



**HDA 8 and 16 channel
DVR 1U**

User Manual

Please read this manual thoroughly before use and keep it handy for future reference.

Before You Begin

Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes. This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

Norbain SD, 210 Wharfedale Road, IQ Winnersh, Wokingham, Berkshire RG41 5TP, England.
UK +44 (0) 118 912 5000

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following **WARNING**, **CAUTION** and **Note** statements identify potential hazards that can occur if the equipment is not handled properly:



*** WARNING:**

Improper use of this equipment can cause severe bodily injury or equipment damage.



**** Caution:**

Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.



This apparatus is manufactured to comply with the radio interference.

A Declaration of Conformity in accordance with the following EU standards has been made. The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/EC, the CE Marking Directive 93/68 EEC and all associated amendments.



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

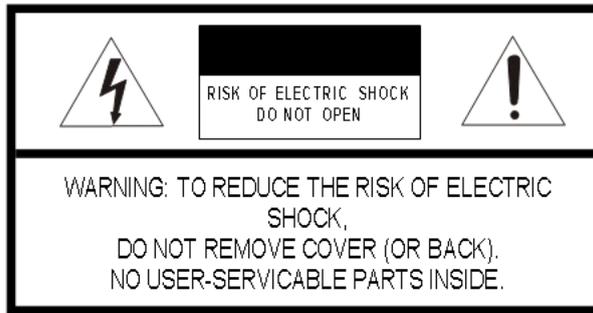
* This symbol indicates electrical warnings and cautions.

** This symbol indicates general warnings and cautions.

NORBAIN SD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.



IMPORTANT SAFEGUARDS

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 product 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 is 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. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. 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.
14. 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 INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.
15. IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.

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.

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1. Overview

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	4	Software CD
2	DC Power Adapter & Power cord	5	Quick guide
3	Mouse	6	Remote controller

1.2 DVR Description

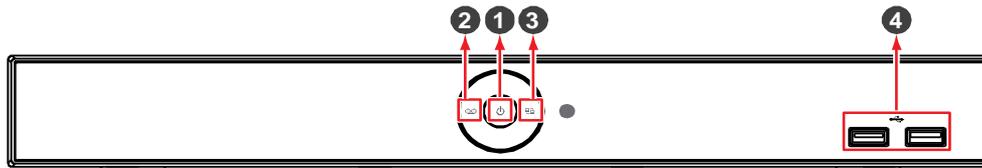
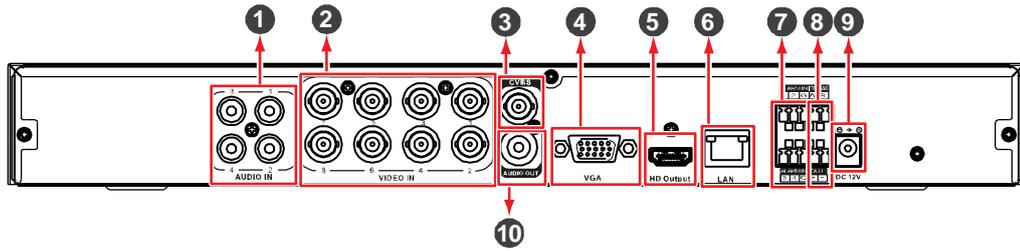


Figure 1-1 Name and Connection of each front section

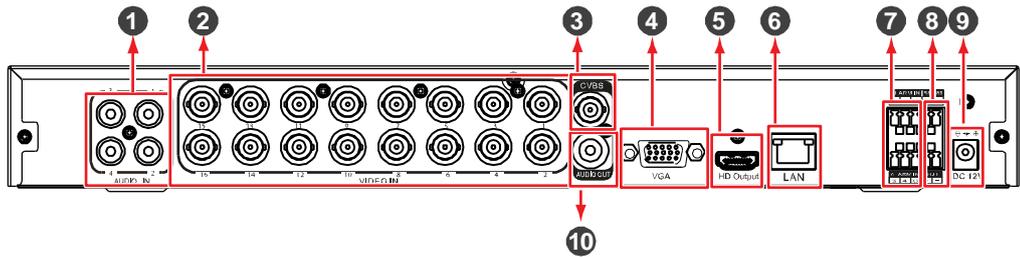
Table 1-2 Name and Function of each front section

No.	Name	Function
1	Power status LED	Illuminated when power is on
2	Recording status LED	Illuminated if recording is in progress
3	Network LED	Illuminated if connected via network
4	USB port	USB port for Mouse, firmware upgrade, and data back-up.

8ch DVR



16ch DVR



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	HD Output	HD output port
6	Network	Network connector
7	Alarm In/Out	Alarm connector
8	RS485	RS-485 communication connector
9	DC12V	Connector with power supply
10	Audio Out	Audio output port

2. Installation

Connect external devices as per the diagram below

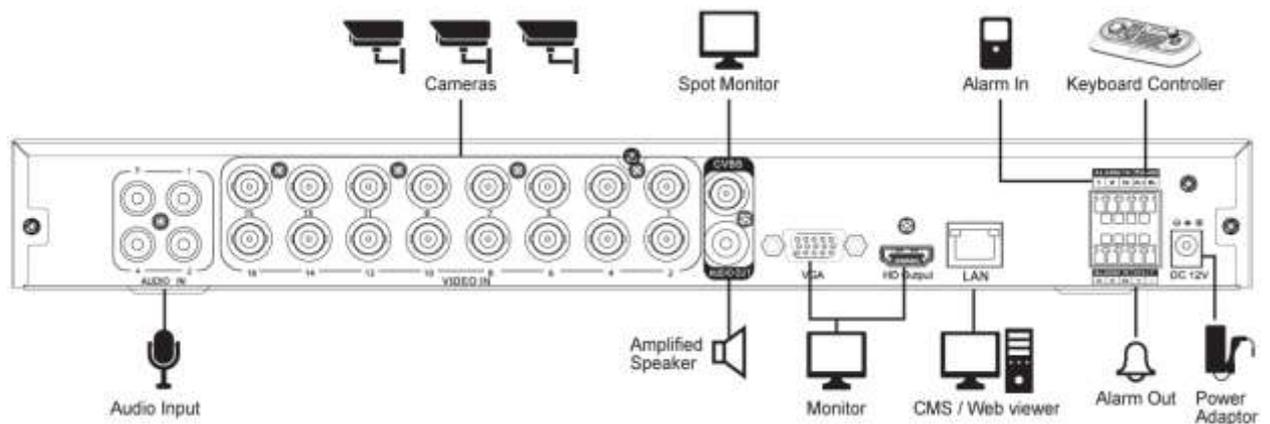


Figure 2-1 Connection map

2.1 Connection of exterior devices

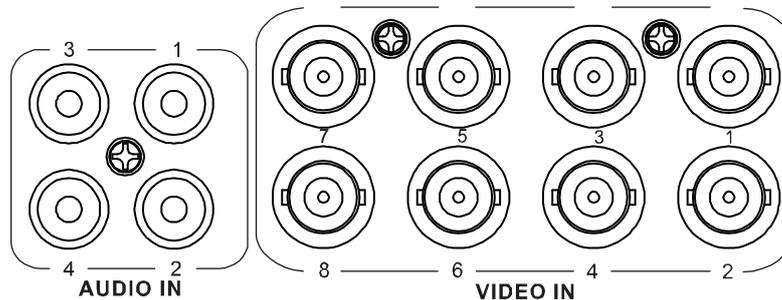
How to connect each port to rear section of the unit:

- 1 Place the unit on a stable flat surface.
- 2 Ensure there is enough space around the device to ensure adequate ventilation, and avoiding any damage to connection leads
- 3 Ensure unit is unplugged before connecting external devices



Make sure to withdraw the mains plug before installing the device.

- 4 Connect the cameras and any audio devices

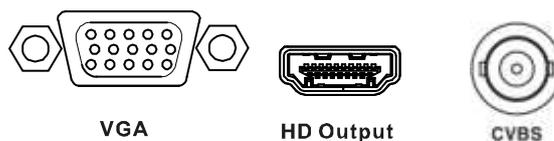


Note The DVR will automatically detect any connected camera.

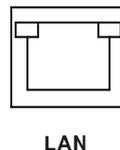
- 5 If required connect the audio output port to a speaker.



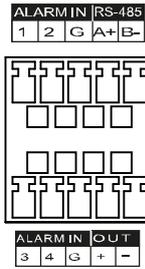
- 6 Connect monitor, options are HDMI, VGA and CVBS spot output



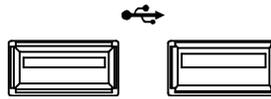
- 7 Connect a network port.



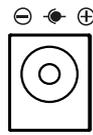
- 8 Connect an alarm and RS485 devices.



9 Connect a mouse to the USB port



10 Finally connect the power



DC 12V

2.2 DVR power up

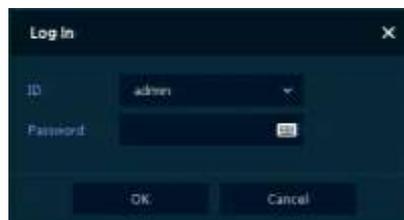
When the DVR is powered up, it will take a couple of minutes to boot, the following icons will be displayed in order as it goes through it's booting cycle



When the boot up process is completed a buzzer will sound and the start up screen will be displayed.

2.2.1 Login

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



Note Default ID & Password is admin/admin



Attention

Please change password after login due to security.

2.3 Quick set up

Quick set up can be used to set the basic system settings

2.3.1 Account

- 1 Click the keyboard icon to set **ID** and **Password** for users.



Note

- Default ID/Password is admin/admin.
 - Change the password for security.
-

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

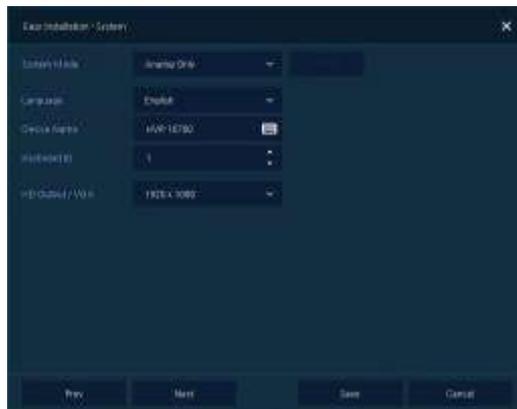


- 3 Press the **Save** button.
- 4 Press **Next** button to move to the next set up stage



2.3.2 System

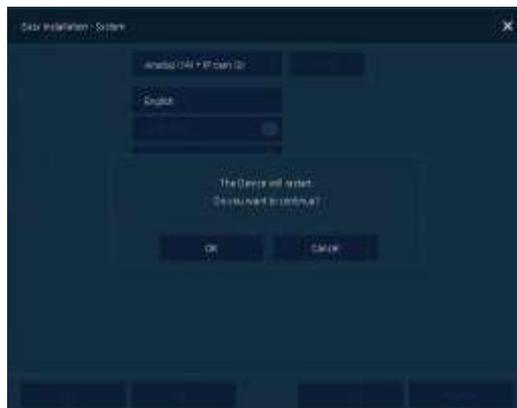
1 Set each item in **System** setting screen.



- System Mode: can be set to Analogue only (default) or Analogue plus IP cameras (max 25% of channels)
- Language: Select system language.
- Device Name: Enter the device name.
- Keyboard ID: The RS485 Address for control via a remote keyboard
- Selecting the device ID, ensure that the each device has a unique ID.
- HD Output / VGA: Set resolution of the monitor connected to the device.

2 Press **Save** button

3 Press **Next** to move to the next set up stage.



2.3.3 Network

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: As for dynamic IP, enter information in each space.

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

3 Press **Next** to move to the next set up stage

2.3.4 Record

This is used to quickly set the desired record parameters to achieve the approximate recording time and quality, The settings may need to be adjusted to fine tune the system

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



- User can input desired recording options and HDD size.

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

2 Press **Next** to move to the next set up phase.

2.3.5 Time/Date

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

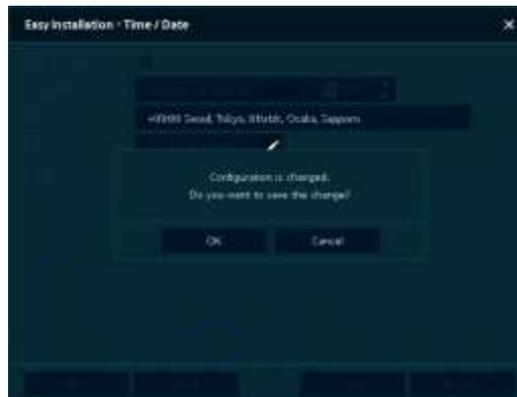


- Network Time Sync: Select network for synchronizing with time server.
- System Time: Not for synchronizing with network time server, set the device time; otherwise (applying for Daylight saving time), select DST.
- Time Zone: Select time zone for the system being installed.
- DST Start/End: For applying Daylight saving time, set the application period.

Note

Press **Restore** button in the below-right corner of the screen to cancel changed set value.

- 2 Press **Save** button to save set value.
- 3 Press **Next** to move to the next set up stage



3. Live Screen Configuration

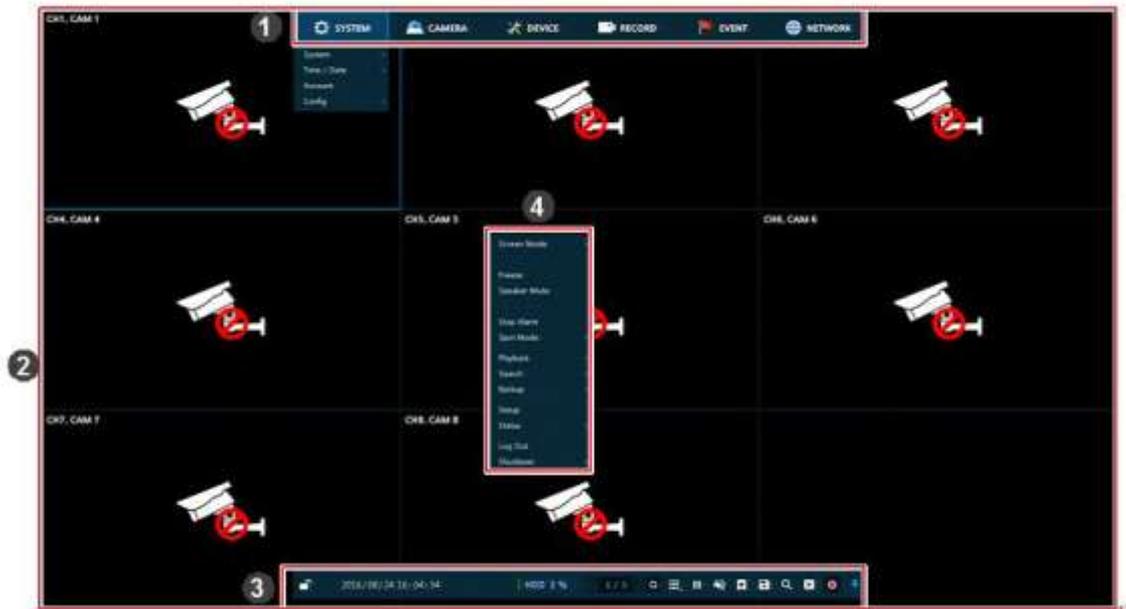


Figure 3-1 UI Screen Configuration

Table 3-1 Items and Description of UI Screen Configuration

No.	Item	Description
1	Setting menu	Setting menu is located on the top edge of the screen. See section "04 Setup " for more detailed information
2	Live screen	Show live video of connected cameras.
3	Launcher menu	Launcher menu is located on the bottom edge of screen. See section "3.2 Live Launcher " for more detailed information.
4	Quick menu	Clicking the right mouse button to display the Quick menu. See section "3.3 Quick " for more detailed information.

3.1 Icons in Live screen

Note Chosen live screen is framed by a blue border; the segment that the mouse is located in is framed by a yellow border.

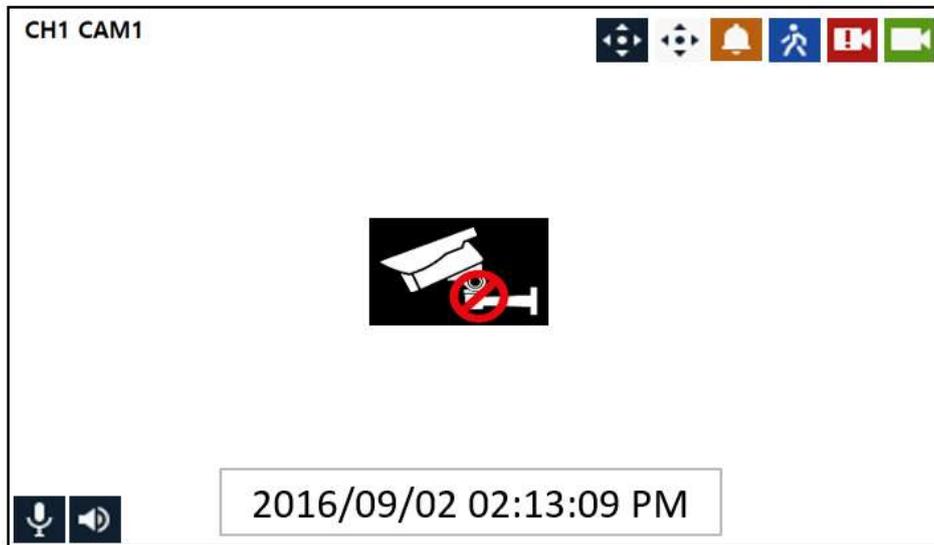


Figure 3-2 Live screen icon

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 Launcher menu located 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 currently used
4		Moving to previous/next partition screen
5		Live screen sequence mode (toggle ON / OFF)
6		Selecting split screen mode (single screen, 4-, 9-, and 16- partition)
7		Freeze live image (toggle ON / OFF)
8		Audio selection (toggle ON / OFF)
9		Pin Interest – tags video with easily searched markers
10		Make a backup video of users want. See “3.2.1 Backup” to display detailed information about back-up.
11		Searching recording data (time, event, and thumbnail). See “5.1 Search” to display detailed information about search.
12		Go to Playback mode
13		Panic record mode
14		Locking or releasing launcher menu (toggle ON /OFF)

3.2.1 Backup (Down loading of video footage)

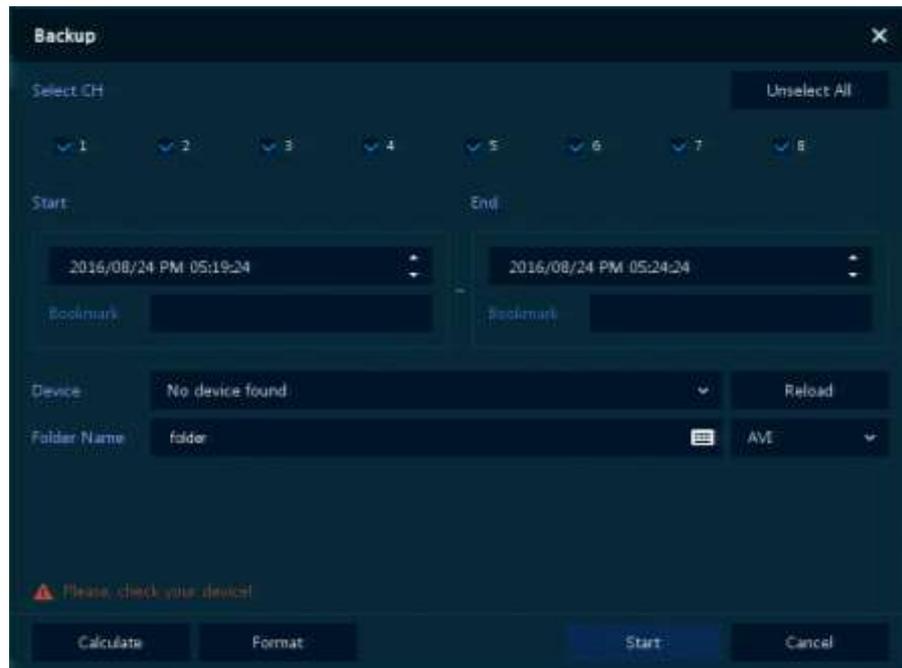


Figure 3-4 Backup

Table 3-4 Backup Item and Description

No.	Item	Description
1	Select CH	Select the channels to be downloaded
2	Select All/ Unselect All	Select or clear all channels.
3	Start	Setting back-up start time (Bookmark: bookmark list).
4	End	Setting back-up end time (Bookmark: bookmark list).
5	Device	Selecting the device to save back-up files to.
6	Reload	Press ti search for back up devices (e.g. USB pens)
7	Folder Name	Entering a folder name to save back-up files
8	File format	Selecting a file format to back-up (AVI or H4V)
9	Calculate	Calculates the size of file to be to backed-up
10	Format	Formatting the USB device (Will remove any information from the USB device)
11	Start	Start the back-up process
12	Cancel	Close the backup screen

3.3 Quick menu

Right click anywhere on the screen to display the Quick menu.



Figure 3-5 Quick menu

Table 3-5 Quick menu Item and Description

No.	Item	Description
1	Screen Mode	Select the split screen mod to be displayed (Full, 2X2, 3X3, and 4x4).
2	Zoom in	Magnify the selected live full screen image (Zoom out, 2 times, 4 times, and 8 times).
3	Freeze	Freezes the video selected live screen images (toggle on / off).
4	Speaker OUTPUT/Mute	Turning on/off a sound speaker
5	PTZ Control	Controlling PTZ Function
6	Stop Alarm	Stop the alarm sounder
7	Spot Monitor	Set the output mode of a spot monitor (Auto, Full, and 4x4).
8	Playback	Playing selected live screen images (from 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	Go to the search screen (time, event, thumbnail, and text). See section "5.1 Search" for more detailed information.
10	Backup	Go to the Back up screen. See section "3.2.1 Backup" for more detailed information
11	Setup	Opens the DVRs main set up menu. For more information about set up menu, see section "4 Setup ."
12	Camera Registration	Opens a pop-up menu for IP camera registration. NOTE: The DVR needs to be set to record both analogue and IP cameras. (Quick set menu)
13	Status	Opens a pop-up menu showing: device system log, event, and recording status (system log, event, and record).
14	Log in/Log out	Log in/Log out
15	Shutdown	Shuts down or restarts the device (shutdown, restart).

3.3.1 PTZ Control

Note PTZ Control menu can be displayed if relevant channel's PTZ protocol is set in **DEVICE > PTZ** in the upper live screen.

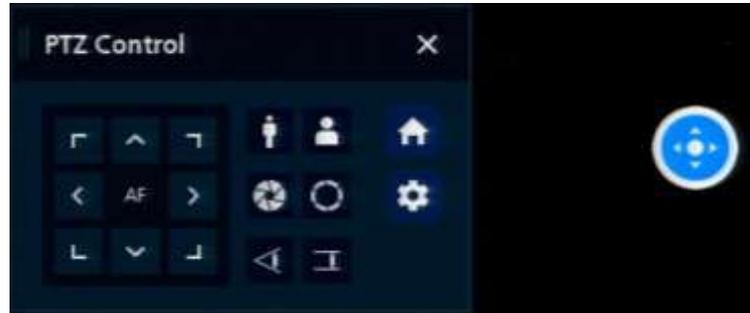


Figure 3-6 Quick menu > PTZ Control

Table 3-6 Quick menu > PTZ Control Item and Description

No.	Item	Description
1		Direction control buttons
2		Place cursor on this spot , click and drag to make PTZ camera move
3	AF	Adjusting screen focus automatically
4	Zoom Out	Zoom function of PTZ camera
5	Zoom In	
6	IRIS OFF	Iris adjustment
7	IRIS On	
8	Focus Far	Manual focus adjustment
9	Focus Near	
10		Go to Home menu
11		Camera Menu button

In PTZ Control screen, clicking the right button of the mouse displays Quick menu.



Figure 3-7 PTZ Control Quick menu

Table 3-7 PTZ Control Item and Description in Quick menu

No.	Item	Description
1	Preset Go	Move to a preset position
2	Preset Save	Saving specific positions of the camera, at most 255 settings
3	Tour	Select a Preset Tour
4	Scan	Select a Scan tour
5	Pattern	Select a Pattern tour
6	Exit	Exits PTZ mode

3.3.2 Status > System log

Users can see the system log information in **System log** tap in **Status** screen.

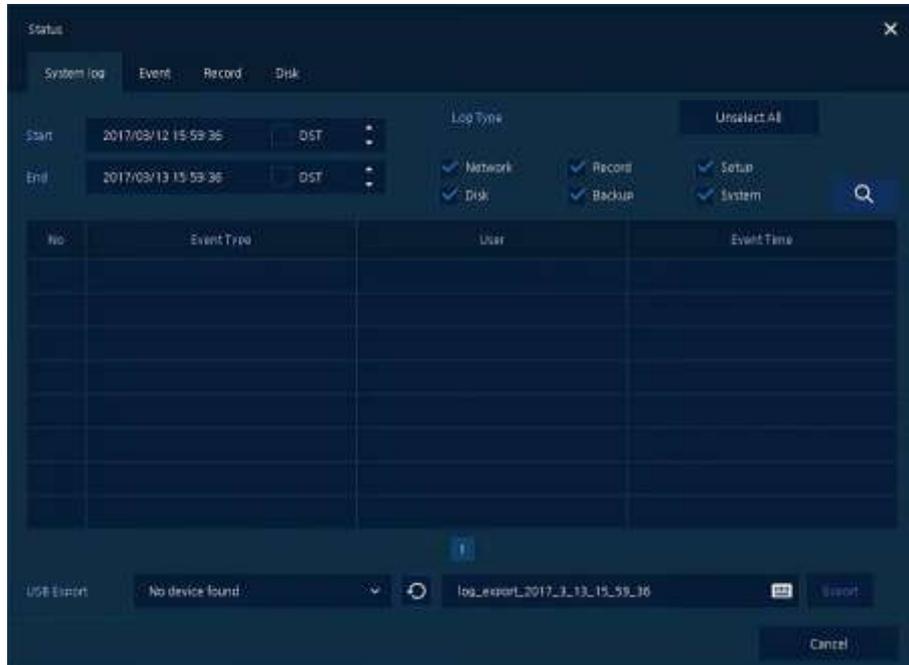


Figure 3-8 Status > System log in Quick menu

Table 3-8 Status of Quick menu > System log Item and Description

No.	Item	Description
1	Start	Set the starting time of system log to be searched
2	End	Set the end time of system log to be search
3	Log Type	Selecting log types (Network, Record, Setup, Disk, Backup, and System)
4	Select All /Unselect All	Selecting or clearing all log types (toggle).
5		Pressing search button search on the basis of set condition
6	System log list	Displaying system log lists
7	USB Export	Export the log data to USB thumb drive.
8	Cancel	Completing the status screen

3.3.3 Status > Event

The system log information can be seen in the **System log** tab in **Status** screen.

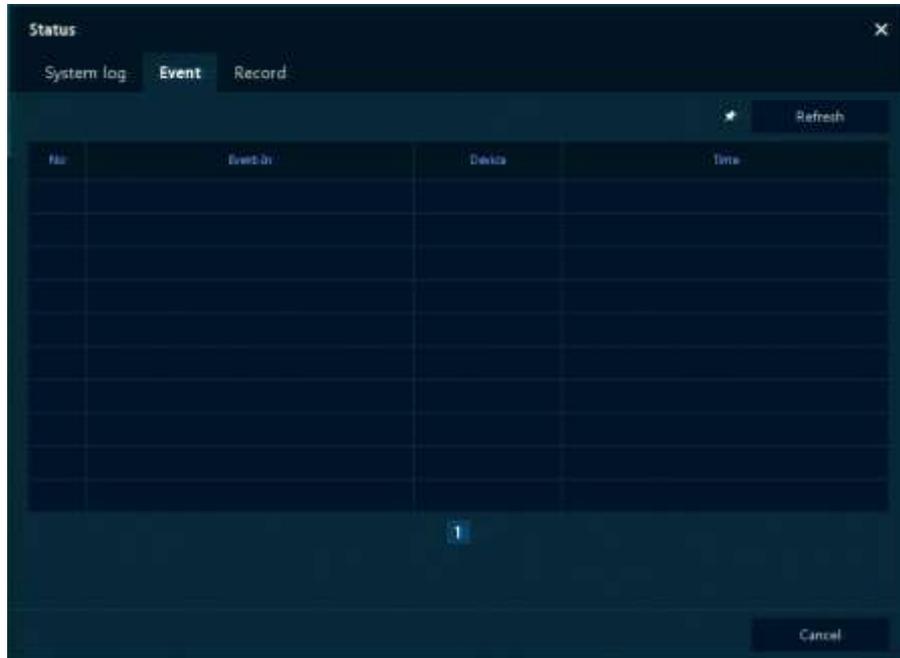


Figure 3-9 Status > Event in Quick menu

Table 3-9 Status > Event Item and Description in Quick menu

No.	Item	Description
1		Temporary fixing or releasing an event within the list (toggle).
2	Refresh	Delete the current event list
3	Event list	Display the event list
4	Cancel	Exit

3.3.4 Status > Record

The recording status in **Record** tab in **Status** screen.

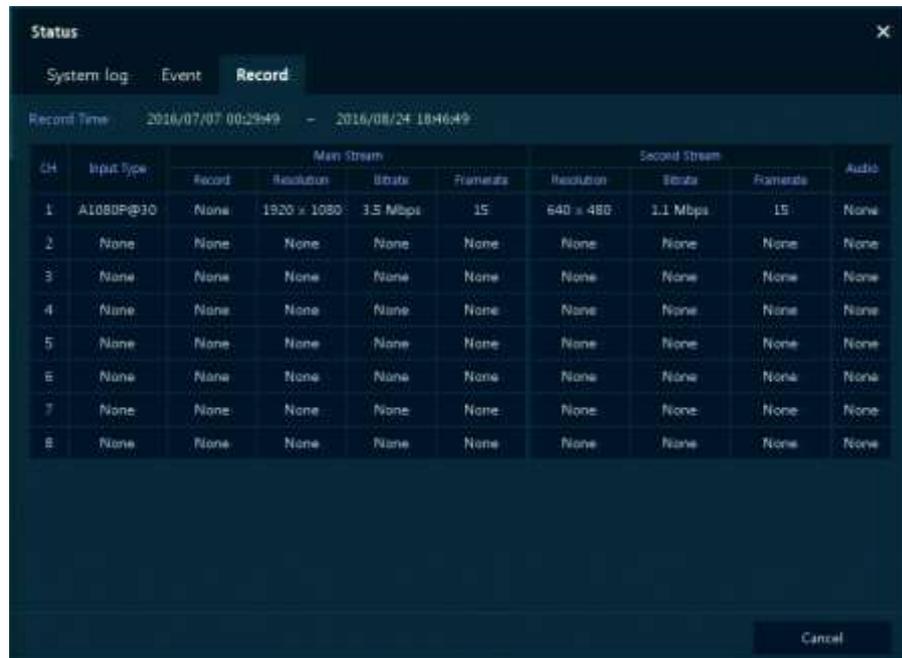


Figure 3-10 Status > Record in Quick menu

Table 3-10 Status > Record Item and Description in Quick menu

No.	Item	Description
1	Record time	Displays the first and last recorded time
2	Record list	Displays the record setting status
3	Cancel	Exit

4. Setup menu

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



Figure 4-1 Setup menu

Selecting the menu opens the setting screen.

Note **Setup** screen is also available within the Quick menu. Right click the mouse and select Setup.

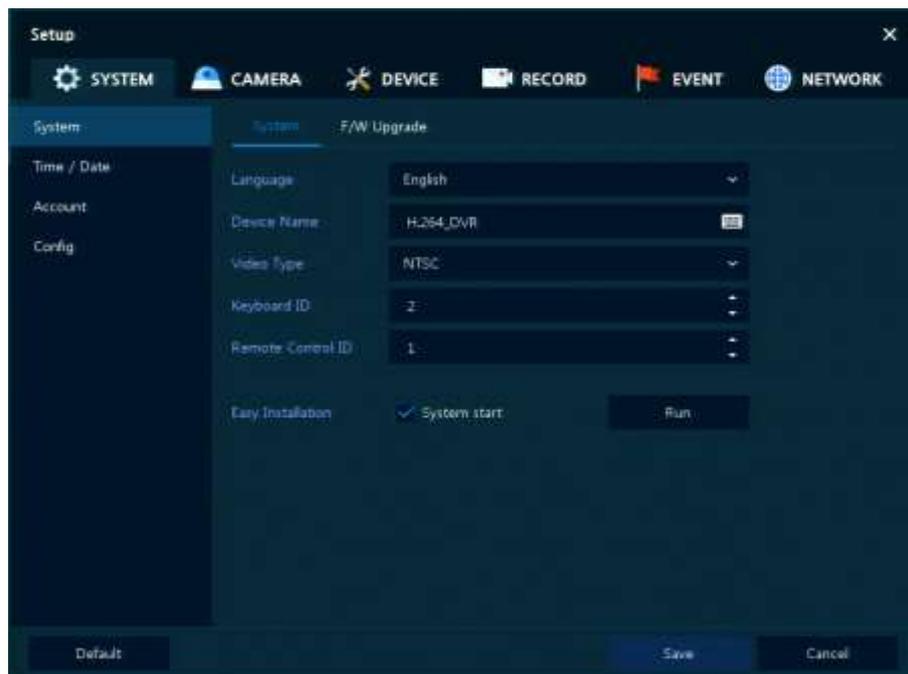


Figure 4-2 Setup menu screen

Table 4-1 Setup menu Item and Description

No.	Item	Description
1	SYSTEM	Set the system settings
2	CAMERA	Set the camera settings
3	DEVICE	Set the non camera devices connected to the DVR
4	RECORD	Set the recording parameters
5	EVENT	Set each event parameters
6	NETWORK	Set the network parameters

Setup menu includes:

Table 4-2 Setup menu tree

Level 1	Level 2	Level 3
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
	Disk	Setup
		iSCSI
	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		

Level 1	Level 2	Level 3
NETWORK	Basic	WAN Port
	DVRNS/DDNS	DVRNS/Dashboard
		DDNS
	E-Mail	E-Mail

4.1 General buttons in Setup menu

This section depicts General buttons in Setup menu.

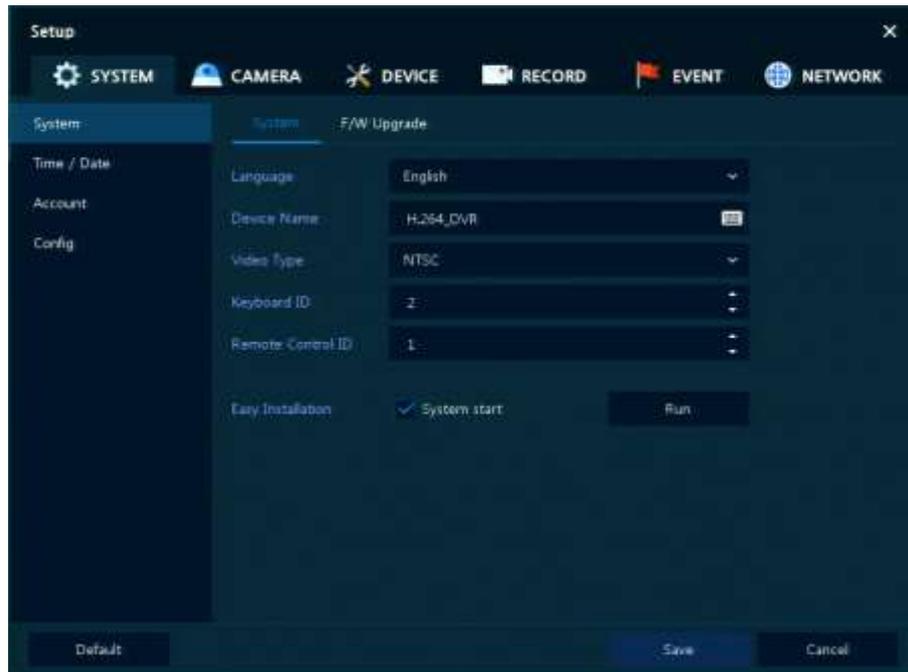


Figure 4-3 General buttons in Setup menu

Table 4-3 Item and Description of General buttons in Setup menu

No.	Item	Description
1	Default	Reverse changed setting value back to factory default.
2	Save	Save the set content.
3	Cancel	Cancel the set value.
4	Restore	Cancel the set value, and reverse it to default.
5	Apply	Apply the content set.

4.2 SYSTEM

4.2.1 System

Set and upgrade the basic items of the system.

System > System

Set the basic items in the System.

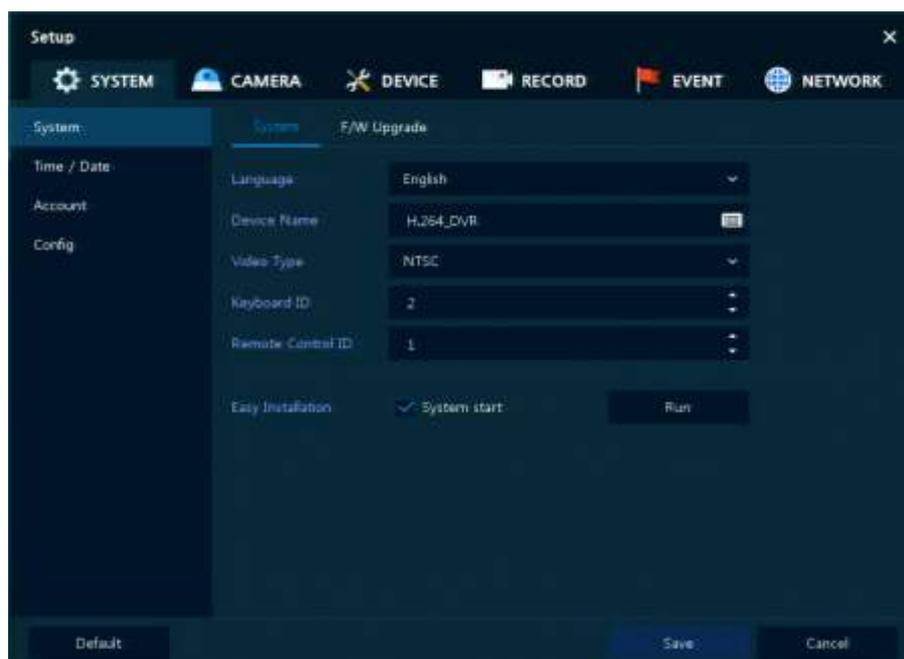


Figure 4-4 SYSTEM > System > System

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

No.	Name	Function
1	Language	Set the system language.
2	Device Name	Enter the device name (Only English is possible).
3	Video Type	Select image standard types (PAL,NTSC).
4	Keyboard ID	Select keyboard ID (1~255).
5	Remote Control ID	Select wireless remote control ID (1~99).
6	System start	Select Quick setup wizard (Note: Change DVR to Hybrid mode within Quick set up)
7	Run	Run Quick set up wizard.

System > F/W Upgrade

Use to apply new firmware to the DVR

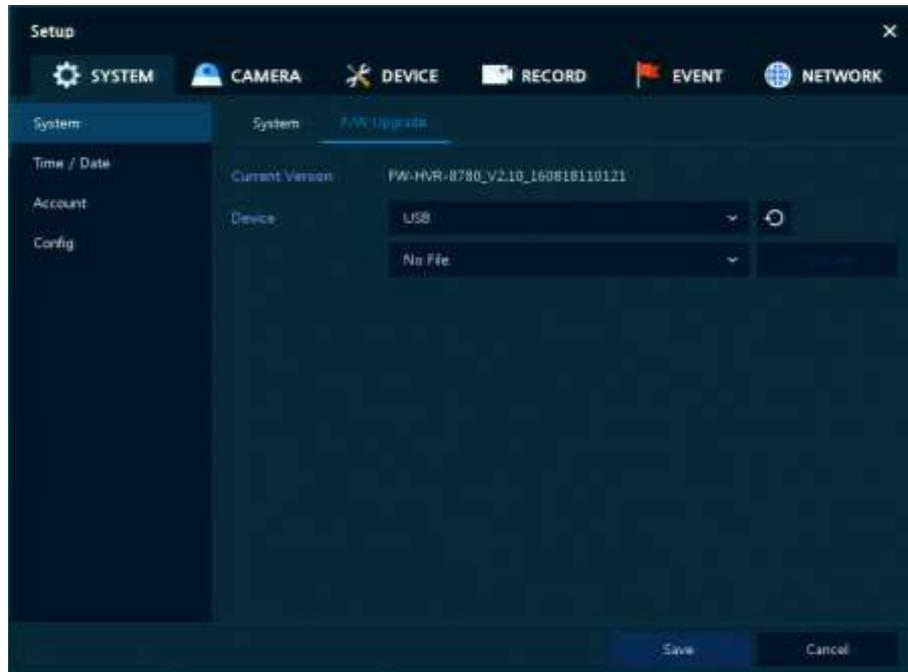


Figure 4-5 SYSTEM > System > F/W Upgrade

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

No.	Name	Function
1	Current Version	Displaying the present tool version.
2	Device	Connect USB memory stick, that has new firmware files saved within it's root menu, to the USB port, select files to upgrade. Then click "Upgrade"

4.2.2 Time/Date

Set the date, time, and holidays on the system.

Time/Date > Time/Date

Set the date, time, and holidays of the system.

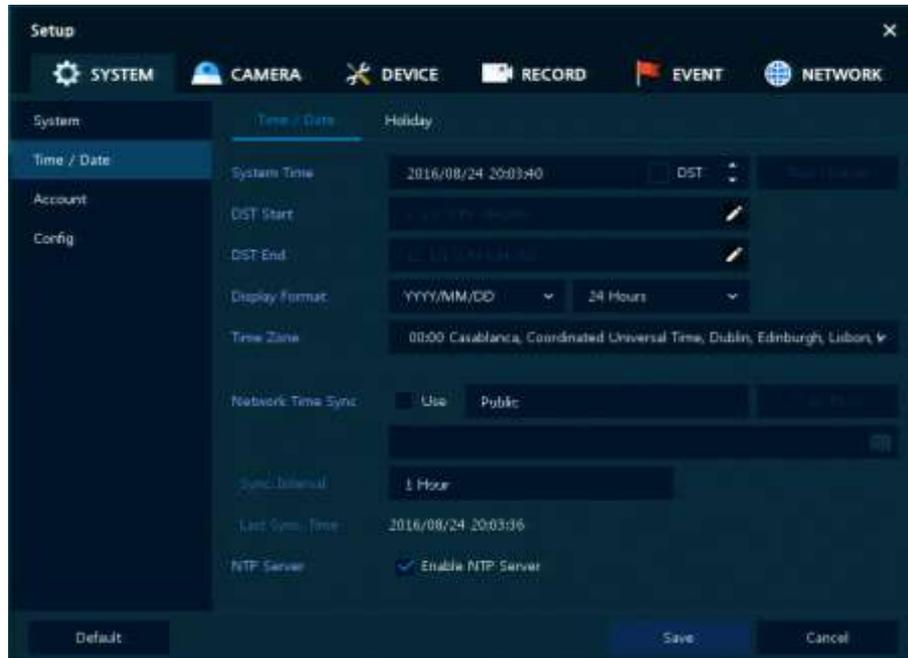


Figure 4-6 SYSTEM > Time/Date > Time/Date

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

No.	Name	Function
1	System Time Note: Default set to British DST - ON	Set the date and time. <ul style="list-style-type: none"> DST: Select whether to use summer time. Time change: Save changed time.
2	DST Start	Set the starting date of summer time
3	DST End	Set the ending date of summer time
4	Display Format	Select the format to present 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. <ul style="list-style-type: none"> Sync. Interval: Select synchronization period (1~7-hour) Last Sync. Time: Displaying the final synchronized time
7	NTP Server	Select whether to make the DVR an NTP server.

Time/Date > Holiday

Set holidays dates on the system.

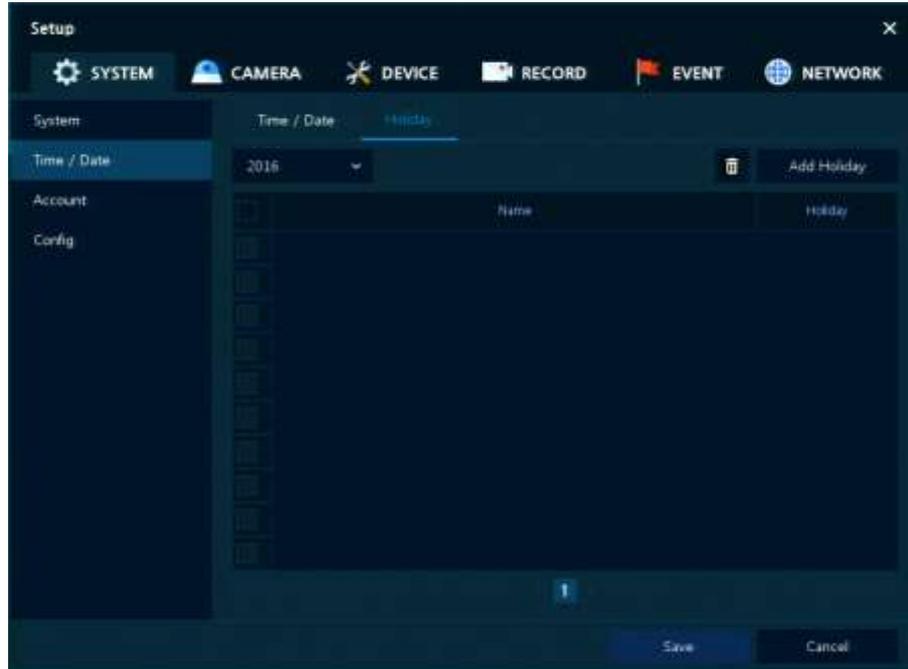


Figure 4-7 SYSTEM > Time/Date > Holiday

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

No.	Name	Function
1	Year	Select years to set holidays within.
2		Delete selected holidays.
3	Add Holiday	Add holidays.
4	List	Display holiday dates added to the system

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

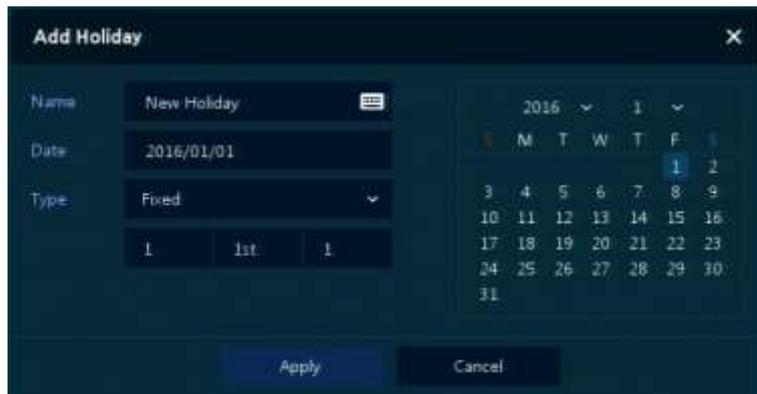


Figure 4-8 SYSTEM > Time/Date > Holiday > Add Holiday

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 , which designates annual January of the 1 st Sunday as a holiday.
4	Calendar	Select the holiday to add.

4.2.3 Account > User

Set the user's account of the system.

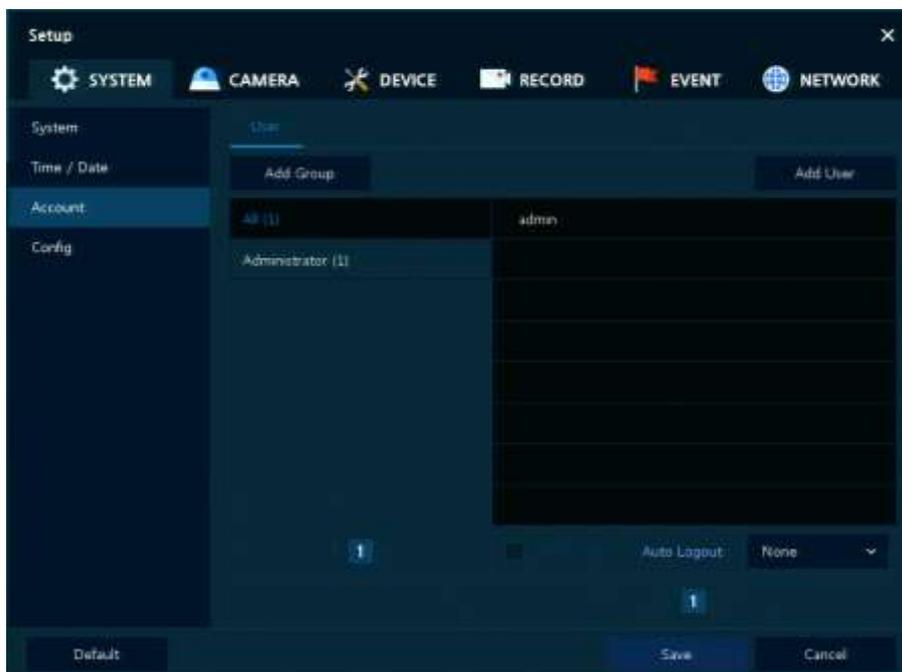


Figure 4-9 SYSTEM > Account > User

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

No.	Name	Function
1	Add Group	Adds extra User groups (each can have it's own user levels)
2	Add User	Add users to a selected group.
3	Group List	Display a total group list.
4	User List	Display user within a selected group.
5	Auto Login	Click/clear the automatic login checkbox.
6	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).

Press **Add Group** button, then **Add Group** screen displays.

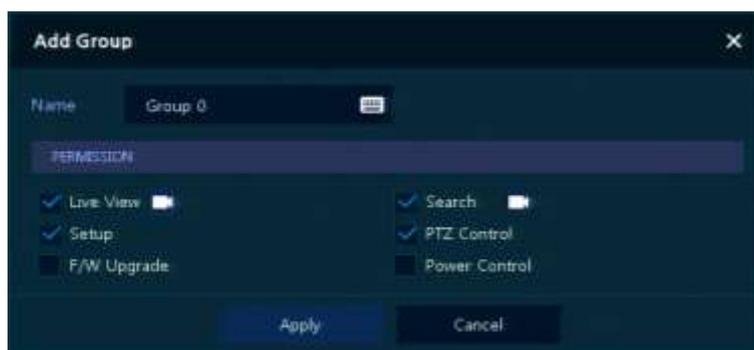


Figure 4-10 SYSTEM > Account > User > Add Group

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

No.	Name	Function
1	Name	Enter the group name.
2	PERMISSION	Select items which members of this group have access to.
3		Select camera channels that users in the selected group have access to.

Press **Add User** button, to allow users to be added to selected group



Figure 4-11 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 add the user is to be added.

4.2.4 Configuration (Config)

Config > Export/Import

The system settings can be Exported to or Imported from a USB pen

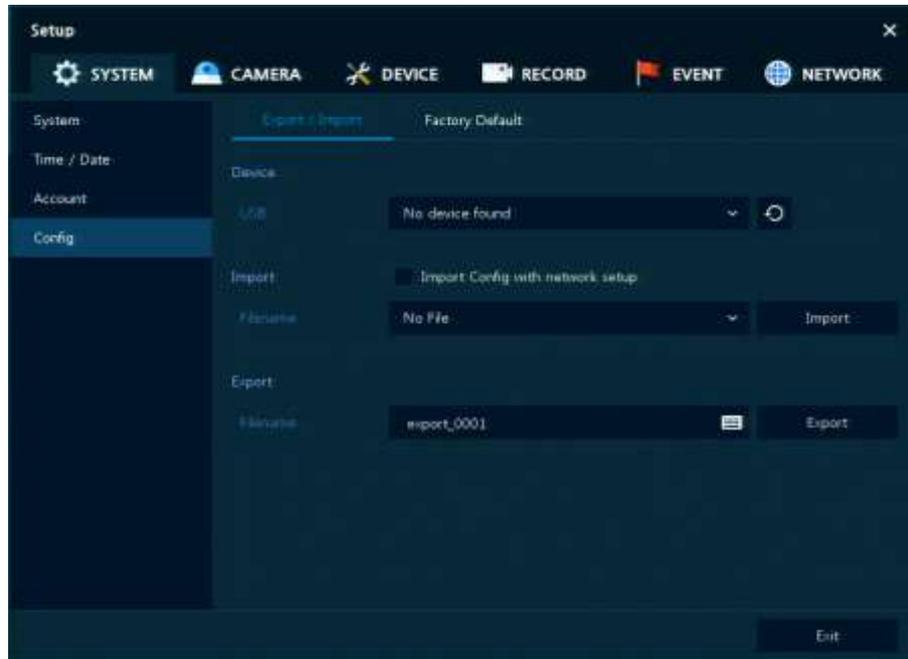


Figure 4-12 SYSTEM > Config > Export/Import

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

No.	Name	Function
1	Device	Select an exterior connector with USB. <ul style="list-style-type: none"> ▪ USB: Displays the USB device connected. ▪ Refresh button: To re-recognize the device.
2	Import	Up load settings to the DVR from the USB device. <ul style="list-style-type: none"> ▪ 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 settings in the DVR to a USB device. <ul style="list-style-type: none"> ▪ Export Config with network setup: Save the information including network setting one from the setting information to be exported. Export button: Save the set information in the USB.

Config > Factory Default

Reset the device setting to factory default settings.

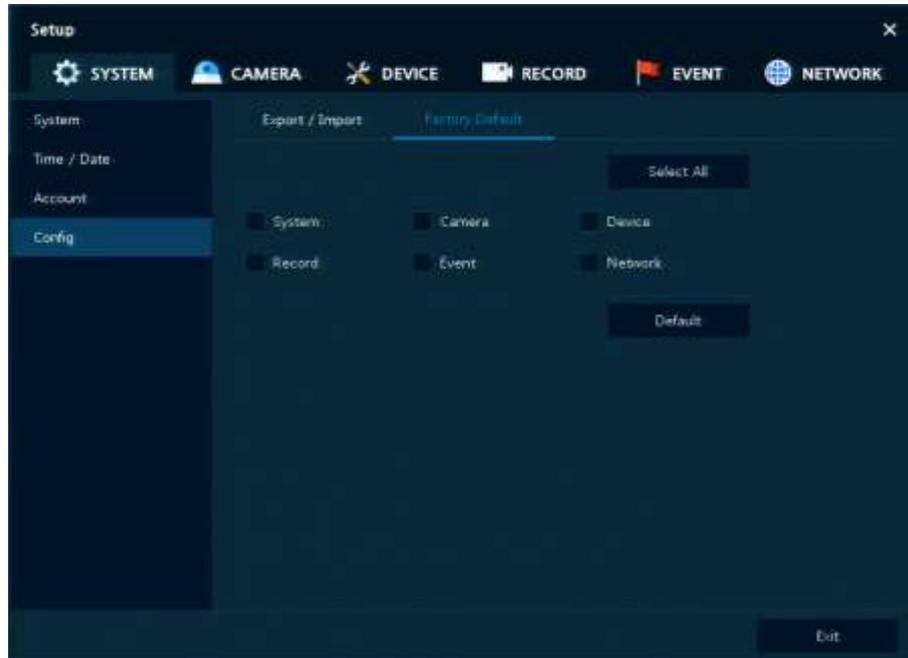


Figure 4-13 SYSTEM > Config > Factory Default

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 individual items to be defaulted.
3	Default button	Default the system to the basics.

4.3 CAMERA

Setup the camera configuration of each individual camera

4.3.1 Basic

Basic > Basic

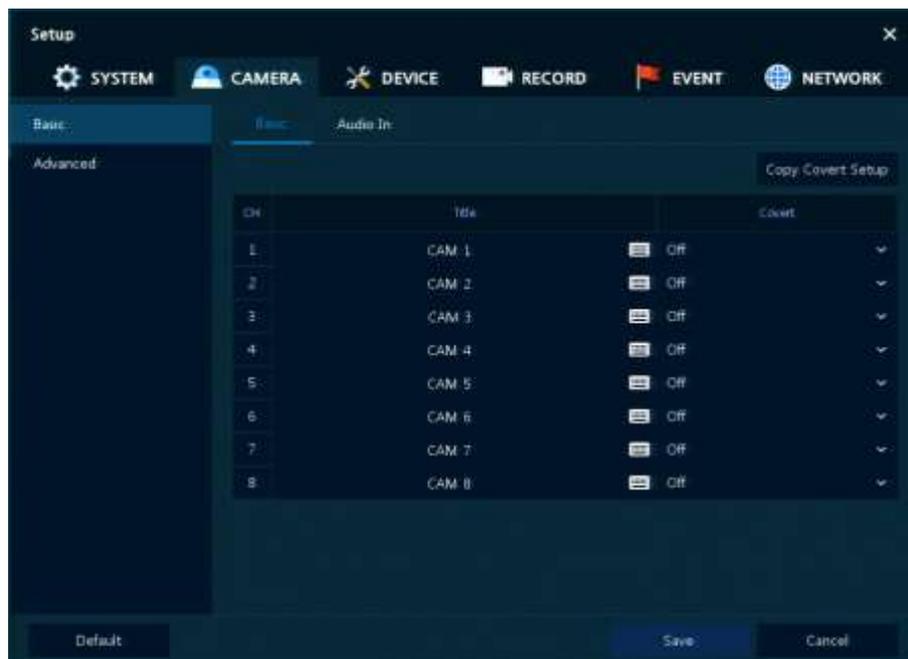


Figure 4-14 CAMERA > Basic > Basic

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

No.	Name	Function
1	CH	Shows the channel number
2	Title	Edit the camera name.
3	Covert	Select the cameras to be set in covert mode
4	Copy Covert Setup	Copy covert settings to other channels.

Press **Copy Covert Setup** button, then **Copy Covert Setup** screen displays.

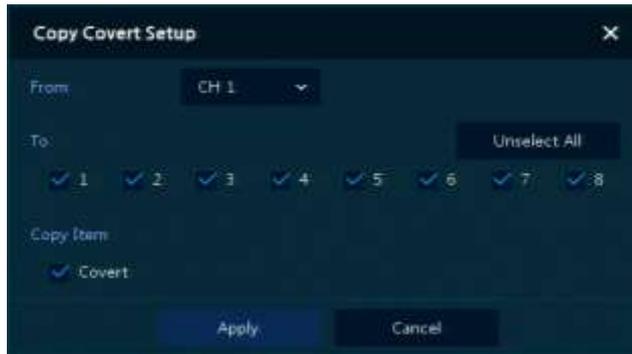


Figure 4-15 CAMERA > Basic > Basic > Copy Covert Setup

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

No.	Name	Function
1	From	Select a channel to copy settings from
2	To	Select a channels to be copied too.
3	Select All /Unselect All	Select/deselect all channels.

Basic > Audio In

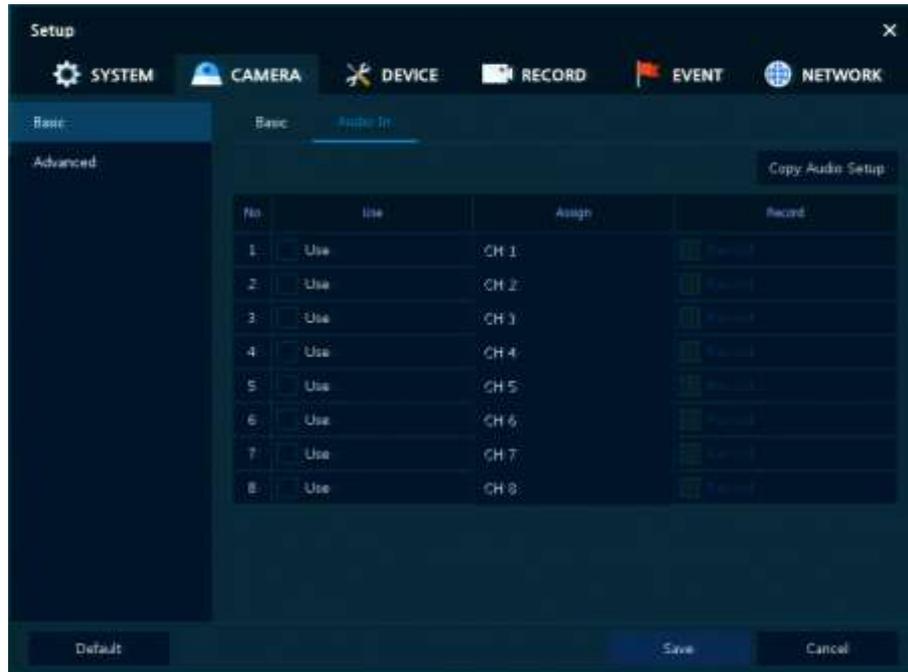


Figure 4-16 CAMERA > Basic > Audio In

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

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

4.3.2 Advanced (Video and Privacy masks)

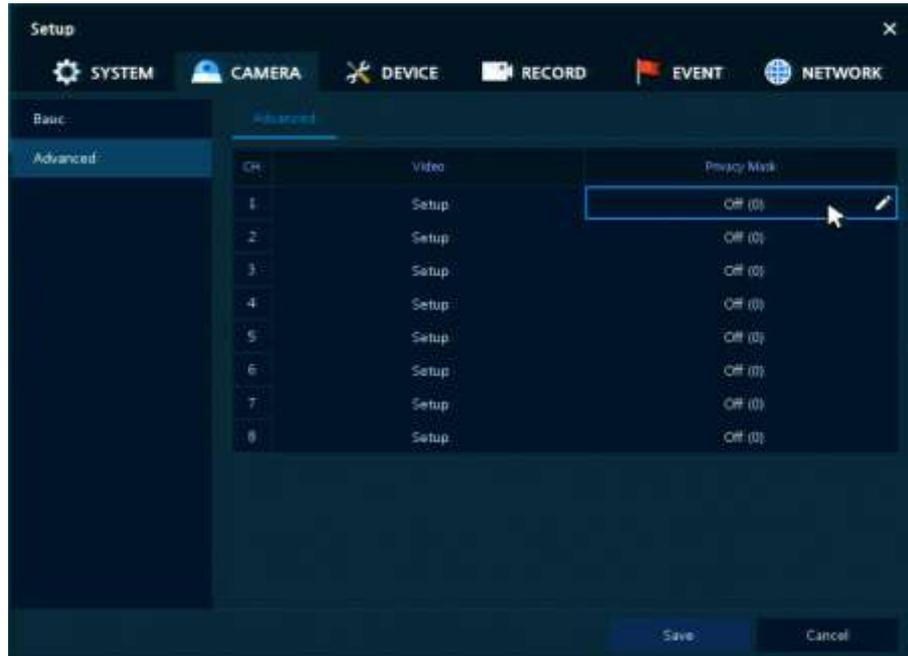


Figure 4-17 CAMERA > Advanced

Table 4-17 CAMERA > Advanced Item and Description

No.	Name	Function
1	CH	Display channel number
2	Video	Set brightness, contrast, and colour settings of the camera.
3	Privacy Mask	Set the privacy masks; display field numbers set in parenthesis (Maximum of 4 masks can be set per channel).

Setting privacy masks:



Figure 4-18 CAMERA > Advanced > Privacy Mask

Table 4-18 CAMERA > Advanced > Privacy Mask Item and Description

No.	Name	Function
1	CH	Select channels to set privacy field.
2	Privacy Mask	Click enable to allow privacy masks on the selected channel
3	New Mask	Click new mask then click and drag to create mask.
4	Delete Mask	Delete selected privacy field.

How to set Privacy Mask

Up to 4 Privacy Masks can be set for each channel, use the following method:

- 1 Press **New Mask** button. **Mask Zone** is automatically set as **Mask1**.
- 2 Click and Drag over the required area with the mouse.
 - Revision: Select Mask No. in **Mask Zone** and drag the area you want in the screen with a mouse.
 - Deletion: Select Mask No. in **Mask Zone** and click **Delete Mask**.
- 3 Press **Apply** button to complete setting.

4.4 DEVICE

This section allows the configuring of non camera external devices and HDD formatting.

4.4.1 Display

Display > Display

Set the parameters relating to the display

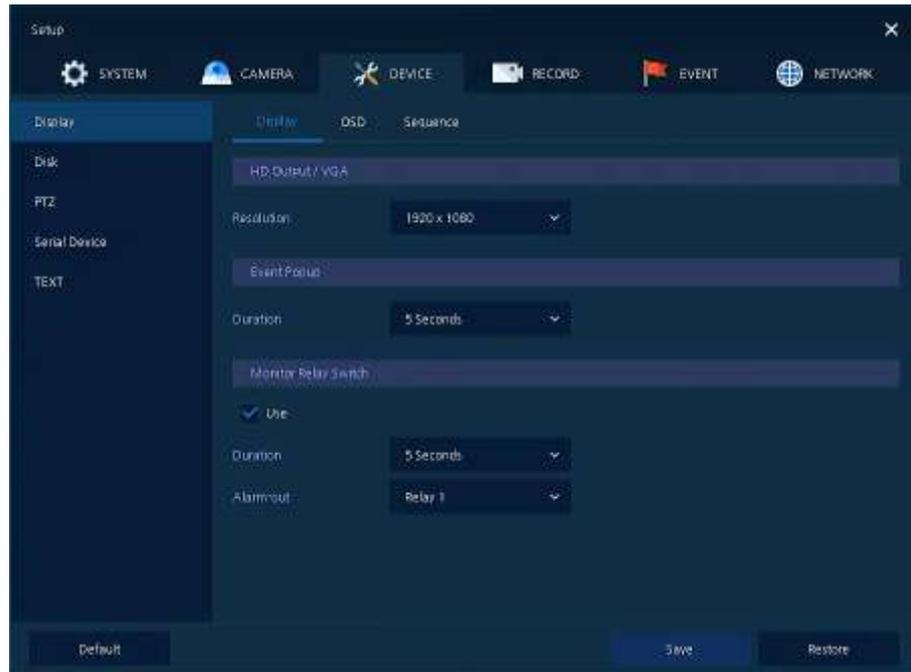


Figure 4-19 DEVICE > Display > Display

Table 4-19 DEVICE > Display > Display Item and Description

No.	Name	Function
1	HD Output/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 is changed.

Display > OSD

Set the On Screen Display settings

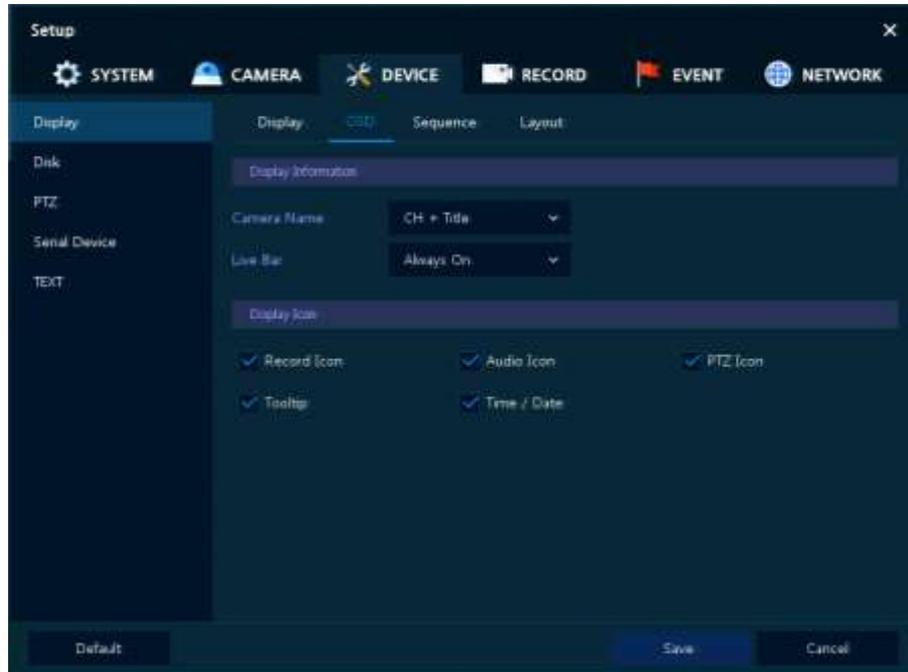


Figure 4-20 DEVICE > Display > OSD

Table 4-20 DEVICE > Display > OSD Item and Description

No.	Name	Function
1	Camera Name	Select what is displayed in the camera titles (Off, CH+Title, CH).
2	Live Bar	Select the way to display the live bar (Always On, Auto Hide).
3	Display Icon	Select/deselect the icons to be displayed on each camera split screen segment.

Display > Sequence

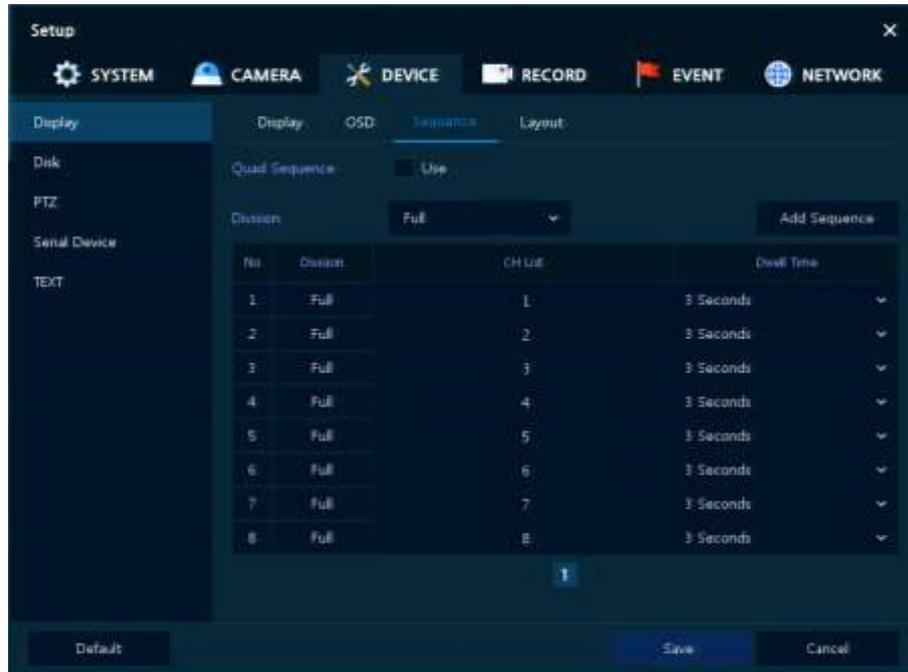


Figure 4-21 DEVICE > Display > Sequence

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

No.	Name	Function
1	Quad Sequence	Click the "use" box to allow sequence of quad 4 way displays
2	Division	Select screen partition mode to be marked in the below table (All, Full, and Quad).
3	Channel List	Displays the sequence list to be displayed.
4	Add Sequence	Add items to be included in the play sequence.
	Division	Displays as full, 2X2 (Quad).
	CH LIST	Set automatic conversion CHs. In case of choosing CH3 in No. 1, CH3 is shown in advance.
	Dwell Time	Set the remaining time for automatic conversion (3 sec~30 sec)
	Default	Reverse to changed set value in default.
		Revise the list.
		Delete the list.

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

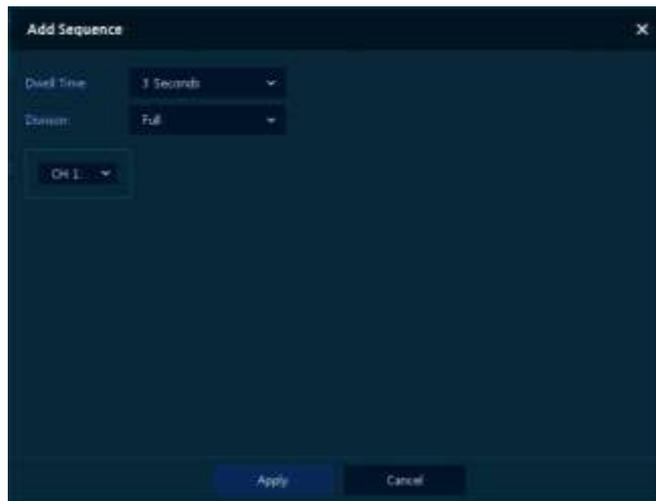


Figure 4-22 DEVICE > Display > Sequence > Add Sequence

Table 4-22 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

Device > Disk>setup

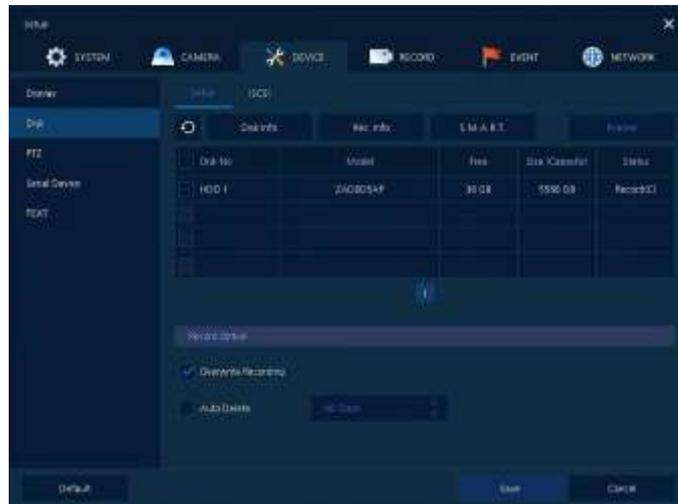
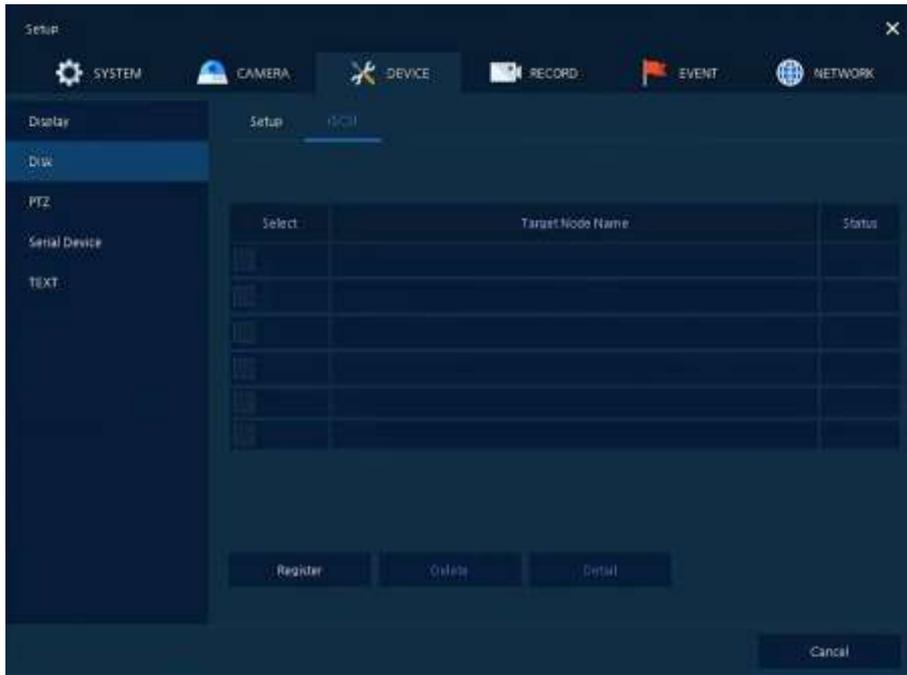


Figure 4-23 DEVICE > Disk > Setup

Table 4-23 DEVICE > Disk > Setup Item and Description

No.	Name	Function
1		Refresh disk information.
2	Disk Info	Display the basic disk information in disc list. <ul style="list-style-type: none"> 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 disc list. <ul style="list-style-type: none"> 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 disc list. <ul style="list-style-type: none"> Model: disk model name Temp.: disk temperature Alive Time: running time after turning on the disk S.M.A.R.T.: shows possible disk faults
5	Disk List	Display the disk list select/deselect disc to be formatted
6	Format	Format the disk selected.
7	Overwrite Recording	When the disks are full it will automatically overwrite the oldest information.
8	Auto Delete	Select/deselect to use the function to delete saved data automatically (1-365 days).

Device>Disk > iSCSI

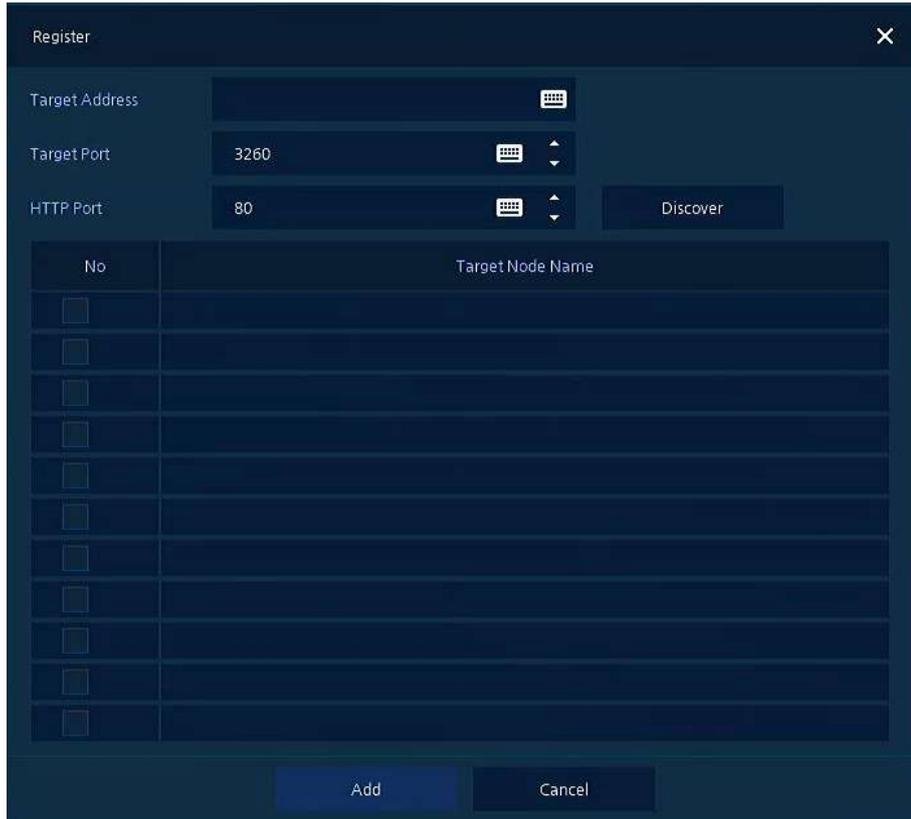


. Figure 4-24 DEVICE > Disk > iSCSI

Table 4-24 DEVICE > Disk > iSCSI Item and Description

No.	Name	Function
1	Register	Opens iSCSI registration window.
2	Delete	Delete registered iSCSI storage.
3	Detail	Display selected iSCSI IP address and port number.

Clicking **Register** displays **iSCSI register** screen.



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

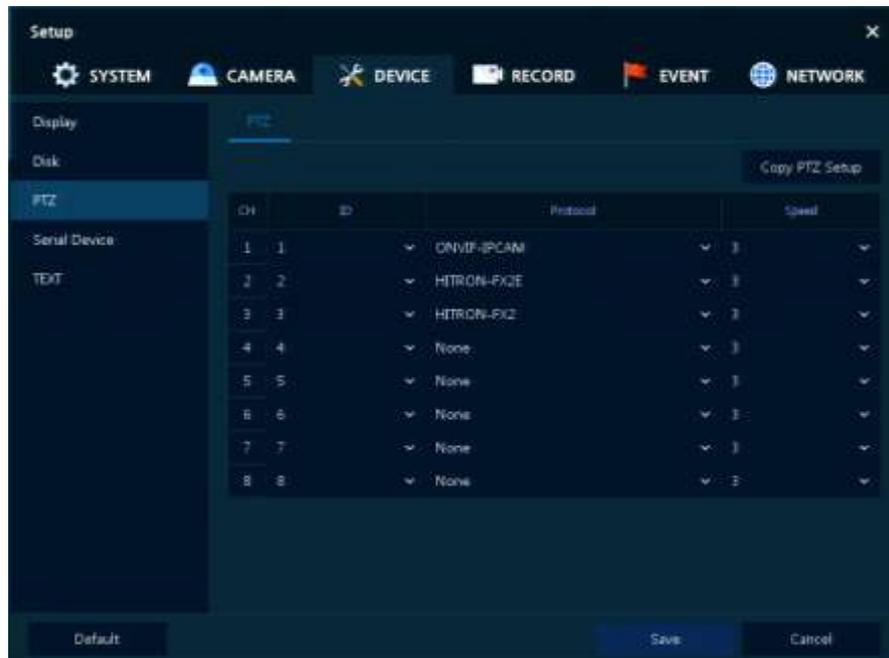


Figure 4-25 DEVICE > PTZ > PTZ

Table 4-25 DEVICE > PTZ > PTZ Item and Description

No.	Name	Function
1	Copy PTZ Setup	Apply setting history to all or selected channels in the same way.
2	CH	Display channels.
3	ID	Used for RS485 protocols only (1-255). Not relevant for up the coax protocols
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 Instruction of relevant PTZ camera.

4.4.4 Serial Device > Serial Device

Used to connect RS485 PTZ camera and USB devices to the DVR.

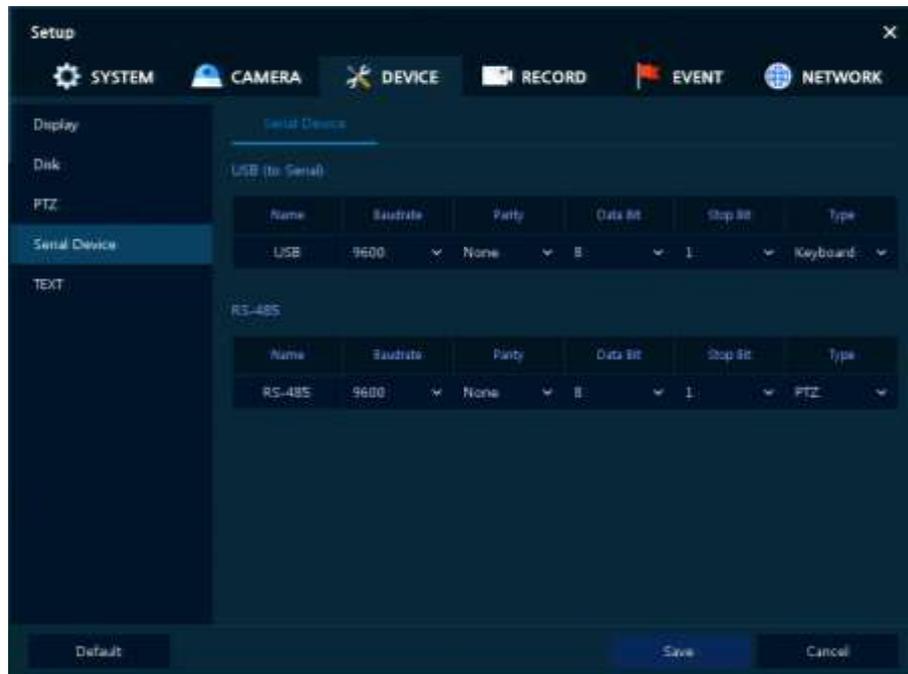


Figure 4-26 DEVICE > Serial Device > Serial Device

Table 4-26 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.

Set the communication transmission value based on the device to be connected and select the medium (PTZ, keyboard, or Text device).

4.4.5 TEXT > TEXT

Used to configure PoS and Text devices to the DVR (Example - AVE VSI-PRO Max till interface)

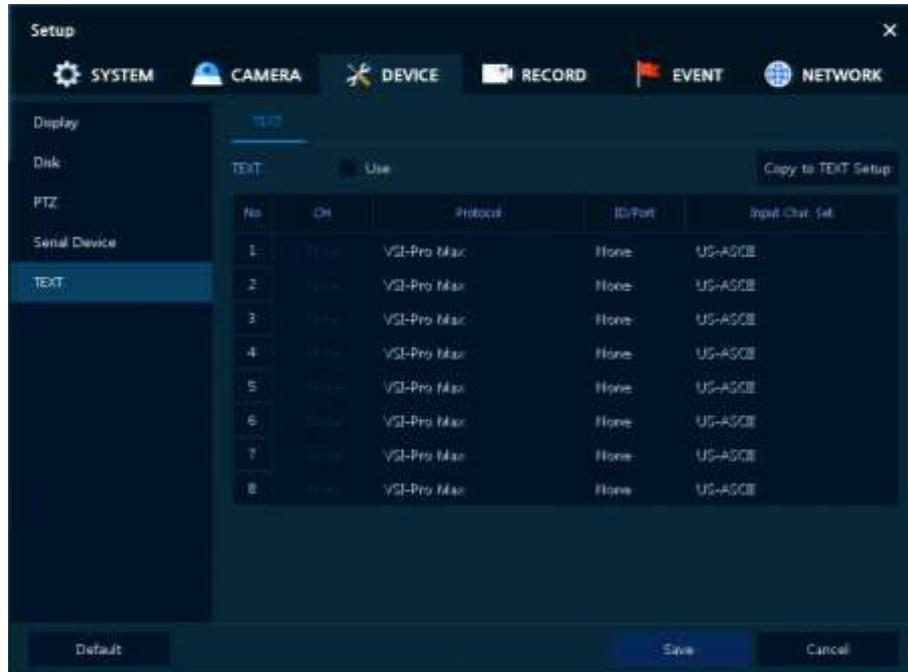


Figure 4-27 DEVICE > TEXT > TEXT

Table 4-27 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	As for connecting multiple units, duplicate set value to others.

Press **Copy to TEXT Setup** button, then **Copy to TEXT Setup** screen displays.

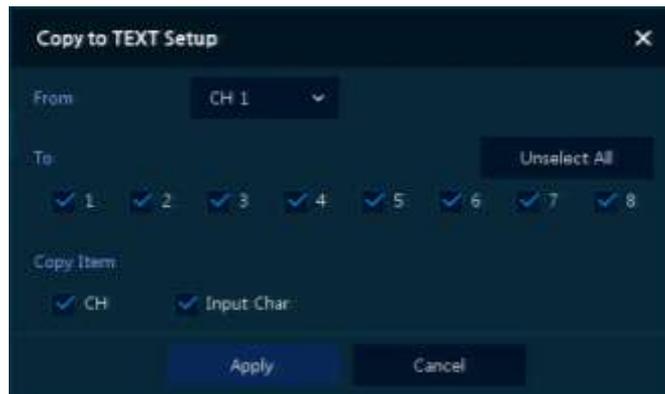


Figure 4-28 DEVICE > TEXT > TEXT > Copy to TEXT Setup

Table 4-28 ICE > TEXT > TEXT > Copy to TEXT Setup Item and Description

No.	Name	Function
1	From	Select channels 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

4.5.1 Schedule > Schedule

Each hour within each day can be allocated a different recording type

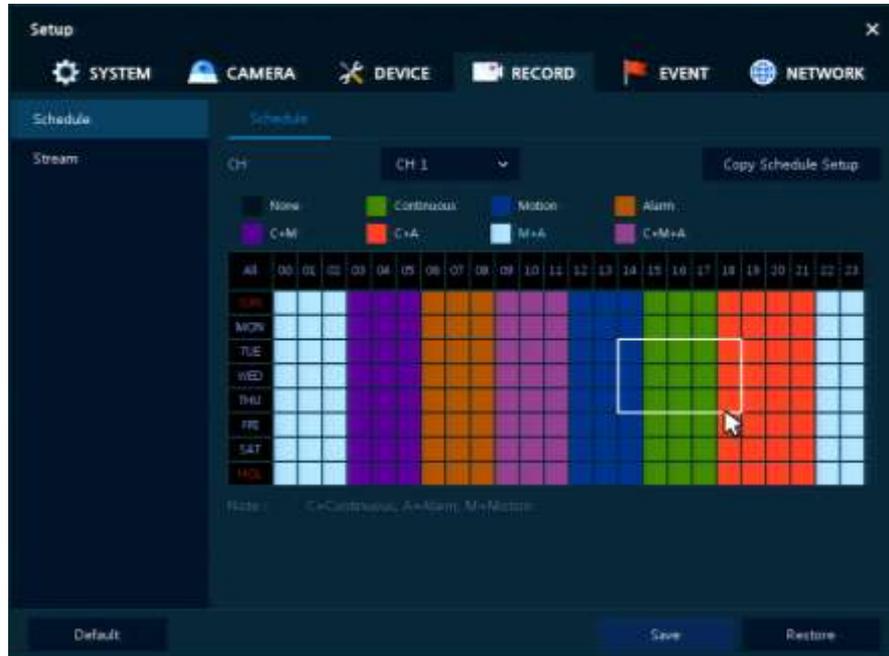


Figure 4-29 RECORD > Schedule > Schedule

Table 4-29 RECORD > Schedule > 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 Schedule Setup	Copy set recording schedule to other channels.

The function of each scheduling type involves:

Table 4-30 Function of each scheduling type

Color	Scheduling type	Function
	None	Do not record.
	Continuous	Record on consecutive mode when time set.
	Motion	Record on event recording mode when motion events occur.
	Alarm	Record on event recording mode when alarm occurs.
	C+M	Record on event recording mode when motion sensitive event occurs during consecutive mode recording.
	C+A	Record on event recording mode when alarm occurs during consecutive mode recording.
	M+A	Record on event recording mode when only alarm and motion sensitive event occur.
	C+M+A	Record on event recording mode when only alarm and motion sensitive event occur during consecutive mode recording.

The way to schedule recording across channels

- 1 Select channels to schedule.

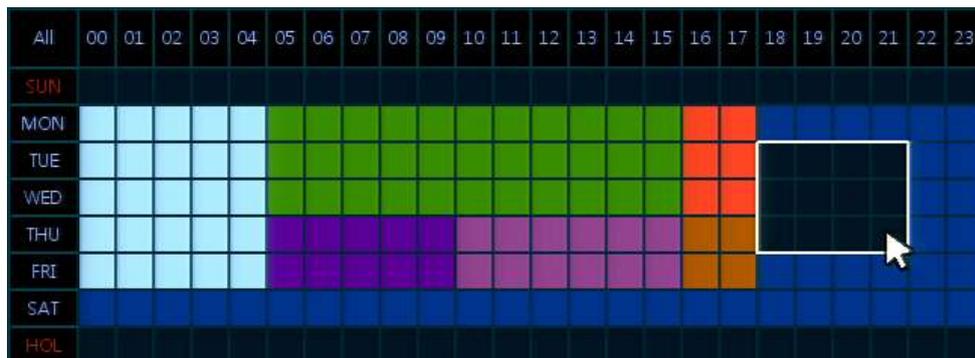


- 2 Select items in scheduling types.



- 3 Position the mouse to the schedule table.

- 4 Drag the area to be scheduled with a mouse.

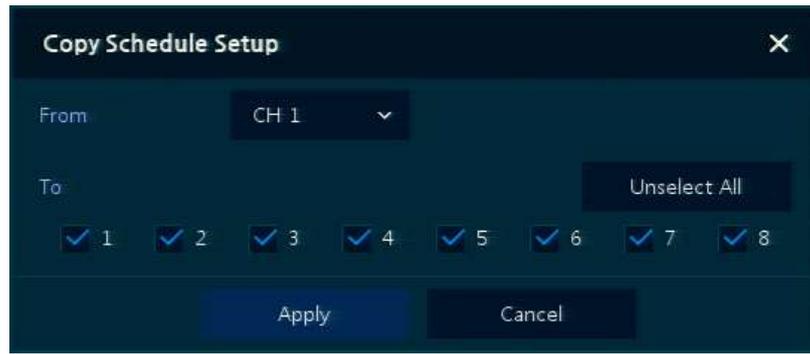


- 5 Selected field is presented as scheduling type colors.

- 6 Click **Copy Schedule Setup** if you want to copy the 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.

4.5.2 Stream

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

Stream > Main Stream

To set the image quality and resolution of Main Stream

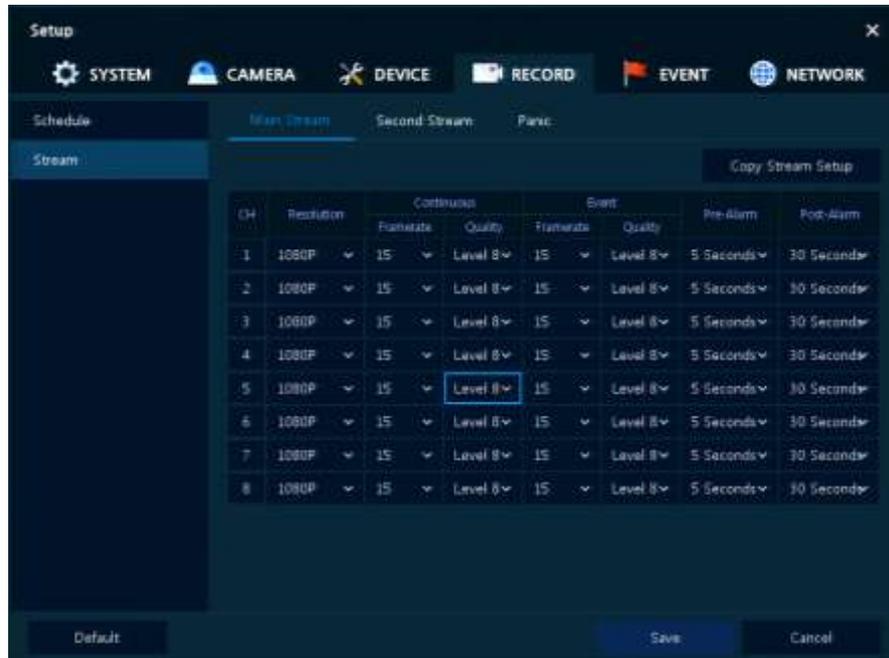


Figure 4-30 RECORD > Stream > Main Stream

Table 4-31 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 consecutive recording. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Frame Rate: recording FPS selection (1-30). Quality: recording image quality selection (Level 1-8).
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).
7	Copy Stream Setup	Copy main recording image set value to other channels.

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

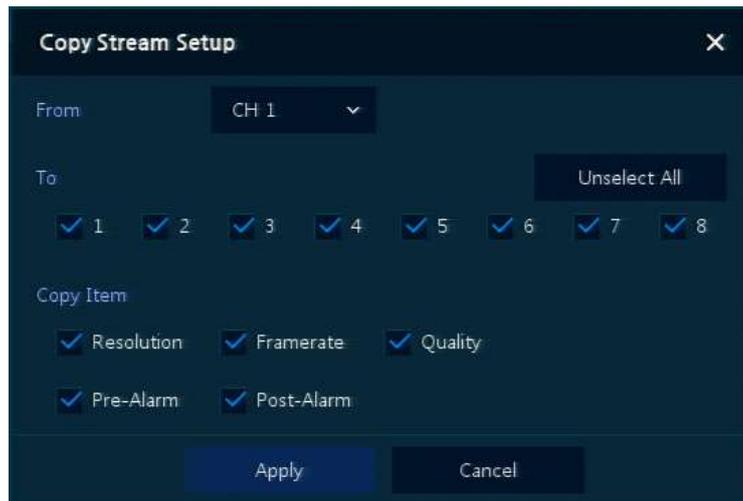


Figure 4-31 RECORD > Stream > Main Stream > Copy Stream Setup

Table 4-32 RECORD > Stream > Main Stream > Copy Stream Setup Item and Description

No.	Name	Function
1	From	Select the channel 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.

Stream > Second Stream

To set the image quality and resolution of Second Stream, used when the live or playback screen is selected.

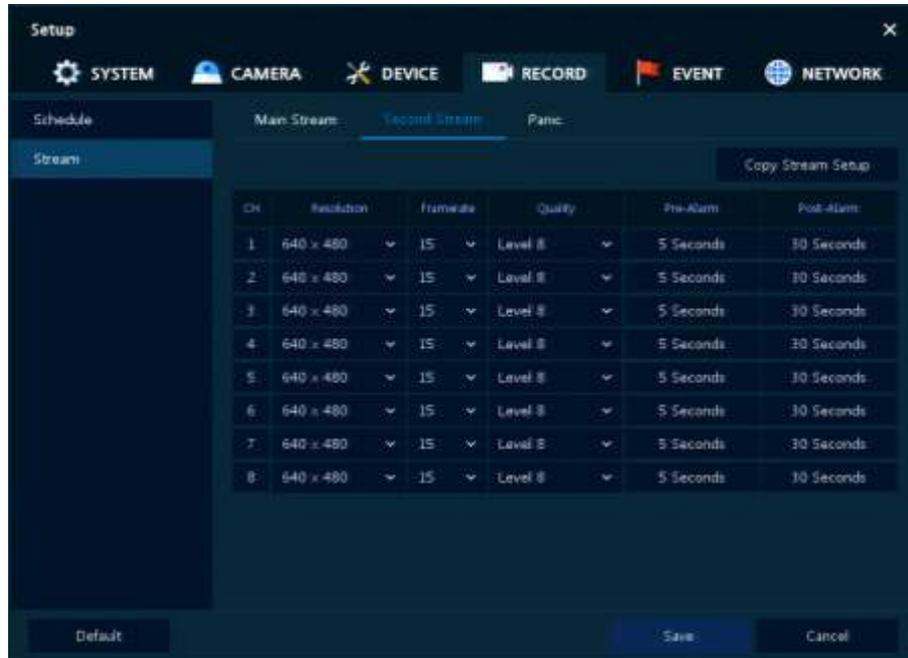


Figure 4-32 RECORD > Stream > Second Stream

Table 4-33 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, if 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 Stream."

Stream > Panic

Sets the recording parameters for the Panic Record mode

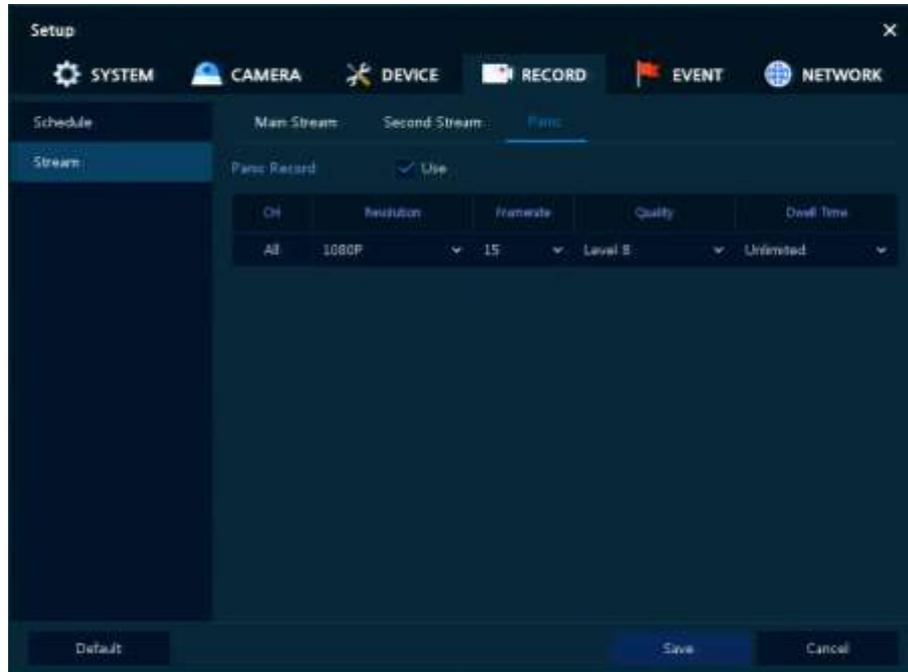


Figure 4-33 RECORD > Stream > Panic

Table 4-34 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

4.6.1 System/Disk

System/Disk > System

Used to set up general system events and the actions that occur.

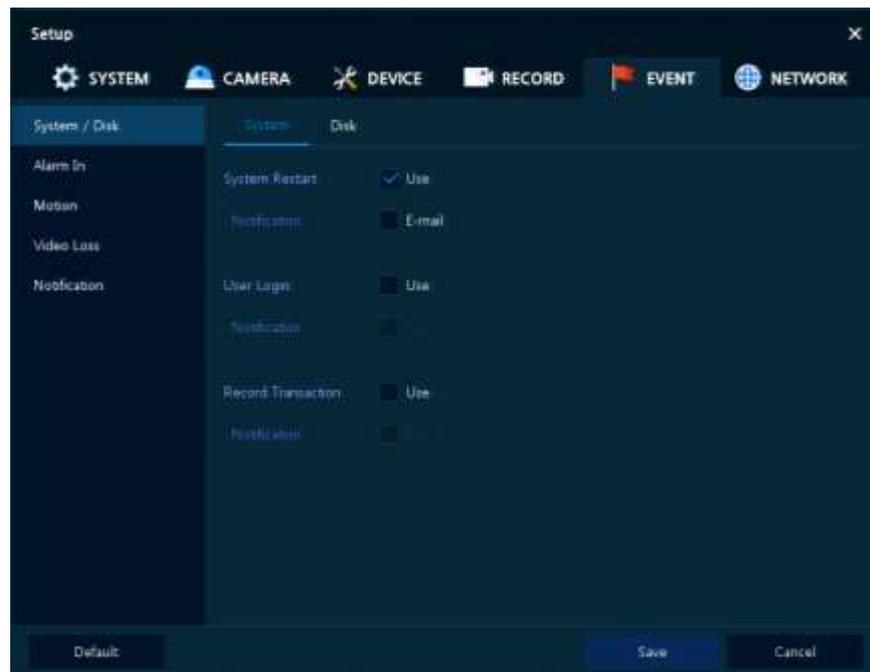


Figure 4-34 Event > System/Disk > System

Table 4-35 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 an event.
3	User Login	Select/deselect whether to use when a user logs in
4	Record Transaction	Select/deselect whether to use record transaction event occurs.

System/Disk > Disk

To set disk event

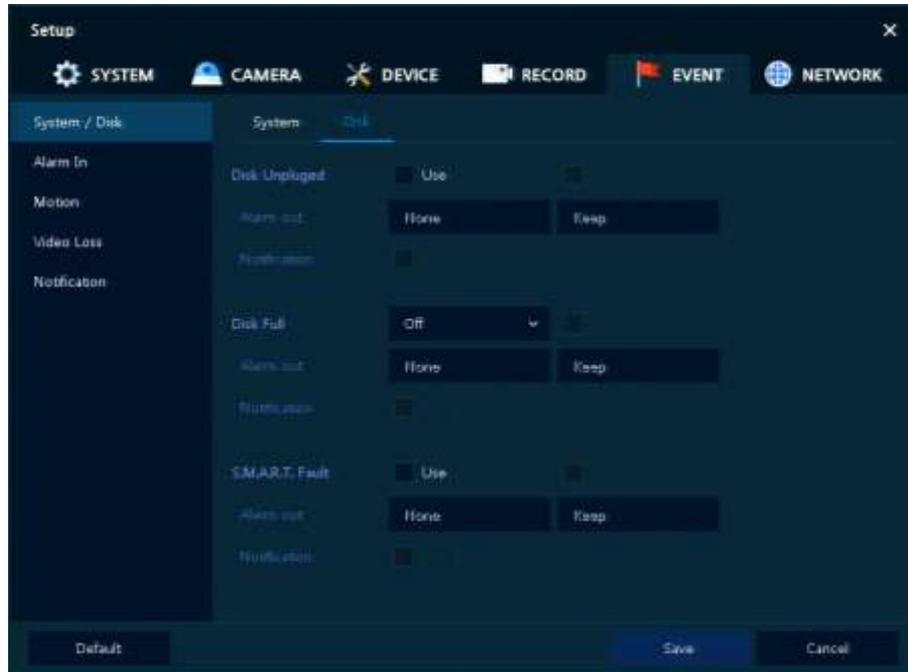


Figure 4-35 Event > System/Disk > Disk

Table 4-36 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 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

Alarm In > Setup

To set actions required on a hard wired alarm input.

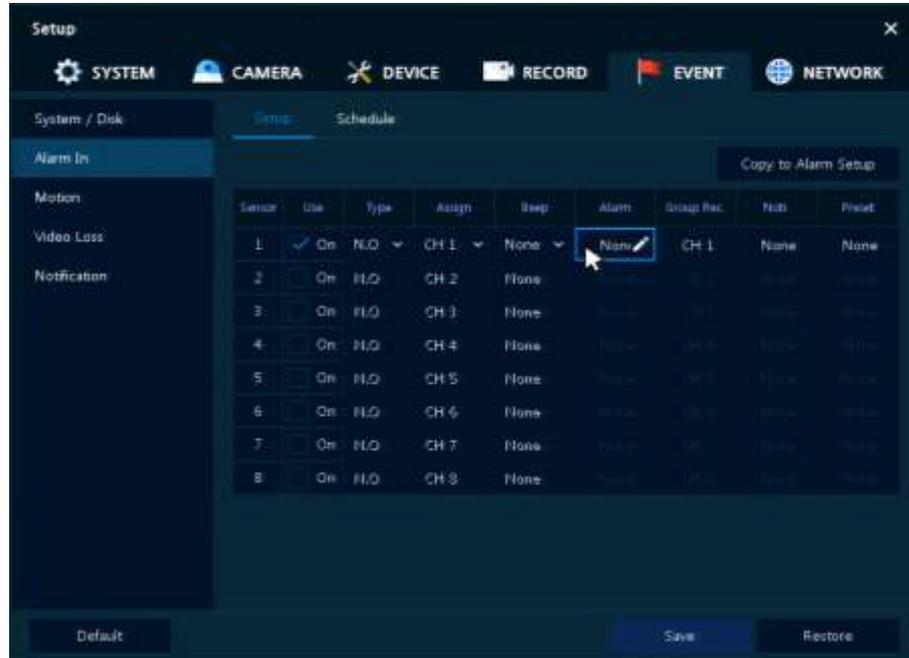


Figure 4-36 Event > Alarm In > Setup

Table 4-37 Event > Alarm In > Setup Item and Description

No.	Name	Function
1	Sensor	Displays the sensor numbers.
2	Use	Select/deselect whether to use this alarm input.
3	Type	Select sensor types (N.O, N.C).
4	Assign	Select camera channels to designate a sensor (CH 1~4/8/16, immediate recording).
5	Beep	Select the time duration of the 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 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 Stream."

Placing your mouse on **Alarm, Group Rec, Noti. Or Preset** and clicking editing Icon() in right corner displays Event : Alarm screen.

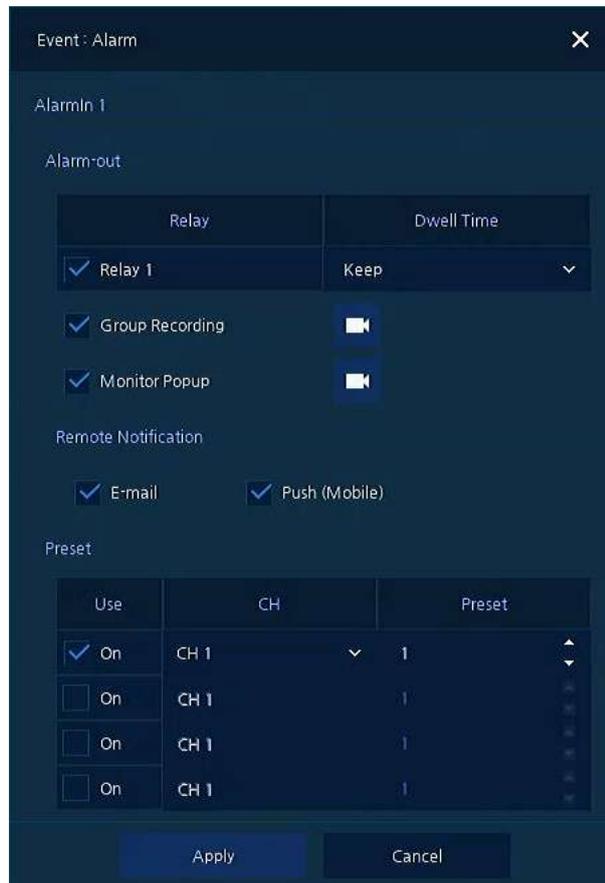


Figure 4-37 Event > Alarm In > Setup > Event : Alarm

Table 4-38 Event > Alarm In > Setup > Event : Alarm Item and Description

No.	Name	Function
1	Alarm-out	Set the alarm. <ul style="list-style-type: none"> Relay: Select/clear the Relay output checkbox. Dwell Time: Selecting 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		Simultaneous recording camera channel screen opens.
6	Remote Notification	Select/deselect whether to use remote mailing.
7	Preset	Preset of PTZ camera is running. <ul style="list-style-type: none"> Use: Select/deselect whether to use preset. CH: Select channels. Preset: Set preset value.

Alarm In > Schedule

To schedule the times during each day when the alarm inputs are active.

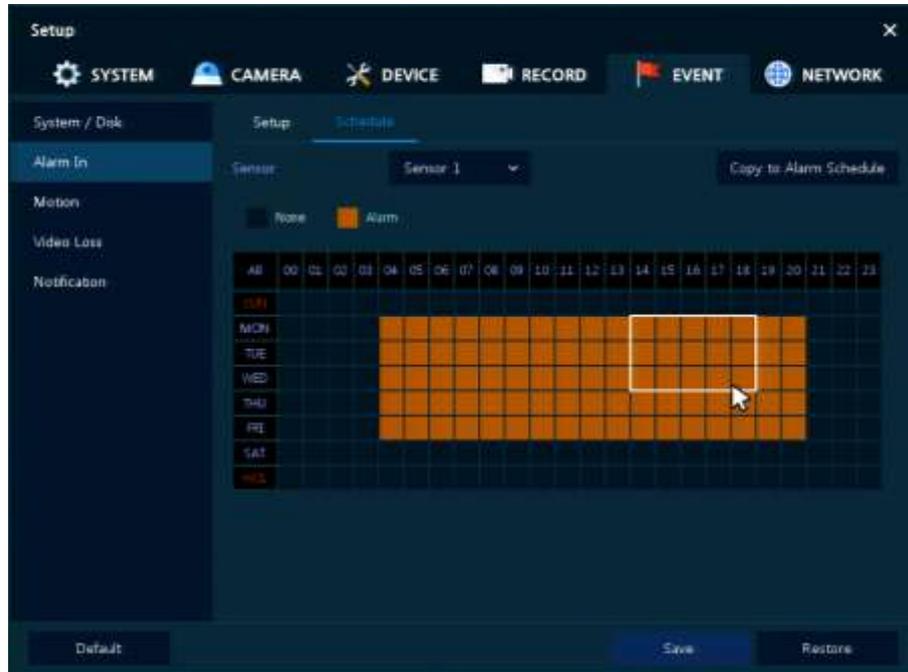


Figure 4-38 Event > Alarm In > Schedule

Table 4-39 Event > Alarm In > Schedule Item and Description

No.	Name	Function
1	Sensor	Select the alarm input to be scheduled.
2	None /Alarm	Select between active or not active
3	Schedule Table	Displays each day of the week in hourly segments
4	Drag Field	Set the areas to be set by clicking and dragging the 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 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

Motion > Setup

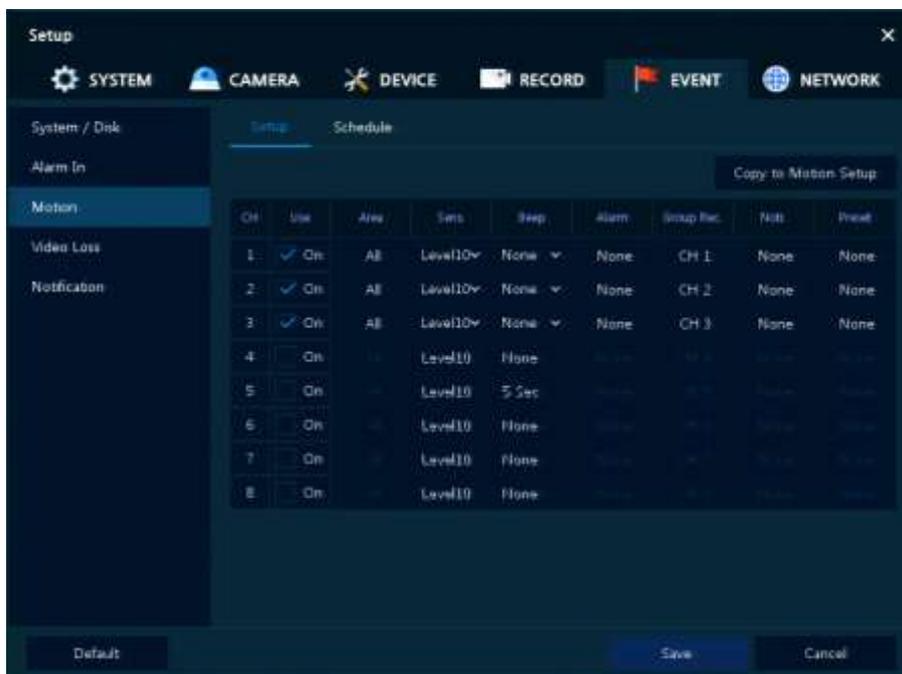


Figure 4-39 Event > Motion > Setup

Table 4-40 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 sense level of the motion sensor (Level 1~10).
5	Beep	Select the duration of the 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 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 the record times when the motion detection is active on each channel.

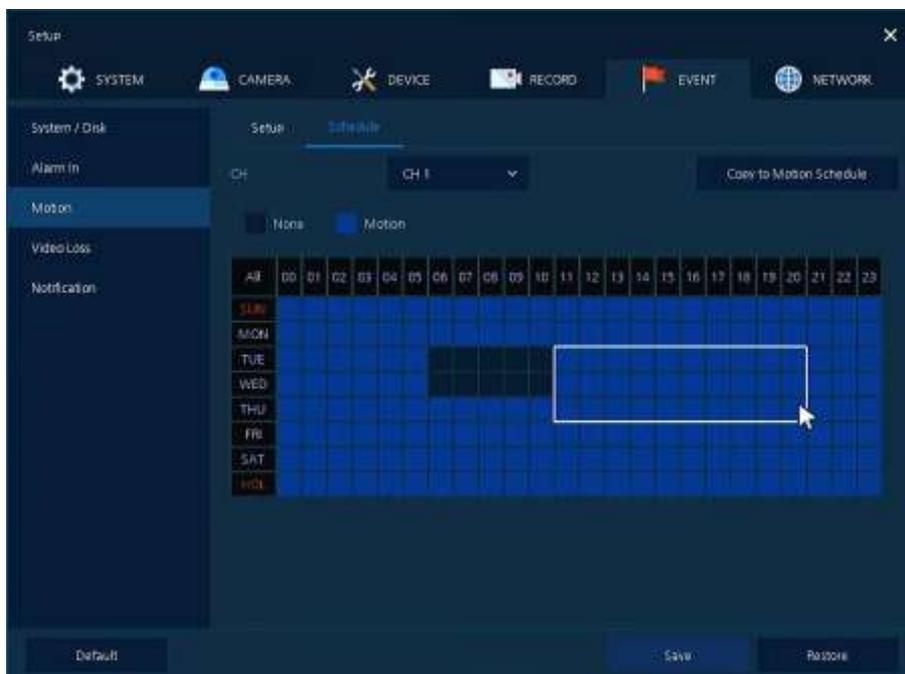


Figure 4-40 Event > Motion > Schedule

Table 4-41 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	Displays each day of the week in hourly segments
4	Drag Field	Set the areas to be set by clicking and dragging the 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 Stream."

Note For more information 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

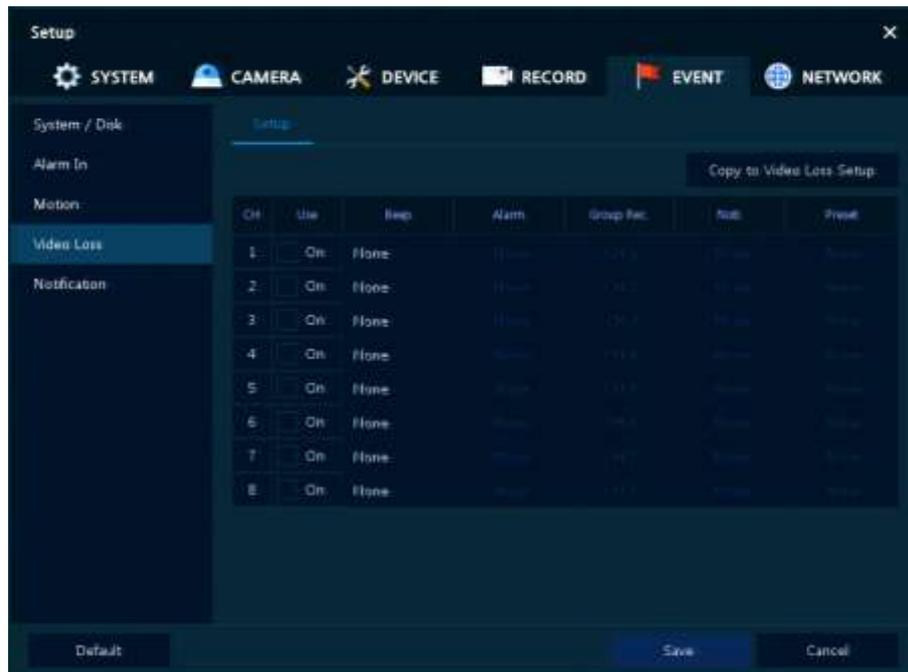


Figure 4-41 Event > Video Loss > Setup

Table 4-42 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 of 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 camera 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 Stream."

Note Placing your mouse on **Alarm, Group Rec, Noti., 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 periodical alarms

Notification > Periodic

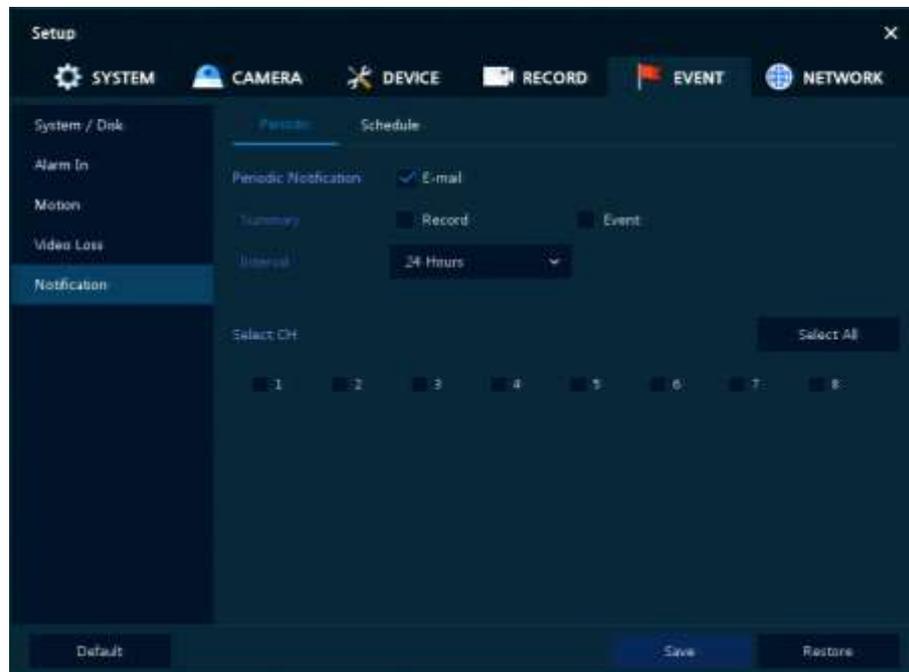


Figure 4-42 EVENT > Notification > Periodic

Table 4-43 EVENT > Notification > Periodic Item and Description

No.	Name	Function
1	Periodic Notification	Select/deselect whether to use periodical alarms
2	Summary	Send the save or event information. <ul style="list-style-type: none"> ▪ Record: sending the save information ▪ Event: sending 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.
5	Select All /Unselect All	Select/deselect all channels

Notification > Schedule

To schedule periodical alarms

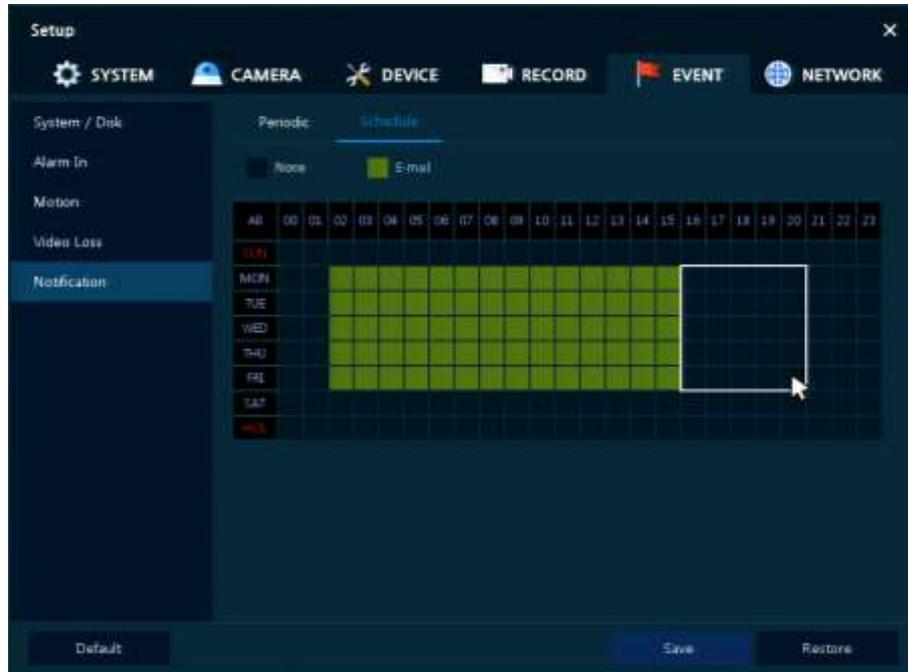


Figure 4-43 EVENT > Notification > Schedule

Table 4-44 EVENT > Notification > Schedule Item and Description

No.	Name	Function
1	Schedule Type Selection	Select the types of schedules.
2	Schedule Table	Displays each day of the week in hourly segments
3	Drag Field	Set the areas to be set by clicking and dragging the mouse.

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

4.7 NETWORK

4.7.1 Basic > WAN Port

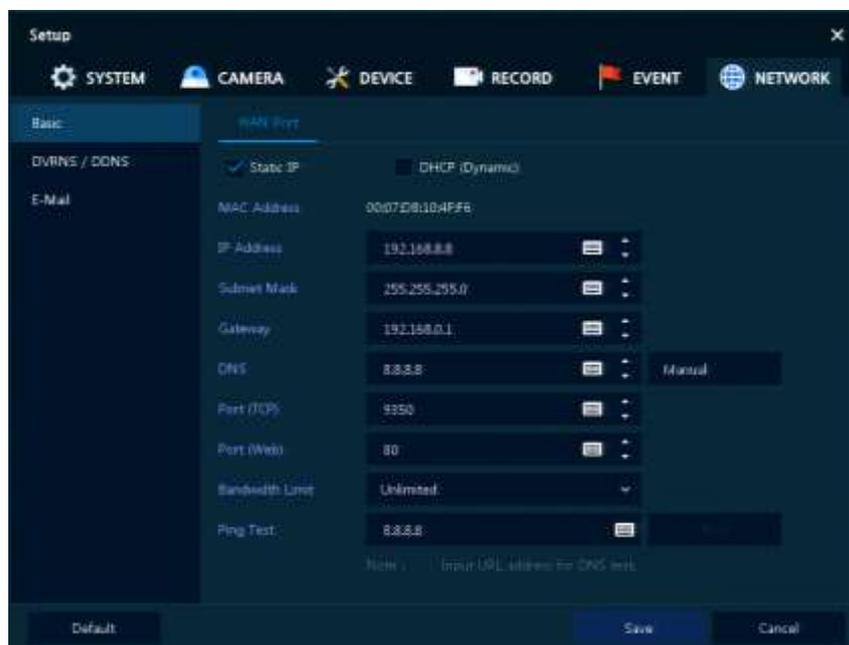


Figure 4-44 NETWORK > Basic > WAN Port

Table 4-45 NETWORK > Basic > WAN Port Item and Description

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

4.7.2 DVRNS/DDNS

DVRNS/DDNS > DVRNS/Dashboard

This allows the user to register all their VIPER devices on a remote server under a unique account. They can then login into the server to view: Live images; Set up the devices and view the status of each device.

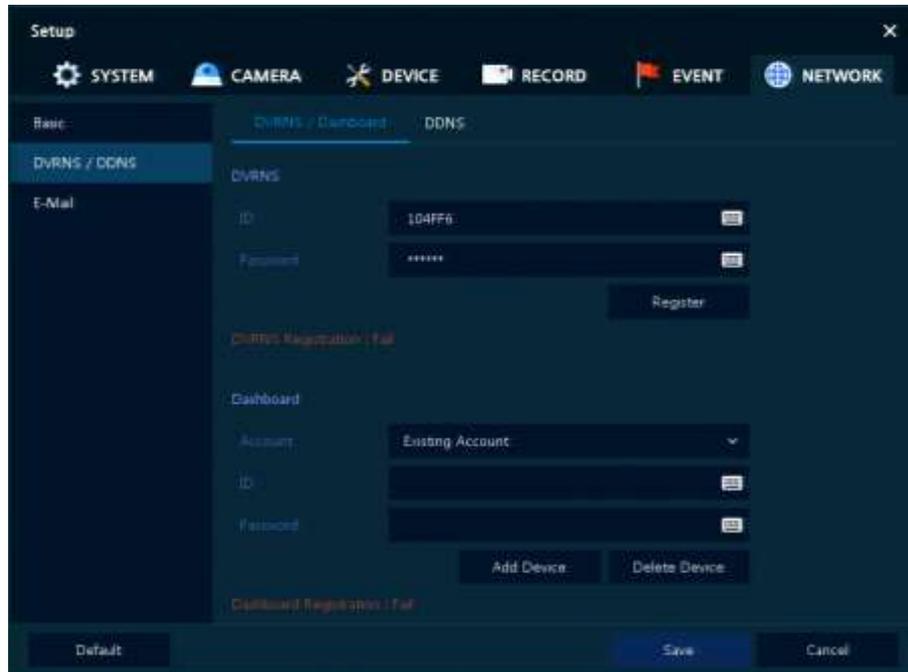


Figure 4-45 NETWORK > DVRNS/DDNS > DVRNS/Dashboard

Table 4-46 NETWORK > DVRNS/DDNS > DVRNS/Dashboard Item and Description

No.	Name	Function
1	DVRNS	Register DVRNS account <ul style="list-style-type: none"> ▪ ID: Enter DVRNS ID (default: MAC address of the unit) ▪ Password: Enter DVRNS password ▪ Register: Register DVRNS account
2	Dashboard	Add/delete Dashboard account <ul style="list-style-type: none"> ▪ 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 networking

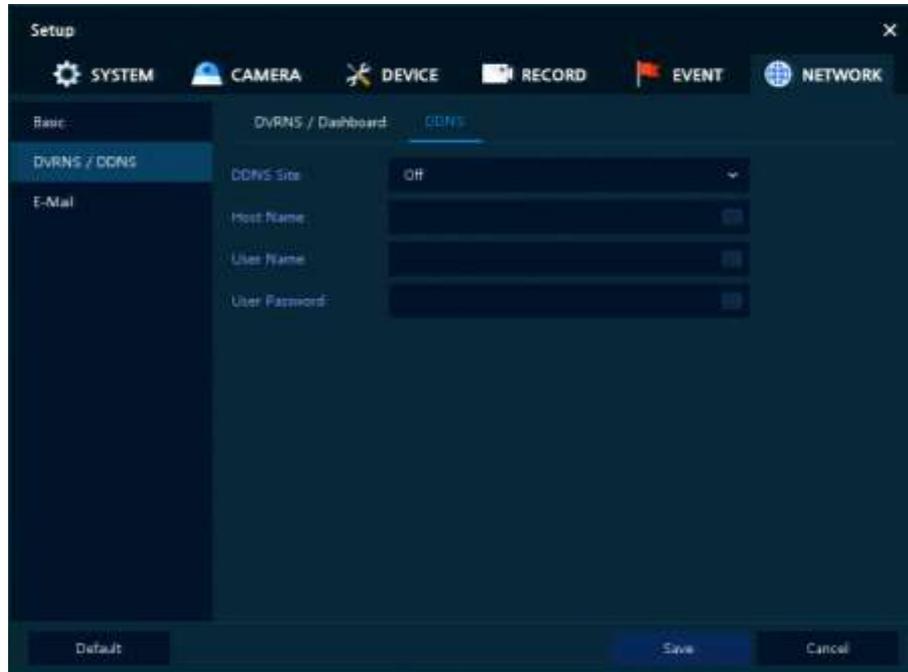


Figure 4-46 NETWORK > DVRNS/DDNS > DDNS

Table 4-47 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 when an event occurs.

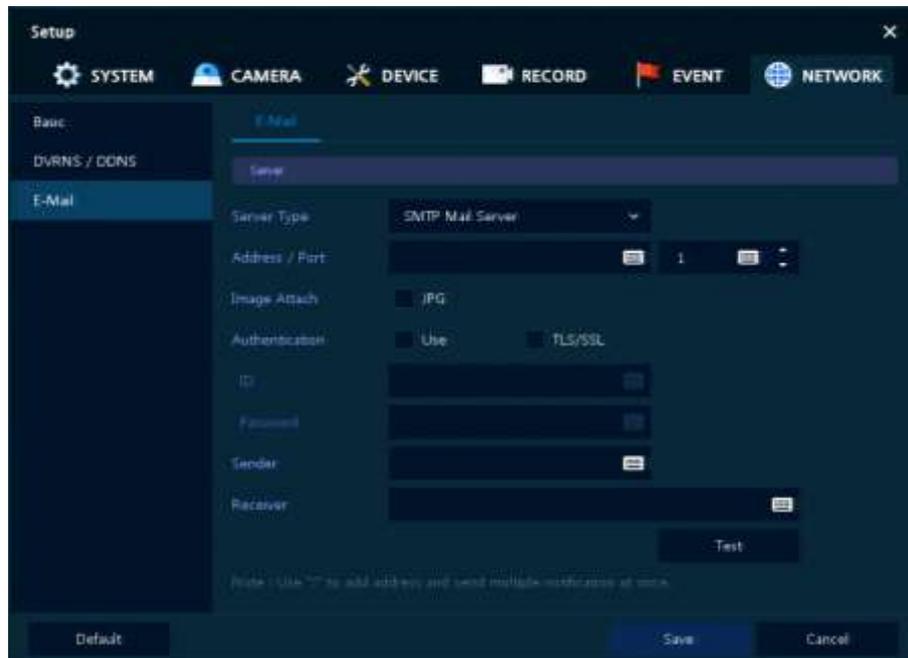


Figure 4-47 NETWORK > E-Mail > E-Mail

Table 4-48 NETWORK > E-Mail > E-Mail Item and Description

No.	Name	Function
1	Server Type	Select SMTP server. <ul style="list-style-type: none"> ▪ 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 whether the email server is set normally.

5. Search/Playback

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



Figure 5-1 Live Launcher Search, Play menu

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

No.	Item	Description
1		Searching recording data (time, event, and thumbnail).
2		Playing recorded data – go direct to playback mode.

5.1 Search

This function allows searching of recorded data via various methods: Time, Event, Thumbnail, Smart Search and Text.



Figure 5-2 Search: Time

Table 5-2 Search: Time Item and Description

No.	Item	Description
1	Calendar	Select the date to be searched
2	Time	Set the time to be viewed
3	Bookmark	Select any pre-defined bookmarks
4	Timeline	Displays the timelines across channels
5	Preview	Previewing video clips searched
6	Play	Playing video clips. For more information about Live bar, see section "5.2 Playback."
7	Cancel	Exit the search screen

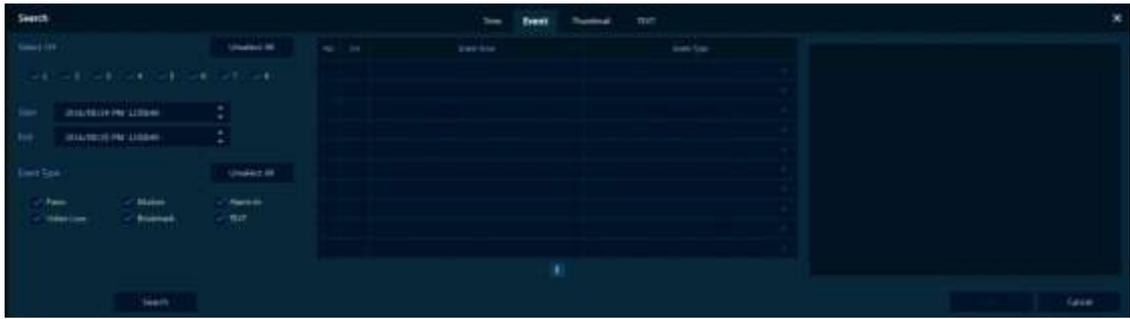


Figure 5-3 Search: Event

Table 5-3 Search: Event Item and Description

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

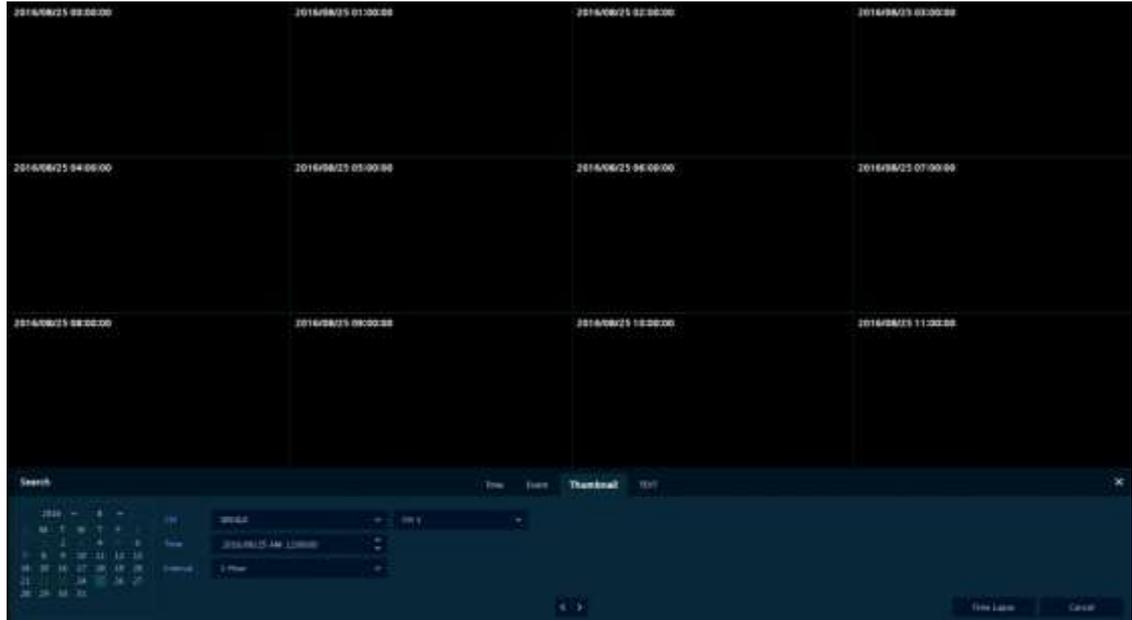


Figure 5-4 Search: Thumbnail

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 begin search
4	Interval	Setting time interval between images to be displayed
5	Time Lapse/Pause	This plays each displayed segment forward in time lapse mode
10	Cancel	Exit search screen

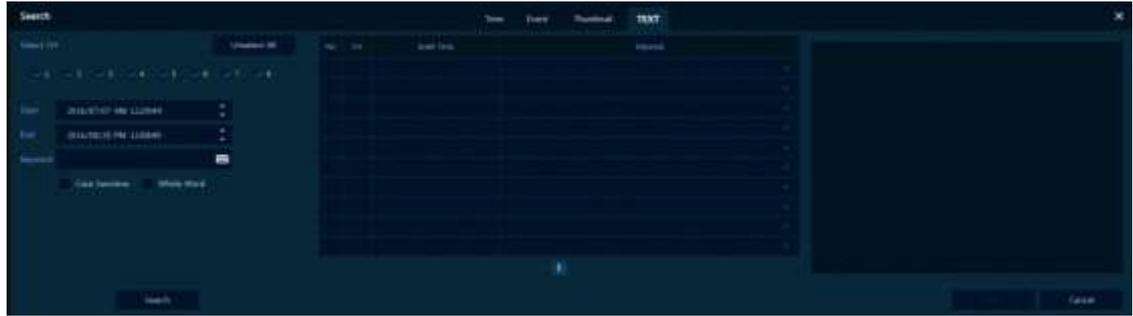


Figure 5-5 Search: Text

Table 5-5 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 the start time to search
4	End	Set the end time to search
5	Keyword	Entering keyword to search
6	Case Sensitive	Searching items in case-sensitive
7	Whole Word	Searching items that include all words
8	Search	Click to start search
9	Event List	Displaying event list searched
10	Thumbnail Field	Displaying thumbnail images of selected event
11	Play	Play the selected video clip. For more information about Live bar, see section "5.2 Playback."
12	Cancel	Exit search screen

5.2 Playback

To play recorded data



Figure 5-6 Playback Launcher

Table 5-6 Playback Launcher Item and Description

No.	Item	Description
1		Play forward
2	Date and Time	Displaying date and time of video being played
3		Moving to the first section of the video
4		Playing the videos with multiplied speed in reverse (2~64x).
5		Playing the videos with lower speed in reverse (1/2~1/8x).
6		Play and Pause (toggle).
7		Play forward at slow speeds (1/2~1/8x).
8		Fast forward (2~64x).
9		Moving to previous/next channel or multi screen
10		Selecting the partition mode to mark in the screen
11		Searching the recorded data (time, event, and thumbnail). For more information about search, see section "5.1 Search."
12		Go to Live mode
13		Opening or closing the record timelines
14		Activating/deactivating automatic hidden function of Launcher menu

6. Webviewer

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

Table 6-7 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	Over 6GB	Over 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.

Note: Default admin / admin

- Viewer: playing DVR Live images
- Setup: setting menu in similar ways with DVR connected monitor.



- 1 Click **Viewer**.



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



- 3 Live images may now be monitored.

In case of selecting Setup

Users can set the menu in similar ways with DVR connected monitor.

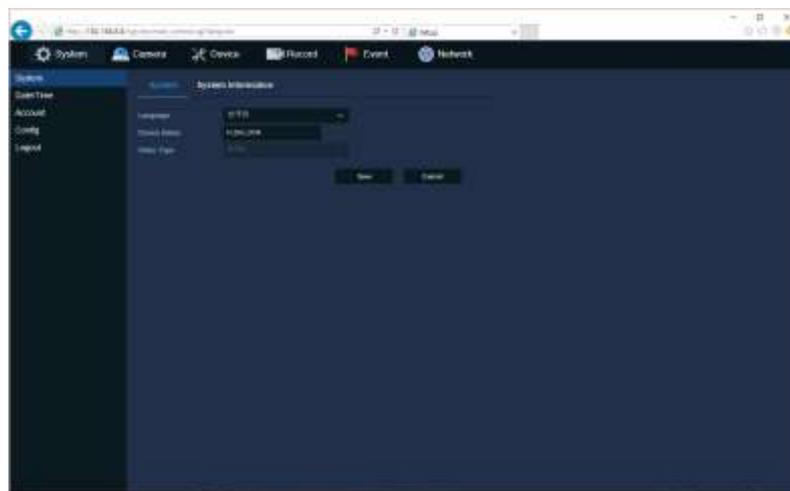


Figure 6-1 Setup screen

7. Products Specifications

Channel		8CH	16CH
VIDEO			
Video Input Channel		Up to 8ch (8 BNC, 2 IP configurable)	Up to 16ch (16 BNC, 4 IP configurable)
Video Input Type		AHD, TVI, CVBS, IP	AHD, TVI, CVBS, IP
Video Input Resolution	BNC	1080p, 720p, 960H, D1(CVBS)	1080p, 720p, 960H, D1(CVBS)
	IP	Up to 3M	Up to 3M
Display Output		1 VGA, 1 HD Output, 1 BNC(Spot, CVBS)	1 VGA, 1 HD Output, 1 BNC(Spot, CVBS)
Display Resolution	VGA, HD Output	1920x1080, 1280x720, 1024x768	1920x1080, 1280x720, 1024x768
	Spot	1.0 Vp-p (75 ohm, Composite)	1.0 Vp-p (75 ohm, Composite)
Display Speed		200/240fps	400/480fps
Display Mode	VGA, HD Output	1/4/9 Split, PIP, Sequence	1/4/9/16 Split, PIP, Sequence
	Spot	1/8 Split, Sequence	1/16 Split, Sequence
RECORDING			
Compression		H.264	H.264
Recording Resolution	BNC	1080p, 720p, 960H	1080p, 720p, 960H
	IP	Up to 3M	Up to 3M
Recording Speed		Main stream : 200/240fps@1080p Sub Stream : 200/240fps@VGA	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	Continuous, Motion, Alarm, C+M, C+A, M+A, C+M+A, Panic
Pre Alarm		1sec ~ 5sec	1sec ~ 5sec
Post Alarm		5sec ~10Min	5sec ~10Min
PLAYBACK			
Simultaneous Playback		1/4/9 Split	1/4/9/16 Split
Playback Mode		Backward, Forward 2x~64x	Backward, Forward 2x~64x
Search Mode		Time, Event, Thumbnail, Text, Smart(motion)	Time, Event, Thumbnail, Text, Smart(motion)
STORAGE			
Internal HDD		2 SATA Interfaces	2 SATA Interfaces
External Storage		iSCSI	iSCSI
Backup		USB, Cloud	USB, Cloud

Backup File Format	AVI, H4V, MP4	AVI, H4V, MP4
FUNCTION		
PTZ & OSD Control	RS485, UTC	RS485, UTC
Text In	POS/ATM(Network, RS485, USB)	POS/ATM(Network, RS485, USB)
User Interface	Mouse, USB/RS485 Keyboard	Mouse, USB/RS485 Keyboard
NETWORK		
Ethernet	1 RJ45 10/100/1000 Base-T	1 RJ45 10/100/1000 Base-T
Max. Network Throughput	Unlimited (Guarantee 144Mbps, Support Bandwidth Control)	Unlimited (Guarantee 288Mbps, Support Bandwidth Control)
Remote Monitoring	CMS, Mobile, Web, Dashboard	CMS, Mobile, Web, Dashboard
EXTERNAL IN/OUT		
Audio	4 RCA Input / 1 RCA Output, 1 HD Output	4 RCA Input / 1 RCA Output, 1 HD Output
Alarm	4 Input / 1 Output(Terminal block)	4 Input / 1 Output(Terminal block)
Serial Port	1 RS485(Terminal block)	1 RS485(Terminal block)
USB	2 USB(front)	2 USB(front)
ETC		
Operating Humidity	0 ~ 90% RH (Non-condensing)	0 ~ 90% RH (Non-condensing)
Operating Temperature	0°C ~ +45°C	0°C ~ +45°C
Power Supply	12VDC, 3A	12VDC, 5A
Power Consumption	Max. 28.8W(Include 2HDD)	Max. 36W(Include 2HDD)
Dimension(WxHxD)	375x44.9x318.2mm	375x44.9x318.2mm
Net Weight	1.7Kg(Exclude HDD)	1.8Kg(Exclude HDD)

※ Specifications are subject to change without notice.



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Version 1.0