USER MANUAL

VMAX® A1 G4™

Universal HD over Coax® DVRs

4-Channel	8-Channel	16-Channel
DW-VA1G44	DW-VA1G48	DW-VA1G416
DW-VA1G442T	DW-VA1G482T	DW-VA1G4162T
DW-VA1G444T	DW-VA1G484T	DW-VA1G4164T
DW-VA1G446T	DW-VA1G486T	DW-VA1G4166T
DW-VA1G448T	DW-VA1G488T	DW-VA1G4168T
DW-VA1G4410T	DW-VA1G4810T	DW-VA1G41610T
DW-VA1G4412T	DW-VA1G4812T	DW-VA1G41612T
DW-VA1G4416T	DW-VA1G4816T	DW-VA1G41616T
	DW-VA1G4820T	DW-VA1G41620T
	DW-VA1G4832T	DW-VA1G41632T

When logging into the DVR for the first time, you will be prompted to set up a new password. The new password must include a minimum 8 characters with at least four combinations of uppercase and lowercase letters, numbers, and special characters.

NOTE: Download All Your Support Materials and Tools in One Place

1. Go to: **http://www.digital-watchdog.com/support-download/**
2. Search for your product by entering the part number in the **"Search by Product"** search bar. Results for applicable part numbers will populate automatically based on the part number you enter.
3. Click **"Search"**. All supported materials, including manuals, Quick Start Guides (QSG), software and firmware will appear in the result**s.**

※ The picture might differ according to the specification and model.

※ Contents of this user manual are protected under copyrights and computer program laws.

Before using the system, please read this User Manual and keep it for future reference.

Rev: 02/23

WARNING

**TO REDUCE FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.**

The installation should be made by a qualified service person and conform to all local codes.

Cautions

Read Before System Operation

Follow these details to prevent material damage or personal injury.

Signs of Caution and Warning

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

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

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

General Warning

⚠ Warning

1. Use the power cord, which is supplied or recommended by the supplier, or it may cause a fire.
2. Do not disassemble or reassemble the product. It may cause malfunction or fire.
3. Enquire about your vendor for repair. It may cause electric shock or fire if the repair is not done properly.
4. Do not touch the product with wet hands. It may cause malfunction or electric shock.
5. Product installation must be ensured by a professional for product installation, or it may cause malfunction, electric shock, or fire.
6. Ground applies to video products equipped with a 3-wire grounding type plug having a third (grounding) pin. This plug only fits into a grounding-type power outlet. If grounding is not done, it may cause malfunction or electric shock.
7. Ground connection must not touch gas pipe, water pipe, or telephone line. If grounding is not done properly, it may cause an electric shock.
8. Prevent metallic foreign substances from going inside the product. It may cause malfunction or electric shock.
9. Do not spray insecticide or flammable spray while driving. It may cause a fire.
10. Place the system in an open place where air ventilation is guaranteed, or it may cause overheating and seriously damage the system to be fired.
11. Prevent water from instilling inside electrical parts. Clean with a dry towel or malfunction or electric shock could result.

⚠ Caution

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

Cautions about the Power

⚠Warning

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

⚠ Caution

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

⚠ Remarks

※ Pictures and buttons are subject to be changed or modified up to different models.
※ Function or configuration is subject to be changed or modified without prior notice for improvement of the product.

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1. Getting Started

1.1 Checking Supplied Items

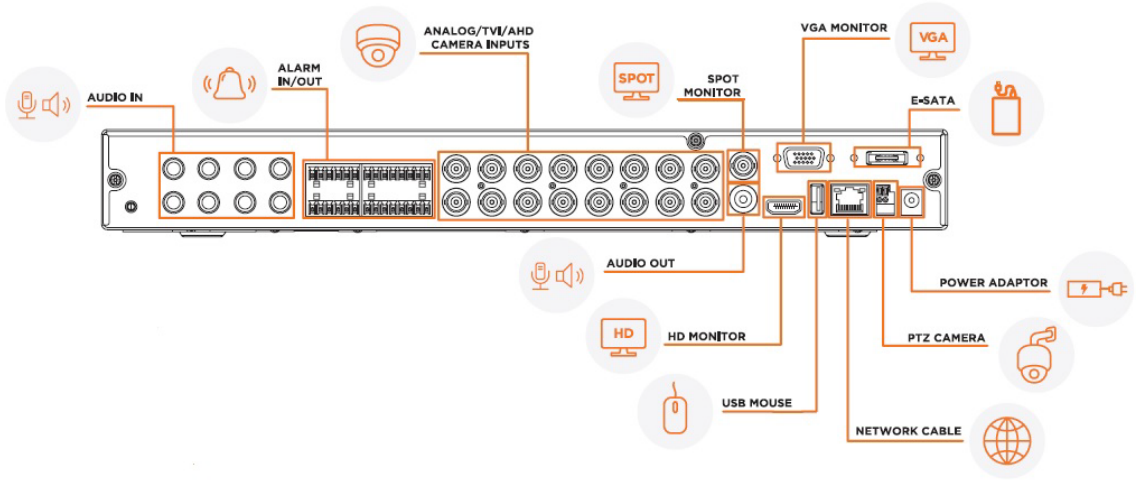
Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor at once. Keep the packing utilities for moving or storage purposes.

Items	Photo	Quantity
Quick Start Guide and download instruction card		1
DC 12V adapter and power cable (*4-channel models do not come with power cable)		1 set
Rubber mount*	*Included contents may differ depending on the DVR model	1 set (4 Pieces)
USB mouse		1

1.2 System Setup

1.2.1. **Connect External Devices**

Follow the diagram below to connect all necessary external devices to your DVR. Please note that the number of ports available may differ based on the model. See the product's specifications at the end of this manual for more information.



To prevent the DVR from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 104°F (40°C). To prevent airflow restriction, allow at least 3 inches (7.6 cm) of clearance around the ventilation openings.

1.2.2. **System Startup**

After connecting all external devices to the DVR, power up the DVR by connecting the provided 12V power adapter to the rear panel or the recorder. The boot logo will display. Please wait until the boot process completes.

When logging in for the first time, you will be asked to set up a new password. The password must be between 8-12 characters, with at least 3 combinations of uppercase letters, lowercase letters, and special characters. Do not use spaces. Acceptable special characters are 『~ ‘ ! $ ^ ( ) _ - | { } [ ] ; . ? /』.

If you have already created an Administrator password, click anywhere on the screen and enter the username and password in the login popup window. There is only one Administrator

Account configurable in the DVR. It is assigned with an unchangeable User ID marked as 'admin'. The administrator account has full access to the DVR and its configurable parameters and can also create new users and assign rights to the new user accounts.
If DVR is set to use the AUTO LOGIN setting, the login process is not necessary

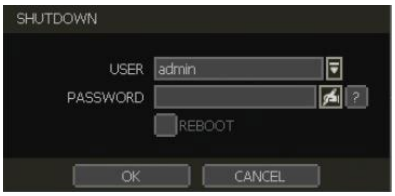
NOTE

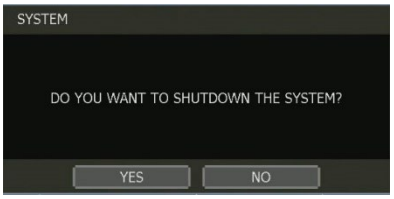
1. If the network configuration is set to DHCP mode but there is no DHCP server in the network or the network is not connected it may take a few minutes to start the system after turning on the power.
2. The mouse is included with the DVR. In case you need to replace it, it is highly recommended to choose from well-known major brands such as DELL, MICROSOFT, LOGITECH, or HP.
3. Do not forget the administrator's password that was set for the first time. In case the password is forgotten, contact your local dealer for help.
4. Refer to Section 4.1.2 User for AUTO LOGIN and AUTO LOGOFF.

1.3 System Shutdown

To turn the DVR's power off, click the Exit button [ ] on the toolbar and select [SHUTDOWN] in the pop-up screen as below. Do not turn off the power by unplugging the power plug.

Enter the Administrator password and click [OK] to shut down the system. Click [YES] to confirm to power OFF. Please unplug the power cable for a complete shutdown.





NOTE Users can input passwords using the virtual keyboard.

1.4 System Explanation

1.4.1. **Front Panel**

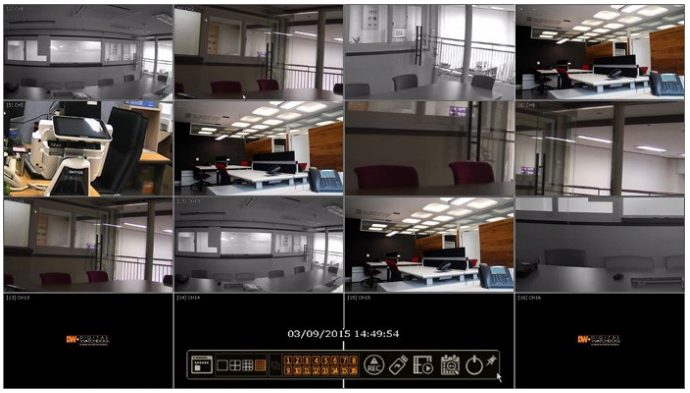
** Front panel may differ according to the model.

1.4.2. **Power: System ON/OFF**

1. Power (On the backside)
2. LED indicator: indicates system status for power, record and network status.
3. USB port: for backup and upgrade.

1.4.3. **Toolbar in Live Mode**

In Live view, move the mouse cursor to the bottom of the screen to show the menu bar.



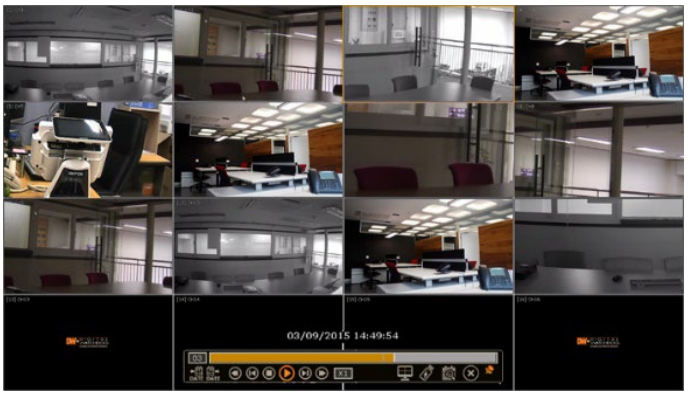
- Menu: click on the menu button to access the DVR's main menu screen. See Section **4 - Setting**.
- Display mode: select the display split mode from the available options. Select 1CH, 4CH, 9CH, or 16CH mode. Available options may differ based on the model.
- Sequence: start and stop Sequence mode while viewing live video. Camera channels will sequence through the selected Display mode. The sequence is disabled if

all channels are displayed.

- Channel number: switch to a single-channel view of a specific channel by pressing the corresponding number.
- Emergency recording: the system records all channels with the full-frame rate at the maximum resolution regardless of the recording setting. To stop the emergency recording, click the same icon again.
- Export: backup recorded video to an external device. See Section **4.6 Export**.
- Playback: switch to playback mode. See Section **3.3 Playback Recorded Image**.
- Search: open the search options screen. See Section **3.4 Search Recorded Image**.
- Exit: exit the DVR with three different options: log off, reboot and shutdown.
- Pin: when selected, the DVR's menu bar will be displayed on the screen permanently, regardless of the mouse's position.

1.4.4. **Toolbar in Playback Mode**

In the Playback view, move the mouse cursor to the bottom of the screen to show the menu bar.



- Channel: indicates the currently selected channel.
- Intelligent search bar: shows recording status for the selected channel from 00:00 to 24:00 hours. A white, vertical line indicates the time currently displayed. Moving the white, vertical line will update the video shown.
- Previous/next date search: Move to a previous date or the next date to search.
- Playback controls:
- : Playback speed control. (X32 / x16 / x8 / x4 / x2).
- : Move backward one second
- : Stop button

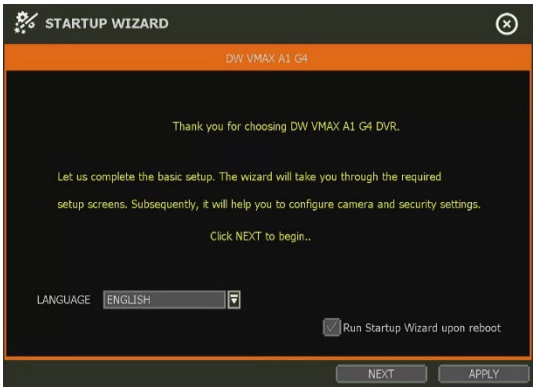
- : Play button
- : Move forward one frame
- : Playback speed control. (X2 / x4 / x8 / x16 / x32)
- : Current playback speed
- Screen display mode: select the display split mode from the available options. Select 1CH, 4CH, 6CH, 9CH, 10CH, 13CH or 16CH mode. Available options may differ based on the model.
- Export: backup recorded video to an external device. See Section 4.6 Export.
- Search: open the search options screen. See **3.4 Search Recorded Image**.
- Exit: close playback mode and move to Live mode.
- Pin: when selected, the DVR's menu bar will remain pinned on the viewing screen, regardless of the mouse's position. Deactivate the Pin to undo this setting.

2. Startup Wizard

When the DVR is launched for the first time, the STARTUP WIZARD will appear. This wizard helps you setup the DVR's most basic settings for proper functioning. You can access the startup wizard at any time by clicking the [START] button for the Startup Wizard in MENU > SYSTEM > SETTINGS. (See Section **4.1.5 Settings**).

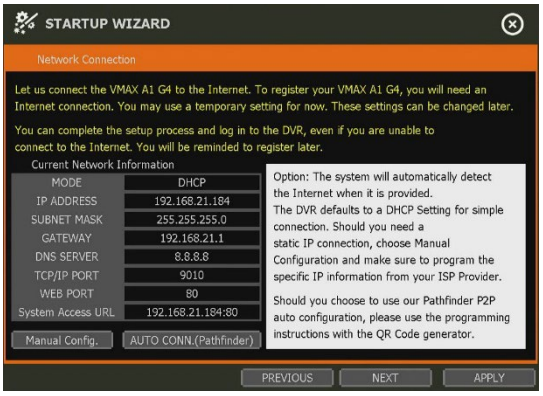
2.1 Language

Select the language according to the country or user's preference.
If "Run Startup Wizard upon reboot" is selected, the startup wizard will appear every time the system is started.



2.2 Network

Setup the DVR's network settings for remote connection. You can select to manually configure the DVR's network settings (Manual Config.). You can also allow the system to setup the network settings automatically by selecting AUTO CONN. (PathFinder™).

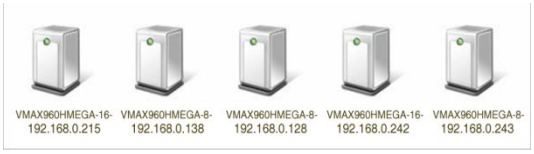


If Manual Config. has been selected, setup the information below:

- NETWORK TYPE: Select either STATIC IP or DHCP for dynamic IP.
  If DHCP is selected, the DVR will automatically configure the network settings according to the current network requirements. If DHCP is selected, click the “IP DETECT” button to automatically detect 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 classifies the subnetwork that the DVR system belongs to. For more information, please consult your network administrator or your internet provider.
- 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: Enter the IP address of the Domain Name Server (DNS). You should input the DNS Server information to use DDNS, Email Notifications and NTP Server. For more information, please consult your network administrator or your internet provider.
- TCP/IP PORT: Input the port number to use when connecting to the DVR locally or remotely. The default is Port 9010.
  If your ISP blocks Port 9010, you need to input another valid port number (ex, 9020).
- WEB PORT: Input the port number to use when connecting from the Web Browser. The default is Port 80. If your ISP blocks Port 80, you need to input another valid web port number (ex, 8080).
- RTSP Port: input the port number that is used for connecting to RTSP. The default is Port 554.
  - Main Stream: rtsp://{IP ADDRESS}:{rtsp port}/main/ch{number}
  - Sub Stream: rtsp://{IP ADDRESS}:{rtsp port}/sub/ch{number}
- BANDWIDTH LIMIT: Depending on the setting made by the user, the system can control the volume of data that is transmitted over the network, ranging from 25 kbps up to 1Gbps. This function is most effective under narrow bandwidth network conditions or when the user wants to limit “network bandwidth occupied by video transmission” to a

certain level. The default is 100 Mbps

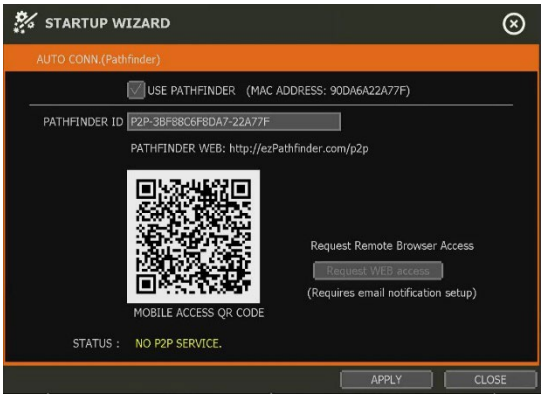
- UPnP (Universal Plug and Play) Port Forwarding: If in case of UPnP supported router, DVR forward port automatically after communication with the router without complicate port forwarding setting at router



Once the PC has discovered the DVR, double-click on the icon to open the DVR's web client. Enter your User ID and Password to log in and click "Connect" to connect. For more information on accessing the DVR web client, see **Section 5 Web Monitoring with Web Browser**.

NOTE	1. The maximum number of simultaneous remote connections is 10 users. 2. For the other network settings, such as DDNS, Notification, Mobile Push & P2P Cloud, please see Section **4.5 Network.**

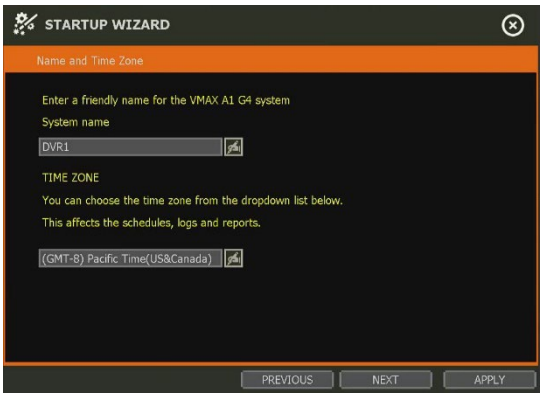
If the Auto connection (PathFinder) has been selected, connect the DVR to the PathFinder system. The DVR can then be reached by mobile device using the QR code.



NOTE	For more information, please see Section **4.5.5 PathFinder.**

2.3 Name and Time Zone

Set the DVR's name and select the local time zone.

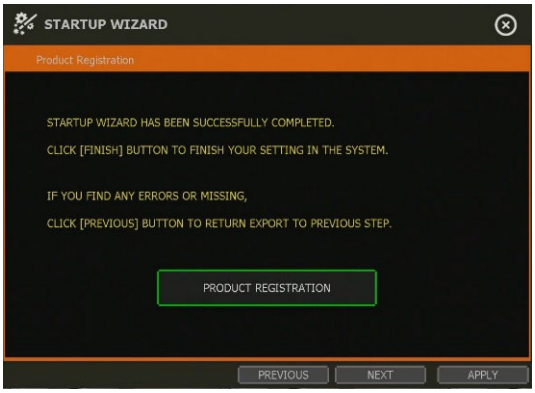


2.4 Camera Connection

Enter a camera name for each camera channel of the DVR.

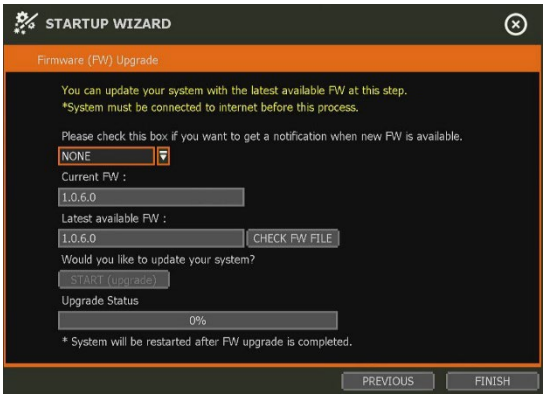
2.5 Production Registration

Provide user information to register the DVR.



2.6 Firmware Upgrade

Upgrade the DVR's firmware by network connection.



2.7 Finish

When the Setup Wizard is completed, click "FINISH" to close the wizard and go to the Live view screen.

3. Operation

3.1 User Log-in

Input USER and PASSWORD after turning on the system. The default USER “admin” and the PASSWORD is blank.

NOTE

1. The LOGIN window will be permanently displayed until a user logs in with the right USER and password.
2. If DVR is set as AUTO LOGIN, the login process is not necessary. See “Section 4.1.2 User” for more information.

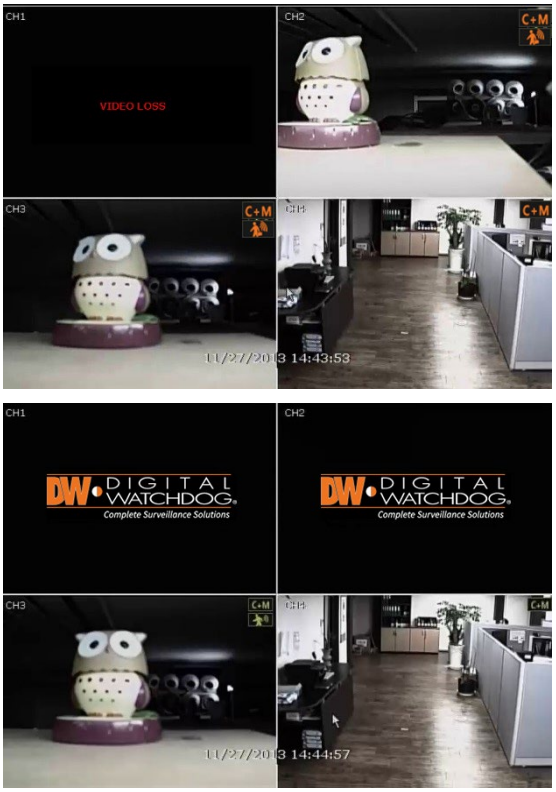
NOTE The key in the virtual keyboard includes often-used words, such as “Admin, root, http://, rtsp://, www., .com, .net, .org, etc.”.

3.2 Live Display Mode

3.2.1. **Channel Selection**

Live images from your cameras can be seen in 1, 4, 6, 9, 10, 13 and 16 screen splits (varies by model). Click the display mode button ( ) on the toolbar to change the display to the next layout or sequence. To switch from a multi-channel view to a single camera, click on a channel. To return to the multi-channel mode, click the left mouse button again.

"VIDEO LOSS" is shown when no camera is connected or disconnects suddenly. When a camera is disconnected, a warning sound shall be generated depending on the system setting.
If a user is not authorized to view a channel, DW logo will show instead of Live video.



3.2.2. **Icons**

In Live mode, icons will appear on the screen to notify of the system mode or status.

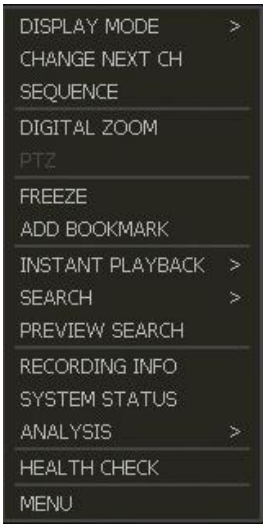
The icon is shown at the right-upper corner of each channel screen		The icon is shown at the right-bottom corner of fullscreen	
C	Continuous recording	HDD	No HDD detected
M	Motion detection recording	E-REC	The emergency recording is in use
S	Sensor activated recording	PTZ	PTZ is enabled
C+M	Continuous + motion alarm recording	CHECK FAN	Warning for exceeding temperature
C+S	Continuous + sensor activated	SEQ	Sequence mode is enabled

	Recording		
M+S	Motion detection + sensor-activated recording	ZOOM	Digital zoom is enabled
C	Emergency recording		
	Sensor activated		
	Motion detected		
	Audio channel		
	PTZ camera		
$	Transaction verification		

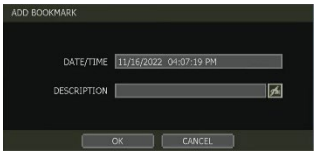
NOTE	If you cannot find any recording icon in the right corner of the screen, the system is not recording. Check the recording schedule or camera in the main setup menu.

3.2.3. **Pop-up Menu**

Users can click the right button of the mouse to pop up the sub-menu as below. If users want to control a specific channel, put the mouse cursor on that channel and then click the right button.



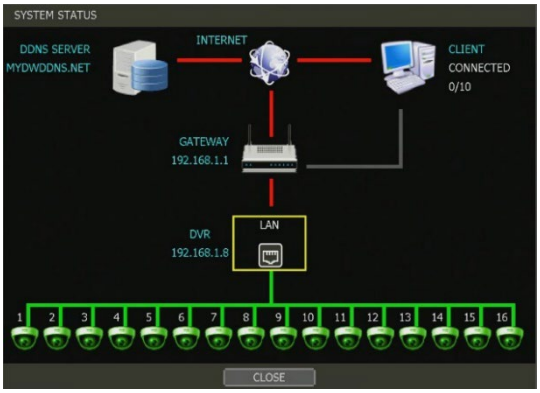
- Display mode: The user can change the screen display mode from the available split options (1, 4, 6, 9, 10, 13, 16 split option).
- Change next CH: View the next channel or next group of cameras in the current split mode.
- Sequence: When SEQUENCE is selected, SEQ icon will appear on the right-bottom corner of the screen. The display screen will be sequentially changed.
- Digital zoom: Digital zoom is available in single-channel view only. When ZOOM is selected, ZOOM icon will appear on the right-button corner of the screen and digital zoom control is available.
- To zoom in, drag the mouse's cursor on the desired area to create a zoom square. You can also control zoom-in & zoom-out by mouse scrolling the mouse's wheel up and down. Once the image is zoomed-in, the user can move the zoom area by clicking on the edge of the square and dragging it.
- To exit from the zoom mode, right-click anywhere on the screen.
- PTZ: Enable PTZ mode. See Section 3.2.4 PTZ Operation for more information. The available PTZ options depend on the camera's settings. See the camera's manual for more information.
- Freeze: Freeze the current Live view. The system clock (date/time information) will continue running at the bottom of the screen. Select FREEZE again to resume the Live view.
- Add to bookmark: Add a bookmark with a description of the currently displayed image. When the bookmark menu appears, enter a description and click OK to save.



- Instant Playback: Select a specific prior time (10sec. / 15sec. / 30sec. / 60sec. / 2min. / 3min. / 5min.) to instantly switch to playback mode.
- Search: Search recorded video using the Calendar, Date/Time, First Data, Last Data, System Log, Event Log, Transaction Verification and Bookmark options. See Section 3.4.

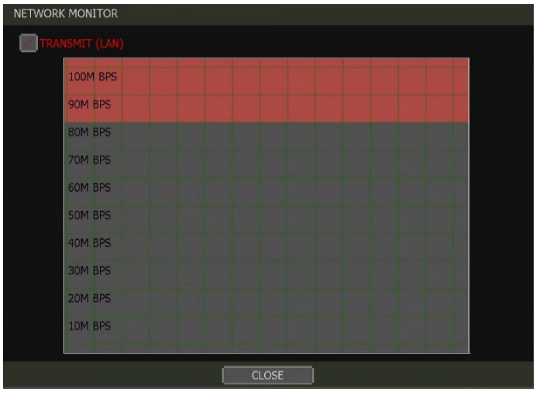
Search Recorded Image for more information.

- Preview Search: Search recorded video in thumbnail search modes. See Section 3.4.9 Preview Search for more information.
- Recording info: Check the recording status of the DVR, such as Recording Period, Daily Recording Size (Average), Current Recording Days and Remaining Recording Days.
- System status: See the system status, including information on the network condition, the number of clients currently connected to the DVR, etc. A green line means the connection is Live and working.



- Analysis: Check the system performance, conditions and network conditions for the entire system.

[Performance Monitor]



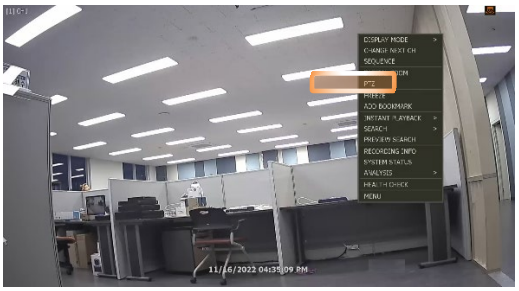
[Network Monitor]

- Health check: Display the information of the DVR system, network, camera, and HDD as text. Select which information to display and setup checks cycle time. You can also setup an email to receive updates on the system's health.

- Menu: Open the main menu setup screen.

3.2.4. **PTZ Operation**

To use a PTZ camera, the channel which is connected to a PTZ camera should be in full-screen mode. To activate PTZ control, right-click and select PTZ in the pop-up menu. When in PTZ mode, PTZ will appear on the bottom-right corner of the screen.



- PTZ Control: In PTZ mode, the user can control the PTZ camera using the USB mouse. While pressing the left button, drag the mouse cursor up/down or left/right to move the camera's pan/tilt position. The further away from the center the mouse's cursor moves, the faster the PTZ camera will move. To move the camera to a preset position, click the preset position number at the bottom of the screen to move the camera accordingly. The presets must be set before selection.

NOTE	Full PTZ functions are available by using the USB mouse or keyboard controller. The availability of functions depends on the camera. Consult the camera's manual for more information.

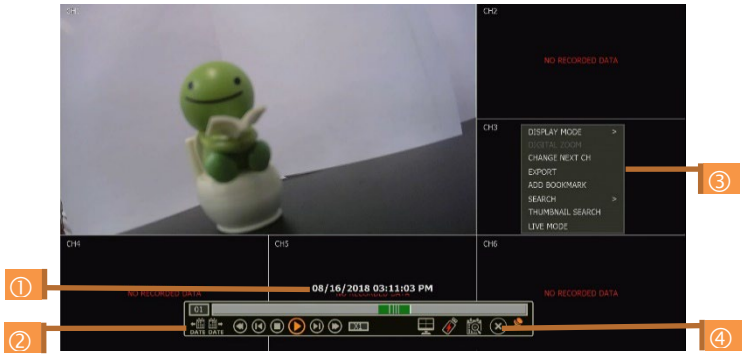
- Zoom/focus: Move zoom-in / out by rolling the wheel of the mouse up/down. If the mode is changed to "Focus", the camera's focus can be controlled by rolling the wheel of the mouse.
- Preset: When the preset menu pops up, select the preset number and click "Enter" to move to the corresponding preset position. The maximum Preset number supported is 255.
- Guard tour: When enabled, the camera will automatically switch positions according to the sequence of presets set in the GUARD TOUR settings. See Section 4.2.3 PTZ for more information.

CAUTION	Users can set an interval for each preset position. Some presets might be skipped in case the camera cannot mechanically move or control focus within the interval time.

- Control: Go to the PTZ control menu. See Section 4.2.3. PTZ.
- PTZ exit: Close PTZ control mode.

3.3 Playback Recorded Images

To playback the recorded image, click the playback icon ( ) in the menu bar. When the DVR transitions to playback mode, it will automatically playback the latest recording image.

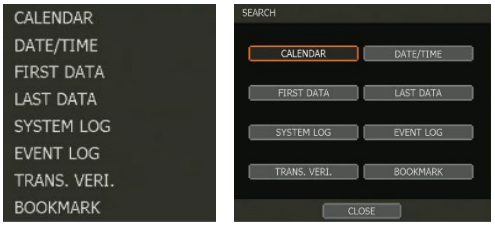


1. Date/Time: This shows the date & time of the image that is being displayed.
2. Toolbar: Contains playback control, recorded data check, screen mode, etc. See Section **1.4.4. Toolbar on Playback Mode** for more information.
3. Pop-up menu:
   - Display mode: Change display mode (1, 4, 6, 9, 10, 13, 16 screen mode)
   - Change next CH: Change to next playback channel
   - Digital zoom: Select to enable digital zoom (available in single-channel view).
   - Export: Open the backup window.
   - Add bookmark: Add a bookmark to the current image.
   - Search: Search recorded data by various conditions. See Section **3.4 Search Recorded Image.**
   - Preview Search: Search recorded data with thumbnail search. See Section **3.4.9 Preview Search.**
   - Live Mode: Go to Live mode.
4. Exit playback mode: Clicking the Exit icon in the menu bar will return you to the Live view.

3.4 Search Recorded Image

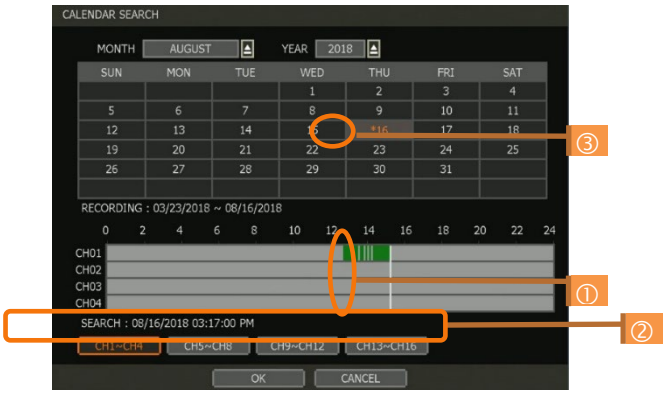
Search recorded images by date and time, first and last data, events, bookmarks, etc.
To enter the search options menu:

- In playback mode, right-click to open the popup menu and select the search menu.
- In Live mode, click the search button in the toolbar at the bottom of the screen or right-click and select the Search menu.



3.4.1. **Calendar Search**

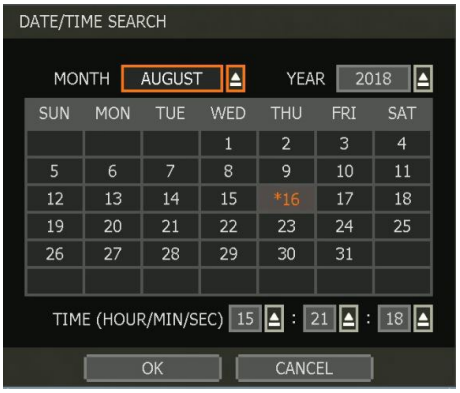
To search data for a specific date and time, use Calendar Search to select the date and time of the footage.



1. Use the mouse to slide the white, vertical line to the time you want to search.
2. The colors of the time bar represent the different recording modes. The time bar displays four channels at a time. To check the next 4 channels, change the channel group at the bottom of the window.
3. The asterisk "*" mark on dates indicates days with recorded video available.

3.4.2. **Search Date/Time**

Enter the desired date and time in the calendar screen.
Use the drop-down button or mouse to select the date and time of the recorded playback.
Days with recorded data will be highlighted in red and "*" next to them.



3.4.3. **First Data**

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

3.4.4. **Last Data**

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

3.4.5. **System Log**

Find system log information such as System, Setup, or network.

1. Select a start and end date to search.
2. Select the type of log to search (All, System, etc.). Users can search individual events or all logged events.
3. Click SEARCH to show the search results in the list.
4. Click EXPORT to copy the list to an external device such as a USB flash drive as a ".txt" file.

   If Export is used, a file will be created and labeled as "system_date.log" on the USB flash drive.

3.4.6. **Event Log**

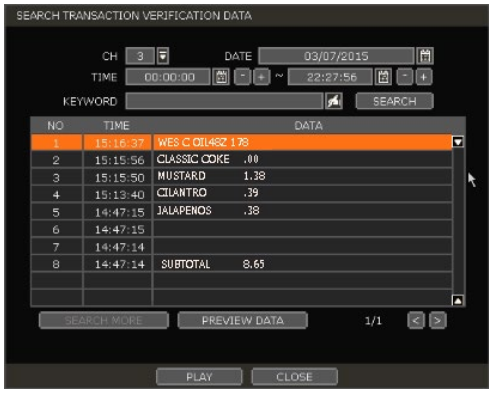
Find events such as sensor activation, motion detection, video loss, or HDD full.

1. Select a date to search.
2. Select log type to search. Users can search individual events or all at once.
3. Click SEARCH to show the search results in the list.
4. Click EXPORT to copy the list to an external device such as a USB flash drive as a ".txt" file.

NOTE 50 records will be shown on one page. Click the arrow buttons (< >) to search the log records on another page.

3.4.7. **Transaction Verification**

Search text from a Transaction Verification™ integration such as a POS device. Input the search information (channel #, date, time & keyword) and then click SEARCH to view search results. Enter a keyword to filter the results. Click PLAY to go to playback video and transaction data.



3.4.8. **Bookmark**

Bookmark search allows you to can check, change and delete bookmarks. Select a bookmark from the search results list and PLAY to display the corresponding video image.

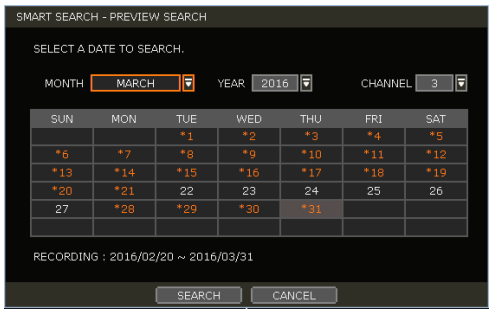
3.4.9. **Preview Search**

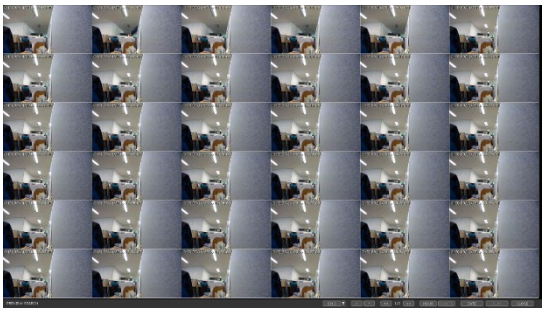
Users can search recorded video in split-screen mode by the hour or minute units.
The Thumbnail search breaks down a day's worth of recorded video for a camera into 12 still images, one for each hour. You can then "zoom" into the hour to display images for every minute of that hour. To use Preview Search:

1. Right-click on the selected channel and go to Preview Search.
2. Select the date you wish to search. Days with recorded video will appear in orange.
3. Click SEARCH. The DVR will display 24 screen images (1-hour unit) of the channel on that day.
4. Select a preview thumbnail and click the Minute button to display 60 screen images (1-minute unit) on that hour.

Users can easily and instantly search large amounts of video for specific events with this preview search, allowing you to playback the recorded image of that moment.
The number of thumbnail images and size of each image can be increased/decreased up to a

maximum 60 thumbnail images on a single screen.
In the preview search mode, the user can change the search date, the display unit (time/minute) and go to playback mode directly.



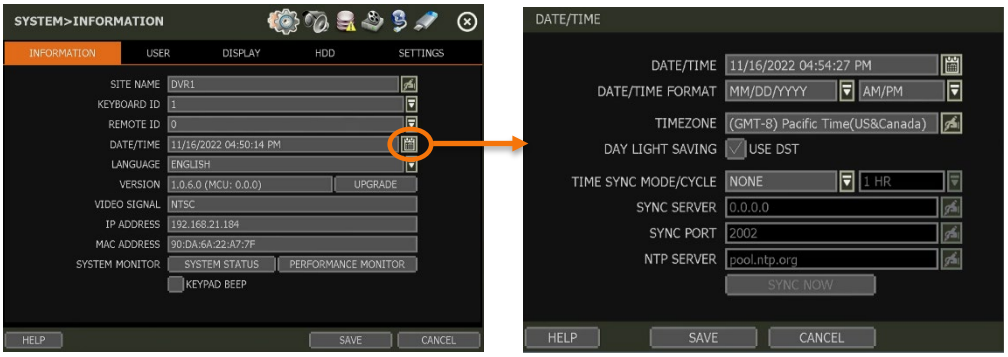


3.5 DST Setting and Image Playback

Daylight Saving Time (DST) starts at 2:00 AM local time on the 2nd Sunday of March and ends at 2:00 AM DST on the 1st Sunday of November. During DST, the DVR's clock will be adjusted according to the regional time zone. The DVR's time will shift one hour after DST starts and restore the time clock to normal after DST ends.

3.5.1. **DST Setting**

To enable DST on the DVR, go to SYSTEM > INFORMATION and click DATE / TIME. Select "USE DST" to apply the DST time change. (Select the proper Time Zone to activate DST).



3.5.2. **DST Image Playback**

When there is overlapped data due to DST, the overlapping hour will appear blue in the search bar during playback.

To playback data from the overlapped hour, select a time in the Intelli-search bar. A "Data Selection" message will appear. Select whether to play DST data or non-DST data.

4. Setting

General settings consist of “System”, “Device”, “Event”, “Record”, “Network” and “Export”. Each Setup menu consists of sub-menus and more categories.

Main Classification	Sub Classification
SYSTEM	INFORMATION
	USER
	DISPLAY
	HDD
	SETTINGS
DEVICE	CAMERA
	AUDIO
	PTZ
	TRANS. VERI.
	KEYBOARD
ALARM	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	CAMERA
	SECOND STREAM
	RECORDING SCHEDULE
	QUICK SETUP
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	MOBILE PUSH
	PATHFINDER
EXPORT	EXPORT

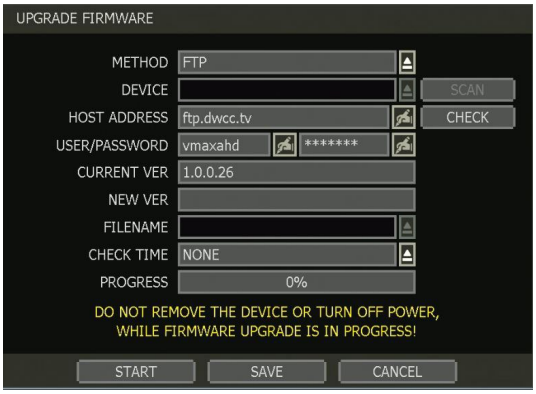
To access the setup menu, click the button in the menu bar or right-click anywhere on the screen and select MENU.

4.1 System

4.1.1. **Information**

- Site name: Enter a site name to differentiate the DVR from other sites/recorders.
- Keyboard ID: Setup KEYBOARD ID to match the ID settings of a keyboard controller. The keyboard model and BAUD RATE must be setup in MENU > DEVICE > KEYBOARD (**See Section 4.2.6 Keyboard**).
- 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.

- There are three types of time sync modes:
  - Server mode: The operating DVR is set as a time sync server, which can synchronize the time other DVR(s) are connected over the same network.
  - Client mode: Input the IP address of a designated DVR or PC running remote software as a time sync server in “SYNC SERVER”. The DVR’s time clock will be synchronized with the server by interval time set in the “TIME SYNC CYCLE”.
  - NTP client mode: “pool.ntp.org” is the recommended NTP server. To activate, set the TIME ZONE of your local area and then click [SYNC NOW].
- Language: Select the display language from the available options.
- Version: View the DVR’s current firmware version and update to a newer version via a USB memory stick or an FTP server connection.



CAUTION	Do not click CANCEL during firmware upgrade. It may cause severe damage to the system. Settings may be changed to factory default. It is recommended to check the settings and operating condition of the DVR after the firmware upgrade.

Upgrading system using USB memory stick:

a. Insert a USB drive with the firmware file formatted by FAT/FAT32 in any USB port of the DVR (compatible with USB 2.0).
b. Select “USB” from the Method drop-down options and press the “Scan” button.
c. Once the system detects the USB drive, it will display the firmware file under “CURRENT VER” and the “NEW VER”.
d. Click START to begin the upgrade process.

Upgrading system using DW’s Automatic Firmware Upgrade via FTP server:

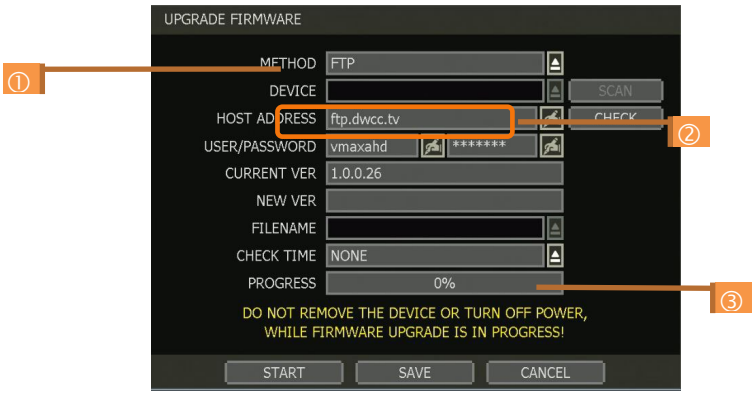
- Select FTP in the drop-down options under “Method”.
- Enter the FTP’s address: ftp.dwcc.tv and enter the username and password (these should be filled out automatically). Username: vmaxahd / password: vmaxahd.

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

- Enter the CHECK TIME. The system will automatically check the FTP server for newer firmware every day at a set hour.
- Click OK to proceed with the automatic firmware upgrade. Once the firmware update is completed, the system will reboot.
- Click CHECK to allow the DVR to connect to the FTP server and check the latest Firmware version. If new firmware is available, the DVR will ask you whether you want to upgrade it or not.
- Click OK to confirm and click START to start upgrading.

To setup the DVR to check for new firmware automatically:

1. Select FTP from the METHOD drop-down options.
2. Make sure the FTP information is entered correctly (see section above).
3. Enter your convenient time at CHECK TIME and then click SAVE.



- Video signal: Check the right video signal (NTSC or PAL). Video images might heavily shake and blink if NTSC/PAL is not properly set.
- IP address: This shows the DVR's current IP address. It can be set at MENU > NETWORK > NETWORK.
- MAC address: This shows the unique identity number for the DVR.
- System monitor: Monitor the system performance and condition.
- Keypad beep: The user can turn on or off the beeping sound of the keypad.

4.1.2. **User**

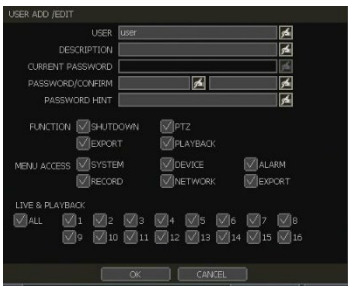
The ADMIN user has full authority over the system setting and can change the system password or add/remove users and assign a different permission level to them.

NOTE The maximum number of users, including the administrator, is 16.

- User Management
  Admin users can control authorization for each function. This authorization is applied when the user connects to the DVR from remote software as well.

To add a user:

1. Click ADD.
2. In the new setup window, set the new user's ID, description, password and hint.
3. Select which functions and menu options the user will have access to by checking the box next to the corresponding functions.
4. In Live and Playback modes, only the selected channels are visible to the user.
5. To change the setting, select user and click EDIT.



To remove a user, select a user in the list by highlighting their name and click DELETE.

Login options:

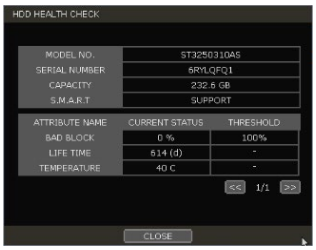
1. If Auto Logon ON BOOT is enabled, the DVR will not request ID and password after power-up.
2. If AUTO LOGOFF is enabled, the DVR will log off the current user after the set time of inactivity.
3. If AFTER the LOGOFF option is enabled, the DVR will show Live screen or last screen mode.
4. LAST SCREENMODE – when enabled, the DVR will show the last screen that was showing if AUTO LOGOFF occurred
5. Setting authorized level at the remote software (C3 CMS). The level of authority for the user is linked between the DVR and remote software. If a user has been restricted in the DVR, those restrictions will also be applied when using the remote software.

4.1.3. **Display**

Set the sequence dwell time, display output resolution, mouse cursor size and OSD display options of the DVR.

- Sequence: Set how long each channel will display when using the Sequence feature.
- Display resolution: The system supports the following kinds of resolutions:
- True HD: 2560x1440, 3840x2160 (4K), 1024x768, 1280x1024, 1920x1080
- VGA: Set the proper display output resolution for the display monitor; 1920x1080, 1024x768, 1280x1024
- OSD: Select what information will appear over the display by checking the corresponding boxes.
- Screen Saver: The screen saver feature protects the screen and data of the DVR by turning off the display after a set time of inactivity. Set the screen saver's waiting time for when the display output will automatically turn off. Set in between 1 minute and 180minutes. If applicable, select to log off the current user when the screen saver is on.
- Channel Swap: Enable to allow swapping the camera channel positions in the viewing area with drag-and-drop.

4.1.4. **HDD**



- HDD Full: When an HDD is full, select whether to "Overwrite" or "Stop recording".
  - Overwrite: DVR deletes the oldest data and record new data.
  - Stop recording: DVR stops recording when storage is full.
- HDD check: Click CHECK next to each HDD to open the health check window. See full information for each HDD such as model name, serial no, capacity, bad sector ratio, lifetime (used time) and temperature.

WARNING	To achieve high-level system stability, a warning message of elevated temperature will pop up when the temperature inside the system exceeds the best range. This problem may be driven by the malfunction of ventilation fans. In such an event, inspect if the DVR cooling fan is properly working or if the environmental temperature around the DVR system is managed.

- HDD format: When the new HDD is installed or there seems to be a problem with the HDD, formatting the storage drive is recommended.
  If system resources are occupied such as during a network connection while the HDD format is in process, the formatting may fail. Reboot the system to release system resources and then try to format again.
  Select the HDD to format by checking the check box next to the HDD name and pressing the format button. To format an HDD, enter the username and password.

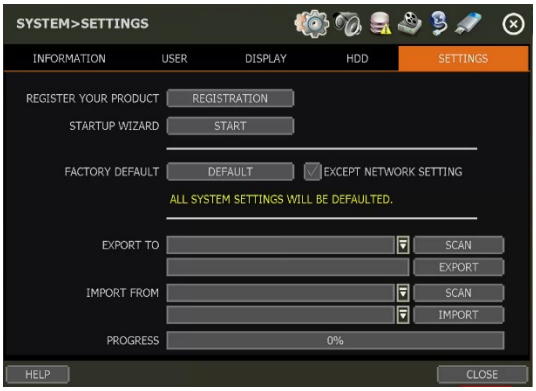
NOTE	1. It may take a few minutes to format an HDD. 2. When the format is done, all data in the HDD will be deleted. 3. The system always reserves some space in each built-in HDD to effectively utilize archiving memory.

NOTE	1. There is an e-SATA port on the rear panel of the DVR. 2. It is for applying additional HDD for recording only(not for backup). 3. It doesn't support Hot Plug, so it order to be recognized normally, DVR

must be rebooted after connection.

4. If the external device supports RAID, it is required to check if it is recognized as a normal HDD when the RAID is released.

4.1.5. **Settings**



- Product Registration: The administrator can register contact information to expedite DW technical support for the DW server.
- Startup Wizard: Manually launch the DVR startup wizard.
- Factory Default: Reset the system back to its factory default configuration. Once the factory default is done, all the configurations will be deleted and the system setting will return to its original factory default. The recorded video will not be deleted.
- Export/Import: Copy the system configuration values from this DVR to save for your records or copy them to another DVR.
    - Export: Copy the settings of this system to a USB memory device.
    - Import: apply settings from another DVR via a USB memory device.

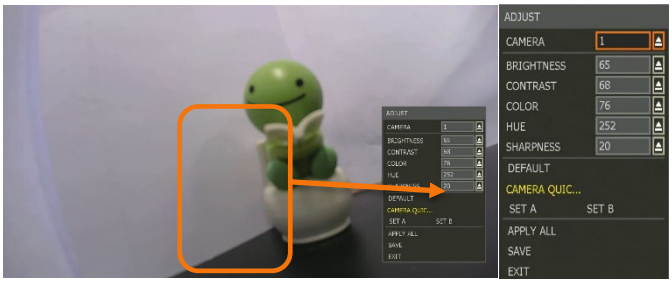
NOTE	During the Import process, make sure that the F/W version of the sourced DVR is the same as the target DVR's

4.2 Device

4.2.1. **Camera**

Set each camera's title, covert channel settings, privacy masks and general camera adjustments.

- LITE: In cases where a camera with 2560x1440 resolution or higher is in use, adjust the resolution to increase the frame rate. (*This function is only activated when the resolution is 2560x1440 or higher.)
- Group REC.: You can assign each camera to a group (A, B, C, or D). Cameras in the same group will have the same recording settings when an event occurs. For example, if CAM 1~4 are assigned to Group A, and an event is detected on CAM 1, all cameras under Group A will record as if they detected the event as well.
- Title: Enter a name to distinguish each channel on your recorder.
- Covert: Also known as a hidden camera, covert status hides the camera's display in Live and playback as if no camera was connected to the channel. Covert settings apply to both Live and Playback views in both the DVR and remote software.
- Adjust: Set the camera's brightness, contrast, color, etc. Settings available under ADJUST depend on the camera's model and features. Click SET in the ADJUST section to get into the setup screen.



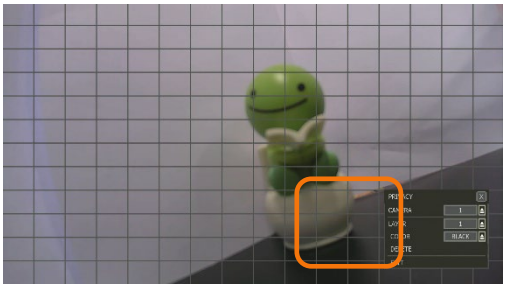
Adjust the applicable options using the drop-down menu options.

- Click DEFAULT to set the camera's option as a default value.
- Click SET A or SET B to change the camera setup value quickly.
- APPLY ALL makes all channels have the same value.
- Click SAVE to save the changes.
- Click EXIT to exit the menu.

- Privacy mask: Hide specific areas in the camera's Field of View (FoV) in Live and

playback mode. Please check that your camera supports this feature. Click SET to get into the setup mode.

Using the popup menu on the bottom right, select where to place the privacy mask, assign a color and index number to it. Click SAVE to save the changes and EXIT to return to the main setup page.



- Copy Setting: To apply the settings to all cameras connected to the DVR, click on the Copy Settings button:
    1. Select the channel to get the setting.
    2. Select the property (title or covert) to copy.
    3. Select the target channel(s) to apply the settings. Click OK to apply the setting to all the other selected channels(s).

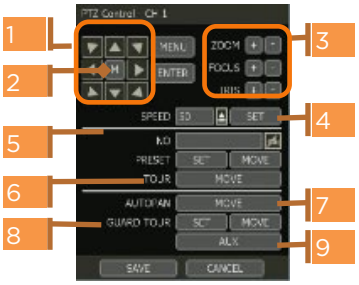
4.2.2. **AUDIO**

Select an audio input and output during Live display and match it to a specific channel. The number of audio channels may differ depending on the DVR model. Users can hear audio sound under both Live display and playback mode depending on the system setting.

4.2.3. **PTZ**

Full control of the PTZ camera is available on this menu. Please refer to Section **3.2.4 PTZ Operation** for more information on running a PTZ camera.

- Protocol: Select the proper protocol of the connected PTZ camera. If the PTZ camera is connected by UTC-type protocol, the baud rate and address setup are disabled.
- Baud Rate: Select the baud rate level from 2,400bps up to 57,600bps. (Not supported in UTC type protocol).
- Address: Set the PTZ driver address of the connected camera. It should be the same as that of the PTZ. (Not supported in UTC type protocol).
- Control (The functions depends on the camera's model and supported features): When the PROGRAM button is selected, the OSD menu of the camera will appear on the monitor. Set the PTZ's speed, preset, tour, auto-pan, etc.



1. Direction buttons: move the camera up, down, left, and right.
2. M (depends on PTZ model): Show/ hide the camera's OSD menu on the DVR monitor. Use the directional arrows to navigate the menu options.
3. Zoom, focus and iris: Control IN (+) and OUT (-) for each function. (Depending on the camera's model and supported features).
4. Speed: Change the PTZ speed (0~100). This sets the speed at which the camera will move when controlled from the DVR using the virtual joystick. Save the changes by clicking SET.
5. Preset
   - Add: Move the camera's position and zoom to the desired position. Select the preset number using the button. Press ADD to save the new preset. (The system supports preset the number of presets from 1 to 255.)
   - Delete: remove the preset currently selected.
   - Move: Enter a present number and press Move to move the camera to the preset position of that number.
6. Tour: Set the camera to move between preset positions in order. The camera will keep running the tour until it manually is disabled.
7. Auto-pan: Set the camera to move 360° in one direction. The camera will keep running the auto-pan until it manually is disabled.
8. Guard-tour: Set the camera to move between selected presets in a set order and interval. The camera will keep running the guard tour until it is manually disabled.

   - Set: Set the time interval (in seconds) and select the preset position. Add to sequence by clicking >> button. The preset will appear in the sequence column showing the preset number and the set interval time.
   - Delete: To remove a preset position from the sequence, select the preset in the Sequence column and click the << button.
   - Move: Start the guard tour.
9. Home: Set the camera to move to an original position memorized by the camera. In case the PTZ is directly connected to the rear panel of the DVR, the user can control additional settings such as power, light, wiper and pump, etc. through the AUX control button (AUX).

4.2.4. **PTZ (UTC Connection)**

The DVR supports connection and control of cameras up the coax (UTC). This means you can control a camera's OSD settings and movement (on PTZ cameras) with no need for more cables.

- Protocol: If the PTZ camera is connected via UTC, select the UTC protocol of the connected PTZ camera. Please check the camera protocol type before connecting.
- HD-A(C) TYPE: Some HDA cameras which not detected on the HD-A / HD-TVI, apply this protocol
- HD-A/HD-TVI TYPE: In case of menu-enter is worked preset 95 or IRIS, the connection is auto-detected
- HD-TVI(C): Some TVI cameras which non-detected on the HD-A / HD-TVI, apply this protocol
- Control (The functions depends on the camera's model and supported features): When the PROGRAM button is clicked, the control menu of the camera will appear on the monitor. Show the camera's OSD menu on the screen and setup the camera's configuration

M MENU: Show the camera's OSD menu for setup and adjustment.

: Move to menu options.

: Adjust the camera settings.

ENTER: Select the camera settings or enter to submenu.

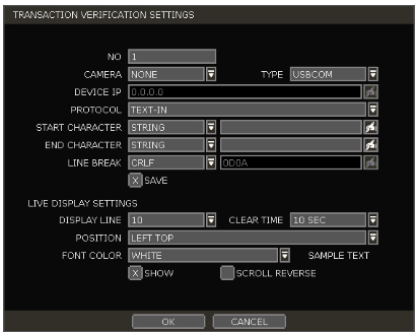
To use UTC in the Live mode:

- Select the single channel which adjusts the camera setup and changes the PTZ control mode.
- Click the right button of the mouse on the Live screen and select PTZ for activating UTC.
- Click the CONTROL button and open the control menu and then activate the OSD menu and setup the camera.

4.2.5. **Transaction Verification Settings**

TRANSACTION VERIFICATION equipment can be connected to the DVR through an RS-232 port or LAN.

- No: Port Number of the Serial connection. For example: NO1 = COM1, NO4 = COM4.
- Cam: Assign a camera to the transaction verification device.
- Type: Connection type between DVR and transaction verification device.
- Protocol: Communication protocol between DVR and transaction verification device.
- Save: Enable or disable the DVR to save the transaction data.
- Show: Enable or disable the DVR to display the transaction data.

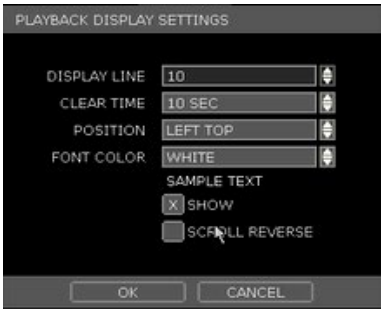


- Setup: click to open the Transaction Verification Settings menu which includes:
  - NO: ID# of transaction verification device.
  - Camera: Select the camera to assign to the transaction verification device.
  - Type: Select COM (RS-232) or TCP/IP (LAN)
  - Device IP: Input the IP address of the transaction verification device when it is connected through the network.
  - Protocol: Communication protocol between DVR and the transaction verification device.
    1. Text-in: Receive ASCII characters.
    2. SDVR-POS: Manufacturer's protocol.

❖ Contact your transaction verification dealer for information.

- Start character: Input the assigned character to start display and save. If there is no input, thesystem will display and save all data without classification per transaction.
- End character: Input the assigned character to terminate the display and save. It must have a start character to work correctly.
- Line break: Set the line change character. (It should be 16 digits HEX Value.)
  1. CRLF, CR, LF: The character that is generally used in ASCII-type transaction verification. (Please contact the transaction verification manufacturer for the detail.)
  2. Custom: It can be used except for the above general character. Only numbers (0~9) and the alphabet (A ~ F) can be used and even numbers should be input. For example Hexadecimal: 0x0D 0x0A → 0D0A
- Save: Save the transaction verification data.

Live display settings:



- Display line: Set the number of lines to display on the screen.
- Clear time: Set the time to display text on the screen. Data will be deleted from the screen if no new data is entered after the set time. If it is set as "0", the data will not be deleted (If there is a start character and the character is input, current data will be deleted regardless of the clear time setting).
- Position: Designate the display position of transaction data.
- Font color: Select the font color which will be displayed on the screen. It will be displayed with the color that is shown on the SAMPLE TEXT.
- Show: Select to display transaction data in Live mode.
- Scroll reverse: Select to change the direction of scrolling. If it is selected, you can scroll from the bottom to the top, the latest data is displayed on the top.

Playback display settings:

- Display line: Set the number of lines to display on the screen.

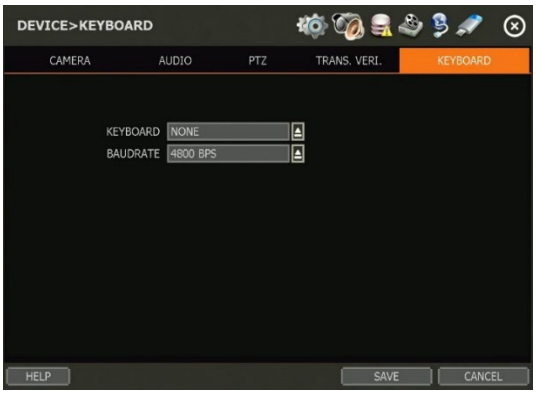
- Clear time: Set the time to display text on the screen. Data will be deleted from the screen if no new data is entered after the set time. If it is set as “0”, the data will not be deleted (If there is Start Character and the character is input, current data will be deleted regardless of the Clear Time setting).
- Position: Designate the display position of transaction data.
- Font color: Select the font color which will be displayed on the screen. It will be displayed with the color that is shown on the SAMPLE TEXT.
- Show: Select to display transaction data in the playback mode.
- Scroll reverse: Select to change the direction of scrolling. If it is selected, you can scroll from the bottom to the top, the latest data is displayed on the top.

Port setup: Open the setup screen for the communication port

- Type: Setup the type of communication port.
  - Serial: It is for a 1-to-1 connection between the DVR and transaction verification device without serial mux.
  - Mux: It is for a 1-to-Multi connection between the DVR and transaction verification device.
- Baud rate: Set the baud rate according to the transaction verification device.
- Parity: Set parity according to the transaction verification device.
- Data bit: Set the data bit according to the connected transaction verification device.
- Stop bit: Set the stop bit according to the connected transaction verification device.
- TCP/IP PORT: Set the TCP/IP port number.

4.2.6. **Keyboard**

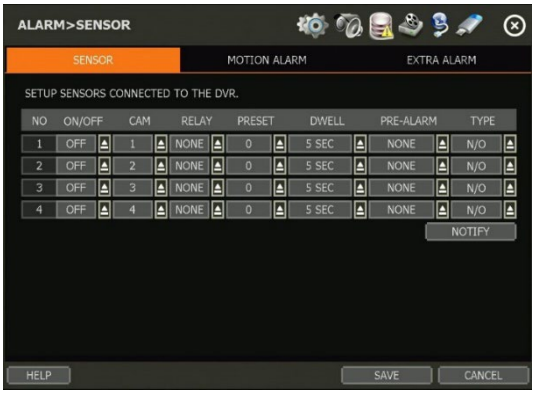
When an external keyboard is used, select the model and corresponding baud rate from the drop-down options. The baud rate must match the one set in the keyboard itself. Make sure the Keyboard ID in the SYSTEM> INFORMATION setup page matched the one set on the keyboard.



4.3 Alarm

4.3.1. **Sensor**

Users can install multiple sensors on the system to get the pre and post-alarm recording and intensive recording function as well.



- On, off: Turn on or turn off the sensor.
- Cam: Select the associated camera.
- Relay: Select the associated alarm output.

CAUTION	Relay contacts can stand up to 24V/1A. In case it is connected to the external circuit which is over 24V/1A, it can cause a problem in the system.

- Preset: Set a PTZ camera to move to a preset position when the sensor is triggered.
- Dwell (post-alarm): Set the recording period from when the sensor is activated. During this period, the selected camera will record according to the record-setting. The

recording stops and the alarm output is turned off when the set period is completed.

- Pre-alarm: Set the recording period in seconds just before a sensor is activated. Input up to 5 seconds. The pre-alarm recording mode is always continuous at the recording speed set in the RECORD menu.
- Type: Select the sensor type as N/O (Normal Open) or N/C (Normal Close). The circuit of a N/O sensor type is usually open, and the activation of the sensor occurs at the time of close, and the N/C type works the reverse way.

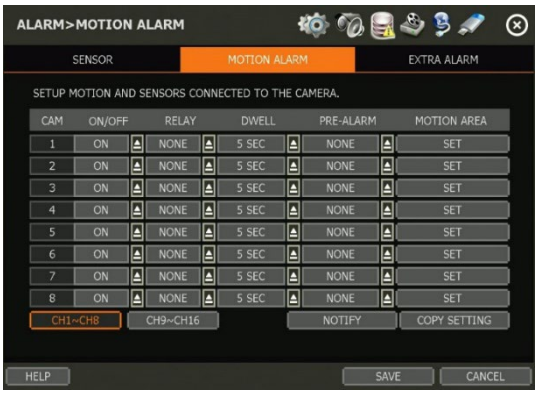
NOTE	Check the setting of the sensor type (N/O or N/C). It is recommended to use the "dry contact type" while the "wet contact type" may cause damage to the system.

- Notify: Enable sensor notification via a buzzer sound and/or a pop-up warning.

NOTE	When "camera pop-up" is enabled, in a multi-screen mode, the system will switch to single-channel mode automatically when the alarm is triggered.

4.3.2. **Motion Alarm**

Setup the DVR to start recording when motion is detected. The system can also trigger an alarm signal via the selected sensor-out channel.



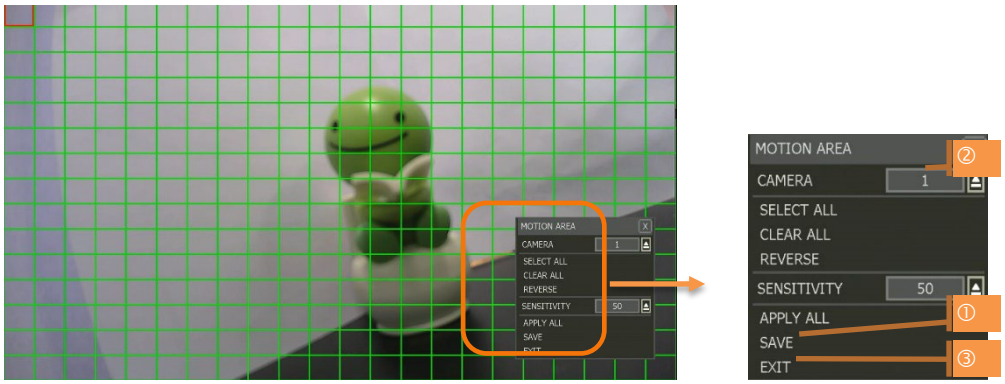
- On, off: Turn on or turn off the motion
- Relay: Select related output.

CAUTION	Relay contacts can bear up to 24V 1A other devices. If it is connected to a power of more than 24V 1A, the system may have a problem with it.

- Dwell: Set sensor operation time between 1 second and 15 minutes.
- Pre-alarm: Set the recording period in seconds just before motion is detected. Input up to 5 seconds. The pre-alarm recording mode is always "continuous" at the recording speed that the user sets in the "Record" menu.
- Motion area: Set the camera's motion area and sensitivity. The area can be selected by clicking on a specific block or dragging the mouse's cursor across the screen to select multiple blocks. Areas, where motion detection is activated, will appear with a green borderline. Unselected areas will be shown with a grey border.
    1. Click SET in the MOTION AREA section to set the area.
    2. Select the motion detection area and click SAVE and then EXIT to save the

changes.

3. Clicking on SELECT ALL will enable motion detection in the entire camera's FoV.

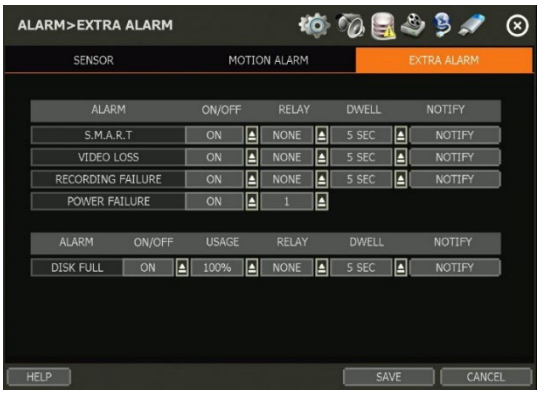


NOTE	Motion detection area and sensitivity should be set, properly, in consideration of the actual motion that happened at the site.

- Notify: Enable motion notification via a buzzer sound and/or a pop-up warning.
- Copy setting: To apply the settings to all cameras connected to the DVR, click on the Copy Settings button:
  1. Select the original channel that the setting is being copied from.
  2. Select the property(s) to copy.
  3. Select the target channel(s) to apply the setting.
  4. Click OK to apply the setting to all the other selected channel(s).

4.3.3. **Extra Alarm**

Setup alarms for more DVR abnormalities such as smart HDD check, video loss, recording failure, power failure and disk full.



- S.M.A.R.T.: Trigger an alarm signal when HDD is about to be out of operation. Please refer to "4.1.4 HDD" to check the HDD status.
- Video loss: Trigger an alarm signal when a camera signal is disconnected.
- Recording failure: Trigger an alarm signal when the system does not record images due

to an error in HDD or system.

- Power failure: Trigger an alarm signal when the power does not work normally. When the power failure menu is activated, relays from other menus will be disabled.
- Disk full: Trigger an alarm signal when the HDD is occupied with a certain percentage of its capacity. If the user sets HDD FULL as STOP RECORDING and the HDD is occupied with the certain percentage set here, DVR stops recording and the alarm trigger.

NOTE An extra alarm will appear in the event log only when it is set as “ON”.

4.4 Record

4.4.1. **Camera**

Users can make recording settings for each channel separately.

- On, off Set recording on and off in each channel. If the recording is not required on the selected channels, even when the camera signal is input, set the recording of the corresponding channel as OFF. Then, the recording of the channel stops without pulling the camera BNC cable off. ON or OFF can be selected. The default is ON.
- Resolution: Image resolution for recording can be set. Select one setting from 352×240, 720×240, 720×480, 960×480, 1280x720 & 1920x1080. As the resolution number increases, the picture quality becomes higher. For example, 352×240 is VHS level and when a high-quality camera is used, 960×480/576 shows DVD-level picture quality. When the picture quality gets higher, the recording file size becomes bigger and the recording period will be shorter. Thus, selecting an appropriate resolution according to the situation is important.

  LITE: In cases where a camera with 2560x1440 resolution or higher is in use, adjust the resolution to increase the frame rate. (*This function is only activated when the resolution is 2560x1440 or higher.)
- FPS: Set frame for each channel. The system automatically calculates the remaining FPS.
- Quality: Set recording quality from 512K ~ 4M.
- Audio: Select the associated audio channel.
- CODEC: Set the recording codec. (H264 or H265)
- Copy Setting: To apply the settings to all cameras connected to the DVR, click on the Copy Settings button:
  1. Select the channel to get the setting.
  2. Select the property (On/off, FPS, Quality) to copy.

3. Select the target channels(s) to apply the settings. Click OK to apply the setting to all the other selected channels(s).

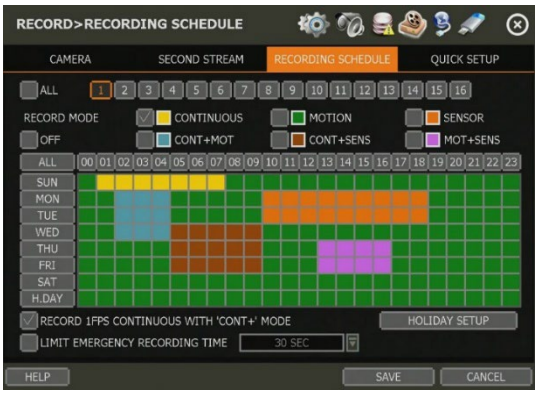
4.4.2. **Second Stream**

Set the frame rate and resolution for the second stream to effectively manage recording image quality and network traffic. For example, the user can make the recording setup as “30fps at 1080P resolution” while the network setup is “7fps at CIF resolution”.

- Resolution: Select the resolution to be transmitted. The higher resolution requires a bigger network bandwidth due to its data size.
- FPS: Select the frame rate to be transmitted. It is not related to the recording settings.
- Quality: Select the image quality to be transmitted. It is not related to the recording settings. The higher quality requires a bigger network bandwidth due to its data size.
- Audio: Select On or off to transmit audio or not.
- Copy Setting: To apply the settings to all cameras connected to the DVR, click on the Copy Settings button:
  1. Select the channel to get the setting.
  2. Select the property (FPS or Quality) to copy.
  3. Select the target channels(s) to apply the settings. Click OK to apply the setting to all the other selected channels(s).

4.4.3. **Recording Schedule**

Set a recording schedule for each camera. Select the camera to set a schedule or ALL. Recording can be set by each hour from 00 through 23 a day, for all days of the week. You can also setup a special recording mode for holidays.



- No color (Off): No recording. Even though recording frames are set in the CAMERA setup menu, the system will not record anything if OFF Is set in the schedule table.
- Yellow (Continuous Recording): Record all the time as set in the CAMERA settings.
- Green (Motion-Detection Recording): The system records only when motion is detected. If EVENT > MOTION ALARM is disabled, the system will record when motion is detected but the motion alarm will not be activated.
- Orange (Sensor-Activated Recording): The system records only when a sensor is triggered as set in the EVNET > SENSOR menu.
  If EVENT > SENSOR is disabled, the system will record when a sensor is triggered but the sensor alarm will not be activated.
- Sky blue (Continuous + Motion Detection Recording): The system records continuously as set by the RECORD > CAMERA menu.
  When motion is detected according to the settings in EVENT > MOTION ALARM, the DVR will switch recording mode to motion configuration.
  If EVENT > MOTION ALARM is disabled, the system will record when motion is detected but the motion alarm will not be activated.
- Brown (Continuous + Sensor-Activated Recording): The system records continuously as set by the RECORD > CAMERA menu.
  When a sensor is triggered according to the settings in EVNET > SENSOR, the DVR will switch recording mode to motion configuration.
  If EVENT > SENSOR is disabled, then the system will record when a sensor is triggered but the sensor alarm will not be activated.

- Pink (Motion Detection + Sensor-Activated Recording): The system records only when motion is detected AND when a sensor is triggered at the same time. If both EVNET > SENSOR and EVENT > MOTION ALARM are disabled, the system will record when a sensor is triggered and motion is detected but neither sensor nor motion detection alarms will be activated.

NOTE

- In case the recording schedule is set to “CONT + MOT” or “MOT + SENS”, the system records by continuous or motion detection mode in normal operation. When motion occurs in the motion area or the alarm is activated, recording mode will switch to recording as set by MOTION ALARM or SENSOR in the EVENT menu.
- 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.

- Holiday setup: Setup specific days as holidays to assign a special recording schedule for those days. The system supports up to 32 holidays.
  Press the DATE button ( ) write a description, and press ADD to save the data as a holiday.

NOTE

Instant recording (emergency recording)
In the case of an emergency, the user enables instant recording by pressing the panic recording button in the menu bar. The system will instantly start recording all the channels with a full-frame rate at the maximum resolution regardless of the recording mode setting. E-REC will appear in Live mode and a red-colored bar is shown in the time search bar for video recorded by instant recording.
Emergency recording can only be toggled ON/OFF from the Tool Bar in Live view locally on the system.

- Record 1fps continuous with “CONT+” mode: Check the box to set continuous recording to 1FPS when selecting “continuous + xx” modes.
- Limit emergency recording time: Set a limit to how long the system will record in emergency recording mode. Select from 30sec/60sec/90sec/2min/5min/10min.

4.4.4. **Quick Setup**

Users can setup the whole channel’s recording setting and second stream at once.

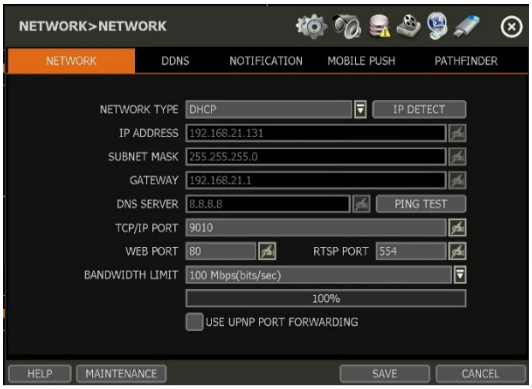
Users can setup recording resolution, FPS, quality and mode on recording settings. And user can also setup network resolution and FPS. Quality and audio on the second stream setting.

NOTE If LITE is ON under **DEVICE > CAMERA,** QUICK SETUP cannot be used.

4.5 Network

DVR can be connected to the network or Internet through either fixed IP or dynamic IP by proper setting of the DVR and router.

4.5.1. **Network**



- Network type: Select either STATIC IP (to manually set IP address) or DHCP (for dynamic IP address).
  - DHCP is initially selected by default. The DVR will be prompted to retrieve an IP address through the network if the recorder is connected to the network router. You may manually request an IP address from the router by clicking the “IP Detect” button.
  - If Static IP is selected, manually enter all necessary network settings. It is recommended to use the DHCP Network Type for the DVR to be assigned an IP address and Gateway address from its local network router. Change the Network

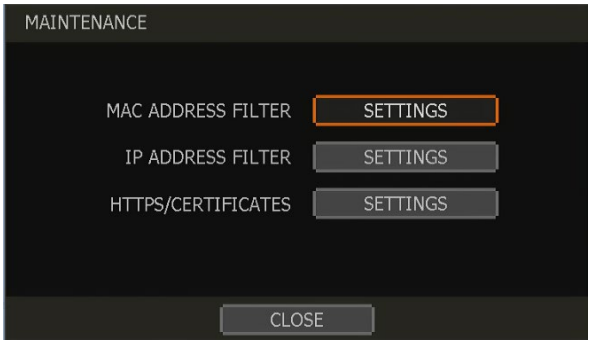
Type to STATIC to manually apply additional network settings." – additional network settings include the DNS Server, TCP/IP Port, and Web Port settings that may need to be altered from the default settings.

- IP Address: displays the DVR's IP address. If DHCP is selected, you can use the "IP Detect" function to automatically adjust the IP address to match the network's requirements. You can manually change the IP address as needed, but only when using the STATIC Network Type.
- Subnet mask: subnet mask address classifies the subnet that the system belongs. For more information, please consult your network administrator or your internet provider.
- 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: Enter the IP address of the Domain Name Server. You should input the DNS server information to use DDNS, Email notifications and the NTP server. For more information, please consult your network administrator or your internet provider.
- TCP/IP Port: input the port number that is used for connecting mobile devices to the DVR (Default – 9010). If your ISP is blocking port 9010, please use a different, available port value (ex. 9020). Port forwarding with your ISP may be required for direct connections over the Internet.
- Web Port: input the port number that is used for connecting with the DVR from a web browser (Default – 80). If your ISP is blocking port 80, please use a different, available port value (ex. 8080). Port forwarding with your ISP may be required for direct connections over the Internet.
- RTSP Port: input the port number that is used for connecting to RTSP. (Default – 554)
  - Main Stream : rtsp://{IP ADDRESS}:{rtsp port}/main/ch{number}
  - Sub Stream : rtsp://{IP ADDRESS}:{rtsp port}/sub/ch{number}
- Bandwidth limit: Depending on the setting made by the user, the system can control the data volume transmitted over the network ranging from 25 kbps up to 1Gbps. This function is effective, especially under narrow bandwidth network conditions or when the user wants to limit "network bandwidth occupied by video transmission" to a certain level. The default is 100 Mbps.
- UPnP (Universal Plug and Play) Port Forwarding: If in case of UPnP supported router, DVR forward port automatically after communication with the router without complicate port forwarding setting at router.

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 log in and click "Connect" to connect.

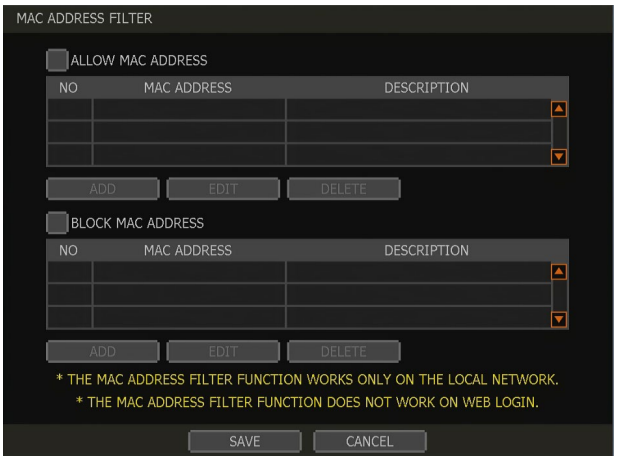
NOTE The maximum number of simultaneous connections is 10 users.

- MAINTENANCE: Setup the Mac address filter, IP address filter and HTTPS certificate.

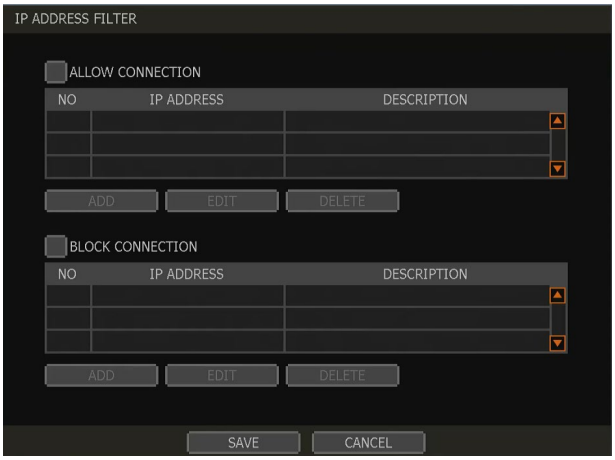


- MAC ADDRESS FILTER: Blocks or allow specific Mac addresses from a C3 client or mobile app from accessing the DVR.

NOTE This function works only on the local network and will not work in the web interface.

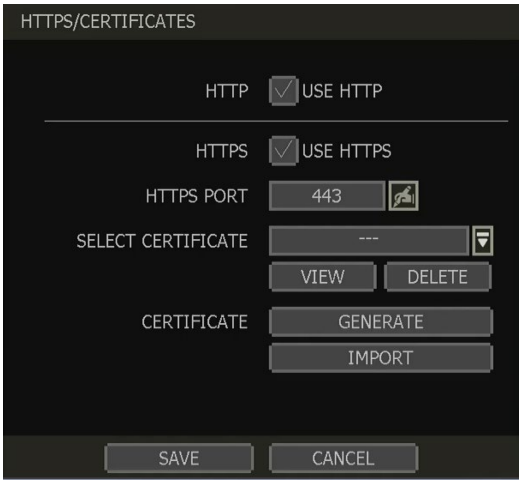


- IP ADDRESS FILTER: This function allows or blocks a specific IP address. When the user registers a specific IP address to allow, only that address can access the module. Or when the user registers a specific IP address to block, that address can't access the module. This function is not working on web Login.



- HTTPS/CERTIFICATES: An HTTPS connection is recommended when accessing the DVR remotely, from another network. An HTTPS connection offers secure access through encrypted communication.
- The user must register a certificate for an HTTPS connection. The DVR supplies two registration methods:
    - Self-signed certificate: generate a certificate at the DVR.
    - External certificate: register a certificate issued through an accredited authority.

To register a self-signed certificate, click 'Generate' and fill out the information needed. Fields marked with an '*' are mandatory.



4.5.2. **DDNS**

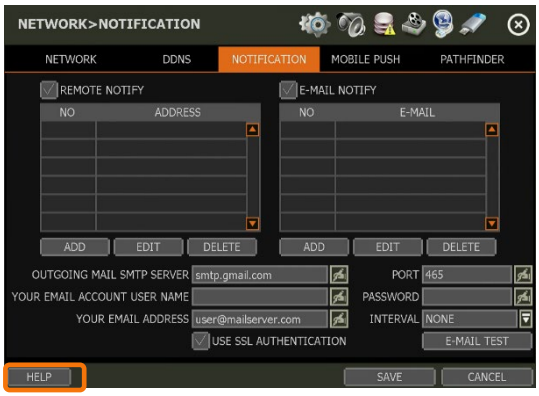
User can use the DDNS server provided by Digital Watchdog (MYDWDDNS.NET) to connect through dynamic IP.

- DDNS server: DW® offers free and dependable 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 DW® and is free of charge for our customers.

To set up DDNS:

1. Enable Use DDNS box.
2. DDNS server: Select MYDWDDNS.NET
3. TCP/IP port: default is 80.
4. Host name: Assign a domain name for your DVR (ex, DVROFFICE). If the same domain name is assigned, the message will pop up when you click CHECK.
5. IP mapping and external IP: If you are using IP mapping and port forwarding (e.g. using the router for internet connection), enable both USE DEVICE IP MAPPING and USE EXTERNAL IP for proper connection.
6. Setting at the remote software (C3™ CMS): In the menu of Site List Add/Edit, input DDNS Address and Port number.
7. The address of the DDNS server is “mydwddns.net” and the Port is “80”.
8. Setting at a web browser: The user can type the DVR’s mac address + MYDWDDNS.NET. If you are using a subdomain name, type the domain name + MYDWDDNS.NET.
    - Example 1 - If Mac address is “00:1C:84:01:00:02” ➔ input as “http://001c84010002.mydwddns.net”
    - Example 2 - If the domain name is “DVROFFICE” ➔ input as “http://DVROFFICE.mydwddns.net”

4.5.3. **Notification**



- Remote notify: The system can send an alarm message to the IP address of a remote software PC. Select REMOTE NOTIFY to use this function and set the IP address & events. To add, edit or delete notifications:

- IP address: Input the IP address of the Remote Software PC which will receive events notification.
- Port: Input Port number which is set at the Remote Software PC. The default is 8003.
- Event: Select events to be notified. When ALL is selected, all of the events will be notified.
- Email Notify: The system can send a notification to an email address. Select EMAIL NOTIFY to use this function and set your email address and events. To add, edit or delete notifications:

- Email: Input the email address which will receive events notification.
- Event: Select events to be notified. When ALL is selected, all of the events will be notified.
- Outgoing mail SMTP server: Input SMTP server address.
- Your email account username: Input the email username from which the notifications are sent.
- Your email address: Input the email address from which the notifications are sent.
- Port: Input the port number that will be used for email sending.
- Password: Input the password of the sending account.
- Interval: For email notifications, select the time interval indicating how often the system will send out an update email.
- Email test: Check if the settings were entered correctly. The DVR will send an email and inform you of the result. In some cases, the SMTP server does not send an email if the email is received.
- Use SSL AUTHENTICATION: Incase the SMTP server requires SSL authentication (e.g. Gmail, Yahoo mail, etc.), select this option.

Snapshot Notify: Send a Live snapshot image of a selected channel to the email address. You can setup the notification to be sent periodically, every setup amount of time.

- Check the box next to each channel you want to receive Snapshot Notify alerts for. Check the ALL box to get alerts for all channels.
- Select the time interval for alerts from the drop-down menu.
- Please note that email notifications must be setup to receive Snapshot Notify alerts.

NOTE RECORD > SCHEDULE should always be configured before notification settings. The system will not email alarm messages if these recording settings are not setup first in the DVR's recording schedule. To receive motion and sensor email notifications, set the SCHEDULE > RECORD, EVENT > MOTION ALARM and EVENT > SENSOR accordingly.

4.5.4. **Mobile Push**

The system can send an event notification to the mobile device registered in the DVR.
The mobile app VMAX Plus™ must be installed on your smartphone device before registration.
Select USE MOBILE NOTIFY to use this function and select event to notify.

In the mobile app, add your DVR using the IP address or DDNS by clicking the + sign on the top right side of the app.

Once the site has been added to the device list on the app, highlight the DVR in the list and press the Setup button on the bottom right side of the app. Make sure the USE PUSH CHECK is enabled.

The mobile device's ID will appear in the Mobile Notify table in the DVR.

NOTE

1. The mobile Push Notification function is available with iOS and Android devices.
2. Registration for Mobile Push Notification is available when it is set on the mobile device.
3. Delete: When the mobile device is registered to the DVR correctly, it shows in the list. The device ID is a unique ID of the mobile device. If you want to delete it, select the device and click the DELETE button. Then, the push notification setup

in the mobile device will be disabled.

4. The maximum number of mobile devices is 50.

NOTE	Push Notification only works when the DVR & mobile device has a network connection to the internet.

4.5.5. **PathFinder**

The system supports QR reading. Enable the “USE PATHFINDER” settings to activate the PathFinder service.

Check the PathFinder status at the bottom of the screen to complete the setup. STATUS will display “PATHFINDER SERVICE IS STOPPED” or “PATHFINDER SERVICE ACTIVATED” according to the system’s status.

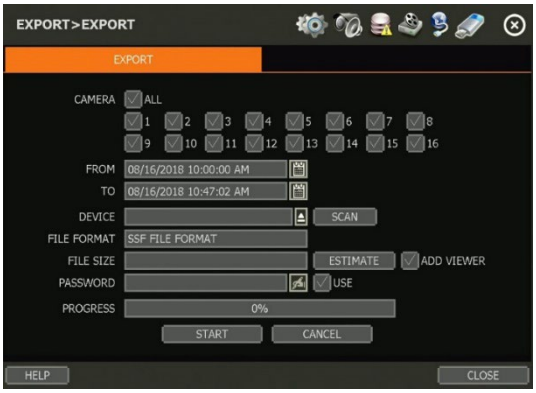
Users can scan the QR code while using the DW Mobile Plus™ mobile application to easily add the PathFinder ID to the site settings of the mobile application.

4.6 Export

4.6.1. **Manual Export**

Users can easily archive video while viewing the video playback.

1) In Live mode, click the EXPORT icon in the menu bar to open the export menu.
2) In playback mode, press the QUICK export icon in the menu bar. Pressing it once will indicate the start time for the backup file. Click the icon again to indicate the end time for the backup clip. The backup menu screen will appear.

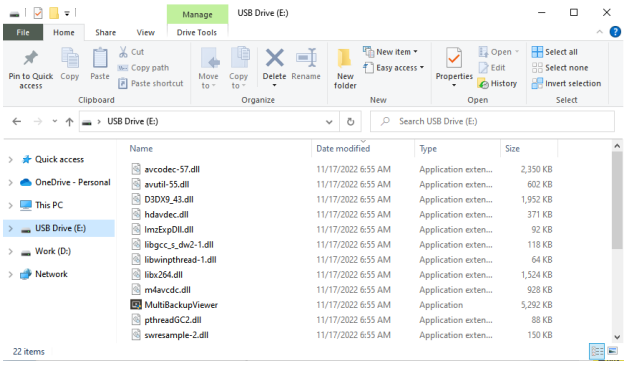


3) Connect an appropriate USB memory drive and press SCAN to recognize it before starting the backup process.
4) Adjust the following options as needed:
    - Select the channels to be included in the backup file.
    - Adjust the start and end times of the backup file.
    - Select to include the Backup Viewer with the archived file.
    - Press the “Estimate” button to see the expected size of the backup file.
    - Check the box next to [ADD VIEWER] to add the backup player to the backup file. The backup player allows playing the video clip without installing any programs.
    - Create a password to protect the exported file if needed. The password will need to be entered when the exported file is opened.
    - Press “Start” to start the backup process. A progress bar will appear on the screen.

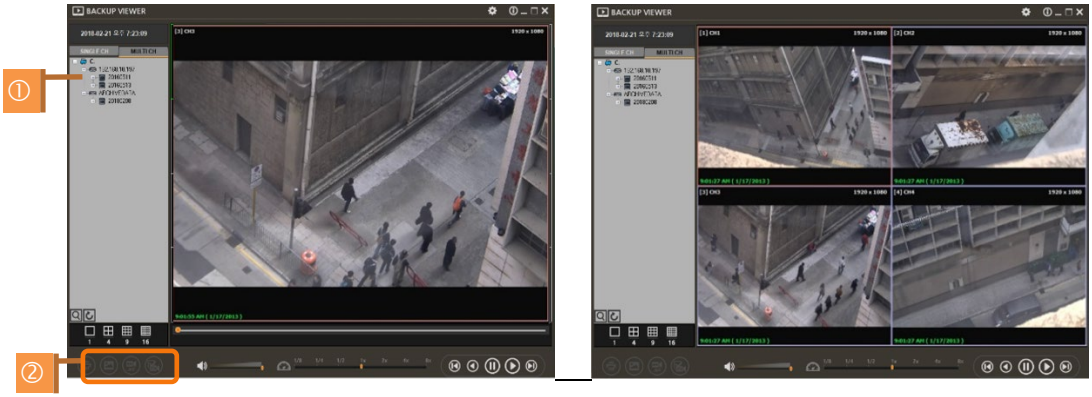
4.6.2. **Backup Video Playback**

If ADD VIEWER is selected, the backup image can be reviewed on a PC with no need for other installation. Once the backup device (USB) is connected to a PC, the files will appear in the USB folder.

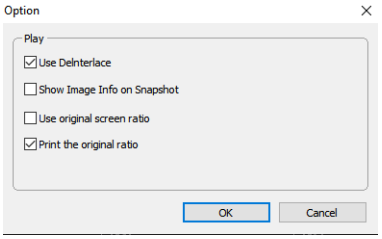
To play recorded data, double-click the “MultiBackupViewer” file. In the backup player, open the video data file (SSF format) you wish to playback in the data folder.



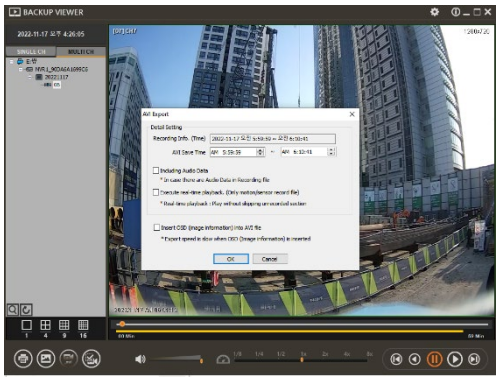
To playback, a single channel, click the SINGLE CH tab and select an SSF file and drag it to the viewing area. To playback, multiple channels, click the MULTI CH tab and “Search” to open the folder that keeps all SSF files.

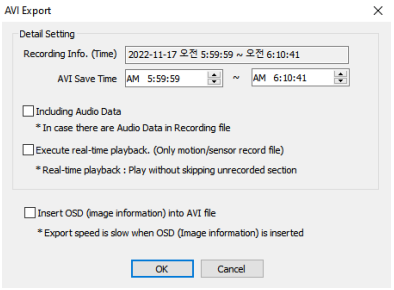


You can print, export an image, and zoom by using the icons at the bottom-left of the player window.



- Option MENU: Various settings are available in the OPTIONS window of the backup player software.
- Use DeInterlace: Some PCs do not support “DeInterlace”. In this case, the user can uncheck the De-Interlace checkbox in the “Option” menu.
- Show Image Info on Snapshot: Image information will be added as text overlay when exporting an image.
- Show POS Data on the video channel: POS data that has been backed up can be displayed during playback.
- WATERMARK Verification on AVI File
- Convert the backup file to an AVI file to play the file in ordinary media players.
- Playback the SSF file in Single CH mode and click PAUSE.
- Click AVI Convert.
- Define the start and end times.





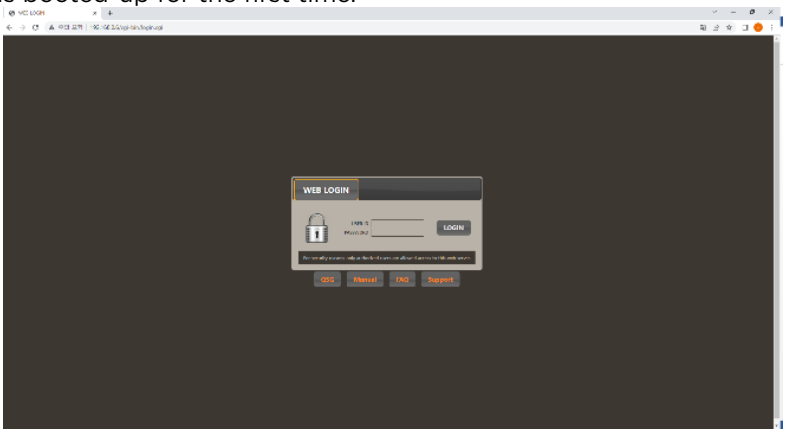
When the AVI file is played back in the Backup Player, verify whether the file has been altered by pressing the [Watermark] button ( ). If the file has been altered, a popup message will appear.

5. Web Surveillance with Web Browser

The VMAX® A1 Plus™ has a built-in web server by itself. This allows you to access the system by an ordinary web browser via a network for Live monitoring, playback, or remote configuration without installing any additional software.

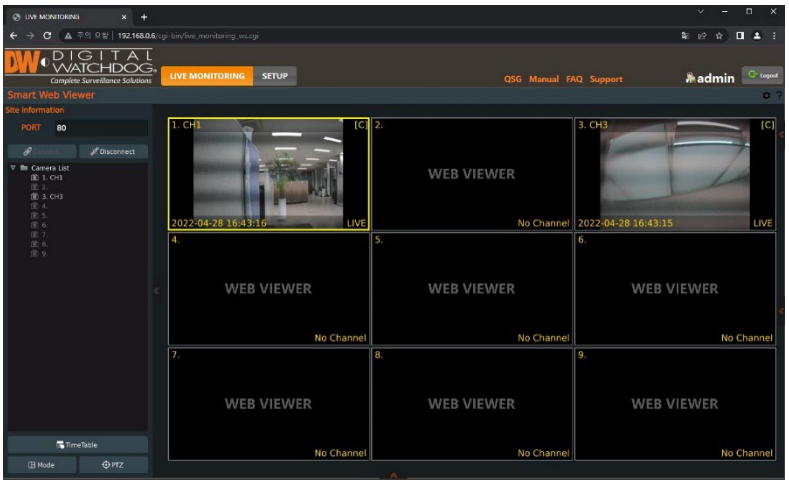
5.1 Web Login

Using a web browser (Google Chrome is recommended), type the DVR's IP Address or DDNS address in the address bar. If the Web Port is set to the default (Port 80), the URL would be "192.168.1.80", which is the equivalent of "192.168.1.80:80". However, if the Web Port was changed to "85", the URL would look like "192.168.1.80:85". When the login page appears, enter the user ID and password. The default user ID is "admin" and the password is set by the administrator when the DVR is booted-up for the first time.



5.2 Web Monitoring

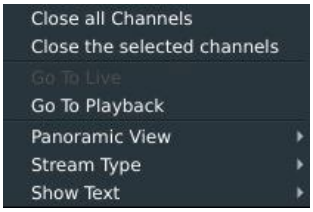
After login, the Live view from the DVR will appear on the web page automatically. Users can also select Playback, Setup, QSG, Manual, FAQ, Support, or Logout.



- LIVE: Users can connect or disconnect all channels and select a specific channel to view

in Live or playback mode.

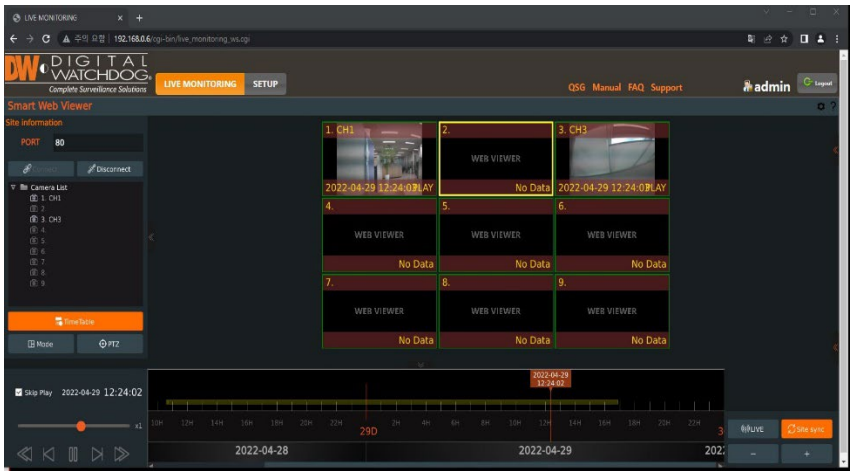
- TIME TABLE: Users can open the timetable and select footage for video playback.
- MODE: Users can change screen mode.
- PTZ: Users can control Pan/Tilt, Zoom In/Out, Focus In/Out and Preset buttons to control PTZ cameras connected to the DVR.
- POP-UP MENU: Right-click to open additional options:
    - Close all Channels: Close all channels
    - Close the selected channels: Close the selected channels.
    - Go To Live / Playback: Change to Live or Playback mode.
    - Panoramic View: Change to screen mode to horizontal, vertical, or quad-screen mode.
    - Stream Type: Set the stream type. (Auto / 1st/ 2nd)
    - Show Text: Set the information to display. (Channel title / Mode [Live/Playback] / Date / Time / Resolution)



5.3 Web Playback

To remotely playback video from the DVR, click Time Table or [Go to Playback] from the pop-up menu.

- PLAYBACK TIME: Select the date and time from the timetable.
- Intelli-search bar: Move the red-vertical line to the time that the user wants to search. The colors of the time bar indicate the different recording modes. Refer to “4.3.2” for more information.
- Playback controls: Use the Fast Forward, Rewind and Play/ Pause buttons to control the playback video.



5.4 DVR's Setup Menus from the Web Viewer

Main Classification	Sub Classification
SYSTEM	INFORMATION
	USER
	DISPLAY
	HDD
	UPGRADE
	CONFIGURATION
DEVICE	CAMERA
	AUDIO
	PTZ
	KEYBOARD
EVENT	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	CAMERA
	SCHEDULE
	QUICK SETUP
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	PATHFINDER
	HTTPS/CERTIFICATES
	CERTIFICATE GENERATION
	CERTIFICATE IMPORT
LOG	SYSTEM LOG
	EVENT LOG

NOTE This DVR system has a built-in web server.
Therefore, this web CGI screen is directly supported by the built-in web server of DVR regardless of the Internet connection.

NOTE SYSTEM REBOOT enables users to reboot the system without any change to the setup. Users can use this function when the network is disconnected due to abnormal operation of the system and try to reconnect. IP number assigned to the system may be changed in the case of DHCP mode.

6. Q & A

- DVR does not record images in sensor mode and/or motion mode.
  - It records images only when there is an event for the corresponding mode.
  - Check that the settings are correct in the menus: EVENT > SENSOR, EVENT > MOTION ALARM, and RECORD > SCHEDULE.
- There is an HDD installed but the “No HDD” icon ( ) is still shown on the screen.
  - Check the cable connection of the HDD again.
  - If you can see the HDD list at SYSTEM > HDD but the capacity indicates “0”, the HDD requires format.
- There is nothing displayed on the HDMI / VGA monitor though electric power is supplied to the DVR.
  - Check if the power is supplied properly. You should be able to hear the noise from the fan and HDD operation.
  - Check the HDMI / VGA cable connection with the DVR. Remove all the cable connections, except for the monitor cable, and then apply power to the DVR again.
  - In case the display screen is stopped at the logo screen, please contact DW’s technical support for additional information.
- Is it necessary to open the port when using DDNS?
  - Yes, it is. DDNS is the function that lets remote connections acknowledge the changed address of the DVR (dynamic IP provided by ISP) or allow connection to the DVR by the domain (domain.MYDWDDNS.NET.net) without memorizing the IP.
- The remote software connection to the DVR works but the WEB connection does not.
  - Some ISP blocks port number 80. Please try again after changing the WEB port. (8080 is recommended.)
  - Check whether port 80 is opened or not.
- Image is not shown after login at WEB monitoring
  - TCP Base port should be opened. The default TCP base port is 9010.
- The image on the remote software suddenly disappeared after displaying for a short time.
  - Some ISPs restrict upload data/traffic volume. Please contact your ISP.
  - Upload traffic restrictions can be easily checked with the following steps.
    i. Turn off the power of your Modem & Router.
    ii. After 60seconds, turn on the power of your Modem first and then Router.
    iii. After reconnection, if it is disconnected again after a short time (in a similar period later), it means that the ISP restricts upload traffic.
- A backup or firmware upgrade through a USB memory stick cannot be made though it is detected by the DVR.
  - USB memory stick should be formatted by FAT or FAT 32.
  - It is not allowed to use partitioned or password-encoded USB memory.
- Time sync through the NTP server does not work.
  - The NTP server requires a DNS server address. Check if the DNS server address is correct on the NETWORK setup page.
- Email transmission does not work in using the Email notify function.
  - The email notification function works based on SMTP service.

- Check if the sending mail address is correct and if the mail server supports SMTP service.
- If you are using an SMTP service that is based on TLS authentication (including SSL) such as Gmail and yahoo mail, enable USE SSL AUTHENTICATION at the NOTIFICATION setup page.
- SMTP service is provided based on DNS. Check if the DNS server address is correct on the NETWORK setup page.

7. Specifications

		DW-VA1G44xT	DW-VA1G48xT	DW-VA1G416xT
VIDEO				
Operating system		Embedded Linux®	Embedded Linux®	Embedded Linux®
System	Channel	4 channels	8 channels	16 channels
	Signals Supported	Standard analog signal up to 960H, HD-Analog and HD-TVI up to 5MP		
Video-out	Monitor	True HD, VGA and Spot outputs		
	Framerate	120fps	240fps	480fps
	Resolution	True HD: 3840×2160 (4K), 2560x1440, 1920x1080, 1280x1024, 1024x768, 800x600 VGA: 1920x1080, 1280x1024, 1024x768, 800x600 Spot (CVBS): D1 (720x480)		
	Screen mode	1 and 4	1, 4, 6 and 9	1, 4, 6, 9, 10 and 16
Audio	Input/output	4 inputs/1 output	8 inputs/1 output	8 inputs/1 output
	Codec	ADPCM		
Alarm input/output		4 inputs/1 output	8 inputs/2 outputs	16 inputs/4 outputs
Serial		1x RS485		
User interface		Graphical user interface (GUI), USB mouse		
PERFORMANCE				
Recording	Compression	H.265, H.264		
	Recording mode	Continuous, scheduled, sensor-activated, motion detection, pre- and post-alarm, emergency, quick backup		
		Dual recording for Live and playback		
	Recording resolutions	2560x1944, 2560x1440, 1920x1536, 1920x1080, 1280x720, 720x480, 960x480	3840x2160, 2560x1944, 2560x1440, 1920x1536, 1920x1080, 1280x720, 720x480, 960x480	3840x2160, 2560x1944, 2560x1440, 1920x1536, 1920x1080, 1280x720, 720x480, 960x480
	Recording and playback rate	Full HD-D1 (1920x1080, 1280x720, 720x480, 960x480): 120fps (30fps per channel)	Full HD-D1 (1920x1080, 1280x720, 720x480, 960x480): 240fps (30fps per channel)	Full HD-D1 (1920x1080, 1280x720, 720x480, 960x480): 480fps (30fps per channel)
		3MP (1920x1536): 72fps (18fps per channel)	3MP (1920x1536): 144fps (18fps per channel)	3MP (1920x1536): 288fps (18fps per channel)
		4MP/2K (2560x1440): 60fps (15fps per channel)	4MP/2K (2560x1440): 120fps (15fps per channel)	4MP/2K (2560x1440): 240fps (15fps per channel)
		5MP (2560x1944): 48fps (12fps per channel)	5MP (2560x1944): 96fps (12fps per channel)	5MP (2560x1944): 192fps (12fps per channel)
		---	4K (3840x2160): 56fps (7fps per channel)	4K (3840x2160): 112fps (7fps per channel)
Playback	Playback speed	x1, x2, x4, x8, x16, x32		

	Playback functions	Intelli-search by time bar, calendar (date and time), event search and thumbnail search		
Storage	**HDD interface**	1x SATA HDD, 1x e-SATA	2x SATA HDD, 1x e-SATA	2x SATA HDD, 1x e-SATA
	Max. internal storage	Up to 16TB internal storage	Up to 32TB internal storage	Up to 32TB internal storage
	HDD health check	Real-time temp alert, S.M.A.R.T. with email notifications		
Features	**Camera OSD control**	Via UTC		
	Digital zoom	Live and playback		
	Software upgrade	USB flash drive, network upgrade, FTP remote upgrade		
	Mobile client	Mobile app for Apple and Android devices		
	Covert channel	Yes		
Transaction verification		Text-in-based (USB to serial support, TCP/IP network), displays POS data on Live and playback		
NETWORK				
LAN		100Mbps (RJ45)		
Protocol		Fixed IP, DHCP, UPnP, DDNS		
Access	**Web viewer**	Live, playback and configuration of up to 10 multiple connections		
	Video streaming functions	Dual stream for local recording and network transmission		
		PathFinder P2P service		
	Client monitoring software	C3 CMS, DW Mobile Plus mobile app and myDW web portal		
Network functions		Live monitoring, remote playback and file backup		
Remote system control		Remote system reboot, system management and PTZ control		
Other function	**Firmware upgrade**	FTP, USB and CMS over Network		
	Special features	Snapshot Notify: Programmable interval camera image verification Event notifications via email, text and C3 CMS Push notifications to mobile devices via DW Mobile Plus Time synchronization to an NTP server (pool.ntp.org)		
	Health check	Real-time system and network status monitoring		
Backup device		Local backup by USB, network backup by CMS, watermark, AVI file		
System recovery after power failure		Auto-Reboot and Journaling File System		
GENERAL				
Operating temperature and humidity		32~113 °F (0~45 °C) / 10~90% RH		
Certification		CE , FCC, KC, NDAA, TAA		
Power requirements		DC12V		
Power consumption		24W, 2A	48W, 4A	48W, 4A
Dimension (W x D x H)		11.81" x 9.8" x 1.77" (300 × 249 × 45 mm)	14.96" x 10.58" x 1.77" (380 x 268.8 x 45 mm)	14.96" x 10.58" x 1.77" (380 x 268.8 x 45 mm)
Warranty		5 year limited	5 year limited	5 year limited

* Specifications are subject to change without notice.

Warranty Information

Go to https://digital-watchdog.com/page/rma-landing-page/ to learn more about Digital Watchdog's warranty and RMA.

To obtain warranty or out-of-warranty service, please contact a technical support representative at: 1+ (866) 446-3595, Monday through Friday from 9:00 AM to 8:00 PM EST.

A purchase receipt or other proof of the date of the original purchase is needed before warranty service is rendered. This warranty only covers failures due to defects in materials and workmanship which arise during normal use. This warranty does not cover damages that occur in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, setup adjustments, improper antenna, inadequate signal pickup, maladjustments of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than an authorized repair facility or damage that is attributable to acts of God.

Limits and Exclusions

There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages (including without limitation, damage to recording media) resulting from the use of these products, or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for a particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights from vary from state to state.
If the problem is not handled to your satisfaction, then write to the following address:
Digital Watchdog, Inc.
ATTN: RMA Department
16220 Bloomfield Ave
Cerritos, CA 90703

Service calls that do not involve defective materials or workmanship as decided by the Warrantor, in its sole discretion, are not covered. The cost of such service calls is the responsibility of the purchaser.

DW® East Coast office and warehouse: 5436 W Crenshaw St, Tampa, FL USA 33634
DW® West Coast office and warehouse: 16220 Bloomfield Ave, Cerritos, CA USA 90703
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www.Digital-Watchdog.com
technicalsupport@digital-watchdog.com
Technical Support PH:
USA & Canada 1+ 866-446-3595
International 1+ 813-888-9555
French Canadian: + 1-904-999-1309
Technical Support Hours: Monday-Friday 9 a.m. to 8 p.m. Eastern Time