iDVR-PRO Video Surveillance DVR

Manufactured Exclusively for CCTV Camera Pros

IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with a dry cloth.

7) Do not block any of the ventilation openings.   Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding type plug.

   A polarized plug has two blades with one wider than the other.

       A grounding type plug has two blades and a third grounding prong.

       The wide blade or the third prong is provided for your safety.

       When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use the attachments/accessories specified by the manufacturer.

12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

       When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel.   Servicing is required when the apparatus has been damaged in any way, such as power supply

   cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been

   exposed to rain or moisture, does not operate normally, or has been dropped.

15) This equipment is indoor use and all the communication wirings are limited to inside of the building.

16) The socket-outlet shall be installed near the equipment and shall be easily accessible.

17) CAUTION

    RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

   DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Operation Max temperature : 40℃

USB Load condition: USB Ports(5 Vdc, Max. 500 mA)

BEFORE INSTALLATION

● Installation should be carried out only by qualified personnel and in accordance with any electrical regulations in force

   at the time.

● The DVR must be placed on a stable surface or mounted in an approved cabinet.
   Adequate ventilation must be provided, taking particular care not to block any of the air vents on the DVR.

● Adequate protection against lightning strikes and power surges must be installed to prevent damage to the DVR.

● Any safety warnings on the DVR and in these instructions must be adhered to.

● If cleaning is necessary, shutdown the DVR and disconnect power first.
   Use a soft dry cloth only never use any abrasive cleaners.

● Do not attempt to service or repair the DVR as opening or removing covers may expose dangerous voltages or other
   hazards.

   Refer all servicing to qualified service personnel.

MAIN FEATURES

MOUSE CONTROL

Designed to be controlled and easy to use with a mouse.

ENHANCED GRAPHICAL USER INTERFACE [GUI]

The DVR menu structure and on screen display is presented in a simple to use and logical GUI format.

GENUINE PENTAPLEX OPERATION

The DVR will continue to record at full frame rate during local playback, local setup, multi user remote viewing and playback and remote setup.

AUDIO

4 audio inputs are supported which can be assigned to any video channel. Live and recorded audio can be monitored remotely over the internet and remote 'talkback' audio transmission to the DVR is also possible.

BACKUP

Recorded footage (including audio) can be archived to USB memory stick or CD/DVD.

Playback software is embedded with the backup files and the backup also contains the system event log and backup log for full traceability.

REMOTE CONNECTION

Software is provided to allow remote connection for up to 8 DVRs in one session. Depending on the user level, full DVR control is available over the internet as well as the ability to remotely configure the DVR.

Alarm outputs on the DVR can be remotely triggered over the internet.

COMPREHENSIVE RECORDING SETUP

Recording can be scheduled, alarm or motion activated. For each type of recording, frame rates, image quality and audio recording properties can be adjusted per hour, day and for each individual channel.

The DVR also has a panic recording feature (from the front panel or external input) which overrides all other recording settings to provide the best quality recording in the event of an emergency.

PTZ CONTROL

Full PTZ control is available from the front panel or remote connection and a wide number of speed dome protocols are supported. Protocols can be set individually for each channel and PTZ speed can be adjusted to suit particular speed domes.

MAIN FEATURES

TELEMETRY CONTROL

Full telemetry control is available from the front panel or remote connection and a wide number of speed dome protocols are supported. Protocols can be set individually for each channel and telemetry speed can be adjusted to suit particular speed domes.

EXTENSIVE MONITOR SUPPORT

The DVR has 3 main monitor outputs (Composite, VGA and S-Video) which can be used simultaneously.
Support is also provided for up to 4 spot monitors and each spot monitor output can be programmed in the DVR setup.

LIVE DISPLAY

The DVR displays single or multi screen images and also has several sequence modes (standard and user definable).

CONFIGURATION BACKUP

All configuration settings on the DVR can be saved to USB memory stick or a PC file remotely.
The saved data can then be uploaded to other DVR units allowing rapid deployment where more than
one DVR is being installed.

EMAIL SUPPORT

The DVR can send emails to specific users to notify events such as alarm, motion detection,
hard drive failure, & etc.

SYSTEM ORGANIZATION

Alarm Sensor

Alarm out

Remote Client PC

Image Printer

Alarm Input/Out

Camera

NETWORK

AVI Backup

TCP/IP

Video In

DVR system

WEB Client

Backup

Video Out

Remote Controller

VCR

VGA Monitor

AV Monitor

CD-RW

USB
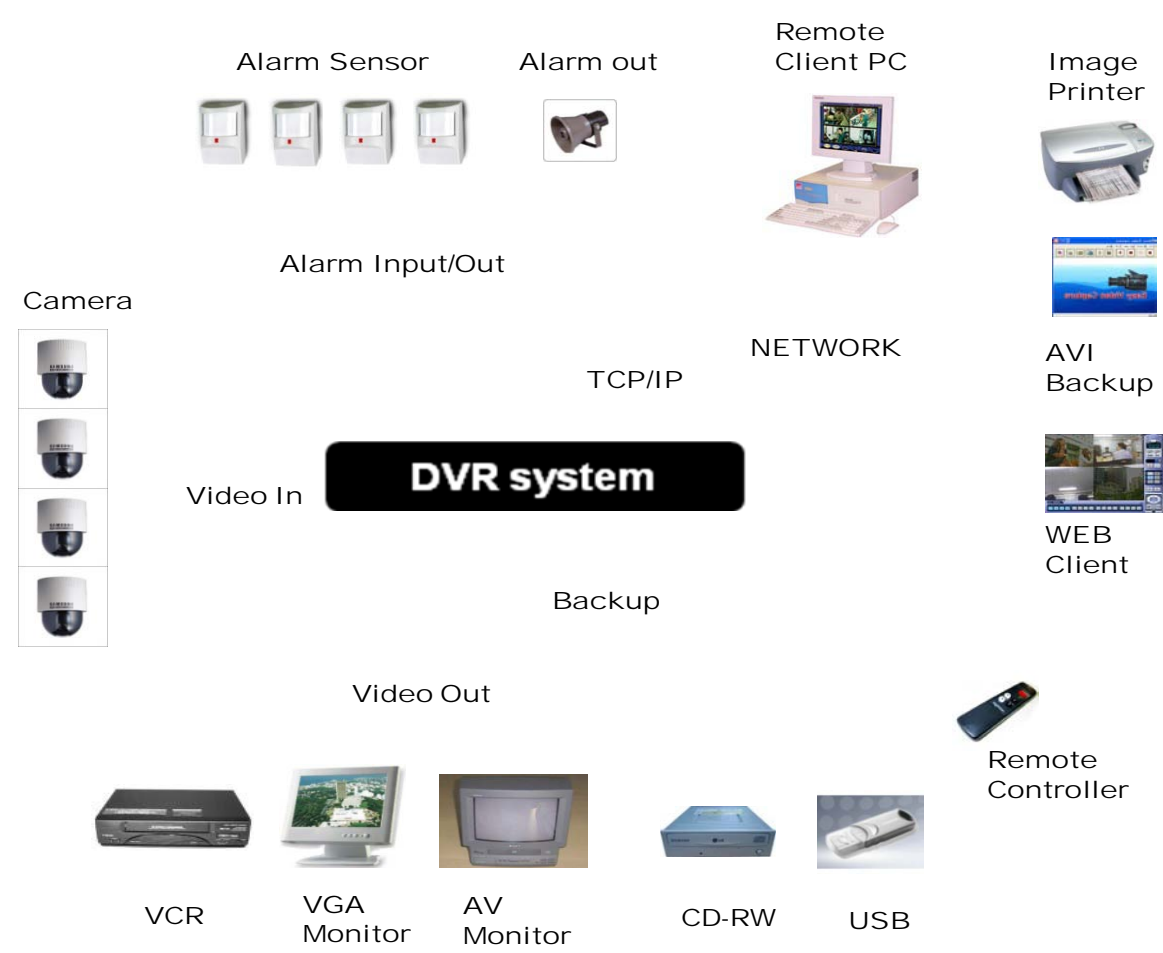
SYSTEM CONFIGURATION

1. Front panel description.

KEY	DESCRIPTION
Function Key	
POWER	Turn On/Off the system power
DISPLAY	Selects various display modes in live display and playback
PTZ	Selects PTZ mode in live display
SETUP	Displays the setup menus
SEARCH	Displays the search menu
Control Key	
CHANNEL SELECTION BUTTONS	Used to display individual channels in live display and playback Also used to enter numeric passwords for the various login screens
CURSOR KEYS	Allow to Navigate on the menu
ENTER	Apply or Select an item
RETURN	Cancel or go to Previous menu
Playback Control	
Shuttle Wheel	Used to quickly adjust playback speed and direction. Also used to control camera zoom when in PTZ mode , and digital zoom level in live display
JOG	When playback is paused, used to move footage forwards or backwards, frame by frame
HOLD	Locks the current function of the SHUTTLE WHEEL so it can be released
◄◄	Increases reverse playback speed
◄	Selects reverse playback
II	Pauses / resumes playback
▶	Selects forward playback and also accesses the instant playback feature
▶▶	Increases forward playback speed

SYSTEM CONFIGURATION

2. Rear panel description.
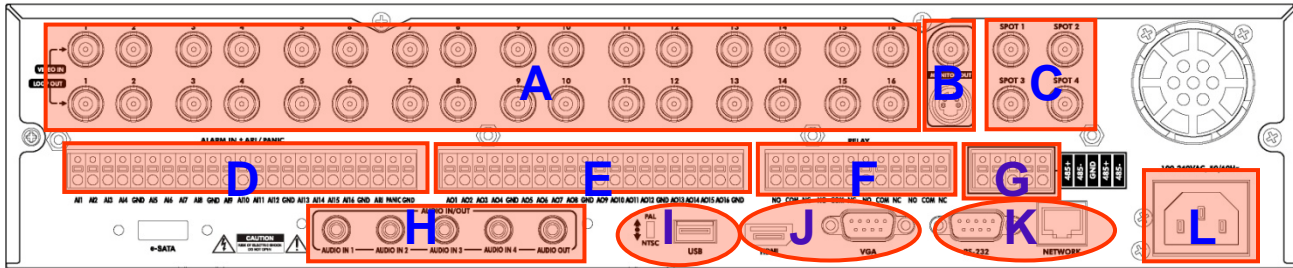
A. **CAMERA INPUTS and LOOP OUTPUTS :**

Connect up to 16 camera inputs. Loop outputs can be used for connection to other equipment.

B. **COMPOSITE AND S-VIDEO MAIN :** MONITOR CONNECTIONS Both outputs can be used at the same time if more than one main monitor connection is required.

C. **SPOT MONITOR OUTPUTS :** Up to 4 spot monitors can be connected as necessary.

D. **ALARM INPUTS :** Up to 16 alarm inputs can be connected and configured as high or low

Inputs with common ground.

E. **ALARM OUTPUTS :** Up to 16 alarm inputs can be connected and configured as high or

low outputs with common ground.

F. **RELAY OUTPUTS :** Up to 4 Relay outputs can be connected and configured as high or low

outputs with common ground.

G. **RS485 :** Can connect PTZ camera and controller by two RS485 connectors.

H. **AUDIO INPUTS & OUTPUTS :** Up to 4 audio inputs and one audio output can be connected

as necessary.

I. **VIDEO SIGNAL SWITCH** : Can change Video input signal type.

USB PORT : Can connect USB mouse or USB device for backup.

J. **HDMI :** Can connect HDMI monitor output.

VGA : Can connect VGA monitor output.

K. **RS232 :** Serial port.

LAN : Can connect to a router or internal network.

L. **POWER :** Can connect Power cable.

SYSTEM CONFIGURE – Remote Controller

3. Remote Controller description.

POWER
System
ON/OFF

MENU : Open System Setup Menu

Channel Selection Buttons

ID
Button
Select
DVR ID

RETURN
Cancel /
Deselect
Previous Screen

ENTER : Apply / Select /Go to Next Screen

Navigation Buttons : Used for Playback Control, Menu Navigation, and PTZ/Focus Control

SCR MODE	SEARCH	P/T/Z	OSD
F1	SEQUENCE	ZOOM	F2

Change Display Mode

Search Menu

PTZ/IRIS Mode

※ If there are many DVRs on stack, each DVR must be set with different ID, the remote controller sets each ID per DVR, then all DVRs can be controlled with one remote controller by each ID.

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, S-VIDEO or HDMI** 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.

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

The status bar(Include menu control) at the bottom of the screen shows menu first time. After that, it will show the current time and date.

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.

MENU CONTROL

All menus can be controlled from above 'Status Bar' with mouse or front buttons.

LIVE DISPLAY

DIVISION SCREEN

Select the 'DISPLAY" button and screen division menu will appear.

Select the screen type (1,4,6,8,9,16 and rotation sequence).

Sequence mode

User can select the type from display menu.

Press the **SEQ** button. Each channel is shown in full screen for a set period of time 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

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LIVE DISPLAY

PTZ

1) CAM: Select the Channel

2) Sequence: If pressing the "START" button after assigning the "Preset" in advance, sequence will be started.

3) Position name: Input the name after assigning the "Preset" location.

4) Avail. Position: User can see the available Preset location. If clicking the "GOTO" button after selecting it, camera will be moved. Press the "REMOVE" button to delete the saved Preset location.

5) Zoom, Focus, IRIS: User can control each item with + or - button.
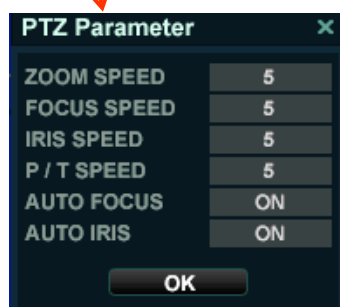
6) Parameter

Press this button and another window will appear.

User can select each items from PTZ parameter menu.

Digital Zoom

Select the "ZOOM" button.

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

To use the 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.

LIVE DISPLAY

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User can see the current log immediately.

Click once after selecting log, recorded data will be played. This is in case of selecting the "PREVIEW" option)
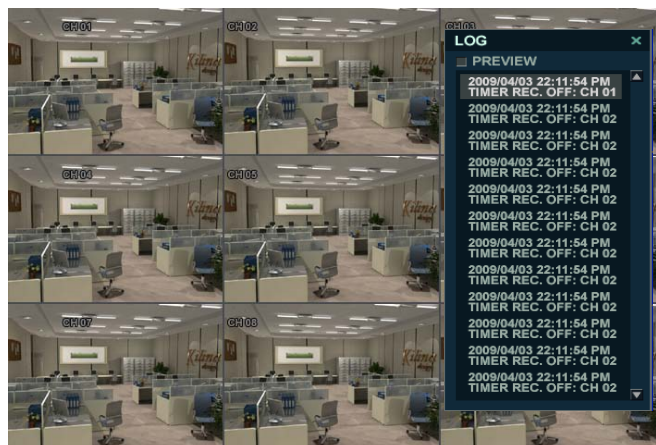
Panic Recording

This menu is used to start and stop the Panic recording.

If the panic recording is started, record icon will change to red square with "P".

Select once more to return to previous.

  - Panic recording setup will be assigned from Record menu.

LIVE DISPLAY

Quick Menu
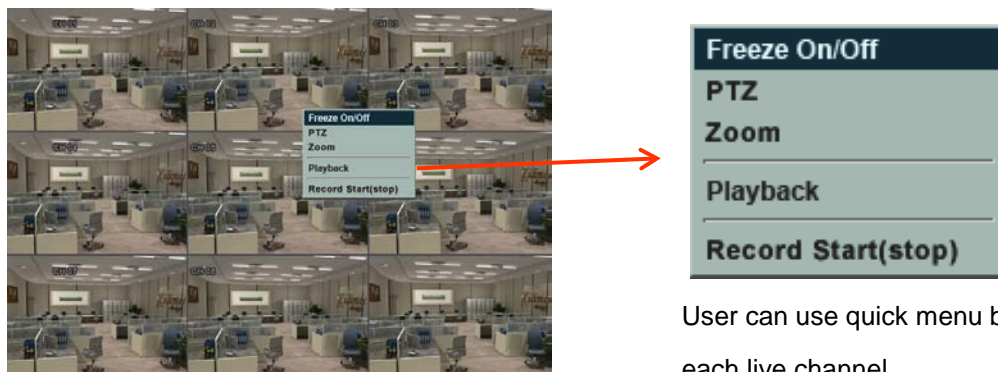
User can use quick menu by clicking the right of the mouse on each live channel.

Click the right of the mouse on live channel that user wants to control.

1. Freeze On/Off: User can stop the live display of channel that user wants. Even though other channels show live display, this particular channel display is stopped. Click once more to return to previous.

2. PTZ
  Please refer to "PTZ" menu of Page 12.

3. Zoom
  Please refer to "ZOOM" menu of Page 12.

4. Playback
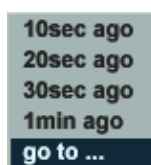
User can playback immediately with selected time (10, 20, 30 seconds or 1 minute ago).
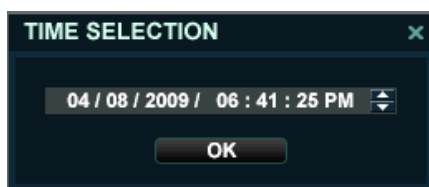
In case of selecting "go to'" menu, this menu will appear.
After selecting the time, press "OK".

5. Record Start (Stop)
  Please refer to "Panic record" menu of Page 13.

SYSTEM SETUP

 Click the "MENU" and click the **SYSTEM SETUP** menu.

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**.

SYSTEM SETUP

CAMERA

Click the **CAMERA** menu.

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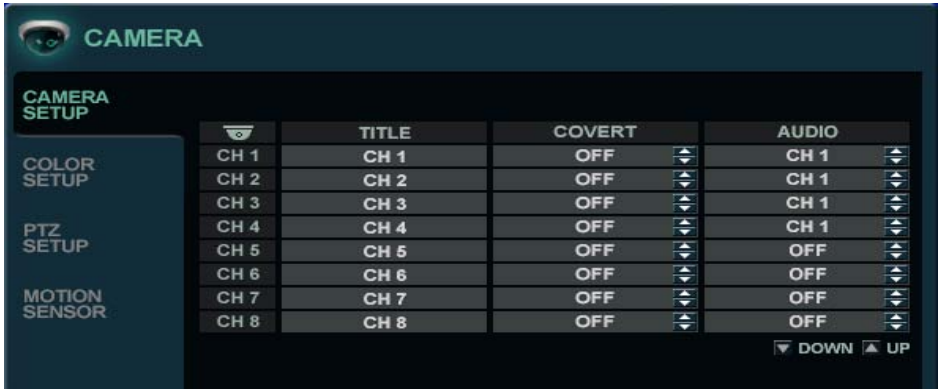
To setup the various camera options, highlight CAMERA and press **ENTER**.

TITLE: Input the camera title.

COVERT: When it is set to ON, the camera image is not displayed in live display but continues to record.

AUDIO: Determines the audio recording channel.

CAMERA : COLOR SETUP
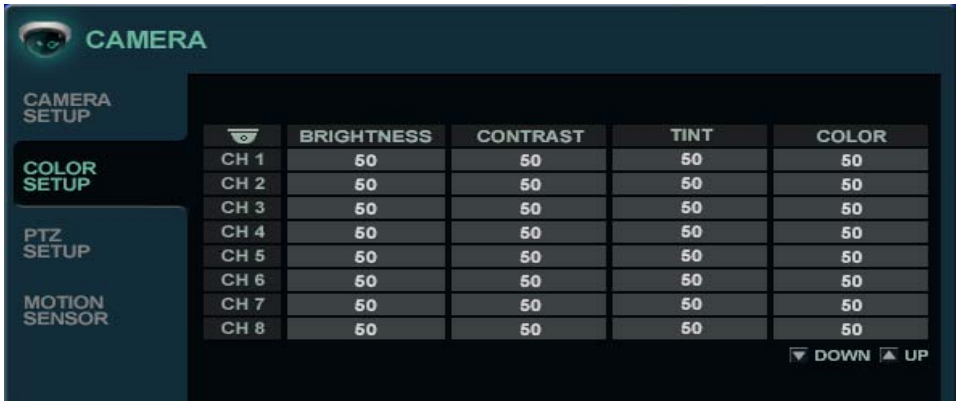
Brightness, contrast, tint and color can be adjusted for each individual channel.

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

SYSTEM SETUP

Click each value with ⬍ button.

The selected channel is displayed in full screen.

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

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

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

CAMERA : PTZ SETUP

Click the **PTZ SETUP** menu and click each value on the ADDRESS, PROTOCOL and BAUD RATE menu.

Change each value with ⬍ button.

ADDRESS: The unique ID of the PTZ device.

PROTOCOL: The protocol of the PTZ device.

BAUD RATE: The baud rate of the PTZ device.

DETAIL : Detail setting for PTZ device. (Refer to the next page)

TOUR : Tour setting for PTZ device. (Refer to the next page)

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SYSTEM SETUP

DETAIL

PTZ Property	✕
CHANNEL NO.	1
PTZ DRIVER	PELCO-D
AUTO FOCUS	ON
AUTO IRIS	ON
P/T SPEED	5
ZOOM SPEED	5
FOCUS SPEED	5
IRIS SPEED	5
OK	

Click the "DETAIL" button and change the detail value with [ ] button.

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

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

TOUR

TOUR SETTING

CH **1**   MODE **AUTO**

STEP	PRESET NO.	DWELL TIME	STEP	PRESET NO.	DWELL TIME
1	1	1	9	NONE	1
2	2	3	10	NONE	3
3	3	4	11	NONE	4
4	9	1	12	NONE	6
5	NONE	5	13	NONE	5
6	NONE	6	14	13	6
7	NONE	9	15	NONE	15
8	NONE	15	16	NONE	15

Click the "**TOUR**" button and set the MODE to [AUTO] to use TOUR function.

First of all, please set PRESET number on the live PTZ mode.

Then set the PRESET number 1 to 16 and DWELL Time.

DWELL TIME means staying time on position until move next preset position.

SYSTEM SETUP

CAMERA : MOTION SENSOR
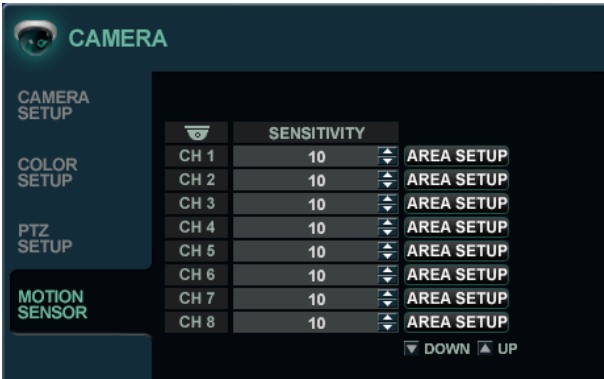
Click the **MOTION SENSOR** menu and click the value on the SENSITIVITY menu.

Change the value with [ ] button.

SENSITIVITY : Between 1 (Lowest) and 10 (Highest) and determines the degree of motion required before recording is activated.
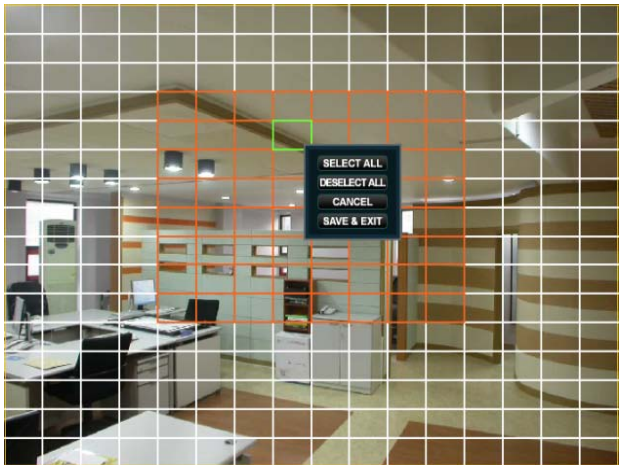
Click the AREA SETUP button.

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

For quick select or deselect the entire grid,
click the right mouse button and click the **SELECT ALL** or **DESELECT ALL** menu.

- Red line area: Selected area
- White line area: Non selected area

SYSTEM SETUP

DISPLAY

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

DISPLAY - OSD

Click the **OSD** menu.

Then click the button for ON/OFF and change the value.

STATUS BAR : Determines the time to turn from the menu of status bar to time display.

CAMERA TITLE : Determines whether the camera title is displayed.

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

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

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

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

    OFF – normal display mode.

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

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

LANGUAGE: Determines the language type.

SYSTEM SETUP

DISPLAY : MONITOR

Click the **MONITOR** menu

Then click the [icon] button for ON/OFF and change the value

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

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

DE-INTERLACE MODE : When recording any channels in D1 resolution (704 x 576), this should be set to ON to prevent shudder during playback.

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

SYSTEM SETUP

DISPLAY : SEQUENCE
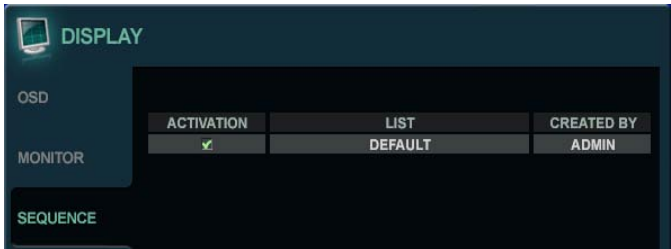
Click the **SEQUENCE** menu.

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.
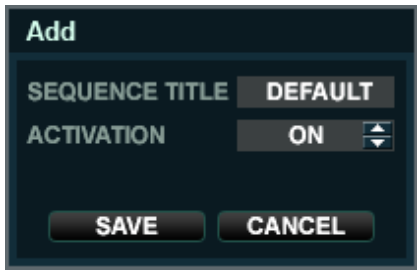
Click the **ADD** menu.

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

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

Click on the ACTIVATION tab and click [   ] button for select ON/OFF.

Select the **SAVE.** Then, below menu will appear.
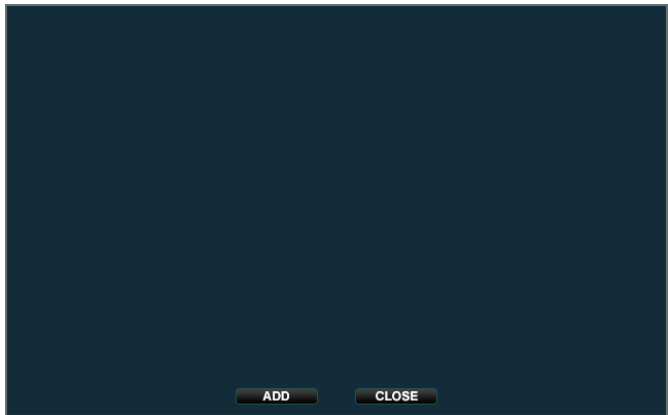
SYSTEM SETUP
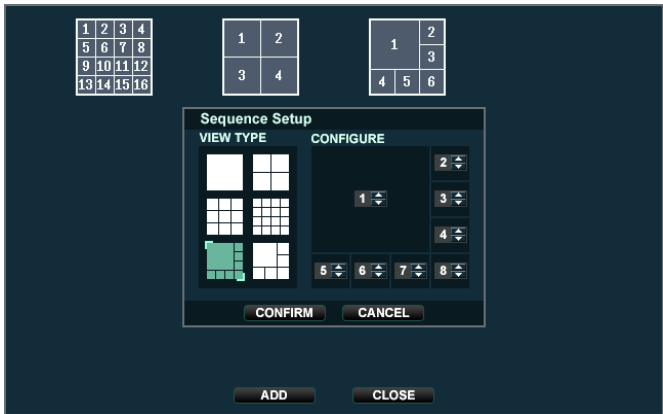
Press **ADD**. Then, "Sequence Setup" menu appears.

Determine the "VIEW TYPE" and assign "CONFIGURE". Then, click **CONFIRM**.

To add an additional mode, click **ADD** continuously. After finishing the setup, press **CLOSE**.

To modify the current one, double click that mode. Then 'Sequence Setup" window will appear again.
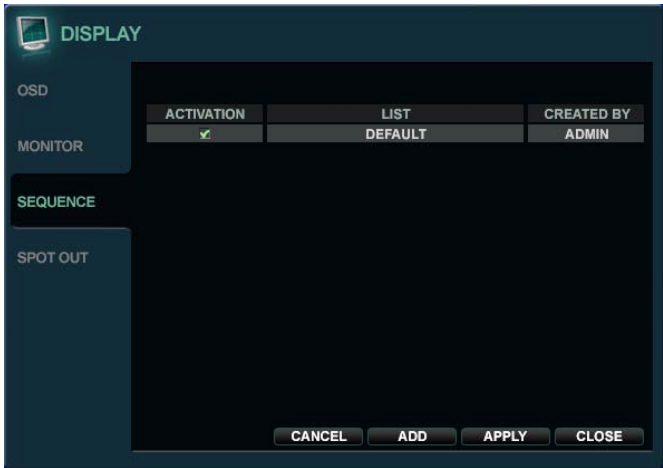
The new sequence is now saved and can be started by pressing the **SEQ** button when in live view.

SYSTEM SETUP

DISPLAY : SPOT-OUT

Click the **SPOT-OUT** menu and click the camera channel for ON/OFF.

The DVR has **4 SPOT MONITOR OUTPUTS (Digital Spot)**.

User can assign the SPOT OUT display for each channel.

Double click the spot out channel that requires to be assigned.
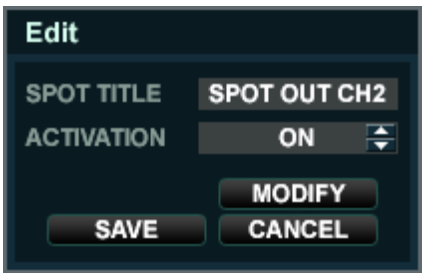
SPOT TITLE: input the title.

ACTIVATION: Determines ON/OFF.

Press **MODIFY.** (Below is default setup)

To modify the current display, double click the display. Then 'Spot Sequence Setup" window will appear.

How to setup is same as Sequence setup. (User can assign Single and Quad display only)

To add the additional display, press **ADD.**
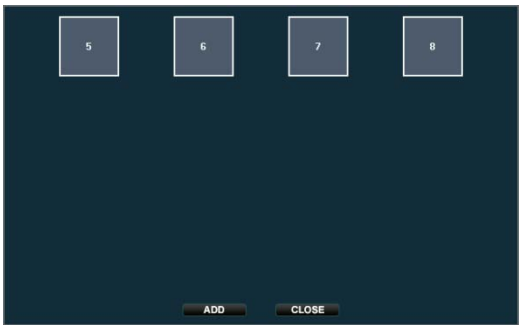
SYSTEM SETUP

SOUND

Click the **SOUND** menu.

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

SOUND : AUDIO
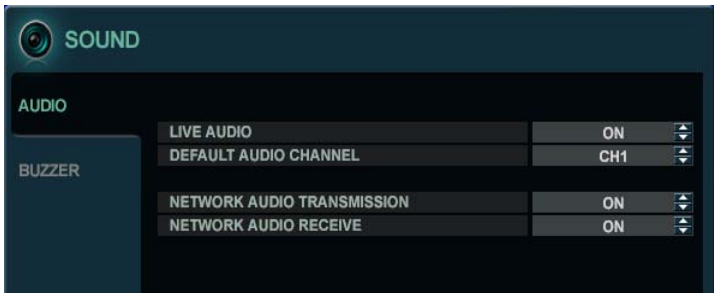
Click the **AUDIO** menu and click the ON/OFF menu.
Then, click the [button] button for ON/OFF.

LIVE AUDIO : When it is set to ON, the selected audio channel can be monitored on the AUDIO OUTPUT.

AUDIO MONITORING CHANNEL : Specify which one of the 4 AUDIO INPUTS is routed to the AUDIO OUTPUT.

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.

SOUND : BUZZER

Click the **BUZZER** menu and click the ON/OFF menu.
Then, click the [button] button for ON/OFF.

KEYPAD: When it is set to ON, each front panel button press is confirmed by a beep.

SYSTEM SETUP

SYSTEM

Click the **SYSTEM** menu.

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

DATE / TIME
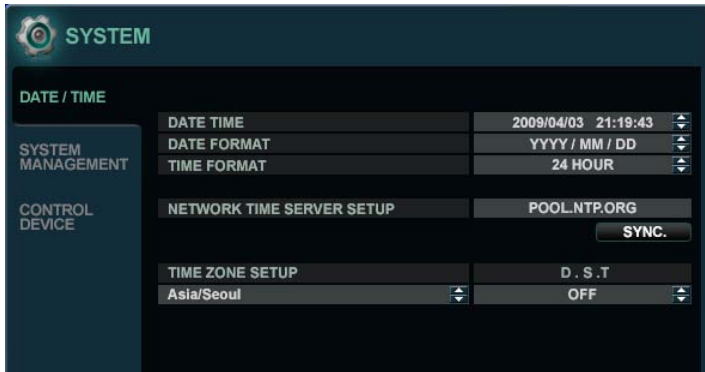
Click the **DATE / TIME** menu.

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 accurately set by selecting SYNC and pressing **ENTER**.

TIME ZONE SETUP : It should be set according to the region, which the DVR is used in.

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

SYSTEM SETUP

SYSTEM : SYSTEM MANAGEMENT

Click the **SYSTEM MANAGEMENT** menu.

SYSTEM INFORMATION: User can see the system information as below.

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

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

VIDEO SIGNAL TYPE : The DVR automatically switches between PAL and NTSC depending on the channel 1 input signal at power on.

DISK CAPACITY : The first value shows the amount of hard drive capacity used by recorded footage, the second value shows the total hard drive capacity installed.

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.
It is unique – no other network device has this MAC address.

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

NET CLIENT PORT : The port number that the DVR uses to support remote connection 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.

SYSTEM SETUP

SYSTEM NAME : It is used so that notification emails can be identified.

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.

After inserting the F/W in USB or CD/DVD, Press **UPDATE**. Then , below menu will appear.
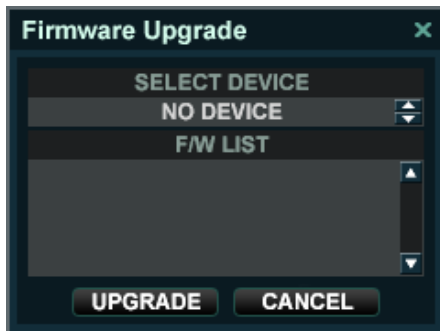
After selecting the F/W from F/W list, press **UPGRADE**.

Then, F/W upgrade is started.

FACTORY DEFAULT : If settings have been changed , which cause erratic behavior, the factory default settings

can be loaded.

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 apart from

network settings and system name.

PASSWORD: Determines the PASSWORD ON/OFF to enter specific menu.

SYSTEM : CONTROL DEVICE

This will allow up to 254 DVRs to be controlled from the same keyboard.

SYSTEM ID : If more than one DVR is connected on the same RS485 bus, each one must have a unique ID.

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

PROTOCOL : Must be set by Control Device.

BAUD RATE : Must be set to match the baud rate of the PTZ controller.

SYSTEM SETUP

USER

Click the USER menu.

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

USER: USER MANAGEMENT
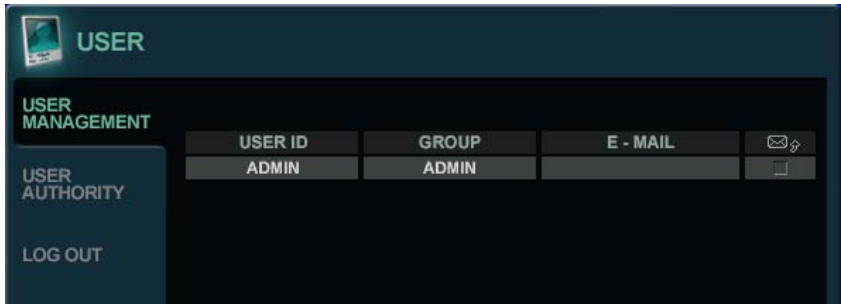
By default, the DVR is configured with a user ID of ADMIN, belonging to the ADMIN group and with a password of 1234.

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.
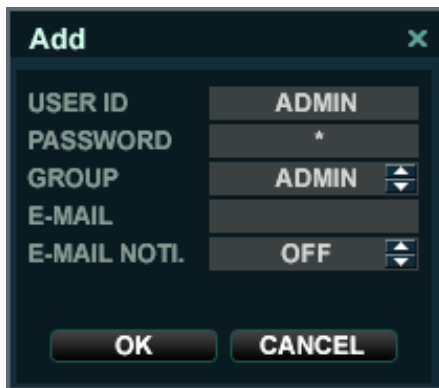
The maximum number of users that can be created is 8.

For editing, double click on the each tab.

After changing, click OK.

USER ID : Edit the user ID using the virtual keyboard. (Max. 10 characters)

PASSWORD : Change the password using the virtual keyboard. (Max. 4 Characters)

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

E-MAIL : Enter the user's email address if email notification is required. (Max. 64 Characters)

E-MAIL NOTIFICATION : Enable or disable email notifications for the specified user.

SYSTEM SETUP

USER ID : Edit the user ID using the virtual keyboard.

PASSWORD : Change the password using the virtual keyboard.

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

E-MAIL : Enter the user's email address if email notification is required.

E-MAIL NOTIFICATION : Enable or disable email notifications for the specified user.

USER: USER AUTHORITY
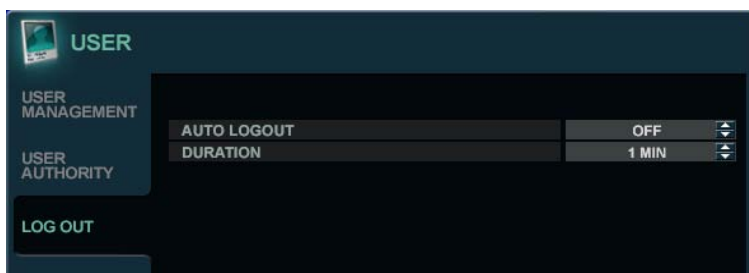
User can give the authority to the MANAGER and USER.

To select authority, click the **APPLY** button after selecting each item.

Please note: Any user can be deleted except the default ADMIN user.

USER: LOG OUT

AUTO LOGOUT: Determines the AUTO LOGOUT ON/OFF.

DURATION: In case of selecting AUTO LOGOUT ON, determines the duration.

SYSTEM SETUP

NETWORK

Click the **NETWORK** menu and determine each value.

NETWORK: IP SETUP

Click the **IP SETUP** menu.

DHCP : When enabled, the DVR will obtain an IP address automatically if it is connected to a DHCP server or router.

WEB SERVICE : When enabled, it 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.

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

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

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

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

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

PORT TEST: User can test if the port connection has succeeded or failed.

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.

SYSTEM SETUP

NETWORK: DDNS

DDNS : When enabled, the DVR can be accessed through a Dynamic DNS server.

Commonly used if a broadband connection does not have a static IP address.

NETWORK: E-MAIL

Click the **E-MAIL** menu.

SERVER : The SMTP outbound email server that should be used to send email notifications.

PORT : The outbound email 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 email messages.

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

FROM: Input the E-mail address or any text. It is only used for E-mail test (E-mail sender)

TEST E-MAIL: User can test after inputting E-mail address to receiving test E-mail

SYSTEM SETUP

EVENT / SENSOR

Click the EVENT / SENSOR menu.

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

EVENT / SENSOR: HDD EVENT
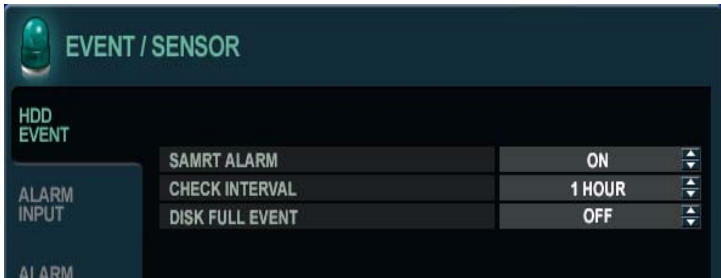
Click the HDD EVENT menu.

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

SMART ALARM : Enables SMART disk monitoring.

CHECK INTERVAL : Can be adjusted as desired.

DISK FULL EVENT: Determines ON/OFF.

EVENT / SENSOR : ALARM INPUT
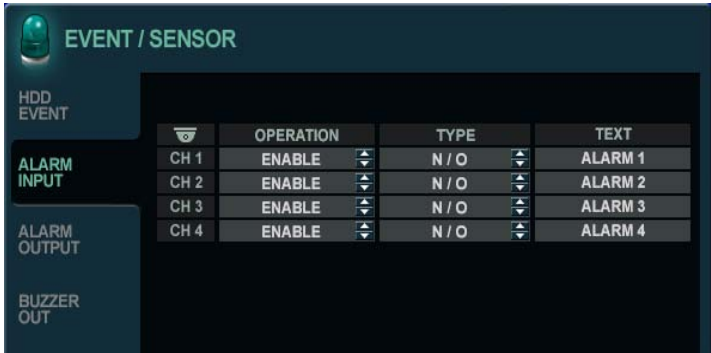
Click the ALARM INPUT menu and click the OPERATION and TYPE value.

Determines the behavior of each of the 8/16 alarm inputs.

OPERATION : Alarm inputs can be enabled or disabled.

TYPE : Alarm inputs can be set as normally open or closed.

SYSTEM SETUP

EVENT / SENSOR : ALARM OUTPUT

Click the **ALARM OUTPUT** menu and click each value.

Determines the behavior and actions that will trigger each of the 8/16 alarm outputs.

Behavior settings

ALARM OUT : Choose which alarm output to configure.

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

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

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

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

HDD EVENT : Determines whether a hard drive event triggers the alarm output.

Action settings

ALARM : Determines whether 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.

 Remember to select APPLY and press ENTER to save all settings before exiting these menus

---

SYSTEM SETUP

EVENT / SENSOR : BUZZER OUT
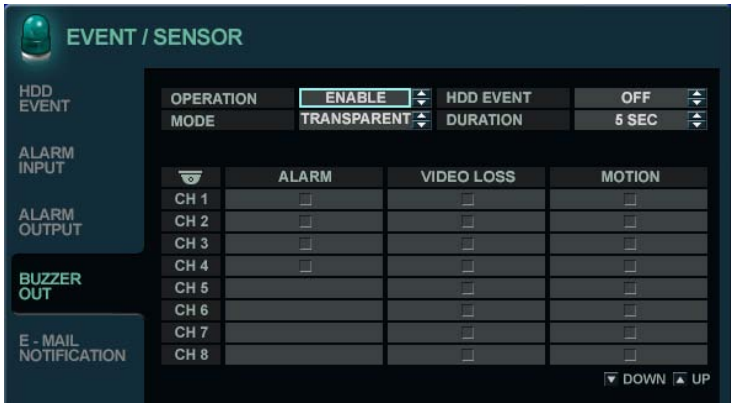
Click the **BUZZER OUTPUT** menu and click each value.

Determines the behavior and actions that will trigger the internal buzzer.

Behavior settings

OPERATION : The internal buzzer can be enabled or disabled.

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

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

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

Action settings

ALARM : Determines whether 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.

> **Remember to select APPLY and press ENTER to save all settings before exiting these menus**

SYSTEM SETUP

EVENT / SENSOR : EMAIL NOTIFICATION
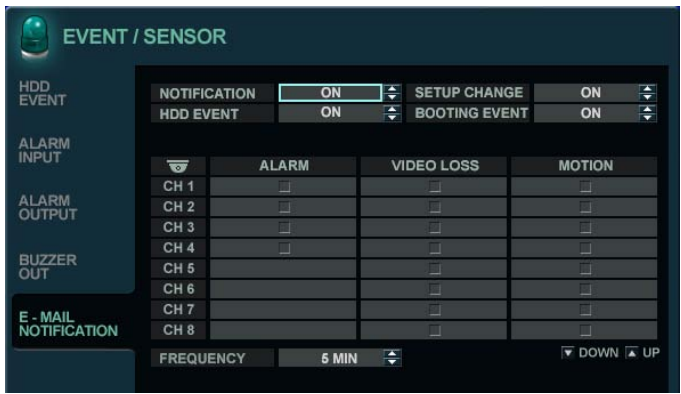
Click the **EMAIL NOTIFICATION** menu and click each value.

Determines the behavior and actions that will send an email to a remote user.

Behavior settings

NOTIFICATION : Email notification can be turned ON or OFF.

SETUP CHANGE: Determines whether a setup change sends an email.

HDD EVENT : Determines whether a hard drive event sends an email.

BOOTING EVENT: Determines whether a booting event sends an email.

Action settings

ALARM : Determines whether alarm inputs will send an email.

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

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

FREQUENCY: E-mail sending period (Max. 60 MIN)

> **Email settings must also be configured in MAIL and USER MANAGEMENT from USER MANAGEMENT menu.**

SYSTEM SETUP

DISK MANAGE

Click the **DISK MANAGEMENT** menu.

Then, click the PRESS menu for FW Upgrade,

Factory Default and System Data.

To manage the internal hard drives, 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).

Recording can be limited to 12 hours, 1 day, 2 days, 3 days, 1 week or one 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 it is set to OFF, the DVR will stop recording when the disk becomes full.

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

> **Please note: When a RECORD TIME LIMIT is set, the OVERWRITE option cannot be changed**

RECORD MENU

RECORD MENU

Click the "MENU".

Input the password . Then main menu will appear.

Click the **RECORD** menu.

To setup the recording behavior of the DVR, highlight RECORD MENU and press **ENTER**.

RECORD : RECORDING OPERATIONS
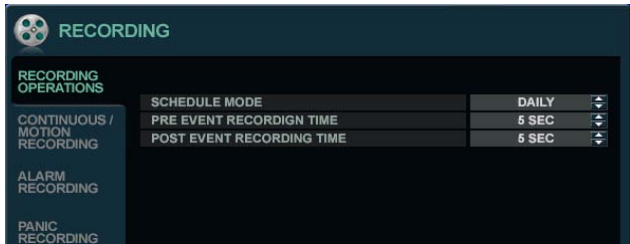
Click the **RECORDING OPERATION** menu and click each value.

Then, click the value with [   ] button to change.

SCHEDULE MODE : Either DAILY (one schedule will apply to every day of the week) or

WEEKLY (each day of the week has its own schedule).

PRE EVENT RECORDING TIME : When the DVR is not in continuous recording mode, this setting determines the

amount of time 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 time that is always recorded after an event occurs.

(motion detection, alarm input, etc).

RECORD MENU

RECORD : CONTINUOUS/MOTION
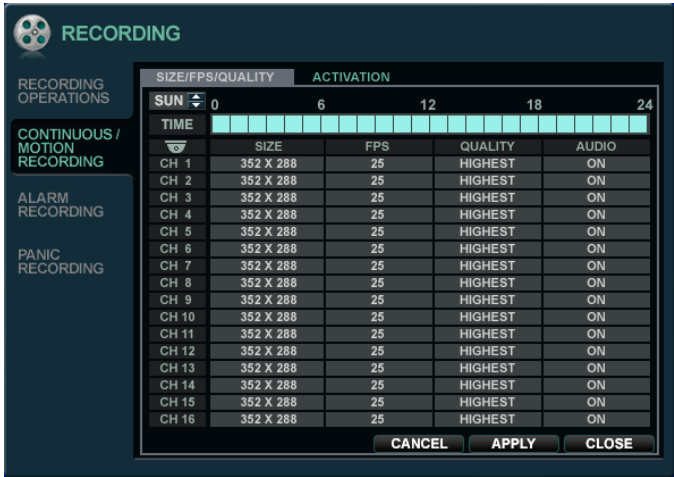
Click the **CONTINUOUS/MOTION SETUP** menu.

This setup screen allows the operator to configure scheduled and motion detection recording.

There are 2 sections:

SIZE/FPS/QUALITY : 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.

A CTIVATION : This section determines at what times the DVR will record and whether it is in continuous recording or motion detection.

SIZE/FPS/QUALITY
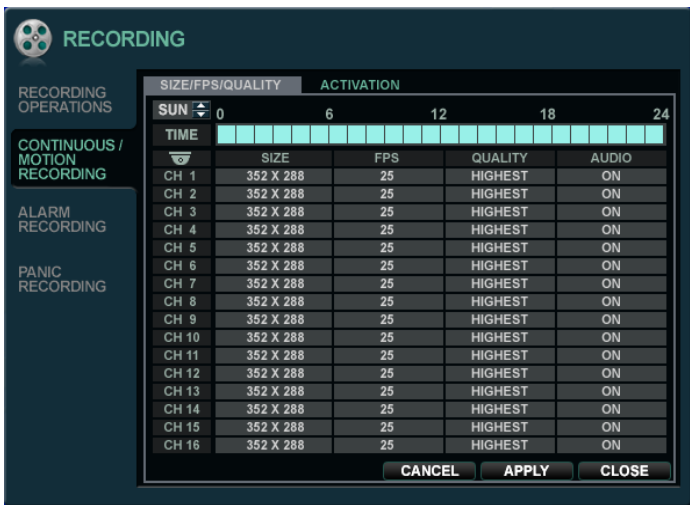
Click the **SIZE/FPS/QUALITY** menu.

To change the SIZE/FPS/QUALITY, highlight CONTINUOUS/MOTION SETUP and press **ENTER**.

Ensure the SIZE/FPS/QUALITY is highlighted in yellow and press **ENTER** again.

The 24 hour time bar is highlighted in green.

RECORD MENU
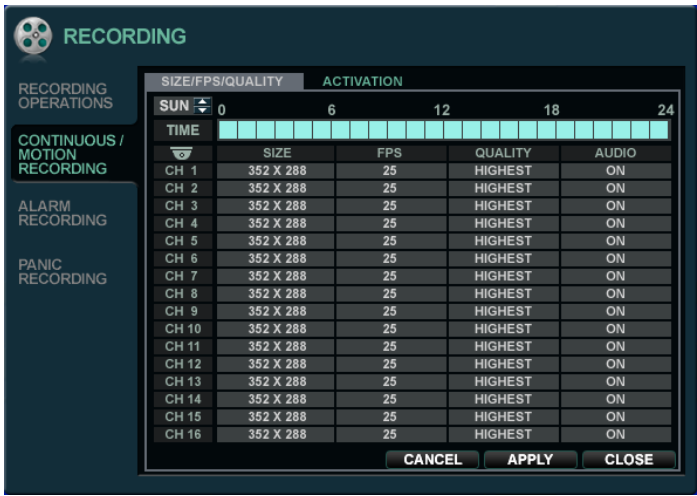
Click the **TIME BAR** that user wants to have the values changed.

Press ENTER to display the green cursor.

The green cursor shown represents one hour.

The table below the time bar shows the recording settings for this time period.
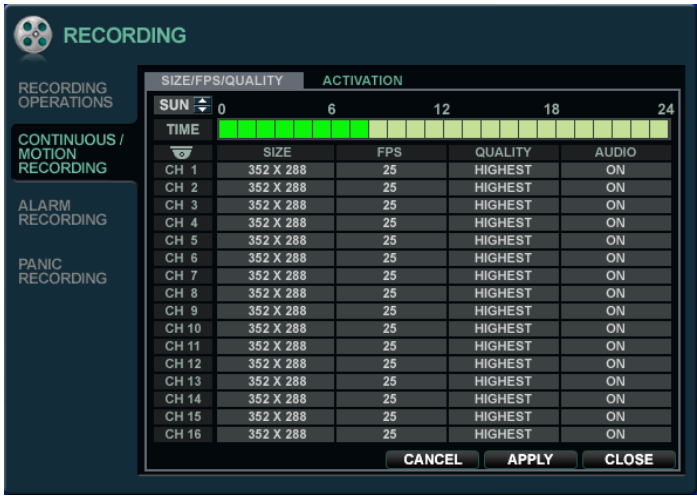
Drag the time that user wants to have the values changed.

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 orange to show the start position.

Use the CURSOR KEYS to stretch the orange cursor across to the 18:00 position.

RECORD MENU

Click the SIZE, FPS, QUALITY and AUDIO value.

Then click the value with button to change.

Press **ENTER**. Recording settings for the selected time period are displayed.

16 channels are divided into two groups. Maximum recording frame rate for each group is 240FPS at resolution of 1CIF (352x240).

4 channels can be recorded in full D1 (4CIF@704x480) resolution, maximum 2 channels from each group.

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

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

QUALITY : Four different picture recording qualities can be set for each channel.

AUDIO : If audio devices are connected to the DVR, user can select the audio recording on/off.

      any audio channel can be assigned to any of the video channels. Please refer to camera setup menu.

During playback, when a particular channel is selected in full screen, the assigned audio channel will be played back at the same time.

Adjust values as desired ,and select OK to finish and return to the parameter menu.

Other time periods can be configured in the same manner.

Remember that if SCHEDULE MODE is set to WEEKLY, recording settings need to be changed for each day as well as for each particular time.

Note: The DVR supports a maximum recording rate across all channels of 480 frames per second at 352x240 resolution. As settings are adjusted, the 'frames available' at bottom left displays the number of available frames still remaining and must always be zero or higher.

If, while changing recording settings, this figure becomes negative, recording resolutions and / or frame rates must be lowered to increase the 'frames available' value to zero or above.

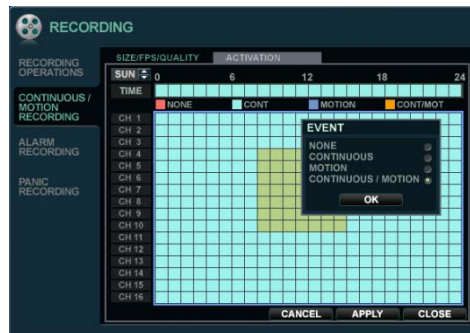# RECORD MENU

ACTIVATION
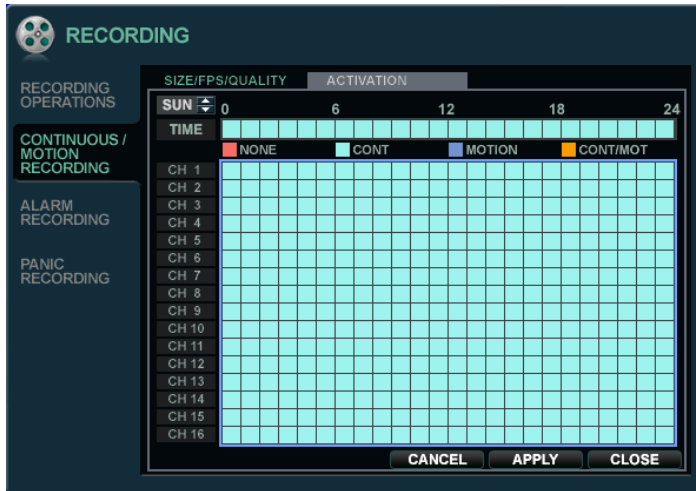
Click the **ACTIVATION** menu.

To change ACTIVATION settings, highlight CONTINUOUS/MOTION RECORDING and press **ENTER**.

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

The schedule box is highlighted in green.

Drag the Time and Channel with left mouse click.

After selecting the area, determines the recording type.

The schedule screen has 4 symbols to show the different recording modes.

NO COLOR blocks: No scheduled or motion recording.

SKY BLUE blocks: The DVR will record continuously.

BLUE block: The DVR will only record while motion is detected.

PINK block: The DVR will record continuously and with motion event.

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RECORD MENU

RECORD : ALARM SETUP
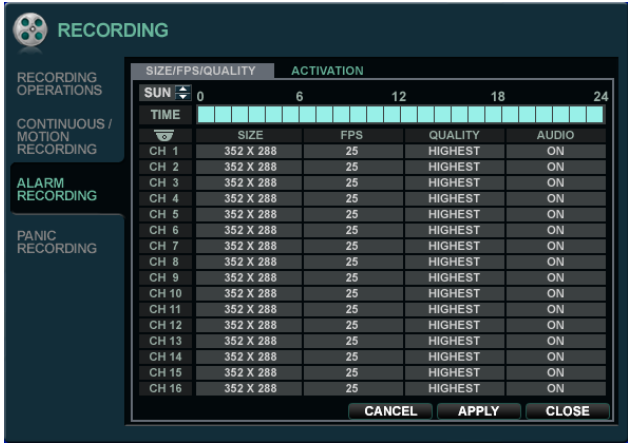
Click the **ALARM RECORDING** menu.

The setup is the same as CONTINUOUS/MOTION RECORDING

This setup screen allows the operator to configure alarm input activated recording.

SIZE/FPS/QUALITY : 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.

ACTIVATION : This section determines at what times the DVR will monitor the alarm inputs and activate recording.

Please refer to Continuous / Motion setup on setting up SIZE/FPS/QUALITY and ACTIVATION.

Alarm activated recording can be used in conjunction with Continuous / motion recording.

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

RECORD MENU

RECORD : PANIC SETUP
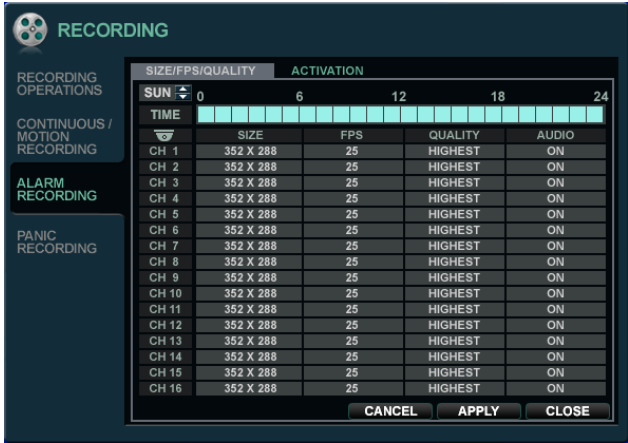
Click the **PANIC RECORDING** menu.

Select the Size, Frame, Quality and audio.

During panic recording mode, the DVR will override all other recording settings and record continuously on all channels at the settings configured here.
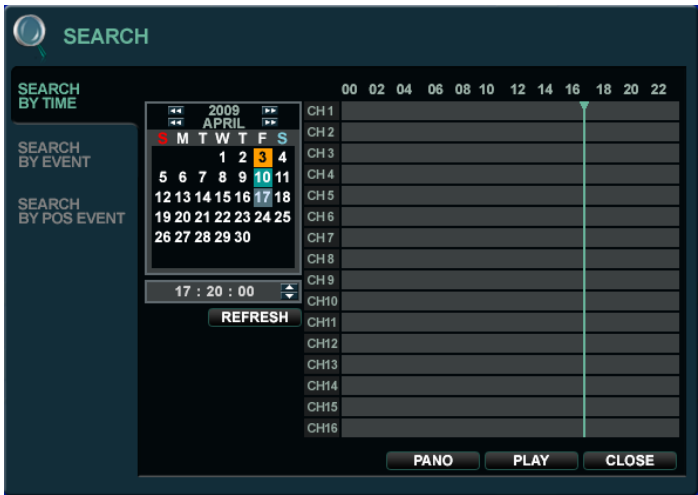
SEARCH

SEARCH

To search for a particular section of recorded footage, press the **SEARCH** button.

To protect unauthorized viewing of footage, only ADMIN and MANAGER user levels can playback footage.

To login as ADMIN, enter the default password of 1234 and press **ENTER**.

SEARCH : TIME SEARCH

Click the date that user wants to have the values changed.

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 yellow have recorded footage.

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

The recorded time will be displayed with different color on each recording type.

Panic : White

Motion : Green

Timer : Sky blue

Alarm : Red

SEARCH
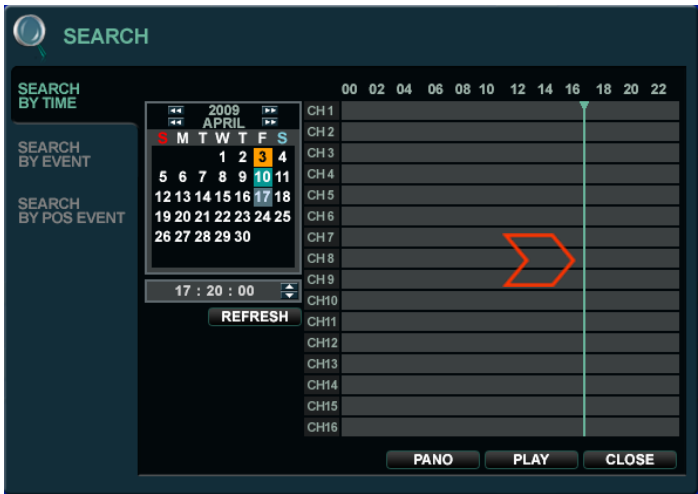
Drag the time bar with left mouse click.

Press **ENTER** to select the calendar and use the **CURSOR KEYS** to move 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 to the timeline.
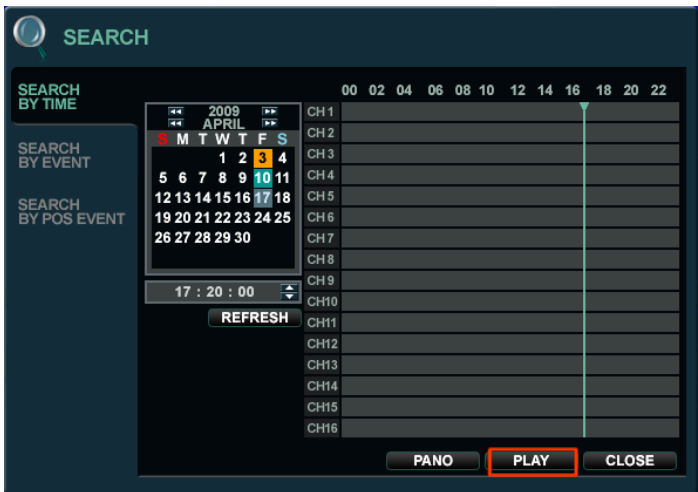
Click the

PANO(Thumbnail mode)

PLAY(Multi View)

buttons

Use the **CURSOR KEYS** to move the timeline cursor left or right to select the time segment required.

The currently selected time is displayed under the calendar.

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

SEARCH

SEARCH MODE : PANO

PANO(Thumb nail) :

Each Screen show s 3 hour data.

CH1 : 0~3 O'clock

CH2 : 3~6 O'clock

CH8: 21~24 O'clock

User can select different channels and playback with faster speed of   up to x64.

SEARCH MODE : Multi Playback

PLAY(Multi view):

The default playback mode is 16 screen display.

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

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

Turning steadily counter-clockwise will reverse play by up to 64 times. When the **SHUTTLE WHEEL** is released, playback is 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 RING** 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 playback buttons located under the jog wheel.

SEARCH

During playback, user can reserve the recorded data that needs to be archived.

Press ⊙ button at the time the archive is to be started. Then playback is stopped and menu below will appear.

After inputting "TAG" name, press **START**. Then display is returned to playback.

Press ⊙ button again to end archiving. Then menu below will appear again.

RESERVE: Press this to reserve current data.

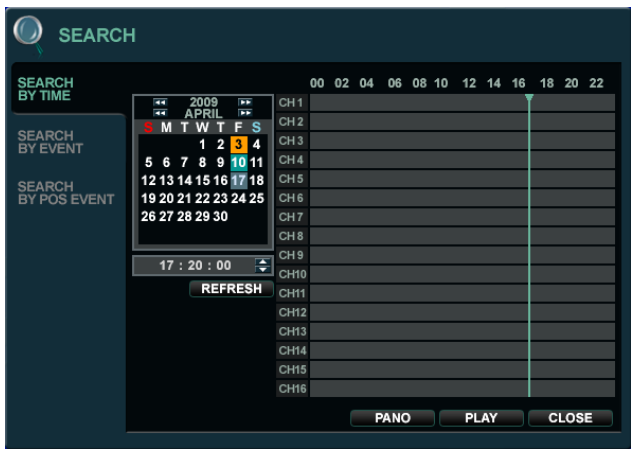CONTINUE: Press this to reserve more data. Then display will return to playback.

STOP: Make sure to press this button to reserve current data first. Then user can select RESERVE.

START: Press this to start the reserve.

CLOSE: Finish archiving.

Reserved data will be reserved on HDD. User can see the reserved data from "RESERVED DATA
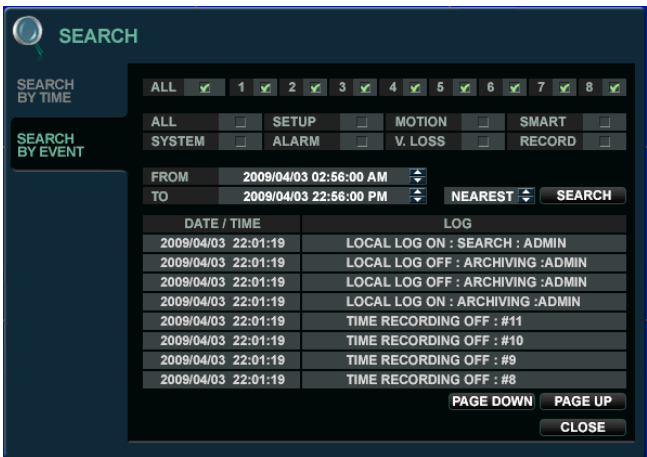MANAGEMENT" on ARCHIVING menu

SEARCH

To exit playback mode and return to the search screen to choose another time and date, press **RETURN**.
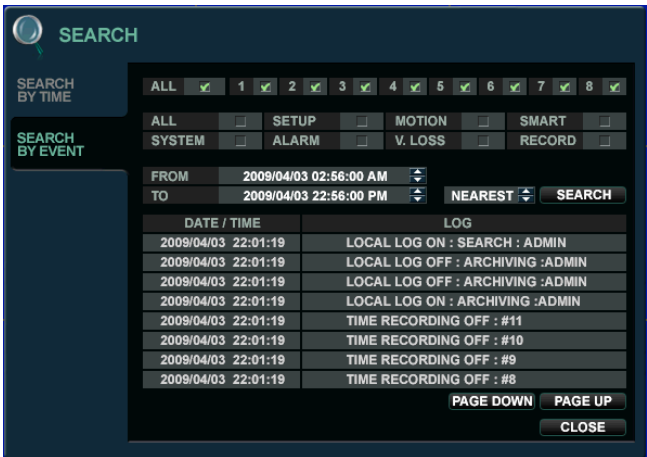
To exit the search screen and go back to live view, repeatedly press **RETURN**.

SEARCH : EVENT SEARCH

The DVR event log stores events such as motion and alarm activated recording, video loss, etc.

To search for an event and playback the recorded footage, press the **SEARCH** button and log in as ADMIN with the default password of 1234.
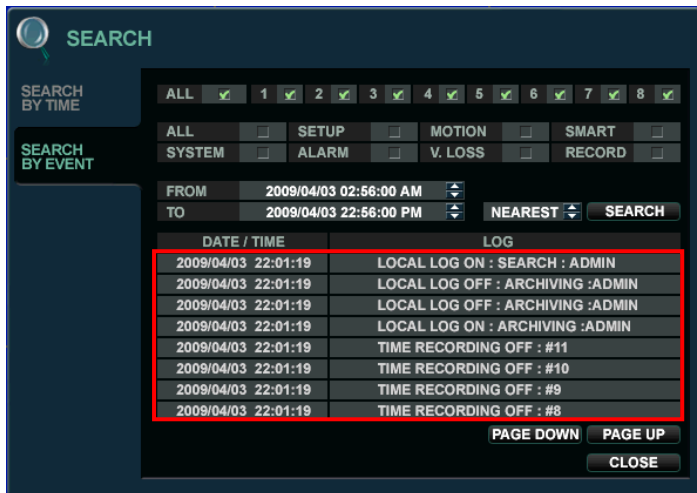

Click the **SEARCH BY EVENT** menu and select each desired channel and condition.

Then click the time with [icon] button to change.

Click the **SEARCH** button.

SEARCH

To playback footage for a particular event, select the event from the list using the **CURSOR KEYS** and press **ENTER**.

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

During event search playback, the **SHUTTLE WHEEL**, **JOG RING** and playback buttons can be used as normal.

To stop playback and return to live view mode, repeatedly press **RETURN**.

ARCHIVING

NEW ARCHIVING

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

To protect unauthorized viewing and distribution of footage, only the ADMIN user level can archive footage.

To login as ADMIN, enter the default password of 1234 and press **ENTER**.

Click each desired channel.

Then click the times with [icon] button to change.

Click the **QUERY** menu.

Make sure to press QUERY first before selecting **BURN** or **RESERVE**.

Press RELEASE to reset after QUERY.

RESERVE: Press this after inputting the TAG name.

OR

BURN: Press this after inputting the TAG name. Then press **START** after menu below appears.

ARCHIVING

RESERVED DATA MANAGEMENT
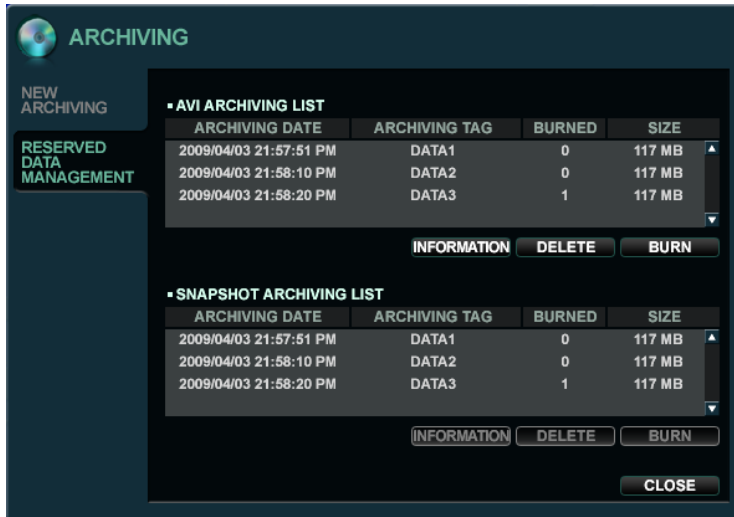
AVI ARCHIVING LIST: User can see the AVI archiving data that was reserved from new archiving menu
or archiving of search.

INFORMATION: The detailed information of Reserved AVI data.

DELETE: User can delete the reserved AVI data

BURN: Backup the selected AVI data.

SNAPSHOT ARCHIVING LIST: User can see the snapshot of archived data.

INFORMATION: The detailed information of Reserved snapshot data.

DELETE: User can delete the reserved snapshot data

BURN: Backup the selected snapshot data.

WEB CONNECTION SETUP

• WEB Connection Setup

    For using web connection, 554 and 8080 ports should be port forwarding in Router.

HOW TO CONNECT

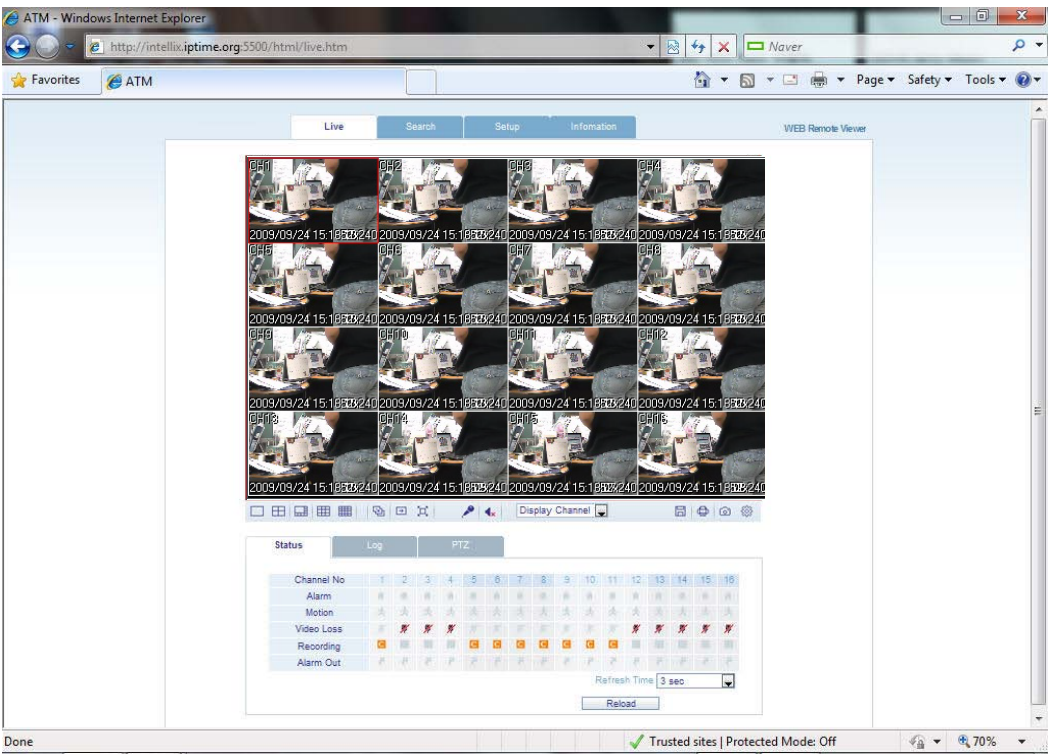Input the IP Address or URL of the DVR in the Internet Explorer Address Bar.

If user uses the DDNS, input the URL as below.
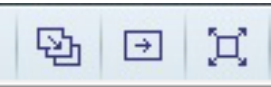
  http://1234.dvrlink.net
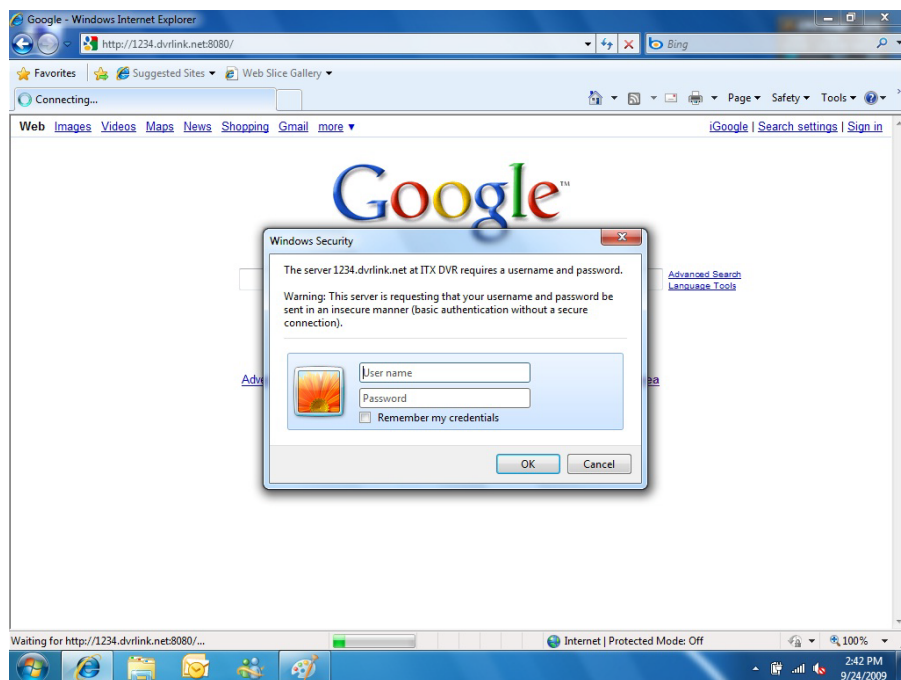
WEB CONNECTION SETUP

LIVE MODE

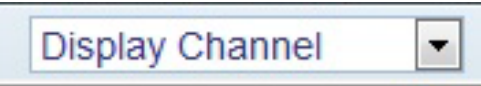

Explanation of function button in LIVE mode

  Select live division screen.

  Move to next screen and make full screen.

  Select live channel.

  Save the live image.

Print the current screen.

Snapshot the current screen.

Setup [Render] and [Save Folder]

- **Status** : Can see the current DVR status.

Channel No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alarm																
Motion																
Video loss																
Recording	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
Alarm out																

Refresh Time [3 sec ▼]

[Reload]

- **Log** : Can see the log.

No.	Camera Title	Date Time	Log
1	CH16	2009.09.24 10:57:20	TIMER RECORDING ON : #16
2	CH15	2009.09.24 10:57:20	TIMER RECORDING ON : #15
3	CH14	2009.09.24 10:57:20	TIMER RECORDING ON : #14
4	CH13	2009.09.24 10:57:20	TIMER RECORDING ON : #13
5	CH12	2009.09.24 10:57:20	TIMER RECORDING ON : #12
6	CH11	2009.09.24 10:57:20	TIMER RECORDING ON : #11
7	CH10	2009.09.24 10:57:20	TIMER RECORDING ON : #10
8	CH9	2009.09.24 10:57:20	TIMER RECORDING ON : #9

[Page Down] [Page Up]   Refresh Time [3 sec ▼]

[Reload]

- **PTZ** : Can control connected PTZ camera.

Pattern
[0 ▼]
[Set] [Run]
Preset
[0 ▼]
[Set] [Run]

Swing
Start [0 ▼]
End [0 ▼]
[Run]
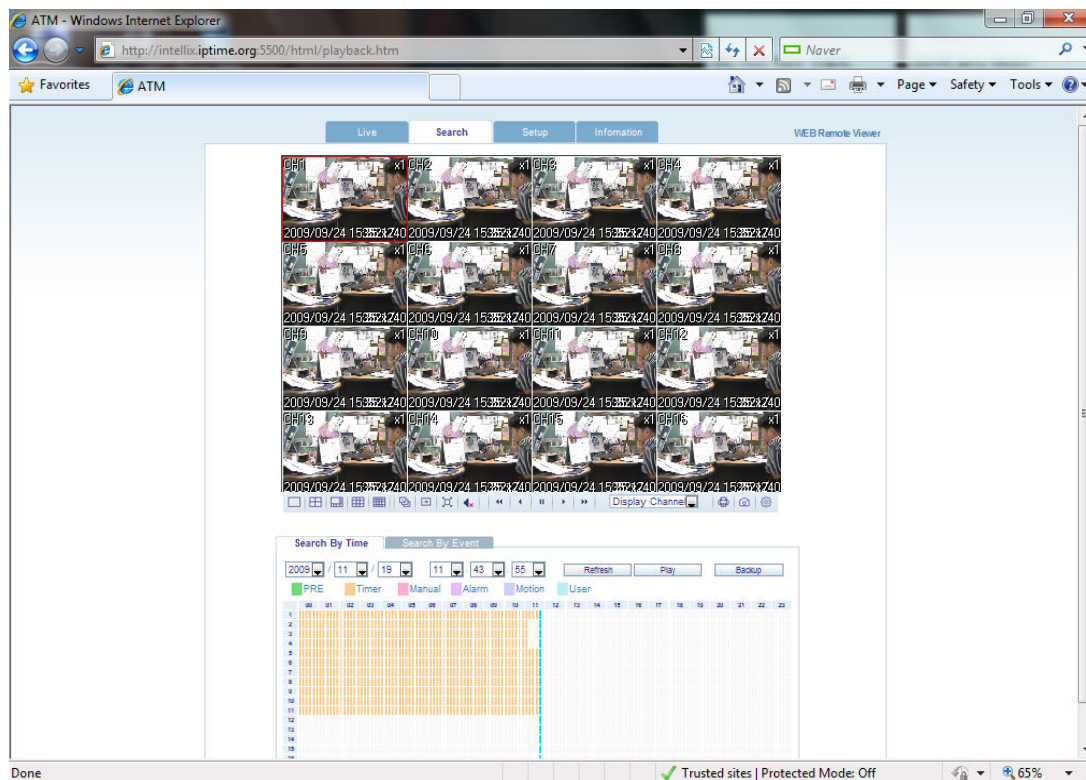**Position Step**
[1 ▼]
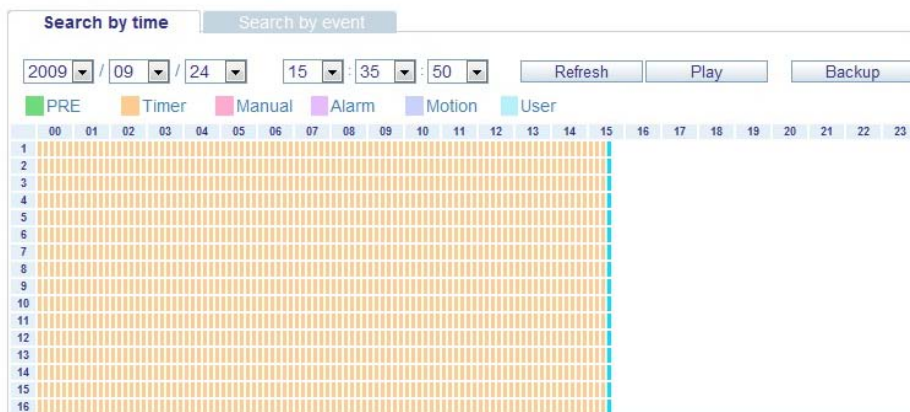
[−] Focus [+]
[−] Zoom [+]
[−] Iris [+]

PTZ

SEARCH

SEARCH BY EVENT

1. Refresh : Refresh the data.

2. Play : After select the date and time, can play the data.

3. Backup : Can backup special channel and time.

SEARCH BY EVENT

1. Event : Select necessary event to playback.

2. Period : Select the date an time of Start to End.

3. Search : Start the selected data.

SETUP MODE

All settings are same as DVR setup. Refer to Page 20

INFORMATION

Check DVR model name and WEB version.