



PROFESSIONAL SERIES-KIARA 8000 USER MANUAL



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1. DOCUMENT DETAILS

1.1 Introduction

This user manual is designed for SPARK KIARA 8000 Network Camera. It is written with the intention to introduce the camera's web interface and help users with the installations. Please read and follow the instructions on the guide carefully before installing KIARA 8000.

1.2 Legal Considerations

Both Audio and Video surveillance can be prohibited by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

1.3 Liability

SPARK company limited cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. SPARK company makes no warranty of any kind with regard to the material contained within this document. Including, but not limited to, the implied warranties of merchantability and fitness for any particular purpose. SPARK company shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.



2. ELECTROMAGNETIC COMPATIBILITY (EMC)

2.1 FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. The limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2.2 CE Mark Warning

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



3. **REQUIREMENTS**

3.1 System Requirements

Using one of the browsers as below to access the web interface:

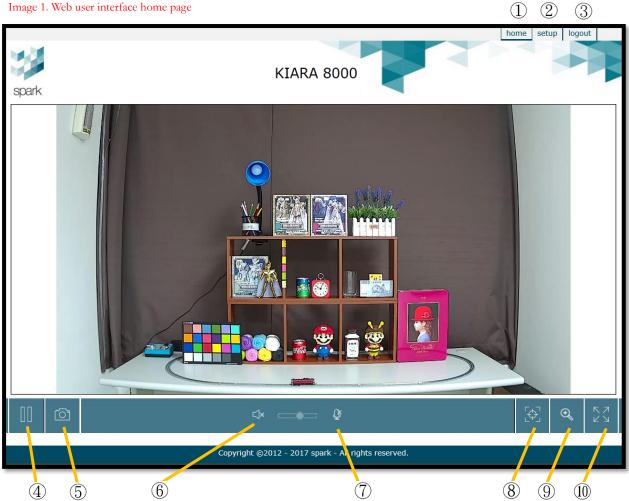
Item	Requirement
Microsoft Internet Explorer	Version 7.0 or later
Google Chrome	Version 8.0 or later
Mozilla Firefox	Version 3.6 or later
Apple Safari	Version 5.0 or later
Android TM	2.2 (Froyo) or later browsers
Apple iOS	Version 5.0 or later browsers



4. WEB USER INTERFACE

4.1 Accessing the web interface

- Open a web browser.
- Fill-in camera IP address.
- Use the default account and password when logging in for the first time.
- Double click the live view screen to enter or exit full screen*.
- Use the mouse scroll to zoom in and out on the live view screen*. Image 1. Web user interface home page



1	home	Live View	Open live view.
2	setup	Configuration	Open configuration page.
3	logout	Logout	Logout the user account.



4		Pause/Play	Pause/Play live view video stream.
5	0	Snapshot	Captures a snapshot of the current live view image, allowing users to save or discard the snapshot.
6		Sound Mute/ Volume level	Enable/disable the sound from the camera and configure volume*.
7	Ľ⊅	Talk Mute	Enable/disable the microphone from the camera*.
8	[]	Re-Focus	Enable automatic re-focus for clear image.
9	Ð	Zoom in	Enable users to zoom in on any area of the live view screen. Clicking the zoom in icon will open a small window facilating users to configure the zoom in rate and area. Click on the "T" (tele) and "W" (wide) to adjust the zoom. Click on the vindow.
10	R N N	Full Screen	Enables full screen view of the live view screen. Press ESC to exit the full screen video.

Remark *only available for Internet Explorer.



4.2 Setup Page

• There are 8 parts in the setup page:

- 1. Information
- 2. Image
- 3. Video
- 4. Audio
- 5. Network
- 6. Date& Time
- 7. Accounts
- 8. Advanced
- There are 10 parts in the advanced setup page:
 - 1. Archive
 - 2. Recording servers
 - 3. Recordings
 - 4. Analytics
 - 5. Schedules
 - 6. Digital I/O
 - 7. Network advanced
 - 8. Security
 - 9. Maintenance
 - 10. System log
- The information page displays the detail information of IP camera, including:
 - 1. Product information
 - 2. Security information
 - 3. Image settings information
 - 4. Day/Night mode settings information
 - 5. Network settings information



Image 2. Camera information page

information	Î			
image	information			
video				
audio		Product Name	KIARA 8000 Bullet Camera	
network	product	Firmware Version	0626_4]
date & time accounts		Firmware Date	Tue Jun 26 07:55:14 UTC 2018]
		Onvif Version	2.40]
archive		MAC Address	20:E4:07:00:10:42]
recording servers		Date Time	2018-07-02 07:15:45	1
recordings		Bandwidth Usage	Receiving = 149 kbps transmitting = 14572kbps	7
analytics		WLAN Bandwidth Usage	None	7
schedules		Fan State	OFF]
digital I/O network advanced]
security		Temperature	29°C / 84°F	
maintenance	0	Connections	1	ן ו
system log	security	Accounts]
]
		Anonymous Viewer	Disabled	
		HTTPS	Disabled	
		IP Address Filter	Disabled]
	e~	Mirror/Flip: None,		
	image	Image Rotation: None, Video Clip Format: Profile1,		
			~	/
			-	
	ی day/night	IR Cut Filter Mode:Day N	IR Cut Filter Mode:Day Mode,	
			· · · · · · · · · · · · · · · · · · ·	-
		L		1
	*	TCP/IP	172.21.7.66 , HTTP Port:80]
	network	PPPoE	Disabled]
		UPnP	Enabled]
		Bonjour	Enabled , Spark-20:E4:07:00:10:42]
		RTSP		
		Port Range: 5000~7999		
			dia1.sdp, Authentication: Disabled. dia2.sdp, Authentication: Disabled.	
			dia3.sdp, Authentication: Disabled.	
			~	1
		Ports		-
		HTTP Port=80 System Log Port=514	~	\
		RTSP Port=554 SSL Port=443		
		0001010-110		

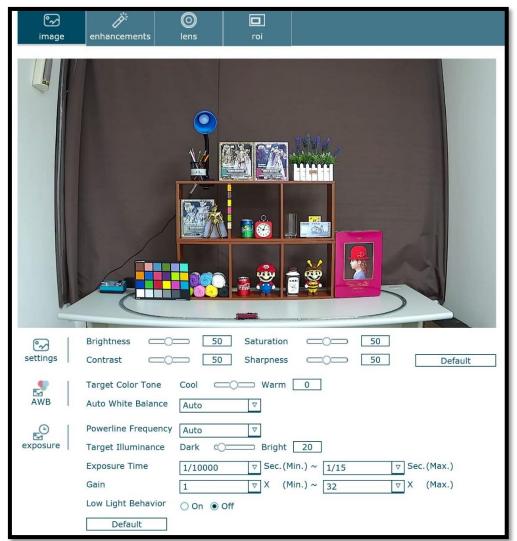


4.3 Image

Note: Remember to click the save button to successfully apply changes.

• Image page includes image, enhancements, lens and ROI.

1. Image configuration: image settings, AWB, exposure. Image 3. Image configuration page



a. Settings:

occunge			
1	Brightness	value from 0~100	Brightness refers to the overall lightness or darkness of the image, the higer the value the brighter the image.
2	Contrast	value from 0~100	The relative difference between dark and light, the higher the value the bigger the difference.
3	Saturation	value from 0~100	Controls the intensity of color in an image.
4	Sharpness	value from 0~100	Controls the level of detail that is achieved in an image.



b. AWB (auto white balance):

1	Target color tone	value from -127~127	Move the bar to the value that can best reflect natural colors, higher value produce warmer colors, lower value produce colder colors.
		Auto	
	Auto White Balance	Hold current	AWB allows colors in an image to appear the same
		Fluorescent	regardless of the color temperature of the light source.
2		Incandescent	The auto option can automatically identify the light
_		Sunny	source and compensate for its color. Users can also
		Cloudy	select other type of light source available on the drop-
		Sun Shade	down list.
		Manual	

c. Exposure

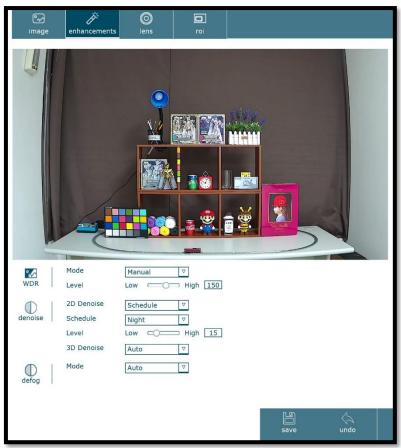
Exposu	ire		
		Auto	Select auto if the camera is installed outdoor. On the contrary, please choose the indoor light frequency (e.g.
1	Powerline frequency	50 Hz	
1	I owenine nequency	60 Hz	60Hz for USA, 50Hz for Germany).
		Hold current	offiz for USA, sofiz for Germany).
2	Target illuminance	value from 0~100	Target illuminance allow users to adjust the brightness and darkness. This feature is only available under auto exposure time and auto gain.
3	Exposure time	value from 1/2~1/30000	Define the minimum and maximum exposure time of the camera's shutter. It is recommend using the smallest exposure time for the min value to ensure crisp images during day time condition. As for the max value the bigger the value, the longer the camera keeps the shutter open in low light conditions allowing more ligh to fall onto the image sensor. As a result, the camera can capture images even in very dark environments However, moving objects will appear blurred as the move while the camera's shutter is open.
4	Gain	value from 1~128	The higher the value, the brighter the image, bu consequently it will contain more noise.
-	T 1 1 . 1 1 .	On (setting)	
5	Low light behavior	Off	Configure settings for low light conditions.
2.1 Lo	w light behavior setting:	•	·
		Powerline Frequency	Includes auto, 50Hz, 60Hz and hold current.
1	Exposure	Target illuminance	value from 0~100

		1	
1	Exposure	Target illuminance	value from 0~100
		Exposure time	value from 1/2~1/30000
		Gain	value from 1~128
2	Mode	Mode	Includes schedule and night mode
2	Midde	Schedule	Includes all the schedules previously saved.



2. Enhancements: includes WDR, denoise and defog

Image 4. Enhancements page



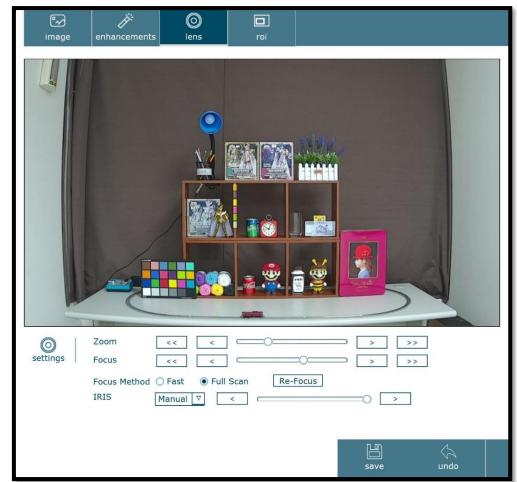
a. WDR:

		Auto	
1	Mode	Manual (Value 0~255)	WDR allows the capture of clear video in areas with high lighting contrast. The bigger value means greater
		Off	range of luminance levels.

b. Denoise:

	1	2D Denoise	Auto Manual (Value 0~50) Off Schedule (Value 0~50) Night mode (Value 0~50)	Noise reduction algorithm helps reduce the graining in the video, which occurs under low light conditions. Select the mode that best fit your needs.
	2	3D Denoise	Auto Off	Further improves noise reduction to deliver sharper image.
c. I	Defog:			
	1	Defog	Auto	Enable this feature to allow the camera to automatically increase image contrast and provide better image
	1	Delog	Off	quality on a foggy day.



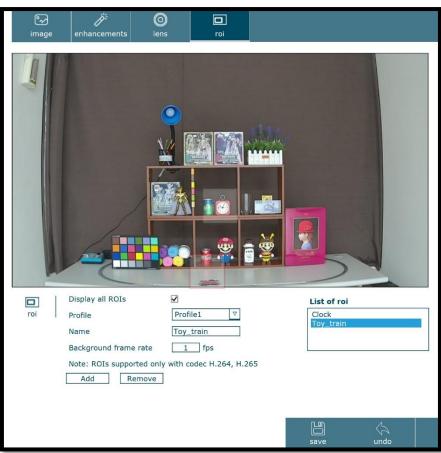


3. Lens control: users can adjust the lens according to the installation needs. Image 5. Lens control page

a. Settings:

1	Zoom	« · · · · · · · · · · · · · · · · · · ·	Use the arrows to zoom in or out. Users can also click on the bar to zoom to specific position.
2	Focus	× ·	Use the arrows to adjust the focus, or use the mouse to move and resize the focus window
	_	Fast	Focus method allows users to automatically refocus.
3	Focus method	Full scan	Use fast focus method to refocus on the current focal length or use full scan to refocus all focal length.
		Auto	Iris controls the depth of field and light level. Select Auto for the iris to automatically maintain the optimum
4	IRIS Manual light level to the image sensor so that	light level to the image sensor so that images can be sharp, clear and correctly exposed with good contrast	
		Open	and resolution. Choose manual to manually set the the iris opening.





4. ROI (Region of Interest): users can create up to 3 ROI regions according to the installation needs. Image 6. ROI setting page

a. Roi:

1	Display all ROIs	Display/no display	Display all ROIs to see all the regions previously set.		
2		Profile 1	Select profile.		
	Profile	Profile 2	For profile settings please refer to section 4.4.1		
		Profile 3			
3	Name	Toy_train	Insert ROI name, only allow characters 0-9, a-z, A-Z, ".", "_"		
4	Background frame rate	Value 1~30	Users may lower the background frame rate in order to relocate the bitrate resources and increase the video quality on the regions of interest.		

How to setup ROI:

- a. Step 1: Choose the profile for ROI
- b. Step 2: Key in the ROI name
- c. Step 3: Key in the background frame rate $(1 \sim 30)$
- d. Step 4: Click add button
- e. Step 5: Click the save button



4.4 Video

Note: Remember to click the save button to successfully apply changes.

• Video page includes video configuration, profile, day/night and privacy.

Image 7. Video settings page

 video	profile	ې day & night	No. Strain Strai				
) rotation	Mirror/Flip Image Rotation	Flip 0		⊽ ⊽			
ि streams	Video Clip Format Snapshot Format			⊽			
overlay	Overlay Title Text Color Background Color Display Position	KIARA8 White Black	Time Stamp 3000 O Bottom	 ▼ ▼ ▼ ▼ 			
		0.00				4	
					save	undo	



a. Rotation:

1	Mirror/Flip	None Mirror Flip Mirror + Flip	Allows users to mirror and/or flip the image. Mirror for rotated left and right, flip for rotated up and down.
2	0° 90° 270° 20°		Allows users to rotate the image by 0° , 90° or 270° .

b. Streams:

		Profile1	Select profile for video clip format.				
1	1 Video Clip Format	Profile2	1 1				
		Profile3	For profile settings please refer to section 4.4.1				
		Profile1					
2	Snapshot Format	Profile2	Select profile for snapshot format.				
	-	Profile3	For profile settings please refer to section 4.4.1				

c. Overlay:

		None	Overlays are superimposed over the video stream. They ar			
1	Overlay	Time Stamp	used to provide extra information during recordings, such			
1	Ovenay	Title	as a timestamp, or during product installation and			
		Title & Time Stamp	configuration.			
2	Title	KIARA8000	Insert Title name, only allow characters 0-9, a-z, A-Z, ".", "_"			
	7.01	White				
3	Text Color	Black	Users can select the text color that best fit their needs.			
		White				
4	Background Color	Black	Users can select the background color that best fit their needs.			
		Transparent	needs.			
5	Display Position	Тор	Users can select the display position of overlay that best			
5	Display Position	Bottom	fit their needs.			



1. **Profile page:** Up to 4 configurable profiles, 2 main stream and 2 sub-streams.

Add/Edit page includes profile name and description and other video and audio configurations such as encoding, profile, resolution, fps and quality.

Image 8. Profile page

,≧ video	profile	ې day & night) privacy		
profiles	Name Profile1 Profile2 Profile3	Encoding H264,3840x216 H264,640x4800 MJPEG,640x360			0 profile2
	Add	Edit	Remove		

Image 9. Add/Edit profile page

8							
profile	Profile Name Profile Description	Profile1 profile1					
video	Encoding Profile Resolution Maximum fps Quality	H264 High 3840x2160 15 fps (1~30) Fixed Quality Maximum Bitrate	▼ ▼ ▼ Detailed 40M		V		
	Smart Codec	 Fixed Bitrate Level 	40M Better		▽ ▽		
لال) audio	Audio Stream Current Audio Sett Audio Mode Audio Input Audio Output	On ing Full Duplex Odb / g.711_u-law Odb					
				save	ı	sundo	



a. Profile:

1	Profile Name	Profile1	Insert profile name, only allow characters 0-9, a-z, A-Z, "", "_"
2	Profile Description	Profile1	Insert profile description, only allow characters 0-9, a-z, A-Z, ".", ""

b. Video:

		H.264					
1	Encoding	H.265	The camera can encode video in different formats. Make sure that your video recorder supports the selected format.				
		MJPEG	suce that your video recorder supports the selected format.				
		Baseline					
2	Profile	Main	Under H.264 there are three types of compression, users can choose as needed.				
		High	can choose as needed.				
3	Resolution	Value from 3840x2160~640x360	Resolution will affect the image quality. Available resolution will depend on the profile.				
4	Maximum fps	Value 1~60	Define the maximum number of frames per second for the profile. Maximum limit will depend on the encoding format.				
_		Fixed Quality:	Choose between Fixed Quality (VBR) and Fixed Bitrate (CBR). Fixed quality options includes: medium, standard,				
5	Quality	Fixed Bitrate: Value from 32k~40M	good, detailed and excellent. Fixed bitrate will ensure that the video bitrate does not surpass the specified maximum.				
		Off					
6	Smart Codec	Better	Smart codec further reduces bandwidth and storage requirement without compromising quality.				
		Best					

c. Audio:

1	Audio Stream	On	Choose to enable or disable the audio.		
1	Addio Stream	Off	Choose to enable of disable the audio.		
2	Current Audio Setting	Current Audio Setting	Display current audio setting, includes audio mode, audio input and audio output.		



Day/Night mode settings: IR cut filter provides 4 different type of modes: auto, night mode, day mode and schedule.
 Image 10. Day/night settings page

video	profile	ې day & nig	ht	priva					
settings	IR Cut Filter Mo IR Cut Filter Sw IR Cut Filter Thr IR Mode Smart IR IR Level IR Angle	itch Delay [reshold [[[Auto 10 10 Auto Off Dark Tele	Dark	Sec Br	right [20 Bright Wide		
) save	(A undo	

a. Settings

1	IR Cut Filter Mode	Auto Night Mode Day Mode Schedule	By selecting Auto the camera will automatically remove the IR cut filter based on the predefined threshold. On Night mode, the live view image will be black and white as the camera will always remove the IR cut filter regardless of the actual light levels. Opposite to night mode, the Day mode will never remove the IR cut filter from the image sensor allowing visible light to pass through the image, providing colored videos. Schedule mode allows users to program the time for the camera to engage in night mode.		
2	IR Cut Filter Switch Delay	Value 1~10 Sec	Define the duration to enable the IR cut filter to switch mode.		
3	IR Cut Filter Threshold	Value 0~100	Define the threshold to enable the IR cut filter to switch mode.		
		Auto	Auto mode allows the IR to automatically turn on when the IR cut filter is removed. Active mode keeps the IR on		
4		Active	regardless of the IR cut filter mode. This mode is not recommended unless the camera is installed in a dark		
4	IR Mode	Inactive	environment that requires IR at all times. Inactive mode will disable the IR even if IR cut filter is removed. Select		
		Schedule	Schedule mode if you wish to program a specific time for the IR to turn on/off.		
		On	This technology allows the IR to automatically adjust its		
5	Smart IR Off		intensity to the scene content, avoiding overexposure from happening.		
		Dark Bright	Turn off smart IR to activate IR manual mode. The higher		
6	IR Level/ Angle	Tele Wide	the IR level the brighter the image. The wider the IR angle the wider the illuminator area.		

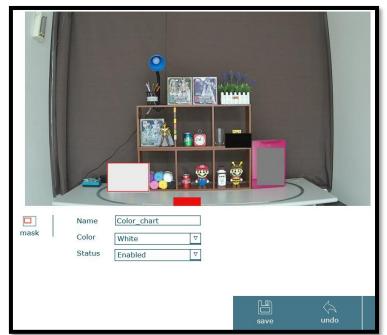


3. Privacy mask page: allows users to set-up up to 5 privacy masks.

Image 11. Privacy mask page

↓ video	profile	-Ɗ day & night	X privacy		
×	Name		Color	Status	
asks	Money		black	on	
IUSK5	Cookie_box		gray	on	
	Color_chart		white	on	
	Train		red	on	
	Clock		black	off	

Image 12. Add/Edit privacy mask page



a. Mask:

1	Name	Color_chart	Insert mask name, only allow characters 0-9, a-z, A-Z, ",", "_"
		Black	
2	Color	Gray	Users can select the mask color that best fit their needs.
-	60101	White	Users can select the mask color that best in their needs.
		Red	
3	Status	Disabled	Dashla (Jashla a jaran arada
3	Status	Enabled	Enable/ disable privacy mask.

How to setup privacy mask:

- a. Step 1: Click add button
- b. Step 2: Set up privacy mask area and key in the mask name
- c. Step 3: Choose mask color: black, white, gray and red
- d. Step 4: Select the status of the mask
- e. Step 5: Click the save button



4.5 Audio

Note: Remember to click the save button to successfully apply changes.

• Audio page includes audio in and audio out settings.

Image 13. Audio page

く)) audio				
ද් audio in	Audio IN Gain Audio Encoding Noise Suppression	+9 ⊽ g.726 ⊽ High ⊽		
ل audio out	Audio OUT Gain	mute		
			save	<∽ undo

a. Audio in:

b.

5 Noise Suppression Low from audio in. Off	1	Audio In Gain	From -12~12 and mute	Select the microphone input gain value from the drop- down menu.
2 Audio Encoding Select the encoding from the drop-down menu. AMR g.726 3 Noise Suppression High Low Enable this feature to reduce background noise receiv from audio in. Off Off			g.711_u-law	
AMR g.726 3 Noise Suppression Low Enable this feature to reduce background noise receive from audio in. Off			g.711_a-law	
3 Noise Suppression High Low Enable this feature to reduce background noise receive from audio in.	2	Audio Encoding	AMR	Select the encoding from the drop-down menu.
3 Noise Suppression Low Enable this feature to reduce background noise receive from audio in.			g.726	
5 Noise Suppression Low from audio in. Off			High	
Off	3	Noise Suppression	Low	Enable this feature to reduce background noise receive from audio in
Audio out			Off	
	Audio	out		· · · · · · · · · · · · · · · · · · ·

1	Audio Out Gain	From -12~12 and mute	Select the speaker output gain value from the drop- down menu.
---	----------------	----------------------	---



4.6 Network

Note: Remember to click the save button to successfully apply changes.

• Network page includes TCP/IP, PPPoE and WiFi:

1. TCP/IP settings:

Image 14. Network page

tcp/ip	デー
mac	MAC Address 20:E4:07:00:03:7D
IPv4	 Obtain an IP address automatically (DHCP) Use the following IP address IP Address 172.21.7.56 Subnet Mask 255.255.248.0 Default Gateway 172.21.0.254 Use the following DNS server address Preferred DNS Server 172.21.0.20
IPv6	Alternate DNS Server 172 20 0 10 IP Address fe80:0000:0000:22e4:07ff:fe00:037d / 64
illhttp	HTTP Port ○ 80 8080 (1124 ~ 65534)
	Save undo

a. MAC:

a	MAC:			
	1	MAC Address	20:E4:07:00:03:7D	Display the MAC address information.
b.	IPv4:			
	1	Obtain an IP address automatically(DHCP)		Select this option to obtain an available dynamic IP address assigned by the DHCP server each time the camera is connected to the LAN.
	2	Use the following IP address		Select this option to manually assign a static IP address to the Network Camera.
	3	Obtain DNS server address automatically		Automatically use the DNS server settings provided by the DHCP server.
	4	Use the following DNS server address		Select this option to assign a DNS server address. When DHCP is disabled, you also need to provide the camera with valid DNS settings.
c.	IPv6:			
	1	IP Address		The IPv6 IP address of camera is automatically assigned by converting the MAC address of the IP camera. Users are unable to modify it.
d.	HTTP:			
	1	HTTP Port	Default:80 Value 1124~65534	The default value is 80. If you changed the HTTP port to a different value (e.g. 1024), please make sure to restart the camera (Settings > Advanced> Maintenance) and then connect to the camera using the following URL http://camera_ip:portnumber.



2. PPPoE page: allows users to configure PPPoE.

Image 15. PPPoE page

tcp/ip	PPPoE	(i) WiFi
pppoe		
		save undo

a. PPPoE:

	Enabled	On	Users and shell / disable dukin Garatian
	Enabled	Off	Users can enabled/ disabled this function.
		PAP	
	Authentication	СНАР	Select the authentication type.
1	IP Address	0.0.0.0	Displays the current IP address obtained from the Internet Service Provider (ISP). It will display 0.0.0.0
	IPv6 Address	0.0.0.0	if the camera is not connected to the Internet via PPPoE.
	User ID	Spark	
	Password	•••••	Enter the user ID for your DSL service. The user ID is provided by your ISP. Enter the password for the DSL
	Re-type Password	•••••	account. Re-type the password in the field below.
	Obtain DNS server address automatically		Typically your ISP will send DNS Server information to the camera when it connects. However, please select
	Use the following DNS server address		"Use the following DNS server address" if your ISP requires entering specific DNS servers manually.

How to setup PPPoE:

- a. Step 1: Enable the PPPoE function
- b. Step 2: Choose authentication format
- c. Step 3: Type in User ID and password
- d. Step 4: Choose DNS server address
- e. Step 5: Click the save button



3. WiFi page: allows users to configure WiFi.

с тср/ір	PPPoE	ି(ି WiFi
((Co WiFi	Enabled MAC Address IP Address ESSID Authentication Encryption Passphrase Re-type	On Off 00:40:25:00:00 0.0.0 SparkAP WPA2-PSK TKIP TKIP (7 (64 HEX chars or 8 to 63 ASCII chars)
		Save undo

a. WiFi:

W1F1:			
1	Enabled	On Off	Users can enabled/ disabled this function.
2	MAC Address	00:40:25:00:00:00	Display MAC address.
3	IP Address	0.0.0.0	Display IP address
4	ESSID	SparkAP	The Extended Service Set Identification (ESSID) is one of two types of Service Set Identification (SSID).
		Open	
5	Authentication	WPA-PSK	WPA and WPA2 are the primary security algorithms for setting up a wireless network. They are two security
		WPA2-PSK	protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer network. TKIP and AES are encryption
6	Encryption	ТКІР	methods for the security protocols to further prevent attacks and intrusions. By choosing "open," no authentication will be required.
U	Likeryption	AES	auticitication will be required.
7	Passphrase	•••••	I col l
8	Re-type	••••••	Insert the password.

How to setup WiFi:

- a. Step 1: Enable the WiFi function
- b. Step 2: Key in ESSID
- c. Step 3: Choose authentication format
- d. Step 4: Choose the Encryption
- e. Step 5: Type in password
- f. Step 6: Click the save button



4.7 Date & Time

Note: Remember to click the save button to successfully apply changes.

- Date & Time allows users to see and configure current date and time.
 - Image 17. Date & time page

date & time	
current	Current Date & Time 2018-06-07 18:27:59 PC Clock 2018-06-07 18:27:59 Date & Time Format yyyy-mm-dd hh:mm:ss
() sync	Synchronize with client PC Manual Settings Synchronize with NTP
	 Use the following NTP server address server 1 pool.ntp.org Test server 2 1.pool.ntp.org Test server 3 2.pool.ntp.org Test server 4 3.pool.ntp.org Test
timezone	(GMT+01:00)Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna ▼ Daylight Saving Time On Off Start Time By Date By Week Number January ▼ First ▼ Mon ▼ 00 ▼
	End Time By Date By Week Number January First Mon O1 O 00 O 00 O
	save undo

a. Current:

b.

ne
t. e and time is displayed on
1

1	Synchronize with client PC	Synchronize with client PC	Select if you want to adjust the camera time to your PC. Note that this option synchronizes the time only once. An occasional re-synchronization will be necessary.
---	----------------------------	----------------------------	---



2	Manual Settings	Manual Settings	Select to manually enter the date and time.
		Server1	Select to allow the camera to obtain the time from an
3	Samalan aire arish Ni ^{rti} D	Server2	NTP server. You can use the default value or you can
3	Synchronize with NTP	Server3	enter a different NTP server manually. Make sure that your camera is connected to the Internet and that no
		Server4	firewall is blocking the outgoing NTP request.

c. Timezone:

1	Timezone		Select the correct time zone for your location.
2	Daylight Saving Time	On	Define the Daylight Saving Time range by activating
2	Daylight Saving Time	Off	this option. The camera will adjust the time depending on the predefined start and end time.



4.8 Accounts

Note: Remember to click the save button to successfully apply changes.

• Admin can create up to 10 accounts with different privilege, to create an account, click the add button. To edit or remove an account, select the username on the account list and then click Edit or Remove as needed. Administrators account cannot be deleted.

1. Add accounts:

Image 1	8. Accounts	page	Image
---------	-------------	------	-------

	User Name	Group
ounts	admin	Administrator
	Spark	Administrator
	operator	Operator
	Ken	Viewer
	Visit	Viewer
	FAE	Administrator
	SI	Operator
ø	Add Anonymous D	Edit Remove
epage ewer		

Image 19. Add/edit accounts page

account	User Name Password Re-type Password Role	Spark			
			save	<∂ undo	

a. Accounts:

1	User Name	Spark	Insert user name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Password		Described has the Asherstein in basely
3	Re-type password		Password less than 4 characters in length
		Viewer	There are three user levels: viewer, operator and
		Operator	administrator. The viewers only have access to the live
4	Role	Administrator	view page of the camera. The operators have access to the live view page, as well as basic image settings (e.g.: brightness, contrast). Only the administrator has full access to the all camera settings.
5	Homepage viewer	Anonymous	Enabling Anonymous Viewer will allow any user to access the live view page without signing in.

How to add account:

- a. Step 1: Click add button
- b. Step 2: Key in user name, password and choose the user role
- c. Step 3: Choose to enable/disable anonymous viewer
- d. Step 4: Click the save button



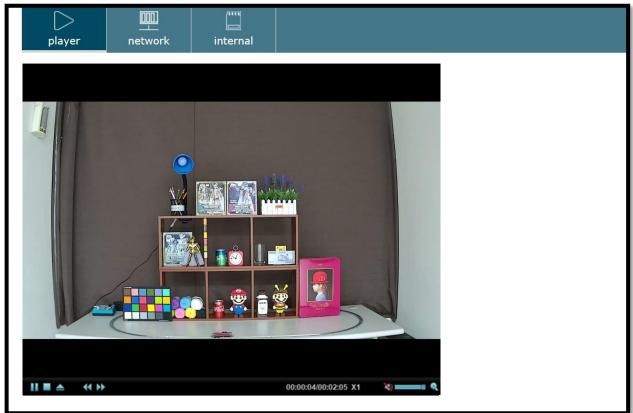
5. WEB USER INTERFACE-ADVANCED

5.1 Archive

• Archive functions include embedded player, network storage and internal storage.

1. Player:

Image 20. Player page



1		Upload	Upload the video file from local PC (Format *.mkv).
2	1	Pause/Play	Pause/Play video file.
3		Stop	Stop playing video file.
4	** >>	Fast-forward/ Rewind playback	Fast-forward or rewind playback. Fast-forward speed includes $x2$ and $x4$, rewind speed $x1/2$ and $x1/4$.
5	00:00:04/00:02:05 X1	Time stamp and speed	Display current playing time and playing speed.
6		Sound Mute/ Volume level	Enable/disable the sound from the video and configure volume*.
7	¢	Zoom in	Enable users to zoom in on any area of the video. Clicking the zoom in icon will open a small window facilating users to configure the zoom in rate and area. Click on the "T" (tele) and "W" (wide) to adjust the zoom. Click on view to close the window.



2. Network playback:

Please check that the network storage is connected.

• Videos successfully saved in the network storage are shown in order of old to new.

Image 21. Network page_1

player	network	internal	
IPCamera20E40	700038B/		
200 F	> ↓		
	Folder		
20	180608/		

Image 22. Network page_2

player network	internal		
IPCamera20E40700038B/20180	508/09/		
AS∎£D⊥			
Folder		Туре	
/			
20180608091414_DEE_	EN	Motion	
20180608091429_310_	EN	Motion	
20180608091447_978_	EN	Motion	
20180608091728_D56_	EN	Motion	
20180608091808_D32_	EN	Motion	
20180608091847_422_	EN	Motion	
20180608092258_44A_	EN	Motion	
20180608092321_2A7_	EN	Motion	
20180608092416 9D8	EN	Motion	

Image 23. Network page_3

player	network	internal		
PCamera20E4		8/09/20180608091728	3_D56_EN	
	Folder		File Name	Size
	/			
			20180608091728 MD.jpg	258KB
			20100000001720_110.jpg	25010
		20	0180608091728 MD Post01.jpg	255KB

1	9	Return Go back to the upper level folder.	
2	0	Refresh Refresh the view.	
3	1 1	Delete Delete the selected file.	
4		Select all Select all items in the folder.	
5	\supset	Play Playback the selected video	
6	\rightarrow	Download	Download selected item to your computer.



3. Internal playback:

Please check that the SD card is inserted.

Users may select search filter according to the search requirements, and may also choose to play, download or remove file.

Image 24. Internal page

player	network i	() nternal		
filter	and the second s			07 04:55 PM
recordings	Start date 2018-06-08 09:57:0 2018-06-08 09:56:4 2018-06-08 09:51:5 2018-06-08 09:49:4 2018-06-08 09:46:4	5 00:00:05 2 Ongoing 4 00:00:01	Type Motion Detection Periodical Schedule Motion Detection Periodical	Name Motion Periodical Recordings Motion Periodical
	Play	Download	Remove	Recording 1 to 5 of total(5)

a. Filter:

I meet.			
1	1 From	First Recording	Users can manualy set the start time search criteria or
1		Manual	select first recording.
2	2 To	Now	Users can manualy set the end time search criteria or
2		Manual	select now.
		All	
		Motion Detection	
3	Туре	Audio Detection	
5 Type	Туре	Tampering Detection	Users can select the event type search criteria.
		Tripwire Detection	
		Perimeter Detection	



		Crowd	
		Digital Input	
		Periodical	
		Network Link Down	
		Schedule	
4	Name	All	Users can search by file name.
_		Descending	
5	Sort	Ascending	Users can arrange the search by alphabetical order.
6	Results	Value 1~20	Users can choose the numbers of results on the page.

b. Recordings:

	- O ⁻		
1	Start Date	2018-06-08 09:46:47	Display the recording file date and time.
2	Duration	00:00:05	Display the length of the video.
3	Туре	Periodical	Display the event type of the video.
4	Name	Periodical	Display the name of the video.



5.2 Recording servers

Note: Remember to click the save button to successfully apply changes.

- Recording server page includes network storage and internal storage settings.
- Click the add button to create a new server. A window will prompt requesting the server's information. First fill in the name of the server and then select the server type.
 - 1. Network server: users can add, edit and remove network storage. Network server type includes FTP, SMTP, HTTP, HTTPS and Network storage.

Image 25. Network server page

network	internal				
	Name		Protocol	Network Address	
servers	NAS		NS	\\Spark-fae\nas	
	FTP		FTP	172.21.7.36	
	SMTP		SMTP	smtp.gmail.com	
	HTTP		HTTP	172.21.7.36	
	Add	Edit	Remove		

1.1. FTP server:

mage 26. FT	P server page			
	Name	FTP		
server	Server type	FTP		
	Network Address	172.21.7.36		
	Server Port	21		
	Upload Path	0601		
A I	User Name	anonymous		
login	Password			
	Re-type Password			
	Passive Mode	○ On ● Off		
	Test Connection	n		
(ĝ}	Available memory	buffer 4144 / 30720	KB	
settings	Attached Type	Video	V	
	Pre-event Recordin	ng 1 seconds [0~7]		
	Post-event Record	ing 1 seconds [1~7]		
	Image File Name			
	Suffix 🔘 None 🖲) Date Time		
			1	
			save	undo



a. Server:

1	Name		Insert FTP server name, only allow characters 0-9, a-z, A-Z, ".", "_"	
2	Server type	FTP	Select FTP server.	
3	Network address	172.21.7.36	Insert the FTP network's address.	
4	Server port	21	Default is 21. Change only if your FTP server uses a different port.	
5	Upload path	0601	Provide the upload path.	

b. Login:

108				
1	User name	anonymous		
2	Password		Provide valid login credentials for the FTP server.	
3	Re-type password	••••		
4	Passive mode	On	Enable if your FTP server utilizes passive FTP, which	
	r ussive mode	Off	is the most common method.	
5	Test connection	Test Connection	Click test connection button to check if the FTP server is connected, If the connection is successful, a window will pop-out.	

c. Settings:

1	Available memory buffer	4144 / 30720 KB	The camera will reserve a buffer in its memory for the recording and snapshot. This section displays the remaining available memory.
2	Attached type	Video	Select attached format.
		Snapshot	
3	Pre-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the start time for recording/ snapshot prior to event.
4	Post-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the end time for recording/ snapshot subsequent to event.
5	Image file name		Insert Image file name, only allow characters 0-9, a-z, A-Z, ".", "_"
		None	
6 Suffix	Suffix	Date Time	Allows users to add date time to the file name.

How to create FTP server:

- a. Step 1: Key in FTP server information
- b. Step 2: Configure login details
- c. Step 3: Click "Test Connection" to make sure the server is detected
- d. Step 4: Choose the attached type and configure related settings
- e. Step 5: Click the save button



1.2. SMTP server:

Image 27. SN	ATP server page			
Inn.	Name	SMTP		
server	Server type	SMTP	∇	
	Mail Server	smtp.gmail.com		
	Server Port	25 (1~65535) 🗹 SSL		
	Authentication	● On ◯ Off		
		SMTP POP before SMTP		
	Send mail from	k0930697776@gmail.com		
	Send test mail to	k0930697776@gmail.com		
F	User Name	k0930697776@gmail.com		
login	Password	•••••		
	Re-type Password	•••••		
	Test Connection	n		
<u></u>	Available memory	buffer 4144 / 30720 KB		
settings	Attached Type	Video		
	Pre-event Recordi			
	Post-event Record	ing 1 seconds [1~7]		
	Image File Name		1	
	Suffix O None	Date Time		
	Sank O None	Date Hille		
				A
			save	(A) undo
				undo

a. Server:

1	Name		Insert SMTP server name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Server type	SMTP	Select SMTP server.
3	Mail Server	smtp.gmail.com	Insert mail server's address.
4	Server port	(1~65535) √ SSL	Standard value is 25, but your server may be using different values.
5	Authentication	On (SMTP/ POP) Off	Enable if server requires authentication in for sending email.
6	Send mail from	k0930697776@gmail.com	Insert the address from which the camera will send the emails. It does not necessarily need to be a valid email.
7	Send test mail to	k0930697776@gmail.com	Insert a valid email address to test the above settings. If the test succeeds, proceed to provide the information for the media settings. The actual recipient email address is defined when setting up the event in the next section.



b. Login:

T	Login:					
F	1	User name		Provide valid login credentials for the SMTP server.		
	2	Password		For user name and password, please insert the sender's		
	3	Re-type password		e-mail address and password.		
	4	Test connection	Test Connection	Click test connection button to check if the SMTP server is connected, If the connection is successful, a window will pop-out.		

c. Set

Settings:				
1	Available memory buffer	4144 / 30720 KB	The camera will reserve a buffer in its memory for the recording and snapshot. This section displays the remaining available memory.	
2	Attached type	Video	Select attached format.	
		Snpshot		
3	Pre-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the start time for recording/ snapshot prior to event.	
4	Post-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the end time for recording/ snapshot subsequent to event.	
5	Image file name		Insert Image file name, only allow characters 0-9, a-z, A-Z, ".", ""	
6	Suffix	None	Allows users to add date time to the file name.	
6		Date Time		

How to create SMTP server:

- a. Step 1: Key in SMTP server information
- b. Step 2: Key in login details
- c. Step 3: Click "Test Connection" to make sure the server is detected
- d. Step 4: Choose the attached type and configure related settings
- e. Step 5: Click the save button



1.3. HTTP server:

000.	Name	HTTP			
server	Server type	HTTP			
	URL	http:// 172.21.7.36	1		
	Port	8080			
	Proxy Address				
	Proxy Port				
	Proxy User Name				
	Proxy Password				
A	User ID				
login	Password				
	Re-type Password				
	Test Connection	1			
			Г	۱	~

a. Server:

1	Name		Insert HT*TP server name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Server type	НТТР	Select HTTP server.
3	URL	http:// 172.21.7.36	Insert HTTP's address.
4	Port	8080	Insert HTTP's port.
5	Proxy Address		Insert proxy address.
6	Proxy Port		Insert proxy port.
7	Proxy User Name		If the proxy is not free, please insert user name and
8	Proxy Passoword		password.

b. Login:

Login.			
1	User ID		
2	Password		Provide valid login credentials for the HTTP server.
3	Re-type password		
4	Test connection	Test Connection	Click test connection button to check if the HTTP server is connected, If the connection is successful, a window will pop-out.

How to create HTTP server:

- a. Step 1: Key in HTTP server information
- b. Step 2: Key in login details
- c. Step 3: Click "Test Connection" to make sure the server is detected
- d. Step 4: Click the save button



1.4. HTTPS server:

000.	Name	HTTPS		
server	Server type	HTTPS	∇	
	URL	https:// 172.21.7.36		
	Port	443		
	Proxy Address			
	Proxy Port			
	Proxy User Name			
	Proxy Password			
đ	User ID			
login	Password			
	Re-type Password			
	Test Connection			
		_	H	

a. Server:

Server.			
1	Name		Insert HTTPS server name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Server type	HTTPS	Select HTTPS server.
3	URL	http:// 172.21.7.36	Insert HTTP's address.
4	Port	443	Insert HT*TP's port.
5	Proxy Address		Insert proxy address.
6	Proxy Port		Insert proxy port.
7	Proxy User Name		If the proxy is not free, please insert user name and
8	Proxy Passoword		password.

b. Login:

Login.			
1	User ID		
2	Password		Provide valid login credentials for the HTTPS server.
3	Re-type password		
4	Test connection	Test Connection	Click test connection button to check if the HTTPS server is connected, If the connection is successful, a window will pop-out.

How to create HTTPS server:

- a. Step 1: Key in HTTPS server information
- b. Step 2: Key in login details
- c. Step 3: Click "Test Connection" to make sure the server is detected
- d. Step 4: Click the save button



1.5. Network Storage:

Image 30. I	Network storage page				
server	Name Server type Type Network Storage Location (for example: \\my_nas\folde Cyclic Size	-	\ MB/CIFS) \ 24000 MB)		
ogin	Domain User Name Password Re-type Password				
کی settings	Test Connection Available memory buffer Attached Type Send Pre-event Image Send Post-event Image		⊽		
			save	<∕∂ undo	

a. Server:

1	Name		Insert Network Storage server name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Server type	Network Storage	Select Network Storage server.
3	Туре	Windows Network(SMB/CIFS) Network File System(NFS)	Select the network storage type (Windows SMB/ CIFS or Linux NFS).
4	Network Storage Location		Insert the address of your local storage server.
5	Cyclic Size	5120~1024000MB	Insert limit for the file size.

b. Login:

1	Domain		Insert network storage domain.
2	User Name		
3	Password		Provide valid login credentials for the network storage
4	Re-type password		server.
5	Test connection	Test Connection	Click test connection button to check if the Network Storage server is connected, If the connection is successful, a window will pop-out.



c. Settings:

ootunge			
1	Available memory buffer	4144 / 30720 КВ	The camera will reserve a buffer in its memory for the recording and snapshot. This section displays the
2 Attached type		Video	Select attached format.
_		Snpshot	ociect attached ionnat.
3	Pre-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the start time for recording/ snapshot prior to event.
4	Post-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the end time for recording/ snapshot subsequent to event.

How to create Network storage:

- a. Step 1: Key in Network Storage server information
- b. Step 2: Key in login details
- c. Step 3: Click "Test Connection" to make sure the server is detected
- d. Step 4: Click the save button



2. Internal SD card settings:

Please check that the SD card is inserted. Image 31. SD card page

network	internal	
රිදි SD card	Memory Card Image: On imag	
	Available memory buffer 4144 / 30720 KB Attached Type Video ▼ Pre-event Recording 0 seconds [0~7] Post-event Recording 5 seconds [1~7]	
		save undo

a. SD card:

1	Memory Card	On Off	This feature is only available if the memort card is inserted.
		Oli	morrou
2	Free space	353008/31150848 KB	Display the total amount of space on the micro SD card and the available memory.
2	Overwrite	On	Enabling this feature will allow the camera to overwrite
5	Overwhite	Off	the old recordings with new one.

b. Settings:

1	Available memory buffer	4144 / 30720 KB	The camera will reserve a buffer in its memory for the recording and snapshot. This section displays the remaining available memory.
2	Attached type	Video	Select attached format.
_		Snpshot	
3	Pre-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the start time for recording/ snapshot prior to event.
4	Post-event Recording seconds/ Send Image	0~7 recording seconds/ 0~7 images	Select the end time for recording/ snapshot subsequent to event.



5.3 Recordings

Note: Remember to click the save button to successfully apply changes.

- Recording page includes on event recording and continuous recording settings.
 - 1. On event recording allows users to set-up 9 different types of event recording: motion detection, audio detection, tampering detection, tripwire detection, perimeter detection, crowd, digital input, periodical and network link down.

Image 32. Recordings page

Motion On Motion Detec N,SD Always Tampering On Tampering De SD Always	le
Tampering On Tampering De SD Always	
Link_down On Network Link S Always	
Crowd On Crowd F Always	
Periodical On Periodical SD Always	

1.1. Motion Recording:

Image 33. Motion recording page

÷۲	Name	Motion	
event	Enabled	● On 🔾 Off	
	Triggered by	Motion Detect	ion 🗸
{ô}	Min time between triggers	10 Sec	
settings	Detection Area	Motion_area	▽
	Detection Type	Start	
	Please Configure Motion Detection		
13	✓ Send Media		
action	Event Server		
	Name	Туре	Media
	SD Card	SD	Video, pre:0, post:5
	√ NAS	NS	Snapshot, pre:1, post:2
	FTP	FTP	Video, pre:1, post:1
	SMTP	SMTP	Video, pre:0, post:1
	Please Configure Event Server o	r <u>SD Card</u>	
	Send Notification		
	Activate Digital Output		
- A	Always		
schedules	O Schedule WorkingDay	V	
and a second second second	Please Configure Schedule		the second s
			run 🔨
			save undo



a. Event:

Livent.					
1	Name		Insert Motion detection event name, only allow characters 0-9, a-z, A-Z, ".", "_"		
2	Enabled	On Off	Users can enabled/ disabled this function.		
3	Triggered by	Motion Detection	Select the motion detection as the trigger event type.		

b. Setting

S	ettings	5:		
	1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.
	2	Detection Area		Select the motion detection area for the trigger action. If no motion detection area was added on the analytics page, detection area will appear as none.
ſ	3	Detection Type	Start	Select when to initiate the trigger event.
	5	Dettetion Type	Stop	select when to initiate the trigger event.
	4	Please Configure Motion Detection	Please Configure Motion Detection	Click on Motion Detection to go to motion detection configuration page.

c. Action:

Action:			
1	Send Media	Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network
		SD Card	storage or SD card. Make sure that the servers are se up before using it.
2	Send Notification	НТТР	This action type uses the HTTP and HTTPS recordin
		HTTPS	server. You can use this to have the camera trigger a script on a server.
3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.

d. Schedules:

Jeneau			
1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.

How to create Motion recording:

- a. Step 1: Key in event name and enable motion detection
- b. Step 2: Configure motion detection settings. Remember to first add motion detection area on the analytics page or click the link provided "motion detection."
- c. Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select motion detection recording schedule
- e. Step 5: Click the save button



1.2. Audio Recording:

Image 34. Audio recording page

event	Name Enabled Triggered by	Audio On Off Audio Detecti	ion 🗸
ැරි settings	Min time between triggers Detection Type Please Configure <u>Audio Detection</u>	10 Sec Start	⊽
47 action	☑ Send Media Event Server		
	Name	Туре	Media
	✓ SD Card	SD	Video, pre:0, post:5
	☑ NAS	NS	Snapshot, pre:1, post:2
	✓ FTP	FTP	Video, pre:1, post:1
	Cr	eate Folder	FTP_audio
	SMTP	SMTP	Video, pre:0, post:1
	Please Configure Event Server	or <u>SD Card</u>	
	Send Notification		
	Activate Digital Output		
schedules	 Always Schedule WorkingDay Please Configure Schedule 	7	7
			save undo

a. Event:

1	Name		Insert Audio recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On	Users can enabled/ disabled this function.
		Off	
3	Triggered by	Audio Detection	Select the audio detection as the trigger event type.

b. Settings:

0				
1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.	
2	Detection Type	Start Stop	Select when to initiate the trigger event.	
3	Please Configure Audio Detection	Please Configure Audio Detection	Click on Audio Detection to go to audio detection configuration page.	



c. Action:

11001011					
1	Send Media	Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network storage or SD card. Make sure that the servers are set up before using it.		
		SD Card			
2	Send Notification	НТТР	This action type uses the HTTP and HTTPS recordin		
		HTTPS	server. You can use this to have the camera trigger a script on a server.		
3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.		

d. Schedules:

1	Always	Always	Select the schedule for the above Event settings to b active. You may choose one of the available of
2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.

How to create Audio recording:

- a. Step 1: Key in event name and enable audio detection
- b. Step 2: Configure audio detection settings. Remember to first enable audio detection on the analytics page or click the link provided "audio detection."
- c. Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select audio detection recording schedule
- e. Step 5: Click the save button



1.3. Tampering Recording:

Image 55. Ta	impering recording page		
event	Name Enabled Triggered by	Tampering • On Off Tampering D	etection V
settings	Min time between triggers Please Configure <u>Tampering Detec</u> Send Media Event Server	8 Sec	
	Name SD Card NAS FTP SMTP Please Configure Event Server	Type SD NS FTP SMTP or SD Card	Media Video, pre:0, post:5 Snapshot, pre:1, post:2 Video, pre:1, post:1 Video, pre:0, post:1
schedules	 Send Notification Activate Digital Output Always Schedule WorkingDay Please Configure Schedule 		7 Save undo

a. Event:

1	Name		Insert Tampering recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"	
2	Eastia	On		
2	Enabled	Off	Users can enabled/ disabled this function.	
3	Triggered by	Tampering Detection	Select the tampering detection as the trigger event type.	

b. Settings:

1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.
2	Please Configure Tampering Detection	Please Configure <u>Tampering Detection</u>	Click on Tampering Detection to go to tampering detection configuration page.

c. Action:

1	Seed Media	Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network
1	Send Media	SD Card	storage or SD card. Make sure that the servers are set up before using it.
2	Send Notification	HTTP	



		HTTPS	This action type uses the HTTP and HTTPS recording server. You can use this to have the camera trigger a script on a server.		
3	3 Activate Digital Output Digital Output1		Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.		
Schedu	Schedules:				
1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or		
2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.		
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.		

How to create Tampering recording:

d.

- a. Step 1: Key in event name and enable tampering detection
- b. Step 2: Configure tampering detection settings. Remember to first enable tampering detection on the analytics page or click the link provided "tampering detection."
- c. Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select tampering detection recording schedule
- e. Step 5: Click the save button



1.4. Tripwire Recording:

Image 36. Trip	ing: wire recording page		
Ť	Name	Tripwire	
event	Enabled	● On ○ Off	
	Triggered by	Tripwire Detection	
(ý)	Min time between triggers	10 Sec	
settings	Please Configure Tripwire Detection	on	
43	Send Media		
action	Send Notification		
	HTTP(S) HTTP	▽	
	Custom Parameters		
	Please Configure HTTP Server HTTPS Server		
	Activate Digital Output		
-(-)	Always		
schedules	O Schedule WorkingDay	▽	
	Please Configure Schedule	La constante de	
			6
		save	undo

a. Event:

1	Name		Insert Tripwire recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"	
2	Enabled	On	Users can enabled/ disabled this function.	
2	Enabled	Off		
3	Triggered by	Tripwire Detection	Select the tripwirre detection as the trigger event type.	

b. Settings:

1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.
2	Please Configure Tripwire Detection	Please Configure Tripwire Detection	Click on Tripwire Detection to go to tripwire detection configuration page.

c. Action:

	-					
1		Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network			
1	Send Media	SD Card	storage or SD card. Make sure that the servers are set up before using it.			
2	Send Notification	НТТР	This action type uses the HTTP and HTTPS recording server. You can use this to have the camera trigger script on a server.			
2		HTTPS				



	3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.
d. S	Schedul	les:		
	1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
	2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
	3	Please Configure Schedule	Please Configure Schedule	Click on Schedule to go to schedule configuration page.

How to create Tripwire recording:

- a. Step 1: Key in event name and enable tripwire detection
- b. Step 2: Configure tripwire detection settings. Remember to first add tripwire detection on the analytics page or click the link provided "tripwire detection."
- c. Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select tripwire detection recording schedule
- e. Step 5: Click the save button



1.5. Perimeter Recording: Image 37. Perimeter recordin

illiage 57.	Perimeter recording page			
	Name	Perimeter		
event	Enabled	● On ◯ Off		-2.1
	Triggered by	Perimeter Detec	tion	
<u>ي</u>	Min time between triggers	10 Sec		
settings	Please Configure Perimeter Det	ection		
53	Send Media			
action	Send Notification			
	Activate Digital Output			
	✓ Digital Output1			
	Continuously active wh	ile event triggered		
	Continuously active for	10 seconds		
	Always			
schedules	O Schedule WorkingDay	▽		
	Please Configure Schedule			
			H	
			save	undo

a. Event:

1	Name		Insert Perimeter recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On Off	Users can enabled/ disabled this function.
3	Triggered by	Perimeter Detection	Select the perimeter detection as the trigger event type.

b. Settings:

1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.
2	Please Configure Perimeter Detection	Please Configure Perimeter Detection	Click on Perimeter Detection to go to perimeter detection configuration page.

c. Action:

-	1001011				
	1		Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network	
	1	Send Media	SD Card	storage or SD card. Make sure that the servers are set up before using it.	
	2	Send Notification	HTTP	This action type uses the HTTP and HTTPS recording	
			HTTPS	server. You can use this to have the camera trigger a script on a server.	



	3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.
d. S	Schedul	les:		
	1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
	2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.

How to create Perimeter recording:

3

- a. Step 1: Key in event name and enable perimeter detection
- b. Step 2: Configure perimeter detection settings. Remember to first add perimeter detection area on the analytics page or click the link provided "perimeter detection."

Click on Schedule to go to schedule configuration page.

- c. Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select perimeter detection recording schedule
- e. Step 5: Click the save button

Please Configure Schedule Please Configure Schedule



1.6. Crowd Recording:

0	owd recording page				
άI	Name	Crowd			
event	Enabled	● On 🔾 Off	f		
	Triggered by	Crowd		V	
()	Min time between triggers	10 Sec			
settings	Please Configure Crowd				
13 1	✓ Send Media				
action	Event Server				
	Name	Туре	Media		
	SD Card	SD	Video, pre:0, post:	:5	
	NAS	NS	Snapshot, pre:1, p	oost:2	
	FTP	FTP	Video, pre:1, post:	:1	
		Create Folder	FTP_crowd		
	SMTP	SMTP	Video, pre:0, post:	:1	
	Please Configure Event Se	erver or <u>SD Card</u>			832
	Send Notification				
	Activate Digital Output				
e (-)	Always				
schedules	O Schedule WorkingDay		V		
	Please Configure Schedule				
			L	4	
			save	undo	

a. Event:

 ment.			
1	Name		Insert Crowd recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On	Users can enabled/ disabled this function.
_		Off	
3	Triggered by	Crowd Detection	Select the perimeter detection as the trigger event type.

b. Settings:

1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.
2	Please Configure Crowd Detection	Please Configure Crowd	Click on Crowd Detection to go to crowd detection configuration page.
Action			

c. Action

1		Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network	
1	Send Media	SD Card	storage or SD card. Make sure that the servers are set up before using it.	



2	Send Notification	НТТР	This action type uses the HTTP and HTTPS recording
2		HTTPS	server. You can use this to have the camera trigger a script on a server.
3	3 Activate Digital Output Digital Output1 digita		Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.
Schedules:			

d. Sche

9	chequies.			
	1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
	2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
	3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.

How to create Crowd recording:

Step 1: Key in event name and enable crowd detection.

- Step 2: Configure crowd detection settings. Remember to first enable crowd detection on the analytics page or click the link provided "crowd."
- Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- Step 4: Select crowd detection recording schedule.
- Step 5: Click the save button.



1.7. Digital input Recording:

Note: Please check digital input is connected. Image 39. Digital recording page

event	Name Enabled Triggered by	Digital On Off Digital Input	
کی settings	Min time between triggers □Digital Input1 ☑Digital Input2	10 Sec Active Active	▽
action	☑ Send Media Event Server		
	Name	Туре	Media
	✓ SD Card	SD	Video, pre:0, post:5
	☑ NAS	NS	Snapshot, pre:1, post:2
	□ FTP	FTP	Video, pre:1, post:1
	SMTP	SMTP	Video, pre:0, post:1
	Please Configure <u>Event Server</u> Send Notification Activate Digital Output Always	or <u>SD Card</u>	
schedules	O Schedule WorkingDay	V	1
	Please Configure <u>Schedule</u>		
			save undo

a. Event:

1	Name		Insert Digital input recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On Off	Users can enabled/ disabled this function.
3	Triggered by	Digital Input	Select the digital input as the trigger event type.



b. Settings:

~					
F	1	Min time between triggers	Value 1~999 sec	Minimum interval for an event to trigger the next action.	
ſ			Active		
	2	Digital Input 1 Digital Input 2	Inactive	Define the status of the digital input for the camera to	
			Change	trigger recording. Select active to trigger recording when digital input status has changed from its normal	
ĺ			Active	state. Select inactive to trigger recording when digital input status is in its normal state. Select chamge to	
	3		Inactive	trigger recording every time the state of the digital input changes.	
			Change		

c. Action:

1		Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network			
1	Send Media	SD Card	storage or SD card. Make sure that the servers are set up before using it.			
2	Send Notification	НТТР	This action type uses the HTTP and HTTPS recording			
2		HTTPS	server. You can use this to have the camera trigger a script on a server.			
3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.			

d. Schedules:

1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or schedule, or configure another schedule on the schedule menu.
2	Schedule	Schedule	
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.

How to create Digital input recording:

- Step 1: Key in event name and enable digital input
- Step 2: Configure digital input settings.
- Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- Step 4: Select digital input recording schedule
- Step 5: Click the save button



1.8. Periodical recording:

Image 40. Periodical recording page

event	Name Enabled	Periodical On Off	
	Triggered by	Periodical	▽
کې settings	Trigger every 0 hours 10] min	
5	✓ Send Media		
action	Event Server		
	Name	Туре	Media
	SD Card	SD	Video, pre:0, post:5
	NAS	NS	Snapshot, pre:1, post:2
	□ FTP	FTP	Video, pre:1, post:1
	SMTP	SMTP	Video, pre:0, post:1
	Please Configure Event Serve	r or <u>SD Card</u>	
	Send Notification		
	Activate Digital Output		
-	Always		
schedules	O Schedule WorkingDay	1	2
94 	Please Configure Schedule		
			save undo
1			

a. Event:

1	Name		Insert Periodical recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On Off	Users can enabled/ disabled this function.
3	Triggered by	Periodical	Select the periodical as the trigger event type.



b. Settings:

<u> </u>			
1	Trigger every hours/ min	0 hours 10 min	Users can customize the the time gap between trigger.

c. A

Action:						
1	Send Media	Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network			
		SD Card	storage or SD card. Make sure that the servers are set up before using it.			
	2 Send Notification 3 Activate Digital Output	HTTP	This action type uses the HTTP and HTTPS recording			
		HTTPS	server. You can use this to have the camera trigger a script on a server.			
3		Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.			

d. Schedules:

1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.

How to create Periodical recording:

- a. Step 1: Key in event name and enable periodical recording
- b. Step 2: Configure periodical recording settings.
- c. Step 3: Select the action type. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- d. Step 4: Select periodical recording schedule.
- e. Step 5: Click the save button.



1.9. Network link down recording:

Note: This fea	ature is not ava	ilable if camera	ı is using PoH	E as power supply.

	Name	Link_down			
event	Enabled	● On ◯ Off			
	Triggered by	Network Lir	nk Down 🛛		
کې settings	When POE is used, Network L	ink Down cannot w	ork.		
5	Send Media				
action	Event Server				
	Name	Туре	Media		
	SD Card	SD	Video, pre:0, post:5		
	NAS	NS	Snapshot, pre:1, post:2		
	FTP	FTP	Video, pre:1, post:1		
	✓ SMTP	SMTP	Video, pre:0, post:1		
		Send Mail To	k0930697776@gmail.com		
		Subject	link down		
		Message	IP camera's network breaking down!		
	Please Configure Event Se	erver or <u>SD Card</u>			
	Send Notification				
	Activate Digital Output				
-	Always				
chedules	O Schedule WorkingDay		∇		
	Please Configure Schedule				
schedules	(Vortanged)			$\overline{\mathcal{A}}$	

a. Event:

1	Name		Insert Network link down recording event name, only allow characters 0-9, a-z, A-Z, ".", "_"
2	Enabled	On	Users can enabled/ disabled this function.
		Off	
3	Triggered by	Network Link Down	Select the network link down as the trigger event type.

b. Action:

1	Send Media	Event Server	Instructs the camera to send out media. You will need to specify whether you want to use FTP, network				
		SD Card	storage or SD card. Make sure that the servers are s up before using it.				
2	Sand Natification	HTTP	This action type uses the HTTP and HTTPS recording				
	2	Send Notification	HTTPS	server. You can use this to have the camera trigger a script on a server.			



	3	Activate Digital Output	Digital Output1	Allows you to perform an action with the camera's digital output. You may also specify the duration you want the camera to trigger the event.
S	chedu	les:		
	1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or
	2	Schedule	Schedule	schedule, or configure another schedule on the schedule menu.
	3	Please Configure Schedule	Please Configure Schedule	Click on Schedule to go to schedule configuration page.

How to create Network link down recording:

c.

Step 1: Key in event name and enable network link down detection

- Step 2: Configure network link down detection settings.
- Step 3: Select the action type after event triggered. Action options includes send media to event server, send notification to HTTP/HTTPS server and activation of digital output.
- Step 4: Select network link down detection recording schedule
- Step 5: Click the save button



2. Continuous:

Image 42. Continuous recording page

on event	continuous					
	Name		Enabled	Action	Schedule	
schedules	Recordings		On	LS	Always	

Image 43. Add/ edit Continuous recording page

recording	Name Recordings Scheduled On Off		
settings	File Size 50 (10~150 MB)		
	Name	Туре	
	O NAS	NS	
	SD Card	LS	
schedules	Please Configure <u>Network Storage</u> or Network storage server can only be a Always O Schedule <u>WorkingDay</u> Please Configure <u>Schedule</u>		
		save	< undo

a. Recording

	1	Name	Recordings	Insert Continuous recording name, only allow characters 0-9, a-z, A-Z, ".", "_"
	2 Enabled		On	
			Off	Users can enabled/ disabled this function.

b. Settings

~	orunge			
ſ	1	File Size	Value 10~150 MB	Insert limit for the file size.
	2 Event Server		Network Storage	
			Local Storage	Select the server for the recording.
	3	Please Configure Network Storage/ Local Storage	Please Configure Network Storage or Local Storage	Click on Network Storage/ Local Storage to go to its configuration page.

c. Schedule

1	Always	Always	Select the schedule for the above Event settings to be active. You may choose one of the available or	
2	Schedule	Schedule	schedule, or configure another schedule on t schedule menu.	
3	Please Configure Schedule	Please Configure <u>Schedule</u>	Click on Schedule to go to schedule configuration page.	



How to create Continuous recording:

- a. Step 1: Key in event name and enable continuous recording
- b. Step 2: Configure the maximum file size per recording
- c. Step 3: Select location to save the recording files
- d. Step 4: Select continuous recording schedule
- e. Step 5: Click the save button



5.4 Analytics

Note: Remember to click the save button to successfully apply changes.

• Analytics includes 6 different types of detection: motion detection, audio detection, tampering detection, tripwire detection, perimeter detection and crowd.

- 1. Motion detect: allows users to create up to 3 motion detection areas.
- *Colors line inside detection area:
 - Threshold
 - Motion below threshold detected (no event triggered)
 - Motion above threshold detected (event triggered)

Image 44. Analytics page (no event triggered)

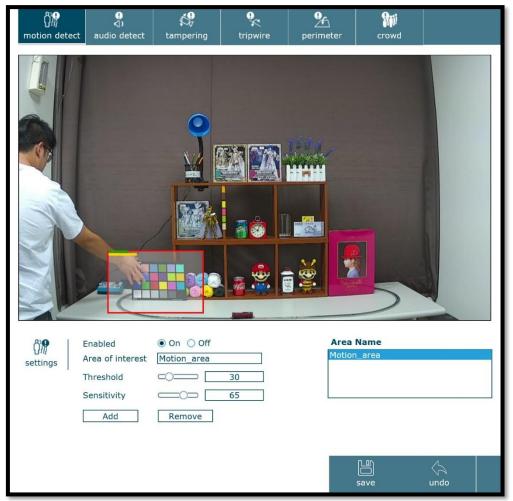




Image 45. Analytics page (event triggered)

notion detect	9 ्र) audio detect	tampering	tripwire	9 perimeter	crowd		
විණි settings	Enabled Area of interest Threshold Sensitivity Add	On Off Motion area	30 65	Area M Motion	area	Λ	
					iave	undo	

a. Settings:

		On		
1	Enabled	Off	Users can enabled/ disabled this function.	
2	Area of interest	Motion_area	Insert Area Name, only allow characters 0-9, a-z, A-Z, ".",	
3	Threshold	Value 0~100	Make sure to define sensitivity and threshold according to the environment in order to avoid false alarms. There are no standard values as every site's conditions are different.	
4	Sensitity	Value 0~100	Generally speaking, increasing sensitivity and lowering threshold will allow the camera to detect most of the motion detection, hence the increase of false alarms. Doing the opposite can reduce false alarms but might increase the risk of missing a key event.	

How to create Motion detection:

- a. Step 1: Enable motion detection.
- b. Step 2: Key in detection area name.
- c. Step 3: Configure threshold and sensitivity.
- d. Step 4: Click the add button.
- e. Step 5: Configure the size of the detection area as needed.
- f. Step 6: Click the save button.



2. Audio detect:

*Threshold line:

Light red audio below threshold detected (no event triggered)

Dark red audio above threshold detected (event triggered)

Image 46. Audio detect page

motion detect	्। <) audio detect	\$ 9 tampering	• tripwire	9 perimeter	fiii crowd	
settings	Enabled Chreshold Volume Low	0n () Off	igh 50	Low C) High [50
					save	∽ undo

Image 47. Audio detect page

notion detect	় ্য audio detect	tampering	• tripwire	9 perimeter	crowd		
settings	Enabled Chreshold Volume Low	On Off	gh 90] Low ()	— High [5	
					L) save	< undo	



a. Settings:

1	Enabled	On	Users can enabled/ disabled this function.
		Off	
2	Threshold	Value 0~100	Make sure to define sensitivity and threshold according to the environment in order to avoid false alarms. There are no standard values as every site's conditions are different. Generally speaking, increasing sensitivity and lowering threshold will allow the camera to detect most of the motion detection, hence the increase of false alarms. Doing the opposite can reduce false alarms but might increase the risk of missing a key event.
3	Volume	Value 0~100	Set the volume sensitivity for the audio detection.

How to create Audio detection:

- a. Step 1: Enable audio detection.
- b. Step 2: Configure threshold.
- c. Step 3: Configure the min. detection volume.
- d. Step 4: Click the save button.



3. Tampering: allows camera to triggered event when tampering is detected

Image 48. Tampering page

notion detect	्र द्र) audio detect	stampering	• tripwire	9 perimeter	sini crowd		
200	Enabled 💿 (Sensitivity Lo	Dn ◯ Off w ▽					
					save	✓√ undo	

a. Settings:

		On		
1	Enabled	Off	Users can enabled/ disabled this function.	
		Low		
2	Sensitivity	Middle	Set the sensitivity level for the tampering detection.	
		High		

How to create Tampering detection:

- a. Step 1: Enable tampering detection.
- b. Step 2: Select level of sensitivity.
- c. Step 3: Click the save button.



4. Tripwire: Image 49. Tripwir

notion dete	্ব) <া ct audio detect	\$ 9 tampering	• tripwire	9 perimeter	fini crowd	
ettings	Enabled Direction1 Tripwire Detection2 Direction2 Show Sensitivity Fi Sensitivity	Unid 2 Or Unid	n ○ Off irectional ▼ n ○ Off irectional ▼ ○	Reverse Reverse		
					H	

a. Settings

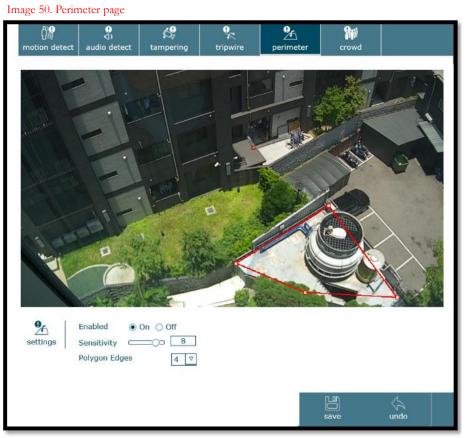
1	Enabled On Off		Users can enabled/ disabled this function.
2	Direction I		Set the direction for triggering. To change the unidirectional orientation, reverse.
3	TripwireDetection 2	On Off	Select on to enable the second tripwire detection.
4	Direction 2 Bidirectional		Set the direction for triggering. To change the unidirectional orientation, reverse.
5	Show Sensitivity Filter		Check on the box to display the sensitivity filter.
6	Sensitivity	4 - (0 5	Set the minimum size (red square) and maximum size (blue square).

How to create Tripwire detection:

- a. Step 1: Enable tripwire detection
- b. Step 2: Configure the direction of up to two tripwires
- c. Step 3: Configure sensitivity
- d. Step 4: Click the save button



5. Perimeter:



a. Settings:

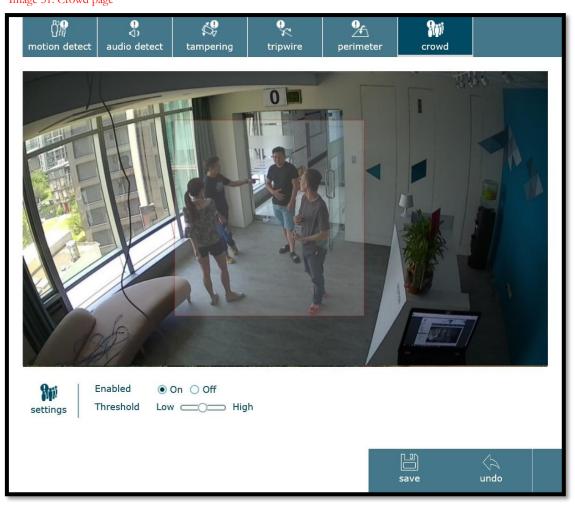
		On	
1	Enabled	Off	Users can enabled/ disabled this function.
2	Sensitivity	Value 1~10	Set the sensitivity level for perimeter detection.
		4	
		5	
3	Polygon Edges	6	Set the number of sides for perimeter detection area.
		7	
		8	

How to create Perimeter detection:

- a. Step 1: Enable perimeter detection.
- b. Step 2: Configure sensitivity (value $1 \sim 10$).
- c. Step 3: Select the number of polygon edges for the detection area.
- d. Step 4: Click the save button.



6. Crowd: Image 51. Crowd page



a. Settings:

	P 11 1	On	
1	Enabled	Off	Users can enabled/ disabled this function.
2	Threshold	Low ⊂)──── High	Set the threshold for the crowd detection.

How to create Crowd detection:

- a. Step 1: Enable crowd detection.
- b. Step 2: Set the detection area.
- c. Step 3: Configure threshold.
- d. Step 4: Click the save button.



5.5 Schedules

Note: Remember to click the save button to successfully apply changes.

• Schedules allows users to create up to 10 different schedules. Each small square is equivalent to 15 minutes. Each day has a total of 96 square (24hours).

- Red square: not scheduled time
- Blue square: scheduled time

Image 52. Schedules page

schedules	
Mon Mon 1 2 3 4 5 6 7 8 9 1	11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun Use the same time schedule every day. Use the same time schedule every day. Name Spark Schedules Add Remove	Clear All Schedule Name WorkingDay Weekend Night Spark
	save undo

a. Schedule:

1	Name	Weekend	Insert Schedule name, only allow characters 0-9, a-z, A-Z, "", "_"
---	------	---------	--

How to create Schedule:

- a. Step 1: Click and drag on the red square to select the recording schedule time. Users may also select the schedule on a certain day and copy to other days by checking the box of use the same time schedule every day.
- b. Step 2: Key in schedule name and click the add button.
- c. Step 3: To remove the schedule, select the schedule and then click the remove button.
- d. Step 4: Click the save button.



5.6 Digital I/O

Note: (1) Please check if digital input/output is connected. (2) Remember to click the save button to successfully apply changes.

1. I/O: Shows digital input/output current status and allows users to configure input and output normal status.

Image 53. Digital I/O page

I/O I/O						
1/0	Port	Normally		Current Status		
I/O ports		Open	A			
	Input 2	Open	V	Open		
	Output 1	Open	V	Open		
					save	(A undo

a. I/O ports:

	T	Open	
1	Input 1	Close	
2	Input 2	Open	Configure your camera's digital I/O on this page. This section shows the digital I/O current status and allows
2	input 2	Close	you to define its normal state (non-alert state).
3	Output 1	Open	
3	Output 1	Close	



2. LED:





a. Status LED:

1	Show status LED for normal operation	Show status LED for normal operation	Allow users to select the status of the LED on the IR boa
2	Hide status LED for normal operation	Hide status LED for normal operation	during normal operation.

b. Finder:

1	Locate camera with blinking LED	Find	This feature enables users to easily locate the camera. When users click the Find button, the LED on the IR board will blink for 30 seconds.
---	------------------------------------	------	--



5.7 Network advanced

Note: Remember to click the save button to successfully apply changes.

- 1. RTSP:
- Image 55. RTSP page

	UPnP	bonjour	Q ₀ s				
र्ट्रे settings	RTP Port Range RTSP Port	5000 (112 • 554)	24 ~ 65435) ~	7999 (1223 ~ 65534)	~ 65534)		
streams	Profile Name Profile	Profile1 media1.sdp	▽ 4	Authentication [Disabled	▽	
multicast	Status Access Name Multicast Address Video Port Audio Port Time-To-Live	Disabled mmedia1.sdg 228.0.0.1 Auto Auto 15 (1 to	(1124	~ 65534) ~ 65534)			
					Save	(A undo	

a. Settings:

1	RTP Port Range	Value 1124~65534	Default value is 5000 ~ 7999 and can be changed from 1124 to 65534.
2	RTSP Port	554	Default value is 554 and can be changed from 1124 to
2	KISI TOR	1124~65534	65534.



b. Streams:

		Profile 1			
1	Profile Name	Profile 2	Select the profile for the RTSP streams.		
		Profile 3			
2	Profile	mmedia1.sdp	This option allows you to set up the URL for each profile and define whether or not you want to enable authentication. The default video URL will be related to the profile number, e.g., profile1 = media1.sdp. Based on the default URLs, access to the RTSP streams would be: rtsp://camera_address/media1.sdp If authentication is enabled, the URLs will change as follows: rtsp://username:password@camera_address/media1.sdp		

c. Multicast:

1	Status	Disabled	Multicasting provides efficient usage of bandwidth when there is large numbers of clients viewing simultaneously.
		Enabled	there is large numbers of clents viewing sinutaneously.
2	Access Name	mmedia1.sdp	Default access name: rtsp://camera_address/mmedia1.sdp
3	Multicast Address	228.0.0.1	Default address is 228.0.0.1
4	Video Port	Auto	Users can select the video port or select the auto mode for
-	Video I on	1124~65534	multicast.
5	Audio Port	Auto	Users can select the audio port or select the auto mode for
5	Addio 1 oft	1124~65534	multicast.
6	Time-To-Live	Value 1~255	Time-to-live (ITL) value is the hop limit that tells a network router whether or not the packet has been in the network too long and should be discarded.

How to create RTSP:

- a. Step 1: Configure RTP port range.
- b. Step 2: Configure RTSP port (default value is 554).
- c. Step 3: Select profile name.
- d. Step 4: Configure RTSP profile name and authentication.
- e. Step 5: Configure RTSP multicast settings.
- f. Step 6: Click the save button.



2. UPnP:

In	nage 56. UPr	nP page						
ſ	RTSP	UPnP	DV L bonjour		DD			
I	settings	Enabled	● On) C	Off UPnP port forwa	rding			
l			HTTP Port	• 80		(1124 ~ 6553		_
			SSL Port RTSP Port	 44 55 	3 () 54 ()) (1124 ~ 6553) (1124 ~ 6553	-	_
		Device Name	KIARA 800					_
								_
I								_
						C D		_
						save	undo	

a. Settings:

1	Enabled	On Off	UPnP allows the camera to announce their presence to other devices that support UPnP in the local network. Users can enabled/ disabled this function.
		HTTP Port Value 1124~65534	By default, the UPnP will be enabled and the port-
2	Turn on UpnP port forwarding	SSL Port Value 1124~65534	forwarding will be disabled. When enabling the port- forwarding, you will need to define the port numbers for the three protocols. Normally there is no need to change the port numbers, unless one of them is already used by each be device on application.
		RTSP Port Value 1124~65534	another device or application. Please make sure that your router supports the protocol.
3	Device Name	KIARA8000	Default device name is product name, but users can customize the device name.

How to create UPnP:

- a. Step 1: Enable UPnP
- b. Step 2: Choose whether to turn on or off UPnP port forwarding
- c. Step 3: Key in UPnP device name
- d. Step 4: Click the save button



3. Bonjour:

Image 57. Bonjour page							
	UPnP	bonjour	QoS				
	Enabled Device Name	● On ○ O	ff E4:07:00:03:8B]	
					Save	<∕∕ undo	

a. Settings:

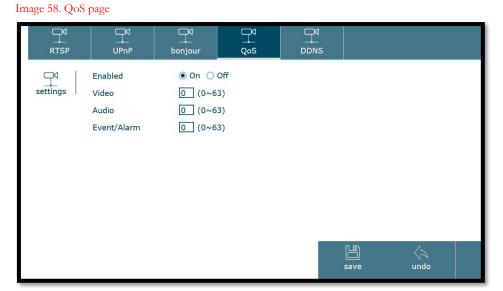
1	Enabled	On	Bonjour is a service that helps to find the camera on the
1		Off	network. This feature will be enabled by default. Users can enabled/ disabled this function.
2	Device Name	Spark-20:E4:07:00:03:8B	Default device name is spark plus MAC address, but users can customize the device name.

How to create Bonjour:

- a. Step 1: Enable bonjour
- b. Step 2: Key in bonjour device name
- c. Step 3: Click the save button



4. **QoS**:



a. Settings:

1	Enabled	On Off	QoS (Quality of Service) enables server to prioritize network traffic, providing a greater network reliability by controlling the amount of bandwidth an application may use.
2	Video	Value 0~63	Insert the priority value for video packet. The higher the value the higher the priority.
3	Audio Value 0~63		Insert the priority value for audio packet. The higher the value the higher the priority.
4	Event/ Alarm	Value 0~63	Insert the priority value for event/ alarm packet. The higher the value the higher the priority.

How to create QoS:

- a. Step 1: Enable QoS
- b. Step 2: Configure priority value for video, audio and event/alarm
- c. Step 3: Click the save button



5. DDNS:

Image 59. DDNS page							
	UPnP	bonjour	QoS				
settings	Enabled Server Name User ID Password Re-type Password Host Name Periodical Update	d	ww.dyndns.org				
					save	لم undo	

a. Settings:

1	Enabled	On	Dynamic DNS allows you to create a domain name for your network, facilitating the access to the camera from a	
		Off	remote site. Users can enabled/ disabled this function.	
		http://www.dyndns. org		
		http://www.dhs.org		
2	Server Name	http://www.tzo.com	Select the DDNS provider of your choice.	
		http://www.no- ip.com		
3	User ID			
4	Password		Insert the user ID and password to log into your account settings. Do not enter your DSL user account information.	
5	Re-type Password		settings. Do not enter your DSE user account information.	
6	Host Name		Insert the full host name that you have created in your server account.	
_	Periodical Update	Auto	Specify the time for the camera to update its IP information	
7		Periodical	with the DDNS provider or select auto and the camera will automatically update the changes.	

How to create DDNS:

- a. Step 1: Enable DDNS
- b. Step 2: Select DDNS server name
- c. Step 3: Key in user ID, password and host name
- d. Step 4: Choose periodical update mode
- e. Step 6: Click the save button



5.8 Security

1. IP filter:

Image 60. Sec	curity page	
IP Filter	R HTTPS	
Settings	Enabled On Off Filter Type Deny T PAddress Range No item present.	
	Add Edit Remove	save undo

Image 61. Add/Edit IP filter page_1

filter	Rule IP Address	Single		
			save	undo

Image 62. Add/Edit IP filter page_2

j filter	Rule IP Address CIDR Notation	Network ▼ 172.21.7.100 5		
			save	undo

Image 63. Add/Edit IP filter page_3

filter	Rule IP Address Range	Range 0.0.0.0	▽ - 255.255.	255.255		
				save	() undo	



a. Settings:

1	Enabled	On	
1	I Enabled Off	Off	Users can enabled/ disabled this function.
2	2 Filter Type	Allow	Users can create lists of IP address to be allowed or denied
	The Type	Deny	to access the camera.

b. Filter:

		Single	Insert the IP address to allow or deny access.
1	Rule	Network	Insert IP address and CIDR notation. The system will automatically allow or deny within IP range.
		Range	Insert the IP range to allow or deny access.

How to create IP Filter:

- a. Step 1: Enable IP filter
- b. Step 2: Choose filter type
- c. Step 3: Click the add button
- d. Step 4: Select rule and fill in the necessary information
- e. Step 5: Click the save button on the add/edit IP filter page
- f. Step 6: Click the save button on the IP filter page



2. HTTPS:

Image 64. HTTPS page Qd **?**^ HTTPS **R** certificate Subject Name C=IT, ST=Milano, L=Milano, O=Spark, OU=Spark, CN=www.spark-security.com Create self-signed certificate... Properties... Remove policy Administrator HTTP & HTTPS ∇ Operator HTTP & HTTPS V Viewer HTTP ∇ L save (A) undo

a. Certificate:

1	Create self-signed certificate	Create self-signed certificate	Create a self-signed certificate for HTTPS to recognize.
2	Properties	Properties	Display the properties of the installed certificate.
3	Remove	Remove	Remove the properties of the installed certificate.



Image 65. Create self-signed certificate page

R filter	Country State or province Locality Organization Organizational Unit Common Name Validity	IT Milano Milano Spark Spark www.spark-security.com 365 days(1~1000)]]]]	
			L save	undo

a.1. Create self-signed certificate:

		Country	Insert 2 letter code country name.
		State or province	Insert state or province full name.
		Locailty	Insert city or district name.
		Organization	Insert company name.
1	Filter	Organizational Unit	Insert organizational unit. If your company dose not have organizational unit please insert company name.
		Common Name	Insert server IP address or company website.
		Validity (value 1~1000)	Insert the validity days for the certificate.



certificate	Certificate Properties Certificate Version Serial Number Signature Algorithm Issuer	3 0 mdSWithRSAEncryption C=IT, ST=Milano, L=Milano, O=Spark, OU=Spark, CN=www.spark-security.com
	Validity Not Valid Before Not Valid After Subject	Jun 25 03:42:00 2018 GMT Jun 25 03:42:00 2019 GMT C=TT, ST=Milano, L=Milano, O=Spark, OU=Spark, CN=www.spark-security.com
	Subject Public Key Info Public Key Algorithm	rsaEncryption
	RSA Public Key	
	Modulus(1024 bit)	00 b9 cb b7 8e 2d 16 89 62 dd a6 9f 1d 21 1a 2c 49 7f 85 2c ea 54 41 70 a6 ef 90 87 16 92 7b cd 66 e2 12 6f 8b 34 7c 61 f7 c0 51 d3 81 50 6c 27 bd 52 ca 5a 0e f6 cd 4c cf ab 8e 44 75 9d 40 04 fc 88 1b 94 de a0 87 59 7 c4 5c e4 0f 52 e6 28 9a eb 97 ed 06 b8 b5 8b 77 8b ef 25 3d e2 97 37 0a cc 76 ef 70 b2 44 11 84 6c 8e 11 97 fd 19 8d b8 eb 11 4e 6e a1 78 e2 42 77 88 07 26 cd 3
	Exponent	65537 (0×10001)
	Signature	
	Algorithm Signature	$ \begin{array}{l} mdSWithRSAEncryption \\ b11 \ cb 52 \ d3 \ ae 46 \ bb 75 \ bb 97 \ d7 \ 4f \ 03 \ ad 21 \ d4 \ 30 \\ \mathsf{aa \ 57 \ c51 \ 87 \ 2f \ 78 \ 32 \ 59 \ 40 \ d4 \ 54 \ 7e \ 79 \ 29 \ 2b \ 69 \\ \mathsf{e4 \ ab \ db \ ad \ 37 \ d5 \ c1 \ 6b \ 45 \ 56 \ 65 \ 66 \\ \mathsf{e3 \ 16 \ d7 \ d5 \ c1 \ 6b \ 45 \ 56 \ c7 \ c1 \ 6b \ 45 \ 56 \ c7 \ c1 \ 6b \ 45 \ 56 \ c7 \ c1 \ 6b \ 45 \ c1 \ c$
Certificate(PEM format) BEGIN CERTIFICATE MICVDCCAb2gawlBagIBADANBgkqhkiG9w0BAQQFADBwMQswCQ MA0GA1UECBMGTWISYW5W0Q8wDQYDVQQHEwZNaWkhbmSvDJA MQ4wADA7DVQQLEwVTGGFyazEMBGGA1UEAxMW3d3d1nNvYX1LJ bTAeFw0x0DA2MjUwMzQYM2NaFw0x0TA2MjUwMzQYMzNaMHAxC MQ8wDQYDVQQIEwZNaWkhbmSvD2AMBgIVBAGTBKJDbGFbUEDC cmsxDJAMBgIVBAGTSWWNXXIMR8wHQYDVQQDExZ3d3cu2Bhcr Y29tMIGMA0GCSqGSIbJ0DEBAQUAA4GNADCBQCSy20L f4UyzqUQXcm75CH9J72WblEm LNHxh9BBR04FBQCSY20L jbjFlcUsuXjQcneBBcs5Tbtrl13eL7VU94pc34K2H5vL1BGEb jbjFlcUsuXjQneBBBLsw1DAQABMA0GCSqGSIb3DQEBBAUAA4GB dWuX108Dr5HUMKpXnFGHL3gyWUBRUffnkp1ra2Sr3709fWLBK2Sr /f+bNEFTjAMh2HK2CHAT#PLLYL+dYQBuQa&K10pGK/v2lMdlik kXrW075ixos2Mfkp0RHCNHL7VWdbq2oT EDC CERTIFICATE		ADANBgkqhkiGawoBaQQFADBwMQswCQYDVQQCEwJJVDEP SvMQ8wQDVVQQHEwZNAwNhm8xQJMABqlvBaTBVNNYSU SryazEMBGGA1UEAxMWd3d3LnhwYSUTXINY3YyAXRSLmNv JyMAISFwoSCAJBGVVBACTBk1pbGFub2EOMAwGA1UEChMFU3Bh wYSJMR8wHQYDVQQDEx23d3uz3Bhcmstc2VJMSUA JODGEBAQUAAGANADEGIKQBQCSy7eOLRAJY1ZmnXh6jSJ TzVblEm +LNHxJ9BBK04FQDCe9UspDVaH3UzQH6kd2Zk lia65tBr113eL7UJ94pc34k2H5vcL3BGEHA18I/0Z TIDAQABHA0CCSqCSIb3DQEBAUAAGBALEctS055EaL TIDAQABHA0CCSqCSIb3DQEBAUAAGBALEctS055EaL ATaPJL1YyL+4YQBIUQ3BKT0pGK/v2IMdlikS9wSaY9mS NHL7VWdbqZoT

Image 66. Properties page

a.2. Properties:

Display certificate properties information.

b. Policy:

		НТТР	
1	1 Administrator	HTTPS	
		HTTP & HTTPS	
	2 Operator	НТТР	Set HTTPS connection policy for different level of users. To use the HTTPS encryption, please set up "Create self-
2		HTTPS	signed certificate" for the first time you use the HTTPS
		HTTP & HTTPS	function, and then set up the connection policy for different users.
		НТТР	
3	Viewer	HTTPS	
		HTTP & HTTPS	



How to create HTTPS Filter:

- a. Step 1: Click the Create self-signed certificate button
- b. Step 2: Fill in the information on the popped-out window. The information filled will appeared on the properties page.
- c. Step 3: Configure users policy rule
- d. Step 4: Click the save button



5.9 Maintenance

Note: Remember to click the save button to successfully apply changes.

- Maintenance page includes maintenance and update functions.
 - 1. Maintenance: Users can configure restart and backup/restore time.

Image 67. Maintenance page

maintenance	update
() restart	Restart Auto Restart • On Off
	O Periodic
	Schedule Mode
	🗹 Sun 🗌 Mon 🗌 Tue 🗹 Wed 🗌 Thu 🗹 Fri 🗹 Sat
	Start Time 21 🛛 : 30 🔍 [HH:MM]
backup restore	Restore defaults Except: Network Date Time Lens setup Backup config Restore config backup Except: Network Date Time Lens setup
	save undo

a. Restart:

1	Restart	Restart	This feature allows you remotely restart the camera,
2	Auto Restart	On	even set a schedule for the camera to automatically restart.
2	Auto Restan	Off	

a.1. Auto Restart:

1	Periodic	Value 1~7 days	Set specific interval days for automatic restart.	
2	Schedule Mode	Schedule Mode	Set specific dates and time for automatic restart.	



b. Backup/ Restore

1	Restore defaults	Restore defaults	When restoring default values, users may choose to hold current values for network, date, time and lens set up.	
2	Backup config	Backup config	Click to save the camera's current configuration on your computer. This feature can significantly save configuration time by allowing users to load the current configuration on another camera of the same model and firmware version. Make sure to change the IP address configuration to avoid IP conflict.	
3	Restore config	Restore config	Click to load the backup configuration file. The camera will reboot to finalize the process and the new settings will become effective. Users may also choose to hold current values for network, date, time and lens set up.	



2. Update: includes firmware and language update

Image 68.	Update	page
-----------	--------	------

maintenance	 update
	Firmware update KIARA-8000_D12014.im Upload firmware file Restore to default
	Except: I Network I Date Time Lens setup
language	Language update D12016-it-IT.lang Upload language pack file

a. Firmware:

1	Firmware update	Firmware update	Having the camera's firmware updated will allow you to enjoy the camera at its best, as new firmware often enhance the functionality of the camera and solves known-issues. Before updating the firmware version, please follow below instructions: (1) Check that the firmware corresponds to your camera model. (2) Check that the firmware is not on a compressed file. The firmware should be .bin format. (3) Avoid wireless connections as they tend to be unstable.
2	Reset to defaults	☑ Restore to default	Users may also choose to hold current values for network, date, time and lens set up.

b. Language:

1	Language update	Language update	Language update allows users to change the language of the camera's web interface.
---	-----------------	-----------------	--



5.10 System log

- System log displays the system information, allowing users to clear log and/or enabled remote log:
 - 1. Log:

Image 69. System log page

log								
Periodical Jun 9 04:47:1 Jun 9 04:47:2 Motion Jun 9 04:48:0 Jun 9 04:48:1 Motion Jun 9 04:48:1 Jun 9 04:48:1 Motion Jun 9 04:48:1 Motion	1 SR-C-S2-KIARA 7 SR-C-S2-KIARA 5 SR-C-S2-KIARA 5 SR-C-S2-KIARA 1 SR-C-S2-KIARA 2 SR-C-S2-KIARA 7 SR-C-S2-KIARA	-V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070 -V12-IR-20E4070	0038B user.info 0038B user.info 0038B user.info 0038B user.info 0038B user.info 0038B user.info	ALARM: EV EVENT: Me EVENT: Me EVENT: EV EVENT: Me ALARM: EV EVENT: Me	vent Record edia record s edia send tir vent Motion I edia record s vent Record edia record s edia send su	Success success of serv neout of SD Ca nas been trigge success of serv Success success of SD Ca	er NAS, event ard, event ered er NAS, event Card, event ard, event	^
remote log	Enabled Server Name Server Port	• On Off	(1	 124 ~ 655	35)		Clear	
						save	⟨√ undo	

a. Remote log:

1	Enabled	On	The system records all the actions in its internal memory and displays it on the Current Log, but due to limited		
I Enabled Off		Off	memory the logs will be overwritten. Enable remote log you wish to keep all the logs.		
2	Server Name		Insert the network address of the system log server. Enter the address without any leading characters, such as http://		
3	Server Port	Value 1124~65535	Default is 514. Change the value if your system log server is set up differently.		