



**veo**  **48016**  
**Operation Manual**

Contents	
<b>IMPORTANT SAFETY INSTRUCTIONS</b> .....	<b>4</b>
<b>BEFORE INSTALLATION</b> .....	<b>5</b>
<b>MAIN FEATURES</b> .....	<b>6</b>
<b>SYSTEM ORGANIZATION</b> .....	<b>8</b>
<b>SYSTEM CONFIGURATION</b> .....	<b>9</b>
FRONT PANEL DESCRIPTION.....	9
REAR PANEL DESCRIPTION.....	10
<b>SYSTEM CONFIGURE – Remote Control</b> .....	<b>11</b>
REMOTE CONTROL DESCRIPTION.....	11
<b>CONNECT &amp; POWER ON</b> .....	<b>12</b>
<b>MENU CONTROL</b> .....	<b>13</b>
<b>LIVE DISPLAY</b> .....	<b>13</b>
DIVISION SCREEN.....	13
PTZ CONTROL.....	14
DIGITAL ZOOM.....	14
PANIC RECORDING.....	15
QUICK MENU.....	16
<b>SYSTEM SETUP</b> .....	<b>17</b>
CAMERA.....	18
CAMERA : CAMERA SETUP.....	18
CAMERA : COLOR SETUP.....	19
CAMERA : PTZ SETUP.....	19
CAMERA : MOTION SENSOR.....	21
DISPLAY.....	22
DISPLAY : OSD.....	22
DISPLAY : MONITOR.....	23
DISPLAY : SEQUENCE.....	24
DISPLAY : SPOT-OUT.....	26
SOUND.....	27
SOUND : AUDIO.....	27
SOUND : BUZZER.....	27
SYSTEM.....	28
SYSTEM : DATE / TIME.....	28
SYSTEM : SYSTEM MANAGEMENT.....	28
SYSTEM : CONTROL DEVICE.....	30
USER.....	31
USER: USER MANAGEMENT.....	31
USER: USER AUTHORITY.....	32
USER: LOG OUT.....	32
NETWORK : IP SETUP.....	33
NETWORK : DDNS.....	34
NETWORK : E-MAIL.....	34
EVENT / SENSOR.....	35
EVENT / SENSOR: HDD EVENT.....	35
EVENT / SENSOR : ALARM INPUT.....	35
EVENT / SENSOR : ALARM OUTPUT.....	36
EVENT / SENSOR : BUZZER OUT.....	37
EVENT / SENSOR : EMAIL NOTIFICATION.....	38

DISK MANAGEMENT.....	39
<b>RECORD SETUP.....</b>	<b>40</b>
RECORD SETUP.....	40
RECORD : RECORDING OPERATIONS.....	40
RECORD : CONTINUOUS/MOTION.....	41
RECORD : ALARM RECORDING.....	45
RECORD : PANIC SETUP.....	46
<b>SEARCH.....</b>	<b>47</b>
SEARCH.....	47
SEARCH : TIME SEARCH.....	47
SEARCH MODE : PANO.....	49
SEARCH MODE : Multi Playback.....	49
SEARCH : EVENT SEARCH .....	51
<b>ARCHIVING.....</b>	<b>53</b>
NEW ARCHIVE.....	53
<b>WEB CONNECTION SETUP.....</b>	<b>55</b>
PRELIMINARIES.....	55
HOW TO CONNECT.....	55
LIVE MODE.....	57
LIVE MODE FEATURES.....	57
SEARCH (By timeline).....	59
SEARCH (By Event).....	60
<b>SETUP MODE.....</b>	<b>61</b>
CAMERA .....	61
CAMERA : MOTION SETUP.....	61
DISPLAY.....	62
DISPLAY : OSD.....	62
DISPLAY : MONITOR.....	62
SOUND.....	62
SYSTEM.....	63
RECORDING.....	63
USER.....	63
NETWORK.....	64
SENSOR.....	64
<b>INFORMATION.....</b>	<b>65</b>
<b>WATERMARK SETUP.....</b>	<b>66</b>
<b>SMARTPHONE CONNECTION.....</b>	<b>68</b>
iPhone™.....	68
Blackberry™.....	69

## IMPORTANT SAFETY INSTRUCTIONS

- Read and keep the instructions for future reference
- Do not use near water.
- Clean only with a dry cloth.
- Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or any other apparatus which produces heat.
- If the provided plug does not fit into your outlet, consult an electrician.
- Protect the power cord from being walked on or pinched.
- Only use the attachments/accessories specified by the manufacturer.
- Unplug the unit during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way.
- This equipment and all communication wiring with the unit is intended for indoor use only.
- The socket-outlet should be installed near the equipment and should be easily accessible.

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 enforced at the time.
- The DVR must be placed on a stable surface or mounted in an approved cabinet.
- Adequate ventilation must be provided, take 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.
- 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.

### 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 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

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

Alarm or motion activated recording can be scheduled. 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.

### EXTERNAL MONITOR SUPPORT

The DVR has 2 main monitor outputs (Composite and DVI). One 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).

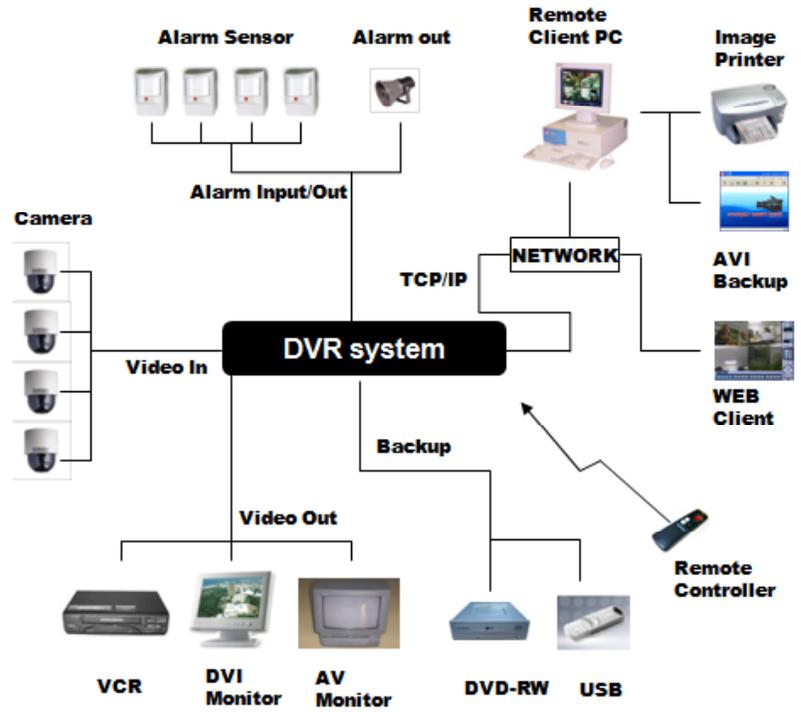
### CONFIGURATION BACKUP

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 installed.

### EMAIL SUPPORT

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

# SYSTEM ORGANIZATION



## SYSTEM CONFIGURATION

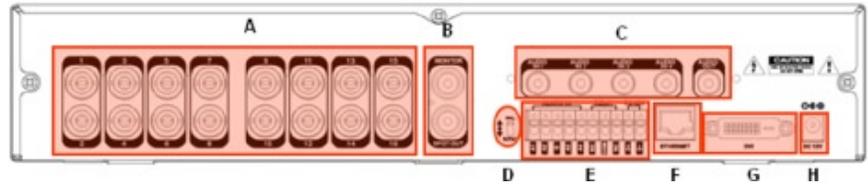
### FRONT PANEL DESCRIPTION



KEY	DESCRIPTION
Function Keys	
POWER	Turn On/Off the system power
DISPLAY	Selects various display modes in live display and playback
PTZ/FOCUS	Selects PTZ mode in live display
MENU	Displays the setup menus
SEARCH	Displays the search menu
Control Keys	
CHANNEL SELECTION BUTTONS	Displays individual channels in live display and playback Also used to enter numeric passwords for various login screens
CURSOR KEYS	Navigates 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
Fast Reverse	Increases reverse playback speed
Reverse	Selects reverse playback
Pause	Pauses / resumes playback
Play	Selects forward playback
Fast Forward	Increases forward playback speed

## SYSTEM CONFIGURATION

### REAR PANEL DESCRIPTION



A. CAMERA INPUT : Connect up to 16 camera inputs.

B. MONITOR : Main BNC monitor.

SPOT OUT : BNC Spot monitor.

C. AUDIO INPUTS & OUTPUTS : Up to 4 audio inputs and one audio output can be connected as necessary.

D. PAL / NTSC : Change Camera input type.

E. ALARM INPUTS : Up to 4 alarm inputs can be connected and configured as high or low inputs with common ground.

RELAY OUTPUT : 1 alarm output can be connected and configured as high or low outputs with common ground.

RS485 : Connect PTZ camera.

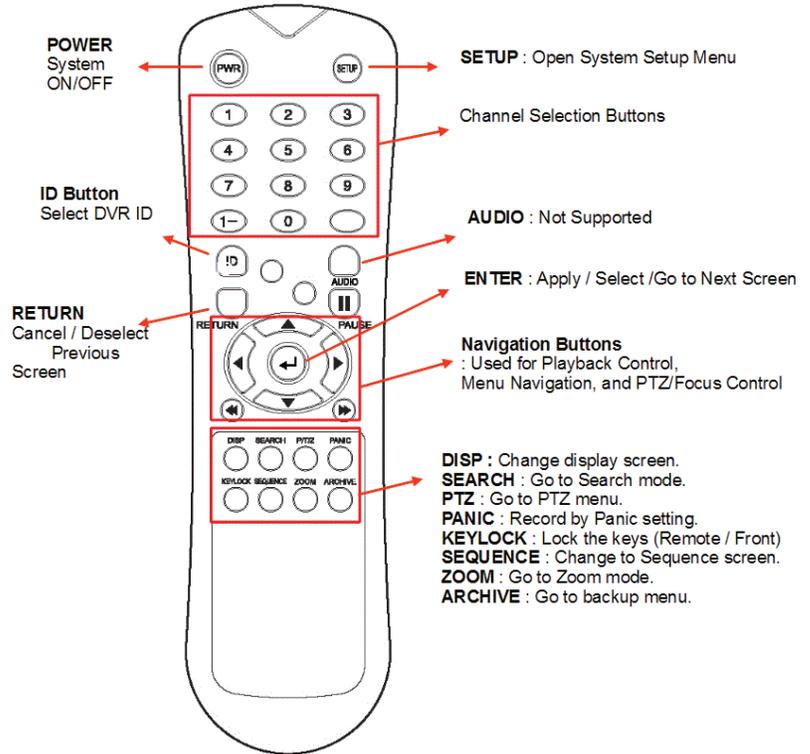
F. LAN : LAN connection to a router or internal network.

G. DVI : DVI main monitor connection to a PC monitor or plasma screen. If VGA connection is wanted, use a DVI to VGA converter.

H. POWER : Connect 12V / 5A adaptor.

## SYSTEM CONFIGURE – Remote Control

### REMOTE CONTROL DESCRIPTION



Setting ID on the remote control: Press the ID button. This displays the INPUT ID dialog.

Press the set ID and Press the RETURN button (The default ID is 01).

To return to the previous display, press the ID button again.

Input the 255 and press the RETURN button of remote controller.

On multiple DVR set-ups, each DVR must be set with different ID. The remote control takes one ID per DVR All DVRs can then be controlled with one remote control.

## CONNECT & POWER ON

- Connect up to 16 CAMERA INPUTS as necessary.
- Connect monitors to the DVR using the COMPOSITE or DVI connections
- Connect power to the DVR. The DVR checks for proper power connection and emits two beeps on startup.
- 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 CD-RW / DVD-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 (including menu control) at the bottom of the screen displays the menu at first startup. After that, the current time and date will be displayed. A title for each channel is shown.

The red square and letter in the top right of each channel display indicates the recording mode of the channel.



## MENU CONTROL



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

## LIVE DISPLAY

### DIVISION SCREEN



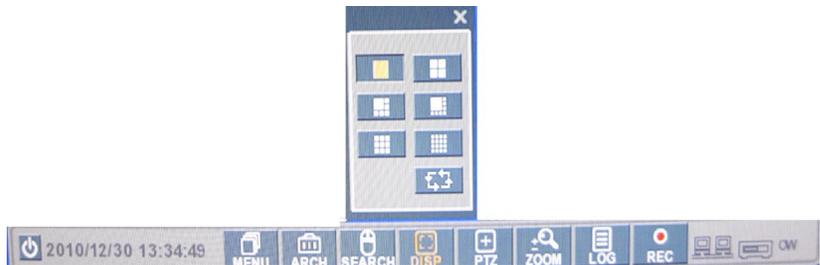
- 1) Select the DISPLAY button and the screen division menu will appear.
- 2) Select the screen type (1,4,6,8,9,16 and rotation sequence).

### Sequence mode



The type of sequence may be selected from the display menu.

Press the SEQ button to begin. 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



## LIVE DISPLAY

### PTZ CONTROL



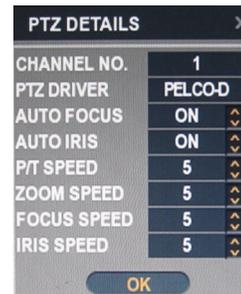
CAM: Select the Channel

Preset : Input preset numbers 1-255. Click SET to save the current view (camera position) as a preset. Click GOTO to move the camera to a saved preset position.

Zoom, Focus, IRIS: Each variable may be controlled with + or - buttons.



PARAMETER : Press this button and another window will appear. Each item may be viewed from the PTZ parameter menu. (Parameter values can also be set in CAMERA : PTZ SETUP. See section for details.)



### DIGITAL ZOOM



Select the ZOOM button.

When viewing a channel in full screen, the operator can zoom into a particular area by up to 16 times.

To use the digital zoom, select the required channel and press the ZOOM button. The small window at bottom right of the channel display will contain the full image and the main display area will contain the zoomed portion

## LIVE DISPLAY



Click to view recent logged activity.  
To view recorded data, click on a log entry.



## PANIC RECORDING



This menu is used to start and stop Panic recording.

If Panic recording is started, the status icon on the upper left hand side will change into red square with a "P". Select once more to return to the previous display and to stop Panic recording.

Panic recording may be configured from the Record menu.

## LIVE DISPLAY

### QUICK MENU



Right-click on the live channel to be configured.

Functions available from the main screen are:

- Freeze On/Off: Operators can stop the live display of a specified channel. Click once more to return to the previous view.
- PTZ: Refer to PTZ on page 12.
- Zoom: Refer to ZOOM on page 12.
- Playback: Playback immediately from the selected time (10, 20, 30 seconds or 1 minute ago.) If the "go to" menu is selected, a dialog will open. After selecting the time, select OK to initialize playback.
- Record Start (Stop): Refer to PANIC RECORDING on page 13.

## SYSTEM SETUP



Click MENU and click SYSTEM SETUP.



To navigate 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.

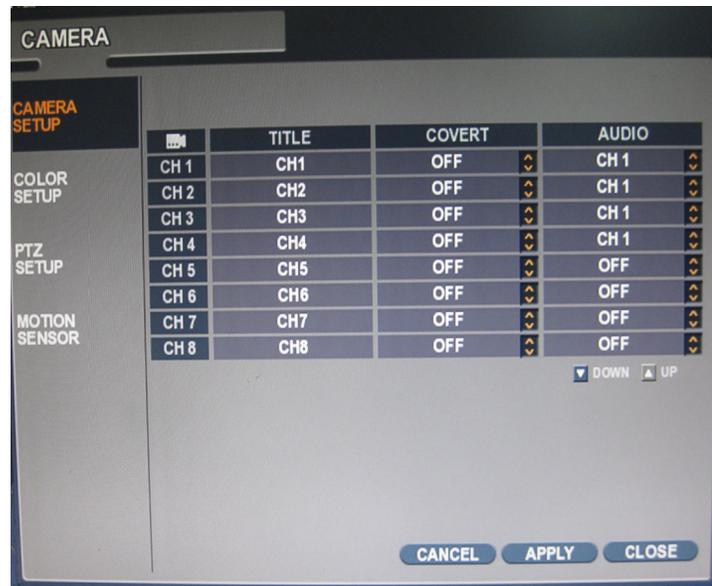
To setup all main system functions, highlight SYSTEM SETUP and press ENTER.

## 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 set to ON, the camera image is not displayed in live display but continues to record.
- AUDIO: Determines the audio recording channel.

## SYSTEM SETUP

### CAMERA : COLOR SETUP

	BRIGHTNESS	CONTRAST	TINT	COLOR
CH 1	50	50	50	50
CH 2	50	50	50	50
CH 3	50	50	50	50
CH 4	50	50	50	50
CH 5	50	50	50	50
CH 6	50	50	50	50
CH 7	50	50	50	50
CH 8	50	50	50	50

DOWN UP

Brightness, contrast, tint and color can be adjusted for each individual channel. Highlight each channel to modify and press ENTER.

Change each value with the  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

	ADDRESS	PROTOCOL	BAUD RATE		
CH 1	0	PELCO-D	9600		DETAIL TOUR
CH 2	0	PELCO-D	9600		DETAIL TOUR
CH 3	0	PELCO-D	9600		DETAIL TOUR
CH 4	0	PELCO-D	9600		DETAIL TOUR
CH 5	0	PELCO-D	9600		DETAIL TOUR
CH 6	0	PELCO-D	9600		DETAIL TOUR
CH 7	0	PELCO-D	9600		DETAIL TOUR
CH 8	0	PELCO-D	9600		DETAIL TOUR

DOWN UP

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

Change each value with the  button.

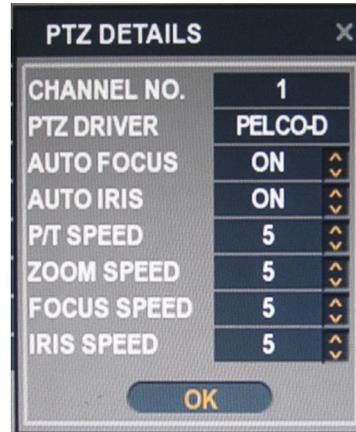
- ADDRESS: The unique ID of the PTZ device.
- PROTOCOL: The protocol of the PTZ device.
- BAUD RATE: The baud rate of the PTZ device.
- DETAIL : Detail setting for the PTZ device. (Refer to the next page)
- PRESET : Tour setting for the PTZ device. (Refer to the next page)

## SYSTEM SETUP

### DETAIL

Click the DETAIL button and change values with the  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.



To create a tour:

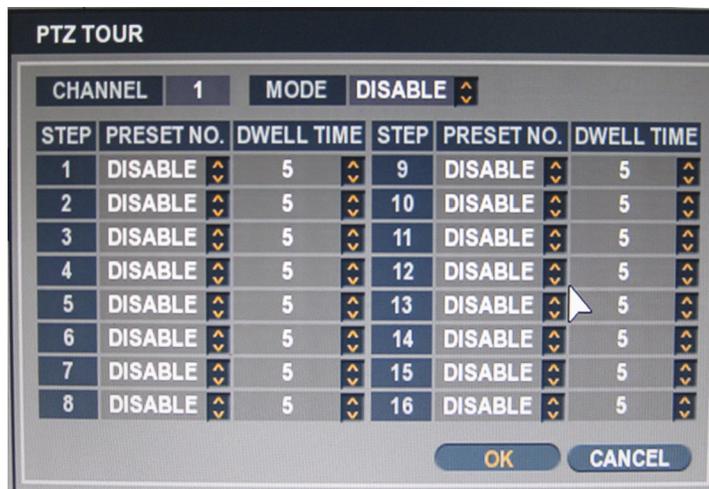
1) Click the TOUR button and set the MODE to AUTO to use the TOUR function.

### TOUR

2) Set the PRESET number on the live PTZ mode.

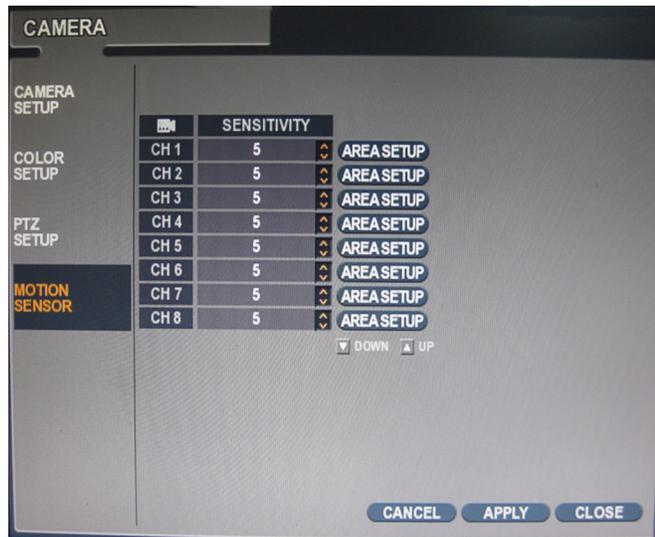
3) Then set the PRESET number 1 to 16 and DWELL Time.

DWELL TIME means staying time on position until movement is made to the next preset position.



## SYSTEM SETUP

### CAMERA : MOTION SENSOR



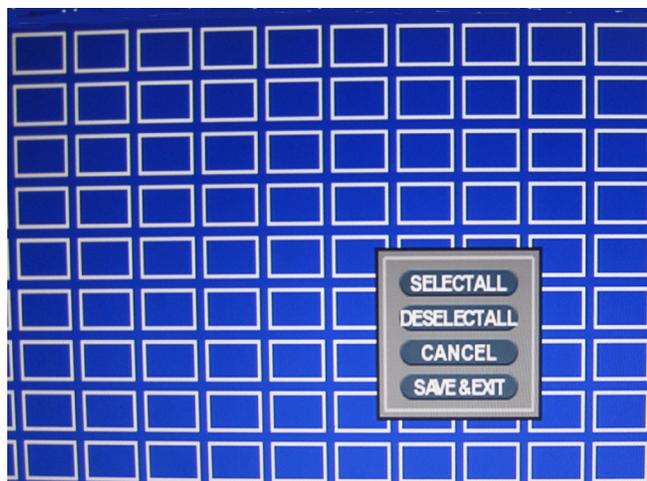
Click the MOTION SENSOR menu and click the value on the SENSITIVITY menu.

Change values with the  button.

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

Click the AREA SETUP button to select motion detection areas.

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



For quick selection or deselection of the entire grid, click the right mouse button and click the SELECT ALL or DESELECT ALL buttons.

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

## SYSTEM SETUP

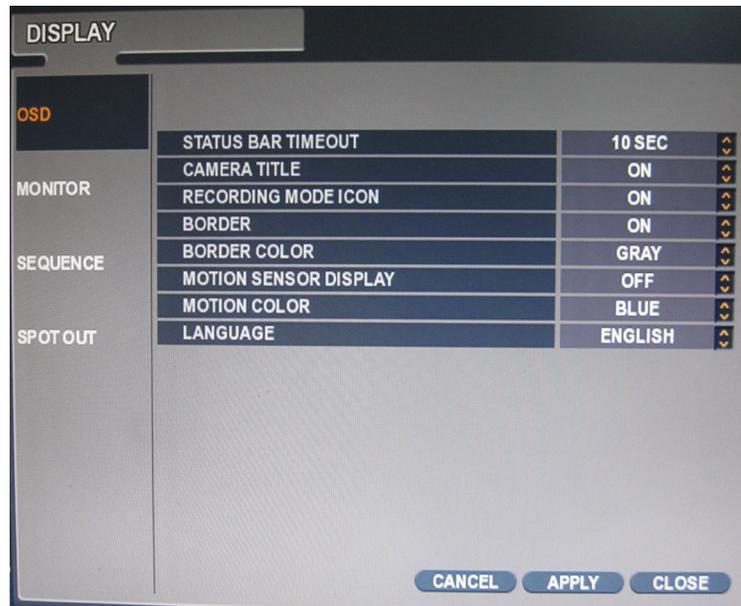
### DISPLAY

To setup the various display options, select DISPLAY.

#### DISPLAY : OSD

Click the OSD menu.

Click the  button to switch ON/OFF and change values.



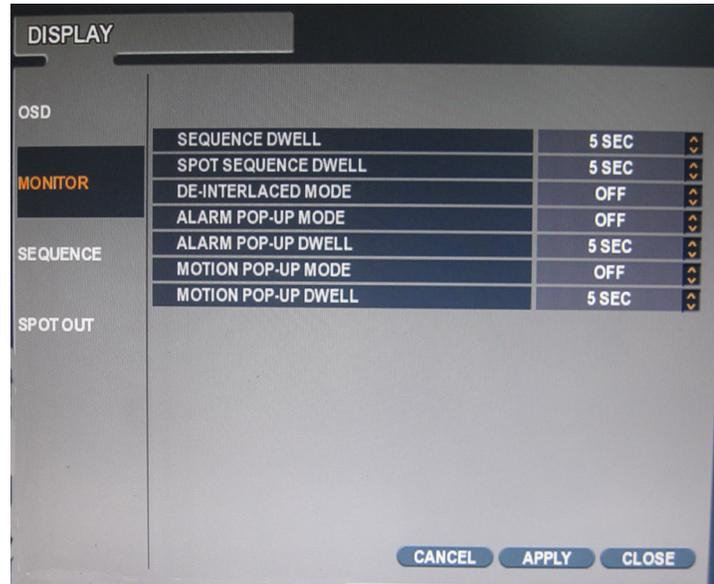
- STATUS BAR : Determines how long the status bar stays on screen
- CAMERA TITLE : Determines whether or not the camera title is displayed.
- RECORDING MODE ICON : Determines whether the DVR recording status is shown at the top right of each channel display window.
- BORDER : Determines whether there is a border around each channel in multi-screen display mode.
- BORDER COLOR : If the border is ON, a color may be selected.
- 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.

## SYSTEM SETUP

DISPLAY : MONITOR

Click the MONITOR menu

Click the  button to switch ON/OFF and change values.



- SEQUENCE DWELL : The time each screen is displayed during sequence display modes.
- SPOT DWELL : The duration of 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 pop-up is displayed after an alarm input. If the alarm condition continues, the pop-up screen remains indefinitely.
- 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 pop-up is displayed after motion detection. If motion continues, the pop-up screen remains indefinitely.

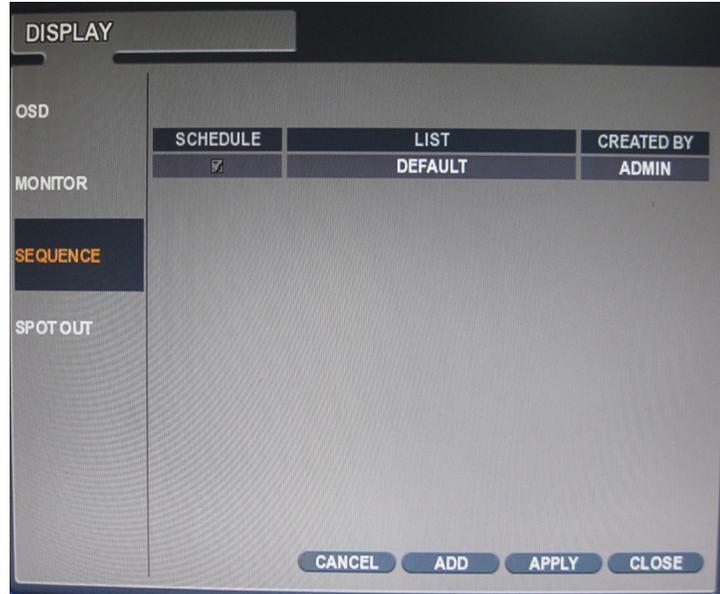
See 'Event/Sensor: Alarm Input' on page 34 for more details on configuring alarm inputs.

See 'Record: Continuous/Motion' on page 39 for more details on configuring motion detection.

## SYSTEM SETUP

DISPLAY : SEQUENCE

Click the SEQUENCE menu.



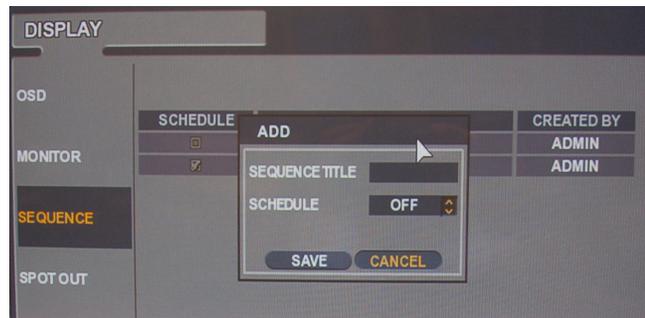
When the SEQ button is pressed, the default sequence will cycle through all 16 channels one by one. Sequence setup allows the operator to define a custom sequence, using mixed multi screen views and any desired channels.

To add a new sequence:

- 1) Highlight ADD and press ENTER.
- 2) A sequence title is required. Press ENTER to bring up the virtual keyboard and key in a name or reference number for the new sequence.
- 3) Click on the ACTIVATION tab and click the  button to select ON/OFF.
- 4) Select SAVE.

## SYSTEM SETUP

5) Press ADD. The Sequence Setup menu appears.



6) Determine the VIEW TYPE and assign channels to the display in CONFIGURE. Then, click CONFIRM.

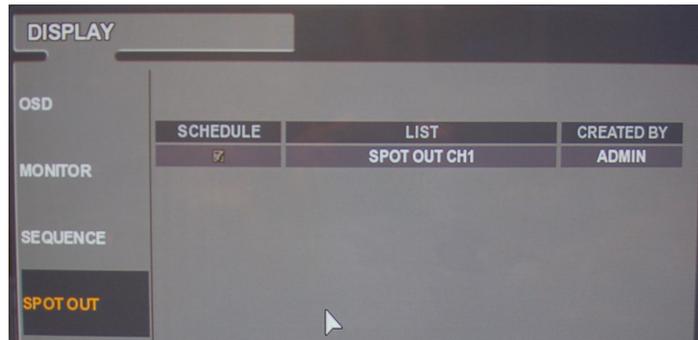
7) To add an additional mode, click ADD continuously. After finishing the setup, press CLOSE.

8) 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

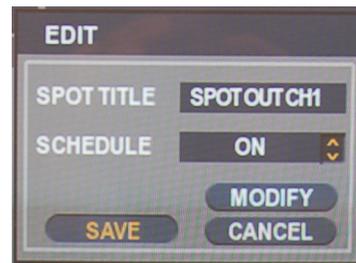


Click the SPOT-OUT menu and click the camera channel for ON/OFF.

The DVR has 4 SPOT MONITOR OUTPUTS. SPOT OUT display for each channel may be configured.

To configure a channel:

- 1) Double click the spot out channel to be assigned.



- 2) Change its basic settings:

- SPOT TITLE : Input the title.
- ACTIVATION: Determines whether or not a spot monitor is present or not.

- 3) Press MODIFY to change its display settings. A default setup is as follows:

Double click the display. The Spot Sequence Setup window will appear. (Users can assign Single and Quad display only) For more details on modifying this display, see Sequence Setup on page 22.

- 4) To add an 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.

Click the  button to switch ON/OFF.

- LIVE AUDIO : When 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.

Click the  button to switch ON/OFF.

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

## SYSTEM SETUP

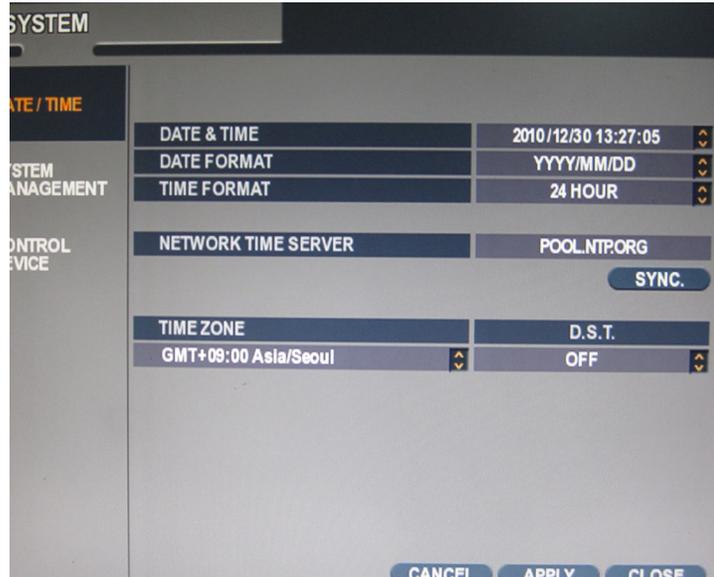
### SYSTEM

Click SYSTEM.

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

### SYSTEM : DATE / TIME

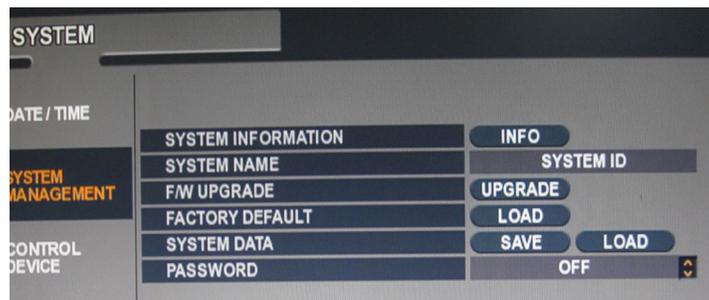
Click the DATE / TIME menu.



- 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 : Should be set according to the operator's time zone.
- 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.

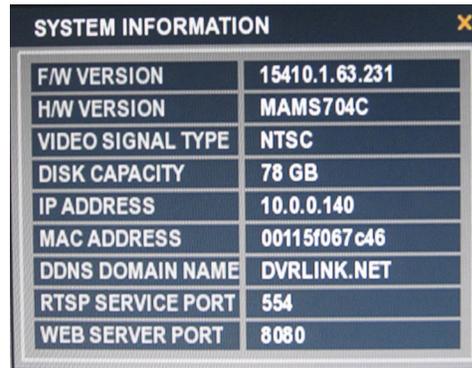
### SYSTEM : SYSTEM MANAGEMENT

Click the SYSTEM MANAGEMENT menu.



## SYSTEM SETUP

SYSTEM INFORMATION: System information is displayed as below.



SYSTEM INFORMATION	
F/W VERSION	15410.1.63.231
H/W VERSION	MAMS704C
VIDEO SIGNAL TYPE	NTSC
DISK CAPACITY	78 GB
IP ADDRESS	10.0.0.140
MAC ADDRESS	00115f067c46
DDNS DOMAIN NAME	DVRLINK.NET
RTSP SERVICE PORT	554
WEB SERVER PORT	8080

- F/W version : Indicates the firmware version of the DVR.
- H/W version : Indicates 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 indicates the amount of hard drive space used by recorded footage and the second value indicates the total hard drive capacity.
- IP ADDRESS : Displays either the manual IP address entered in NETWORK setup or the IP address assigned by a DHCP server if enabled.
- MAC ADDRESS : Displays the MAC (Media Access Control) address of the DVR.
- 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 NAME : A unique system name used for identifying notification emails.
- 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.

## SYSTEM SETUP

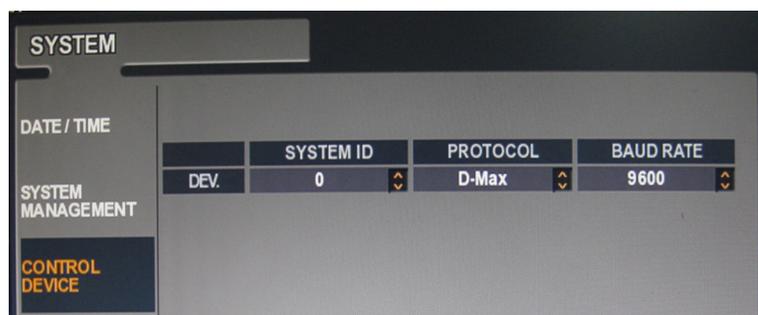
To upgrade the firmware:

- 1) Insert the USB stick or CD/DVD containing the update
- 2) Press UPDATE. The below menu will appear.
- 3) After selecting the F/W from F/W list, press UPGRADE.
- 4) The F/W upgrade will start.



- **FACTORY DEFAULT** : If modified settings 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 an 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 whether or not a password is required for certain menus.

## 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 remote control support.
- **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



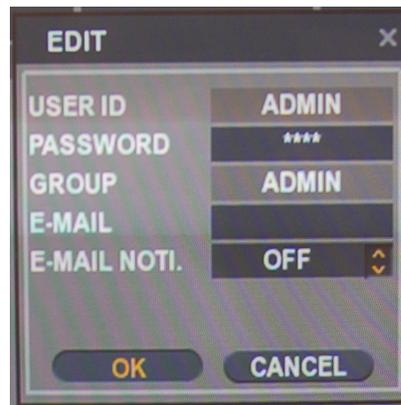
By default, the DVR is configured with a user ID of ADMIN belonging to the ADMIN group and with a password of 1234. Users in the ADMIN group may add new users and modify details of existing users.

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 each tab.

To confirm changes, 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

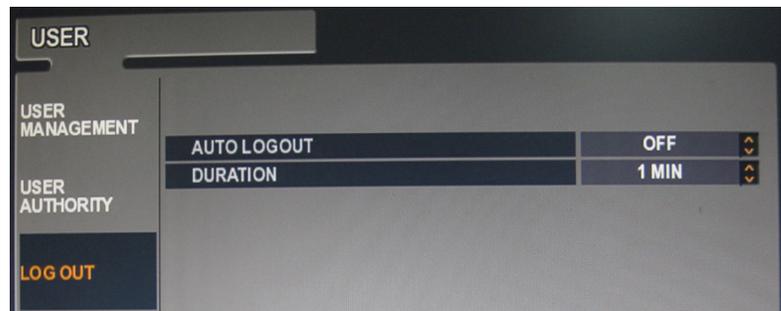
USER: USER AUTHORITY



USER MANAGEMENT	MANAGER	USER
SETUP	<input type="checkbox"/>	<input type="checkbox"/>
PTZ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SEARCH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ARCHIVING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
REMOTE AGENT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Authority may be customized for MANAGER and USER groups.  
To select authority, click the APPLY button after selecting each item.  
Please note that any user can be deleted except the default ADMIN user.

USER: LOG OUT



AUTO LOGOUT	OFF
DURATION	1 MIN

- 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 to modify network settings.

### NETWORK: IP SETUP

Click the IP SETUP menu.

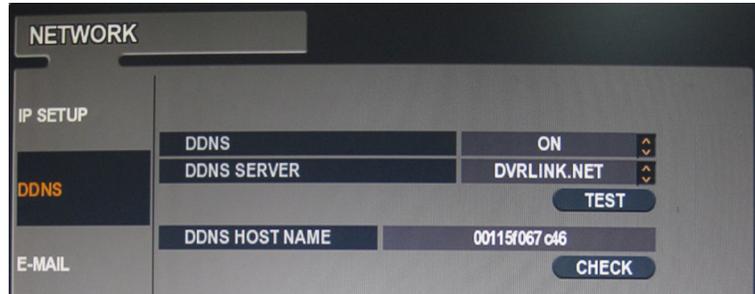
NETWORK				
<b>IP SETUP</b>				
DHCP	<input type="checkbox"/>			
WEB SERVICE	<input checked="" type="checkbox"/>			
IP ADDRESS	10.0.0.140			
GATEWAY	10.0.0.63			
SUBNET MASK	255.255.255.0			
1ST DNS SERVER	10.0.0.1			
2ND DNS SERVER	0.0.0.0			
RTSP SERVICE PORT	554	AUTO PORT	DELETEPORT	PORT TEST
WEB SERVER PORT	8080	AUTO PORT	DELETEPORT	
ALIAS				
MAX TX SPEED	8192 KBYTE			

CANCEL APPLY CLOSE

- 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, allows remote connections using Internet Explorer or other web browsers.
- IP ADDRESS: If DHCP is not being used, an 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.
- RTSP SERVICE PORT : If the connected router supports UPnP (Universal plug and play), clicking AUTO PORT sets up port forwarding automatically. Ports may also be deleted and tested.
- WEB SERVER PORT: If the connected router supports UPnP (Universal plug and play), clicking AUTO PORT sets up port forwarding automatically. Ports may also be deleted. Indicates the port number that the DVR uses to support remote connection from Internet Explorer or other web browsers.
- ALIAS : Enter the DDNS HOST NAME in DDNS setup (Next page).
- MAX TX SPEED : Specifies the maximum bandwidth used 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.

To use DDNS, port forwarding must be enabled.

Default WEB SERVICE PORT : 8080

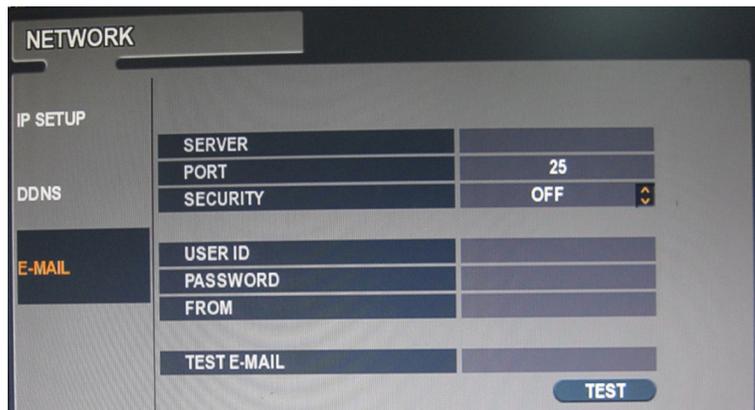
Default RTSP SERVICE PORT : 554

The default DDNS HOST NAME is the Mac Address, allowing for two way connection.(Mac address / Own host name)

As an example: 00115ff00213.<your registered domain>

### NETWORK: E-MAIL

Click the E-MAIL menu.



- SERVER : The SMTP outbound email server 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 any text. Used only for E-mail testing (E-mail sender)
- TEST E-MAIL: Test the sending of email to a specified recipient.

## SYSTEM SETUP

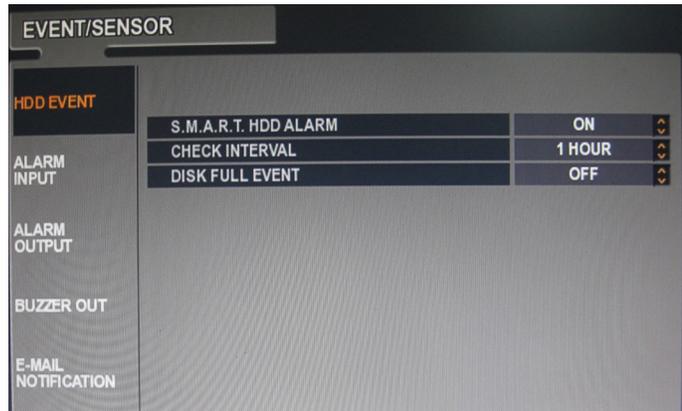
### EVENT / SENSOR

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.

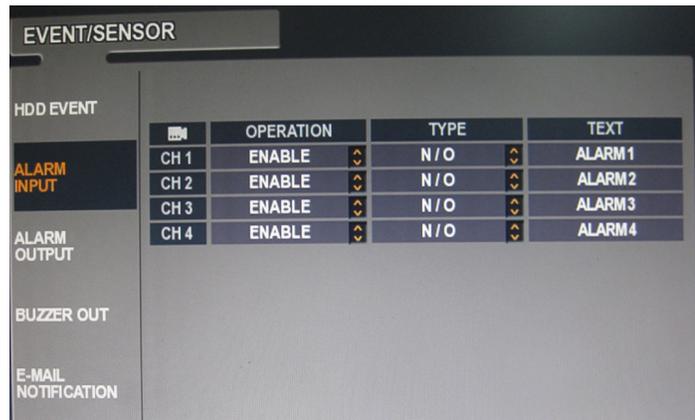


The DVR can monitor hard drives and detect problems.

- 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.



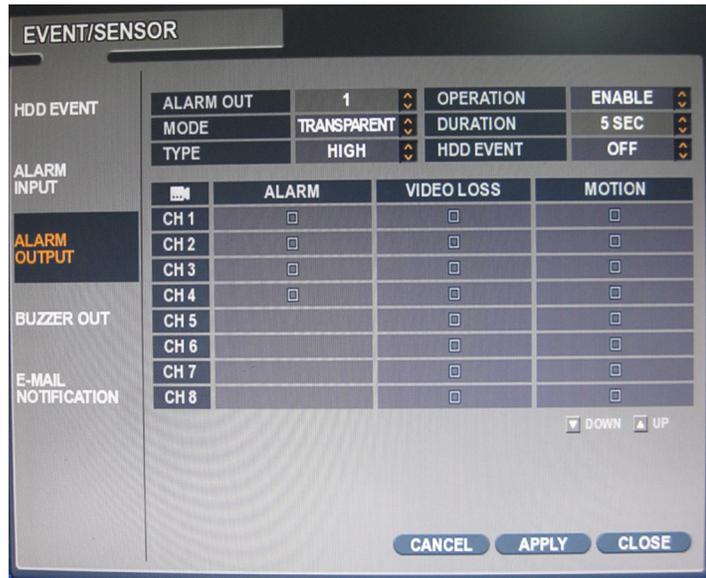
Determines the behavior of each of the 8/16 alarm inputs.

- 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

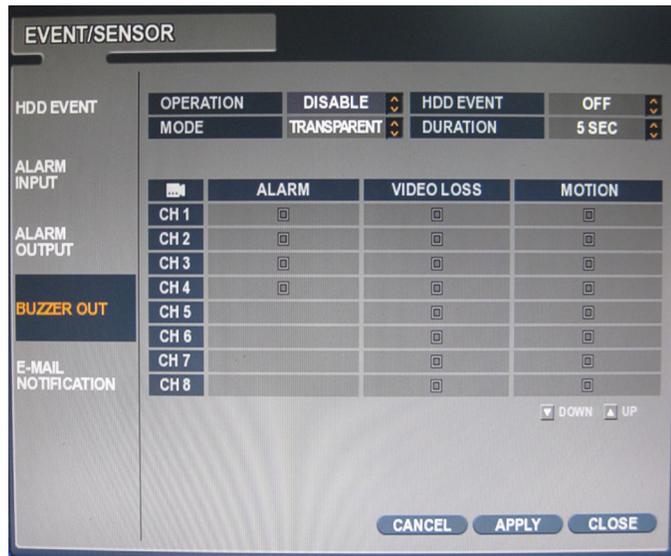
- ALARM : Determines whether alarm inputs will trigger the alarm output.
- VIDEO LOSS : Determines whether video loss on any of the selected channels will trigger the alarm output.
- MOTION : Determines whether motion detection on any of the selected channels will trigger the alarm output.

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.



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 length of time that the buzzer is active 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.

The screenshot shows the 'EVENT/SENSOR' configuration screen. On the left, there is a vertical menu with options: HDD EVENT, ALARM INPUT, ALARM OUTPUT, BUZZER OUT, and E-MAIL NOTIFICATION (highlighted in orange). The main area contains the following settings:

NOTIFICATION	OFF	SETUP CHANGE	ON
HDD EVENT	ON	BOOTING EVENT	ON
SNAPSHOT NOTI.	1		

	ALARM	VIDEO LOSS	MOTION
CH 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 5		<input type="checkbox"/>	<input type="checkbox"/>
CH 6		<input type="checkbox"/>	<input type="checkbox"/>
CH 7		<input type="checkbox"/>	<input type="checkbox"/>
CH 8		<input type="checkbox"/>	<input type="checkbox"/>

FREQUENCY: 5 MIN (with DOWN and UP arrows)

Buttons: CANCEL, APPLY, CLOSE

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.
- SNAPSHOT NOTIFICATION: Determines whether or not a snapshot of the channel is attached to the email.

#### Action settings

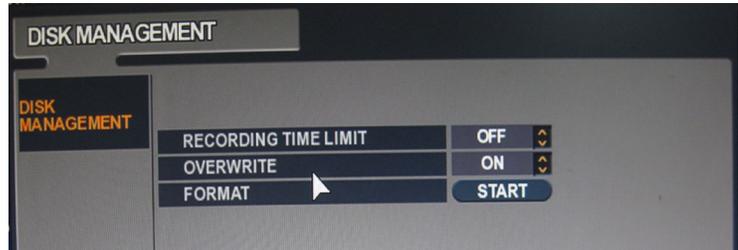
- ALARM : Determines whether alarm inputs will send an email.
- VIDEO LOSS : Determines whether video loss on any of the selected channels will send an email.
- MOTION : Determines whether motion detection on any of the selected channels will send an email.
- FREQUENCY: E-mail sending period (Max. 60 MIN)

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

## SYSTEM SETUP

### DISK MANAGEMENT

Click the DISK MANAGEMENT menu.



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 SETUP

### RECORD SETUP

Click "MENU" on the Status Bar.



The main menu will appear.

Click the RECORD menu.

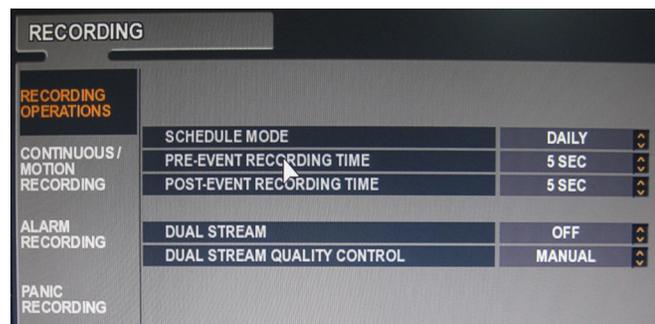


To setup the recording behavior of the DVR, highlight RECORD MENU and press ENTER.

### RECORD : RECORDING OPERATIONS

Click the RECORDING OPERATION menu and click each value.

Change the values with the  button.



- 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 duration recorded after an event (motion detection, alarm input, etc.) occurs.

## RECORD SETUP

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:

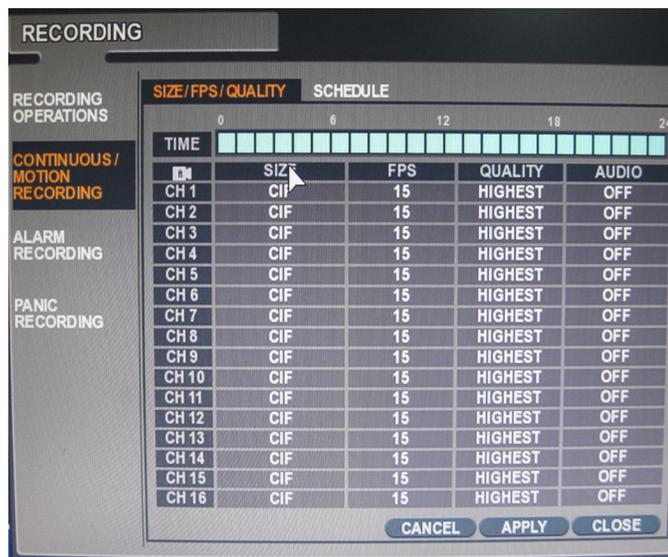
- SIZE/FPS/QUALITY : Recording settings for each channel can be defined across a 24 hour period in blocks (for example between 09:00 and 18:00) or for each individual hour.

Note that when SCHEDULE MODE is set to WEEKLY, each day of the week can also be selected from this area.

- SCHEDULE : 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.

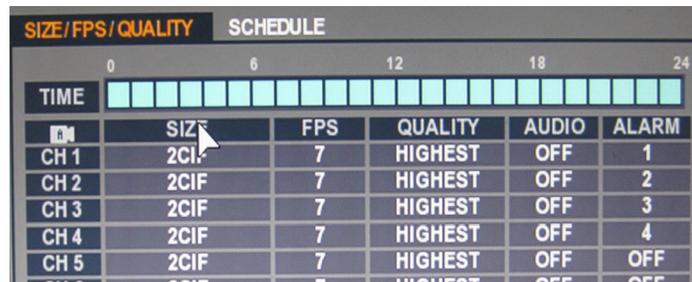


To change the SIZE/FPS/QUALITY:

- 1) Highlight CONTINUOUS/MOTION SETUP and press ENTER.
- 2) Ensure the SIZE/FPS/QUALITY is highlighted in yellow and press ENTER again. The 24 hour time bar is highlighted in green.

## RECORD MENU

3) Click the TIME BAR to change its values. Each block on the timeline represents an hour.



The screenshot shows the 'SCHEDULE' menu with a timeline at the top and a table below. The timeline has 24 blocks, each representing an hour. The table below has columns for 'SIZE', 'FPS', 'QUALITY', 'AUDIO', and 'ALARM'. A mouse cursor is pointing to the 'SIZE' column of the first row.

TIME	SIZE	FPS	QUALITY	AUDIO	ALARM
CH 1	2CIF	7	HIGHEST	OFF	1
CH 2	2CIF	7	HIGHEST	OFF	2
CH 3	2CIF	7	HIGHEST	OFF	3
CH 4	2CIF	7	HIGHEST	OFF	4
CH 5	2CIF	7	HIGHEST	OFF	OFF
CH 6	2CIF	7	HIGHEST	OFF	OFF

4) Press ENTER to select a block. The table below the time bar shows the recording settings for this time period.



The screenshot shows the 'SCHEDULE' menu with a timeline at the top and a table below. The timeline has 24 blocks, each representing an hour. The table below has columns for 'SIZE', 'FPS', 'QUALITY', 'AUDIO', and 'ALARM'. A mouse cursor is pointing to the 'SIZE' column of the first row. The 9th and 10th blocks on the timeline are highlighted in orange, indicating they are selected.

TIME	SIZE	FPS	QUALITY	AUDIO	ALARM
CH 1	2CIF	7	HIGHEST	OFF	1
CH 2	2CIF	7	HIGHEST	OFF	2
CH 3	2CIF	7	HIGHEST	OFF	3
CH 4	2CIF	7	HIGHEST	OFF	4
CH 5	2CIF	7	HIGHEST	OFF	OFF
CH 6	2CIF	7	HIGHEST	OFF	OFF
CH 7	2CIF	7	HIGHEST	OFF	OFF
CH 8	2CIF	7	HIGHEST	OFF	OFF
CH 9	2CIF	7	HIGHEST	OFF	OFF
CH 10	2CIF	7	HIGHEST	OFF	OFF
CH 11	2CIF	7	HIGHEST	OFF	OFF
CH 12	2CIF	7	HIGHEST	OFF	OFF
CH 13	2CIF	7	HIGHEST	OFF	OFF
CH 14	2CIF	7	HIGHEST	OFF	OFF
CH 15	2CIF	7	HIGHEST	OFF	OFF
CH 16	2CIF	7	HIGHEST	OFF	OFF

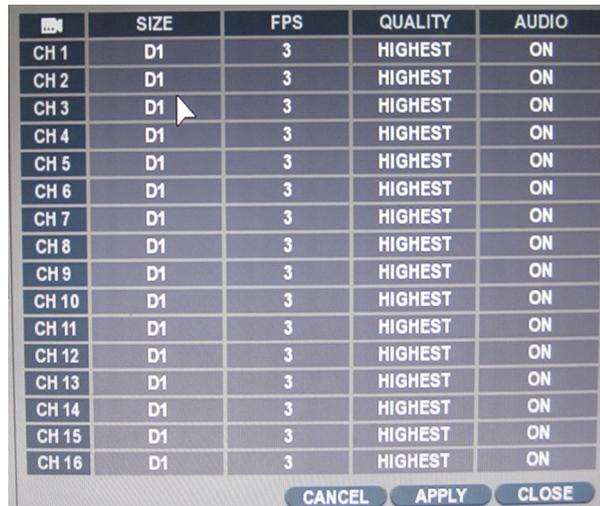
5) Click and drag a block of time to modify its recording settings.

Example: To change the recording settings between 09:00 and 18:00, do the following

- 1) Use the CURSOR KEYS to move the green cursor to the 09:00 position and press ENTER.
- 2) Use the CURSOR KEYS to stretch the orange cursor across to the 18:00 position.
- 3) Click the SIZE, FPS, QUALITY and AUDIO value.

Change values with the  button.

## RECORD MENU



CH	SIZE	FPS	QUALITY	AUDIO
CH 1	D1	3	HIGHEST	ON
CH 2	D1	3	HIGHEST	ON
CH 3	D1	3	HIGHEST	ON
CH 4	D1	3	HIGHEST	ON
CH 5	D1	3	HIGHEST	ON
CH 6	D1	3	HIGHEST	ON
CH 7	D1	3	HIGHEST	ON
CH 8	D1	3	HIGHEST	ON
CH 9	D1	3	HIGHEST	ON
CH 10	D1	3	HIGHEST	ON
CH 11	D1	3	HIGHEST	ON
CH 12	D1	3	HIGHEST	ON
CH 13	D1	3	HIGHEST	ON
CH 14	D1	3	HIGHEST	ON
CH 15	D1	3	HIGHEST	ON
CH 16	D1	3	HIGHEST	ON

4) 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, audio recording may be switched on/off. Any audio channel can be assigned to any of the video channels. Please refer to CAMERA SETUP on page 18. 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

### SCHEDULE

Click the SCHEDULE menu.

To change ACTIVATION settings:

- 1) Highlight CONTINUOUS/MOTION RECORDING and press ENTER.
- 2) Use the CURSOR KEYS to highlight ACTIVATION and press ENTER. The schedule box is highlighted in green.



- 3) Drag the Time and Channel.
- 4) Select the recording type.

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

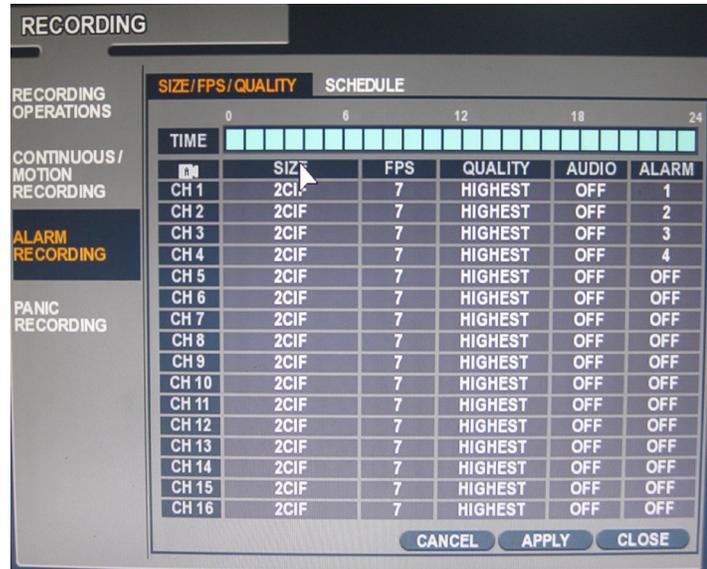
- PINK blocks: No scheduled or motion recording.
- SKY BLUE blocks: The DVR will record continuously.
- BLUE blocks: The DVR will only record while motion is detected.
- ORANGE blocks: The DVR will record both continuously and with motion event.

## RECORD MENU

RECORD : ALARM RECORDING

Click the ALARM RECORDING menu.

The setup is similar to 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.
- ALARM: Associates a channel with an alarm input. Alarm recording will occur when the corresponding alarm is triggered.
- SCHEDULE : This section determines at what times the DVR will monitor the alarm inputs and activate recording.

Refer to Continuous / Motion setup on setting up SIZE/FPS/QUALITY and ACTIVATION on page 43.

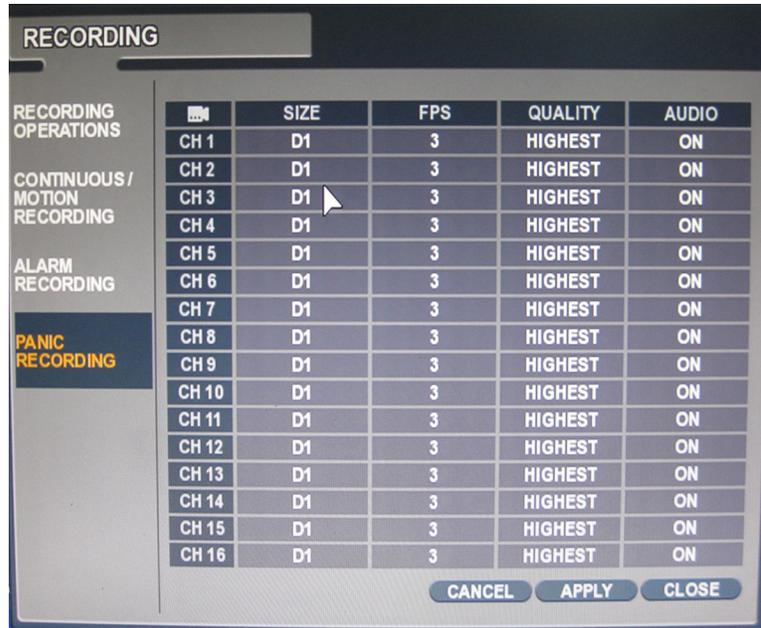
Alarm activated recording can be used in conjunction with Continuous/Motion recording.

## 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 using 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 to be changed.



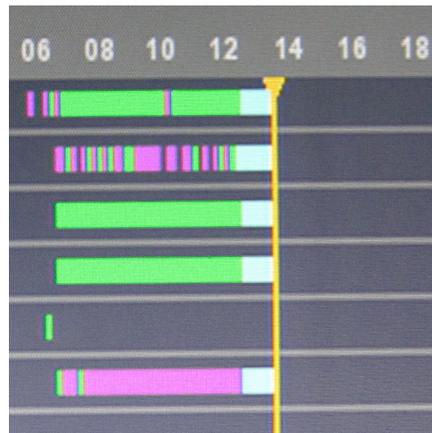
The DVR uses a calendar and timeline search method for quick access to recorded footage. The calendar displayed on the left shows the current month. Days highlighted in yellow have recorded footage. The timeline on the right shows a 24 hour status of all channels for the selected day.

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

- Panic : White
- Motion : Green
- Timer : Blue
- Alarm : Pink

## SEARCH

Click and drag the time bar.



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 viewing mode, see next page) or PLAY (Multiple channel viewing mode, see next page) buttons to view footage.



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 (Thumbnail viewing mode) :

Each screen displays 3 hours of data recorded on a channel.

Different channels and playback may be selected to record at speeds up to x64.



SEARCH MODE : Multi Playback

The default playback mode is a 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 the  button at the time the archive is to be started. Then playback is stopped and menu below will appear.



After inputting a name in TAG, press START. The display is returned to playback.

Press the  button again to end archiving.

- RESERVE: Press to reserve current data.
- CONTINUE: Press to reserve more data. The display will return to playback.
- STOP: Make sure to press this button to reserve current data first.
- START: Starts to reserve selected data.
- CLOSE: Finishes archiving.

Reserved data will be reserved on the hard disk. Reserved data from RESERVED DATA MANAGEMENT may be viewed in the ARCHIVING menu. 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

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

To search for an event and play back the recorded footage:

- 1) Click the SEARCH button and log in as ADMIN with the default password of 1234.



- 2) Click the SEARCH BY EVENT menu and select desired channels and conditions.

3) Then click the time with the  button to change the date and time of the events.

- 4) Click the SEARCH button.

## SEARCH

To play back footage from 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

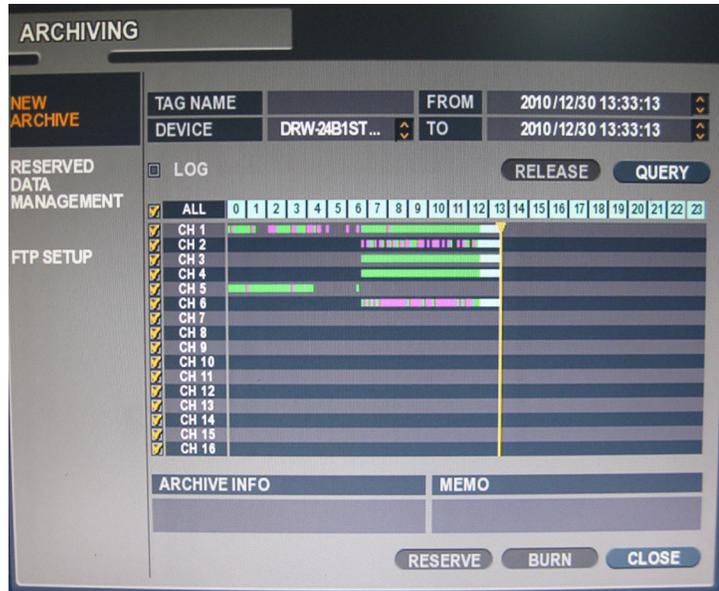
### NEW ARCHIVE

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

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

To archive footage:

- 1) Login as ADMIN, enter the default password of 1234 and press ENTER.



- 2) Click the channel(s) to be archived.

- 3) Click the  button to change time values.

- 4) Click the QUERY menu.

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

The size of the recording will be displayed.

Press RELEASE to reset after QUERY.

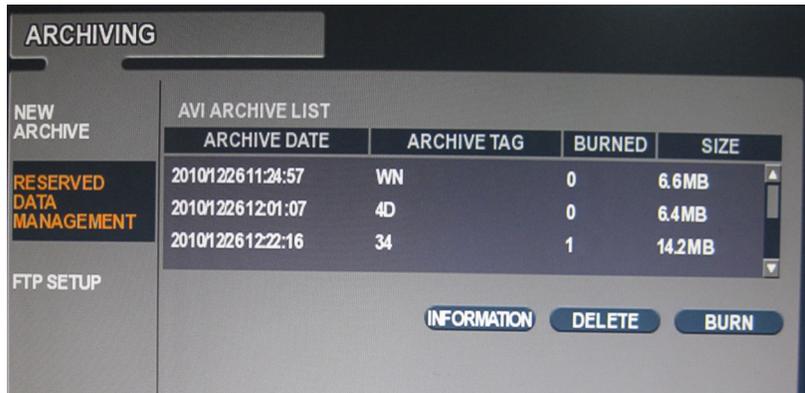
- RESERVE: Press this after inputting the TAG name. RESERVE saves the footage for later archiving.

OR

- BURN: Press this to burn the footage to a disk after inputting the TAG name. Then press START after the menu below appears.

## ARCHIVING

### RESERVED DATA MANAGEMENT



- AVI ARCHIVING LIST: AVI archiving data that was reserved from new archiving menu may be viewed and searches may be archived.
- INFORMATION: Detailed information on reserved AVI data.
- DELETE: Delete the reserved AVI data
- BURN: Backup the selected AVI data.

### FTP SETUP



- HOST NAME: Enter the host name of the FTP server
- PORT: Determines the port through which to communicate with the FTP server.
- USER NAME: Enter the user name required for connection.
- PASSWORD: Enter the corresponding password.
- DIRECTORY: Enter the directory to which to transfer files.

## WEB CONNECTION SETUP

### PRELIMINARIES

Set port forwarding to ports 554 and 8080 on the router.

Refer to the router manual to set up port forwarding.

WEB MINIMUM PC REQUIREMENTS	
CPU	P4 3.0 or Higher
RAM	512MB or Higher
VGA	GeForce MX 400, Radeon 7500 or higher
	GeForce 8 series or higher
VGA MEMORY	64MB
MONITOR	1280X1024
OS	Windows XP SP 2
INTERNET EXPLORER VERSION	IE6.0 or higher
NETWORK	100Mbps
DIRECT X	V7.0 or higher

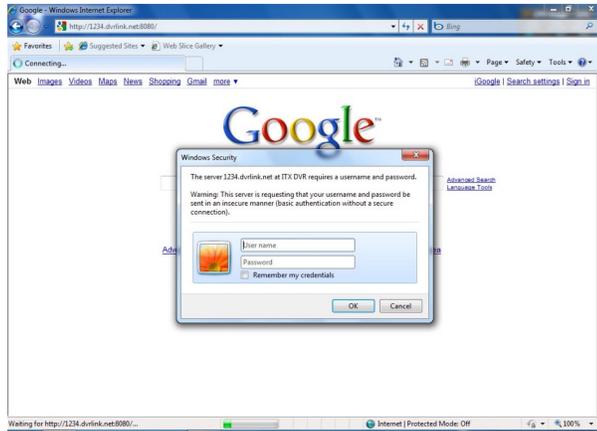
### HOW TO CONNECT

Enter the IP Address or URL of the DVR in the Internet Explorer address bar.

When using DDNS, input:

http://<your registered domain>:8080 (webport :8080)

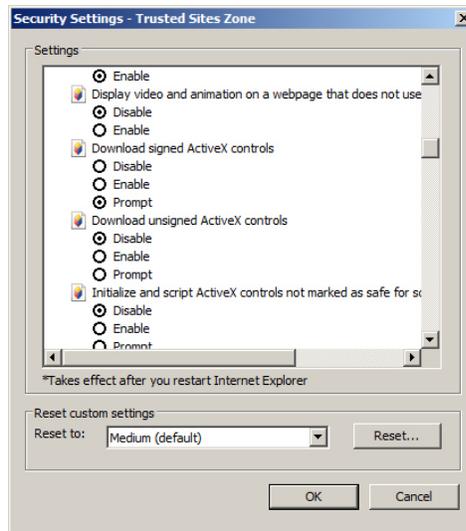
Enter the registered username and password.



To install ActiveX, click Run Add-on



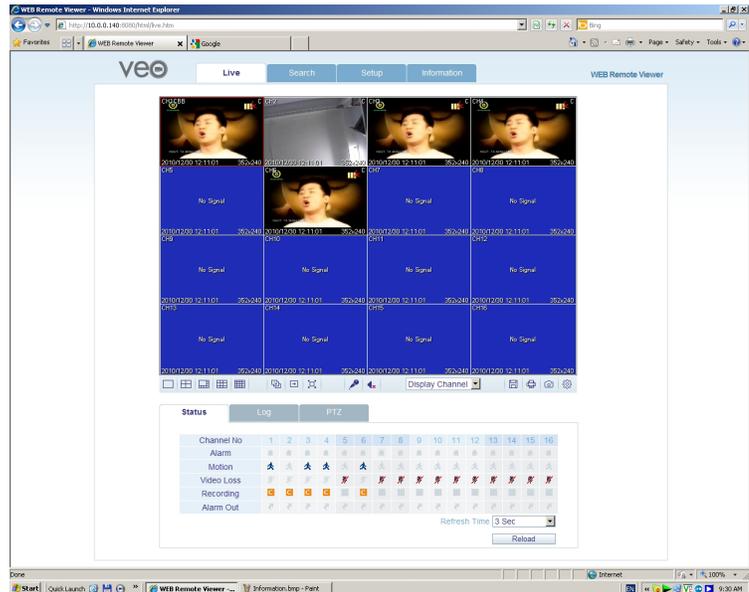
If ActiveX cannot be installed, check the ActiveX option in Internet Explorer -> Internet Options -> Security Settings.



Select Enable for all ActiveX related options.  
(ex, Download signed ActiveX control, Download unsigned ActiveX control....)

# WEB CONNECTION SETUP

## LIVE MODE



## LIVE MODE FEATURES



Select live screen divisions (1, 4, 8,9,16 split screen modes)



Sequence mode / Move to next camera / Full screen.



Select live channel. – select a channel manually.



Activate Mic to send a sound to the DVR / Turn On/Off Sound



Save live image / Print current screen / Current screen snapshot / Setup [Render] and [Save Folder]

Status: Displays the active status of the DVR

- Alarm – Indicator will be marked when the system detects an Alarm input.
- Motion- Indicator will be marked when the system detects Motion
- Video Loss - Indicator will be marked when the system detects Video Loss.
- Recording – Display current recording mode  
(T: Continuous, M: Motion, A: Alarm recoding)
- Alarm Out - Indicator will be marked when the system detects an Alarm output.
- Refresh Time – set interval of refresh or Reload for manual refresh.

Status	Log	PTZ														
Channel No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alarm																
Motion																
Video Loss																
Recording																
Alarm Out																

Refresh Time

Log : Displays all system logs in real time

Status	Log	PTZ	
No	Camera Title	Date Time	Log
1		2010.12.30 13:15:20	Remote Log On : Live Display:ADMIN: 10.0.1.121
2		2010.12.30 13:10:06	Remote Log Off : Live Display:ADMIN: 10.0.1.121
3		2010.12.30 12:35:09	Remote Log On : Live Display:ADMIN: 10.0.1.121
4		2010.12.30 12:35:08	Remote Log Off : Live Display:ADMIN: 10.0.1.121
5		2010.12.30 12:34:37	Remote Log On : Live Display:ADMIN: 10.0.1.121
6		2010.12.30 12:33:19	Remote Log Off : Search:ADMIN: 10.0.0.187
7		2010.12.30 12:32:33	Remote Log On : Search:ADMIN: 10.0.0.187
8		2010.12.30 12:32:32	Remote Log On : Search:ADMIN: 10.0.0.187

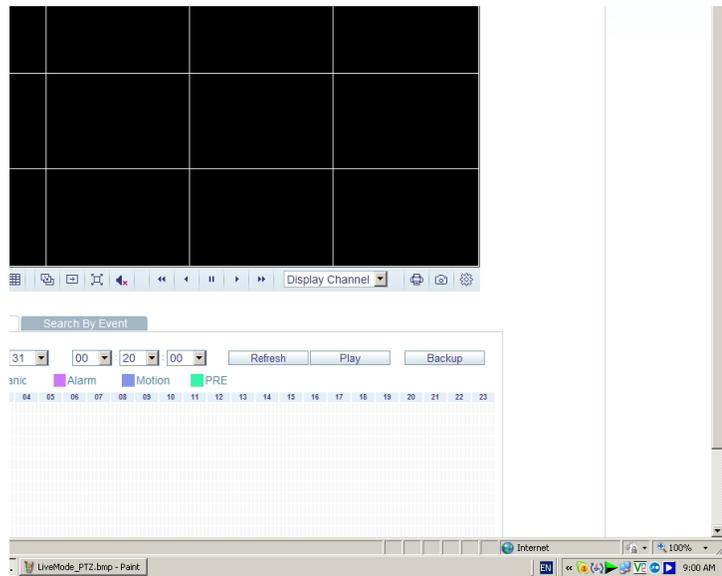
Refresh Time

PTZ : Controls a connected PTZ camera.

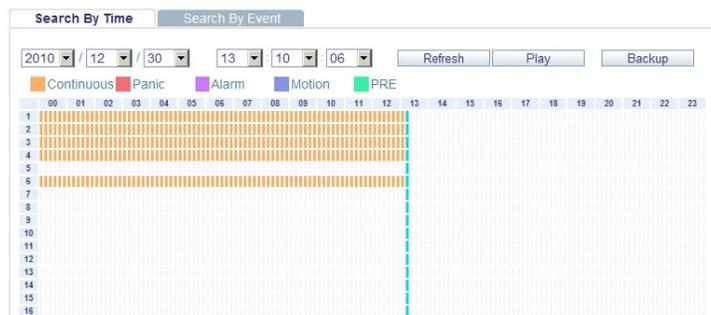
- Pattern – move a camera amongst several preset position
- Preset – set a camera position.
- Swing – move a camera between two preset points.

Status	Log	PTZ
<b>Preset</b> <input type="text" value="0"/> <input type="button" value="Set"/> <input type="button" value="Run"/>		<input type="button" value="-"/> Focus <input type="button" value="+"/> <input type="button" value="↖"/> <input type="button" value="↗"/>
<b>Position Step</b> <input type="text" value="5"/>		<input type="button" value="-"/> Zoom <input type="button" value="+"/> <input type="button" value="↔"/>
		<input type="button" value="-"/> Iris <input type="button" value="+"/> <input type="button" value="↕"/>

## SEARCH (By time line )

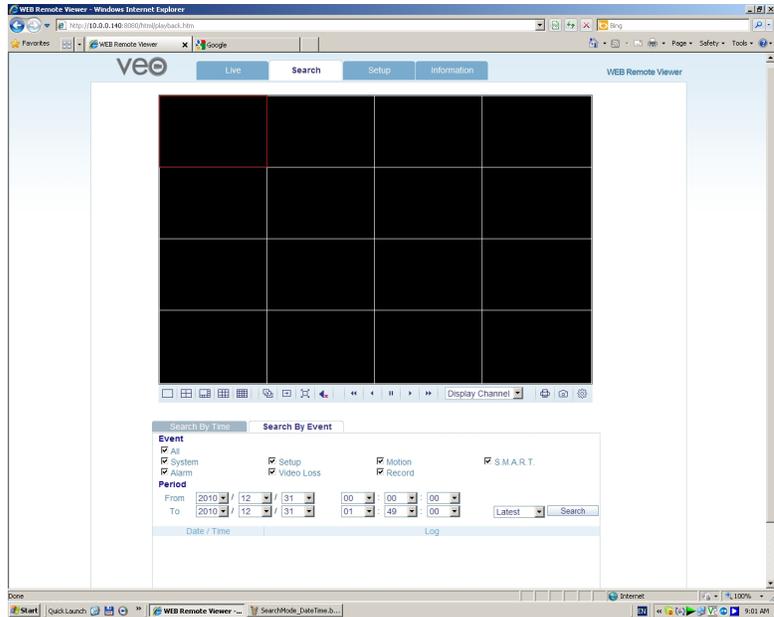


1. Select a time line on the time table or set a exact time.
2. Then press the 'Play' button



- Refresh : Refresh the recording table of data.
- Play : Start to display the recorded data from system.
- Backup : User can backup the recorded data on a remote site.

## SEARCH (By Event)



- Event : Select criteria to filter events for querying.
- Period : Set a time interval to filter events for querying
- Search : Query and list events by the given criteria.
- Select an event on the list to start playback of the event.

Search By Time    Search By Event

**Event**

All                       Setup                       Motion                       S.M.A.R.T.

System                       Video Loss                       Record

Alarm

**Period**

From 2010 / 12 / 30 00 : 00 : 00

To 2010 / 12 / 30 13 : 10 : 49      Latest    Search

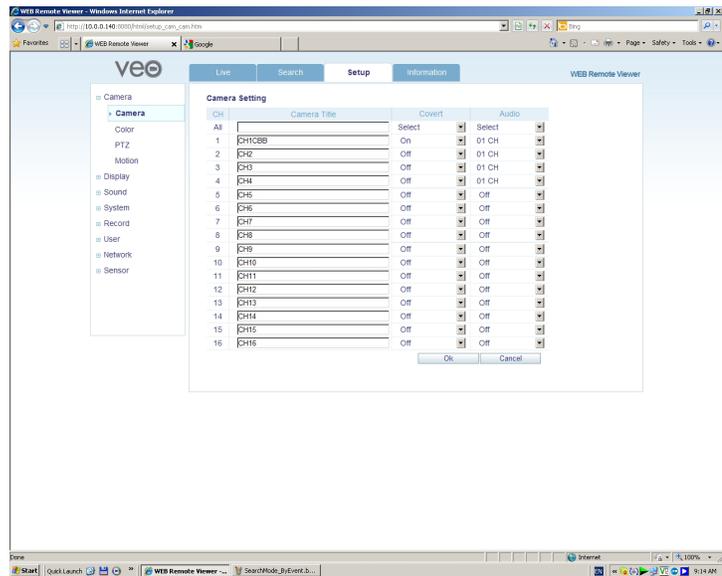
Date / Time                      Log

Page Down    Page Up

## SETUP MODE

### CAMERA

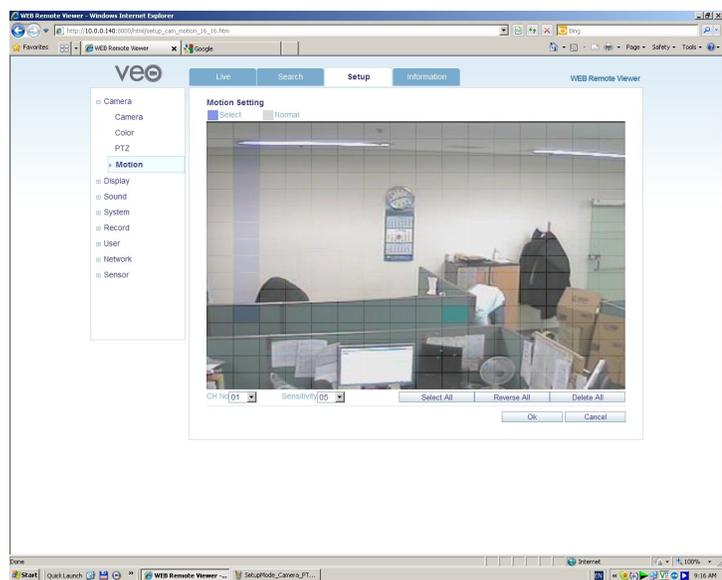
Configures camera attributes such as title, live color, PTZ setup or motion



### CAMERA : MOTION SETUP

Motion setup for detecting motion events.

- 1) Select the Motion menu tab.
- 2) Select a channel and sensitivity.
- 3) Create a detection area by clicking and dragging on the image.
- 4) Press OK.



## DISPLAY

### DISPLAY : OSD

Display text items over the image. Refer to DISPLAY : OSD on page 28 for details.

The screenshot shows the VEO web interface with the 'Setup' tab selected. The left sidebar has 'Display' expanded to 'OSD'. The main content area is titled 'OSD Setting' and contains the following configuration options:

Status Bar Timeout	10 Sec
Camera Title	On
Recording Mode Icon	On
Border	On
Border Color	Gray
Motion Sensor Display	Off
Motion Color	Blue
Language	English

At the bottom of the configuration area are 'Ok' and 'Cancel' buttons.

### DISPLAY : MONITOR

Set dwell time for a sequence, spot, and pop up. Refer to DISPLAY : MONITOR on page 29 for details.

The screenshot shows the VEO web interface with the 'Setup' tab selected. The left sidebar has 'Display' expanded to 'Monitor'. The main content area is titled 'Monitor Setting' and contains the following configuration options:

Sequence Dwell	5 Sec
Spot Dwell	5 Sec
De-interlace Mode	Off
Alarm Pop-up Mode	Off
Alarm Pop-up Dwell	5 Sec
Motion Pop-up Mode	Off
Motion Pop-up Dwell	5 Sec

At the bottom of the configuration area are 'Ok' and 'Cancel' buttons.

## SOUND

Audio Setting – Select a live audio channel and activation

Buzzer setting – Activate buzzer out for evnet notification

The screenshot shows the VEO web interface with the 'Setup' tab selected. The left sidebar has 'Sound' expanded to 'Audio/Buzzer'. The main content area is divided into two sections:

**Audio Setting**

Live Audio	On
Default Audio Channel	01 CH
Network Audio Transmission	On
Network Audio Receive	Off

**Buzzer Setting**

Keypad	Off
--------	-----

At the bottom of the configuration area are 'Ok' and 'Cancel' buttons.

## SYSTEM

Configure the date of the system, check system information and set controller. See the section SYSTEM SETUP on page 28 for details.

The screenshot shows the 'Date/Time Setting' configuration page in the VEO web interface. The left sidebar contains a tree view with categories: Camera, Display, Sound, System, Date/Time (selected), Management, Control Device, Record, User, Network, and Sensor. The main content area has tabs for Live, Search, Setup, and Information. Under the 'Date/Time Setting' section, there are dropdown menus for Date Format (YYYY/MM/DD), Time Format (24Hour), Network Time Server Setup (POOLNTP.ORG), Time Zone Setup (GMT-05:00 America/EST), and D.S.T (On). At the bottom, there are 'Ok' and 'Cancel' buttons.

## RECORDING

Configure recording parameters. See the section RECORD SETUP starting on page 41 for details.

The screenshot shows the 'Continuous / Motion Recording Setting' configuration page in the VEO web interface. The left sidebar is similar to the previous screenshot, with 'Continuous / Motion' selected under the 'Record' category. The main content area has tabs for Live, Search, Setup, and Information. Under the 'Continuous / Motion Recording Setting' section, there is a 'Size / FPS / Quality' dropdown and an 'Activation' section. The 'Activation' section features a timeline from 0 to 24 hours with markers at 0, 6, 12, 18, and 24. Below the timeline is a grid for 16 channels (CH1 to CH16). The grid shows recording activation for CH1, with a cyan bar from 0 to 1 hour and an orange bar from 1 to 24 hours. Other channels (CH2-CH16) are currently inactive. At the bottom, there are buttons for 'Select All', 'Reverse All', 'Delete All', 'Ok', and 'Cancel'.

## USER

Add users, select Authority level and Log out time See SYSTEM SETUP : USER on page 31 for details.

The screenshot shows the 'User Authority Setting' configuration page in the VEO web interface. The left sidebar is similar to the previous screenshots, with 'Authority' selected under the 'User' category. The main content area has tabs for Live, Search, Setup, and Information. Under the 'User Authority Setting' section, there is a table with columns for 'Manager' and 'User'. The table lists various permissions: Setup, PTZ, Search, Archiving, and Remote Agent. The 'Manager' column has checkboxes for Setup, PTZ, Search, and Remote Agent, all of which are checked. The 'User' column has checkboxes for Setup, Archiving, and Remote Agent, all of which are unchecked. At the bottom, there are 'Ok' and 'Cancel' buttons.

	Manager	User
Setup	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTZ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Search	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Archiving	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Remote Agent	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## NETWORK

View the system network information and select network speed. Remote site IP settings cannot be changed from this screen.

Note that the Network IP is set for the system only.

VEO WEB Remote Viewer

Live Search Setup Information

IP Setup Setting

DHCP

IP Address 10.0.0.140

Subnet Mask 255.0.0.0

Gateway 10.0.0.63

DNS 1st Server 10.0.0.1

DNS 2nd Server 0.0.0.0

RTSP Service Port 554

Web Server Port 8080

Max TX Speed 8192 Kbyte

DDNS On

Ok Cancel

For email notification, input the SMTP server details on the following setup.

VEO WEB Remote Viewer

Live Search Setup Information

E-mail Setting

Server

Port 25

Security Off

User

Password

From

Ok Cancel

## SENSOR

Manager-level users can set all event notification options such as HDD Event, Alarm Input (pictured here), Alarm Output, Buzzer Out, E-mail Notification. For details, see the section EVENT/SENSOR on page 35

VEO WEB Remote Viewer

Live Search Setup Information

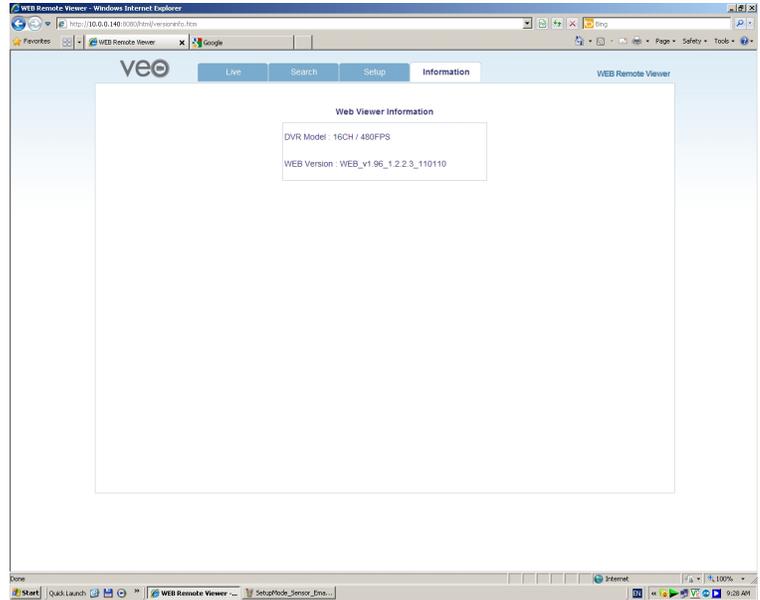
Alarm Input Setting

CH No	Operation	Type	Text
All	Select	Select	
CH1	Enable	N/O	ALARM 1
CH2	Enable	N/O	ALARM 2
CH3	Enable	N/O	ALARM 3
CH4	Enable	N/O	ALARM 4

Ok Cancel

## INFORMATION

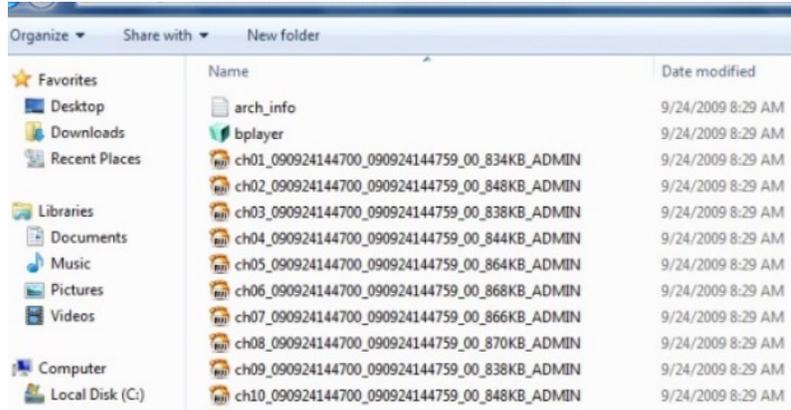
Displays the model of the DVR and the WEB Remote Software version.



## WATERMARK SETUP

Watermarking prevents the modification of archived surveillance footage. To check whether or not an AVI backup file has been tampered with, do the following:

1. Open the backup data from a device and Run the bplayer program included in the backup folder.



2. Click the  button to open archived footage. An Open file dialog will appear. Select the file to be checked.

3. A message box will appear to confirm checking for the watermark. Click **Yes** to continue. If the backed up AVI file is modified, A Verification failed message will appear.



## SMARTPHONE CONNECTION

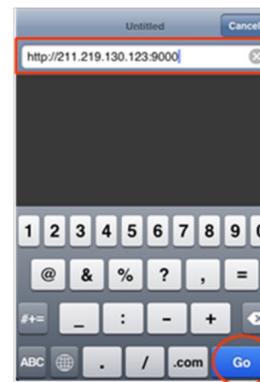
- iPhone™

1. Select the Safari browser.



2. Enter the IP address or URL to connect.

3. Press **GO**.



4. Enter the Username and Password. The camera image will appear.  
(Default: ADMIN / 1234)

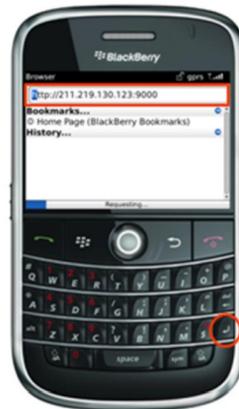


- BlackBerry™

1. Select the Web browser.



2. Enter the IP address or URL to connect.
3. Press the Enter button.



4. Enter the Username and Password. The camera image will appear.  
(Default: ADMIN / 1234)

