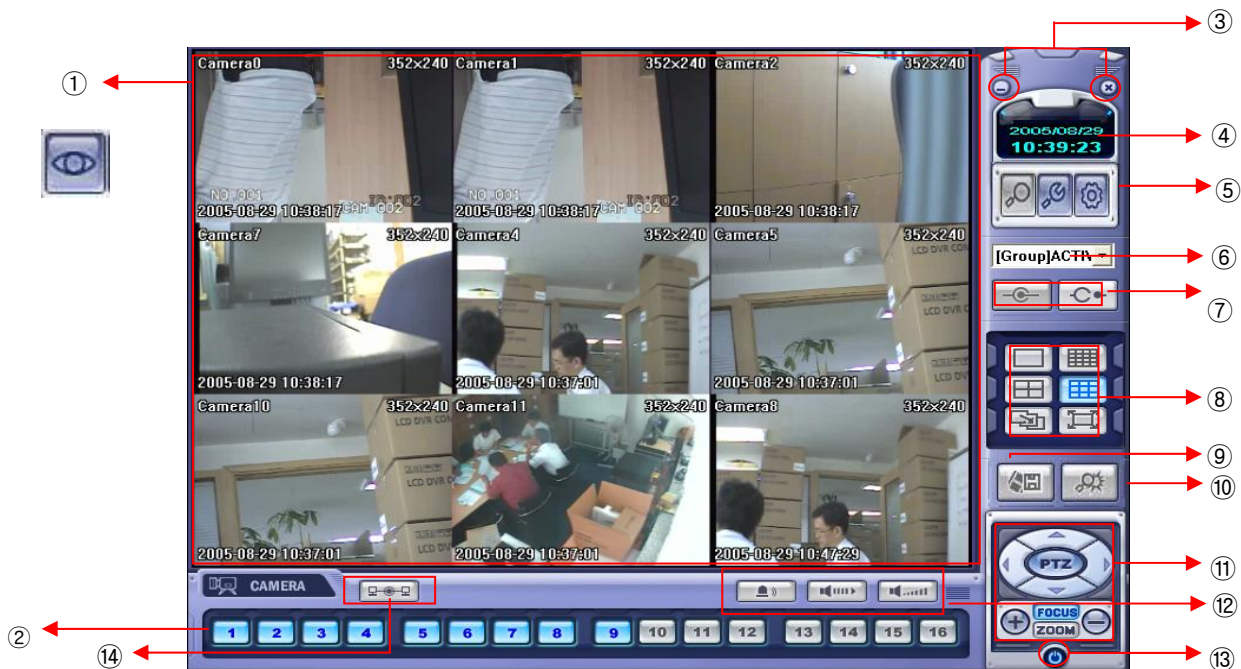
- ③ Showing Progress of Copy of Files.



- ④ Finish DvrRemoteAgent Program Installation.



2. Function introduction



- ① Main Screen Image : Showing Present Surveillance Camera Image.
- ② Camera Selection Button : Indicate Connected Camera No. & Select Image to Click Camera No.
- ③ Hidden/Exit : Hide DVR Client Window or Exit Program.
- ④ Time Output : Showing Present Time & Date.
- ⑤ SEARCH : Move to Search Mode to Play Video.
Local/DVR SETUP : Move to Setup to Change Network Setup or Option.
- ⑥ DVR Selection : Select I/D to Connect Server.
- ⑦ Connect : Connect DVR.
Disconnect : Disconnect from DVR.
- ⑧ Screen Division Selection : Change Screen Division Mode.
- ⑨ Save by AVI file : Transmission Live Image Save by AVI File.
- ⑩ Event viewer : Showing Present Event in Server & Find Image.
- ⑪ PTZ Control Button : Control Camera PTZ & Focus.
- ⑫ Audio Button and Alarm : Control Two Way Audio & Mute and Alarm On/Off.
- ⑬ Quit : Exit DVR Client.
- ⑭ Connection Status: Showing the connected DVR.

3. Local setup

1. Connect Manager



The screenshot shows the 'Local Configuration' window with the 'Configuration' tab selected. The window is divided into several sections, with numbered callouts 1 through 5 indicating specific areas of interest:

- 1** points to the 'Group' list on the left, which includes 'Site', 'Intellic', and 'shin'.
- 2** points to the 'DVR Information' section, which contains fields for Name, IP, PORT, ID, and PW.
- 3** points to the 'Camera Assign' section, which features a grid for assigning cameras to DVRs.
- 4** points to the 'Event' section, which includes checkboxes for System, Alarm, Video, Record, and In/Out options.
- 5** points to the 'ADD', 'MODIFY', and 'DELETE' buttons at the bottom of the window.

The 'DVR Information' section contains the following data:

Field	Value
Name	shin
IP	00115#0011b.dvr.net
PORT	6200
ID	ADMIN
PW	****

The 'Camera Assign' section shows a grid for assigning cameras to DVRs. The grid has 4 columns for RA (1, 2, 3, 4) and 4 columns for DVR (1, 2, 3, 4). The grid is currently empty, with 'x' marks indicating assignments.

The 'Event' section includes the following settings:

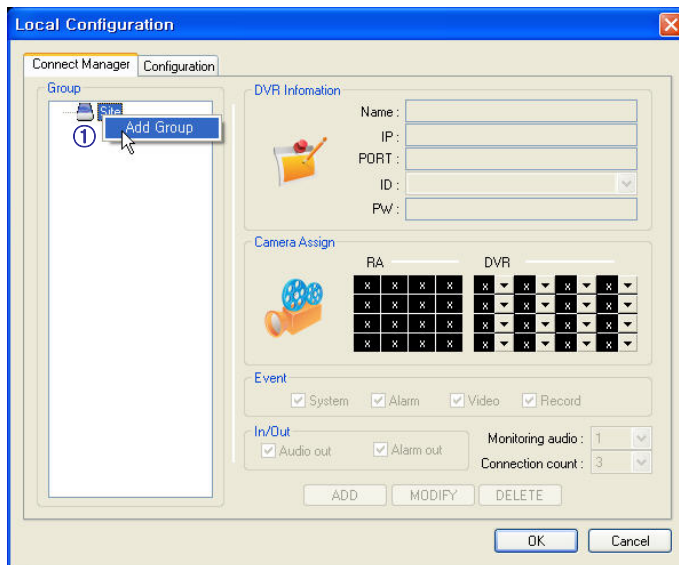
Section	Options	Value
Event	System, Alarm, Video, Record	All checked
In/Out	Audio out, Alarm out	All checked
Monitoring audio	Dropdown	1
Connection count	Dropdown	3

At the bottom of the window, there are buttons for 'ADD', 'MODIFY', 'DELETE', 'OK', and 'Cancel'. A red arrow points from the 'DELETE' button to the number 5.

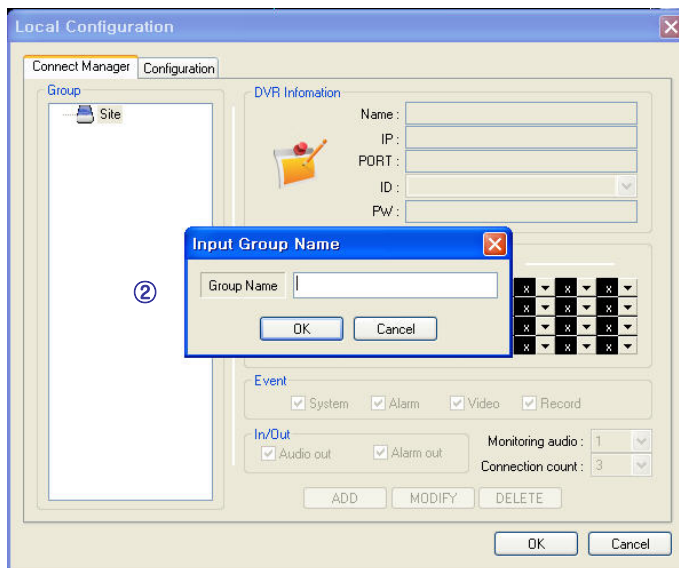
- ① Group & DVR list.
- ② DVR Information.
- ③ Camera Assign : Setup camera.
- ④ Option Check. (Event-system, alarm, video, record & In/Out)
- ⑤ Add, modify, delete group.

3. Local setup

2. Add Group

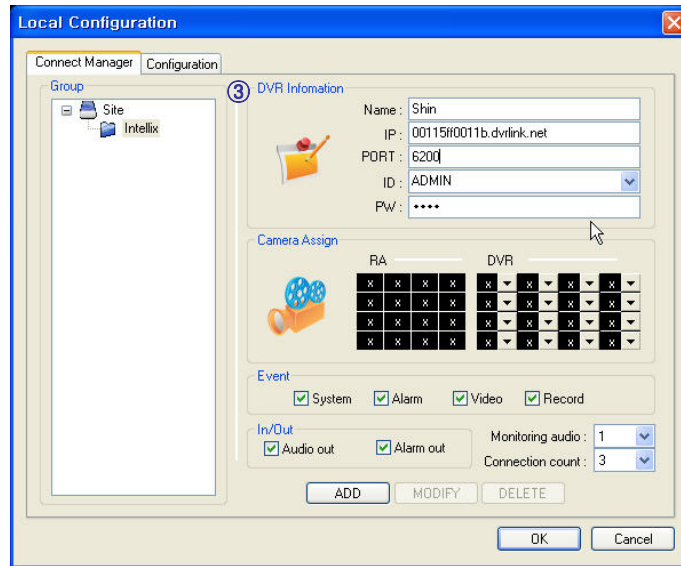


① At 'site' of left upper side, right click the "Add Group".

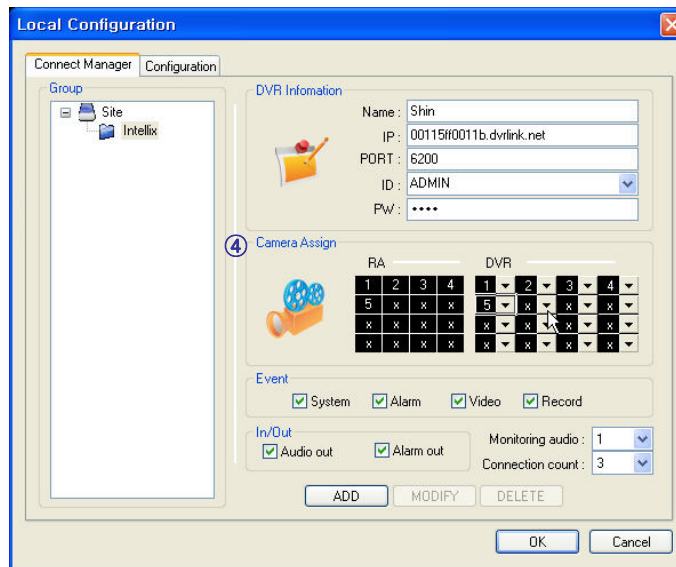


② Input the Group name.

3. Local setup

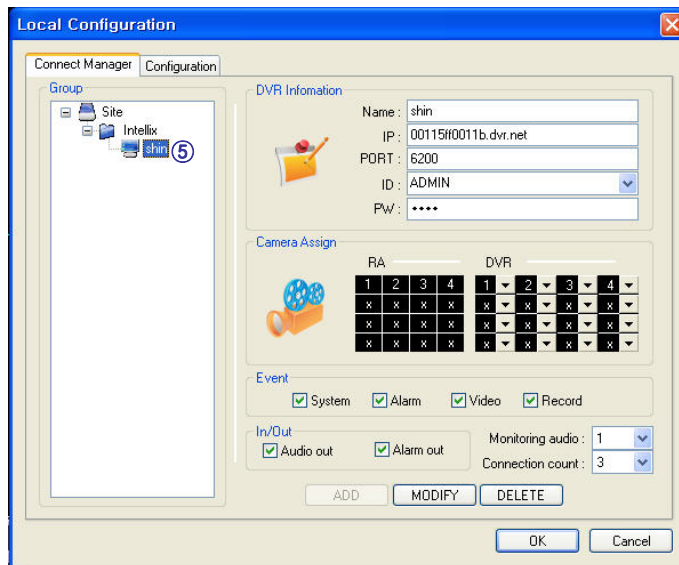


③ Input DVR information .(name, IP, port, ID, PW)



④ Set camera position, check option and press 'ADD'

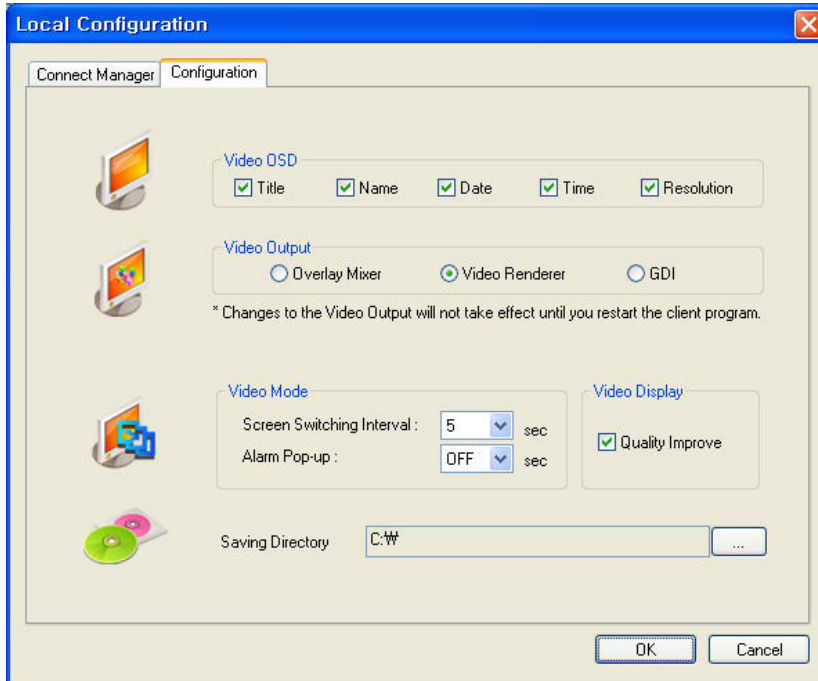
3. Local setup



⑤ New DVR list is shown on the left upper side.

3. Local setup

3. Configuration



- ① Video OSD : Select screen information. (title, name, date, time)
- ② Video output : Select video output method.
 - Overlay Mixer : Output without passing through CPU.
 - Video Render : Output through CPU.
 - GDI : When you cannot see video by upper 2 way, use this way.
- ③ Video mode
 - Screen switching interval : During the monitoring, select screen rotation interval time(2~300sec.)
 - Alarm pop-up : Pop-up time of alarm happened channel on (2~60sec.) /off.
- ④ Saving Directory : Designate remote PC backup image saving folder.

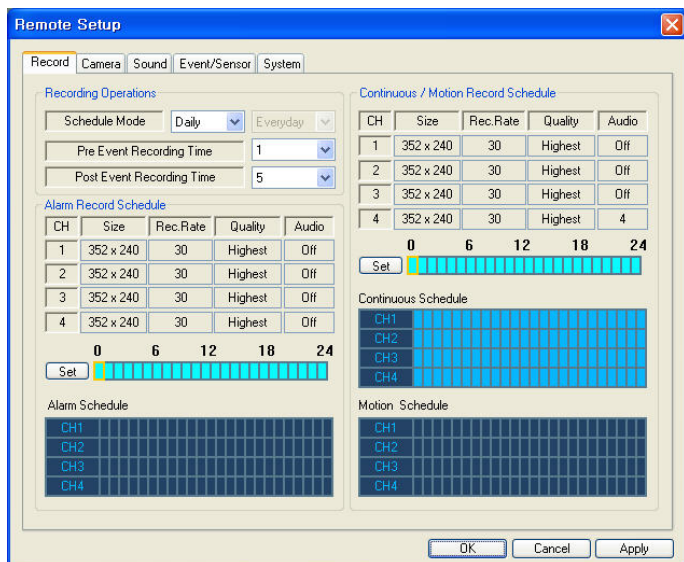
4. DVR setup

Press  button, select DVR name, and press Select.



A dialog box titled "Checking Authority" with a close button (X) in the top right corner. It contains three input fields: "DVR Name" with the text "manse", "User ID" with the text "ADMIN", and "Password" which is empty. Below the input fields are two buttons: "OK" and "Cancel".

Password Input Window Open, then input password.



A complex dialog box titled "Remote Setup" with a close button (X) in the top right corner. It has several tabs: "Record", "Camera", "Sound", "Event/Sensor", and "System". The "Record" tab is selected. It contains several sections:

- Recording Operations:** Includes "Schedule Mode" (Daily/Everyday), "Pre Event Recording Time" (1), and "Post Event Recording Time" (5).
- Continuous / Motion Record Schedule:** A table with columns CH, Size, Rec.Rate, Quality, and Audio. It shows settings for 4 channels.
- Alarm Record Schedule:** A table with columns CH, Size, Rec.Rate, Quality, and Audio. It shows settings for 4 channels.
- Continuous Schedule:** A grid for scheduling continuous recording.
- Motion Schedule:** A grid for scheduling motion recording.

 At the bottom are "OK", "Cancel", and "Apply" buttons.

1. Record

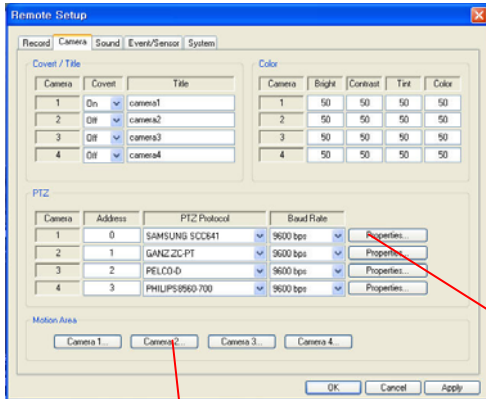


A dialog box titled "Record Properties" with a close button (X) in the top right corner. It contains a table with columns: Camera, Size, Rec.Rate, Quality, and Audio. The table has 4 rows, each representing a camera channel (01 to 04). Below the table is a label "3 Frames Available" and two buttons: "OK" and "Cancel".

- Record Operations
 - Schedule Mode: Weekly or Daily.
(When weekly mode, setup each day.)
 - Pre Event Recording Time: When event happen, record image including setting time before event happened.
(0 ~ 5 Second)
 - Post Event Recording Time: When event happen, record image including setting time after event happened.
(5 ~ 180Second)

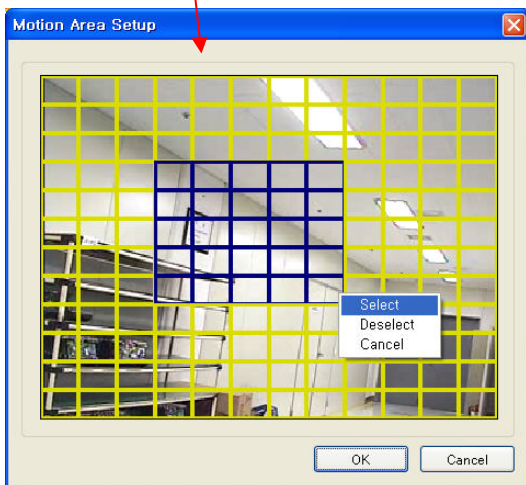
- Alarm Recording Schedule
 - Click the "Set" Button for Alarm Recording.
 - Setup size, rec. rate, quality, audio.
- Continuous/Motion record Schedule
 - Click the "Set" Button for Continuous/Motion record Schedule.
 - Setup size, rec. rate, quality, audio.

4. DVR setup



2. Camera

- Status/Title Setup
 - Setup for Each Camera (Covert function On/Off, Camera Name).
- Color Setup
 - Setup Color for Each Screen.
- Covert/PTZ Setup
 - Setup for Each Camera PTZ Protocol, Baud rate.



- Motion Area
 - Click the “Camera” Button.
 - Select area by mouse drag, and Choose menu (Select/Deselect/Cancel).

- Click the “Properties” button.
- Setup about PTZ camera.



3. Sound

- Live Audio Setup
 - Live Audio : On/Off.
 - Audio monitoring channel : Select channel.
 - Network Audio TX : Choose the Audio transmission.
 - Network Audio RX : Choose the Audio receive.

4. DVR setup

4. Event / sensor

The screenshot shows the 'Remote Setup' window with the 'Event/Sensor' tab selected. The window is divided into several sections: 'Alarm Input', 'HDD Event', 'Alarm Out', 'Buzzer Out', and 'E-mail Notification'. Each section contains various settings for channels 1 through 4.

Alarm Input		
Alarm	Operation	Type
1	Enabled	N/Open
2	Enabled	N/Close
3	Disabled	N/Open
4	Disabled	N/Open

HDD Event	
Smart Alarm	Off
Temperature	90
Polling Time	24

Alarm Out	
Alarm	1 2 3 4
V-Loss	1 2 3 4
Motion	1 2 3 4
Disk Event	Off
Operation	Off
Mode	Latched
Type	Low
Duration	5 sec

Buzzer Out	
Alarm	1 2 3 4
V-Loss	1 2 3 4
Motion	1 2 3 4
Buzzer	Off
Duration	5 sec
Disk Event	Off
Key Pad	On
Remote Ctrl	On

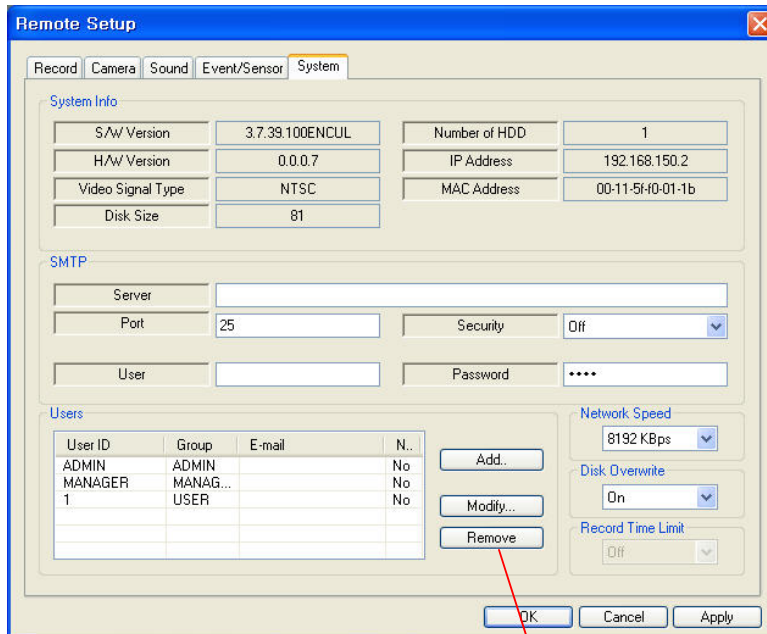
E-mail Notification	
Alarm	1 2 3 4
V-Loss	1 2 3 4
Motion	1 2 3 4
Disk Event	Off
Notification	Off

Buttons: OK, Cancel, Apply

- Alarm Input
 - Setup for Each Channel Alarm Connection & Type.
- Alarm Out
 - Setup each channel when alarm, video loss, motion are happened.
 - Disk Event: Alarm On/Off when HDD has the problem.
 - Operation: Setup Relay Connect with Alarm Sensor.
 - Mode: Setup Reacted Relay as Latched/Transparent Mode.
 - Type: Setup Relay Type N/Open or N/Close.
 - Duration: Setup Reacted Relay Time. (5sec~5min or Until key-in)
- Buzzer out
 - Setup each channel when alarm, video loss, motion are happened.
 - Buzzer: On/Off
 - Duration: Buzzer time(5sec~5min or Until key-in).
 - Disk Event: Buzzer On/Off when HDD event happen.
 - Keypad : Setup Key Input Sound.
 - Remocon: Setup remote controller Input Sound.
- HDD Event
 - Smart Alarm: On/Off.
 - Temperature: HDD Temperature.
 - Polling Time: HDD Checking Time.
- E-mail Notification
 - If happen the alarm, video loss, motion and HDD event, setup the notification at the E-mail.
 - Disk Event: E-mail notification On/Off when HDD event is happened.
 - Notification: On/Off.

4. DVR setup

5. System



The 'Remote Setup' window has the 'System' tab selected. It contains three main sections: 'System Info', 'SMTP', and 'Users'. The 'System Info' section has fields for S/W Version (3.7.39.100ENCUL), H/W Version (0.0.0.7), Video Signal Type (NTSC), Disk Size (81), Number of HDD (1), IP Address (192.168.150.2), and MAC Address (00-11-5F-01-1b). The 'SMTP' section has fields for Server, Port (25), Security (Off), User, and Password (masked with dots). The 'Users' section has a table with columns User ID, Group, E-mail, and N.. The table contains three rows: ADMIN, MANAGER, and 1. The 'Add...' button is highlighted with a red arrow. Other buttons include 'Modify...' and 'Remove'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

User ID	Group	E-mail	N..
ADMIN	ADMIN		No
MANAGER	MANAG...		No
1	USER		No

- System Info
 - Possible to Watch DVR System Status.
- SMTP
 - Setup the mail server and user's E-mail.
- Users
 - Setup the Users.
 - Click the "Add" or "Modify" button.
- Disk Overwrite
 - Setup DVR HDD Overwrite On/Off.
- Network Speed



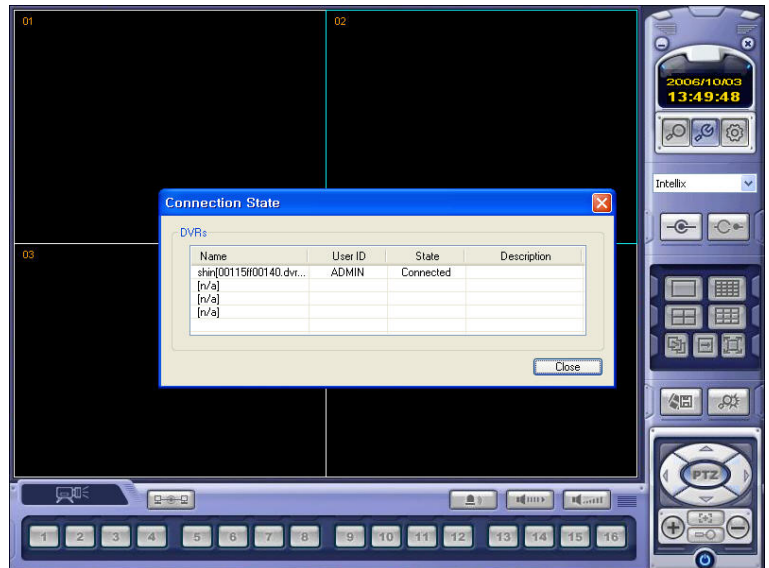
The 'Add / Modify User ID' dialog box has fields for User ID, Group (set to USER), E-mail, Notification (set to No), Password, and Confirm Password. At the bottom are 'OK' and 'Cancel' buttons.

5. Monitoring

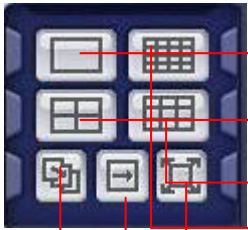
1. Selection Network ID



- Select I/D to Connect Server.
- I/D can be Add, Change, and Delete at Setup.



2. Screen Division Selection



- 1*1 View : Showing One (1) Video which User Selected.
(Selection Video by Camera Selection Button)
- 4*4 View : 4 Screen Division Mode.
- 9*9 View : 9 Screen Division Mode.
- 16*16 View : 16 Screen Division Mode. (Only in 16ch product)
- Auto switch : Screen Mode Showing One by One (Same at division mode)
- Manual switch : Screen Mode Showing One by One by click manually.
- Full Screen View : Present Video Move to Full Screen Mode.
Mouse Double Click when Return Previous.

*Mouse Double Click Make the Same Function as Full Screen.

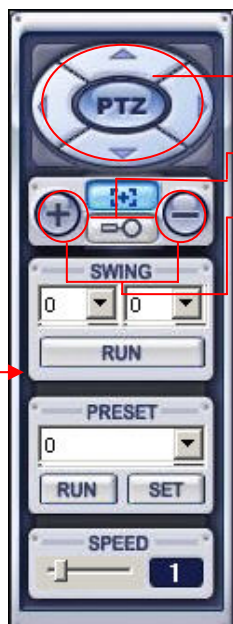
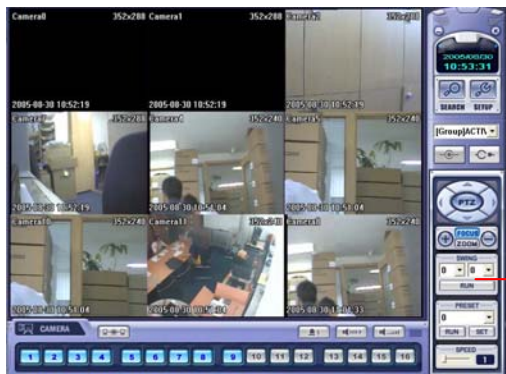
Tip

- ※ Multi DVR Client
- 4EA DVRs can be control the live view, search the data, backup data and setup about each channel at the same time.

5. Monitoring

3. P/T/Z Control

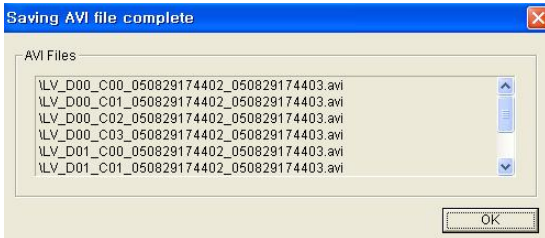
- Press the PTZ Button.



- P/T/Z Controller : Camera P/T/Z Control by Direction Keys
- FOCUS/ZOOM Select Button : Focus or Zoom Control by +,- Button
- +,- Control Button : Focus or Zoom Control

5. Monitoring

4. AVI File Conversion



• Click AVI Conversion Button to Start AVI File Conversion.

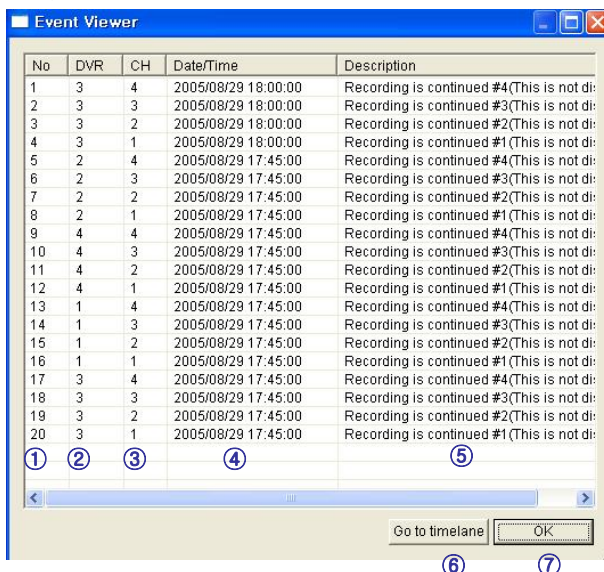
• During AVI Conversion Showing a Message and before Click 'Stop' Save AVI File continuously .

• 'Press 'Stop' to Open Designate File Name & Saving Location, and Save AVI File.

• Saved AVI File can Open Ordinary Moving Picture Player or Backup Player.

• Moving Picture Player Codec Version Need Higher than Divx 5.1 & IMM4 Codec.

5. Event Viewer



① Indicate Event Occurred Order No.

② Indicate Event Occurred DVR No.

③ Indicate Event Occurred Camera No.

④ Indicate Event Occurred Time & Date

⑤ Indicate Event Detail Description

⑥ After Select Event, Move Search Bar in Search Mode

⑦ Return to Search Main to Play Selected Event Image

6. Search

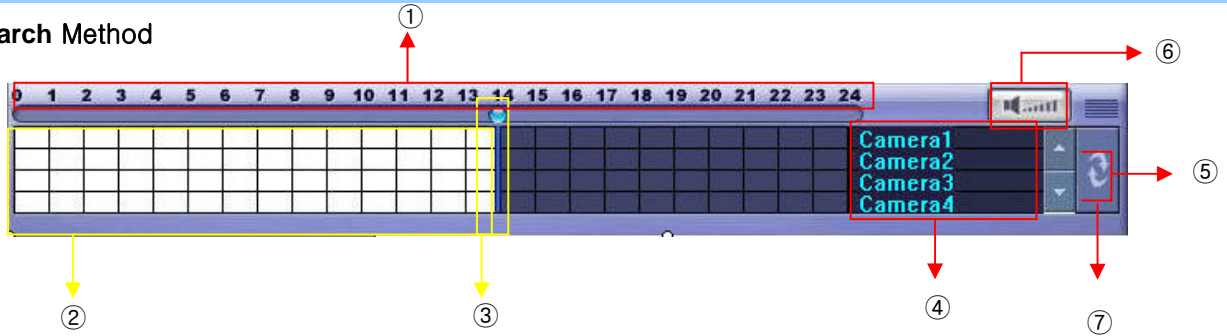
1. Function Introduction



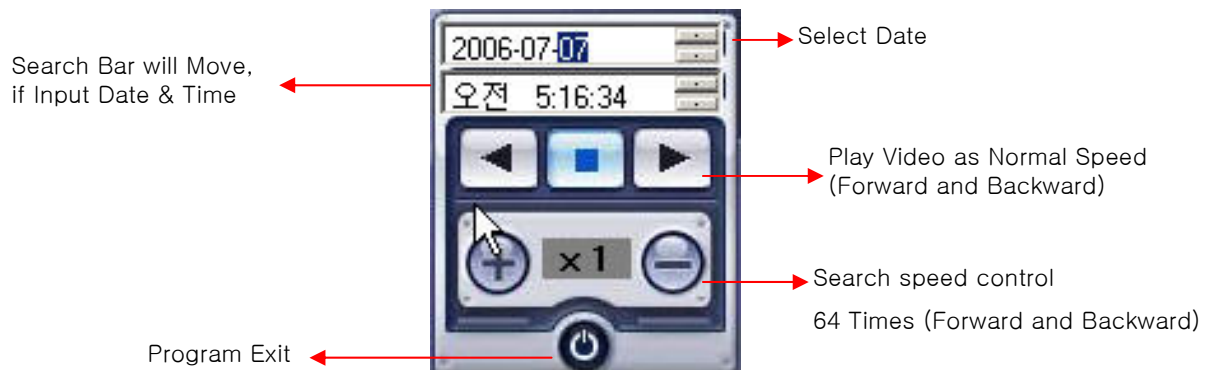
- ① Search Screen : Playing Selected Video.
- ② Search Bar : Search & Indicate Camera Recording Situation by Time Bar .
- ③ LIVE : Return to Watch Mode.
SETUP : Open Setup to Change Network Setup or Option.
- ④ Screen Division Selection : Change Playing Screen Division Mode .
- ⑤ SEARCH Option : Backup Video or Search Event.
- ⑥ Camera Selection Button : Select Camera at the 1*1 View .
- ⑦ Quick Search : Find Image to Designate Date & Time.
- ⑧ Search Controller : Control Playing Video.

6. Search

2. Search Method

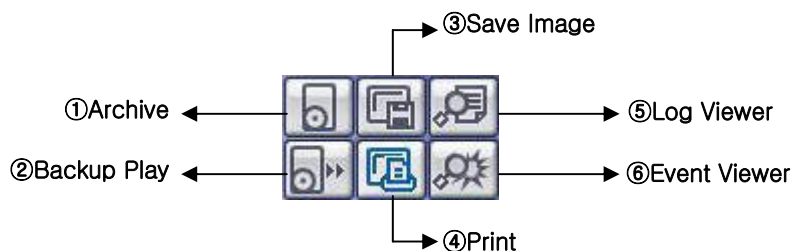


- ① Indicate 0~24 Hour.
- ② Indicate Recording Situation (Grey : No Record, White : Recorded Image at the Time).
- ③ Search Bar : Select Video to Drag Mouse Search Controller in Recorded Area.
- ④ Indicate Camera Channel to Confirm Camera Recording Situation.
- ⑤ If Connected Channel is 5 or More, Another Channel will be Scroll.
- ⑥ Volume : Setup volume.
- ⑦ Refreshment Recording Information Situation Window by Camera Channel.

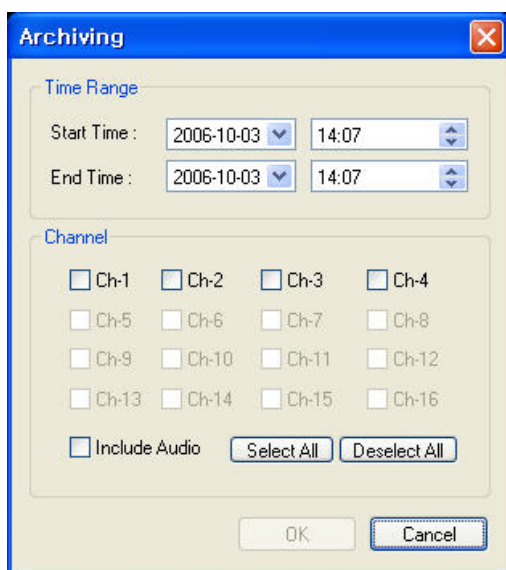


6. Search

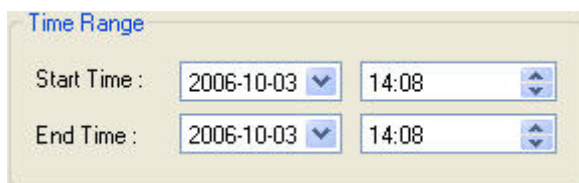
3. Search option



① **Archive** – Backup Image from Server to Remote PC.



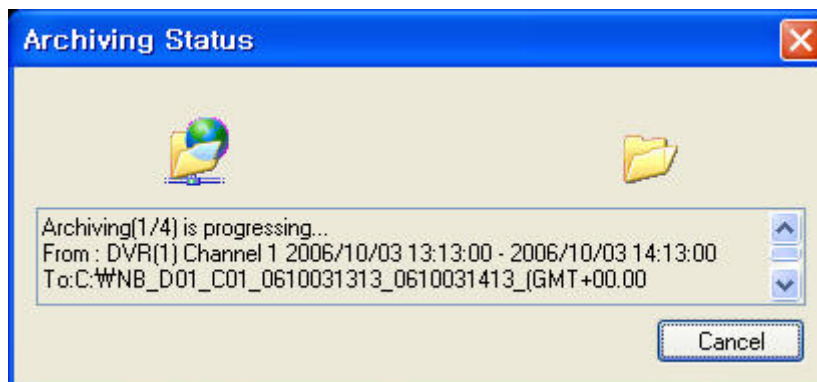
- Time Range



Designate Backup Image Data Length to Input Start Time & End Time.

- Channel : Check Camera Channel for Backup.
- Include Audio : Check Audio Including when Backup.
- Select All
Deselect All

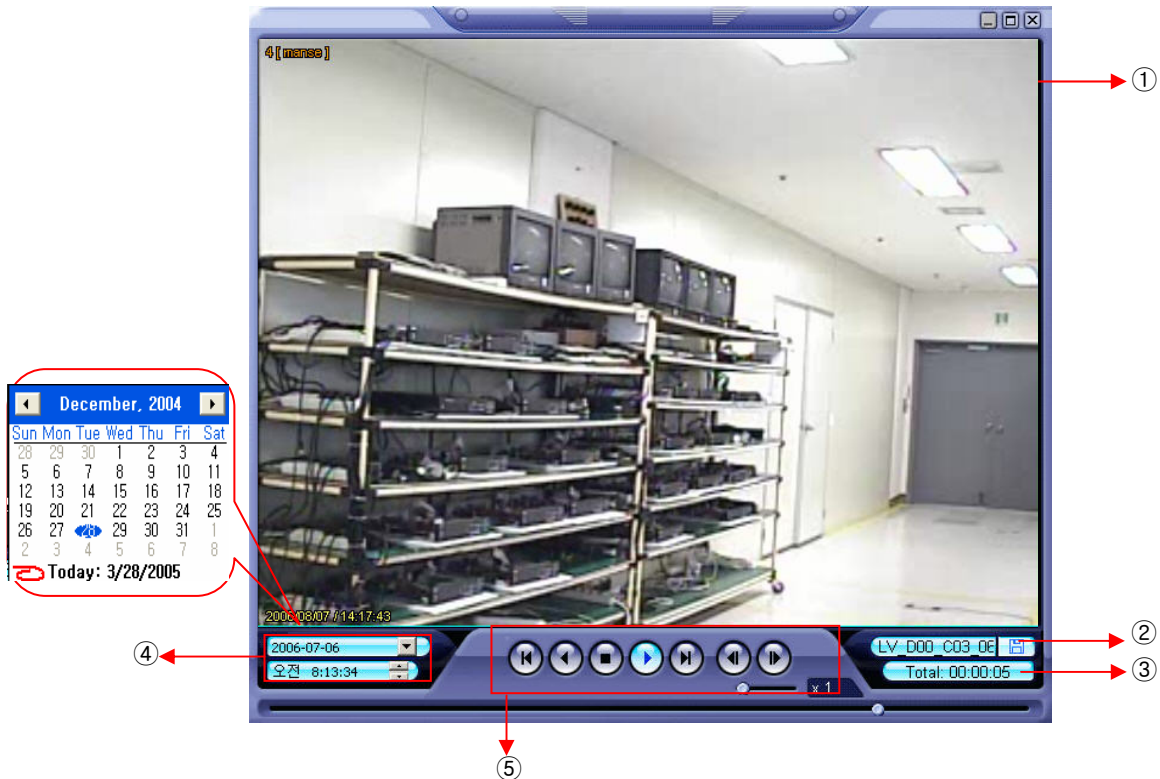
- Press OK to Open Backup Status & Start Backup.



- When Finish Backup, Back Status Window Disappear & Backup Data Save at Hard Disk Root Folder in Remote PC.

6. Search

② Backup Play (DVR Player) – Transfer to DVR Player



① Showing Image (Possible to Only 1*1View Mode).

② Backup File Open to Play First Video.

Ex. : ch02_04131730_04131735.rec (Backup File for # 2 ch. Apr.13, 17H30M ~17H35M)

③ Indicate total playing time.

Total: 00:02:00

④ Indicate Present Time & Date and Possible to Search Time & Date.

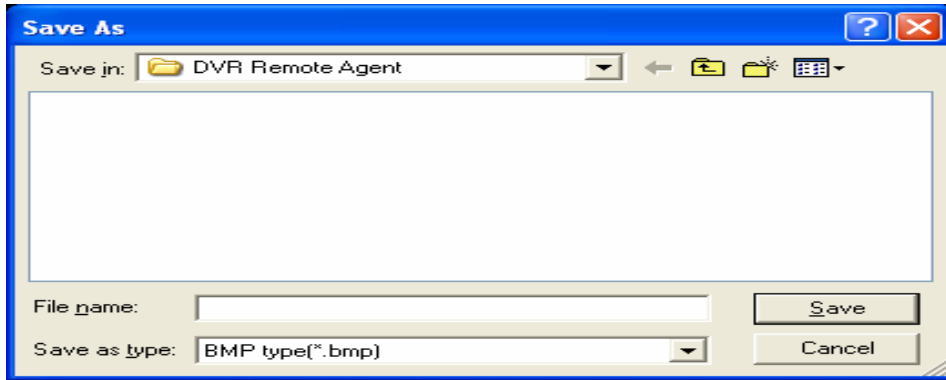
⑤ Search Controller, the Same Way of Previous Search.

Tip

- Backup Play Setup in Search Mode is the Same as DVR Player, so it can be Run Independently without Running Remote Program.
- Backup Player & Ordinary Moving Picture Player Possible to Playback, Real Time AVI Backup File can Display as the Same Format.

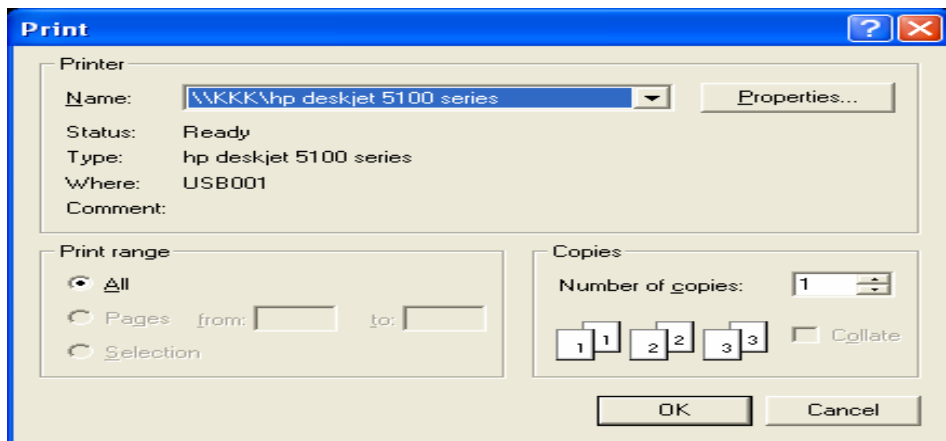
6. Search

③ **Save Image** – Capture Image & Saving Image at Hard Disk or Removable Disk.



- Click 'Save Image' Icon During Playing Video.
- Designate File name, File Type (JPG,BMP), and Location and Press Saving.
- Conversion and Saving Image from Remote Viewer.

④ **Print** – Present Image Capture and Print Out Image.



- During Play Video, Click 'Print Image' .
- After Selecting Printer, Start Image Printing.
- Print Out Remote Viewer Image.

6. Search

⑤ Log Viewer – Find Video Centering around Event Log at DVR.

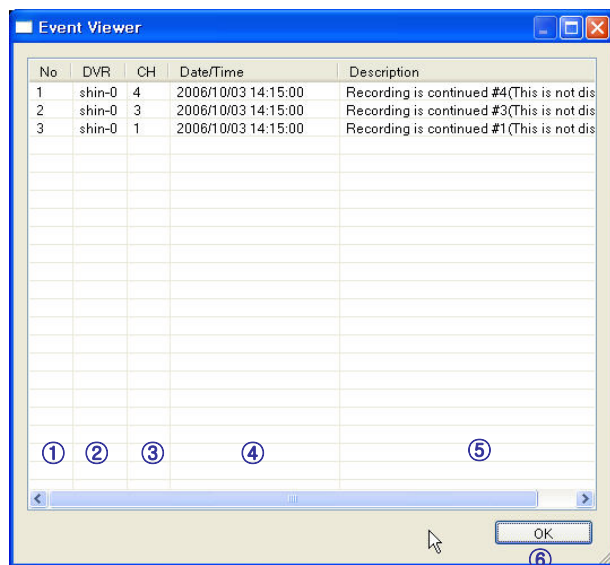
The screenshot shows the 'Search Log' window. It has a title bar with standard window controls. The window is divided into several sections:

- Search Range:** Contains 'Start Time' and 'End Time' fields. Both are set to '2006-10-03' for the date and specific times (13:16:35 and 14:17:35) for the time. A red arrow labeled ① points to the Start Time date field.
- Search condition:** Contains four checkboxes: 'Alarm', 'Motion', 'Timer', and 'System'. All are checked. A red arrow labeled ② points to the 'Search' button.
- Table:** A table with columns 'No', 'CH', 'Date/Time', and 'Description'. It contains four rows of data. Numbered callouts ③, ④, ⑤, and ⑥ point to the 'No', 'CH', 'Date/Time', and 'Description' columns respectively.
- Bottom Controls:** Includes navigation buttons '<<', '>>', and a dropdown menu showing '1'. There are also 'Go to timeline' and 'OK' buttons. Red arrows labeled ⑦, ⑧, ⑨, ⑩, and ⑪ point to these buttons respectively.

- ① Input Start Time and End Time at the Selected Date to Search Event.
When Press Search Button, Event Output at the Below Window.
- ② Choose the conditions for searching the log.
- ③ Indicate Event Log Order No. (Max Event Log No. of 1 Page is 100)
- ④ Indicate Event Occurred channel.
- ⑤ Indicate Event Occurred Time & Date.
- ⑥ Indicate Event Detail Description.
- ⑦ Move to Previous Page.
- ⑧ Move to User Select Page.
- ⑨ Move to Next Page.
- ⑩ After Select Event, Move Search Bar in Search Mode.
- ⑪ Return to Search Main to Play Event Image.

6. Search

⑥ Event Viewer- Showing Present Event in Server & Find Image

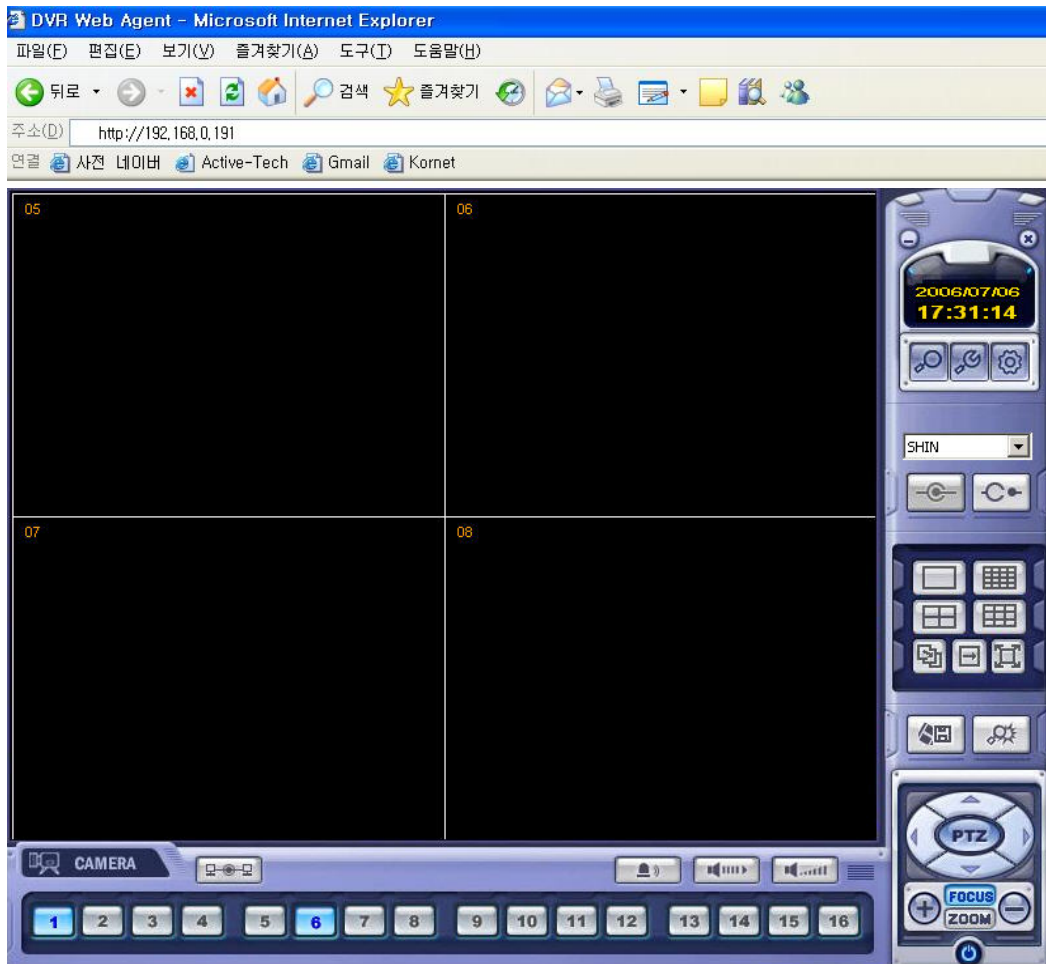


- ① Indicate Event Occurred Order No.
- ② Indicate Event Occurred DVR No.
- ③ Indicate Event Occurred Camera No.
- ④ Indicate Event Occurred Time & Date
- ⑤ Indicate Event Detail Description
- ⑥ Return to Search Main to Play Selected Event Image .

7. Web client

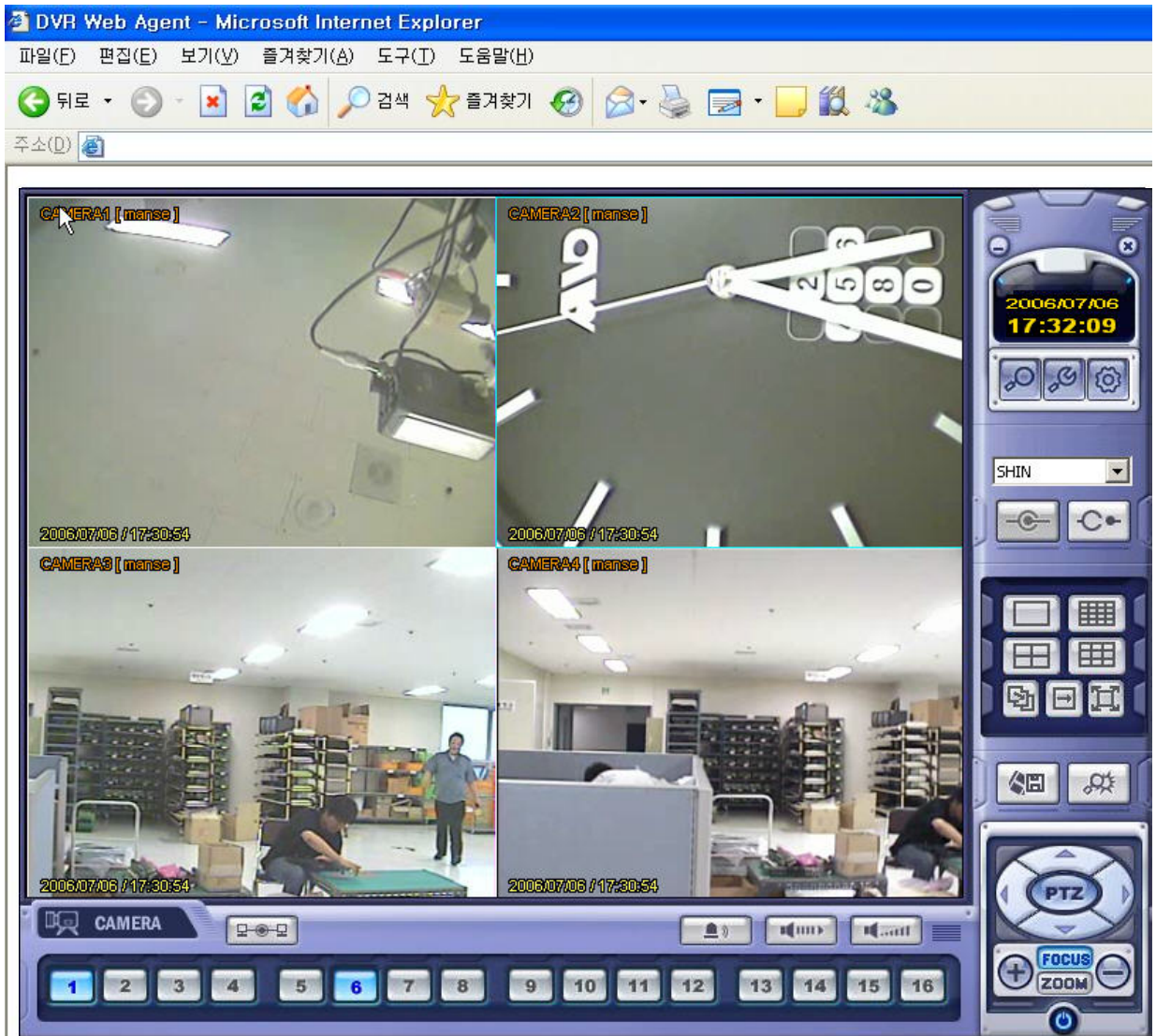
• WEB Client Connection

- ① Input IP Address or URL for DVR Server at the Internet Explorer Address Input Place.
- ② When Appear Active-X install Message, Please Click Confirm or Continue.



- ③ Showing Web Client Window at Internet Explorer.
- ④ All function is same with Remote Agent.

7. Web client



8. N-CMS S/W Setup

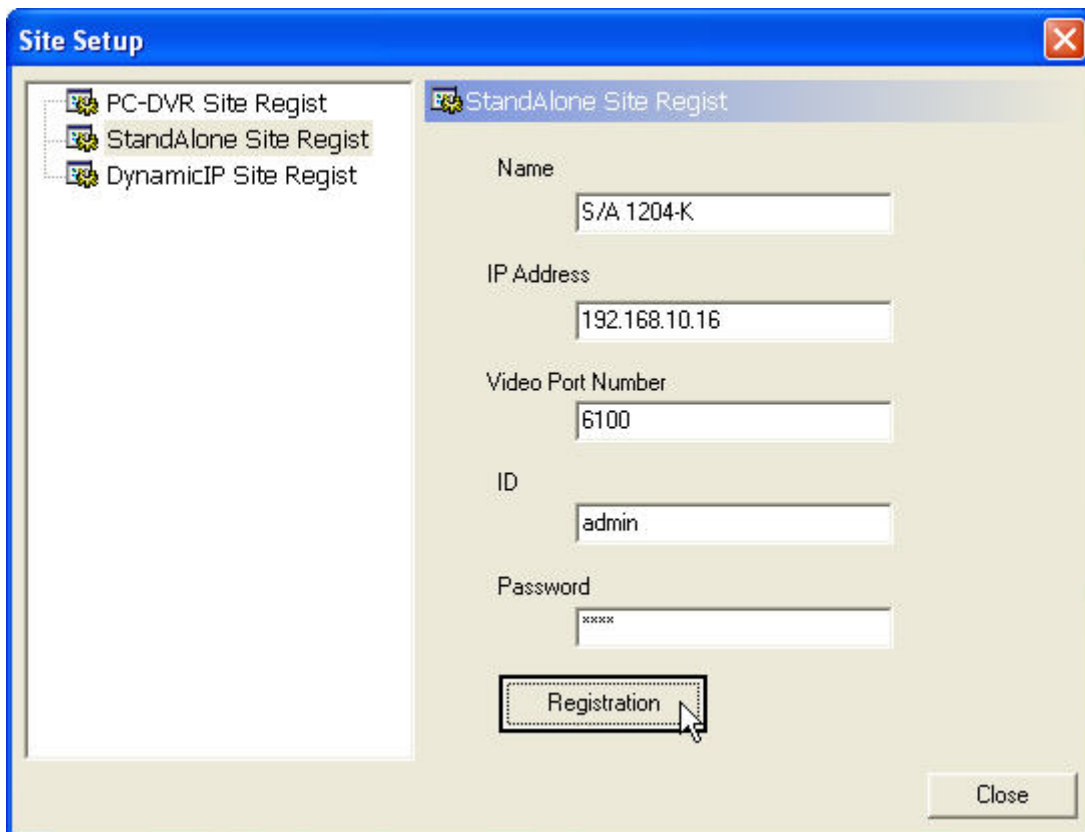
User can connect our Stand Alone with N-CMS (Network Central Management System) S/W and monitor <Live View> with other PC DVR and IP products together like below.

For more details, please refer to N-CMS Manual.
Here we give the instruction for just registering in N-CMS.

※ N.B

- Only Fixed IP supported not Dynamic IP (with Mac

-Video Port Number is “ 6100”



The screenshot shows a 'Site Setup' dialog box with a blue title bar. On the left is a tree view with three items: 'PC-DVR Site Regist', 'StandAlone Site Regist' (which is selected), and 'DynamicIP Site Regist'. The main area on the right is titled 'StandAlone Site Regist' and contains several text input fields: 'Name' with the value 'S/A 1204-K', 'IP Address' with '192.168.10.16', 'Video Port Number' with '6100', 'ID' with 'admin', and 'Password' with 'xxxx'. Below these fields is a 'Registration' button, which is highlighted by a dashed rectangular box and a mouse cursor. A 'Close' button is located in the bottom right corner of the dialog.