CTAVUE[®] Securing Your World.

GSD GROUP

USER MANUAL

QUAD CAMERA

Statement	4
1 Overview	5
1.1 Scope of Application	5
1.2 Product Description	6
1.3 Operating Environment	6
2 Device Connections	7
3 Setting IP Address of IPC Using Device Config Tool	8
4 Web Login	9
4.1 Web Accessing IPC	9
4.2 Initial Login	9
4.3 Normal Login	11
4.4 Password Retrieval	11
4.4.1 Security Question Configuration	11
4.4.2 Certificate of Authorization	12
4.4.3 Super Code	12
4.5 Password Aging	12
5 Installing Plug-in	13
6 Live View	14
6.1 Live View Menu	14
6.2 Recording Status	16
7 Playback Screen	16
7.1 General Playback	16
7.2 Picture Search	19
7.3 Playback by Tag	20
7.4 Smart	21
7.5 Al	22
7.5.1 Playback by Face Detection	22
7.5.2 Playback by Pedestrian & Vehicle Detection	24
7.5.3 Line Crossing	25
7.5.4 Intrusion	26
7.5.5 Region Entrance	27
7.5.6 Region Exiting	28
7.5.7 License Plate Detection	29

7.5.8 Repeat Customer Detection	29
7.5.9 Face Attendance	32
8 Remote Parameter Setup	36
8.1 Live View	36
8.2 Image Control	36
8.3 Video Cover	
8.4 ROI	40
8.5 Record	41
8.5.1 Encode	41
8.5.2 Record	42
8.5.3 Capture	43
8.6 Event Setup	44
8.6.1 Setup	44
8.6.2 Alarm	47
8.6.3 Event Push Platform	52
8.7 AI	54
8.7.1 Setup	54
8.7.2 Recognition	70
8.7.3 Alarm	74
8.7.4 Statistics	78
8.8 Network Setup	83
8.8.1 Basic Settings	83
8.8.2 Email	86
8.8.3 FTP	87
8.8.4 RTSP	88
8.8.5 DDNS	88
8.8.6 HTTPS	89
8.8.7 IP Filter	
8.9 Device	91
8.9.1 Disk	91
8.9.2 Audio	92
8.9.3 Cloud	92
8.10 System	93
8.10.1 General	93

94	8.10.2 Multi-User
96	8.10.3 Maintenance
	8.10.4 Information
101	9 Local Settings

Statement

Thank you for using our network camera series. Our network camera is an integrated network camera developed for network video surveillance. The high-performance chip integrates audio and video acquisition, compression, and transmission and the use of advanced and efficient encoding algorithm guarantees clearer and smoother video streaming. The embedded Web server enables users to easily view and remotely control cameras through the IE browser.

Our network cameras are suitable for large and medium-sized enterprises, government projects, large shopping malls, chain supermarkets, intelligent buildings, hotels, hospitals, schools, and various venues where remote video transmission and surveillance are desired. The product features ease of installation and user-friendly control.

Introduction:

- In this Manual, IP cameras refer to 4D panoramic network cameras.
- Click indicates the click on the left mouse button.
- Double click indicates the double click on the left mouse button.
- The IP address of the IP camera is 192.168.1.168 by default.
- You need to set the password as instructed when you use the IP camera for the first time. You can log in with admin in lower case as username and initial password given in Section 4.2.
- The Web port number is 80 by default and the ONVIF port number is synchronized with the Web port number. Port 9000 is not supported.

Notes:

Part of information contained in this Manual may differ from the real product. For any problem that is not given in this Manual, please contact our technical support or authorized distributor. This Manual is subject to change at any time. The latest version shall prevail.

1 Overview

1.1 Scope of Application

The camera provides multiple different angles of view and is suitable for surveillance application scenarios with wide coverage so that you do not have to install multiple ordinary cameras. It can be used in large squares, traffic intersections, industrial parks, large shopping malls, sports venues, and exhibition centers to monitor activities and traffic flow in a large area and improve regional management, as shown below:



1.2 Product Description

The IP camera is a digital networked surveillance camera that can independently operate the built-in Web server. Users can use the IP camera for real-time surveillance whenever and wherever possible by using a Web browser or client software.

The IP camera, based on the up-to-date digital solutions, is an integrated media processing platform featuring audio/video acquisition, compression, and network transmission on a single board. Any remote users can perform real-time surveillance by entering the IP address or domain name of the IP camera in their Web browser. The IP camera solution is suitable for residential or commercial environments and various venues that remote network video surveillance and transmission are desired. This product features ease of installation and user-friendly control.

The IP camera can be configured with multiple users with different role permissions for ease of management.

The IP camera offers several alarm functions, and when an event occurs, will actively send you email notification, capture image or alarm recordings, and will store alarm recordings in the TF card for your future retrieval.

1.3 Operating Environment

Operating system: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11/ MacOS 10 and later versions CPU: Intel I3 or later versions Memory: 2 GB or higher Video memory: 1 GB or higher Display: 1024×768 or higher Browser: IE 10, Chrome 57, Firefox 52, Edge 41, and Safari 12 and their respective later versions

2 Device Connections

The IP camera can be connected in the following two ways:

2.1 Connecting to a PC

Connect the IP camera to a PC using a network cable, connect the power input to the 12 VDC adapter, and then set the IP addresses of the PC and IP camera in the same network segment. If the network connectivity is normal, the IP camera will communicate with the PC within one minute after it is turned on.



2.2 Using a Router/Switch

This method is generally used to connect the IP camera to the Internet. The IP camera and PC are connected to the LAN ports of the router/switch, and the gateway of the IP camera is set to the IP address of the router.



3 Setting IP Address of IPC Using Device Config Tool



Run Device Config Tool and click Search to obtain the information of the IPC in the LAN as shown in the following figure. Then, locate the IPC according to the P2P ID or MAC address of the camera.

l	Q De	vice Searc													
	Search	Upgrade	Config	Stream Config	OSD Config Re	covery Initializatio	n Import/Export	Reboot Cha	nge Password					Filtration	IP v
	No.	IP	Media Port	Web Port	Channel	Device Name	Device Type	Device Version	Net Mask	Gateway	MAC	Network Mode	P2P ID	Initialized	Status
	1	172.20.52.22	9000	80	1	30kg 2004i	30kg 200AJ	V31.35.8.2.4_230	255,255,255,000	172.020.052.001	00-23-63-94-49-DE	DHCP		true	
	2	172.20.52.23	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A5-D4-8D	DHCP	EPZAHA26NJY7UJZH111A	true	
	3	172 20 52 25	9000	80	1		RS-CH4122M4FEE- A20PW	V21.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7C-AA	DHCP	9ZH3W32DFDPKE6EK111A	true	
	4	172.20.52.25	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A7-78-AC	DHCP	9EDEK0344P8CM9DY111A	true	
	6	172 20 52 27	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A7-78-91	DHCP	5K8T8X6UZYPJH1Y2111A	true	
	6	172.20.52.28	9000	80	16	N7816-GR	N7816	V8.2.4-20230809	255.255.255.000	172.020.052.001	00-23-63-9E-7B-A7	DHCP		true	
	7	172.20.52.30	9000	80	4		RS-CH948M8PVA-LDF- LFWA2812PW	V44.45.8.2.3_230	255.255.255.0	172.20.52.1	00-23-63-A8-FE-F6	DHCP	NJJNMTKDTD8T7P11111A	true	
	8	172.20.52.31	0	443	18	RS-SW16	RS-SW16	V8.2.2-20230317	255.255.255.000	172.016.008.001	00-23-63-A3-BD-B1	DHCP		true	
	9	172.20.52.34	9000	80	1		RS-CH240N4TUA- HALTE-W20PW	/30.85.8.2.3.2_23	255,255,255,000	172.020.052.001	00-23-63-A2-95-AA	DHCP		true	
	10	172.20.52.37	9000	80	1	NT98528- IMX307-5-25	RS-CH821N8D25-AP	V40.45.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-9E-7D-52	DHCP	RSV2111004690900	true	
	11	172 20 52 40	9000	80	1		eneo_modelname	V34.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7A-CF	DHCP	L9CM581114DU9DBY111A	true	
	12	172.20.52.44	9000	80	1	CH290H3_16M	IP CAMERA	V27.45.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-94-49-72	DHCP	WB987CRYUHBKZMK8111A	true	
	13	172.20.52.100	0	443	9	RS-SW08	RS-SW08	V1.1.0-20211025	255,255,255,000	172.020.052.001	00-23-63-93-62-14	Static		true	
	Jser Info			Device info											
,	JserName	admin Pass	word •••••	IP 172.20.52.30	Media Port 9000	Web Port 80	Gateway	172.20.52.1 Net	Mask 255 255 255 0	Net Mode DHCP	Ŧ				Modify

Note: The camera assigns an IP address using DHCP by default. Default username: admin, default password: admin.

Select your desired device and enter its username and password. Edit network settings and click Modify to save your changes.

Note: If the current network supports DHCP, you can change Net Mode to DHCP to obtain an IP address.

ļ	🔍 De	vice Searc													
	Search	Upgrade	Config	Stream Config	OSD Config R	ecovery Initializatio	n Import/Export	Reboot Char	ige Password					Filtration	IP v
	No.	IP	Media Port	Web Port	Channel	Device Name	Device Type	Device Version	Net Mask	Gateway	MAC	Network Mode	P2P ID	Initialized	Status
	1	172.20.52.22	9000	80	1	30kg 200Al	30kg 200Al	V31.35.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-94-A9-DE	DHCP		true	
	2	172.20.52.23	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255 255 255 000	172.020.052.001	00-23-63-A5-D4-8D	DHCP	EPZAHA26NJY7UJZH111A	true	
	3	172 20 52 25	9000	80	1		RS-CH4122M4FEE- A20PW	V21.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7C-AA	DHCP	9ZH3W32DFDPKE6EK111A	true	
	4	172.20.52.26	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255 255 255 000	172.020.052.001	00-23-63-A7-78-AC	DHCP	9EDEKX344P8CM9DY111A	true	
	5	<u>172 20 52 27</u>	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A7-78-91	DHCP	5K8T8X6UZYPJH1Y2111A	true	
	6	172.20.52.28	9000	80	16	N7816-GR	N7816	V8.2.4-20230809	255.255.255.000	172.020.052.001	00-23-63-9E-7B-A7	DHCP		true	
	7	<u>172.20.52.31</u>	0	443	18	RS-SW16	RS-SW16	V8.2.2-20230317	255.255.255.000	172.016.008.001	00-23-63-A3-BD-B1	DHCP		true	
	8	<u>172.20.52.34</u>	9000	80	1		RS-CH240N4TUA- HALTF-W20PW	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A2-96-AA	DHCP		true	
	9	<u>172.20.52.37</u>	9000	80	1	NT98528- MX307-5-25	RS-CH821N8D25-AP	V40.45.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-9E-7D-52	DHCP	RSV2111004690900	true	
	10	<u>172.20.52.40</u>	9000	80	1		eneo_modelname	V34.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7A-CF	DHCP	L9CM581114DU9DBY111A	true	
	11	172.20.52.44	9000	80	1	CH29XH3_16M	IP CAMERA	V27.45.8.2.4_230	255,255,255,000	172.020.052.001	00-23-63-94-A9-72	DHCP	WB987CRYUHBKZMK8111A	true	
	12	<u>172.20.52.99</u>	9000	80	4		RS-CH948M8P\A-LDF- LFWA2812PW	V44.45.8.2.3_230	255.255.255.0	172.20.52.1	00-23-63-A8-FE-F6	Static	NJUNMTKDTD8T7P11111A	true	
	13	172.20.52.100	0	443	9	RS-SWOB	R5-SW08	v1.1.9-20211025	255 255 255 000	172.020.052.001	00-23-63-93-62-14	State		true	
L	lser Info			Device Info											
L.	IserName	admin Pass	word	IP 172.20.52.99	Media Port 9000	Web Port 80	Gateway	172.20.52.1 Net	Mask 255.255.255.0	Net Mode Static	Ŧ				Modify

4 Web Login

4.1 Web Accessing IPC

In Device Config Tool, search for IPCs in the current network. As shown in the following figure, you can click an IP address to log in to the corresponding camera using your IE browser.

ļ	C De	vice Searcl														- ×
	Search	Upgrade	Config	Stream Config	OSD Config Re	covery Initializatio	m Import/Export	Reboot Chan	ge Password					Filtration	IP	¥
	No.	IP	Media Port	Web Port	Channel	Device Name	Device Type	Device Version	Net Mask	Gateway	MAC	Network Mode	P2P ID	Initialized	Status	
	1	172.20.52.22	9000	80	1	30kg 200AJ	30kg 200Al	V31.35.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-94-A9-DE	DHCP		true		
	2	172.20.52.23	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A5-D4-8D	DHCP	EPZAHA26NJY7UJZH111A	true		
	3	172.20.52.25	9000	80	1		RS-CH4122M4FEE- A20PW	V21.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7C-AA	DHCP	9ZH3W32DFDPKE6EK111A	true		
	4	172 20 52 26	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A7-78-AC	DHCP	9EDEKX344P8CM9DY111A	true		
	5	172 20 52 27	9000	80	1		IP CAMERA	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A7-78-91	DHCP	5K8T8X6UZYPJH1Y2111A	true		
	6	172 20 52 28	9000	80	16	N7816-GR	N7816	V8.2.4-20230809	255.255.255.000	172.020.052.001	00-23-63-9E-7B-A7	DHCP		true		
	7	172.20.52.30	9000	80	4		RS-CH948M8PVA-LDF- LFWA2812PW	V44.45.8.2.3_230	255.255.255.0	172.20.52.1	00-23-63-A8-FE-F6	DHCP	NJJNMTKDTD8T7P11111A	true		
	8	172.20.52.31	0	443	18	RS-SW16	RS-SW16	V8.2.2-20230317	255.255.255.000	172.016.008.001	00-23-63-A3-8D-81	DHCP		true		
	9	172.20.52.34	9000	80	1		RS-CH240N4TUA- HALTF-W20PW	/30.85.8.2.3.2_23	255.255.255.000	172.020.052.001	00-23-63-A2-96-AA	DHCP		true		
	10	172.20.52.37	9000	80	1	NT98528- IM0(307-5-25	RS-CH821N8D25-AP	V40.45.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-9E-7D-52	DHCP	RSV2111004690900	true		
	11	172.20.52.40	9000	80	1		eneo_modelname	V34.45.8.2.3_221	255.255.255.000	172.020.052.001	00-23-63-9E-7A-CF	DHCP	L9CM581114DU9DBY111A	true		
	12	172.20.52.44	9000	80	1	CH29XH3_16M	IP CAMERA	V27.45.8.2.4_230	255.255.255.000	172.020.052.001	00-23-63-94-A9-72	DHCP	WB987CRYUHBKZMK8111A	true		
	13	172 20.52 100	0	443	9	RS-SW08	RS-SW08	V1.1.0-20211025	255.255.255.000	172.020.052.001	00-23-63-93-62-14	Static		true		

Alternatively, you can launch your IE browser and enter http://ip:web port in the address bar. As shown in the preceding figure, the IP address of the device you currently want to access is 172.20.52.30 and web port number is 80. The combined URL is http:// 172.20.52.30:80. Note: The HTTP access mode will use port 80 by default in actual use.

4.2 Initial Login

You need to set the password before activating the IPC on the Web browser you use to access the IPC for the first time, as shown in Figure 4.2.1. You need to set a secure and

complex password. Click to check the requirement for a password: A password shall be 8 to 16 digits long and contain at least any two of the following characters: uppercase letters, lowercase letters, numbers, and special characters.

	Password	
New Password		
		Ø
Password Strength		
		 -
Confirm Password		
		ОК

Figure 4.2.1

After setting a new password, click OK to save your change. The Web client will display the screen as shown in Figure 4.2.2. Users can enable the corresponding password retrieval method by checking the checkbox next to it, or click Cancel without enabling the password retrieval function.

	Recover Password	×
Security Question Configuration		
Security Question 1	Your father's name?	
Answer		
Security Question 2	Your mother's name?	
Answer		
Security Question 3	Your head teacher's name in senior high school	
Answer		
Certificate of authorization 3		Export
Super code(Not recommended)		
	OK Cancel	

Figure 4.2.2

- Security Question Configuration: These verification questions should be answered to change the primary user password. If this checkbox is checked, you need to select three among 15 commonly-used questions and set answers to retrieve your password. An answer can contain at most 64 characters.
- ② Certificate of authorization: A secret key should be used to change the primary user password. If this checkbox is checked, you need to click Export to download the secret key file, namely, certificate.txt.
- ③ Super code (Not recommended): A super code should be used to change your password. The MAC address and system time of the current IP camera are used to calculate a super code that can be used to change the primary user password. Certain security risks exist since the MAC address of the IP camera, however, is broadcast in the network while the system time can be directly obtained when you log in to the Web and use the super code to change the primary user password. Users are not advised to check this checkbox.

Please keep the verfication information safe when you enable the password retrieval function.

4.3 Normal Login

You will be directed to the login screen as shown in Figure 4.3.1 when you access the Web page of the IPC. Enter your username and password and click Login to go to the operation screen of the IPC. You can select your desired system language on the login screen.

ENGLISH	
& Username	
Login	

Figure 4.3.1

4.4 Password Retrieval

The password retrieval function is enabled for the IPC. Users can click Recover Password on the login screen to go to the Recover Password screen if they forget their login passwords. You can retrieve your password by security question configuration, certificate of authorization, or super code according to your setting at initial login.

4.4.1 Security Question Configuration

On the login screen, click Recover Password to open the Recover Password screen, as shown in Figure 4.4.1. Security Question Verification is selected by default. You can change the primary user password by setting right answers to security questions.

	Recover Password	
Verification Mode	Security Question Verification	
Security Question 1		
Answer		
Security Question 2		
Answer		
Security Question 3		
Answer		
New Password		
Password Strength		
Confirm Password		
	OK Cancel	

Figure 4.4.1

4.4.2 Certificate of Authorization

On the login screen, click Recover Password to open the Recover Password screen and switch to Certificate of authorization. Figure 4.4.2 shows the screen. Click Import to import the secret key file, namely, certificate.txt. You will be prompted to download the secret key file when you check the "Certification of authorization" checkbox at your initial login.

ATTO, MARCH, MARCH, SOUCH, 19400, 19400			
		Recover Password	
	Verification Mode	Certificate of authorization	
	Certificate of authorization		
	New Password		
	Password Strength		
	Confirm Password		
		OK Cancel	

Figure 4.4.2

4.4.3 Super Code

On the login screen, click Recover Password to open the Recover Password screen and switch to Super Code. Figure 4.4.3 shows the screen. Enter the correct verification code to change the primary user password. The verification code is calculated according to certain rules by using the MAC address and system time of the IPC.

		Recover Password	
Verification Mode	s	Super Code	
Super code			
New Password			
Password Strength			
Confirm Password			
		Cancel	

Figure 4.4.3

4.5 Password Aging

Using the same password for a prolonged period of time will pose great security risks. The program will record the last system time you change the password. When the current login time is 90 days later than the last time you change the password, the system will ask whether you want to change the password.

When deciding to change the password, users will be directed to the screen as shown in

Figure 4.5.1. Enter the old password for verification purpose and set a new password according to on-screen instructions.

Password Nee Password Nee Password Password Stength Lee Continn Password			
New Password		Password	
Password Streigh Confirm Password Confirm Password	New Password 🕑		
Password Strongh Los Confirm Password			
Password Strength Low			
Confirm Password	Password Strength		
Confirm Plassword			
Confirm Password			
	Confirm Password		
OK Cancel			Cancel

Figure 4.5.1

5 Installing Plug-in

When logging in to the IPC from an IE browser, you need to install the plug-in to normally preview images. Download and install the plug-in according to the on-screen instruction shown in Figure 5.1.1.



Figure 5.1.1

Note:

Programs without plug-ins are supported. You can skip the plug-in installation procedure when Safari 12, Chrome 57, Firefox 52 and their respective later versions, and Edge 41 are used.

6 Live View

6.1 Live View Menu

Upon successful login, the Web client goes to the Live screen, as shown in the following figure.

Note: Functions may differ for different products. The real product shall prevail.

					Live	Playback	Remote Setting	Local Settings		• 🙂
Channel L	ist	■ MainStream	SubStream						2 2 (¢ 🗘
CH1										
CH2										
СНЗ										
CH4										
										×
								CH1:Face [Detection ala	arml
		 ∂∂•⊞		Ψ Q						

Stream Switch Menu: Enables users to switch the image quality of the current live view in the upper left corner.

Main stream: Higher definition with higher bandwidth use, higher requirement on interface performance on the PC side.

Sub stream: Moderate bandwidth use and requirement on PC, lower image quality compared with mainstream.

Mobile stream: Lowest bandwidth use and requirement on PC, worst image quality. Main Menu Switch Bar: Enables users to switch among Live, Playback, Remote Setting, and Local Settings.



Info: Displays current login user, Web version, and plug-in version.

AI Alarm: When the alarm push bar on the right is enabled, images will be pushed to you when face and pedestrian & vehicle detection is made.



Color: Used to adjust current image settings, such as saturation and sharpness.



PTZ Setting: Used to re-adjust camera focal length in PTZ Setting.

Exit: Log out.

Recording & alarm status: Displays the alarm and recording status of the current IPC. For

details, refer to Section 6.2.

Stop/Play: Used to enable or disable the current stream live view.

Bitrate: Used to switch between main stream and sub stream in the current live

view.

Divide Screen: Users can click this icon to select different layouts to display them in live view.

Play: Used to play streams of all channels in live view.

Stop: Used to stop streams of all channels in live view.

Original Proportions: Displays the current live view in original proportions.



Stretch: Displays the current live view in stretch mode.

Full Screen: Displays the current live view in full screen mode. Users can double click the screen to enable or disable this function. Users can press Esc to exit from the full screen mode if enabled.

Record: Enables users to manually record streams in live view. The record icon on the left is to manually record selected channels and that at the bottom is to record all channels.

രി Capture: Enables users to capture the image of the current stream. The capture icon on the left is to manually capture images on selected channels and that at the bottom is to capture images on all channels.

Ð

Digital Zoom: Used to zoom in a certain part of the display screen.

Audio: Used to turn on or off or adjust the sound of the stream in live view.



oice Intercom: Used to talk to the IP camera.

Light: Used to manually turn on or off white light.

Pixel Counter: Used to select an area to check the pixel of the area in the stream.

Add Tag: Users can click the icon to add tags.

Pop-up Info: When an alarm is triggered, the alarm of the corresponding channel will be displayed in the lower right corner.

6.2 Recording Status

The recording status is a simple prompt and brief description for the current alarm of the camera from the Web client. Several types of alarms may exist at a time. The following section explains them in details:

No icon: The SD card works normally but no video recording is made.

R: The camera is making routine video recording.

Note: When the camera is making video recording with alarm triggered, this icon disappears but routine video recording continues.

H: The SD card is abnormal. Please check the SD.

M: A motion alarm is in progress but the motion alarm recording is not made.

M: A motion alarm is in progress and the motion alarm recording is made.

I: An IO alarm is in progress but the IO alarm recording is not made.

I: An IO alarm is in progress and the IO alarm recording is made.

S: An intelligent alarm is in progress but the intelligent alarm recording is not made.

Note: Intelligent alarms include face and pedestrian & vehicle detection alarms.

S: An intelligent alarm is in progress and the intelligent alarm recording is made.

7 Playback Screen

The camera should enable users to view real-time images and also save image informations for retrieval upon request.

7.1 General Playback

The playback function mainly includes general video search and AI search. The following figure shows the general video search function.



- 1. **Search Mode Switch:** Enables users to switch search modes. As shown in the preceding figure, General is enabled by default and general recording files will be searched. To switch to Al image search, refer to the later part of this section.
- 2. **Search Date:** Enables users to set the date to search for recording files. Users will be prompted with dates with recording files when they click Search.
- 3. **Search Type:** Displays the search types the current camera supports. Users can search for part of recording files as needed.
- 4. Channel Selection: Enables users to select channels to search for.
- 5. **Playback Progress Bar Zoom-in/-out:** The progress bar displays the 24H progress information. Users can zoom in or out the progress bar to locate their play position more accurately. Users can also use this function by controlling the mouse wheel.
 - Pause/Play: Used to pause/play back streams.
 - **Stop:** Used to stop streams.
 - Forward by One Frame: Used to forward an image by one frame with each click.
 - **Synchronous Playback:** Used to play back recording files in four channels at a
- time.
 - **Record:** Used to manually record the current stream.
 - Capture: Enables users to capture the image of the current stream.
 - **Download:** Used to download the recording files in your search result.
- Speed: Enables users to play back recording files in 1/8, 1/4, 1/2, 1, X2, X4, X8, or X16 speed mode.
- Ŀ

Play All: Used to play recording files in all channels.



Щ×

Stop All: Used to stop recording files in all channels.

Audio: Used to turn on or off or adjust the sound of the stream in playback mode.

Add Default Tag: Used to add default tags. Mark the current time of the current channel as the playback start time, and click the icon to add tags.

Add Tag: Used to add custom tags. Click Add Tag. The Custom window appears. Users can name tags.

Digital Zoom: Used to zoom in a certain part of the stream in playback mode.

Original Proportions: Displays the current playback view in original proportions.



--

Stretch: Displays the current playback view in stretch mode.

Full Screen: Displays the current playback view in full screen mode. Users can double click the screen to enable or disable this function. Users can press Esc to exit from the full screen mode if enabled.

- 6. Search: Displays your search result in the SD card according to search settings.
- 7. **Playback Progress Bar:** The timeline bar shown at the bottom displays the current playback progress bar and total playback progress bar in different color bars according to search results.

7.2 Picture Search

When the auto capture function is enabled for the camera, users can search for and play pictures on this screen.



- 1. Search Mode Switch: Enables users to switch search modes. The currently effective search mode is Picture.
- **2. Search Date:** Enables users to set the date to search for pictures. Users will be prompted with dates with recording files when they click Search.
- **3. Search Time:** Used to set the time to search for pictures. Users can search for images by specifying a time range for easy retrieval.
- **4. Search Type:** Enables users to select picture capture type to search for, or select All Type to select all types.
- 5. Channel Selection: Enables users to select channels to search for.
- 6. Search: Users can click Search to start searching for pictures.
- 7. Search Result Display Area: Displays searched pictures. When users double click a picture, the videos recorded before and after the time period when the picture is captured will be played.
- 8. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.3 Playback by Tag

On this screen, users can view all previously added tags and edit, play back or delete them.

						Li	ve Playback Remote Setting	Local Settings	•
Tag ~	No.	Name	Channel	Date	Time	Playback	Edit	Delete	
Start time		Tag1		06/25/2023	16:43:38				
2023-6-25 00 : 00 : 00	2 2	Tag2	CH2	06/25/2023	16:43:45				
End time	3	Tag3	СНЗ	06/25/2023	16:43:49				
2023-7-4 23 : 59 : 59	4	Tag4	CH4	06/25/2023	16:43:53				
Keyword 0 ~ 20	4								
Channel List	Ĭ.								
CH1 CH2									
🗹 СНЗ 🔤 СН4	1								
						7			
6									
Search								8 K < 1 /	1 > ⇒ ⊣

- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Tag.
- 2. Start Time: Used to set the time to start searching for tags.
- 3. End Time: Used to set the time to end searching for tags.
- 4. Keyword: Users can search tags by entering keywords.
- 5. Channel Selection: Enables users to select channels to search for.
- 6. Search: Click Search to start searching.
- 7. Search Result Display Area: Displays search results matching users search conditions.

Click the button to play back events. Click the button to modify the name of an event. When you click the Save button, the Modify success dialog box appears. Click the

- button to delete the event.
- 8. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.4 Smart

You can enable smart playback by logging in from a browser without plug-ins, as shown in the following figure:



This function can identify artificially triggered alarms (if any) in routine operations and will display these alarms in blue in the play timeline bar at the bottom.

- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Smart.
- 2. **Search Date:** Enables users to set the date to search for smart events. Users will be prompted with dates with recording files when they click Search.
- 3. Search Time: Used to set the time to search for events for easy retrieval.
- 4. **Search Type:** Displays the search types the current camera supports. Users can search for part of recording files as needed.
- 5. Channel Selection: Enables users to select channels to search for.
- 6. Search: Click Search to start searching.
- 7. Search Result Display Area: Displays search results.
 - **Pause/Play:** Used to pause/play back streams.
 - **Stop:** Used to stop streams.

⊞

area.

- Capture: Enables users to capture the image of the current stream.
- **Speed:** Enables users to play back recording files in 1/8, 1/4, 1/2, 1, X2, X4, X8, or X16 speed mode.
- Audio: Used to turn on or off or adjust the sound of the stream in playback mode.
 - Smart: Users can click this icon to go to Smart detection area setting screen.
 - All: Users can click All to set the entire screen of the camera to Smart detection
- Delete: Users can click Clear All to clear the entire area.



double click the screen to enable or disable this function. Users can press Esc to exit from the full screen mode if enabled.

7.5 AI

7.5.1 Playback by Face Detection

The camera recognize faces and then face information and also image information will be stored in the TF card. Users can quickly retrieve face images matching search conditions as needed and quickly locate recording files according to captures images. The following figure shows the face search playback screen.



- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Face Detection.
- 2. Start Time: Used to set the time to start searching for face images.
- 3. End Time: Used to set the time to end searching for face images.
- 4. **Face Attribute:** The Face Attribute checkbox is not checked by default. When this checkbox is checked, only face images with face attribute detection enabled will be retrieved. The camera can recognize five face attributes including gender, age group, mask, glasses, and facial expression.
- 5. Alarm Group: The camera will match images with the corresponding group according to face database settings when capturing face images. This setting enables users to retrieve their desired images in the corresponding group.
- 6. Channel Selection: Enables users to select channels to search for.
- 7. Search: Used to search for face data according to settings.
- 8. Add: Add images to the image display area for comparison. Users can add local

images and captured images.

- 9. **Delete:** Used to delete the currently added image.
- 10. **Similarity:** Used to set the lowest similarity of feature values for matching faces when using the Compare function.
- 11. **Compare:** Used to retrieve face images by set search time, alarm group, and selected reference image.
- 12. Added Image Display Area: Displays currently added images that are available for comparison.
- 13. Search Result Display Area: The right section will display retrieved face images according to Search and Compare. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.

7.5.2 Playback by Pedestrian & Vehicle Detection

Similar to the face capture function, the camera can distinguish between pedestrians and vehicles, and record them as needed, enabling users to retrieve their desired records. The following figure shows the screen.



- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode Pedestrian & Vehicle.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. **Detection Type:** Used to set pedestrian and/or vehicle images to search for as needed.
- 5. Channel Selection: Enables users to select channels to search for.
- 6. Search: Used to search for pedestrian & vehicle images according to search settings.
- 7. Search Result Display Area: Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- 8. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.5.3 Line Crossing

With the development of technology, Line Crossing cannot only be compatible with the old way to alarm objects entering the warning area, but also add the pedestrian and vehicle detection function to alarm only pedestrian or vehicle objects and record image or video information for easy retrieval and viewing. The following figure shows the screen.



- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode Line Crossing.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. Vigilance: Set the capture mode triggering an alarm to Line Crossing.
- 5. **Detection Type:** Used to set pedestrian and/or vehicle images to search for as needed.
- 6. Channel Selection: Enables users to select channels to search for.
- 7. Search: Used to search for pedestrian & vehicle images according to search settings.
- 8. Search Result Display Area: Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- 9. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.5.4 Intrusion

The perimeter intrusion detection function detects whether objects enter the set warning area and triggers a linkage alarm according to the judgment. The pedestrian and vehicle detection function is available to alarm only pedestrian or vehicle objects and record image or video information for easy retrieval and viewing. The following figure shows the screen.

	Live	Playback	Remote Setting	Local Settings	• 🙂
Intrusion ~					
Start time					
2023-7-4 00 : 00 : 00					
End time					
2023-7-4 23 : 59 : 59					
Vigilance					
Intrusion × v					
Detection Type					
Human × +2 V					
— Channel List — — — — — — — — — — — — — — — — — — —					
	8				
CH1 CH2					
Search					
	Lie				

- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Intrusion.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. **Vigilance:** Set the capture mode triggering an alarm to Intrusion.
- 5. **Detection Type:** Used to set pedestrian and/or vehicle images to search for as needed.
- 6. Channel Selection: Enables users to select channels to search for.
- 7. Search: Used to search for pedestrian & vehicle images according to search settings.
- 8. Search Result Display Area: Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- 9. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.5.5 Region Entrance

The region entrance detection function detects whether objects enter the set warning area and triggers a linkage alarm according to the judgment. The pedestrian and vehicle detection function is available to alarm pedestrian or vehicle objects and record image or video information for easy retrieval and viewing. The following figure shows the screen.



- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Region Entrance.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. Vigilance: Set the capture mode triggering an alarm to Region Entrance.
- 5. **Detection Type:** Used to set pedestrian and/or vehicle images to search for as needed.
- 6. Channel Selection: Enables users to select channels to search for.
- 7. Search: Used to search for pedestrian & vehicle images according to search settings.
- 8. Search Result Display Area: Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- 9. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.5.6 Region Exiting

The region exiting detection function detects whether objects exit from the set warning area and triggers a linkage alarm according to the judgment. The pedestrian and vehicle detection function is available to alarm pedestrian or vehicle objects and record image or video information for easy retrieval and viewing. The following figure shows the screen.

	Live	Playback	Remote Setting	Local Settings	• 🕛
Region Exting v 1					
Start time					
2023-7-4 00 : 00 : 00 2					
End time					
2023-7-4 23 : 59 : 59 🗳					
Vigilance					
Regist Long x V					
Detection Type					
Hamatic 12 V D					
Channel List					
□ CH1 □ CH2					
CH3 CH4					
7					
Search				<mark>9</mark> k k 1 <i>1</i>	/ 1 ⇒ ⇒1

- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Region Exiting.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. Vigilance: Set the capture mode triggering an alarm to Region Exiting.
- 5. **Detection Type:** Used to set pedestrian and/or vehicle images to search for as needed.
- 6. Channel Selection: Enables users to select channels to search for.
- 7. Search: Used to search for pedestrian & vehicle images according to search settings.
- 8. Search Result Display Area: Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- 9. Search Result Page Turn: Users can turn search result pages in the lower right corner.

7.5.7 License Plate Detection

When the license plate detection function is enabled for the IPC, an alarm will be triggered when your desired license plate is recognized and image or video images will be recorded for easy retrieval and viewing. The following figure shows the screen.



- 1. Search Mode Switch: Enables users to switch search modes. The currently effective search mode is License Plate.
- 2. Start Time: Used to set the time to start searching for license plate images.
- 3. End Time: Used to set the time to end searching for license plate images.
- 4. Alarm Group: Recognize license plates by groups set in the database.

Note: When no group restriction is set, all images will be retrieved and the similarity setting is effective. Unrecognized license plate information will be ignored when group restrictions are set.

- 5. License Plate: Filter by license plate informations.
- 6. Fault-tolerant: Specifies a fault-tolerant rate. For example, if you set the fault-tolerant rate to a three-character value, when you search for license plate number B734KB against the database to which license plate number B594SB is registered, the system will not obtain any license plate information. That is, a license plate number containing more than 3 characters that are different from the license plate number in the database will not be recognized.
- 7. Channel Selection: Enables users to select channels to search for.
- 8. Search: Used to search for license plate images according to settings.
- **9. Search Result Display Area:** Displays search results. When users double click an image, the videos recorded just before and after the time period when the image is captured will be played.
- **10. Search Result Page Turn:** Users can turn search result pages in the lower right corner.

7.5.8 Repeat Customer Detection

The face recognition function can only trigger an instant alarm event but also deeply mine data to meet customer requirements. For example, the repeat customer recognition function is a typical application by installing a camera in a certain area of a shopping mall to check whether customers stop to watch the goods in this area. It is also possible to monitor a certain area to check whether a suspicious object frequently appears in the area. The following figure shows the repeat customer function screen.



- 1. **Search Mode Switch:** Enables users to switch search modes. The currently effective search mode is Repeat Customer.
- 2. Start Time: Used to set the time to start searching for pedestrian & vehicle images.
- 3. End Time: Used to set the time to end searching for pedestrian & vehicle images.
- 4. **Minimum Time Interval:** Used to set the minimum time interval between two capture actions of the same object to increase the search accuracy.
- 5. **Similarity:** Used to set the minimum similarity between other images and reference image for repeat customer matching.

Note: This setting takes effect only when alarm group is not checked for the current function.

6. Face Attribute: Filter searched images according to face feature values.

Note: All images can be retrieved if this option is not set. Only captured images matching the face attribute setting will be searched if this option is set.

7. Alarm Group: Repeat customers will be recognized by alarm groups set in the database if this option is set.

Note: When no group restriction is set, all images will be retrieved and the similarity setting is effective. Unrecognized people information will be ignored when group restrictions are set.

- 8. Channel Selection: Enables users to select channels to search for.
- 9. Search: Used to search for face images according to settings.
- 10. Search Result Display Area: Used to display search results in stacked mode. Users can double click image information in the display area to list the detailed information of images in stacked mode at the bottom area, and click an image again to play back it.
- 11. **Minimum Number of Occurrences:** Used to filter the search results by number of occurrences. You need to click Refresh to refresh the display.
- 12. **Sort Type:** Used to sort search results by time or capture count in ascending or descending order. You need to click Refresh to refresh the display.

- 13. **Refresh:** Refresh events on your IE browser according to Minimum number of occurrences and Sort Type settings.
- 14. Secondary Display Area of Search Results: Displays the image information of the selected object in an event list according to the selected information on the search result display area. Click the Play button to start playback.

7.5.9 Face Attendance

The face recognition function includes the repeat customer function and the face attendance function. The face attendance function is to retrieve matching faces in different groups (excluding strangers group) saved in the SD card at a specified time, and generate the attendance results according to the capture records. The following figure shows the function screen.

								Live Playback Remote Setting	Local Settings	•
Face attendance ~	1 Working day	/ Mon. × +4	· 11					Duty Time 08 : 30 : 00 ~ 17 : 30 : 00 1 2	Refresh 3 Ex	sport 14
— Search time mode ———	No.	Name	Group	Detail	07-04	Late	Leave Early	Absence		
Day	2 1		Allow List	Ð						
	2	ууфк	Allow List	۵						
2023-7-4 3 2023-7-4	4 3	111	Allow List						15	
Import type By group ~	5 4	010	Allow List	B 1	7 📯				15	
Alarm Group			Group 1							
	7		Group 1	8						
- Channel List	8		Group 1	n III						
AI AI	Q / Norm	ے متعلجہ اعد	Leave Early 🗧	Late and Le	ava Early	Abrence	16		K / 1 / 1	
CH1 CH2	- <u> </u>		ceare carry -	Care and Co	are carry	U Ausence				
CH3 CH4										
1	h									
	ř.									
Search										

- 1. Search Mode Switch: Enables users to switch search modes. The currently effective search mode is Face Attendance.
- 2. Search Time Mode: The options include day, week, month, customize and today. The system will automatically change the start date and end date after an option is selected. When day is selected, the end date will be automatically synchronized with the start date. When week is selected, the start date and end date will be automatically changed to Monday and Sunday of the week in which the date is selected. When month is selected, the start date and end date will be automatically changed to the first day and the last day of the month in which the date is selected. When customize is selected, you can customize the date. When today is selected, the start date and end date will be automatically changed to the first day and the last day of the month in which the date is selected. When customize is selected, you can customize the date. When today is selected, the start date and end date will be automatically changed to the current day.
- 3. Start Date: Used to set the time to start searching for face attendance.
- 4. End Date: Used to set the time to end searching for face attendance.
- **5. Import Type:** Used to select the import type. The options include By group and By face. The former one will search for matching results of all people in existing groups. The latter one will search for matching results of people in a certain group.

When By group is selected, face attendance results will be searched according to groups set in the database.



When By face is selected, the menu on the screen will change to that shown in the preceding figure.

6. Select Images: Click to select face images to be detected. The window shown in the following figure appears when you click this option.



Click **Alarm Group** to select a group and then click Search. All face images in this group will be searched. Select the face images to be subject to face attendance, and click **OK**. Selected face images will be added to the **Chosen** queue. You can click **Cancel** to close the window.

7. Chosen: Displays the queue of selected face images. The window shown in the following figure appears when you click this option.



Select a face image and click **Delete**. You can delete the face image from the queue. You can click **All** to select all face images. You can click **Cancel** to close the window.

- 8. Alarm Group: Used to search for face attendance by groups set in the database.
- 9. Channel Selection: Enables users to select channels to search for.
- **10. Search:** Used to search for face attendance according to settings.
- 11. Working Day: Used to set the working day.
- **12. Duty Time:** Used to set the duty time.
- **13. Refresh:** Click Refresh to refresh the search results if you have changed attendance settings.
- **14. Export:** Used to export results to your PC.

Attendance Results: " \leftarrow " indicates leave early, " \rightarrow " indicates late, "?" indicates late and leave early, " $\sqrt{}$ " indicates normal, and " \circ " indicates absence. The green line indicates the start time and end time of attendance.

								Live	Playback	Remote Set	ting L	_ocal Settings	! 🖱
Working d	ay Mon. × +4					Duty Time	08 : 30 : 00 ~	17 : 30 : 00				Refresh	Export
No.	Name	Group	Detail	04-23	Late	Leave Early				Absence			
1	. Commercia	Group 2	۵										
2		Group 2		0									
🗸 Noi	mal 🔶 Late 🔶 Le	eave Early 🛛 🖕	Late and Lea	we Early	O Absence								
					08:30:00					17:30:00			
04.23													
003	0 02:00	04:00	08:00		08:00	10:00	12:00	14:00	16:00	18:00	20:00	22:00	24:00

15. Search Result Display Area: Used to display search results in a table in the upper right corner, as shown in the following figure.

- **16. Secondary Display Area of Search Results:** When you click a face image, the detailed time information will displayed in the lower right corner. The time points matching this face image will be marked with red bars. You can click the red bars to start playback.
- 17. Click the **Detail** icon to check details. Click the **Playback** to start playback.

n Duty				No.	Channel	Start time	End time	Playbac
tatus	Leave Early	1 1 ¹⁰			IP CH3	2021-4-23 08:26:57	2021-4-23 08:27:15	
	00.20.57		-		IP CH1	2021-4-23 08:26:58	2021-4-23 08:27:18	
14		A BOUL			IP CH1	2021-4-23 08:27:19	2021-4-23 08:27:24	
l				4	IP CH3	2021-4-23 08:27:19	2021-4-23 08:27:22	
	5				IP CH3	2021-4-23 08:27:24	2021-4-23 08:30:05	
					IP CH1	2021-4-23 08:27:25	2021-4-23 08:30:06	
f Duty					IP CH3	2021-4-23 08:30:13	2021-4-23 08:30:15	
atus	Leave Early	1. 10		8	IP CH3	2021-4-23 08:30:21	2021-4-23 08:30:22	
F DUTY	12:56:43				IP CH3	2021-4-23 08:41:15	2021-4-23 08:41:24	
11/2				10	IP CH1	2021-4-23 08:42:26	2021-4-23 08:47:34	⊳
				11	IP CH3	2021-4-23 08:47:18	2021-4-23 08:47:32	
8		Dan-A		12	IP CH3	2021-4-23 10:36:54	2021-4-23 10:37:30	

Click the arrow in the lower right corner to turn up or down result pages.
8 Remote Parameter Setup

8.1 Live View

On the Live view, users can set channel name, device time, and CC, as well as statistics on smart functions and image stacking, as shown in the following figure.



Channel: Users can select a channel and set parameters.

Name: Specifies a channel name.

Date Format: Used to set the date format displayed on the OSD of the camera. The options include MM/DD/YYYY, YYYY-MM-DD, and DD/MM/YYYY.

Time Format: Used to set the time format displayed on the OSD of the camera. The options include 12H and 24H.

Refresh Rate: Used to set the refresh rate of the camera. The options include 60 Hz and 50 Hz, corresponding to NTSC and PAL.

Show Name: Specifies the channel name in live view.

Show Time: Specifies the camera time in live view.

Auto Text Color: Adaptive display of OSD color of camera time and channel name. OSD characters switch between black and white according to image background to avoid unclear display.

Channel Name Display Location: Users can set where a channel name is displayed by dragging it over an image.

Time Display Location: Users can set where a channel time is displayed by dragging it over an image.

Alarm Statistic Display Location: Users can set whether alarm statistic is displayed by dragging it over an image. This setting is displayed only when the alarm statistic function is enabled.

Save: Save your changes.

Refresh: Refresh parameters on the current screen.

8.2 Image Control

Image control is to directly control and modify graphical parameters, such as color to

black mode, wide dynamic range, backlight compensation, as shown in the following figure.

				Live	Playback	Remote Setting	Local Settings	•
₽ Channel	Image Control							
Live Image Control Video Cover ROI	Channel		Complex Complex	2023-09-15 (8:35-04				
음, Record	Image Setting	Full Color Mode	TRUE P					
Encode Record Capture	White Light	Manual	and the second s					
Event	Sensitivity							
Setup Alarm Event Push Platform	Light Distance	50	- / 2					
@ AI								
Setup Recognition Alarm Statistics	Corridor Mode	Disablo	and the second the					
() Network	Angle Adjustment		2 . 1					
General Email FTP	Mirror	Disable		and the second s				
RTSP DONS HTTPS IP Filter	Exposure Compensation	Disable						
Device	White Balance	Automatic mode						
Disk Audio Cloud	Shutter	Automatic mode						
System General Multi-User	Time Exposure							
Maintenance Information	3D Noise Reduction	Automatic mode						
	Save De	lault Refresh						



Channel: Users can select a channel and set parameters.

Image Setting: Used to set a camera image mode. There are three modes in total.

Full Color Mode: The camera works in Full Color Mode.

Day/Night Mode: The camera works in Day/Night Mode.

Schedule: The camera works in Schedule Mode. Users can set the schedule to automatically switch between Full Color Mode and Day/Night Mode.

White Light: Used to set the supplementary lighting effect of the warm light in Full Color Mode. There are four modes in total.

Automatic Mode: In this mode, the camera automatically adjust the intensity of the fill light according to ambient illumination.

Manual: In this mode, the camera supplements the lighting effect at a fixed brightness value.

Schedule: In this mode, users can set the schedule to automatically supplement the lighting effect by automatically turning on or off the warm light.

OFF: Used to turn off the warm light.

Sensitivity: Specifies sensitivity 0-3, indicating the degree to which the camera senses

the ambient light. The higher the value is, the higher the sensitivity is.

Light Distance: Specifies value range 0-100. **White Light** is the adjusted brightness value of the fill light in **Manual** mode. The higher the value is, the higher the brightness is.

IR-CUT Mode: Set the day/night mode of the camera in **Day/Night Mode** mode. There are four modes in total.

Day: Specifies Forced Color Mode without switching to B/W mode.

Night: Specifies Forced B/W Mode without switching to color mode.

Image: Similar to automatic mode, image control is used to switch between color to black and black to color mode (for non-photosensitive model).

Schedule: Used to switch between B/W mode and color mode according schedule settings. Users need to set the start and end time to enter the night vision mode if this function is enabled.

IR-LED: Used to set the supplementary lighting effect of the IR light of the camera in night vision mode. There are three modes.

SmartIR: Used to intelligently control the light complement intensity of the IR light and dynamically control the light complement of the IR light according to focal length and framing overexposure.

Manual: In this mode, users can manually fill light at the set intensity of the IR light. OFF: No light complement is available.

Low Beam Light: Users can manually adjust the brightness value of the IR light. (value range: 0-100. 0 indicates that the IR light is off and 100 indicates the highest brightness.) Corridor Mode: Specifies the Corridor Mode.

Angle Adjustment: Specifies image rotation settings. Users can set this value to adjust an image to its horizontal positioning when it is upside down in some camera application scenarios.

Mirror: Used to set the Mirror Mode. There are four modes in total.

Disable: Used to disable the Mirror Mode.

Vertical: Specifies Mirror Mode in vertical direction to makes images on the screen swap up and down.

Horizontal: Specifies Mirror Mode in horizontal direction to makes images on the screen swap left and right.

All: Both Vertical and Horizontal are enabled. The resulting effect is similar to 180° rotation, but the implementation principle is different.

Exposure Compensation: Used to set how the program behaves when backlit. There are four modes, including:

WDR: Specifies wide dynamic range. Users can make the entire screen balanced according to the WDR Level setting to clearly recognize both bright and dark areas. HLC: Specifies highlight compensation. Objects in the highlighted area on the screen can be recognized more clearly according to the HLC Level setting. (This function is unavailable in some models.)

Back Light: The dark areas on the screen can be displayed more clearly according to the **BLC Level** and **BLC Area** settings.

Disable: No exposure compensation optimization will apply on the image screen. **White Balance:** Specifies white balance settings. There are two modes:

Automatic mode: In this mode, default parameters will be used for white light

adjustment.

Manual: In this mode, users can manually set synthetic gained white light of red, green, and blue.

Shutter: Used to set the shutter exposure time. There are two mode.

Automatic Mode: The program automatically select a proper exposure time according to the **Time Exposure** setting.

Manual: The current Time Exposure setting will be directly used.

Note: In Automatic mode, the Flickerless option is unavailable for exposure time. In Manual mode, the Flickerless option is available for exposure time. If users switch to the Automatic mode, the exposure time automatically switches to 1/100 or 1/120.

Time Exposure: Used with the Shutter function to set the exposure time. When the exposure time is set to a large value, the monitoring screen will be over exposed. The monitoring screen is dark when the exposure time is set to a low value.

3D Noise Reduction: Used to reduce image noise to make the screen more clear. There are three modes.

Automatic mode: The camera automatically selects the noise reduction effect based on algorithms.

OFF: The noise reduction function is disabled.

Manual: The noise is reduced according to the manually set noise reduction coefficient.

Save: Used to save edited image parameters.

Default: Used to restore image control parameters to default values.

Refresh: Used to refresh image parameters.

8.3 Video Cover

If users want to cover some specific areas in an image screen, this function enables users to create up to four private areas of any size at any locations. Enable this function and select the private areas to be enabled. The areas are covered with "red blocks". Users can click the edge of a red block and drag it to adjust to any size to create a privacy area.



Channel: Users can select a channel and set parameters. **Enable:** Used to enable the video cover function.

Cover Area Setting: Users can set up to four private areas which can be moved or stretched by users. The cover blocks are in red when setting and change to black after taking effect.

Delete: Used to delete selected cover blocks.

Note: When private areas are set, the images covered by private areas are invisible in live view and playback mode.

8.4 ROI

ROI (sensitive area) is a region of interest selected from the video region. This region can be set with a frame rate and definition different from the non-selected region. (Note: This function is mutually exclusive with H.264+ and H.265+ coding, and cannot be enabled at the same time.)



Channel: Users can select a channel and set parameters.

Stream Type: Used to select the stream type you want to set.

Region ID: Used to set the region ID you want to set. Users can set up to eight regions. **Enable Region:** Used to enable a region. The Region ID and Enable Region are

independent for each region and need to be enabled, disabled, or set separately.

ROI Level: Used to set the quality of image in the region of interest. The higher the quality is, the higher definition the image is.

Non-ROI Fps: Used to set the frame rate outside the region of interest.

When Video Code Type is selected as H264+ or H265+, the ROI function is mutually exclusive with the function and cannot be enabled, as shown in the following figure.

			00
₽ Channel			
Live Image Control Video Cover ROI	Camera 2022-05-06-07-07-07		
📇 Record			
Encode Record Capture			
🖻 Event			
Sotup Alarm Event Push Platform			
() AI			
Setup Recognition Alarm	The following channel parameters failed to save		
Statistics	CH1 (Please close H264+/H265+)		
(@) Network	OK D		
General Email FTP DTSD DTNS MTTDS	Delate		
IP Filter			
Disk Audio Cloud			
System			
General Multi-User Maintenance Information			

8.5 Record

In this menu, users can configure live view parameters and recording parameters.

8.5.1 Encode

In this menu, users can configure image quality parameters for video recording and network transmission. Generally, "MainStream" is the quality of video recordings that will be stored in the HDD, and "SubStream" is the quality of video recordings in live view via remote access (for example, Web client and CMS).

				Live	Playback	Remote Setting	Local Settings	•
P Channel	MainStream SubS	tream						
Live Image Control Video Cover ROI	Channel							
음 Record	Resolution	3840 x 2160						
Encode Record Capture	FPS							
Event	Video Code Type	H 265						
Setup Alarm Event Push Platform	Video Code Level	Main Profile						
AI	Bitrate Control	CBR						
Setup Recognition Alarm Statistics	Bitrate Mode	Predefined						
) Network	Bitrate	8192	✓ Kbps					
General Email FTP	I Frame Interval		Ĵ (1 ~ 100)					
IP Filter	Audio	-						
Device	Save	efresh						
System								
General Multi-User Maintenance Information								

Channel: Users can select a channel and set parameters.

Resolution: Specifies the resolution of recorded images.

FPS: Specifies the frame rate of IPC recording.

Video Code Type: Specifies code type. The options include H.264, H.265, H.264+, H.265+, and MJPEG.

(The MJPEG mode exists only in Substream mode)

Video Code Level: Specifies video quality level. The options include Bestline, Main Profile, and High Profile.

(Only Main Profile is available for H.265 and H.265+.) Note: This option is unavailable in

MJPEG mode.

Bitrate Control: Specifies bit rate control level. For simple scenarios, for example, gray walls, constant bit rate (CBR) is recommended. For complicated scenarios, for example, busy streets, variable bit rate (VBR) is recommended.

Bitrate Mode: If you want to set the bit rate by yourself, please select the "Userdefined" mode. If you want to select the predefined bit rate, please select the "Predefined" mode.

Bitrate: Specifies the data transfer rate of video recordings by IPC. Recordings of higher quality will be gained with higher bit rate.

I Frame Interval: Specifies the I frame interval of the camera.

Audio: Enable this option if you want to record both audio and video at a time and connect the MIC to the IPC or use a camera with the audio recording function.

8.5.2 Record

8.5.2.1 Record Parameters

In this menu, users can configure record parameters.



Channel: Users can select a channel and set parameters.

Stream Mode: Specifies the record mode, that is, the video stream to be saved in the SD card. MainStream is selected by default.

Record: Select to enable recording.

PreRecord: If this option is enabled, the IPC starts recording a few seconds before an alarm event occurs. This option is recommended if the recording type is mainly based on motion detection or I/O alarms.

Netbreak: When this option is enabled, events will be recorded even when the network is disconnected or network connection error occurs.

Copy: Users can copy the parameters of the current channel to other channels.

8.5.2.2 Schedule

In this menu, users can specify when the IPC will record videos. Users can set recording plans in the schedules of different channels. Recording will be made only within the selected time range. Users can drag their cursors to mark areas.



8.5.3 Capture

8.5.3.1 Capture Settings

In this menu, users can configure automatic capture parameters.

						Live	Playback	Remote Setting	Local Settings	• 🕛
₽ Channel	Capture Capture	Schedule								
Live Image Control Video Cover ROI	Channel									
🛱 Record	Normal Interval									
Encode Record Capture	Alarm Interval									
Event	Auto Capture	•								
Setup Alarm Event Push Platform	Save	Copy	efresh							
(A) AI										
Setup Recognition Alarm Statistics										
) Network										
General Email FTP RTSP DDNS HTTPS IP Filter										
Device										
Disk Audio Cloud										
System										
General Multi-User Maintenance Information										

Channel: Users can select a channel and set parameters.

Normal Interval: Specifies the normal capture internal, that is, the capture interval in normal recording.

Alarm Interval: Specifies the alarm capture interval, that is, the capture interval during which motion detection and I/O alarm are triggered.

Auto Capture: Used to enable/disable auto capture.

8.5.3.2 Capture Schedule

											Live	Playback	Remote Setting	Local Settings	•
₽ Channel	Capture	Capture Schedule													
Live Image Control Video Cover ROI	Channel														
B Record	Sun.	0	2	4	6	8 10	12	14	16	18	20	22	0 Normal		
Event	Mon.												Motion		
Setup Alarm Event Push Platform	Tues.												0.0		
Al Setup Recognition Alarm	Wed.														
Statistics	Thur.														
Network General Email FTP	Fri.														
RTSP DDNS HTTPS IP Filter	- Oat														
Device		Capy	Relies												
System															
General Multi-User Maintenance Information															

Channel: Users can select a channel and set parameters.

Normal: When an area is marked in green, the channel normally captures images in the corresponding time range in this area.

Motion: When an area is marked in yellow, the channel captures images under motion detection in the corresponding time range in this area.

IO: When an area is marked in red, the channel normally captures images under I/O alarm in the corresponding time range in this area.

8.6 Event Setup

8.6.1 Setup

8.6.1.1 Motion

On this page, users can configure motion detection parameters. The camera will trigger a series of alarms when detecting the movement of detected objects in the monitoring screen. For example, the camera will send an email alarm together with images that trigger the alarm (if enabled) to the specified email address, or push a notification through a mobile app.



Users can drag their left mouse button to frame a detection area in the right window. Only motion in the area will trigger an alarm.

Channel: Users can select a channel and set parameters.

Enable: Used to enable or disable motion detection.

Sensitivity: Specifies the sensitivity of motion detection. The higher the value is, the higher the sensitivity.

8.6.1.2 White Light Deterrence

When the camera supports white light, users can configure deterrence parameters in this menu. When a deterrence alarm is triggered, the white light will be automatically turned on for deterrence purpose. as shown in the following figure:

						Disubash	Demote Cotting	Land Cattions	
					Live	Playback	Remote Setung	Local settings	0
P Channel	Motion Deterrence	Sound Detection							
Live Image Control Video Cover ROI	Light	-							
₽ Record	Duration		<u></u> (5 ~ 180)						
Encode Record Capture	Color Image	•							
Event	Deterrence Mode	Light Warning							
Setup Alarm Event Push Platform	Save De	efault Refresh							
() AI									
Setup Recognition Alarm Statistics									
Network									
General Email FTP RTSP DONS HTTPS									
IP Finer									
Device									
Disk Audio Cloud									
System									
General Multi-User Maintenance Information									

Note: When the camera supports white light and image control is set to Full Color Mode, the white light parameters are grayed out and unavailable. All parameters on this page can be set when image control is set to Day/Night Mode.

Light: Used to turn on or off a light alarm.

Duration: Specifies the duration for which the white light is turned on.

Color Image: Used to enable or disable Color Image. When this option is enabled, if the Day/Night Mode is switched to the Night Vision mode, when an alarm is triggered and white light deterrence is enabled, the image will switch to Color Mode and switch back to the Night Vision mode until white light deterrence ends.

Deterrence Mode: Used to set the white light mode. There are two modes:

Light Warning: Steady-on mode, in which the white light is steadily on during deterrence.

Light Strobe: Blink mode, in which the white light blinks at a set frequency during deterrence.

8.6.1.3 Sound Alarm

Users can set sound detection alarms and responses. An alarm is triggered when the camera detects the change to the connected audio and requirements set in alarm detection are met.

		Live	Playback	Remote Setting	Local Settings	•
₽ Channel	Motion Deterrence Sound Detection					
Live Image Control Video Cover ROI	Enable 💽					
📇 Record						
Encode Record Capture	Rise Sentalitvity 50					
Event	Sound Intensity 50					
Setup Alarm Event Push Platform	Dodine 🗾					
AI	Decline Sensitivity 50					
Setup Recognition Alarm Statistics	Save Schodalo Referah					
Network						
General Email FTP RTSP DONS HTTPS IP Filter						
Disk Audio Cloud						
System						
General Multi-User Maintenance Information						

Enable: Used to enable or disable sound detection.

Rise: Volume rise switch. If this option is enabled, an alarm will be triggered only when the volume suddenly rises.

Rise Sensitivity: Specifies the sensitivity to trigger volume rise. The value ranges from 1 to 100. The higher the value is, the higher the sensitivity to volume rise is.

Sound Intensity: Specifies sound intensity. This setting specifies the sound threshold. The higher the threshold is, the higher the sound level is to trigger a rise alarm (value range 1-100).

Decline: Volume decline switch. If this option is enabled, an alarm will be triggered only when the volume suddenly declines.

Decline Sensitivity: Specifies the sensitivity to trigger volume decline. The value ranges from 1 to 100. The higher the value is, the higher the sensitivity to volume decline is.

Schedule: Specifies the schedule for sound alarms. All schedules are enabled by default. Users can customize the time range to trigger a sound alarm so that a sound alarm will be triggered only within the scheduled time.



8.6.2 Alarm

In this menu, users can set actions to be executed when alarms are triggered. **8.6.2.1 Motion**

		Live	Playback	Remote Setting	Local Settings	•
P Channel	Motion I/O Sound Detection					
Live Image Control Video Cover ROI	Channel CH1 ~					
B Record	Latch Time 5 S v					
Encode Record Capture	Post Recording 5 S v					
Event	Send Email					
Setup Alarm Event Push Platform	Event Push Platform					
() AI	Light 🗾					
Setup Recognition Alarm Statistics	FTP Picture Upload All 1 2 3 4					
) Network	FTP Video Upload All 1 2 3 4					
General Email FTP RTSP DDNS HTTPS IP Filter	Cloud Picture All 1 2 3 4					
	Cloud Video All 1 2 3 4					
Disk Audio Cloud	Record Channel All 1 2 3 4					
System						
General Multi-User Maintenance Information	Save Copy Schedule Refresh Trigger	Alarm Out				

Channel: Users can select a channel and set parameters.

Latch Time: Used to configure the time length an external alarm is triggered when motion is detected.

Note: The camera must support I/O and the working time is controlled by the corresponding schedule.

Post Recording: Users can set the recording duration of the camera after an event occurs. The options include 5 s, 10 s, 20 s, and 30 s. The default recording duration is 5 s and the maximum value is 30 s.

Send Email: If this option is enabled, the camera will automatically send an email to users when motion is detected.

Event Push Platform: If this option is enabled, the information of this type will be pushed to the client when an alarm is triggered.

Light: When this option is enabled, the white light will be turned on for deterrence when an alarm is triggered.

FTP Picture Upload: Alarm pictures will be uploaded to the FTP server according to selected channels when an alarm is triggered.

FTP Video Upload: Alarm videos will be uploaded to the FTP server according to selected channels when an alarm is triggered.

Cloud Picture: Alarm pictures will be uploaded to the cloud storage platform according to selected channels when an alarm is triggered.

Cloud Video: Alarm videos will be uploaded to the cloud storage platform according to selected channels when an alarm is triggered.

Record Channel: Recordings of this type will be recorded according to selected channels when an alarm is triggered.

Copy: Users can copy the parameters of the current channel to other channels.

Schedule: Used to set schedules of alarm actions. A series of alarm actions will be triggered only within the schedule time.

Trigger Alarm Out: Used to enable outputting of alarm signals through the I/O interface when an alarm is triggered.



8.6.2.2 I/O Alarm

This function is optional. This function is available only when the camera supports an I/O sensor and is connected to an external I/O alarm device.

			Live	Playback	Remote Setting	Local Settings	•
🖵 Channel	Motion KO S	ound Detection					
Live Image Control Video Cover ROI	Alarm In	Local<-1					^
E Record	Alarm Type	Normally-Open					- 1
Encode Record Capture	Latch Time						
f Event	Post Recording						- 1
Setup Alarm Event Push Platform	Send Email	•					_
() AI	Event Push Platform	•					
Setup Recognition Alarm Statistics	Light	•					_
) Network	FTP Picture Upload						- 1
General Email FTP RTSP DDNS HTTPS	FTP Video Upload						_
IP Filter	Cloud Picture						- 1
Device	Cloud Video						_
System	Record Channel						
General Multi-User Maintenance Information							

Alarm In: Users can select Local<-1 or Local<-2 to generate an alarm.

Alarm Type: The options include Normally-Open, Normally-Closed, and Off. Select a type that matches the user's sensor, or select "Off" to turn off the sensor trigger feature. Latch Time: Used to configure the time length an external alarm is triggered when an I/ O alarm is detected.

Post Recording: Users can set the recording duration of the camera after an event occurs. The options include 5 s, 10 s, 20 s, and 30 s. The default recording duration is 5 s and the maximum value is 30 s.

Send Email: If this option is enabled, the camera will automatically send an email to users when an I/O alarm is detected.

Event Push Platform: If this option is enabled, the information of this type will be pushed to the client when an alarm is triggered.

Light: When this option is enabled, the white light will be turned on for deterrence when an alarm is triggered.

FTP Picture Upload: Alarm pictures will be uploaded to the FTP server according to selected channels when an alarm is triggered.

FTP Video Upload: Alarm videos will be uploaded to the FTP server according to selected channels when an alarm is triggered.

Cloud Picture: Alarm pictures will be uploaded to the cloud storage platform according

to selected channels when an alarm is triggered.

Cloud Video: Alarm videos will be uploaded to the cloud storage platform according to selected channels when an alarm is triggered.

Record Channel: Recordings of this type will be recorded according to selected channels when an alarm is triggered.

Copy: Users can copy the parameters of the current channel to other channels.

Schedule: Used to set schedules of alarm actions. A series of alarm actions will be triggered only within the schedule time.

Trigger Alarm Out: Used to enable outputting of alarm signals through the I/O interface when an alarm is triggered.

8.6.2.3 Sound Alarm



Latch Time: Used to configure the time length an external alarm is triggered when a sound alarm is detected.

Post Recording: Users can set the recording duration of the camera after an event occurs. The options include 5 s, 10 s, 20 s, and 30 s. The default recording duration is 5 s and the maximum value is 30 s.

Send Email: If this option is enabled, the camera will automatically send an email to users when a sound alarm is detected.

Event Push Platform: If this option is enabled, the information of this type will be pushed to the client when an alarm is triggered.

FTP Picture Upload: Alarm pictures will be uploaded to the FTP server according to selected channels when an alarm is triggered.

FTP Picture Video: Alarm videos will be uploaded to the FTP server according to selected channels when an alarm is triggered.

Cloud Picture: Alarm pictures will be uploaded to the cloud storage platform according to selected channels when an alarm is triggered.

Cloud Video: Alarm videos will be uploaded to the cloud storage platform according to selected channels when an alarm is triggered.

Record Channel: If the option is checked, recordings of this type will be recorded according to selected channels when an alarm is triggered.

Schedule: Used to set schedules of alarm actions. A series of alarm actions will be triggered only within the schedule time.



Trigger Alarm Out: Used to enable outputting of alarm signals through the I/O interface when an alarm is triggered.

8.6.3 Event Push Platform

Events are pushed through HTTP or UDP. The HTTP method includes POST and GET and the UDP method includes unicast, multicast, and broadcast. (Note: The event push function is available for some models.)



			Live	Playback	Remote Setting	Local Settings	• 🕛
🖵 Channel	Event Push Platform						
Live Image Control Video Cover ROI	Enable	•					
음, Record	Precise						
Encode Record Capture	Name						
🖻 Event	Push Way	HTTP UDP					
Setup Alarm Event Push Platform	Username						
() AI	Password						
Setup Recognition Alarm Statistics	Server Address	172.20.60.2					
) Network	Port						
General Email FTP	URL	API/AlarmEvent/EventPush					
RTSP DDNS HTTPS IP Filter	Method	POST					
Device	Interval						
Disk Audio Cloud							
System	Save Re	fresh					
General Multi-User Maintenance Information							

Enable: Used to enable or disable the event push function.

Precise: Enable or disable. If this option is enabled, the start time and end time will be pushed when an event is triggered.

Name: Specifies channel name. Chinese characters are not supported.

Push Way: Specifies the way of push. The options include HTTP and UDP and users can check the HTTP or UDP option as needed.

Username: Specifies the username. This field can be null if no name is available.

Password: Specifies the password. This field can be null if no password is available.

Server Address: Specifies the IP address of the server.

Port: Specifies the port number of the server. (Port No. range: 1 to 65535)

URL: Specifies server API. This field can be null if no API is available.

Method: Specifies the HTTP method. The options include POST and GET: Images can be pushed only when the HTTP-POST method is selected. In other mode, only messages without images are pushed. The alarm type regarding images is the same as that in the alarm push bar in live view on the Web client.

Interval: Specifies the keepalive interval. The keepalive mechanism periodically pushes a message to the client at the set time without affecting normal alarm push. No keepalive mechanism is available in UDP.

1. UDP Push

		Live	Playback	Remote Setting	Local Settings	•
₽ Channel	Event Push Platform					
Live Image Control Video Cover ROI	Enable 💽					
B Record	Precise					
Encode Record Capture	Name					
Event	Push Way 🕒 HTTP 🔹 UDP					
Setup Alarm Event Push Platform	UDP Method Broadcast V					
(e) Al	UDP Address					
Setup Recognition Alarm Statistics	UDP Port \$000 \$					
) Network	Save Refresh					
General Email FTP RTSP DDNS HTTPS IP Filter						
Device						
Disk Audio Cloud						
System						
General Multi-User Maintenance Information						

Enable: Used to enable or disable the event push function.

Precise: Enable or disable. If this option is enabled, the start time and end time will be pushed when an event is triggered.

Name: Specifies channel name. Chinese characters are not supported.

Push Way: Specifies the way of push. The options include HTTP and UDP and users can check the HTTP or UDP option as needed.

UDP Method: Specifies the type of UDP push. The options include Unicast, Multicast, and Broadcast.

Unicast: Users can receive push messages simply by enter the IP address and port number of the UDP server on the client and only this address can receive messages.

Multicast: Multiple UDP servers on the client using the same UDP address and port number in the same network segment will receive messages while addresses other than this UDP address will not receive messages.

Broadcast: All UDP servers in the network segment will receive messages.

UDP Address: Specifies the IP address of a UDP server.

UDP Port: Specifies the port number of a UDP server (value range: 1 to 65535).

8.7 AI

8.7.1 Setup

To enable AI alarm for the camera, you need to enable the corresponding alarm functions in the Setup menu. Enabled functions consume the computing power of the camera. Due to performance restrictions, Heat Map can be enabled together with other functions and Line Crossing can also be enabled together with Intrusion, Region Entrance, and Region Exiting, while Object Detection, Face Detection, Pedestrian&Vehicle, Cross Counting, Crowd Density, Queue Length, and License Plate cannot be enabled at the same time.

8.7.1.1 Face Detection

The face detection function operates by detecting face objects through the camera to obtain captured images matching set conditions, then calculating the face feature data of the captured images using the face model algorithm, and finally comparing these images with face images in the face database to generate alarms. You need to enable the face detection function first.



Channel: Users can select a channel and set parameters.

Enable: Used to enable or disable face detection.

Dynamic Marking: Displays a face detection box and is used to turn on or off the detection rule line.

Face Enhance: Face enhancement switch used to improve the capture effect of moving objects. Meanwhile, you can use this function to adjust the brightness of the recognized face closest to the camera and optimize the capture effect.

Face Features: Used to recognize the attributes of captured face images including age, gender, mask, glasses, and facial expression. Note: This function needs to be enabled to use the AD alarm.

Snap Mode: Used to set Snap Mode. Users can enable push notifications in live view or connect an NVR to check the push effect. Three snap modes are supported, including:

Optimal Mode: The camera detects an object until it disappears, and only pushes an image that the camera thinks best when the object disappears.

RealTime Mode: The camera detects an object and pushes an image in real time,

and pushes an image again that the camera thinks best when the object disappears. **Interval Mode:** Users can set the snap number and snap frequency as needed. The options for Snap Num include 1, 2, 3, and unlimited, and the value range for Snap Frequency is 1 to 255. For example, if 5 s is set, a push action will be initiated at 5 s, 10 s and 15 s when an object is detected.

Apply Mode: Used to filter captured images. That is, only captured images matching angle setting will be pushed. There are three modes, including:

Frontal View: Only captured images with frontal view of an object will be pushed. **Multi Angle:** Captured images with only side view of an object detected can also be pushed.

Customize: Users can customize the angle of an object to be pushed. If this function is enabled, Roll Range, Pitch Range, Yaw Range, and Picture Quality options, as well as Frontal Default and Multi Default buttons will become available.

Roll Range: Specifies the roll range of an face image in the 3D model. When the angle does not conform to the set limit, face detection can be made but no push action will not be performed.

Pitch Range: Specifies the pitch range of an face image in the 3D model. When the angle does not conform to the set limit, face detection can be made but no push action will not be performed.

Yaw Range: Specifies the yaw range of an face image in the 3D model. When the angle does not conform to the set limit, face detection can be made but no push action will not be performed.

Picture Quality: High-quality images are beneficial to filter out non-face images that are incorrectly detected.

Frontal Default Apply Mode: This control displays when Customize is selected. Set the angle value of the image to be pushed as follows: Roll Range: 30, Pitch Range: 30, Yaw Range: 45, and Picture Quality: 100.

Multi Default Apply Mode: This control displays when Customize is selected. Set the angle value of the image to be pushed as follows: Roll Range: 180, Pitch Range: 180, Yaw Range: 180, and Picture Quality: 100.

Min Pixel: Used to set the minimum recognition pixel box. Only faces greater than the set pixel can be recognized.

Max Pixel: Used to set the maximum recognition pixel box. Only faces lower than the set pixel can be recognized.

Detection Mode: Filters the performance of detected objects in the camera. There are two modes, including:

Hybrid Mode: All objects in the screen are subject to face detection.

Motion Mode: Motionless faces, for example, portraits and statues in the scene, will be filtered out.

Trigger Mode: Used to set the type of detection rule line. There are two options.

Rectangle: Only face objects in the set area will be detected.

Line: Face objects will be tracked only when the detection line is crossed according to settings.

Detection Area: This setting option is available when the detection area is used to recognize objects by default. There are two modes.

Full Screen: All monitoring areas that can be reached by the camera will be

detected.

User-defined: Only areas set in Customize by users will be detected.

Rule Type: This setting option is available only in line crossing detection mode. There are two detection trigger modes, namely, $A \rightarrow B$ and $B \rightarrow A$.

Rule Line Setting Area: Users can set a quadrilateral detection area in this area or detection triggering line according to parameter setup.

8.7.1.2 Pedestrian&Vehicle

The pedestrian and vehicle detection function is used to recognize pedestrians and vehicles in the screen, generate alarms, and record captured images according to function setup.

										Live	Playback	Remote Setting	Local Settings	! U
🖵 Channel	Face Detection	Pedestrian & Vehicle	Line Crossing	Object Detection	Cross Counting	Heat Map	Crowd Density	Queue Length	License Plate	Intrusion	Region Entra	nce Region Exiting	Schedule	
Live Image Control Video Cover ROI	Channel						Camero .	2023-09-15-10.2						
B Record	Enable				1 :1		1000	1						
Encode Record Capture	Sensitivity			Ĵ (1 ~ 100)		AN AND		Ehr	Call No.	5				
Event	Dynamic Marking					-		38.33						
Setup Alarm Event Push Platform	Snap Mode	Default			and a		1 3		and and					
AI	Min Pixel	64 64		- 1080	-									
Setup Recognition Alarm Statistics	Max Pixel	320	640	- 1080		And and								
Network General Email FTP RTSP DDNS HTTPS IP Filter	Detection Target	 Pedestrian Motor Vehicle Non-motorized 	Vehicle		*/		A							
Device	Detection Mode	Motion Mode												
Disk Audio Cloud	Detection Area	Full Screen												
System General Muti-User Maintenance Information		Refresh												

Channel: Users can select a channel and set parameters.

Enable: Used to enable or disable the pedestrian & vehicle detection function.

Sensitivity: The higher the detection sensitivity, the better the pedestrian or vehicle can be detected, but the higher the false alarm rate.

Dynamic Marking: Displays a pedestrian & vehicle detection box and is used to turn on or off the detection rule line.

Snap Mode: Used to set Snap Mode. Users can enable push notifications in live view or connect an NVR to check the push effect. Three snap modes are supported, including:

Default: The camera detects an object until it disappears, and only pushes a pedestrian or vehicle image when the object disappears.

RealTime Mode: The camera detects an object and pushes an image in real time, and push an image again when the object disappears.

Interval Mode: In this mode, images will be pushed at the set number according to the set time interval.

When Snap Mode is selected as Interval Mode, the Snap Num and Snap Frequency setting options are available.

Snap Num: The camera pushes images of the same object 1, 2, 3, or unlimited times according to the interval set in Snap Frequency.

Snap Frequency: Images will be pushed according to the set time when an object appears or since the last push time.

Min Pixel: Used to set the minimum recognition pixel box. Only pedestrians and vehicles greater than the set pixel can be recognized.

Max Pixel: Used to set the maximum recognition pixel box. Only pedestrians and vehicles lower than the set pixel can be recognized.

Detection Target: The options include Pedestrian, Motor Vehicle, Non-motorized Vehicle, and All.

Detection Mode: Used to filter behaviors of objects in the detection area. There are two modes.

Hybrid Mode: All pedestrians or vehicles in the screen will be detected.

Motion Mode: Motionless pedestrians or vehicles will be filtered out.

Detection Area: Specifies detection area settings. There are two modes.

Full Screen: All monitoring areas that can be reached by the camera will be detected.

User-defined: Only areas set in Customize by users will be detected.

Rule Line Setting Area: Users can set objects to be detected in this area when users customize a detection area.

8.7.1.3 Line Crossing

The line crossing detection function detects pedestrians or vehicles crossing the set virtual line. An alarm is triggered when a specific object crosses the predefined detection line.



Channel: Users can select a channel and set parameters.

Enable: Used to enable or disable the line crossing detection function.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the smaller the objects can be detected.

Target Validity: Specifies the confidence level of an object, that is, the similarity between the object and the set detection type. An alarm will be triggered only when the similarity setting is reached or exceeded. The higher the setting, the higher the similarity requirement, the more obvious the desired object feature, and the higher the alarm accuracy. The value ranges from 1 to 4, and 1 indicates the highest confidence level. The similarity for a detection object is 80%, 60%, 40%, and 20% corresponding to confidence level 1, 2, 3, and 4.

Detection Target: Used to set objects subject to perimeter intrusion detection.

Pedestrian: A perimeter intrusion alarm will be triggered only for pedestrian objects.

Motor Vehicle: A perimeter intrusion alarm will be triggered only for motor vehicle objects.

Non-motorized Vehicle: A perimeter intrusion alarm will be triggered only for non-motorized vehicles.

Rule Number: Specifies a rule line number. The LCD function enables you to set four detection rule lines.

Rule Enable: Used to turn on or off rule lines. Each rule line has an independent enable switch associated with the currently selected Rule Number.

Rule Type: Specifies the rule to trigger a rule line. The options include $A \rightarrow B$, $B \rightarrow A$, and $A \leftarrow \rightarrow B$. The setting is related to the currently selected Rule Number.

Rule Line Setting Area: Users can set, modify, or display edited rule lines.

Delete: Used to delete selected rule lines in the rule line setting area.

Delete All: Used to delete all rule lines.

8.7.1.5 Object Detection

Salient object detection. An alarm will be generated when belongings left behind or lost are detected in the monitored scene.



Channel: Users can select a channel and set parameters.

Enable: Used to enable the SOD function.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the smaller the objects can be detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Rule Number: Specifies a rule line number. The LCD function enables you to set four detection rule lines.

Rule Enable: Used to turn on or off rule lines. Each rule line has an independent enable switch associated with the currently selected Rule Number.

Rule Type: Specifies the rule to trigger a rule line. Users can set legacy or lost alarm in the detection area. The options include Legacy, Lost, and Lost & Legacy. The setting is related to the currently selected Rule Number.

Rule Line Setting Area: Users can set, modify, or display edited rule lines.

Delete: Used to delete selected rule lines in the rule line setting area.

Delete All: Used to delete all rule lines.

8.7.1.6 Cross Counting

The cross counting (CC) function records crossing data of a specific object in the monitored area. Set a crossing line, two sides of which are area A and area B. For example, if $A \rightarrow B$ is selected as the triggering rule, when an object enters area A, crosses the detection line, and leaves area B, the in counter increases by 1; when an object enters area B, crosses the detection line, and leaves area A, the out counter increases by 1. An alarm will be triggered only when the in count minus the out count is greater than or equal to Alarm Number when counting increases. The following figure shows the screen.



Channel: Users can select a channel and set parameters.

Enable: Used to enable cross counting (CC).

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the smaller the objects can be detected. It can also be used to detect distant objects in the scene.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Detection Target: Used to set the type of objects to be recognized by CC detection. There are three modes. The switch and save action will clear the current counter.

Motion: All objects including pedestrians, vehicles, and cartons will be detected.

Pedestrian: Only pedestrian objects will be recognized.

Motor Vehicle: Only motor vehicle objects will be recognized.

Non-motorized Vehicle: Only non-motorized vehicle objects will be detected.

Alarm Number: Used to set the condition to trigger an alarm. The camera will trigger a CC alarm when the trigger counter is updated and the in count minus the out count is greater than or equal to the current setting.

Start Time: Used to set the time of day to start CC detection.

End Time: Used to set the time of day to end CC detection.

Rule Number: Specifies rule line number. Only one rule line is supported for CC detection.

Rule Enable: Used to turn on or off the rule line for the current rule number.

Rule Type: Used to set the increment direction of the in and out counters. The options include $A \rightarrow B$ and $B \rightarrow A$. For example, when $A \rightarrow B$ is selected, the in count increases when a monitored object enters area A and leaves area B, and the out count increases when a monitored object enters area B and leaves area A.

Reset Count: Used to clear the current counter.

Line-crossing Setting Area: Used to set the rule line in this area subject to CC detection.

Count Area: Displays the CC detection counter. Adjust the display location by referring to Section 8.1.

8.7.1.7 Heat Map

Users can set all areas or a specified area in the heat map to detect the activity information in the specified area. In addition, users can save and upload changes at an interval of 10 minutes. A heat map report enables users to intuitively view people distribution in terms of time or space to identify regional activities in the scene. This function is for data recording and will not trigger an alarm.



Channel: Users can select a channel and set parameters.

Enable: Used to enable heat map (HM).

Rule Number: Specifies rule line number. Only one rule line is supported for heat map. **Rule Enable:** Used to turn on or off the rule line for the current rule number.

Surveillance Area Setting: Used to set the area that a heat map will apply. All areas are selected by default.

8.7.1.8 Crowd Density

The crowd detection function recognizes people in the surveillance area according to head count by the pedestrian recognition function and makes statistics. An alarm will be triggered when the preset people number is exceeded.

										Liva	Playback	Remote Setting	Local Settings	
P Channel	Face Detection	Pedestrian & Vehicle	Line Crossing	Object Detection	Cross Counting	Heat Map	Crowd Density	Queue Length	License Plate	Intrusion	Region Entran	ce Region Exiting	Schedule	•••
Live Image Control Video Cover ROI	Channel						Camera	2023-09-15 10:38	16					
🛱 Record	Enable	-			1 3		//	1						
Encode Record Capture	Sensitivity				1:User-det	Ined				\mathbf{Y}				
Event Setup Alarm Event Push Platform	Dynamic Marking	32							- 13					
Al Setup Recognition Alarm	Max Pixel	320	640				100							
Statistics	Max Detection Nur	mber 50		<u>)</u> (1 ~ 500)					100					
) Network General Email FTP	Detection Area	User-defined			11.	Y								
RTSP DDNS HTTPS IP Filter	Rule Number						Delete	Delete All						
Device	Rule Enable	-												
System		Refresh												
General Multi-User Maintenance Information														

Channel: Users can select a channel and set parameters.

Enable: Used to enable crowd detection.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the smaller the objects can be detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Min Pixel: Objects in the screen with heads smaller than the setting will be filtered out based on the 1080 resolution.

Max Pixel: Objects in the screen with heads greater than the setting will be filtered out based on the 1080 resolution.

Max Detection Number: Specifies the maximum number of heads that can be detected in the detection area. An alarm will be triggered when this numerical value is exceeded.

Detection Area: Used to set the area subject to crowd detection. There are two modes.

Full Screen: All areas that can be reached by the camera will be detected.

User-defined: Users can customize a detection area.

Rule Number: Specifies rule line number. This value is displayed when users customize a detection area. Only one detection rule line is supported.

Rule Enable: Used to turn on or off the rule line for the current rule number. This option is available when users customize a detection area.

Detection Area Setting: This setting is available when User-defined is selected. Users need to set an octagonal detection area.

Count Display Area: Displays the people count in the current surveillance area. Adjust the display location by referring to Section 8.1.

8.7.1.9 Queue Length

The queue detection function monitors the number of people in queue and queue time in the set area. An alarm will be triggered when the queue is too long or the queue time is too long.

Channel Face Detection Pod Unit Image Control Channel Channel	echtan & Vehicle Line Crossing CHI 2 2 32	Object Detection	Cross Counting	Hoat Map	Crowd Density Carnera	Queue Length 2023-09-15 10:40	License Plate	Live	Playback Region Entran	Remote Setting	Local Settings Schedule	<u></u> ල
Channel Face Detection Pod Lee Image Control Video Cover ROI Bracord Encode Roord Course Record Cepture Sensitivity Create Record Cepture Sensitivity Channel Sensitivity	estrian & Vehicle Line Crossing OH 2 3 3 4 4 4 4 4 4 4 4 4 4 4	Object Detection	Cross Counting	Heat Map	Crowd Density Camera	Queue Length 2023-09-15 10.40	License Plate	Intrusion	Region Entran	ce Region Exiting	Schedule	
Live I Image Control I Voto Cover I ROI B: Record Enable Encode I Record I Cepture Sensibility Cortes I Cepture Sensibility Cortes I Cepture Sensibility	CHI 2 2 22		Eller de la		Camera	2023-09-15 f0.40	47					
Becord Encode Record Capture Concel Capture Conce	2 32		- BURNESS		//							
Encode Record Capture Sensitivity	2		1:User-define	130	///							
Event Dynamic Marking	32							5				
							11					
Event Push Platform Min Pixel	32				- 1'		11 1000					
Al Setup Recognition Alarm Max Pixel Statistics	320		-					J.				
Max Detection Number		Ĵ (1 ~ 100)					120 1	12				
(@): Network Max Pro Time General Email FTP		Ĵ (1 ~ 3600)	111	1			en marita cas a se					
IP Filter Detection Area	User-defined				Delete	Delete All						
Rule Number												
Disk Audio Cloud Rule Enable	—											
System Ceneral Mali-User Maintenance Information	teoh											

Channel: Users can select a channel and set parameters.

Enable: Used to enable queue detection.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the smaller the objects can be detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Min Pixel: Objects in the screen with heads smaller than the setting will be filtered out based on the 1080 resolution.

Max Pixel: Objects in the screen with heads greater than the setting will be filtered out based on the 1080 resolution.

Max Detection Number: Specifies the maximum number of heads that can be detected in the detection area. An alarm will be triggered when this numerical value is exceeded.

Max Pro Time: Specifies the maximum allowable stay time of people in the detection area. An alarm will be triggered if no people leaves the detection area when the setting time is exceeded. (This time length starts from the time point when the last person leaves the area. If no one leaves the area before the set time is reached, the processing will be considered timeout and an alarm will be triggered.)

Note: The counter is reset only when an object leaves the detection area. The situation where an object suddenly disappears in the detection area will be ignored. The counter works only when objects are detected in the area.

Detection Area: Used to set the area subject to queue detection. There are two modes. **Full Screen:** All areas that can be reached by the camera will be detected.

User-defined: Users can customize a detection area.

Rule Number: Specifies rule line number. This value is displayed when users customize a detection area. Only one detection rule line is supported.

Rule Enable: Used to turn on or off the rule line for the current rule number. This option is available when users customize a detection area.

Detection Area Setting: This setting is available when User-defined is selected. Users need to set an octagonal detection area.

Count Display Area: Displays the people count in the current surveillance area and the service time required for people in queue. Adjust the display location by referring to Section 8.1.

8.7.1.10 License Plate

The license plate detection function detects the license plates of passing vehicles, identifies strange vehicles or vehicles registered to the database, and triggers alarms. For this purpose, the license plate detection function needs to be enabled.



Channel: Users can select a channel and set parameters.

Enable: Used to enable license plate detection.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the easier the objects are detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Snap Mode: Used to set Snap Mode. Users can enable push notifications in live view or connect an NVR to check the push effect. Three snap modes are supported, including:

The camera detects an object until it disappears, and only pushes a license plate image when the object disappears.

RealTime Mode: The camera detects an object and pushes an image in real time, and push an image again when the object disappears.

Interval Mode: In this mode, images will be pushed at the set number according to the set time interval.

Min pixel: Used to set the minimum recognition pixel box. Only license plates greater than the set pixel can be recognized.

Max pixel: Used to set the maximum recognition pixel box. Only license plates lower than the set pixel can be recognized.

Detection Target: Specifies the type of license plate to be detected. The options include:

European license plate, and American license plate.

Detection Mode: Specifies the license plate detection mode. There are two modes as follows:

Hybrid Mode: All static license plates in the screen will be detected.

Motion Mode: Motionless vehicles and their license plates will be filtered out and only license plates of moving vehicles will be detected.

Detection Area: Used to set an area subject to license plate detection. There are two types:

Full Screen: The license plate detection will be made in full screen. **User-defined:** Users can customize a detection area.

8.7.1.11 Intrusion

The perimeter intrusion detection function can detect whether an object enters the set area in the live view, and trigger an alarm according to the judgment result.



Channel: Users can select a channel and set parameters.

Enable: Used to enable the perimeter intrusion detection function.

Time Threshold(s): Specifies time threshold. An alarm will be generated after an object enters the alert area and stays for this time. For example, if the time threshold is set to 5, an alarm will be generated when an object enters the area and stays for 5 seconds. The maximum setting value is 10 s.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the easier the objects are detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Target Validity: Specifies the confidence level of an object, that is, the similarity between the object and the set detection type. An alarm will be triggered only when the similarity setting is reached or exceeded. The higher the setting, the higher the similarity requirement, the more obvious the desired object feature, and the higher the alarm accuracy. The value ranges from 1 to 4, and 1 indicates the highest confidence level. The similarity for a detection object is 80%, 60%, 40%, and 20% corresponding to confidence level 1, 2, 3, and 4.

Min pixel: Used to set the minimum recognition pixel box. Only objects greater than the set pixel can be recognized.

Max pixel: Used to set the maximum recognition pixel box. Only objects lower than the set pixel can be recognized.

Detection Target: Detection objects include:

Pedestrian: An alarm will be triggered only for pedestrian objects.

Motor Vehicle: An alarm will be triggered only for motor vehicle objects.

Non-motorized Vehicle: An alarm will be triggered only for non-motorized vehicle objects.

Rule Number: Specifies a rule line number. The intrusion detection function enables you to set four detection rule lines.

Rule Enable: Used to turn on or off rule lines. Each rule line has an independent enable

switch associated with the currently selected Rule Number.

8.7.1.12 Region Entrance

The region entrance detection function can detect whether an object enters the set alert area, and trigger an alarm according to the judgment result.



Channel: Users can select a channel and set parameters.

Enable: Used to enable the region entrance detection function.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the easier the objects are detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Target Validity: Specifies the confidence level of an object, that is, the similarity between the object and the set detection type. An alarm will be triggered only when the similarity setting is reached or exceeded. The higher the setting, the higher the similarity requirement, the more obvious the desired object feature, and the higher the alarm accuracy. The value ranges from 1 to 4, and 1 indicates the highest confidence level. The similarity for a detection object is 80%, 60%, 40%, and 20% corresponding to confidence level 1, 2, 3, and 4.

Min pixel: Used to set the minimum recognition pixel box. Only objects greater than the set pixel can be recognized.

Max pixel: Used to set the maximum recognition pixel box. Only objects lower than the set pixel can be recognized.

Detection Target: Detection objects include:

Pedestrian: An alarm will be triggered only for pedestrian objects.

Motor Vehicle: An alarm will be triggered only for motor vehicle objects.

Non-motorized Vehicle: An alarm will be triggered only for non-motorized vehicle objects.

Rule Number: Specifies a rule line number. The region entrance detection function enables you to set four detection rule lines.

Rule Enable: Used to turn on or off rule lines. Each rule line has an independent enable switch associated with the currently selected Rule Number.

8.7.1.13 Region Exiting

The region exiting detection function can detect whether an object leaves the set alert

	00				0	,	Ū			Live	Playback	Remote Setting	Local Settings	ڭ 🎙
P Channel	Face Detection	Pedestrian & Vehicle	Line Crossing	Object Detection	Cross Counting	Heat Map	Crowd Density	Queue Length	License Plate	Intrusion	Region Entra	nce Region Exiting	Schedule	
Live Image Control Video Cover ROI	Channel						Camora	2023-09-15 10 49	834					
Encode Record Capture	Enable Sensitivity		•	50	الأنباح		10							
. Event	Dynamic Marking	-			L		Philip Internet							
Setup Alarm Event Push Platform	Target Validity						- A'		and a					
() AI	Min Pixel	64 64			-									
Setup Recognition Alarm Statistics	Max Pixel	320	610	• 1080			1º							
Network General Email FTP RTSP DDNS HTTPS IP Filter	Detection Target	 Pedestrian Motor Vehicle Non-motorized 	Vehicle			X	Doloto	Delete All	TABORIDON AL	X				
Device	Rule Number													
Disk Audio Cloud	Rule Enable													
System General Multi-User Maintenance Information		Refresh												

area, and trigger an alarm according to the judgment result.

Channel: Users can select a channel and set parameters.

Enable: Used to enable the region exiting intrusion detection function.

Sensitivity: Users can set this parameter to filter out small disturbing objects. The higher the sensitivity, the easier the objects are detected.

Dynamic Marking: Displays a detection box and is used to turn on or off the detection rule line.

Target Validity: Specifies the confidence level of an object, that is, the similarity between the object and the set detection type. An alarm will be triggered only when the similarity setting is reached or exceeded. The higher the setting, the higher the similarity requirement, the more obvious the desired object feature, and the higher the alarm accuracy. The value ranges from 1 to 4, and 1 indicates the highest confidence level. The similarity for a detection object is 80%, 60%, 40%, and 20% corresponding to confidence level 1, 2, 3, and 4.

Min pixel: Used to set the minimum recognition pixel box. Only license plates greater than the set pixel can be recognized.

Max pixel: Used to set the maximum recognition pixel box. Only license plates lower than the set pixel can be recognized.

Detection Target: Specifies the type of license plate to be detected. The options include:

Pedestrian: An alarm will be triggered only for pedestrian objects.

Motor Vehicle: An alarm will be triggered only for motor vehicle objects.

Non-motorized Vehicle: An alarm will be triggered only for non-motorized vehicle objects.

Rule Number: Specifies a rule line number. The region exiting detection function enables you to set four detection rule lines.

Rule Enable: Used to turn on or off rule lines. Each rule line has an independent enable switch associated with the currently selected Rule Number.

8.7.1.12 AI Schedule

The AI schedule function can be enabled to set the schedule of AI functions. Checked indicates enabled, cleared indicates disabled, and gray indicates unavailable.



Channel: Users can select a channel and set parameters.

Enable: Used to enable the schedule function.

Functions are mutually exclusive: Indicates that functions are mutually exclusive. Notes:

- Al functions that are mutually exclusive cannot be set in the same time range. That is, two Al mutually exclusive functions cannot be enabled in the time range. This restriction will exist on the UI.
- All Al functions cannot be manually enabled or disabled and are controlled by the schedule after the Al schedule is enabled, but users can change some parameters, for example, sensitivity and detection type.

8.7.2 Recognition

8.7.2.1 Face Recognition

The face recognition function mainly recognizes the identity of a detection object and require comparison with base data. The program establishes a foundation database for face matching through the database management function.

Note: It will take a short time for the system to load changes to the database to take them into effect.

Pichamie minipulation De la deutademani in					Live	Playback Ren	Local Setting	as 🕛 🤇
Use song Cordel Col Web Corder End B Record Cocd local Col Cocd local Cocd Local Cocd local Cocd Cocd local Local Cocd Cocd local Local Cocd Cocd local Local Cocd Cocd local Local Local Cocd Local L	🖵 Channel	Face Database Management License Plat	e Management					
Wate Core B01 Ano. Lin A. Image: Core Caluer Bread Accord Caluer A. Image: Core Caluer Image: Core Caluer Bread Accord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Accord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Accord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Rocord Caluer Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Rocord Point Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Point Image: Core Caluer Image: Core Caluer Image: Core Caluer Bread Rocord Point Image: Core Caluer <	Live Image Control		Group Name	Delete		Edit	Ena	ble
By Record Exold Exold Be bild Be bild Step i Step i<	Video Cover ROI		Allow List					
Encode 1 Record Concept 1 Record Step 1 Records Soute 1 Records	🛱 Record		Block List					
	Encode Record Capture		Stranger					
Add Cince Same Reference Cince Same Cince Same Cince Same Cince Same S			Group 1					
See j J Ang Ad Gine See Retest @ Group will waccould See J Reception J Jam See Could See See Retest @ Group will waccould @ Add See Could See See See See See See See See See Se	Event							
Caref I Add Olice Save Releant © Croup add socceanded Ø Al Save Save © Croup add socceanded Shinkins Save Save Save Save Ø Network Save Save Save Save Ø Network Devoc Save Save Save Ø Network Save Save Save Save Ø Network	Setup Alarm							
 Al She I Reception Alum Studio Notwork General Infal IP RTBP: I DONS ITTPS Filter Device Device Device System General Matuber Matuber Matuber Matuber Matuber Information 	Event Push Platform	Add Group Save Refresh	Group add successful					
State Reception Atem State FIP (B) Note K State FIP INTS FIP IP locks HITTS ID Noto Skati Audo Gloud (S) System meant Hab Tobs Matternance Homation	@ AI							
Site Regelie / Jam Site / Regelie / Jam Site / Regelie / Site /								
Solated (a) Notice (a) (a) Prive (b) Prive (c) Prive <td>Setup Recognition Alarm </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Setup Recognition Alarm							
@ Notwork General [ITP] Itrys] Itrys] Itrys Prime Device Dati Audai Chaid Ø System General Maittenare Information	Statistics							
ameral Enal FTP FTP Doxico Dati Audo Coud System Sameral Multi-Use Matteriaco Multi-Use Matteriaco Multi-Use	Network							
RISP DONS HTTPS D Prem D Device Dak Ander Coold © System Meitheause Mercandon	Ganaral Email ETD							
p PRer Device Deta Auda Grout System Centred Multiture United State Un	RTSP DONS HTTPS							
Dovice Dovi / Avail + Coud System General + Mail-User Mailtenace + Information	IP Filter							
Diak Audo Goud ⊗ System General Mathematon Maittenano Istornation								
Dia L'Auto I Orod System Greent I Matteure Matteures i Information								
© System Gened Matster Matstearce thórmaten	🔒 Device							
(g) o'yatali Gamad Maktuar Maktenarce Monatka	Device							
General Malture Mantemarce Information	Device Disk Audio Cloud							
Mantenanos i teloradon	Diek Audio Cloud System							
	Device Diak Audio Cloud System General Muth-User							
	Device Disk Audio Cloud System General MutH-User Maintenance Information							
	Device Disk Audio Cloud System General Muti-User Multitenance Information							

Alarm Policy Display: Only used as strategy prompts in the camera. Green indicates allow list, red indicates block list, and no color indicates stranger group.

Group Name: Enables users to edit, modify, or display current group name. A specific group name will be displayed when an alarm is pushed.

Delete: Used to delete a group. The first three groups cannot be deleted.

Edit: Used to set reference images in a group. For more information, see the following figure.

Enable: Enables users to use group data for comparison during face recognition.

Add Group: Enables users to add a new database group. Users can add up to 16 database groups.

Users can click the **Edit** icon to set reference data for a specific group. The following figure shows the screen.



Added Image Display Area: Displays face database images in the currently added group.

Info: Displays the editing information of the selected image.

Detail Information: A right mouse button event, enabling users to check the information of the selected image.

Move To ...: A right mouse button event, enabling users to move the selected image to other groups.

Edit: A right mouse button event, enabling users to open the information editing screen of the selected image and perform editing actions.

Delete: A right mouse button event, enabling users to detect the selected images.

Import: Used to add new face data to the current group. Users can import local images or images captured by the camera.

Delete: Used to bulk delete face data in the database. Users can click this control, select images to delete and then click Delete.

8.7.2.2 License Plate Recognition

The license plate recognition function mainly recognizes the identity of a detection object and require comparison with base data. The program establishes a foundation database for license plate matching through the database management function. Note: It will take a short time for the system to load changes to the database to take them into effect.
				Live	Playback	Remote Setting	Local Settings	9 U
🖵 Channel	Face Database Management License Plate M	Management						
Live Image Control		Group Name	Delete		Edit		Enable	
Video Cover ROI		Allow List						
📇 Record		Block List						
Encode Record Capture		Unkown						
0.5		Group 1						
TT Event								
Setup Alarm Event Push Platform	Add Group Save Refresh	Grown arbit survises for						
AI								
Setup Recognition Alarm								
Statistics								
() Network								
General Email FTP								
RTSP DDNS HTTPS								
IP Filter								
Dick Audia Claud								
Disk Hould Globa								
System								
General Multi-User								
Maintenance Information								

Alarm Policy Display: Only used as strategy prompts in the camera. Green indicates allow list, red indicates block list, and no color indicates unknown license plates.

Group Name: Enables users to edit, modify, or display current group name. A specific group name will be displayed when an alarm is pushed.

Delete: Used to delete a group. The first three groups cannot be deleted.

Edit: Used to set reference images in a group. For more information, see the following figure.

Users can click the **Edit** icon to set reference data for a specific group. The following figure shows the screen.

										^	
Edit	License Plate	Color	Car Brand	Car Type	Owner	Gender	ld Code	Plate Detail			
	W5002 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5101	License Plate	W5002 PPA		
	W5003 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	5102		113002 FIX		
	W5004 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5103	Color	Blue		
	W5005 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5104	Car Brand	нунун		
	W5006 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5105	Car Type	Volkswagen		
	W5007 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	5106				
	W5008 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5107	Owner	GSY5DGDXGH		
e.	W5009 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	5108	Gender	Male		
e.	W5010 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5109	Phone	2217212		
e.	W5011 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5110	Id Codo			
e_	W5012 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5111				
e.	W5013 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5112	5101			
e.	W5014 PRA	Blue	HJHJH	Volkswagen	GSY5DGDXGH	Male	5113	Occupation			
2	W5015 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	5114	22222			
e.	W5016 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Malè	5115	Residence			
2	W5017 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	5116	51462			
e ô	W5018 PRA	Blue	нунун	voikswagen	GSY5DGDXGH	Malè	5117	Domaste			
Ø_	W5019 PRA	Blue	нјнјн	voikswagen	GSY5DGDXGH	Malé	5118	Remark			

Users can add license plates in the following three ways: Import (manually add), Import From CSV (import from CVS files), and Import From Local Capture (import from local files).

- 1. Users can click the **Import** button to manually add a single piece of license plate information.
- 2. Users can click the **Import From CSV** button to import a single or multiple data entries from CVS files. The following figure shows the format of a CVS file:

A	В	С	D	Ξ	F	G	В	I	J	K	L	х	N	0	P	Q	R	S	Т	σ
License	FColor	Car Bran	Car Type	Owner	Sex	Id Code	Phone	Occupati	Residence	Remark										
2 粤C-3R52	25blue	HJHJH	Volkswag	e YHJ	male	2222	2212211	22222	46461	FFQFQFQ										
3 A-HP-233	3 white	HJH	NOMAL	0400	male	101	11111	LLLL	KKLKLK	FQFQ%Q										
4 MCY164J	black	BEEB	NOMAL.	9999	fenale	102	2145435	DAWQRQR	FWEQW	QTHF										
5 FLB-360	black	R23R2AD	KDGS	QRQD	female	103	432525	SPEFS	GGAGA	GVITVE										
MA 5465	Cwhite	THWAGA	SFSFF	FEFFEF	fenale	104	532535	FRFFA	FAGA	FVFVA										
7 GC 9671	Cwhite	RGWTWZGE	AWEGWTG	¥TAZHRT	female	105	2.35E+09	WAWAGEG	AGHAG	AGEY										
B LH66 BUB	8 white	GASRITHDF	1#TASDSF	ATYDF ZDY	Vaale	105	3, 47E+08	Ftota	agshsrh	agregaege	a									
R21 ROY	white	HEH	T4T34	AVETAT	nale	107	STYTEFC	HRIFFXHD	STUUROFYP	ETOKH										
O DE14 LVF	P white	BTUURHS	4YAGRG	ABRTWYDFI	Emale	108	45634	WEGARGA	AFSGS	KUKTT										
1 1218 LG1	Twhite	HSHRTHST	YEYGD	GSY5DGDX	Gmale	109	4673T3B7	SCEG	SDGSHHRTF	TRYRTHFX										
2 ¥12 FRA	vellow	GREGAGAG	AGRAGE	GA4TGZVZ	female	110	4546363	FGSHA	GSC	YCAA										
3 ¥13 PRA	hlue	HINTH	REGUIG	GSY5DGDX	Gmale	112	2212223	22222	46473	FROFORD										
4 W14 PRA	blue	HTHTH	WEGWTC	CSY5DCDX(Gaale	113	2212224	22222	46474	FOFONO										
5 ¥15 PRA	blue	HIHIH	WEGWTG	GSY5DGDX	Gaale	114	2212225	22222	46475	QTHE										
6 V16 PRA	blue	BIBIB	REGREG	GSY5DGDX	Gmale	115	2212226	22222	46476	GVITTE										
7 ¥17 FRA	blue	HTHTH	WEGWTG	GSY5DGDX	Caale	116	2212227	22222	46477	FVFVA										
8 ¥18 PRA	hlue	HIHIH	WEGWIG	GSY5DGDX	Gmale	117	2212228	22222	46478	AGEY										
9 ¥19 PRA	blue	HINTH	BECREG	GSY5DGDX	Gaale	118	2212229	22222	46479	arreraere										
0 ¥20 FRA	blue	BIBIB	WEGWIG	GSY5DGDX(Caale	119	2212230	22222	46480	ETOKH										
1 W21 PRA	hlue	HINTH	REGREG	GSY5DGDX	Gmale	120	2212231	22222	46481	KUKTT										
2 ¥22 PRA	blue	HINTH	WEGWIG	GSY5DGDX	Caale	121	2212232	22222	46482	TRYNTHRY										
3 ¥23 FRA	blue	BIBIB	WEGWIG	GSY5DGDX	Caale	122	2212233	22222	46483	YGAA										
4 ¥24 FRA	blue	BIBIB	BEGUTG	GSY5DGDX	Gaale	123	2212234	22222	46484	FROFORD										
5 ¥25 PRA	blue	RINTH	WEGWIG	GSY5DGDX	Caale	124	2212235	22222	46485	FORONO										
0 ¥20 PRA	hlue	BIBIB	WEGWIG	GSY5DGDX	Gmale	125	2212236	22222	46486	OTHE										
7 W27 PRA	blue	BIBIB	Volkswag	CSY5DGDX	Gaale	126	2212237	22222	46487	GUTTNE										
8 W28 PR4	blue	RINTH	Volkswag	CSV5DGDX	Casle	127	2212238	22222	46488	FVFVA										
9 829 PRA	blue	RINTH	Volkewas	CSY5DCDY	Casle	128	2212230	22222	45489	ACEY										
0 ¥30 PRA	blue	HINTH	Wolkswag	CSY5DGDX	Caale	129	2212240	22222	46490	agrogaogo										
1 W31 PRA	hlue	HIHIH	Volkswag	+GSY5DGDX	Gaale	130	2212241	222.22	46491	ETOKH	-									
2 WS2 PRA	blue	BIBTH	Volkswag	CSY5DGDX	Gaale	131	2212242	22222	46492	KUKTT										
3 W33 PR4	blue	RIBIN	Volkswag	CSY5DGDX	Caale	132	2212249	22222	46493	TRYRTHRY										
4 ¥34 PRA	hlue	BIBIB	Volkswag	CSY5DGDX	Gmale	133	2212244	22222	46494	VGAA										
5 WSS PRA	blue	HINTH	Volkswag	CSY5DGDX	inale	134	2212245	22222	46495	FROFORD										
6 ¥36 FRA	blue	HIHIH	Volkswag	+GSY5DGDX	Caale	135	2212246	22222	46496	FOFOTO										
7 W37 PRA	blue	BIBIB	Volkswag	+GSY5DGDX	Gmale	136	2212247	22222	46497	OTHE										
S W38 PRA	blue	HINTH	Wolkswag	CSY5DGDX	Caale	137	2212249	22222	46498	OWTINE										
9 839 284	blue	HINTH	Volkewag	CSV5DGDX	Caele	138	2212240	22222	45499	RURUA										
0 W40 PRA	blue	HINTH	Volkewas	CSV5DCDV	Caslo	130	2212250	22222	46500	ACEY										
1 W41 PR4	blue	RIBIN	Wolkswag	CSY5DGDX	Caalo	140	2212251	222222	46501	agragaage										
1 1 1 1 1 I I I I I I I I I I I I I I I	DAGe	0,00,00	TOLLOUND	eobioboba	Casle	141	0010000	00000	405001	991 699696	a									

Select the license plate file in CSV format to import and click the Import button to add to the group. Users can click the Delete button to delete unwanted license plate information. as shown in the following figure:

											Enable	
	Status	Edit	License Plate	Color	Car Brand	Car Type	Owner	Gender	Plate Detail			
	Q		W5002 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	License Plate	W5002 PRA		
	Q	e	W5003 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	0.111			
	Q	e.	W5004 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	Color	Bille		
	Q		W5005 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	Car Brand	нјнјн		
	Q		W5006 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	Car Type	Volkswagen		
	Q		W5007 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Owner	CRYEDODYCH		
	Q		W5008 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male		GST3DGDAGH		
	Q		W5009 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Gender	Male		
	Q		W5010 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Phone	2217212		
	Q		W5011 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	ld Code			
	Q		W5012 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	5101			
	Q		W5013 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male				
	S		W5014 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	Occupation			
	S		W5015 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	22222			
	Q		W5016 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	Residence			
	Q		W5017 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	51462			
	Q		W5018 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	Remark			
	Q		W5019 PRA	Blue	НЈНЈН	Volkswagen	GSY5DGDXGH	Male	FFQFQFQ			
1												

Note: A "Data added reaches the limit of the group" prompt box appears when more than 5000 data entries are added.

3. Users can click the **Import From Capture** button to import license plate information from local files to the database.



Select date, duration, and Alarm Group, and then click Search. License plates saved in

the device in this time range will be retrieved.

All: L	Jsed	to	select	all	license	plate	information.	

											×	Enable	
	Status	Edit	License Plate	Color	Car Brand	Car Type	Owner	Gender	Plate Detail				
		0_	W5002 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	License Plate	W5018 PRA		-	
		0_	W5003 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Color	0			
		0_	W5004 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Calor	Gleen			
		0_	W5005 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Car Brand	нунун			
		2	W5006 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Car Type	Volkswagen			
		2	W5007 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	Owner	GSY5DGDXGH			
		2	W5008 PRA	Blue	нјнјн	Volkswagen	GSY5DGDXGH	Male	0				
		2	W5009 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Gender	маю			
		2	W5010 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Phone	2217228			
		2	W5011 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Id Code				
			W5012 PRA	Blue	нинин	Volkswagen	GSY5DGDXGH	Male					
			W5013 PRA	Bille	нонон	Voikswagen	GSY5DGDXGH	Male	Occupation				
			WOUT4 PRA	Blue	нонон	Volkswagen	GST5UGDXGH	Male	22222				
			W5016 PRA	Blue	нин	Volkewagen	CSV5DCDXCH	Male	Decidence				
			W5017 PRA	Blue	нини	Volkswagen	GSY5DGDXGH	Male	E1479				
		0	W5018 PRA	Green	нин	Volkswagen	GSY5DGDXGH	Male	51476				
	ě	0	W5019 PRA	Blue	нунун	Volkswagen	GSY5DGDXGH	Male	Remark				
- -	O		10151104	-		remanagen	of the obviour		AGEY				

Users can click a data entry to edit the license plate information, and then click the Save button to save changes. If the information is changed successfully, the icon changes to a.

- 4. **Delete:** Check the checkbox next to the license plate information and click this button to delete the information.
- 5. **Move to...**: Check the checkbox next to the license plate information and click this button to move license plate information to other groups.
- 6. Click the **Export** button to export the information of the entire group and save it.

5. Enable: Enables users to use group data for comparison during license plate recognition.

6. Add Group: Enables users to add a new database group. Users can add up to 16 database groups.

8.7.3 Alarm

Alarm response to AI functions can be divided into 3 types according to the mode of implementation:

Type I includes Face Detection, Face Features, Pedestrian&Vehicle, Line Crossing, Object Detection, Cross Counting, Crowd Density, Queue Length, License Plate, Intrusion, Region Entrance, and Region Exiting. An alarm will be generated if alarm conditions are met, as determined by the camera.

Type II includes Face Recognition and License Plate Recognition. The camera obtains an alarm image, recognizes the face feature value or license plate information in the image, compare it with the information in the database, and then generates an alarm according to alarm group settings.

Type II is Face Attendance. The data will be automatically retrieved at a specific time and an alarm push email will be generated.

8.7.3.1 Face Detection, Face Features, Pedestrian&Vehicle, Line Crossing, Object Detection, Cross Counting, Crowd Density, Queue Length, License Plate, Intrusion,

Region Entrance, and Region Exiting

An alarm will be generated if alarm conditions are met, as determined by the camera.

									Live Playba	ICK Remote	Setting Lo	cal Settings	• U
P Channel	Face Detection	Face Recognition	Face Features	License Plate Recognition	Pedestrian & Vehicle	Line Crossing	Object Detection	Cross Counting	Face Attendance	Crowd Density	Queue Length	License Plate	Intrusion
Live Image Control	Region Entrance	Region Exiting											
Video Cover HOI	Channel												
Eccada Bacard Castura	Alarm Type	Close											
-	Latch Time												
Event	0												
Setup Alarm Event Push Platform	Post Recording												
() AI	Send Email												
Setup Recognition Alarm	Event Push Platfor	n 🕕											
Statistics	Light	•											
(b) Network General Email FTP	FTP Picture Uploa	i 🗆 Al 🚺 2											
RTSP DONS HTTPS IP Filter	FTP Video Upload	🗆 Al 🚺 1											
Device	Cloud Picture	🗆 Al 🗾 2											
Disk Audio Cloud	Cloud Video												
System													
General Multi-User Maintenance Information	Record Channel	🗆 All 👥 2											
		Copy Sc	hedule Refre	h Trigger Alarm Out									

Channel: Users can select a channel and set parameters.

Alarm Type: An option specific to AD alarm. Enable the face attribute recognition function for AD alarm according to Section 8.7.1.1. An alarm will be triggered by detecting whether a captured object is masked. There are three modes.

Close: AD alarm is not enabled.

NO Mask: An alarm is triggered when an object is not masked.

Wear Mask: An alarm is triggered when an object is masked.

Latch Time: The amount of time the I/O alarm lasts after the alarm ends.

Note: The camera must support I/O and the working time is controlled by the corresponding schedule.

Post Recording: The duration of recording after the alarm ends.

Note: The effective time is controlled by the schedule.

Send Email: If this option is enabled, the camera will send an email when an alarm is detected.

Note: The effective time is controlled by the schedule.

Light: White light deterrence switch. When an alarm is triggered, the alarm response will be made according to the Remote Setting-Event-Setup-Deterrence setting on the white light deterrence page.

Event Push Platform: If this option is enabled, the information of this type will be pushed to the client when an alarm is triggered.

FTP Picture Upload: Select the channel to upload pictures to the FTP server. The camera sends pictures to the associated FTP server when an alarm is generated. When an alarm is continuously triggered, pictures will be sent every 10 s until the alarm is cleared.

Note: The effective time is controlled by the schedule and an FTP server shall be firstly associated.

FTP Video Upload: Select the channel to upload videos to the FTP server. The camera sends videos to the associated FTP server when an alarm is generated. When an alarm is continuously triggered, pictures will be sent every 10 s until the alarm is cleared.

Note: The effective time is controlled by the schedule and an FTP server shall be firstly associated.

Cloud Picture: Select the channel to upload pictures to the cloud storage server. The camera sends pictures to the associated cloud storage server when an alarm is generated. When an alarm is continuously triggered, pictures will be sent every 10 s until the alarm is cleared.

Note: The effective time is controlled by the schedule and a cloud storage server shall be firstly associated.

Cloud Video: Select the channel to upload videos to the cloud storage server. The camera sends videos to the associated cloud storage server when an alarm is generated. When an alarm is continuously triggered, pictures will be sent every 10 s until the alarm is cleared.

Note: The effective time is controlled by the schedule and a cloud storage server shall be firstly associated.

Record Channel: Specifies the channel to record when an alarm is triggered.

Trigger Alarm Out: Used to enable outputting of alarm signals through the I/O interface when an alarm is triggered.

Schedule: Used to configure the schedule for Send Email, Alarm Out, FTP Picture Upload, FTP Video Upload, Cloud Picture, Cloud Video, Record, and Light for the current alarm.

8.7.3.2 Face Recognition

The camera monitors and tracks an object and captures an face image and will firstly match the image with the database to get the corresponding group, and then directly call the alarm setting to generate an alarm. It will take a short time for the system to load changes to parameters to take them into effect.

												Live P	Playback	Remote Setting Lo	ocal Settings		•
Channel	Face Detection Region Entrance	Face Recognition	Face Features	License Pla	ate Recognition	Pedestrian & Vehicle	Line Crossing	ОЫј	ect Dete	ction Cross	s Counting	Face Attenda	nce Crow	vd Density Queue Length	License Plate	Intrusion	
Video Cover ROI			Group Name		Enable		Policy			Similarity		Alarm		Alarm Schedule	Alarr	n Channel	
📇 Record					-		Allow		≥ 70								
Encode Record Capture					-		Deny		≥ 70								
O Event							Stranger		< 70								
En Event					-	Allow			≥ 70								
Event Push Platform																	
Al Statistics Statistics Network General Email FTP RTSP DDNS HTTPS IP Filter																	
Device																	
System																	
General Multi-User Maintenance Information																	

Group Name: Enables users to edit, modify, or display current group name. A specific group name will be displayed in live view when an alarm is pushed.

Enable: Used to enable alarm response settings.

Policy: Specifies an alarm policy. The first 3 groups cannot be edited and other groups can be customized as Allow or Deny.

Similarity: An alarm will be generated when the similarity is greater than the setting during face matching.

Alarm: Used to turn on or off group alarm settings.

								• •
₽ Channel ^								
Live Image Control				Allow List				
Video Cover ROI		Channel	Сні					
🖴 Record								
Encode Record Capture		Latch Time						
-		Face Cast as	_					
🕂 Event		Face Capture	-					
Setup Alarm		Send Email						
Event Push Platform			_					
AI		FTP Picture Opioad	-					
Setup Recognition		Cloud Picture						
Alarm Statistics								
) Network				Trigger Ala				
General Email FTP								
RTSP DDNS HTTPS								
IP Filter								
📑 Device								
Disk Audio Cloud								
System								
General Multi-User Maintenance Information								

Channel: Users can select a channel and set parameters.

Latch Time: Specifies the time that the I/O alarm pigtail will continue alarming when the camera gets a face image and face matching is successful.

Note: The camera must support I/O and the working time is controlled by the corresponding schedule.

Face Capture: The enable switch to save face images to the SD card.

This setting is not controlled by Enable.

Send Email: The enable switch to send an email when group face recognition is successful.

Note: The effective time is controlled by the schedule.

FTP Picture Upload: The enable switch to send pictures to the associated FTP server when group face recognition is successful.

Note: The effective time is controlled by the schedule and an FTP server shall be firstly associated.

Cloud Picture: The enable switch to send pictures to the associated cloud storage server when group face recognition is successful.

Note: The effective time is controlled by the schedule and a cloud storage server shall be firstly associated.

Alarm Out Latch Time: Used to set different local alarms.

Copy: Used to copy parameter settings to other channels.

Alarm Schedule: Specifies the effective time of Send Email, Alarm Out, FTP Picture Upload, and Cloud Picture settings.

Alarm Channel: Used to set alarm channel.

8.7.3.3 Face Attendance

The face attendance function is to retrieve matching faces in different groups (excluding strangers group) saved in the SD card at a specified time, generate attendance files according to the capture records, and send these information to the associated email address.

							Live	Playback	Remote Setting	Local Setting	js	•
Channel Live Image Control	Face Detection	Face Recognition	n Face Features gion Entrance Re	License Plate Recognition gion Exiting	Pedestrian & Vehicle	Line Crossing	Object Detection	Cross Counting	Face Attendance	Crowd Density	Queue Length	
Video Cover ROI	Enable	_										
Encode Record Capture	Send Email											
f Event	ON DUTY											
Setup Alarm Event Push Platform	OFF DUTY											
🔗 AI	Mode	Day										
Setup Recognition Alarm Statistics	Working Days	🗌 All 🖬 Mon. 🚦	🛛 Tues. 🗹 Wed.	🗹 Thur. 🗹 Fri. 🗌 Sat. 🗌	Sun.							
Oeneral Email FTP RTSP DDNS HTTPS	Channel	🖬 All 🖬 CH1 📱	🛛 CH2 🗾 CH3 🗾									
IP Filter	Group	☑ AII			10 2 11 2 12 2	13 🖬 14 📕 15	1 6					
Device			2 0 0 4 0 0			13 📓 14 📓 15	1 0					
Disk Audio Cloud		Refresh	Refresh Successfull									
System												
General Multi-User Maintenance Information												

Enable: The enable switch to automatically generate face attendance files.

Send Email: Used to set the time to send face attendance files. The program makes retrieval at a certain interval, and automatically generates attendance files and sends an email when the retrieval time is greater than the set time.

Note: An email will not be sent if no attendance record is available.

ON DUTY: Used to set the on-duty reference time to generate attendance files.

OFF DUTY: Used to set the off-duty reference time to generate attendance files.

Mode: Used to set the time to generate and send attendance files. There are three modes.

Day: The attendance file the day before yesterday will be sent.

Week: For example, if it is set to Wednesday, the attendance information from last Wednesday to this Tuesday will be sent on this Wednesday.

Month: For example, if it is set to 15th of each month, the attendance information from the 15th of the previous month to the 14th of this month will be sent on the 15th of each month.

Working Days: Used to set the on-duty referent days to generate attendance files. Channel: Specifies channels.

Group: Specifies groups subject to face attendance for which attendance files will generated.

Note: This function is unavailable for stranger group. Therefore, group 3 is grayed out by default.

8.7.4 Statistics

AI data statistics function.

8.7.4.1 Face Detection

The face image statistical analysis function enables users to search for and make

statistics on face data saved in the SD card according to search settings. The following figure shows the screen.

		Live	Playback	Remote Setting	Local Settings	• ()
🖵 Channel	Face Detection Human & Vehicle Cross Counting Statistics Heat Map Statistics					
Live Image Control Video Cover ROI	 4 2023-07-03 → Day → Channet. Group. Search 					
음, Record	Name Export					
Encode Record Capture						
Event	20 - 18 -					
Setup Alarm	16 - 14 - 13					
Event Push Platform	12 -					
() AI	8 -					
Setup Recognition Alarm Statistics						
) Network	0 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23					
General Email FTP	Allow List 64.71% 11					
RTSP DDNS HTTPS	Block List 0.00% 0					
IP Filter	Group 1 0.00% 0					
E Device	Group 2 0.00% 0					
Disk Audio Cloud	Group 3 0.00% 0					
A a a a	Group 4 0.00% 0					
(6) System	Group 6 0 00% 0					
General Multi-User Maintenance Information						

Time: Specifies the reference time for search mode.

Search Mode: The time range options include Day, Week, Month, Quarter, and Year. **Channel:** Specifies a channel to search for.

Group: Specifies the group to search for when searching for statistics.

Search: Click to search for data according to current search settings.

Export: Users need to add the name of an exported file. Export current search data in Excel format.

Display Area: Displays current search results at the bottom in charts.

8.7.4.2 Pedestrian & Vehicle

The pedestrian & vehicle statistics, including PD & VD, PID, and LCD alarms. The following figure shows the screen.

		Live	Playback	Remote Setting	Local Settings	•
🖵 Channel 🗠	Face Detection Human & Vehicle Cross Counting Statistics Heat Map Statistics					
Live Image Control Video Cover ROI	• 2023-07-03 • Day v Channet. Intelligent Search					
B Record	Name Export					
Encode Record Capture						
Event	200 - 180 - 172 170					
Setup Alarm Event Push Platform	100 - 100 - 120 -					
@ AI	100 - 60 - 60 -					
Setup Recognition Alarm Statistics	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
(i) Network	¹ 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23					
General Email FTP RTSP DONS HTTPS IP Filter						
Device						
Disk Audio Cloud						
System						
General Multi-User Maintenance Information						

Time: Specifies the reference time for search mode.

Search Mode: The time range options include Day, Week, Month, Quarter, and Year. **Channel:** Specifies a channel to search for.

Intelligent: Search by tag type when obtaining captured images, including Intrusion[Pedestrian], Intrusion [Motor Vehicle], Intrusion[Non-motorized Vehicle], Region Entrance[Pedestrian], Region Entrance[Motor Vehicle], Region Entrance[Non-motorized Vehicle], Region Exiting[Pedestrian], Region Exiting[Motor Vehicle], Region Exiting[Non-motorized Vehicle], LCD[Human], LCD[Motor Vehicle], LCD[Non-motorized Vehicle], Pedestrian, Motor Vehicle, and Non-motorized Vehicle.

Search: Click to search for data according to current search settings.

Export: Users need to add the name of an exported file. Export current search data in Excel format.

Display Area: Displays current search results in charts.

8.7.4.3 Cross Counting Statistics

Cross counting (CC) statistics. The following figure shows the function screen.

							L	ive	Playback	Remote Setting	Local Settings	9 C
P Channel	Face Detection	Pedestrian & Vehicle	Cross Counting Statistics	Heat Map St	nistics							
Live Image Control Video Cover ROI	Channel											
B Record	Report Type	Daily report										
Encode Record Capture	Detection Type	Pedestrian										
Event	Cross Type	Cross In										
Setup Alarm Event Push Platform	Name											
AI	System time	2023-07-13										
Setup Recognition Alarm Statistics	😑 Column Chart	Line Chart										
 Network General Email FTP RTSP DONS HTTPS IP Filter 				6								
Device Disk Audio Cloud												
System	0 0 01	0,0,0,0,0,0 62 03 04 05 06	0 0 0 0 0 0 0 0 07 08 09 10 11 12	0, 0, 0 13 14 15	0 <u>0</u> 0 <u>0</u> 0 16 17 18 19	0,0,0,0,0, 20 21 22 23 /Hour						
General Multi-User			Statistics time	(hours)					Cros	iln		
Maintenance Information			00:00-00									
			01:00-01	:59								
			02:00-02	.59					0			
			04:00-04	:59					0			

Channel: Specifies a channel to search for.

Report Type: The options include Daily report, Weekly report, Monthly report, and Annual report.

Detection Type: Specifies alarm model as required by data. For example, users cannot search for data triggered by motion if other type is specified. The options include Motion, Pedestrian, Motor Vehicle, and Non-motorized Vehicle that correspond to function settings.

Cross Type: Search for data according to cross counting statistics. The options include Cross In and Cross Out.

Export: Users need to add the name of an exported file. Export current search data in Excel format.

System Time: Specifies the reference time for the currently selected Report Type.

Mode: Displays images in the icon display area in column chart or line chart.

Display Area: Displays current search results in charts.

Search: Click to search data according to current settings.

8.7.4.4 Heat Map Statistics

A heat map report enables users to intuitively view people distribution in terms of time or space.

- Space Heat Map: Displays people activity in different areas in the screen. A red spot indicates the area with highest density, that is, highest activity, and a red spot indicates the area with lowest density.
- Time Heat Map: Displays people activity in different times in the screen. The Yaxis value is the index calculated based on the number of people and dwell time. The higher the value is, the higher the activity is. The value does not represent the number of people.

A smart camera must be installed with a valid SD card where heat map information is stored. The following figure shows the screen.

						Live	Playback	Remote Setting	Local Settings	•
₽ Channel	Face Detection F	Pedestrian & Vehicle	Cross Counting Statistics	Heat Map Statistics						
Live Image Control Video Cover ROI	Channel									
🖴 Record	Report Type	Daily report								
Encode Record Capture	Date	2023-07-14								
요 Event	Start Time	00:00								
Setup Alarm Event Push Platform	End Time	23.59								
() AI	Space Heat Map	Time Heat Map								
Setup Recognition Alarm Statistics	Spatial density legend	L	н							
() Network	Search									
General Email FTP RTSP DDNS HTTPS IP Filter	. 1	1	Camera	Camara -J						
Device Disk Audio Cloud	\cdot									
System General Multi-User										
Maintenance Information		3		100						

Channel: Specifies a channel to search for.

Report Type: The options include Daily report, Weekly report, Monthly report, and Annual report.

Date: Specifies the date to be referred to by data search.

Start Hour: This option is available only when Daily Report is selected. It is used to set the hour to start search.

End Hour: This option is available only when Daily Report is selected. It is used to set the hour to end search.

Mode: Used to set the mode of data display during search. The options include chart and table.

Display Area: Displays the degree of change frequency of the surveillance area in charts and displays the degree of change frequency of surveillance area in different time periods in tables.

Search: Click to search data according to current settings.

8.8 Network Setup

In this menu, users can configure network parameters, such as PPPoE, DHCP, and SNMP. DHCP is the most commonly used type. Unless you manually set a static IP address, DHCP is used as network type in most cases. Please select PPPoE if users need to authenticate username and password for network connection.

8.8.1 Basic Settings

8.8.1.1 General

						Live	Playback	Remote Setting	Local Settings	• 🙂
₽ Channel	General PPPoE	SNMP Port Configuration								
Live Image Control Video Cover ROI	DHCP	•								
B Record	IP Address		Test							
Encode Record Capture	Subnet Mask									
Event	Gateway									
Setup Alarm Event Push Platform	IPv6 DHCP	•••								
⊘ ∧I	IPv6 Address	fe80::223:63ff.fe0a:901b								
Setup Recognition Alarm Statistics	IPv6 Gateway	fe80: 223:63#.fe0a:901b/64								
(a) Network	DNS 1									
General Email FTP RTSP DDNS HTTPS	DNS 2									
IP Filter	IPv6 DNS 1	2001:4860:4860:8888								
Device	IPv6 DNS 2	2001:4860:4860:8844								
Disk Audio Cloud										
System	Main stream									
General Multi-User Maintenance Information	Multicast Address	239 255 255 255	(224.0.0.0~235	9.255.255.255)						
	Video Encryption Tran Save Ro	smission								

To connect to a router that supports DHCP, please check the DHCP checkbox. The router will automatically assign all network parameters to your device, unless you manually set the following network parameters:

IP Address: An IP address is the identifier of an IPC in the network. It consists of four sets of numbers between 0 and 255, separated by a period, for example, 192.168.001.100.

Subnet Mask: A subnet mask is a network parameter that defines the range of IP addresses that can be used in the network. If an IP address is a street where people live, then a subnet mask is a community. A subnet address also consists of four sets of numbers separated by a period, for example, 255.255.000.000.

Gateway: An IPC accesses the Internet through a gateway address. A gateway address has the same format as an IP address, for example, 192.168.001.001.

IPv6 Address: An IPv6 address is the identifier of an IPC in the network. It consists of eight sets of numbers between 0 and FFFF, separated by a colon, for example, ABCD:EF01:2345:6789:ABCD:EF01:2345:6789.

DNS1/DNS2: DNS1 is a master DNS server and DNS2 is a slave DNS server. In general, you need only enter the IP address of the DNS1 server.

Main Stream: If this option is checked, multicast streaming will be enabled for main stream.

Multicast Address: Specifies a multicast address. A third party player will request an IPC to send multicast media stream over the RTSP protocol.

Video Encryption Transmission: Specifies video encryption transmission.

If an IPC can alert users with repeated IP addresses in the network segment and an IP address is repeatedly used, the prompt message shown in the following figure will be displayed when you click

IP Address	172.020.058.037	\otimes	Test
	The address is used		
Subnet Mask	255.255.255.000	\otimes	

8.8.1.2 PPPoE

This is the high-level protocol that allows an IPC to connect more directly to the network through a DSL modem.



Check the "Enable PPPOE" checkbox, and enter PPPoE username and password. Click "Save". The system will reboot to activate PPPoE settings.

8.8.1.3 SNMP

Simple Network Management Protocol (SNMP) is a standard protocol specially designed for managing network nodes (servers, workstations, routers, switches and hubs, etc.) in IP networks. It is an application layer protocol.

							Live	Playback	Remote Setting	Local Settings	• 🙂
🖵 Channel	General PPPoE	SNMP	Port Configuration								
Live Image Control Video Cover ROI	Enable										
E Record	SNMP Version										
Encode Record Capture	SNMP Port			<u>(1 ~ 65535)</u>							
Event	Read Community										
Setup Alarm Event Push Platform	Write Community										
AI	Trap IP Address										
Setup Recognition Alarm Statistics	Trap Port			Ĵ (1 ~ 65535)							
() Network	Save	afresh									
General Email FTP RTSP DDNS HTTPS IP Filter											
Device Disk Audio Cloud											
System General Multi-User Maintenance Information											

Enable: Used to enable or disable SNMP.

SNMP Version: Specifies the version of the SNMP server. The options include V1, V2 and V1, V2, and V3.

SNMP Port: Specifies the port number of the SNMP server.

Read Community: Specifies the Read Community value of the SNMP server.

Write Community: Specifies the Write Community value of the SNMP server.

Trap IP Address: Specifies the Trap IP address of the SNMP server.

Trap Port: Specifies the Trap port number of the SNMP server.

8.8.1.4 Port Configuration

	Connect DDDoE St	Bad Confirmation			Live Playback	Remote Setting Local Setting	n=()
Channel Uve Image Control Midae Course DOI	Server	Internal Port	External Port	Protocol	UPNP Status	Maping Strategy	UPNP
B Record	HTTP Port HTTPS Port	80 [°]		TCP TCP	Inactive		
Encode Record Capture	RTSP Port	554 0			Inactive		
Event Setup Alarm Event Push Platform	Multicast Port 10 P2P Switch	000 01624	65535)				
 Al Setup Recognition Alarm Statistics 	Save Refresh						
Network General Email FTP RTSP DONS HTTPS IP Filter							
Device							
System General Mutti-User Maintenance Information							

HTTP Port: This is the port that users will use to log in to the IPC remotely (for example, using a Web client). If port 80 has already been used by another application, please change it to another port number.

HTTPS Port: The default value is 443. HTTPS is the secure version of HTTP and guarantees transmission security by transmission encryption and authentication based on HTTP.

RTSP Port: The default value is 554. If port 554 has already been used by another application, please change the port number.

UPNP: To remotely log in to your device using a Web client, you need to complete port forwarding in the router. Please enable this option if your router supports UPnP. In this case, users do not have to manually configure port forwarding in the router. Please ensure that you have manually completed port forwarding in the router if your router does not support UPnP.

Multicast Port: Specifies a multicast port.

P2P Switch: Specifies P2P switch. P2P will not be effective if this option is disabled.

8.8.2 Email

In this menu, users can configure email settings. To receive system notifications through email when an alarm is triggered or the HDD is full, please configure these settings.

							Live	Playback	Remote Setting	Local Settings	• 🙂
₽ Channel	Email Configuration										
Live Image Control Video Cover ROI	Email	•									
B Record	Encryption										
Encode Record Capture	SMTP Port			(1 ~ 65535)							
Event	SMTP Server										
Setup Alarm Event Push Platform	Usemame										
() AI	Password										
Setup Recognition Alarm Statistics	Sender										
Network	Receiver 1										
General Email FTP RTSP DDNS HTTPS	Receiver 2										
IP Filter	Receiver 3										
E Device	Interval										
Disk Audio Cloud											
⊚ System	Save		Refresh								
General Multi-User Maintenance Information											

Email: Turn on to enable this function.

Encryption: Turn this function on if your email server needs SSL or TLS validation. Select "Auto" if you are not sure about this.

SMTP Port: Specifies the SMTP port for the email server.

SMTP Server: Specifies the IP address of the SMPT server.

UserName: Specifies the email address.

Password: Specifies the email password.

Receiver 1~3: Specifies the email address where the user wants to receive event notifications from IPCs.

Interval: Specifies the interval time you receive notification emails from IPCs.

Please click "**Test Email**" to check that all settings are correct. The system will send an email to the user's inbox. If the user receives the test email, the configuration parameters are correct.

8.8.3 FTP

In this menu, users can enable the FTP server through which users can view images and videos uploaded from IPCs to the FTP server.

						Live	Playback	Remote Setting	Local Settings	0
₽ Channel	FTP									
Live Image Control Video Cover ROI	FTP Enable									
B Record	Server									
Encode Record Capture	Port		Ĵ (1 ~ 65535)							
요 Event	Usemame									
Setup Alarm Event Push Platform	Password									
@ AI	Transfer images	•								
Setup Recognition Alarm Statistics	Transfer videos									
Network		Refresh								
General Email FTP RTSP DDNS HTTPS IP Filter										
Device										
Disk Audio Cloud										
System										
General Multi-User Maintenance Information										

FTP Enable: Click to enable the FTP function.

Server: Specifies the IP address or domain name of the SMPT server.

Port: Specifies the port number of the FTP server.

Username/ Password: Specifies the username and password of the SMPT server.

Transfer Images: If this option is checked, alarm images will be uploaded to the FTP server. Otherwise, only alarm texts are uploaded.

Transfer Videos: If this option is checked, alarm videos will be uploaded to the FTP server.

8.8.4 RTSP

Real Time Streaming Protocol (RTSP) - RFC2326 is an application layer protocol in the TCP/IP protocol architecture. This protocol defines how one-to-many applications efficiently deliver multimedia data over IP networks. Users can view real-time images through a video player.

		Live	Playback	Remote Setting	Local Settings	•
P Channel	RTSP					
Live Image Control Video Cover ROI	RTSP Enable					
B Record	Aeonymous Login 🗾 (No username or password required)					
Encode Record Capture	Instruction: http://Ptiscp-Oti/nsp/streaming/channel=01&subtype=A & Worain examp: I (see hstream) 2(mobile stream)					
Event	Save Refersh					
Setup Alarm Event Push Platform						
AI						
Setup Recognition Alarm Statistics						
) Network						
General Email FTP RTSP DDNS HTTPS IP Filter						
Device						
Disk Audio Cloud						
System						
General Multi-User Maintenance Information						

RTSP Enable: RTSP enable switch. This protocol is effective only if this switch is turned on.

Anonymous Login: Anonymous login. This protocol is effective without the need of authentication if this switch is turned on.

8.8.5 DDNS

In this menu, users can configure DDNS settings. DDNS provides a static address to simplify the remote connection with IPCs. To use DDNS, users first need to open an account on the DDNS service provider webpage.

					Live	Playback	Remote Setting	Local Settings	• 🙂
₽ Channel	DDNS								
Live Image Control Video Cover ROI	DDNS	-							
🖶 Record	Server	NO_IP ~							
Encode Record Capture	Hostname								
Event	Username								
Setup Alarm Event Push Platform	Password								
(© AI		Tost Refresh							
Setup Recognition Alarm Statistics									
) Network									
General Ernail FTP RTSP DONS HTTPS IP Filter									
Device									
Disk Audio Cloud									
System									
General Multi-User Maintenance Information									

DDNS: DDNS enable switch. Turn it on to enable DDNS.

Server: Select your preferred DDNS server (DDNS_3322, DYNDNS, and NO_IP. CHANGEIP and DNSEXIT may be supported).

Hostname: Enter the domain name created by users on the DDNS service provider webpage. Users can enter this address in the URL box to remotely connect to IPCs through PC.

User/Password: Enter the username and password obtained when creating an account on the DDNS service provider webpage.

After entering all parameters, click Test DDNS to test DDNS settings. If the test result shows "network unreachable or DNS error", check the network connectivity or check whether the DDNS information is correct.

8.8.6 HTTPS

In this menu, users can set the HTTPS protocol. Users can connect to IPCs over the HTTPS protocol.



Certificate Type: The options include Default and Custom. In Custom mode, users can use their own certificates for connection with IPCs.

Certificate: In Custom mode, users need to select a custom certificate. **Key:** In Custom mode, users need to select a custom key file.

8.8.7 IP Filter

The IP filter function enables users to set a allow list and a block list of IP addresses to access IPCs.



Enable: Used to enable or disable the filter function. If this function is enabled, users can enable block list or allow list.

Restricted Type: Select block list or allow list.

Single Add: Used to add a single IP address.

Network Segment Add: Used to add a network segment.

Start Address: Specifies the start address.

End Address: Specifies the end address.

Delete: Remove added IP addresses from the allow list/block list.

8.9 Device

8.9.1 Disk

In this menu, users can inspect and configure the internal TF card. The TF card needs to be formated only when it is accessed for the first time or replaced with a new one.



Format Hard Disk: Select the TF card to be formated and click this button to format the TF card. Users need to enter username and password and click OK to start formating. **Overwrite:** When the TF card is full, this option can be used to overwrite old data in the TF card. If **Auto** is selected, the oldest data will be automatically overwritten when the TF card is full. Select **OFF** if you do not want any old recording data to be overwritten. If this function is disabled, please regularly check that the TF card is not full.

8.9.2 Audio

In this menu, users can set the volume.



Enable Audio: Used to enable or disable audio.

Output Volume: Used to set the volume of output audio.

Input Volume: Used to set the volume of input audio.

Audio Code Type: Used to set audio code type. The options include G711A and G711U.

8.9.3 Cloud

Users' IPCs can upload snapshots or videos to a cloud storage server through Dropbox. Dropbox is a free service that enables users to easily store and share images.



You are advised to create a Dropbox account using your email address and password before enabling the cloud storage service. Upon completion of creation, log in to <u>www.dropbox.com</u> and enter your email address and password, agree to the terms, and click Login.

Cloud Storage: Select to enable this function.

Cloud Type: Specifies cloud storage type. The options include Dropbox and Google

Drive.

Cloud Overwrite: Used to set the overwrite frequency of data in a cloud storage server. Video Type: Used to set the format of videos uploaded to a cloud storage server. Driver Name: Specifies the name of the folder storing videos and images. Activate Cloud: Click to activate this function. After a while, you will be redirected to the Dropbox link. Enter your username and password to establish the association.

8.10 System

Here, users modify system information, such as, date, time, region and change password and permissions.

8.10.1 General

8.10.1.1 Date and Time



Time Settings Mode: Specifies the time mode. The options include Static and NTP Server Synchronization.In Static mode, users need to set the time. In NTP Server Synchronization mode, the system time synchronizes with the time server over the network.

Date Format: Used to set the date format.

Time Zone: Used to select the time zone associated with the user's region or city.

Time Format: Used to select the preferred time format.

System Time: Click the box next to it to change the date and time.

Synchronize Computer Time: Synchronize the time to the PC time.

If the NTP Server Synchronization mode is selected, users cannot manually set the time. Sever Address: Users can select an automatic time synchronization website.

8.10.1.2 Daylight Saving Time

The Daylight Saving Time (DST) function enables users to add daylight saving time to a particular time zone or region.

									Live	Playback	Remote Setting	Local Settings	• 🙂
P Channel	Date and Time Day	light Saving T	lime										
Live Image Control Video Cover ROI	Daylight Saving Time	•	Set by we	Set by date									
음. Record	Start Time												
Encode Record Capture	End Time												
Event	Time Offset												
Setup Alarm Event Duch Platform													
	Save Re	fresh											
AI													
Setup Recognition Alarm Statistics													
Network													
General Email FTP RTSP DDNS HTTPS IP Filter													
Disk Audio Cloud													
System													
General Multi-User Maintenance Information													

Daylight Saving Time: Enable this option to use DST in your time zone.

Set by Week: Specifies month, specific week, and time to start and end daylight saving time, for example, 2:00 a.m. on the first Sunday of a month.

Set by Date: Specifies the date and time to start and end daylight saving time.

Start Time / End Time: Specifies the start time and end time of daylight saving time.

Time Offset: Specifies the time increased in DST mode in the your time zone. This is the difference between Universal Time Coordinated (UTC) and the local time.

8.10.2 Multi-User

In this menu, users can configure username, password, and user permissions. The system supports the following user types:

ADMIN - **system administrator**: The administrator can fully configure the system and can change administrator and user passwords and enable/disable password protection. **USER** - **normal user**: Users only have access to live view, search, playback, and other features. Users can set multiple users with different access permissions.

					Live Playback	Remote Setting	Local Settings	• 🕛
🖵 Channel	Multi-User							
Live Image Control	NO.	Username	Level	Status	Password		Policy	
Video Cover ROI		admin	ADMIN	Enable				
00 Decord		user1	USER	Disable				
E Recold		user2	USER	Disable				
Encode Record Capture		user3	USER	Disable				
		user4	USER	Disable				
E LYGIN		user5	USER	Disable				
Setup Alarm		user6	USER	Disable				
Soup - Recognition - Paulini - Statistics Statistics Network General Email FTP RTSP DDNS HTTPS IP Filter Donvice								
Disk Audio Cloud								
System General Multi-User Maintenance Information								

To change an administrator or user password, click the "Password Editing" icon. The password must be 8 to 16 characters in length and a combination of at least any two characters of numbers, uppercase letters, lowercase letters, and special characters. Enter

new password again for confirmation. Save the new password. The system will ask you to enter the old password for authentication.

						Live	Playback	Remote Setti	ing Local Settings	0
		Lesust		Statue	-					
			Editing							
		Enable	-							
			-							
Event Push Planorm										
				Cancel						

- 1. Select a user that is not enabled, and click the "Password Editing" icon.
- 2. Check "Enable" to enable the user.
- 3. Click "UserName" to edit username.
- 4. Click the field next to **Password** to enter your desired password.
- 5. Click the field next to **Confirm** to enter the password again.

Click **OK**. Users need to enter the administrator password for authentication.

Set permissions of sub users: Click the Dutton to go to the Policy page. You can enable permissions of the sub user simply by checking the corresponding feature boxes.Click All to select all boxes and click Clear to clear all boxes.

								• •
	Usernamo		L courd		Statue	Decessory		
	adı			Policy				
	USI Username	user1						
	US 🗌 Parameter							
	us 🗆 Playback							
	RTSP							
			All Clean	n All Save	Cancel			
System								

8.10.3 Maintenance

In this menu, users can search for and view the system log, restore to defaults, upgrade the system, export and import system parameters, and configure the auto reboot.

8.10.3.1 Log

The system log shows important system events, such as motion alarms and system warnings. Users can easily import the backup file of the system log to the PC within a set time period.

					Live	Playback	Remote Setting	Local Settings	0
₽ Channel	Log Load Default	Upgrade Parameter Management Aut	to Reboot						
Live Image Control Video Cover ROI	Log Type								
B Record	Name		Export						
Encode Record Capture	Start Time	07/13/2023 00 : 00 : 00							
Event	End Time	07/13/2023 23 : 59 : 59							
Setup Alarm Event Durch Diatform	No.	Time		Log Content	Log Info				
		07/13/2023 17:16:55		Motion Start	Channel: CH Is there a via	13 Seo: has record			<u>^</u>
(*) Al Setup Recognition Alarm Statistics		07/13/2023 17:16:40		Motion End	Channel: CH Is there a vis	13 deo: has record			
		07/13/2023 17:16:19		Motion End	Channel: CH Is there a vis	14 Seo: has record			
Network		07/13/2023 17:16:17		Motion End	Channel: CH Is there a vis	13 deo: has record			
General Email FTP RTSP DONS HTTPS		07/13/2023 17:16:17		Motion Start	Channel: CH Is there a vis	13 Jeo: has record			
IP Filter		07/13/2023 17:16:05		Motion Start	Channel: Ch Is there a vis	14 Jeo: has record			
Device		07/13/2023 17:15:53		Motion Start	Channel: CH Is there a vis	13 deo: has record			
Disk Audio Cloud		07/13/2023 17:15:44		Motion End	Channel: Ch le thoro a vie	13 Ion: hac record			
System								R < 1 / 10	K C Ø
General Multi-User Maintenance Information									

Log search and backup:

Select event type to search for from the drop-down list next to **Log Type** or select **All** to view the entire system log within the selected time range. The options include system log, configuration log, alarm log, account log, recording log, storage log, and network log.

System: System setup, reboot, auto reboot, upgrade, time setup, and NTP server

synchronization.

- Configuration: IPC live control, privacy area settings, recording mode settings, recording plan settings, main stream settings, network settings, substream settings, email settings, color settings, motion detection settings, hard disk settings, multiuser settings, NTP settings, image control, RTSP settings, IP filter settings, factory default settings, audio settings, export settings, import settings, and push settings.
- Alarm: Motion detection start, motion detection end, I/O alarm start, I/O alarm end, line crossing start, line crossing end, object detection start, object detection end, pedestrian&vehicle start, pedestrian&vehicle end, face detection start, face detection end, cross counting start, cross counting end, crowd density start, crowd density end, queue length start, queue length end, license plate start, license plate end, intrusion start, intrusion end, region entrance start, region entrance end, region exiting start, region exiting end, sound alarm start, and sound alarm end.
- Account: Login, logout, password lock, and user switching.
- **Record:** Search, playback, and backup.
- **Storage:** HDD formating, HDD full, and HDD error.
- **Network:** Network disconnection, network connection, network exception, and network mode change.
- 1. Select event type to search for from the drop-down list next to **Minor Type**. This menu is unavailable when All is selected for Log Type.
- 2. Enter the name of the imported file in the field next to **Name**. Click **Export** to create the backup of the system log.
- 3. Click the field next to **Start Time** to select the date and time to start searching from the on-screen calendar.
- 4. Click the field next to **End Time** to select the date and time to end searching from the on-screen calendar.
- 5. Click **Search** to start searching.
- 6. Browse the system log from the selected time period:
- 7. Use the K < / > > button in the lower right corner to switch between pages of the system log.

8.10.3.2 Load Defaults

Restore the device to defaults. Users can either reset all settings at a time or reset only settings in a specific menu. Note: Restoring to defaults will not delete videos and snapshots stored in the SD card.

					Live	Playback	Remote Setting	Local Settings	• 🙂
🖵 Channel	Log Load Default Upgrade	Parameter Management	Auto Reboot						
Live Image Control Video Cover ROI	All Channel								
B Record	Record								
Encode Record Capture	Event								
Event									
Setup Alarm	Network								
Event Push Platform	Device								
	System								
Setup Necognition Alarm Statistics	Save Refresh								
ی: Network									
General Email FTP									
RTSP DDNS HTTPS IP Filter									
Disk Audio Cloud									
System									
General Multi-User									
Maintenance Information									

Check items to be restored to defaults or check **All** to select all items. Click "**Save**" to load defaults of selected items.

8.10.3.3 Upgrade

In this menu, users can upgrade firmware.



Automatic Detection: Enable automatic detection. If this function is enabled, the overthe-air upgrade file will be automatically detected.

Username: Specifies the username of the FTP server.

Password: Specifies the password of the FTP server.

FTP/HTTP url address: Specifies the over-the-air upgrade address (no username or password is required for HTTP upgrade).

Note: The format of the FTP upgrade address is ftp://{IP address of the FTP server:port}/Upgrade (folder name of over-the-air upgrade path of the FTP server).

Save: Click this button to save your settings.

Detect: After uploading the upgrade file and setting the upgrade path, click Detect to manually detect the over-the-air upgrade file. A prompt message displays when updates are available, as shown in the following figure:

0

Upgrade: Click this button to start system upgrade.

Put the firmware file (.sw) to the HDD of your PC.

Click "..." next to "Path" and select the firmware file from your PC.

Click the **Upgrade** button to start system upgrade. The system upgrade will take about 2 to 3 minutes. Do not cut off the power supply to your device or close your IE browser while firmware upgrade is in progress.

8.10.3.4 Parameter Management

Users can export configured parameters in the main menu to the PC and can also import exported configuration files from the PC to the device.

					Live	Playback	Remote Setting	Local Settings	• 🙂
🖵 Channel	Log Load Default	Upgrade	Parameter Management	Auto Reboot					
Live Image Centrol Video Cover ROI	Import File			Import					
B Record	Export file name			Export					
Event									
Setup Alarm Event Push Platform									
AI									
Setup Recognition Alarm Statistics									
Network									
General Email FTP RTSP DDNS HTTPS IP Filter									
Device Disk Audio Cloud									
General Multi-User Maintenance Information									

Import File: Click the field. A path window appears. Select the parameter file and click **Import** to start importing parameters.

Export File Name: Click the field and enter the file name of the exported parameters. Click **Export** to export parameters.

8.10.3.5 Auto Maintenance

In this menu, users can set periodic auto reboot. You are advised to enable this function to maintain the operational stability of your device.

							Live	Playback	Remote Setting	Local Settings	• 🙂
🖵 Channel	Log Load Default	Upgrade Paramete	r Management Auto Re	eboot							
Live Image Control Video Cover ROI	Auto Reboot	•									
🛱 Record	Time										
Encode Record Capture											
f Event											
Setup Alarm Event Push Platform											
@ AI	Save R	Reboot									
Setup Recognition Alarm Statistics											
(a) Network											
General Email FTP RTSP DDNS HTTPS IP Filter											
Disk Audio Cloud											
System											
General Multi-User Maintenance Information											

Auto Reboot: Check to enable this function. Time: Users can set rebooting IPCs by day, week, or month.

8.10.4 Information

In this menu, users can view system information, such as device ID, device name, MAC address, and firmware version.



9 Local Settings

In this menu, users can set the storage path of recording files, downloaded files, and image files, as well s the format of recordings and images.

Note: Programs without plug-ins are supported. You can skip this page when Safari 12, Chrome 57, Firefox 52 and their respective later versions, and Edge 41 are used for Web access.

		Live	Playback	Remote Setting	Local Settings	! 🖱
Path configuration						
Record Path	D:\Device\Record					
Download Path	D:\Device\Download					
Snapshot Path	D:\Device\Capture					
File type	MP4 ~					
Interval	10 V Minute					
Capture Type	JPG V					
	Save					

CTAVUE Securing Your World.



BY



gsdgroupinc.com



1 (866) 791-7020



sales@gsdgroupinc.com



180 Boul Bellerose Ouest, Suite 100, Laval QC H7L 6A2



facebook.com/GSDGROUPINC



linkedin.com/company/g-s-d-group/

https://www.youtube.com/@gsdgroupinc