User Guide

V-DVR Digital Video Recorder

XX301-00-00

Vicon Industries Inc. does not warrant that the functions contained in this equipment will meet your requirements or that the operation will be entirely error free or perform precisely as described in the documentation. This system has not been designed to be used in life-critical situations and must not be used for this purpose.

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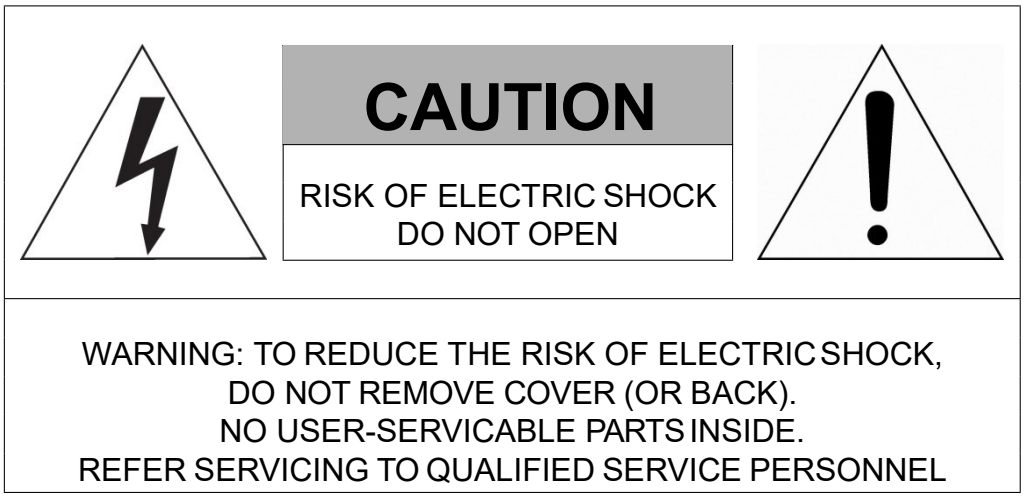
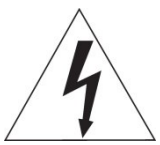
WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENNINGS ON THE EQUIPMENT.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is in- tended to alert the user to the presence of dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC INFORMATION: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numèrique de la classe A est conforme á la norme NMB-003 du Canada.

CE COMPLIANCE STATEMENT

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety; if the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used. Use caution when moving the cart/apparatus combination to avoid in- jury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. ***CAUTION – THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING IN-STRUCTIONS UNLESS YOU QRE QUALIFIED TO DO SO.***

16. ***Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.***

17. ITE is to be connected only to PoE networks without routing to the outside plant.

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1. Overview

This chapter describes DVR overview, components and their terms and features.

This manual introduces a digital video recorder (DVR), which monitors or record, controls images a camera.

Multiple users may monitor video at the same time, and many cameras can be controlled simultaneously by a manager. Also, through a PC or a smartphone, video might be monitored by transmitting video and audio using a network.

The device features include the following:

- Convenient UI from user's viewpoint
- Composite input port for 16 channels
- Providing AHD, TVI, 960H, and D1
- 1080p full HD recording
- Full HD screen recording, audio recording and playing
- HDD information and status presentation
- HDD overwriting.
- High capacity back-up with USB 3.0 (depending on device types)
- Simultaneous recoding and playing of 16 channels
- Various search mode (time, event, back-up, thumbnail)
- Various recording mode (manual, event, timed recording, panic recording)
- Remote monitoring through a network viewer, a web viewer, and a mobile viewer

1.1 Package Contents

The device package contents consist of the following:

Note Please check all components involved.

Table 1-1 Package contents

No	Name	No	Name
1	DVR	6	SATA cable
2	DC power adapter & Power cord	7	SATA power cable
3	Mouse	8	HDD fixing screw
4	Quick guide		

1.2 Part Description

Each part is listed in the below:

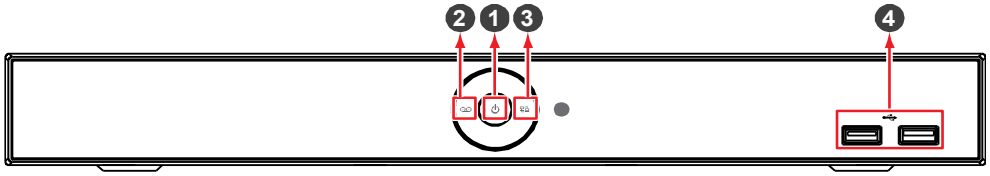


Figure 1-1 Name and Connection of each front section

Table 1-2 Name and Function of each front section

No.	Name	Function
1	Power status LED	Indicates device ON/OFF
2	Recording status LED	Indicates recording in process
3	Network LED	With a network viewer, indicates network in connection
4	USB port	USB port is connected for USB mouse or firmware upgrade and data back-up.

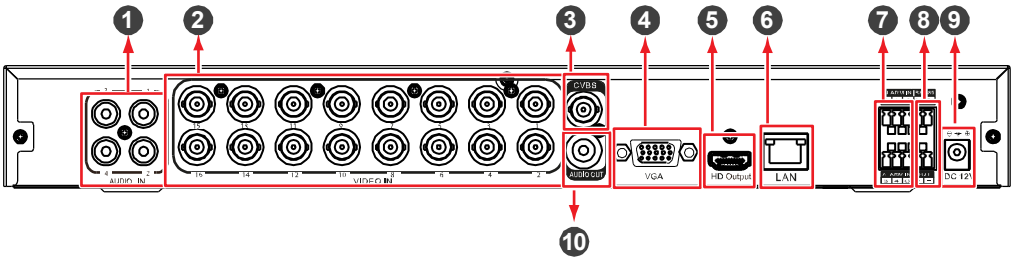


Figure 1-2 Name and Connection of Rear Section

Table 1-3 Name and Function of Rear Section

No.	Name	Function
1	Audio In	Camera audio input port
2	Video In	Camera video input port
3	CVBS	CVBS output port (depending on device types)
4	VGA	VGA output port
5	HDMI	HDMI output port
6	LAN	Network connector
7	Alarm In/Out	Alarm connector
8	RS485	RS-485 communication connector
9	12 VDC	Connector with power supply
10	Audio Out	Audio output port

2. Installation

This chapter describes how to install the DVR.

When installing a device, connect each port on the rear of the device according to the connection diagram below.

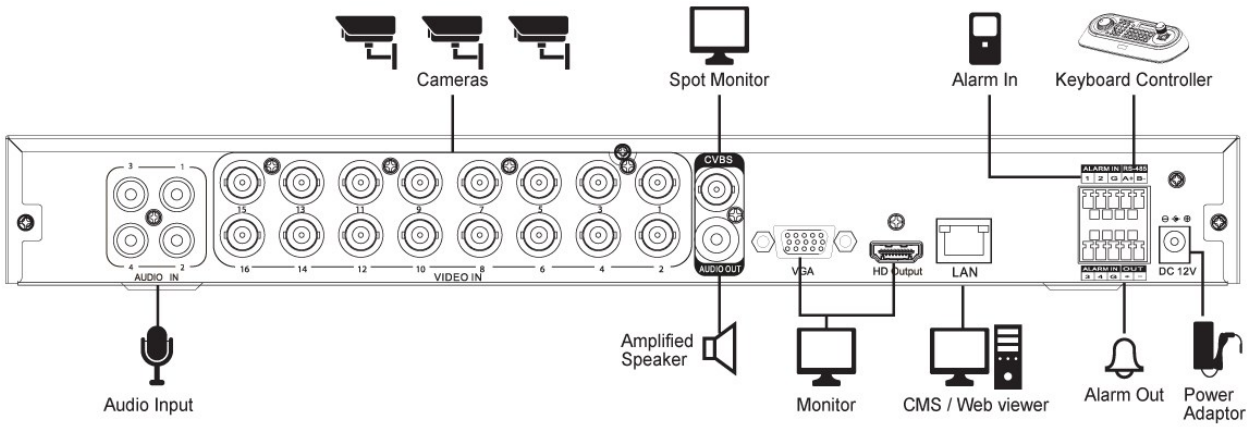


Figure 2-1 Connection map

The installation steps should be done in the sequence below:

1 Installing HDD

2 Connecting with an exterior device

3 Starting a system

4 Setting a quick setup

2.1 Installing HDD

How to install HDD in the device:

Attention	▪ Disconnect the mains plug before installing HDD to reduce the risk of injury, electrical shock, or device malfunction. ▪ Make sure to check the compatibility of HDD with the device.

1 Always switch off and unplug the unit.

2 Unscrew with a screw driver and open the unit cover.

3 Install HDD in the bottom case.

4 Connect a data cable and power cable to HDD.

5 Close the cover and tighten screws.

2.2 Connecting with Exterior Device

How to connect each port to rear section of the unit:

1 Place the unit on a stable flat surface.

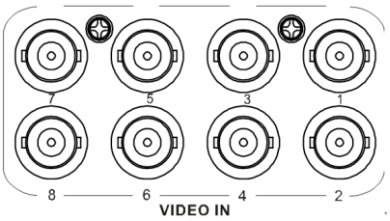
2 Make room between front/rear sides of the device to easily access connectors.

Warning	Do NOT install the device too close to the wall. Protruding connections on rear of the unit may be forcefully curved or pressed, which can cause fires, electric shocks or injury.

3 Check to switch off and unplug the unit.

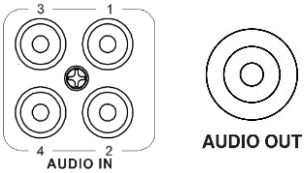
Warning	Make sure to disconnect the mains plug before installing the device.

4 Connect video input ports of camera.



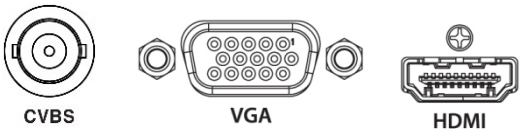
Note	Connecting a camera port to the unit automatically detects the camera.

5 Connect an audio input port with a Mic and audio output port to a speaker.

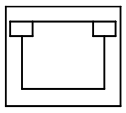


Note	Be sure to follow any federal, state and local regulations.

6 Connect a monitor to VGA, HDMI output or CVBS port.

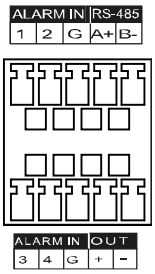


7 Connect a network port.

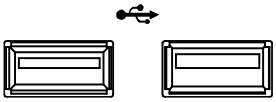


LAN

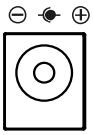
8 Connect an alarm and RS485 devices.



9 Connect USB port in front section of the unit to a mouse.



10 Supply the main power after completion.



DC 12V

⚠ **Attention**	Before connection, match socket with adapter pins.

Note	There is no power button; supplying the main power automatically starts the unit.

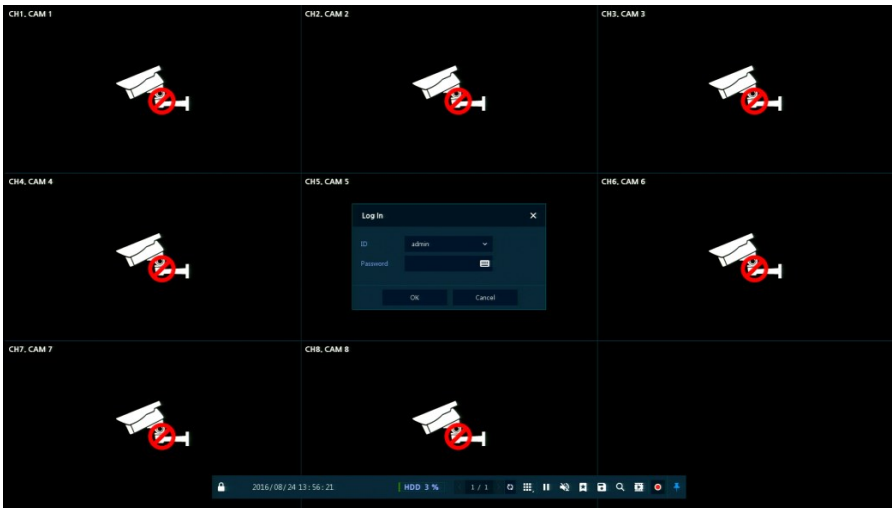
2.3 Starting System

Supplying power starts the system operation as follows:

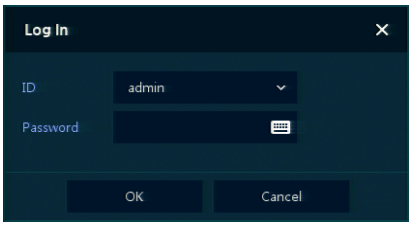
1 Switching on initializes the icons below in order.

Note	Installing new HDD might take more initialization time.

2 When the buzzer sounds, the start screen displays.



3 In **Log in** screen, enter the **ID**, **Password** and press **OK**.



Note	Default ID and Password is ADMIN/1234

Attention	Please change password after login for added security.

2.4 Quick Setup

Upon first start up, the system provides Easy Installation as follows:

1 Account

2 System

3 Network

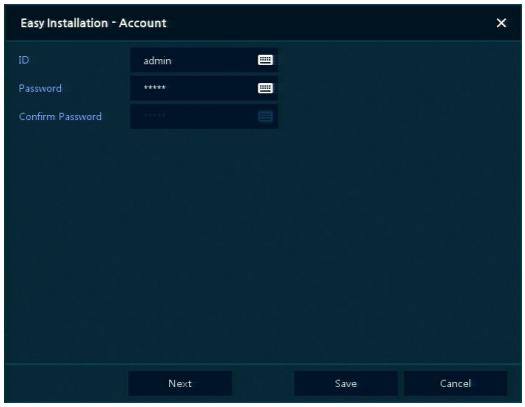
4 Time/Date

5 Record

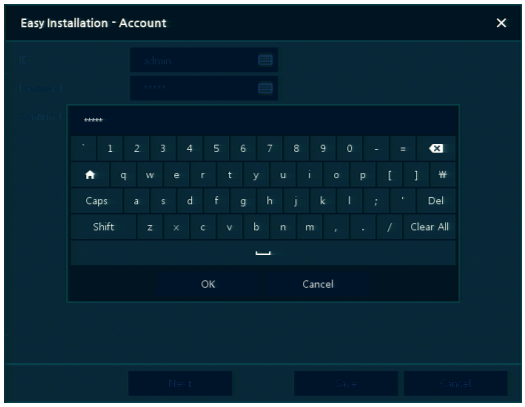
2.4.1 Account

How to set Account using Easy Installation:

1 Click the keyboard icon to set **ID** and **Password** user selects.

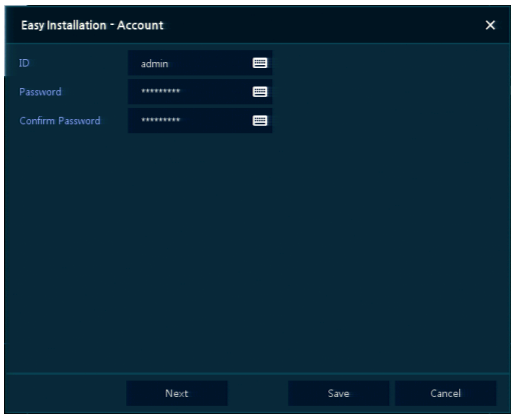


2 With keyboard UI, set the **ID** and **Password** and press **OK**.



3 Press the **Save** button to save newly set **ID** and **Password**.

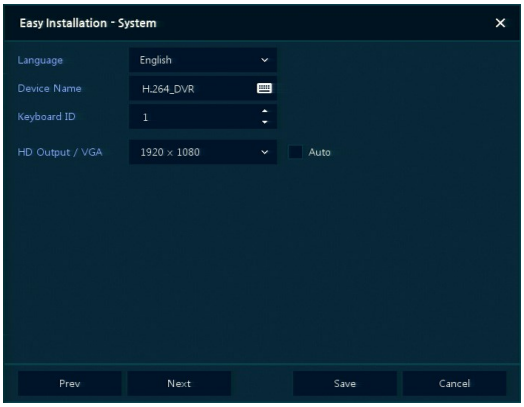
4 Press **Next** button to end Account setting and move to the next setting phase.



2.4.2 System

How to set the system using Easy Installation:

1 Set each item in **System** setting screen.



- System Mode: Select input video type (Analog Only or Analog+IP cam)
- Language: Select system language.
- Device Name: Enter the device name.
- Keyboard ID: To identify device usage in controlling DVR with RS485 through a keyboard.
- Selecting the device ID. In case of simultaneous use of equipment, set a different ID.
- HDMI/VGA: Set resolution of a monitor connected to the device.

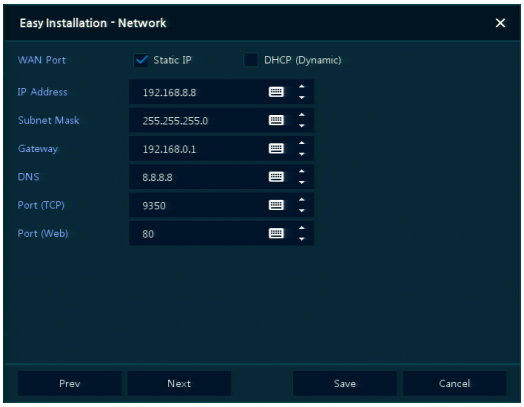
2 Press **Save** button to save setting values.

3 Press **Next** to end System setting and move to the next setting phase.

2.4.3 Network

How to set the network using Easy Installation:

1 Set each item in **Network** setting screen.



- WAN Port: Select whether to use static IP or dynamic IP.
- IP Address, Subnet Mask, Gateway, DNS, and Port: For dynamic IP, enter information in each field.

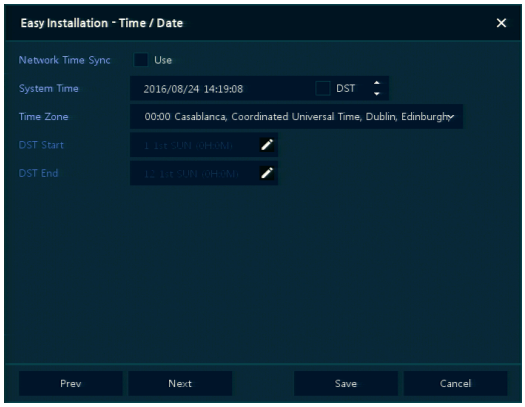
2 Press **Save** button to save set values.

3 Press **Next** to end Network setting and move to the next setting phase.

2.4.4 Time/Date

How to set the time/date using Easy Installation:

1 Set each item in **Time/Date** setting screen.



- Network Time Sync: Select network for synchronizing with time server. This should be the same time server used for all other IP devices.
- System Time: When not for synchronizing with network time server, set the device time; when applying Daylight Saving Time, select DST.
- Time Zone: Select time zone for the system being installed.
- DST Start/End: For applying Daylight saving time, set the application period.

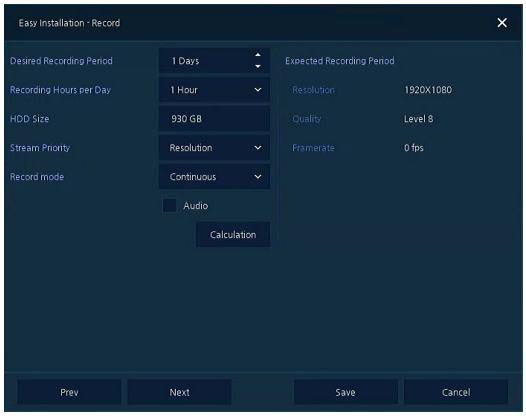
2 Press **Save** button to save set values.

3 Press **Next** to end Time/Date setting and move to the next setting phase.

2.4.5 Record

How to set the record of Easy Installation:

1 Set each item in **Record** setting screen.



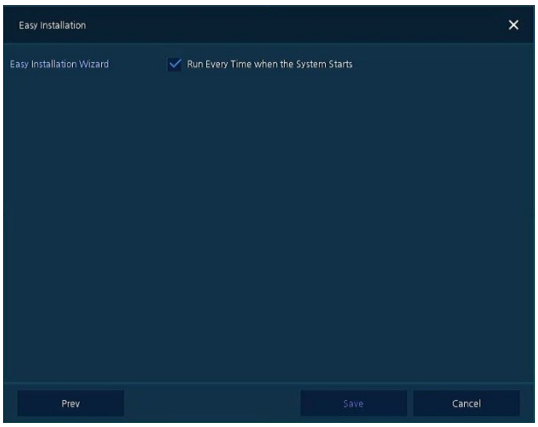
- Select desired recording period and daily recording hours.
- HDD size will be displayed automatically.
- Select priority of frame rate or resolution.

- Select recording modes as continuous or event.
- Select if audio is to be recorded or not.
- Click **Calculation** to see recommended frame rate and resolution.

2 Press **Save** button to save set value.

3 Press **Next** to end Network setting and move the next setting phase.

2.4.6 Easy Installation Wizard



1 Select to run Easy Installation each time the system starts.

2 Press **Save** button to save set value and end Easy Installation.

3. Live Screen Configuration

UI screen is configured as figure below.

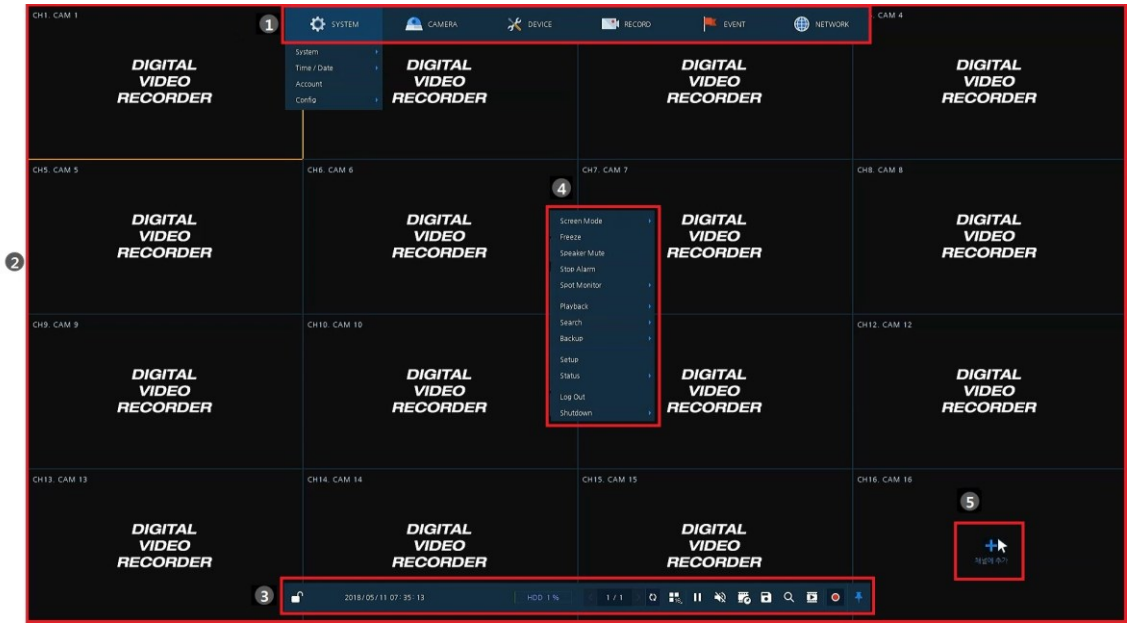


Figure 3-1 UI Screen Configuration

Table 3-1 Items and Description of UI Screen Configuration

No.	Item	Description
1	Setup menu	Setting menu is located in the top corner of screen. See "Setup " for detailed information about the setting menu.
2	Live screen	Show live video of connected cameras
3	Launcher menu	Launcher menu is located the bottom corner of the screen. See "3.2 Live Launcher " for detailed information about the Launcher menu.
4	Quick menu	Clicking the right button of a mouse displays Quick menu. See "0 Select **Backup Mask** and click **SET** button to open the Privacy Mask pop-up window.

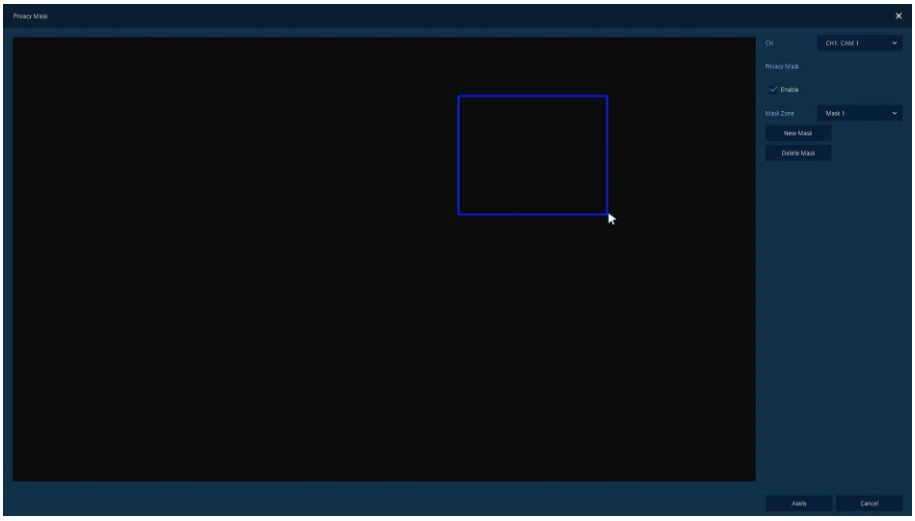
<table>
<tr><th>No.</th><th>Item</th><th>Description</th></tr>
<tr><td></td><td></td><td>


Figure 3-5 Backup Mask

Table 3-5 Backup Mask Item and Description
<table>
<tr><th>No.</th><th>Item</th><th>Description</th></tr>
<tr><td>1</td><td>Select CH</td><td>Select the channel to set the privacy zone for</td></tr>
<tr><td>2</td><td>Privacy Mask Enable</td><td>Select whether to use the Privacy Mask</td></tr>
<tr><td>3</td><td>Mask Zone</td><td>Apply all or only the selected mask</td></tr>
<tr><td>4</td><td>New Mask</td><td>Create a new privacy zone. Up to 4 masks can be created.</td></tr>
<tr><td>5</td><td>Delete Mask</td><td>Delete all or selected privacy zones</td></tr>
</table>
Quick ” for detailed information about the quick menu.
</td></tr>
<tr><td>5</td><td>Add to CH</td><td>Manual registration menu for when the mouse pointer is placed in the center of the channel and it indicates that the camera is not registered in Analog+ IP cam mode. See “3.3.2 Camera Registration” to display detailed information about Add to CH.</td></tr>
</table>

3.1 Icons in Live screen

Each icon in the Live screen displays the present setting status of a function. UI screen consists of icons as shown below.

Note	Chosen Live screen is marked with a blue frame; mouse-located Live screen is marked with yellow one.

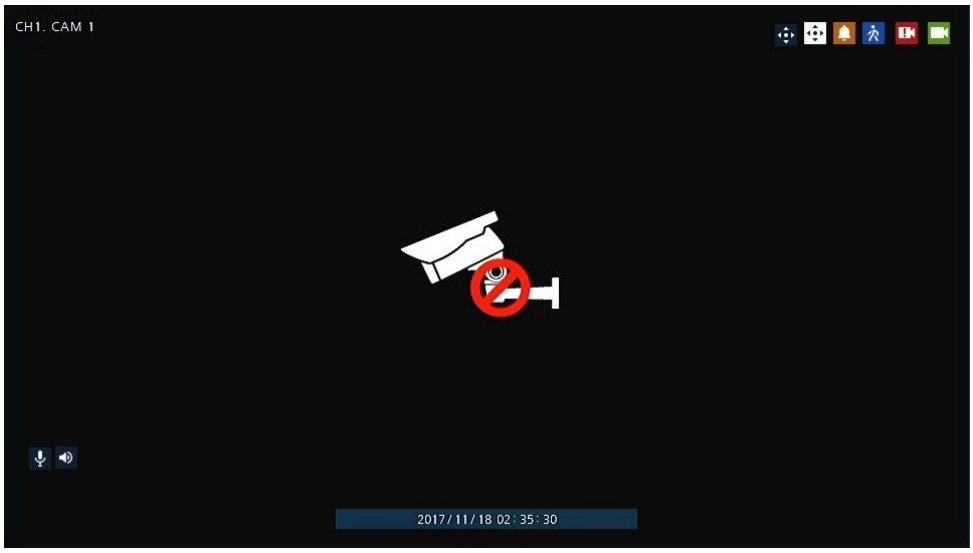


Figure 3-2 Live Screen Icon

Table 3-2 Live Screen Icon and Its Description

No.	Icon	Description
1	CH1 CAM1	Channel numbers and camera titles
2		A camera with PTZ function
		PTZ control function in process
		Recording in alarm event mode
		Recording in motion event mode
		Recording in panic recording mode
		Recording in consecutive recording mode
3		No camera input
4		Mic ON/OFF
		Speaker ON/OFF
6		Displaying present date and time

3.2 Live Launcher menu

This chapter describes the Launcher menu at the bottom of the screen.

Figure 3-3 Launcher Menu

Table 3-3 Launcher menu Item and Description

No.	Item	Description
1		Log in/out status and logged in ID
2	Date & Time	Displaying present date and time
3	HDD	Displaying HDD capacity in use
4		Moving to previous/next partition screen
5		Displaying Live screen in order set (toggle)
6		Selecting partition mode to mark in Live screen (single screen, 4-, 9- and 16-partition)
7		Stopping or replaying selected Live screen images (toggle)
8		Audio on or mute chosen Live screen(toggle)
9		Capturing channels user's selection
10		Bookmarking with date and time user's selection
11		Make a backup video of user's selection. See "3.2.1 Backup" for detailed information about back-up.
12		Search recording data (time, event, and thumbnail). See "5.1 Search" for detailed information about search.
13		Play recorded data
14		Start immediate recording of selected channel
15		Lock or release Launcher menu (toggle)

3.2.1 Backup

The device provides a back-up function of the Live screen.

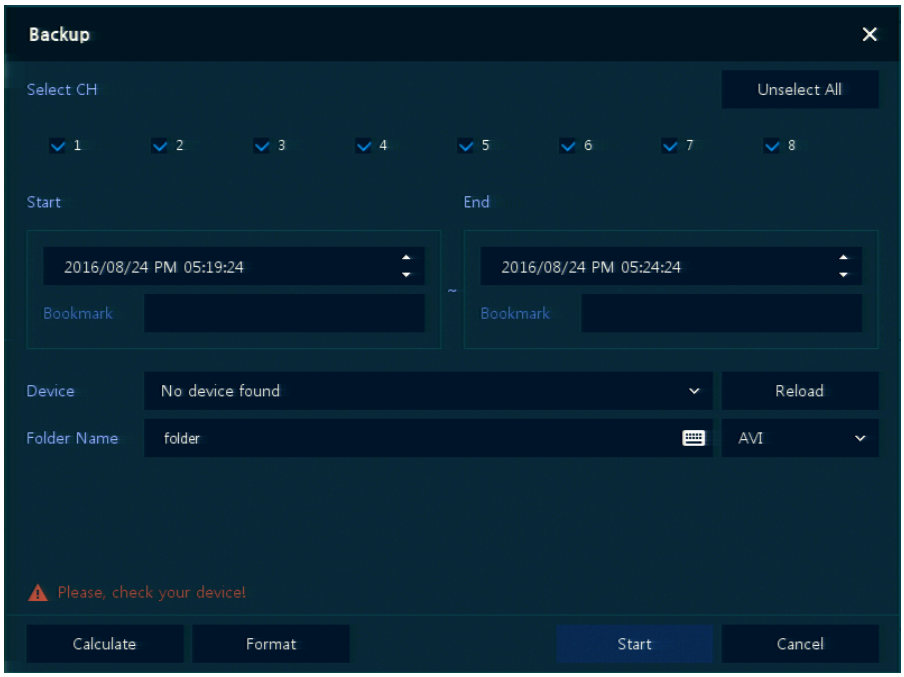


Figure 3-4 Backup

Table 3-4 Backup Item and Description

No.	Item	Description
1	Select CH	Select a channel user wants to back-up
2	Select All/ Unselect All	Select or clear all channels
3	Start	Set back-up start time (Bookmark: bookmark list)
4	End	Set back-up ending time (Bookmark: bookmark list)
5	Time Overlap	Selecting time if there are two recorded data in the same time
6	Backup Mask	User can mask selected area. Works H4V format only.
7	Device	Select the device to save back-up files
8	Reload	Open the device information
9	Folder Name	Enter a folder name to save back-up files
10	File format	Select a file format to back-up
11	Calculate	Calculate data capacity to back-up
12	Format	Format the device to back-up
13	Start	Start back-up
14	Cancel	Close the backup screen

Select **Backup Mask** and click **SET** button to open the Privacy Mask pop-up window.

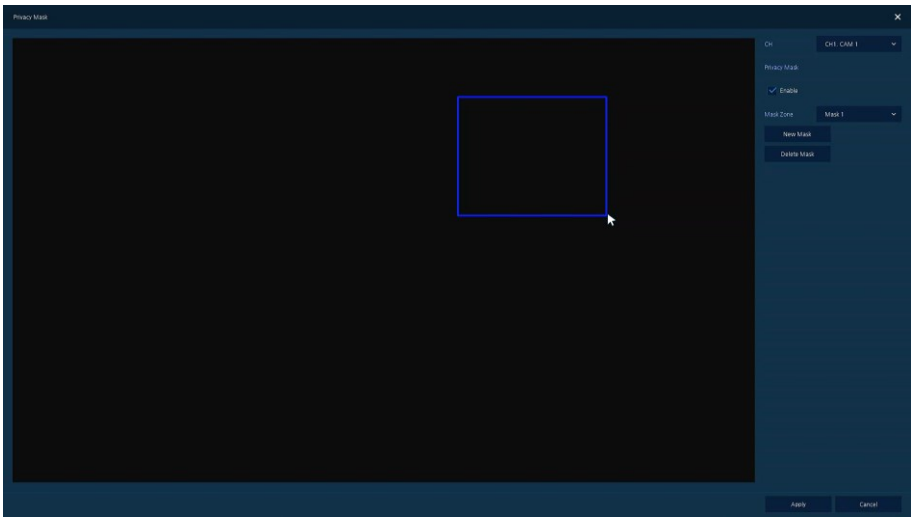


Figure 3-5 Backup Mask

Table 3-5 Backup Mask Item and Description

No.	Item	Description
1	Select CH	Select the channel to set the privacy zone for
2	Privacy Mask Enable	Select whether to use the Privacy Mask
3	Mask Zone	Apply all or only the selected mask
4	New Mask	Create a new privacy zone. Up to 4 masks can be created.
5	Delete Mask	Delete all or selected privacy zones

3.3 Quick menu

This chapter explains the Quick menu when users click the right button of the mouse in Live screen.

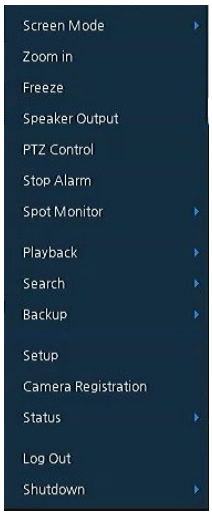


Figure 3-6 Quick Menu

Table 3-6 Quick menu Item and Description

No.	Item	Description
1	Screen Mode	Selecting the partition mode of Live screen (Full, 2X2, 3X3 and 4X4).
2	Zoom in	Magnify selected Live screen (Zoom out, 2 times, 4 times, and 8 times)
3	Freeze	Stop or replay selected Live screen images (toggle)
4	Speaker OUTPUT/Mute	Turn on/off a sound speaker
5	PTZ Control	Control PTZ function
6	Stop Alarm	Stop monitoring alarm output and event
7	Spot Mode	Set the output mode of a spot monitor (Auto, Full)
8	Playback	Play selected Live screen images (before 30 sec, 1 min, 5 min, 10 min, 30 min, 1-hour, Go to last play time, and Go to last record time)
9	Search	Search recording data (time, event, thumbnail, and text). See "5.1 Search" to display detailed information about search.
10	Backup	Backup video user selected. See "3.2.1 Backup" for detailed information about back-up.
11	Setup	Open setting menu pop-up. For more information about setting menu, see section "Setup ."
12	Camera Registration	Open a pop-up menu for IP camera registration
13	Status	Open a pop-up displays device system log, event, and recording status (system log, event, and save)
14	Log in/Log out	Log in/Log out
15	Shutdown	Unplug or restart the device (shutdown, restart)

3.3.1 PTZ Control

The location of images can be moved to monitor with PTZ control button.

Note	PTZ Control menu can be displayed if relevant channel's protocol is set in **DEVICE > PTZ** at the top of Live screen.

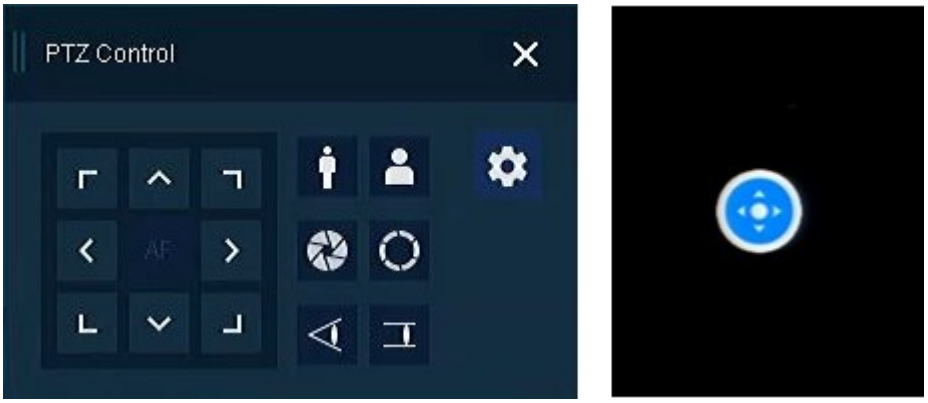


Figure 3-7 Quick Menu > PTZ Control

Table 3-7 Quick Menu > PTZ Control Item and Description

No.	Item	Description
1		Move images using direction buttons
2		Move images using PTZ control button
3	AF	Adjusting screen focus automatically
4	Zoom Out	Zoom function of PTZ camera
5	Zoom In	
6	Iris OFF	Adjust illumination in the camera
7	Iris On	
8	Focus Far	User's manual focus adjustment
9	Focus Near	
10		Go to Home menu

In PTZ Control screen, click the right button of the mouse to display the Quick menu.

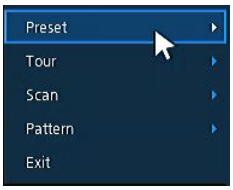


Figure 3-8 PTZ Control Quick Menu

Table 3-8 PTZ Control Item and Description in Quick Menu

No.	Item	Description
1	Preset, Tour, Scan, Pattern	Run PTZ functions
2	Exit	Go to Live screen menu from PTZ Control menu

3.3.2 Camera Registration

Users can register the IP cameras if Analog+IP mode was selected.

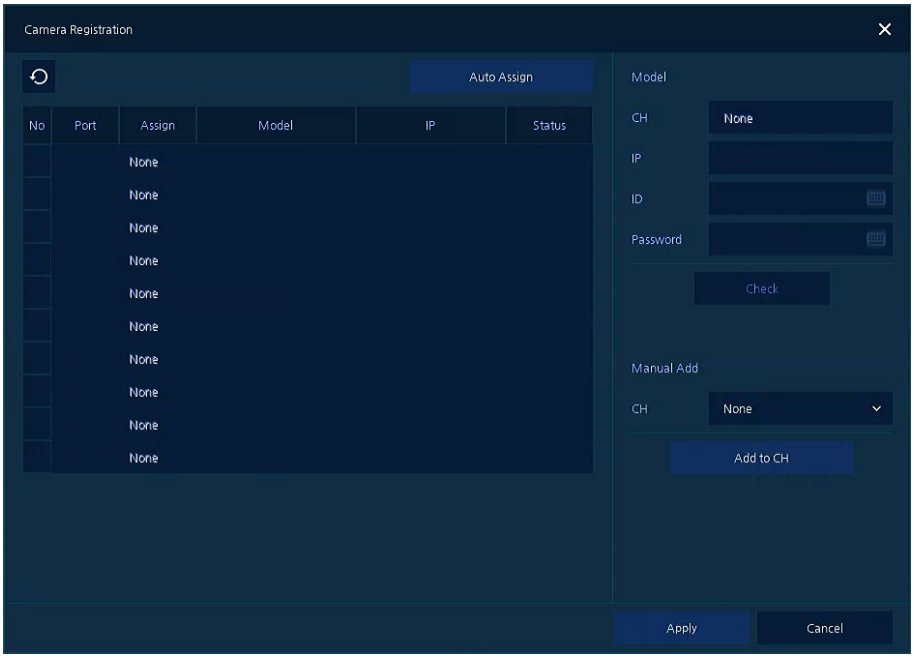


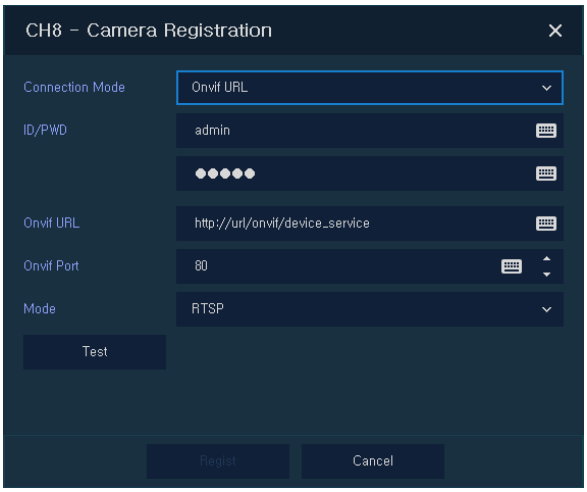
Figure 3-6 Camera Registration

Table 3-6 Camera Registration

No.	Item	Description
1		Search the connected IP cameras
2	Auto Assign	Automatically assign the channel windows
3	Port	Show the detected camera port
4	Assign	Selecting the channel windows manually
5	Model	Show detected camera model number
6	IP	Show detected camera IP address
7	Status	Show connection status
8	Add Manually	Select channel and click to open manual add window

Add Manually

Click to open Camera Registration or move the mouse point to the middle of channel on the Live screen and click the .



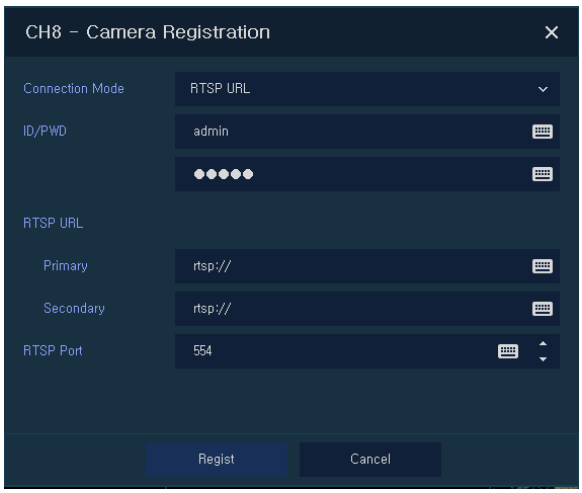


Figure 3-7 Camera Registration (manual add)

Table 3-7 Camera Registration (manual add)

No.	Item	Description
1	Connection Mode	Select connection mode as Onvif or RTSP
2	ID/PWD	Enter ID and password of IP camera
3	Onvif URL	Enter camera IP address
4	RTSP URL	Enter Primary and Secondary RTSP IP address and URL
5	Onvif Port	Enter web port. Default port is 80
6	RTSP Port	Enter RTSP port. Default port is 554
7	Mode	Select video stream format (RTSP/HTTP)

3.3.3 Status > System log

Users can view the system log information in **System log** tab of the **Status** screen.

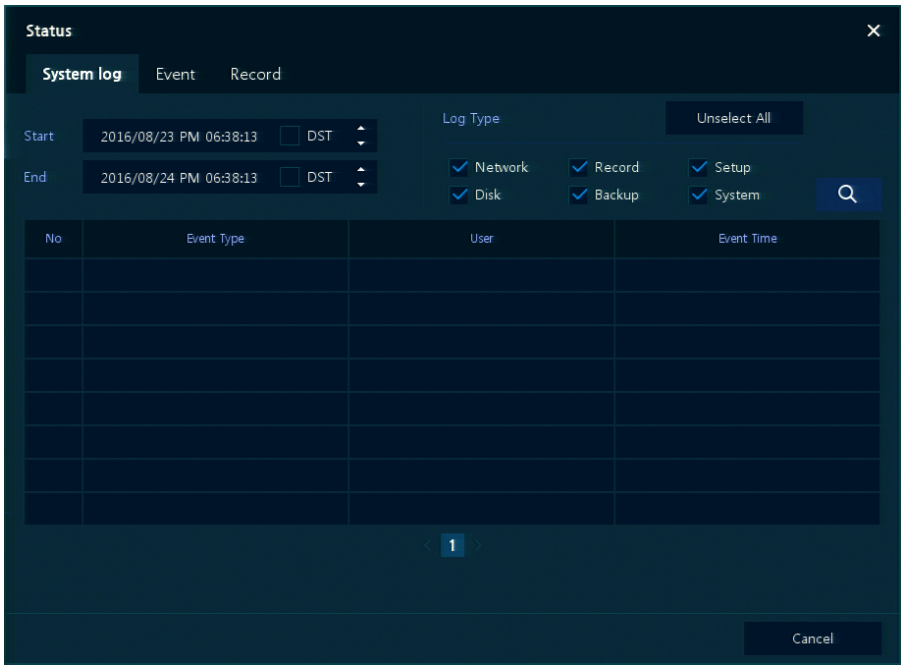


Figure 3-11 Status > System log in Quick Menu

Table 3-11 Status of Quick menu > System log Item and Description

No.	Item	Description
1	Start	Set starting time of system log to search
2	End	Set ending time of system log to search
3	Log Type	Select log types (Network, Record, Setup, Disk, Backup, and System)
4	Select All/ Unselect All	Select or clear all log types (toggle)
5	Search	Press search button to search on the basis of set condition
6	System log list	Displays system log lists
7	Cancel	Complete the status screen

3.3.4 Status > Event

Users can see the real-time event information of the unit in **Event** tab of the **Status** screen.

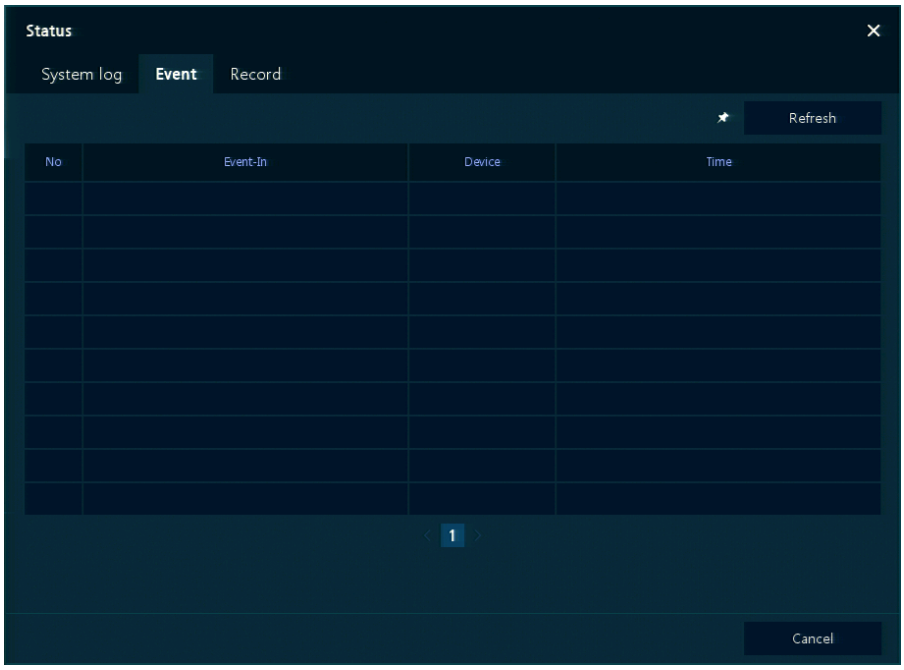


Figure 3-8 Status > Event in Quick Menu

Table 3-8 Status > Event Item and Description in Quick Menu

No.	Item	Description
1		Temporarily fix or release an event list (toggle)
2	Refresh	Delete the event list
3	Event list	Displays the event list
4	Cancel	Finish with the status screen

3.3.5 Status > Record

Users can view the recording status in **Record** tab of the **Status** screen.

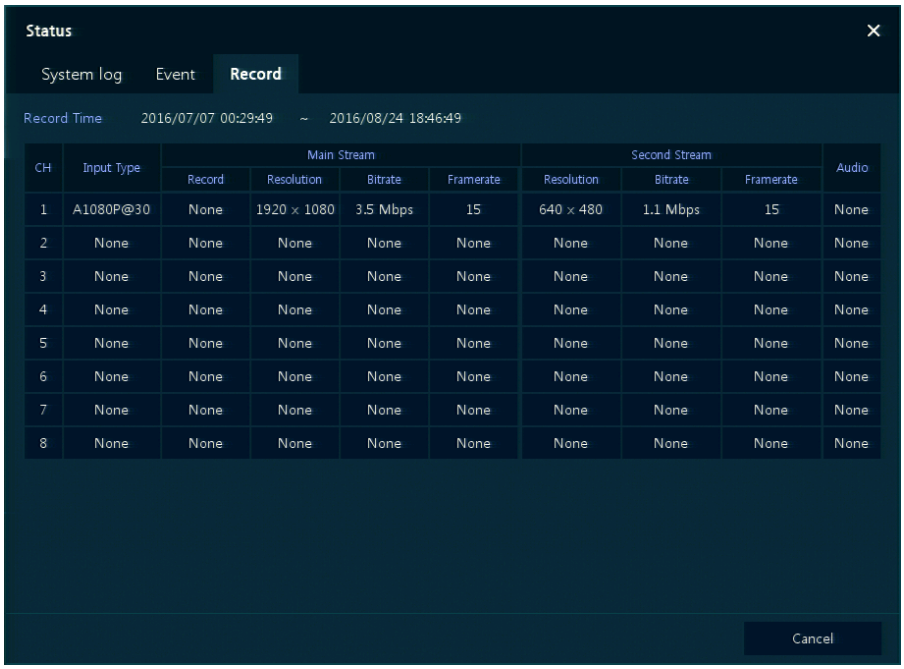


Figure 3-9 Status > Record in Quick Menu

Table 3-9 Status > Record Item and Description in Quick Menu

No.	Item	Description
1	Record time	Mark recorded period
2	Record list	Displays the record setting status
3	Cancel	Finish using the status screen

3.3.6 Status > Disk

Users can see the disk status in **Disk** tab in **Status** screen.

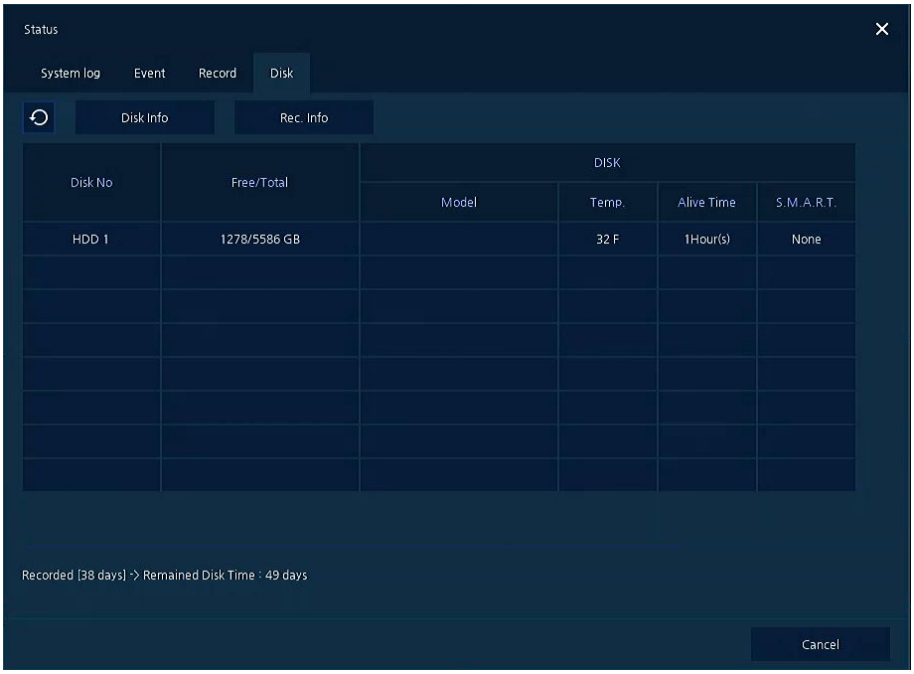


Figure 3-10 Status > Disk in Quick Menu

Table 3-10 Status > Disk Item and Description in Quick Menu

No.	Item	Description
1	Disk Info	Display disk temperature and S.M.A.R.T information
2	Rec. Info	Display recording period
3	Cancel	Finish using the status screen

4. Setup menu

This chapter describes Setup menu at the top of the screen.

Figure 4-1 Setup Menu

Selecting the menu opens the setup screen.

Note	**Setup** screen is also available by selecting **Setup** in Quick menu, accessed by clicking the right button of the mouse.

Table 4-1 Setup Menu Item and Description

No.	Item	Description
1	SYSTEM	Set the system environment
2	CAMERA	Set the camera
3	DEVICE	Set the device connected with the unit
4	RECORD	Set the matter relevant to record
5	EVENT	Set each event
6	NETWORK	Set the network environment

Setup menu includes:

Table 4-2 Setup Menu Tree

First Level	Second Level	Third Level
SYSTEM	System	System
		F/W Upgrade
	Time/Date	Time/Date
		Holiday
	Account	User
	Configuration	Export/Import
		Factory Default
CAMERA	Basic	Basic
		Audio In
	Advanced	Advanced
DEVICE	Display	Display
		OSD
		Sequence
		Layout
	Disk	Setup
	PTZ	PTZ
	Serial Device	Serial Device
	TEXT	TEXT
RECORD	Schedule	Schedule
	Stream	Main Stream
		Second Stream
		Panic
EVENT	System/Disk	System
		Disk
	Alarm In	Setup
		Schedule
	Motion	Setup
		Schedule
	Video Loss	Setup
	Notification	Periodic
		Schedule
NETWORK	Basic	WAN Port
	DVRNS/DDNS	DVRNS/Dashboard
		DDNS
	E-Mail	E-Mail

First Level	Second Level	Third Level
NETWORK	FTP	FTP
	P2P	P2P
	Notification Server	Notification Server
		Notification Message

4.1 General buttons in Setup menu

This section describes the General buttons in the Setup menu.

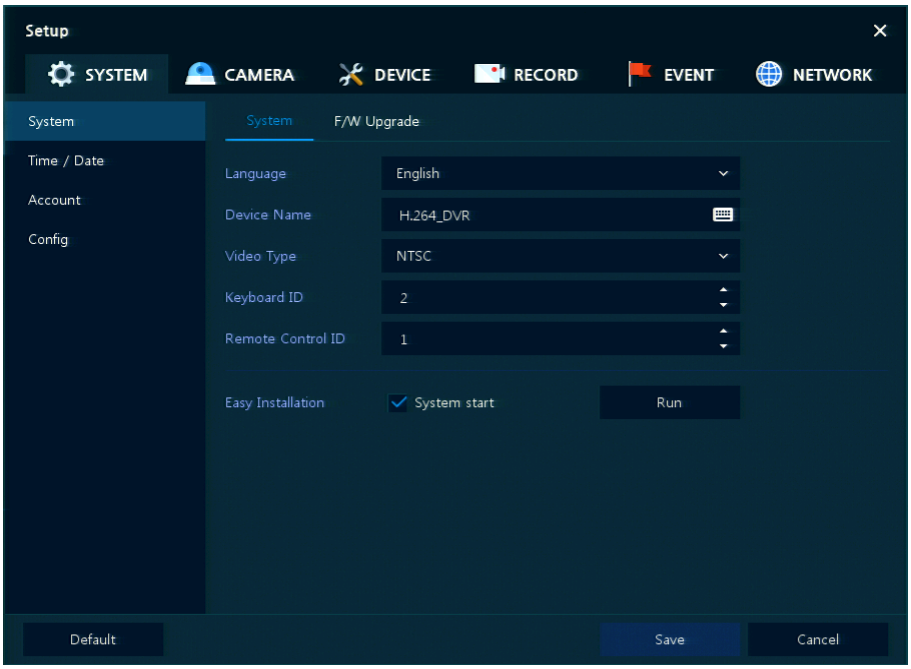


Figure 4-2 General Buttons in Setup Menu

Table 4-3 Item and Description of General Buttons in Setup Menu

No.	Item	Description
1	Default	Revert changed setting value to default in factory
2	Save	Save the set content
3	Cancel	Cancel the set value
4	Restore	Cancel the set value and revert to default
5	Apply	Apply the set content

4.2 SYSTEM

In **SYSTEM**, the basic system environment is set.

4.2.1 System

Set and upgrade the basic items of the system.

System > System

Set the basic items in the System.

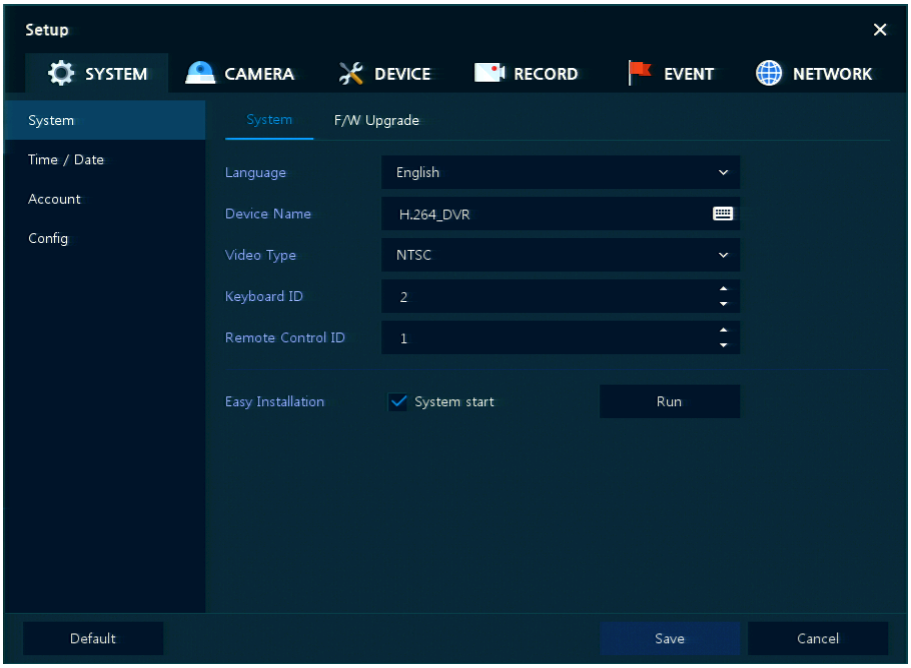


Figure 4-3 SYSTEM > System > System

Table 4-4 SYSTEM > System > System Item and Description

No.	Name	Function
1	Language	Set the system language (only English is available)
2	Device Name	Enter the device name
3	Video Type	Select image standard types (NTSC, PAL)
4	Keyboard ID	Select keyboard ID (1~255)
5	Remote Control ID	Select wireless remote control ID (1~99)
6	System start	Select Easy Installation when starting the system
7	Run	Run Easy Installation

Warning If video type is changed, system will reboot and all setup will go to factory defaults.

System > F/W Upgrade

Set the upgraded items of the system.

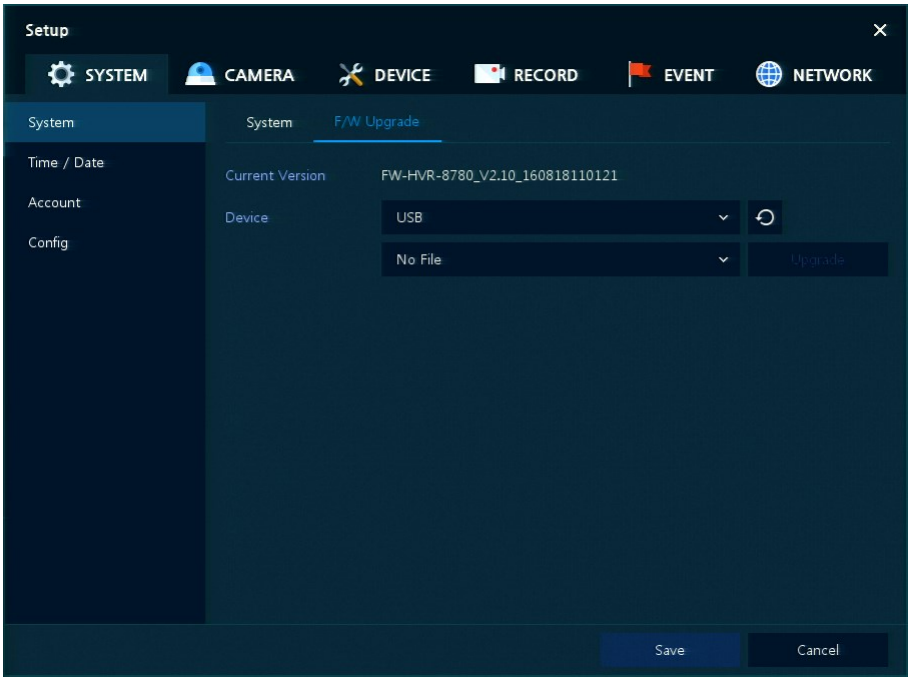


Figure 4-4 SYSTEM > System > F/W Upgrade

Table 4-5 SYSTEM > System > F/W Upgrade Item and Description

No.	Name	Function
1	Current Version	Displays the present tool version
2	Device	Connect USB memory that has files to upgrade to the USB port; select files to upgrade

Note

- If firmware version in the USB drive is lower than present system version, system does not display the firmware in the USB drive.
- To upgrade through network, recorder must have HDD.

4.2.2 Time/Date

Set the date, time and holidays of the system.

Time/Date > Time/Date

Set the date, time and holidays of the system.

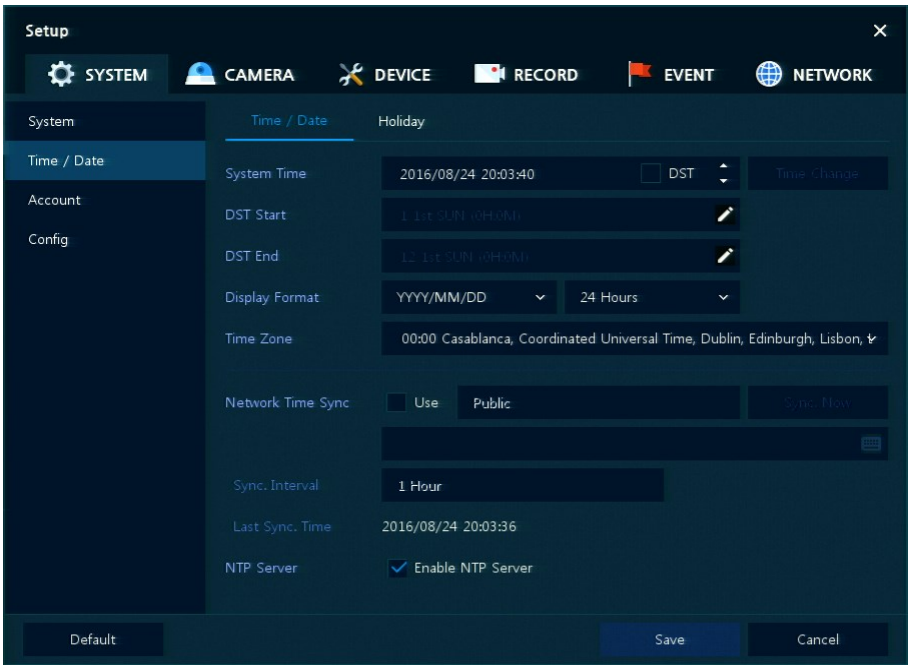


Figure 4-5 SYSTEM > Time/Date > Time/Date

Table 4-6 SYSTEM > Time/Date > Time/Date Item and Description

No.	Name	Function
1	System Time	Set the date and time ▪ DST: Select whether to use Daylight Saving Time ▪ Time change: Save changed time
2	DST Start	Set the starting date of Daylight Saving Time
3	DST End	Set the ending date of Daylight Saving Time
4	Display Format	Select the format to display date and time
5	Time Zone	Select time zone
6	Network Time Sync	For using a specific network time server, click the Use checkbox and enter the server address ▪ Sync. Interval: Select synchronization period (1~7-hour) ▪ Last Sync. Time: Displaying the final synchronized time
7	NTP Server	Select whether to use NTP server

Time/Date > Holiday

Set holidays of the system.

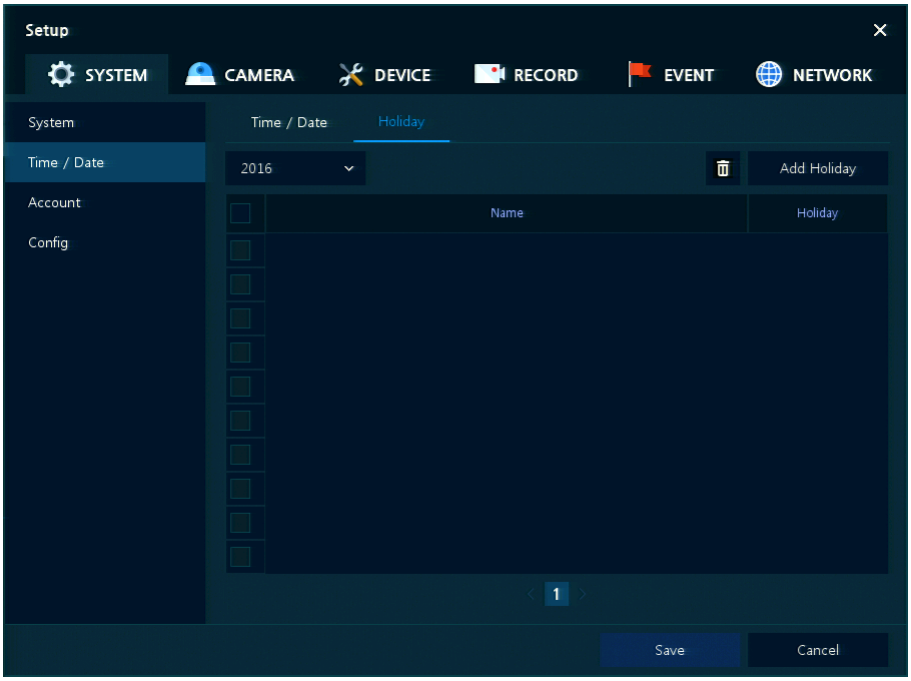


Figure 4-6 SYSTEM > Time/Date > Holiday

Table 4-7 SYSTEM > Time/Date > Holiday Item and Description

No.	Name	Function
1	Year	Select year to set holidays
2		Delete selected holidays
3	Add Holiday	Add holidays
4	List	Display added holiday lists

Clicking **Add Holiday** displays holiday addition screen shown below.

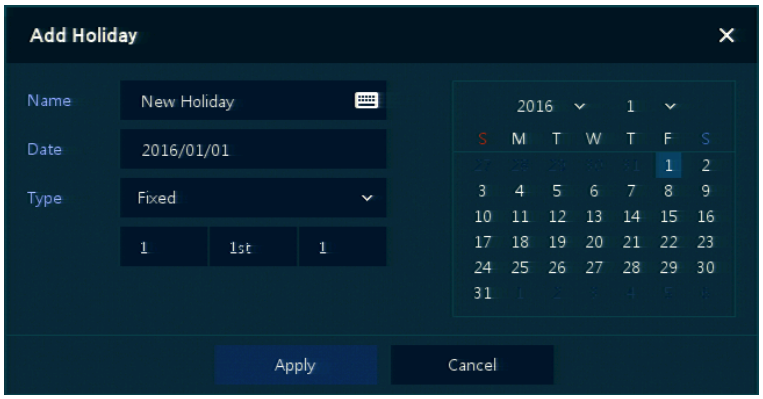


Figure 4-7 SYSTEM > Time/Date > Holiday > Add Holiday

Table 4-8 SYSTEM > Time/Date > Holiday > Add Holiday Item and Description

No.	Name	Function
1	Name	Enter the holiday name
2	Date	Display chosen date
3	Type	Select the holiday types (e.g., selecting **Relative** and **1, first,** and **Sun** designates annual January of the 1st Sunday as a holiday)
4	Calendar	Select the holiday to add

4.2.3 Account > User

Set the user's account of the system.

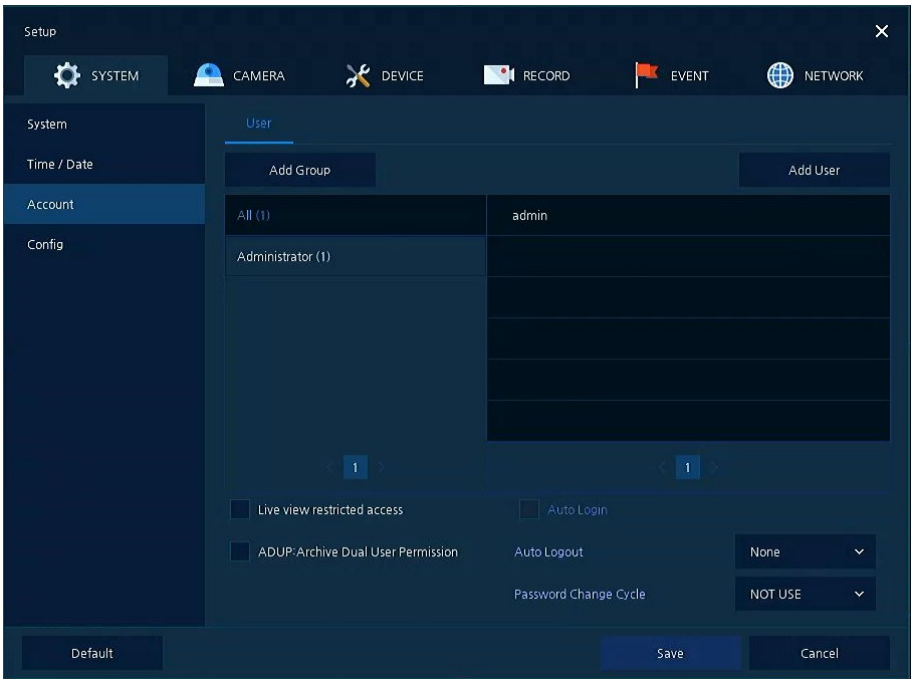


Figure 4-8 SYSTEM > Account > User

Table 4-9 SYSTEM > Account > User Item and Description

No.	Name	Function
1	Add Group	Add user group
2	Add User	Add users
3	Group List	Display a total group list
4	User List	Display user lists across groups
5	Live view restricted access	Do not display live video if logged out.
6	ADUP (Archive Dual User Permission)	Two users are able to access to search, playback and back-up.
7	Auto Login	Click/clear the automatic login checkbox
8	Auto Logout	Select automatic logout time (Null, 1 min, 2 min, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, and 30 min)
9	Password Change Cycle	If enabled, user can change the password periodically

Press **Add Group** button; the **Add Group** screen displays.

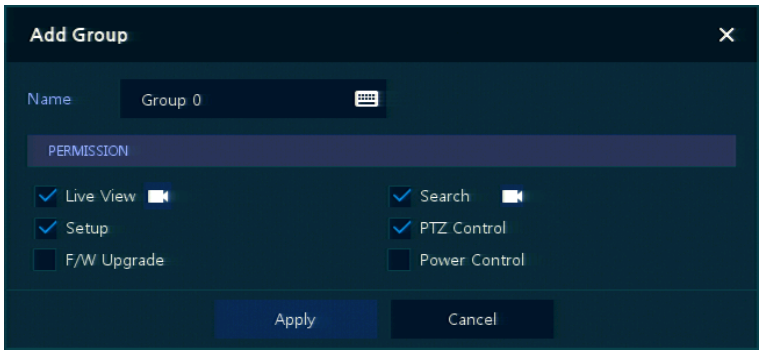


Figure 4-9 SYSTEM > Account > User > Add Group

Table 4-10 SYSTEM > Account > User > Add Group Item and Description

No.	Name	Function
1	Name	Enter the group name
2	PERMISSION	Select items to permit access
3		Select channels to permit access

Press **Add User** button; the **Add User** screen displays.

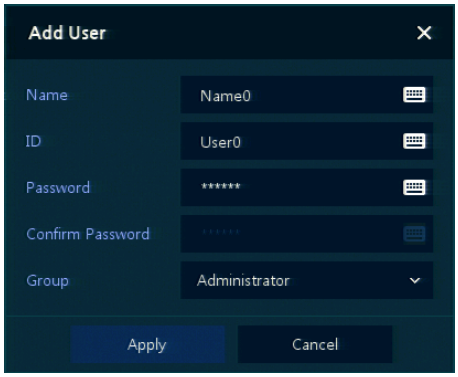


Figure 4-10 SYSTEM > Account > User > Add User

Table 4-11 SYSTEM > Account > User > Add User Item and Description

No.	Name	Function
1	Name	Enter the user name
2	ID	Enter the user ID
3	Password	Enter the password
4	Confirm Password	Confirm the password
5	Group	Select to the group to which user belongs

4.2.4 Configuration (Config)

Set Export/Import and Factory Default of the system.

Config > Export/Import

Through a save method, users can apply the same information set to other devices.

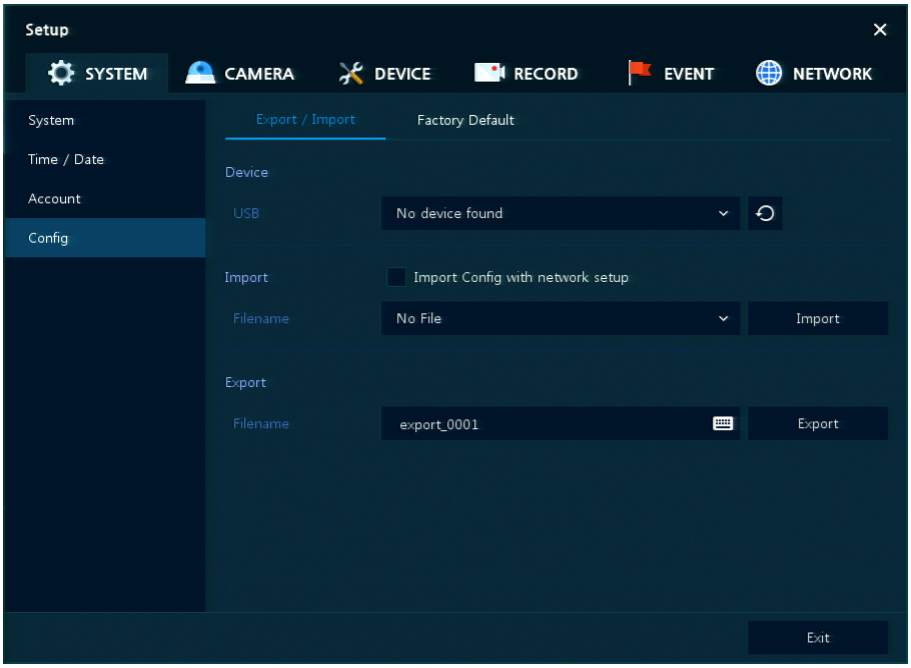


Figure 4-11 SYSTEM > Config > Export/Import

Table 4-12 SYSTEM > Config > Export/Import Item and Description

No.	Name	Function
1	Device	Select an exterior connector with USB ▪ USB: Displays the USB device connected ▪ Refresh button: Re-recognize the device
2	Import	Apply information saved in USB to the device ▪ Import Config with network setup: The network setting information is brought from the setting information ▪ Import button: The file in USB is brought to the designated device
3	Export	Save the set information in the USB ▪ Export Config with network setup: Save the information, including network setting, from the setting information to be exported Export button: Save the set information in the USB

Config > Factory Default

Return the setting values of the device to Factory Default.

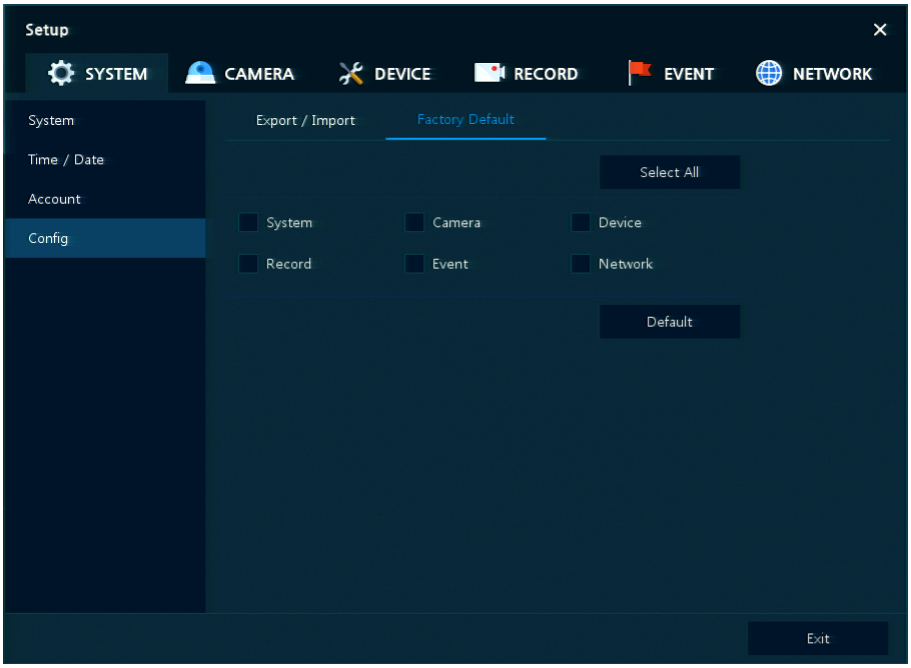


Figure 4-12 SYSTEM > Config > Factory Default

Table 4-13 SYSTEM > Config > Factory Default Item and Description

No.	Name	Function
1	Select All/ Unselect All	Select/deselect all items to be defaulted
2	Default Item	Select/deselect related items to be defaulted
3	Default button	Default the system back to the basics

4.3 CAMERA

In **CAMERA** section, set the camera to be connected to the device.

4.3.1 Basic

Set the fundamental functions of camera and audio.

Basic > Basic

Set the basic items of camera by channels.

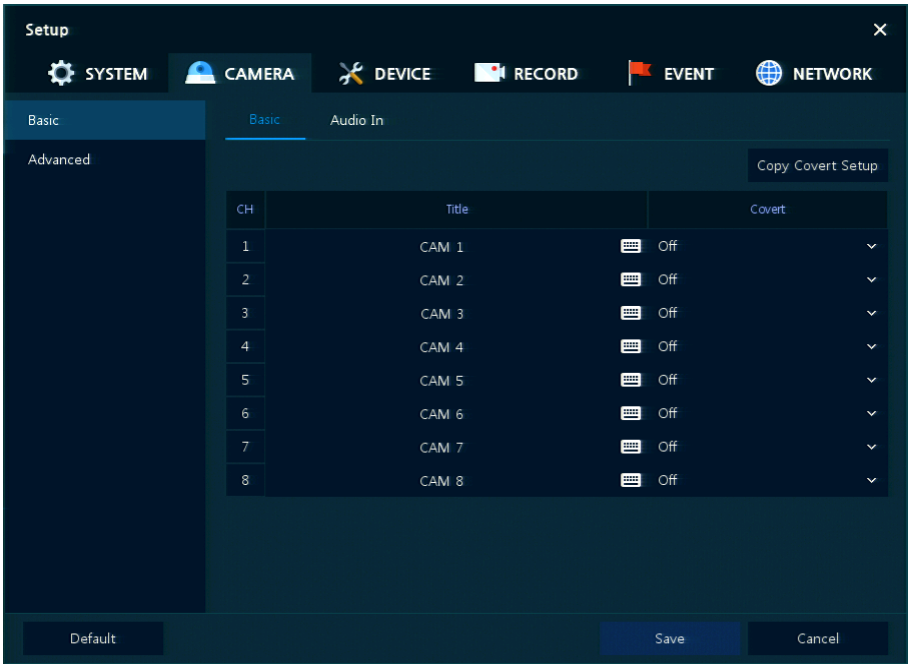


Figure 4-13 CAMERA > Basic > Basic

Table 4-14 CAMERA > Basic > Basic Item and Description

No.	Name	Function
1	CH	Display the channel name
2	Title	Enter the camera name for relevant channels
3	Covert	Select images to be shown in the Live screen by channels and whether to mark a status message or not (OFF, Video Only, Video/State All)
4	Copy Covert Setup	In Covert, set items can be duplicated to other channels

Press **Copy Covert Setup** button; **Copy Covert Setup** screen displays.

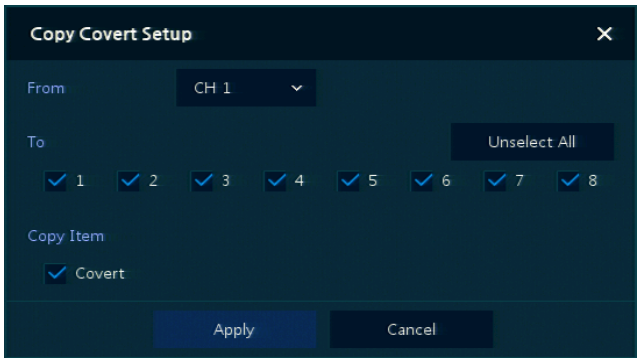


Figure 4-14 CAMERA > Basic > Basic > Copy Covert Setup

Table 4-15 CAMERA > Basic > Basic > Copy Covert Setup Item and Description

No.	Name	Function
1	From	Select a channel covert setting
2	To	Select a channel to be copied
3	Select All/ Unselect All	Select/deselect all channels

Basic > Audio In

How to set audio of camera across channels.

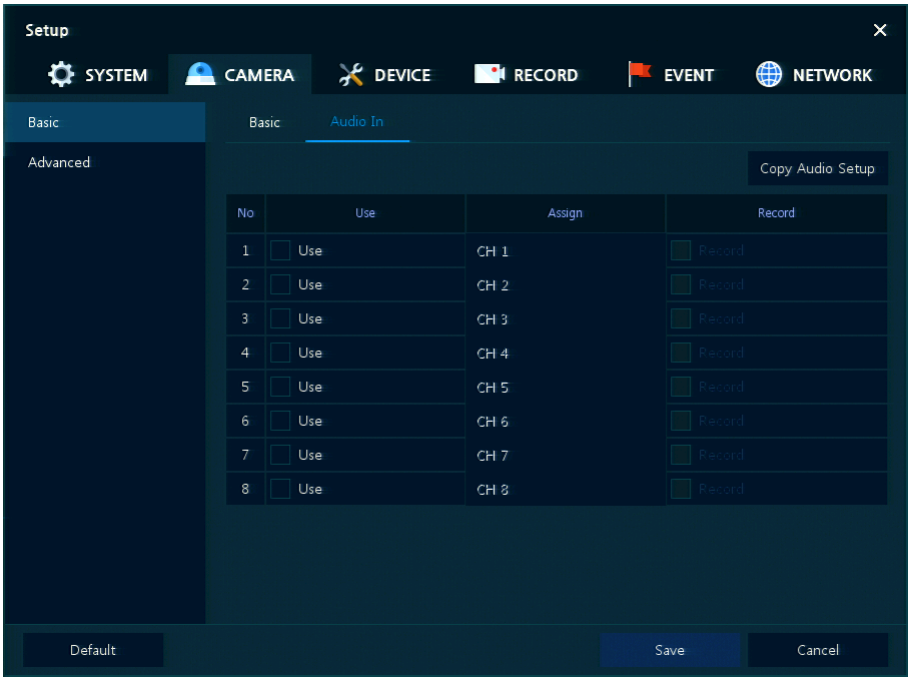


Figure 4-15 CAMERA >Basic > Audio In/Out

Table 4-16 CAMERA > Basic > Audio In/Out Item and Description

No.	Name	Function
1	No	Display channels of audio
2	Use	Select/deselect whether to use audio
3	Assign	Select channels to be assigned audio
4	Record	Select/deselect whether to save audio

4.3.2 Advanced

Selecting Advanced, users can set camera video and stream privacy mask.

Advanced > Scan Mode

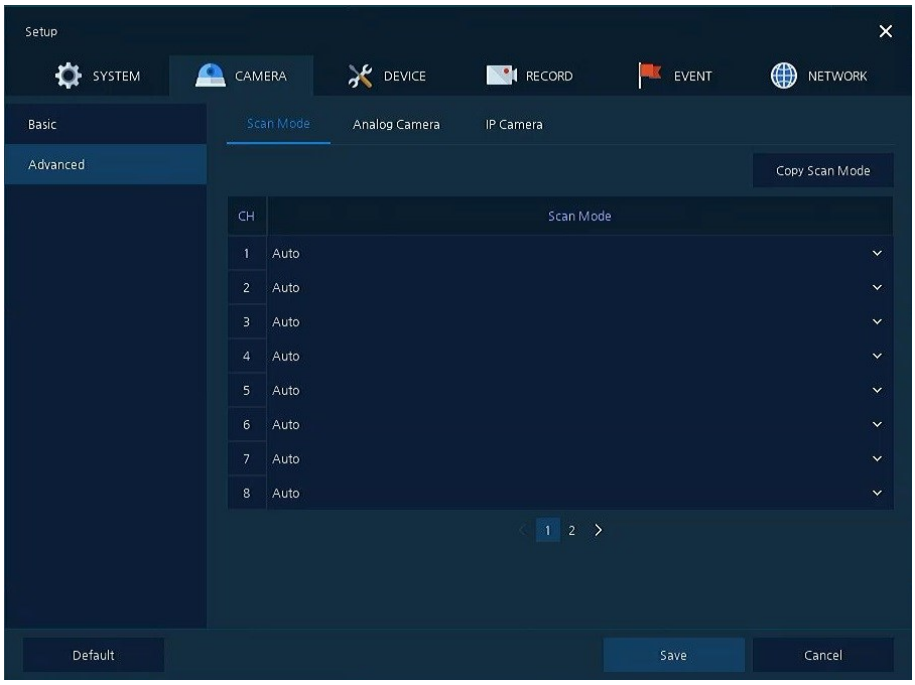


Figure 4-16 CAMERA > Advanced > Scan Mode

Table 4-17 CAMERA > Advanced > Scan Mode Item and Description

No.	Name	Function
1	CH	Display channels
2	Scan Mode	Automatically detects the camera input type or fixes the input video format to the selected type (Auto, AHD, TVI)
3	Copy Scan Mode	Copies the currently set scan mode settings to another channels

Advanced > Analog Camera

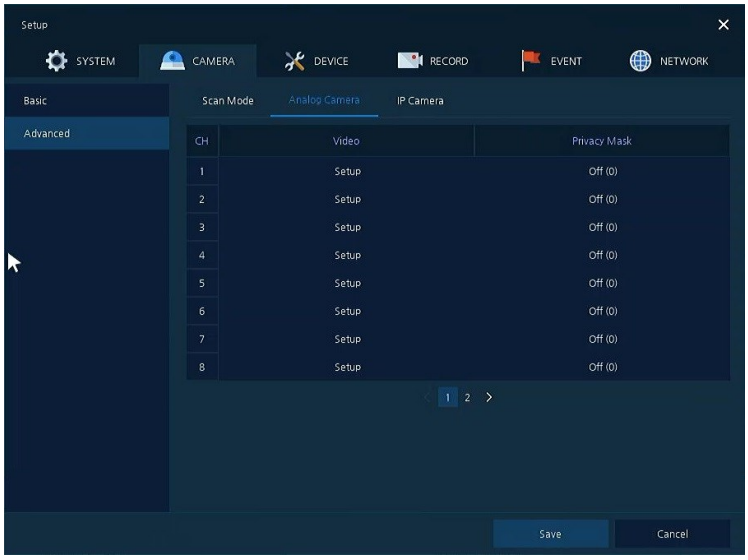


Figure 4-17 CAMERA > Advanced > Analog Camera

Table 4-18 CAMERA > Advanced > Analog Camera Item and Description

No.	Name	Function
1	CH	Display channels
2	Video	Set brightness, contrast and color of the camera
3	Privacy Mask	Set the privacy field; display field numbers set in parenthesis (up to 4 settings available)

Locate the mouse in the Privacy Mask field and then click Editing Icon ( ) in the right corner; the Privacy Mask screen displays.

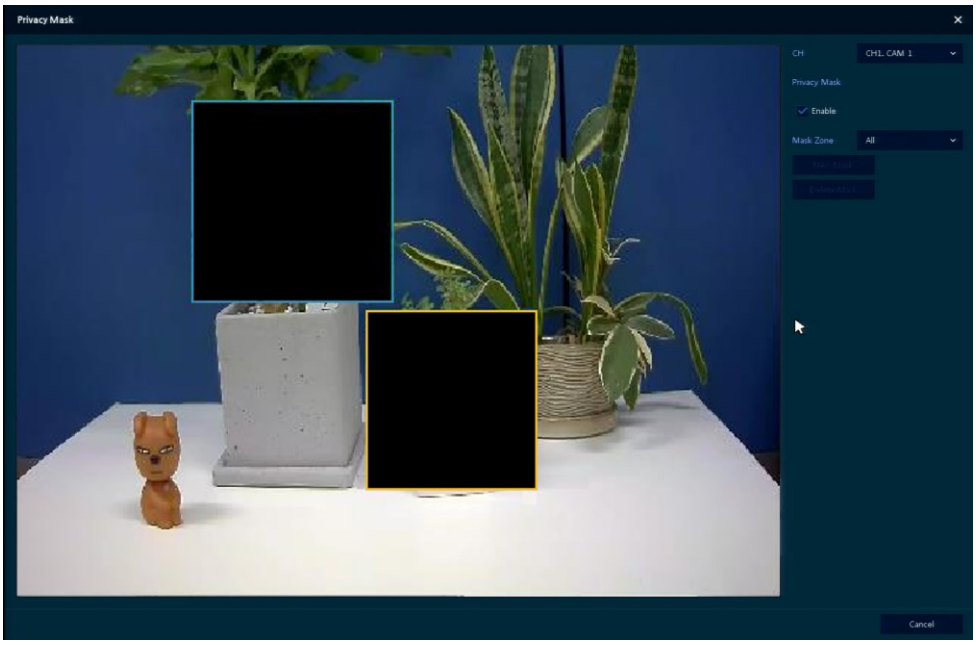


Figure 4-18 CAMERA > Advanced > Privacy Mask

Table 4-19 CAMERA > Advanced > Privacy Mask Item and Description

No.	Name	Function
1	CH	Select channels to set privacy field
2	Privacy Mask	Select/deselect whether to use privacy field
3	New Mask	Select another privacy field
4	Delete Mask	Delete selected privacy field

How to set Privacy Mask

Users can set up to 4 Privacy Masks. Follow the procedure below to set Privacy Mask:

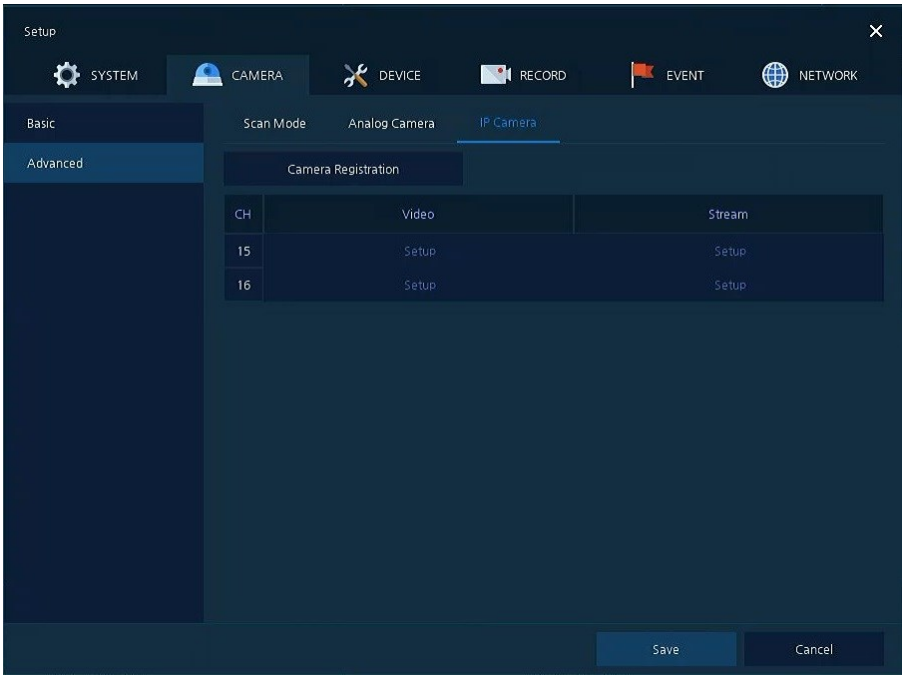
1 Press **New Mask** button. **Mask Zone** is automatically set as **Mask1**.

2 Using the mouse, drag the mask to the area on the screen where it should be located.

- Revision: Select Mask No. in **Mask Zone** and use the mouse to drag the mask to the selected area in the screen.
- Deletion: Select Mask No. in **Mask Zone** and click **Delete Mask**.

3 Press **Apply** button to complete setting.

Advanced > IP Camera



4

Figure 4-19 CAMERA > Advanced > IP Camera

Table 4-20 CAMERA > Advanced > IP Camera Item and Description

No.	Name	Function
1	Camera Registration	Open a pop-up menu for IP camera registration
1	CH	Display channels
2	Video	Set brightness, contrast and color of the camera
3	Stream	Setup camera stream features, such as Resolution, Framerate, Bitrate, etc.

Note This menu will be appeared when Analog+IP cam mode is selected.

4.4 DEVICE

In **DEVICE**, set the device to connect to the unit.

4.4.1 Display

Set functions and features related to a display device and Live screen.

Display > Display

Set the display device.

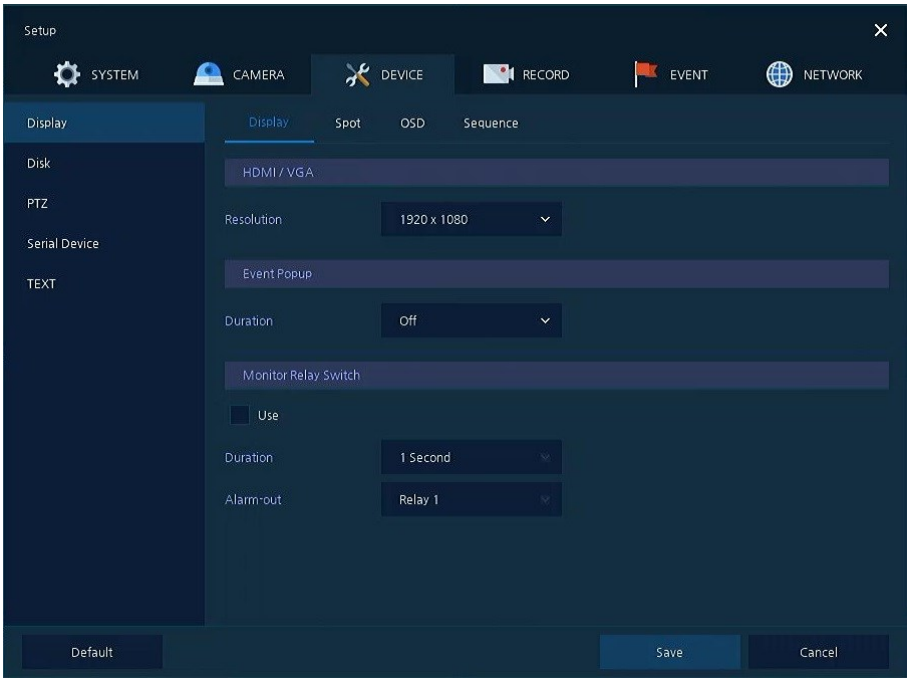


Figure 4-20 DEVICE > Display > Display

Table 4-21 DEVICE > Display > Display Item and Description

No.	Name	Function
1	HDMI/VGA	Select the resolution of the display device (1024x768. 1280x720, 1920x1080 and automatic)
2	Event Popup	Set duration of event popup
3	Monitor Relay Switch	Send alarm out when screen layout changed

Display > Spot

Set the output of the Spot monitor.

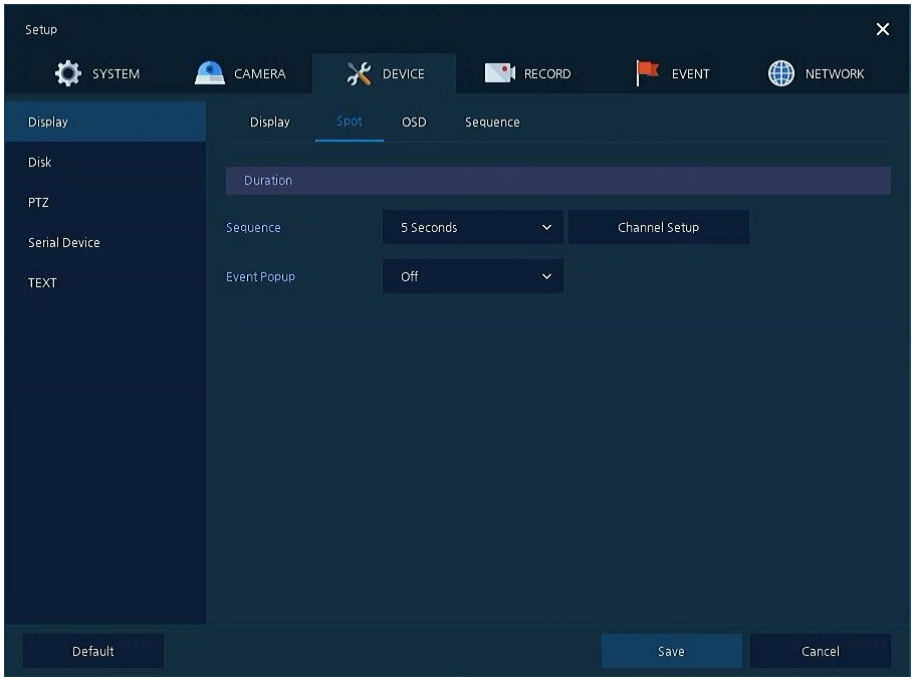


Figure 4-21 DEVICE > Display > Spot

Table 4-22 DEVICE > Display > Spot Item and Description

No.	Name	Function
1	Sequence	Set the channel and dwell time (5, 10, 20, 30 sec) when Auto mode of Spot Monitor is selected
2	Event Popup	Set the hold time of the full screen image of the channel where the event occurred (Off, 5, 10, 20, 30 sec, Continuous) If multiple channels have an event at the same time, the event channel is shown as a spilt screen

Display > OSD

Set the OSD of the display device.

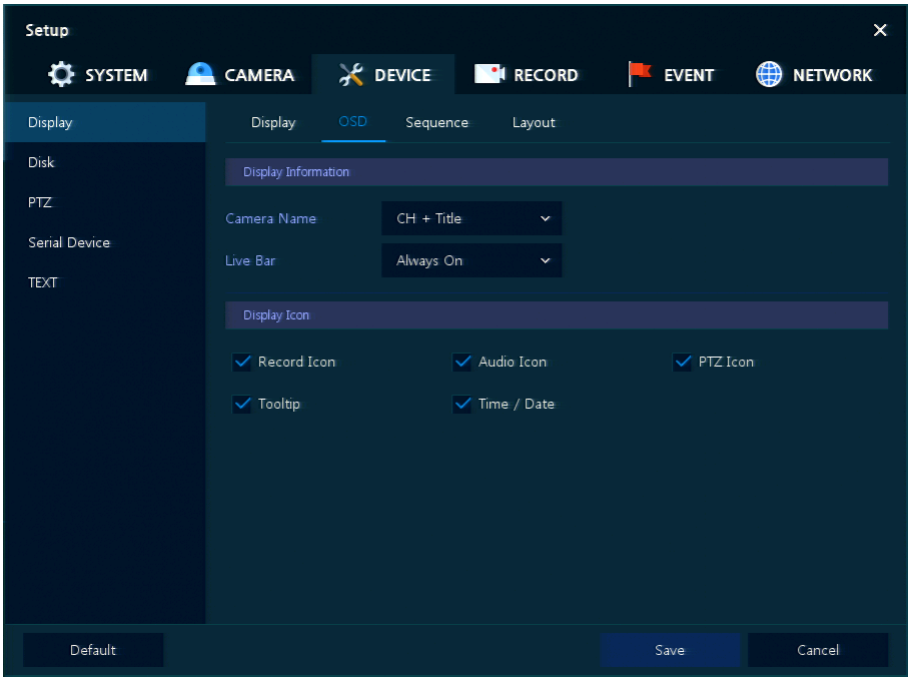


Figure 4-22 DEVICE > Display > OSD

Table 4-23 DEVICE > Display > OSD Item and Description

No.	Name	Function
1	Camera Name	Select the way to display camera in Live screen (Off, CH+Title, CH)
2	Live Bar	Select the way to display the Live bar (Always On, Auto Hide)
3	Display Icon	Select/deselect icons to display in the Live screen

Display > Sequence

How to set the play sequence of Live screen.

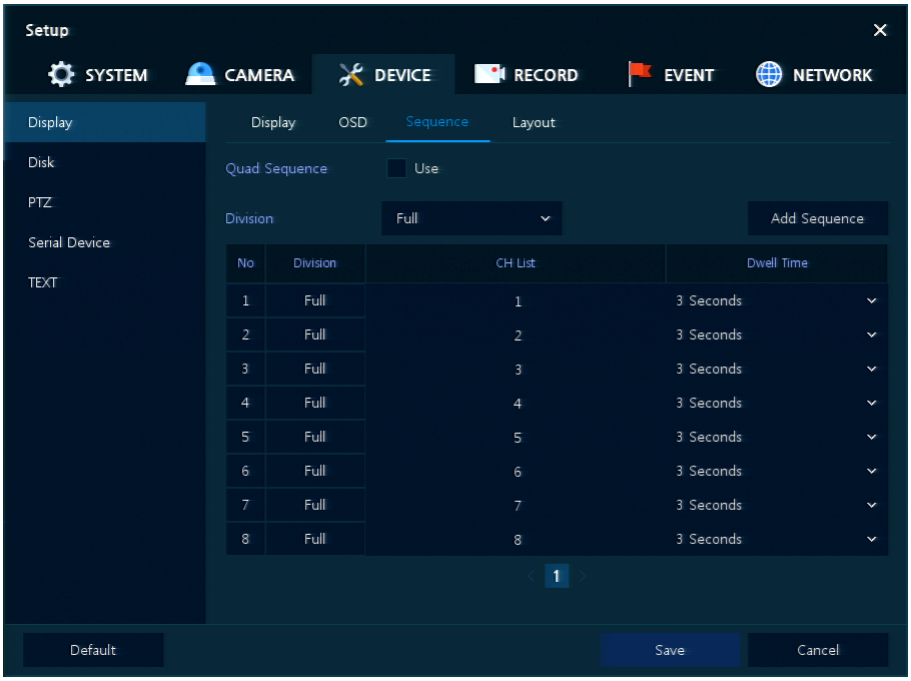


Figure 4-23 DEVICE > Display > Sequence

Table 4-24 DEVICE > Display > Sequence Item and Description

No.	Name	Function
1	Quad Sequence	Set to convert automatically as 4-partition screen on the time basis
c2	Division	Select screen partition mode to be marked in the table below (All, Full, and Quad)
3	Sequence List	Display the sequence list based on division selected value
4	Add Sequence	Add items to be included in the play sequence
	NO	Automatically convert screens in number order
	Division	Displays as full, 2X2 (Quad)
	CH List	Set automatic conversion of channels. When choosing CH3 as No. 1, CH3 is shown first
	Dwell Time	Set the remaining time for automatic conversion (3 sec~30 sec)
	Default	Revert changed set value to defaults
		Revise the list
		Delete the list

Clicking **Add Sequence** displays **Add Sequence** screen.

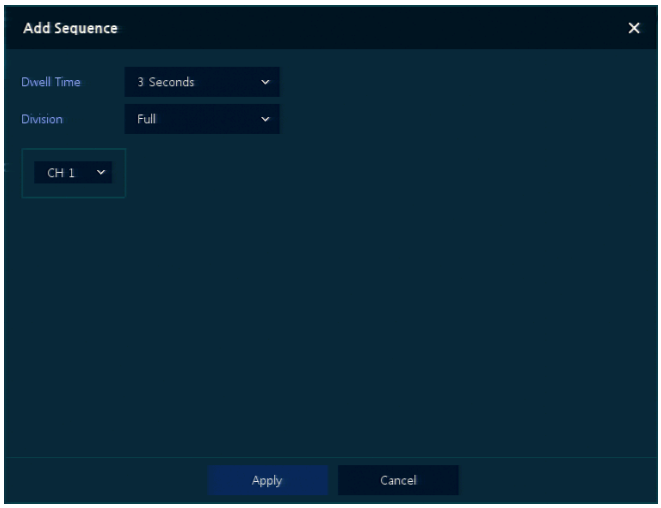


Figure 4-24 DEVICE > Display > Sequence > Add Sequence

Table 4-25 DEVICE > Display > Sequence > Add Sequence Item and Description

No.	Name	Function
1	Dwell Time	Select time to play (3 sec, 5 sec, 10 sec, 15 sec, and 30 sec)
2	Division	Select the partition screen to play (Full, Quad)
3	Channel Selection	Select channels to play

4.4.2 Disk

Disk > Setup

User can configure the disk.

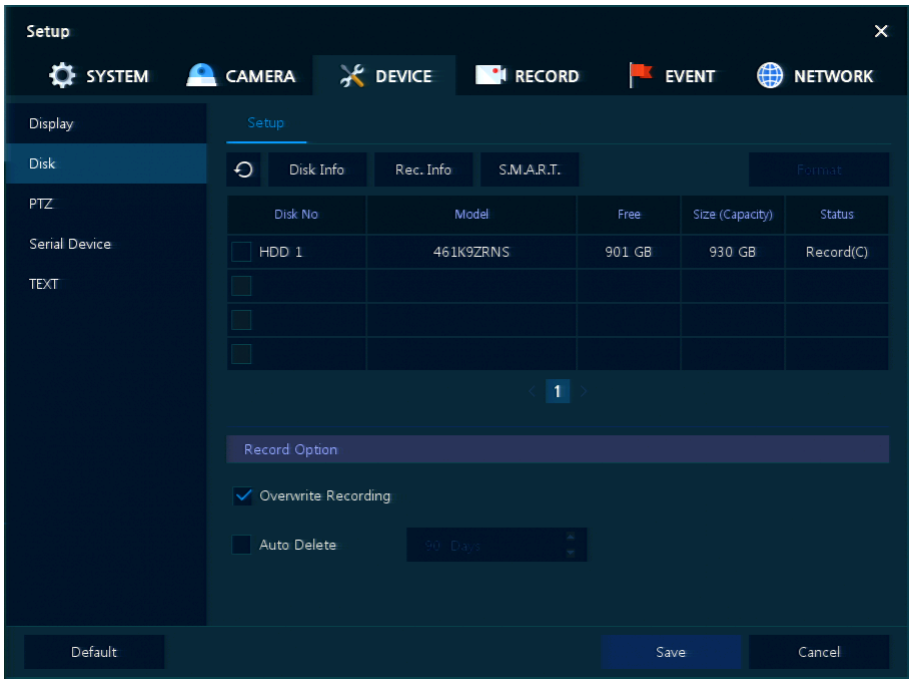


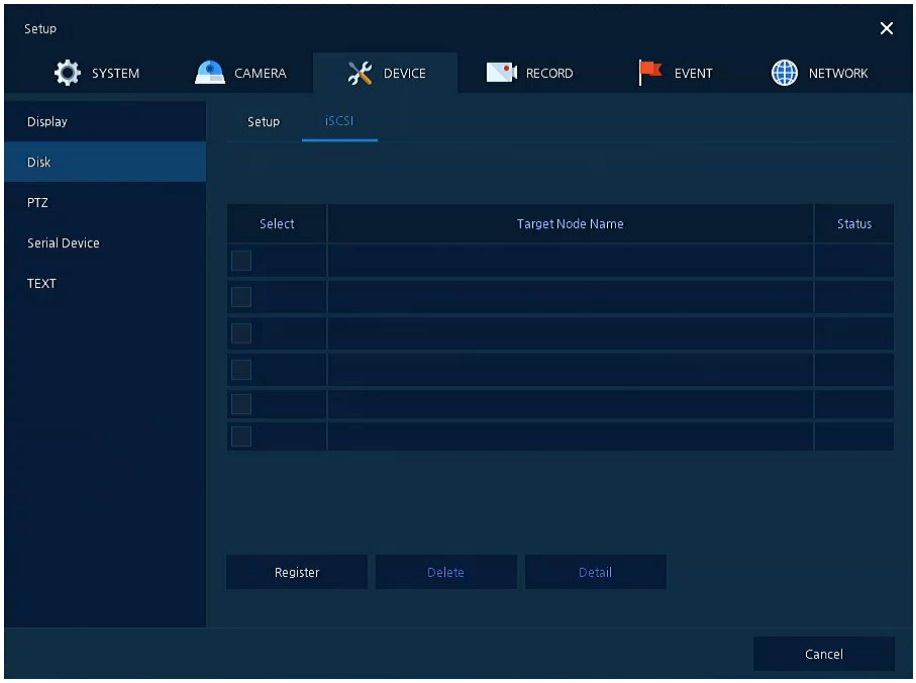
Figure 4-25 DEVICE > Disk > Setup

Table 4-26 DEVICE > Disk > Setup Item and Description

No.	Name	Function
1		Refresh disk information
2	Disk Info	Display the basic disk information in disk list ▪ Model: disk model name ▪ Free: disk capacity to save ▪ Size (Capacity): total disk capacity ▪ Status: disk status
3	Rec. Info	Display saved disk information in disk list ▪ Start Recording Time: starting time for saving information in the disk ▪ End Recording Time: ending time to stop saving information in the disk ▪ Status: disk status
4	S.M.A.R.T.	Display S.M.A.R.T. information in disk list ▪ Model: disk model name ▪ Temp.: disk temperature ▪ Alive Time: running time after turning on the disk ▪ S.M.A.R.T.: a presentation of disk's malfunction
5	Disk List	Display the disk list; select/deselect disk to be formatted
6	Format	Format the disk selected
7	Overwrite Recording	Select/deselect to rewrite new data on the existing disk in case of insufficient space remaining to save
8	Auto Delete	Select/deselect to use the function to delete saved data automatically (1-365 days)

Disk > iSCSI

User can configure the iSCSI.



. Figure 4-26 DEVICE > Disk > iSCSI

Table 4-27 DEVICE > Disk > iSCSI Item and Description

No.	Name	Function
1	Register	Open a pop-up menu for iSCSI registration
2	Delete	Delete registered iSCSI storage
3	Detail	Display selected iSCSI IP address and port number

Note	Recorder supports Max. 6 volumes (Target Node). Each volume supports Max. 16TB.

Click **Register to** display **iSCSI Register** screen.

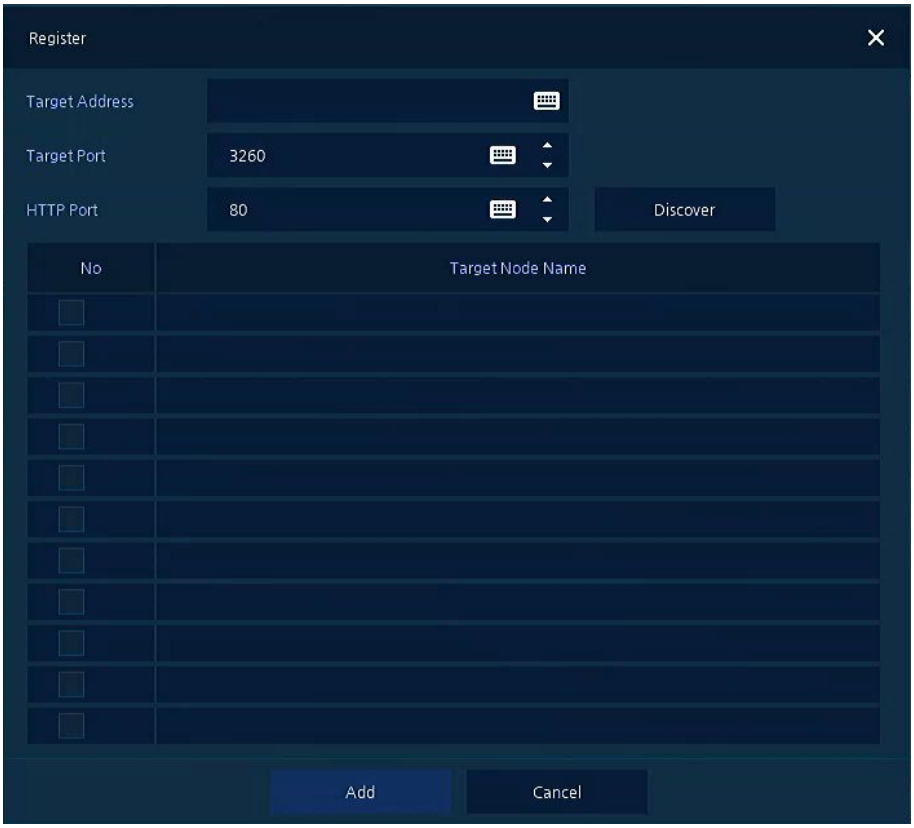


Figure 4-27 DEVICE > Disk > iSCSI > Register

Table 4-28 DEVICE > Disk > iSCSI > Register Item and Description

No.	Name	Function
1	Target Address Target Port HTTP Port	Input IP address and port for iSCSI
2	Discover	Click to search iSCSI storage
3	Add	Click to register the discovered iSCSI storage

4.4.3 PTZ > PTZ

To use the PTZ function of the device, users need to match ID, protocol and speed with each camera.

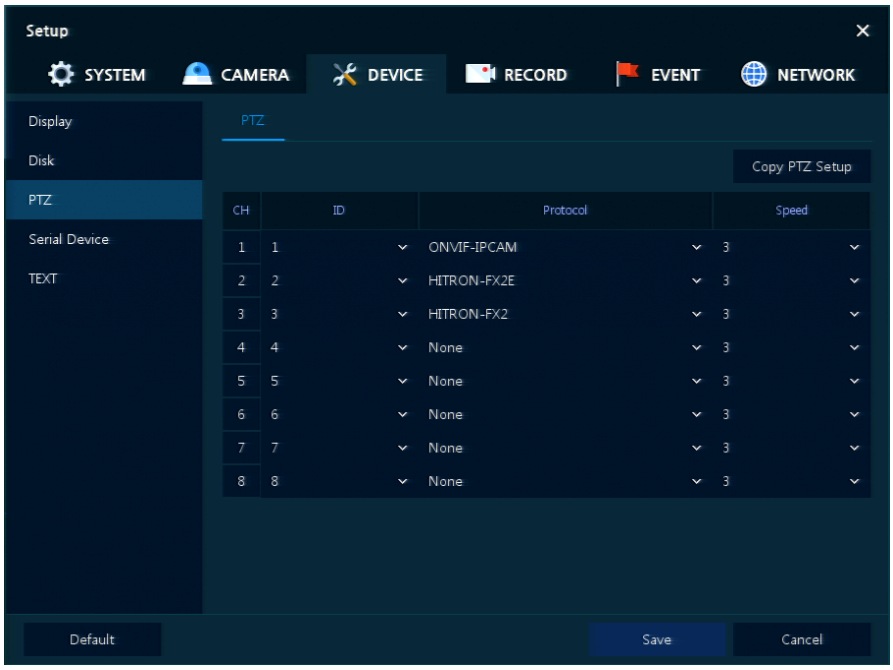


Figure 4-28 DEVICE > PTZ > PTZ

Table 4-29 DEVICE > PTZ > PTZ Item and Description

No.	Name	Function
1	Copy PTZ Setup	Apply the same setting history to all or selected channels
2	CH	Display channels
3	ID	Select camera ID connected to relevant channels (1-255)
4	Protocol	Select protocol of camera connected to relevant channels
5	Speed	Select pan-tilt of camera connected to relevant channels (1-5)

Note	
	▪ For more information about camera ID, protocol information and details, see instructions for the PTZ of relevant camera functions.

4.4.4 Serial Device > Serial Device

Users need to set Serial Device to connect PTZ camera, USB device with the unit.

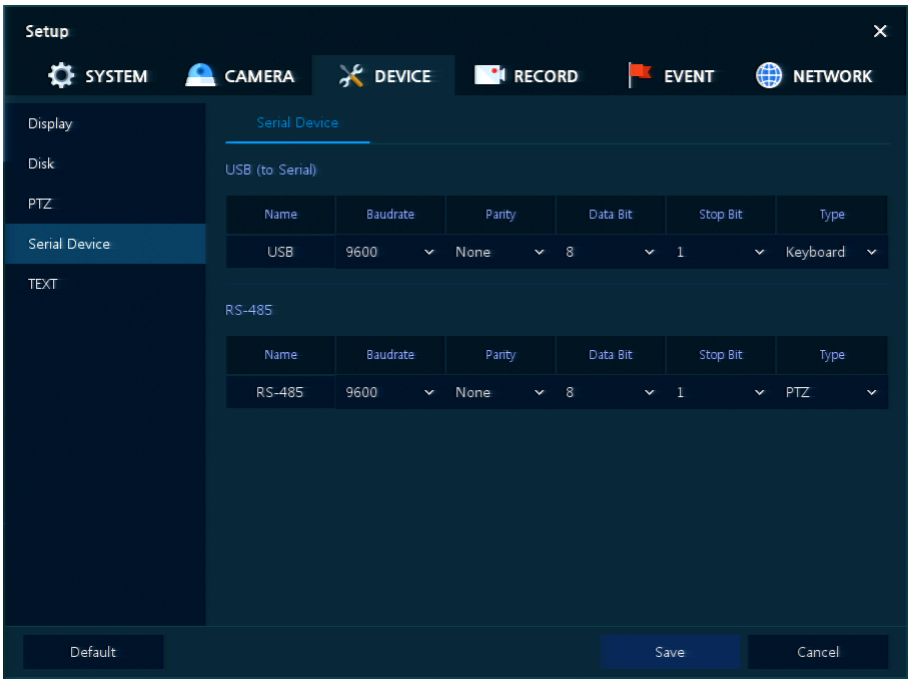


Figure 4-29 DEVICE > Serial Device > Serial Device

Table 4-30 DEVICE > Serial Device > Serial Device Item and Description

No.	Name	Function
1	USB (to Serial)	Set communication transmission value of USB device
2	RS-485	Set communication transmission value of RS-485 connector

4.4.5 TEXT > TEXT

Set the input device such as ATM, POS, etc.

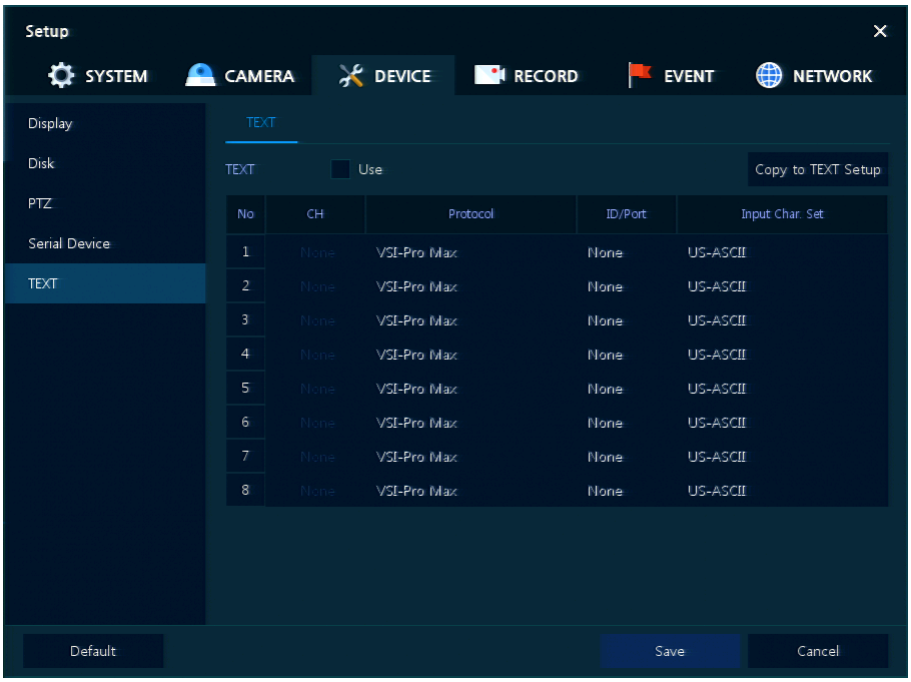


Figure 4-30 DEVICE > TEXT > TEXT

Table 4-31 DEVICE > TEXT > TEXT Item and Description

No.	Name	Function
1	Use	Select/deselect whether to use text function
2	CH	Select camera channels to connect with the text input device
3	Protocol	Select protocol to correspond with the text input device
4	ID Port	Select ID and port no. to correspond with the text input device
5	Input Char. Set	Select a character format of the text input device
6	Copy to TEXT Setup	Duplicate set value to others for connecting multiple units

Press **Copy to TEXT Setup** button; the **Copy to TEXT Setup** screen displays.

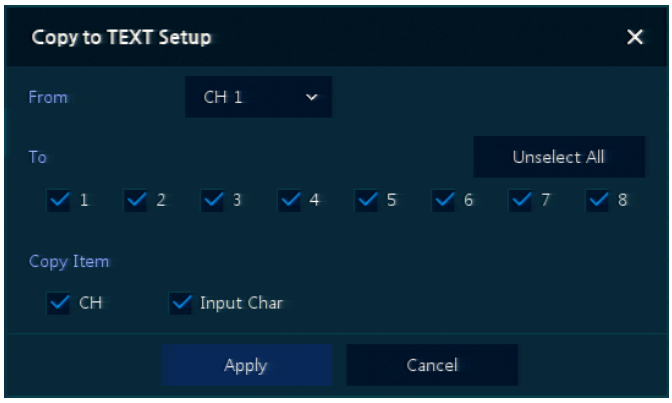


Figure 4-31 DEVICE > TEXT > TEXT > Copy to TEXT Setup

Table 4-32 DEVICE > TEXT > TEXT > Copy to TEXT Setup Item and Description

No.	Name	Function
1	From	Select channels to be set
2	To	Select the device to be copied
3	Select All/ Unselect All	Select/deselect all channels
4	Copy Item	Select/deselect items to be copied

4.5 RECORD

In **RECORD,** users can set parameters related to recording.

4.5.1 Schedule > Schedule

Recording types can be set across channels and time.

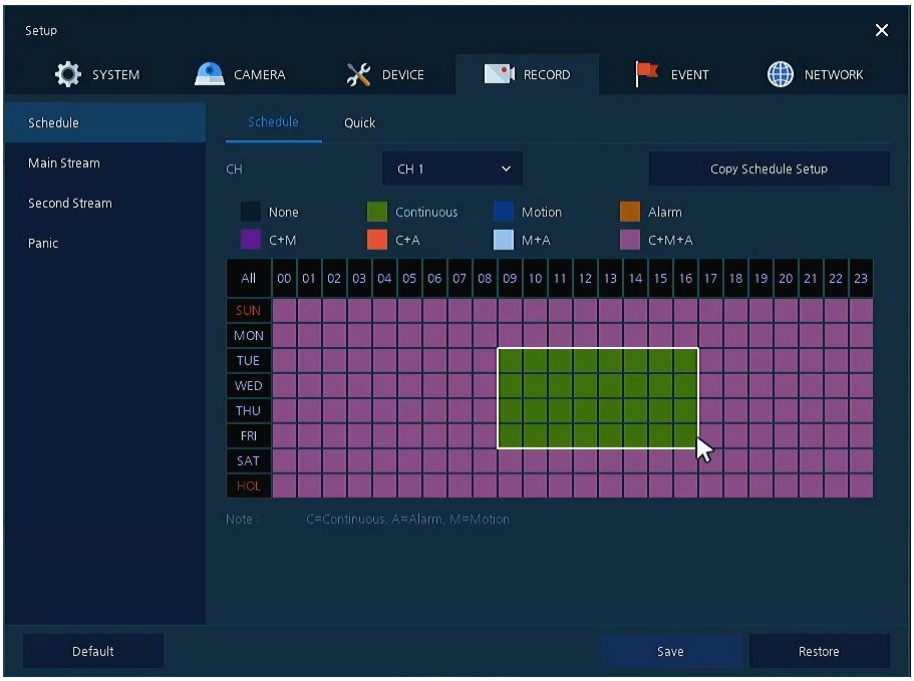


Figure 4-32 RECORD > Schedule > Schedule

Table 4-33 RECORD > Schedule > Schedule Item and Description

No.	Name	Function
1	CH	Select channels to set schedules for
2	Schedule Type Selection	Select the types of schedules
3	Schedule Table	Display the schedule users set
4	Drag Field	Display the area dragged with a mouse
5	Copy Schedule Setup	Copy recording schedule settings to other channels

The function of each scheduling type includes:

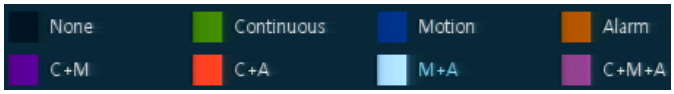
Table 4-34 Function of each scheduling type

Color	Scheduling type	Function
	None	Do not record
	Continuous	Record continually when time is set
	Motion	Record when motion sensitive event occurs
	Alarm	Record when alarm occurs
	C+M	Record when motion sensitive event occurs during continuous recording
	C+A	Record when alarm occurs during continuous recording
	M+A	Record when only alarm and motion sensitive event occur
	C+M+A	Record when only alarm and motion sensitive event occur during continuous recording

Procedure to schedule recording across channels:

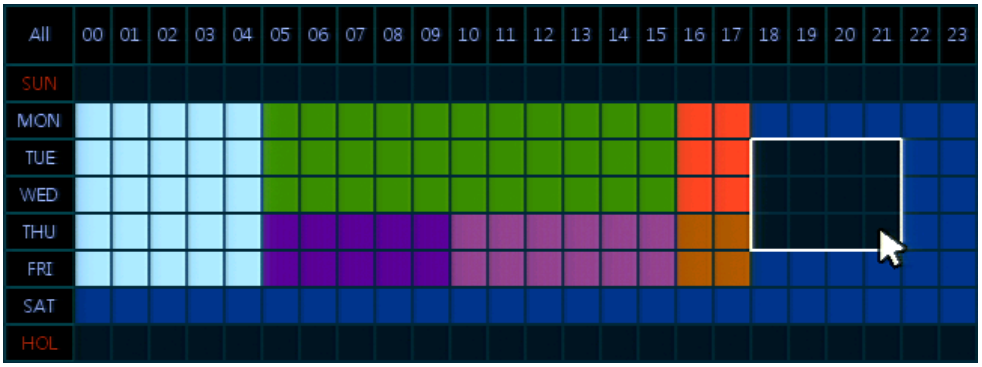
1 Select channels to schedule.

2 Select items in scheduling types.



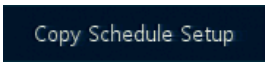
3 Position the mouse to the schedule table.

4 Drag the area to be scheduled with a mouse.

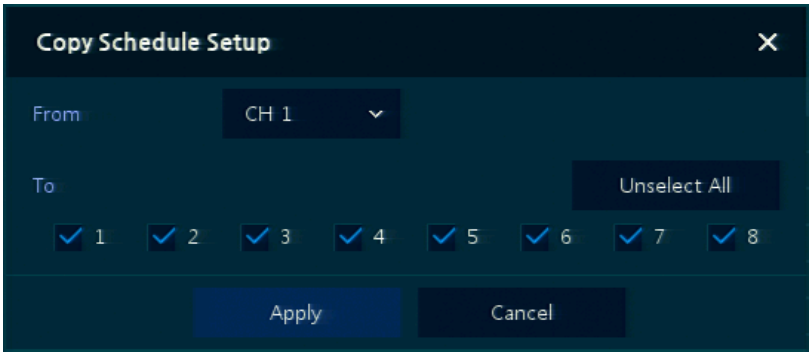


5 Selected field is presented as scheduling type colors.

6 Click **Copy Schedule Setup** if you want to copy this schedule to other channels.

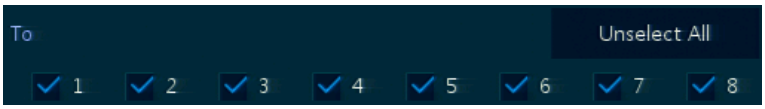


7 **Copy Schedule Setup** screen displays.



8 Select channels to be copied.

9 Select channels to apply copied content.



10 Copy the schedule by pressing **Apply**.

11 Press **Save** to save the schedule.

Schedule > Quick

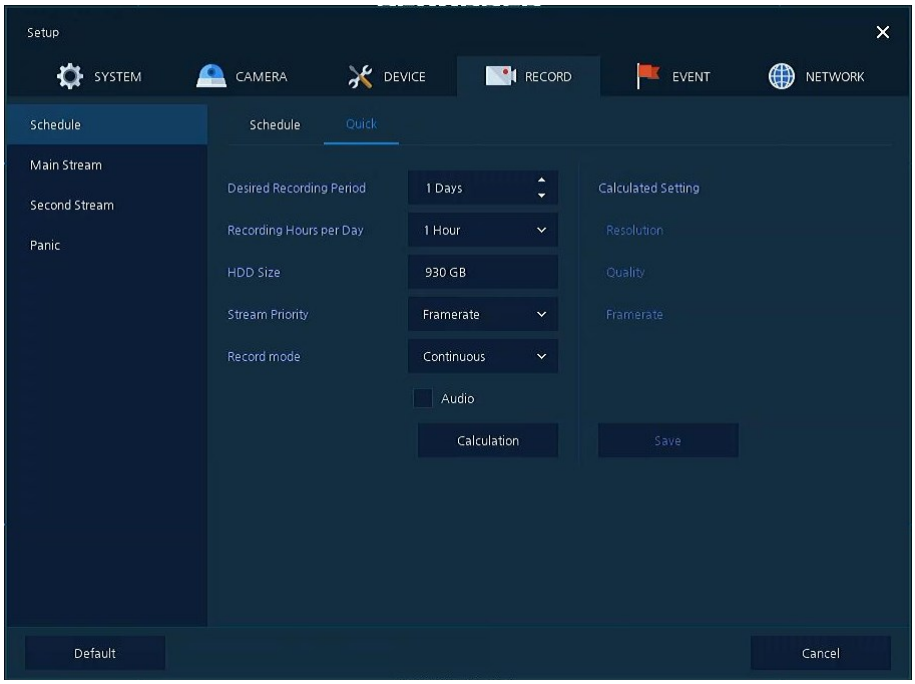


Figure 4-33 RECORD > Schedule > Quick

No.	Name	Function
1	Desired Recording	Select desired recording period.

No.	Name	Function
	Period	
2	Recording Hours per Day	Select recording hours per day
3	HDD Size	It is automatically displayed
4	Stream Priority	Select Framerate or Resolution
5	Recording mode	Select recording mode as Continuous or Event
6	Audio	Enable if audio is recorded
7	Calculation	User can see recommended resolution and frame rate to meet recording period

4.5.2 Main Stream

Procedure to set the image resolution when event occurs across channels or general recording is in process:

Main Stream > Analog Camera

To set the image quality and resolution of Main Stream:

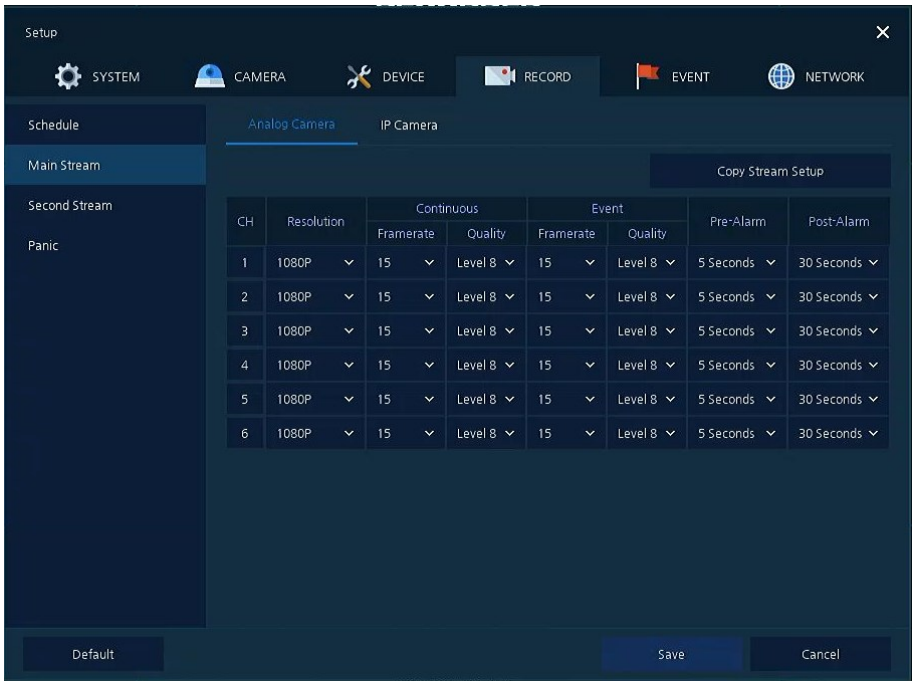


Figure 4-34 RECORD > Stream > Main Stream

Table 4-35 RECORD > Stream > Main Stream Item and Description

No.	Name	Function
1	CH	Display channels
2	Resolution	Set the resolution of video clips (1080P, 720P and 960H)
3	Continuous	Select recording FPS and image quality in continuous recording ▪ Frame Rate: recording FPS selection (1-30) ▪ Quality: recording image quality selection (Level 1-8)
4	Event	Select recording FPS and image quality in event recording ▪ Frame Rate: recording FPS selection (1-30). ▪ Quality: recording image quality selection (Level 1-8).
5	Pre-Alarm	Start recording before set time when event occurs (null, 1 sec, 2 sec, 3 sec, 4 sec, and 5 sec)
6	Post-Alarm	Recording after set time until event ends (null, 5 sec, 10 sec, 30 sec, 1 min, 5 min, and 10 min)
7	Copy Stream Setup	Copy main recording image set value to other channels

Clicking **Copy Stream Setup** opens **Copy Stream Setup**.

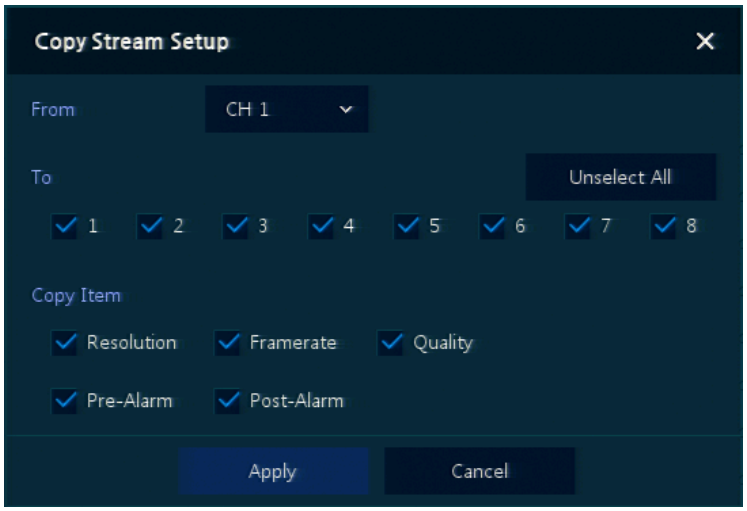


Figure 4-35 RECORD > Stream > Main Stream > Copy Stream Setup

Table 4-36 RECORD > Stream > Main Stream > Copy Stream Setup Item and Description
Table 4-37 RECORD > Stream > Main Stream > Copy Stream Setup Item and Description

No.	Name	Function
1	From	Select the channel to set
2	To	Select the device to be copied
3	Select All/ Unselect All	Select/deselect all channels
4	Copy Item	Select/deselect items to be copied

Main Stream > IP Camera

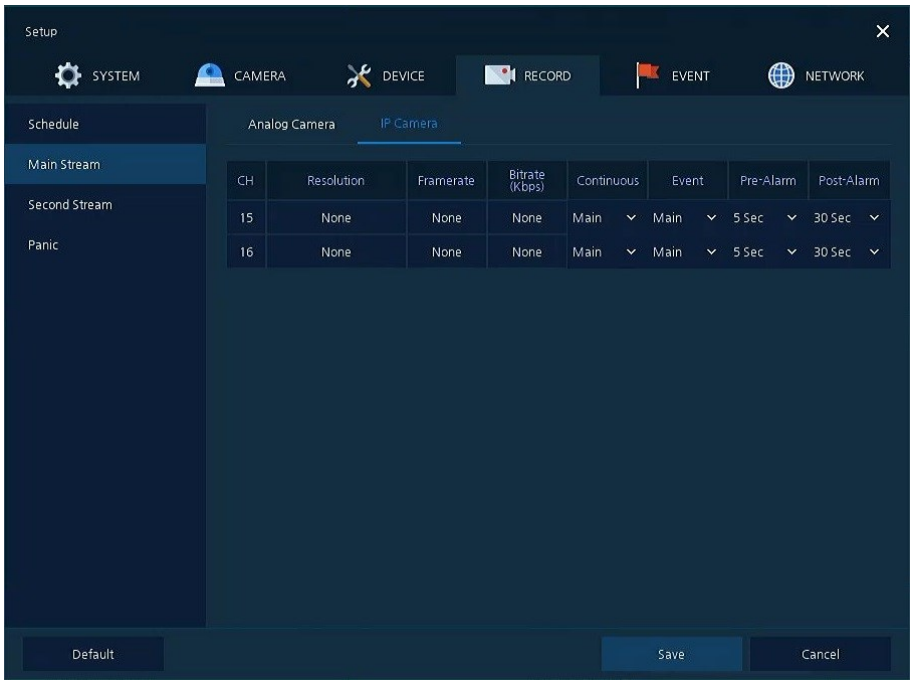


Figure 4-36 RECORD > Main Stream > IP Camera

Table 4-38 RECORD > Main Stream > IP Camera Item and Description

No.	Name	Function
1	CH	Display channels
2	Resolution Framerate Bitrate	Show camera main stream setup status
3	Continuous	Select recording stream in Continuous mode
4	Event	Select recording stream in Event mode
5	Pre-Alarm	Start recording before set time if event occurs (null, 1 sec, 2 sec, 3 sec, 4 sec, and 5 sec)
6	Post-Alarm	Recording after set time until event ends (null, 5 sec, 10 sec, 30 sec, 1 min, 5 min, and 10 min)

Note This menu will appear when Analog+IP cam mode is selected.

4.5.4 Second Stream

Second Stream > Analog Camera

To set the image quality and resolution of Second Stream:

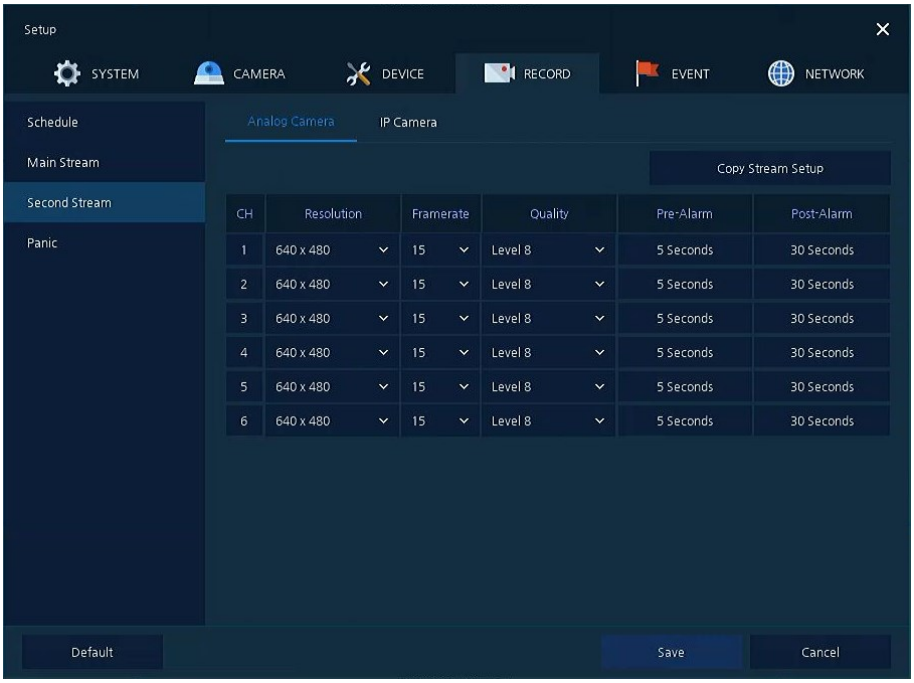


Figure 4-37 RECORD > Stream > Second Stream

Table 4-39 RECORD > Stream > Second Stream Item and Description

No.	Name	Function
1	CH	Display channels
2	Resolution	Set the resolution of video clips (640X480)
3	Frame Rate	Select recording FPS (1-30)
4	Quality	Select image quality (Level 1-8)
5	Pre-Alarm	Start recording before set time when event occurs
6	Post-Alarm	Recording after set time until event ends
7	Copy Stream Setup	Copy main recording image set value to other channels. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Second Stream > IP Camera

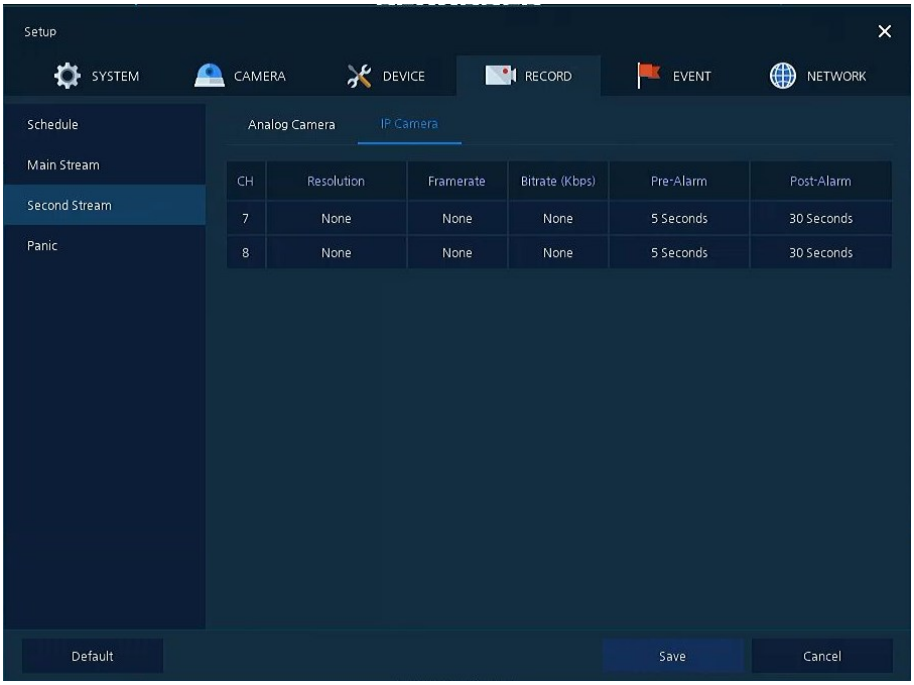


Figure 4-38 RECORD > Second Stream > IP Camera

Table 4-40 RECORD > Second Stream > IP Camera Item and Description

No.	Name	Function
1	CH	Display channels
2	Resolution Framerate Bitrate	Show camera main stream setup status
5	Pre-Alarm	Start recording before set time, if event occurs
6	Post-Alarm	Recording after set time until event ends

Note This menu will be appeared when Analog+IP cam mode is selected.

4.5.5 Panic

How to set immediate recording:

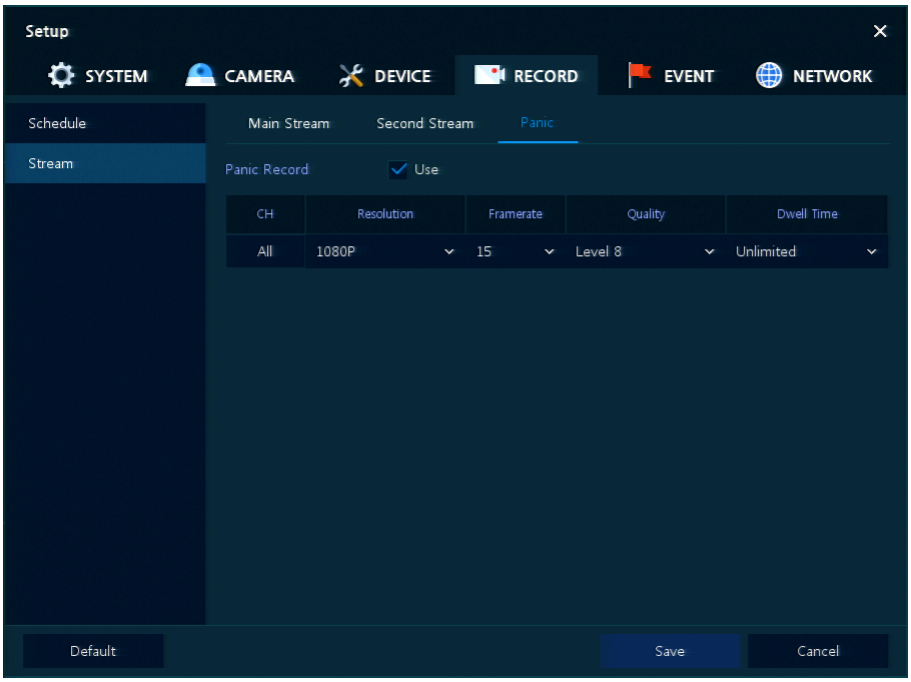


Figure 4-39 RECORD > Stream > Panic

Table 4-41 RECORD > Stream > Panic Item and Description

No.	Name	Function
1	Panic Record	Select/deselect to use immediate recording function
2	CH	Display channels
3	Resolution	Set the resolution of video clips (1080P, 720P, 960H)
4	Frame rate	Select recording FPS (1-30)
5	Quality	Select image quality (Level 1-8).
6	Dwell Time	Select recording duration (No limits, 10 sec, 30 sec, 1 min, 5 min, 10 min, and 30 min)

4.6 EVENT

In **EVENT**, users can set each event of the device.

4.6.1 System/Disk

To set the system and disk event:

System/Disk > System

To set the system event of the device:

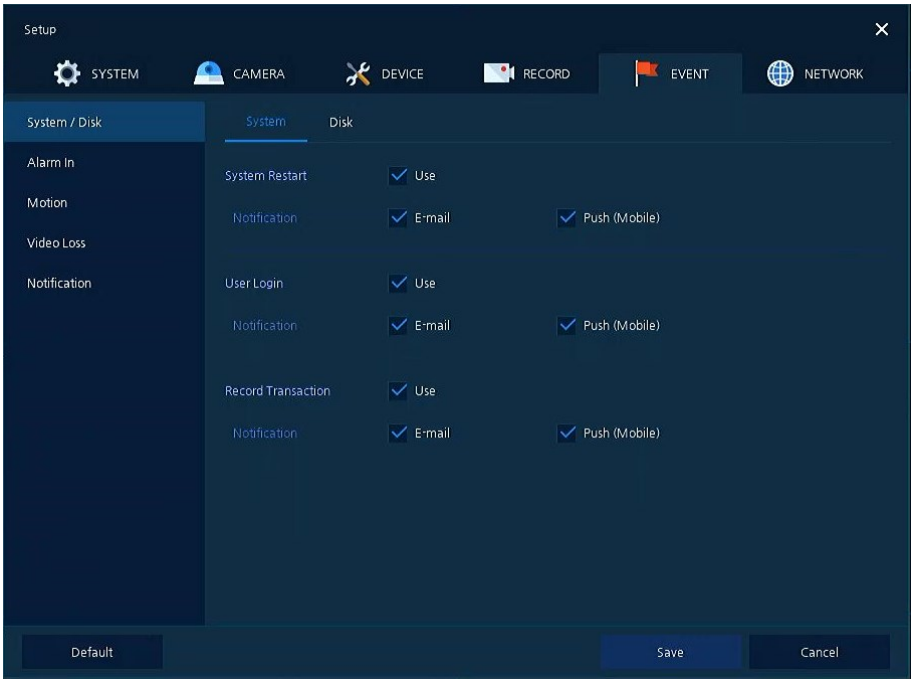


Figure 4-40 Event > System/Disk > System

Table 4-42 Event > System/Disk > System Item and Description

No.	Name	Function
1	System Restart	Select/deselect whether to use system restart event
2	Notification	Select/deselect whether to use mailing in case of event
3	User Login	Select/deselect whether to use user-login event
4	Record Transaction	Select/deselect whether to use record transaction event

System/Disk > Disk

To set disk event:

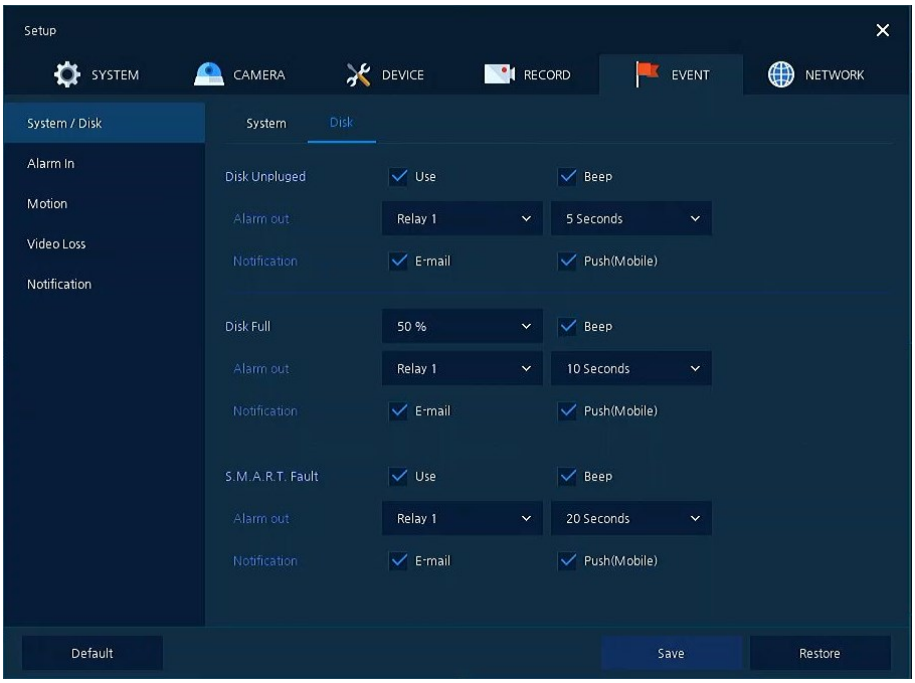


Figure 4-41 Event > System/Disk > Disk

Table 4-43 Event > System/Disk > Disk Item and Description

No.	Name	Function
1	Disk Unplugged	Select/deselect whether to use disk unplugged event
2	Beep	Select/deselect whether to use buzzer sound in case of event.
3	Alarm out	Select to end alarm time (null, Relay1-Keep, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)
4	Notification	Select/deselect whether to use mailing or mobile push in case of event
5	Disk Full	Set disk capacity for disk full event (Off, 50%, 60%, 70%, 80%, 90%, and 100%)
6	S.M.A.R.T. Fault	Select/deselect whether to use S.M.A.R.T. Fault event of HDD

4.6.2 Alarm In

To set sensor alarms and schedule:

Alarm In > Setup

To set sensor alarms:

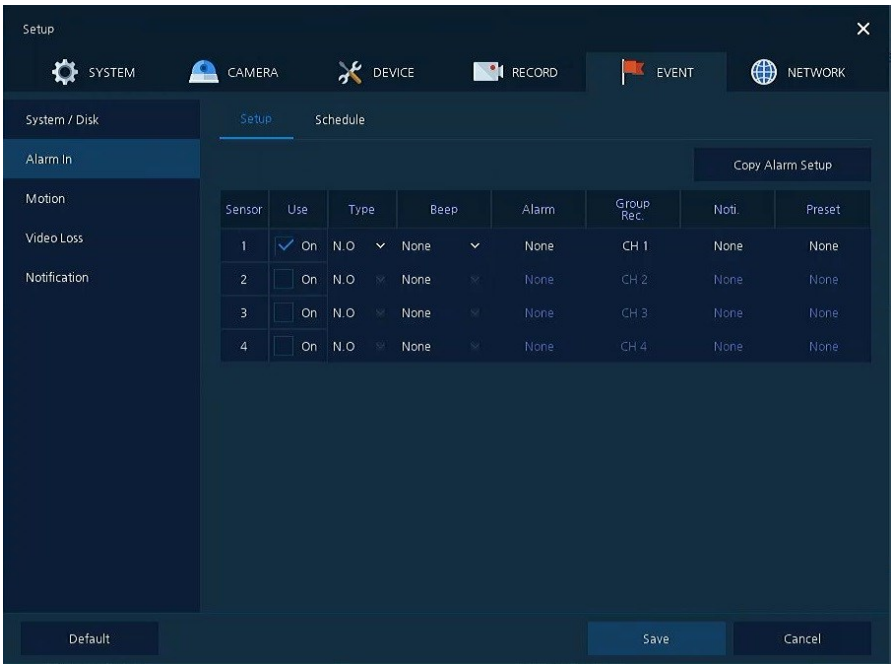


Figure 4-42 Event > Alarm In > Setup

Table 4-44 Event > Alarm In > Setup Item and Description

No.	Name	Function
1	Sensor	Display sensor numbers
2	Use	Select/deselect whether to use alarm in the sensor
3	Type	Select sensor types (N.O., N.C.)
4	Assign	Select camera channels to designate a sensor (CH 1~4/8; immediate recording).
5	Beep	Select use time for buzzer sound (null, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)
6	Alarm	Set alarm output
7	Group Rec.	Select the cameras to record simultaneously
8	Noti.	Set email notices
9	Preset	Set preset of PTZ camera
10	Copy to Alarm Setup	Copy alarm set value to other channels. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Place your mouse on **Alarm, Group Rec., Noti.** or **Preset** and click the editing icon ( ) in right corner to display Event: Alarm screen.

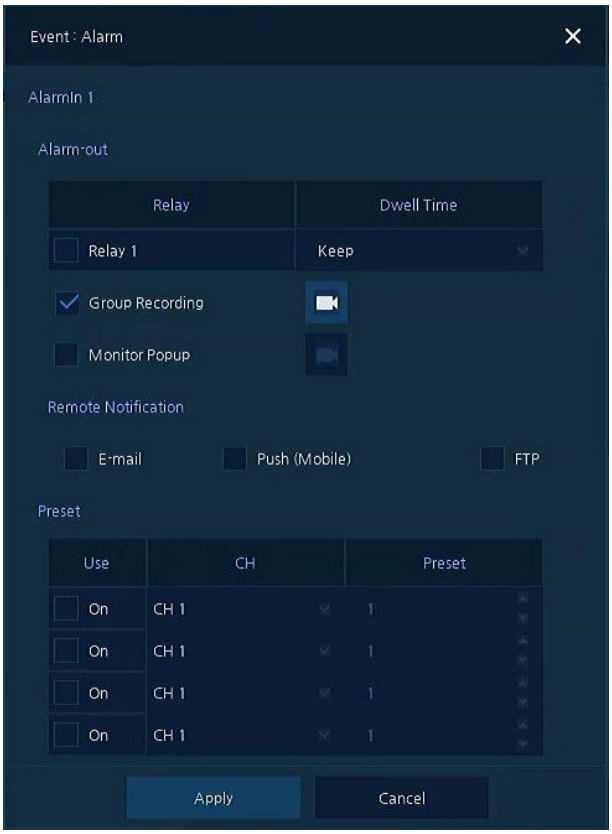


Figure 4-43 Event > Alarm In > Setup > Event : Alarm

Table 4-45 Event > Alarm In > Setup > Event: Alarm Item and Description

No.	Name	Function
1	Alarm-out	Set the alarm ▪ Relay: Select/clear the Relay output checkbox ▪ Dwell Time: Select alarm duration (Keep, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)
2	Group Recording	Select/deselect whether to use Group Recording
3		Simultaneous recording camera channel screen opens
4	Monitor Popup	Select/deselect whether to use Monitor Popup
5		Channel selection screen opens
6	Remote Notification	Select/deselect whether to use remote emailing
7	Preset	Preset of PTZ camera is running ▪ Use: Select/deselect whether to use preset ▪ CH: Select channels ▪ Preset: Set preset value

Alarm In > Schedule

To schedule recording time when alarm occurs across device sensors:

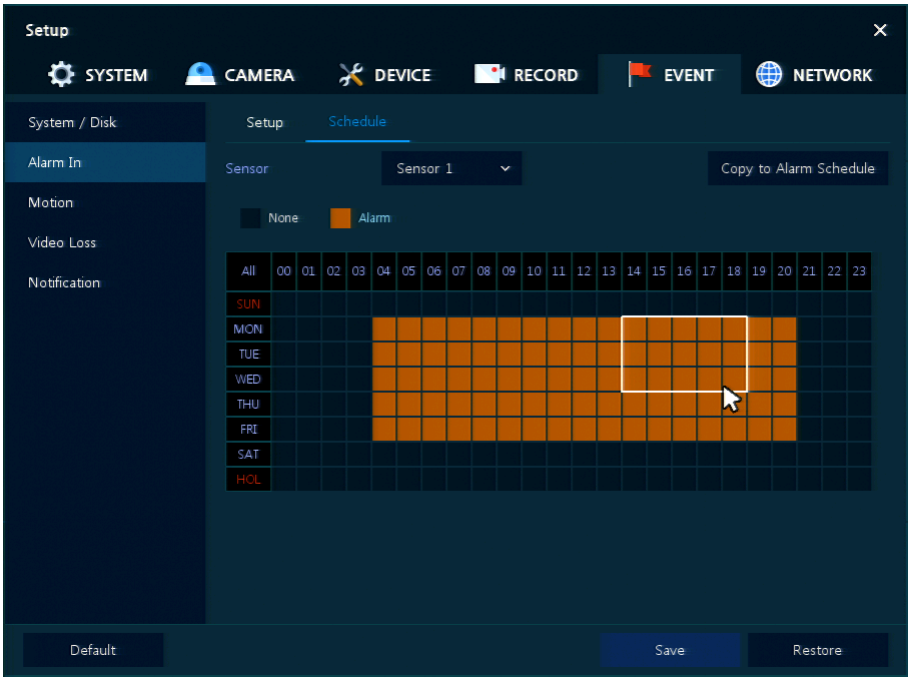


Figure 4-44 Event > Alarm In > Schedule

Table 4-46 Event > Alarm In > Schedule Item and Description

No.	Name	Function
1	Sensor	Select the sensor to set its schedule
2	Schedule Type Selection	Select the types of schedules
3	Schedule Table	Display the schedule users set
4	Drag Field	Display the area dragged with a mouse
5	Copy to Alarm Schedule	Copy the schedule on alarm set to other sensors. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Note	For more details about scheduling recording time when alarm occurs across sensors, see section "4.5.1 Schedule > Schedule."

4.6.3 Motion

To set and schedule Motion across channels:

Motion > Setup

To set Motion across channels:

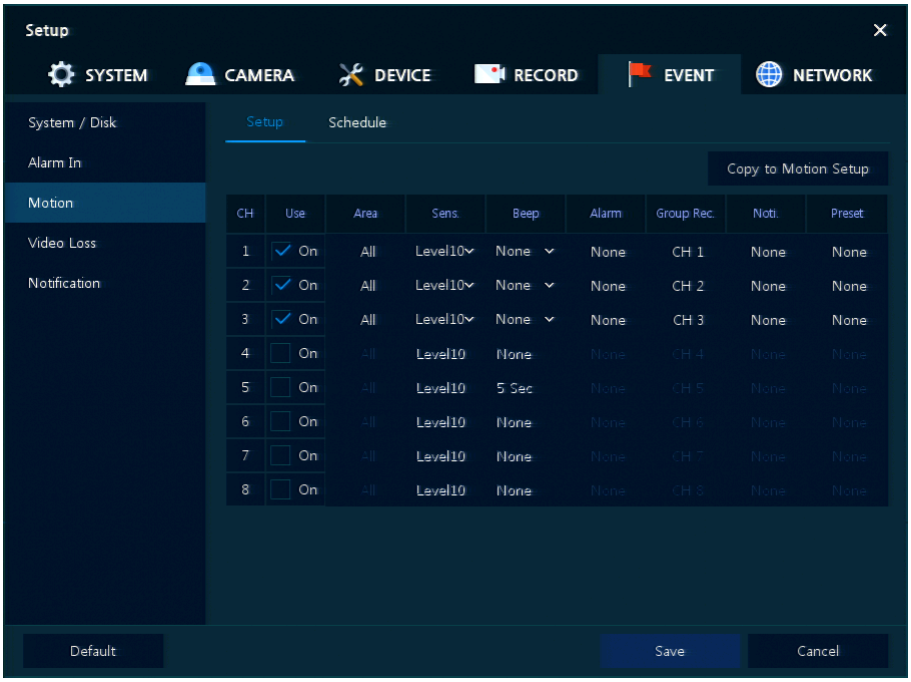


Figure 4-45 Event > Motion > Setup

Table 4-47 Event > Motion > Setup Item and Description

No.	Name	Function
1	CH	Display channels
2	Use	Select/deselect whether to use motion function in the channel
3	Area	Display the motion area
4	Sens.	Select the sensitivity level of the motion sensor (Level 1~10)
5	Beep	Select use time for buzzer (null, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)
6	Alarm	Set alarm output
7	Group Rec.	Select the camera to record simultaneously
8	Noti.	Set email notices
9	Preset	Set preset of PTZ camera
10	Copy to Motion Setup	Copy motion set value to other channels. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Note	Placing your mouse on **Alarm, Group Rec., Noti.,** or **Preset** and clicking editing

icon( ) in right corner displays Event: Alarm screen. For more information about **Event: Motion** screen, see section "4.6.2 Alarm In > Setup in Alarm In."

Motion > Schedule

To schedule record time when the sensor detects motion across channels:

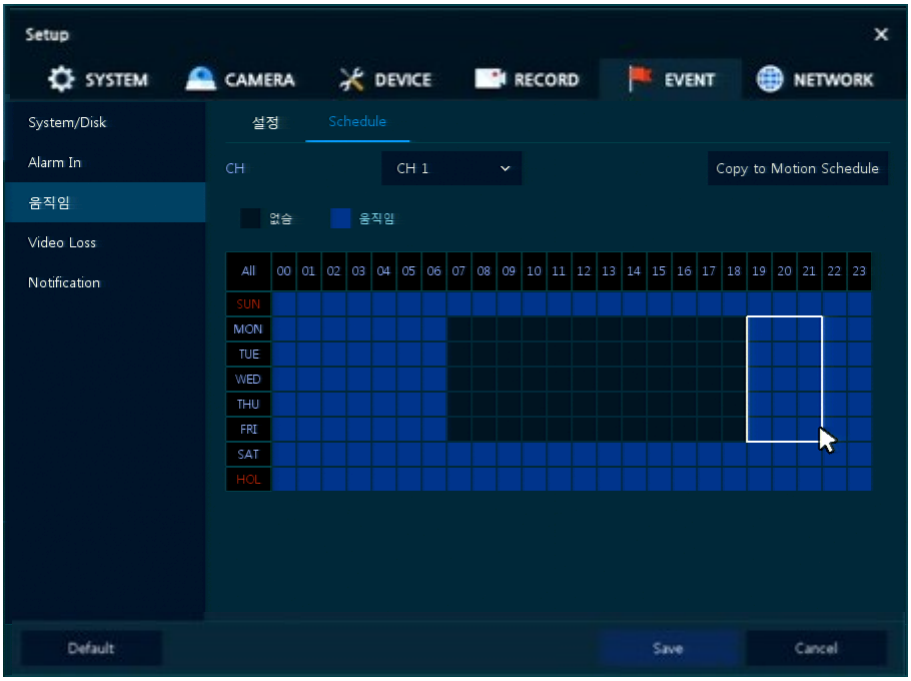


Figure 4-46 Event > Motion > Schedule

Table 4-48 Event > Motion > Schedule Item and Description

No.	Name	Function
1	CH	Select channels to set schedules
2	Schedule Type Selection	Select the types of schedules
3	Schedule Table	Display the schedule users set
4	Drag Field	Display the area dragged with a mouse
5	Copy to Motion Schedule	Copy the motion detection schedule to other channels. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Note	For more information on how to schedule record time when the motion sensor detects across channels, see section "4.5.1 Schedule > Schedule."

4.6.4 Video Loss > Setup

To set Video Loss across channels:

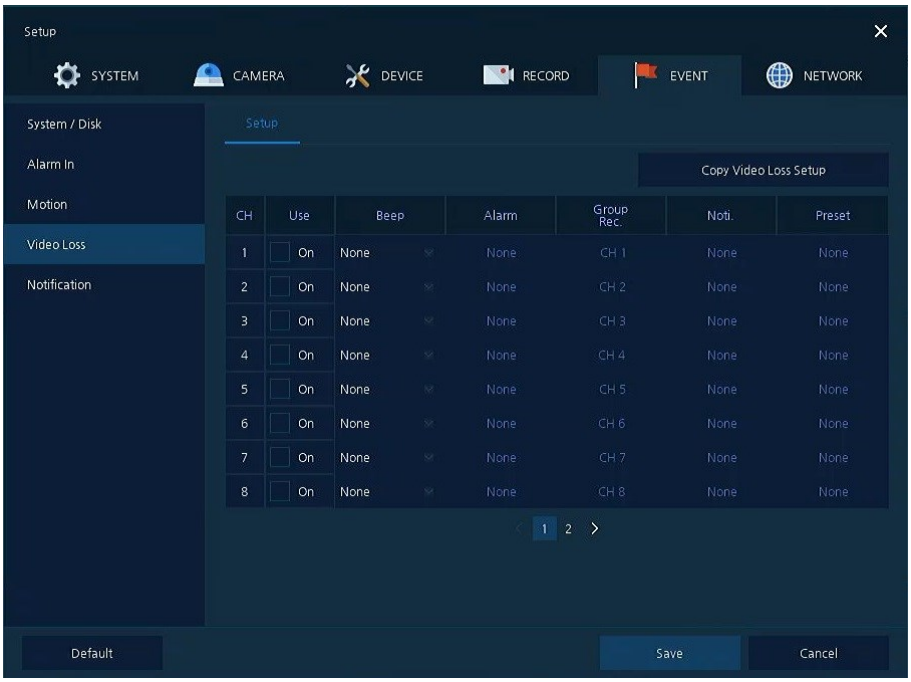


Figure 4-47 Event > Video Loss > Setup

Table 4-49 Event > Video Loss > Setup Item and Description

No.	Name	Function
1	CH	Display channels
2	Use	Select/deselect whether to use Video Loss in the channel
3	Beep	Select use time for buzzer sound (null, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)
4	Alarm	Set alarm output
5	Group Rec.	Select the cameras to record simultaneously
6	Noti.	Set email notices
7	Preset	Set preset of PTZ camera
8	Copy to Video Loss Setup	Copy the Video Loss set value to other channels. For more information about set value copy, see section "4.5.2 Stream > Main Stream in Main Stream."

Note	Placing your mouse on **Alarm, Group Rec., Noti.** or **Preset** and clicking editing icon ( ) in right corner displays **Event: Video Loss** screen. For more information about **Event: Video Loss** screen, see section "4.6.2 Alarm In > Setup in Alarm In."

4.6.5 Notification

To set and schedule periodic alarms:

Notification > Periodic

To set periodic alarms:

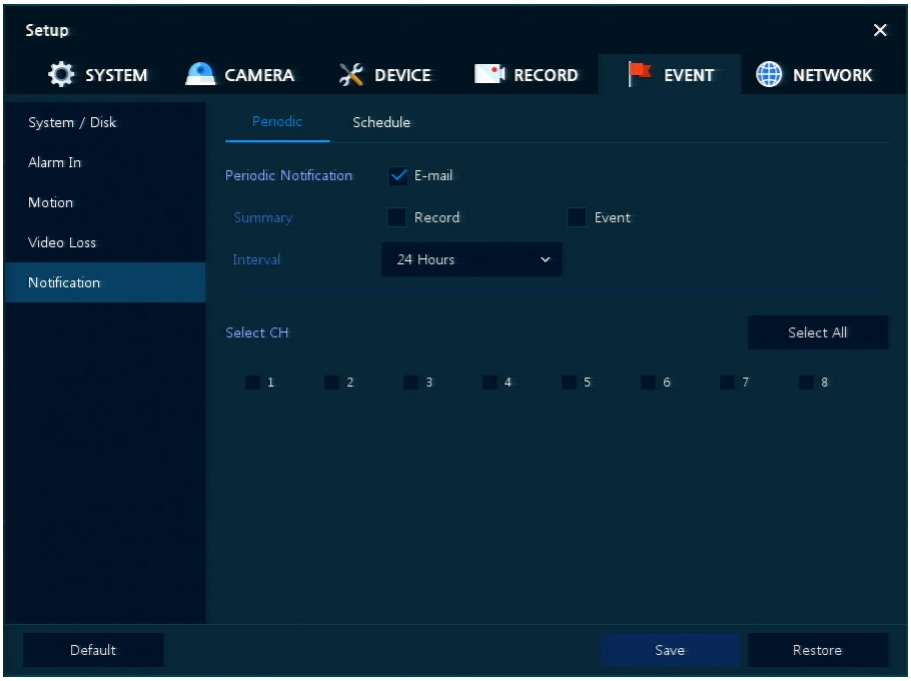


Figure 4-48 EVENT > Notification > Periodic

Table 4-50 EVENT > Notification > Periodic Item and Description

No.	Name	Function
1	Periodic Notification	Select/deselect whether to use periodic alarms
2	Summary	Send the saved or event information ▪ Record: sends the saved information ▪ Event: sends the event information
3	Interval	Set the alarm interval (5 min, 10 min, 30 min, and 1 hour, 2-hour, 6-hour, 8-hour, 12-hour, and 24-hour)
4	Select CH	Select channels users want to set
5	Select All/ Unselect All	Select/deselect all channels

Notification > Schedule

To schedule periodic alarms:

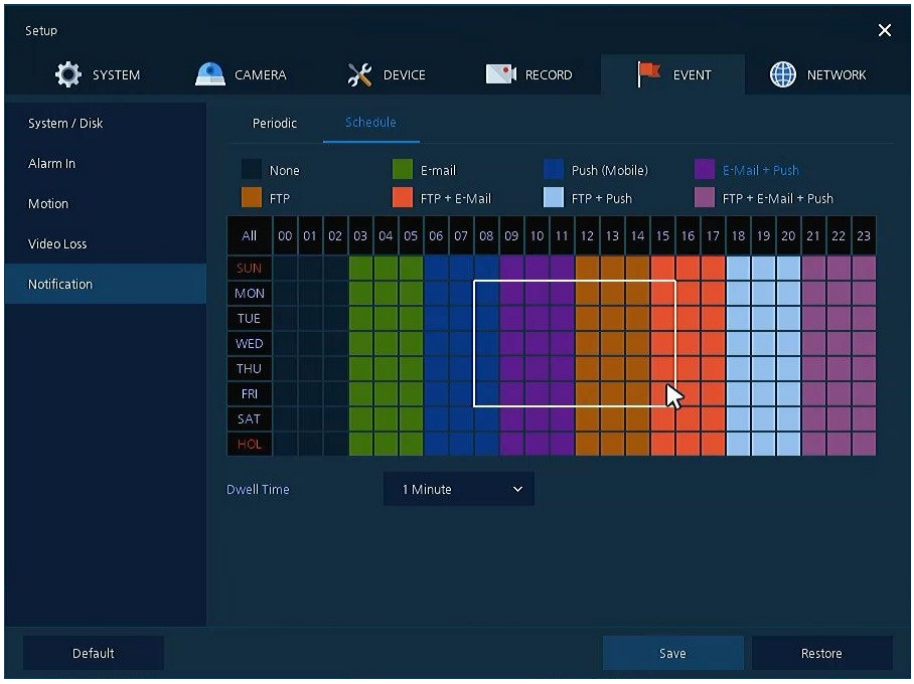


Figure 4-49 EVENT > Notification > Schedule

Table 4-51 EVENT > Notification > Schedule Item and Description

No.	Name	Function
1	Schedule Type Selection	Select the types of schedules
2	Schedule Table	Displays the schedule users set
3	Drag Field	Displays the area dragged with a mouse

Note	For more information on how to schedule record time when the alarm is detected, see section "4.5.1 Schedule > Schedule."

4.7 NETWORK

In **NETWORK,** users can set the network parameters.

4.7.1 Basic > WAN Port

To set the network environment:

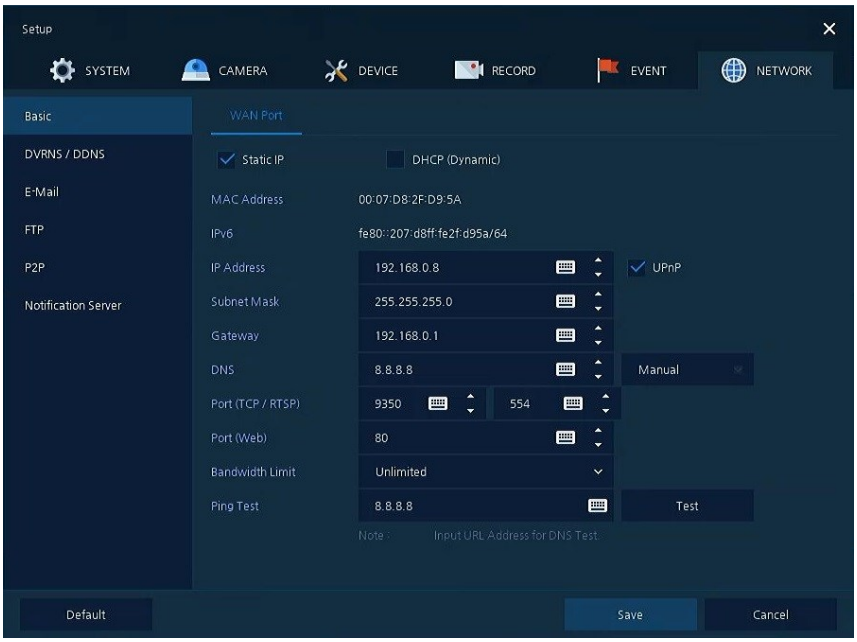


Figure 4-50 NETWORK > Basic > WAN Port

Table 4-52 NETWORK > Basic > WAN Port Item and Description

No.	Name	Function
1	Static IP	Check if you use static IP. When using static IP, enter IP address, Subnet Mask and Gateway.
2	DHCP (Dynamic)	Select whether to use DHCP (Dynamic)
3	MAC Address	Display the MAC Address
4	DNS	If manual is selected enter DNS or choose automatic function
5	Port (TCP)	Enter TCP port
6	Port (Web)	Enter Web port
7	Bandwidth Limit	Select bandwidth limit (no limits, 50Mbps, 10Mbps, 5Mbps, 2Mbps, 1Mbps, 500Kbps, 400Kbps, 300Kbps, 200Kbps, and 100Kbps)
8	Ping Test	Enter IP in Ping test and implement the text

4.7.2 DVRNS/DDNS

To set DVRNS/DDNS

DVRNS/DDNS > DVRNS/Dashboard

To register DVRNS/Dashboard account:

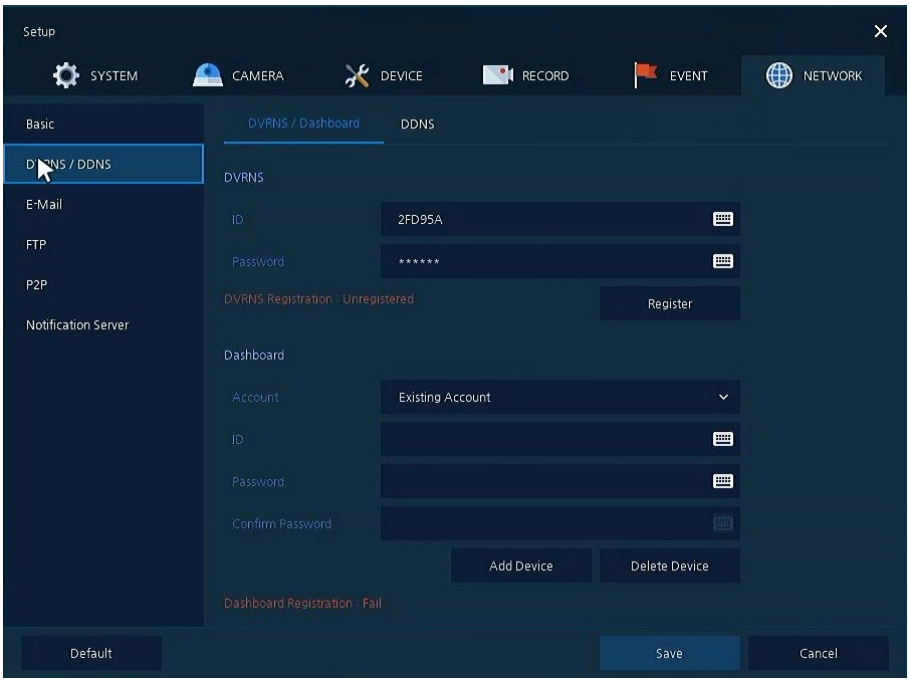


Figure 4-51 NETWORK > DVRNS/DDNS > DVRNS/Dashboard

Table 4-53 NETWORK > DVRNS/DDNS > DVRNS/Dashboard Item and Description

No.	Name	Function
1	DVRNS	Register DVRNS account ▪ ID: Enter DVRNS ID (default: MAC address of the unit) ▪ Password: Enter DVRNS password ▪ Register: Register DVRNS account
2	Dashboard	Add/delete Dashboard account ▪ Account: Select the types of account (Existing Account or New Account) ▪ ID: Enter Dashboard ID ▪ Password: Enter Dashboard password ▪ Add Device: Add Dashboard account ▪ Delete Device: Delete Dashboard account

DVRNS/DDNS > DDNS

To set DDNS site for remote users to access in network:

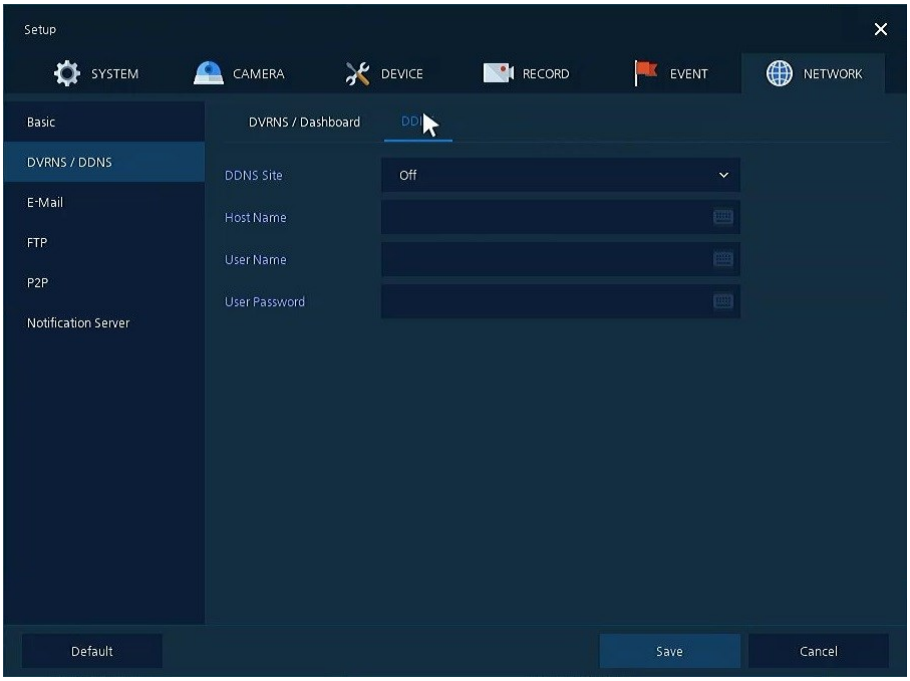


Figure 4-52 NETWORK > DVRNS/DDNS > DDNS

Table 4-54 NETWORK > DVRNS/DDNS > DDNS Item and Description

No.	Name	Function
1	DDNS Site	Select DDNS site
2	Host Name	Enter the host name
3	User Name	Enter the user name
4	User Password	Enter the user password

4.7.3 E-Mail

To set email server to send email upon event:

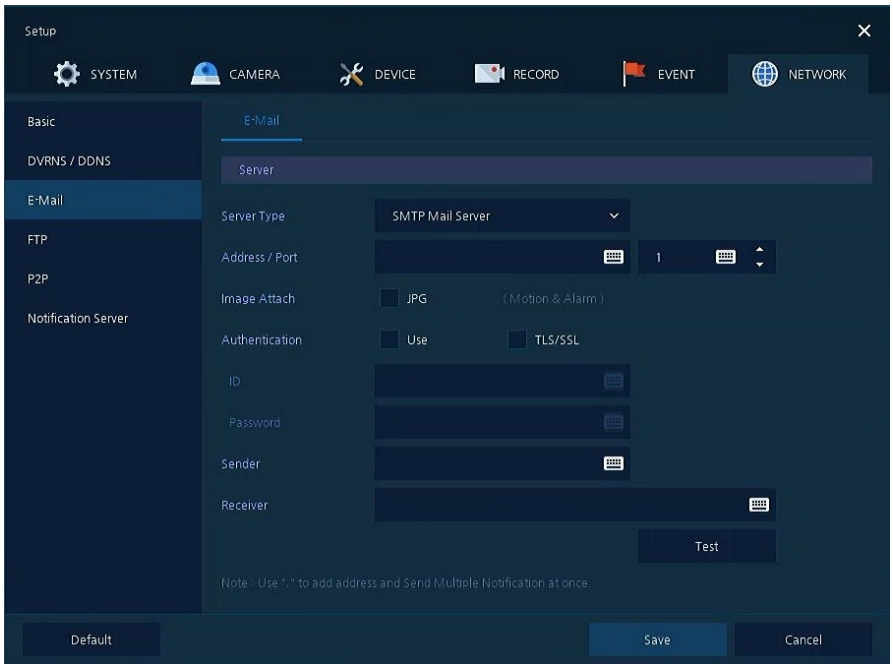


Figure 4-53 NETWORK > E-Mail > E-Mail

Table 4-54 NETWORK > E-Mail > E-Mail Item and Description

No.	Name	Function
1	Server Type	Select SMTP server ▪ gmail.com ▪ hotmail.com ▪ aol.com ▪ naver.com ▪ daum.com
2	Address/Port	Enter server address and port number
3	Image Attach	Select/deselect whether to attach JPG image
4	Authentication	Select/deselect using authentication and password
5	ID	Enter the email ID
6	Password	Enter the email password
7	Sender	Write the sender
8	Receiver	Write the receiver
9	Test	Verify that the email server is set correctly

4.7.5 FTP

Set up FTP server to send video to FTP server. The file format is AVI.

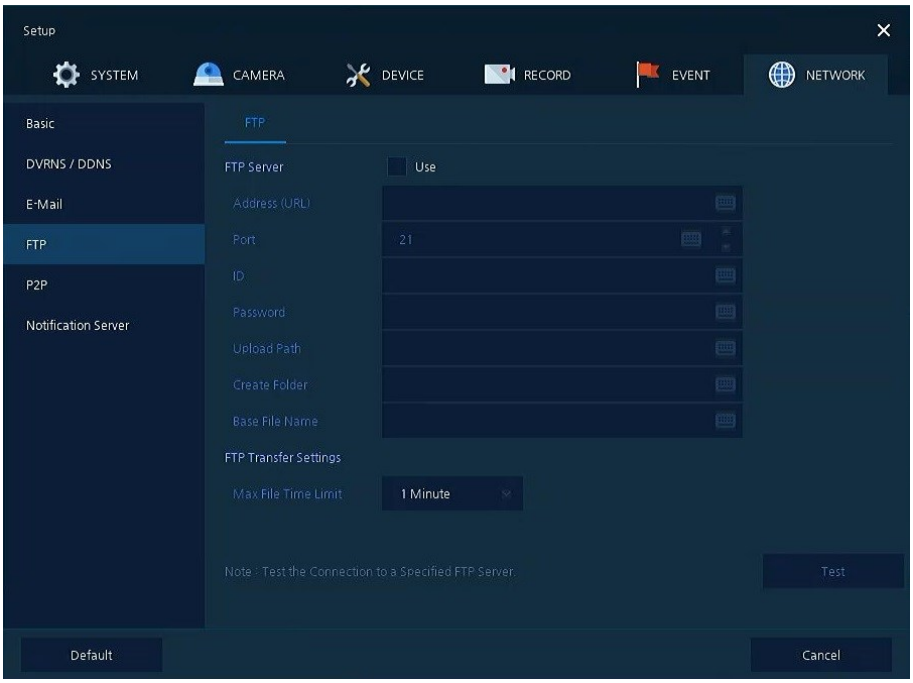


Figure 4-55 NETWORK > FTP > FTP

Table 4-55 NETWORK > FTP > FTP

No.	Name	Function
1	FTP Server	Select to use FTP
2	Address (URL)/Port	Enter server address and port
3	ID, Password	Enter ID & Password of server
4	Upload Path	Enter upload directory
5	Create Folder	Enter a folder name
6	Base File Name	Enter a file name
7	FTP Transfer Settings	Select max file time (1, 5, 10, 15 minutes). The file format is AVI.
8	Test	Verify that the FTP server is set normally

4.7.6 P2P

User can connect recorder from mobile app using QR code scan.

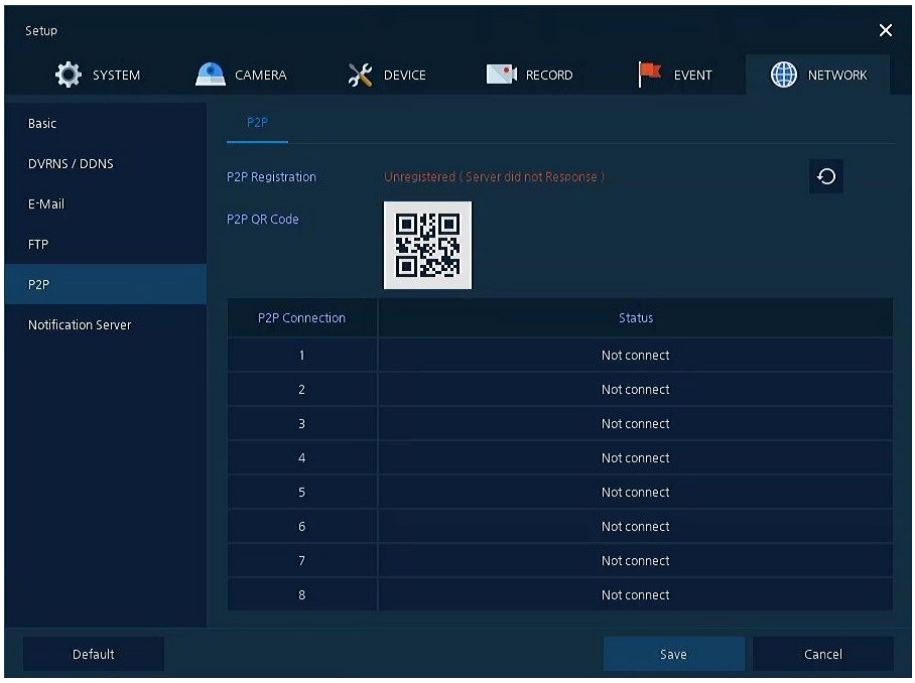


Figure 4-56 NETWORK > P2P > P2P

Table 4-56 NETWORK > P2P > P2P

No.	Name	Function
1	P2P Registration	Click button to check registration status
2	P2P QR Code	Scan QR code using mobile app to connect recorder
3	P2P Connection	Display connection status

4.7.8 Notification Server

Notification Server > Notification Server

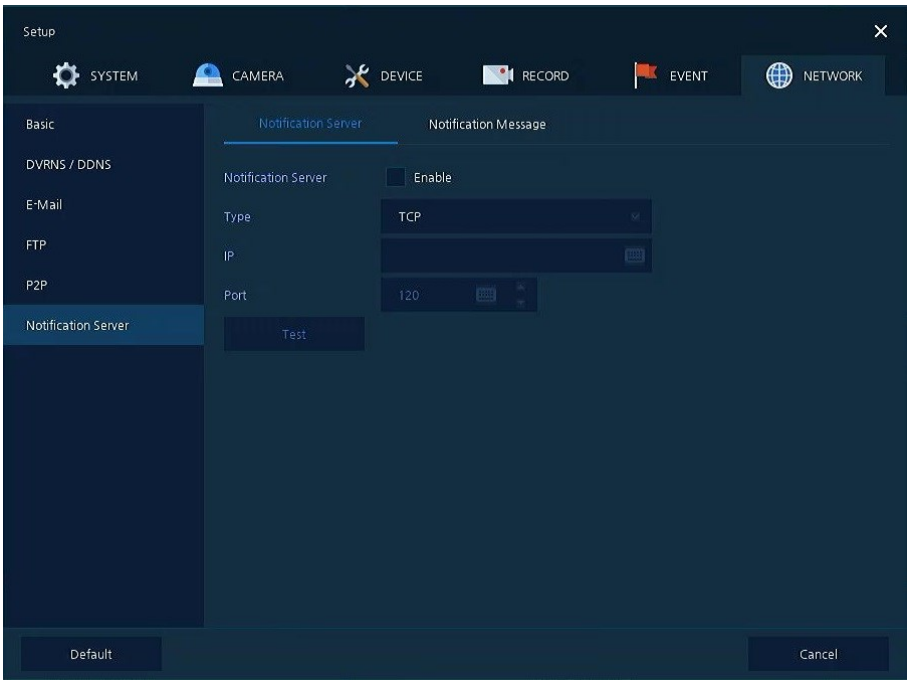


Figure 4-57 NETWORK > Notification Server > Notification Server

Table 4-57 NETWORK > Notification Server > Notification Server

No.	Name	Function
1	Notification Server	Select/deselect to use Notification Server
2	Type	Select TCP or UDP protocol
3	IP	Enter the server IP address or host name
4	Port	Enter the server port
5	Test	Send a test message to the server to check the connection status. Click Save button when the transmission is successful. TCP can check the results in the recorder, but UDP should be checked in the notification server.

Notification Server > Notification Message

Set up the message to be sent to the notification server when event occurs.

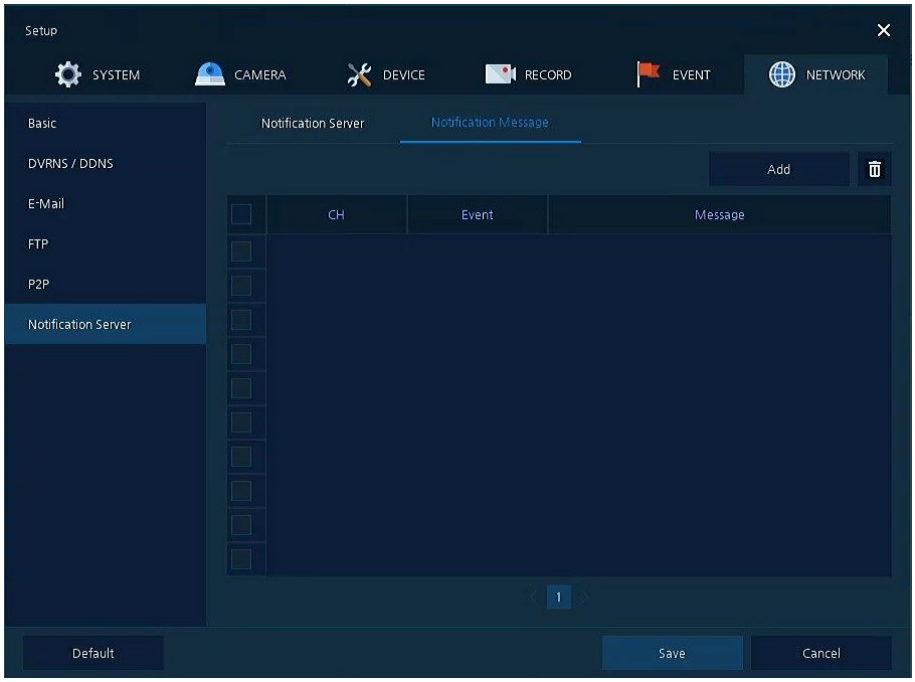


Figure 4-58 NETWORK > Notification Server > Notification Message

Table 4-58 NETWORK > Notification Server > Notification Message

No.	Name	Function
1		Deleted registered notification message
2	Add	Notification message edit window pop-up
3	CH	Camera channel
4	Event	Display event type as Motion, Alarm or Video Loss
5	Message	Display notification message

Click **Add** to open **Add Message**.

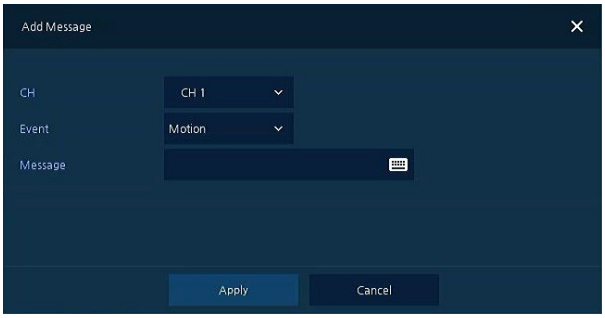


Figure 4-59 NETWORK > Notification Server > Notification Message > Add Message

Table 4-59 NETWORK > Notification Server > Notification Message > Add Message

No.	Name	Function
1	CH	Select the channel to add a message
2	Event	Select the event type (motion, alarm, video loss)
3	Message	Create a message to send

5. Search/Playback

This chapter describes Live Launcher search and play menu at the bottom of the screen bar.

Figure 5-1 Live Launcher Search, Play menu

Table 5-1 Item and Description of Live Launcher Search, Play menu

No.	Item	Description
1		Search recorded data (time, event, and thumbnail)
2		Play recorded data

5.1 Search

This function searches recorded data by Time, Event, Thumbnail and Text.

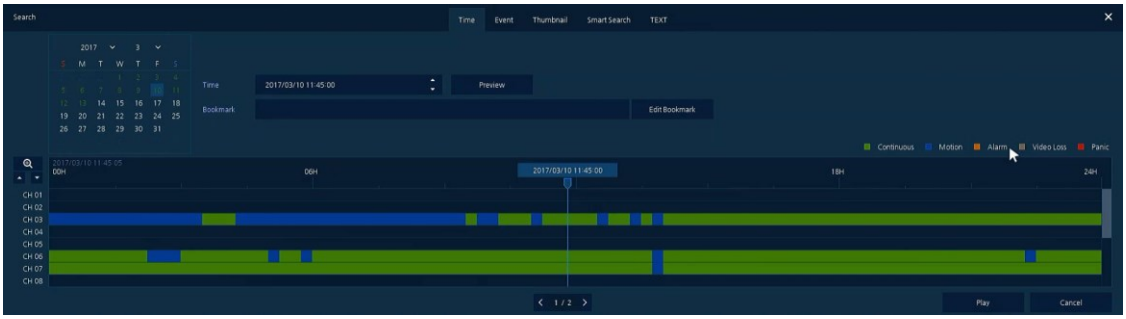


Figure 5-2 Search: Time

Table 5-2 Search: Time Item and Description

No.	Item	Description
1	Calendar	Select the date to search
2	Time	Set time to search
3	Bookmark	Select a bookmark to search
4	Timeline	Display timelines across channels
5	Preview	Preview video clips searched
6	Play	Play video clips. For more information about Live bar, see section "5.2 Playback."
7	Cancel	End search screen

Search > Event

Recording data is searched by event type.

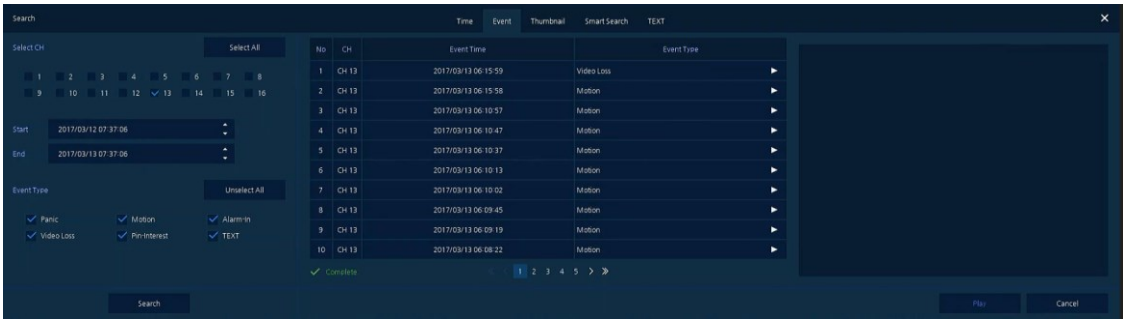


Figure 5-3 Search: Event

Table 5-3 Search: Event Item and Description

No.	Item	Description
1	Select CH	Select channels to search
2	Select All/ Unselect All	Select/deselect all channels
3	Start	Set starting time to search
4	End	Set ending time to search
5	EVENT TYPE	Select the types of event (immediate recording, motion, Alarm-In, Video Loss and bookmark)
6	Search	Search the event
7	Event List	Display event list searched
8	Thumbnail Field	Display thumbnail images of selected event
9	Play	Play video clips selected. For more information about Live bar, see section "5.2 Playback."
10	Cancel	End search screen

Search > Thumbnail

Recording data is searched and played back as a thumbnail image at intervals of time.

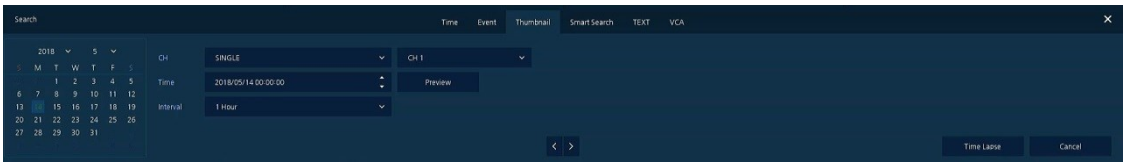


Figure 5-4 Search: Thumbnail

Table 5-4 Search: Thumbnail Item and Description

No.	Item	Description
1	Calendar	Select dates to search
2	CH	Select channels to search
3	Time	Select time to search
4	Interval	Set time interval for searching images
5	Time Lapse/Pause	Play or stop videos searched
6	Cancel	End search screen

Search > Smart Search

Recording data is searched by detecting change of specific area.

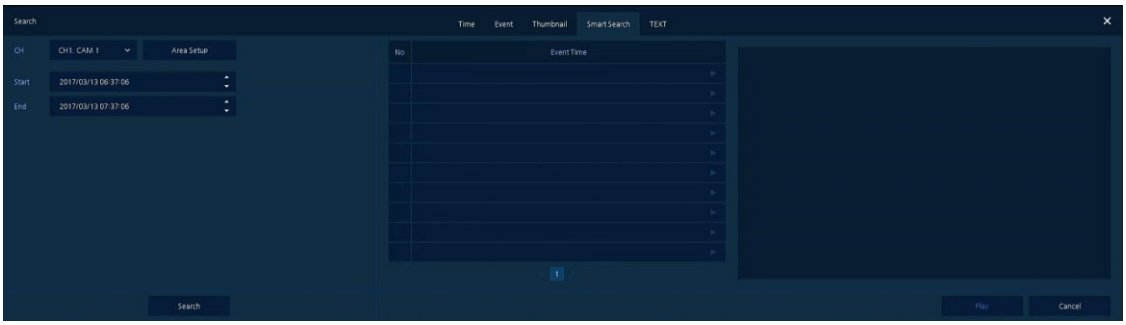


Figure 5-5 Search: Smart Search

Table 5-5 Search: Smart Search Item and Description

No.	Item	Description
1	CH	Selecting channels to search.
2	Area Setup	Select area to search motion event.
3	Start	Setting starting time to search.
4	End	Setting ending time to search.

Search > TEXT

Recording data is searched by keyword.

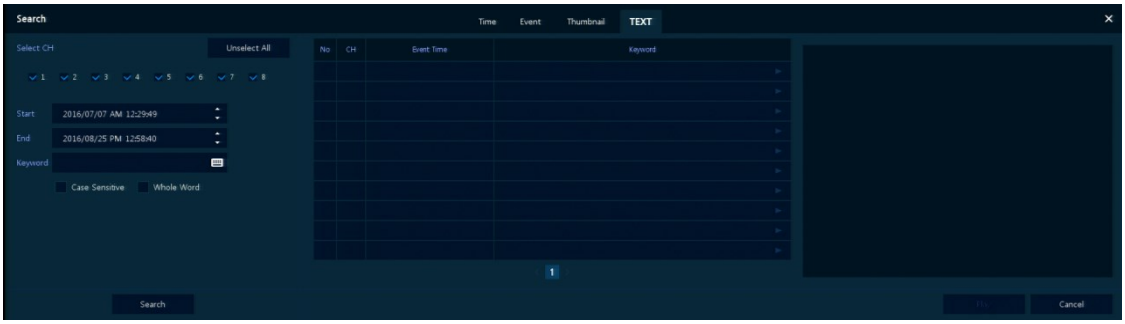


Figure 5-6 Search: TEXT

Table 5-6 Search: TEXT Item and Description

No.	Item	Description
1	Select CH	Select channels to search
2	Select All/ Unselect All	Select/deselect all channels
3	Start	Set starting time to search
4	End	Set ending time to search
5	Keyword	Enter keyword to search
6	Case Sensitive	Search items, case-sensitive
7	Whole Word	Search items that include all words
8	Search	Search the event
9	Event List	Display event list searched
10	Thumbnail Field	Display thumbnail images of selected event
11	Play	Play video clips selected. For more information about Live bar, see section "5.2 Playback."
12	Cancel	End search screen

5.2 Playback

To play recorded data:

Figure 5-7 Playback Launcher

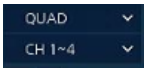
Table 5-7 Playback Launcher Item and Description

No.	Item	Description
1	▶	Display present play status
2	Date and Time	Display date and time of videos playing
3	⏮	Move to the beginning of the video
4	◀◀	Play the videos with multiplied (faster) speed in reverse (2~64x)
5	◀|	Play the videos with slower speed in reverse (1/2~1/8x)
6	◀ ⏸ ▶	Play the video backward (rewind), pause, forward
7	|▶	Play the videos with forward (1 step)
8	▶▶	Play the videos with multiplied (faster) speed forward (2~64x)
9	⏭	Go to the last section of video
10	‹ ›	Move to previous/next partition screen
11	⛶ ⊞ ⊞	Select the partition mode to mark in the screen
12	🔍	Search the recorded data (time, event and thumbnail). For more information about search, see section "5.1 Search."
13	←	Close playing videos and move to Live screen
14	▲	Open or close the record timelines
15	📌 📌	Activate/deactivate automatic hidden function of Launcher menu

Click ▲ to open **Record Time-Line**.

Figure 5-8 Playback Launcher > Record Time-Line

Table 5-8 Playback Launcher > Record Time-Line Item and Description

No.	Name	Function
1	Time lines	Show the recording status. Select the desired time with the mouse to playback.
		Add bookmarks at the selected time in the time line
2		Run a manual backup. See "**Error! Reference source not found. Error! Reference source not found.**" to display detailed information about back-up.
3		Open the calendar window and select a date from the calendar
4		Show time bar by single channel, 4 channels or all channels
5		Show time line by 1 hour or 24 hours (toggle)

Click mouse right button to open **Quick Menu** in playback mode.

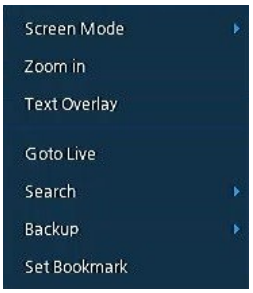


Figure 5-9 Playback Quick menu

Table 5-9 Playback Quick menu

No.	Item	Description
1	Screen Mode	Select the partition mode of live screen (Full, 2X2, 3X3)
2	Zoom in	Magnify selected live screen (2x, 4x 8x). This menu is shown full screen mode only.
3	Text Overlay	POS text overlay on the screen. This menu is shown when Text menu is enabled.
4	Goto Live	Stop playback and return to live mode
5	Search	Open Search window
6	Backup	Open manual backup menu
7	Set Bookmark	Save the bookmark

6. Webviewer

This chapter describes webviewer for monitoring videos through a PC in remote mode.

How to monitor with webviewer

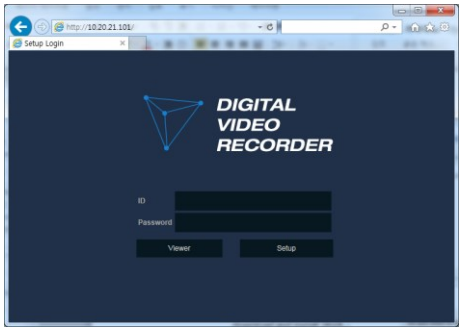
Table 6-1 System Requirement for Webviewer

Item	Recommended	Minimum
OS	Microsoft® Windows® 10 x86 (64bit) (Home Premium, Professional, Ultimate) Microsoft Windows 8 (Pro, Enterprise)	Microsoft Windows XP Home SP3
CPU	Intel Core™ i5-2550 3.30GHz or higher	Intel Core 2 Duo E7200 2.53GHz or higher
RAM	2GB or higher	1.5GB or higher
VGA	ATI Radeon™ HD 3650 or NVIDIA GeForce 8400GS or higher(1280x1024, 32bpp or higher), Multi Monitor	ATI Radeon HD 2400 or NVIDIA GeForce FX5500 or higher(1024x768, 24bpp or higher)
HDD	More than 6GB	More than 1GB
LAN	Gigabit Ethernet	10/100 Mbps Ethernet

1 Enter IP address of a recorder in Internet browser.

2 Enter ID and Password and then click the button.

- Viewer: play DVR Live images
- Setup: set menu; similar to NVR connected monitor

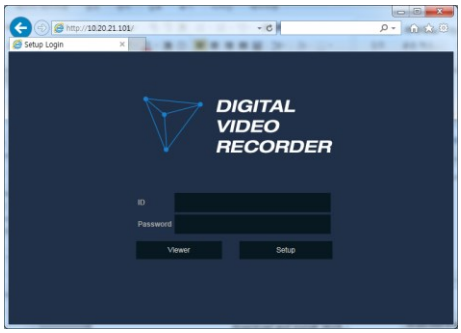


When selecting Viewer

When using a Viewer, users need to download Java. The procedure to download follows:

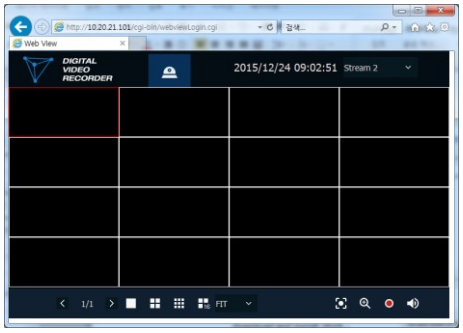
When selecting Internet Explorer Viewer

1 Click **Viewer**.



2 When Java download screen opens, download and install JAVA.

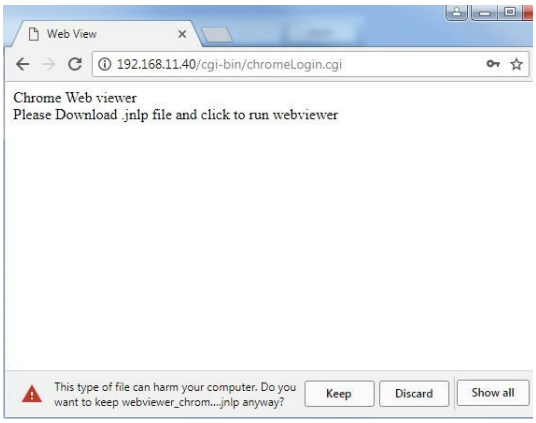
3 Live images may be monitored.



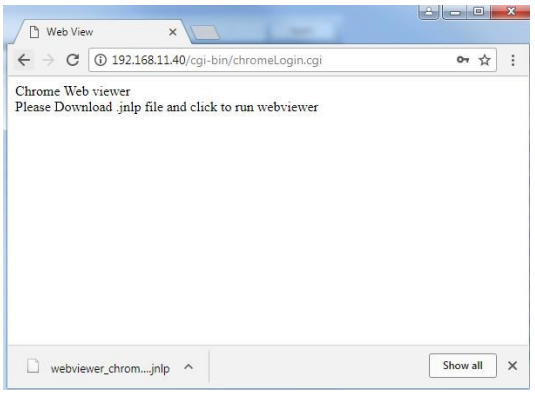
When selecting Chrome Viewer

1 After clicking **Viewer**, .jnlp file can be downloaded.

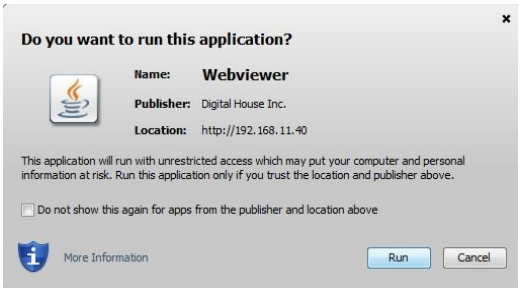
Click **Keep** button.



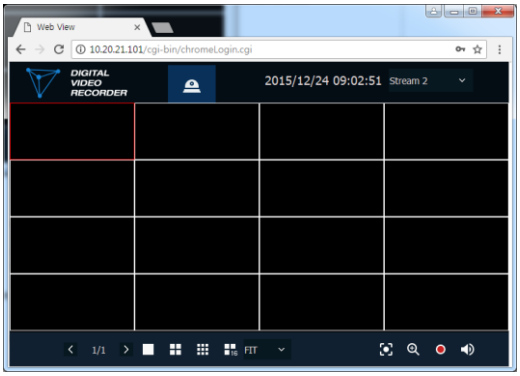
2 Click **webviewer_chrome.jnlp**.



3 When Java download screen opens, download and install JAVA.



4 Live images may be monitored.



When selecting Setup

Users can set the menu similar to NVR connected monitor.

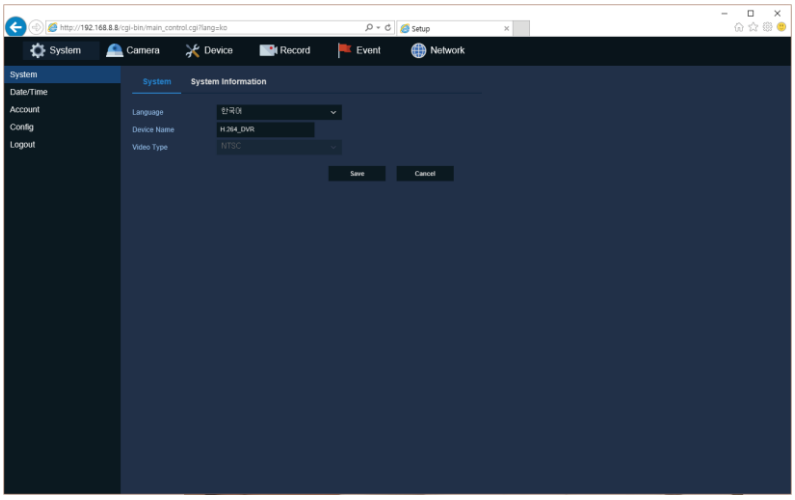


Figure 6-1 Setup screen

7. Products Specifications

Channel		16CH
VIDEO		
Video Input Channel		Up to 16ch (16 BNC, 4 IP configurable)
Video Input Type		AHD, TVI, CVBS, IP
Video Input Resolution	BNC	1080p, 720p, 960H, D1 (CVBS)
	IP	Up to 3M
Display Output		1 VGA, 1 HDMI, 1 BNC (Spot, CVBS)
Display Resolution	VGA, HDMI	1920x1080, 1280x720, 1024x768
	Spot	1.0 Vp-p (75 ohm, Composite)
Display Speed		400/480fps
Display Mode	VGA, HDMI	1/4/9/16 Split, PIP, Sequence
	Spot	1/16 Split, Sequence
RECORDING		
Compression		H.264
Recording Resolution	BNC	1080p, 720p, 960H
	IP	Up to 3M
Recording Speed		Main stream: 200/240fps@1080p. Sub Stream: 200/240fps@VGA
Recording Mode		Continuous, Motion, Alarm, C+M, C+A, M+A, C+M+A, Panic
Pre Alarm		1sec ~ 5sec
Post Alarm		5sec ~1Hour
PLAYBACK		
Simultaneous Playback		1/4/9/16 Split
Playback Mode		Backward, Forward 2x~64x
Search Mode		Time, Event, Thumbnail, Text, Smart (motion)
STORAGE		
Internal HDD		2 SATA Interfaces
External Storage		iSCSI
Backup		USB, Cloud
Backup File Format		AVI, H4V, MP4
FUNCTION		
PTZ & OSD Control		RS485, UTC
Text In		POS/ATM (Network, RS485, USB)
User Interface		Mouse, USB/RS485 Keyboard

NETWORK	
Ethernet	1 RJ45 10/100/1000 Base-T
Max. Network Throughput	Unlimited (Guarantee 144Mbps, Support Bandwidth Control)
Remote Monitoring	CMS, Mobile, Web, Dashboard
EXTERNAL IN/OUT	
Audio	4 RCA Input/1 RCA Output, 1 HDMI Output
Alarm	4 Input/1 Output (Terminal block)
Serial Port	1 RS485 (Terminal block)
USB	2 USB (front)
ETC	
Operating Humidity	0 ~ 90% RH (non-condensing)
Operating Temperature	32° F ~ 113° F (0° C ~ +45° C)
Power Supply	12VDC, 5A
Power Consumption	Max. 36W (includes 2 HDD)
Dimensions (WxHxD)	14.76x1.77x12.5 in. (375x44.9x318.2mm)
Net Weight	4 lb (1.8kg) (excludes HDD)

※ Specifications are subject to change without notice.

VICON INDUSTRIES INC.

For office locations, visit the website: www.vicon-security.com