DIGITAL WATCHDOG
Complete Surveillance Solutions

Real-Time 960H Recording

VMAX960H CORE™

Future of Digital Video Recording at Hand

User's Manual ver. 1.00

REV: 08/21

Safety Information

The safety information is provided for the wellness of the equipment and for the safety of the operator.
Please review and observe all instructions and warnings in this manual.

Note : *Keep this manual handy every time you operate this equipment. Also, check with your dealer for further assistance and for the latest revision of this manual. Your dealer might provide you with a digital version of this manual. We also ask to keep the original box and packing materials in case of return and for long-term storage of the DVR unit.*

Preparations before installation

To protect your DVR from damage and to optimize performance, be sure to keep the DVR away from dust, humidity, and area with high voltage equipment such as refrigerator.

Do not install or place equipment in areas where the air vents can be obstructed, such as in tight enclosures or small utility closet. Keeping the unit in a temperature-controlled room with ample regulated power is highly recommended. Do not overload the wall outlet, as this can result in the risk of fire or electric shock.

Uninterruptible power devices such as UPS power surge protectors are recommended, and the DVR units must at least be connected with UL, CUL, or CSA approved power surge protector. Avoid direct sun light and avoid heat.

FCC Information

This equipment has been tested and found to comply with the limits of Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment under FCC rules.

UL Information

- for pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible

- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or statement in the servicing instructions.

CAUTION RISK OF EXPLOSION IF AN INCORRECT TYPE REPLACES BATTERY.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION.
THIS EQUIPMENT IS FOR INDOOR USE, AND ALL THE COMMUNICATION WIRING IS LIMITED TO INSIDE OF THE BUILDING, OR ANY SIMILAR WORD.

Contents

CHAPTER 1 : DVR USER MANUAL

1 GETTING STARTED 6

1.1 Checking Supplied Items 6
1.2 Connecting Peripheral Device 7
1.3 System Startup and Shutdown 8

2 EXPLANATION FOR EACH FUNCTION 10

2.1 Front Panel 10
2.2 Rear Panel 11
2.3 IR Remote Controller 13

3 OPERATION 14

3.1 User Log-in 14
3.2 Quick Startup Wizard 15
3.3 Live Display Mode 16
3.4 PTZ Operation 20
3.5 Call Monitor Operation **Error! Bookmark not defined.**
3.6 Playback of Recorded Video 22
3.7 Quick Backup during Playback 23
3.8 Search Recording Image 24
3.9 DST Setting 27
3.10 Screen Saver 28

4 SETTING 29

4.1 System 30
4.2 Device 36
4.3 Record 41
4.4 Network 44
4.5 Backup **Error! Bookmark not defined.**
4.6 Quick Setup 50

5 WEB CLIENT 51

5.1 Web Login 51
5.2 Web monitoring 52
5.3 Web Playback 55
5.4 Web Configuration 56

6 PIVOT™ USER GUIDE 58

6.1 PC Requirements 58

6.2 Software Installation 58
6.3 Software removal 59
6.4 Basic Operations 60
6.5 Pivot Functions 70
6.6 Pivot Setup 76

7 MAC ACS USER GUIDE 82

7.1 System Requirement 82
7.2 Install 82
7.3 Basic Operation 84

8 MOBILE PHONE SOFTWARE USER GUIDE 90

8.1 iPhone application software 90
8.2 Android application software 100

9 APPENDIX : NETWORK SETUP FOR EXTERNAL USAGE 110

10 APPENDIX : SPECIFICATION 112

Chapter 1

DVR USER MANUAL

1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

Items	Photo	Quantity
Quick Start Guide		1 Set
CD (Manual & Software) Rubber Mount		1 Set 1 Set (4 Pieces)
12V DC Adaptor Power Cable		1 Set
USB Mouse		1 Set
Screws		4 Pieces (Top cover)

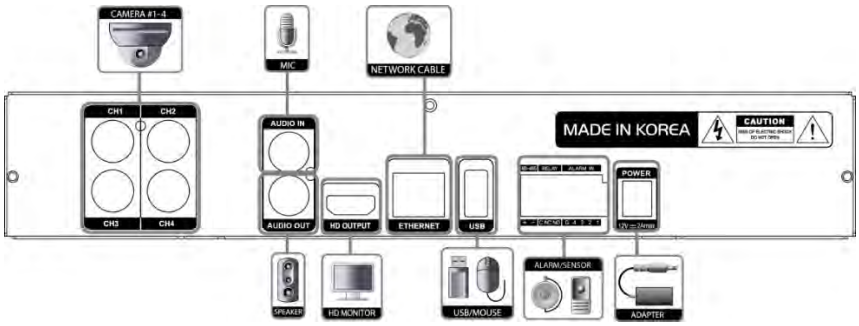
1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.

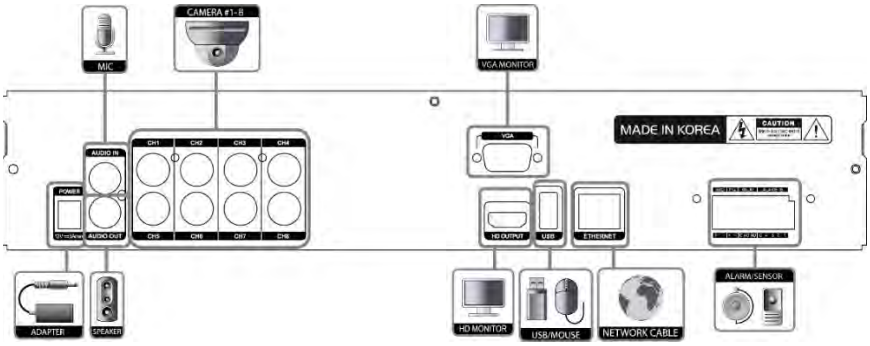
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE Install the system in a location with good ventilation to prevent overheating.

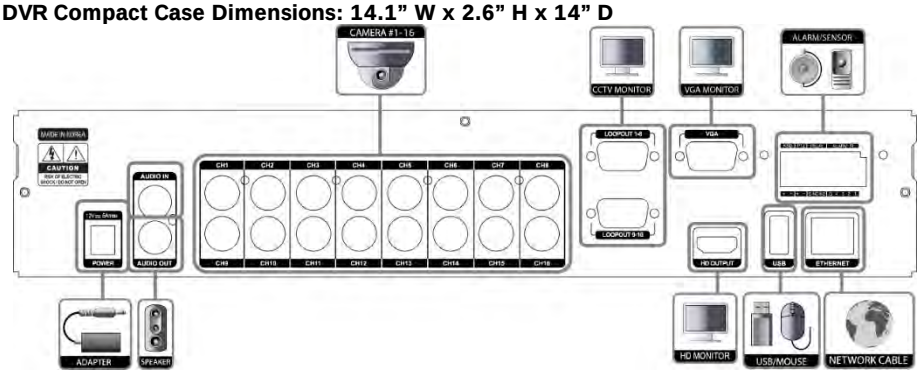
4 Channel DVR Compact Case Dimensions: 11.0" W x 1.9" H x 9.6" D



8 Channel DVR Compact Case Dimensions: 11.0" W x 1.9" H x 9.6" D



16 Channel DVR Compact Case Dimensions: 14.1" W x 2.6" H x 14" D



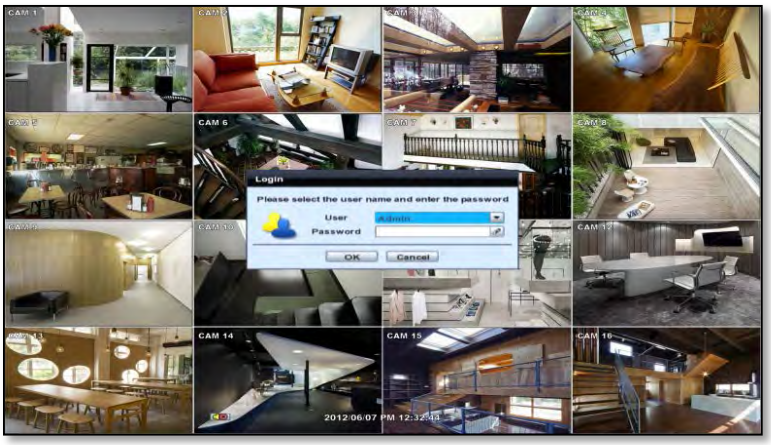
WARNING ! ※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall socket.

1.3 System Startup and Shutdown

1.3.1 System Startup

After connecting all necessary peripheral devices such as cameras, monitors and a mouse to the DVR, power up the DVR by connecting DC12V 3A adaptor to the power jack on the rear panel. The boot log screen will appear. Please wait until the boot process is complete.

To login, right-click anywhere on the screen. This will bring up the login screen, where you can enter the username and password. There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by the Administrator can also login with a specific password set by the Administrator.



NOTE	Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

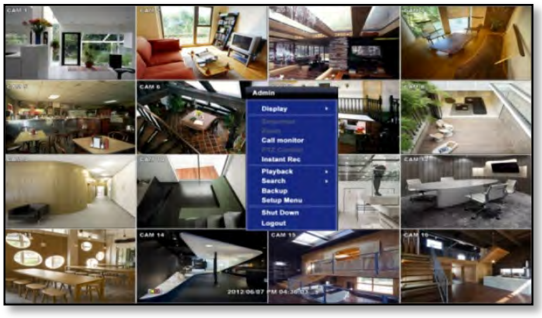
NOTE	The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 System Shutdown and change password

To power off the DVR, follow one of the options below:

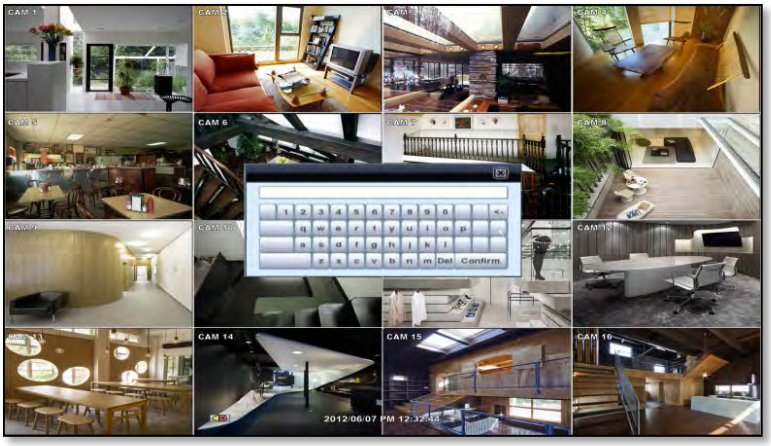
1. Right-click on the screen and select ‘Shutdown’ from the drop-down menu. Enter the username and password to power off the DVR.

2. Right-click on the screen and select ‘Setup Menu’. Go to the System Settings sub-menu and select the ‘Default’ tab. Press the ‘Shut Down’ button at the bottom right of the window. Enter your username and password and select OK to power off the DVR.



NOTE It is not recommended to disconnect the power cable abruptly from the back of the DVR because it may affect the DVR and Hard Drive.

The default password for ‘admin’ account is none. Therefore, just click ‘Enter’ button on the dial pad. If you changed the password for ‘admin’ account, please type in the changed password to login.



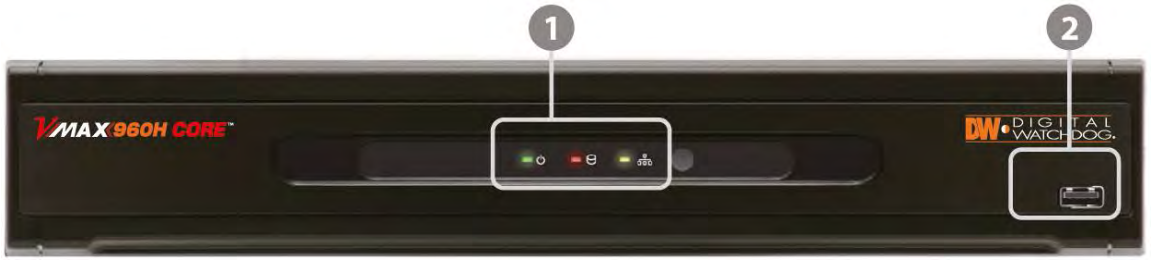
NOTE User can type in the password using the virtual keyboard or the numeric buttons on the IR remote controller.

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

4Ch/8ch DVR Front Panel (1U Case / 1 HDD)

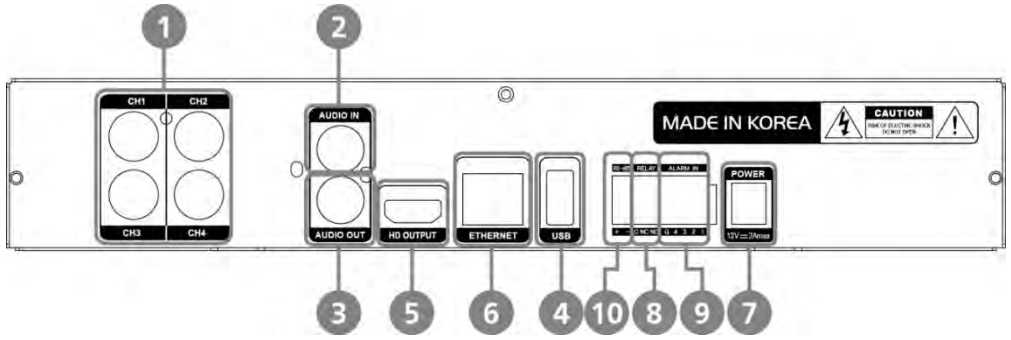
16ch DVR Front Panel (1.5U Case / 2 HDD)



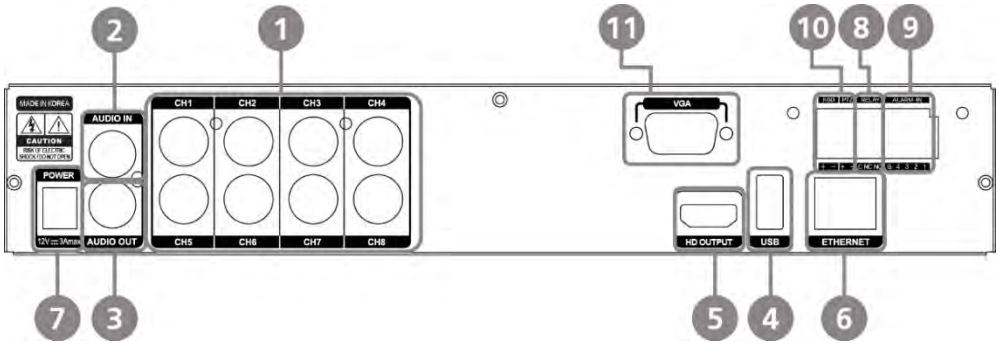
No.	Items	Functions
1	LED Indicator	System status LED indicators Green = The system is powered and ON. Red = The system is currently recording Yellow = The system is being accessed remotely via the network
2	USB Port	USB Port (Ver. 2.0) for mouse operation, backup device or firmware update

2.2 Rear Panel

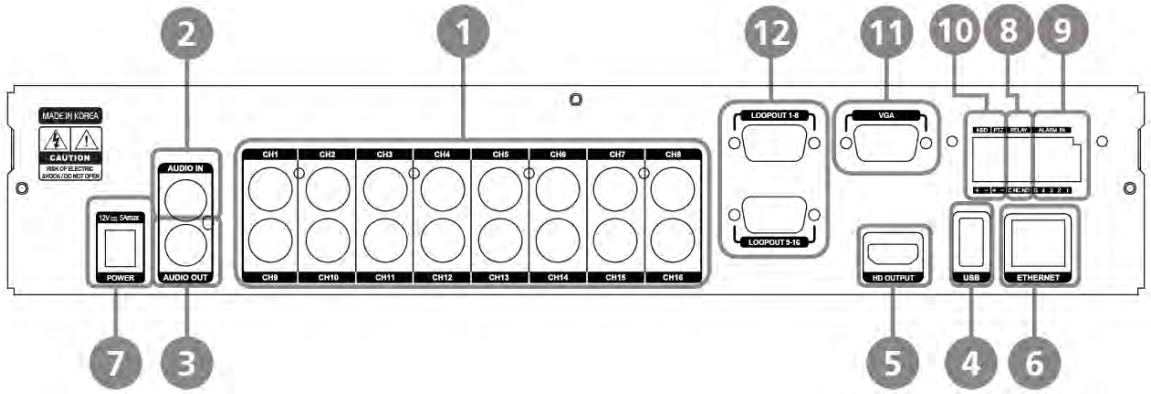
4 Channel DVR Compact Case



8 Channel DVR Compact Case



16 Channel DVR Compact Case



No.	Name	Description
1	Video-In	Camera Inputs
2	Audio-In	Audio Input Device (with Amplifier)
3	Audio-Out	Audio Output Device (with Amplifier)
4	USB Port	USB 2.0 Port for Mouse Operation, Backup Device and Firmware Update
5	HD OUTPUT	HD Output for Local Monitoring
6	LAN Port	1 x 10/100/1000M RJ59 Port for Network Connection
7	Power Input	4ch : 12V/2A 8ch : 12/3A 16ch : 12V/5A
8	Alarm Output	Alarm Output
9	Sensor Input	Sensor Input
10	RS-485 Port	PTZ Dome Camera or External Keyboard Controller Connection
11	VGA	VGA Output
12	LOOP OUT	Looping Output ports (DW-VLOOP Sold Separately) (16ch Models Only)

Note Carefully check whether the specifications of the peripheral devices match the DVR's specifications.

2.3 IR Remote Controller

The VMAX960H CORE DVR comes with a complimentary IR remote controller. In order to use the remote controller, the ID must match on both the DVR and the controller.

(Default ID # for DVR and IR Remote Controller is “1”.)

If you have more than two DVRs, you can control them with the same remote controller by setting up their ‘Remote ID’ from ‘1’ up to ‘8’.

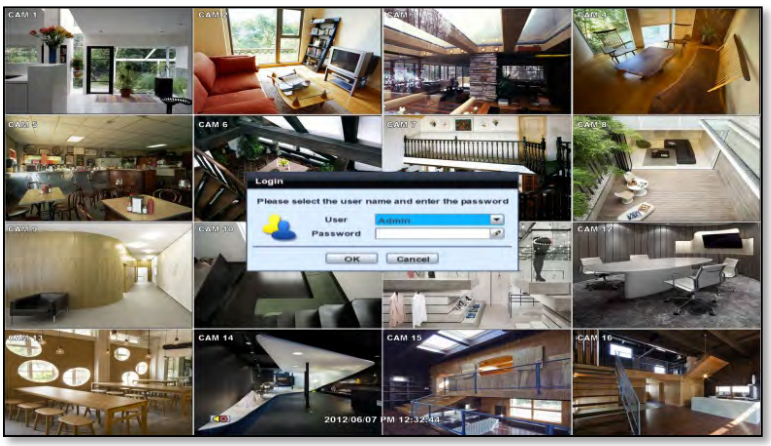
The function buttons of the IR Remote Controller are as below.

No.	Functions
1	Start/ stop instant (emergency) recording
2	Numeric buttons for channel view selection and text input
3	Auto-sequence on live display
4	Freeze current view
5	Go to call monitor view
6	View next /previous channel in single channel view
7	Start instant playback
8	Open search menu
9	Ok (select) button
10	Mute audio
11	Playback on Search Mode
12	(Fast Backward/Playback/Stop/Fast Forward)
13	Exit
14	Display mode
15	PIP Mode
16	Bookmark
17	Zoom in & out
18	Backup button
19	Enable PTZ control
20	Directional buttons (up/down/right/left)
21	Open setup menu

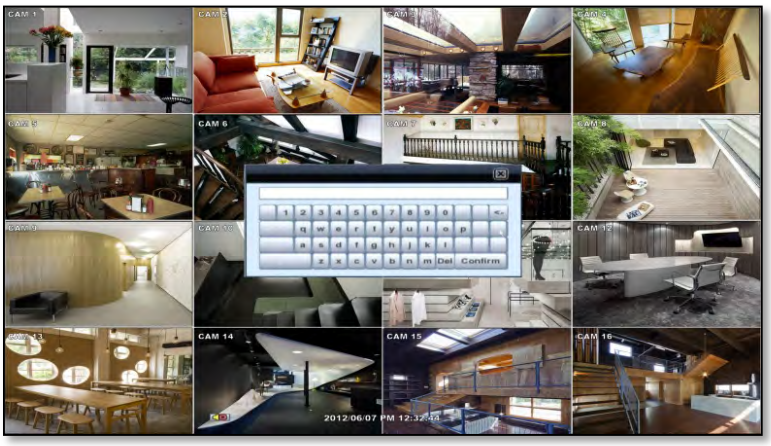
3 OPERATION

3.1 User Log-in

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.



Enter the <Admin> or <User> password which had been set by using the virtual keyboard.

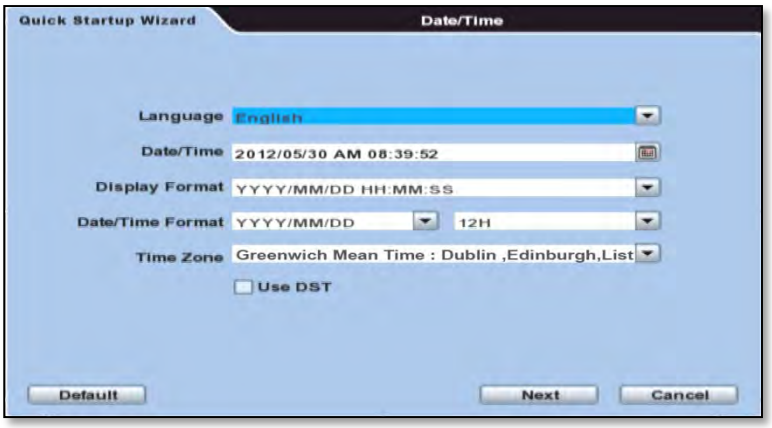


NOTE 1) <LOGIN> window will be displayed until user logs in with the right ID and password.
2) If the DVR is set to Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

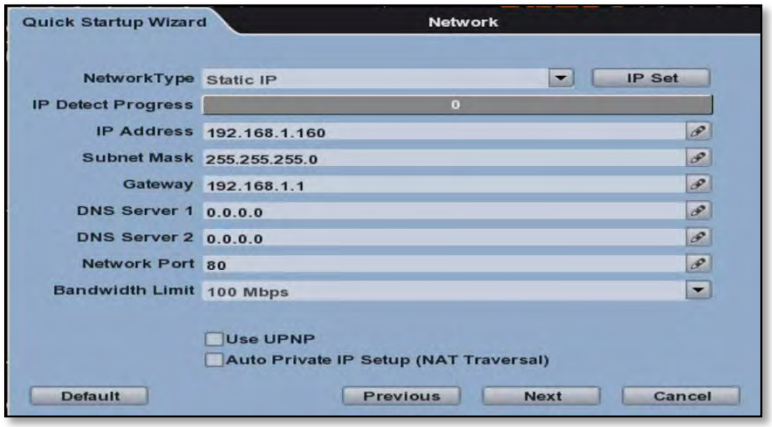
3.2 Quick Startup Wizard

Quick Startup Wizard is specially designed to make it much easier for the major DVR settings such as Time/Date setup, Record setup, Network setup and Quick setup. When the DVR boots up, the Quick Startup Wizard operates automatically. It can be disabled by setting in the main menu.

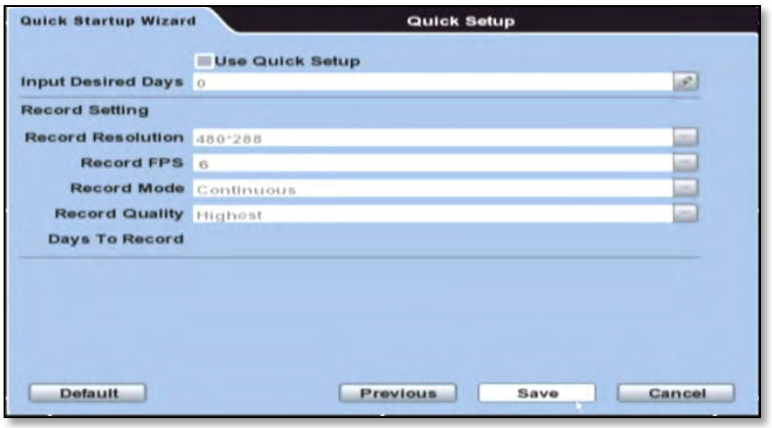
Adjust the date & time for the DVR. Setting this before the DVR starts recording will prevent and time conflict, which may result in data loss. See section 4.1.1 System Info for more information.



See section 4.4 Network for more information on setting up the DVR for external connection.



Use the DVR recording calculator to setup the best recording parameters for your needs. See section 4.6 Quick Setup for more information.



3.3 Live Display Mode

3.3.1 Full HD(1080p) Live Display

Full HD Live Display can be supported in live mode by using its HD output.

NOTE In playback mode, the maximum resolution is 960x480 / 960x576(NTSC/PAL).

<Full HD Live Display>

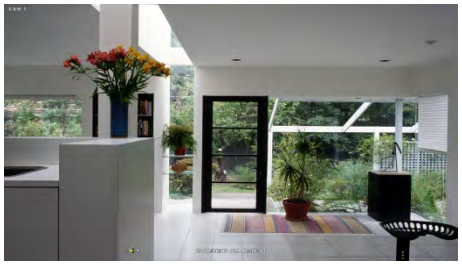
3.3.2 Channel Selection

Channel selection can be done by following one of the steps below:

1. CH1~CH16 buttons in the IR Remote Control.
2. 1~16 virtual buttons at the bottom of the GUI display.

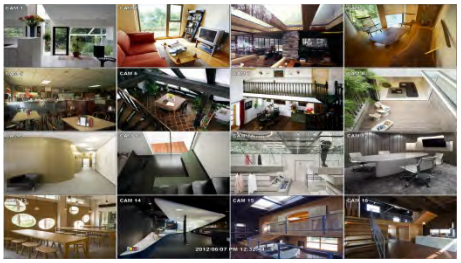
The display mode can be changed by selecting the appropriate display mode from the menu bar at the bottom of the display area.

The live images can be displayed in real-time in 1, 4, 9, 16 screen splits (depending on the model and the supported channels). Whenever the left/right arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.


[1 Ch]

[4 Ch]

[9 Ch]

 [16 Ch]

To select a channel to view in single channel mode, click on the channel using the USB mouse. To return to the previous display mode, click anywhere on the screen again.

To view the pop-up menu, right-click anywhere on the display screen.

NOTE To select a channel using the mouse, perform a slow and clear click of the left mouse button.

3.3.3 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor:

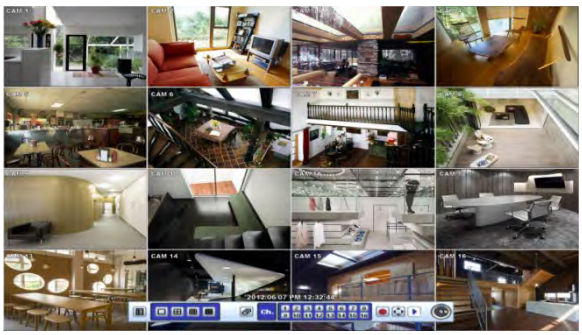
Icon to be shown at Left-upper corner on each channel screen		Icon to be shown at Left-bottom corner on full screen.	
C	Continuous Recording	SEQ	Sequence display on
M	Motion Detection Recording	ZOOM	Digital zoom on
S	Sensor Activating Recording		Audio Channel
C+M	Continuous+ Motion Recording		
C+S	Continuous + Sensor Activating Recording		
C	Emergency Recording		

NOTE If you cannot find any colored-mark in the top right corner of the live screen mode, then the system is not set to record any image. Check the recording schedule or camera in the main setup menu.

To show the menu bar, move the mouse's cursor to the bottom of the screen. The menu bar will be displayed.

To hide the menu bar, move the mouse's cursor away from the menu bar.

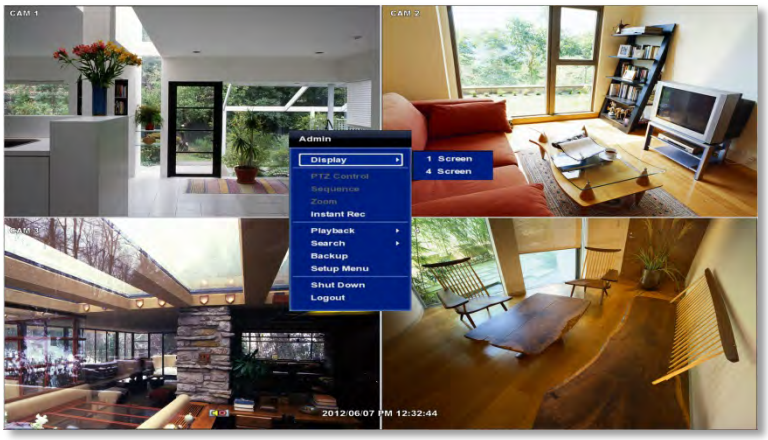
Right-click the USB mouse to access the pop up menu.



Menu Bar	
	Menu button. When pressed, System Setup, Search, Backup, Logout will appear.
	Screen split options- Select from single channel, 4 channel, 9 channel, or 16-channel display.
	Sequence- if pressed, the system will start displaying all the channels in sequence mode. To stop, press the button again, or right click on the screen and select 'SEQUENCE'
	CH. Buttons- view a specific channel in full screen mode.
	Instant (emergency) recording- The system will record video based on the panic record settings (Default: 30fps @ 960x480).
	PTZ mode- Control any supported PTZ cameras by moving the mouse pointer.
	Go to Instant playback.
	HDD usage indicator- Indicates the percentage of your HDD being used. If it shows 60%, then 60% of HDD space has been used.

3.3.4 Pop-up Menu

Right clicking anywhere on the screen will open up the pop up sub-menu as shown below.



DISPLAY- Select the display split from the available options:

- 1 Screen- Single channel. Automatically displays CH1. If 1 Screen is selected again, next chronological channel will be displayed.
- 4 Screen- Quad mode. Automatically displays channels 1~4. If 4 Screen is selected again, the next chronological 4 channels (5~8) will be displayed.
- 9 Screen- Automatically displays channels 1~9. If 9 Screen is selected again, the next chronological channels (10~16+1~2) will be displayed.
- 16 Screen- Displays all 16 channels (available only in 16 channel models)

PTZ CONTROL- Open the DVR's PTZ control. See section 3.4 PTZ for more information.

SEQUENCE- when selected,

icon will appear on the bottom right corner of the screen, and the display screen will change sequentially (Please note, this option will be disabled if display area is in 16 channel mode).

ZOOM- Enables/ disables digital zoom function. When enabled, ZOOM icon will appear and zoomed area will be displayed on the bottom right corner. The Zoom will automatically focus on the center of the camera's display. To adjust it, go to the small zoom display at the bottom of the camera display and move the yellow frame to the area you would like to view. To move the yellow frame, use your mouse to drag the lines to the desired location. To go back to live display mode, right-click on the screen and select "ZOOM" again. This feature is available in single channel mode only.

INSTANT REC- Start/ Stop Panic Recording.

PLAYBACK- Select playback option:

- 10, 15, 30, 60 seconds- start playback from the selected number of seconds ago.
- 2, 3, 5, minutes- start playback from the selected number of minutes ago.
- Open Playback Mode- automatically go to instant playback.

SEARCH- Select video search options:

- Date/ Time- open calendar search.
- First/ Last Data- Go to the first or last recorded data.
- System/ Event Log- open log search window.
- Bookmarks- open bookmark search.

BACKUP- Open the backup screen to export data from the DVR to an external USB drive.

SETUP- open the DVR's main menu.

SHUT DOWN- Power off the DVR.

LOGOUT- User logout.

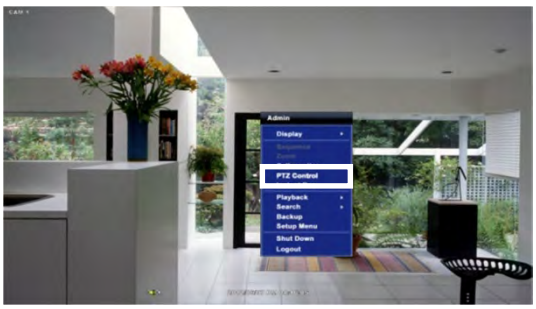
When a camera is disconnected, a warning sound may be generated depending on the system settings.

As the Admin user, you can setup up multiple users with different levels of authorization. If a certain user is not allowed to view a certain camera in live or playback, then no image will appear on the display screen. To create, delete, or modify users, go to the main menu and select system settings. See section **4.1.2 User** for more information.

3.4 PTZ Operation

Before starting PTZ control, please make sure the camera you wish to control is a supported PTZ camera and is installed and configured properly. See section **4.2.6 PTZ** for setup information. To enter PTZ mode, follow one of the options below:

1. Right-click on the screen and select PTZ Control.
2. Click on the joystick button in the menu bar located on the bottom of the main screen.
3. Press the PTZ button on the IR remote control.



In PTZ mode, user can control PTZ operation with the USB mouse.

While pressing the left button of the mouse, drag the mouse pointer up/down, left/right to move the camera's pan/tilt position accordingly. The further away from the center of the screen you move the mouse, faster will the camera move. You can also zoom-in/out by rolling the wheel of the mouse up or down.

NOTE Full PTZ functions are available by using USB mouse, IR remote control, or keyboard controller and are available only on supported PTZ cameras.

For focus control: In PTZ mode, right-click to get the pop-up menu as shown below. Default mode is to "ZOOM". Select "FOCUS" to switch the mouse's wheel function from zoom-in/out to focus near/ far.

The user can also select the preset button to start/ stop a preset, or exit PTZ screen model..

NOTE User will see numeric pad to select "Preset" number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the number of available presets may vary by camera make and model

User can automatically switch PTZ camera positions according to defined presets by using the GUARD TOUR function. The connected PTZ camera must support touring functions. “GUARD TOUR” on the pop-up menu can be enabled only in full screen mode. See **4.2.6 PTZ** for instructions on how to setup the GUARD TOUR.

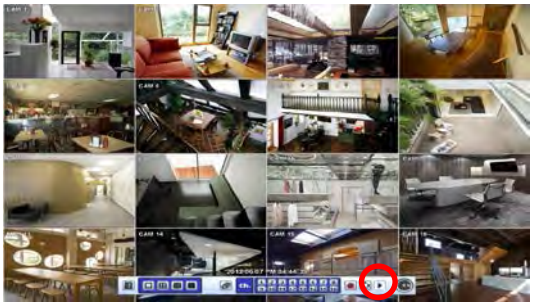
CAUTION	Depending on the PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval setting to a value that allows for the cameras to finish its Pan & Tilt.

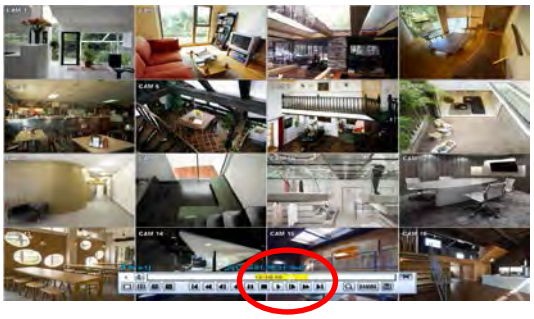
3.5 Playback of Recorded Video

To play a recorded video, press the Play button from the menu bar, or the Instant Play in the IR remote controller.

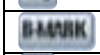
The recorded files can be seen in rewind or fast forward modes. Press the rewind and fast-forward buttons to control the playback's speed (x 2, x4, x8, x16, x32 real time).

User can click playback to automatically play the latest video clip in rewind mode.





In the playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.

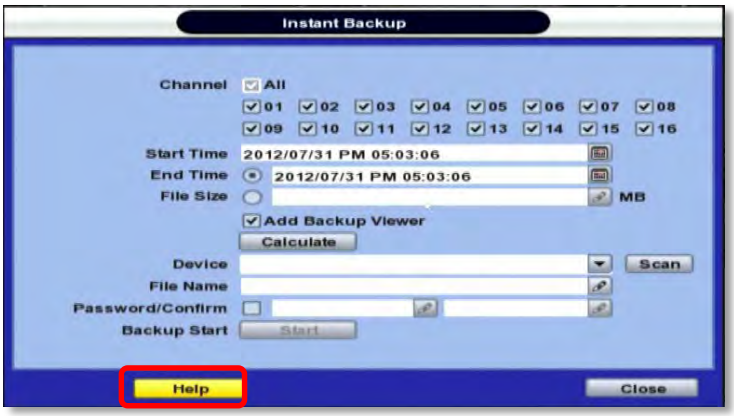
Button	Function
	Jump to first data. If recording is set to motion, system will jump to previous recorded motion video.
	Fast rewind
	Frame-by-Frame rewind
	Play video in rewind
	Pause video
	Stop playback. When selected, the playback menu window will appear.
	Playback video
	Frame-by Frame playback
	Fast playback
	Jump to last data. If recording is set to motion, system will jump to the next recorded motion video.
	Go to calendar search
	Bookmark Video
	Backup
	Exit playback to live mode.

3.6 Quick Backup during Playback

User can easily archive video while viewing the video playback. See section **4.5 Backup** for more information on manual backup from the setup menu.

1. In live mode, right-click anywhere on the screen and select 'Backup' to open the backup menu.
2. In playback mode, press the 'Backup' button on the popup menu bar to open the backup menu.

3. Adjust the following options:
   a. Select the channels to be included in the backup file.
   b. Adjust the start and end time of the backup file.
   c. Select to include the Backup Viewer with the archived file.
   d. Press the 'Calculate' button to see the expected size of the backup file.
   e. Press the 'Scan' button next to the device to find the USB drive for backup.
   f. Edit the file name and add a protection password if needed.
   g. Press 'Start' to start the backup process. A progress bar will appear on the screen.



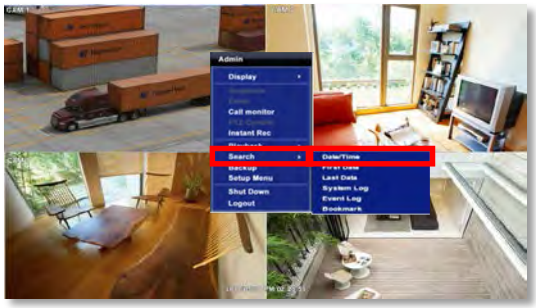
NOTE Help The "HELP" button offers interactive help, recommended settings and step-by-step instructions on how to correctly setup main functions in the DVR.

3.7 Search Recorded Video

3.7.1 Date/Time Search

To search your recorded data by date/ time, follow one of the options below:

1. Hover your mouse over the left side of the menu bar and click the quick Menu button, then select Search→ Date/ Time.
2. Right-click anywhere on the screen, select Search→ Date/ Time



The calendar window will appear. Days with recorded data will be indicated in RED.

1. Select from the calendar the date. If necessary, use the manual year and month options on the left side to adjust the calendar view.
2. The 'Intelli-Search Bar' at the bottom of the window will display hours when recorded data is available in color code. Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see "the Search time" clock is also changing. When user decides the Search time, click Play to see the selected video data

3. The recording mode will be distinguished in the time bar according to color:

Color	Recording Mode
No Color	Camera has no recorded data for the selected time.
Red	Panic recording triggered by the user.
Yellow	Continuous recording.
Green	The system records only when motion is detected
Blue	"Continuous" + "Motion"-The system records continuously and will switch to motion recording configuration if motion is detected. The system will also send a "motion event" message to the Pivot Client Software. If "MOTION ALARM" is disabled in the "DEVICE" menu, and recording is set to "CONT + MOT", the system will record with continuous recording even when motion is detected in motion area.
Orange	The system records when a sensor is triggered and only during the dwell time as set in "SENSOR" of the "DEVICE" menu. If "SENSOR" is disabled under the "DEVICE" menu, and recording schedule is set to "SENSOR", the system will not record even though a sensor is triggered.
Brown	"Continuous" + "Sensor"- The system records continuously and will switch sensor recording if a sensor is triggered during dwell time. The system will also send a "sensor event" message to the

	Pivot Client Software over the network. If “SENSOR” is disabled in the “DEVICE” menu, and recording mode is set to “CONT + SENS”, the system will record with continuous recording even when a sensor is triggered.

CAUTION **Dark Blue Color**
The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

4. To view video from the selected time, follow one of the options below:
    a. Use the manual hour option to view specific hours of the day.
    b. Using the table, click on the hour you would like to view in playback.
5. Press the ‘Play’ button at the bottom of the window. The system will display all channels in playback mode, corresponding to the selected date and time.

3.7.2 Event Log

The Event log search allows you to search for a particular event, displaying the search results in a detailed table.

1. To open Event Log Search, select one of the following options:
    a. Click the button in the quick menu and select Search→ Event Log.
    b. Right-click anywhere on the screen and select Search→ Event Log.
2. Select the date you would like to search.
3. Select which events to include in the report. Select from Sensor, Motion, Video Loss, Panic Recording, HDD Full, or All
4. Press ‘Search’. The system will display all search results in the table, starting with the latest events.
5. Use the buttons on the bottom of the window to switch between the report’s pages.
6. Export the log report to a USB memory device in text file format.
    a. Attach a USB memory stick to the USB port.
    b. Press “SCAN” to detect the USB stick.
    c. Press “EXPORT” to copy the log information to the media.
7. Click play icon to play back the selected event data.

NOTE If an alarm or event does not appear in the event log, check the alarm settings, and connection port at the DVR’s back panel..

3.7.3 System Log

The system log search allows you to search for any changes made to the system, displaying the search results in a detailed table.

1. To open System Log Search, select one of the following options:

a. Click the button in the quick menu bar and select Search→ System Log.

b. Right-click anywhere on the screen and select Search→ System Log.

2. Select the date you would like to search.

3. Select which events to include in the log report. Select from System, Setup, Network, or All.

4. Press 'Search'. The system will display all search results in the table, starting with the latest events.

5. Export the log report to a USB memory device in text file format.

   a. Attach a USB memory stick to the USB port.

   b. Press "SCAN" to detect the USB stick.

   c. Press "EXPORT" to copy the log information to the media.

3.7.4 First Data

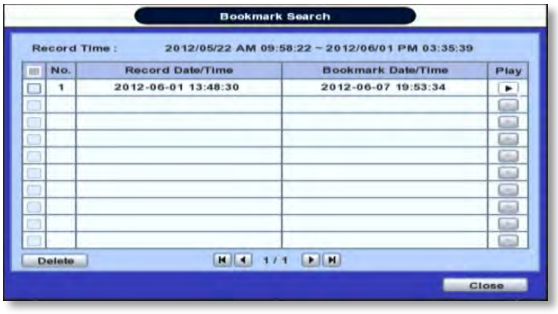
Go to the first screen of the recorded video. This is the oldest video recorded.

3.7.5 Last Data

Go to the last screen of the recorded video. This is the latest video recorded.

3.7.6 Bookmark

Go to the bookmark list to search recorded video in the bookmark list. Users can make their own bookmark list by clicking the B-MARK button during playback. The first 'Bookmark' press will indicate the start time for the bookmarked video. Press the B-MARK button again to end the bookmark and save it. Click the button next to any bookmark event to playback video.

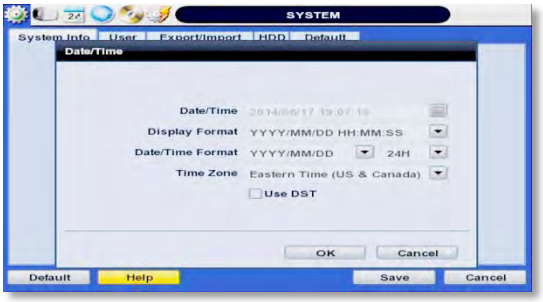


3.8 DST Setting

DST starts at 2:00AM local time on 2nd Sunday of March, and ends at 2:00AM DST on 1st Sunday of November.

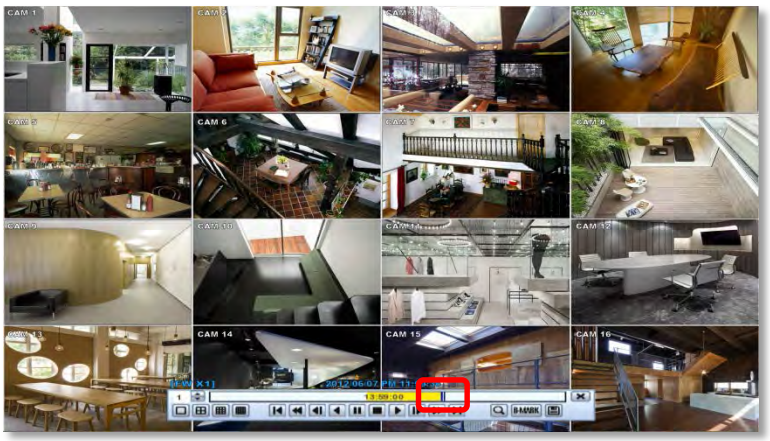
During DST (Daylight Saving Time), the DVR's clock needs to be adjusted according to regional time zone. The DVR's time will shift one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST ends.

To enable DST setting on the DVR, right-click anywhere on the screen and go to: SYSTEM > SYSTEM INFO and click "DATE/TIME" to get the DST setting window. Check the box next to "USE DST" and select the DST "Begin & End" time.



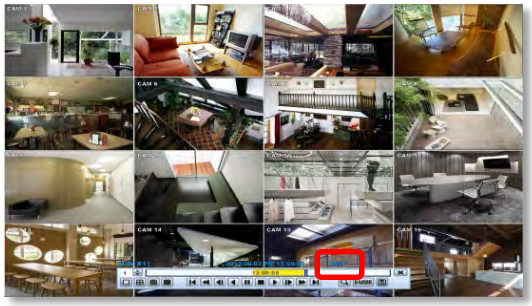
Since the clock jumps from 2:00 to 3:00, when you go to search mode, you can see there is no data in all channels for one hour due to DST.

When DST ends, there is an hour of overlapped video. The overlapped video will be indicated in a dark blue color on the Intelli-Search Bar during playback mode.



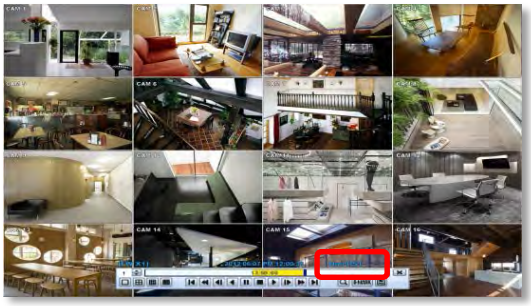
When user click the overlapped period, "Recorded video Selection" message will pop up. Select whether to play DST data or Non-DST data.

Click OK to play DST image.



["DST" image is displayed on screen]

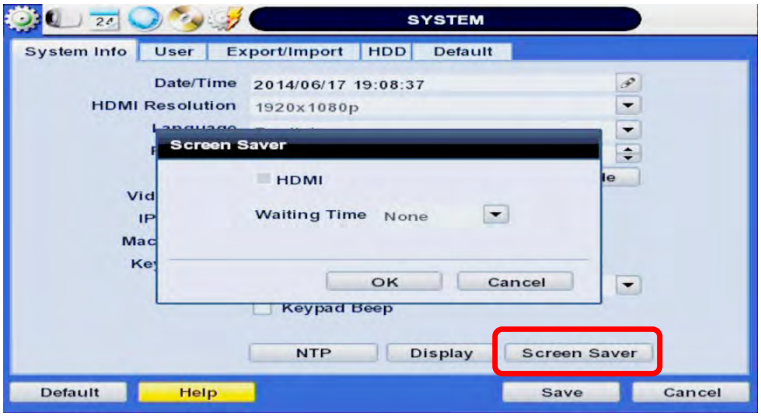
Click CANCEL to play Non-DST image.



["Non-DST" image is displayed on screen]

3.9 Screen Saver

The Screen Saver features protects the screen and data of the DVR by turning off after a set time of inactivity. To enable the Screen Saver, right-click anywhere on the screen and go to the menu setup: SYSTEM > SYSTEM INFO and click "SCREEN SAVER". Select HDMI output and set the Waiting Time from the options in the drop-down menu.



NOTE The Screen Saver will not work if Waiting Time is set to "NONE" or the HD output box is unchecked. Screen Saver may also be disabled during a firmware upgrade, HDD format, or data backup. The system will continue to record while the monitor is off.

.

4 SETTING

General settings structure consists of “System”, “Device”, “Record”, “Network”, “Backup,” and ‘Quick Setup”.

To open System Log Search, select one of the following options:

1. Click the button in the quick menu bar and select Setup Menu.
2. Right-click anywhere on the screen and select Setup Menu.

To view the sub-menu categories for each menu option, hover the mouse over the menu option. To enter the setup menu, click on the desired category.

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<EXPORT>

<Q-SETUP>

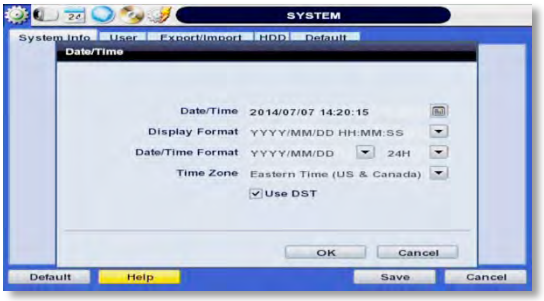
Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	CONFIGURATION
	HDD
	FACTORY DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	HEALTH CHECK
EXPORT	EXPORT
Q.SETUP	QUICK SETUP

4.1 System

4.1.1 System Info

The System Info sub-menu includes the following options: Date/ Time, HDMI Resolution, Language, Remote ID, Version & System Upgrade, Video Signal, IP & MAC Addresses, Keyboard Setup, NTP Setup, Display Setup, and Screen Saver Setup.

- **Date/ Time**- Using the available options, manually adjust the date and time, select the display mode for the time and the date, and select the appropriate time zone. If applicable, check the 'USE DST' box. See **3.12 DST Setting** for more information.



- **HDMI Resolution**- Select the DVR's output resolution. DVRs support the following video resolutions: 1024x768, 1280x1024, and 1920x1080p.
- **Language**- Select the DVR's display language from the available in the drop-down menu.
- **Remote ID**- Set the DVR's remote ID, which should be the same as the IR Remote Control (default ID is 1).
- **Firmware Version & upgrade**- when a new version is available use the easy upgrade menu to upgrade your DVR. It is always recommended to maintain your DVR up to date with the latest firmware to guarantee the DVR's proper functionality. To upgrade your system:

Upgrading system using USB memory stick:

1. Insert a USB drive with the firmware file formatted by FAT32 in any USB port of DVR (compatible with USB 2.0).
2. Select 'USB' from the Method drop down options and press the 'Scan' button.
3. Once the system detects the USB drive, it will display the firmware file under 'Upgrade File Name' and the 'New Ver'.

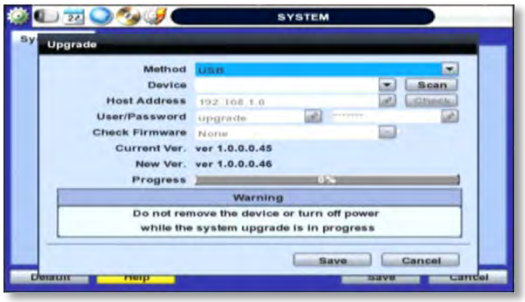
4. Click “OK” to confirm.

Upgrading system using Digital Watchdog’s FTP server:

1. Select FTP in the drop-down options under ‘Method’.
2. Enter the FTP’s address: ftp.dwcc.tv

NOTE The FTP server address is subject to change without a prior notice

3. Enter the username and password (these should be filled out automatically). Username: vmax960, password: vmax960.
4. Click ‘Check’ to allow the DVR to connect to the FTP server and check the latest Firmware version. If a new firmware is available, the DVR will ask you whether you want to upgrade it or not.
5. Click ‘OK’ to confirm and click ‘START’ to start upgrading.



CAUTION It is recommended to format the HDD after firmware upgrades because the data recorded by previous firmware may cause malfunction of DVR.
It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance. If necessary, you can return system to its default settings.

- **Video Signal**- Displays the video out signal from the DVR. This is a default information and will display NTSC or PAL, depending on the signal from the cameras.
- **IP & MAC Addresses**- This information is necessary when connecting to the DVR via its web viewer or the Pivot Client Software. See section **4.4 Network** for more information and setup.
- **Keyboard setup**- Setup the DVR’s keyboard ID, baud rate and model to match the information of the keyboard you would like to use. The Keyboard’s ID must match the ID set in the DVR.
- **NTP Setup**- Setup the DVR to automatically sync with a Network Time Protocol.
There are two types of TIME SYNC MODE:
  - Server Mode- the DVR is set as a Time Sync Server, which can synchronize its own time with other DVRs connected over the same network.
  - Client Mode- the DVR is set as the client DVR. Enter the IP address or URL of another DVR, Advanced Client Software (ACS), or Central Management System (CMS), as a Time Sync Server in “SYNC SERVER”. This will cause your DVR to synchronize its time with a Time Sync Server in the set interval time.

- **Display Options**- Setup OSD information in live and playback modes, transparency, spot output, sequence dwell time, spot-out dwell time, and pop-up camera

  - OSD:
    - Select which information to display in the OSD on each channel in **Live**.
    - Select which information to display in the OSD on each channel in **Playback**.
  - Set the OSD's transparency level. The higher the number, the more transparent the text will appear.
  - Setup a dwell time for the OSD text, after which, the OSD will disappear.
  - Setup a dwell time for the Setup Menu, after which, the Menu will disappear.
  - Set sequence dwell time- Setup how long each channel will be displayed in Sequence mode, before switching to the next view.

- **Screen Saver Setup**- See section **3.10 Screen Saver** for more information.

4.1.2 User

Master user is always the Admin with factory default of No password. This user cannot be deleted. It is recommended to change the Admin's password for extra security. The admin user can designate a new user with different permission levels by functions, menu access and live & playback.

To add a new user, go to the System Setup Menu, and select System > User.

To add a new user, press the 'Add' button.

To edit an existing user, press the 'Edit' button.

To delete an existing user, check the box next to the user and press the 'Delete' button.

User Add/ Edit Screen:

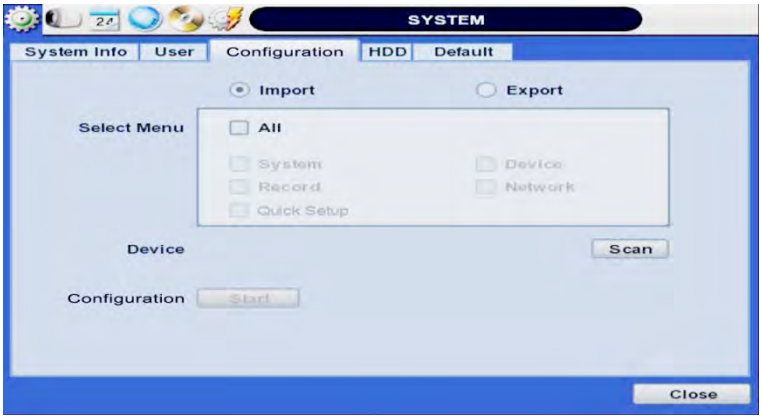
- Authority/ User – enter the user's name on the right side. Use the pencil button to open the on screen keyboard. Enter the password for the username. This is the login password to the DVR.
- Function - restrict a user's access to functions such as search, PTZ control, backup, and playback.
- Menu Access- restrict a user's access the DVR's system, device, record, network, backup, and quick setup menu options.
- Live & Playback- restrict a user's viewing of deselected channels. If a channel is deselected, user will not be able to view live or playback for that certain camera channel.

NOTE Total number of users including administrator is 9 users.

To setup auto login for users, so they do not have to enter their password when logging to the DVR, press the 'Options' button. You can select to allow a user to auto login on DVR boot up, or setup an auto log out. If enabled, the DVR will automatically log out of a user's access after a set time of inactivity.

4.1.3 Configuration

Copy the system configuration values from this DVR to save for your records or copy to another DVR. "Export" allows you to copy the settings to a USB memory device. "Import" allows you to apply previously saved settings from a USB device and override the current DVR settings. You can select to import or export specific settings, or copy the DVR's entire setup options. During import, make sure the firmware version of the source DVR is the same as the destination DVR.



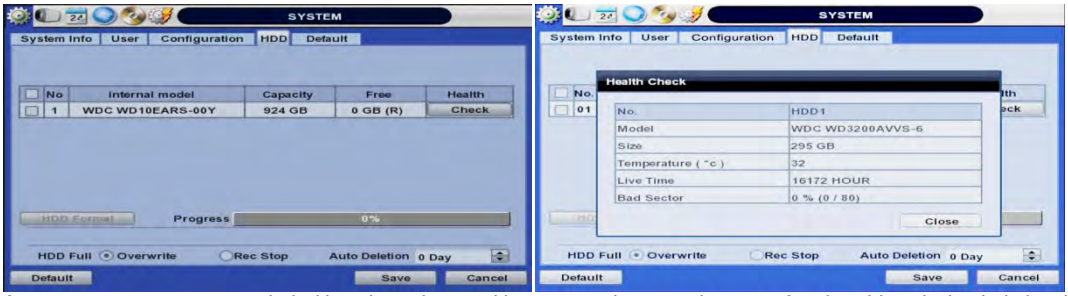
4.1.4 HDD

HDD sub-menu displays all relevant information regarding all HDDs installed in the DVR. Press 'Check' next to the HDD's name to view that HDD's health status. The system will display:

Model: Make and model of the Hard Drive.
Size: Total HDD size, in KB.
Temperature: HDD temperature. Normal operating temperatures is between 30° and 45°C degrees.
Live Time: Remaining estimated hours of operation.
Bad Sector: any unusable areas in the HDD that may affect recording.

Select "Overwrite" or "Rec Stop" when HDD is full. If 'Overwrite' is selected, new video will be recorded OVER older data when HDD is full. If 'Rec Stop' is selected, all recording will stop when the HDD is full.

To format the HDD, check the box next to the HDD, and click "HDD Clear"



If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system and try again.

NOTE 1) Formatting may take 40 sec for 320GB, 1 minutes for 500GB, or 7 minutes for 2TB.
2) The system always reserves a maximum of 20GB of space in each built-in HDD for archiving effectively.

4.1.5 Factory Default

With an authorized password, you can reset the system back to its factory default configuration. You can select which configurations to reset to default, or select all for an overall factory reset. You can also chose to enable the Quick Startup Wizard after reset. See section **3.2 Quick Startup Wizard** for more information.

NOTE	All the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.2 Device

There are seven sub menus in the Device menu, including Camera, Audio, Sensor, Motion Alarm, Extra Alarm, and PTZ.

4.2.1 Camera

Users can setup the camera's title, brightness, contrast, color, motion sensitivity, and audio mapping. The motion area setup is the entire camera area. To disable motion detection for parts of the camera's view, uncheck the corresponding boxes, removing the yellow markers

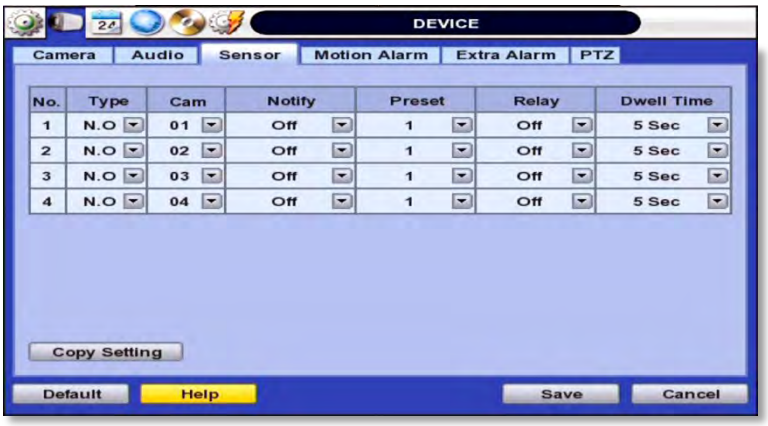
4.2.2 Audio

Select the audio input and output for live display and match the audio input to a designated channel. (Please refer to Section **4.3.1 Camera Record** for audio recording information). Adjust the audio volume using the volume control panel, enable or disable audio recording for each channel, and enable or disable audio during live video.

In addition, you can listen to the audio for both live display and playback through the network using the Advanced Client Software (ACS), Pivot™ Central Management System (CMS), web browser.

4.2.3 Sensor

Use the sensor setup menu to enable and assign sensor and alarm triggers to corresponding cameras. Select the sensor type, enable notifications for each sensor, assign relay action and set the dwell time



- **Type-** OFF, N/O (Normal Open) , N/C (Normal Close).
- **Cam-** Select the associated camera for each sensor connected to the DVR.
- **Notify-** Select how to alert when a sensor is activated or motion is triggered. The system can generate a buzzer sound and/or have a pop-up screen for the camera.

CAUTION	Relay contact can handle up to 24VDC/1A(or 125VAC/0.5A) of other devices. If connected to a circuit that is over 24VDC/1A(or 125VAC/0.5A), the system may experience problems.

- **Preset**- Assign apposition for the camera to move to when a sensor is triggered. (This option requires a PTZ camera. See section **4.2.7 PTZ** for more information).
- **Relay**- OFF/ON- enable or disable relay output when a sensor is activated.
- **Dwell Time**- Set the recording period from the start of sensor activation. During this period, the corresponding camera will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time ends.
- **Copy Setting**- you can copy the settings from one sensor input to multiple sensors for easy and quick configuration. Choose the sensor you want to copy from at the "From" field. Choose the settings you want to copy by selecting the check box next to each one. Check the checkbox next to the sensor numbers to apply the copy setting(s) to on the "To" box.

NOTE "Sensor" refers to the alarm connected to the DVR, triggered by a physical sensor input.

NOTE If the sensor does not operate properly, check the setting of the sensor type (N/O or N/C).
The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

NOTE "Camera pop-up" means that if the DVR Is displaying a multi-channel view, the view will switch to single channel mode when an alarm is triggered.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

An alarm signal is sent via the selected sensor-out channel. To enable, check the box next to each channel, select the notification option (beep and/ or camera popup), select to enable a relay output when motion alarm is triggered, and set the dwell time for recording.

- **Notify**- Select how to alert when a sensor is activated or motion is triggered. The system can generate a buzzer sound and/or have a pop-up screen for the camera.
- **Relay**- OFF/ON- enable or disable relay output when a sensor is activated.
- **Dwell Time**- Set the recording period from the start of sensor activation. During this period, the corresponding camera will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time ends.
- **Copy Setting**- you can copy the settings from one sensor input to multiple sensors for easy and quick configuration. Choose the sensor you want to copy from at the "From" field. Choose the settings you want to copy by selecting the check box next to each one. Check the checkbox next to the sensor numbers to apply the copy setting(s) to on the "To" box.

NOTE "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

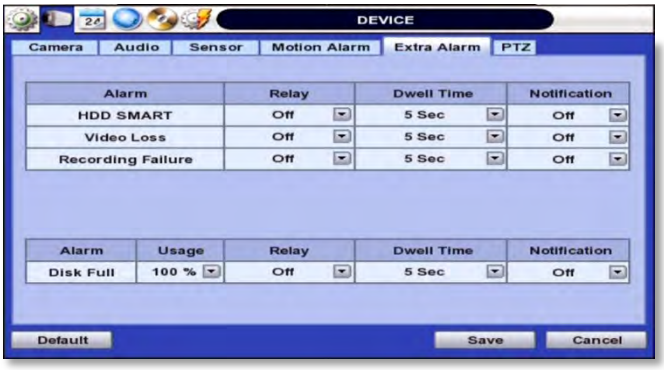
4.2.5 Extra Alarm

HDD S.M.A.R.T. is triggered when the HDD is about to be out of operation. This alarm is triggered by the HDD, and therefore will not be functional if the HDD does not support HDD S.M.A.R.T notifications.

Users also set the percentage for HDD Usage. For example, when usage is 50% (DVR is 50% full), the DVR will notify by a camera popup or a beep.

You can also setup system notifications for video loss, recording failure, and fan failure.

Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.



4.2.6 PTZ

Full control and setup of supported PTZ cameras is available in this menu. For more information on controlling PTZ cameras in live mode, see section **3.4 PTZ**. Use this setup menu to setup a PTZ camera, adjust the camera's zoom, focus and iris (on supported models), adjust the pan, tilt and zoom control speed, or setup presets pan, tour and guard schedules.

Adding a PTZ camera: Once a PTZ camera is properly connected to the DVR using the RS485 ports, go to the PTZ setup menu and adjust the following values:

- **Protocol-** Select the proper protocol of the connected PTZ camera from the supported drop down menu options.
- **Address-** Set the PTZ driver address of the connected camera. This address must match the PTZ's address.
- **Baud rate-** User can select the baud rate level from 1,200bps up to 115,200bps.
- **Troubleshooting**- if the camera is unresponsive, check the following:

1. The protocol of the PTZ camera is correct and matches the one selected on the DVR.
2. The communication settings, including the baud rate, of the PTZ camera are in accordance with the assigned values on the DVR.
3. The address of the PTZ camera is correct and matches the one selected on the DVR.
4. The wiring to the PTZ controllers are correct and the cables are intact.

Controlling a PTZ camera: Once the camera is properly connected and configured, use the following setting options as needed:

- **Zoom, Focus and Iris**- on supported models, use the + and –to adjust the camera's lens.
- **Directional arrows**- use these arrows to move the camera to a desired position or control the camera's OSD menu (on supported models).
- **Pan, Tilt and Zoom speed**- Use the bars for each option to adjust the control speed. The higher the number, the more sensitive the camera will be to control commands from the DVR, and move faster.

NOTE Presets, Auto Pan, Aux & Guard Tour- These options allow the DVR to command a PTZ camera to move to a specific position, or run a pattern. These special settings require a lot of DVR memory capacity, and are therefore recommended to be setup from the PTZ camera itself.

4.3 Record

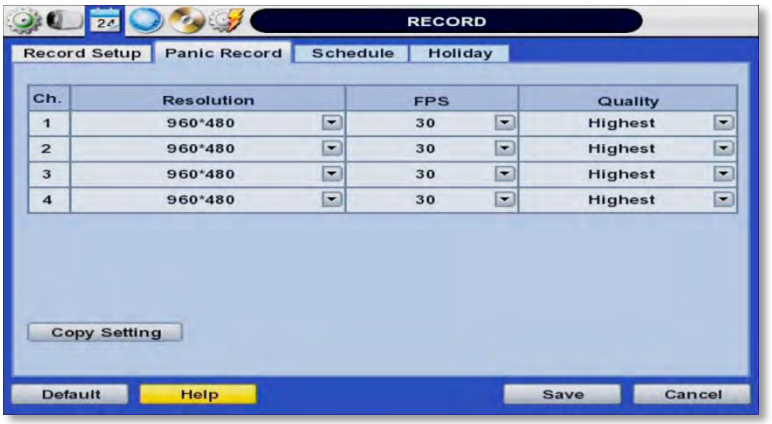
Users can configure various record settings such as Continuous, Event, and Panic for each individual channel in the Record Setup Menu.

4.3.1 Record Setup

1. 1. Go to Record Setup. If Quick Setup is selected, record setup will be disabled. To enable, go to Setup Menu > Quick Setup and disable the 'Use Quick Setup' option.
2. Choose the desired resolution, frame rate, quality and recording type for continuous recording.
3. Choose the desired resolution, frame rate, quality and recording type for Event recording.
4. Configure each channel separately, or use the 'Copy Settings' button to apply one channel's settings to multiple channels.
   a. Choose the camera you want to copy from at the "From" field.
   b. Choose the settings you want to copy by selecting the check box next to each one.
   c. Check the checkbox next to the cameras to apply the copied setting(s) to on the "To" box.

4.3.2 Panic Record

Configure Panic Record settings. These settings are when emergency or panic recording is enabled by a user. To start emergency recording during live view, click the icon from the menu bar at the bottom of the screen. It is highly recommended to use the maximum resolution, FPS, and quality for this recording type.



4.3.3 Schedule

Setup a recording schedule by applying a multiple recording modes to each camera according to date and time.

1. Select a channel you want to setup be pressing the channel number. You can also select the 'All' button to apply the recording schedule to all the channels.
2. Select a recording mode from the available options by checking the box next to it.
3. Click on the corresponding date and time boxes to enable recording. You can also click-and-drag to select multiple time boxes. Selected boxes will appear with the color associated with the selected recording mode.

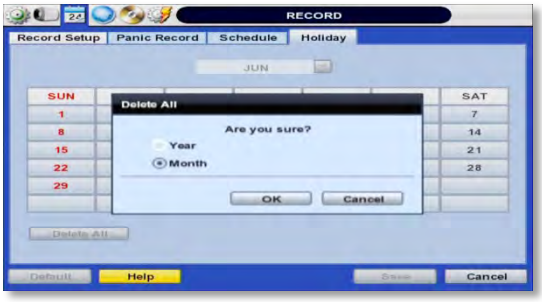
Repeat steps 2-3 as needed to add multiple recording modes to different parts of the schedule. Press 'Save' to save all changes.

4.3.4 Holiday

Setup a specific day as a holiday to assign it different recording schedules.

1. Go to the 'Holiday' tab.
2. Select a day from the calendar by clicking on it.
3. Select the repeating options. Select to repeat this holiday settings for the same day every year, or for the same day of the week of that month.

All days selected as holidays in the holiday setup page will have the recording settings according to the ones assigned in the schedule setup page.



4.4 Network

4.4.1 Network

Use the Network Setup page to configure the DVR's network settings (for remote connections), DDNS address, and e-mail and software notifications and setup the DVR's true health check options.

4.4.2 Network

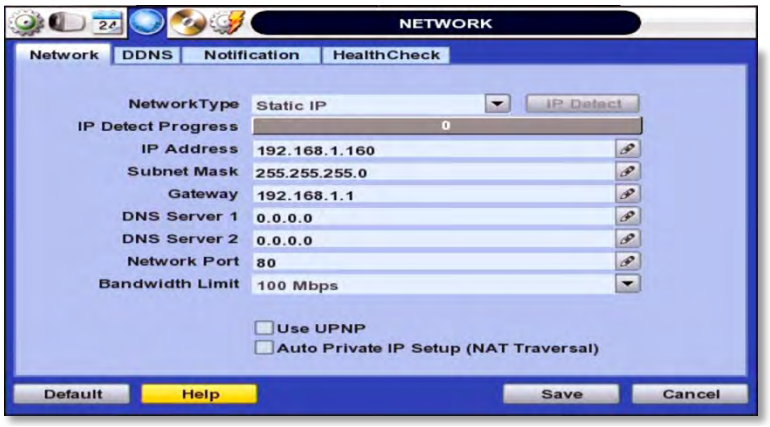
The system has built-in web server.

- **Network Type**- Select network connect type. Select either Static IP or DHCP for dynamic IP.

NOTE For proper network setup and configuration of the DVR, please contact your Network Administrator for more information.

If DHCP is selected, the DVR will automatically configure the network settings according to the current network requirements. If DHCP is selected, click 'IP DETECT' button to detect automatically all the network settings.
If Static IP is selected, manually enter all necessary network settings. For proper configuration, it is recommended to assign the DVR a DHCP address and let it auto discover all the proper network settings, and then change the Network Type back to Static IP and save the changes.

- **IP Address**- displays the DVR's IP address. If DHCP is selected, the IP address will automatically adjust to match the network's requirements. You can also manually change the IP address as needed.
- **Subnet Mask**- Subnet Mask address classifies the system's subnet. Standard address is 255.255.255.0.
- **Gateway**- This is the IP address of the router or gateway server. It is required when connecting to the DVR through the external router over the internet (from another network). For more information, consult your network administrator or your internet provider.



- **DNS Server 1 & 2**- Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS).
- **Network Port**- Enter the port number to use when connecting locally or remotely, or via the free mobile app. Default port is 80.

- **Bandwidth Limit**- you can limit the Mbps used by the DVR. This is recommended for networks with limited bandwidth. Contact your network administrator for more information.

- **UPnP (Universal Plug and Play)** - UPnP is a plug-and-play feature that allows the DVR to be automatically discovered by a PC on the same network. To locate the DVR, go to "My Network" on your PC. The computer will scan your network for all supported devices. The first five characters of the file name of a detected DVR represent the model number, followed by the DVR's IP address

Once the PC discovered the DVR, double click on the icon to open the DVR's web client. Enter your User ID and Password to login and click 'Connect' to connect. See section **5. Web Surveillance** for more information.

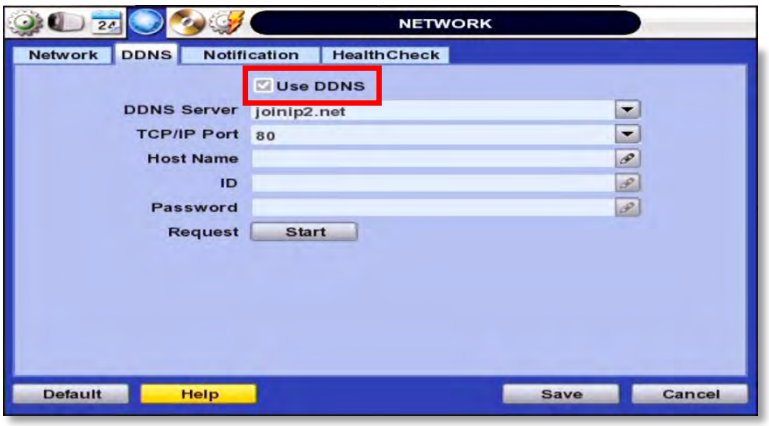
- **Auto Private IP Setup (NAT Traversal) -** Automatically setup a router if you want to connect to the DVR remotely over the internet. The router will need to be setup to support communication to the DVR from an external network by opening the corresponding ports. Settings need to be done individually for each DVR in the network.
  The router must support UPnP NAT Traversal for the function to work. Check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself. Contact your network administrator for more information.

NOTE The DVR transfers video at real-time over the network even if no recording options are setup.

4.4.3 DDNS

Digital Watchdog® offers free and reliable DDNS service support. This allows you to assign the DVR a URL address rather than a long complicated IP Address. This simplified the connection process to the DVR. The DDNS service is supported by Digital Watchdog® and is free of charge for our customers. To setup DDNS:

- Check the box "Use DDNS" to enable registration.
- **DDNS Server**- select an appropriate DDNS server from the available options. dwddns2.net is Digital Watchdog's free DDNS serve service. You may also select dyndns if you have a paid account.
- **TCP/IP Port**- this by default is set to port 80. Some networks have that port disabled. Contact your network administrator for more information.
- **Host Name**- assign the DVR a unique name. This will be the unique identifying part of the URL associated with your DVR.
- **ID and Password**- If necessary, assign an additional username and password to access the DDNS address.
- Press the 'Request' button. The system will check to make sure the hostname is available. If the name is available and registration is completed, 'Success' will appear at the bottom of the screen.



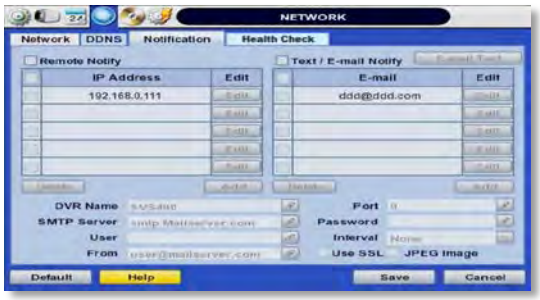
To connect to your DVR using the DDNS address, make sure the proper ports have been opened in your router. Open an Internet Explorer page and enter your DVR's DDNS address as hostname.dwddns2.net:port#
For example: v960core.dwddns2.net:80

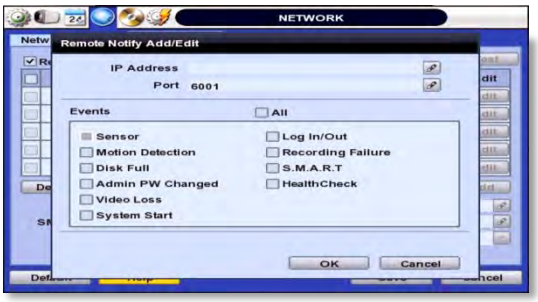
4.4.4 Notification

On this setup menu, you can setup the DVR to send event notifications to a remote software or an e-mail address.

- Notifications Setup- the DVR's outbound notifications messenger needs to be setup in order to send notifications.

  1. **DVR Name**- This is the name that will appear in the notification's sender information. Make sure it is associated with the DVR for easy identification.
  2. **SMTP Server**- Enter the server information associated with the sender's email account.
  3. **Port**- Enter notifications port info. Consult your network administrator for more information
  4. **Username and password**- These are the username and password for the sender's e-mail information.
  5. **From**- This is the identification for the e-mail sent from the DVR. This should be the sending e-mail account.
  6. **Interval**- setup an interval between every notification sent from the DVR. The DVR will then send one notification, and wait the set interval time before sending another notification, even if the same event is occurring during that time.
  7. **User SSL**- Check this option to use a Secure Socket Layer (encrypted) option.
  8. **AVI Video Clip**- Check the box to include a short AVI video clip of the event with the notification





- Remote Notify- The system can send event notification to an Advanced Client Software over the network.

  1. To enable, check the box next to 'Remote Notify'.
  2. Press the 'Add' button to add a notification rule.
  3. Enter the IP Address of the PC running the receiving client software and the port information. Additional setup in the router may be needed so it is recommended to consult your network administrator.
  4. Chose the alarm types that will trigger a notification. Select the options by checking the box next to each event type.

- Text/ E-mail Notify- The system can send event notification to an E-mail address.

  1. To enable, check the box next to 'Text/ E-mail Notify'
  2. Press the 'Add' button to add a notification rule.
  3. Enter the receiving E-mail Address or phone number.
  4. Chose the alarm types that will trigger a notification. Select the options by checking the box next to each event type.
  5. Select what event information to include in the notification.
  6. For text messages, select the length of the message.

NOTE The system will not send alarm messages or email notification upon motion alarm or sensor unless the recording schedule is set to record according to that event.
For example, if user sets "Continuous" only for "Schedule Setup" of the "RECORD" menu and marks the "All" checkbox in "REMOTE NOTIFY", then the system will not send alarm messages. In this case, user has to set "C + M", "MOTION", "SENSOR" or "C+ S" for REMOTE NOTIFY or E-Mail NOTIFY to function properly.

4.4.1 Health Check

The VMAX960H CORE offers a true DVR health monitoring, with pop-up messages and e-mail notification on video loss, recording failure, and storage failure.

To setup:

1. Check the box next to "Enable Health Check"
2. Check the box next to the conditions you would like to be notified on.
3. Set the occurrence intervals.(For Example: when video loss occurs more than1 time a minute)
4. Select whether to receive a popup message when conditions are met.
5. Go to Network→ Notifications.
6. Under e-mail notifications, make sure the Health Check option is enabled.

When any condition occurs beyond the set intervals, the system will display a popup alert and send an e-mail notification.

4.5 EXPORT

4.5.1 Export

Archive video from the DVR's files to an external storage device. You can also backup video using the "Quick Backup" during playback. See section **3.7 Quick Backup during Playback** for more information.

1. Connect USB drive with sufficient storage to the DVR and press 'Scan'. Backup device should be a well-known major brand USB thumb drives formatted by FAT/FAT32 for proper backup.
2. Select which channels to include in the backup file.
3. Set the start and end time to backup.
4. Select to include the backup player on the USB or not.
5. Press 'Calculate'. The system will display estimated necessary storage space for the set start and end time. If necessary, adjust the times to adjust the file size.
6. You can also limit the backup file according to the file size.

7. Edit the file name and if necessary, add a password to play the backup file.
8. Press 'Start' to initiate the backup process. Data files are in PSF format in the folder.

4.5.1 View Export Video

If backup player was added to the backup file:

1. Access the backup USB device and select the "Player Launcher.exe" file.
2. Press 'Open'.
3. Select the backup files you want to view.

You can print, capture, zoom in and out, or make an ASF file, from the backup player's menu.

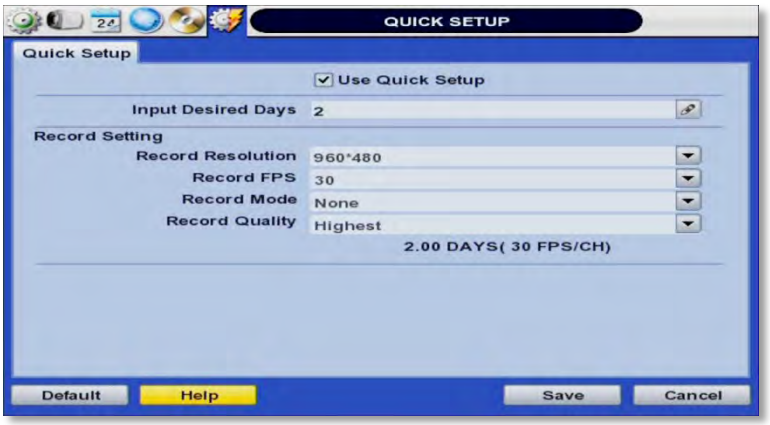
NOTE You may also playback backup videos using the ACS or Pivot software.

4.6 Quick Setup

Quick Setup simplifies recording configuration by allowing the user to set all cameras to record according to how many days of data you want, or by resolution.

If the 'Use Quick Setup' box is checked, all recording options under the Record menu will be disabled.

- Quick Recording Setup according to days of storage- You can select how many days of recorded storage you want to have. Based on the DVR's internal storage, the system will automatically setup the recommended recording resolution, frame rate and video quality to match those settings.
- Quick Recording Setup- You can select to set all channels of the DVR to record at a specific resolution, frame rate and quality, regardless of events. Manually enter the options for each of the Recording Settings. Total recorded days based on those selections will appear below the settings.



NOTE After the user marks "Use Quick Setup" to define settings, the system will ignore all other configurations set by full menus.

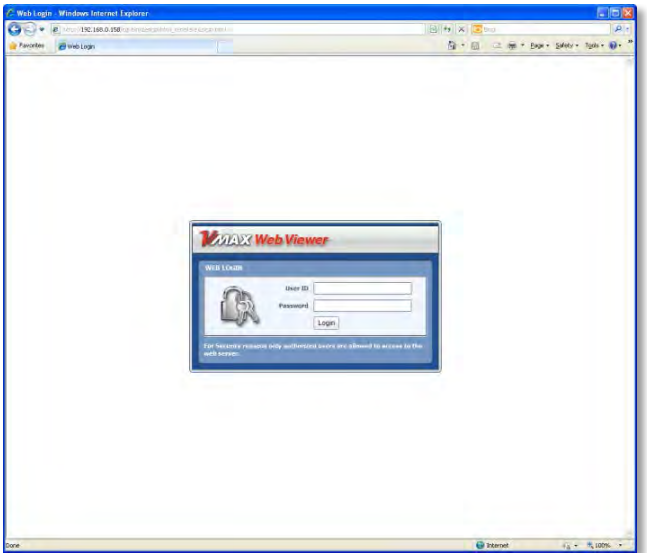
5 WEB CLIENT

The VMAX960H CORE DVR has a built-in web server, allowing the user to access the DVR using an ordinary web-browser over a network. The web client allows you to view live monitoring, playback, or remote DVR configuration without installing a remote client software.

5.1 Web Login

In order to connect to the DVR's web client, the DVR's network settings and ports in the router must be properly setup. See section **4.4 Network** and contact your network administrator for more information. See the Appendix for information on network setup for external connection.

After allowing the download of the Active-X file (see section **5.3 Web Monitoring**), enter the username and password to access the DVR. The DVR's default user ID and password are "admin" and No password.



It is recommended to use an Internet Explorer web page. To open the DVR's web viewer on a Google Chrome web viewer, please install the IE Tab add on option.

Then, simply enter the DVR's IP address or DDNS address in the address bar and click on the on the tool bar of the web viewer.

If you are running Internet Explorer 8 or higher, make sure the DVR's address is added to the compatibility list.

5.2 Web monitoring

5.2.1 ActiveX Installation

The first time you access your DVR via the Web viewer, you will be asked to install an Active-X file before monitoring live video. Please follow the installation process to complete the Active-X installation. Without it, you will not be able to view video from the DVR.

[Web Active X Install]

Once the ActiveX files have been properly installed, and you login to the DVR using the proper username and password, you will access the web client page. To connect to the DVR, select the viewing mode (Live/ Playback) and click "Connect" on the top left corner of the screen.

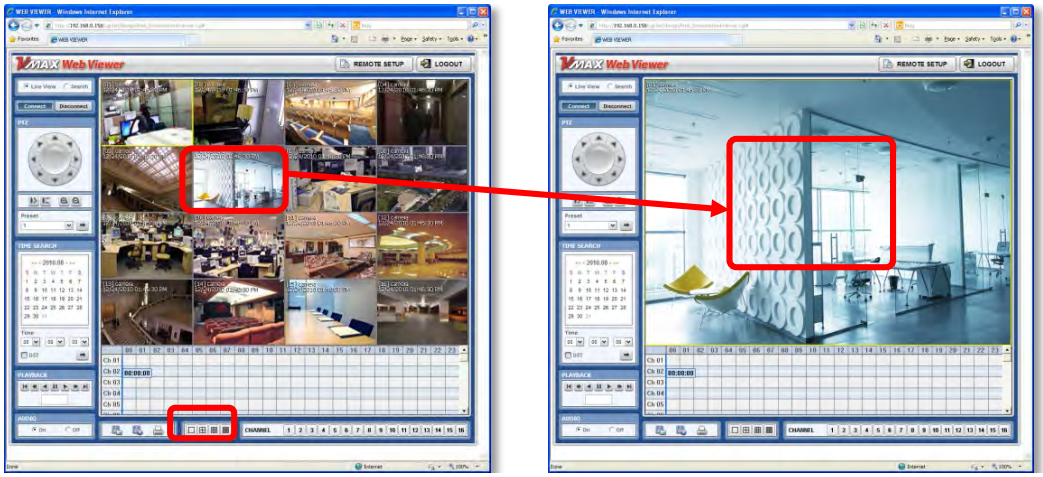
5.2.1 Web Client View

No.	Title	Function
1	Connection Mode	View the DVR in Live or Playback Mode.
2	Connection Option	Connect or Disconnect from the DVR.
3	PTZ	PTZ control options, including virtual direction arrows, zoom, focus, and preset management.
4	Calendar	Date & time search.
5	Playback Controllers	First data, fast rewind speed, play rewind, pause, play, fast forward speed, and last data.
6	Audio	Enable/ disable audio.
7	Export Options	Export an image, video, or print a still image with notes of a selected channel.
8	Display Options	Single channel, 4-channel, 9- channel or 16-channel viewing mode.
9	Channel Selection	Select a specific channel to view in single channel mode.
10	Time bar	In playback mode, indicates available recorded video for each channel for the 24 hours of the selected day.
11	Time indicator	Use the time line indicator to update playback video.
12	Main Display Area	View live or playback from the DVR.
13	Remote Setup	Remote DVR setup options (See **5.2 Web Configuration**). Available for admin users only.
14	Logout	Exit connection from the DVR.

5.2.1 Web Client Operation

Monitor live video in 1, 4, 9 or 16 screen modes (depending on how many channels the DVR has). To view a camera single channel mode, double-click on the screen. You can also change to a single channel-viewing mode by clicking the mode icon located at the bottom of the screen.

You can return to multi-channel viewing mode by double-clicking anywhere on the screen



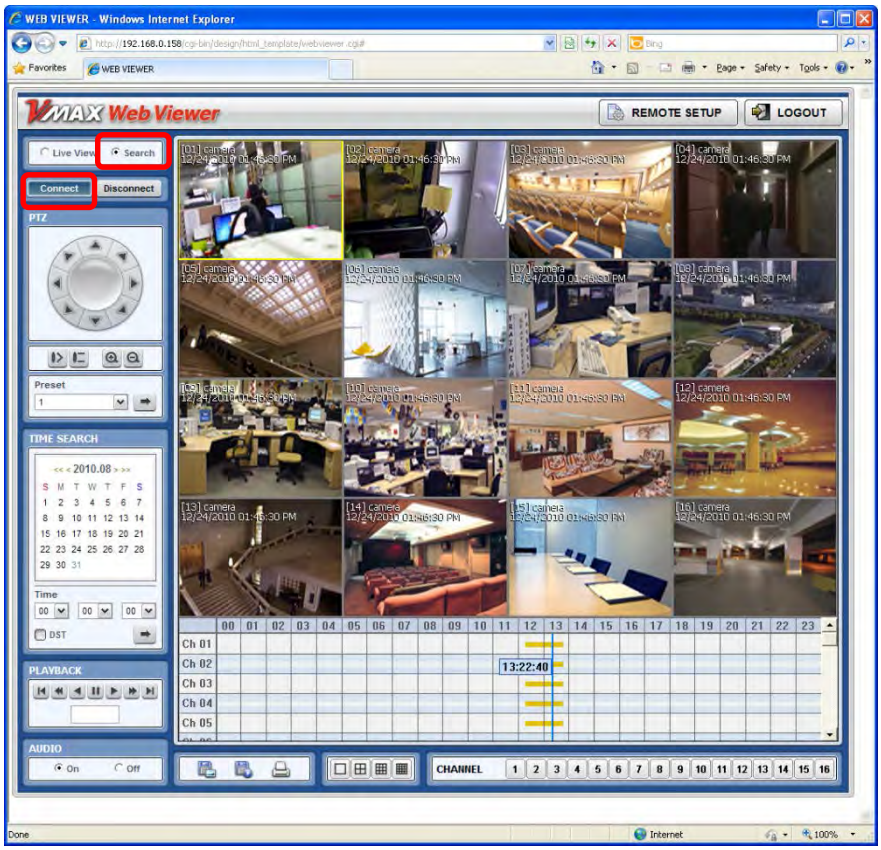
NOTE The image resolution in "Live monitoring" can be adjusted from the DVR's 'Live Stream' sub-menu under the Quick Setup Menu. See **4.6 Quick Setup** for more information.

NOTE If live image does not show properly due to network capabilities or low bandwidth, it is recommended to close the web page and re-open.

5.3 Web Playback

Using the DVR's web client, you can remotely playback video from the DVR by clicking "SEARCH" in the top of the left side panel. To connect to the DVR in search mode:

1. Check the box next to 'Search'
2. Press the "Connect" button below the viewing mode.



3. Select the date and time using the calendar on the left side panel. Days with recorded data will appear in Red. Click the button to apply the day selection to the time bar.
4. Play DST- Check this box to play overlapped images during DST (Daylight Saving Time) period. For further details, please refer to Section **3.9 DST Settings** for more information.
5. Once a day has been selected, the time bar below the main display will show recorded data for each channel for the selected day. Use the vertical timeline to move playback along the time bar. The colors on the time bar indicate different recording mode. See **3.8.1 Date/ Time Search** for more information.
6. Use the playback control keys to play, pause, fast forward or rewind the video.

5.4 Web Configuration

The DVR can be remotely configured using the web client. This option is available only when connecting to the DVR remotely using the 'admin' user.

To enter the DVR's remote setup, press the 'Remote Setup' button on the top right side of the screen. The menu options will be identical to those available on the DVR itself. See **4. Settings** for more information

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	HEALTH CHECK
QUICK SETUP	QUICK SETUP

NOTE <System Reboot> enables user to reboot the system without any changes to the setup.
When the network is disconnected due to abnormal operation of the system, user can use this function and try to reconnect. However, the IP number assigned to the system may be changed due to the DHCP mode.

Chapter 6

PIVOT™ CLIENT SOFTWARE USER MANUAL

6 PIVOT™ USER GUIDE

Pivot™ is a powerful and flexible central monitoring software, available free with any Digital Watchdog® analog recording solution. The Pivot software allows for simultaneous remote monitoring and management of up to 128 sites, with each channel capable of performing separate tasks and commands. The software includes powerful monitoring features such as remote backup and DVR configuration, advanced search options and an interactive interface, which enables the user to control multiple sites from the same screen

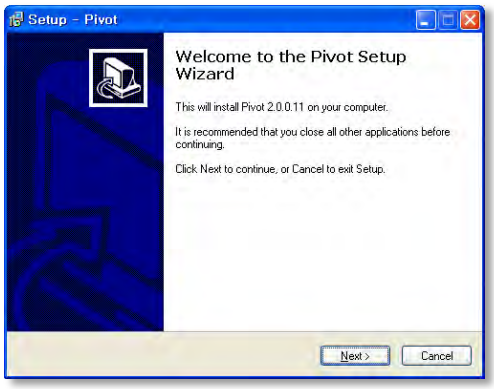
6.1 PC Requirements

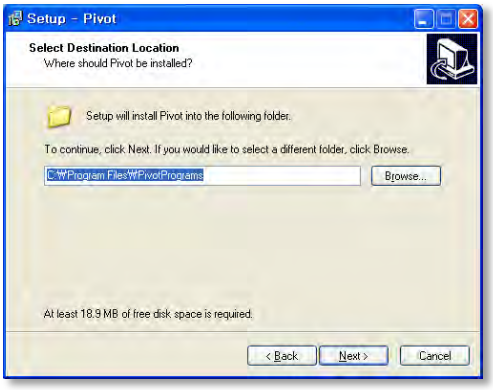
Recommended PC Requirement

OS	Windows 7, 8
CPU	Pentium Dual core 1.8Ghz or higher
VGA	1024X768, 256MB supporting DirectX
RAM	1GB
HDD	20MB for installation, 10GB for Remote Backup

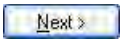
6.2 Software Installation

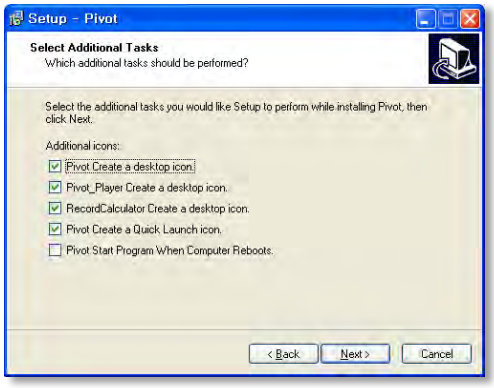
The Pivot™ software is in the CD included with your DVR. To install it, run the Pivot™ Setup.exe file and follow the installation wizard.



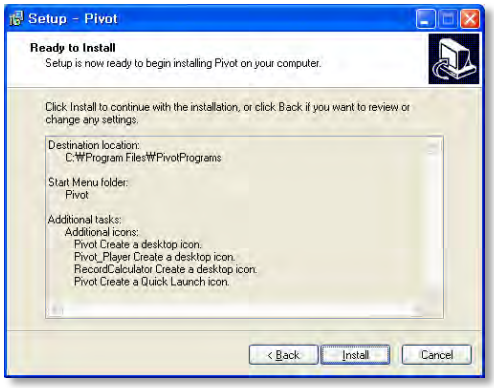


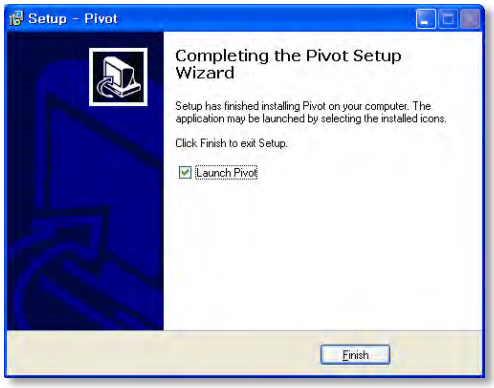
Press to install the program in a different directory.

Press  to move to the next screen.



Select what Icons and shortcuts you wish to install on your desktop and press Next >.

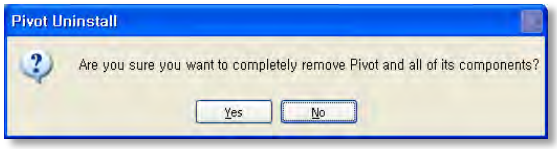




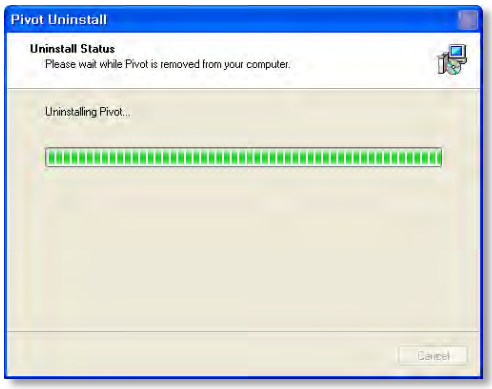
Select Install to begin installation. When the installation is complete, select whether you want to launch the software and select “finish”.

6.3 Software removal

To uninstall Pivot™, press **UNINSTALL Pivot** from the Start Menu of your PC.

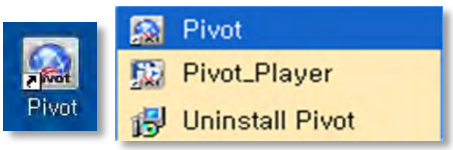


Press **YES** to begin the process.



6.4 Basic Operations

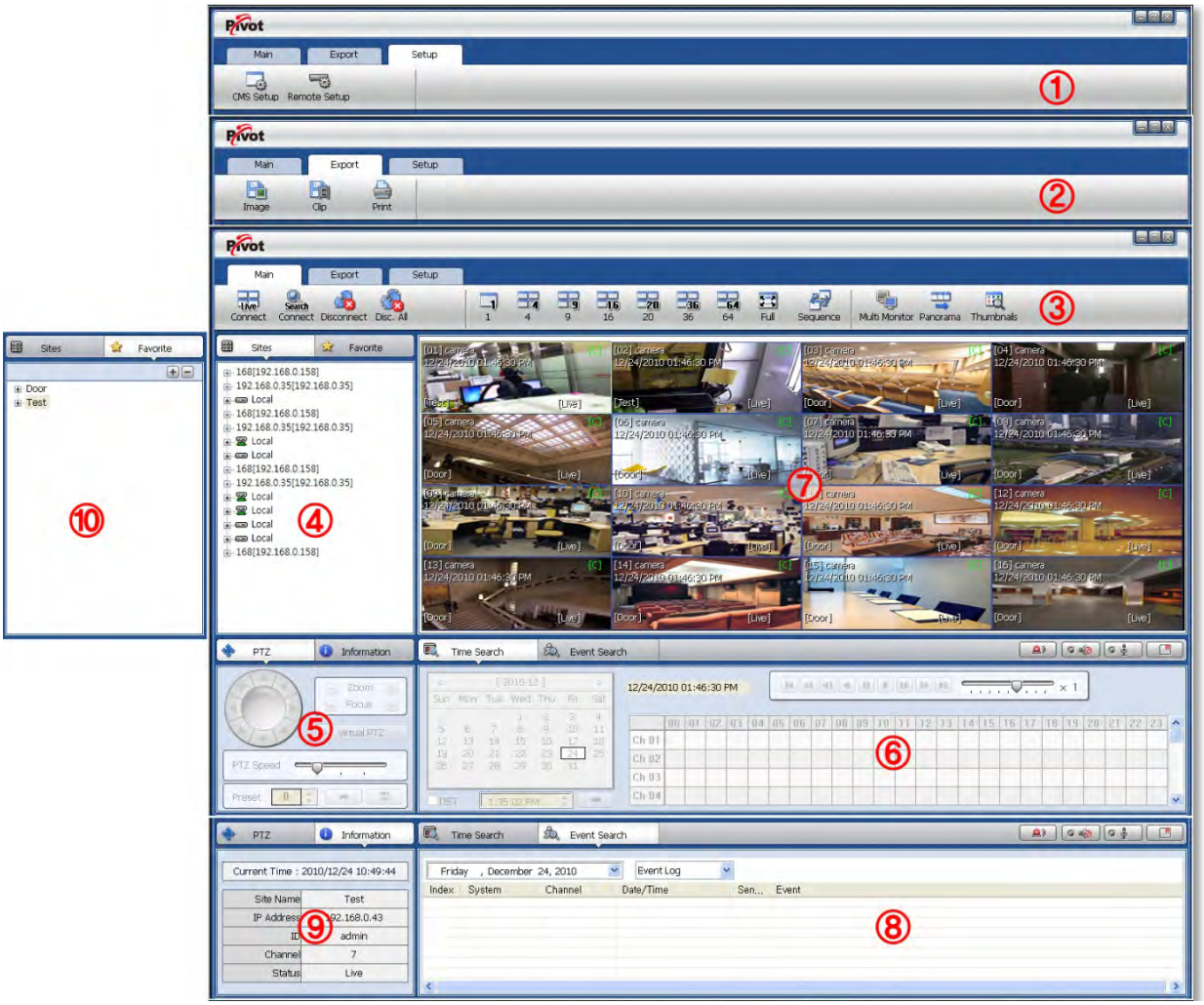
To launch the Pivot™ software, click on the desktop icon or go to START > All Programs > Pivot.



6.4.1 Log In

The default ID is Administrator, and there is no default password. The administrator account has the highest level of authority on the CMS.

6.4.2 Screen Layout



No	Item	Description
1	Main Toolbar (Setup Tab)	The Main Toolbar has three selectable tabs: Main, Export and Setup. In the Setup tab, there are CMS, Remote and Backup Setup.
2	Main Toolbar (Export Tab)	In the Export tab, users can save a JPEG, AVI or Print images of selected video.
3	Main Toolbar (Main Tab)	In the Main tab, users can connect to cameras in live and search modes, disconnect, start and stop panic recording, change displays and sequence, setup a multi monitor view, or perform Panorama and Thumbnail Search.
4	Site List Panel	All sites monitored from the Pitot software are shown in the site list.
5	PTZ Panel	Control a PTZ camera in Live mode.
6	Search Panel	In Search mode, recording information for each channel is displayed.
7	Display Panel	Live view and search view are displayed.
8	Event Search Panel	Pivot can display events on each individual DEVICE. An event data can be searched by double-clicking on an event.
9	Information Panel	Shows current time and site information of the selected channel.
10	Favorite Panel	Create favorite layout for quick access to sites frequently viewed.

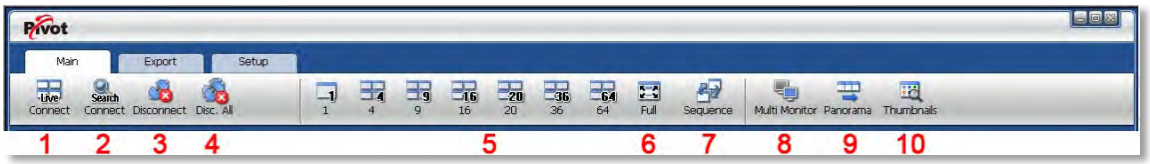
6.4.3 Main Toolbar – Setup

No	Item	Description
1	CMS Setup	Register sites, setup user authority, and setup other Pivot properties.
2	Remote Setup	Access the setup menu of a selected DVR remotely.
3	Backup Setup	Access the setup menu for scheduled backup.

6.4.4 Main Toolbar – Export

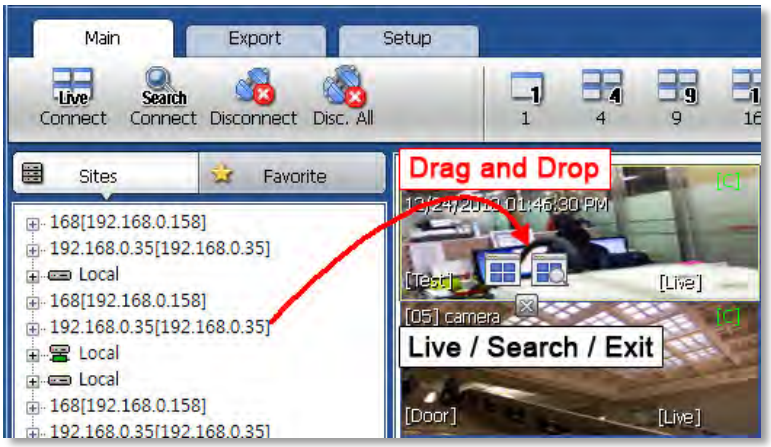
No	Item	Description
1	Image	Capture an image of the selected channel. If you are in multi-channel view, the selected channel will appear with a yellow frame. The image saves as a JPEG in the 'My Documents' Folder by default.
2	Movie	Save the selected channel in MP4 format movie file. To start recording, press the 'Clip' button once. A red [R] will appear at the bottom right corner of the selected channel, indicating recording for the clip is taking place. Press the 'Clip' button again to end recording. The file will save by default to the 'My Documents' folder.
3	Print	Print selected channel. Setup the printer configuration from the print setup screen.

6.4.5 Main Toolbar – Main

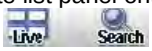


No	Item	Description
1	Live	Connect to the selected site in Live mode.
2	Search	Connect to the selected site in Search mode.
3	Disconnect	Disconnect the selected single channel.
4	Disconnect All	Disconnect all connected sites and channels on the display.
5	Display Mode	Choose the display mode from single, 4 split, 9 split, 16 split, 20 split, 36 split, 64 split.
6	Full	Shows Full screen display. This view hides the Pivot's menu bar, sites list panel, PTZ and time bar. To exit full screen view, press the 'Esc' button.
7	Sequence	Start/ stop Sequence of the different channel displays.
8	Multi Monitor	Create an additional display window to drag to a secondary monitor.
9	Panorama	Show frame-by-frame for a selected single channel in Search mode.
10	Thumbnails	Thumbnail search for a selected single channel in Search mode.

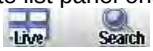
6.4.6 Site List



The Site List displays all of the sites that are currently setup for remote connection with the Pivot software.
To view a device from the sites list:

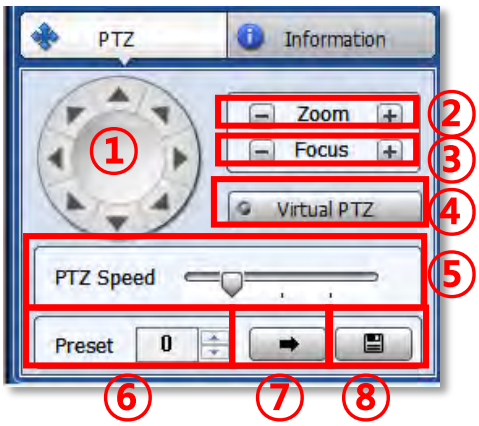
1. Click on the site's name and drag it from the site list panel onto the viewing area.
2. Select to view the site in live or search mode ().
3. You can also right-click on the device name and select 'Live' or 'Search' from the drop-down menu options.

To view a single camera from a device:

1. Click the + button next to the device list. This will collapse the view to display all cameras connected to the device.
2. Click on the camera's name and drag it from the site list panel onto the viewing area.
3. Select to view the camera in live or search mode ().
4. You can also right-click on the device name and select 'Live' or 'Search' from the drop-down menu options.

6.4.7 PTZ Control

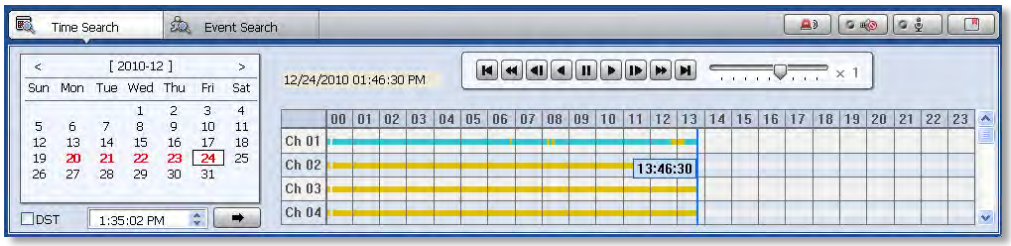
Any PTZ camera properly setup from the DVR can be controlled using the Pivot's virtual joystick in Live mode.



No.	Button	Description
1	Directional Navigation	8 directional arrows allow you to move the PTZ camera.
2	Zoom	Zoom In and Zoom Out (on supported models).
3	Focus	Adjust the focus of the PTZ camera (on supported models).
4	Virtual PTZ	If Virtual PTZ is activated, control the PTZ camera with a mouse directly on the channel's screen (on supported models).
5	PTZ Speed	Adjust the camera's response speed. Getting Faster as the bar moves to the right.
6	Preset	Set, go to, and modify PTZ presets on current view.
7		Go to the preset location.
8		Save current location to the selected preset**.**

6.4.8 Time Search

The Search panel is activate only in Search Mode.



When you connect to a site in search mode, dates with recorded data will be highlighted in red in the calendar. Select a specific date to view specific recording mode and available recording by hour for each channel in the table.

Press (Go button) to start playback from a selected time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

Recording Modes:

No Record White

Continuous (Yellow Color)

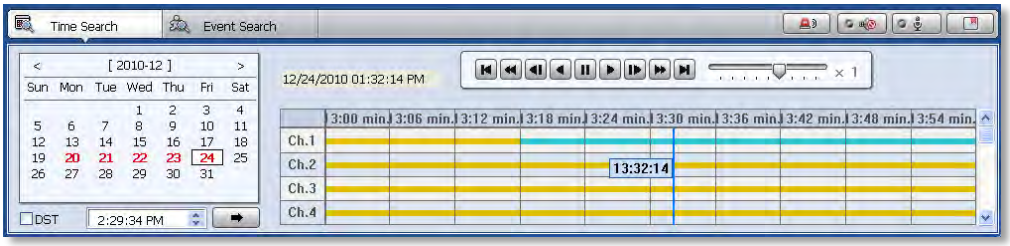
Panic (Red Color)

Alarm (Orange Color)

Motion (Green Color)

Click the time or move the time bar to the cameras in playback mode.

The search table displays 24 hours for the selected day. You can couple-click on a selected hour to view a detailed time search as seen below. Detailed search is available on a 5-minute basis.

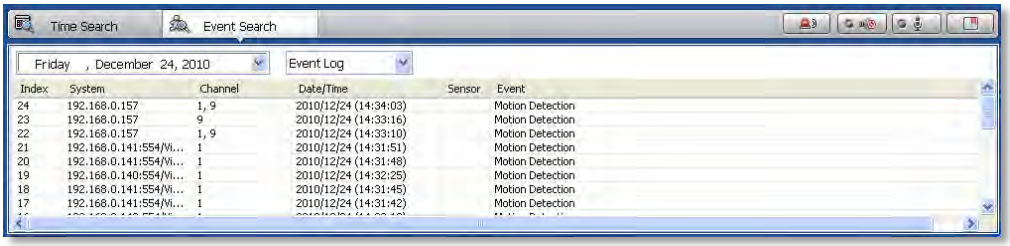


Playback Control Panel:

No.	Button	Description
1		Go to first data.
2		If pressed while in forward playback : Decrease playback speed If pressed while in reverse playback: Increase playback speed.
3		Skip forward.
4		Reverse playback.
5		Pause.
6		Forward playback.
7		Skip backward.
8		If pressed while in forward playback Increase playback speed If pressed while in reverse playback: Decrease playback speed.
9		Go to last data.

6.4.9 Event Search

Pivot can receive event data from DVRs that support event notifications to a remote software. See 4.**4.3. Notifications** for more information. The event search has two search options: Event Log and System Log. Event Log display all event notifications received from the DVR. The system log will show Pivot start/end, live/search, option, remote setup, image/movie export etc.



To run the Event Search:

5. Press the ‘CMS Log’ button under the display area.
6. Select Event Log from the drop down list.
7. Select the search date and time from the drop-down calendar. Results will display automatically.
8. Start playback by double-clicking the Index number of each even list.

6.4.10 Audio & Bookmark Controls

Use the Audio control buttons to enable and disabled audio in live and playback modes.

(Audio On/Off): Turn On or Off the Audio channel.

Two-way Audio: Two-Audio between the CMS and DEVICE.

Bookmark: Add the selected channel to your bookmark list. See **6.5.7. Bookmark** for more information.

6.4.11 Display

The Pivot’s main display area will show all connected sites in live and playback modes. The software uses on screen indicators to express viewing mode, selected channel, connection status, camera name and date and time.

Live mode OSD indicators:

- LIVE will be displayed in white at the bottom right-hand corner of the channel.
- Channel’s border will appear in blue.
- Selected channel’s border will appear in yellow.
- Channel’s name, date & time will appear in white on the top left-hand corner of the channel.
- Device’s name will appear in white at the bottom left-hand corner of the channel.

Search/ Playback mode OSD indicators:

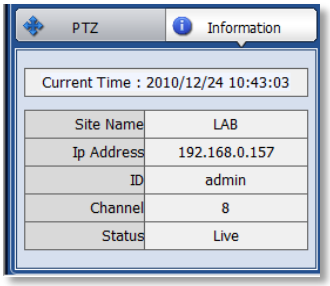
- SEARCH will be displayed in red at the bottom right-hand corner of the channel.

- Channel's border will appear in red.
- Selected channel's border will appear in yellow.
- Channel's name, date & time will appear in red on the top left-hand corner of the channel.

Device's name will appear in red at the bottom left-hand corner of the channel

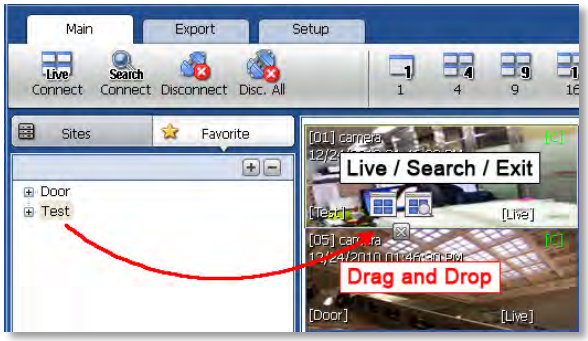
6.4.12 Information

The information panel displays the current date/time, site name, IP address, and ID, channel and Live/Search status for a selected channel.



6.4.13 Favorites

Cameras currently displayed on the screen can be saved as a favorite monitoring layout.

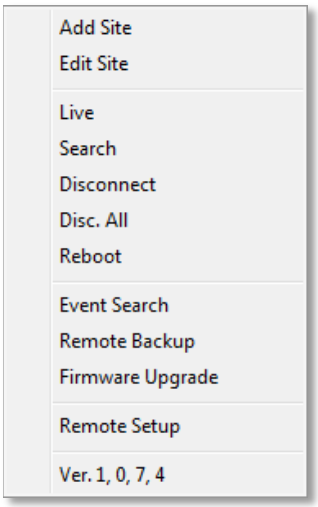


Setup your monitoring screen by adding the necessary sites and individual cameras in a desired order and layout. Press the 'Favorite' tab on the site panel and press the ⊞ to create a new favorite site group. Enter a group name and press OK. The current layout will be saved to the favorites list. To connect to the saved list, drag-n-drop the favorite's name into the viewing area. To delete a favorite, click ⊟.

6.4.14 Quick Site Access Menu

Right clicking on a site in the site list panel will bring up a quick access menu.

From this menu, you can:

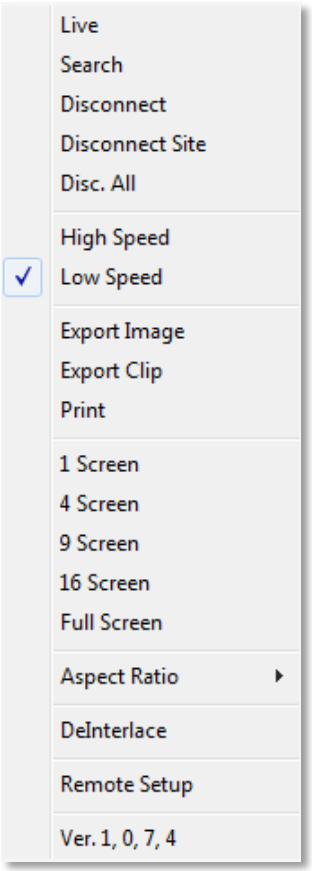


- Add a new site to your list.
- Edit currently selected site.
- Open site in the display area in live mode.
- Open site in the display area in search mode.
- Disconnect all channels from the selected DVR currently in the viewing area.
- Disconnect all sites from the sites list.
- Remotely reboot the DVR.
- Open Event Search for the selected DVR.
- Remotely backup data from the selected DVR (on supported models).
- Remotely perform firmware upgrade for the selected DVR.
- Access the site's Remote Setup. This will open the DVR's web client for remote configuration.
- View Pivot's software version.

6.4.15 Quick Camera Access Menu

Right clicking on a channel in the display will bring up a quick access menu.

From this menu, you can:



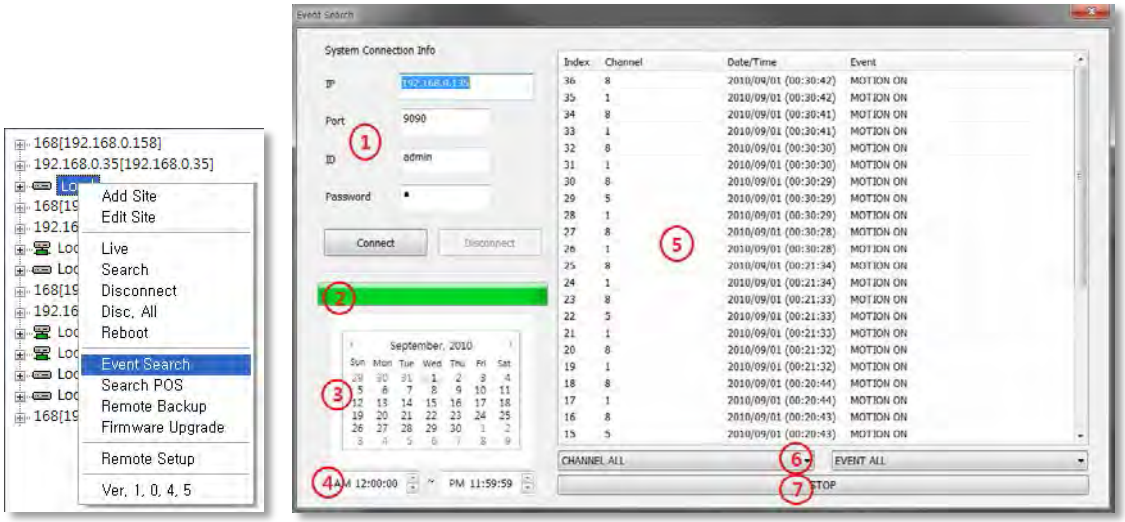
- Transition between live and search viewing models.
- Disconnect a selected camera, all cameras from a selected device, or all channels in the display area.
- Select viewing speed from the camera (set to Low Speed by default).
- Export a JPEG image, short clip, or print the selected channel.
- Change the display area's view from 1, 4, 9 or 16 channel-viewing modes.
- Adjust aspect ratio. Select from 1:1, 4:3, or 16:9. The aspect ratio change will apply to all channels in the display area.
- DE Interlace - improve image quality for all Analog cameras.
- Access the site's Remote Setup. This will open the DVR's web client for remote configuration.
- View Pivot's software version.

6.5 Pivot Functions

6.5.1 Event Search

To start the software's event search for a single site:

Right-click on the site from the site's list and select Event Search..

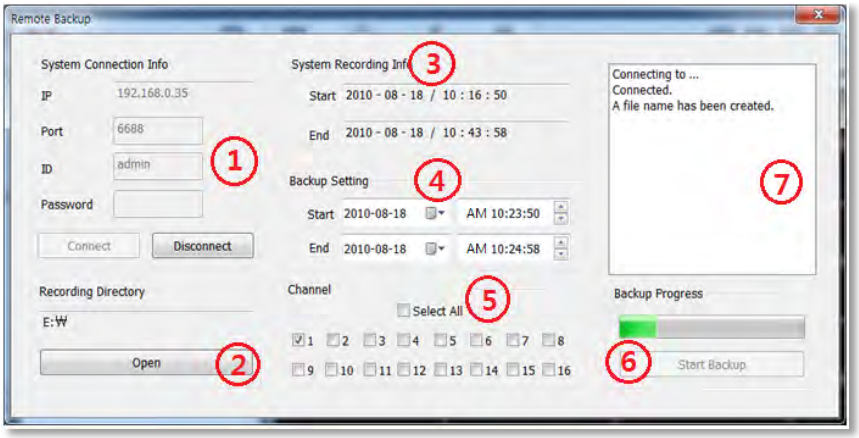


1. Connect to the DVR by confirming the IP address, port number, username and password and pressing 'Connect'.
2. The events download status will indicate the data download progress.
3. When downlod is complete, select a date from the calendar with available data. Days with available data will be marked in bold black.
4. Set the start time and the end time to search events. The events list will update automatically when you select a date and time.
5. You can filter the results by Channel or event type.
6. Use the Stat/ Stop button to manage the search

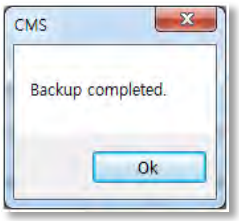
6.5.2 Remote Backup

To start the software's remote backup for a single site:

Right-click on the site from the site's list and select Remote Backup.



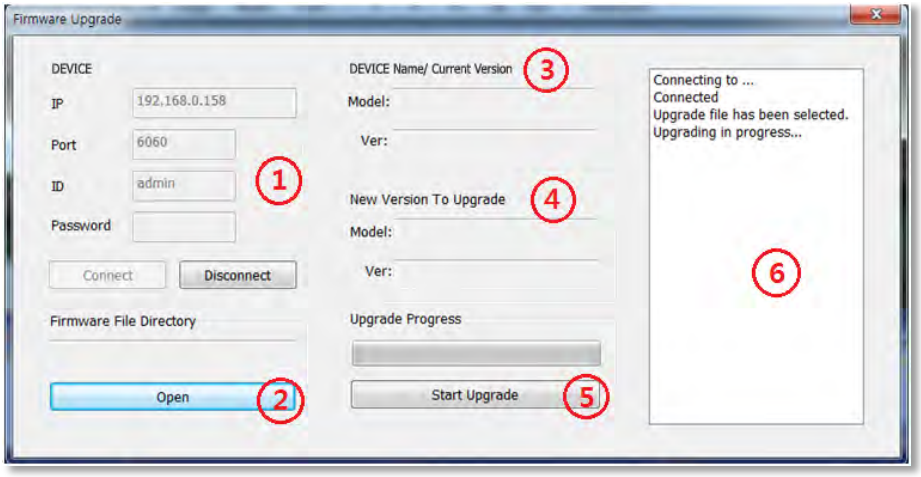
1. Connect to the DVR by confirming the IP address, port number, username and password and pressing 'Connect'.
2. Press 'Create a Directory' to select the backup destination.
3. System Recording Info will indicate the available data on the selected site.
4. Set the start and end date and time for the backup file.
5. Select which channels to include in the backup.
6. Press 'Start Backup'. The status bar will indicate the backup process.
7. You can also refer to the backup status window for text status updates.
8. When the backup process is completed, "Backup Completed" message will appear



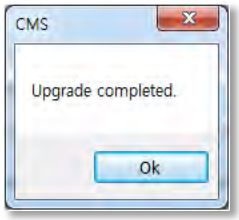
6.5.3 Firmware Upgrade

To start the software's remote firmware upgrade for a single site:

Right-click on the site from the site's list and select Firmware Upgrade.

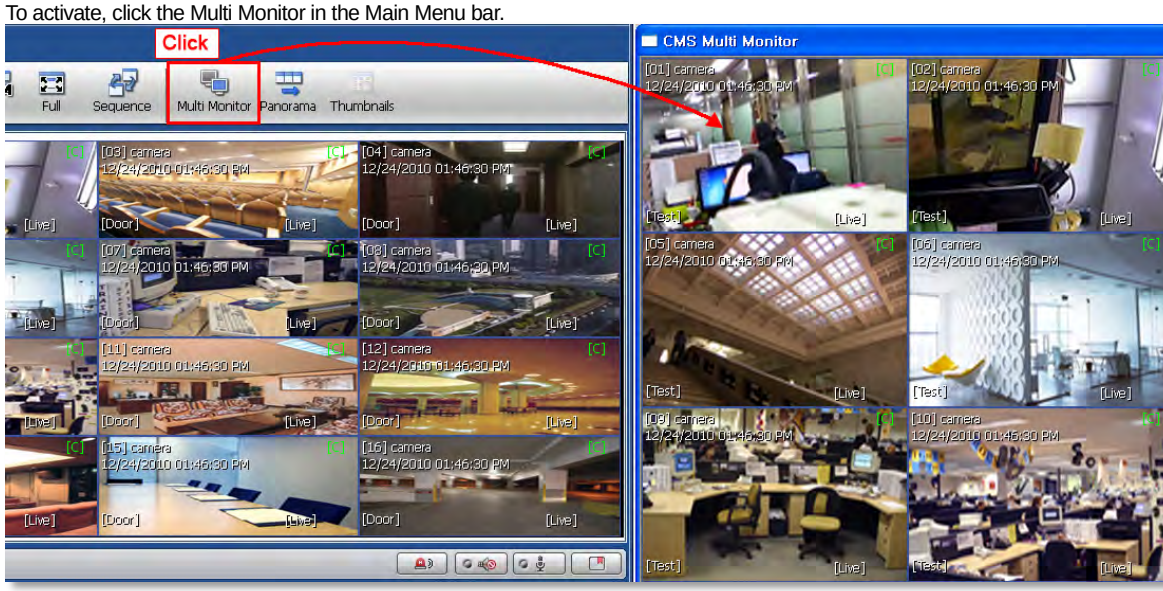


1. Connect to the DVR by confirming the IP address, port number, username and password and pressing 'Connect'.
2. Press 'Open' and locate the new firmware file for the DVR.
3. DEVICE Name/ Current Version will display the DVR's model and current version information.
4. New Version to Upgrade will display the new firmware version.
5. Press 'Start Upgrade'. The status bar will indicate the upgrade process.
6. You can also refer to the upgrade status window for text status updates.
7. When the upgrade process is completed, "Upgrade Completed" message will appear



6.5.4 Multi-Monitor View

The Pivot software supports multi-monitor viewing for large-scale application that require more than one monitoring screen. To activate, click the Multi Monitor in the Main Menu bar.

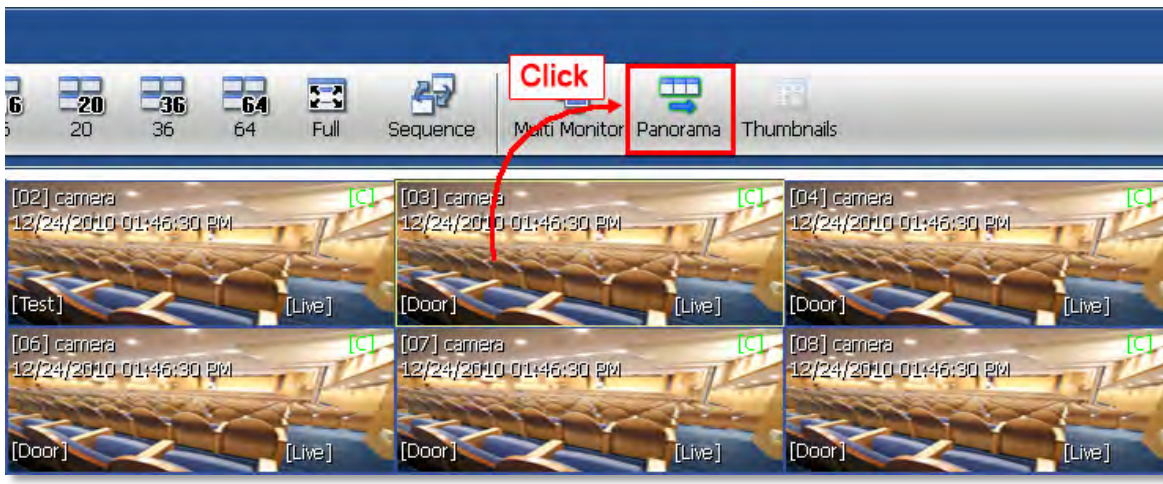


An additional window with the same split display as the main window will appear. You can drag the new window to a secondary monitor.

6.5.5 Panoramic Search

Click **Panorama** in the main tool bar to run enable panoramic view for a selected channel.

In Live or Search mode, the panoramic view will show frame-by-frame display of a selected channel. The Panorama view is available for one selected channel at a time.

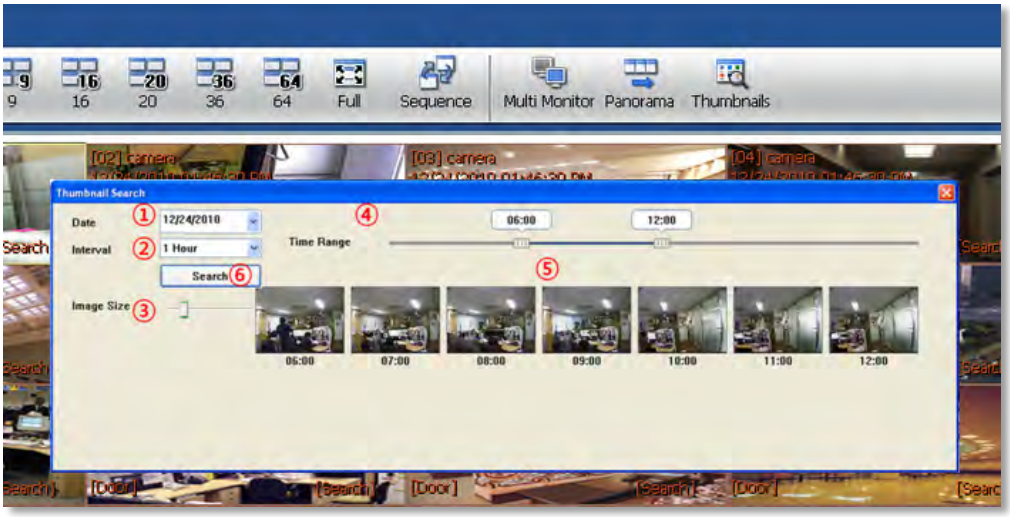


To return to normal view, click **Panorama** again.

6.5.6 Thumbnail Search

Click **Thumbnail** in the main toolbar to run the Thumbnail Search. This feature is available only in Search mode.

1. Make sure you are in playback mode.
2. Select the channel you want search in thumbnail mode.
3. Click **Thumbnails**. The Thumbnail Search Pop-up window will come up.



1. Use the calendar section to select a desired date.
2. Select the time interval to display for each thumbnail screen. Chose from 1, 3, 5, 10, 30 minutes and 1 hour. For example, if 5 minute is selected, the thumbnails will display a still shot for every 5 minutes of video.
3. Adjust the image size for the thumbnail view using the sliding size bar. The further to the right, the larger the image size will be.
4. Select the start/ end time for the search.
5. Images with appear Press the 'Search bar.
6. If you click each thumbnail image, you can search the selected data directly

6.5.7 Bookmark

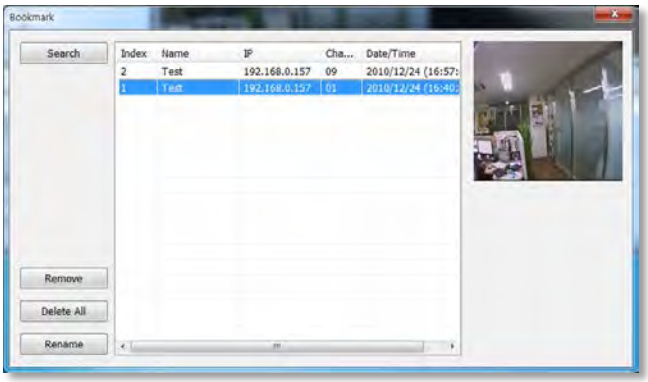
1. Click icon in the bottom right corner under the video display screen to bookmark a selected one-channel search data. The bookmarked video will start from the time you pressed the bookmark button.

2. Once the selected search data is bookmarked, the bookmark data is listed with an image in the bookmark list as shown below.

3. Select a bookmark from the bookmark list and click search or double click it to search the bookmarked data.

4. Click **Remove** to remove a selected bookmark from the list and click **Delete All** to delete the entire bookmark list.

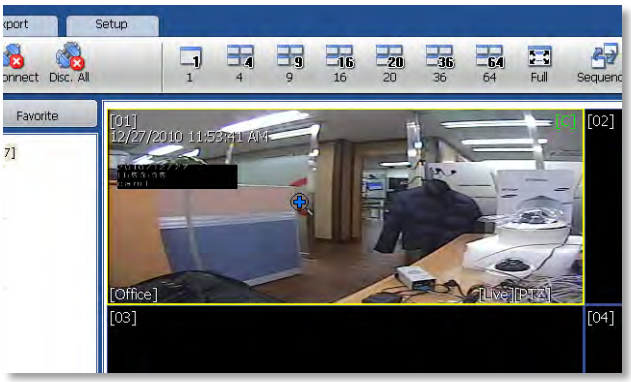
Click **Rename** to change the name of a selected bookmark.



6.5.8 Virtual PTZ

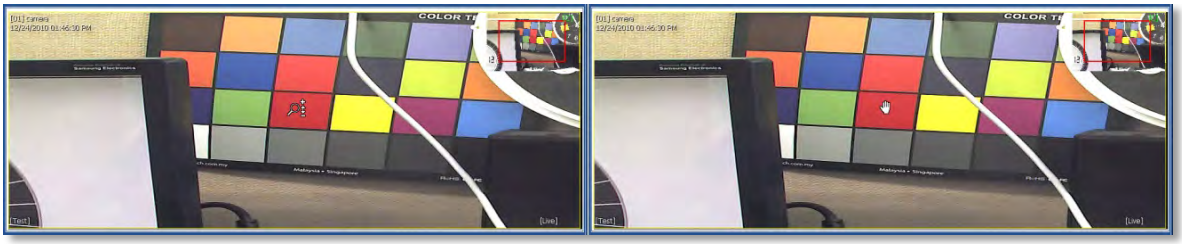
If a PTZ camera is selected, click 'Virtual PTZ' from the PTZ panel to activate 'Virtual PTZ' function. This allows you to control a PTZ camera by using the mouse controls.

Click on the camera's corner view to move the camera in that direction. For example, click on the top right-hand corner of the camera's view to move the camera up and to the right.



6.5.9 Digital Zoom In/ Out

In Live and Search modes, digital zoom can be activated in a single full screen-viewing mode by using the mouse wheel. Scroll up the mouse wheel, to zoom in. Scroll down to zoom out. The image will zoom to the center by default. Use the red frame on the miniature view at the top right-hand corner of the screen to move the zoom frame around the camera's view.



6.6 Pivot Setup

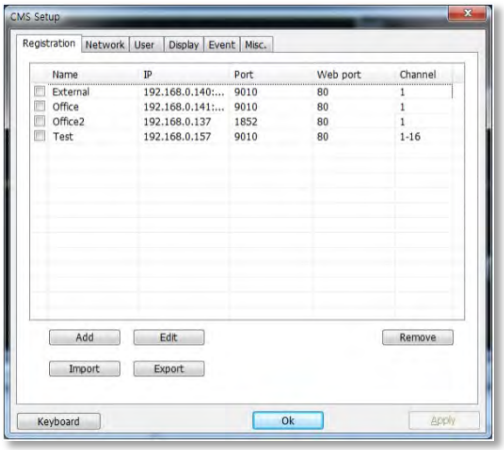
The CMS Setup includes software setup options such as site registration, network and user setup, display, event, and misc. setup.

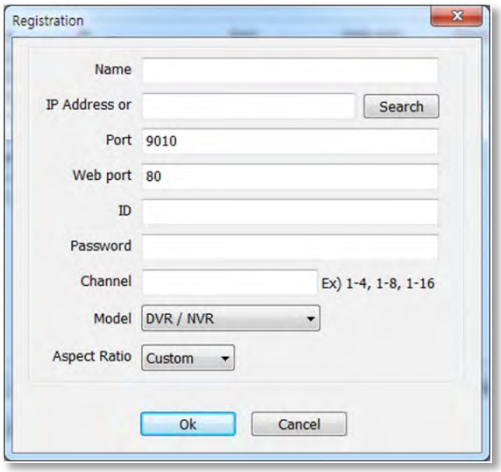
6.6.1 Registration

Add, Modify, Import, Export or Remove sites from your sites list.

To add a site:

1. Press the 'Add' button.
2. Enter the site's name
3. Enter the site's IP address and corresponding port information.
4. Use the 'Search' button to find all supported devices on the same network. When the search is completed, select the camera you wish to add and press OK.
5. Enter the site's username and password
6. Select the site's model from the drop-down list.
7. Enter the number of channels supported by the site. For example, for a 16 channel DVR, enter 1-16.
8. If necessary, adjust the default aspect ratio for the site.
9. Press 'OK' to save or 'Cancel' to exit.





To modify a site:

1. Check the box next to the site from the sites list.
2. Press the 'Edit' button.
3. Modify any necessary information in the registration page.
4. Press 'OK' to save or 'Cancel' to exit.

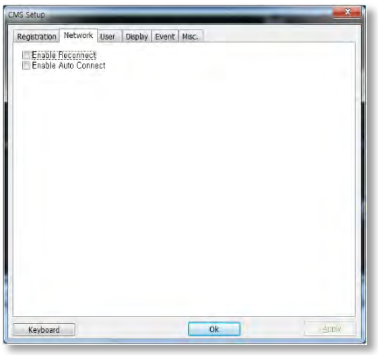
To delete a site:

1. Check the box next to the site from the sites list.
2. Press 'Remove'. The site will be removed from the list. There are no warning messages. Once the remove button is pressed, a site will be removed from your sites list permanently.

Click Export to save the current site list and as a file. Click Import to import the file to the site list.

6.6.2 Network

Enables users to setup Reconnect and Auto Connect to the network after a network loss.

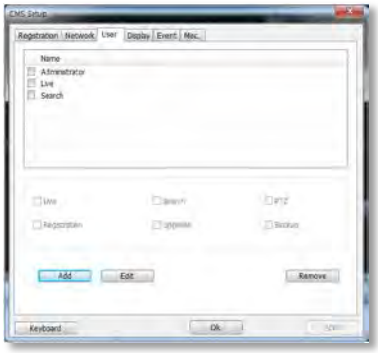


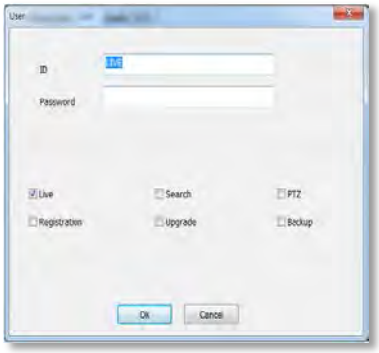
Enable Reconnect: When the network is unstable or disconnected, it will try to reconnect periodically. When the network gets stable again, it is reconnected.

Enable Auto Connect: When you restart the CMS program again, it will reconnect to the last sites seen before logging off.

6.6.3 User

Only the Administrator user can change a user's authority. "Admin" is the built-in account for administrating the device and CMS program.





To add a user:

1. Press 'Add'
2. Enter the user ID and password.
3. Check the box next to the permissions assigned for this user.
4. Press 'OK' to save or 'Cancel' to exit.

To edit a user:

1. Check the box next to the user you want to edit.
2. Press the 'Edit' button.
3. Modify all necessary information.
4. Press 'OK' to save or 'Cancel' to exit.

To remove a user:

1. Check the box next to a user
2. Press the 'Remove' button. There are no warning messages. Once the remove button is pressed, a user will be removed from your users list permanently.

6.6.4 Display

You can modify what information will be displayed on the video screens by checking the corresponding boxes.

Title: Turn on/off the site's title and channel number.

Date/Time: Turn on/off the Date/Time of the site.

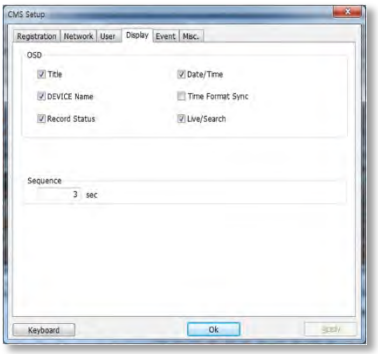
DEVICE Name: Turn on/off the name of the site.

Time Format Sync: Synchronize the site's time format to CMS.

Record Status: Able to turn on/off the Record Status of the site.

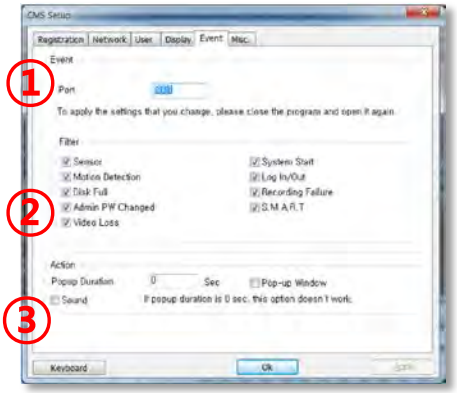
Live/Search: Able to turn on/off the Live/Search of the site.

Sequence: Able to set Sequence interval.



6.6.5 Event

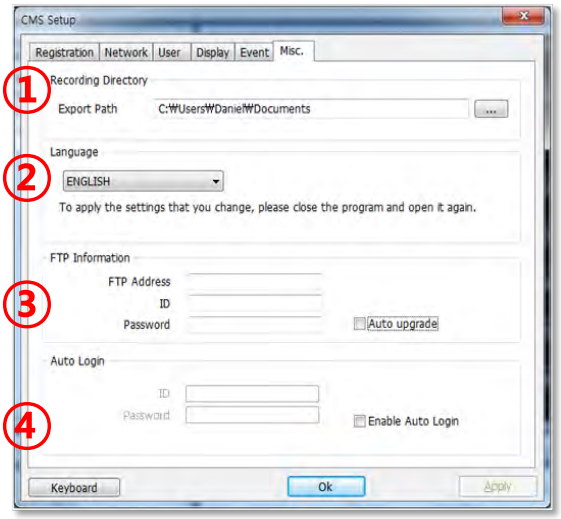
Setup the event port, event type, and popup settings for an event.



No	Item	Description
1	Port	Input same event port from the DVR's setting to receive event notification.
2	Filter	Select the type of event to receive.
3	Action	Setup the popup duration and enable beep sound.

6.6.6 Misc.

Setup the Recording Directory for image and clip exporting, Language, Auto Upgrade FTP information, and Auto Login.



No	Item	Description
1	Recording Directory	Decide the recording directory to save images and clips
2	Language	Select a desired language from the drop-down menu options.
3	FTP Information	In order to enable Auto Upgrade for the supported DVRs, input the proper FTP information. Once the FTP setup is done, CMS will detect the latest firmware is in the FTP and start upgrading the DVR automatically.
4	Auto Login	If you enable the auto login after inputting ID and Password, next time you login, you do not need to type in the ID and Password again.

Chapter 7

MAC ACS CLIENT SOFTWARE USER MANUAL

7 MAC ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

OS	Mac OS X 10.8(Mountain Lion)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

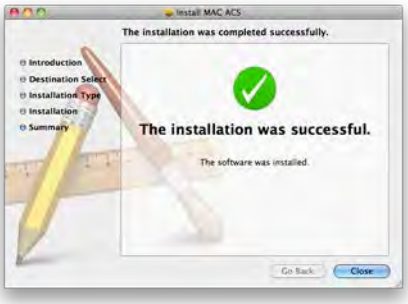
7.2 Install

Run MAC ACS.pkg installed on the CD. A Setup Menu will appear as below. Follow the installation instructions to complete the installation.

Select the directory to install the ACS software. Press the [Continue] button to move to the next screen.

Press the [Install] button to Install MAC ACS.

Enter the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.



7.3 Basic Operation

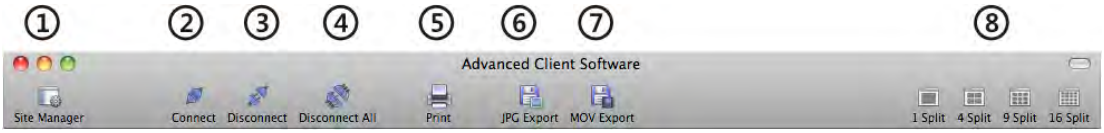
To run the ACS on your MAC, click on ACS icon in the Application Folder.

7.3.1 Screen Layout

No.	Item	Description
1	Main Toolbar	Device Management, Connect & Disconnect, Print Image, Export Image or Video, and Display Options.
2	DVR List Panel	Registered DVR Site List.
3	Live/Search	Click Live or Search mode to connect to a selected site from the device list.
4	PTZ	PTZ Camera Control in Live mode
5	Calendar	Search by Time and Date
6	Search Panel	Recorded information is shown in search mode. Control the speed of Playback and Audio as well

7	Display Panel	Transmitted Camera images are shown (Live and Playback)

7.3.2 Main Toolbar



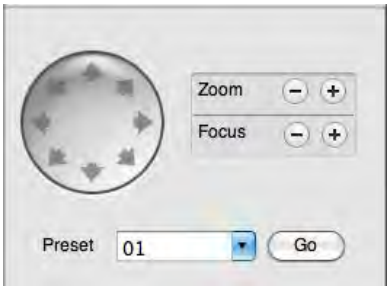
No.	Button	Description
1	Site Manager	Register, modify or Delete DVRs.
2	Connect	Connect to a selected site (Select the Live/ Search connection mode)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels on the display area
5	Print	Print image
6	JPG Export	Save a selected image to the desktop as a JPEG.
7	Movie Export	Save a selected video clip to the desktop as an .mov.
8	Split	Select from single channel, 4-split, 9-split, or 16-split

7.3.3 Site List Panel

The site list panel shows all registered DVRs. To connect a site, click on the DVR's name and drag & drop it to the display area. Select Live or Search from the connection mode panel to view video from the site.

7.3.4 PTZ Panel

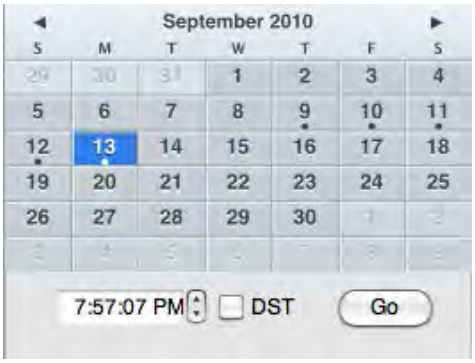
Supported PTZ cameras that have been properly setup in the DVR can be controlled in live mode via the ACS software.



No.	Button	Description
1	Navigation Key	The PTZ camera can be moved in 8 directions.
2	Zoom	Optical Zoom In and Out (enabled on supported models).
3	Focus	Adjust the focus of PTZ camera (enabled on supported models).
4	Preset	Select a preset (preset must be setup previously in the camera).
5		Move the camera to the position associated with the selected preset.

7.3.5 Calendar Panel

The calendar panel is enabled in search mode only.



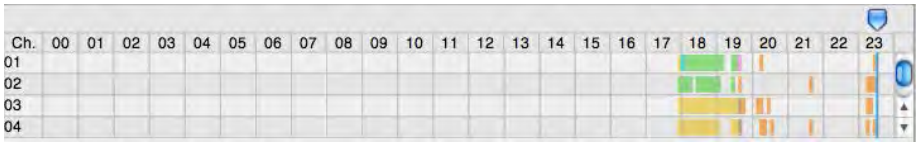
Days with available recorded data will display a small dot under the day's date. The selected day will be highlighted in Blue. When a day is selected in the calendar, playback time will automatically update for cameras in the display area.

Press the button to start playback from a selected date and time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

7.3.6 Search Panel

The Search panel is enabled only in search mode.



- The search panel shows record information for each channel, with each color indicating a different recording mode:

No Record	Background Color
Continuous(Yellow Color)	
Panic (Red Color)	
Alarm (Orange Color)	
Motion (Green Color)	

- Click the time or move the time bar to playback in the search panel.

7.3.7 Playback Panel

No	Button	Description
1		Go to first
2		During forward playback : Decrease playback speed During reverse playback: Increase playback speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		During forward playback: Increase playback speed During reverse playback: Decrease playback speed
7		Go 10 seconds before the end of the data.

7.3.8 Site Manager

To add, modify, or remove DVRs from your site's list, press the Site Manager Button.

Press + to add a DVR entry. The system will fill out the information automatically.

To change the default values, double-click on each column.

Name: Enter a name associated with the DVR.

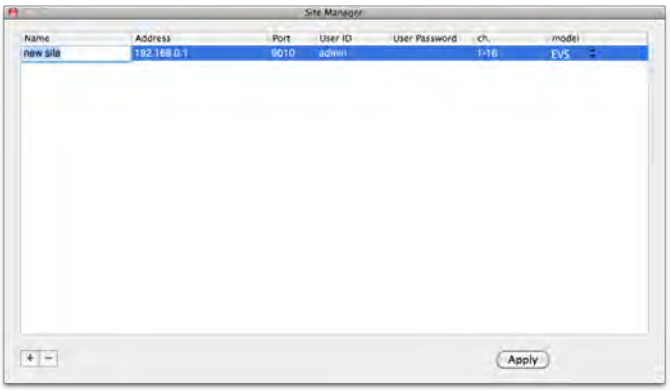
Address: Enter the DVR's IP Address.

Port: Enter the DVR's Port information.

User ID and Password: Enter the DVR's ID and password.

Ch.: Enter the number of channels the device has. For example, for a 16 channel DVR, enter 1-16.

Model: Select the corresponding model from the drop down options.



After all the necessary modifications have been made, press the Apply button.

To delete a registered DVR, Select the DVR and click −

After modifications have been made, press Apply

Chapter 8

MOBILE PHONE SOFTWARE USER MANUAL

8 MOBILE PHONE SOFTWARE USER GUIDE

8.1 iPhone application software

1 Installation DW VMAX

2 3 4 5 6 7 8 9

3 Now you can see the detail information about the 'DW VMAX' application.
Click 'FREE' button then it will change to 'INSTALL' button. Click 'INSTALL' button to proceed.

4 When mobile application is installed successfully, you will see the DW VMAX icon on your iPhone and the loading page will be also seen before you connect to the mobile application after you click the icon.

2 How to connect and setup

1 Press "+" button to add desired device.

2 Fill in the new site information correctly and press "Save" button to save. For the model option, please choose "DW VMAX".

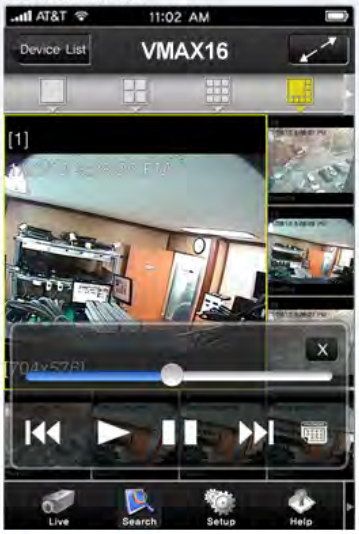
3 How to connect and view

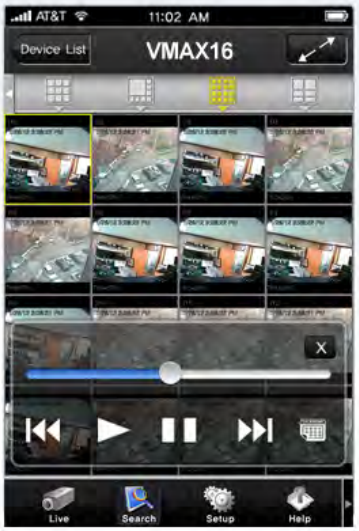
1 At first, select the desired device.
To see live view, press the live icon on the bottom of the screen.

2 User will have live screen view and can also select the desire layout.

1 2 3 **4 How to search** 5 6 7 8 9

1 Search function is available up to 16 channels. In order to search date of a channel, touch the screen of live view and touch "Search" tab located on bottom of the screen. Click channel icon to view another channel in search mode.





1 2 3 4 **5 Drag and Switch Function / Layout** 6 7 8 9

1 Drag / Switch Function : User can use Drag / Switch function to switch the screens.
User can see bigger picture of desired camera view.

2 Layout Function : User can select the desire layout.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by + icon and – icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

Pan/Tilt

Zoom In/Zoom Out

Preset

7 Capture / 2 way audio function

1 User can use Capture function by pressing Capture icon on the bottom of the screen.

2 By using mobile application, 2 way audio is available. On the bottom of the screen, there are Mic and Speaker icons.

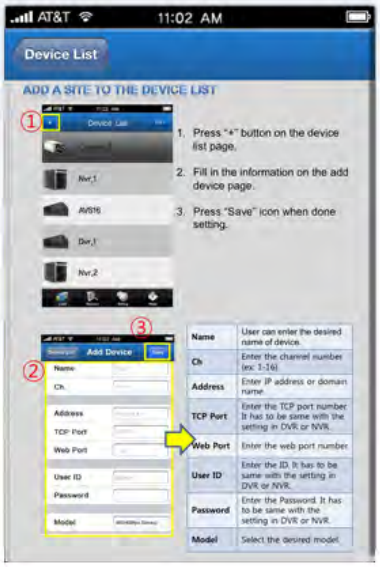
1 2 3 4 5 6 7 **8 Setup / Display Camera Information** 9

1 User can setup on the "Remote Setup" page. When you are done setting, press "Done" button.

2 Display Camera information : Camera name, Place, Date and Time.

1 2 3 4 5 6 7 8 **9 Help**

1 Help menu can be selected in bottom incon menu.



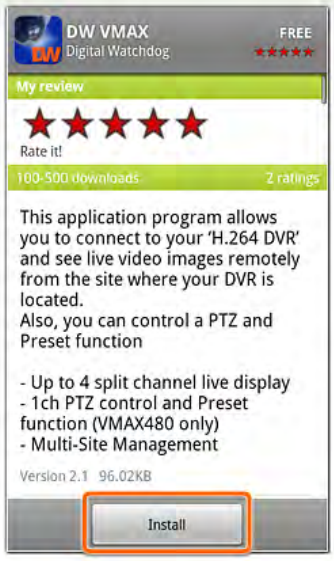
8.2 Android application software

-

1 How to install DW VMAX

2 3 4 5 6 7 8 9

5 You will see a detailed information about the 'DW MAX' application. Press 'Install' button to install it.



6 Now you can see the 'DW VMAX' icon after proper installation.
Splash image will be pop-up by activation.

2 How to connect and setup

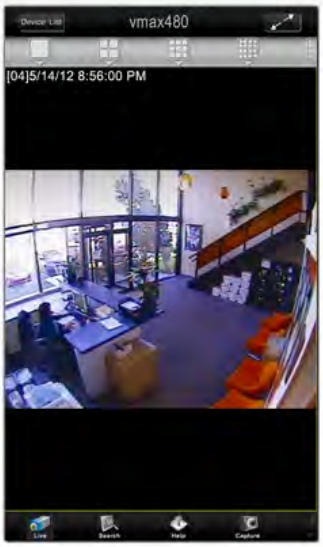
1 Press "+" button to add desired device then set-up menu will be pop-up automatically.

2 Fill in the new site information correctly and press "Save" button to save after selecting correct device.

3 How to connect and view

1 In order to connect target device, press icon in right to activate then select live icon in bottom.

2 User is able to get the live video and display mode can be selected in defined layout icons in top.



1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen. Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.

1 2 3 4 5 Drag and switch Function / Layout 6 7 8 9

1 Drag / Switch : User can switching video position. Please drag the selected channel then drop it into desired window to switch.

2 Display Layout : Various display layout can be selected in icons in top.

1 2 3 4 5 **6 How to control PTZ control** 7 8 9

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by "+" icon and "-" icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

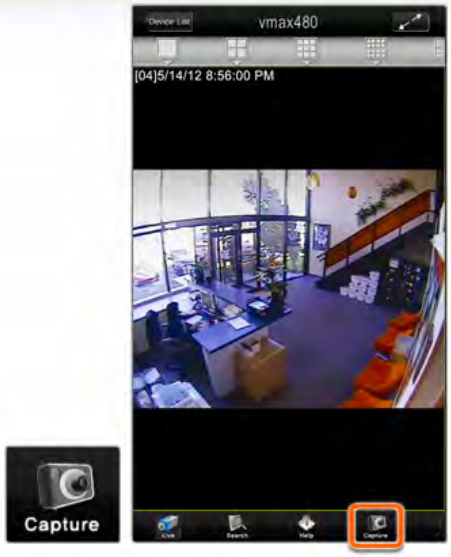
Pan / Tilt

Zoom In / Zoom Out

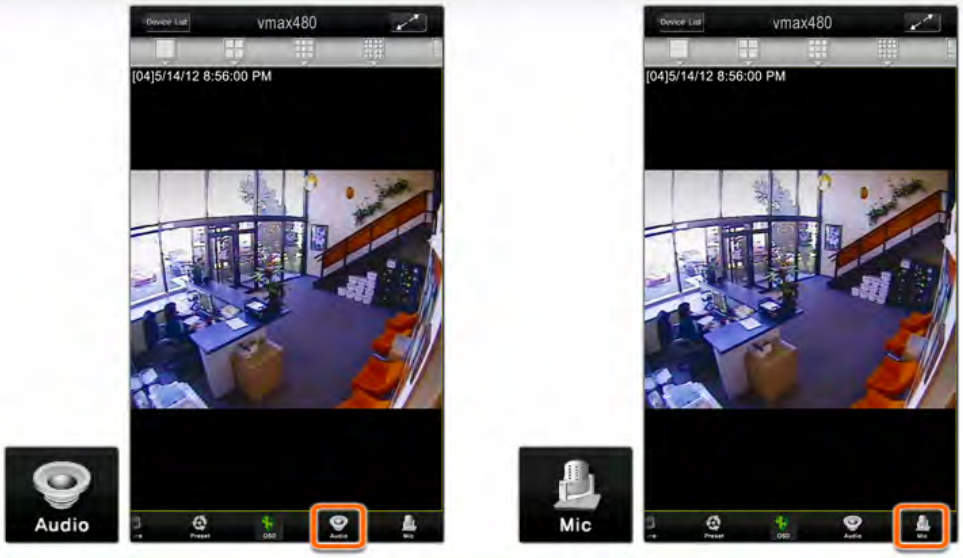
Preset

7 Capture / 2 way audio function

1 Snap shot can be captured through capture icon in bottom menu.



2 2 way audio can be on/off by selecting speaker or microphone icon in bottom menu.

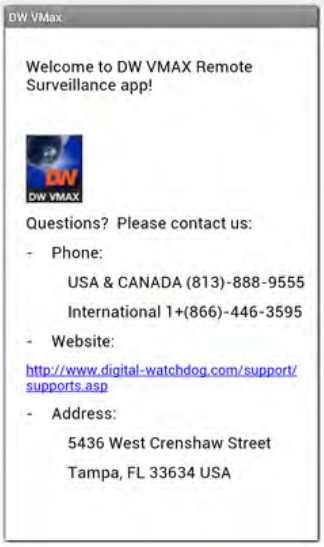


1 2 3 4 5 6 7 **8 Display Camera Information** 9

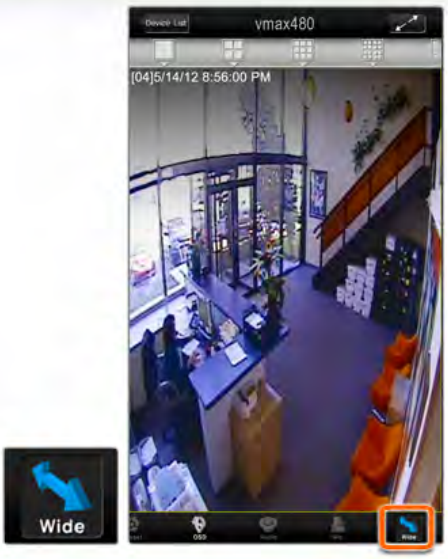
1 OSD can be on / off and it displays camera title & time & date information.

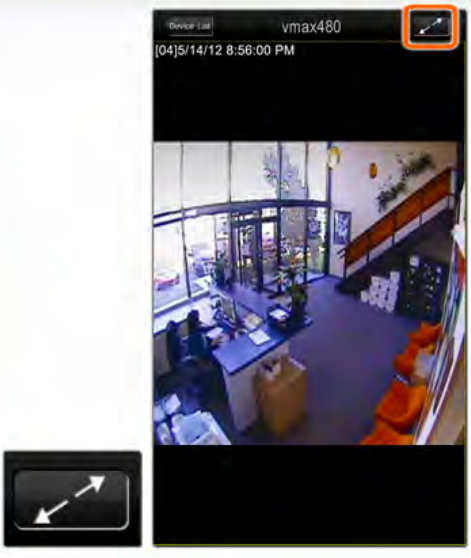
1 2 3 4 5 6 7 8 **9 Help**

1 Help menu can be selected in bottom incon menu.



2 Custom Fit(Strech the video to fit for window) / Full Screen Mode.





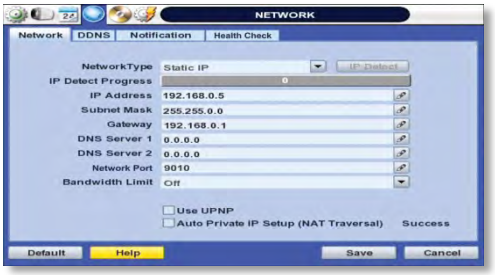
9 APPENDIX : NETWORK SETUP FOR EXTERNAL USAGE

Please note: The following information are general guidelines. These may vary by network and router specifications. Contact your Network Administrator or Internet Service Provider for additional information.

If you are not connecting to your DVR from within the same network, you will have to perform port forwarding on your router to access the DVR externally, via the internet.

1. In the [Network] menu set "Network Type" to [Dynamic IP] and click [IP DETECT]. The system will automatically detect the correct settings for the network where the DVR is installed.

2. Once the system generates all the information based on your network requirements, change the Network Type to Static and save all the changes as static.
   For additional information, and to obtain a proper IP address, contact your network administrator or Internet Service Provider.



3. Some internet service providers block port 80 in their customer's routers. Changing the web port number to 81 or 82 is recommended.

4. Access your router by entering its external IP address in your web browser. This information can be found by running an ipconfig command on your computer's Command Prompt. The router's external IP address is the GATEWAY address.

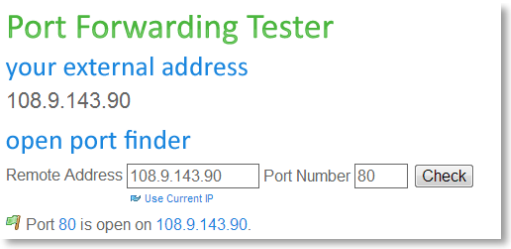
5. Check the DHCP settings in your router and setup the DVR for external connections by performing port forwarding. It is highly recommended that you contact your Network Administrator for more information and proper handling of your router. Port forwarding will tell the router that all data received via those specific ports, will be redirected to the DVR. For the VMAX960H Core, you will need to port forward the two following ports:

   a. Mobile Port: 9010 (Default)

   b. Web Port: 81 or 82 (Default was 80)

6. Visit www.portforward.com for additional information on port forwarding for specific routers.

7. Visit www.yougetsignal.com to test whether the ports have been properly opened. Allow up to five (5) minutes for the router to update.



8. Once the router settings have been configured, open an internet explorer page and enter your router's external IP address:DVR's port number (for example: 72.243.193.215:81).

NOTE: You can also connect to the DVR using Google Chrome by installing the 'IE Tab' add-on.

10 APPENDIX : SPECIFICATION

Model		4CH	8CH	16CH
Front Image				
Compression		H.264		
HDD Interface		1 x SATA 1 / II / III		2 x SATA 1 / II / III
Operation System		Embedded Linux		
Video	Input	4BNC	8BNC	16BNC
	Output	1 x HD Output (1080p Live Display), 1 x VGA		
Video Mode		NTSC/PAL auto detection		
Display Speed(NTSC/PAL)		120fps at 960H Resolution	240fps at 960H Resolution	240fps at 960H Resolution
Screen Split		1, 4	1, 4, 9	1, 4, 9, 16
Video	Monitor	2 x Main Monitor(HD, VGA)		
	VGA Resolution	1080p, 720p, 1280x1024, 1024x768, 720x480 (N), 720x576 (P)		
Recording Speed (NTSC/PAL)	480x240/288	120fps	240fps	240fps
	960x240/288	120fps	240fps	240fps
	960x480/576	120fps	240fps	240fps
Recording Resolution		NTSC: 480x240, 960x240, 960x480		
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instan(Panic) Record		
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32		
	Function	1, 4 CH (Multi-Channel Playback)	1, 4, 9, 1+5, 1+7CH (Multi-Channel Playback)	1, 4, 9, 16, 1+5, 1+7CH (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log		
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack		
Alarm Input / Relay Output		4 x In / 1 x Relay Out		
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)		
		RS 485 Port 1ea (PTZ, Keyboard Controller)	RS 485 Port 2ea (PTZ, Keyboard Controller)	
LAN		1 x 10/100 Mbps Ethernet	1 x 10/100/1000Mbps Gigabit Ethernet	
Network Transmission		120fps@960x480	240fps@960x480	240fps@960x480
		Video Dual-Stream (Local Recording & Network Transmission)		
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)		
		Remote & E-Mail Notification with JPEG, Remote System Reboot by Client(CMS)		
Mobile S/W		Android, iPhone, Kindlefire		
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris		

Model		4CH	8CH	16CH
Remote Management Backup Device	S/W	Central Management System		
	Web(IE)	Live monitoring, Playback & System Configuration		
	Internal	N/A		
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support		
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Call Monitor Configuration, Import & Export & Instant File Backup Warning Alarm for System Over-Temperature		
System Operation		IR Remote controller, Mouse		
Power		12V x 2A D/C	12V x 3A D/C	
Temperature & Humidity	Storage	-20 ~ 60℃ / 20 ~ 95%RH		
	Operating	5 ~ 40℃. 20 ~ 80%RH		
Cerification		KC, CE, FCC		
Dimension(W x H x D)		280 x 48 x 245	360 x 66 x 356	

NOTE The specifications are subject to change without notice