# **USER MANUAL**

# 4/8/16Ch NVR (Network Video Recorder)

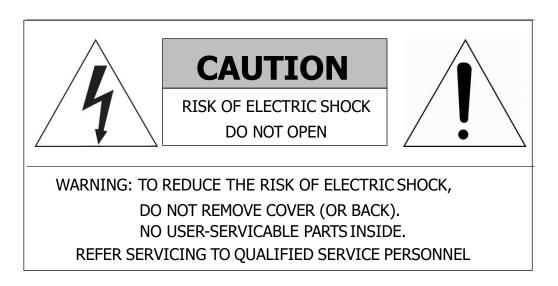
Please read this manual thoroughly before use and keep it handy for future reference

# WARNING (AVERTISSEMENT)

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

(POUR RÉDUIRE LE RISQUE D'INCENDIE OU D'ÉLECTROCUTION, N'EXPOSEZ PAS CE PRODUIT À LA PLUIE OU À L'HUMIDITÉ. NE PAS INSÉRER D'OBJET MÉTALLIQUE À TRAVERS LES GRILLES DE VENTILATION OU AUTRES OUVERTURES SUR L'ÉQUIPEMENT.)

# 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 tocomply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protectionagainst 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 interferenceat 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 CAN 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 causeradio 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** (CONSIGNES DE SÉCURITÉ IMPORTANTES)

- 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 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. 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 injury 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 instructions unless you are qualified to do so.
- 16. Use satisfy clause 2.5 of IEC UL-62368 or Certified/Listed Class 2 power source only.
- 17. ITE is to be connected only to PoE networks without routing to the outside plant.
- 18. The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802-3af shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL62368-1.
- 19. Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.
- 20. CAUTION : Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

- 2. Conservez ces instructions.
- 3. Tenez compte de tous les avertissements.
- 4. Suivez toutes les instructions.
- 5. N'utilisez pas cet appareil près de l'eau.
- 6. Nettoyez uniquement avec un chiffon sec.
- 7. Ne bloquez aucune ouverture de ventilation. Installer conformément aux instructions du fabricant.

<sup>(1.</sup> Lisez ces instructions.

8. Ne l'installez pas à proximité de sources de chaleur telles que des radiateurs, des registres de chaleur, des cuisinières ou d'autres appareils (y compris des amplificateurs) produisant de la chaleur.

9. N'annulez pas l'objectif de sécurité de la fiche polarisée ou de mise à la terre. Une fiche polarisée a deux lames dont l'une est plus large que l'autre. Une fiche de type mise à la terre a deux lames et une troisième broche de mise à la terre. La lame large ou la troisième dent est prévue pour votre sécurité. Si la fiche fournie ne rentre pas dans votre prise, consultez un électricien pour remplacer la prise obsolète.

10. Protégez le cordon d'alimentation contre les piétinements ou les pincements, en particulier au niveau des fiches, des prises de courant et du point de sortie de l'appareil.

11. Utilisez uniquement les pièces jointes/accessoires spécifiés par le fabricant.

12. Utiliser uniquement avec le chariot, le support, le trépied, le support ou la table spécifié par le fabricant ou vendu avec l'appareil. Quand un chariot est utilisé, soyez prudent

lors du déplacement de la combinaison chariot/appareil pour éviter les blessures dues au renversement.

13. Débranchez cet appareil pendant les orages ou lorsqu'il n'est pas utilisé pendant de longues périodes. 14. Confiez toutes les réparations à un personnel qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque manière que ce soit, comme le cordon d'alimentation ou la prise est endommagé, du liquide a été renversé ou des objets sont tombés dans l'appareil, l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas normalement, ou a été supprimé.

15. ATTENTION : Ces instructions d'entretien sont destinées à être utilisées uniquement par du personnel d'entretien qualifié. Pour réduire le risque de choc électrique, n'effectuez aucun entretien autre que celui contenu dans les instructions d'utilisation, sauf si vous êtes qualifié pour le faire.

16. Utilisez uniquement une source d'alimentation conforme à la clause 2.5 de la norme CEI UL-62368 ou certifiée/homologuée de classe 2.

17. ITE doit être connecté uniquement aux réseaux PoE sans routage vers l'installation extérieure.

18. Le concentrateur de réseau local câblé fournissant une alimentation par Ethernet (PoE) conformément à la norme IEEE 802-3af doit être un appareil homologué UL dont la sortie est évaluée comme une source d'alimentation limitée telle que définie dans la norme UL62368-1.

19. L'unité est destinée à être installée dans un environnement réseau 0 tel que défini dans la norme CEI TR 62102. Ainsi, le câblage Ethernet associé doit être limité à l'intérieur du bâtiment.

20. ATTENTION : Risque d'explosion si la batterie est remplacée par un type incorrect. Jetez les piles usagées conformément aux instructions.)

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### 1. Overview

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

This manual introduces a network video recorder (NVR) which monitors or record, controls images via a network 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
- IP camera input 4/8/16 channels
- Providing H.264 and H.265 compression
- Up to 4K real time recording
- HDD information and status presentation
- HDD overwriting
- Simultaneous recoding and playing of 4/8/16 channels
- Various search mode (time, event, thumbnail, smart search, text and VCA)
- 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

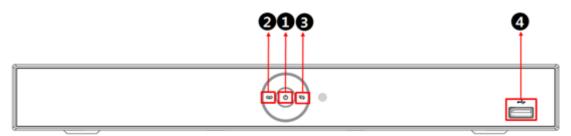
The device package contents consist of the following:

∕!∖ Note	Please check all components involved.
----------	---------------------------------------

No.	Name	No.	Name
1	NVR	2	DC Power Adapter(4/8ch) & Power cord
3	Mouse	4	SATA power cable
5	SATA cable	6	Rack mount bracket & screws (option)
7	HDD fixing screw	8	Quick guide

### **1.2 NVR Description**

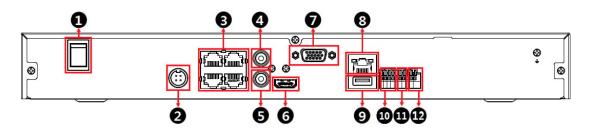
Each part is listed in the below:



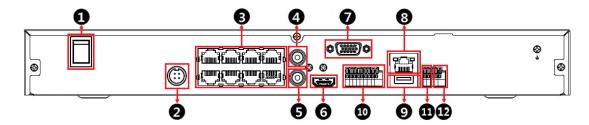


No.	Name Function	
1	Power status LED	Pointing out device on/off.
2	Recording status LED	Pointing out recording in process.
3	Network LED	With a network viewer, pointing out network in connection.
4	USB port	USB port is connected for USB mouse or firmware upgrade, and data back-up.

#### 4CH NVR



#### 8CH NVR



#### **16CH NVR**

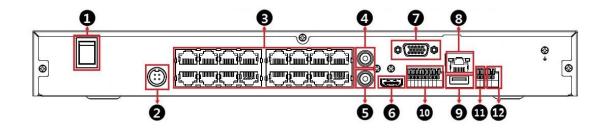


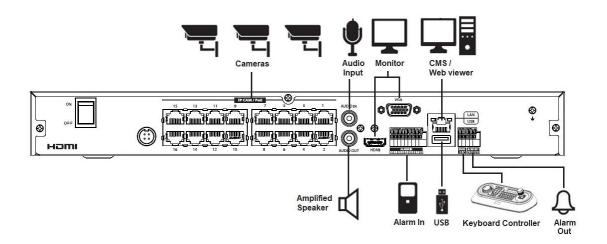
Figure 1-2 Name and Connection of rear section of 4ch, 8ch and 16ch NVR

No.	Name	Function
1	Power Switch	Power On-Off.
2	DC48V	DC Adapter input port.
3	IP CAM / PoE	IP camera input port, IEEE802.3at PoE support.
4	Audio In	Audio input port.
5	Audio Out	Audio output port.
6	HDMI	HDMI output port.
7	VGA	VGA output port.
8	Network	Network connector.
9	USB	USB port is connected for USB mouse or firmware upgrade, and data back-up.
10	Alarm In	Alarm In connector.
11	RS485	RS-485 communication connector.
12	Alarm Out	Alarm Out connector.

# 2. Installation

This chapter describes the way to install NVR.

When installing a device, connect rear of the device with each port on the basis of below connection map.



#### Figure 2-1 Connection map

The device starts first like below sequences:

- 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
 Withdraw the main plug before installing HDD to reduce the risk of injury or 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 with 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 in a stable flat surface.
- 2. Make a room between front/rear sides of the device not to break connectors.

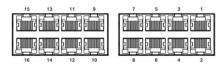
Do NOT install the device too close to the wall. Protrusive connects rear the unit may be forcedly curved or pressed, which cause fires, electric shocks, or injury.

3. Check to switch off and unplug the unit.



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

4. Connect input ports of IP camera.



Note

Connecting a camera port with the unit automatically detects the camera.

5. Connect audio input and output port with a mic and speaker.



Note

Assure regulations in the area whether recording to be legal or not.

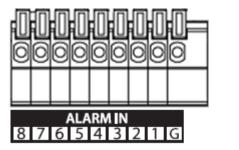
- 6. Connect a monitor with VGA or HDMI port.
- VGA

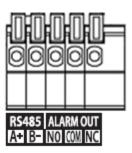


7. Connect a network port.



8. Connect an alarm and RS485 device.





9. Connect USB port for data back-up.



10. Supply the main power after completion.



Power Switch

### 2.3 Starting System

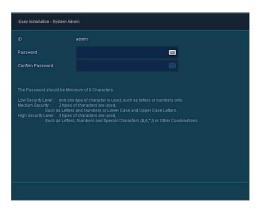
Power supply begins with system operation as follows:

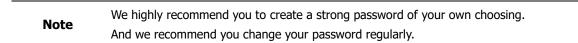
1. Switching on initialize with below icons in order.



**Note** Installing new HDD might take more initialize time.

- 2. With buzzer sounds, the start screen is presented.
- 3. Create password and input the password in the password field and confirm the password.





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

		×
admin	*	
Forgot Password		



### 2.4 Quick Setup

First start of the system operates Easy Installation as follows:

- 1. Account
- 2. Password Reset
- 3. System
- 4. Network
- 5. Time/Date
- 6. Auto Upgrade
- 7. Easy Installation Wizard

#### 2.4.1 Account

How to set Account of Easy Installation:

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

			>
Name	admin		
ID	admin	Ē	
Password		C	
3. It contains at least o 4. It contains at least o its length must be at lea			^8*0-+
3. It contains at least o 4. It contains at least o its length must be at lea	ne special character. The special ne digit. st 8 if it satisfies three or more of t		naro+

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

Note	<ul> <li>The default password must be changed for security.</li> </ul>
Note	<ul> <li>Max character length is 20.</li> </ul>

- 3. Enter new password.
  - A password can be used if it satisfies two or more in the following criteria:
    - 1) It contains at least one lowercase English character.
    - 2) It contains at least one uppercase English character.
  - 3) It contains at least one special character. The special characters are "! @ # \$ % ^ & \* ( ) + …"
    - 4) It contains at least one digit.
  - Its length must be at least 10 if it satisfies only two of the above criteria.
  - Its length must be at least 8 if it satisfies three or more of the above criteria.
- 4. Select **Remote Access** to allow a user to access this recorder from a remote site.
- 5. Press **Next** button to end Account setting and move the next setting phase.

### 2.4.2 Password Reset

How to set the system of Easy Installation:

- 1. Click the keyboard icon to set **Mobile Device ID** users want.
- 2. With keyboard UI, set the **ID and press OK.**

Easy Installation - Passwi	ord Reset		×
Mobile Device ID			
Prev	Next	Save	Restore

**Mobile Device ID** : Help you to reset password when you forgot your password.

- 3. Press Save button to save set value.
- 4. **Press Next** to end Password Reset setting and move the next setting phase.

### 2.4.3 System

How to set the system of Easy Installation:

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

Easy Installation - Syste	m		
Language	English	×	
Device Name	ANVR08P2		
Keyboard ID		÷	
HDMI	1920 × 1080	×	
Prev	Next		ave Cancel

- Language: Select system language.
- Device Name: Enter the device name.
- Keyboard ID: To identify device usages in controlling NVR with RS485 through a keyboard
- Selecting the device ID. In case of simultaneous use of equipment, set ID with difference.

Note	As for using many NVRs, set ID with difference.					
	• HDMI/VGA: Set resolution of a monitor connected to the device.					
Note	<ul> <li>Video is not displayed through VGA port if set 3840x2160 resolution.</li> <li>If resolution is set to 3840x2160 and a monitor that does not support this resolution is connected to the HDMI port, it will automatically change to 1024x768 resolution.</li> </ul>					

- 2. Press **Save** button to save set value.
- 3. Press **Next** to end System setting and move the next setting phase.

#### 2.4.4 Network

How to set the network of Easy Installation:

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

WAN Port	Static IP	DHCP (Dynamic)	
IP Address	19216808	= :	
Subnet Mask	255.255.255.0	<b>—</b> ‡	
Gateway	192.168.0.1	<b>=</b> ‡	
DNS	8888		
Port (TCP/RTSP/Web)	9350 📖 🗘	554 📟 🛟 80 📟	
PoE Ports Server	192,168,30,1	= :	

- 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 end Network setting and move the next setting phase.

#### 2.4.5 Time/Date

How to set the time/date of Easy Installation:

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

WAN Port	Static IP	DHCP (Dynamic)	
IP Address	192.168.0.8	<b>—</b> ‡	
Subnet Mask	255.255.255.0	<b>—</b> ‡	
Gateway	192 168.0.1	= ‡	
DNS	89.88	<b>=</b> ‡	
Port (TCP/RTSP/Web)	9350 📟 🗘	554 📟 🛟 80 [	■ ‡
PoE Ports Server	192,168,30,1	<b>=</b> ‡	

- 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.
- 2. Press **Save** button to save set value.
- 3. Press Next to end Time/Date setting and move the next setting phase.

### 2.4.6 Auto Upgrade

Use Auto Upgrade										
Check Time	SAT	~	Hour		~	Min				
Install Time	MON		Hour		~	Min				
🗹 Include IP Camera								Uns	electAll	
	⊻ 1	~	2 🗸	3 🗸	4	<b>6</b>	<b>/</b> 6	♥ 7	✓ 8	
	ore is instal									

1. Select Use Auto Upgrade to upgrade system to new firmware automatically.

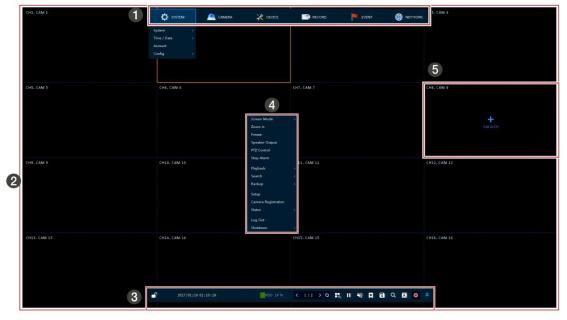
- Check Time : Set the time to check if there is a new firmware.
- Install Time : Sets the time when the firmware is installed.
- 2. Select Include IP Camera to install new firmware on IP cameras.

### 2.4.7 Easy Installation Wizard

Easy Installation		×
Easy Installation Wizard	Run Every Time when the System Starts	
Prev	Save	Cancel

- 1. Select to run Easy Installation every time when the system start.
- 2. Press **Save** button to save set value and end Easy Installation.

# 3. Live Screen Configuration



UI screen is configured like below figure.

#### Figure 3-1 UI Screen Configuration

No.	Icon	Description
1	Setup menu	Setting menu is located in the corner of upper screen. See "4 Setup menu" to display detailed information about the setting menu.
2	Live screen	Show live video of connected cameras.
3	Launcher menu	Launcher menu is located in the corner of below screen. See "0 Live Launcher menu" to display detailed information about the launcher menu.
4	Quick menu	Clicking the right button of a mouse displays Quick menu. See "3.3 Quick menu" to display detailed information about the quick menu.
5	Add to CH	Move mouse cursor on the center of window to register IP camera manually. See"3.3.2 Camera Registration" to display detailed information about the camera registration.

### 3.1 Icons in Live screen

Each icon in the live screen displays a present setting status or a function. UI screen consists of like below.



Figure 3-2 Live screen icon

No.	Icon	Description				
1	CH1 CAM1	Channel numbers and camera titles.				
2	÷	A camera with PTZ function.				
3	·:•	PTZ control function in process.				
4		Recording in alarm event mode.				
5	次	Recording in motion event mode.				
6	EK.	Recording in panic recording mode.				
7		Recording in consecutive recording mode.				
8		Video loss icon.				
9	ų	Mic on/off.				
10	•)	Speaker on/off.				
11	2017/11/18 02:35:30	Displaying present time and date.				

Note	Chosen live screen is marked as a blue frame; mouse-located live screen is marked as yellow
Note	one.

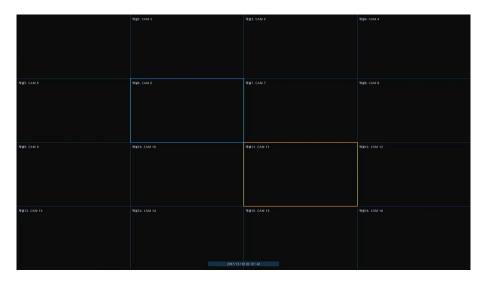


Figure 3-3 Chosen live screen channel

### 3.2 Live Launcher menu

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

≏	2017/03/13 15:19:23	HDD 77 %	4 1 / 1 ⇒ Q	<b>1</b> 16, I	<b>₩</b>	<b>16</b> 8	۹ 🖬	• *
			nahar manu					

Figure 3-4 Launcher menu

No.	Item	Description				
1	<b>a</b>	.og 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	C) ()	Displaying live screen in order set (toggle).				
6	10 III	Selecting partition mode to mark in live screen (single screen, 4-, 9-, and 16- partition).				
7	► II	Stopping or replaying selected live screen images (toggle).				
8	<b>■</b> )	Audio on or mute chosen live screen(toggle).				
9	Fo	Save the bookmark.				
10	8	Make a backup video of users want. See "3.2.1 Backup" to display detailed information about back-up.				
11	٩	Searching recording data (time, event, thumbnail, smart search, text and VCA). See "5.1 Search" to display detailed information about search.				
12		Playback recorded data.				
13	•	Starting immediate recording of selected channel.				
14	* Ŧ	Locking or releasing launcher menu (toggle).				

### 3.2.1 Backup

Manual Backup								>
Select CH							Unsel	ect All
∼1	✔ 2	✓ 3	✓ 4	✓ 5	<b>√</b> 6	✓ 7	• •	
Start				End				
2022/09/05	01:29:42		¢	~ 202	2/09/05 01:34	42		+
				Ba	ckup Mask	CH1		CLEAR
Device	No Device	e Found				*	Rel	oad
Folder Name	folder					=	H4V	~
Password							Hash	
A Please, Che								
Calculate		Format					Car	icel

The device provides a back-up function of live screen.

Figure 3-5 Backup

No.	Item	Description				
1	Select CH	Selecting a channel users want to back-up.				
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 ending time (Bookmark: bookmark list).				
5	Backup Mask	User can mask selected area. It works H4V format only.				
6	Device	Selecting the device to save back-up files.				
7	Reload	Opening the device information.				
8	Folder Name	Entering a folder name to save back-up files.				
9	File format	Selecting a file format to back-up(H4V / AVI)				
10	Password	If back-up file format is H4V, user can set password for security.				
11	Hash	Insert Hash information into the backup file. It support H4V format only. The hash information can be used to verify the forgery of the backup file.				
12	Calculate	Calculating data capacity to back-up.				
13	Format	Formatting the device to back-up.				
14	Start	Starting back-up.				
15	Cancel	Closing the backup screen.				

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

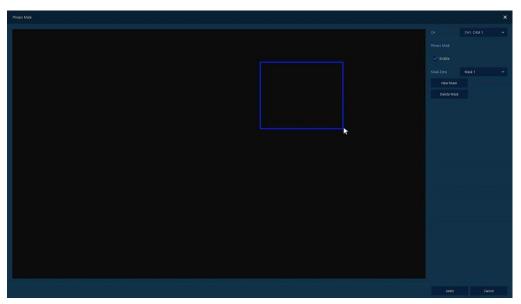


Figure 3-6 Backup Mask

No.	Item	Description			
1	Select CH	elect the channel to set the privacy zone.			
2	Privacy Mask Enable	elect 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 depicts Quick menu when users click the right button of the mouse in live screen.



Figure 3-7 Quick menu

No.	Item	Description			
1	Screen Mode	Selecting the partition mode of live screen (Full, 2X2, 3X3, and 4x4).			
2	Fisheye View Mode	Selecting Fisheye view mode. This menu is shown when fisheye camera connected.			
3	Zoom in	Magnifying selected live screen (Zoom out, 2 times, 4 times, and 8 times). This menu is shown full screen mode only.			
4	Freeze	Freezes the video selected live screen images (toggle on / off).			
5	Speaker Output/Mute	Turning on/off a sound speaker.			
6	PTZ Control	Controlling PTZ function. This menu is shown when PTZ camera connected.			
7	Stop Alarm	Stopping monitoring alarm output and event.			
8	Text Overlay	POS text overlayed on the screen. This menu is show when enable Text menu.			
9	Playback	Playing 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).			
10	Search	Searching recording data (time, event, thumbnail, smart search, text and VCA). See "5.1 Search" to display detailed information about search.			
11	Backup	Backup video to USB drive. See "3.2.1 Backup" to display detailed information a back-up.			
12	Setup	Opens the NVRs main set up menu. For more information about setting menu, see section "4 Setup menu".			
13	Warp	Monitor and control for remote recorder.			
14	Camera Registration	Opens a pop-up menu for IP camera registration.			
15	Camera Upgrade	Opens a pop-up menu for IP camera upgrade.			
16	Status	Opens a pop-up menu showing: device system log, event, and recording status (system log, event, and record).			
17	Statistic Analysis	Opens a pop-up menu for camera events that occurred.			
18	Log in/Log out	Log in/Log out.			
19	Shutdown	Shuts down or restarts the device (shutdown, restart).			

Select Fisheye view mode to de-warp fisheye camera.

There are 3 de-warping modes as Panorama Ceiling, Double Panorama Ceiling and Panorama Wall.

### 3.3.1 PTZ Control

Users click the right button of the mouse in live screen and select PTZ control menu to control PTZ.

**Note** When the PTZ camera is registered, the 1 icon is displayed at the top of the screen. The PTZ control selection menu appears only in full screan mode.

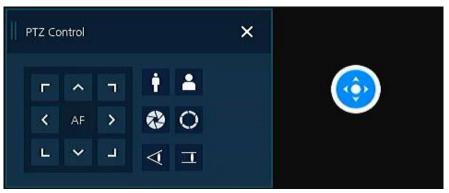


Figure 3-8 Quick menu > PTZ Control

No.	Item	Description					
1	Г ^ Л < > L ~ Л	Control pan & tilt with direction buttons.					
2	Ó	Control pan & tilt with drag the PTZ ball. _ong dragging speeds up the pan/tilt speed.					
3	AF	Adjusting screen focus automatically.					
4	🛉 Zoom Out	Zoom function of PTZ camera.					
5	Zoom In						
6	😵 Iris Close						
7	O Iris Open	Adjust Iris manually.					
8	<b>∢</b> Focus Far	Adjust focus manually					
9	<b>T</b> Focus Near	Adjust focus manually.					

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



Figure 3-9 PTZ Control Quick menu

No.	Item	Description				
1	Preset Go	un selected Preset number.				
2	Preset Save	ve specific positions of the camera, at most 255 settings.				
3	Tour Go	un Tour function.				
4	Tour Save	ave multiple preset positions to run each position in order.				
5	Scan Go	un Scan function.				
6	Pattern Go	un Pattern function.				
7	Exit	Exit to live screen menu in PTZ Control menu.				

### 3.3.2 Camera Registration

Users can register the IP cameras.

Camera Regis	tration						×
Ð			Auto	o Assign	Model		
No. Port	Assign	Model		Status	сн	None	
	None 😪						
	None 🔗				ID		
	None 🔗				Password		
	None 🛛 🖉						
	None 🛛 🕅						
-	None				Add Manua		
	None						
	None				СН	None	
	None 😒					Add to CH	
Priority	IP Address						
					Apply	Ci	incel

Figure 3-10 Camera Registration

No.	Item	Description						
1	Ð	Search the connected IP cameras.						
2	Auto Assign	Automatically assign the channel windows.						
3	Port	Show the detected camera port (WAN, PoE).						
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	Priority	Select IP Address or Zero conf IP. When camera have IP address and zero conf IP, NVR display selected priority address.						
9	Add Manually	Select channel and click Add to CH to open manual add window.						

#### Add Manually

Click Add to CH to open Camera Registration. Or move mouse point at the middle of channel

window on the live screen and click

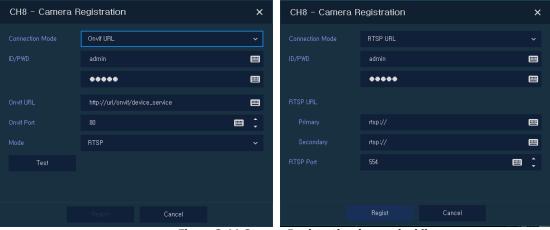


Figure 3-11 Camera Registration (manual add)

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

				Log Type		Unselect All	
Start End	2022/09/01 15:06:46 2022/09/02 15:06:46	DST	4 9 4 9	✓ Network ✓ Disk	<ul> <li>Record</li> <li>Backup</li> </ul>	✓ Setup ✓ System	Q
No.	Event Type			User		Event Time	

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

Figure 3-12 Status > System log in Quick menu

No.	Item	Description	
1	Start	Setting starting time of system log to search.	
2	End	Setting ending time of system log to 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	Q	Pressing search button search on the basis of set condition.	
6	System log list	Displaying system log lists.	
7	Export USB	Export the log data to USB thumb drive. File format is csv.	
8	Cancel	Completing the status screen.	

### 3.3.4 Status > Event

Status				×
System log	Event Record Disk Network			
			*	Refresh
No.	Event-In	Device	Time	
				Cancel

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

Figure 3-13 Status > Event in Quick menu

No.	Item	Description	
1	*	Temporary fixing or releasing an event list (toggle).	
2	Refresh	eleting the event list.	
3	Event list	splaying the event list.	
4	Cancel	Completing the status screen.	

### 3.3.5 Status > Record

Users can see the recording status in **Record** tap in **Status** screen.

		Main Stream			Second Stream				
сн	Input Type	Record	Resolution	Bitrate	Framerate	Resolution	Bitrate	Framerate	Audi
	1920x1080	Continuous	1920x1080 (A)	136 Kbps	30	640x480 (A)	56 Kbps	30	Non
	0x0	None	None	None	None	None	None	None	Non
	0x0	None	None	None	None	None	None	None	Non
4	0x0	None	None	None	None	None	None	None	Non
5	0x0	None	None	None	None	None	None	None	Non
	0×0	None	None	None	None	None	None	None	Non
	0×0	None	None	None	None	None	None	None	Non
8	0x0	None	None	None	None	None	None	None	Non

Figure 3-14 Status > Record in Quick menu

No.	Item	Description
1	<b>Record time</b>	Marking recorded period.
2	Record list	Displaying the record setting status.
3	Cancel	Completing the status screen.

### 3.3.6 Status > Disk

O Disk Inf	fo Rec: Info		DISK		
Disk No.	Free/Total	Model	Temp.	Usage Time	S.M.A.R.T.
HDD 1	446/446 GB	ST500DM002-1BD14	35 C / 95 F	5301Hour(s)	Good
HDD 2	1400/1787 GB	ST2000VX008-2E31	35 C / 95 F	11156Hour(s)	Good

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

Figure 3-15 Status > Disk in Quick menu

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

# 3.3.7 Status > Network

No.	IP Address	Port	Protocol	Usage	Traffic

Users can see the network status of the WAN port in Network tap in **Status** screen.

Figure 3-16 Status > Network in Quick menu

No.	Item	Description
1	No	Display WAN port number.
2	<b>IP Address</b>	Display IP address
3	Port Display port information	
4	4 <b>Protocol</b> Display protocol information.	
5	Usage	Display the traffic information being used.
6	Traffic	Display the current network traffic usage.

# 4. Setup menu

This chapter describes Setup menu in the upper side of the screen.

SYSTEM	🔔 CAMERA	🔀 DEVICE	RECORD	EVENT				
Figure 4-1 Setup menu								

Selecting the menu opens the setting screen.

Note	Setup screen is available to click Setup in Quick menu by clicking the right button of the
Note	mouse.

No.	Item	Description		
1	SYSTEM	Setting the system environment.		
2	2 <b>CAMERA</b> Setting the camera.			
3	<b>DEVICE</b> Setting the non-camera devices connected to the NVR.			
4	4 <b>RECORD</b> Setting the recording parameters.			
5	EVENT	Setting each event.		
6	NETWORK	Setting the network environment.		

Setup menu includes:

1 Depth	2 Depth	3 Depth		
	Custom	System		
	System	F/W Upgrade		
	Time (Data	Time/Date		
CVCTEM	Time/Date	Holiday		
SYSTEM	Annah	User		
	Account	Lockout		
	Carfin	Export/Import		
	Config	Factory Default		
	Dania	Basic(Title, Covert)		
	Basic	Audio In/Out		
CAMEDA	Advanced	Advanced		
CAMERA	Advanced	Stream		
	Registration	Registration		
	Account	Change Account		

1 Depth	2 Depth	3 Depth		
		Display		
	Diselari	OSD		
	Display	Sequence		
		Layout		
DEVICE	Disk	Setup		
	PTZ	PTZ		
	Serial Device	Serial Device		
	Tert	POS Setup		
	lext	Text		
	Schedule	Schedule		
		Main Stream		
RECORD	Text Schedule Stream System/Disk Alarm In Motion	Sub Stream		
		Panic		
	Custom (Diele	System		
	System/Disk	Disk		
	Alours To	Setup		
	Aldrm In	Schedule		
EVENT	Motion	Setup		
	Motion	Schedule		
	Video Loss	Setup		
	POS	Setup		
	Notification	Periodic		
	Notification	Schedule		
		WAN Port		
	Basic	PoE Port		
		IP Filter		
NETWORK	DVRNS/DDNS	DVRNS/Dashboard		
	כאשע (כאדאים	DDNS		
	E-Mail	E-Mail		
	P2P	P2P		

# 4.1 General buttons in Setup menu

Setup					×
SYSTEM	A CAMERA	🔀 DEVICE			
System	System F/	W Upgrade			
Time / Date	Language	English			
Account	Device Name	NVR		=	
Config	Video Type	NTSC			
	Keyboard ID			\$	
	Easy Installation	🗸 System	start	Run	
Default				Save	Cancel

This section depicts General buttons in Setup menu.

Figure 4-2 General buttons in Setup menu

No.	Item	Description				
1	Default	everse changed setting value to default in factory.				
2	Save	Save the set content.				
3	Cancel	Close window.				
4	Restore	Cancel the set value, and reverse it to previous value.				
5	Apply	Apply the content set.				

# 4.2 SYSTEM

In **SYSTEM**, 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.

Setup	🔔 camera	💥 device		EVENT	×
System	System F	/W Upgrade			
Time / Date	Language	English			
Account	Device Name	NVR			
Config	Video Type	NTSC			
	Keyboard ID			<b>\$</b>	
	Easy Installation	✓ System	start	Run	
Default				Save	Cancel

Figure 4-3 SYSTEM > System > System

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 (NTSC, PAL).			
4	Keyboard ID         Select keyboard ID (1~255).			
5	Remote Control ID	Select remote control ID (0~99).		
6	Easy Installation         Select System start to run Easy Installation in starting the system.			
7	Run Run Easy Installation.			

<u>/i</u> Warning

If change video type, system will reboot and all setup go to factory default.

### System > F/W Upgrade

Set the upgraded items of the system.

Setup							×
SYSTEM	📤 camera 🛛 💥	DEVICE	T R	ECORD	<b>.</b>	EVENT	
System	System FAV Upp	prade					
Time / Date	Current Version	FW-ANVR08P2_\	/1.00_220	180607110	4		
Account	Device					~	Ð
Config						×	Upgrade
	Cloud					~	
		Check		Ų	ograde		
	Use Auto Upgrade						
	Check Time	SAT 🗸	Hour	19	≁ Min	51	×
	Install Time	MON 🗸	Hour		✓ Min		~
	🗹 Include IP Camera						
	Select Ch	annel All					
	Note : While firmware is inst system will be autom	alling, atically rebooted ar	id the rec	ording doe:	s not work durir	ig rebooting.	
Default					Si	ve	Exit

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

No.	Name	Function		
1	Current Version Displaying the present firmware version.			
2	Device	Connect USB memory that has files to upgrade to the USB port, select files to upgrade.		
		Displaying new firmware list on the cloud server.		
		Click <b>Check</b> button to check for new version.		
		Click <b>Upgrade</b> to upgrade to selected firmware.		
	Cloud	Use Auto Upgrade		
3		Select <b>Use Auto Upgrade</b> to upgrade system to new firmware automatically.		
		Check Time : Set the time to check if there is a new firmware.		
		Install Time : Set the time when the firmware is installed.		
		Include IP Camera		
		Select Include IP Camera to install new firmware on IP cameras.		
		Select Channel : Select camera channel where the new firmware will be intalled.		

Note	•	If firmware version in the USB drive or cloud server is lower than present system version, system does not display the firmware.
	•	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.

Setup				×
SYSTEM	🔷 CAMERA 🍃	🕻 DEVICE 🔡 RECORD	event	NETWORK
System	Time / Date	Holiday		
Time / Date	System Time	2022/09/02 15:13:48	🔲 det 📫	Time Change
Account	DST Start	- 3Last SUN (1H:0M)	2	
Config	DSTEnd	10Last SUN (2H.DM)	2	
	Display Format		24 Hours 🗸 🗸	
	Time Zone	00:00 Casablanca, Coordinated	d Universal Time, Dublin, Edinb	urgh, Lisbon, London, 🏹 n
	Network Time Sync	Vse Public	~	Sync. Now
	Sync: Interval	1 Hour	*	
	Last Sync. Time	Fail		
	NTP Server	Enable NTP Server		
Default			Save	Cancel

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

No.	Name	Function
1	System Time	<ul> <li>Set the date and time.</li> <li>DST: Select whether to use summer time.</li> <li>Time change: Save changed time.</li> <li>If time changed to older time, time overlap list will be created and user can select the list from search and backup menu. Time overlap list can be created up to 20 lists a day.</li> </ul>
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	<ul> <li>For using a specific network time server, click the Use checkbox and enter the server address.</li> <li>Sync. Interval: Select synchronization period (1~24-hour)</li> <li>Last Sync. Time: Displaying the final synchronized time</li> </ul>
7	NTP Server	System run NTP(Network Time Protocol) server for NTP client.

## <u>Time/Date > Holiday</u>

Set holidays of the system.

Setup					×
🔅 БУВТЕМ	CAMERA	💥 DEVICE	RECORD		INETWORK
System	Time / Date	Holiday			
Time / Date	2022	÷		ā	Add Holiday
Account			Name		Holiday
,Cònfig					
				Save	Cancel

Figure 4-6 SYSTEM > Time/Date > Holiday

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

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

Add Holiday	(°							>
Name	New Holiday		20	22	~	1	~	
Date	2022/01/01		М	T	W	Τ	F	s
(Heale)	2022/07/01							1
Туре	Fixed	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
	1 1st 1	16	17	18	19	20	21	22
		23	24	25	26	27	28	29
		30	31					
	Арріу	Cancel						

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

No.	Name	Function
1	Name	Enter the holiday name.
2	Date	Display chosen date.
3	Туре	Select the holiday types. e.g.,) Selecting <b>Relative</b> and <b>1</b> , <b>first</b> , and <b>Sun</b> , which designates annual January of the 1 <sup>st</sup> Sunday as a holiday.
4	Calendar	Select the holiday to add.

# 4.2.3 Account > User

## <u>Account > User</u>

Set the user's account of the system.

Setup			
SYSTEM	🔼 CAMERA 💥 DEVICE	📫 RECORD 🛛 💻 EVEN	t 🌐 Network
System	User Lockout		
Time / Date	Add Group		Add User
Account	All (1)	admin	
Config	Administrator (1)		
	Live view restricted access	Auto Login	
	ADUP:Archive Dual User Permission	Auto Logout	None 🗸
	Change Mobile Device ID	Password Change Cycle	NOT USE 🗸

Figure 4-8 SYSTEM > Account > User

No.	Name	Function
1	Add Group	Add users' 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 log it out.
6	ADUP(Archive Dual User Permission)	Two users should access to search, playback and back-up. The user should have administrator permission.
7	Auto Login	When a user selected, Auto Login menu will be activated and if click Auto Login check box, system will be auto login to the selected user.
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	Change Mobile Device ID	Change your mobile device ID.
10	Password Change Cycle	If enable, user should change the password periodically.

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

Add Group				×
Name	Group Ø			
PERMISS	NON			
🖌 Live V			Search / Playback View	
🗹 Setup			Mackup Backup	
FM U	pgrade		PTZ Control	
		Apply	Cancel	

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

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

Press Add User button, then Add User screen displays.

Add User		×
Name	NameO	
ID	User0	
Password	********	
Confirm Password	******	
Group	Administrator	~
Apply	Cancel	

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

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 belongs.	

A password can be used if it satisfies two or more in the following criteria:

- 1) It contains at least one lowercase English character.
- 2) It contains at least one uppercase English character.
- 3) It contains at least one special character. The special characters are "!@#\$%^&\*()-+ ..."
- 4) It contains at least one digit.

Its length must be at least 10 if it satisfies only two of the above criteria.

Its length must be at least 8 if it satisfies three or more of the above criteria.

#### Account > Lockout

Set Lockout of the system

Setup					×
SYSTEM	📤 CAMERA 🛛 💥		RECORD		INETWORK
System	User Lockout	-			
Time / Date	Account Lockout	Vse			
Account	Maximum Login Failures		~		
comy	Lockout Duration	10 Minutes	~		
Default				Save	Cancel

Figure 4-11 SYSTEM > Account > Lockout

No.	Name	Function
1	Account Lockout	Apply Account Lockout.
2	Maximum Login Failures	Select Maximum login failures.
3	Lockout Duration	Select lockout duration times.

# 4.2.4 Config (Configuration)

Set Export/Import and Factory Default of the system.

#### Config > Export/Import

Through a save medium, users may apply information set to other devices identically.

Setup				×
🔅 БУВТЕМ	💁 camera 🛛 💥	DEVICE CORD	EVENT	
System	Export / Import	Factory Default		
Time / Date	Device			
Account	USB	No Device Found	×	Ð
Config				
	Import	Import Config with Network Setup		
	Filename	No File Found.	~	Import
	Export			
	Filename	cfg_export_2022_9_2_15_22_39.dat		Export
				Exit

Figure 4-12 SYSTEM > Config > Export/Import

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

### Config > Factory Default

Default the setting value of the device.

Setup					×
SYSTEM	CAMERA	K DEVICE	RECORD	EVENT	INETWORK
System	Export / Import	Factory Default			
Time / Date				Select All	
Account	System	Camera		Device	
Config	Record	Event		Network	
	IPCamera				
				Default	
					Exit

Figure 4-13 SYSTEM > Config > Factory Default

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

# 4.3 CAMERA

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

# 4.3.1 Basic

Set the fundamental functions of camera and audio.

#### <u>Basic > Basic</u>

Set the basic items of camera by channels.

Basic         Basic         Audio In/Out           Advanced         CH         Title Sync         Title           Account         CH         Title Sync         Title           1         On         CAM1         Off           2         On         CAM2         Off           3         On         CAM3         Off           4         On         CAM4         Off	overt Setup Covert
Registration     CH     Title Sync     Title       Account     1     On     CAM 1     III Off       2     On     CAM 2     III Off       3     On     CAM 3     III Off	
Account 1 On CAM 1 Off 2 On CAM 2 Off 3 On CAM 3 Off	Covert
1     0n     CAM 1     Im Off       2     0n     CAM 2     Im Off       3     0n     CAM 3     Im Off	
3 0n CAM 3 🕮 Off	
4 On CAM 4 🕮 Off	
5 On CAM 5 📟 Off	
6 On CAM 6 📟 Off	
7 On CAM 7 📟 Off	į
8 On CAM 8 📟 Off	

Figure 4-14 CAMERA > Basic > Basic

No.	Name	Function	
1	СН	Display the channel name.	
2	Title Sync	Select ON to get the title from the camera.	
3	Title	Title         Enter the camera name of relevant channels.	
4	<b>Covert</b> Select images to be shown in the Live screen by channels and whether to mark a status message or not (OFF, Video Only, Video and Text).		
5	Copy Covert Setup	In Convert, set items can be duplicated to other channels.	

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

Copy Covert Setup			×
From	СН1 🗸		
То			Unselect All
1 2	3 4	5 🖌 6	7 78
Copy Item			
Sync Sync	Covert		
	Apply	Cancel	

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

No.	Name	Function
1	From	Select a channel converted setting.
2	То	Select a channel to be copied.
3	Copy Item	Sync : Copy Title Sync setting. Covert : Copy covert setting
4	Select All /Unselect All	Select/deselect all channels.

### Basic > Audio In/Out

How to set audio of camera across channels

Setup		X DEVICE	RECORD	💌 event	×
Basic	Basic	Audio In/Out		J.	•
Advanced				Сору (	IPC) Audio Setup
Registration	No.	Use	Assign		Record
Account	1 Use		CH 1		ord
	2 Use		CH 2		
	3 Use		СНЗ		
	4 Use		СН 4		
	5 Use		СН 5		
	6 Use		СН 6	Rec	
	7 Use		СН 7		
	8 Use		СН 8		
	Line-In	No Assig	n		×
Default				Save	Exit

Figure 4-16 CAMERA >Basic > Audio In/Out

No.	Name	Function	
1	No	Display channels of audio	
2	Use	elect/deselect whether to use audio.	
3	Assign	elect channels to be assigned audio.	
4	Record	Select/deselect whether to save audio.	
5	Line in	Assign recorder line in to camera channel. IP camera audio will be disabled.	

# 4.3.2 Advanced

## <u>Advanced > Advanced</u>

As advanced function of camera, users can set privacy.

Basic	Adv	anced S	Itream			
Advanced	СН		Туре			
Registration		Video		×	Setup	
Account		Video				
		Video				
		Video				
		Video				
		Video				
		Video			Setup	
		Video				

Figure 4-17 CAMERA > Advanced

No.	Name	Function	
1	СН	Display channels.	
2	Video	Setup camera image such as Color, White Balance, WDR, AE and etc.	
3	Stream	Setup camera stream such as Resolution, Framerate, Bitrate and etc.	
4	Video Analytics	Setup Video Analytics function if camera support this function.	
5	Privacy Mask	Setup Privacy Mask if camera support this function.	
6	Hi-Stream	Setup Hi-Stream(Smart Codec) function if camera support this function.	

## <u>Advanced > Advanced : Video Setup</u>



Figure 4-18 CAMERA > Advanced: Video

No.	Name	Function
1	СН	Display channel.
2	Init.	Initionalize setting value.
3	Brightness, Saturation, Contrast, Sharpness, White Balance	Change camera image settings. The setting range varies depending on the connected camera. For details, refer to the connected camera manual.
4	Backlight Compensation	Enable or disable BLC function.
5	Wide Dynamic Range	Enable or disable WDR function.
6	IR Cut Filter	Select Day&night control type. The setting value may differ depending on the connected camera. For details, refer to the camera manual.
7	Auto Focus	Sets Auto focus mode on zoom camera. For details, refer to the connected camera manual.
8	Exposure	Sets Exposure mode. For details, refer to the connected camera manual.
9	Fisheye Filter	Click to use Fisheye View menu.

## <u>Advanced > Advanced : Stream Setup</u>



Figure 4-19 CAMERA > Advanced: Stream

No.	Name	Function
1	СН	Display channel.
2	Main Stream	Sets Codec type, Profile, Resolution, Framerate, Bitrate, GOP of Main stream. The values that can be set depend on the connected camera. For details, refer to the connected camera manual.
3	Second Stream	Sets Codec type, Profile, Resolution, Framerate, Bitrate, GOP of Sub stream. The values that can be set depend on the connected camera. For details, refer to the connected camera manual.
4	Audio	Enable or disable Audio setup. Codec type and frequency depend on the connected camera.
5	Alarm In	Sets Alarm in type as NO(Normally Open) or NC(Normally Close).

## <u>Advanced > Advanced : Video Analytics Setup</u>



Figure 4-20 CAMERA > Advanced: Video Analytics

No.	Name	Function	
1	СН	Display channel.	
2	ModeSelect whether to use this function in the NVR.		
3	Enable Video Contents Analysis	Select to activate the VCA menu on the camera.	

Noto	<ul> <li>The Video Analytics (VA) menu is displayed only when a camera with VA function is connected.</li> </ul>
Note	<ul> <li>The setting contents differ depending on the connected camera. For details, refer to the camera manual.</li> </ul>

## <u>Advanced > Advanced : Privacy Mask Setup</u>

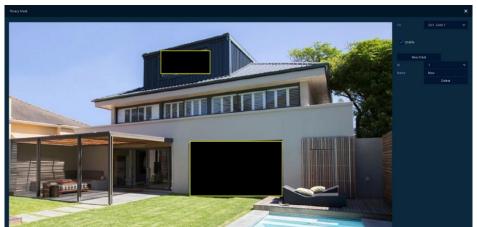


Figure 4-21 CAMERA > Advanced: Privacy Mask

No.	Name	Function
1	СН	Display channel.
2	Enable	Select to activate Privacy Mask function.
3	New Mask	Click to to create new mask on the screen. Drage the mouse to change the size and position of the mask.
4	ID, Name	User can change the each mask name.
5	Delete	Delete the selected mask.

<b>Note</b> The Privacy Mask menu is displayed only when a camera with Privacy Mask function i connected.	5
---	---

### Advanced > Advanced : Hi-Stream Setup

The Hi-Stream function allows reduce bandwidth by using compression and frame rate control.



Figure 4-22 CAMERA > Advanced: Hi-Stream

No.	Name	Function	
1	СН	Display channel.	
2	Enable ROI	Select to activate Hi-Stream function. Video mode will be fixed to CVBR.	
3	ROI	Select Static ROI or Dynamic ROI. Static ROI is controlled based on the selected area. Dynamic ROI is controlled based on the entire area.	
4	<b>ROI Quality</b>	Set quality of the selected area.	
5	Non-ROI Quality	Set quality of the non-selected area.	
6	Non-ROI fps	Set frame rate of the non-selected area.	
7	New ROI Area	Click to create ROI area.	

## Advanced > Stream

Setup camera stream such as Resolu	tion. Framerate, Bitrate and etc.
Setup camera su cam such as Resolu	tion, Tramerate, Ditrate and etc.

SYSTEM		K DEVICE		🚺 RECO	RD 📂	EVENT 🥊	NETWO	RK
Basic	Advanced	Stream						
Advanced	сн	CH1	~	8	Status	Copy Strea	m Setup	
Registration	Main Stream				Second Strea	m		
Account		H264				H264		
		Main	×			Main		
		1920 x 1080				640 × 480		
		30	~			30	~	
		15				15		
		4000	= ‡	Kbps		500	<b>—</b> (	Kbps

Figure 4-23 CAMERA > Advanced > Stream

No.	Name	Function
1	СН	Select channels.
2	Status	Users can see the recording status in <b>Record</b> tap in <b>Status</b> screen. <i>Refer to chapter 3.3.5.</i>
3	<b>Copy Stream Setup</b> Set items can be duplicated to other channels.	
4	Main Stream	Setup main stream.
5	Second Stream	Setup second stream.

# 4.3.3 Registration

SYSTEM		RA	X DEVICE	RECORD	EVENT	INETWORK
Basic	R	agistration	N			
Advanced		Camera R	egistration			
Registration	No.	Port	Assign	Model		Status
Account		LAN	CH 1	NKM-22022	169.254.181.173	ок
		lmp	out			

As registration function of camera, users can set IP camera registration.

Figure 4-24 CAMERA > Registration

No.	Name	Function
1	Camera Registration	Register IP Camera. See"3.3.2 Camera Registration" to display detailed information about the camera registration.
2	Registration list	Displays the status of the currently registered IP camera.
3	Import	Register IP camera using text file format.

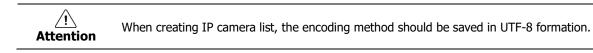
Click the **Import** button to open the Import window as shown blow.

Import		×
Import USB	Storage Device	ۍ ×
File List		~
Import		
	OK	

Figure 4-25 CAMERA > Registration > Import

No.	Name	Function
1	Import USB	Check the USB device is connected. If you connect a USB device with pop-up window open, click O button to rescan.
2	File Name	Enter the file name include extension to import the IP camera list.
3	Import	Import the camera list.

	The contents of the IP camera list are written in the following order.
Note	Channel number, IP address, ID, Password, Device service address, Web port, Camera title.
	Ex) 1,192.168.0.8,admin,admin,http://192.168.0.8/onvif/device_service,80,CAM1



# 4.3.4 Account

Set the default password to enter IP camera.

SYSTEM	CAMERA			C RECORD	💌 even	-	
		5	DEVICE	RECORD	even	т	NETWORK
Basic	Chang	e Account					
Advanced						Copy T	o Account
Registration	сн	Port	Model	ID	Password	Status	Edit
Account	CH1	LAN	NKM-22022	admin	******	ок	
	CH 2						
	CH 3						
	CH 4						
	CH 7						
	CH 8						

Figure 4-26 CAMERA > Account > Change Account

No.	Name	Function
1	СН	Display channels.
2	Port	Display port information.
3	Model	Display Model name.
4	ID	Display ID information of the devices.
5	5 <b>Password</b> Display password.	
6	Status	Display device's status.
7	Edit	Edit account setting.

#### Press Copy To Account button, then Copy Account Setup screen displays.

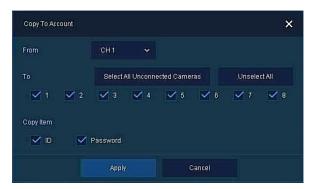


Figure 4-27 CAMERA > Account > Copy Account Setup

No.	Name	Function
1	From	Select the channel to copy.
2	То	Select the channel to be copied.
3	Select Connected All	Select channels to be connected.
4	Select Not Connected All	Select channels not to be connected.
5	Copy Item	Select to copy ID or Password.

## Press 📂 button, then Edit Account IP CAMERA screen displays.

	admin	
Password	********	
Confirm Password	******	
nd a password that generates nded to create a password wit		

Figure 4-28 CAMERA > Account > Edit Account IP CAMERA

No.	Name	Function
1	ID	Enter the ID.
2	Password	Enter the default password to enter to IP camera.
3	Confirm Password	Enter the default password again to confirm.

#### Press Apply Password Changes button, then Change IP-CAM Password Setup screen displays.

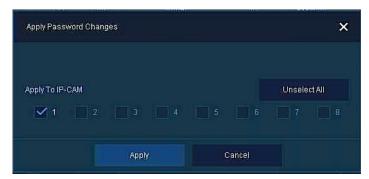


Figure 4-29 CAMERA > Account > Change IP-CAM Account Setup

No.	Name	Function
1	Unselect / Select All	Unselect/Select the channel to copy. Connected IP-CAMERA account can set only. Non-connected IP-CAMERA is inactive.
2	Apply	Change the selected IP-CAMERA account set.
3	Cancel	Cancel the changed account set.

# 4.4 DEVICE

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

# 4.4.1 Display

Set matters related to a display device and live screen.

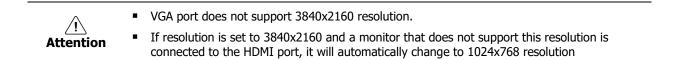
#### <u>Display > Display</u>

Set the display device.

Setup		*	DEVICE		D 💌 E	EVENT		<b>х</b>
Display	Display	OSD	Sequence	Layout				
Disk	HDMI							
PTZ	Resolution		1920 x 1080	~				
Serial Device	Event Popup							
ТЕХТ	Duration		Off	¥				
	Monitor Rela	y Switch						
	Duration		Кеер		Use			
	Alarm-out		Relay 1					
	Text Overlay							
	Duration		Off	~				
Default					Sav	ie 🛛	Cancel	

Figure 4-30 DEVICE > Display > Display

No.	Name	Function
1	HDMI/VGA	Select the resolution of the display device (1024x768, 1280x720, 1920x1080, and 3840x2160).
2	Event Popup	Set duration of event popup screen. Screen go back to original layout after duration time
3	Monitor Relay Switch	Select whether to use monitor alarm. When channel change or spilt mode change of live screen, alarm is generated by selected alarm output.
4	Text Overlay	Set duration of text overlay popup screen.



### <u>Display > OSD</u>

Set the OSD of the display device.

Setup					×
SYSTEM		K DEVICE	RECORD	EVENT	INETWORK
Display	Display OS	D Sequence	Layout		
Disk	Display Information				
PTZ	Camera Name	Title	~		
Serial Device	Live Bar	Always On	*		
ТЕХТ	Display Icon				
	Record Icon	E	🖌 Audio Icon	V PTZ lcor	
	🗹 Tooltip	5	🖊 Time / Date		
Default				Save	Cancel

Figure 4-31 DEVICE > Display > OSD

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

### Display > Sequence

How to set the play sequence of live screen

Setup						×
SYSTEM	CAMERA	×	DEVICE	RECORD	EVENT	INETWORK
Display	Display	OSD	Sequence	Layout		
Disk	Quad Sequen	ce.	Use			
PTZ	Division		Full	~		Add Sequence
Serial Device	No.	Division		CH List		Dwell Time
ТЕХТ		Full			3 Sec	onds 🗸
	2	Full		2	3 Sec	onds 🗸 🗸
		Full			3 Sec	onds 🗸 🗸
	4	Full		4	3 Sec	onds 🗸 🗸
	5	Full			3 Sec	onds 🗸 🗸
	6	Full			3 Sec	onds 🗸 🗸
	7	Full		7	3 Sec	onds 🛩
	8	Full			3 Sec	onds 🛩
Default					Save	Cancel

Figure 4-32 DEVICE > Display > Sequence

No.	Name	Function
1	Quad Sequence	Set to convert automatically as 4-partition screen on the time basis(4ch model does not support this function).
2	Division	Select screen partition mode to be marked in the below table (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.
5	NO	Automatically controvert screens in number order.
6	Division	Displays as full, 2X2 (Quad).
7	CH List	Set automatic conversion CHs. In case of choosing CH3 in No. 1, CH3 is shown in advance.
8	Dwell Time	Set the remaining time for automatic conversion (3 sec $\sim$ 30 sec)
9	Default	Reverse to changed set value in default.
10	1	Revise the list.
11	Ō	Delete the list.

Clicking Add Sequence displays Add Sequence screen.

Add Sequence			×
Dwell Time	3 Seconds		
Division	Full		
CH 1 Y			
	Apply	Cancel	

Figure 4-33 DEVICE > Display > Sequence > Add Sequence

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).
3	<b>Channel Selection</b>	Select channels to play.

### <u>Display > Layout</u>

Adjust display format.

Setup		1				×
SYSTEM		* *	DEVICE	RECORD	EVENT	NETWORK
Display	Displ	ay OSD	Sequence	Layout		
Disk	Division		All	×		
PTZ	No.	Division			CH List	
Serial Device		2X2			1,2,3,4	
TEXT	2	2X2			5,6,7,8	
		1+7		1	,2,3,4,5,6,7,8	
	4	3X3			2,3,4,5,6,7,8,C	
Default					Save	Exit

Figure 4-34 DEVICE > Display > Layout

No.	Name	Function
1	Division	Select screen partition mode.
2	No	Diplay screen partition mode in number order.
3	Division	Display screen partition mode.
4	Ch List	Select channels displayed in each division mode.

# 4.4.2 Disk > Setup

The way to set the disk

			1	EVENT 🌐	NETWORK
Display	Setup				
Disk	O Disk Info	Rec. Info	S.M.A.R.T.		
PTZ	Disk No.	Model	Free	Size (Capacity)	Status
Serial Device	HDD 1	ST500DM002-1BD14	446 GB	446 GB	Record
техт	HDD 2	ST2000VX008-2E31	1400 GB	1787 GB	Record(C)
	Record Option				
	Overwrite Recording	1			
	Auto Delete				

Figure 4-35 DEVICE > Disk > Setup

No.	Name	Function		
1	Ð	Refresh disk information.		
2	Disk Info	<ul> <li>Display the basic disk information in disc list.</li> <li>Model: disk model name</li> <li>Free: disk capacity to save</li> <li>Size (Capacity): total disk capacity</li> <li>Status: disk status</li> </ul>		
3	Rec. Info	<ul> <li>Display saved disk information in disc list.</li> <li>Start Recording Time: starting time for saving information in the disk</li> <li>End Recording Time: ending time to stop saving information in the disk</li> <li>Status: disk status</li> </ul>		
4	S.M.A.R.T.	<ul> <li>Display S.M.A.R.T. information in disc list.</li> <li>Model: disk model name</li> <li>Temp.: disk temperature</li> <li>Usage Time: running time after turning on the disk</li> <li>S.M.A.R.T.: a presenter of disk's malfunction</li> </ul>		
5	Disk List	Display the disk list select/deselect disc 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 saving space remained		
8	Auto Delete	Select/deselect to use the function to delete saved data automatically (1-180 days) from desired channel.		

# 4.4.3 PTZ > PTZ

Display	PTZ				
Disk					Copy PTZ Setup
PTZ	СН	ID	Protocol		Speed
Berial Device		~	ONVIF-IPCAM	<b>~</b> 3	v
техт	2 2	~	ONVIF-IPCAM	<b>∨</b> 3	~
		×	ONVIF-IPCAM	<b>∨</b> 3	~
	4 4	~	ONVIF-IPCAM	<b>∽</b> 3	~
		¥	ONVIF-IPCAM	<b>↓</b> 3	Ŷ
		*	ONVIF-IPCAM	<b>∽</b> 3	~
		~	ONVIF-IPCAM	<b>∽</b> 3	~
		¥	ONVIF-IPCAM	~ 3	Ŷ

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

Figure 4-36 DEVICE > PTZ > PTZ

No.	Name	Function
1	Copy PTZ Setup	Apply setting history to all or selected channels in the same way.
2	СН	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 (1-8).

Note	For more information about camera ID, protocol information, and details, see Instruction of
Note	relevant PTZ Function camera.

# 4.4.4 Serial Device > Serial Device

Setup	CAMERA	💥 devic	E		RECO	RD		EVI	ent (	I NETWO	<b>&gt;</b> RK
Display	Serial Device										
Disk	USB (to Serial)		Ger	eric Keyboard							
PTZ	Name	Baudrate		Parity			Data Bit		Stop Bit	Туре	
Serial Device	USB	9600	*	None	~	8	~		~	Keyboard	~
TEXT	RS-485 Name	Baudrate		Parity			Data Bit		Stop Bit	Туре	
	RS-485	9600	~	None	~	8	×		~	PTZ	~
Default							í í	Save		Restore	

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

Figure 4-37 DEVICE > Serial Device > Serial Device

No.	Name	Function
1	USB (to Serial)	Set communication transmission value of USB device. *Generic keyboard : Choose whether to use a generic keyboard 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**

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

#### TEXT > POS Setup

Setup					×
SYSTEM		💥 DEVICE	RECORD	event	I NETWORK
Display	POS Setup	TEXT			
Disk	POS Setup	PORT 1	~		
PTZ	Use	NONE	🛩 📄 Case		
Serial Device	Select Channel				
ТЕХТ	POS Name				
	Start Character	STRING			
	End Character	STRING			
	Line Delimeter	STRING			
	Max. lines				
	Timeout	Not use			
Default				Save	Exit

Figure 4-38 DEVICE > TEXT > POS Setup

No.	Name	Function				
1	POS Setup	Select LAN or PORT1 suitable for your POS device.				
2	Use	Select NONE or Generic. * Case Sensitive : Used to to parse uppercase and lowercase.				
3	Select Channel	lect channels POS devices are connected to				
4	POS Name	Enter POS device name.				
5	Start Character End Character Line Delimiter	You can set the start character, end character and line delimiter for the POS overlay characters. Select NONE, HEX or STRING and enter corresponding characters for your POS device.				
6	Max. Lines	Use : Select <b>Use</b> to limit strings. Enter the maximun number of strings.				
7	Timeout	Select Timeout from the drop-down list.				

#### <u>TEXT > TEXT</u>

Display	POS Setup	TEXT			
Disk	Use Use			Copy TEXT Se	tup
PTZ	No.	СН	Protocol	ID/Po	t
Serial Device			LAN(Generic)	None	
техт			LAN(Generic)	None	
			LAN(Generic)	None	
			LAN(Generic)	None	
			LAN(Generic)	None	
			LAN(Generic)	None	
			LAN(Generic)	None	
			LAN(Generic)	None	

Figure 4-39 DEVICE > TEXT > TEXT

No.	Name	Function			
1	Use	Select/deselect whether to use text function.			
2	СН	Select camera channels to connect with the text input device.			
3	<b>Protocol</b> Select protocol to correspond with the text input device.				
4	4 <b>ID. Port</b> Select ID and port no. to correspond with the text input device.				
5	5 <b>Copy to Text</b> Setup As for connecting multiple units, duplicate set value to others.				

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

Copy TEXT Setu	ip					×
From	CH 1	~				
То					Unsele	ct All
<b>⊻</b> 1 ∨	2 🗸 3	4	5	6	7	8
Copy Item						
🗸 сн	Protocol					
	Apply		S	ancel		

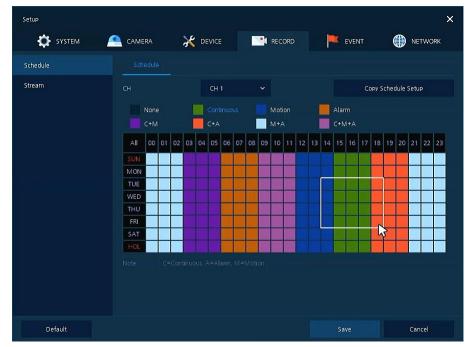
Figure 4-40 DEVICE > TEXT > TEXT > Copy to TEXT Setup

No.	Name	Function
1	From	Select channels set.
2	То	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 may set matters related to recording.

# 4.5.1 Schedule > Schedule



Recording types can be set across channels and time.

Figure 4-41 RECORD > Schedule > Schedule

No.	Name	Function
1	СН	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:

Color	Scheduling type	Function				
	None	Do not record.				
	Continuous	Record on consecutive mode when time set.				
	Motion	Record on event recording mode when motion sensitive event occurs.				
	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

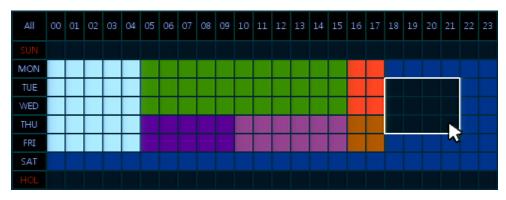
1. Select channels to schedule.



2. Select items in scheduling types.

None	Continuous	Motion	Alarm
C+M	C+A	M+A	C+M+A

- 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.

Copy Sched	lule Setup						×
From		CH 1	~				
						Unselec	t All
✓ 1 ✓ 9	<ul><li>✓ 2</li><li>✓ 10</li></ul>	<ul><li>✓ 3</li><li>✓ 11</li></ul>	<ul><li>✓ 4</li><li>✓ 12</li></ul>	<ul><li>✓ 5</li><li>✓ 13</li></ul>	<ul><li>✓ 6</li><li>✓ 14</li></ul>	<ul><li>✓ 7</li><li>✓ 15</li></ul>	✓ 8 ✓ 16
		Apply		c	ancel		

8. Select channels to be copied.

From	CH 1	~

9. Select channels to apply copied content.

Too						Unsele	ct All
<b>V</b> 1	<b>V</b> 2	✓ 3	<b>V</b> 4	✓ 5	✓ 6	7	✓ 8

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



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

## 4.5.2 Stream

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

SYSTEM		a 🔏 d	EVICE	RECOI	κD	U	EVE	INT	,	<b>()</b>	NETWO	NN.
Schedule		Stream Sub	Stream Pa									
Stream								¢	opy Stre	am Se	tup	
	СН	Resolution	Framerate	Bitrate (Kbps)	Contin	nuous	Eve	nt	Pre-A	larm	Post-A	larr
		2592 x 1520	20	4000	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
		None	None	None	Main		Main		5 Sec		5 Sec	
						>						

Figure 4-42 RECORD > Stream > Main Stream

No.	Name	Function
1	СН	Display channels.
2	Resolution Framerate Bitrate	Show camera main stream setup status.
3	Continuous	Select recording stream in case of Continuous mode.
4	Event	Select recording stream in case of Event mode.
5	Pre-Alarm	Start recording before set time, if event occurs. (none, 1 sec, 2 sec, 3 sec, 4 sec, and 5 sec)
6	Post-Alarm	Recording after set time until event ends. (5 sec, 10 sec, 30 sec, 1 min, 5 min, 10 min, 30 min, and 1hour)
7	Copy Stream Setup	Copy main recording image set value to other channels.

Clicking Copy Stream Setup opens Copy Stream Setup.

Copy Strea	m Setup						×
From		CH 1	*				
То						Unselec	t All
<b>V</b> 1	2	🗸 з	✓ 4	5	6	7	8
9	10	11	12	13	14	15	16
Copy Item							
Con	tinuous	V Event		V Pre-Ala	arm 💽	🗸 Post-Ala	arm
		Apply		G	ancel		

Figure 4-43 RECORD > Stream > Main Stream > Copy Stream Setup

No.	Name	Function
1	From	Select the channel set.
2	То	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 > Sub Stream

To set the image quality and resolution of Sub Stream

		💥 DE				NETWORK
Schedule	Main St	tream Sub S	tream Pani	c		
Stream	СН	Resolution	Framerate	Bitrate (Kbps)	Pre-Alarm	Post-Alarm
		640 x 480	20	2000	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
		None	None	None	5 Seconds	5 Seconds
					>	

Figure 4-44 RECORD > Stream > Sub Stream

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

#### Stream > Panic

How to set immediate recording

Setup		ullishtishtish			×
🛟 SYSTEM 🧉	CAMERA	💥 device	RECORD	EVENT	
Schedule	Main Strea	am Sub Stream	Panic		
Stream	Panic Record	ν υ	se		
	СН	Resolution	Framerate	Quality	Dwell Time
	All	Sync	Sync	Sync	Unlimited 🗸
Default					Cancel

Figure 4-45 RECORD > Stream > Panic

No.	Name	Function
1	Panic Record	Select/deselect to use immediate recording function.
2	СН	Display channels.
3	Resolution Frame rate Quality	Panic recording stream follows the Event stream.
4	Dwell Time	Select recording duration (Unlimited, 10 sec, 30 sec, 1 min, 5 min, 10 min, and 30 min).

# 4.6 EVENT

In **EVENT**, users may 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

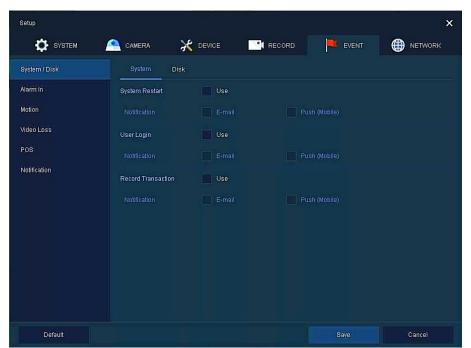


Figure 4-46 Event > System/Disk > System

No. Name Function		Function
1 <b>System Restart</b> Select/deselect whether to use system restart event.		Select/deselect whether to use system restart event.
2 <b>Notification</b> Select/deselect whether to use mailing or mobile push in case of event.		Select/deselect whether to use mailing or mobile push 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.

### <u>System/Disk > Disk</u>

To set disk event

System / Disk	System Dis				
Narm In	Distribution				
Action	Disk Unpluged	Vse Use		Beep	
		None	~	Keep 🧹	
/ideo Loss		E-mail		Push(Mobile)	
os					
Votification	Disk Full	Off			
		None		Кеер 🖌	
	S.M.A.R.T. Fault	Use			
		None		Кеер	

Figure 4-47 Event > System/Disk > Disk

No.	Name	Function
1	Disk Unplugged	Select/deselect whether to use disk unplugged event
2	Веер	Select/deselect whether to use buzzer sound in case of event.
3	Alarm out	Select to end alarm time (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

#### <u>Alarm In > Setup</u>

To set sensor alarms

System / Disk		) S	chedule							
Narm In									Copy Al	arm Setup
Motion	Sensor	Use	Týr	oe	Bee	ep	Alarm	Group Rec.	Noti.	Preset
Video Loss		🗹 On	NET	¥	None	~	None	CH 1	None	None
P08		🗹 On	NET	~	None	~	None	CH 2	None	None
Votification		🗹 On	NET	~	None	~	None	СНЗ	None	None
	4	🔽 On	NET	~	None	~	None	CH 4	None	None
		🗹 On	NET	~	None	~	None	CH 5	None	None
		On 🗹	NET	~	None	~	None	CH 6	None	None
		🔽 On	NET	~	None	~	None	CH 7	None	None
		🗹 On	NET	~	None	~	None	CH 8	None	None

Figure 4-48 Event > Alarm In > Setup

No.	Name	Function
1	Sensor	Display sensor numbers.
2	Use	Select/deselect whether to use alarm in the sensor.
3	Туре	<ul> <li>Select sensor types (N.O, N.C, NET).</li> <li>N.O: Normally Open</li> <li>N.C: Normally Close</li> <li>NET: Select when using the camera's alarm input function.</li> </ul>
4	Веер	Select use time of buzzer sound (null, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour).
5	Alarm	Set alarm output.
6	Group Rec.	Select the camera to record simultaneously.
7	Noti.	Set email notices.
8	Preset	Set preset of PTZ camera.
9	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., Preset** and clicking editing Icon( *in right corner displays Event : Alarm screen.* 

Event : Alarm				×
Alarmin 1 Alarm-out				
	Relay	D	well Time	
Relay.	(	Кеер		
🔽 Group	Recording			
🔽 Monito	r Popup			
Remote Noti	fication			
E-m	ail Pusi	n (Mobile)		
Preset				
Use	СН		Preset	
On	СН1			
On	сн1			
On	сни			
On	СН1			
	Apply	Ca	ncel	

Figure 4-49 Event > Alarm In > Setup > Event : Alarm

No.	Name	Function
1	Alarm-out	<ul> <li>Set the alarm.</li> <li>Relay: Select/clear the Relay output checkbox.</li> <li>Dwell Time: Selecting alarm duration (Keep, 5 sec, 10 sec, 20 sec, 30 sec, 1 min, 10 min, 30 min, and 1 hour)</li> </ul>
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	ľ	Channel selection screen opens.
6	<b>Remote Notification</b>	Select/deselect whether to use E-mail, Push(Mobile)
7	Preset	<ul> <li>Preset of PTZ camera is running.</li> <li>Use: Select/deselect whether to use preset.</li> <li>CH: Select channels.</li> <li>Preset: Set preset value.</li> </ul>

#### <u>Alarm In > Schedule</u>

 Setup
 CAMERA
 CONERA
 Conera

To schedule recording time when alarm occurs across device sensors

Figure 4-50 Event > Alarm In > Schedule

No.	Name	Function
1	Sensor	Select the sensor to set the 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 Stream."

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

#### 4.6.3 Motion

To set and schedule motions across channels

#### Motion > Setup

To set motions across channels

System / Disk	Se	tup Sch	nedule					
Alarm In							Copy Mation S	etup
Motion		Use	Bee	ep	Alarm	Group Rec.	Noti	Preset
Video Loss		Onvif 🗸	None	~	None	CH1	None	None
POS		Onvif 🗸	None	~	None	CH 2	None	None
Notification		Onvif 🗸	None		None	CH3	None	None
		Onvif 🗸 🗸	None		None	CH 4	None	None
		Onvif 🗸	None		None	CH 5	None	None
		Onvif 🗸 🗸	None		None	CH 6	None	None
		Onvif 🗸	None		None		None	None
		Onvif 🗸	None		None	CH 8	None	None

Figure 4-51 Event > Motion > Setup

No.	Name	Function
1	СН	Display channels.
2	Use	<ul><li>Off: Do not use Motion events.</li><li>Onvif: use the motion event input from the camera.</li><li>VCA: use the VCA event input from the camera.</li></ul>
3	Веер	Select use time of buzzer (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 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., 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."



If corridor mode are active at IP camera site you have to set resolution of 2<sup>nd</sup> Stream at 240x320 to trigger NVR Motion event

#### Motion > Schedule

To schedule record time when the motion sensor detects across channels

Figure 4-52 Event > Motion > Schedule

No.	Name	Function
1	СН	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 Stream."

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

# 4.6.4 Video Loss > Setup

To set Video Loss across channels

System / Disk	Set	up						
Alarm In							Copy Video L	oss Setup
Motion	сн	Use	Ber	ер	Alarm	Group Rec.	Noti.	Preset
Video Loss		🗹 On	None	~	None	None	None	None
POS		🗹 On	None	~	None	None	None	None
Notification		🗹 On	None	~	None	None	None	None
	4	🗹 On	None	~	None	None	None	None
		🗹 On	None	*	None	None	None	None
		🗹 On	None	~	None	None	None	None
		🗹 On	None	~	None	None	None	None
		on 🗹	None	~	None	None	None	Noné

Figure 4-53 Event > Video Loss > Setup

No.	Name	Function
1	СН	Display channels.
2	Use	Select/deselect whether to use Video Loss in the channel.
3	Веер	Select use time of buzzer sound (None, 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."

# Placing your mouse on Alarm, Group Rec, Noti., Preset and clicking editing icon( ) in Note 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 **POS > Setup**

To set POS event across channels

Setup								×
SYSTEM		ERA	💥 DE	VICE	RECOR	RD 📙	EVENT	NETWORK
System / Disk	Set	up						
Alarm In							Copy PO	S Setup
Motion	сн	Use	Bee	p	Alarm	Group Rec.	Noti.	Preset
Video Loss	1	🗹 On	None	~	None	CH 1	None	None
POS	2	🗹 On	None	*	None	CH 2	None	None
Notification		🗹 On	None	~	None	СН 3	None	None
	4	🗹 On	None	*	None	CH 4	None	None
	5	🗹 On	None	~	None	CH 5	None	None
	6	🗹 On	None	×	None	CH 6	None	None
		🗹 On	None	~	None	CH 7	None	None
	8	🗹 On	None	~	None	CH 8	None	None
Default							Save	Cancel

Figure 4-54 Event > POS > Setup

No.	Name	Function
1	СН	Display channels.
2	Use	Select/deselect whether to use Video Loss in the channel.
3	Веер	Select use time of buzzer sound (None, 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 POS Setup	Copy the POS set value to other channels.

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

# 4.6.6 Notification

To set and schedule periodical alarms

#### Notification > Periodic

To set periodical alarms

Setup								×
SYSTEM 🥖	CAMERA	* 1	DEVICE	RECO	RD		¢	NETWORK
System / Disk	Periodic	Schedu	le					
Alarm In	Periodic Notificat	ion	E-mail					
Motion								
Video Loss			1 Hour					
POS								
Notification								Select All
Default						Saye		Cancel

Figure 4-55 EVENT > Notification > Periodic

No.	Name	Function
1	Periodic Notification	Select/deselect whether to use periodical alarms
2	Summary	<ul><li>Send the save or event information.</li><li>Record: sending the save information</li><li>Event: sending the event information</li></ul>
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

Bystem / Disk	Per	iodic																							
Narm In		None				1							1	Push	(Mo	bile)				E-Ma	∭ <b>+</b>  F	lush			
Action	All	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
/ideo Loss	SUN																								
°0S	MON																								
	TUE																								
lotification	WED																								
	THU																								
	FRI																								
	SAT HOL																								
	Dwell Ti	me					1 Mi	nute			~														

Figure 4-56 EVENT > Notification > Schedule

No.	Name	Function
1	Notification Type Selection	Select the types of notification. (None, E-mail, Push(Mobile), E-mail+Push)
2	Schedule Table	Display the schedule users set.
3	Drag Field	Display the area dragged with a mouse.
4	Dwell Time	Set Notification dwell time(1Min ~ 1Hour).

Note

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

# 4.7 NETWORK

In **NETWORK**, users may set the network environment.

#### 4.7.1 Basic

#### Basic > WAN Port

To set the network WAN port

Setup						×
SYSTEM	CAMERA 🏼 🎽	🗧 DEVICE 🔡 📑	RECORD	<b>–</b> E	VENT 💮 NETW	ORK
Basic	WAN Port Po	E Port IP Filter				
DVRNS/DDNS	Static IP	DHCP (Dynam	ic)			
E-Mail	MAC Address	EE:11:22:07:43:E7				
P2P	IP Address	192.168.0.8		■ ‡	UPnP	
	Subnet Mask	255.255.255.0		■ ‡		
	Gateway	192.168.0.1		■ ‡		
	DNS	8.8.8.8		■ \$	Manual	
	Port (TCP / RTSP)	9350 📟 🌲	554	■ ‡	Encryption	
	Port (HTTP/HTTPS)	80 🔳 🗘	443	■ ‡	Redirect to HTTPS	
	Bandwidth Limit	Unlimited		~		
	Link Speed	1000 Mbps				
	Ping Test	8.8.8.8			Test	
Default				Savi	e Exit	

Figure 4-57 NETWORK > Basic > WAN Port

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	Display the MAC Address.
4	IP Address Subnet Mask Gateway	Enter the each information properly. * UPnP : Select to use UPnP protocol.
5	DNS	Select manual and enter DNS; otherwise choose automatic function.
6	Port (TCP/RTSP)	Enter TCP and RTSP port. Default is 9350.
7	Encryption	Select the Encryption box for video data by using TCP port. Select to encrypt for video data through TCP port.
8	Port(Http/Https)	Enter HTTP/HTTPS port. Default is 80.
9	Redirect to HTTPS	Redirection to HTTPS when connecting via HTTP.
10	Bandwidth Limit	Select bandwidth to limit (Unlimited, 50Mbps, 10Mbps, 5Mbps, 2Mbps, 1Mbps, 500Kbps, 400Kbps, 300Kbps, 200Kbps, and 100Kbps).
11	Link Speed	Display current negotiated ethernet speed.
12	Ping Test	Enter IP in Ping test and implement the text.

#### Basic > PoE Ports

To set the network PoE Port

Setup	AMERA	💥 device 📑 record	) 🗮 eve	NT 🌐 NETWORK
Basic	WAN Port	PoE Port IP Filter		
DVRNS / DDNS E-Mail	DHCP Server MAC Address	EE:11:22:07:43:E6		
P2P	IP Address Subnet Mask	192:168.30.1 255:255:255.0	= ÷	
	Gateway Link Speed	192.168.30,1 100 Mbps	<b>—</b> ‡	
Default			Save	Cancel

Figure 4-58 NETWORK > Basic > PoE Ports

No.	Name	Function
1	DHCP Server	Select whether to enable DHCP server.
2	MAC Address	Display the MAC Address.
3	IP Address Subnet Mask Gateway	Enter the each information properly.
4	Link Speed	Display supported ethernet speed.

#### Basic > IP Filter

To set the network IP Filter

SYSTEM		ERA	35	DEVICE	RECORD		EVENT	
Basic	W.	AN Port	PoE	Port	IP Filter			
DVRNS/DDNS	Remo	te Access		Use				
E-Mail				None				
P2P	No.	Moc	le		Range Start		.(F	ange End
		None						
		None						
		None						
		None						
		None					0.0.0.0	
		None						
		None						
		None						
					1 2	>		

Figure 4-59 NETWORK > Basic > IP Filter

No.	Name	Function
1	Remote Access	Select <b>Remote Access</b> to allow a user to access this recorder from a remote site.
2	Basic mode	Select None to disallow access. Select Access to access IP address range. Select Deny to restrict IP address range.
3	Mode	Select None to follow Basic mode. Select Access to access IP address range. Select Deny to restrict IP address range.
4	Range Start         Enter the Start IP address to Access or to Deny.	
5	Range End	Enter the End IP address to Access or to Deny.

# 4.7.2 DVRNS/DDNS

To set DVRNS/DDNS

#### DVRNS/DDNS > DVRNS/Dashboard

To register DVRNS/Dashboard account

Setup				×
SYSTEM	🔮 camera 🛛 💥			
Basic	DVRNS / Dashboard	DDNS		
DVRNS/DDNS	DVRNS			
E-Mail		743e7		
P2P			=	
			Register	
	Dashboard			
		Existing Account	¥	
		Add Device	Delete Device	
Default			Save	Cancel

Figure 4-60 NETWORK > DVRNS/DDNS > DVRNS/Dashboard

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

#### DVRNS/DDNS > DDNS

To set DDNS site for remote users to access in networking

Setup					×
SYSTEM	🖴 camera 🛛 💥	DEVICE	RECORD		
Basic	DVRNS / Dashboard	DDNS			
DVRNS/DDNS	DDNS Site	Off		÷	
E-Mail	Host Name				
P2P	User Name				
	User Password				
Default				Save	Cancel

Figure 4-61 NETWORK > DVRNS/DDNS > DDNS

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

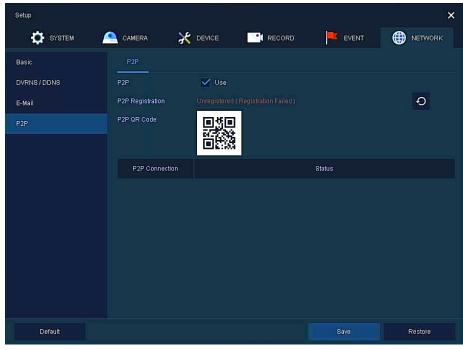
Setup					×
SYSTEM	💁 camera 🛛 💥	DEVICE	RECORD	EVENT	
Basic	E-Mail				
DVRNS/DDNS	Server				
E-Mail	Server Type	SMTP Mail Server		~	
P2P	Address / Port			<b>=</b> 1	■ ‡
	lmage Attach	IVA M			
	Authentication	Use	TLS/SSL		
	Sender				
	Receiver				/
		Test			
Default				Save	Cancel

To set email server to send email on the occasion of event

Figure 4-62 NETWORK > E-Mail > E-Mail

No.	Name	Function	
		Select SMTP server.	
		■ gmail.com	
1	Server Type	<ul> <li>hotmail.com</li> </ul>	
T	Server Type	■ aol.com	
		■ naver.com	
		■ daum.net	
2	Address/Port	Enter server address and port number.	
3	Image Attach	Select/deselect whether to attach AVI file.	
4	Authentication	Select/deselect using authentication and password.	
5	ID	Enter the email address.	
6	Password	Enter the email password.	
7	Sender	Write the sender.	
8	Receiver	Write the receiver. (follow instructions on the screen)	
9	Test	Verify whether the email server is set normally.	

## 4.7.4 P2P



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

Figure 4-63 NETWORK > P2P > P2P

No.	Name	Function			
1	USE	elect/deselect whether to use P2P function.			
2	P2P Registration	Click O button to check up registration status.			
3	P2P QR Code	Scan QR code using mobile app to connect recorder.			
4	P2P Connection	Display connection stauts.			

# 5. Search/Playback

This chapter describes Live Launcher search and play menu in the below screen bar.

Figure 5-1 Live Launcher Search, Play menu

No.	Item	Description
1	Q	Search recording data (time, event, thumbnail, smart search, text and VCA).
2		Playback recorded data

# 5.1 Search

This function searches recorded data as Time, Event, Thumbnail, Smart Search, Text and VCA.

#### Search > Time

Recording data is searched by date and time.

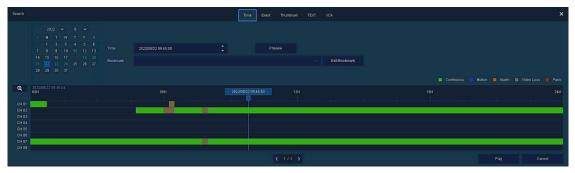


Figure 5-2 Search: Time

No.	Item	Description
1	Calendar	Selecting the date to search
2	Time	Setting time to search
3	Bookmark	Selecting a bookmark to search
4	Timeline	Display 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	Ending search screen

#### Search > Event

Recording data is searched by event type.

Search			Time Event Thuman	ali TEXT VCA	x
Select CH	Unselect All				
v1 v2 v3 v4 v5 v1					
Start 2022/02/16/07:22:11					
End 2022/08/05 05 21 48					
Event Type	UnselectAll				
✓ Panic ✓ Motion ✓ Video Loss ✓ Prin-Interest					
Search					Play Cancel

Figure 5-3 Search: Event

No.	Item	Description				
1	Select CH	Select channels to search				
2	Select All /Unselect All	Select/deselect all channels.				
3	Start	Setting starting time to search				
4	End	Setting ending time to search				
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	Ending search screen				

#### Search > Thumbnail

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



Figure 5-4 Search: Thumbnail

No.	Item	Description
1	Calendar	Selecting dates to search
2	СН	Selecting channels to search
3	Time	Selecting time to search
4	Interval	Setting time interval for searching images
5	Time Lapse/Pause	Playing or stopping videos searched
6	Cancel	Ending search screen

#### Search > TEXT

Recording data is searched by keyword.

Search				Time	Event Thumbnall	TEXT	VCA		×
Select CH		Unselect All							
₩1									
Start									
End	2022/09/05 05:34:47								
Keyword									
	Search								Cancel

Figure 5-5 Search: TEXT

No.	Item	Description
1	Select CH	Select channels to search
2	Select All /Unselect All	Select/deselect all channels.
3	Start	Setting starting time to search
4	End	Setting ending 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	Searching the event
9	Event List	Displaying event list searched
10	Thumbnail Field	Displaying thumbnail images of selected event
11	Play	Playing video clips selected. For more information about Live bar, see section "5.2 Playback."
12	Cancel	Ending search screen

#### Search > VCA

Recording data is searched by VCA event type.

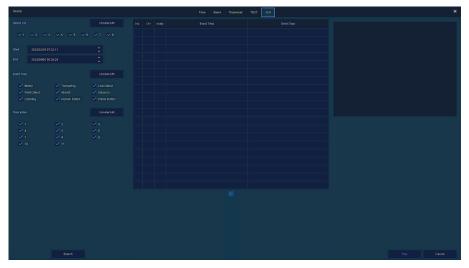


Figure 5-6 Search: VCA

No.	Item	Description						
1	Select CH	Selecting channels to search						
2	Start, End	t start time and end time.						
3	Event Type	Selecting VCA event type.						
4	Rule Index	Selecting VCA rule index type.						
5	Search	Search VCA event.						
6	Event List	Displaying event list searched						
7	Thumbnail Field	Displaying thumbnail images of selected event						
8	Play	Playback selected event.						
9	Cancel	Ending search screen						

# 5.2 Playback

To play recorded data

2022/08/22 09:47:15	¥	*	◄	<	Ш		≫	M	14	171	8	<b></b>	*2	Q	←	<b>^</b>	Ŧ
Figure 5-7 Playback Launcher																	

No. Item Description ► 1 Display present play status. **Date and Time** 2 Display date and time of playing videos. 3 M Go to first section of the video. 4 -Play fast backward(2~64x). 5 **⊲**I Decrease speed under playback mode  $(1/2 \sim 1/8x)$ , Backward step under pause mode ◄ 6 Play backward II ► 7 Play forward and pause the videos 8 ► Play forward step. 9 ► Play fast forward( $2 \sim 64x$ ). 10 ₩ Go to last section of the video. < > 11 Moving to previous/next partition screens 53 **H** 12 Selecting the partition mode to mark in the screen III II6, 22 13 Audio output on-off(toggle). Searching the recorded data (time, event, thumbnail, smart search, text, and VCA). Q 14 For more information about search, see section "5.1 Search." ← 15 Closing playing videos and moving to live screen. • **•** Opening or closing the record time-line. 16 \* 두 Activating/deactivating automatic hidden function of Launcher menu. 17





Figure 5-8 Playback Launcher > Record Time-Line

No.	Name	Function
1	Time lines	Shows the time recording status. Select the desired time with the mouse.
2	<b>X</b>	Add bookmarks at the selected time in the timeline.
3	8	Run a manual backup. For more information about manual backup, see section "3.2.1 Backup".
4	Ð	Open the calendar pop-up window and select a date from the calendar.
5	ALL QUAD SINGLE	Show time bar by single channel, quad channels or all channels.
6	Θ	Show time line by 1hour or 24hours(toggle).

Click mouse right button to open **quick menu** in the playback mode.



Figure 5-9 Playback Quick menu

No.	Item	Description
1	Screen Mode	Select the partition mode of live screen (Full, 2X2, 3X3, and 4x4).
2	Zoom in	Magnify selected live screen (2x, 4x 8x). This menu is shown full screen mode only.
3	VCA Overlay	VCA overlay on the screen.
4	Speaker Output/Mute	Turning on/off a sound speaker.
5	Goto Live	Stop playback and return to live mode.
6	Search	Open Search window.
7	Backup	Open manual backup menu.
8	Status	Open Status window.
9	Set Bookmark	Save the bookmark.

Item	Recommended	Minimum
OS	Microsoft® Windows® 10 x86(64bit) (Home Premium, Professional, Ultimate) Microsoft® Windows® 8(pro, Enterprise)	Microsoft $\ensuremath{\mathbb{R}}$ Windows $\ensuremath{\mathbb{R}}$ XP Home SP3
CPU	Intel CoreTM i5-2550 3.30GHz or higher	Intel CoreTM 2 Duo E7200 2.53GHz or higher
RAM	4GB or higher	2GB or higher
VGA	ATI RadeonTM HD 3650 or NVIDIA GeForce 8400GS or higher(1280x1024, 32bpp or Higher), Multi Monitor	ATI RadeonTM HD 2400 or NVIDIA GeForce FX5500 or higher(1024x768, 24bpp or higher)
HDD	Over 6GB	Over 1GB
LAN	Gigabit Ethernet	10/100 Mbps Ethernet

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

How to monitor with webviewer

1. Enter IP address of a recorder in Internet browser.



- 2. Click the button and then enter ID and Password.
  - Viewer: playing recorder Live images
  - Setup: setting menu in similar ways with recorder connected monitor.

For using Viewer, users need to download Java. The way to download is shown as follows:

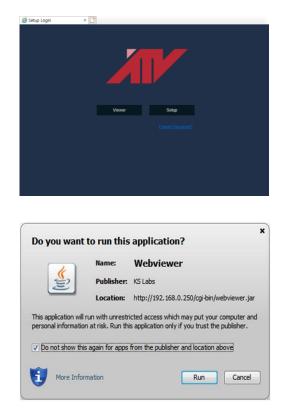
#### In case of selecting Viewer(Internet Explorer)

When Java download screen opens,

download and install JAVA.

1. Click Viewer.

2.





3. Live images may be monitored.

Web View	×	- # 0				44.55
XIV		4		2015/12/24 09:0	2:51 Stream 2	~
			×			
	_					

#### In case of selecting Viewer(Chrome)

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

Click Keep button.

🕒 Web View	×				^
← → C 🛈 19.	2.168.11.40/cgi-bin/chromeLog	gin.cgi		<b>0</b> 7 ☆	:
'hrome Web viewe lease Download .jr	r Ilp file and click to run webvi	ewer			
This type of file	can harm your computer. Do you ( bviewer_chromjnlp anyway?	Keep	Discard	Show all	×

Run Cancel

2. Click webviewer\_chrome.jnlp.

🗋 Web Vie	w × 🗌		
$\leftarrow  \rightarrow  G$	192.168.11.40/cgi-bin/chromeLogin.cgi	~ ☆	:
Chrome Wel Please Down	o viewer aload jnlp file and click to run webviewer		
🗋 webvie	wer.chromjnlp	Show all	×

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

Do you want to run this application?
Name: Webviewer
Publisher: Digital House Inc.

Location: http://192.168.11.40

This application will run with unrestricted access which may put your computer and personal information at risk. Run this application only if you trust the location and publisher above.

Do not show this again for apps from the publisher and location above

More Information

4. Live images may be monitored.

9 Web View	×		1002 3 5		40.00
XIV.		<u> </u>	2015/12/24 09:	02:51 Stream 2	

#### In case of selecting Setup

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

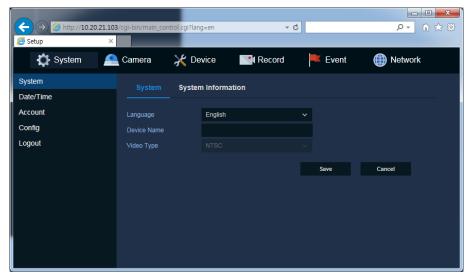


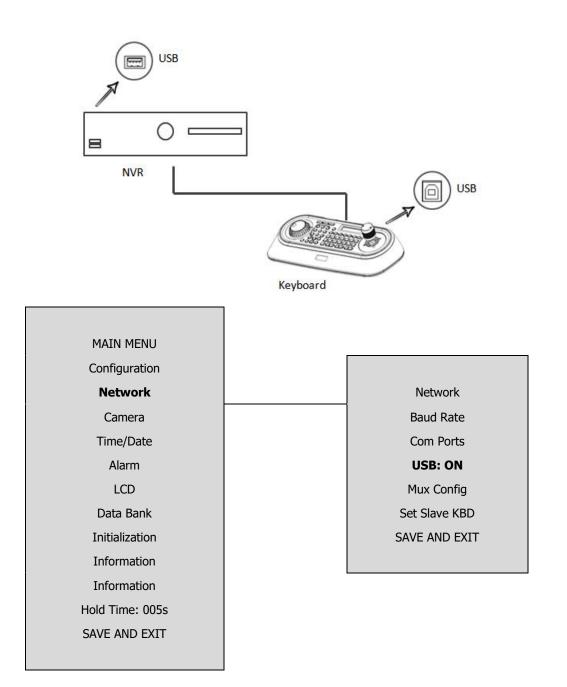
Figure 6-1 Setup screen

### 7. Appendix

### 7.1 Installing System Keyboard

To setup the keyboard controllers, the user needs to setup the network, passwords and perform special tasks such as Uploading and Downloading programmed data from the dome cameras. To enter the Keyboard menu, press and hold CTRL and press MENU expressed as CTRL + MENU in the manual. You will see the following menu.

#### Keyboard Setup- for USB

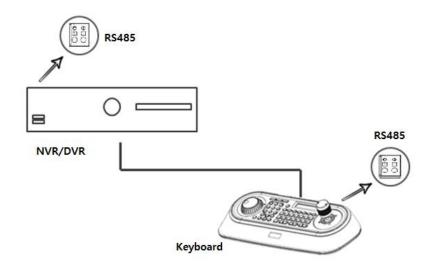


Set USB On in the keyboard menu.

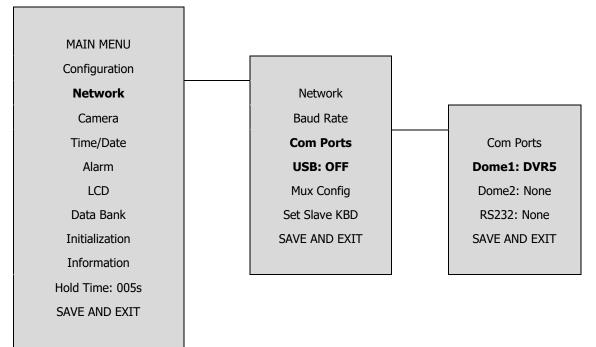
Menu	Status	Configuration
USB	ON	Client Keyboard : Only USB Port(The other ports and slave keyboards are not supported)
	OFF	General Keyboard : Dome1/Dome2/RS232(The USB port is not supported)

Note	If Keyboard Controller power is disconnected and reconnected, you must also disconnect and reconnect the USB either from the Keyboard Controller or DVR/NVR side
------	--

#### Keyboard Setup- for RS485



SET USB Off and Dome1: DVR5 in keyboard menu.



#### **Recorder Setup**

Set serial port of recorder.

#### Device > Serial Device

Name	Baudra	te	Parity			Data Bit			Stop Bit		Туре	
USB	9600	~	None	~	8		~	1		~	Keyboard	~
485												
485 Name	Baudra	te	Parity			Data Bit			Stop Bit		Туре	

Figure 7-1 Device > Serial Device

#### In case of USB Connection

Name	Baudrate	Parity	Data	Stop bit	Туре
USB	9600	None.	8	1	Keyboard

In case of RS-485 Connection

Name	Baudrate	Parity	Data	Stop bit	Туре
RS-485	9600	None.	8	1	Keyboard

#### KBD Controller Keys in Live mode

Function	Key Label	Descriptions
Menu		Enter the DVR/NVR MENU screen. Pressing the button also closes the MENU screen. Using the Joystick, you can navigate menu and select by turning the Joystick clockwise. This will also function as Enter.
Display Mode		Change the display mode to different split screen.
PTZ	PTZ	Control PTZ camera(s) connected channel(show icon). In the PTZ control mode, PTZ icon change to . Please icon to open PTZ quick menu. Press PTZ button again to exit PTZ mode.
Enter	SET 🖌	Select a highlighted item or completes an entry that you have made. Using the Joystick and turning it clockwise will also function as Enter.
Full Screen and Input Number	No.+ MAIN	Displays selected channel in full screen. However, when selecting a channel to display in full screen, no channels must be highlighted (yellow border) in the multi-channel mode.
Digital Zoom	Q	From Live display, select the desired channel and press Zoom button to activate the Zoom Mode. Twist joystick to zoom in and out control. Press again to exit zoom mode.
Digital Zoom Control		Digital zoom in/out control.
Freeze	FRE	From Live Display, click the FRE button to activate the Freeze Mode.
Auto Sequence Mode	SEQ	When in the Live Mode, press the SEQ button will display another full live channel sequentially.
Alarm	Ĵ	Will turn off the alarm and beep.
Record	•/*	Toggle will start and stop the panic recording operation.
Search	SCAN	Open search menu. Press again, menu move to Time -> Event -> Thumbnail -> Smart Search -> Text -> VCA. Click cancel in the recorder menu or press ( to exit search menu.
Play	<b>►/II</b>	Go to Playback mode. During playback, pause the video.
Joystick		<ul> <li>The use of the Joystick will allow you select channels, view in different modes (single or multiple), Zoom in/out, Select/Enter or navigate through menu.</li> <li>Turn the Joystick counter clockwise for single view mode.</li> </ul>

#### KBD Controller Keys in PTZ mode

Function	Key Label	Descriptions
PRESET, TOUR, PTRN, SCAN Action	No. + PRST TOUR PTRN SCAN	PRST, TOUR, PTRN, SCAN action
PRESET Setting	No. + CTRL PRST	Preset save.
Zoom		Zoom in/out control. Turn the Joystick clockwise or counter clockwise for zoom in/out control.
Iris		Iris Open/Close control, Smart focus(specific camera). Open camera OSD menu(specific camera)
Focus		Focus Near/Far control.
Configuration	MENU	Enters PTZ programming menu.
Control	CTRL	CTRL + Joystick : In a programming mode (Preset, Pattern, Scan, Privacy) the joystick operates as if in the normal control mode. While pressing and holding down the CTRL key, all movements of the joystick will start recording when in the pattern programming menu.
Cancel	esc	Cancels current inputs. Exits from currently running functions or menu, error status, etc.
Enter	ENTER	Completes entering data for the password or title
PTZ	PTZ	Enter or exit PTZ mode.
Menu		Open PTZ quick menu.
Enter	SET L	Enter button under quick menu or pop-up menu.
Channel Change	No. + MAIN	Channel change.
Joystick		PTZ control or menu navigation control.

#### KBD Controller Keys in Playback mode

Function	Key Label	Descriptions		
Play Back Control	<b>&gt;/11</b>	Play/Pause recorded data		
Play Back (PB) Stop		Pause/Play, Fast Forward, Fast Rewind, Forward One Frame, Go Back One Frame		
Play Back (PB) Stop	(■/ඌ)	Stop Playback and return to Live mode		
Jog/Shuttle	$\bigcirc$	Fast Forward, Fast Rewind, Forward One Frame, Go Back One Frame		

## 8. Products Specifications

MODEL	4CH NVR	8CH NVR	16CH NVR	
VIDEO				
Video Input	4 IP	8 IP	16 IP	
Video Input				
Resolution	Up to 8MP	Up to 8M	Up to 8M	
Compression	H.264, H.265	H.264, H.265	H.264, H.265	
Display Output	1 VGA, 1 HDMI	1VGA, 1 HDMI	1VGA, 1 HDMI	
Display Resolution	3840x2160, 1920x1080,	3840x2160, 1920x1080,	3840x2160, 1920x1080,	
	1280x720, 1024x768	1280x720, 1024x768	1280x720, 1024x768	
Display Speed	100/120fps	200/240fps	400/480fps	
Display Mode	1/4 Split, Sequence	1/4/8/9 Split, Sequence	1/4/8/9/10/16 Split, Sequence	
RECORDING				
Recording Speed	100/120fps@8MP	200/240fps@8MP	400/480fps@8MP	
Max. Recording				
Throughput	40Mbps(T.B.D)	80Mbps(T.B.D)	160Mbps(T.B.D)	
	Continuous, Motion, Alarm,	Continuous, Motion, Alarm,	Continuous, Motion, Alarm, C+M, C+A, M+A, C+M+A, Panic	
Recording Mode	C+M, C+A, M+A, C+M+A,	C+M, C+A, M+A, C+M+A,		
	Panic	Panic		
Pre Alarm	1sec ~ 3sec	1sec ~ 3sec	1sec ~ 3sec	
Post Alarm	5sec ~ 1hour	5sec ~ 1hour	5sec ~ 1hour	
PLAYBACK				
Simultaneous		1/4/8/9 Split	1/4/8/9/10/16 Split	
Playback	1/4 Split			
Playback Mode	Backward, Forward 2x~64x,	Backward, Forward 2x~64x,	Backward, Forward 2x~64x,	
	Timelaps	Timelaps	Timelaps	
Search Mode	Time, Event, Thumbnail, Text,	Time, Event, Thumbnail, Text,	Time, Event, Thumbnail, Text,	
	Smart(motion), VCA	Smart(motion), VCA	Smart(motion), VCA	
STORAGE				
Internal HDD	2 HDD	2 HDD	2 HDD	
Backup	USB	USB	USB	
Backup File Format	MP4, H4V	MP4, H4V	MP4, H4V	
FUNCTION				
	POS/ATM	POS/ATM	POS/ATM	
Text In	POS/ATM (Network, VSSI-Pro, ASCII)	POS/ATM (Network, VSSI-Pro, ASCII)	POS/ATM (Network, VSSI-Pro, ASCII)	

MODEL		4CH NVR	8CH NVR	16CH NVR
NETWORK				
Ethernet	WAN	1 RJ45 10/100 Base-T	1 RJ45 10/100/1000 Base-T	1 RJ45 10/100/1000 Base-T
	PoE	4 RJ45 10/100 Base-T	8 RJ45 10/100 Base-T	16 RJ45 10/100 Base-T
	PoE Power	30W (802.3at/af compliance)	60W (802.3at/af compliance)	120W (802.3at/af compliance)
MAX. Output Throughput		Unlimited	Unlimited	Unlimited
		(Guarantee 72Mbps, Support	(Guarantee 144Mbps, Support	(Guarantee 288Mbps, Support
		Bandwidth Control)(T.B.D)	Bandwidth Control)(T.B.D)	Bandwidth Control)(T.B.D)
Remote Monitoring		CMS, Mobile, Web, Dashboard	CMS, Mobile, Web, Dashboard	CMS, Mobile, Web, Dashboard
EXTERNAL	_ IN/OUT			
Audio In		1 RCA, 4 IP Camera	1 RCA, 8 IP Camera	1 RCA, 16 IP Camera
Audio Out		1 RCA, 1 HDMI	1 RCA, 1 HDMI	1 RCA, 1 HDMI
Alarm In		4 Input(Terminal block) Relay	8 Input(Terminal block) Relay	16 Input(Terminal block) Relay
		1A-24VDC / 0.5A~125VAC	1A-24VDC / 0.5A~125VAC	1A-24VDC / 0.5A~125VAC
Alarm Out		1 Output(Terminal block)	1 Output(Terminal block)	1 Output(Terminal block)
Serial Port		1 RS485(Terminal block)	1 RS485(Terminal block)	1 RS485(Terminal block)
USB		2 : USB2.0	2 : USB2.0	2 : USB2.0
ETC				
Operating H	lumidity	0 ~ 90% RH (Non-condensing)	0 ~ 90% RH (Non-condensing)	0 ~ 90% RH (Non-condensing)
Operating Temperatur	re	0°C ~ +40°C	0°C ~ +40°C	0°C ~ +40°C
Power Supp Note 1 belo		DC 48V, 1.35A (65W)	DC 48V, 2.0A (96W)	DC 48V, 4.58A (220W)
Power Consumption		24W	32W	40W
	sumption	(Include 2HDD, Without PoE)	(Include 2HDD, Without PoE)	(Include 2HDD, Without PoE)
Dimension	(WxHxD)	375 x 45.0 x 318.2mm	375 x 45.0 x 318.2mm	375 x 45.0 x 318.2mm
Net Weight		Approx. 2.2Kg(Exclude HDD)	Approx. 2.5Kg(Exclude HDD)	Approx. 2.3Kg(Exclude HDD)

 $\ensuremath{\mathbbmm}$  Specifications are subject to change without notice.

Note 1: When connecting IP cameras and installing HDD's, ensure devices do not exceed the maximum power specification

# 4/8/16 CH NETWORK VIDEO RECORDER USER MANUAL