



VT-16HD2A-NH
1080P (8MP / 4K on IP) 16 Channel
OnCue Series Real-time
Hybrid (H.265 / HD over COAX)
Digital Video Recorder



INCLUDED ACCESSORIES



FEATURES

- 16 Channel Stand-alone Real-time Hybrid [Network / HD over COAX] DVR
- 2560 × 1440 (4 MegaPixel), Real-time Recording (Up to 8MP [4K] on IP Cameras)
- Live Display - 1080p: 480fps, 1440p Real-time (2560 × 1440): 480fps, 1440p Half Real-time: 240fps
- IP Hybrid (up to 16 Cameras), H.265 Video Compression
- Plug & Play / Auto Configuration for Leading ONVIF Compliant IP Cameras
- Real-time Display w/ D1 / VGA 2nd Camera Stream
- IP Recording Performance: 480fps@4K, 2K+ 480fps@D1, VGA
- VGA Monitor Output: 1080p@30fps, HDMI: 4K@60fps
- Multi Channel View: 1, 4, 6, 7, 8, 9, 10, 13, 16 for Live and Playback
- Audio: 4 Ch. In / 1 Ch., Alarm: 16 Ch. In / 1 Ch. Out*
- Local Storage: 2 × SATA [up to 12TB each], 24TB Total
- Backup Devices: USB (HDD, Thumb Drive), NAS & Remote via Network
- Multi Channel Archive: Raw data format, Support with the Embedded Player
- AVI Archive: Embedded AVI formatting
- 2 × USB2.0 (1 Rear + 1 Front), 1 × RS485 (PTZ cntrl w/ CoC), USB Mouse
- User Privilege Set up: Live / Search & Copy / Network / PTZ / Camera
- Password Security: Periodic Password Refresh for All Users
- Recording Time Limit: 12 Hour, 1/2/3/4/5/6 Day, 1/2/3 Week, 1/2 Month
- Health Check/Report: Periodic E-mails (HDD & Recording Status + System Info.)
- Easy Network Setup: P2P Service-Based Network Setup Wizard
- Power Adaptor Included (12V / 5.0A)
- 3-Year Warranty

**Please research local, state and federal laws regarding the implementation of audio surveillance.*



TABLE OF CONTENTS

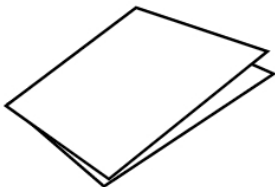
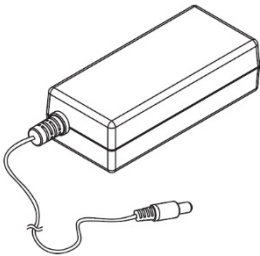
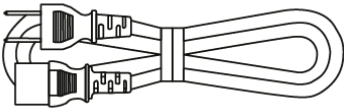
1.	BEFORE INSTALLING	3
1.1	ACCESSORIES.....	4
1.2	FRONT PANEL	6
1.3	DESCRIPTION OF REAR PANEL	6
2.	UPDATING SYSTEM F/W	7
2.1	WITH THE USB THUMB DRIVE.....	7
2.1.1	How to verify the F/W version	7
2.1.2	Upgrading System from the System Menu	8
2.1.3	UPDATING FROM THE WEB MENU	9
3.	GETTING STARTED	12
3.1	CONNECT AND SWITCH ON	12
3.2	NETWORK AUTOMATIC SET UP for PC, Mobile App	14
4.	TOOL BAR	18
4.1	STATUS DISPLAY	18
4.2	LOG OFF	19
4.3	Main Menu POP-UP	20
4.4	SEARCH MENU POP-UP	20
4.5	PTZ POP-UP	21
4.6	DIGITAL ZOOM.....	22
4.7	LOG LIST.....	23
5.	SEARCH & PLAYBACK.....	26
5.1	TIME / CALENDAR SEARCH(Analogue HD DVR).....	26
5.2	PANORAMA SEARCH	30
5.2.1	BASIC OPERATION	30
5.3	EVENT SEARCH	31
5.4	SMART SEARCH.....	31
5.5	COPY	32
6.	HOW TO CONFIGURE.....	34
6.1	CONFIGURING CAMERA.....	34
6.1.1	TITLE	34
6.1.2	ADJUST	35
6.1.3	PTZ	36
6.1.4	MOTION.....	36
6.1.5	PRIVACY.....	37
6.1.6	CAM PORT	39
6.2	CONFIGURING DISPLAY	42
6.2.1	OSD	42
6.2.2	MONITOR	43
6.2.3	SEQUENCE	44
6.2.4	SPOT	44
6.3	CONFIGURING STORAGE.....	46
6.3.1	SETUP.....	46
6.3.2	FORMAT	48
6.3.3	NAS / FTP	48
6.4	CONFIGURING SYSTEM	51
6.4.1	DATE/TIME	51
6.4.2	MANAGEMENT	52
6.4.3	SOUND	54
6.4.4	RS-485.....	54
6.4.5	ADVANCED.....	55
6.5	CONFIGURING EVENT / SENSOR.....	56
6.5.1	SENSOR INPUT.....	56
6.5.2	RELAY OUTPUT SETUP.....	57
6.5.3	BUZZER OUTPUT SETUP	58
6.5.4	E-MAIL SETUP.....	59
6.5.5	PTZ PRESET	60
6.5.6	PUSH ALARM	60
6.5.7	POS	61
6.6	CONFIGURING USER.....	63
6.6.1	USER REGISTER	63

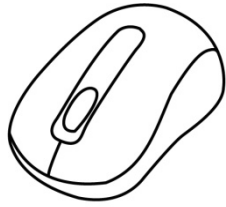
6.6.2	USER AUTHORITY	64
6.6.3	LOG-OUT	65
6.7	CONFIGURING RECORD.....	66
6.7.1	SETUP	66
6.7.2	EVENT	67
6.7.3	SCHEDULE.....	67
6.7.4	OPTION	69
6.8	CONFIGURING NETWORK.....	69
6.8.1	IP SETUP	70
6.8.2	Local port	71
6.8.3	DDNS.....	71
6.8.4	E-MAIL.....	73
7.	REMOTE.....	75
7.1	WEB SERVER	75
7.1.1	CONNECT TO WEB SERVER.....	76
7.1.2	WEB CONFIGURATION PAGE.....	77
7.1.3	Initial Page of Web Configuration.....	77
7.1.4	WEB VIEWER (Active-X).....	78
7.2	Android Viewer / iOS Viewer.....	89
7.2.1	How to use	89
7.2.2	Quick Connect.....	89
7.3	DDNS SERVER	91
7.3.1	HOW TO REGISTER.....	92
7.3.2	REGISTER.....	92
7.3.3	Input DVR information.....	93
7.4	DVR MANAGER	94
9.1.1.	INSTALLATION	94
9.1.2.	EXECUTION	95
7.4.1	LIVE VIDEO MONITORING.....	95
7.4.2	CONNECTION MANAGER.....	96
7.4.3	LIVE VIDEO WINDOW	98
7.4.4	DVR Information.....	102
7.4.5	PLAYER	102
7.5	FILE PLAYER.....	109

1. BEFORE INSTALLING

- Installation should be carried out only by qualified personnel and in accordance with electrical regulations in force.
- The DVR must be placed on a stable surface or mounted in an approved cabinet. Adequate ventilation must be provided, taking particular care not to block any of the air vents on the DVR.
- Adequate protection against lightning strikes and power surges must be installed to prevent damage to the DVR.
- Any safety warnings on the DVR and in these instructions must be adhered to.
- If cleaning is necessary, shutdown the DVR and disconnect the power source first. Use a soft dry cloth only – never use an abrasive cleaner.
- Do not attempt to service or repair the DVR as opening or removing covers may expose dangerous voltages or other hazards. Refer all servicing to qualified service personnel.

1.1 ACCESSORIES

	[Quick Guide]
	[12V / 5A AC Adaptor 8&16Ch DVR]
	[AC Power Cable]



[USB Mouse]

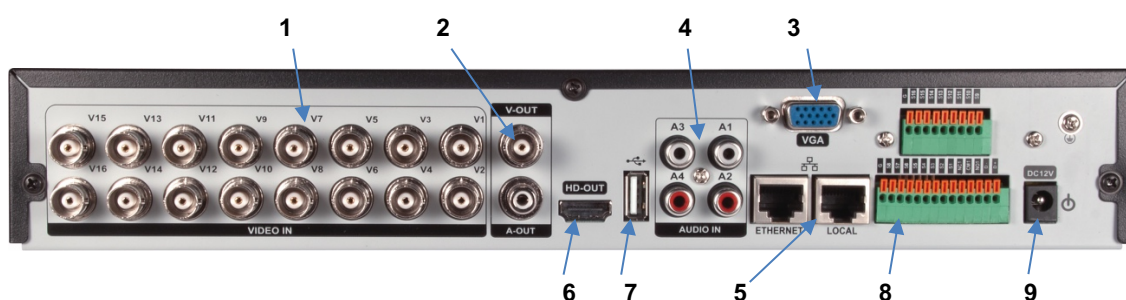


Hard Disk Screw x 8

1.2 FRONT PANEL



1.3 DESCRIPTION OF REAR PANEL



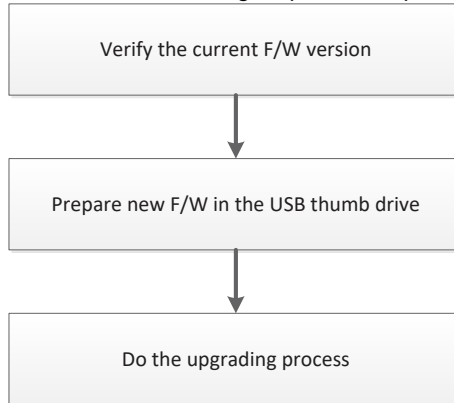
[Rear panel of 16ch Hybrid DVR]

1. Analog HD Camera Input Analog HD Camera input (Analogue HD / TVI / CVI / 960H) for each camera 2. CVBS Monitor & Audio Output Composite video output for the spot live screen. (BNC) RCA connectors for the audio signal outputs. (Line out) 3. VGA Output (Video Graphic Array) 15-pin D-sub connector for the analogue VGA output. 4. Audio Inputs RCA connectors for the audio signal inputs. (Line In)	5. RJ-45 Network Port • 8ch : Ethernet port x 1 (Internet + IP Camera) • 16ch : Ethernet port x 1 (Internet+ IP Camera) / Local Port x 1 (IP Camera) 6. DIGITAL VIDEO OUT HDMI Digital video output for the main monitor. 7. USB 2.0 ports USB 2.0 ports. Provides functions like 'Copy to USB storage', 'F/W Upgrade' and 'mouse' operation. (Second port is on panel front) 8. RS-485, Alarm In / Relay Out RS-485 Signals. (D+: RX/TX + signal, D-: RX/TX- signal) 9. Power In 12V DC Power socket.
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2. UPDATING SYSTEM F/W

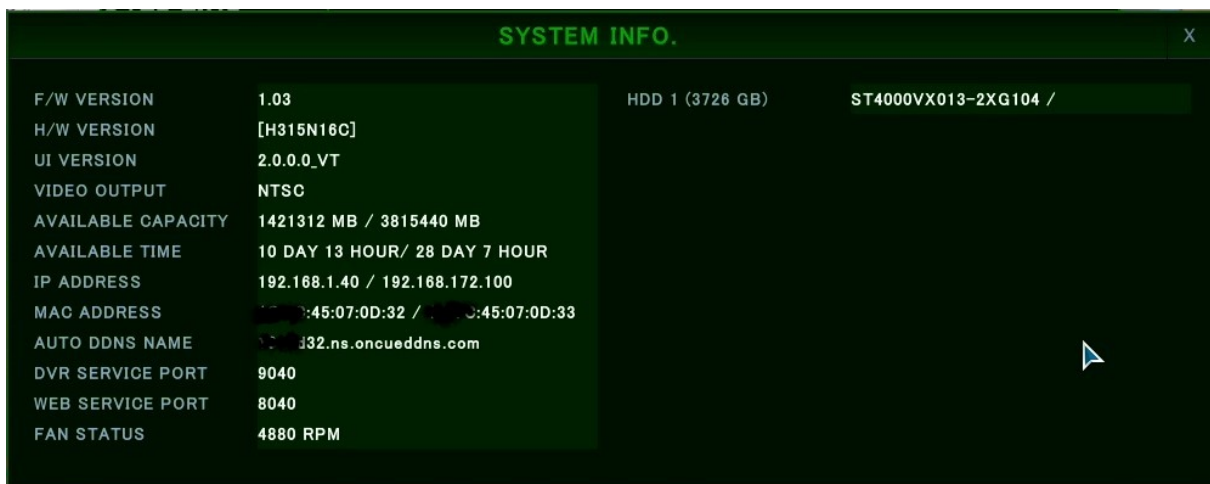
2.1 WITH THE USB THUMB DRIVE

User can upgrade the system firmware if required. F/W upgrading could be required to increase the stability and the reliability or apply new updated features. The following steps are the process to upgrade the f/w.



2.1.1 How to verify the F/W version

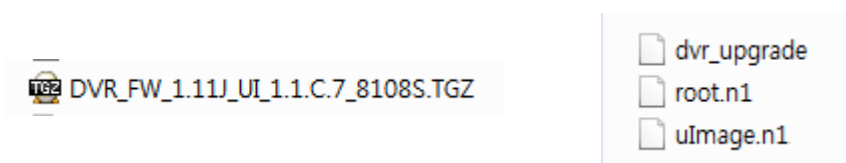
You may need to check the F/W version provided and the F/W version currently used in the system. From the Main Menu =>INFO, you can see the current version of F/W.



 F/W version of new provided one: From the filename of the provided F/W file, you can see the version number.

2.1.1.1 Preparing new F/W (Type *.tgz) in the USB thumb driver

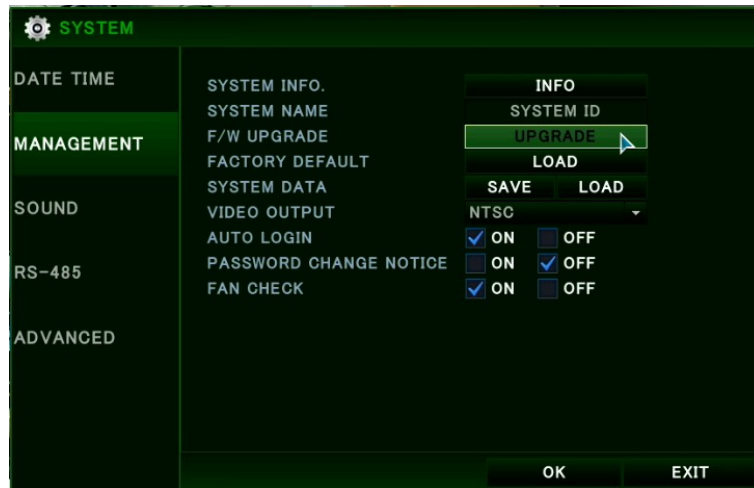
- 1) Copy the released F/W *.tgz file into the root of the USB thumb drive.



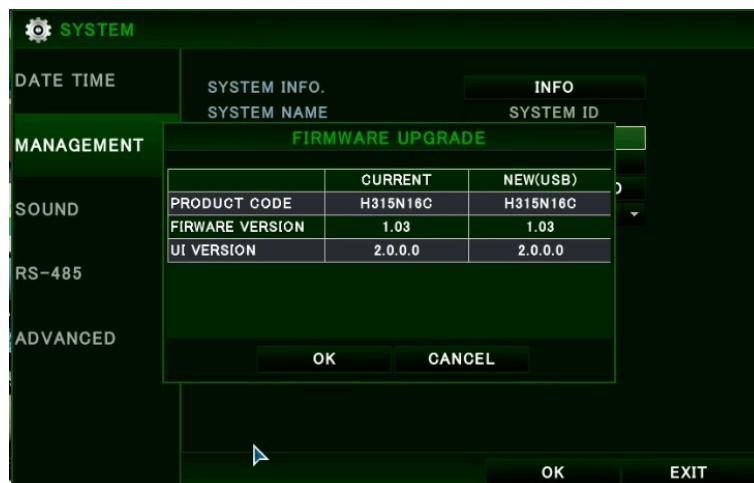
2.1.2 Upgrading System from the System Menu

Following steps will guide you how to upgrade the system with the new F/W.

- 1) Plug the prepared USB thumb drive into the USB port of DVR.
- 2) Open Setup=>SYSTEM=>MANAGEMENT menu.



- 3) Click 'UPGRADE' button.
- 4) Checking the Product code.



❗ If the product code is different, the format will not proceed.

🖱️ Click 'OK' button then process of firmware upgrade will begin.



- ◆ The whole upgrading process may take about 1~5 minutes.
- ◆ DO NOT remove the USB thumb drive during upgrading.
- ◆ DO NOT turn off power to the system during upgrading.

5) If the firmware upgrade is finished, system will reboot automatically.

2.1.3 UPDATING FROM THE WEB MENU

The web menu service prepared in the DVR provides the way to update the system F/W remotely. The following steps explain how to do this.

- ◆ To know how to access the internal web menu service, refer the section 9.1, 'WEB SERVER' of this user's guide.

- 1) Login the DVR through the web server.
- 2) Enter the 'SYSTEM MANAGEMENT' page under the 'SYSTEM' menu page. Refer to the below picture.



- 3) Click the button 'UPGRADE' and open the update page.
- 4) In the update page, click the 'BROWSE' button.
- 5) Choose the provided F/W files which has the file extension 'tar.gz or tgz'.

F/W Update

Select F/W file and click UPLOAD button.
Upload time will take 1-5 minutes.

F/W File :

- 6) Click the 'F/W UPLOAD' button and let the system upload the F/W into the system.
- 7) When uploading is finished successfully, the system is going to be ready to update and wait to start. Click the 'START' button triggers the updating processes.

F/W Update

	CURRENT	NEW
PRODECT CODE	H315N16C	H315N16C
FIRMWARE VERSION	1.03	1.03
UI VERSION	2.0.0.0	2.0.0.0

F/W File(DVR_FW_1.03_UI_2.0.0.0_NH_16C_VITEK.TGZ) Upload Completed.
If you want to upgrade please click START button

- If the product code is different, the format will be not processed.

All in One 16ch = H315N16C

- 8) While the update is on, the progress steps will appear such as below.

F/W Update

Starting F/W Upgrade.

F/W Update

F/W Uploading : UPGRADING STEP 3/9 [U-BOOT-0] - 100(%)

Uploading. Do not close this window.

- 9) System shows [COMPLETE] when update finishes and reboots automatically.
- 10) When the whole update is completed, the DVR will restart.

- The whole upgrading process may take about 5~10 minutes depends on network.

- DO NOT disconnect the network during upgrading.
- DO NOT turn off power to the system during upgrading.

3. GETTING STARTED

Controlling and setting DVR by remote control is limited to some of function, it's recommended you use a mouse for operation of the DVR for using all the functions.

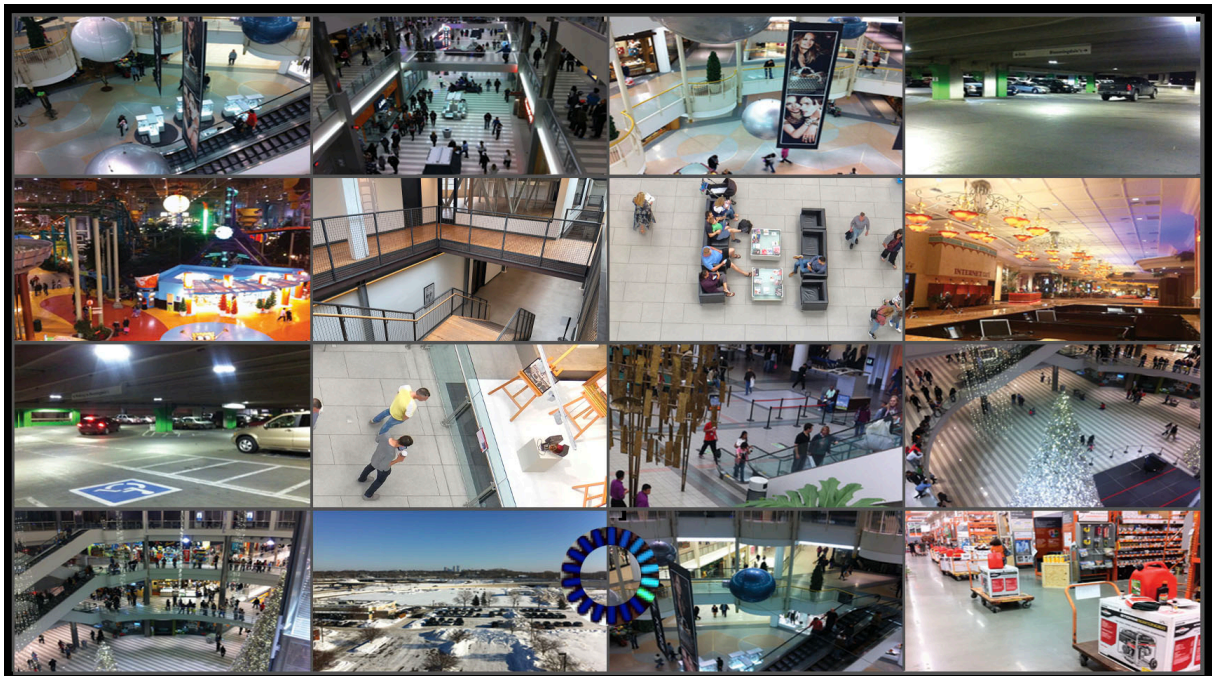
3.1 CONNECT AND SWITCH ON

- ◆ Please Make sure power to the Cameras is turned on.
- ◆ Connect one or more monitors to DVR using HDMI, VGA and CVBS.
- ◆ After powering up the DVR the boot screen will show



[Logo Image]

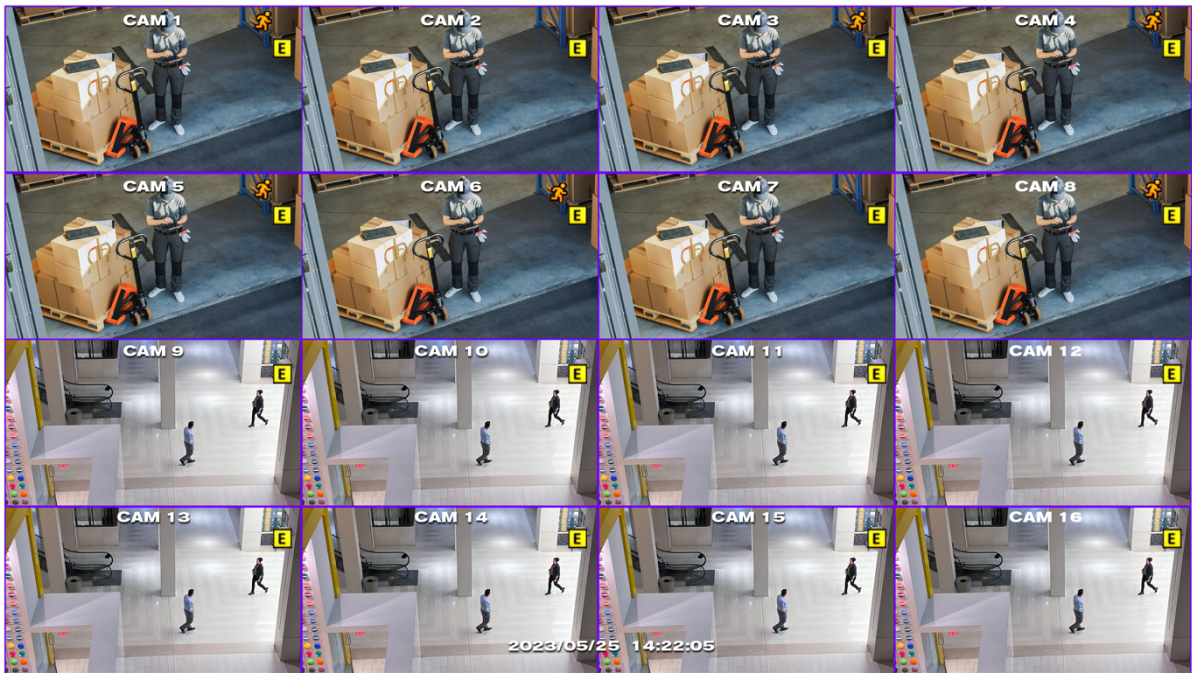
- ◆ Depending on the Monitor you connect to the DVR, initial logo may not display because your monitor does not support low resolution, so it is not a defect.
- ◆ Initial set resolution is 1920 x 1080, so you should use a monitor higher than 1920 x 1080.



[Loading....]

- ◆ From loading screen display, recording starts according to pre-set condition.
- ◆ When loading, screen could flash with odd colors while DVR is processing to optimize display.

Operation of DVR is ready, automatically log-in and shown as below screen.



When start-up diagnostics are completed, the operator must log-in to the system. You need to type the default username “ADMIN” and the default password “1234” and click the “OK” button.
In case you do not use the automatic log in, select log-in account using mouse and type the pin code, then click the “OK” button or confirm, then you can log in.

LOG IN

USER

ADMIN

PASSWORD

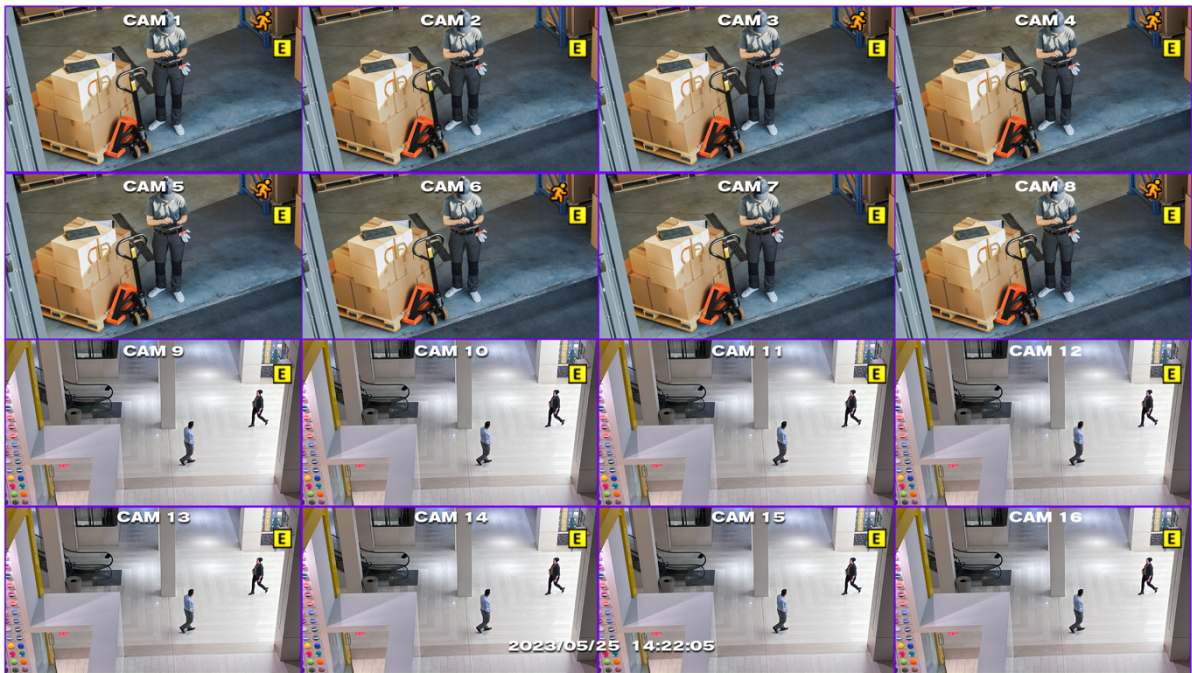
`	1	2	3	4	5	6	7	8	9	0	-	=	←
q	w	e	r	t	y	u	i	o	p	[	]	W	
a	s	d	f	g	h	j	k	l	;	'	Enter		
z	x	c	v	b	n	m	,	.	/	Space	a		

OK

CANCEL

[Log-In]

- Log in with remote control, operate as below.
 - Using direction button, move to user's selected menu, press “enter” on remote controller and move to user account selection mode.
 - Using Up/Down key, select account, and press “Enter” on remote controller for selecting user's account.
 - Using numeric key and input pin code,
 - If required, using direction key and move to virtual keyboard and input pin code.
- After inputting pin code, using direction key, move to ‘enter’ or ‘confirm’ over virtual keyboard and press ‘enter’ (↩) to log-in.



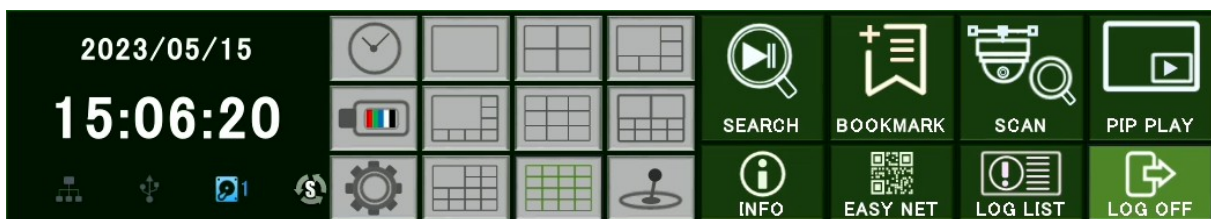
[Live mode of 16 channels]

Logging in after inputting account and pin code.

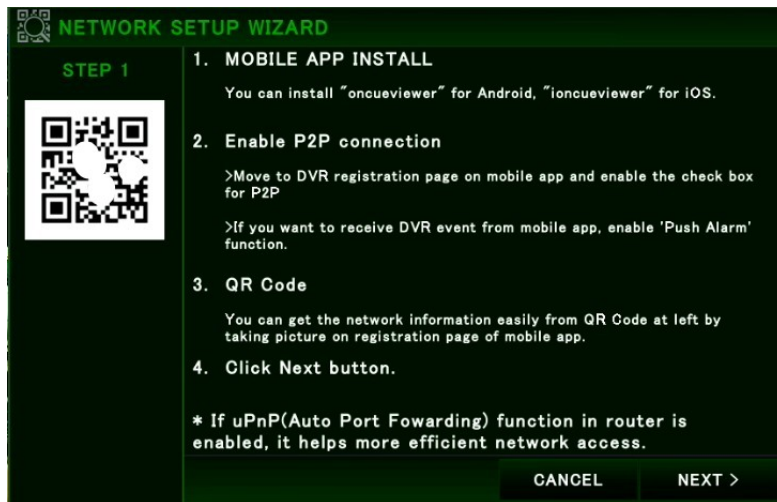
- Recommend you connect cameras first before starting DVR.

Bottom of screen will show the toolbox for operation. Toolbox has current time and date, network connection status (📶), back up storage connection status (💾), automatic screen switch operation (🔄), HDD installation (💿), currently working audio (🔊). Also, toolbox includes log on/off for DVR operation (🔌), Setup menu (⚙️), easy copy button (📄), search (🔍), Screen display selection (🖥️), Pan/tilt (📏), Digital zoom (🔍), system log (📋), Panic button (🚨)

3.2 NETWORK AUTOMATIC SET UP for PC, Mobile App



- From the Toolbox select EASY NET



Step 1.

- 1. Mobile APP install.

You can install "OnCueviewer" for android phone, "OnCueviewer" for iPhone.

- 2. P2P connection activation.

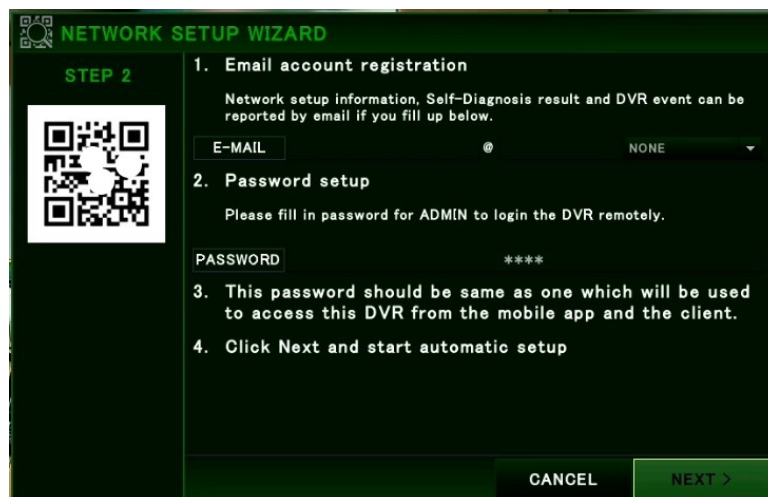
Move to DVR registration menu on mobile app and activate P2P.

If you want to receive DVR event on mobile app, then activate push alarm.

- 3. QR code use

On mobile app, you can move to registration of P2P and take picture of the QR code.

- 4. Click Next in below



Step 2.

- 1. Email account registration

Network set up information, Self-Diagnosis result,

DVR event can be reported by email if you supply email address.

- 2. Password set up

Please fill in password for ADMIN to access remotely and locally.

- 3. Use above password when you register DVR to mobile APP.
- 4. Click below Next and start automatic set up.

Click Next, then you can receive report by email.

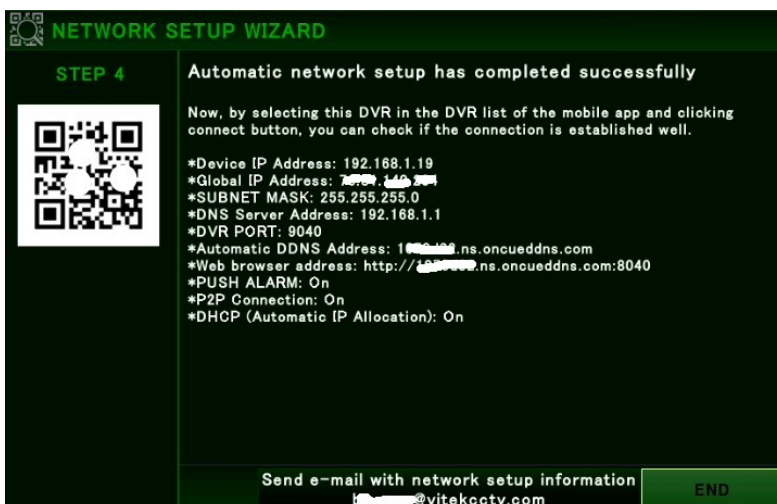
Network automatic setting report

- Device IP address: 192.168.123.174
- Global IP: 112.XXX.X.141
- Subnet mask: 255.255.255.0
- DNS server address:
- DVR port:
- Automatically assigned ddns address: xxxxxx.ns.dynamic.com



Step 3.

- 1. Setting up network automatically, it requires 1 to 2 minutes depending on network situation.
- 2. When success, you can check connection on mobile phone



Step 4.

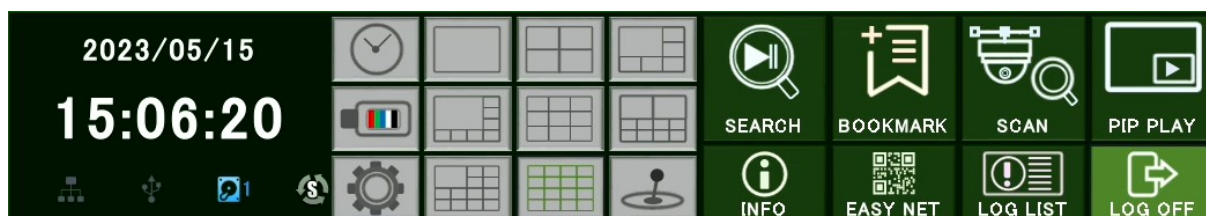
- Network automatic set up completed.
- You can select newly registered DVR on mobile app and click “connect” button so you can confirm connection.
- If you want to receive report by email, you can click marked email transmission button.

- *Device IP Address: Displays the internal IP address of the network environment where the DVR is installed.
- *Global IP Address: Displays the external IP address of the network environment where the DVR is installed.
- *SUBNET MASK: Displays the SUBNET MASK of the network environment where the DVR is installed.
- *DNS Server: Displays the DNS Server of the network environment where the DVR is installed.
- *DVR Port: Displays DVR port
- *Automatic DDNS Address: Displays of DVR DDNS
- *Web browser address: DVR address when access web browser
- *PUSH ALARM: Ready for Push Alarm
- *P2P Connection: Ready for P2P
- *DHCP (Automatic IP Allocation): Ready for DHCP

4. TOOL BAR

You can view following Tool Bar when you move the mouse to the bottom of screen.

The Toolbox displays when the mouse pointer moves to bottom of screen, disappears after pre-defined menu setting time or exit with exit button (). In the menu you can set to display all the time.



 03/23/2021AM 10:14:00 Current date, Time	 Network connection	 Backup device	 HDD Location	 Time setup
 Camera color adjust	 Main Menu (Setup)	 Display	 PTZ	 SEARCH Search/Copy
 BOOKMARK Bookmark	 SCAN IP Camera Scan	 PIP PLAY PIP playback display on the live screen	 EASY NET Network Wizard	 LOG LIST Log List
 LOG OFF Log off / Power off				

4.1 STATUS DISPLAY

You can check current time / Network connection/ USB storage connection/ Auto sequence/ HDD location currently recorded / Audio.

- 
-  : Display current time. (Year / Mouth / Day / Hour / Minute / Second)
 -  : Shows Network connection.
 -  : Shows USB Storage connection
 -  : Shows HDD location which is currently recorded.

4.2 LOG OFF

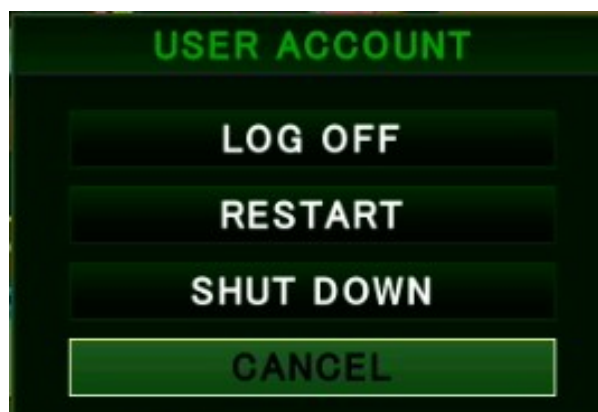
There are two ways to log off. One is manual log off and the other one is automatic log off after configured time passed.

User manually log off or in the menu you can set automatic log off after certain time.

[Log-Off by using TOOL BAR]

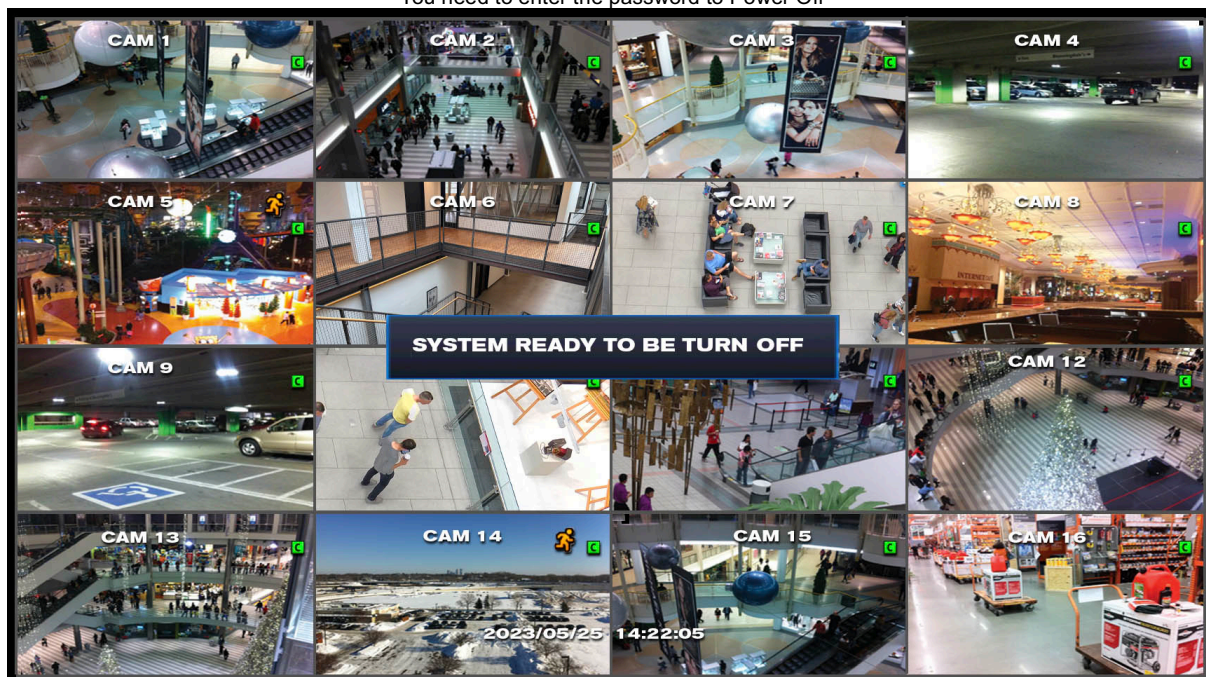


Once Log off selected as above, current account can be log off.

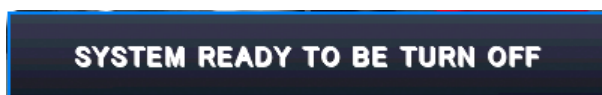


-  **Log Off:** After log off, the login window like the initial screen will be displayed after booting the DVR, and the login method is the same as the initial login.
 - ◆ Once you log off, you will not be able to operate the DVR until you log in again.
 - ◆ [How to log off automatically using menu settings]
 - Under Main Setting Menu, user-> log out, you can set up automatic log off time.
-  **RESTART:** Reboot the DVR
 - ◆ You need to enter the password to reboot.
-  **SHUTDOWN:** To turn off the power of the DVR

You need to enter the password to Power Off



[READY for POWER OFF]



- After Display above message, you can turn off the power.

4.3 Main Menu POP-UP

If you click main menu button, main menu will be POP-UP.



4.4 SEARCH MENU POP-UP

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

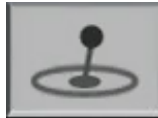
To protect unauthorized viewing of footage, only authorized users can playback footage.



4.5 PTZ POP-UP

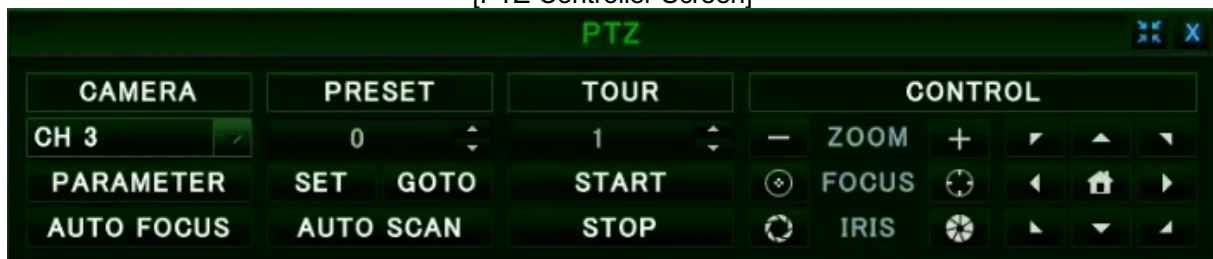
When the display mode is quad, the PTZ control panel will be opened for the selected camera which is previously highlighted by mouse click. If there is no highlighted camera, the PTZ control panel is opened for controlling camera 1. In single display mode, the PTZ control panel is opened for the currently displayed camera.

- Support only after PTZ IP camera integration with DVR completed.



- To control Pan / Tilt, you need to set the Pan / Tilt Menu
- Only support PTZ protocol which is compatible with below.
 - PELCO-D
 - PELCO-P
 - PELCO-C

[PTZ Controller Screen]



- 1: Select channel for PTZ control.
- 2: Number to configure Preset.
- 3: Select the tour function start or end.
- 4: Control the PTZ.
- 5: Change the size of control box.
- 6: Display PTZ control parameters which are set under the 'DETAIL' of PTZ menu settings
- 7: execute the automatic focus.
- 8: execute the auto scan.

4.6 DIGITAL ZOOM

You can use mouse (Drag) to zoom in or zoom out.

[Zoom by using Mouse]



At full screen mode, you can select the area to zoom in/out by clicking left button of Mouse. (Drag), Clicking on the zoomed screen, the display returns to the original screen.

-  Digital Zoom supported at Live / Play mode
-  Digital Zoom supported at only Full screen mode.

4.7 LOG LIST

You can view the log list by selecting log list button in Tool bar.



1: Display number from currently triggered (Max 10,000 list can be recorded)

2: Date / Time

3: Log list

Items listed in log list.

- Power ON/OFF
- Backup Start
- Disk Format
- Factory Default
- Camera Menu Change
- PTZ Menu Change
- OSD Menu Change
- Monitor Menu Change
- Sequence Menu Change
- Date/Time Menu Change
- System Management Menu Change
- Sound Menu Change
- User Management Menu Change
- Authority Menu Change
- Logout Menu Change

- Network Menu Change
- DDNS Menu Change
- Alarm In Menu Change
- Alarm Out Menu Change
- Buzzer Out Menu Change
- E-Mail Notification Menu Change
- Disk Management Menu Change
- Record Configuration Change
- Record Schedule Change
- IP Camera Menu Change
- Firmware Upgrade Success
- Firmware Upgrade Fail
- Admin (User 1 ~ 10) Auto Login
- Admin (User 1 ~ 10) Login
- Admin (User 1 ~ 10) Password Fail
- HDD 1(1 ~ 5) Error for Write
- HDD 1(1 ~ 5) Fail for Write
- HDD 1(1 ~ 5) Error for Read
- HDD 1(1 ~ 5) Fail for Read
- Network Connected
- Time Adjust
- Network Disconnected
- DVR Watchdog Reset
- Menu Data Backup Succeeded
- Menu Data Load Succeeded
- Menu Data Backup Failed
- Menu Data Load Failed
- Camera Menu Changed in Remote
- PTZ Menu Changed in Remote
- OSD Menu Changed in Remote
- Monitor Menu Changed in Remote
- Sequence Menu Changed in Remote
- Date&Time Menu Changed in Remote
- System Management

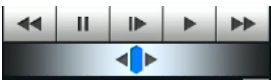
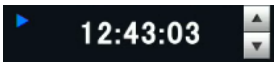
- User Management Menu Changed in Remote
- Authority Menu Changed in Remote
- To Logout Menu Changed in Remote
- Network Menu Changed in Remote
- DDNS Menu Changed in Remote
- E-Mail Menu Changed in Remote
- Alarm input Menu Changed in Remote
- Alarm Output Menu Changed in Remote
- Buzzer Menu Changed in Remote
- Buzzer Menu Changed in Remote
- E-Mail Event Menu Changed in Remote
- Disk Menu Changed in Remote
- Continuous Record Menu Changed in Remote
- Schedule Record Menu Changed in Remote
- Record Misc. Menu Changed in Remote
- FAN Error
- Copy Success
- Copy Fail
- Backup Start
- Backup Stop
- Power OFF
- HDD [NUMBER] HAVE BEEN INSTALLED
- HDD [NUMBER] HAVE BEEN REMOVED

5. SEARCH & PLAYBACK

5.1 TIME / CALENDAR SEARCH(Analogue HD DVR)

You can search the recorded data by a calendar and timeline for quick access to recorded footage.



 HDD TYPE Select the HDD. (Normal Record HDD / Mirror Record HDD)	 Calendar	 Select playback split screen.	 Live PIP screen display on the playback
 Playback control (Reverse / Pause / Frame by Frame / Normal / Fast)	 Current Time / Time Search	 Calendar Search	 PANORAMA Search
 SMART Search	 Event Search	 Bookmark Play	 Bookmark ADD
 USB Playback (*.dvr)	 USB Copy	 Playback screen	



[Record Timetable]

- ◆ **00:00** **03:00** : Recording Table Interval (default interval 3 hours)
- ◆ Adjust the recording table interval using the mouse wheel
- ◆ ◀ ▶ : move the time on record table



Search HDD: Select the HDD type to search.

- Recording: Search the HDD set for recording.
- Mirror: Search the HDD set by mirroring.

2021 / 3						
S	M	T	W	T	F	S
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Calendar: Displays a calendar for selecting the date to search. If there is recorded data on the corresponding date, it will be displayed in bright green.

- When you select a date with recorded data, the search results are displayed in the time display area in hours.



Set split mode selection or search type.

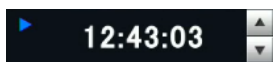


Live screen PIP display on playback screen





- Playback control: Control the playback speed of the playback video in the video display window of the search screen.



- Displays the time currently playing. Then you can search for the desired time using the up and down buttons on the right side.



- Enables recorded data search in calendar search mode.



- Select the desired channel and enable a panoramic search of 30 images in hours, minutes, and seconds.



- Select the desired channel and enable searching for motion in the specified area.



- Event search: Search by the desired event conditions.



- Bookmark Allows you to search the specified section.



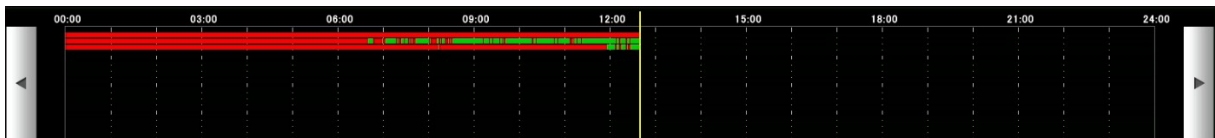
Specify the required section in Bookmark during playback.



Copied to a USB storage device. Play backup data in .dvr format.



Back up the recorded data to a USB storage device.



 **00:00 03:00** : Recording table interval (basic interval 3 hours)

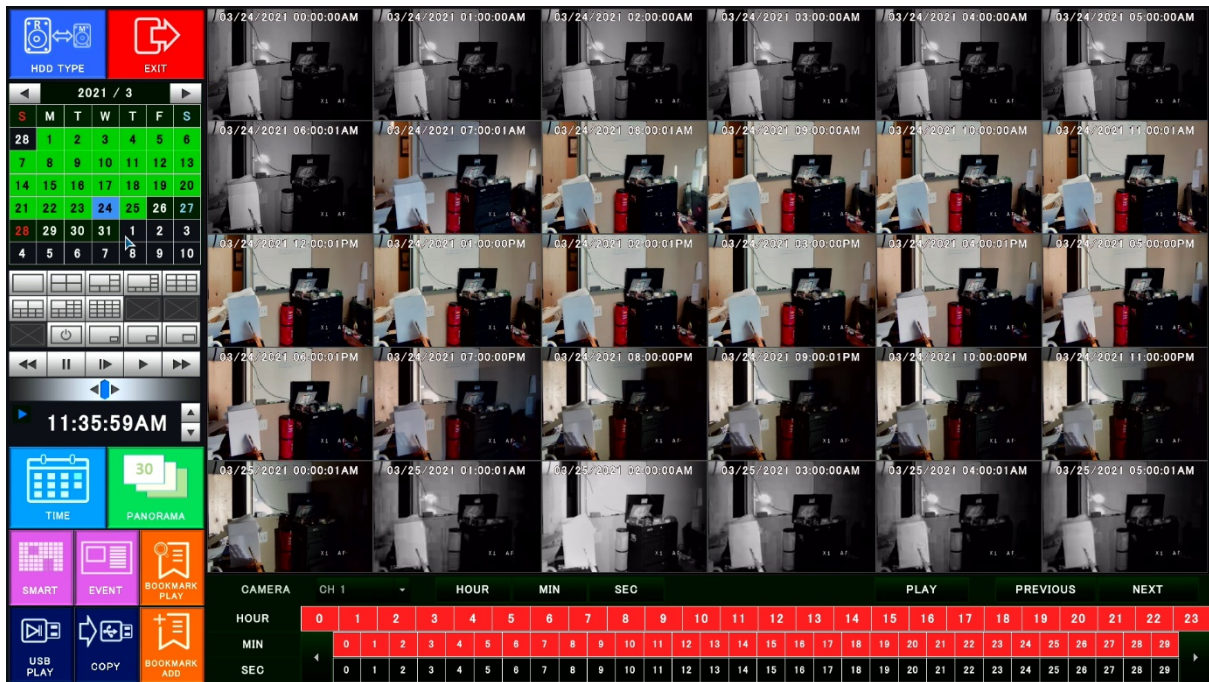
 Adjust the recording table interval by moving the mouse wheel (up / down)

   : Recording table time travel.

 Drag and drop the yellow vertical line with the mouse to start playback at the desired time.

5.2 PANORAMA SEARCH

By using Panorama Search, user can search, playback, copy by hour/minute/second at 30ch view mode.



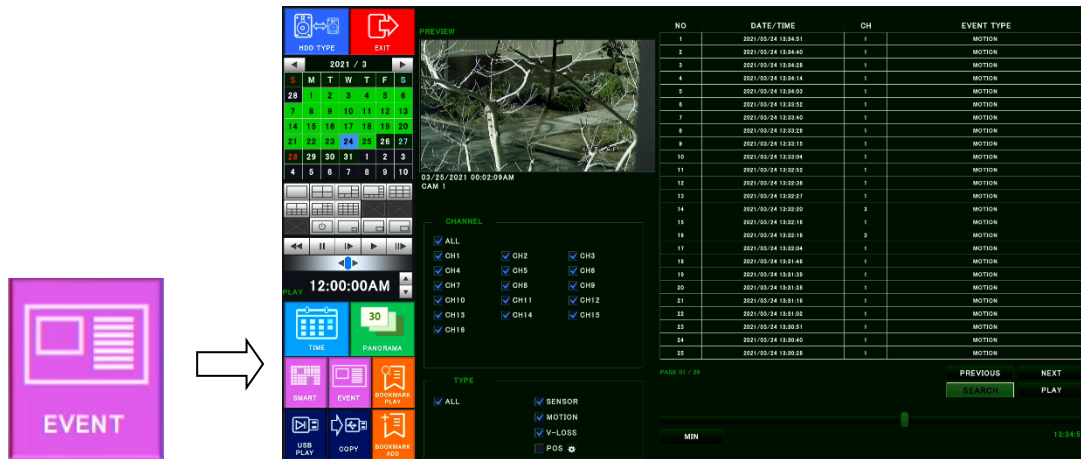
5.2.1 BASIC OPERATION

- 📅 If you select the panorama channel, search mode will be changed to PANORAMA Mode.
- 📅 Select the date on the Calendar, panorama playback will be started from first recorded data from selected date.
- 📅 Choose the hour you want, will be displayed in minutes.
- 📅 Choose the minutes you want, will be displayed in second.
- 📅 Using below button, you can change search by hour, minute, second, or display below time.

➤  : You can see playback with selected time as below.



5.3 EVENT SEARCH

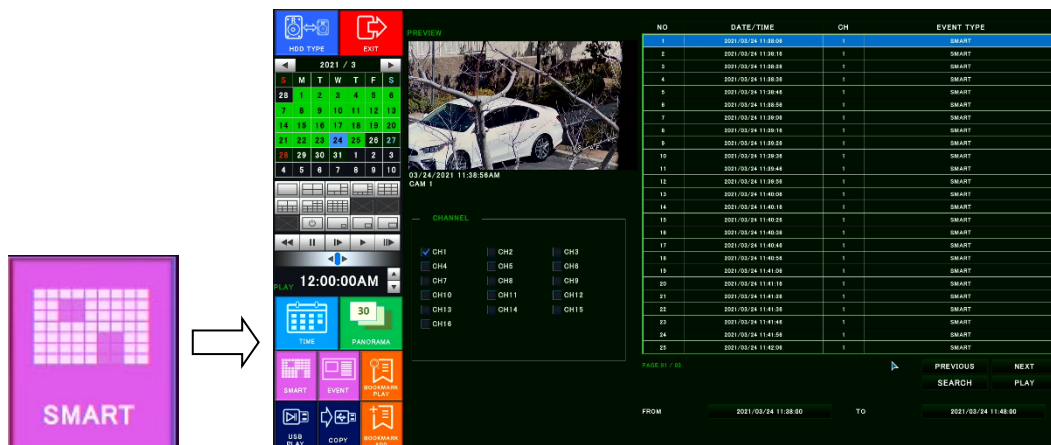


- If you want to search an Event, you need to select date and event menu tab.
- If you press Event, Event Search will be started from selected start time.

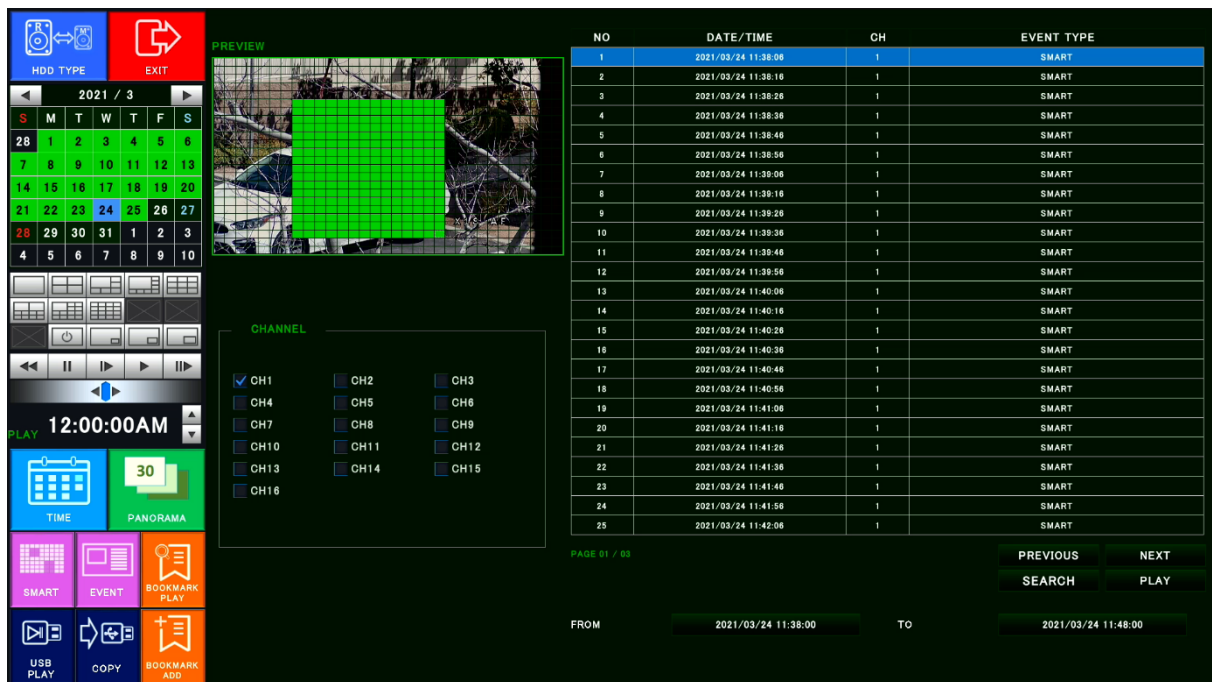
Hour selection for event search, you can select required hour on the time bar by mouse.

- Event list show 20 event per page, 25page can be searched (max. 500 event)
- Event list exceed 500 events, then re-search after adjusting event search period.

5.4 SMART SEARCH



Select the desired channel and enable searching for moving sections in the specified area.



Playback: Specify the area you want to search with the mouse in the Preview Window and press Search to search for the time when movement was detected in the area.

5.5 COPY



- FROM: Specify the start time to copy.
- TO: Specify the end time to copy.
- TAG NAME: Tag name will be used for Folder name.
- TYPE: You can select the copy format.
 - *.avi: Format that can be played on standard AV player.

- *dvr: Original recorder format. It can be played in multiple screen mode.
on unique file player.

 Device: Select the storage device where the data to be copied is recorded.

 CHANNEL: You can select the channel to copy.

 If copying does not work properly, format the USB storage device to be used normally in the DVR using the Format menu in the disc menu.

6. HOW TO CONFIGURE

To view the setup menu in each configuration items, press menu button on toolbox.

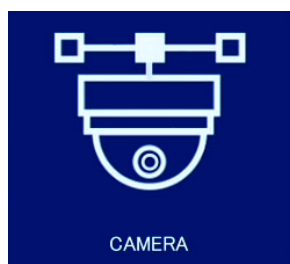


Following screen



6.1 CONFIGURING CAMERA

After clicking the camera button of Main Menu, you can setup the camera title, adjust video, pan/tilt, set motion detection, Privacy mask, camera port.



6.1.1 TITLE



TITLE: Up to 18 characters could be set by using the virtual keyboard.



6.1.2 ADJUST

You can choose the 'ADJUST' menu for setting of video features of camera. You can adjust the video features such as 'BRIGHTNESS', 'CONTRAST', 'SHARPNESS' and 'SATURATION' by clicking one of the values for the required channel. Refer to the following pictures.

🌈 The range of the value for each setting is from 0 ~ 100. Refer to the following pictures.



6.1.3 PTZ

	ADDRESS	PROTOCOL	BAUDRATE	
CH 1	0	Vitek CoC	9600	DETAIL
CH 2	0	PELCO-D	9600	DETAIL
CH 3	0	PELCO-D	9600	DETAIL
CH 4	0	PELCO-D	9600	DETAIL
CH 5	0	PELCO-D	9600	DETAIL
CH 6	0	PELCO-D	9600	DETAIL
CH 7	0	PELCO-D	9600	DETAIL
CH 8	0	PELCO-D	9600	DETAIL

◀ 1/2 ▶

OK EXIT

ADDRESS: The unique ID of the PTZ device.

PROTOCOL: The protocol of the PTZ device.

BAUD RATE: The baud rate of the PTZ device.

PTZ properties can also be adjusted for each channel by selecting the **DETAIL** and pressing **ENTER**. Auto Focus, Auto IRIS, P/T speed, zoom speed, focus speed, IRIS speed.

- Note that some settings, such as **AUTO FOCUS**, may not be compatible with particular PTZ equipment. If this is the case, changing this value will have no effect on PTZ control.

6.1.4 MOTION

	SENSITIVITY	AREA
CH 1	8	[Grid Icon]
CH 2	8	[Grid Icon]
CH 3	8	[Grid Icon]
CH 4	8	[Grid Icon]
CH 5	8	[Grid Icon]
CH 6	8	[Grid Icon]
CH 7	8	[Grid Icon]
CH 8	8	[Grid Icon]

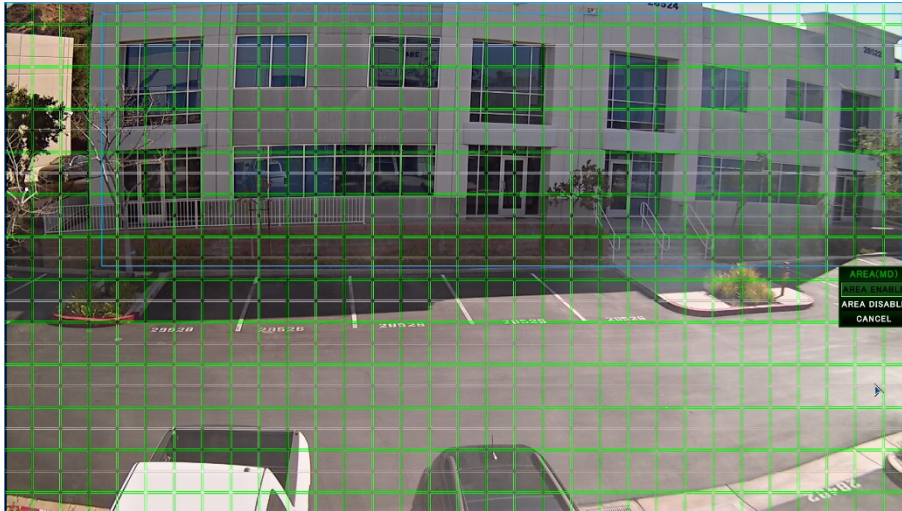
◀ 1/2 ▶

OK EXIT

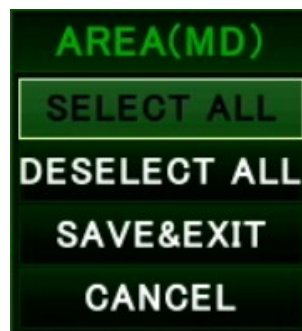
SENSITIVITY: Between 1 (Lowest) and 10 (Highest) determines the degree of sensitivity of

motion detection required. The higher value has more motion sensitivity.

 **AREA SETUP:** Choosing this option allows the operator to define which areas of the image are monitored for motion detection. Green grid squares represent detection areas, blank areas are ignored. The default is that motion will be detected across the entire image. It is possible to set the area per cell on 32x24.



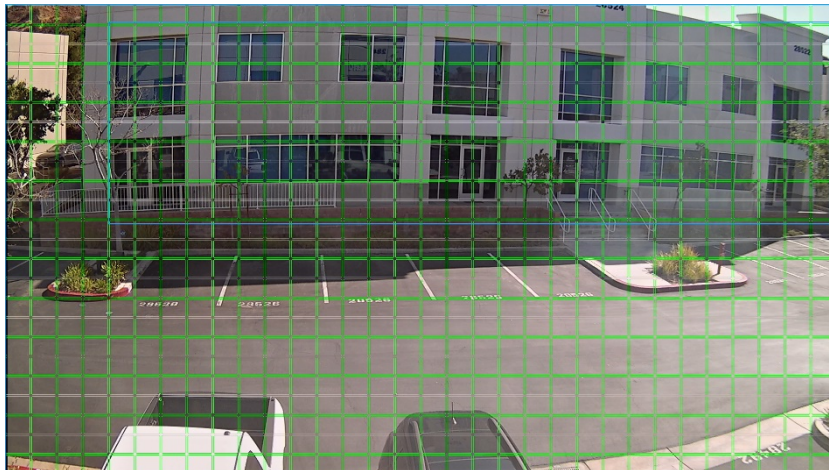
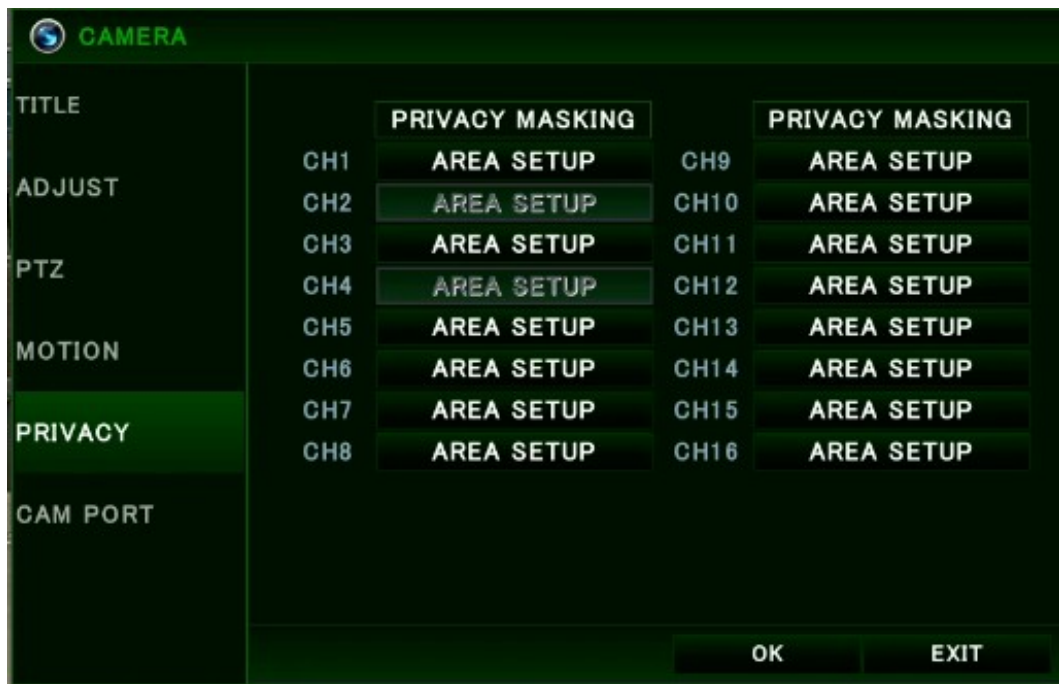
- If you click the area setting button, it enters the area setting menu as above.
- You can set the area by mouse movement while holding down the left mouse button.
- The cell selected in blue is the area where motion is to be performed.
- When the motion is detected in the area setting cell, the motion detection screen can be seen.
- Multiple cells can be specified.



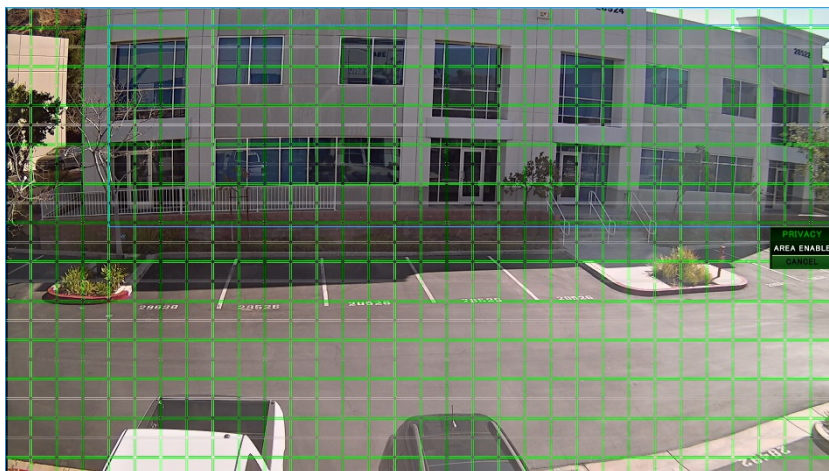
- SELECT ALL: Specified the entire screen of the channel as a motion.
- DESELECT ALL: Deletes the full screen of the channel from the motion area.
- SAVE&EXIT: Save the set area and exit the menu.
- CANCEL: Cancel the selected area setting.

6.1.5 PRIVACY

Privacy Masking on the LIVE / PLAY / NETWORK screens can hide the desired area.



You can set the desired area by drag & drop it with the mouse.

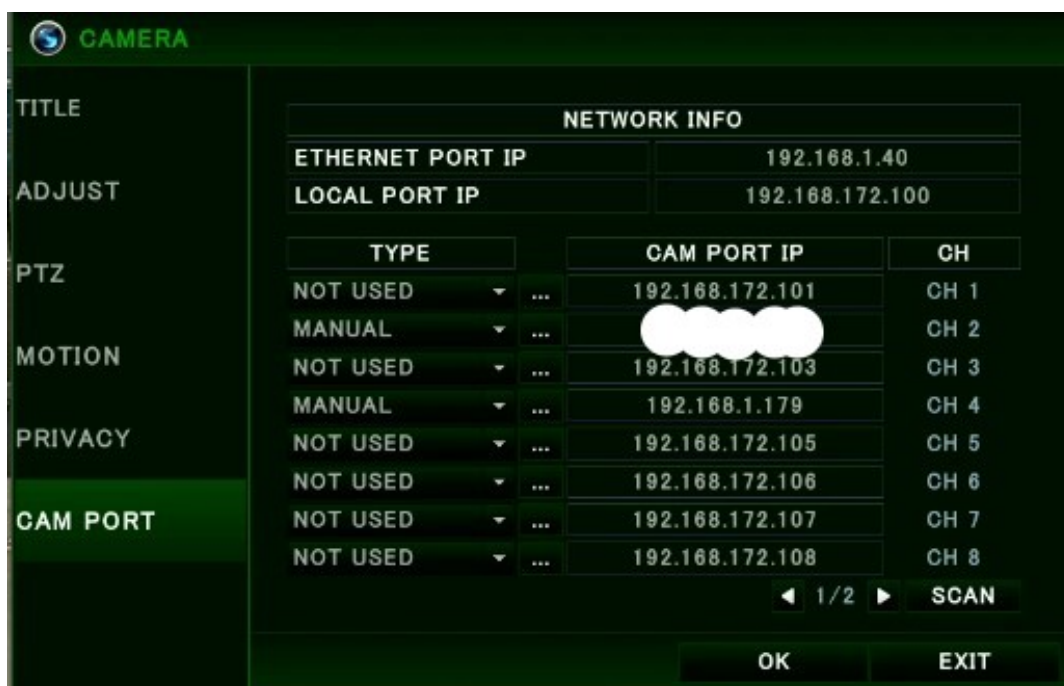


-  **SELECT:** Select the set area and hide the screen.
-  **DESELECT ALL:** Release the set area.
-  **CANCEL:** Cancel the set area.



6.1.6 CAM PORT

This is menu to set up IP cameras to the DVR. Before connecting IP cameras to the DVR, it is recommended you configure the IP set up menu first.



TYPE: You can select connection type MANUAL/RTSP

- **MANUAL:** Select this mode for 3rd party ONVIF camera
- Select network port for the camera you want to connect.

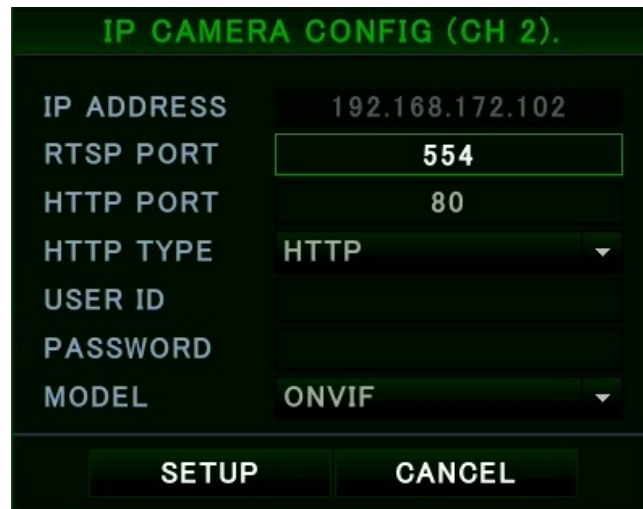
- ◆ The IP range of Local or Ethernet PORT for the connection between IP camera and NVR should be same.
 - ✓ You have to use 'Detail menu' for configuration of IP camera such as port number, ID, password and so on.
- **RTSP URL:** You can use RTSP command to make a connection with IP camera.

- ✓ IP ADDRESS: IP address of IP camera.
- ✓ RTSP PORT: RTSP port number for RTSP transmission.
- ✓ INPUT RTSP URL: Specify the command of RTSP connection. IP address and port number is automatically specified. [example: rtps://192.169.0.101:554/nvr_media/main/]
- ✓ APPLY: Save the configuration.
- ✓ CANCEL: Cancel the configuration.

- IP camera configuration cannot be modified if RTSP connection selected.

 **DETAIL** (): Modify the configuration of the camera if you need.

- If the configuration (RTSP port/HTTP port/ HTTP Type / ID / password) of the camera is not default value, you have to modify it. [Supported model]
- Set configurations [ONVIF mode]



IP CAMERA CONFIG (CH 2).	
IP ADDRESS	192.168.172.102
RTSP PORT	554
HTTP PORT	80
HTTP TYPE	HTTP
USER ID	
PASSWORD	
MODEL	ONVIF
SETUP CANCEL	

- IP ADDRESS (in manual mode): Input IP address of IP camera.
 - ✓ Default (When used to Ethernet port): 4ch 192.168.0.201 ~ 204 / 8 & 16ch 192.168.0.201 ~ 208.
 - ✓ Default (When used to local port): 4ch 192.168.172.101 ~ 104 / 8 & 16ch 192.168.172.101 ~ 108.
- RTSP PORT (in manual mode): Input RTSP port info.
 - ✓ Default: 554
- RTSP port setup value is not matched with IP camera, you'll have the message in the live view "RTSP CONNECT FAIL".
- HTTP PORT: Input HTTP port
 - ✓ Default: 80
- If the HTTP port setting is different from the IP camera, you'll have the message in the live view "HTTP CONNECT FAIL".
- HTTP TYPE: Select HTTP type of camera either HTTP or HTTPS.
 - ✓ Default: HTTP
- USER ID: Input ID of IP camera.
 - ✓ Default: root
- PASSWORD: Input password of IP camera.
 - ✓ Default: pass
- You can change the configuration of IP camera only in case that ID/PASSWORD info already configured is correct.
- MODEL (in manual mode): User can select the IP camera model which you want to connect.

- SCAN: User can scan IP camera currently installed to Local/Ethernet network.

MODEL	MAC	IP	CH
onvif	---	192.168.1.39	
onvif	---	192.168.1.162	
onvif	---	192.168.1.245	
onvif	---	192.168.1.229	
onvif	---	192.168.1.212	
onvif	---	192.168.1.179	CH 04
onvif	---	192.168.1.6	

- MODEL: The model of searched IP camera.
- MAC: MAC address of IP camera.
- IP: IP address of IP camera.
- CH: The channel information which assigned to DVR.
- Assign To: You can assign the camera to preferred channel of DVR.

When you connect IP camera to DVR, be sure between network port (Ethernet or local port) connecting to NVR and IP camera should be same network.

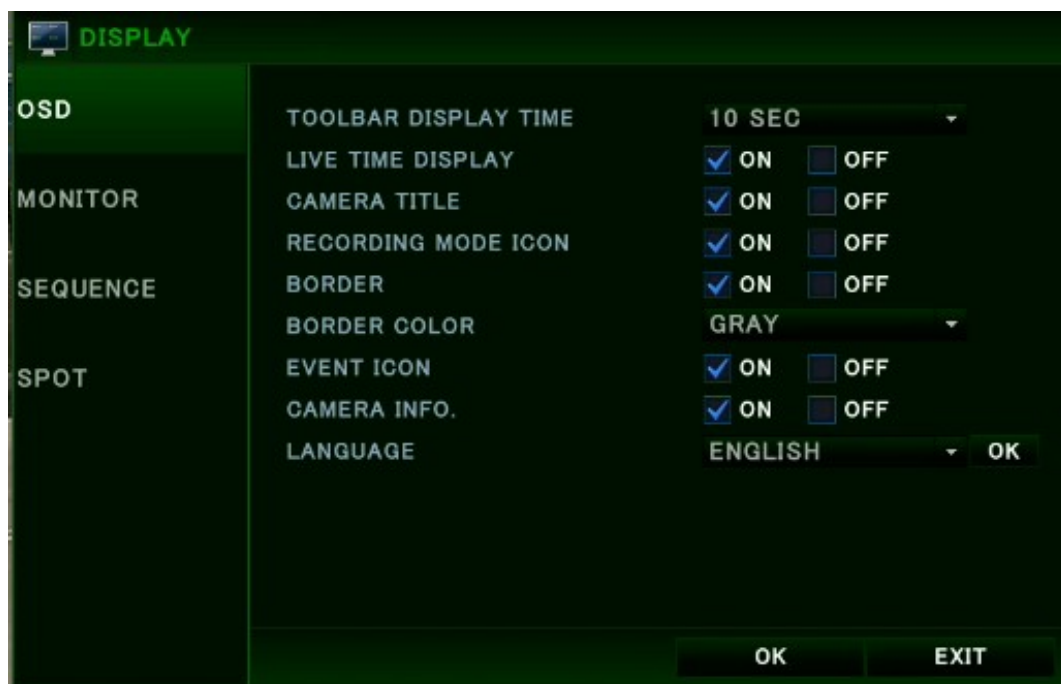
6.2 CONFIGURING DISPLAY

To set-up the various display options, click DISPLAY.



6.2.1 OSD

To set-up the various display options, click DISPLAY.
Configure camera title / boarder/ language here.



-  **TOOLBAR DISPLAY TIME:** Turns the Tool bar at the bottom of the live display ALWAYS ON or auto off after display time.
-  **LIVE TIME DISPLAY:** Select the live time display On / Off.
-  **CAMERA TITLE:** Determines whether the camera title is displayed.
-  **RECORDING MODE ICON:** Determines whether the recording status (ON/OFF, Recording Mode) is shown at the top right of each channel display window.
-  **BORDER:** Determines whether there is a border around each channel in multi-screen display mode.
-  **BORDER COLOR:** If the border is ON, you can choose the color.
-  **EVENT ICON:** Determines whether the event (Motion, Alarm, V-loss) icon is displayed.

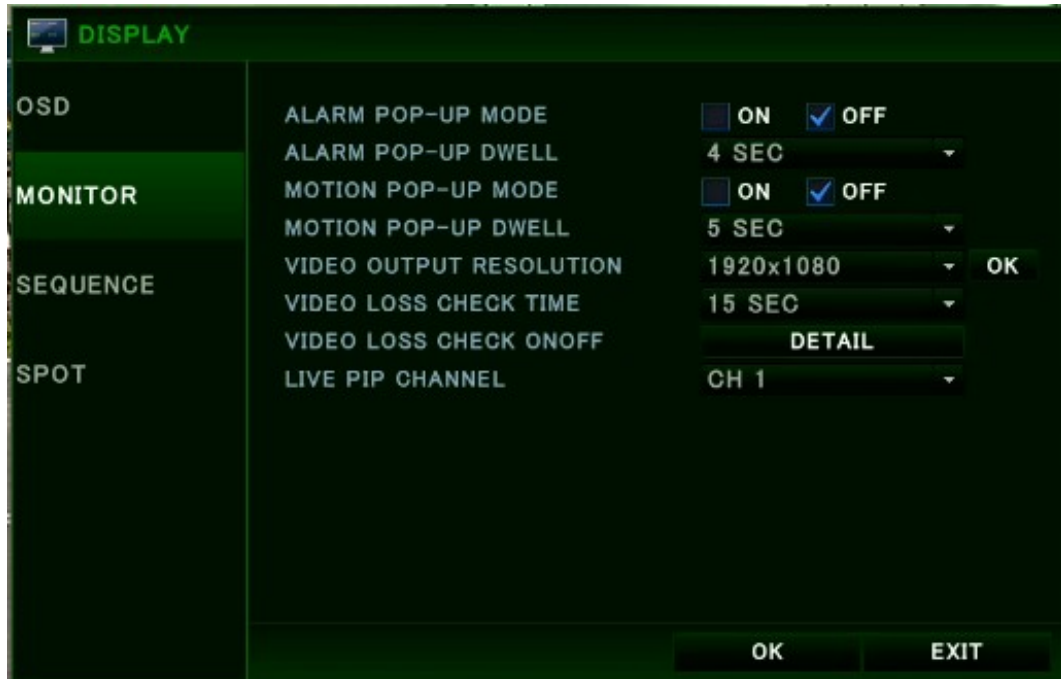
🚦 **CAMERA INFO:** currently connected camera's resolution/bit rate display can be selected.

🚦 **LANGUAGE:** Select the language of display.

➤ ENGLISH / KOREAN / GERMAN / POLISH / JAPANESE / FINNISH / CHINESE / RUSSIAN

6.2.2 MONITOR

DVR's resolution / screen switch can be changed here.



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

🚦 **ALARM POP-UP DWELL:** Determines how long the full screen popup is displayed after an alarm input.

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

🚦 **MOTION POP-UP DWELL:** Determines how long the full screen pop-up is displayed after motion detection.

➤ If motion continues, the popup screen is displayed constantly.

🚦 **VIDEO OUTPUT RESOLUTION (MAIN VIDEO OUTPUT MODE for HD port and VGA port):** You can configure video output resolution of main video 1280x720 / 1280x1024 / 1920x1080 / 2560x1440 / 3840x2160.

➤ **OK:** You can press OK button to confirm configured video output.

- Depending on monitor if it doesn't support HD resolution, then configure VGA resolution on DVR.
- In case HD resolution like 720p/1080p connect with VGA cable, when installing, first connect VGA cable and power on for DVR.
- Factory default resolution is 1024x 768, so you should use monitor supporting at least **1920 x 1080**.

6.2.3 SEQUENCE

Screen auto switch time can be configured here.



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

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

6.2.4 SPOT

DVR provides a single channel or Multi screen SPOT monitoring video output. In this menu page, you can configure the default channel for SPOT output after boot-up.



SPOT COVERT: You can set the display / hide of the spot screen.

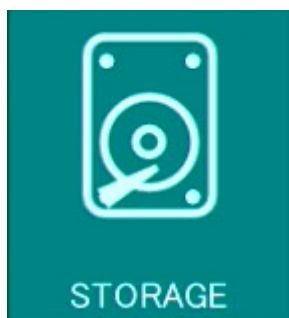


SPOT OPERATION MODE: You can set the operation mode of the spot screen.

- **SINGLE MODE:** The spot screen can be viewed as a Full screen of 1 channel.
 - **4-MULTI MODE:** The spot screen can be viewed as 4 split mode.
 - **9-MULTI MODE:** The spot screen can be viewed as 9 split mode.
 - **16-MULTI MODE:** The spot screen can be viewed as 16 split mode.
- ◆ **Analogue 4ch:** Single screen SPOT output / Analogue 8ch & 16ch: Single screen & 4 Multi SPOT output
 - ◆ **Premium 4ch:** 4 Multi screen SPOT output
 - ◆ **Premium 8ch:** 9 Multi screen SPOT output
 - ◆ **Premium 16ch:** 16 Multi screen SPOT output

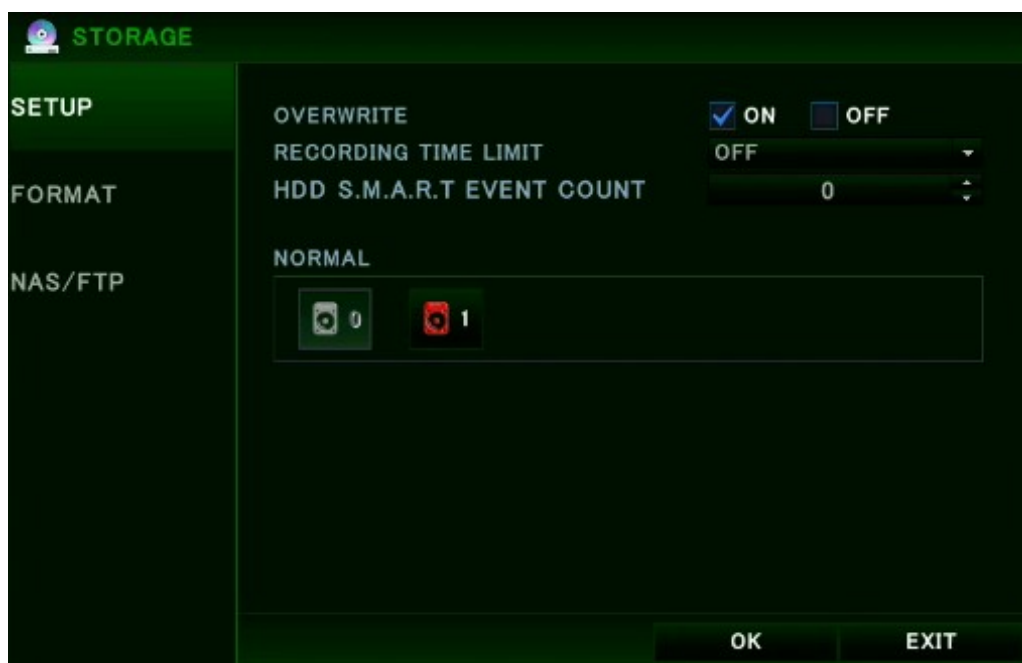
6.3 CONFIGURING STORAGE

Recording device related configuration and operation can be executed here.



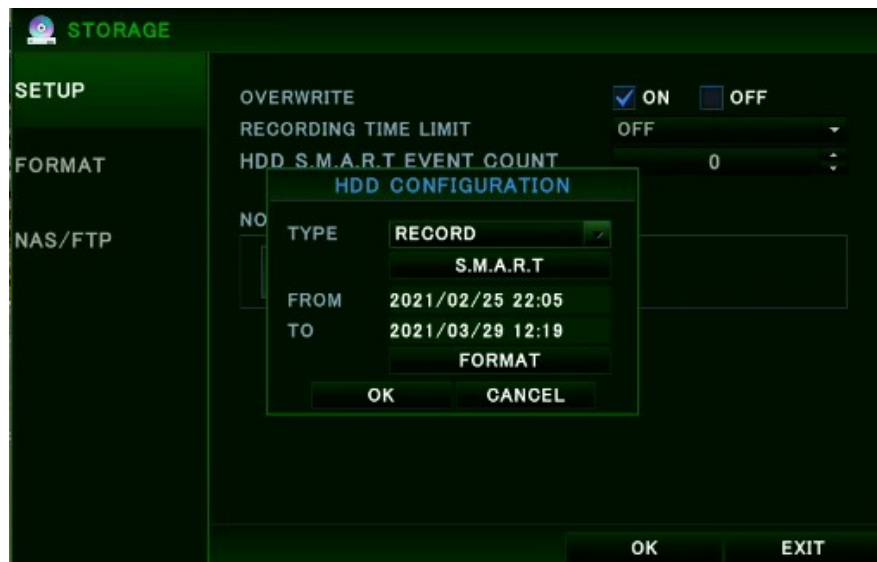
6.3.1 SETUP

You can configure DISK operation like Recording Time Limit / Overwrite / HDD Type / HDD Configuration.



- OVERWRITE: IF you select "ON", overwrite mode will be activated.
- RECORDING TIME LIMIT: You can configure the data from current time to configured time (12hr – 2 month).
- Recording HDD setup: HDD connecting to DVR, can be configured as recording or mirroring, click Red marked HDD and configure operation mode and mark S.M.A.R.T.





- RECORD: You can select HDD as record HDD.
- MIRRORING: You can select HDD as mirroring HDD.
- FORMAT: Format Selected HDD
- S.M.A.R.T: You can view HDD's user configuration connected to DVR and S.M.A.R.T.

HDD S.M.A.R.T						
HDD 1 S.M.A.R.T RESULT			GOOD		TEMPERATURE 44 °	
ENTRY	CURRENT	WORST	RAW	TYPE	UPDATE	
RAW READ ERROR RATE	81	64	57832	Pre-fail	Always	
SPINUP TIME	99	99	0	Pre-fail	Always	
START/STOP COUNT	100	100	2	Old-age	Always	
REALLOCATED SECTOR C...	100	100	0	Pre-fail	Always	
SEEK ERROR RATE	65	60	5234	Pre-fail	Always	
POWER-ON HOURS COUNT	99	99	976	Old-age	Always	
SPINUP RETRY COUNT	100	100	0	Pre-fail	Always	
POWER CYCLE COUNT	100	100	2	Old-age	Always	
END TO END ERROR COUNT	100	100	0	Old-age	Always	
REPORTED UNCORRECTAB...	100	100	0	Old-age	Always	
REPORTED COMMAND TIM...	100	100	0	Old-age	Always	
HIGH FLY WRITES	100	100	0	Old-age	Always	
AIRFLOW TEMPERATURE	56	50	44	Old-age	Always	
G-SENSE ERROR RATE	100	100	0	Old-age	Always	
POWER-OFF RETRACT CO...	100	100	1	Old-age	Always	
LOAD/UNLOAD CYCLE CO...	100	100	92	Old-age	Always	
HDA TEMPERATURE	44	50	44	Old-age	Always	
HARDWARE ECC RECORVED	81	64	57832	Old-age	Always	
CURRENT PENDING SECTO...	100	100	0	Old-age	Always	
UNCORRECTABLE SECTOR...	100	100	0	Old-age	Offline	
UDMA CRC ERROR RATE	200	200	0	Old-age	Always	
HEAD FLYING HOURS	100	253	901	Old-age	Offline	

- GOOD: It shows current HDD condition is good.
- BAD: It shows current HDD condition is bad.
- HDD's S.M.A.R.T information would not be supported depending on HDD.

6.3.2 FORMAT



- ✚ HDD TYPE: You can select which HDD to format.
 - RECORD: You can select HDD of record to format all HDD configuration.
 - MIRRORING: You can select HDD of mirroring to format all HDD configuration.
- ✚ FORMAT: You can format the HDDs.
 - ◆ Formatting HDD time on DVR would be different depending on recorded capacity.
- ✚ Device: Select USB processing
 - ◆ DVR support format function of USB memory stick and external hard drive
- ✚ FORMAT: You can format the USB Device.
 - ◆ DVR, HDD formatting time is different depending on recorded capacity.
 - ◆ External record device can have data loss, be cautious before using DVR.

6.3.3 NAS / FTP

Recorded data stored in the DVR can be copied to the NAS or FTP server.

The screenshot shows a 'STORAGE' menu with a sidebar on the left containing 'SETUP', 'FORMAT', and 'NAS/FTP'. The 'NAS/FTP' option is highlighted. The main area is divided into two sections: 'NAS BACKUP' and 'FTP BACKUP'. The 'NAS BACKUP' section has fields for 'HOST NAME', 'BACKUP DIRECTORY', 'USER ID', and 'PASSWORD'. The 'FTP BACKUP' section has fields for 'HOST NAME', 'PORT' (set to 21), 'REMOTE DIRECTORY', 'USER ID', 'PASSWORD', 'TYPE' (set to *.avi), and 'DURATION' (set to 5 SEC). Below these fields are two checkboxes: 'SENSOR' and 'MOTION'. At the bottom right are 'OK' and 'EXIT' buttons.

- ✚ Enter the NAS device information you want to use in the NAS BACKUP menu

Host name: Set the IP address or DDNS name of the NAS device.

◆ Ex) 192.168.123.93 or nas.diskstation.me

- ✚ Backup Directory : Specify a shared folder that can be backed up on the DVR to the NAS device.

◆ Ex) NasTest or nastest

- ✚ User ID: input NAS storage's ID

- ✚ Password : input Password of NAS Storage

- ◆ The NAS backup must be run manually by the user.
- ◆ You can set the copy method to NAS from the search menu.

In FTP BACKUP Sub Menu, enter the FTP server information you want to use.

- ✚ HOST NAME: Set the IP address of FTP server.

◆ Ex) 192.168.123.93

- ✚ PORT: Specified the port assigned to the FTP server.

◆ Default: 21

- ✚ REMOTE DIRECTORY: Specify Directory registered in FTP SERVER to set Back up Data to be saved in corresponding directory.

◆ Ex) FtpTest or ftpTest

- ✚ USER ID: Enter the user ID registered in FTP server.

- ✚ PASSWORD: Enter the password for USER ID.

- ✚ TYPE: Select whether to save the data to back up in the .avi file format or the .dvr file format.

- ✚ DURATION: Set the frequency with which FTP backup operates.

➤ You can set interval from 5 sec to 30 sec.

- 🚩 ALARM: When a sensor occurs in Event, the image of the corresponding CH is backed up
- ◆ MOTION: When a motion event occurs, the video of the corresponding CH is backed up.
- ◆ NAS Server and FTP Sever do not use the manufacturer's services, but are operated and used by individual users.

6.4 CONFIGURING SYSTEM

To set-up the various system options, highlight SYSTEM and press ENTER.



6.4.1 DATE/TIME

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

- After changing data/ time, be sure to click () to confirm.

- ✚ DATE FORMAT: Determines how the date is displayed.

- YYYY/MM/DD(Default), MM/DD/YYYY, DD/MM/YYYY

- ✚ TIME FORMAT: Determines how the time is displayed.

- 24 Hour (Default), AM/PM

- ✚ NETWORK TIME SERVER SETUP: If the DVR is connected to the Internet, you can synchronize the time and date with sever.

- Default Server: pool.ntp.org

- ✚ ADJUST PERIOD (INTERVAL): Configuration synchronize interval with Network Time server.

- Network time server synchronization just starts after DVR configure power on/operation interval setup.

- ✚ TIME ZONE SETUP: Should be set according to the region that the DVR is installed.

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

- FROM: D.S.T Start time of DST
- End: D.S.T End Time of DST

6.4.2 MANAGEMENT

DVR's system information/ firmware upgrade can be processed here.



- ✚ SYSTEM INFORMATION: Select INFO to display. Following window will be displayed.

- F/W VERSION: Shows the firmware version of the DVR.
- H/W VERSION: Shows the hardware version of the DVR.
- UI VERSION: Shows the UI version of the DVR.
- VIDEO SIGNAL TYPE: The DVR can be selected between PAL and NTSC via a selector
- Available capacity: available capacity of recording based on currently showing video.

Ex) 200MB (currently available capacity to record) / 300MB (total recording capacity)

- Available time of recording: remaining recording available time / total recording available time.
Ex) 9days 9hours 9 min (remaining recording available time / 10days 10-hour 10 min (total available recording time)
- IP address: shows the currently set IP addresses.

(Premium DVR has 2 IP address for Ethernet port and local port, if using same range of IP address, DVR work not properly).

- Mac address 1: factory set up mac address.
- Mac address 2 (premium DVR 8/16ch): mac address factory set up.

(Premium DVR has 2 mac address)

- DDNS domain address: if using DDNS (Dynamic Domain Name Service), shows server's address.
 - DVR service port: port number for DVR network operation
 - Web service port: the port number that the DVR uses to support remote connection.
 - Fan status: show Fan's speed (RPM)
 - (Alarm if fan's speed below certain level)
 - HDD: installed HDD's total capacity and model name
- ✚ **SYSTEM NAME:** A system name of up to 15 characters can be defined. It is used for email notification or to be identified from CMS.
- ✚ **F/W UPGRADE:** Firmware updates may be released periodically to enhance system performance and add extra features. The operator can upgrade the firmware using a USB memory stick.
- ✚ **FACTORY DEFAULT:** If settings have been changed which causes erratic behavior, the factory default settings can be loaded.
- ✚ **SYSTEM DATA:** System settings can be saved to a USB memory stick. The settings can be reloaded in case of accidental factory reset or can be transferred to another DVR.
- ✚ **VIDEO Output:** You can select Video Signal NTSC or PAL.
- If you change the video signal, the DVR will reboot.
- ✚ **AUTO LOGIN:** auto login can be selected by "on / off"
- If set to on, when DVR starts, it will automatically login with admin password.
 - If set to off, when DVR starts, you have to enter password each time.
- ✚ **PASSWORD CHANGE NOTICE:** For the security of the recorder, set the password to change every 90 days..
- ON: After 90 days have passed since the password was set, a notification will be displayed to change the password when the recorder is started.
 - OFF: Turns off the password validity period setting.
- ✚ **Fan check:** send alert if set to ON when fan speed decreases.
- A bad fan can damage the DVR.

6.4.3 SOUND

The screenshot shows a menu titled 'SYSTEM' with a gear icon. On the left is a vertical list of options: 'DATE TIME', 'MANAGEMENT', 'SOUND' (highlighted in red), 'RS-485', and 'ADVANCED'. The main area displays the 'SOUND' settings. It includes a 'LIVE AUDIO' toggle set to 'ON' (checked), a 'DEFAULT AUDIO CH' dropdown set to '1 CH', and four 'AUDIO ASSIGN' buttons labeled 'AUDIO 1' through 'AUDIO 4'. At the bottom right are 'OK' and 'EXIT' buttons.

- ✚ LIVE AUDIO: If you select “on”, Audio output is available at Live mode.
- ✚ DEFAULT AUDIO CH: Set the audio channel to output first at startup.
- ✚ AUDIO 1 ~ 4 ASSIGN: Is synchronized with the audio channel and video channels.

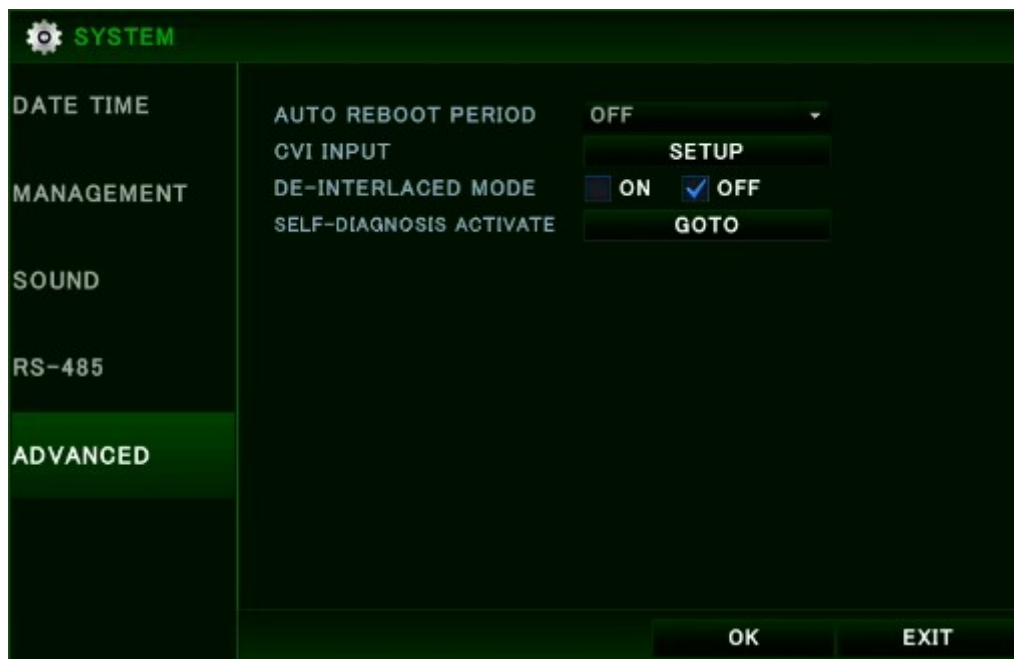
6.4.4 RS-485

The screenshot shows the same 'SYSTEM' menu, but with 'RS-485' highlighted in red in the left sidebar. The main area displays RS-485 settings: 'SYSTEM ID' (value 1), 'BAUDRATE' (dropdown 9600), 'DATA BIT' (dropdown 8), 'PARITY BIT' (dropdown None), and 'STOP BIT' (dropdown 1). 'OK' and 'EXIT' buttons are at the bottom right.

- ✚ SYSTEM ID: Select external device’s system ID connected to RS485 port.
- ✚ BAUD RATE: Select external device’s baud rate connected to RS485port.
- ✚ DATA BIT: Select external device’s data bit connected to RS-485port.
- ✚ PARITY BIT: Select external device’s parity bit connected to RS-485 port.

- ✚ STOP BIT: Select external device's stop bit connected to RS-485 port.

6.4.5 ADVANCED

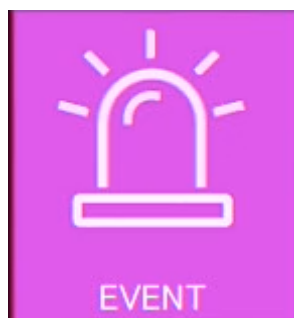


Set additional functions of the recorder.

- ✚ Automatic restart: Set the recorder to automatically restart at regular intervals.
 - OFF: Automatic reboot function OFF
 - Daily: Reboot at 23:59:59 every day
 - Weekly: Reboot every Saturday at 23:59:59 seconds
 - Monthly: Reboot at 23:59:59 on the last day of every month
- ✚ CVI Input: Set whether to support CVI camera input for each channel.
 - ON: Set to recognize when CVI camera input.
 - OFF: Set so that it is not recognized when the CVI camera is input.
 - When the input of the CVI camera is turned on, some camera images may not be displayed properly.
- ✚ DE-INTERLACED MODE: De-Interlaced is a device that displays one frame at a time, forcing the screen shot with Interlace to resemble a Progressive screen.
 - De-Interlaced ON: After setting, the phenomenon that the frame of the recorded data appears to be doubled is improved and recorded. (It's hard to see the difference when recording a static video.)
 - ◆ Recording with the De-Interlaced effect can reduce the phenomenon of comb patterns.
 - ◆ It is recommended to set De-Interlaced to OFF when not using a D1 class camera, and to set De-Interlaced to ON when using a D1 class camera.
 - ◆ However, when De-Interlaced ON is set, more CPU performance is used, so it is recommended to use OFF when using an analogue HD class camera such as AHD / TVI.
- ✚ SELF-DIAGNOSIS ACTIVATION: Collects and displays the basic status information of the recorder.

6.5 CONFIGURING EVENT / SENSOR

Configure Event activation: Alarm Input / Alarm Output / Buzzer Out / E-Mail / PTZ Pre-set.



6.5.1 SENSOR INPUT



You can configure Sensor input .

-  **OPERATION:** You can configure activation when Sensor is triggered.
 - **DISABLE:** When Sensor input is triggered, Event is not working.
 - **ENABLE:** When Sensor input is triggered, Event is working.
-  **TYPE:** If the operation is enabled.
 - **N/O:** Keeps Sensor open in normal status.
 - **N/C:** Keeps Sensor closed in normal status.
-  **TEXT:** If event is triggered after Sensor input, you can make a title of channel that is displayed.
-  **Channel Mapping:** set up between sensor input and DVR's channel.

The screenshot shows the 'EVENT' menu with a 'CHANNEL MAPPING' overlay. The overlay lists 16 sensors (SENSOR 1 to SENSOR 16) with checkboxes. A 'BUZZER' checkbox is checked. Below the sensors, there is a 'CHANNEL' dropdown set to 'CH 1' and 'CONFIRM' and 'CANCEL' buttons. The background menu includes options like 'SENSOR INPUT', 'RELAY OUTPUT', 'BUZZER', 'E-MAIL', 'PTZ PRESET', 'PUSH ALARM', and 'POS'.

6.5.2 RELAY OUTPUT SETUP

The screenshot shows the 'EVENT' menu with the 'RELAY OUTPUT' option selected. The configuration screen displays settings for 'RELAY 1', including 'OPERATION' (TRANS.), 'DURATION' (5 SEC), and 'HDD EVENT' (ON/OFF). Below this is an 'ADVANCED CONFIGURATION' table with columns for 'SENSOR', 'V-LOSS', and 'MOTION'. The table lists 8 channels (CH1 to CH8) with checkboxes for each. Navigation arrows and 'OK'/'EXIT' buttons are at the bottom.

	RELAY 1	OPERATION	ENABLE
MODE	TRANS.	DURATION	5 SEC
TYPE	NONE	HDD EVENT	ON ☐ OFF ☒

	SENSOR	V-LOSS	MOTION
CH1	☐	☐	☐
CH2	☐	☐	☐
CH3	☐	☐	☐
CH4	☐	☐	☐
CH5	☐	☐	☐
CH6	☐	☐	☐
CH7	☐	☐	☐
CH8	☐	☐	☐

You can configure activation of Relay output.

✚ RELAY OUT: Select Relay for the operation to be configure.

✚ OPERATION: You can configure output status of Relay.

- DISABLE: Relay is not working
- ENABLE: Relay is working once event is triggered.

✚ MODE: You can configure activation of Relay output.

- TRANSPARENT: Keep Relay output until event triggering stopped.
- LATCHED: Keep relay output for duration time from the event triggered lately.

✚ DURATION: If the alarm output mode is configured as Latched. You can configure duration

time for relay output.

- ✚ TYPE: Define the transition of the signal of Alarm output
 - N/O (Active Low): Normal open, when event is triggered, the relay will go to 'Close' state from the 'Opened'.
 - N/C (Active High): Normal Close, when event is triggered, the relay will go to 'Open' state from 'Closed.'
- ✚ HDD EVENT: If you select "ON", when HDD related Event is triggered, relay output will be started.
- ✚ SENSOR: When sensor input, relay output will be started.
- ✚ VIDEO LOSS: When video loss occurs, relay output will be started.
- ✚ MOTION: When motion is triggered, relay output will be started.

6.5.3 BUZZER OUTPUT SETUP

	SENSOR	V-LOSS	MOTION
CH1			
CH2			
CH3			
CH4			
CH5			
CH6			
CH7			
CH8			

You can configure Buzzer output when event is triggered.

- ✚ OPERATION: You can configure the output status of Buzzer.
 - DISABLE: Buzzer is not working when event is triggered.
 - ENABLE: Buzzer is working when event triggered.
- ✚ HDD EVENT: If HDD related event is triggered, Buzzer output will be started.
- ✚ MODE: You can configure operation mode of Buzzer output.
 - TRANSPARENT: Keep buzzer output until event operation is stopped.
 - LATCHED: Keep buzzer output for the duration time from event is triggered.
- ✚ DURATION: You can configure duration time for buzzer output in latched mode.
- ✚ SENSOR: When sensor input, buzzer output will be started.

- VIDEO LOSS: When video loss occurs, buzzer output will be started.
- MOTION: When motion is triggered, buzzer output will be started.

6.5.4 E-MAIL SETUP

	SENSOR	V-LOSS	MOTION
CH1			
CH2			
CH3			
CH4			
CH5			
CH6			
CH7			
CH8			

You can configure E-mail notification when event is triggered.

- NOTIFICATION: If you select "ON", E-mail will be sent when event is triggered.
- SETUP CHANGE: If you select "ON", E-mail will be sent when menu configuration is changed.
- HDD EVENT: If you select "ON", E-mail will be sent when HDD related event is triggered.
- BOOT EVENT: If you select "ON", E-mail will be sent with DVR boot-up.
- SENSOR: E-mail will be sent when sensor is triggered.
- VIDEO LOSS: Email will be sent when video loss occurs.
- MOTION: Email will be sent when motion is triggered.
- FREQUENCY: You can configure E-Mail notification period.

6.5.5 PTZ PRESET

When you use a Pan Tilt Zoom camera, you can move to a preset location which was previously set according to event of each channel.

	SENSOR		V-LOSS		MOTION	
CH1	☐	0	☐	0	☐	0
CH2	☐	0	☐	0	☐	0
CH3	☐	0	☐	0	☐	0
CH4	☐	0	☐	0	☐	0
CH5	☐	0	☐	0	☐	0
CH6	☐	0	☐	0	☐	0
CH7	☐	0	☐	0	☐	0
CH8	☐	0	☐	0	☐	0

🔧 PTZ CAMERA: Select the PTZ camera for the following configuration to be applied.

🔧 OPERATION: You can configure the operation of PTZ Preset, when event (Sensor, Video loss, Motion) is triggered.

6.5.6 PUSH ALARM

In order to get push notification / push alarm once event occurs, you have to register your DVR information to mobile app (OnCueviewer)

PUSH ALARM		
SENSOR	V-LOSS	MOTION
☐	☐	☐

NOTIFICATION TIME

START TIME: 00:00 END TIME: 23:59

PUSH CHANNEL			
☒ ALL	☐ CH 1	☐ CH 2	☐ CH 3
	☐ CH 4	☐ CH 5	☐ CH 6
	☐ CH 7	☐ CH 8	☐ CH 9
	☐ CH 10	☐ CH 11	☐ CH 12
	☐ CH 13	☐ CH 14	☐ CH 15
	☐ CH 16		

🔧 SENSOR: once sensor is triggered in DVR, push alarm sent to mobile app.

- VIDEO LOSS: once video loss happens, push alarm sent to mobile app.
- MOTION: once motion is triggered in DVR, push alarm sent to mobile app.

6.5.7 POS

Record video from camera with POS data received by POS machine. POS data can be set up with ignore code, mask code, event code, also to search and playback along with POS data as an event.

- Ignore code: data setting with ignore code, skip without showing data.
- Mask code: If setting with mask code, display ***** from mask code to the end of POS data.

EX) mask code: 1/ POS data: TEST12345

Display: TEST*****

- Event code: if registered with event code are same as POS data, relay out, buzzer out, email, push alarm are triggered.

- POS display: set up location of displaying of POS data.

None: does not show POS data.

Always: show POS data continuously without erasing.

30sec ~10 min: delete after displaying marked time.

- POS port setting: channel setting and detailed setting for POS port.

PORT 1 DETAIL(CH 1)

CHANNEL ASSIGNMENT CH 1

EVENT

SENSOR	BUZZER	E-MAIL	PUSH
☐	☐	☐	☐

TRANSACTION START CODE

TRANSACTION END CODE

BAUDRATE 9600

DATA BIT 8

PARITY BIT None

STOP BIT 1

LINE DELIMINATER ☒ CR+LF ☐ CR ☐ LF

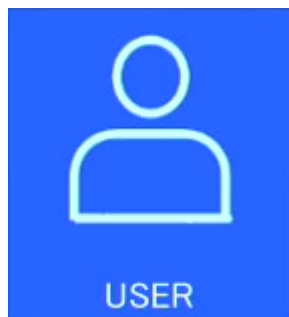
OK CANCEL

- Channel allocation: choose the channel to use with POS data.
- Sensor input, Buzzer, email, Push alarm: If you choose event code mentioned, DVR's sensor input is activated.
- Enter transaction starting code, ending code.
- Enter Incoming POS data's baud rate, data bit, parity bit, stop bit, line division.

6.6 CONFIGURING USER

To set-up the User Authority options, highlight USER and press ENTER.

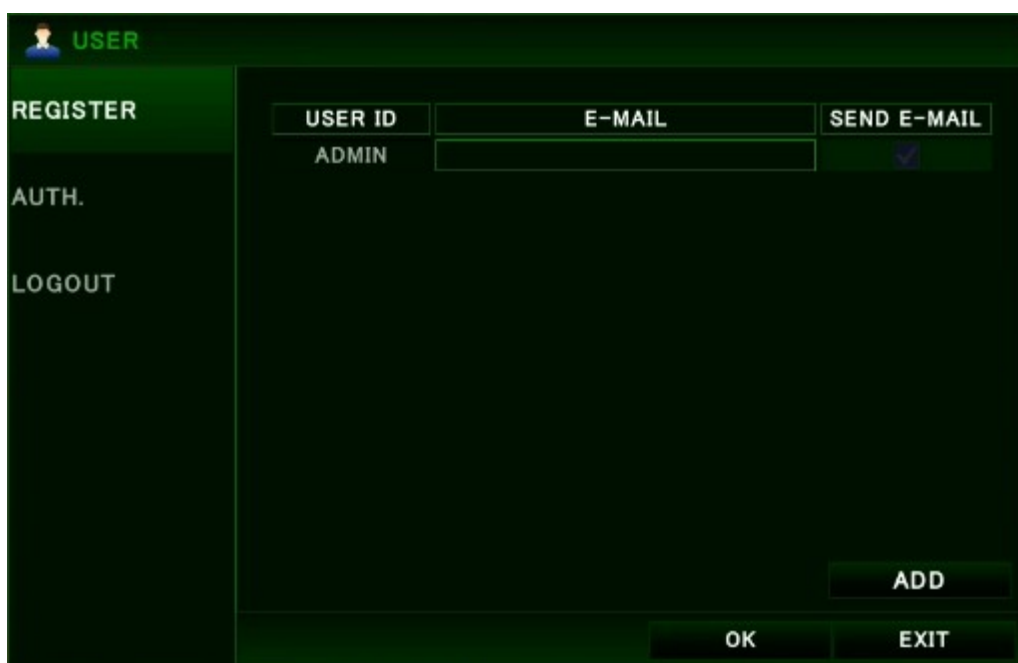
To add account to access recorder, do authority correction, password correction, email notification service registration.



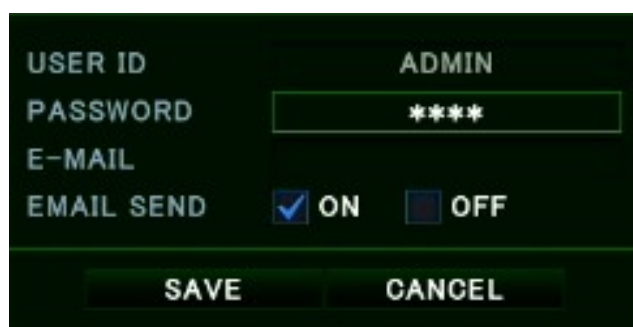
6.6.1 USER REGISTER

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

Using this, max 10 user account can be registered and configure authority separately.

A screenshot of a user registration screen. The screen has a dark green background. On the left, there is a vertical menu with a small user icon and the word "USER" in green. Below it, the menu items "REGISTER", "AUTH.", and "LOGOUT" are listed in white. The "REGISTER" item is highlighted. The main area of the screen is divided into three columns: "USER ID", "E-MAIL", and "SEND E-MAIL". The "USER ID" column contains the text "ADMIN". The "E-MAIL" column is empty. The "SEND E-MAIL" column contains a checked checkbox. At the bottom right, there is an "ADD" button. At the bottom center, there are "OK" and "EXIT" buttons.

As well as the ability to add new users, existing user's defaults can be modified as below.

A screenshot of a user modification screen. The screen has a dark green background. It contains four rows of labels and input fields: "USER ID" with the value "ADMIN", "PASSWORD" with the value "****", "E-MAIL" which is empty, and "EMAIL SEND" with a checked checkbox and the label "ON". Below these fields are two buttons: "SAVE" and "CANCEL".

- ✚ USER ID: create user id (max 10-character mixed English/ number) using virtual keyboard.
- ✚ PASSWORD: Change the password using the virtual keyboard
 - Note: To delete the existing password, use the “Clear” on the virtual keyboard.
- ✚ E-MAIL: Enter the user’s email address if email notifications are required.
- ✚ E-MAIL SEND: Enable or disable email notification for the user.
 - Note) you can delete any account besides ADMIN.

6.6.2 USER AUTHORITY

AUTHORITY	NONE	NONE	NONE	NONE	NONE
SEARCH&PLAY					
COPY					
PTZ CONTROL					
POWER					
CAMERA	DETAIL	DETAIL	DETAIL	DETAIL	DETAIL

User authority (except ADMIN) can be selected.

- ✚ Search & Play: Right to enter Search Menu/ Instant Play
- ✚ Copy: right to enter backup menu
- ✚ PTZ control: right to control pan tilt zoom camera.
- ✚ Power OFF: Right to enter Power Off mode
- ✚ Camera: Right to see camera
 - Detail: Configure that each user can choose the camera “to see” and “not to see”

6.6.3 LOG-OUT

USER

REGISTER

AUTH.

LOGOUT

AUTO LOGOUT

☐ ON ☒ OFF

DURATION

5MIN

OK EXIT

- ✚ AUTO LOGOUT: Selects if auto log-out is ON or OFF.
- ✚ DURATION: If auto log is set to ON, this determines the time. (In 1 - 10 Min)

6.7 CONFIGURING RECORD

To set-up the various recording options, highlight RECORD and press ENTER.



6.7.1 SETUP

Recording configuration is set up here.



- SIZE: You can select what resolution of video will be recorded as follows.
- All: set up all camera's video resolution
- FPS: You can select recording frame rate of 0 / 1 / 2 / 4 / 5 / 8 / 10 / 15 / 30 in NTSC mode or 0 / 1 / 2 / 4 / 5 / 7 / 10 / 13 / 25 in PAL mode.
- QUALITY: Select recording video quality
- AUDIO: select "ON", audio data will be recorded.

➤ : Audio activated channel

➤ : no audio

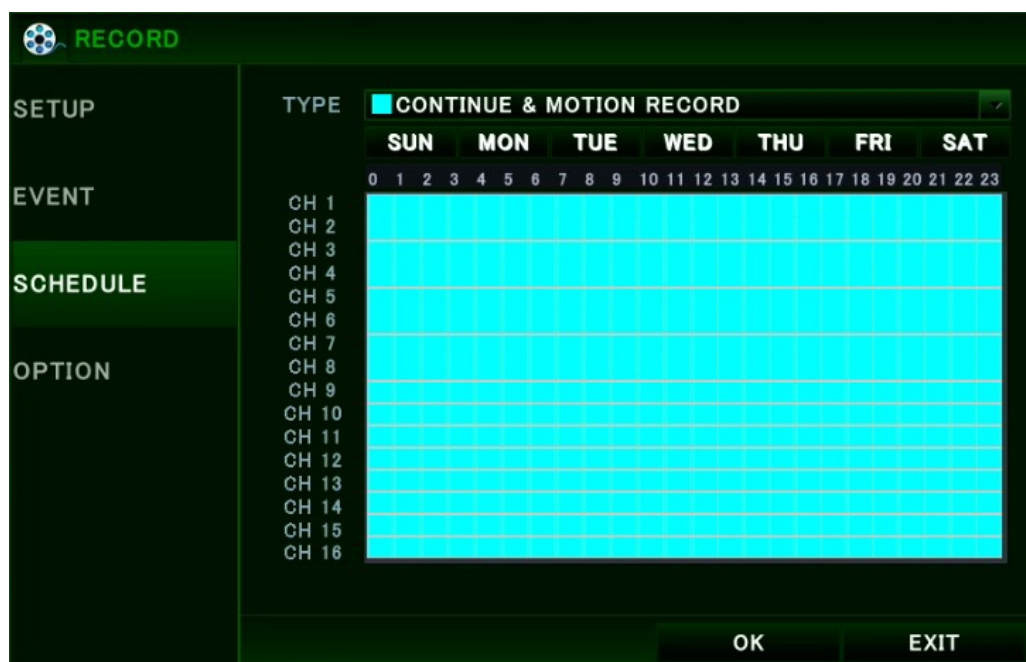
6.7.2 EVENT

When event is triggered, you can configure recording condition.



- 📺 MOTION EVENT: Configure recording condition when motion triggered.
- 📺 ETC EVENT: Configure recording condition for Alarm / V-Loss occurred.
 - FPS: NTSC: Configure frame rate of 0 / 1 / 2 / 4 / 5 / 8 / 15 / 30 at NTSC Mode or 0 / 1 / 2 / 4 / 5 / 7 / 13 / 25 in PAL mode.
 - QUALITY: Configure video quality of 5 levels: Low / Standard / High / Highest / Super.
 - Audio: If you select “ON”, audio data will be recorded.
- 🔴 Recording resolution for the event record mode follows the size in the CONTINUOUS record setting.

6.7.3 SCHEDULE



You can configure schedule recording mode as Day / Week.

- Daily: set up one schedule and apply to every day.
 - Weekly: set up 7 schedules from Monday to Sunday and use it for every week.
 - Select daily, weekly in menu(record-> MISC)
- 🌈 DAILY: You can configure the recording type by hour and by channel. This mode is for the demand that all days have the same recording schedule regardless of the day of the week.
- 🌈 WEEKLY: In this mode, you can configure the recording type by hour, by channel and by the day of the week. This mode is suitable for the user who wants to configure a separate schedule according to each day of the week.
- 🌈 TYPE: You can select recording mode out of total 8 modes. Refer to the below picture.



- No record.
 - Continuous record
 - Motion record.
 - Alarm record
 - Continuous & Motion Record
 - Continuous & Alarm Record
 - Motion & Alarm Record
 - Continuous & Motion & Alarm Record
- Note) You can enable Day or Week recording mode in the configuration of 'MISC' menu
- Note) you can configure schedule timetable by drag left mouse click.

6.7.4 OPTION



- ✚ SCHEDULE MODE: Either DAILY (one schedule will apply to every day of the week) or WEEKLY (each day of the week has its own schedule).
- ✚ PRE-EVENT RECORDING TIME: When the DVR is not in continuous recording mode, this setting determines the amount of footage that is always recorded before an event occurs (VA, motion detection, alarm input etc.)
- ✚ POST-EVENT RECORDING TIME: You can configure how long the system keeps event recording after event triggered.
 - Event triggered repeatedly before finishing recording, post event recording can be recorded after last event.
- ✚ AUDIO RECORDING: If you select "ON", audio data will be recorded.
 - ON: audio transmitted to DVR record with video, which also displays on live view.
 - OFF: audio transmitted to DVR on live view.
- ✚ Mirroring: You can enable mirroring recording mode or not.
 - ON: Select mirroring record and record as per mirroring way.
 - ✓ EVENT: Just event data will be recorded to mirroring HDD.
 - ✓ ALL: Same data will be recorded to mirroring HDD same as current recording data.
 - OFF: Mirroring record off
- ✚ SELECT CHANNEL FOR MIRRORING: You can check which channel will be recorded to mirroring HDD.
 - All: all channel with mirroring record.
 - Channel 1~16: selected channel record with mirroring.

6.8 CONFIGURING NETWORK

To set-up the Network options, highlight NETWORK and press ENTER.

Configure all the menu of network.



6.8.1 IP SETUP



IP set up menu is used when you use PC software and mobile software which DVR support.

- ✚ DHCP: When selected the DVR will obtain an Ethernet IP address automatically if connected to a DHCP server or router.
- ✚ IP ADDRESS: If DHCP is not being used the IP address can be manually set.
- ✚ GATEWAY: If DHCP is not being used the Gateway can be manually set.
- ✚ SUBNET MASK: If DHCP is not being used the subnet mask can be set manually.
- ✚ 1ST DNS SERVER: If DHCP is not being used the 1st DNS server can be manually set.
- ✚ 2ND DNS SERVER: If DHCP is not being used the 2nd DNS server can be manually set.
- ✚ DVR PORT: The port number that the DVR uses to support to the remote software.
- ✚ WEB SERVER PORT: The port number that the DVR uses to support remote connection from Internet Explorer or other web browsers.
 - Using Internet router, if connecting more than one DVR, you should configure service port and web service port differently.
- ✚ MAX TX SPEED: Specifies the maximum bandwidth that the DVR can use during a remote connection.

- Note) Both DVR & WEB SERVER PORT will need a firewall rule creating for remote Connection.
- Note) uPNP (Auto Port Forwarding) is activated always in the background.
- Note) uPNP function for automatic forwarding setup may not be compatible depending on router and hub, in this case user should configure port forwarding properly.

 **NETWORK STREAM:** Sets the Stream to be forwarded by the Network client.

- Main Stream: Sends to Network according to the settings recorded by the recorder.
- Sub Stream: Transmits the sub stream of the recorder to the network.
- Depending on the network environment, the transfer data size of the mainstream is large, so it may operate slowly or incur excessive charges.

6.8.2 Local port

It is for connecting IP cameras to DVR, local port can be used to 2 ways

- Local port is used for IP address configuration for IP camera connected with plug and play to network dvr.
- It is also used for IP address setting for IP camera connected to local network of network dvr.
- When connecting IP cameras manually, you should use same network range with this.
- IP address range for Ethernet IP address and local should be different.



NETWORK	
IP SETUP	IP ADDRESS 192.168.172.100
LOCAL PORT	GATEWAY 192.168.172.1
DDNS	SUBNET MASK 255.255.255.0
E-MAIL	

QR Code

OK EXIT

Set up local port's IP address, gateway, subnet mask.

6.8.3 DDNS



DDNS: When enabled the DVR can be accessed through a dynamic DNS server. Commonly used if a broadband connection does not have a static IP address.

DDNS SERVER: enter sever for using ddns function.

You can refer to ddns instruction in 7.3 ddns.

Auto DDNS: If you mark “on” for auto DDNS, set up ddns automatically.

➤ Auto DDNS name: show your DVR’s DDNS name.

◆ Ex) <http://0005b18.ns.oncuiddns.com>



P2P SERVER: Enter the p2p server address for mobile application access.

◆ Keep the default value and use it.

8.8.4. E-MAIL

NETWORK

E-MAIL

USE DEFAULT SERVER ☐ ON ☒ OFF

SERVER smtp.gmail.com

PORT 465

SECURITY ☒ ON ☐ OFF

USER cctv

PASSWORD *****

FROM cctv@gmail.com

TEST E-MAIL b...@...com **TEST**

HEALTH REPORT DAILY

REPORT DATA **SETUP**

OK EXIT

- ✚ USE DEFAULT SERVER: Selects On or OFF. If you make Default sever as ON, mail will be sent by our own mail server (mail sever).
- ✚ SERVER: in case you do not use default server, enter your email server to use.
- ✚ PORT: The outbound email port number.
- ✚ SECURITY: Set to OFF if the SERVER does not require a username and password to connect. (mark "On" if require username and password)
- ✚ USER: Enter a username to identify the DVR in email messages.
- ✚ PASSWORD: If SECURITY is set to ON, enter the password here.
- ✚ Sending email address: Input an email address or text.
- ✚ TEST E-MAIL: Send a test e-mail with the specified server information to verify the delivery.
- ✚ Test: it is to confirm that Pre-set email is right. Test email is transmitted using pre-set information.
 - ◆ To use email function, you must configure 'user's menu' and 'event/sensor menu → email menu'.
- ✚ Health report: DVR status, HDD smart information, current recording status can be emailed to preset email address.
(Send email setting in health report menu)
- ✚ Report set up: select contents for health report.

NETWORK

IP SETUP

LOCAL PORT

DDNS

E-MAIL



USE DEFAULT SERVER ☐ ON ☒ OFF

SERVER smtp.gmail.com

PORT 465

SECURE ☐ ON ☒ OFF

USER

PASSW

FROM y@gmail.com

TEST E-MAIL smtp.gmail.com

TEST

HEALTH REPORT DAILY

REPORT DATA

OK

EXIT

REPORT CONFIG

☒ DVR INFORMATION

☒ HDD S.M.A.R.T

☒ RECORD STATUS

OK

CANCEL

7. REMOTE

7.1 WEB SERVER

DVR prepares the web server internally. This server consists of two services. One is for the remote configuration of DVR setup and the other is for the client viewer based on Active-X. Using the remote configuration, you can configure all feature sets of DVR. And the live preview, search and PTZ control can be served by the 'WebViewer'.

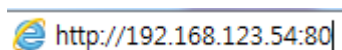
The table below shows the recommended PC specification for the proper operation.

[Minimum & Recommended Specification of PC]

	Minimum	Recommended
Operating System	Windows XP	Windows10
CPU	Core2Duo @2.53GHz or Equivalent	Core i5 @3.3GHz or Higher
Memory	1 GB	2 GB
Video Card Memory	512MB	512MB
HDD Capacity	50MB	2GB
VGA Resolution	1280x1024x16	1920x1080x32
Direct-X	DirectX 7.0	DirectX 9.0c
Network	Ethernet 10/100B-TX	

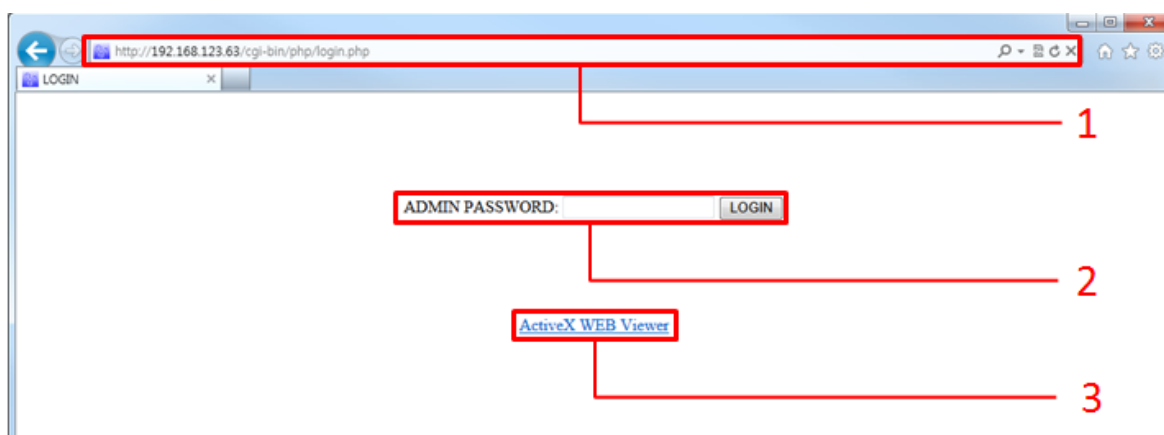
7.1.1 CONNECT TO WEB SERVER

Enter the IP address of DVR into the ULR bar referring to the below picture.



- ◆ NOTE) You can obtain the IP address of DVR from the 'INFO' section under the OPERATION SETUP of DVR menu. If the local IP which starts with '192.168.xxx.xxx' is used in the DVR, you have to set the 'Port Forwarding' properly in your router. The port number to set can be seen from 'DVR PORT' in the NETWORK SETUP. If your router supports the 'uPNP' feature, there is no need to set 'Port Forwarding' manually because the DVR supports the 'Auto Port Forwarding' function using the 'uPNP' protocol. (Some routers can make the compatibility issues to the uPNP protocol of DVR)
- ◆ NOTE) If the access to the web server can't be established after setting the 'Port Forwarding', you may need to check the firewall of router and your PC. The port used in the DVR should be allowed to access by the firewall.

[The initial screen of Web Server]



- ◆ 1: Enter the IP address of your DVR. If you don't use the default port number of HTTP, 80, you may add the port number following the IP address. Ex. http://192.168.123.63:80
- ◆ 2: Input the administrator's password beside of the 'ADMIN PASSWORD'. Only administrator can log in for the DVR configuration. Clicking the 'LOGIN' button will guide you to the DVR configuration pages.
- ◆ 3: ActiveX based Web Viewer: Clicking the link execute the 'WebViewer' or initiate the installation of ActiveX plugin.

7.1.2 WEB CONFIGURATION PAGE

In the web configuration page, you can set the DVR operations remotely.

Tested Web Browser List

- Microsoft Internet Explorer®
- Mozilla Firefox®
- Google Chrome Browser®
- Opera Browser®
- Apple Safari®

Features

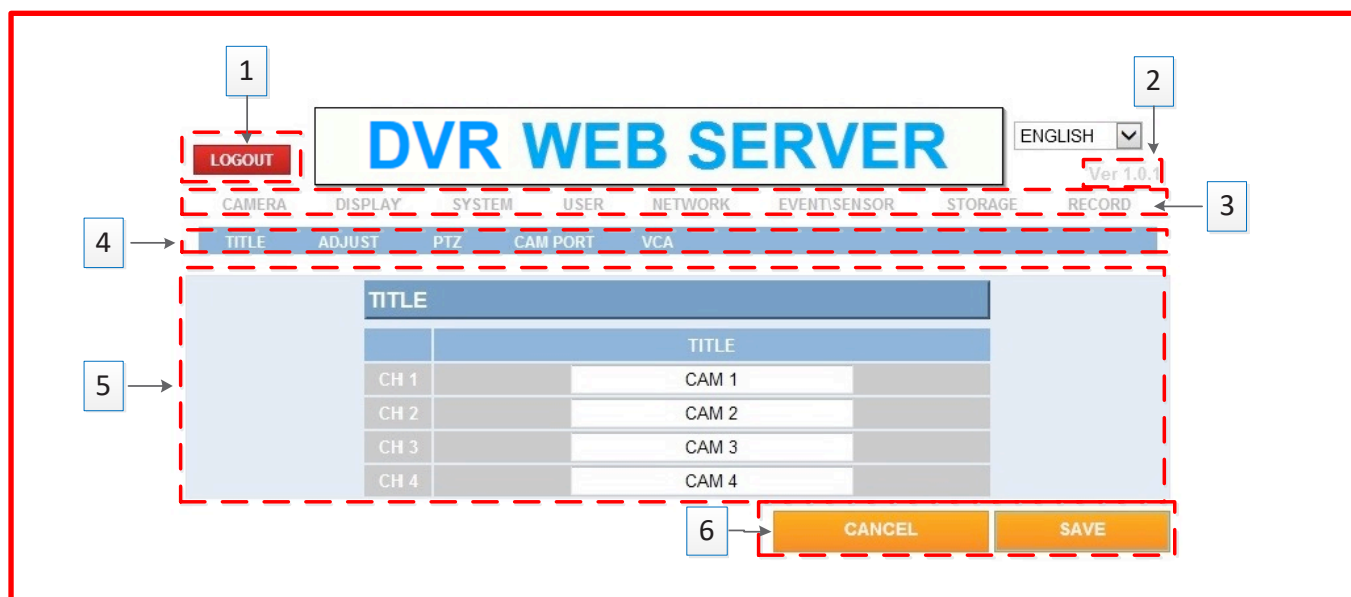
- Configuring the DVR setup remotely

After giving the ADMIN's password and clicking 'LOGIN', you can move into the page where you can configure the setup menu of DVR.

ADMIN PASSWORD: LOGIN

- NOTE) Default Password for ADMIN: 1234
- NOTE) Only ADMIN account can access the menu configuration pages.
- NOTE) When no operation more than 5 minutes is, the configuration page will be logged out automatically.

7.1.3 Initial Page of Web Configuration



- 1: log out from the configuration page
- 2: version number of this web configuration
- 3: Top menu of DVR
- 4: Sub menu of DVR
- 5: Setting or Information section
- 6: Canceling or applying the modification
 - CANCEL: ignore any modification and the modification is recovered to the previous setting
 - SAVE: the modified setting is applied to DVR and saved
- In order to apply or save, you should click the 'APPLY' button. Otherwise, all the changes will be lost.

For the detail description of the DVR configuration, please refer the '[5.HOW TO CONFIGURE](#)' section of this manual. Clicking the following link will guide you to the proper section which explains each setup.

-  [CAMERA](#)
-  [DISPLAY](#)
-  [SYSTEM](#)
-  [USER](#)
-  [NETWORK](#)
-  [EVENT/SENSOR](#)
-  [DISK](#)
-  [RECORD](#)

- ◆ Search, Playback & Copy functions are not supported from the web server. To user these, please use the 'Web Viewer' instead.

7.1.4 WEB VIEWER (Active-X)

Through the 'Web Viewer', you can see the live preview video, search and playback of recordings in the DVR and copy the recordings out from the DVR.

Tested Web Browser

-  Microsoft Internet Explorer9®
-  Mozilla Firefox®
-  Google Chrome Browser®

Features

-  This 'Web Viewer' is based on ActiveX.
-  Monitoring the live preview videos from the DVR.
-  Searching & Playback of the recordings in the DVR
-  Copy the recording data in the DVR to the PC remotely
-  PTZ camera control remotely

7.1.4.1 Installation and Execution

[Microsoft IE]

Click the 'ActiveX WEB Viewer' initiate the installation of the 'Web Viewer' if not installed previously. If the 'Web Viewer' is installed already in your IE browser, click will execute this plug-in.

[ActiveX WEB Viewer](#)

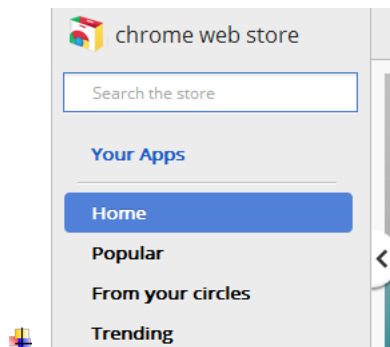
- ◆ NOTE) To install properly, your PC should be connected to the internet.
- ◆ NOTE) 'Web Viewer' is certificated with the name 'Vitek Industrial Video Products', who designs the application.
- ◆ NOTE) First execution of 'Web Viewer' will install the application first.
- ◆ NOTE) If new updated version of 'Web Viewer' is found, updating starts automatically before execution.

[Google Chrome]

In order to execute the ActiveX plugin, you have to install the 'IE TAB' from Google web store referring the following steps.

-  Open the Chrome browser

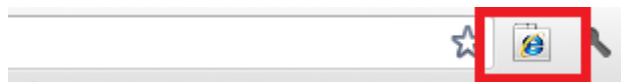
- Go to <https://chrome.google.com/webstore/category/home>
- Enter the word 'IE TAB' into the 'Search the store' box and press enter.



- 'Searching' shows the results such as below.



- Click the 'ADD TO CHROME' and then you can see the IE symbol on the right side of URL Bar.



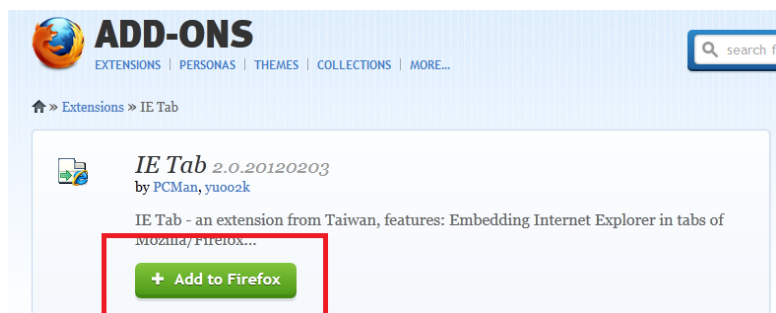
There are two ways to execute the 'Web Viewer' from the Chrome.

- Click the ICON () on the right side of URL bar. It opens new URL bar to get the URL. Entering the required IP address of DVR will connect the web server.
- Just entering the IP address of DVR into the URL bar of Chrome and press enter

[Mozilla Firefox]

In order to execute the ActiveX plugin, you have to install the 'IE TAB' from the add-on page of Firefox referring the following steps.

- Execute the Firefox browser
- Go to the <https://addons.mozilla.org/en-US/firefox/addon/ie-tab>. And then the following page will show the way to install the 'IE TAB'.

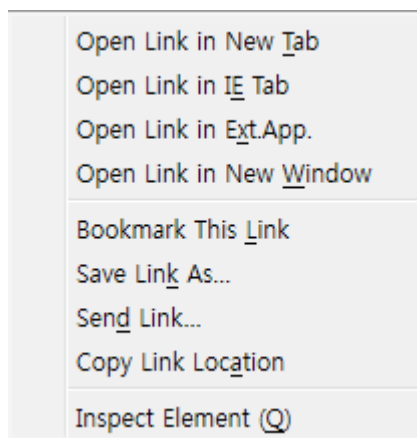


- Click the 'Add to Firefox' will enable supporting Active-X plugin.

Way to execute the 'Web Viewer' from the Firefox

- Enter the IP of DVR into the URL bar of Firefox.

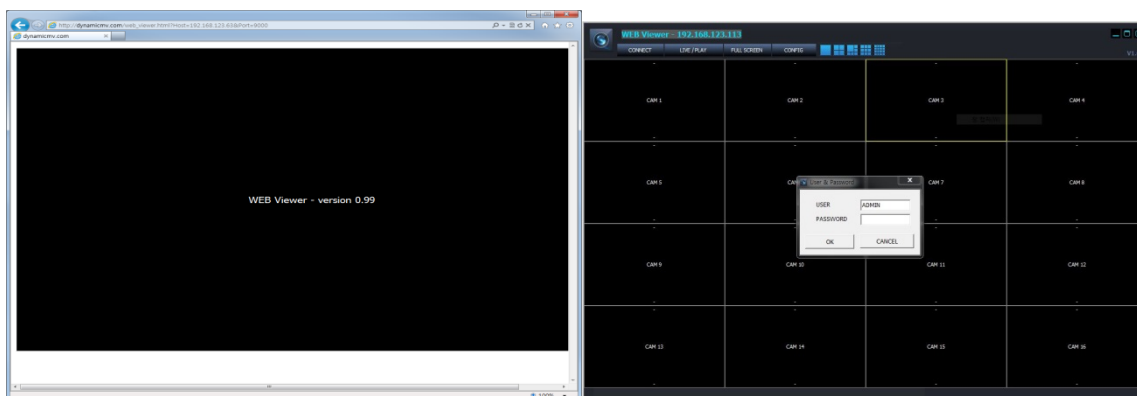
- Right-click the link 'ActiveX WEB Viewer' will show the pop-up menu such as below.



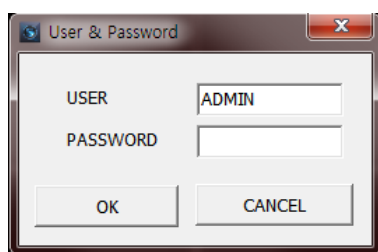
- Select the 'Open Link in IE TAB'. ActiveX
- First execution will install the ActiveX plug-in. And the application will be executed if installed already.

7.1.4.2 Initial Screen of Web Viewer

Executing the 'Web Viewer' opens the application separated from the web browser and show the login window such as below picture.



7.1.4.3 Log In



User :

: Enter the Username of DVR registered in the DVR.

Password :

: Enter the password for the selected user.

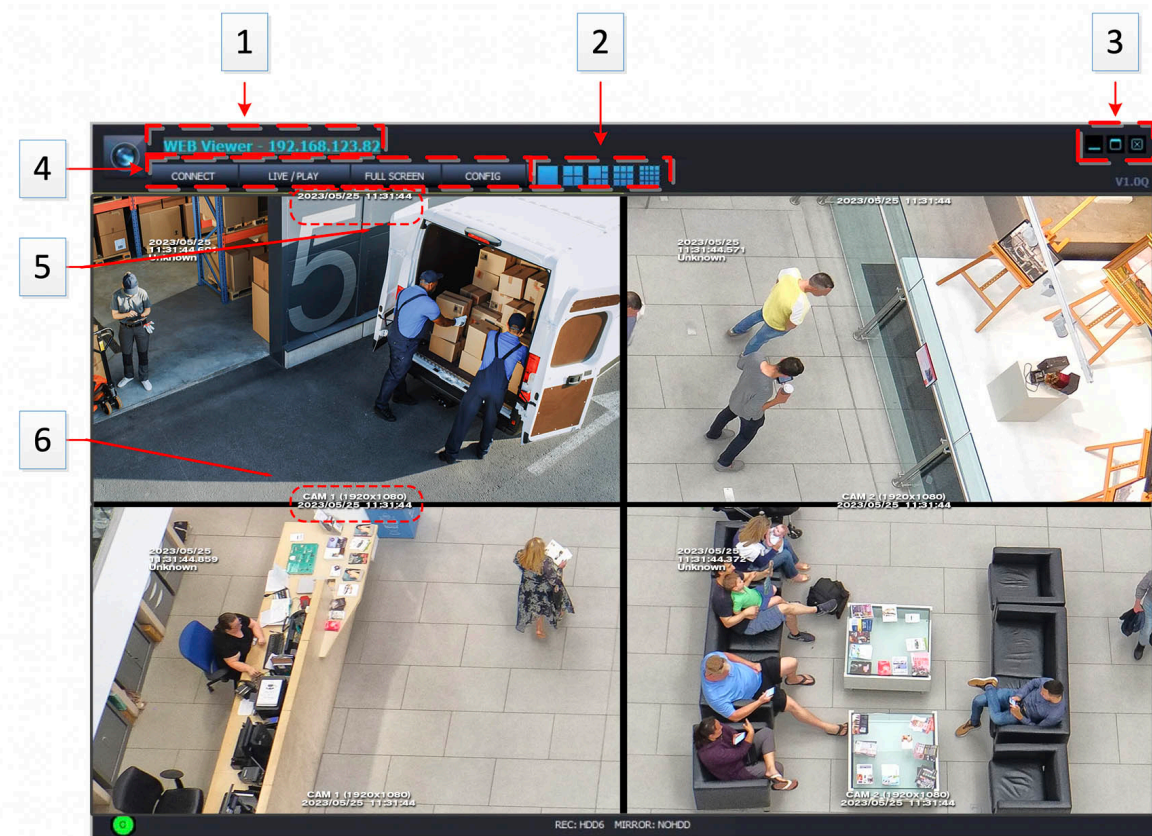
- The user authority and allowed functions, live preview, search & playback, PTZ control and etc., are controlled by the setting USER AUTHORITY setting of DVR setup.
- USER ID and password is case-sensitive.

7.1.4.4 Live Preview

After login, the live preview screen will be shown such as below.

Features

- 🔧 User log-in/out feature (RECONNECT)
- 🔧 Monitoring the live preview
- 🔧 Snapshot and save the preview video as JPEG.
- 🔧 (Admin Only) Control the resolution and quality for transferred video stream directly.



- 🔧 The yellow rectangle around video shows the currently selected camera.

- 🔧 1: IP of DVR connected remotely

- 🔧 2: display split mode selection

-  : Single camera view
-  : Quad split view
-  : 6 camera split view
-  : 9 camera split view
-  : 16 camera split view

- 🔧 3: WEB Viewer Minimize/Maximize/Close

➤  : Minimize the window.

➤  : Maximize the window.

➤  : Exit the 'Web Viewer.'

4: Reconnect/ Live& Search/Full Screen

  : Log out and reconnect.

  : Switching between the live preview and the search & playback.

  : Full screen video view. Press 'ESC' to return to the window.

  : Configuration menu for Web Viewer

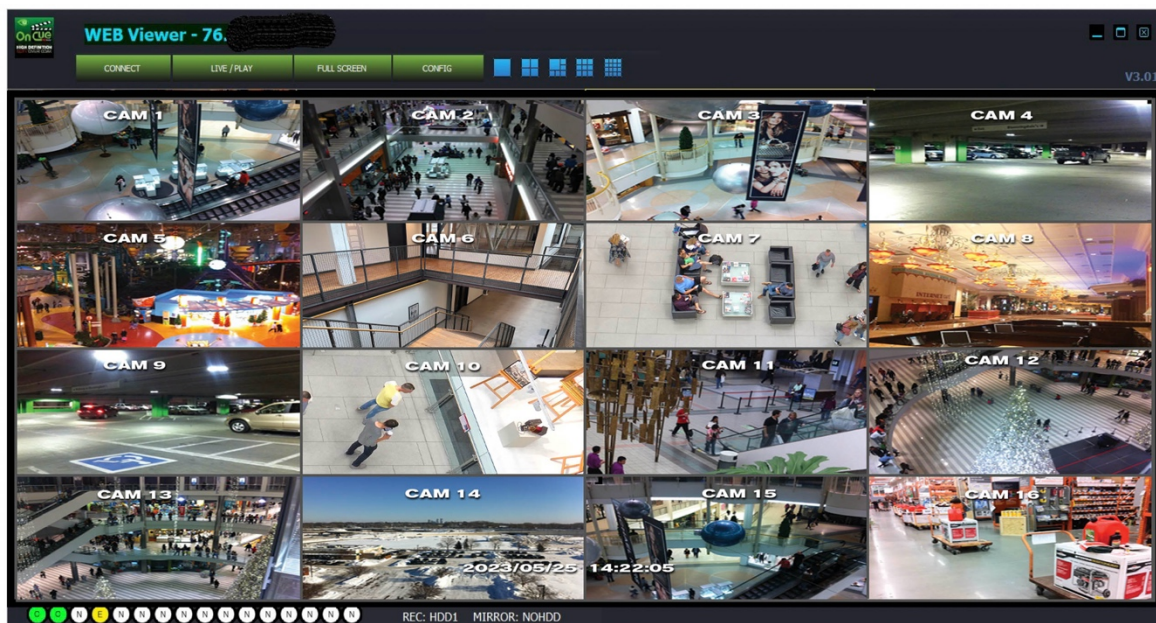
5: Date & Time of Camera transferred from the DVR

6: Channel Title and the resolution of the transferred video

Transmitted video has 2 kinds, one is display main streaming, the other is sub streaming.

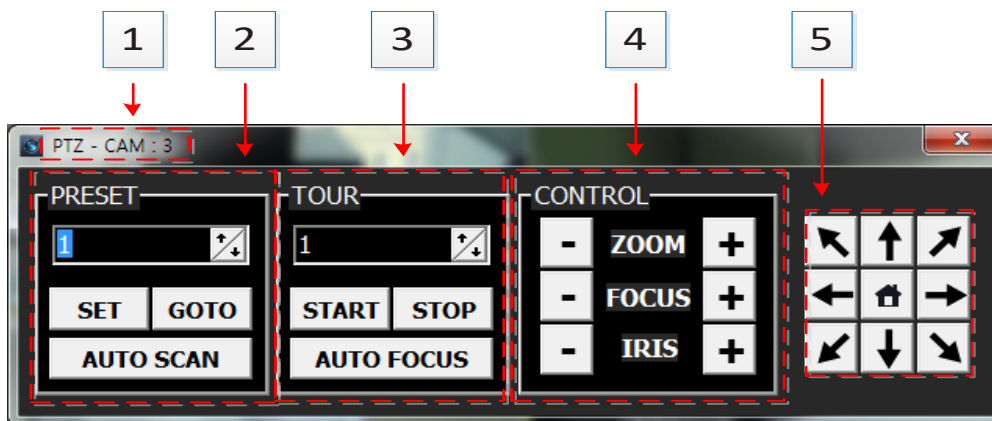
7.1.4.5 JPEG Snapshot/ PTZ control / Network Stream Config /Live Audio Send

In the Web Viewer, you can save the video as a JPEG file, control the PTZ of cameras and hear the audio from the DVR. And especially, you can configure the transferred video directly from the viewer. The right-click on the video window shows the pop-up menu such as following picture.



 **SAVE TO JPEG FILE** : Save the current video of the selected channel with the yellow border into the PC as a JPEG file.

 **PTZ Control** : Open the PTZ control panel, which controls a PTZ camera of the selected channel.



 1: Camera Channel number which is currently selected.

 2: Preset adjustment for PTZ camera

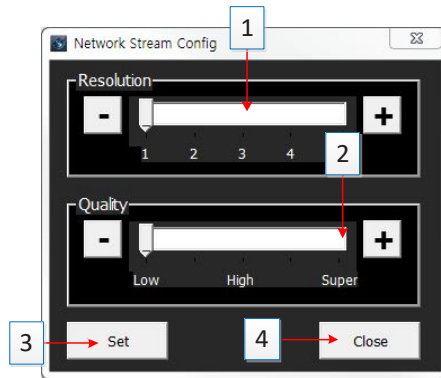
 3: Tour start and end

 4: PTZ camera's zoom / focus / iris adjustment.

 5: PTZ camera's direction adjustment.

 **NETWORK STREAM CONFIG** : Open the 'Network Stream Config' panel where you can choose the resolution and the quality for the transferred video. The changes will affect all channels.

 **Live audio transmit**: audio from PC can be transmitted to DVR.



- ✚ 1. Resolution: Change resolution of video from network
- ✚ 2. Quality: Change quality of video from network
- ✚ 3: Apply modification (SET)
- ✚ 4: Close the config window
- ✚ **LIVE AUDIO SEND** : This function is 'two-way audio function'. If you press the 'live audio send' send audio from the PC to NVR.

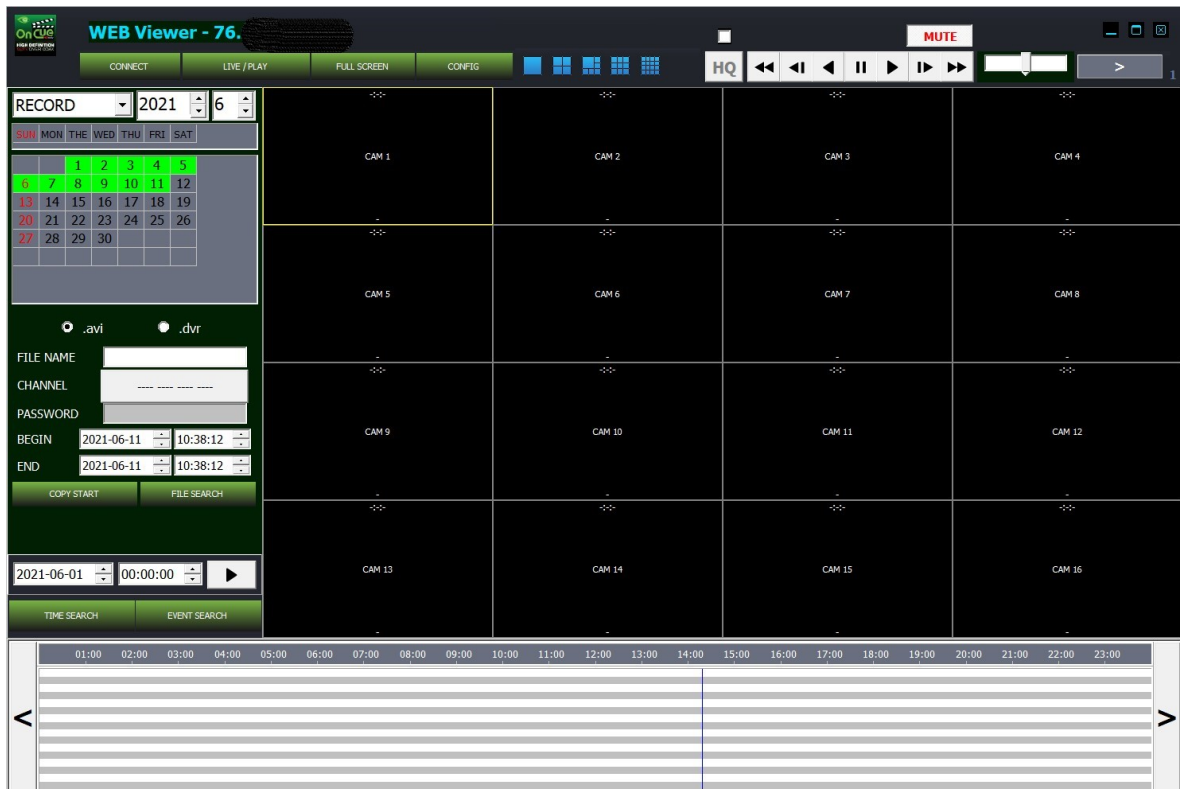
7.1.4.6 Search & Playback



Entering the search & playback window or Returning to the live preview

Features

- ✚ User log-in/out feature (RECONNECT)
- ✚ Switching between the live preview and search & playback
- ✚ Search & Playback
- ✚ Copy the recordings in the DVR to the PC remotely



1: Show the IP address of DVR currently connected

2: Split mode selection.

➤  : Single camera view

➤  : Quad split view

➤  : 6 split views

➤  : 9 split views

➤  : 16 split views

3: Playback speed control

➤  : Reverse Fast

➤  : Reverse Slow

➤  : Reverse Normal Speed

➤  : Pause

➤  : Forward Normal Speed

➤  : Forward Slow

-  : Forward Fast
- Steps for fast playback: x2, x4, x8, x16, x30, x60, xMax
- Steps for slow playback: 1/2, 1/4, 1/8, 1/16, 1/30, 1/60, 1/120

4: Fast Playback Speed & Direction Control Bar

- Mouse wheel up: faster in reverse direction
- Mouse wheel down: faster in forward direction
- Center click normal speed playback.
- Click on the right half of bar: faster in forward direction.
- Click on the left half of bar: reverse fast.

5: View window control

-  : Minimize the window.
-  : Maximize the window.
-  : Exit the 'Web Viewer.'

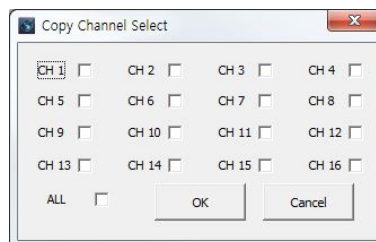
6: Reconnect/Live&Playback/Full Screen

-  : Log out and reconnect.
-  : Switching between live preview and the search & playback.
-  : Full screen video view. Press 'ESC' to return

7: Calendar Panel: show the selected date for searching. The green color indicates that the recording data exist. Click the date will trigger the search for the selected day. The search result is displayed on the time selection table (10).

8: Copy the recorded video in the DVR to a PC

- TAG name: Folder name where the copied AVI file to be saved.
- Channel: Choose the channel required to be copied



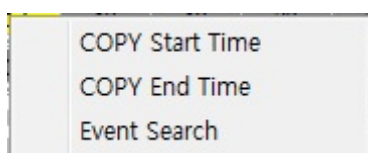
- From: The start time of the recording data to be copied
- To: The end time of the recording data to be copied
- Copy Start: executing the copy operation.
- TAG name and Channel have to be defined to proceed in copying.

9: Choose search type between 'EVENT' and 'TIME'. The time selection table tagged '10' in the above picture is used for one of the two search types.

-  : select the search mode to 'Time Search'.

HOUR	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MIN	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1-4																								
5-8																								
9-12																								
13-16																								
SEC	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

- Yellow colored cell indicates the currently selected hour and minute.
- Green colored cell means that there is the recording data by the continuous recording.
- Red colored cell means that there is the event recording data.
- Click or double-click on the cell in the minutes bar will start the playback from the selected time.



- : Right click on the minute bar will show the pop-up menu such as the left pictures.
- **COPY Start Time** : Taking the 'COPY START TIME' from the selected time cell and input it into the 'From' of COPY control panel.
- **COPY End Time** : Taking the 'COPY END TIME' from the selected time cell and input it into the 'To' of COPY control panel.
- **Event Search** : Taking the time for 'EVENT SEARCH start time'.
- ◆ Selection the second by clicking on the 'second' bar will move the second of playback video to the selected second. This is only available during the on-going playback.
- ◆ Each cell in the time selection table indicates whether the recording data exists or not for that time and channel.
- **EVENT SEARCH** : Select the search mode to 'EVENT Search'.

EVENT TYPE				NO.	DATE / TIME	CHANNEL	TYPE						
☒ ALL EVENT	ALL	☒	Search	1	2015/06/09 09:58:08	7	MOTION						
☒ SENSOR	CH 1	☒	CH 2	2	2015/06/09 09:57:15	7	MOTION						
☒ VIDEO LOSS	CH 5	☒	CH 6	3	2015/06/09 09:57:09	7	MOTION						
☒ MOTION DETECTION	CH 9	☒	CH 10	4	2015/06/09 09:57:07	7	MOTION						
	CH 13	☒	CH 14	5	2015/06/09 09:56:26	7	MOTION						
	CH 17	☒	CH 18	6	2015/06/09 09:54:33	7	MOTION						
	CH 21	☒	CH 22	7	2015/06/09 09:54:30	7	MOTION						
	CH 25	☒	CH 26	8	2015/06/09 09:54:13	7	MOTION						
	CH 29	☒	CH 30	9	2015/06/09 09:53:33	7	MOTION						
	CH 31	☒	CH 32	10	2015/06/09 09:53:25	7	MOTION						

- Event Type (Search Condition)
 - ✓ All: For all kinds of recording event
 - ✓ Sensor: sensor input event
 - ✓ Video Loss: lost video event
- Motion Detection: motion detection event
- CH ALL: Searching for all channels.
- CH1/CH2/CH3/CH4: choosing the channel to be searched.
- Research: execute the event search again

10: Time selection & recording indication table / Event search result window

HOUR	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MDN	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 - 4																								
5 - 8																								
9 - 12																								
13 - 16																								
SEC	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

EVENT TYPE				NO.	DATE / TIME	CHANNEL	TYPE						
☒ ALL EVENT	ALL	☒	Search	1	2015/06/09 09:58:08	7	MOTION						
☒ SENSOR	CH 1	☒	CH 2	2	2015/06/09 09:57:15	7	MOTION						
☒ VIDEO LOSS	CH 5	☒	CH 6	3	2015/06/09 09:57:09	7	MOTION						
☒ MOTION DETECTION	CH 9	☒	CH 10	4	2015/06/09 09:57:07	7	MOTION						
	CH 13	☒	CH 14	5	2015/06/09 09:56:26	7	MOTION						
	CH 17	☒	CH 18	6	2015/06/09 09:54:33	7	MOTION						
	CH 21	☒	CH 22	7	2015/06/09 09:54:30	7	MOTION						
	CH 25	☒	CH 26	8	2015/06/09 09:54:13	7	MOTION						
	CH 29	☒	CH 30	9	2015/06/09 09:53:33	7	MOTION						
	CH 31	☒	CH 32	10	2015/06/09 09:53:25	7	MOTION						

- 11: display the playback video as a result of searching.
- 12: show the current playback mode, speed and direction.

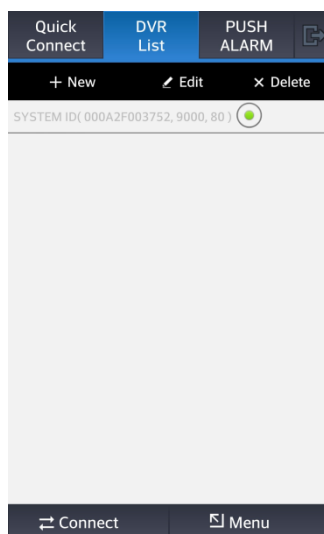
7.2 Android Viewer / iOS Viewer

OnCueviewer is the name of smart phone viewer.

Main feature

- Live View
- Full-Screen
- Multi-Screen Display (4 channel split)
- PTZ Control (Pan-Tilt, Zoom, Preset configure and move)
- Live Zoom & Web Menu connection of DVR will be supported through upgraded version.

7.2.1 How to use



If you start OnCueviewer, you will see the above screen.

- Quick Connect:** If you don't want to save the DVR info to mobile phone, just for one time connection usage.
- DVR List:** If you want to save the DVR info to mobile phone and control the list of DVRS.

7.2.2 Quick Connect

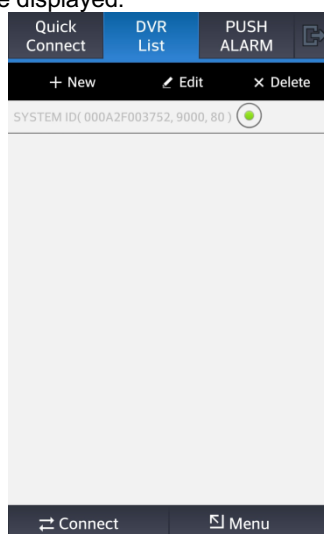
The screenshot shows the 'Quick Connect' form within the application. The top navigation bar is the same as in the previous screenshot, with 'Quick Connect' highlighted. Below the navigation bar, there are four input fields: 'Host Address' (empty), 'DVR Port Number' (containing '9000'), 'User Name' (containing 'ADMIN'), and 'Password' (empty). At the bottom of the form, there is a dark gray bar with a 'Connect' button.

If you press Quick Connect button, the above image will be displayed.

- ✚ host Address: Input IP Address of DVR
- ✚ Port Number: Input DVR port number that you configured in Network menu of DVR.
- ✚ User ID: You need to input ID that you configured in DVR. (Default password of Admin is 1234)
- ✚ Password: Input password (default password of Admin is 1234)
- ✚ Connect: Connect to DVR to view the video by pressing the Connect button.
- ✚ Cancel: Close Quick Connect.

7.2.2.1 DVR LIST

DVR list button, following window will be displayed.



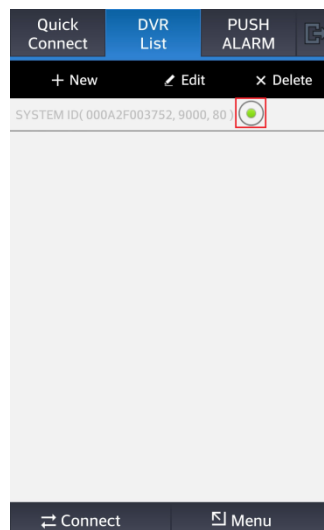
- ✚ New: create new DVR to be added to List.
- ✚ Edit: Edit list currently stored.
- ✚ Delete: Delete list currently stored.
- ✚ Close: Close DVR list menu
- ✚ Connect: Connect to one in the List already stored.
- ✚ Menu: Connect to Web menu of DVR after selection one of DVR in the List.

7.2.2.2 How to add DVR to the List

Press New button, following window will be displayed.

- ✚ Connection Name: Name newly added DVR to the List.
- ✚ Host Address: Input IP address or DDNS info of the DVR.
- ✚ DVR Port Number: Input DVR port number.
- ✚ Web Port: Input HTTP port info of DVR that you configured in DVR network menu.
- ✚ Username: Input ID that is configured in DVR menu.
- ✚ Password: Input password that is configured in DVR menu.
- ✚ P2P connection: Read and set up QR code and set up network automatically if you select.
- ✚ Push Alarm
- ✚ Save: Store the info that you input pressing Save button.
- ✚ Cancel: Close adding List

7.2.2.3 How to connect



You can select one in the list to make a connection to DVR that you want to view.

7.3 DDNS SERVER

You can get Domain Name Service through DDNS server.

7.3.1 HOW TO REGISTER

You need to input <http://www.oncueddns.com> URL in Web Browser.



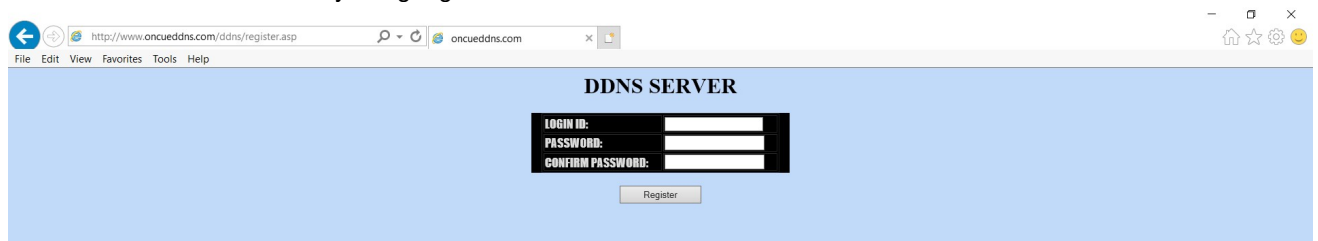
 **DDNS SERVER:** If you press DDNS server button, you will be moved to DDNS server page.



-  **LOGIN ID:** Input USER ID.
-  **PASSWORD:** Input Password.
-  **Ligon:** Press Log-in button to log-in
-  **Register:** You can create user account.

7.3.2 REGISTER

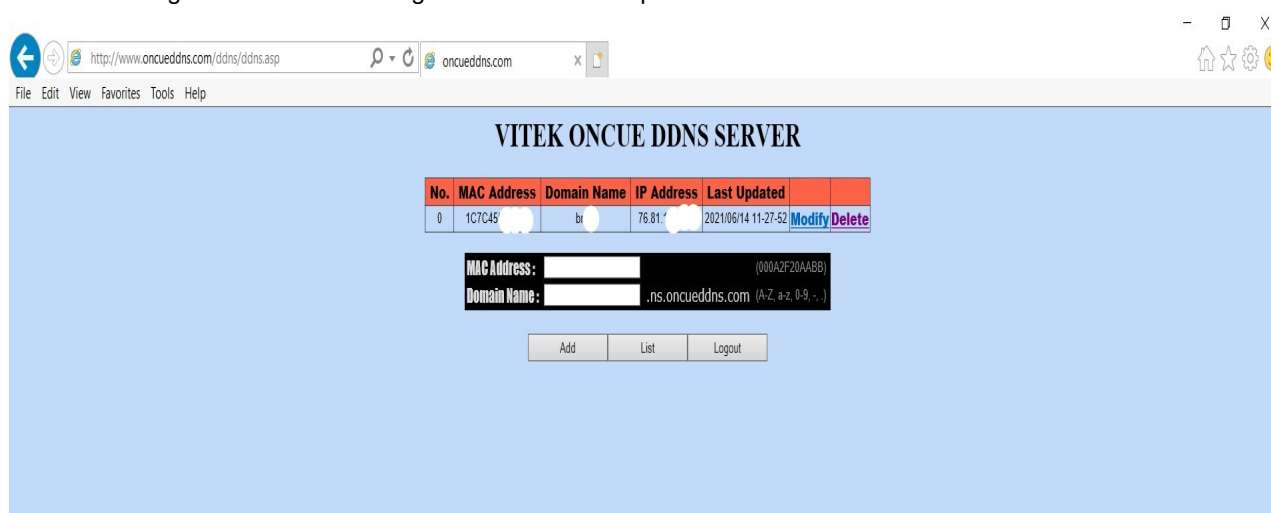
You can create user account by using register menu.



-  **LOGIN ID:** Create ID.
-  **PASSWORD:** Create Password.
-  **CONFIRM PASSWORD:** Input password again to confirm the password.

7.3.3 Input DVR information.

You need to register domain name to get the service and input MAC address into DDNS server.



- 1: List number of registered DVR
 - 2: Mac address of registered DVR
 - 3: Domain name of registered DVR.
 - 4: IP address of registered DVR.
 - 5: latest time that DVR sent the info to DDNS server.
 - 6: Update of Last Update
 - 7: Delete of Domain name registered in DDNS server.
 - 8: Input Mac Address of DVR that you want to register newly into DDNS server.
 - 9: Input Domain name of DVR that you want to register newly into DDNS server.
 - The Domain name type is “**user.ns.oncueddns.com**”.
 - ADD: You can register DVR to the DDNS server pressing ADD button.
 - LIST: The DVR list registered will be displayed.
 - LOGOUT: User can log out
- Note) It will take around 10 to 15 minutes to confirm the registration at the Server.

7.4 DVR MANAGER

DVR MANAGER is a 'Remote Client DVR Viewer' which can provide the functions such as 'Monitoring the live video', 'Search & Playback for the Recorded Video in DVR' and 'Download the Recorded Video in DVR (Remote COPY).

The following table shows the PC requirement for this application S/W.

[Minimum & Recommended Specification of PC]

	Minimum	Recommended
Operating System	Windows 7	Windows 10
CPU	Core2Duo @2.53GHz or Equivalent	Core i5 @3.3GHz or Higher
Memory	1 GB	2 GB
Video Card Memory	512MB	512MB
HDD Capacity	50MB	2GB
VGA Resolution	1280x1024	1920x1080
Direct-X	DirectX 7.0	DirectX 9.0c
Network	Ethernet 10/100B-TX	

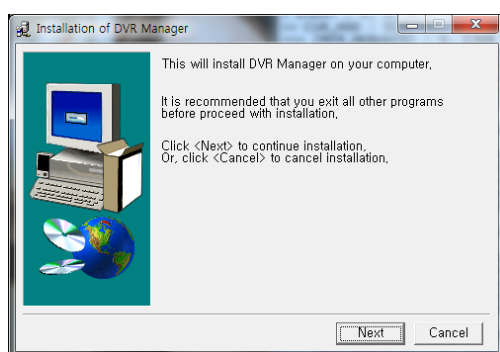
9.1.1.INSTALLATION

You can install the 'DVR Manager viewer using the 'setup' program which can be downloaded from www.vitekccctv.com

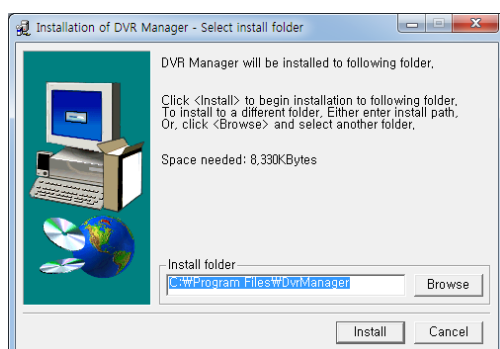
Executing the 'DVRManager_setup.exe' in the DVR Manager folder will guide you to install this.



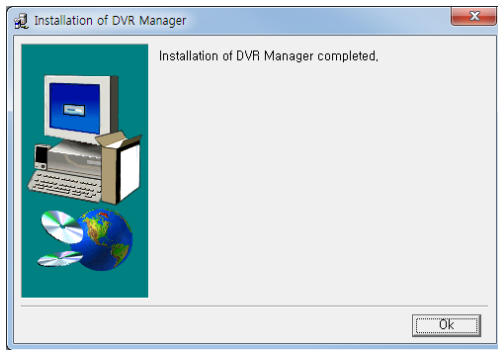
: Setup program of DVR Manager



: Introduction of Setup



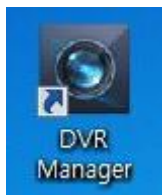
: Specify the folder location for installation.



: Complete Message Window

9.1.2. EXECUTION

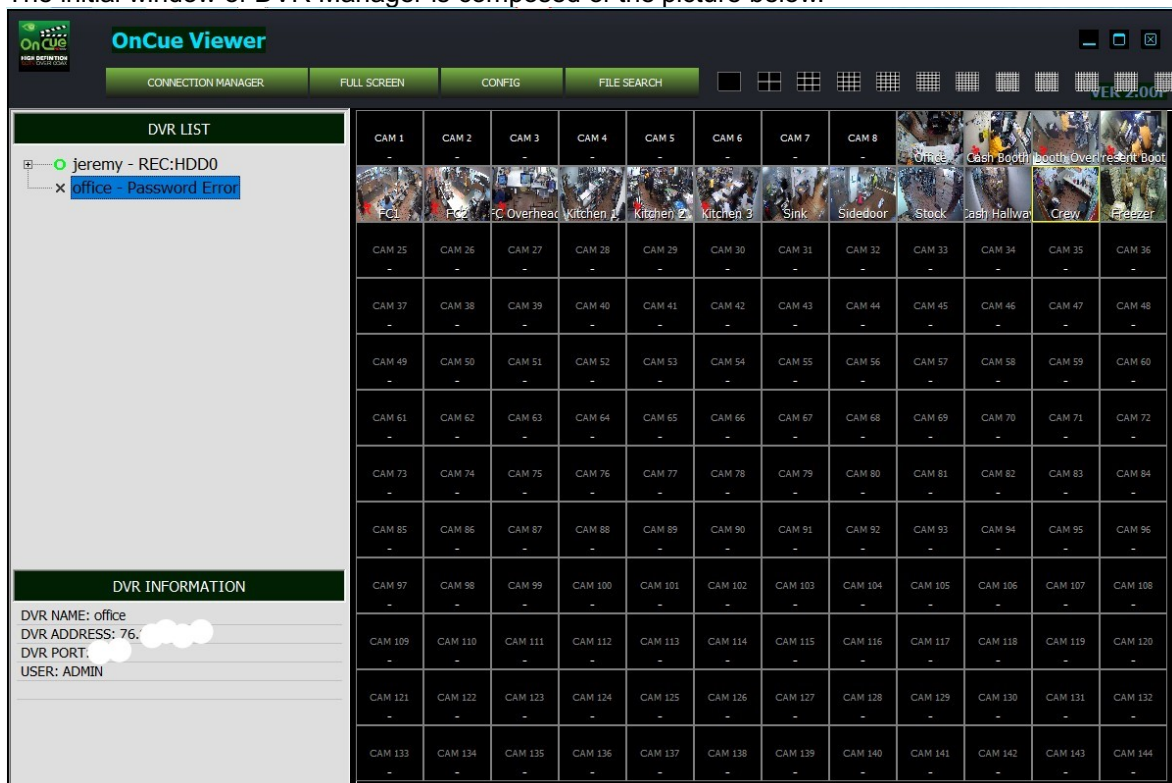
The shortcut of 'DVR Manager' is created after the successful installation. Clicking this icon executes the DVR Manager.



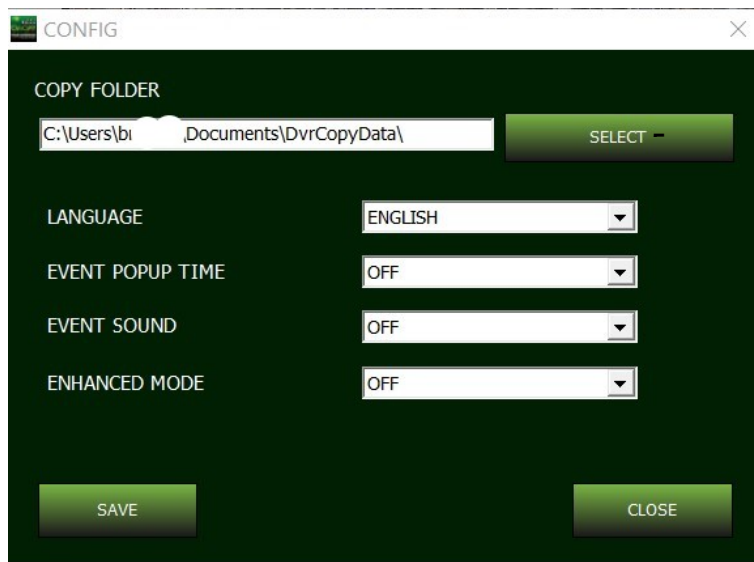
: Shortcut and icon of DVR Manager

7.4.1 LIVE VIDEO MONITORING

The initial window of DVR Manager is composed of the picture below.



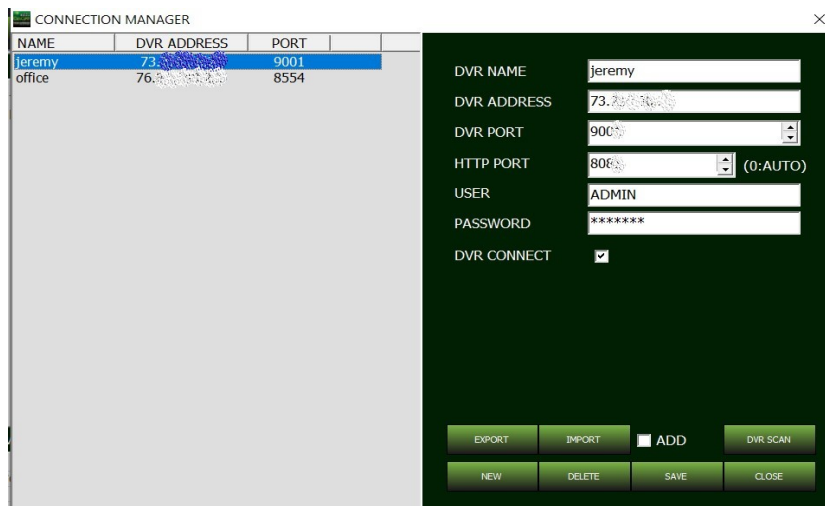
- 1: CONNECTION MANAGER: for registering or deleting the DVR to/from the DVR List.
- 2: FULL SCREEN: Fill and fit only the video windows into the PC monitor.
- 3: CONFIG:



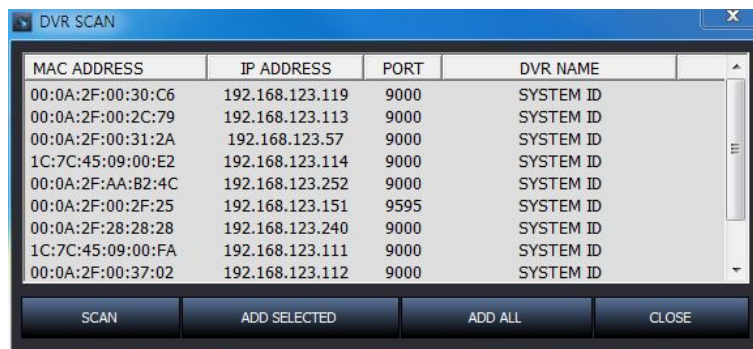
- FOLDER SELECT: Choose or make the folder for the data which is copied out from the DVR remotely.
- SAVE: Apply and save the current modification.
- CLOSE: exit the 'Config' pop-up.
- 4: SPLIT MODE SELECTION: choose the number of cameras which will be shown in the live preview window.
 - 1 / 4 / 9 / 16 / 25 / 36 / 49 / 64
- 5: Minimize/Maximize/Close DVR Manager
 -  : Minimize the window.
 -  : Maximize the window.
 -  : Exit the 'DVR Manager'
- 6: Live View Window: show the live preview video of the connected DVR.
- 7: DVR List Window: list the registered DVRs and indicate the connection status. When the DVR is linked, the cameras connected on that DVR are listed under the DVR.
- 8: DVR Information: Show some information of DVR selected.
- 9: Version: the version number of DVR Manager

CONNECTION MANAGER

This provides the way to register the DVRs into the DVR list, remove the DVR from the DVR list and editing the DVR connection information.



- ✚ DVR Name: The name which you give to the DVR which has the following connection information.
- ✚ DVR Address: specify the IP address of the DVR.
- ✚ DVR Port: the port number for DVR connection. The value should be same as the one specified port number of your DVR.
- ✚ USER: user ID to be used in the login
- ✚ PASSWORD: password for the selected user.
 - Username and password are case-sensitive.
- ✚ DVR SCAN: scan the local network and show the detected DVRs in the list.



- MAC Address: show the MAC address of DVR resulted from scanning.
 - IP Address: show the IP address of DVR resulted from scanning.
 - PORT: show the PORT number of DVR which has the above MAC and IP address.
 - DVR Name: show the name of DVR which has the above MAC and IP address. This is named as a value of 'SYSTEM NAME' under the 'MANAGEMENT' page of 'SYSTEM' menu.
 - Re-scan: execute scanning the LAN again.
 - Add: register the selected DVR into the DVR list of CONNECTION MANAGER.
 - Add All: register all the scanned DVR into the DVR list of CONNECTION MANAGER.
 - Close: Close the DVR SCAN window.
-
- ✚ Add: add new DVR into the DVR list.
 - ✚ Edit: edit the connection information of the selected DVR.
 - ✚ Remove: remove the selected DVR from the DVR list.
 - ✚ Close: close the CONNECTION MANAGER

7.4.2 LIVE VIDEO WINDOW

The transferred live camera video are monitored in this window,

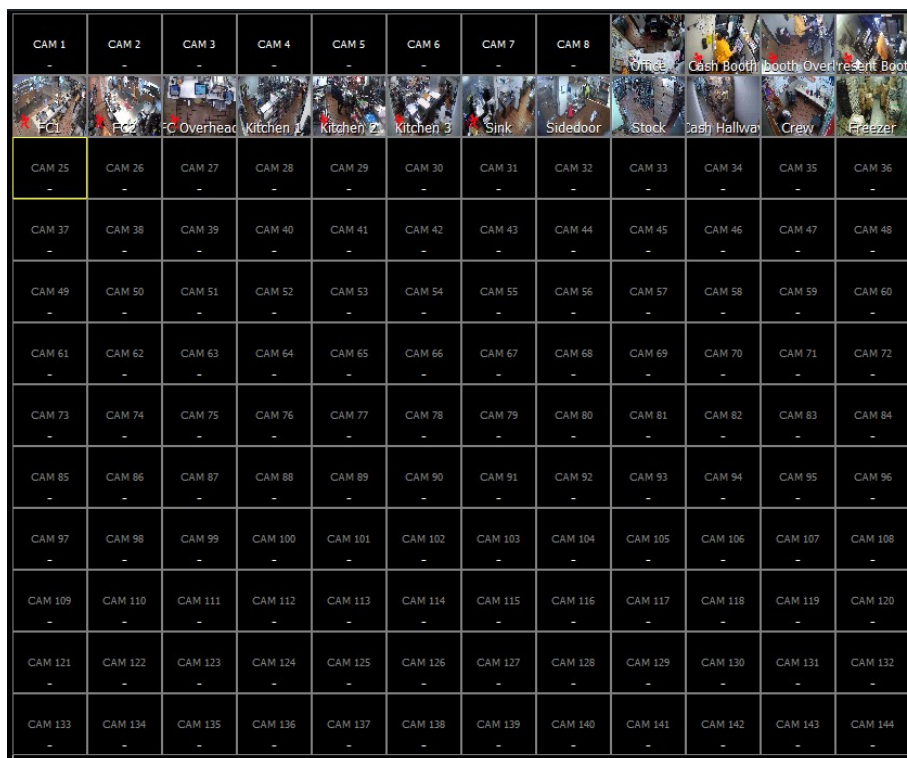
Features of LIVE VIDEO WINDOW

- Monitoring live camera video
- Swap the position of two cameras.
- Snapshot and save it into the PC as JPEG file.
- PAN/TILT Control remotely
- Configure directly the quality and resolution for the transferred video. (ADMIN account only)
- Live audio from DVR
- Digital Zoom In

7.4.2.1 Monitoring live video stream

The real-time transferred live videos from the multiple DVRs are displayed in the 'LIVE VIDEO WINDOW'. You can configure the number of cameras to be shown by the 'SPLIT MODE SELECTION' button.

- Double click change the split mode to the single channel full scale view and one more double click from the single channel view recalls the previous split mode.



7.4.2.2 Swap Camera Position

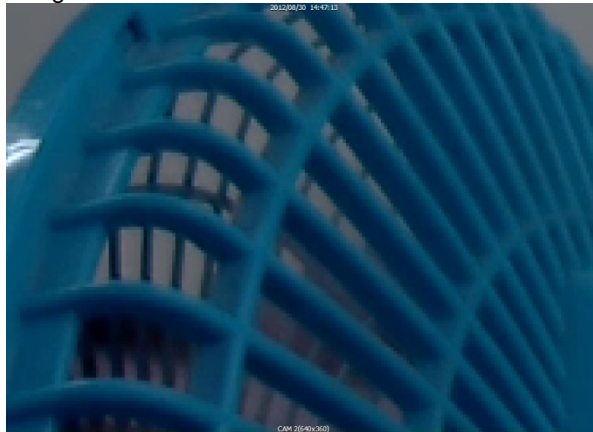
You can swap the display location of the selected two cameras by drag and drop.



- The swapped camera position will go back to the original location in case that the DVR manager restarts or the connection is re-established.

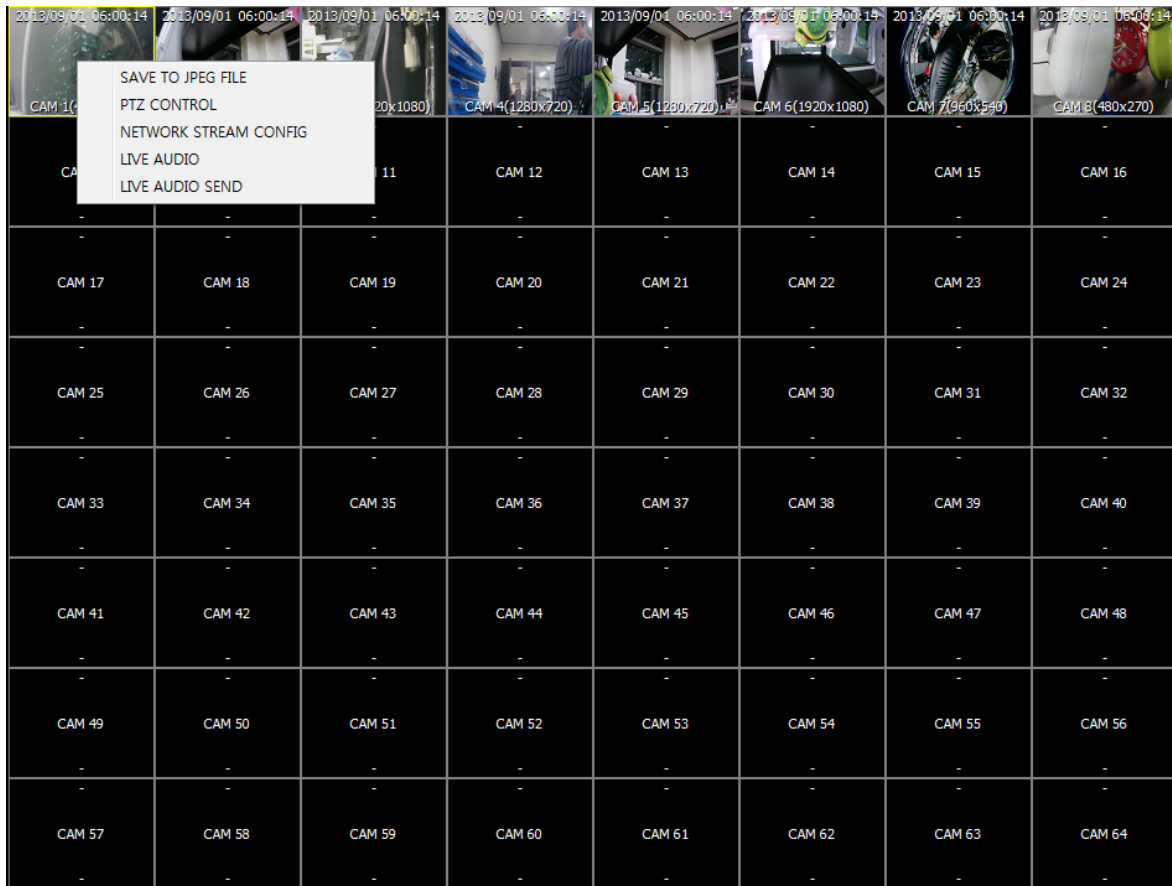
7.4.2.3 Digital Zoom on the Live View

Area selection by mouse dragging on the desired channel will activate the digital zoom for the specified area. And any clicking turns off the digital zoom.

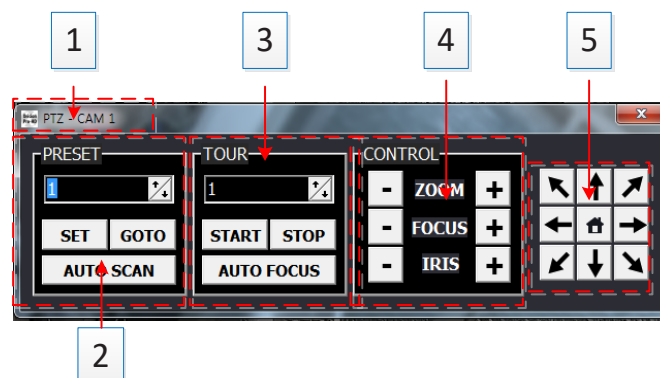


7.4.2.4 JPEG Snapshot/ PTZ control / Video Configuration /Live Audio

you can save the video as JPEG file, control the PTZ of camera and hear the audio from the DVR. And especially, you can configure the transferred video directly from the viewer. The right-click on the video window shows the pop-up menu such as following picture.



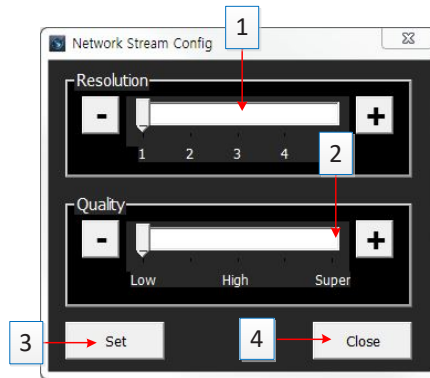
-  **SAVE TO JPEG FILE** : Save the current video of the selected channel with the yellow border into the PC as a JPEG file.
-  **PTZ CONTROL** : Open the PTZ control panel, which controls the PTZ camera of the selected channel.



- 1: Camera Channel number which is currently selected.
- 2: PRESET OPERATION OF PTZ
- 3: TOUR OPERATION OF PTZ
- 4. ZOOM/FOCUS/IRIS CONTROL
- 5: Adjustment of DIRECTION CONTROL (PAN & TILT)

-  **NETWORK STREAM CONFIG** : Open the 'Network Stream Config' panel where you can choose the resolution and the quality for the transferred video. The changes will affect all channels.

- Live audio transmit (Z): audio from webviewer in PC can be transmitted to DVR.



- 1: Resolution selection (5 levels)

Analog

- ✓ Level 1: NTSC: 240x120, PAL: 240x144
- ✓ Level 2: NTSC: 480x120, PAL: 480x144
- ✓ Level 3: NTSC: 480x240, PAL: 480x288
- ✓ Level 4: NTSC: 960x240, PAL: 960x288
- ✓ Level 5: NTSC: 960x480, PAL: 960x576

- Default Value: 480x240(or480x288)

HD

- ✓ Level 1: 720p: 320x180 / 1080p: 480x270
- ✓ Level 2: 720p: 320x180 / 1080p: 480x270
- ✓ Level 3: 720p: 640x360 / 1080p: 960x540
- ✓ Level 4: 720p: 1280x360 / 1080p: 1280x540
- ✓ Level 5: 720p: 1280x720 / 1080p: 1920x1080

- Default Value: 640x360 for 720p, 960x540 for 1080p

- 2: Modify the quality of video (5 steps): LOW,NORAL,HIGH,BEST,SUPER

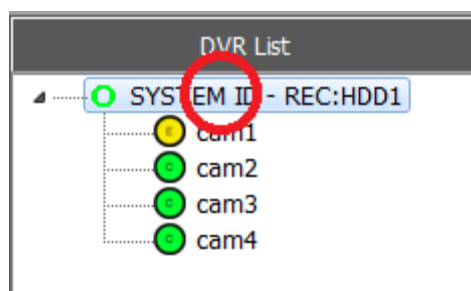
- Default Quality: 'HIGH'

- 3: Apply of modification (SET) and close the panel

- LIVE AUDIO** : You can hear the audio from the selected camera.

7.4.2.5 DVR List

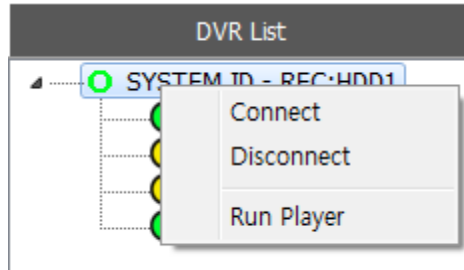
The 'DVR List' shows the DVRs registered using the 'CONNECTION MANAGER'. On the DVR List panel, you can connect/disconnect the DVR, execute the Player for the remote searching and playback, and see the status information of DVR.



- SYSTEM ID – REC: HDD1: [The name of DVR]: [HDD number], HDD number means the HDD index currently be accessed for recording.



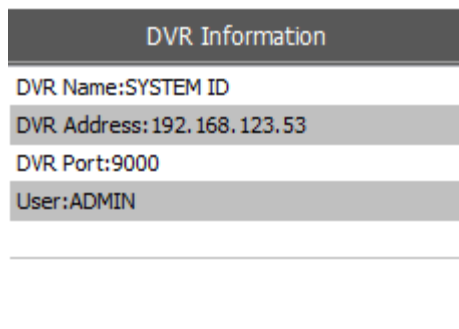
- : Show the recording type or status.
- Clicking the DVR name in the DVR list pops up the menu to connect/disconnect DVR or execute the Player for search & playback such as below picture.



- CONNECT: Connect the DVR selected
- DISCONNECT: Dis-connect the DVR Manager from the DVR
- RUN PLAYER: Execute the Player for the remote search & playback.
- DVR web menu(D): display selected dvr's web menu.

7.4.3 DVR Information

This panel shows some information of DVR which is currently highlighted from the DVR List.



7.4.4 PLAYER

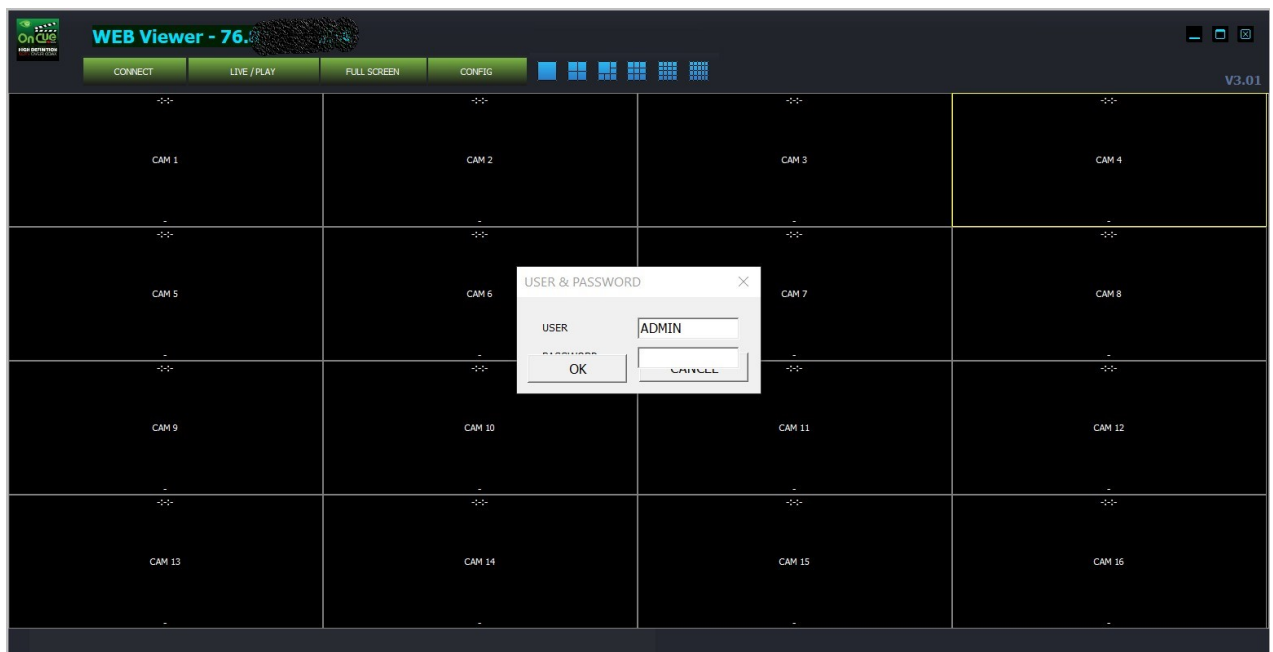
The Player support the features such as followings.

Features of Player

- Live video monitoring for the connected DVR
- Remote search and playback for the connected DVR
- Download the recorded data from the DVR (remote copy)
- Control a PAN/TILT camera movement.

7.4.4.1 Initial Screen

Executing the 'Player' opens the application separated from the web browser and show the login window such as below picture.

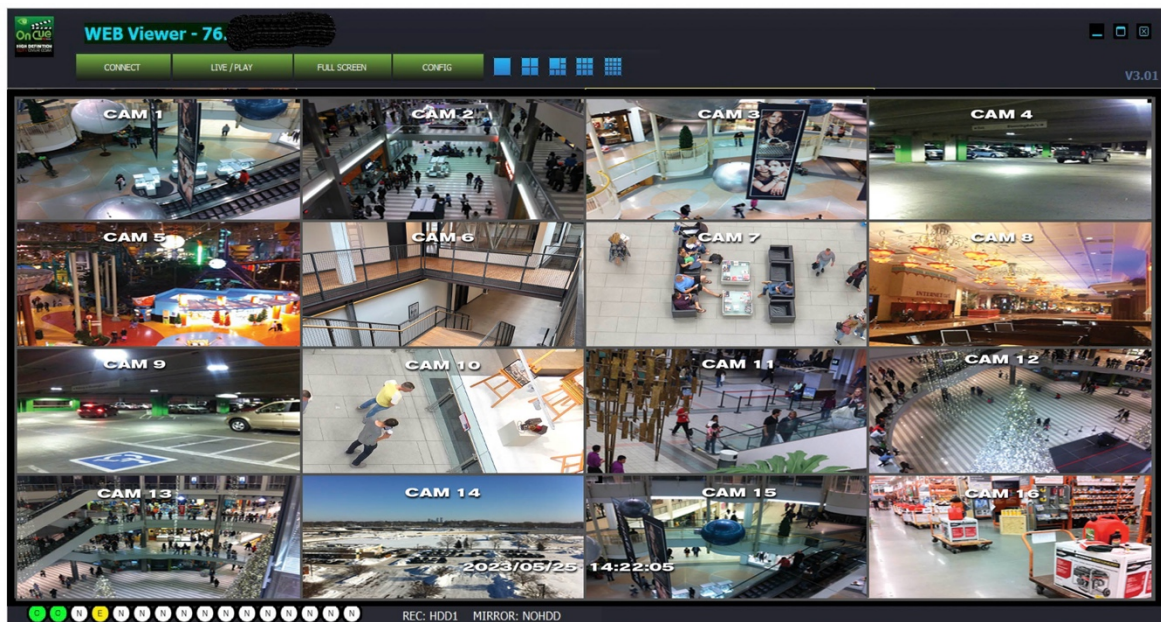


7.4.4.2 Live Preview

After login, the live preview screen will be shown such as below.

Features

- 📺 Live surveillance
- 📺 Current selected screen can be stored by PC.
- 📺 Pan Tilt control
- 📺 Admin player can adjust quality and resolution.



- 📺 The yellow rectangle around video shows the currently selected camera.
- 📺 1: IP of DVR connected remotely
- 📺 2: display split mode selection

-  : Single camera view
-  : Quad split view
-  : 9 way
-  : 16 way

3. Playback controls

-  : reverse forward
-  : reverse slow playback
-  : reverse playback
-  : Pause
-  : playback
-  : slow playback
-  : quick playback

- FAST playback speed: x2, x4, x8, x16, x30, x60, xMAX
- slow Playback speed: 1/2, 1/4, 1/8, 1/16, 1/30, 1/60, 1/120

4: mouse wheel operation for forward /reverse playback.

- Mouse wheel up: faster in forward direction
- Mouse wheel down: reversely faster
- Center click normal speed playback.
- Click on the right half of bar: faster in forward direction.
- Click on the left half of bar: reversely faster.
- 7 level speed control for each direction

5: WEB Viewer Minimize/Maximize/Close

-  : Minimize the window.
-  : Maximize the window.
-  : Exit the 'Web Viewer.'

6: Reconnect/ Live& Search /Full Screen

-   : Log out and reconnect.

  : Switching between the live preview and the search & playback.

  : Full screen video view. Press 'ESC' to return to the window.

 7: display current month. Date with record data show with green. Mouse left click search video by hour. Searched hour unit can be shown in 10-time schedule.

 8 recorded videos can be copied to PC by AVI format.

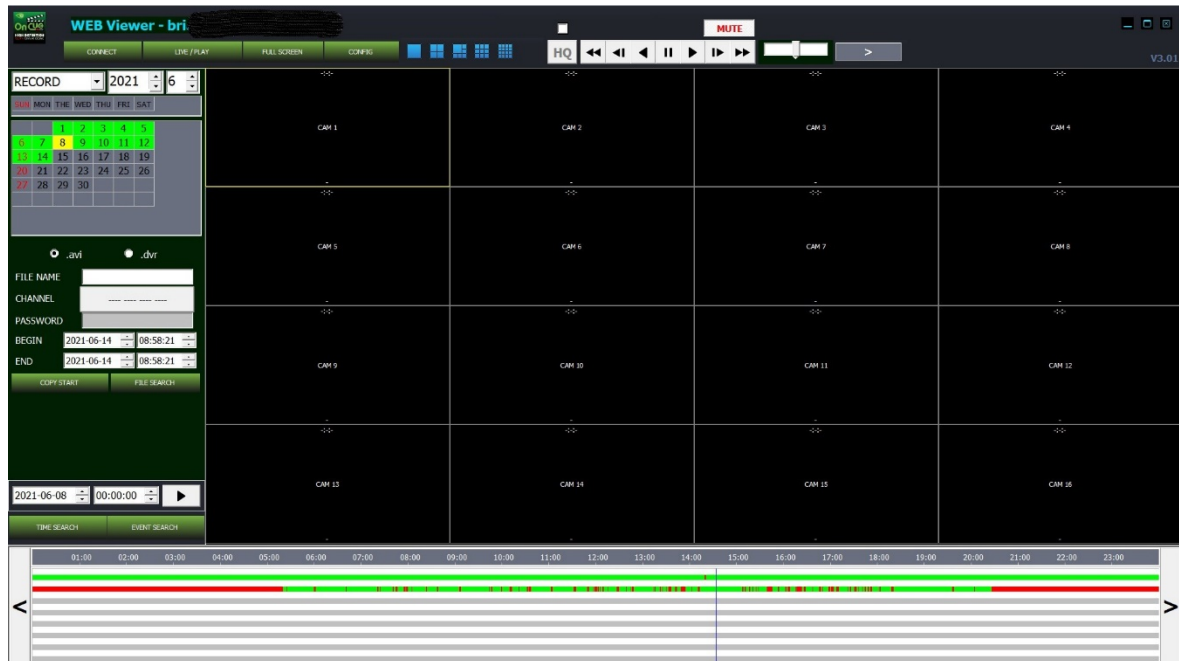
7.4.4.3 Search & Playback



Entering to the search & playback window or Returning to the live preview

Features

- User log-in/out feature (RECONNECT)
- Switching between the live preview and the search & playback
- Search & Playback
- Copy the recordings in the DVR to the PC remotely



1: Application title

2: Split mode selection.

➤ : Single camera view

➤ : Quad split view

3: Playback speed control

➤ : Reverse Fast

➤ : Reverse Slow

➤ : Reverse Normal Speed

➤ : Pause

➤ : Forward Normal Speed

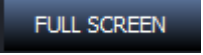
➤ : Forward Slow

-  : Forward Fast
- Steps for fast playback: x2, x4, x8, x16, x30, x60, x120
- Steps for slow playback: 1/2, 1/4, 1/8, 1/16, 1/30, 1/60, 1/120

5: View window control

-  : Minimize the window.
-  : Maximize the window.
-  : Exit the 'Web Viewer.'

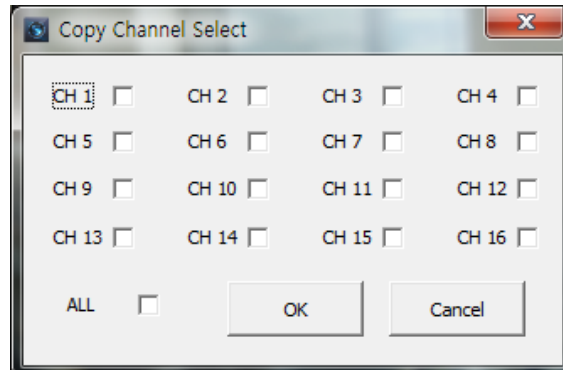
6: Connect/ Live & Play/ Full Screen

-  : Log out and reconnect.
-  : Switching between the live preview and the search & playback.
-  : Full screen video view. Press 'ESC' to return to the window.

7: Calendar Panel: show the selected date for searching. The green color indicates that the recording data exist. Click the date will trigger the searching for the selected day. The searching result is displayed on the time selection table (10).

8: Copy the recorded video in the DVR to the PC

- File name: enter folder's name which copied video store.
- Channel selection: select channel for copy.



9: Convert to 10 screens to timetable or event list.

-  : display with timetable.

시간	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
분	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 - 4																								
5 - 8																								
9 - 12																								
13 - 16																								
초	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

- Recorded video display with green. If mouse left click, search selected video by minutes.



COPY START TIME
COPY END TIME
EVENT SEARCH

➤ this. : In timetable, right click of mouse and show

- If click second, can playback by second.

EVENT SEARCH

➤ : Display event list screen.

이벤트 종류		NO.	날짜 / 시간	채널	이벤트 형식
☒ 모든 이벤트	ALL ☒	1	2015/06/10 05:37:02	4	V-LOSS
☒ 센서	CH 1 ☒ CH 2 ☒ CH 3 ☒ CH 4 ☒	2	2015/06/10 02:10:45	4	V-LOSS
☒ 비디오 로스	CH 5 ☒ CH 6 ☒ CH 7 ☒ CH 8 ☒	3	2015/06/10 02:10:29	2	V-LOSS
☒ 움직임 검출	CH 9 ☒ CH 10 ☒ CH 11 ☒ CH 12 ☒	4	2015/06/10 02:10:29	1	V-LOSS
	CH 13 ☒ CH 14 ☒ CH 15 ☒ CH 16 ☒	5	2015/06/10 02:10:25	3	V-LOSS
	CH 17 ☒ CH 18 ☒ CH 19 ☒ CH 20 ☒				
	CH 21 ☒ CH 22 ☒ CH 23 ☒ CH 24 ☒				
	CH 25 ☒ CH 26 ☒ CH 27 ☒ CH 28 ☒				
	CH 29 ☒ CH 30 ☒ CH 31 ☒ CH 32 ☒				

10: Converting to timetable and event list, display information.

시간	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
분	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1-4																								
5-8																								
9-12																								
13-16																								
초	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

이벤트 종류		NO.	날짜 / 시간	채널	이벤트 형식
☒ 모든 이벤트	ALL ☒	1	2015/06/10 05:37:02	4	V-LOSS
☒ 센서	CH 1 ☒ CH 2 ☒ CH 3 ☒ CH 4 ☒	2	2015/06/10 02:10:45	4	V-LOSS
☒ 비디오 로스	CH 5 ☒ CH 6 ☒ CH 7 ☒ CH 8 ☒	3	2015/06/10 02:10:29	2	V-LOSS
☒ 움직임 검출	CH 9 ☒ CH 10 ☒ CH 11 ☒ CH 12 ☒	4	2015/06/10 02:10:29	1	V-LOSS
	CH 13 ☒ CH 14 ☒ CH 15 ☒ CH 16 ☒	5	2015/06/10 02:10:25	3	V-LOSS
	CH 17 ☒ CH 18 ☒ CH 19 ☒ CH 20 ☒				
	CH 21 ☒ CH 22 ☒ CH 23 ☒ CH 24 ☒				
	CH 25 ☒ CH 26 ☒ CH 27 ☒ CH 28 ☒				
	CH 29 ☒ CH 30 ☒ CH 31 ☒ CH 32 ☒				

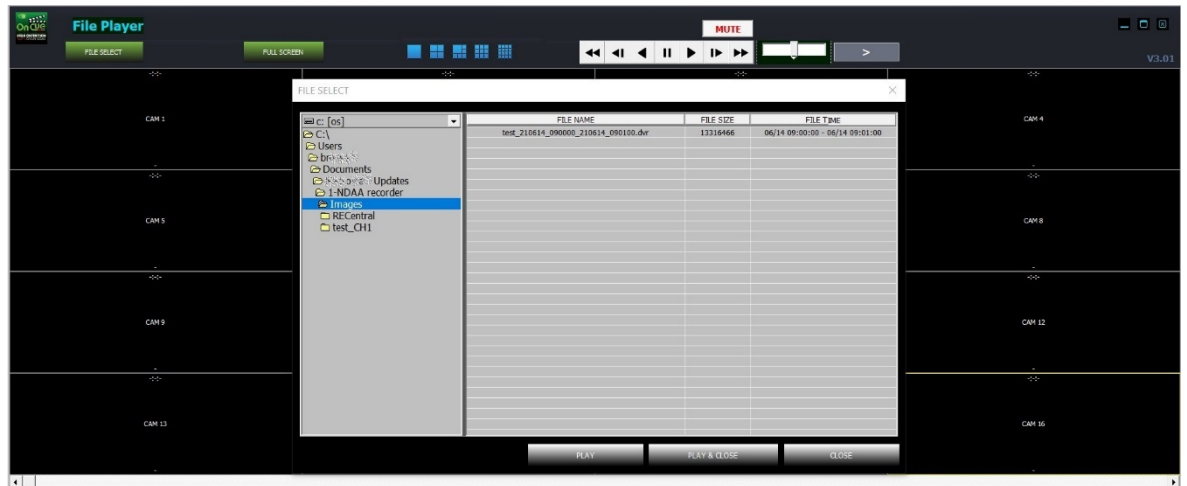
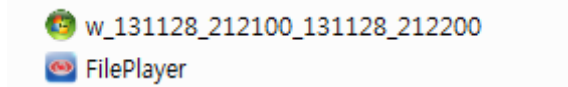
11. Show playback which you set

12. Show playback speed and direction.

7.5 FILE PLAYER

You can play and display the video copied from the DVR on your PC.

- The file player is saved with the copy video.
- When copying video to a USB memory, a file player will be created automatically.



You can play the video copied from the DVR.

- 1: FILE SELECT: Select a file.
- 2: FULL SCREEN: Display the Full screen.
- 3: Split screen selection



- 4: PLAY CONTROL



➤  : Fast Play

 5: You can use the mouse wheel to adjust the playback.

 6: Screen size

➤  : Fold

➤  : Max Display

➤  : Exit

 7: File selection: Select the file to display.

● C:\\USERS\\account\\Document\\DvrCopyData

DETAILED SPECIFICATIONS - VT-16HD2A-NH

Video Input	16 Channels up to 2 MegaPixel (8MP [4K] on IP Cameras)
Resolution	1920 × 1080 / 2650 × 1440px
Recording Compression	H.265
Live Display	1080p: 480fps, 1440p Real-time (2560 × 1440): 480fps, 1440p Half Real-time: 240fps
Recording and Playback	1080p: 240fps, 1440p Real-time & Half Real-time: 240fps, D1/960H/720P: 480fps
2-Way Audio, Local Output	4 Ch. Audio In + 1 Ch. Audio Out
Alarm In / Out	16 Ch. In + 1 Ch. Out
Camera Input	16
Camera Resolution	1080p: 25/30fps, 1440p: 15/25/30fps, 720p: 50/60fps, 720p: 25/30fp, D1(NTSC/PAL), 960H(NTSC/PAL)
IP Camera Input	16
Protocols	ONVIF or Vendor Generic
Live Display Performance	Realtime Disp. with D1/VGA 2nd Camera Stream, I-Frame Only Displays w/out IP Cam Substreams for Multi Ch. View Mode
IP Recording Performance	480fps@4K 2K+, 480fps@D1, VGA
Main Monitor Output	HDMI: 30fps@4K, VGA: 60fps@1080p
Spot Monitor	NTSC / PAL
Multi Channel View	1, 4, 6, 7, 8, 9, 10, 13,16 for Live and Playback
Storage	24TB Total: 2 × SATA (Up to 12TB each)
Backup Devices	USB (HDD, Thumb Drive), NAS & Remote via Network
Multi Channel Archive	Raw data format, Support with the Embedded Player
AVI Archive	Embedded AVI formatting
USB Port	2 × USB2.0 (1 Rear + 1 Front)
RS485	YES × 1, PTZ Control via Control over COAX (CoC)
System Control	USB Mouse
Network Protocol	DHCP, DDNS, P2P, UPnP, NTP, SMTP, HTTP, Push Notification (iOS / Android), ONVIF
Network Ports	10M/100M/1000M Ethernet + 10M/100M/1000M Local
Number of Clients	Max. 4
Dedicated Network Streaming	(Live) Various Res. Size / Quality / FPS, (Playback) Dual Strm.
RAID (Mirroring)	Configurable Dual Recording
Search	Calendar / Time / Event / Panorama / Motion Area
P2P/DDNS/Push Notifications/Email	oncuiddns.com / P2P server / Relay Server / Push Server /Embedded E-mail Service
Event / Event Type	Motion Detection, Alarm in, Video Loss, HDD S.M.A.R.T Status, HDD Error, Recording Status, POS
Notification Action	E-mail w/ Snapshot, Buzzer, Pop-up, Symbol, Push Notification
Remote Software	RMS / Web / Android / iOS
PoS I/F integration	Extendable up to 8 PoS Interface
Working Environment	23°~113°F @ 20% ~ 80% RH
Dimensions (W × D × H)	12.84 × 9.45 × 2.01" / 326 × 240 × 52mm
Weight Gross / Net	6.4lbs (2.90kg) / 4.9lbs (2.22kg)



NOTES

LIMITED PRODUCT WARRANTY

VITEK products carry a three (3) year limited warranty. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is nontransferable and extends only to the original buyer or end user customer of a VITEK Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way or the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

VITEK makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a VITEK Authorized Reseller.

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MAY 2023**

Vitek IVP, Inc.
28492 Constellation Blvd, Valencia, CA 91355
www.vitekcctv.com