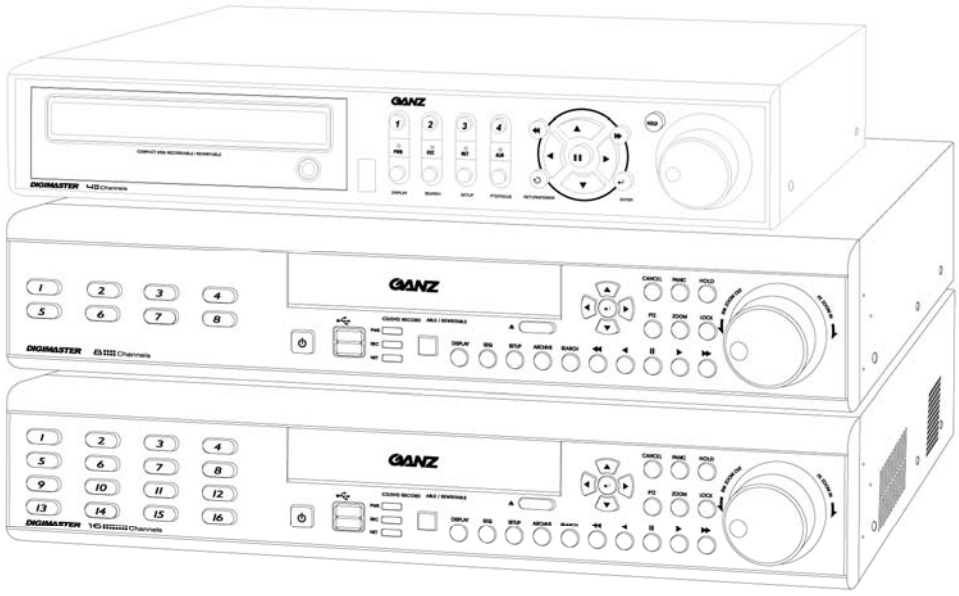
4CH / 8CH /16CH DIGITAL VIDEO RECORDER

DIGIMASTER SERIES

DR4N / DR8N / DR16N
DR4N-CD / DR8N-CD / DR16N-CD

INSTRUCTION MANUAL

Before connecting, operating or adjusting this product,
read this instruction booklet carefully and completely



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Specifications & Organization

1. Specifications

Video standard	PAL/NTSC
Audio	2-way Audio conference
Monitor display	Real time: b25ips (PAL), 30ips (NTSC) per camera
Covert camera operation	Programmable
Event/Log search	Up to 1,000,000 for user login/out, configuration changes, remote access, connects/disconnects
Record Scheduling	Daily, Weekly adjust specific Hr per channel
Remote Access	TCP/IP, View, Search, Recording & Control by Client Program or I.E.
Playback	Up to 16Channel simultaneous playback
Pre/Post alarm recording	5 secs (Pre), 3 mins (Post), programmable per camera
VGA	For monitors with Multi Sync Function only(1024 X 768(60Hz))
Activity detection	16x16 grid, Sensitivity levels: 10
Simplex/Duplex operation	Triplex
Video inputs	4,8,16 x 1Vp-p, CVBS, 75ohms, BNC, looping outputs
Monitor outputs	1 x CVBS/S-VHS, VGA
Spot output	4(2) x 1Vp-p, CVBS, 75ohms, BNC
Audio inputs	4 x line-in, RCA sockets
Audio output	1 x line-out, RCA socket
Resolution	352x240,704x240,704x480(NTSC), 352x288,704x288,704x576(PAL)
Compression standard	MPEG-4
Recording speed	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)
Hard disk capacity	3 X HDD, No limit in capacity
Secondary Storage	USB default (USB memory stick, USB HDD, ODD),DVD/CD-RW (option)
Alarm inputs	4,8,16 x TTL, programmable as NC/NO
Alarm outputs	4,8,16 x TTL
Back-up file formats	AVI, JPG, BMP
Network Speed Control	8 levels

Specifications & Organization

Pre-alarm recording	Up to 5 sec., programmable per camera
OSD languages	English, Spanish, Chinese, Dutch, Portuguese, French, Russian,Japanese, Polish, Romanian, German
Ethernet interface	10/100-Base-TX, RJ-45
Remote Function	Live View, Live Recording, Search, Set-up, Archiving
PTZ Control	RS-485 interface
Supply voltage	100VAC-240VAC, 60/50Hz
Temperature range	5℃ to 50℃
Housing	Steel metal, Front Plastic Mold
Color	Black
Dimensions (HxWxD)	4CH : 36cmX39cmX7cm, 8&16CH : 43cmX46cmX9cm
Weight	4CH : 3.8KGS, 8&16CH : 7.3KGS

The CE Marking is a Directive Conformity mark of the European Union (EU).

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Product Contents List

Please confirm that all product contents are present after opening the package.

① Basic Contents

DR4N

12V Adaptor

DR8N or DR16N Unit

AC Power Cable

Instruction Manual

Remote Controller

Remote Agent Installation CD

AAA Battery x 2

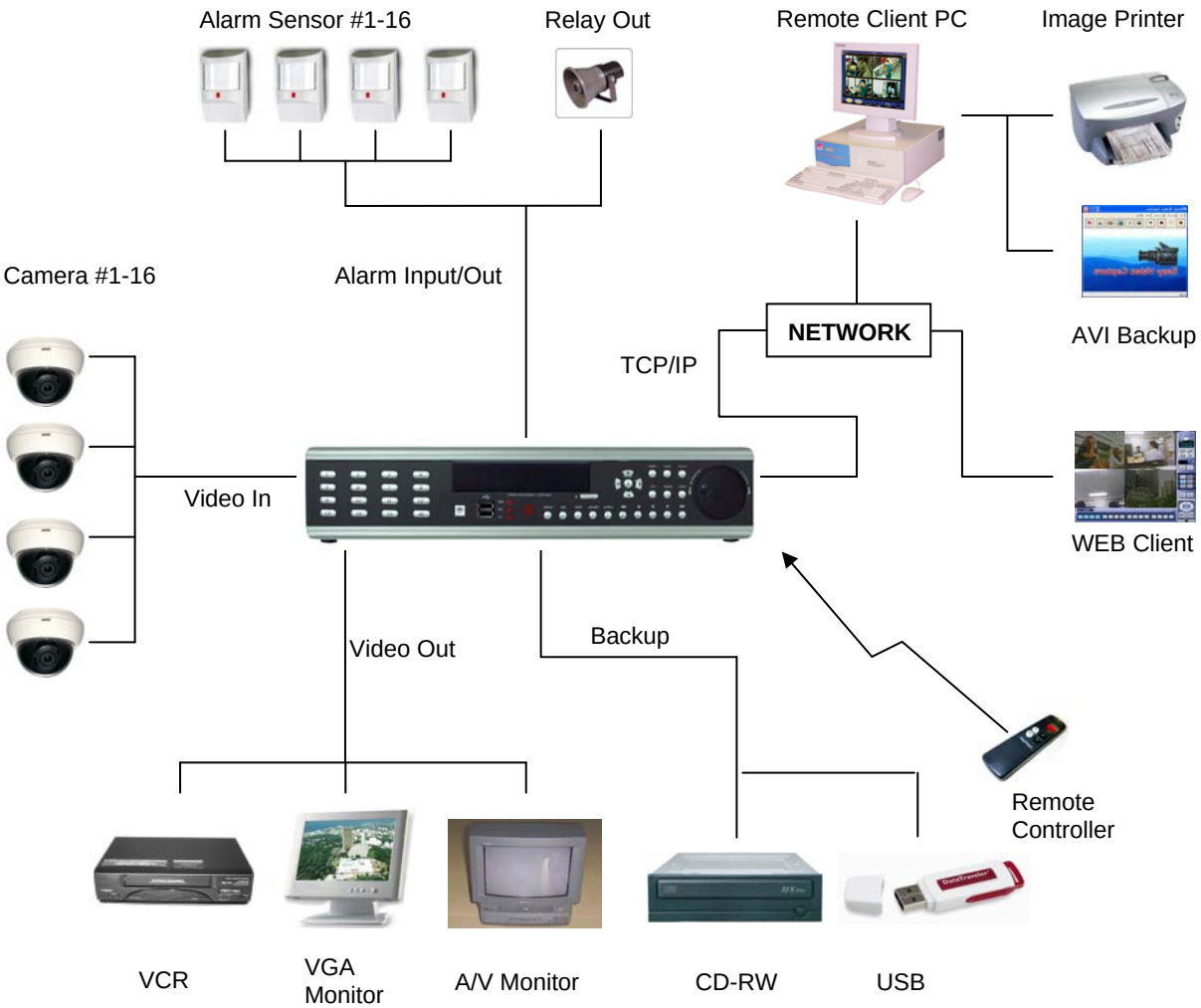
② Optional Contents

Internal Hard Disk Drive

Internal CD-RW Drive

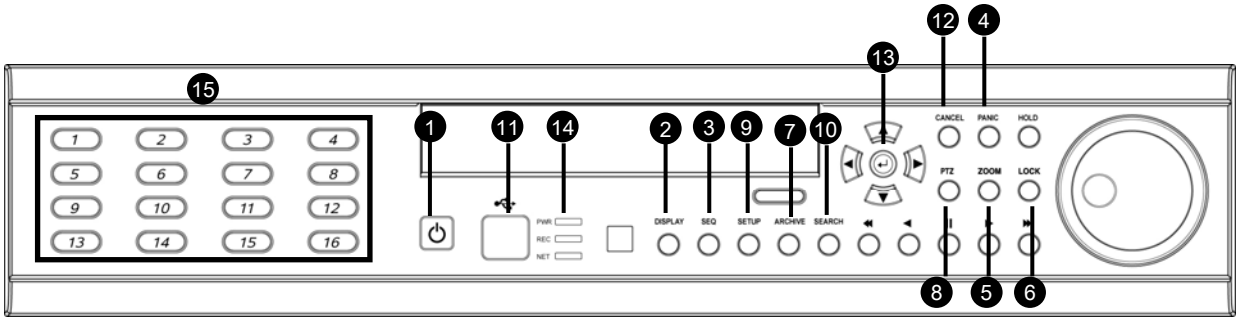
USB Thumb Drive

3. System Organization



Product Description

1. Front Panel (8 &16CH)



① Power : System Power On/Off

② DISPLAY : Select Screen Division Mode or Rotation Mode

③ SEQUENCE : Select Sequence Screen Mode

④ PANIC : Trigger Panic Recording Mode and Panic Relay Output

⑤ ZOOM : Digital Zoom on Live or Playback Image

⑥ LOCK : Front Panel Lock Button

⑦ ARCHIVE : Go to Archiving Menu

⑧ PTZ : Go to Camera PTZ Control

⑨ SETUP : Go to System Setup Menu

⑩ SEARCH : Go to Search Menu

⑪ USB PORT: USB Port for use of a USB Memory Stick and/or USB HDD Backup.

⑫ RETURN : Cancel / Deselect / Return to Previous Screen

⑬ ENTER : Confirm / Select / Next Screen

⑭ LED Indicator : Indicates Present System Status. (POWER, REC, NETWORK)

⑮ Channel Selection Buttons (1~8/16) : Select Channel or Input Password

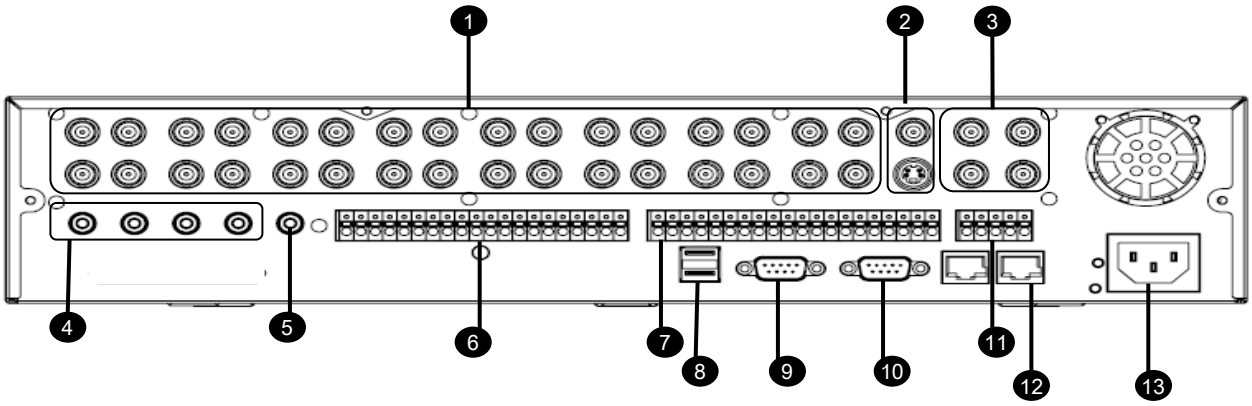
- Directional / Navigation Buttons (UP, DOWN, LEFT, RIGHT, ENTER)
- Remote Controller Input Sensor (IR)
- EJECT : Eject CD/DVD-ROM (Optional)
- ◄◄ / ◄ : Focus Adjust (Near/Far) or Reverse Play / Rewind
- II: Pause Playback
- ► / ►► : Iris Adjust (Open / Close) or Forward Play / Fast Forward
- JOG / SHUTTLE : Outer wheel – variable REW or FF; Inner wheel – scroll frame-by frame while PAUSED.
- HOLD : Hold Current JOG / SHUTTLE Position

Tip

- If the Remote Control IR Sensor is blocked, the Remote Controller will NOT function properly.
- When a button is pressed on the Front Panel or on the Remote Controller, the DVR will beep, unless this feature is disabled from : System Setup → Audio → Buzzer.

Product Description

2. Rear Panel (8 & 16CH)



① Video IN / Loop **:** BNC Video Input Port (1 ~ 8/16), BNC Video Loop Output (1 ~ 8/16)

② Monitor out : BNC Main Monitor Output

SVHS : Output Video by Connected SVHS.

③ Spot #1 ~ #4 : 4/2(8CH) x BNC Output to Individually-Sequenced Spot Monitors

④ Audio In **:** 4 x RCA Audio Line Input Terminal

⑤ Audio Out **:** RCA Audio Line Out Terminal

⑥ Alarm : 8/16 x Input TTL Alarm/Sensor Input Terminal

⑦ Relay : 8/16 x Relay Output Terminal

⑧ USB PORT: USB Port for use of a USB Memory Stick and/or USB HDD Backup

⑨ VGA OUT : VGA Main Monitor Output (to a Computer Monitor)

⑩ RS-232C : Serial Configuration Port for Program Debugging

⑪ RS-485 : Serial Interface for PTZ device connection and control

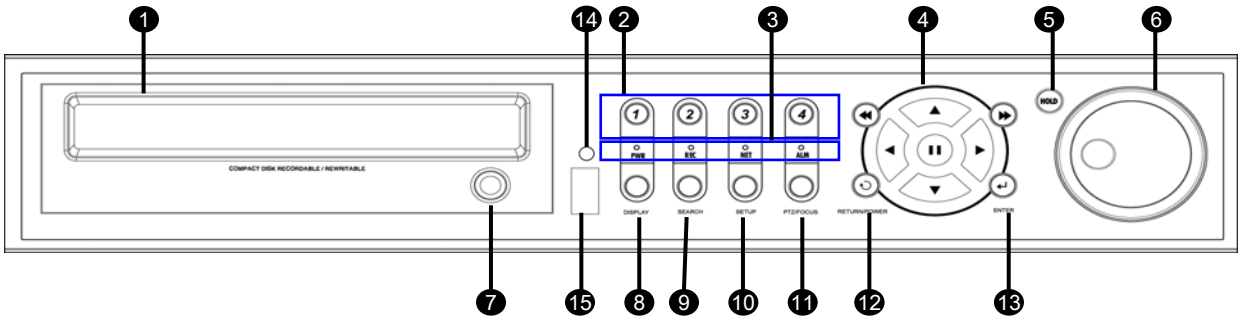
⑫ RJ-45 jack : 10/100 Ethernet LAN/WAN connection (for Remote Access and Configuration)

⑬ AC Power Input

Tip

- When Installing the DVR System, please install components with Power turned OFF.
- Please Use only the provided AC power cord with this DVR system.

3. Front Panel (4CH)



① CD-RW : CD/DVD-RW Device for Backup.

② Channel Selection Button : Select Channel or Input Password.

③ Led Indicator : Indicate Present System Status Information.
(PWR: System On/Off, REC: Record On/Off,

ALARM: Alarm Sensor Detection Status, NET: Client Network Connection Status,)

④ Search Controller : Searching Recorded Data or Control Menu & PTZ/FOCUS.

⑤ HOLD : Hold Jog dial.

⑥ JOG dial

⑦ Eject : Eject CD

⑧ DISPLAY : Select Screen Division Mode or Rotation Mode.

⑨ SEARCH : Go to Search Mode for Searching Data.

⑩ SETUP : Go to System Menu.

⑪ PTZ/FOCUS : Go to Camera PTZ/FOCUS Control.

⑫ RETURN : Cancel Setup or Return to Previous Mode.

⑬ ENTER : Apply Changing Setup.

⑭ Remote Controller Sensor Input.

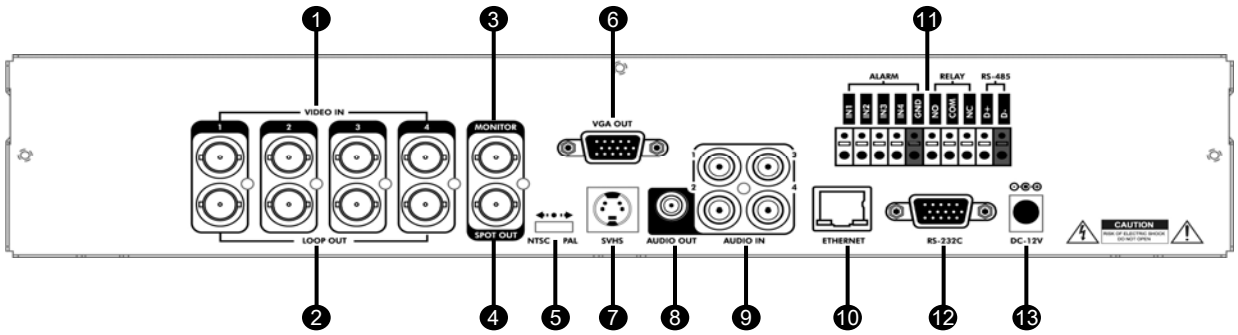
⑮ USB Port: used with a USB memory stick and/or USB HDD for Backup

Tip

- Power is turned OFF within the system GUI, using the Setup -> Shutdown menu.
- Channel Selection Buttons will override the Display Mode.
- The actual appearance of the CD/DVD-RW may differ from the above picture, depending on the model.

SYSTEM CONFIGURE (8CH, 16CH)

4. Rear Panel (4CH)



① Video In : BNC Port for Connection of DVR & Camera. (4 Camera Connectable)

② Loop Back : Output DVR Camera Video to Loop Back Port. (4 BNC Port)

③ Monitor Out : Output DVR Video to AV Monitor.

④ Spot Out : Output Spot-out Video to AV Monitor.

⑤ NTSC/PAL : Select NTSC or PAL Video Format.

⑥ VGA OUT : Output Video to a VGA Monitor.

⑦ S-Video Out : Output Video to a S-Video device.

⑧ Audio Out : Output Audio Data.

⑨ Audio In : Audio Input Terminal Related with #1~4 Camera.

⑩ Ethernet (TCP/IP) : RJ-45 Jack to connect DVR to Ethernet/LAN for Remote Access.

⑪ Alarm/Relay/RS-485 : Connect Port for Sensor, Relay, & PTZ.

⑫ RS-232C : Connect Port for Program Debug.

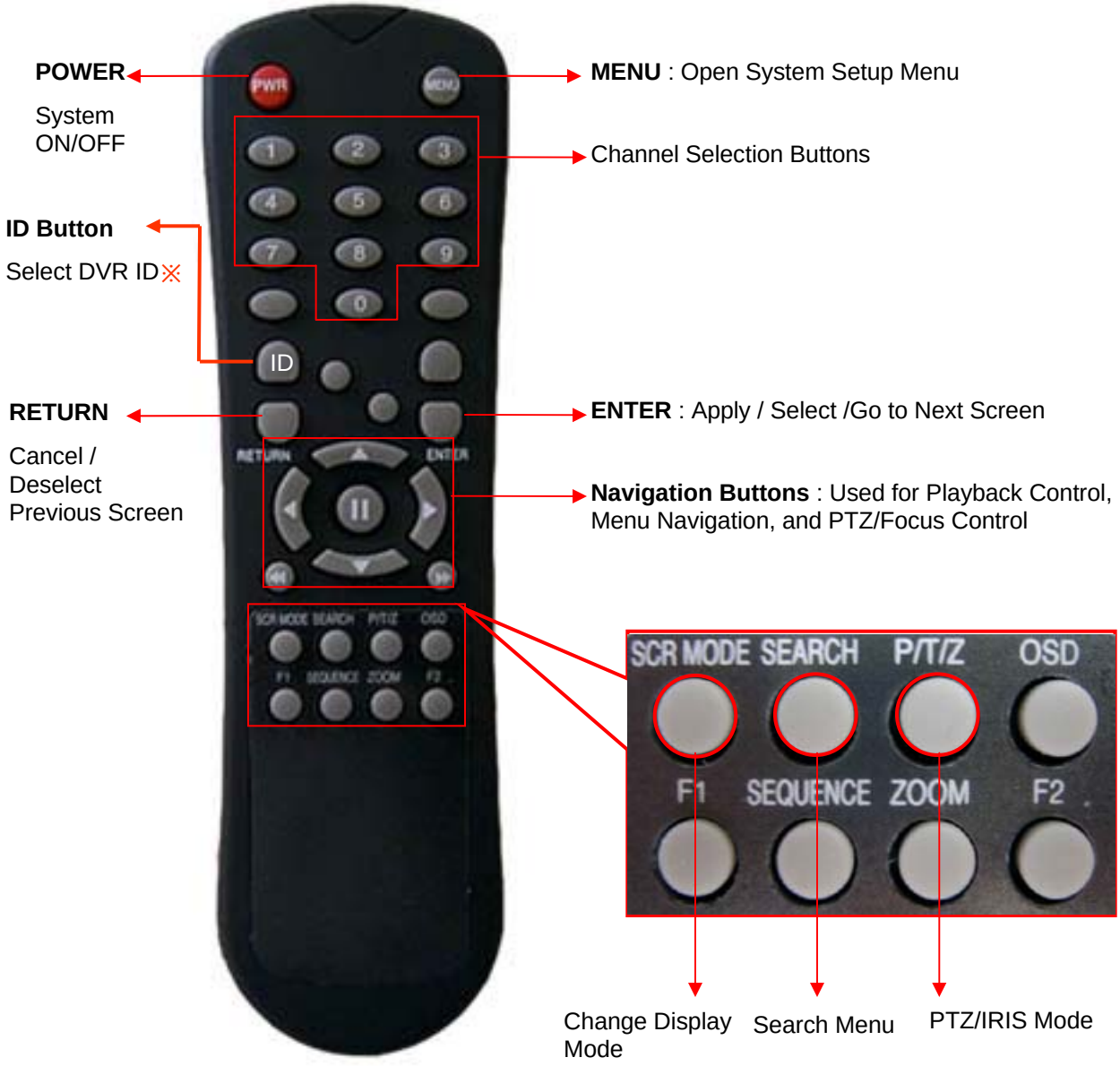
⑬ DC Power Input : Power Supply by DC 12V Adaptor.

Tip

- When Installing the DVR System, please install components with Power turned OFF.
- Please Use only the provided AC power cord with this DVR system.

SYSTEM CONFIGURE – Remote Controller

5. Remote Controller



※ If there are many DVRs on stack, each DVR must be set different ID then Remote controller set each ID on DVR. Can control all DVRs on one Remote controller by each ID.

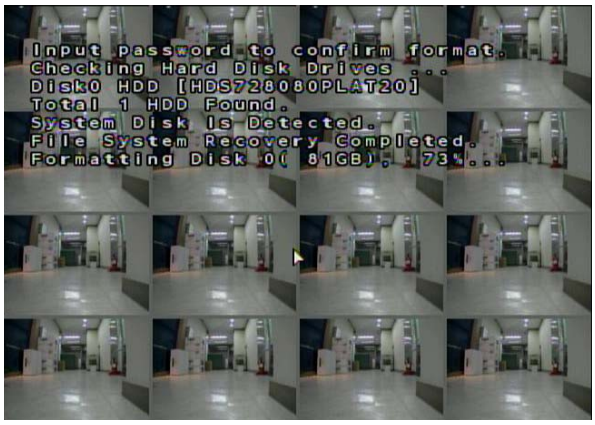
How to set ID on the remote controller

: Press the **ID** button then displayed **INPUT ID** statement.

Press the set ID and Press the **RETURN** button (The default ID is 01). For DVR ID, see the page44.
For returning to the original situation, press the **ID** button again.
And Input the **255** and press the **RETURN** button of remote controller.

CONNECT & POWER ON

- Connect up to 16 **CAMERA INPUTS** as necessary.
  The DVR also has **LOOP OUTPUTS** so that any signals can be fed to other equipment if required.
  Termination is automatically set by the DVR depending on connection type.
- Connect one or more monitors to the DVR using the **COMPOSITE, VGA or S-VIDEO** connections
- Connect power to the DVR. The DVR checks for proper power connection and emits two beeps.
  Press the **POWER BUTTON** on the front panel of the DVR to begin operation.



The DVR startup screen detects and checks the status of hard drives and the CDRW / DVR-RW drive.

After startup diagnostics are complete, the operator must logon to the system. The default user name is 'ADMIN'.

Using the **CHANNEL SELECTION** buttons, key in the default password of '1234' and press the **ENTER** button.

Double click on the Password field, and the Virtual Keyboard will appear. Enter the password and click the button to confirm.

The DVR begins normal operation and shows the default display of all 16 channels.

The status bar at the bottom of the screen shows current time and date and percentage of hard drive used.

A title for each channel is shown.

The red square and letter 'T' in the top right of each channel display shows that the channel is recording in Timer/Schedule mode, or 'M' for motion recording mode.

LIVE DISPLAY

DIVISION SCREEN

Click the right mouse button on the Live Display screen and Click **SCR MODE**.

8 different display modes are supported by the 16 channel DVR.

By repeatedly pressing the **DISPLAY** button, the operator can choose between single-channel, 4-channel, 6-channel, 8-channel, 9-channel, 13-channel, 16-channel and single-channel sequence modes.

Click the right mouse button on the Live Display screen and Click the **SEQUENCE** menu.

All the display modes are static with the exception of the sequence mode. In this mode, the sequence symbol ( ) is displayed and each channel is shown in full screen for a set period of time (default 3 sec) before switching to the next channel.

The sequence runs indefinitely until a different display mode is chosen.

LIVE DISPLAY

LIVE Display Edit Mode

For each multi screen view mode, the operator can decide which channels to view and in what position.

Use the **DISPLAY** button to choose the multi screen mode to edit and then press **ENTER** to select LIVE DISPLAY EDIT MODE.

In this example, the default 8 screen mode displays channels 1-8. To display channel 10 instead of channel 5:

Using the **CHANNEL SELECTION** buttons, press number 5 -- channel 5 will change to a blue screen.

Now, you may press number 10 to put that channel in the place where channel 5 was.

Press Enter to confirm the change and exit Live Display Edit Mode, or select another channel to edit.

LIVE DISPLAY

Digital Zoom

Click the right mouse button on the Live Display screen and Click the **ZOOM** menu.

When viewing a channel in full screen, the operator can zoom in to a particular area (by up to 8x).

To use Digital Zoom, select the required channel and press the **ZOOM** button. The small window at bottom right shows the full image and the main display area shows the zoomed portion.

The Digital Zoom operation can only be done within Live View Mode.

Use the Return button to exit to Live View Mode.

RETURN

To adjust the zoom level, turn the **SHUTTLE WHEEL** clockwise to increase zoom or counter-clockwise to decrease zoom. To move the zoom area around the image, use the **CURSOR KEYS** to adjust the position of the zoom square.

Press the **RETURN** button to return to normal live display mode.

LIVE DISPLAY

Sequence

Click the right mouse button on the Live Display screen and Click the **SEQUENCE** menu.

Press the **SEQ** button. Each channel is shown in full screen for a set period of time (default 3 sec) before switching to the next channel.

To stop the sequence on a particular channel, press the **SEQ** button again.

More complex sequences can be programmed through the setup menu (page 25).

Panic Recording

Click the right mouse button on the Live Display screen and Click the **PANIC RECORDING** menu.

Panic recording will override all standard recording settings to provide, by default, continuous recording on all channels. The Panic Recording settings can be edited within the Record Menu.

Press the **PANIC** button. The top right of the display shows a red square only to indicate that the DVR is in panic recording mode.

Press the **PANIC** button again to return to normal Timer or Motion recording mode.

LIVE DISPLAY

Key Lock Function

Click the right mouse button on the Live Display screen and Click the **KEY LOCK** menu.

Double click on the Password field, and the Virtual Keyboard will appear. Then enter the password and click the ↵ button.

An operator with ADMIN rights can choose to lock the DVR front panel to prevent any un authorized control.

Press the **LOCK** button, enter the default password '1234'

And press **ENTER**. All buttons are now disabled.

To unlock, press the **LOCK** button again and enter the default password '1234'.

PTZ Camera Control

Click the right mouse button on the Live Display screen and Click the **PTZ** menu.

Speed domes and other telemetry devices connected to the DVR, can be fully controlled from the front panel.

In live display mode, press the **PTZ** button. To select a camera to control, use the **CHANNEL SELECTION** buttons. Pan and tilt movement is controlled by the **CURSOR KEYS**, zoom is controlled by turning the **SHUTTLE WHEEL**.

Presets can be set with the PAUSE button; recall a preset by selecting a preset number and pressing ENTER.

LIVE DISPLAY

PTZ Camera Control (continued)

Click the **SWING** menu.

◂ & ▸ controls focus, ▲ & ▼ controls the iris.

Press **DISPLAY** or **SEQ** buttons to decrease or increase the swing number (sequence of preset positions).

Press **PAUSE** to program the swing pattern, or **ENTER** to recall a pre-programmed swing pattern.

Press **RETURN** to exit PTZ mode and return to live view.

Click the **GANZ** menu to enter the PTZ internal OSD menu (GANZ PTZ cameras only).

Use the directional buttons to navigate the OSD.

Press ENTER to confirm a selection.

Press RETURN to exit the OSD menu control.

SYSTEM SETUP

Right-Click the mouse in Live Display Mode.
Left-Click the **SETUP** menu.

When using the DVR Front Panel or the Handheld IR Remote Controller, to navigate around any items in the setup menu, use the **CURSOR KEYS** and the **ENTER** and **RETURN** buttons.

In general, the **ENTER** button is used to select and change a particular item and the **RETURN** button is used to cancel a change or exit from a particular setup screen.

To setup all main system functions, highlight **SYSTEM SETUP** and press **ENTER**.

Using the mouse, click the **SYSTEM SETUP** button to select the system setup menu.

Double click on the Password field, and the Virtual Keyboard will appear. Then enter the password and click the button.

From the Front Panel, press the **SETUP** button to bring up the menu login screen.
Only operators with ADMIN rights can configure the DVR. Enter the default password of '1234'.

SYSTEM SETUP

DISPLAY

: To setup the various display options, highlight DISPLAY and press **ENTER**.

DISPLAY - OSD

Click the **OSD** menu. Click on a field to change its setting.

Then click the button to toggle the setting.

STATUS BAR : Turns the status bar at the bottom of the live display ON or OFF.

CAMERA TITLE : Determines whether the camera title is displayed.

EVENT ICON : Determines whether the DVR recording status is shown at the top right of each channel window.

BORDER : Determines whether there is a border grid around each channel in multi-screen display mode.

BORDER COLOR : If the border is ON, the operator can choose the color of the grid lines.

MENU TRANSPARENCY : During menu setup, the live view can be seen behind the menu screen.

Changing this value determines whether the live view is more (higher value) or less (lower value) visible.

MOTION SENSOR DISPLAY : If false motion recording is occurring, the operator can use this feature to determine and rectify the cause in realtime.

OFF – normal display mode.

ACTIVE – areas where motion is detected are highlighted with colored blocks.

INACTIVE – areas where no motion is detected are highlighted with colored blocks.

MOTION COLOR: The color of the blocks displayed when MOTION SENSOR DISPLAY is set to ACTIVE or INACTIVE.

MOTION TRANSPARENCY : Determines the transparency of the colored blocks when MOTION SENSOR DISPLAY is set to ACTIVE or INACTIVE.

To change any of these settings, highlight OSD and press **ENTER** to select. Use the **CURSOR KEYS** to navigate to the option required. Press **ENTER** to select the option (the cursor changes to yellow) and use the **CURSOR KEYS** to change the setting. Click **APPLY** to save the setting or **PREVIOUS** to cancel.

SYSTEM SETUP

DISPLAY : MONITOR

Click the **MONITOR** menu. Click on a field to change its setting.

Then click the button to toggle the setting.

SEQUENCE DWELL : The time that each screen is displayed in a sequence operation.

SPOT-OUT DWELL : The time that each screen is displayed on the spot monitor outputs.

DE-INTERLACE MODE : When recording any channels in D1 resolution (704 x 480) this should be set to ON to prevent motion distortion during playback.

ALARM POP-UP MODE : When set to ON, an alarm input will cause the associated channel to display full screen.

ALARM POP-UP DWELL : Determines how long the full screen popup is displayed after an alarm input. If the alarm condition continues, the popup screen is displayed constantly.

MOTION POP-UP MODE : When set to ON, motion detection will cause the associated channel to display full screen.

MOTION POP-UP DWELL : Determines how long the full screen popup is displayed after motion detection. If motion continues, the popup screen is displayed constantly.

DISPLAY MODE : The DVR output can be optimized for display on a VGA or AV (CRT) monitor.

To change any of these settings, highlight MONITOR and press **ENTER** to select.

Use the **CURSOR KEYS** to navigate to the option required. Press **ENTER** to select the option (the cursor changes to yellow) and use the **CURSOR KEYS** to change the setting. Press **APPLY** to save the setting or **PREVIOUS** to cancel.

Note: When changing between display modes, you must shutdown and restart the DVR before any changes will take effect.

SYSTEM SETUP

DISPLAY : SEQUENCE

Click the **SEQUENCE** menu.

When the **SEQ** button is pressed, the default sequence will cycle through all 16 channels, one by one.

Sequence setup allows the operator to define a custom sequence using mixed multi-screen views and any desired channels.

Click the **ADD** menu to set up a new sequence.

To add a new sequence, highlight ADD and press **ENTER**.

Sequence title is highlighted – press **ENTER** to bring up the virtual keyboard. Use the virtual keyboard to type in a name or reference number for the new sequence.

SYSTEM SETUP

DISPLAY : SEQUENCE (continued)

Double click on the **SEQUENCE TITLE** field.

The Virtual Keyboard will appear. Enter the title, and click the ↵ button to confirm.

From the DVR Front Panel or the IR Remote Controller, move around the virtual keyboard using the **CURSOR KEYS** and press **ENTER** to select a character.

To delete a character, use ←.

To use CAPS and access symbols, use ↑.

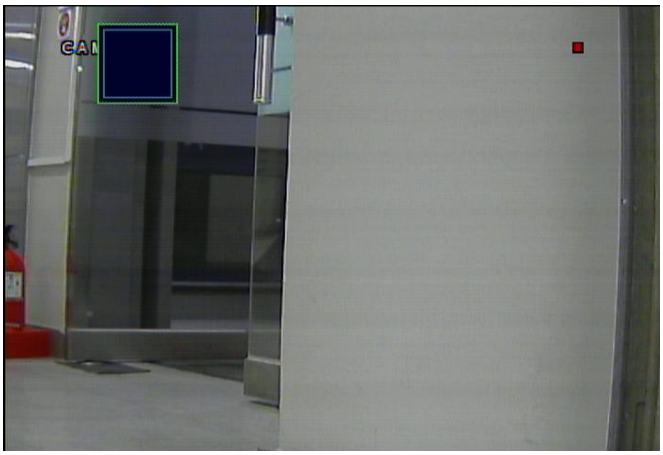
To exit, use ↵.

Click on the ACTIVATION field and use the ↕ button to toggle ON/OFF.

In order to activate the newly-created sequence, set ACTIVATION to ON, highlight SAVE and press **ENTER** to display the sequence programming screen.

SYSTEM SETUP

DISPLAY : SEQUENCE (continued)

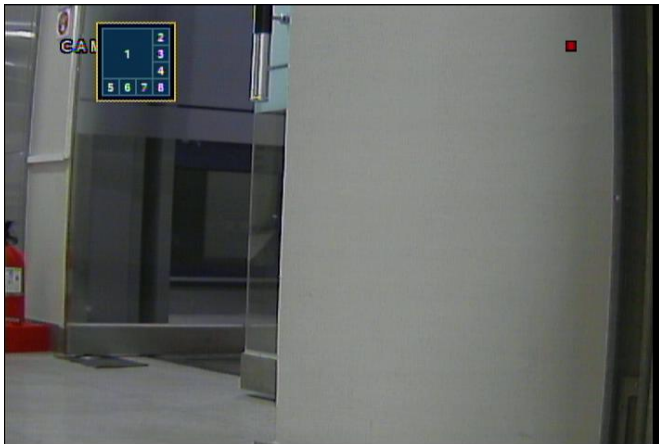


Double click on the first screen of the sequence, and the box will be outlined in yellow.

Each time the screen is clicked, the display mode will change.

The square on the top left of the display represents the first sequence screen to be displayed.

To edit the screen, press **ENTER** to turn the cursor yellow. Using the up and down **CURSOR KEYS**, choose the display mode (single-channel or various multi-screen modes).



Right-click on a section of the multi-screen display. Then click the desired camera number to assign it.

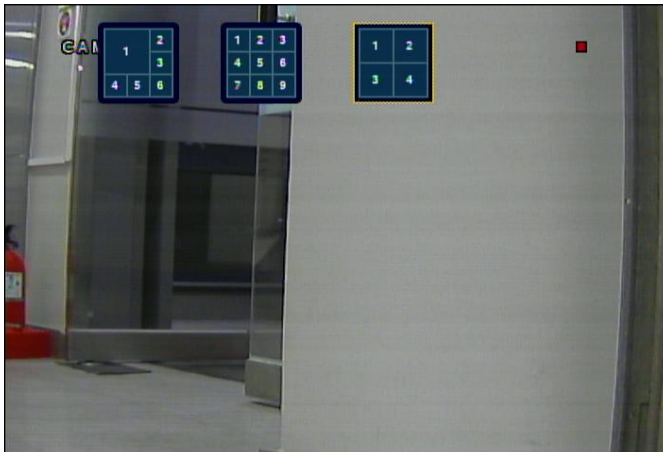
When the correct screen type is displayed, use the **CHANNEL SELECTION** buttons to enter the channels into each section of the multi screen modes.

Note: Only one instance of each channel can be displayed.

To remove a channel, press the appropriate **CHANNEL SELECTION** button again.

SYSTEM SETUP

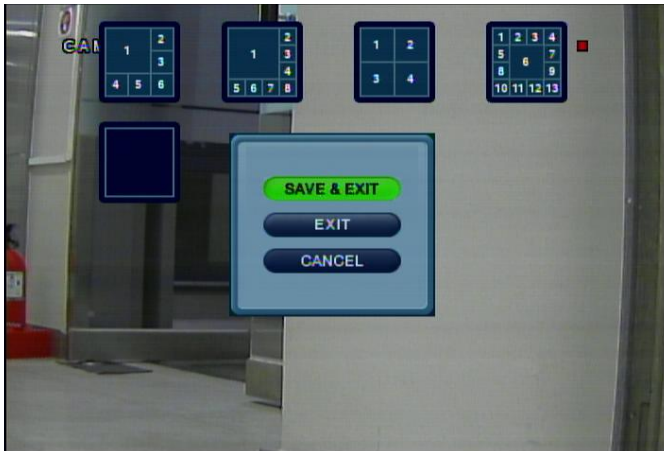
DISPLAY : SEQUENCE (continued)



When you have finished selecting each of the channels, Left-click on the screen, and the next sequence screen will appear. Select the display mode, the select the channels to use in the multi-screen.

When all the channels have been added, press **ENTER** to save the sequence screen and begin creating the next one.

Up to 16 different sequence screens can be added to each sequence.



To finish adding sequence screens, right-click on the screen.

Click the **SAVE & EXIT** menu.

To finish editing the sequence, press **RETURN** and then select save and exit. Press **ENTER.**

DISPLAY : SEQUENCE (continued)

When you go back to the **SEQUENCE** menu, you will see that the new saved sequence is activated.

The new sequence is now saved and can be started by pressing the **SEQ** button when in live view.

DISPLAY : SPOT-OUT

Left-click on the **SPOT-OUT** menu tab.

Click the checkbox to toggle the channels ON/OFF within the single-channel sequence which is sent to the spot output.

A 16-channel DVR has **4 SPOT MONITOR OUTPUTS**.

Each one displays a full screen sequence of channels, depending on the settings configured in this menu.

For each spot monitor, the operator can decide which channels are displayed.

For example, Spot Monitor 1 could display channels 1-4, Spot 2 could display channels 5-8, and so on.

SYSTEM SETUP

DISPLAY : SPOT-OUT (continued)

Click on the checkbox for each desired channel to toggle that channel ON/OFF for spot output.

Select the Spot Output by using the CHANNEL setting at the top of the screen. (Spot Output Ch 1 ~ 4)

Use the **CURSOR KEYS** and **ENTER** button to check or uncheck the channels to include in the sequence.

After the changes have been made, highlight **APPLY** and press **ENTER** to save.

SYSTEM SETUP

CAMERA

Click the **CAMERA** menu.

To setup the various camera options, highlight CAMERA and press **ENTER**.

CAMERA : CAMERA TITLE

Click the **CAMERA TITLE** menu.

You may switch the COVERT setting ON/OFF for each channel on the system. Click the button to toggle the setting ON/OFF.

Double-click the TITLE field for a particular channel to edit the channel title using the Virtual Keyboard.

COVERT: When set to ON, the camera image is not displayed in Live View, but continues to be recorded.

TITLE: For each camera, a title of up to 11 characters can be set using the Virtual Keyboard.

SYSTEM SETUP

DISPLAY : COLOR SETUP

Click the **COLOR SETUP** menu.

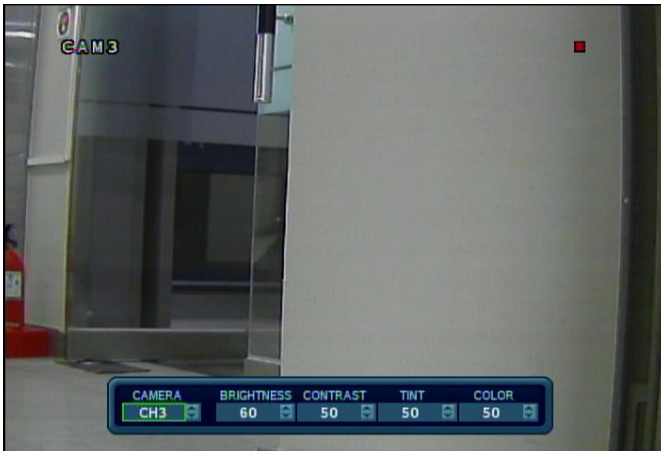
Click on the values for BRIGHTNESS, CONTRAST, TINT and COLOR to modify them.

Brightness, contrast, tint and color can be adjusted for each individual channel.

NOTE: These settings are for viewing purposes only, and will not affect the properties of the recorded image.

Highlight which channel to modify and press **ENTER**.

DISPLAY : COLOR SETUP (continued)



Edit each value by using the button.

The selected channel will be displayed in full screen.

BRIGHTNESS, CONTRAST, TINT and COLOUR can be changed as necessary.

To modify a different channel, highlight the CAMERA field and choose the desired channel.

Press **RETURN** when all changes are complete.

SYSTEM SETUP

DISPLAY : PTZ SETUP

Click the **PTZ SETUP** menu.

Click on each value within the ADDRESS, PROTOCOL and BAUD RATE menu.

Change the value by button.

ADDRESS: The unique ID of the PTZ device. (0 ~ 255)

PROTOCOL: The protocol of the PTZ device.

BAUD RATE: The baud rate of the PTZ device.

Click the button to change the PTZ details by button.

PTZ properties can also be adjusted for each channel by selecting the icon and pressing ENTER.

Note that some settings, such as AUTO FOCUS, may not be compatible with particular PTZ equipment.

If this is the case, changing this value will have no effect on PTZ control.

SYSTEM SETUP

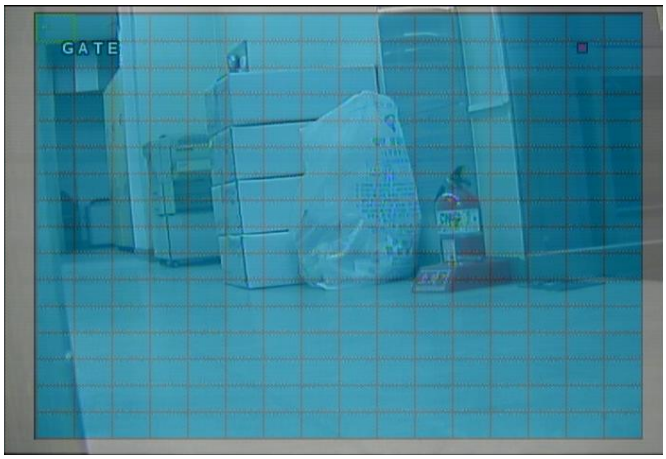
DISPLAY : MOTION SENSOR

Click the **MOTION SENSOR** menu.

Click the value on the SENSITIVITY menu.

Change the value by button.

SENSITIVITY : Value range from 1 (Lowest) to 10 (Highest) which determines the amount of motion that is required before motion recording will be activated by the system.



Click the AREA SETUP button to edit the Motion Detection Area.

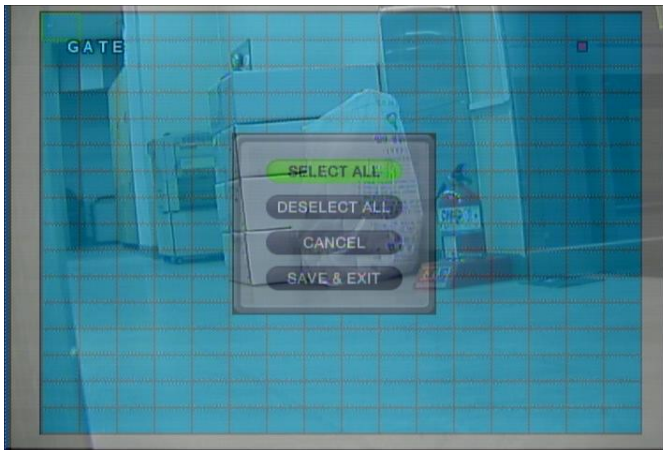
AREA SETUP : Choosing this option allows the operator to define which areas of the image are monitored for motion detection.

Light blue grid squares represent detection areas, grey grid squares are ignored.

The sample image above shows that motion will be detected across the entire image.

SYSTEM SETUP

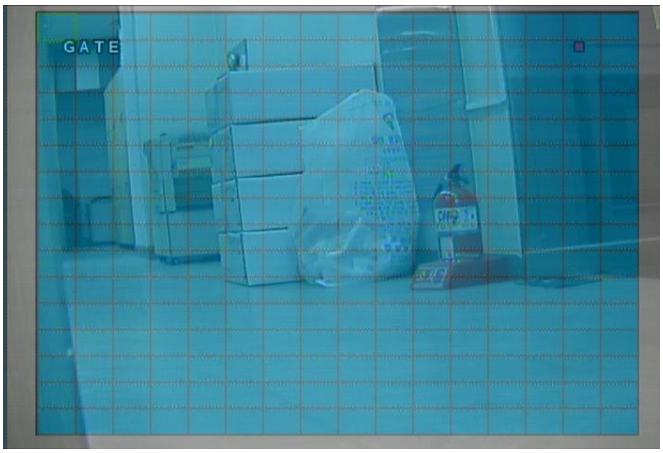
DISPLAY : MOTION SENSOR (continued)



To select or deselect the entire grid at one time, right-click on the grid and click **SELECT ALL** or **DESELECT ALL**.

To quickly select or deselect the entire grid, press **RETURN** to bring up the menu.

Highlight SELECT ALL or DESELECT ALL as appropriate and press **ENTER**.



Left-click and drag the cursor across the motion area grid while holding the left mouse button.

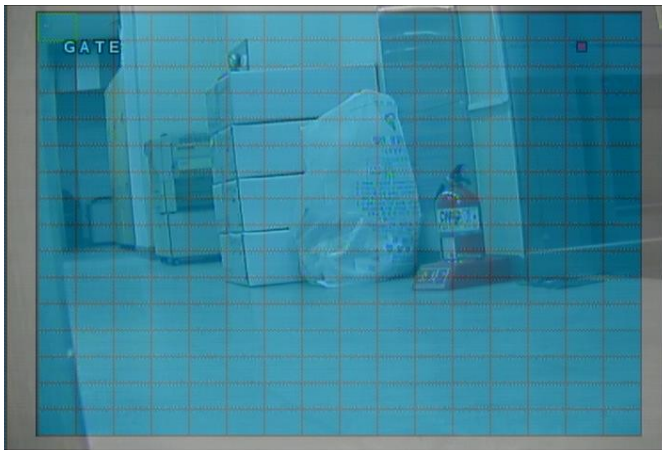
This action will outline an area of the grid to select or deselect for motion sensitivity.

To select or deselect specific areas, press **ENTER** to bring up the green cursor square in the top left of the display.

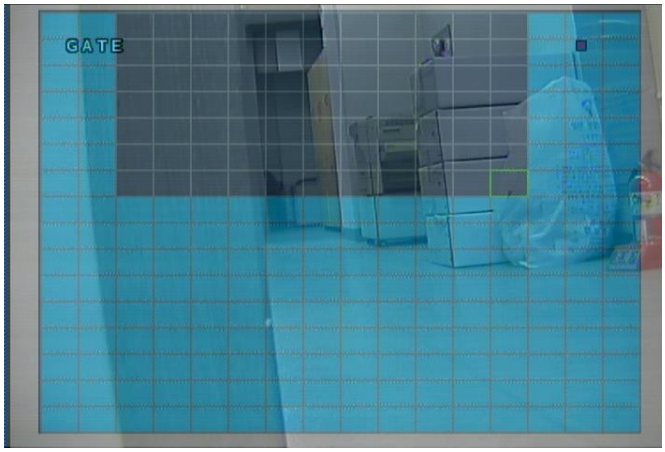
Move the cursor using the **CURSOR KEYS** to the first corner of the area to be set and press **ENTER** – the cursor turns yellow.

SYSTEM SETUP

DISPLAY : MOTION SENSOR (continued)

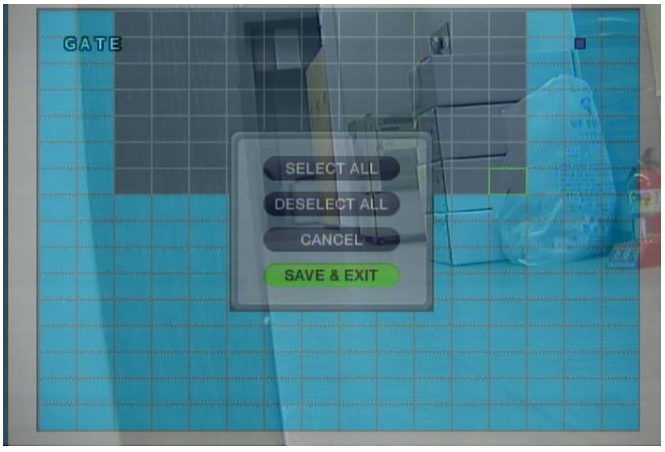


Use the **CURSOR KEYS** to increase the size of the motion area as desired.



Press **ENTER** to change the motion area from selected to deselected (or vice versa).

Repeat the above sequence as necessary to mask off or include other areas of the image.



Click the right mouse button and select SAVE & EXIT from the menu.

Once the detection area has been defined, press **RETURN** and choose SAVE & EXIT to save the area and return to the motion setup menu. To exit without saving, choose CANCEL.

NOTE: The motion recording schedule must be defined within the RECORD MENU, as described on page 52. Without setting the schedule, the DVR system will use Timer (Continuous) Recording.

SYSTEM SETUP

SOUND

Click the **SOUND** menu.

To edit the various sound options, highlight SOUND and press **ENTER**.

SOUND : AUDIO

Click the **AUDIO** menu. Click on a field to edit.
Then click the button to toggle ON/OFF.

LIVE AUDIO : When set to ON, the selected audio channel can be monitored via the AUDIO OUTPUT jack.

AUDIO MONITORING CHANNEL : Specifies which one of the 4 AUDIO INPUTS is routed to the AUDIO OUTPUT while in multi-screen mode.

NETWORK AUDIO TX : When set to ON, live and playback audio is transmitted to a remote PC connection.

NETWORK AUDIO RX : When set to ON, allows a remote PC connection to send audio back to the DVR.

SYSTEM SETUP

SOUND : BUZZER

Click the **BUZZER** menu. Click on a field to edit.

Click the button to toggle ON/OFF.

KEYPAD: When set to ON, each Front Panel button press is confirmed by a beep.

IR REMOTE: When set to ON, each button press on the IR Remote Control is confirmed by a beep.

SYSTEM

Click the **SYSTEM** menu.

To setup the various system options, highlight SYSTEM and press **ENTER**.

SYSTEM SETUP

DATE / TIME

Click the **DATE / TIME** menu. Click on a field to edit.

Click the button to toggle ON/OFF, or to adjust the value of the selected field.

DATE TIME : Allows the operator to set or modify the current date & time.

DATE FORMAT : Determines how the date is displayed.

TIME FORMAT : Determines how the time is displayed.

NETWORK TIME SERVER SETUP : If the DVR is connected to the Internet, the time and date can be set automatically by selecting SYNC and by pressing **ENTER**.

TIME ZONE SETUP : This should be set according to the region that the DVR is used in.

D.S.T. : When set to ON, the DVR will automatically adjust the Daylight Savings Time by one hour on the relevant date in the spring and autumn.

SYSTEM SETUP

SYSTEM : NETWORK

Click the **NETWORK** menu. Click on a field to edit.

Then click the button to toggle ON/OFF, or adjust the value of a selected field.

DHCP : When enabled, the DVR will obtain an IP address automatically if connected to a DHCP server or router. (If no DHCP server is found, the DVR will use an address of 127.0.0.1)

DDNS : When enabled, the DVR can be accessed through a Dynamic DNS server. This is a third-party redirection service which is used if a broadband connection does not have a static IP address.

WEB SERVICE : When enabled, allows remote connections using Internet Explorer or other web browsers.

IP ADDRESS : If DHCP is not being used, the IP address can be manually set by the user.

GATEWAY : If DHCP is not being used, the gateway IP address can be manually set by the user.

SUBNET MASK: If DHCP is not being used, the subnet mask can be manually set by the user.

1ST DNS SERVER : If DHCP is not being used, the first DNS server can be manually set by the user.

2ND DNS SERVER : If DHCP is not being used, the second DNS server can be manually set by the user.

DDNS SERVER : If DDNS is enabled, the host DDNS server is specified here.

NET CLIENT PORT : The port number that the DVR uses to support remote connections from the client software.

WEB SERVER PORT : The port number that the DVR uses to support remote connection from Internet Explorer or other web browsers.

MAX TX SPEED : Specifies the maximum bandwidth that the DVR can use during a remote connection.

NOTE: If any network settings are modified, the DVR will need to be restarted for changes to take effect.

SYSTEM SETUP

SYSTEM : MAIL

Click the **MAIL** menu. Click on a field to edit.

Then click the button to toggle ON/OFF.

SERVER : The SMTP outbound e-mail server that should be used to send e-mail notifications.

PORT : The outbound e-mail port number.

SECURITY : Set to OFF if the SERVER does not require a username and password to connect.

USER : Enter a username to identify the DVR in e-mail messages.

PASSWORD : If SECURITY is set to ON, enter the password here.

TEST E-MAIL : Used to test the E-mail function.

NOTE : A username must be entered into this menu in order for the mail function to work properly. The username cannot contain spaces.

SYSTEM : USER MANAGEMENT

Click the **USER MANAGEMENT** menu.

Double-click **ADMIN** on the GROUP menu to edit the properties of the ADMIN user.

By default, the DVR is configured with a user ID of ADMIN, which belongs to the ADMIN user group and has an initial password of 1234.

As well as the ability to add new users, existing user details can be modified.

To modify user details, highlight the user with the green cursor and press **ENTER**.

SYSTEM SETUP

SYSTEM : USER MANAGEMENT (continued)

Double click the **ADMIN** on the GROUP menu to edit the user properties.

After settings have been changed, click the ↵ button on the virtual keyboard.

To edit the ADMIN settings, press the **ENTER** button.

USER ID : Edit the user ID using the Virtual Keyboard.

PASSWORD : Change the password using the Virtual Keyboard.

NOTE: To delete the digits of the existing password, use the ◄◄ key.

GROUP : Users can belong to one of three groups - ADMIN, MANAGER or USER.

E-MAIL : Enter the users e-mail address, if e-mail notification is required.

E-MAIL NOTIFICATION : Enable or disable e-mail notifications for this particular user.

NOTE: It is recommended that the initial ADMIN password by changed as soon as possible, to protect the DVR system from any unauthorized access.

SYSTEM SETUP

SYSTEM : USER MANAGEMENT (continued)

To create a new user, click the **ADD** menu button. Enter the USER ID and PASSWORD by double clicking the field and using the Virtual Keyboard.

Use the ↵ button to confirm the new settings.

To add users, highlight ADD and press **ENTER**.
The new user details can be added using the steps outlined above.

Click the **PRESS** button next to the Authority Setup.

Choose which permissions will be granted to each user account type, and then click the **OK** button.

Only the permissions of the MANAGER and USER account types can be configured.

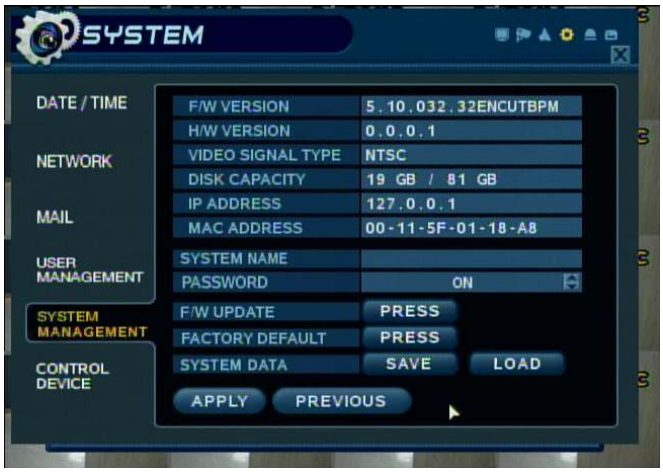
ADMIN accounts will always have all permissions granted by default.

To check or uncheck a permission, move the cursor over a checkbox and click the ENTER button.

NOTE : Any user can be deleted from the system, except for the default ADMIN user.

SYSTEM SETUP

SYSTEM : SYSTEM MANAGEMENT



Click the **SYSTEM MANAGEMENT** menu.

You may click on the PRESS buttons to perform a Firmware Upgrade or to set unit to Factory Default.

You may click SAVE to save the current system configuration to a USB Memory Stick, or click LOAD to load a saved configuration from USB.

F/W version : Shows the current firmware version of the DVR.

H/W version : Shows the hardware version of the DVR.

VIDEO SIGNAL TYPE : The DVR will automatically switch between NTSC and PAL, depending on the type of input signal from Channel 1 at power on. (Switching will re-format the HDD.)

DISK CAPACITY : The first value shows the amount of hard drive capacity used by recorded video; the second value shows the total hard drive capacity installed on the DVR system.

IP ADDRESS : Shows either the manual IP address entered in NETWORK setup or the IP address assigned by a DHCP server if enabled.

MAC ADDRESS : Shows the MAC (Media Access Control) address of the DVR. This is a unique hardware address – no two network devices can have the same MAC address.

SYSTEM NAME : A system name of up to 10 characters can be defined. It is used so that notification e-mails can be identified more easily between multiple DVR systems.

PASSWORD : This setting toggles the system password prompt ON or OFF.

F/W UPDATE : Firmware updates may be released periodically to enhance system performance and add extra features. The operator can upgrade the firmware using a USB Memory Stick.

FACTORY DEFAULT : If settings have been changed which cause erratic behavior in the DVR system, the factory default settings can be restored.

SYSTEM DATA : System settings can be saved to a USB Memory Stick. The settings can be reloaded in case of accidental factory reset or can be transferred to another DVR if multiple units need to be installed with the same settings. All information is saved except for the network settings and the system name.

SYSTEM SETUP

SYSTEM : CONTROL DEVICE

Click the **CONTROL DEVICE** menu.

Select the SYSTEM ID, the PTZ Protocol or the PTZ BAUD RATE to edit these values.

This platform will allow up to 254 DVRs to be controlled from the same keyboard or IR Remote Controller.

SYSTEM ID : If more than one DVR is connected on the same RS-485 bus, each one must have a unique ID.

Note : If use more than one DVR on stack, each DVR must have unique ID for control by Remote controller.

PROTOCOL : This is the driver set that is used for an external Serial controller.

BAUD RATE : This value should be set to match the baud rate of the PTZ controller.

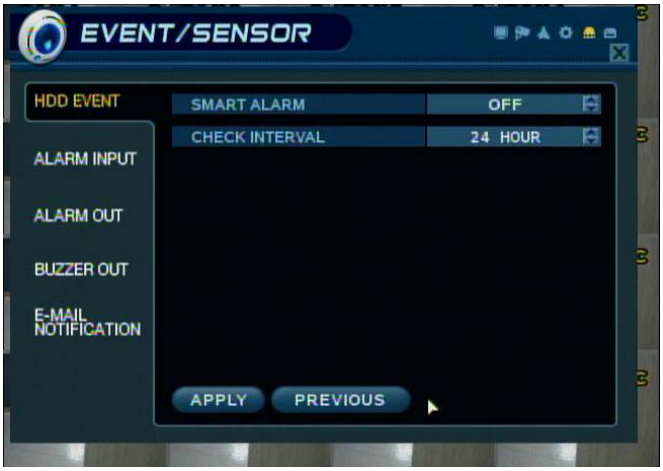
EVENT / SENSOR

Click the **EVENT / SENSOR** menu.

To setup the various event handling options, highlight EVENT/SENSOR and press **ENTER**.

SYSTEM SETUP

EVENT / SENSOR : HDD EVENT



Click the **HDD EVENT** menu. You may click on the DRIVE, SMART ALARM and CHECK INTERVAL values to change these settings.

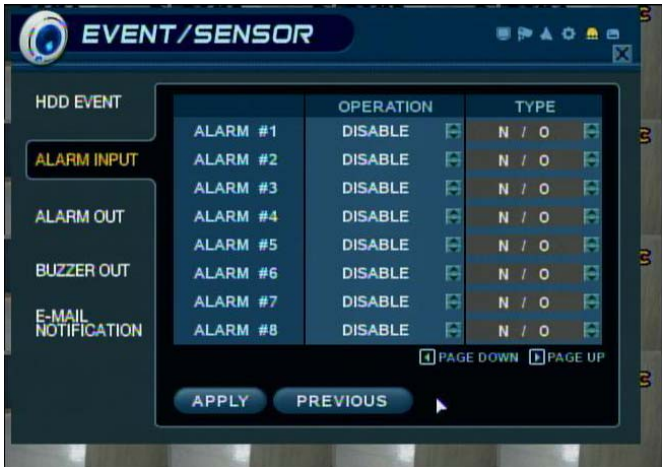
You may edit these settings by using the button.

The DVR can monitor the hard drives and detect problems that may be developing.

SMART ALARM : Enables SMART disk monitoring, which will test the HDD for errors or overheating.

CHECK INTERVAL : The amount of time that the system will wait between tests of the HDD.

EVENT / SENSOR : ALARM INPUT



Click the **ALARM INPUT** menu.

Click on the OPERATION and TYPE values.

Use the button to change these settings.

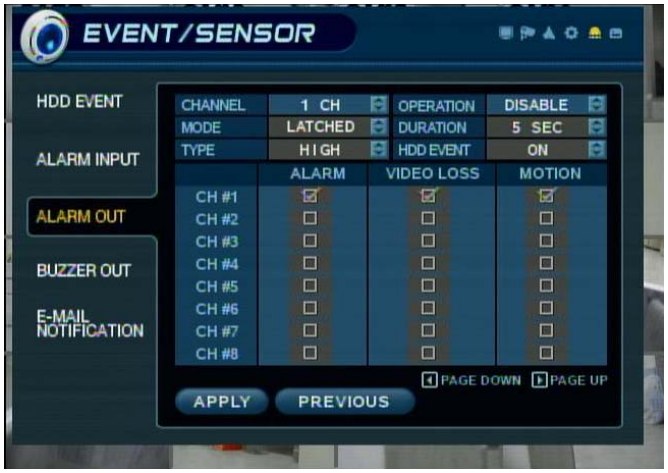
These settings will determine the behavior of each of the 16 alarm inputs.

OPERATION : Alarm inputs can be enabled or disabled with this option.

TYPE : Alarm inputs can be set as normally open (N/O) or normally closed (N/C).

SYSTEM SETUP

EVENT / SENSOR : ALARM OUTPUT



Click the **ALARM OUTPUT** menu.

Click on a field in order to change it.

Some fields may be disabled (gray). You will need to set OPERATION to ENABLE to edit these fields.

Use the button to change the value.

These settings determine the behavior and types of events that will trigger each of the 16 alarm relay outputs.

Behavior settings

CHANNEL : Choose which alarm output to configure. (1 ~ 16)

OPERATION : The selected alarm output can be enabled or disabled.

MODE : Can be either TRANSPARENT (the output is active only when the alarm condition is present) or LATCHED (the output is active for a set period of time after the alarm trigger).

DURATION : In LATCHED mode, the time that the alarm output remains active after it has been triggered.

TYPE : Can be set to active high (0V to +5V when activated) or active low (+5V to 0V when activated).

HDD EVENT : Determines whether a hard drive event will trigger the selected alarm relay output.

Action settings

ALARM : Determines whether any selected alarm inputs will trigger the alarm output.

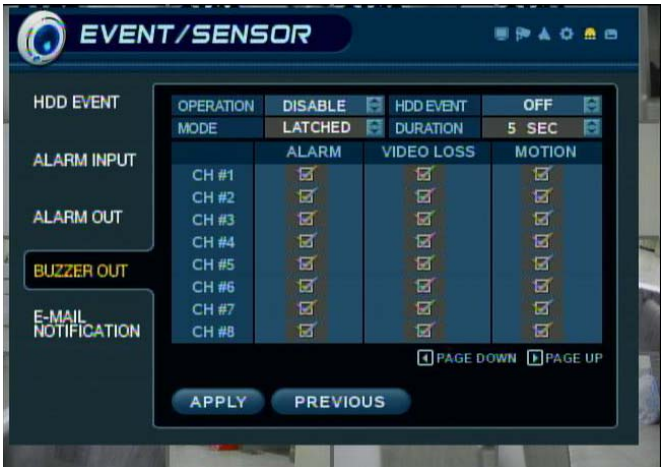
VIDEO LOSS : Determines whether video loss on any of the selected channels will trigger the alarm output.

MOTION : Determines whether motion detection on any of the selected channels will trigger the alarm output.

NOTE: Remember to select APPLY and press ENTER to save all settings before exiting the menus.

SYSTEM SETUP

EVENT / SENSOR : BUZZER OUT



Click the **BUZZER OUTPUT** menu.

Click on a field in order to change it.

Use the button to change the value.

These settings determine the behavior and types of events that will trigger the internal buzzer.

Behavior settings

OPERATION : The internal buzzer can be enabled or disabled.

MODE : Can be either TRANSPARENT (the buzzer sounds only when the alarm condition is present) or LATCHED (the buzzer sounds for a set period of time after the alarm trigger).

DURATION : In LATCHED mode, the time that the buzzer sounds after it has been triggered.

HDD EVENT : Determines whether a hard drive event will activate the buzzer.

Action settings

ALARM : Determines whether any selected alarm inputs will sound the buzzer.

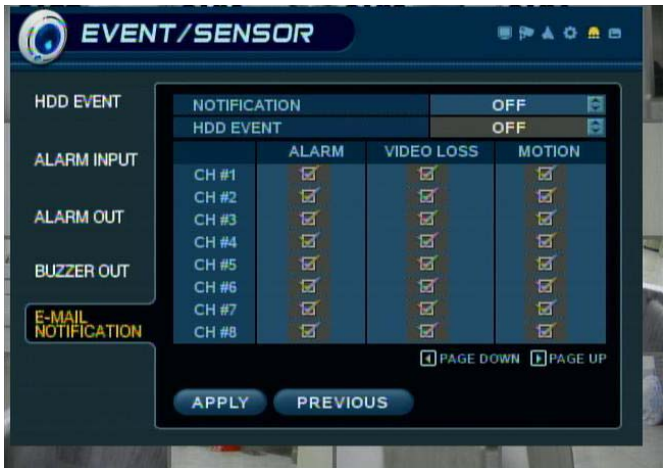
VIDEO LOSS : Determines whether video loss on any of the selected channels will sound the buzzer.

MOTION : Determines whether motion detection on any of the selected channels will sound the buzzer.

NOTE: Remember to select APPLY and press ENTER to save all settings before exiting the menus.

SYSTEM SETUP

EVENT / SENSOR : EMAIL NOTIFICATION



Click on the **E-MAIL NOTIFICATION** menu.

To enable e-mail notification, set NOTIFICATION to ON. Then, click on a field in order to change it.

These settings determine the behavior and types of events that will send an e-mail to a remote user.

Behavior settings

NOTIFICATION : E-mail notification can be turned ON or OFF.

HDD EVENT : Determines whether a hard drive event will trigger an e-mail notification.

Action settings

ALARM : Determines whether any selected alarm inputs will send an e-mail notification.

VIDEO LOSS : Determines whether video loss on any of the selected channels will send an e-mail.

MOTION : Determines whether motion detection on any of the selected channels will send an e-mail.

NOTE: There are some other E-mail settings that must also be configured. These are found within the MAIL and USER MANAGEMENT menus, as described on page 41.

SYSTEM SETUP

DISK MANAGE

Click the **DISK MANAGEMENT** menu.

Click on the RECORD TIME LIMIT or OVERWRITE fields and set as either ON or OFF.

To re-format all system hard disk drives, next to the format section, click the START button.

NOTE: This will erase all recording data permanently.

To manage the internal hard disk drives of your DVR system, highlight DISK MANAGE and press **ENTER**.

RECORD TIME LIMIT : In certain circumstances, it may be necessary to limit the amount of footage stored on the DVR (to comply with data protection laws for example).

The Record Time Limit can be set to 12 hours, 1 day, 2 days, 3 days, 1 week or 1 month.
Once the DVR has this amount of footage stored, it will start to overwrite the earliest recorded footage.

OVERWRITE : When set to ON, the DVR will start overwriting the earliest recorded footage once the hard drive becomes full. In this case, the percentage of hard drive used shown in live display will always be 99%. When set to OFF, the DVR will stop recording when the disk becomes full.

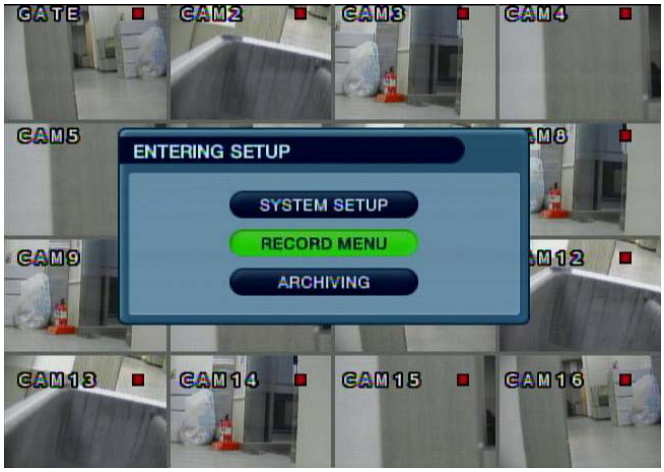
FORMAT : If necessary, all footage can be erased permanently from the DVR by using this option.

NOTE: When the RECORD TIME LIMIT is set, the percentage of HDD used shown in live display mode may never reach 99%. For example, suppose that the total HDD capacity of the DVR allows for a recording time of 4 days under normal conditions. If the RECORD TIME LIMIT is set to 2 days, the percentage of HDD used will usually never exceed 50%.

NOTE: When a RECORD TIME LIMIT is set, the OVERWRITE option cannot be changed.

RECORD MENU

RECORD MENU



Right-click within Live View Mode, and select **SETUP**.

Left-click on **RECORD MENU**.

To configure the recording properties of the DVR system, highlight RECORD MENU and press **ENTER**.

RECORD : RECORDING OPERATIONS

Click the **RECORDING OPERATION** menu.

Click on a field to change the setting.

You may edit these settings by using the button.

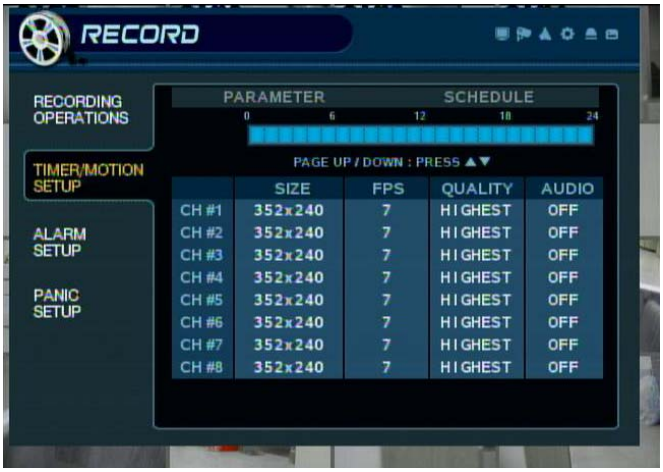
SCHEDULE MODE : Either DAILY (the schedule is the same for every day of the week) or WEEKLY (each day of the week has its own unique schedule).

PRE EVENT RECORDING TIME : When the DVR is not in continuous recording mode, this setting determines the amount of footage that is always recorded before an event occurs. (motion detection, alarm input etc.)

POST EVENT RECORDING TIME : When the DVR is not in continuous recording mode, this setting determines the amount of footage that is always recorded after an event occurs. (motion detection, alarm input etc.)

RECORD MENU

RECORD : TIMER / MOTION SETUP



Click the **TIMER / MOTION SETUP** menu.

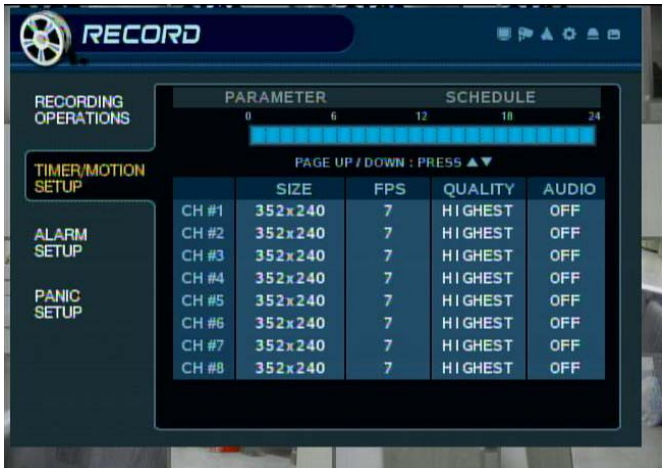
This setup screen allows the operator to configure continuous and motion-based recording by schedule.

There are 2 sections within this menu screen:

PARAMETER : Recording settings for each channel can be defined across a 24 hour period, in blocks (for example between 09:00 and 18:00) or for each individual hour. Note that when SCHEDULE MODE is set to WEEKLY, each day of the week can also be selected.

SCHEDULE : This section determines at what times the DVR will record and whether it is continuous recording or motion-based recording.

PARAMETER



Click on the **PARAMETER** menu tab.

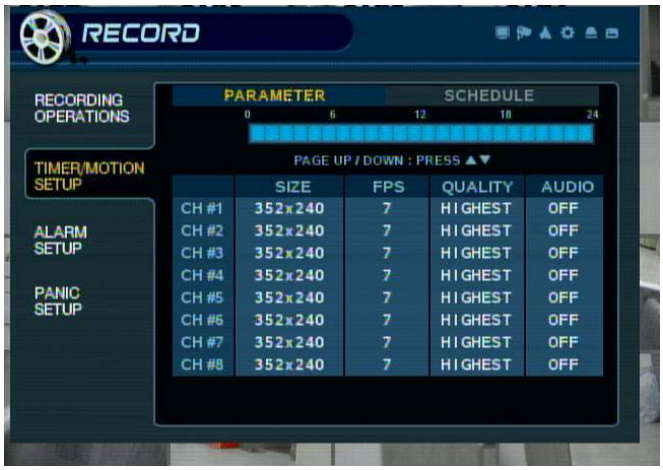
To change the PARAMETER settings, highlight TIMER/MOTION SETUP and press **ENTER**.

Check to see that the word PARAMETER is highlighted in yellow, and then press **ENTER** again.

The 24-hour timeline bar will be highlighted in purple.

RECORD MENU

PARAMETER (continued)



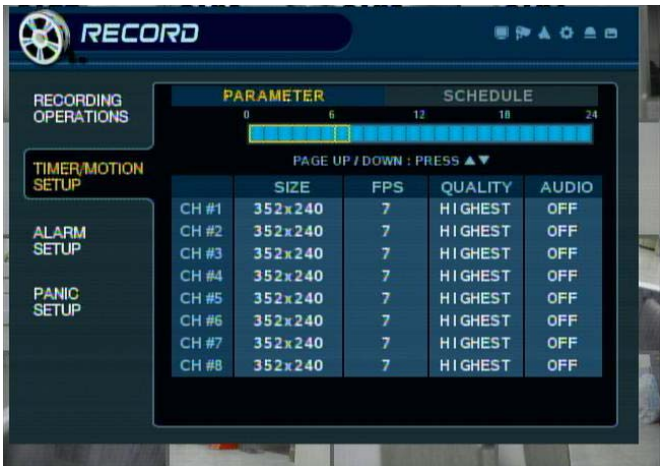
Click on the **TIMEBAR**.

You may use the mouse to select a one-hour block of time by clicking on the desired block.

Press **ENTER**, and a green cursor will appear on the timebar.

The green cursor shown represents a one-hour block of time. (in this case between 00:00 and 01:00).

The table below the time bar will show the recording settings for this block of time.



Click and drag the mouse along the timebar to select several one-hour blocks that you wish to set the recording properties for.

You may select all 24 of the blocks on the timebar to adjust the recording properties for the entire day.

Example: To change the recording settings between 09:00 and 18:00.

Use the **CURSOR KEYS** to move the green cursor to the 09:00 position and press **ENTER**.

The cursor changes to yellow to show the start position.

Use the **CURSOR KEYS** to stretch the yellow selection area across to the 18:00 position.

RECORD MENU

PARAMETER (continued)

Click on the fields for SIZE, FPS, QUALITY, or AUDIO to change the settings.

Use the button to change the settings.

Press **ENTER**. The recording settings for the selected time period will be displayed.

SIZE : Recording resolutions of either 352x240, 704x240 or 704x480 can be selected for each channel.

FPS : Frame rates between 1 and 30 images per second can be set for each channel.

QUALITY : Four different picture recording qualities can be set for each channel, from Highest to Low.

AUDIO : If any audio inputs are connected to the DVR, each of the four audio channels can be assigned to any of the video channels. A single audio source channel can be assigned to multiple video channels.

During playback, when a particular channel is selected in full screen, the assigned audio channel will be played along with the video, through the DVR Audio Out jack.

Adjust the parameter values as desired, and select OK to finish and return to the parameter menu. Other time periods can be configured in the same manner using the cursor to select blocks on the timebar.

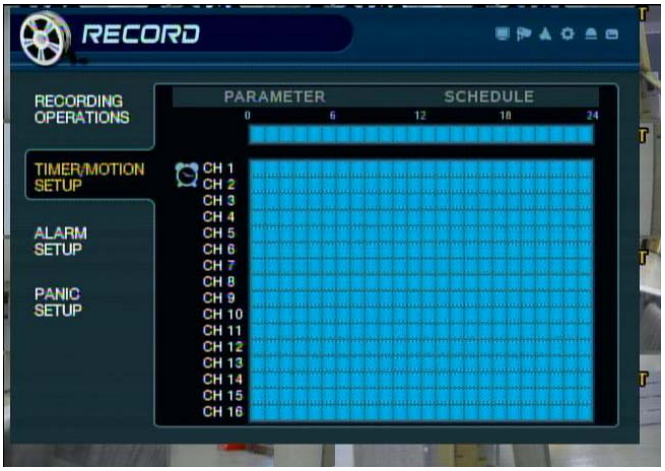
Remember that if SCHEDULE MODE is set to WEEKLY, the recording settings will need to be set for each day of the week individually, including the various time periods within each day.

NOTE: The default settings for all channels is 352 x 240, at 7FPS, and at the HIGHEST quality level.

NOTE: The DVR supports a maximum recording rate across all channels of 112 frames per second at 352x240 resolution. As the settings are adjusted, the 'frames available' number at the bottom-left of the screen displays the number of available frames still remaining and must always be zero or higher. While you are changing recording settings, if this figure becomes negative, the recording resolutions and/or frame rates must be lowered on some channels to increase the 'frames available' value to zero or above.

RECORD MENU

SCHEDULE

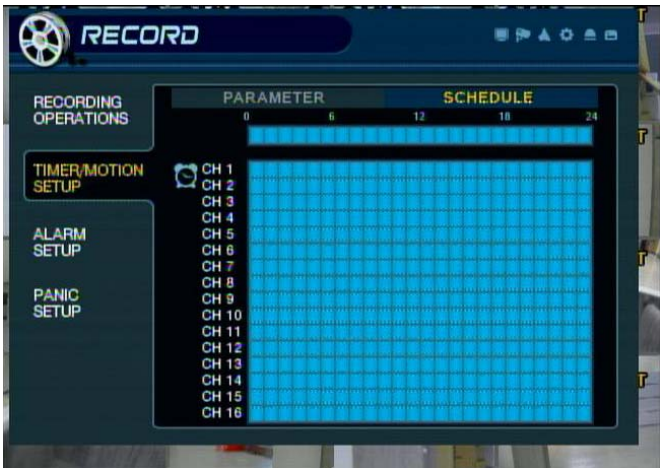


Click on the **SCHEDULE** menu tab.

To change the SCHEDULE settings, highlight **TIMER / MOTION SETUP** and press **ENTER**.

Use the **CURSOR KEYS** to highlight SCHEDULE and press **ENTER**.

The schedule grid is highlighted with a purple outline.



Click on the schedule grid.

Select the Time and Channel to set the schedule for by choosing a box inside the grid.

Press **ENTER**. You will see a green cursor on the upper-left block on the schedule grid.

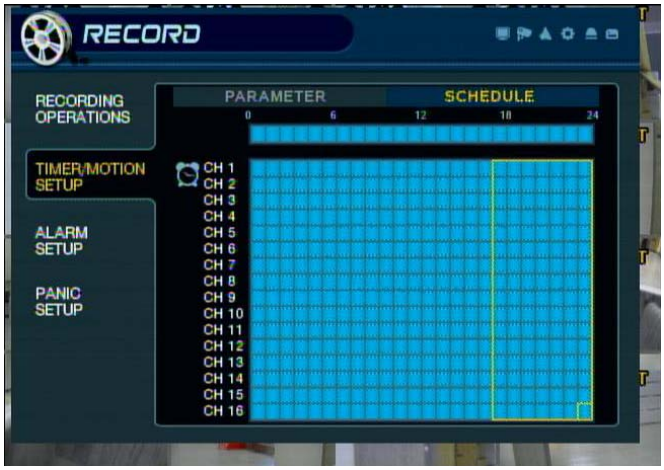
Example : To set all channels to motion detection recording only between 18:00 and 00:00.

Use the **CURSOR KEYS** to move the green cursor to the 18:00 position and press **ENTER**.

The cursor changes to yellow to show the start position.

RECORD MENU

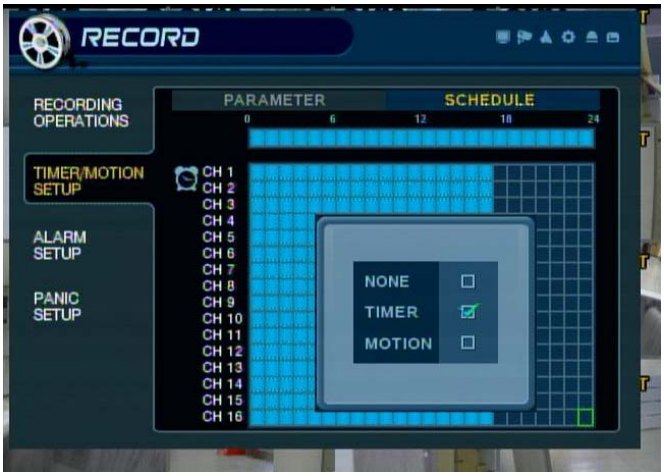
SCHEDULE (continued)



Click and Drag to select an area of the grid.

This area will represent the channels and time range that you will set the schedule properties for.

(continued from last page) Use the **CURSOR KEYS** to stretch the yellow cursor across and down to select all channels between 18:00 and 00:00.



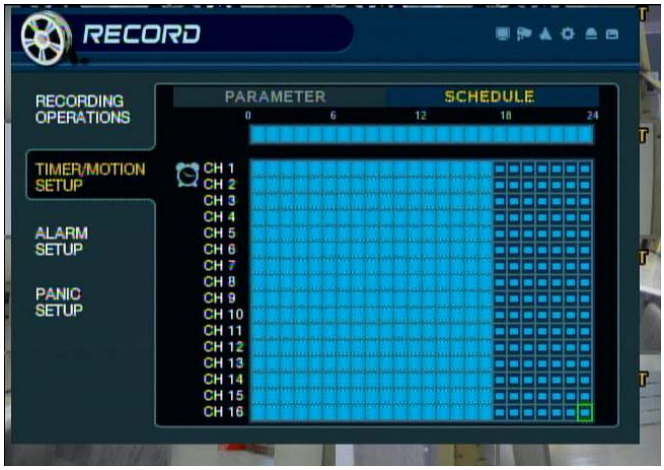
After you have selected an area on the grid with your mouse, choose a recording mode setting.

Press **ENTER**, select a recording mode setting and press **ENTER** again.

- **NONE** (no recording)
- **TIMER** (continuous recording)
- **MOTION** (motion-based recording).

RECORD MENU

SCHEDULE (continued)



The selected area will now display the symbol for the type of recording that you have selected.

Repeat the above procedure to set different recording schedules for individual channels and time periods.

NOTE: The schedule grid uses 3 symbols to show the different recording modes.

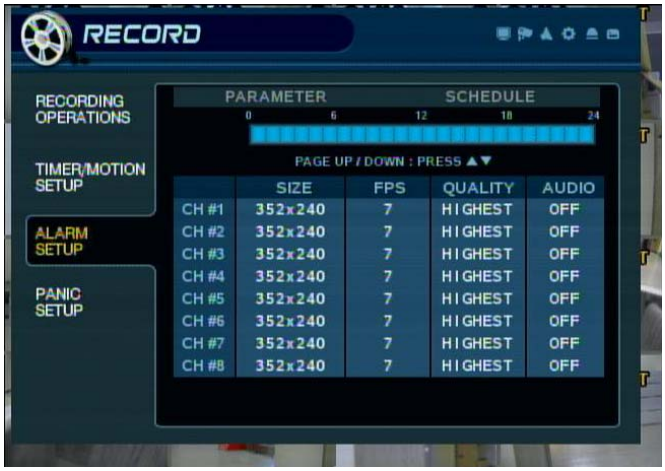
DARK BLUE blocks: No recording.

LIGHT BLUE blocks: Continuous recording.

DARK BLUE block with a LIGHT BLUE center: Motion-based recording.

RECORD MENU

RECORD : ALARM SETUP



Click the **ALARM SETUP** menu.

The method for configuration of this menu is similar to the TIMER / MOTION SETUP.

This menu screen allows the operator to configure the settings for alarm-based recording.

There are 2 sections within this menu screen:

PARAMETER : Recording settings for each channel can be defined across a 24 hour period, in blocks (for example between 09:00 and 18:00) or for each individual hour. Note that when SCHEDULE MODE is set to WEEKLY, each day of the week can also be selected.

SCHEDULE : This section determines at what times the DVR will record and whether it is continuous recording or motion-based recording.

NOTE: Please refer to the Timer / Motion setup procedures (page 51) for details on how to configure the PARAMETER and SCHEDULE menus.

NOTE: Alarm-activated recording can be used in conjunction with Timer / Motion recording.

For example, the DVR could be configured to record continuously at a low frame rate (set in Timer / Motion setup) and then increase to a higher frame rate during an alarm input (set in Alarm setup).

RECORD MENU

RECORD : PANIC SETUP

Click on the **PANIC SETUP** menu.

This menu is configured in a similar way to the PARAMETER portion of the Timer / Motion Setup or Alarm Setup menus.

During panic recording mode, the DVR will override all other recording settings and record continuously on all channels, using the settings configured within this menu.

SEARCH

SEARCH

Right-click within Live View Mode.

Select the **SEARCH** menu.

Double click on the Password field and the Virtual Keyboard will appear. Then enter the password and click the ↵ button.

To search through your recorded video, press the **SEARCH** button.

NOTE: To protect unauthorized viewing of footage, only the ADMIN and MANAGER user levels can use the Search function by default. You can allow or deny this access to the MANAGER or USER level accounts by using the Authority Setup within the User Management menu.

To login as ADMIN, enter password and press **ENTER**.

SEARCH : TIME SEARCH

Click on the desired date from the calendar.

The DVR uses a calendar and timeline search method for quick access to recorded footage.

The calendar displayed on the left shows the current month.

Days highlighted in green have recorded footage.

The timeline on the right shows a 24-hour status of all channels for the selected day.

Each block on the timeline represents 15 minutes of time. Light blue areas show recorded footage.

SEARCH

TIME SEARCH (continued)

Click and drag the yellow arrow along the timeline by clicking on the arrow and holding the left mouse button, while moving the mouse from right to left.

The position of the arrow will indicate the desired time from which to begin playback.

Press **ENTER** to select the calendar and use the **CURSOR KEYS** to move the purple square to the required day.

As different days are selected, the timeline display also changes to show recorded footage on that day.

Press **ENTER** to choose the day and move over to the timeline.

Click the **PLAY** button to begin playback from the selected Date and Time.

Use the **CURSOR KEYS** to move the timeline arrow left or right to select a block of time from the timeline.

Each movement of the timeline arrow will increase or decrease the time in 15 minute increments.

The currently selected time is displayed above the calendar.

Press **ENTER** to begin playback from the selected time.

SEARCH

TIME SEARCH (continued)

The default playback mode is a 16-screen display.

By pressing **DISPLAY** or by using the **CHANNEL SELECTION** buttons, it is possible to display single channel or some of the other multi-channel formats in a similar way to the live display mode.

During playback, turning the **SHUTTLE WHEEL** steadily clockwise increases the forward playback speed by up to 64x.

Turning the **SHUTTLE WHEEL** counter-clockwise will reverse playback by up to 64x. When the **SHUTTLE WHEEL** is released, playback will be paused.

If the **HOLD** button is pressed and released during **SHUTTLE WHEEL** operation, the last shuttle function is held, even if the wheel is released.

When playback is paused, the **JOG WHEEL** can be used to accurately move the footage forward or backwards, frame by frame.

Playback speed and direction can also be controlled using the five play control buttons located under the jog wheel. (Play / Reverse Play / FF / REW / Pause)

To exit playback mode and return to the search screen to choose another time and date, press **RETURN**.

To exit the search screen and go back to live view, repeatedly press **RETURN**.

SEARCH

SEARCH : EVENT SEARCH

Right-click within Live View Mode.
Select the **SEARCH** menu.

Double click on the Password field and the Virtual Keyboard will appear. Then enter the password and click the ↵ button.

The DVR Event Log keeps a list events, such as motion and alarm activations, video loss, system events, etc.

To search for an event and play back the recorded footage, press the **SEARCH** button and log in.

Click on the **SEARCH BY EVENT** menu.

Click on the FROM and TO fields to enter a date and time range to search for events.

You can change the digits by using the ▲▼ button.
Click the **START** button to begin the search.

Press the right **CURSOR KEY** to select the SEARCH BY EVENT menu and press **ENTER**.

Various filters can be used to limit the number of events displayed in the search.

Using the **CURSOR KEYS** and the **ENTER** button, select the FROM and TO date / time and the types of events and channels to search.

SEARCH

EVENT SEARCH (continued)

Click the **START** button to search for events.

Highlight START and press **ENTER**. This will search and display the event log for the criteria selected.

To playback video for a particular event, select the event from the list using the **CURSOR KEYS** and press **ENTER** to begin playback from start of the selected event.

Playback begins from the moment the selected event occurred and continues until stopped by the operator.

During playback, the **SHUTTLE WHEEL, JOG WHEEL** and play control buttons can be used as normal.

To stop playback and return to Live View mode, repeatedly press **RETURN**.

NOTE: The event search contains the following selectable entries. Use the checkbox to include:

- ALARM: When checked, all alarm input events are displayed for the chosen date range.

- TIMER: When checked, scheduled recording operations are displayed for the chosen date range.

- MOTION: When checked, all motion detection events are displayed for the chosen date range.

- ETC: When checked, all other events (video loss, remote connections, system events, etc.) are displayed for the chosen date range.

ARCHIVING

ARCHIVING

Right-click within Live View Mode.

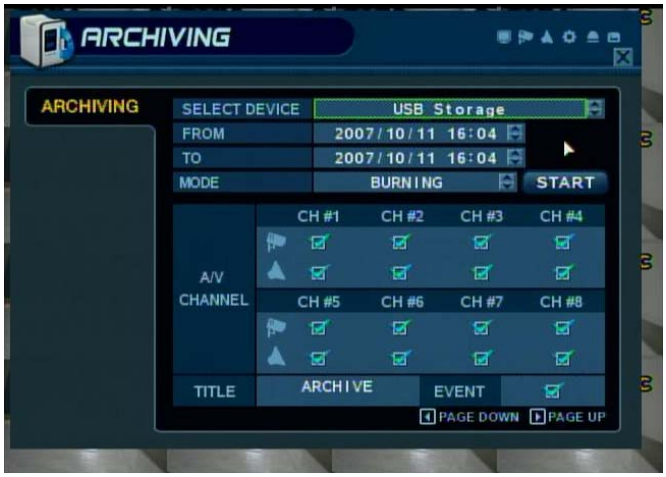
Select the **ARCHIVING** menu.

Double click on the Password field and the Virtual Keyboard will appear. Then enter the password and click the button.

To archive recorded footage to USB memory stick or CD, press the **ARCHIVE** button.

NOTE: To protect unauthorized viewing and distribution of footage, only the ADMIN and MANAGER user levels can use the Search function by default. You can allow or deny this access to the MANAGER or USER level accounts by using the Authority Setup within the User Management menu.

To login as ADMIN, enter password and press **ENTER**.



Click on any field in order to change it.

Then change the value using the button.

Click the **START** button to begin archiving video from the selected Date and Time.

The Archiving menu allows the operator to choose exactly what to backup and which device to send it to.

Use the **CURSOR KEYS** to navigate around the Archiving screen.

To change any value or setting, press **ENTER** to change the green cursor to yellow.

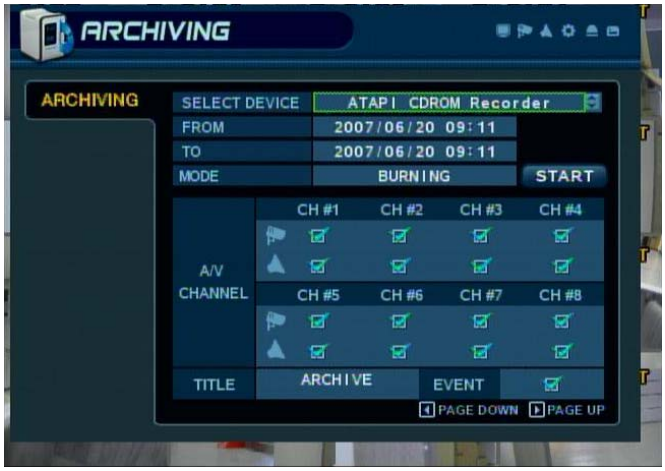
Use the up and down **CURSOR KEYS** to change the value.

Press **ENTER** to accept the value or RETURN to cancel.

To change a checkbox setting, press ENTER to check or uncheck the box.

ARCHIVING

ARCHIVING (continued)



SELECT DEVICE: Choose from CD/DVD-R or USB.

FROM / TO: Start and end time of the backup clip.

MODE: 'Burning' or 'Erase and burn' (for CD-R/W)

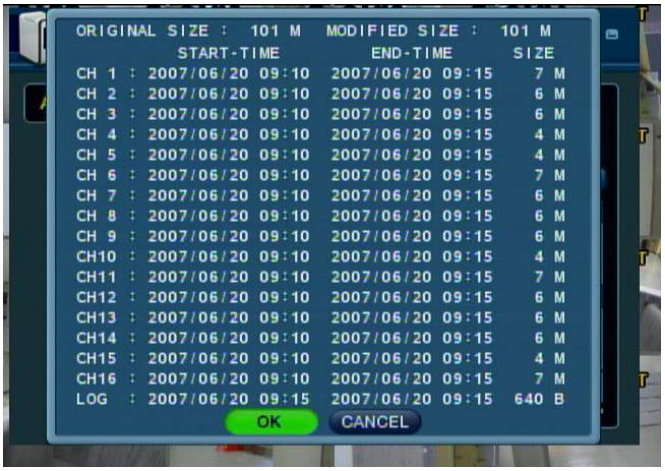
A/V CHANNEL:

Video and audio from any channel can be included or excluded from the archive.

TITLE: The name of the archive folder on the media.

EVENT: When selected, the event log for the particular archive time period is included in the archive.

NOTE: When using a USB memory stick, it must be inserted before opening the archiving menu.



A preview window will appear, with a list all of the selected channels, dates and times, and file sizes of the video clips that will be included in the archive.

Click the **OK** button to begin the archive process.

Once all the desired archive options have been selected, highlight the START button and press **ENTER**. The DVR displays a list showing the information to be archived and the total archive size.

If the ORIGINAL SIZE is larger than the available space on the backup media, the END TIME of the archive set is reduced until the clip will fit on the media.

The MODIFIED SIZE is the final file size of the entire archive.
Select OK and press **ENTER** to begin the archive process.

ARCHIVING

ARCHIVING (continued)

The footage is extracted to a temporary area on the hard drive before being written to the archiving device.

Once extracted, the footage is copied to the CD/DVD disc or USB Memory Stick.

NOTE: Depending on the amount of footage selected for archive, the extracting and burning process may take some time, during which the DVR cannot be operated from the Front Panel or Handheld IR Remote.

Normal recording is unaffected by the archive process.

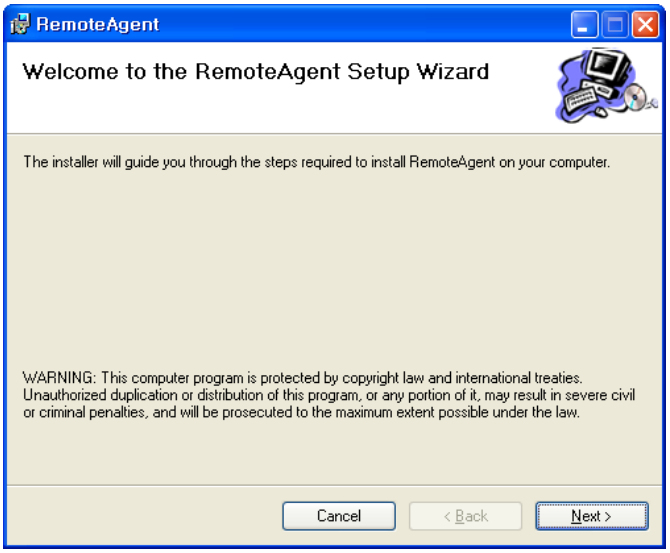
REMOTE CLIENT SETUP

The DVR is supplied with client software to allow remote connections either on a Local Area Network (LAN) or over the Internet.

The remote client allows full live viewing of the DVR including control of PTZ cameras.

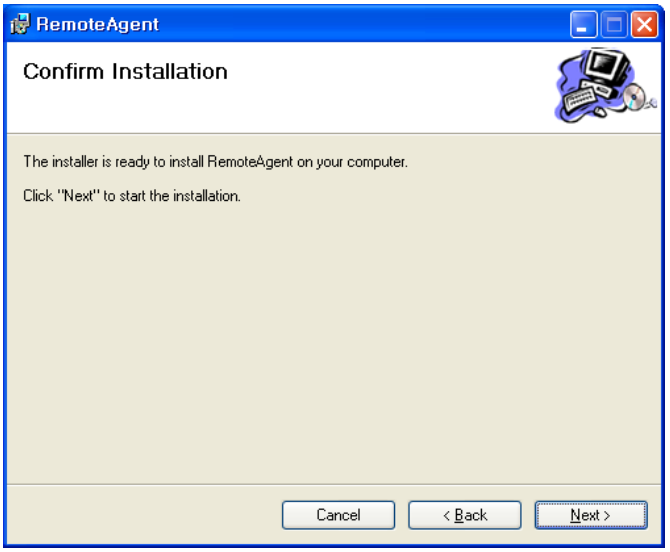
In addition, remote playback, remote configuration, bi-directional audio support, remote archiving, and remote alarm triggering can all be achieved using the client software.

Client Software Installation



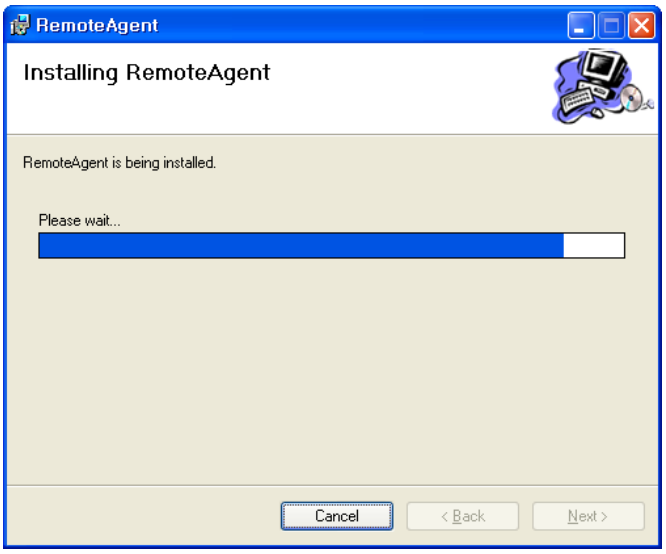
Insert the CD that is supplied with the DVR into your PC's CD-ROM drive. The install process will begin automatically and display the following screen.

Click 'Next>' to continue.

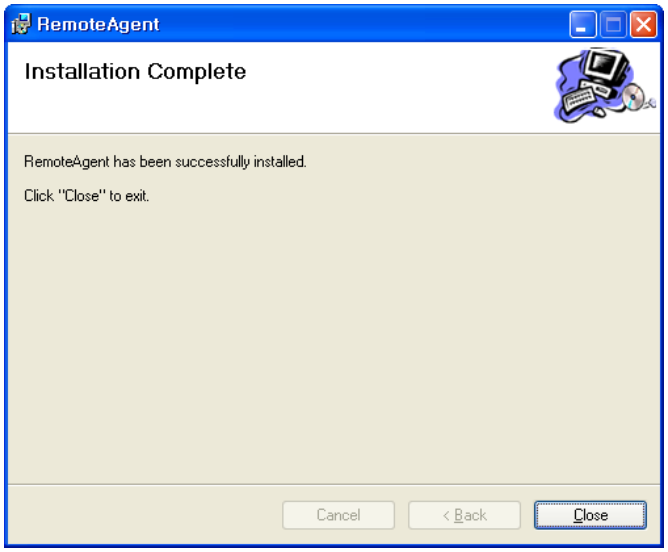


Click 'Next>' to begin installation.

REMOTE CLIENT SETUP



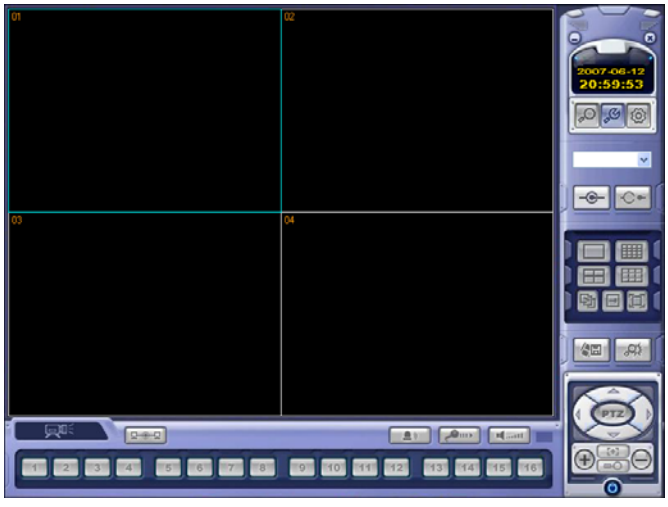
The DVR remote client software is installed.



A final screen is displayed confirming that the software installation was successful.

Two icons will be created on the PC desktop:

'Remote Agent' is the main software package.
'BackupPlayer' is the software to view archived footage from the DVR.



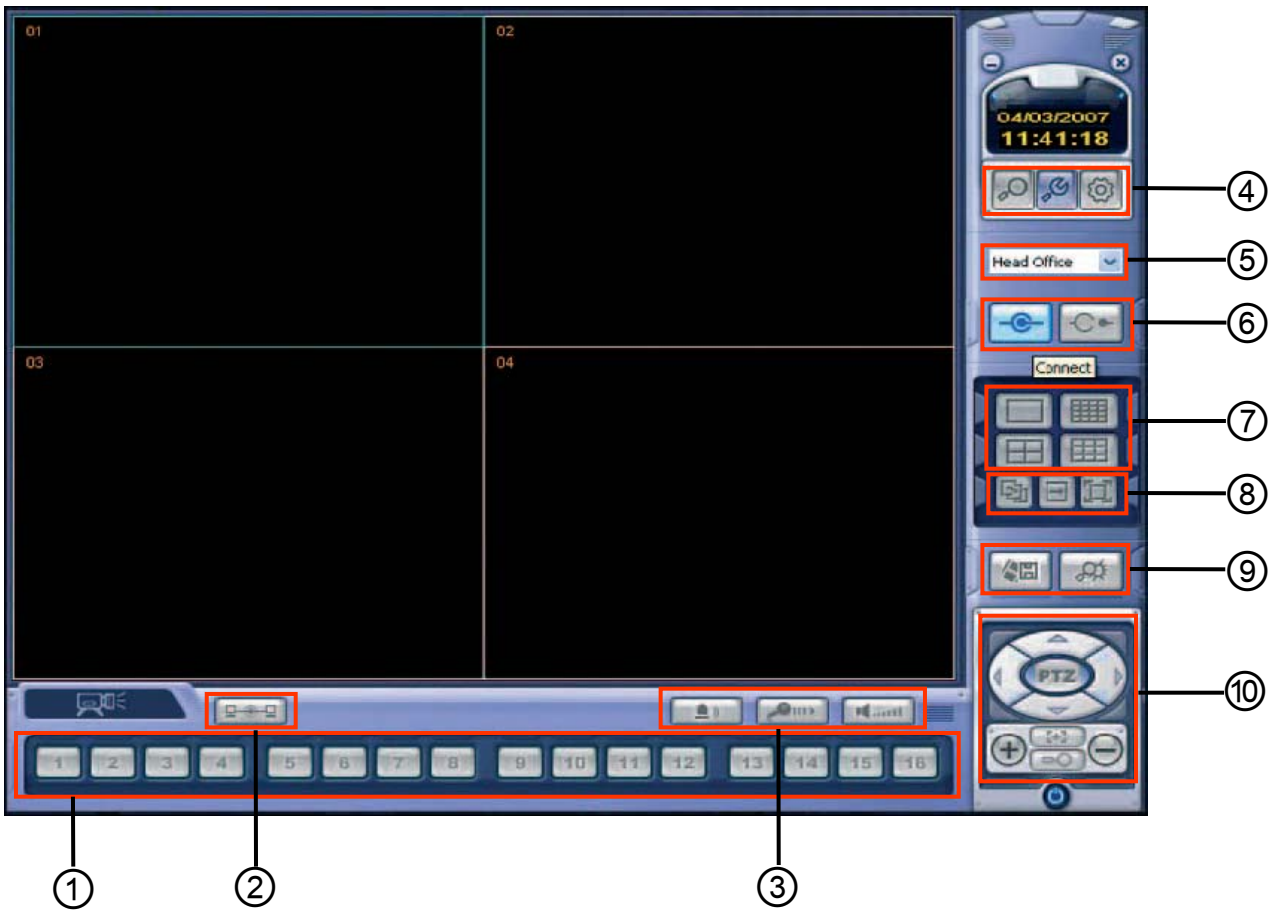
To begin using the remote client software, double-click the icon on the desktop or click:

Start -> Programs -> Remote Agent -> DVR -> Remote Agent.

The main remote client window is displayed.

REMOTE CLIENT SETUP

Client Software Organization



① CHANNEL SELECTION buttons

② NETWORK STATUS button

③ ALARM button

TALKBACK button

AUDIO button

④ SEARCH button to access remote playback menu

SETUP button to configure local connection settings

DVR SETUP button to adjust DVR settings remotely

⑤ Head Office

DROP DOWN LIST to select a DVR connection group

⑥ CONNECT button

DISCONNECT button

⑦ DISPLAY button to choose 1,4,9 or 16-screen display

⑧ SEQUENCE button

MANUAL SWITCH button

FULL SCREEN button

⑨ SAVE TO AVI button

EVENT VIEWER button

⑩ PTZ CONTROL buttons

REMOTE CLIENT SETUP

EXPLAINATION OF FUNCTION KEYS

① CAMERA SELECTION Buttons : Indicates Connected Camera #; or Select Camera # to see the image.

② NETWORK STATUS Button : Show the network status of the connected DVR.

③ ALARM Button : Toggle Alarm Relay Output.

TALKBACK Button : Communicate between DVR and Remote Client using your PC microphone.

AUDIO Button : Listen to live audio (toggle ON/OFF).

④ SEARCH Button : Switch to the Search Mode for search and playback of recorded data.

SETUP Button : Local Configuration of the client software; change or check the connection settings.

DVR SETUP Button : Remote Setup of the currently connected DVR. (requires ADMIN-level access)

⑤ DROP DOWN LIST : Select the DVR group to connect to.

⑥ CONNECT Button : Connect to the DVR group.

DISCONNECT Button : Disconnect from the DVR group.

⑦ DISPLAY Button : Change the screen division mode to 1, 4, 9 or 16-channel view.

⑧ SEQUENCE Button : Change automatically from one channel to the next in a single-channel view mode.

MANUAL SWITCH Button : Change the live screen manually by mouse click.

FULL SCREEN Button : Change to the full screen mode. (all client functions are hidden in this mode)

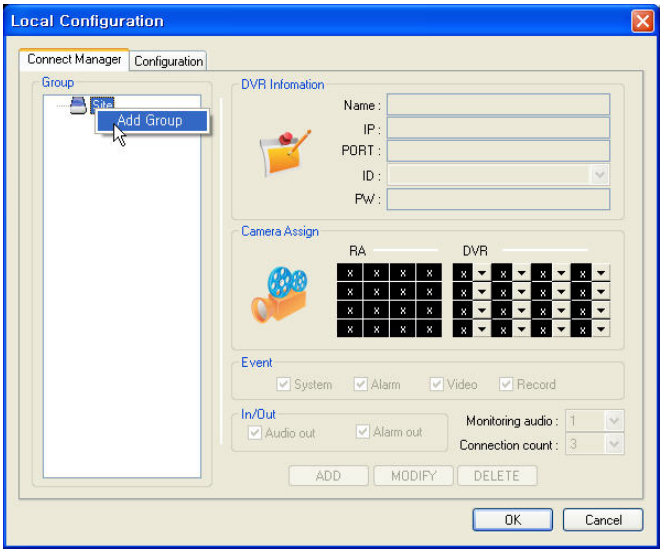
⑨ SAVE TO AVI Button : Save the current displayed live video to an AVI file.

EVENT VIEWER Button : Show a list of the current DVR events .

⑩ PTZ CONTROL Button : Control the PAN / TILT / ZOOM and other functions on a PTZ camera.

REMOTE CLIENT SETUP

CREATE A CONNECT GROUP

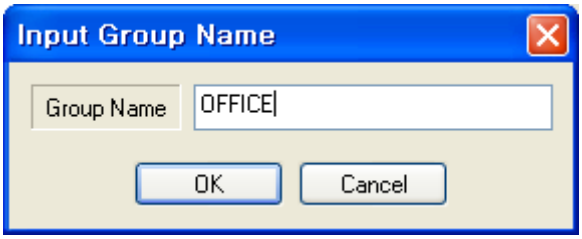


The DVR remote client software can be configured with any number of connection groups.

Each connection group can consist of up to 4 DVRs and 16 channels of video.

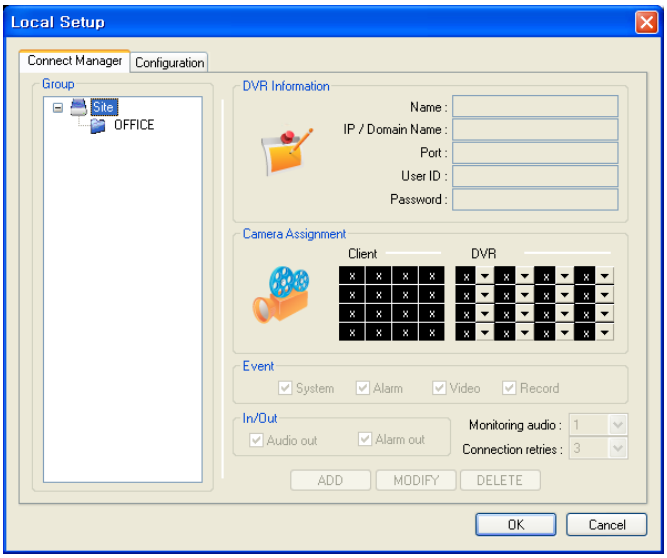
To create a connection group, click the **SETUP** button to display the Local Configuration screen.

In the 'Group' window on the left, right-click on 'Site' and choose 'Add Group'.



Choose a name to easily identify the connection group and click OK to create the new group.

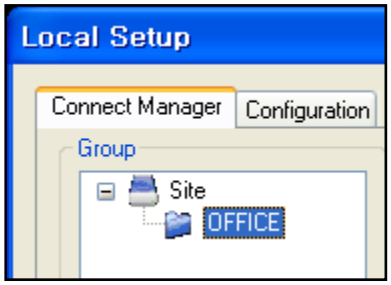
Example: The group name is "OFFICE".



The new group is created. Click on the name of the newly-created group and the DVR Information blanks on the right side of the screen will activate.

REMOTE CLIENT SETUP

DETAIL SETUP

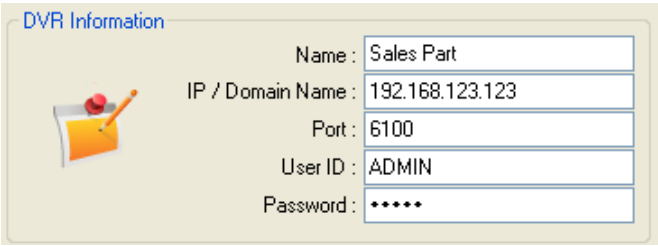


Up to 4 DVR units can be added to the each group.

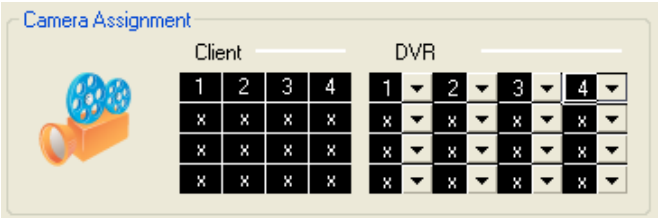
Click on the group name to highlight it.

The fields to fill in the DVR information will activate.

Enter the following information into the 'DVR Information' window.



Name: Any name that will easily identify the DVR.
IP / Domain Name:
The IP address or domain name of the DVR.
Port: The network port of the DVR. (Default: 6100)
User ID: A valid user ID already setup on the DVR.
Password: The password assigned to the user ID.



In the 'Camera Assignment' window, specific channels of the DVR can be allocated to the remote client display channels. The client window will show up to 16 channels of video, in a 4x4 grid display.

Using the drop down lists under the DVR section, select which channels are displayed and in what position. To ignore certain channels, leave the drop down marked with an 'x'.

In this case, only channels 1-4 from the selected DVR will be displayed.

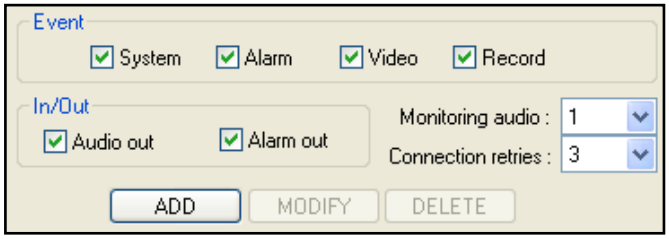
NOTE: Only one instance of each channel of the DVR can be selected.

NOTE: Each connection group can display a total of 16 channels from one or more DVRs.

For example, a connection group could consist of one 16-channel DVR and display all of its 16 channels at a time. Or, it might consist of two 16 channel DVRs, displaying 7 channels from one unit, and 9 channels from another. You may use up to 4 DVR units, and up to 16 channels of video.

REMOTE CLIENT SETUP

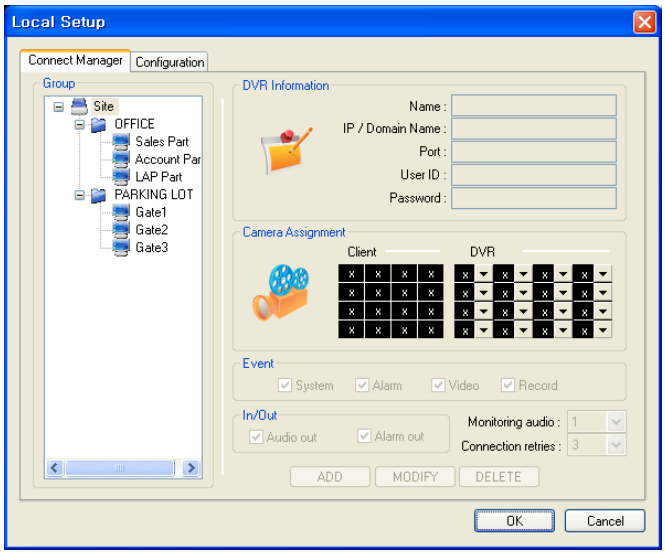
DETAIL SETUP (continued)



To complete the details for the selected DVR:

- Check the events that the DVR will send to the remote client system event log.
- Check 'Audio out' to enable the bi-directional audio talkback function.
- Check 'Alarm out' to enable the remote alarm relay trigger function.
- In 'Monitoring audio' choose which audio input is transmitted to the remote client software in live view mode.
- In 'Connection retries' choose the number of times the remote client will attempt to re-connect on a failure.

When you have completed the configuration of all DVR properties, click ADD to save all the details.



To add up to three more DVR systems into this group – simply repeat the steps from the previous page in the 'Enter DVR details' section.

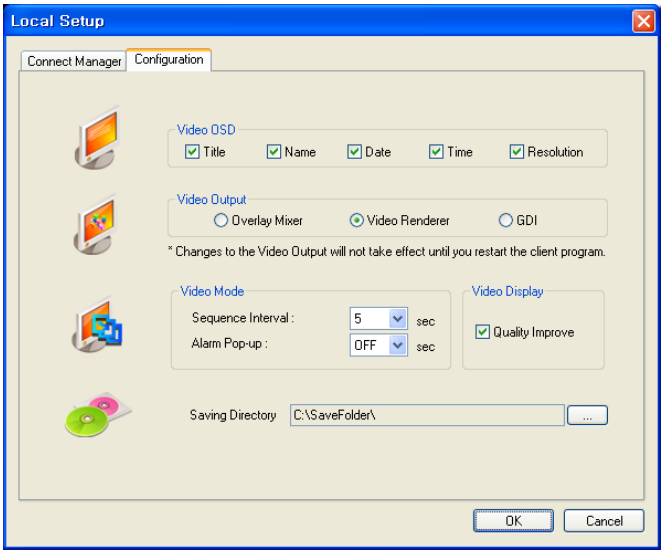
To create another connection group, repeat the steps from the previous page in the 'Create a connection group' section.

During operation, only one group can be connected to at one time.

For example: 'OFFICE' must be disconnected before connecting to 'PARKING LOT'.

REMOTE CLIENT SETUP

ADDITIONAL CONFIGURATION



Click on the 'Configuration' tab to configure various remote client program options.

Video OSD

Select or de-select the information that is displayed on each channel window when a DVR is connected.

Video Output

For best results, leave set at the default setting of 'Video Renderer'.

Overlay mixer and GDI are provided only for backwards compatibility with older PCs.

Video Mode

Define the sequence time between each channel when the software is in sequence mode.

Also, determines the full screen popup time when an alarm is triggered on the DVR.

Video Display

For best results, leave 'Quality improve' selected.

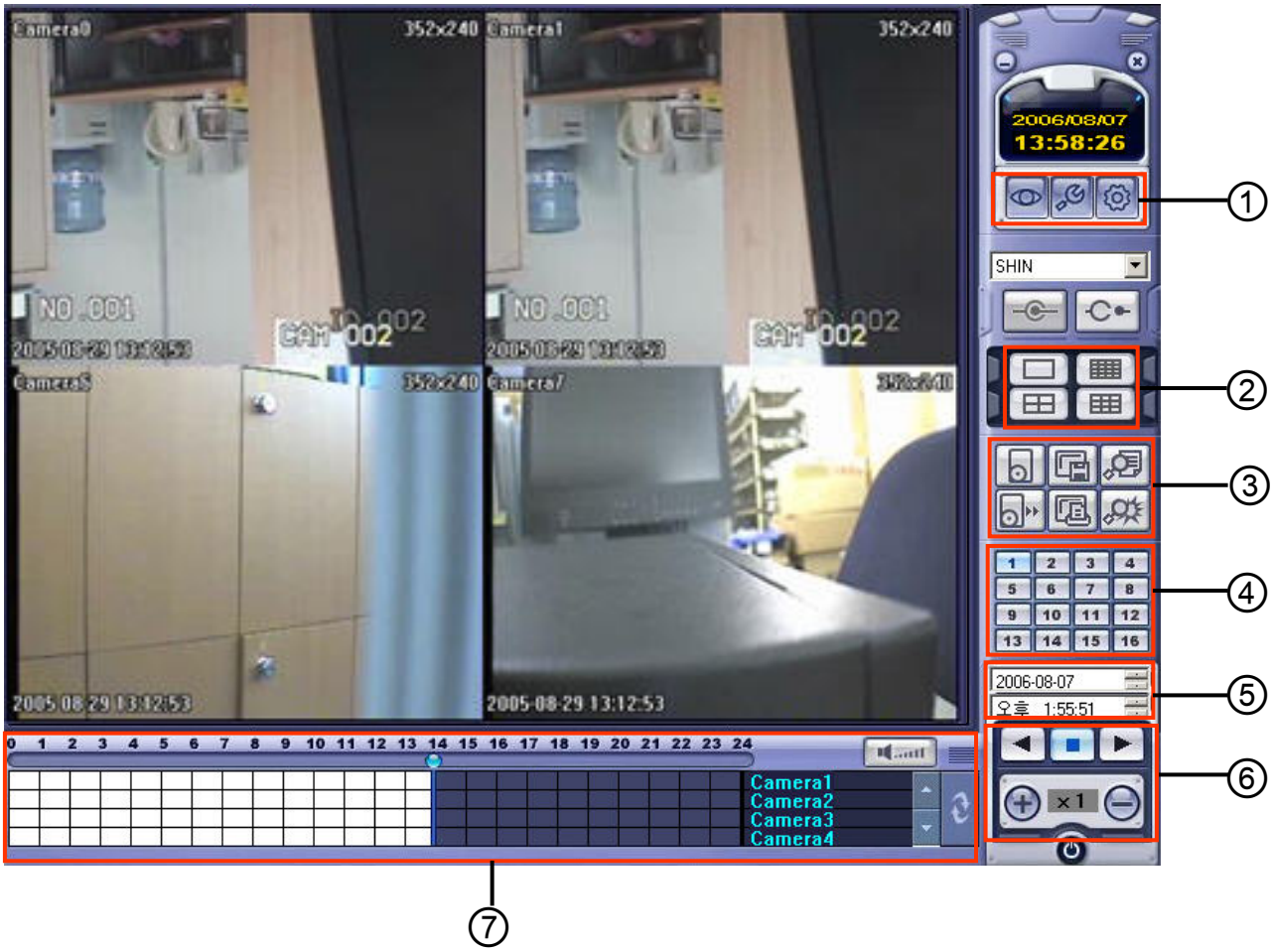
Saving directory

Specify the location where AVI files and snapshots will be saved to the local PC.

REMOTE CLIENT SETUP

REMOTE SEARCH

Click the **SEARCH** button to switch over to the playback side of the remote client.



① LIVE VIEW MODE button

LOCAL SETUP button

DVR SETUP button

② DISPLAY MODE buttons

③ ARCHIVING button

SAVE IMAGE button

EVENT LOG VIEWER button

BACKUP PLAYER button

PRINT IMAGE button

EVENT VIEWER button

④ CAMERA SELECTION buttons

⑤ SEARCH BY DATE / TIME

⑥ SEARCH CONTROLLER buttons

⑦ SEARCH TIMELINE BAR

REMOTE CLIENT SETUP

EXPLAINATION OF FUNCTION KEYS

① LIVE VIEW MODE Button : Return to Live View mode.

LOCAL SETUP Button : Local Configuration of the client software connect manager and properties.

DVR SETUP Button : Remote Configuration of the connected DVR system.

② DISPLAY MODE Button : Change the division screen between 1-, 4-, 9- or 16-channel view.

③ ARCHIVING Button : Remotely download a video archive, selectable by channel and date/time, with audio.

SAVE IMAGE Button : Save the current still image, in either BMP or JPG format.

EVENT LOG VIEWER Button : Can see all

BACKUP PLAYER button : Execute the backup player program.

PRINT IMAGE Button : Send the current playback still image to the printer.

EVENT VIEWER Button : View all events that have occurred since the start of the remote connection.

④ CAMERA SELECTION Buttons : Select a camera by channel number.

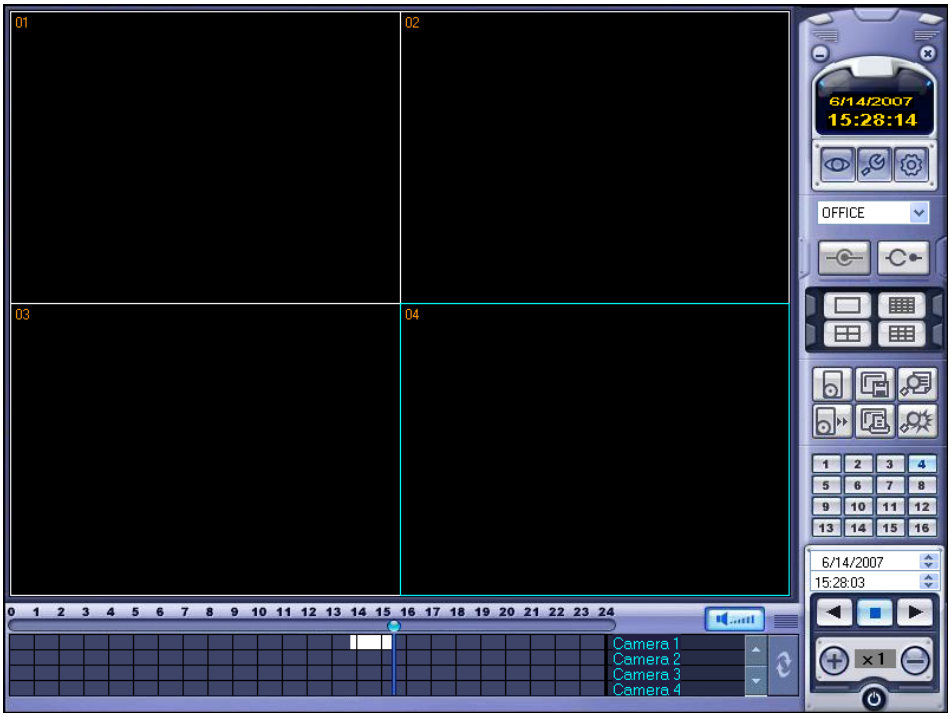
⑤ SEARCH BY DATE / TIME : Select a date and time for search and playback of video data.

⑥ SEARCH CONTROLLER Buttons : Controls the speed and direction of playback.

⑦ SEARCH TIMELINE BAR : Displays all timeline information of the selected date/time.
White areas indicate the presence of recorded video.
Dark areas indicate the absence of recorded video.

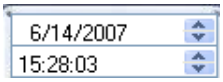
REMOTE CLIENT SETUP

QUICK SEARCH



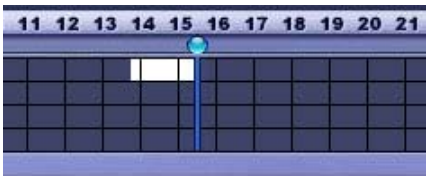
Click the **SEARCH** button in live view mode to switch the client over to search and playback mode.

The **SEARCH TIMELINE** at shows a graphical overview of all recorded footage for the selected date.



Choose the desired date by selecting and adjusting the date value using the arrow keys.

As different dates are selected, the **SEARCH TIMELINE** will change to show the recorded footage for the selected date.



Use the mouse to drag the **TIME BAR** to the desired time.

The exact time selected will be displayed under the date.

Click to begin playback from the selected date and time.

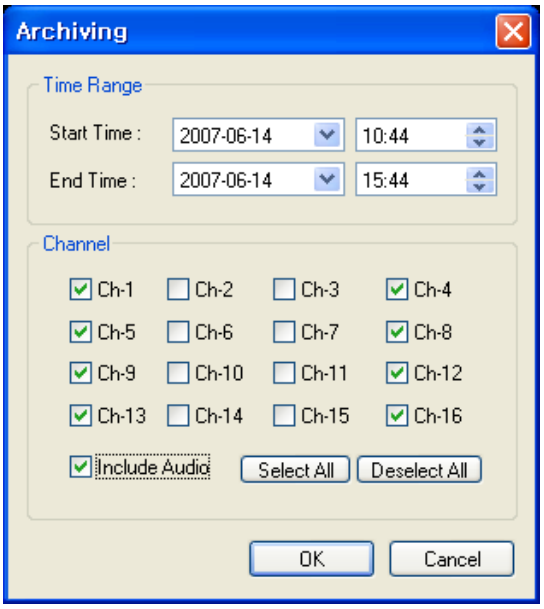
To change the play direction to reverse play, click .

Use the + and – buttons to increase or decrease playback speed.

Click to stop playback. Choose another time / date if required.

REMOTE CLIENT SETUP

ARCHIVING



Pre-recorded footage on a DVR can be archived to the local PC hard disk via remote download.

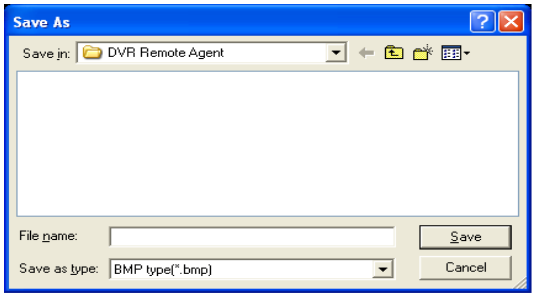
Click the ARCHIVE button to show the archiving menu.

Choose the start time, end time, select which channels to archive and whether to include audio, if applicable.

Choose 'Select All' to highlight all available channels (including audio) to add to the archive.

Click OK to begin downloading the archive data to the PC hard drive.

SAVE IMAGE



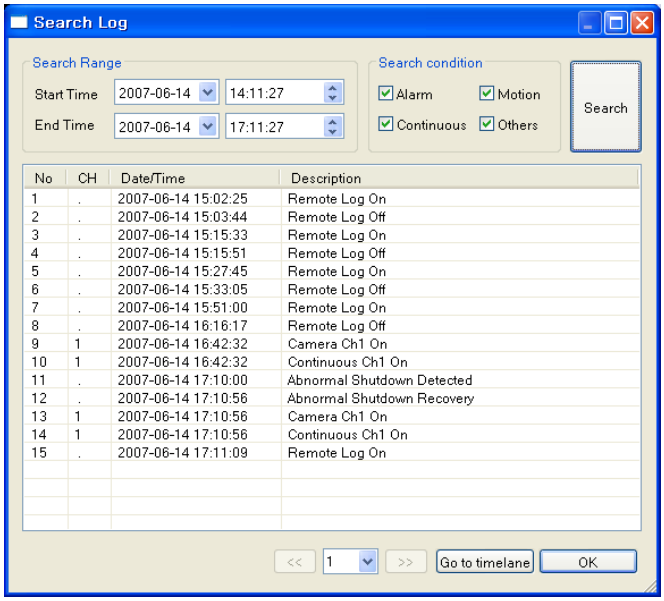
During playback, a still image can be saved to the local PC hard disk by clicking the **SAVE IMAGE** button.

Specify the file location and filename, and choose BMP or JPG format. Click 'Save' to save the image.

The snapshot image is saved exactly as it is shown. This includes the currently selected screen display mode.

REMOTE CLIENT SETUP

EVENT LOG VIEWER



To search for an event and playback the recorded footage, press the **EVENT LOG VIEWER** button.

Choose the ‘Start time’ and ‘End time’. Select which types of events to include in the search and click ‘Search’.

The system event log for the selected time period is displayed in the search window.

Select an event, click ‘Go to timeline’ and then click OK .

Click to begin playback of the selected event.

BACKUP PLAYER

To view video data which has been archived from a DVR, click the backup player icon.

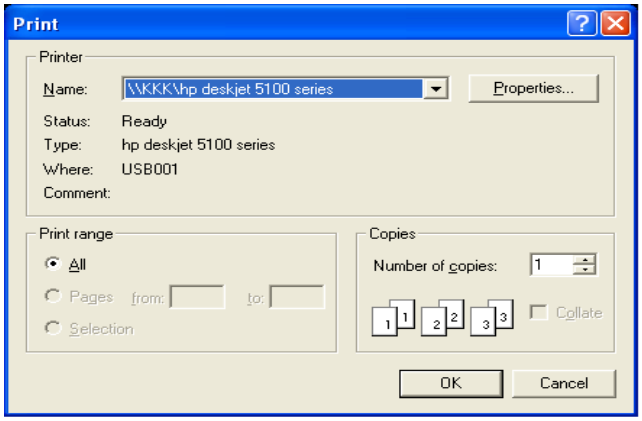
Click to choose which archive file to playback.

Playback of the archive file will begin.

The controls under the display can be used to adjust playback direction and speed.

REMOTE CLIENT SETUP

PRINT IMAGE

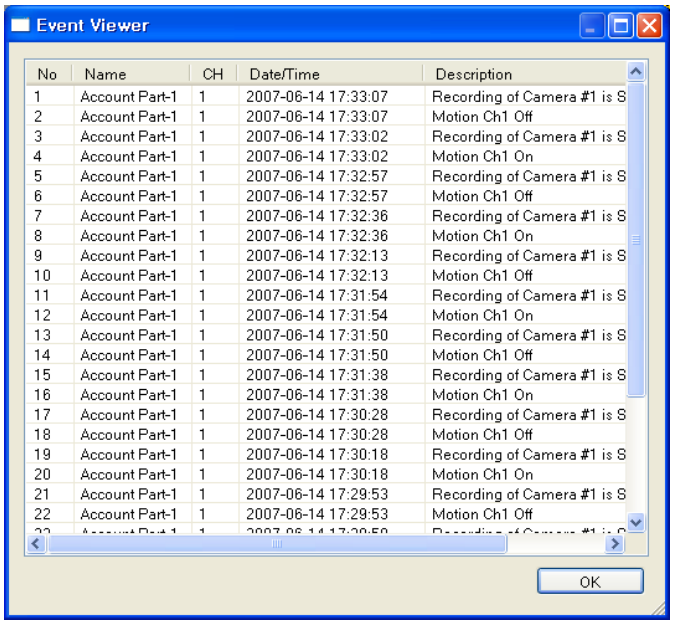


During playback, a still image can be sent to the printer of your local PC by clicking the **PRINT IMAGE** button.

Select the printer properties, and click OK to print.

The printed image will appear exactly as shown on screen. This includes the currently selected screen display mode.

EVENT VIEWER



While you are connected to a DVR, any system events that occur during the duration of the remote connection are sent to the remote client event list.

To display this list, click the **EVENT VIEWER** button.

REMOTE CLIENT SETUP

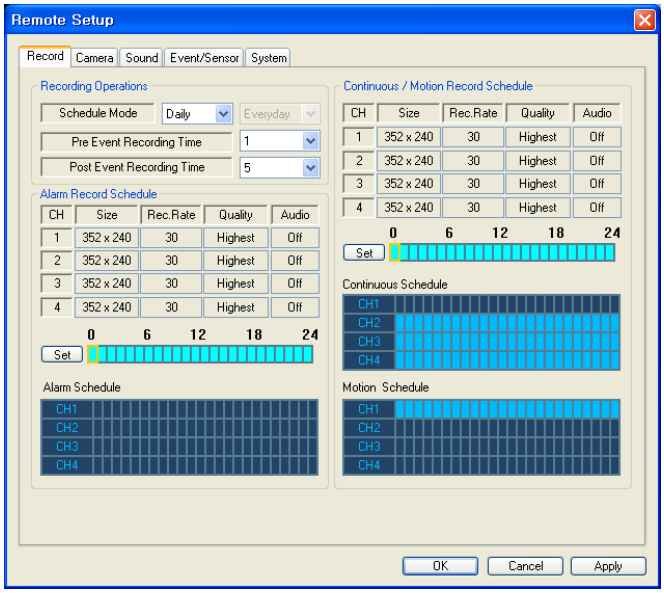
REMOTE DVR SETUP

Only the ADMIN user level has the permissions to configure a DVR remotely via network connection.
With the exception of network settings and display options, most DVR settings can be configured remotely.

ENTERING SETUP

Click the **DVR SETUP** button, enter the correct password for the ADMIN user account and click OK.

RECORD tab



• ***Recording Operations***

Schedule Mode: Select Weekly or Daily.

Pre-Event Recording Time :

Records an event and includes the buffer time before the event happened. (0 ~ 5 seconds)

Post-Event Recording Time :

Records an event and included the buffer time after the event happened. (5 ~ 180 seconds)

• ***Alarm Recording Schedule***

Click the **SET** Button to set the Alarm Recording parameters.

Set the image size, image rate, quality, and audio.

• ***Continuous / Motion Recording Schedule***

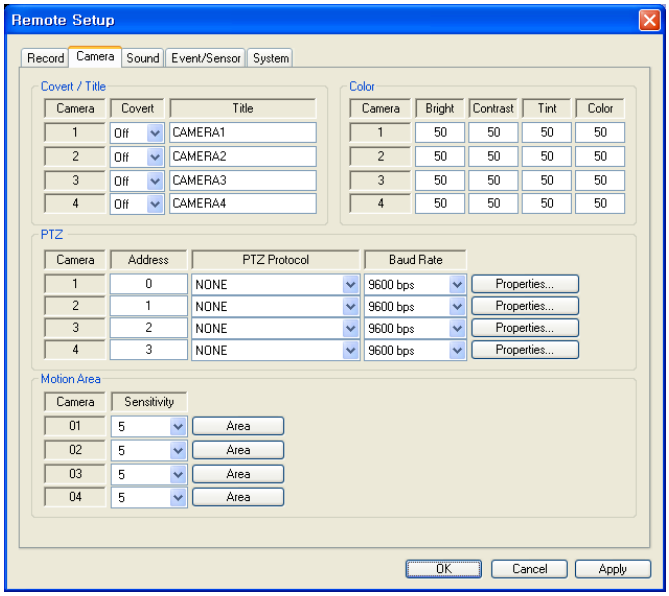
Click the **SET** Button to set the Continuous/Motion recording parameters and schedule.

Set the image size, image rate, quality, and audio.

REMOTE CLIENT SETUP

REMOTE DVR SETUP (continued)

CAMERA tab



- ***Covert / Title***

You may set the camera as 'covert' (hidden) and change the camera name.

(Covert function ON/OFF, Camera Title).

- ***Color***

Setup the Brightness, Contrast, Tint and Color.

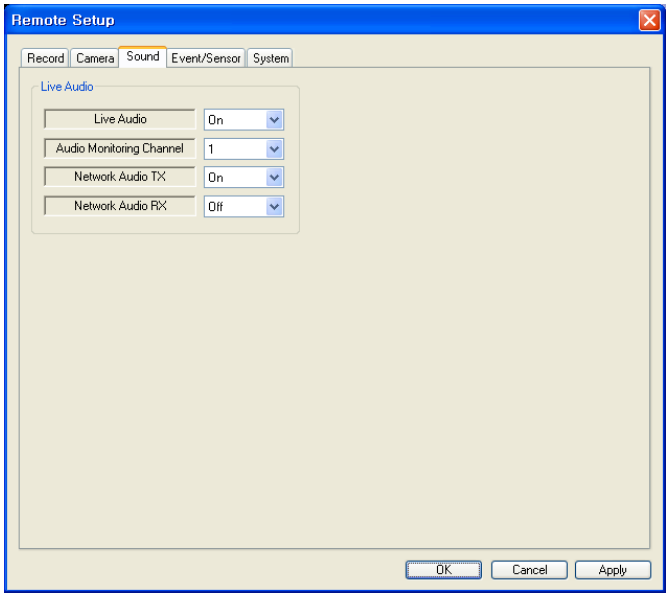
- ***PTZ***

Set the PTZ camera address, protocol, baud rate and other PTZ device properties.

- ***Motion Area***

Select a motion-sensitive area on one or more channels using a grid overlay with motion targets.

SOUND tab



- ***Live Audio Setup***

Live Audio : Set to ON/OFF.

Audio Monitoring Channel :

Select audio channel to hear when in multi-channel viewing mode.

Network Audio TX :

Toggle network audio transmission, DVR to client.

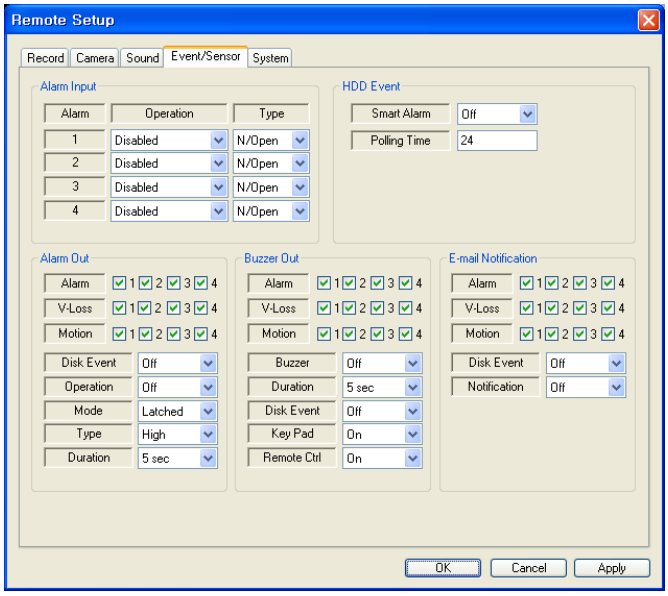
Network Audio RX :

Toggle network bi-directional audio, client to DVR.

REMOTE CLIENT SETUP

REMOTE DVR SETUP (continued)

EVENT / SENSOR tab



• HDD Event

Smart Alarm: ON/OFF.

Polling Time: The amount of time between tests.

• E-mail Notification

Check the E-mail Notification based on event type. (Alarm, Video Loss, Motion)

Disk Event: Toggle ON/OFF sending an e-mail notification when there is an HDD event detected.

Notification: Toggle ON/OFF sending an e-mail notification when there is a system event detected.

• Alarm Input

Enable or disable alarm inputs, and select the type. (Enable / Disable, Normally Open / Normally Closed)

• Alarm Output

Select the conditions for activating an alarm relay output. (Alarm, Video loss, Motion)

Disk Event : Enable or disable alarm relay output activation based on detection of an HDD error.

Operation : Enable or disable alarm relay output.

Mode : Select the behavior of the relay when it is activated. (Latched or Transparent)

Type : Select the relay type. (Normally Open / Normally Closed)

Duration : Set the relay activation duration. (5 seconds to 5 minutes, or until a key is pushed on the DVR)

• Buzzer Output

Select the conditions that will activate the system buzzer. (Alarm, Video loss, Motion)

Buzzer : Enable or disable the system buzzer.

Duration : Set the buzzer time duration. (5 seconds to 5 minutes, or until a key is pushed on the DVR)

Disk Event : Enable or disable buzzer activation based on detection of an HDD error.

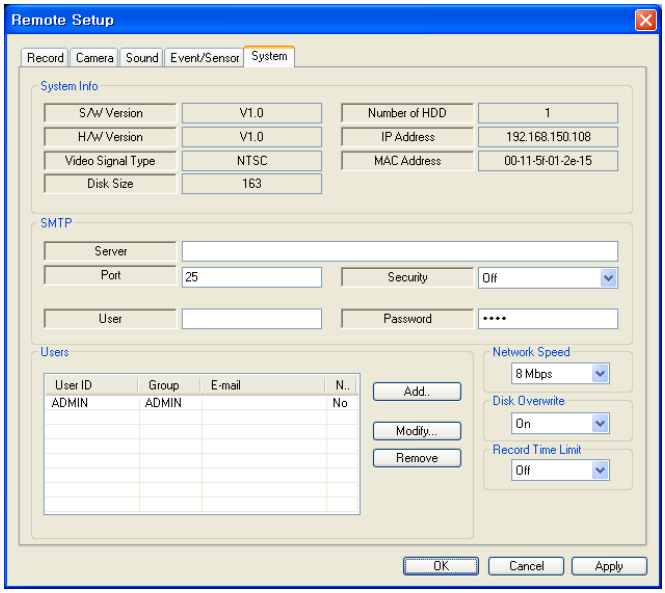
Keypad : Enable or disable buzzer chirp based on a Front Panel button press.

Remote Ctrl : Enable or disable buzzer chirp based on a Handheld IR Remote button press.

REMOTE CLIENT SETUP

REMOTE DVR SETUP (continued)

SYSTEM tab



- ***System Info***

View the DVR System Information (display only).

- ***SMTP***

Configure the SMTP settings for your outgoing e-mail server, including user ID and password (optional), to use the DVR e-mail notification feature.

- ***Users***

Add, modify, or delete a DVR user account.

- ***Network Speed***

Select the maximum allowed DVR network speed.

- ***Disk Overwrite***

Select ON/OFF to overwrite older recording data on the HDD with newer data once the HDD is full.

- ***Record Time Limit***

Select the time period for recorded data to remain on the HDD before being deleted by the system.

Français/French

Élimination de votre ancien appareil

1. Ce symbole, représentant une poubelle sur roulettes barrée d'une croix, signifie que le produit est couvert par la directive européenne 2002/96/EC.
2. Tous les produits électriques et électroniques doivent être éliminés séparément de la chaîne de collecte municipale des ordures, par l' intermédiaire des installations de collecte prescrites et désignées par le gouvernement ou les autorités locales.
3. Une élimination conforme aux instructions aidera à réduire les conséquences négatives et risqueséventuelspour l'environnement et la santé humaine.
4. Pour plus d'informations concernant l'élimination de votre ancien appareil, veuillez contacter votre mairie, le service des ordures ménagères ou encore le magasin où vous avez acheté ce produit.

English

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

Deutsch/German

Entsorgung von Altgeräten

1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
2. Alle Elektro- und Elektronik-Altgeräte müssen getrennt vom Hausmüll über die dafür staatlich vorgesehenen Stellen entsorgt werden.
3. Mit der ordnungsgemäßen Entsorgung des alten Geräts vermeiden Sie Umweltschäden und eine Gefährdung der persönlichen Gesundheit.
4. Weitere Informationen zur Entsorgung des alten Geräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, wo Sie das Produkt erworben haben.

Italiano/Italian

INFORMAZIONE AGLI UTENTI

Ai sensi dell'art. 13 del Decreto Legislativo 25 luglio 2005, n. 151"Attuazione delle direttive 2002/95/CE, 2002/96/CE e 2003/108/CE, relative alla riduzione dell'uso di sostanze pericolose nelle apparecchiature elettriche ed elettroniche, nonché allo smaltimento dei rifiuti"
Il simbolo del cassonetto barrato riportato sull' apparecchiatura o sulla sua confezione indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti.
La raccolta differenziata della presente apparecchiatura giunta a fine vita è organizzata e gestita dal produttore. L'utente che vorrà disfarsi della presente apparecchiatura dovrà quindi contattare il produttore e seguire il sistema che questo ha adottato per consentire la raccolta separata dell'apparecchiatura giunta a fine vita.
L'adeguata raccolta differenziata per l'avvio successivo dell'apparecchiatura dismessa al riciclaggio, al trattamento e allo smaltimento ambientalmente compatibile contribuisce ad evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il reimpiego e/o il riciclo dei materiali di cui è composta l'apparecchiatura.
Lo smaltimento abusivo del prodotto da parte del detentore comporta l'applicazione delle sanzioni amministrative previste dalla normativa vigente.

Polski/Polish

Utylizacja starych urządzeń

1. Kiedy do produktu dołączony jest niniejszy przekreślony symbol kołowego pojemnika na śmieci, oznacza to, że produkt jest objęty europejską dyrektywą 2002/96/EC.
2. Wszystkie elektryczne i elektroniczne produkty powinny być utylizowane niezależnie od odpadów miejskich, z wykorzystaniem przeznaczonych do tego miejsc składowania wskazanych przez rząd lub miejscowe władze.
3. Właściwy sposób utylizacji starego urządzenia pomoże zapobiec potencjalnie negatywnemu wpływowi na zdrowie i środowisko.
4. Aby uzyskać więcej informacji o sposobach utylizacji starych urządzeń, należy skontaktować się z władzami lokalnymi, przedsiębiorstwem zajmującym się utylizacją odpadów lub sklepem, w którym produkt został kupiony.

Português/Portuguese

Eliminação do seu antigo aparelho

1. Quando este símbolo de latão cruzado estiver afixado a um produto, significa que o produto é abrangido pela Directiva Europeia 2002/96/EC.
2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente da coleta de lixo municipal através de pontos de recolha designados, facilitados pelo governo ou autoridades locais.
3. A eliminação correcta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
4. Para obter informaçoes mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.

Español/Spanish

Cómo deshacerse de aparatos eléctricos y electrónicos viejos

1. Si en un producto aparece el símbolo de un contenedor de basura tachado, significa que éste se acoge a la Directiva 2002/96/EC.
2. Todos los aparatos eléctricos o electrónicos se deben desechar de forma distinta del servicio municipal de recogida de basura, a través de puntos de recogida designados por el gobierno o las autoridades locales.
3. La correcta recogida y tratamiento de los dispositivos inservibles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
4. Para obtener más información sobre cómo deshacerse de sus aparatos eléctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.