

FISH-EYE IP CAMERAS

ART. IPFCAMA12FA



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

COMELIT
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Via Don Arrigoni, 5
24020 Rovetta (BG) - Italy

www.comelitgroup.com

WARNING

- This product is intended to be supplied by a Listed Power Unit, marked with 'Limited Power Source', 'LPS' on unit, output rated minimum 12VDC/2 A or POE 48VDC/ 350mA or 24VAC (depending on models), no more than 2000m altitude of operation and Tma= 60°C.
- Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove screws or covers.
- There are no user-serviceable parts inside. Please contact the nearest service center as soon as possible if there is any failure.
- Avoid incorrect operation, shock vibration, heavy pressing which can cause damage to product.
- Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth; for hard contamination, use neutral detergent.
- Avoid aiming the camera directly towards extremely bright objects, such as sun, because this may damage the image sensor.
- Please follow the instructions to install the camera.
- Do not operate if temperature, humidity and power supply are beyond the limits.
- Keep away from heat sources such as radiators, heat registers, etc.
- Do not expose the product to the direct airflow from air conditioner.
- This manual is for using and managing the product. We reserve the rights of amending the errors, software upgrades and product improvements, interpretation and modification. These changes will be published in the latest version without special notification.
- All pictures, charts, images in this manual are only for description and explanation of our products. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.
- **The instruction is for guidance only. Detailed information is in accordance with the product.**
- **Screenshots used in the instruction are only for indications and explanations.**
- **Some features are only available on certain camera models.**
- This manual is suitable for network fisheye camera.

Table of Contents

1	Network connection.....	1
1.1	LAN	1
1.1.1	Access through Comelit Advance IP Tool	1
1.1.2	Access through Internet Explorer	3
1.2	WAN	4
2	Live View.....	7
3	Network camera configuration.....	11
3.1	System Configuration.....	11
3.1.1	Basic Information	11
3.1.2	Date and Time	11
3.1.3	Local Configuration	12
3.1.4	Storage.....	12
3.1.5	Fisheye Parameters.....	14
3.2	Image Configuration.....	15
3.2.1	Display Configuration.....	15
3.2.2	Video / Audio Configuration.....	16
3.2.3	OSD Configuration.....	17
3.2.4	Video Mask.....	18
3.2.5	ROI Configuration.....	19
3.3	PTZ Configuration	19
3.4	Alarm Configuration	20
3.4.1	Motion Detection.....	20
3.4.2	Alarm In.....	22
3.4.3	Alarm Out	22
3.4.4	Alarm Server	24
3.5	Network Configuration.....	24
3.5.1	TCP/IP.....	24
3.5.2	Port	25
3.5.3	Server Configuration	25
3.5.4	DDNS	26
3.5.5	SNMP	26
3.5.6	802.1x	27
3.5.7	RTSP.....	28
3.5.8	UPNP	28
3.5.9	Email	29
3.5.10	FTP	30
3.5.11	HTTPS	30
3.5.12	P2P (optional).....	32
3.5.13	QoS.....	32
3.6	Security Configuration	32

3.6.1	User Configuration	32
3.6.2	Online User	34
3.6.3	Block and Allow Lists	34
3.6.4	Security Management	34
3.7	Maintenance Configuration	35
3.7.1	Backup and Restore	35
3.7.2	Reboot	35
3.7.3	Upgrade	35
3.7.4	Operation Log	36
4	Search	37
4.1	Image search	37
4.2	Video search	38
4.2.1	Local Video Search	38
4.2.2	Micro-SD card video search	40
Appendix		42
Troubleshooting		42

1 Network connection

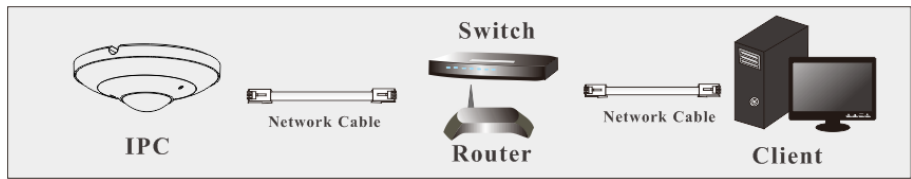
Connect the IP Camera (IPC) via LAN or WAN through Internet Explorer browser.

1.1 LAN

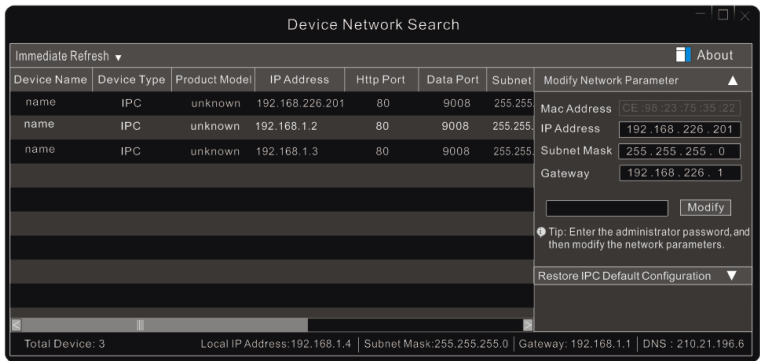
In LAN, there are two ways to access IPC: 1. through the software Comelit Advance IP Tool; 2. through Internet Explorer browser.

1.1.1 Access through Comelit Advance IP Tool

Network connection:



- ① Make sure the PC and IPC are connected to the LAN and the Comelit Advance IP Tool is installed in the PC.
- ② Double click the Comelit Advance IP Tool icon on the desktop to run this software as shown below:



- ③ Modify the IP address. The default **IP address** of the camera is **192.168.1.150**. Click the information of the camera listed in the above table to show the network information on the right hand. Modify the IP address and gateway of the camera and make sure that its network address is in the same local network segment as the computer's

Modify Network Parameter ▲

Mac Address

IP Address

Subnet Mask

Gateway

For example, the IP address of your computer is 192.168.1.4. Therefore, the IP address of the camera shall be changed to 192.168.1.X. After modification, please enter the password of the administrator and click the “Modify” button to modify the setting.



The **default Password** of the administrator is **admin**.

④ Double click on the IP address and the system will pop up the IE browser to connect the IPC. Follow instructions to download, install and run the ActiveX control.

Comelit

Name:

Password:

Stream Type: ▼

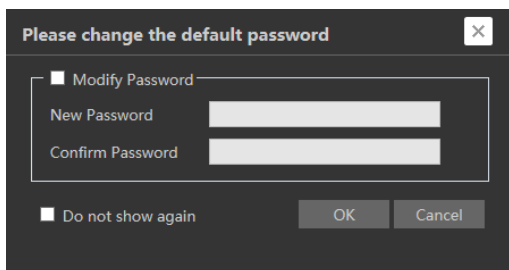
Language: ▼

☐ Remember me

Enter the username and password in the login window.



The **default Username** is **admin**; the **default Password** is **admin**.



The system will pop up the above textbox to ask you to change the default password. It is strongly recommended to change the default password for account security. If “Do not show again” is checked, the textbox will not appear the next time

1.1.2 Access through Internet Explorer

The **default** network settings are shown below:

IP address: **192.168.1.150**

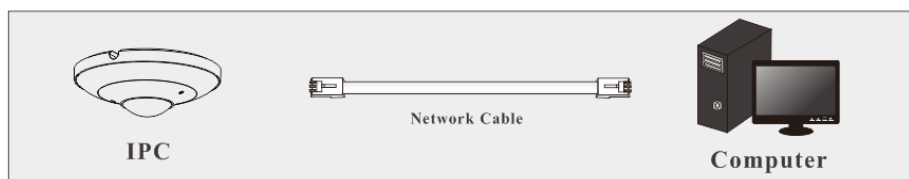
Subnet Mask: **255.255.255.0**

Gateway: **192.168.1.1**

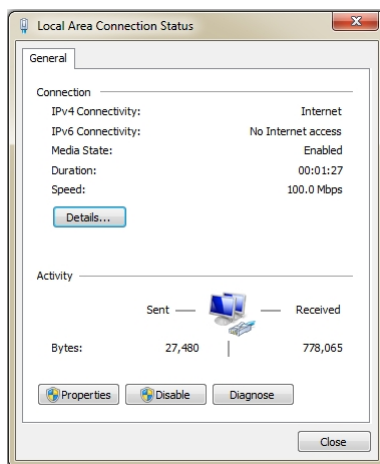
HTTP: **80**

Data port: **9008**

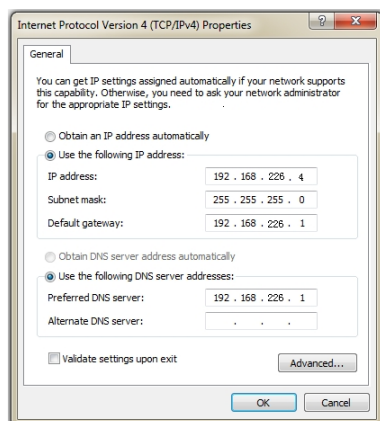
Use the above default settings when logging in the camera for the first time. Connect the camera to the computer directly through network cable.



① Manually set the IP address of the PC, the network segment should be the same as the default settings of the IP camera. Open the network and share center. Click “Local Area Connection” to pop up the following window:



Select “Properties” and then select internet protocol (for example: IPv4). Next, click the “Properties” button to set the network of the PC.



- ② Open the IE browser, enter the default address of the IPC and confirm.
- ③ Follow instructions to download and install the ActiveX control.
- ④ Enter the default username and password in the login window and then enter to Live view.

1.2 WAN

➤ Access through the router or virtual server



- ① Make sure the camera is connected to the local network and then log in the camera via LAN and go to Config→Network→Port menu to set the port number.

HTTP Port	80
HTTPS Port	443
Data Port	9008
RTSP Port	554

Port Setup

- ② Go to Config →Network→TCP/IP menu to modify the IP address.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☐ Obtain an IP address automatically ☒ Use the following IP address			
IP Address	192.168.1.150	Test	
Subnet Mask	255.255.255.0		
Gateway	192.168.1.1		
Preferred DNS Server	8.8.8.8		
Alternate DNS Server	8.8.8.8		

IP Setup

- ③ Go to the router's management interface through Internet Explorer browser to forward the IP address and port of the camera in the "Virtual Server".

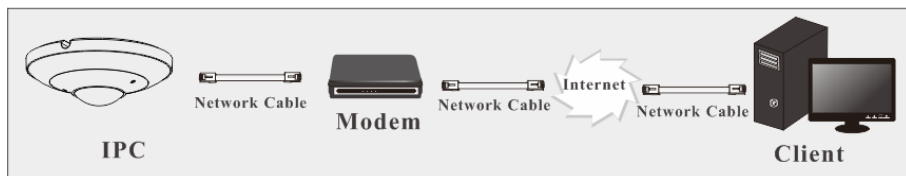
Port Range					
Application	Start	End	Protocol	IP Address	Enable
1	9007	to 9008	Both	192.168.1.201	☒
2	80	to 81	Both	192.168.1.201	☒
3	10000	to 10001	Both	192.168.1.166	☐
4	21000	to 21001	Both	192.168.1.166	☐

Router Setup

- ④ Open the Internet Explorer browser and enter its WAN IP and http port to access. (for example, if the http port is changed to 81, please enter "192.198.1.150:81" in the address bar of web browser to access).

➤ Access through PPPoE dial-up

Network connection



Access the camera through PPPoE auto dial-up. The setup steps are as follow:

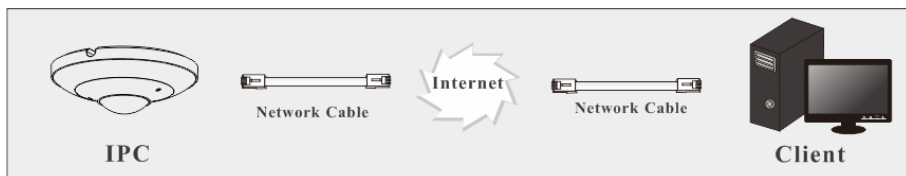
- ① Go to Config→Network→Port menu to set the port number.
- ② Go to Config →Network→TCP/IP→PPPoE Config menu. Enable PPPoE and then enter the user name and password from your internet service provider.

The screenshot shows the 'PPPoE Config' menu in a web interface. The menu has four tabs: 'IPv4', 'IPv6', 'PPPoE Config' (which is highlighted in green), and 'IP Change Notification Config'. Under the 'PPPoE Config' tab, there is a checkbox labeled 'Enable' which is checked. Below this, there are two input fields: 'User Name' with the text 'xxxxxxxx' and 'Password' with eight dots. A 'Save' button is located at the bottom right of the form.

- ③ Go to Config →Network→DDNS menu. Before configuring the DDNS, please apply for a domain name first. Please refer to DDNS configuration for detail information.
- ④ Open the IE browser and enter the domain name and http port to access.

➤ Access through static IP

Network connection

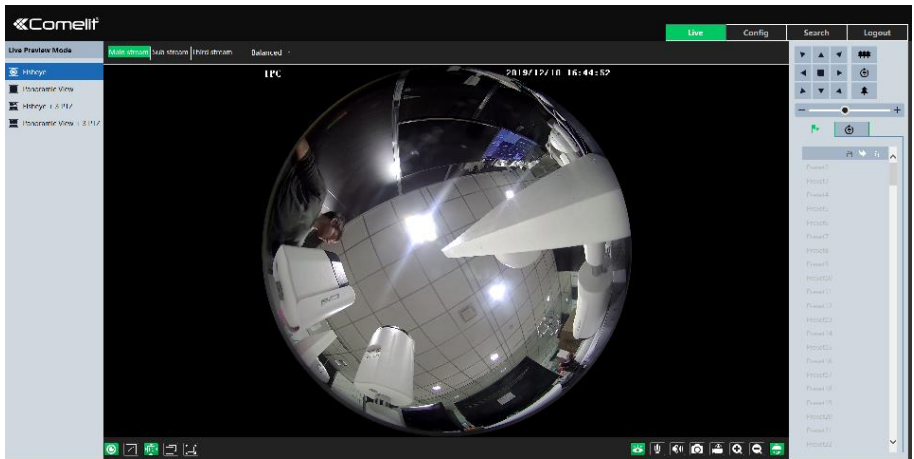


The setup steps are as follow:

- ① Go to Config→Network→Port menu to set the port number.
- ② Go to Config →Network→TCP/IP menu to set the IP address. Check “Use the following IP address” and then enter the static IP address and other parameters.
- ③ Open the Internet Explorer browser and enter its WAN IP and http port to access.

2 Live View

After you log in, you will see the following window. Before you view the live image, please set the stream mode and installation method as required (see Set Fisheye Parameters for details).



The following table is the instructions of the icons on the live view interface.

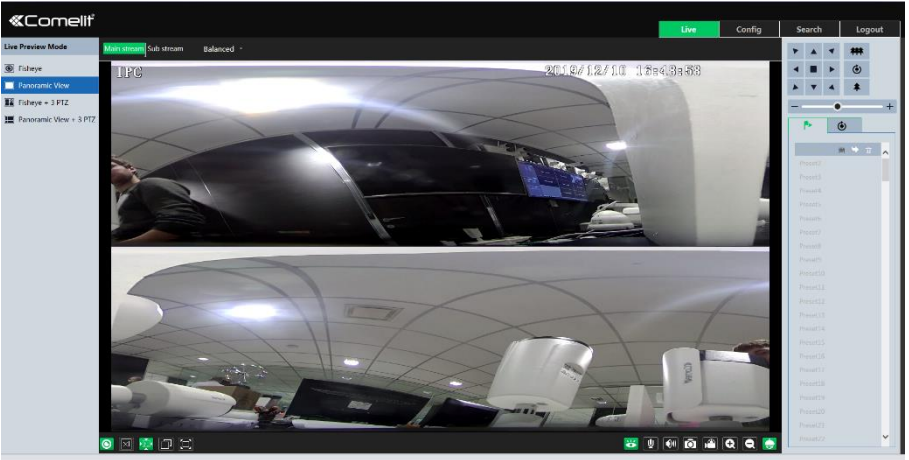
Icon	Description	Icon	Description
	Select live preview mode		Snap
	Original size		Start/stop recording
	Appropriate size		PTZ control
	Auto		Sensor alarm indicator icon
	Full screen		Motion alarm indicator icon
	Start/stop live view		Zoom in
	Start/stop two-way audio		Zoom out
	Enable/disable audio		

- In full screen mode, double click to exit.

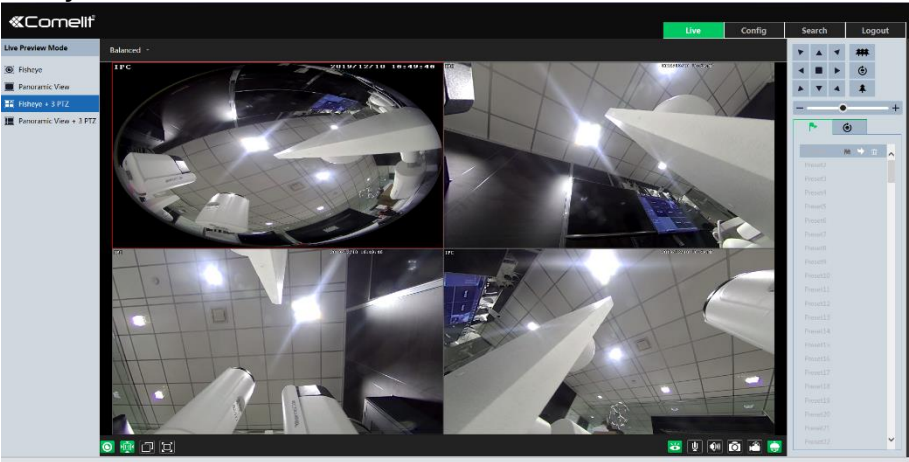
Click  to select the live view mode.

Fisheye view mode: See the picture as shown above.

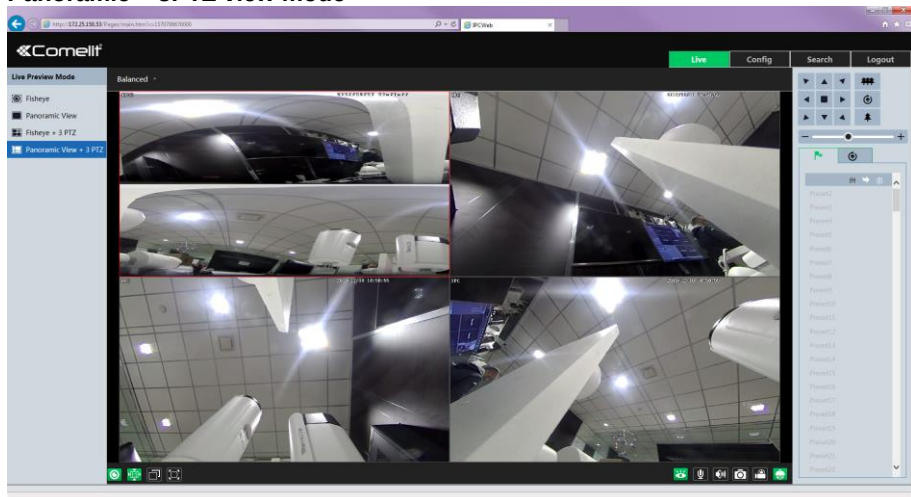
Panoramic view mode



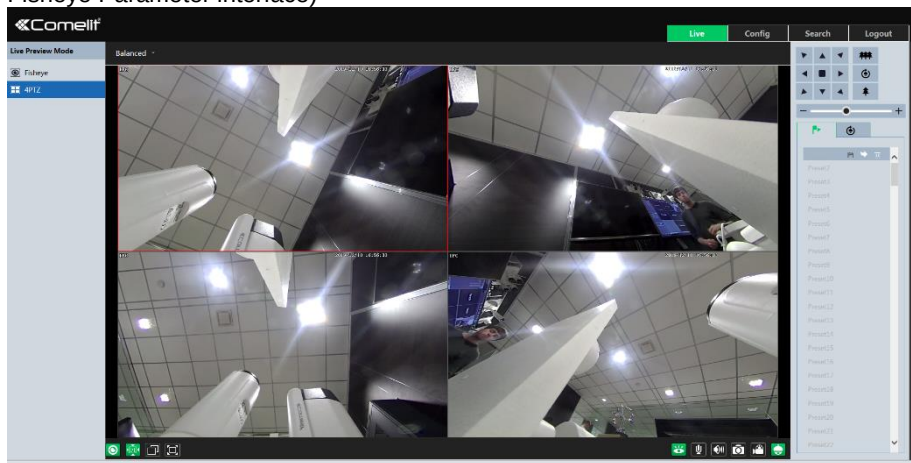
Fisheye+ 3PTZ view mode



Panoramic + 3PTZ view mode



4PTZ view mode (you need to switch the stream mode in Config → System → Fisheye Parameter interface)



In panoramic + 3PTZ view mode or fisheye + 3PTZ view mode or 4PTZ view mode, select a PTZ window and view the image from every direction by the PTZ panel.

Click  to display the control panel. The descriptions of the control panel are as follows:

Icon	Description	Icon	Description
	Click it to rotate the camera image diagonally up-left		Click it to rotate the camera image diagonally up-right.
	Click it to rotate the camera image upwards.		Click it to stop rotating the camera.
	Click it to rotate the camera image towards left		Click it to rotate the camera image towards right.
	Click it to rotate the camera image diagonally down-left		Click it to rotate the camera image down-right.
	Click it to rotate the camera image downwards.		Drag the scroll bar to adjust rotating speed of the camera.
	Click it to zoom out the live image.		Click it to zoom in the live image.
	Automatic Cruise (Tour)		Preset
	Create and call Cruise (Tour)		

Select the Preset and click  to call it. Select and set the Preset, then click  to save the position of the Preset. Select the Preset and click  to delete it.

Select Cruise (Tour) and click  to set it, add the Presets. Click  to start the Cruise (Tour); click  to stop it.

3 Network camera configuration

In the client, choose “Config” to go to the configuration interface.

Note: click the “Save” button to save the settings

3.1 System Configuration

3.1.1 Basic Information

In the “Basic Information” interface, the information of the device are listed.

Device Name	IPC
Product Model	IPTCAMA02ZA
Brand	Cornelit
Software Version	5.0.1.0(3913)
Software Build Date	2019-10-29
Kernel Version	20190906
Hardware Version	1.3
Onvif Version	19.06
Video Structured Version	1.1.7
Face Detection Version	1.1.25
OCX Version	2.0.7.3
MAC	00:18:ae:ad:63:7a
Device ID	XXXXXXXXXXXX



3.1.2 Date and Time

Go to Config→System→Date and Time. Please refer to the following interface.

Zone Date and Time

Zone GMT+01 (Amsterdam, Berlin, Rome, Stockholm, Warsaw) ▼

☒ DST

☐ Auto DST

☒ Manual DST

Start Time January ▼ First ▼ Sunday ▼ 00 ▼ Hour

End Time February ▼ First ▼ Monday ▼ 00 ▼ Hour

Time Offset 120 Minutes ▼

Select the time zone and DST as required.

Click the “Date and Time” tab to set the time mode.

Zone **Date and Time**

Time Mode:

☒ Synchronize with NTP server

NTP server: Update period: Minutes

☐ Synchronize with computer time

Date: Time:

☐ Set manually

Date: Time:

3.1.3 Local Configuration

Go to Config→System→Local Config to set up the storage path of captured pictures and recorded videos on the local PC. There is also an option to enable or disable the bitrate display in the recorded files.

Save snapshots to

Save recording files to

Audio Recording ☒ Open ☐ Close

Bitrate Overlay ☒ Open ☐ Close

3.1.4 Storage

Go to Config→System→Storage to go to the interface as shown below.

Management		Record	Snapshot
Total picture capacity	76 MB		
Picture remaining space	0 MB		
Total recording capacity	7488 MB		
Record remaining space	2048 MB		
State	Normal		
Snapshot Quota	1	<input <="" td="" type="text" value="%"/>	
Video Quota	99	<input <="" td="" type="text" value="%"/>	

Changes in the quota ratio need to be formatted before they become effective.

● Micro-SD card management

Click the “Format” button to format the micro-SD card. All data will be erased by clicking this button.

Click the “Eject” button to stop writing data to micro-SD card. Then the micro-SD card can be removed safely.

Snapshot Quota: set the capacity of captured pictures on the micro-SD card.

Video Quota: set the capacity of record files on the micro-SD card.

● Schedule Recording Settings

1. Go to Config→System→Storage→Record to go to the interface as shown below.

The screenshot shows the 'Record' tab in a configuration menu. Under 'Record Parameters', there are three dropdown menus: 'Record Stream' set to 'Main stream', 'Pre Record Time' set to 'No Pre Record' (with '(H264,H265,MJPEG)' in parentheses), and 'Cycle Write' set to 'Yes'. Below these is a 'Timing' section with a checkbox labeled 'Enable Schedule Record' which is currently unchecked.

2. Set record stream, pre-record time, cycle writing.

Pre Record Time: set the time to record before the event recording begins.

3. Enable schedule record. Check “Enable Schedule Record” and set the schedule.

The screenshot shows the 'Week Schedule' and 'Holiday Schedule' configuration interface. The 'Week Schedule' section has a header with 'Erase' and 'Add' buttons. Below it, there are seven rows for the days of the week (Sun. to Sat.). Each row has a timeline from 0 to 24 hours. A green bar indicates a scheduled recording period from 00:00 to 24:00. To the right of each timeline is a 'Manual Input' button. The 'Holiday Schedule' section below has a 'Date' field set to '11-12', 'Add' and 'Delete' buttons, and another timeline from 0 to 24 hours with a green bar from 00:00 to 24:00 and a 'Manual Input' button.

Weekly schedule

Set the alarm record time from Monday to Sunday for a single week. Each day is divided in one hour. Green means scheduled. Blank means unscheduled.

“Add”: add the schedule for a specific day. Drag the mouse to set the time on the timeline.

“Erase”: delete the schedule. Drag the mouse to delete the time on the timeline.

Manual Input: click it on a specific day to enter specific start and end time.

Holiday schedule

Set the alarm record time for a specific day, such as a holiday.

Note: Holiday schedule takes priority over weekly schedule.

- **Snapshot settings**

Go to Config→System→Storage→Snapshot to go to the interface as shown below.

ManagementRecordSnapshot

Snapshot Parameters

Image Format

JPEG

Resolution

704x576

Image Quality

Low

Event Trigger

Snapshot Interval

1

Second

Snapshot Quantity

5

Timing

☐ Enable Timing Snapshot

Snapshot Interval

5

Second

Set the format, resolution and quality of the image saved on the micro-SD card, the snapshot interval and quantity and the timing snapshot here.

Snapshot Quantity: is the maximum quantity of snapshots. The actual quantity of snapshots may be less than this number. Supposing the occurrence time of an alarm event is less than the time of capturing pictures, the actual quantity of snapshots is less than the set quantity of snapshots.

Enable Timing Snapshot: enable timing snapshot first and then set the snapshot interval and schedule. The setup steps of schedule are the same as the schedule recording.

3.1.5 Fisheye Parameters

Go to Config→System→Fisheye Parameters menu to set the stream mode and installation method.

Stream Mode Fisheye + Panoramic view

Installation Method Desktop

Notice: To modify installation method will affect live preview, image effect, PTZ mode and Preset, etc.

Save

Stream mode: Fisheye + Panoramic view + 3PTZ or Fisheye or 4PTZ.

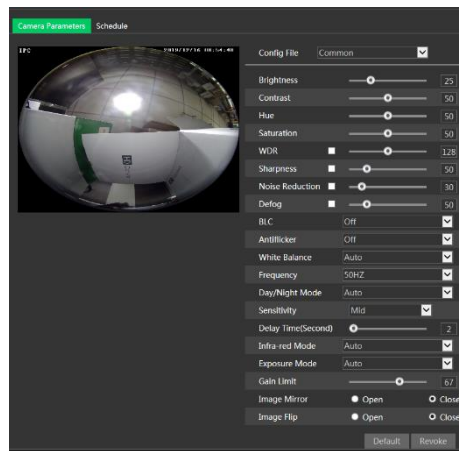
Installation method: wall, ceiling or desktop.

3.2 Image Configuration

Image Configuration includes Display, Video/Audio, OSD, Video Mask and ROI Config. The lens control function is available for the models with motorized zoom lens.

3.2.1 Display Configuration

Go to Image→Display settings interface as shown below. The picture's brightness, contrast, hue and saturation and so on can be set here.



Brightness: set the brightness level.

Contrast: set the contrast.

Hue: set the hue.

Saturation: set the saturation.

Sharpness: set the sharpness.

Noise Reduction: decrease the noise to make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution.

Backlight Compensation (BLC):

- Off: disables the backlight compensation function (default).
- HWDR: WDR can adjust the camera to provide a better image when there are both very bright and very dark areas simultaneously in the field of the view by lowering the brightness of the bright area and increasing the brightness of the dark area. Recording will be stopped for a few seconds while the mode is changing from non-WDR to WDR mode.
- HLC: lowers the brightness of the entire image by suppressing the brightness of the image's bright area and reducing the size of the halo area.
- BLC: if enabled, the auto exposure will activate according to the scene so that the object of the image in the darkest area will be seen clearly.

Antiflicker:

- Off: disables the anti-flicker function. This is used in outdoor installations.
- 50Hz: reduces flicker in 50Hz lighting conditions.
- 60Hz: reduces flicker in 60Hz lighting conditions.

White Balance: adjust the color temperature according to the environment automatically.

Frequency: 50Hz or 60Hz.

Day/Night Mode: choose “Auto”, “Day”, “Night” or “Timing”.

Sensitivity: high, middle or low.

Infra-red Mode: choose “Auto”, “ON” or “Off”.

Exposure Mode: choose “Auto” or “Manual”. If manual is chosen, the digital shutter speed can be adjusted.

3.2.2 Video / Audio Configuration

Go to Image→Video / Audio interface as shown below. In this interface, set the resolution, frame rate, bitrate type, video quality and so on.

Video

Audio

Index	Stream Name	Resolution	Frame Rate	Bitrate Type	Bitrate(Kbps)	Video Quality	I Frame Interval	Video Compression	Profile
1	Main stream	1920x1080	25	CBR	3072	Highest	100	H264	High Profile
2	Sub stream	704x576	25	CBR	768	Highest	100	H264	High Profile
3	Third stream	352x288	25	CBR	512	Highest	100	H264	High Profile

Send Snapshot Sub stream

Size: (704x576)

☐ Video encode slice split

☐ Watermark (H264 , H265)

Watermark content:

Click the “Audio” tab to go to the interface as shown below.

Video

Audio

☒ Enable

Audio Encoding

G711A

Audio Type

LIN

Save

You can select streams for different channels.

IP Channel 1: Fisheye view channel, 3 streams can be set.
IP Channel 2: panoramic view channel, 2 streams can be set.
IP Channel 3/4/5: PTZ view channel, 2 streams can be set for each channel.

Resolution: image resolution.

Frame rate: the higher the frame rate, the video is smoother.

Bitrate type: CBR or VBR. Bitrate is related to image quality. CBR means that no matter how much change is seen in the video scene, the bitrate will be kept constant. VBR means that the bitrate will be adjusted according to scene changes.

Bitrate: it can be adjusted when the mode is set to CBR. The higher the bitrate, the better the image quality will be.

Video Quality: it can be adjusted when the mode is set to VBR. The higher the image quality, more bitrate will be required.

I Frame interval: it determines how many frames are allowed between a “group of pictures”. When a new scene begins in a video, until that scene ends, the entire group of frames (or pictures) can be considered as a group of pictures. If there is not much movement in the scene, setting the value higher than the frame rate is fine, potentially resulting in less bandwidth usage. However, if the value is set too high, and there is a high frequency of movement in the video, there is a risk of frame skipping.

Video Compression: H264 or H265. If H.265 is chosen, make sure the client system is able to decode H.265.

Profile: for H.264, Baseline, Main and High profiles are selectable.

Send Snapshot: set how many snapshots to generate for an event.

Video encode slice split: if this function is enabled, smooth image can be gotten even though using the low-performance PC.

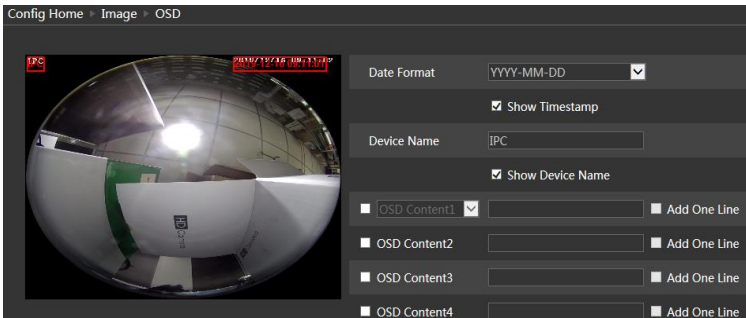
Watermark: when playing back the local recorded video in the search interface, the watermark can be displayed. To enable it, check the watermark box and enter the watermark text.

Audio Encoding: G711A or G711U.

Audio Type: LIN or MIC.

3.2.3 OSD Configuration

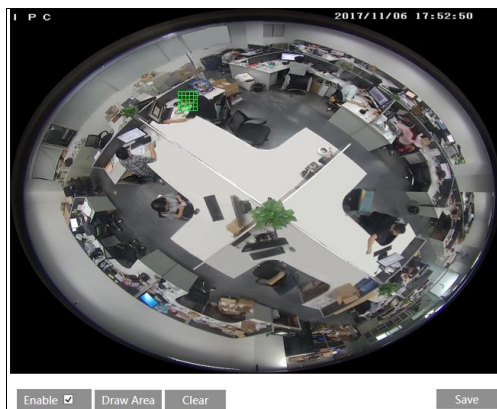
Go to Image→OSD interface as shown below.



Set timestamp, device name, OSD content and picture overlap here. After enabling, entering the content and drag them to change their position. Then click the “Save” button to save the settings.

3.2.4 Video Mask

Go to Image→Video Mask interface as shown below. A maximum of 4 zones can be setup.



To set up video mask:

1. Enable video mask.
2. Click the “Draw Area” button and then drag the mouse to draw the area.
3. Click the “Save” button to save the settings.
4. Return to the live to verify the area.



Click the “Clear” button to delete the current video mask area.

3.2.5 ROI Configuration

Go to Image→ROI Config interface as shown below. An area in the image can be set as a Region Of Interest. This area will have a higher bitrate than the rest of the image, resulting in better image quality for the identified area.

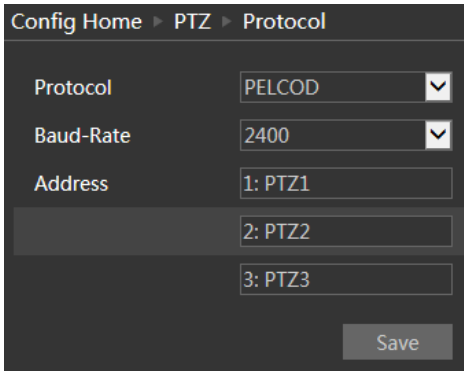


1. Check “Enable” and then click the “Draw Area” button.
2. Drag the mouse to set the ROI area.
3. Set the level.
4. Click the “Save” button to save the settings.

3.3 PTZ Configuration

The PTZ of this camera can be controlled by the keyboard. Connect the keyboard and the camera through RS485 interface and then set the same protocol and baud-rate in the camera and keyboard.

Go to PTZ→Protocol interface as shown below.



The protocol and baud-rate must be the same with these of the keyboard.

Address: 1; you can control PTZ channel 1 by using this address in the keyboard.

Address: 2; you can control PTZ channel 2 by using this address in the keyboard.

3.4 Alarm Configuration

3.4.1 Motion Detection

Go to Alarm→Motion Detection to set motion detection alarm.

The screenshot shows a web-based configuration interface for an alarm system. At the top, there are three tabs: 'Alarm Config' (highlighted in green), 'Area and Sensitivity', and 'Schedule'. Under the 'Alarm Config' tab, there is a section for enabling the alarm. The 'Enable' checkbox is checked. Below this, the 'Alarm Holding Time' is set to '20 Seconds' with a dropdown arrow. The 'Trigger Alarm Out' section is expanded, showing a list of options: 'Alarm Out', 'Trigger Audio Alarm', 'Trigger Snap', 'Trigger SD Recording', 'Trigger Email', and 'Trigger FTP'. Each option has a checkbox next to it. At the bottom right, there is a 'Save' button.

1. Check “Enable” check box to activate the function.

Alarm Out: if selected, this would trigger an external relay output that is connected to the camera on detecting a motion based alarm.

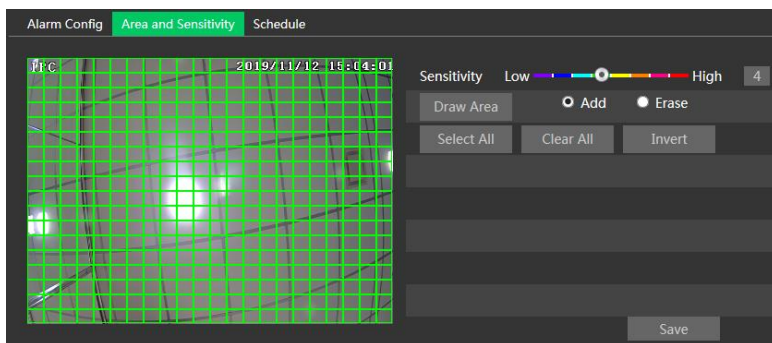
Trigger Snap: if selected, the system will capture images on motion detection and save the images on the micro-SD card.

Trigger SD Recording: if selected, video will be recorded on the micro-SD card on motion detection.

Trigger Email: if “Trigger Email” and “Attach Picture” are checked (email address must be set first in the Email configuration interface), the captured pictures and triggered event will be sent via e-mail.

Trigger FTP: if “Trigger FTP” and “Attach Picture” are checked, the captured pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

2. Set motion detection area and sensitivity. Click the “Area and Sensitivity” tab to go to the interface as shown below.

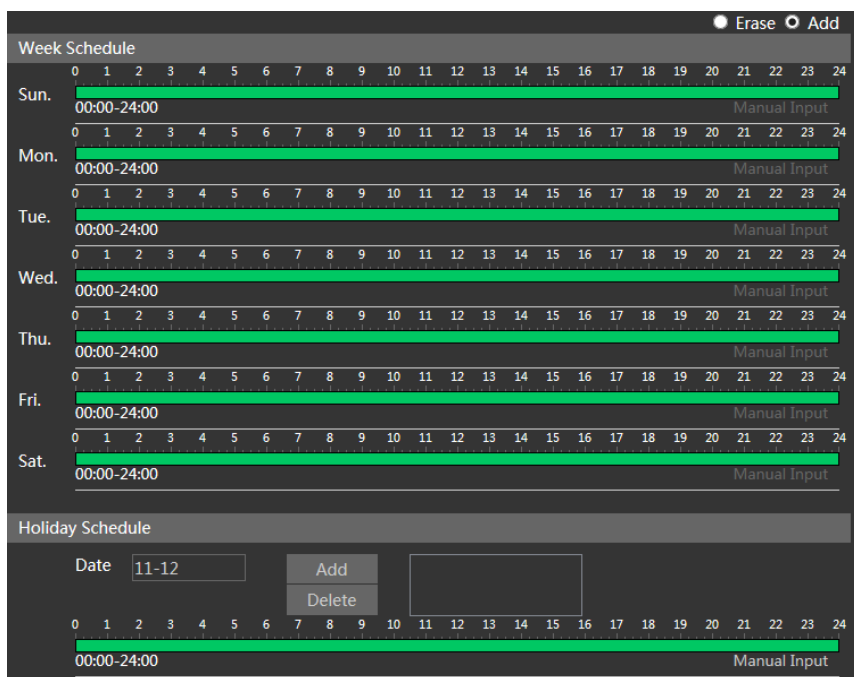


Move the “Sensitivity” scroll bar to set the sensitivity. Higher sensitivity value means that motion alarm will be triggered more easily.

Select “Add” and click “Draw Area”. Drag the mouse to draw the motion detection area; Select “Erase” and drag the mouse to clear motion detection area.

After that, click the “Save” to save the settings.

3. Set the schedule of the motion detection. Click “Schedule” tab to go to the interface as shown below.



Weekly schedule

Set the alarm record time from Monday to Sunday for a single week. Each day is divided in one hour. Green means scheduled. Blank means unscheduled.

“Add”: add the schedule for a specific day. Drag the mouse to set the time on the timeline.

“Erase”: delete the schedule. Drag the mouse to delete the time on the timeline.

Manual Input: click it on a specific day to enter specific start and end time.

Holiday schedule

Set the alarm record time for a specific day, such as a holiday.

Note: Holiday schedule takes priority over weekly schedule.

3.4.2 Alarm In

To set sensor alarm (Alarm In): go to Config→Alarm→Alarm In interface as shown below.

The screenshot shows the 'Alarm In' configuration window. The 'Alarm Config' tab is selected. The 'Alarm In' section includes an 'Enable' checkbox, an 'Alarm Type' dropdown menu (set to 'NO'), an 'Alarm Holding Time' dropdown menu (set to '30 Seconds'), and a 'Sensor Name' text input field. Below this is the 'Trigger Alarm Out' section, which contains a list of checkboxes for various triggers: 'Alarm Out' (checked), 'Trigger Audio Alarm', 'Trigger Light Alarm', 'Trigger Snap', 'Trigger SD Recording', 'Trigger Email', and 'Trigger FTP'. A 'Save' button is located at the bottom right of the window.

1. Enable alarm and set the alarm type, alarm holding time and sensor name.
2. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.
3. Click “Save” button to save the settings.
4. Set the schedule of the sensor alarm. The setup steps of the schedule are the same as the motion schedule setup. Please refer to motion detection chapter for details.

3.4.3 Alarm Out

Go to Config→Alarm→Alarm Out:

Config Home > Alarm > Alarm Out

Alarm Out Mode	Alarm Linkage	▼
Alarm Out Name	alarmOut1	
Alarm Holding Time	20 Seconds	▼

Alarm Out Mode: Alarm linkage, Manual Operation, Day/Night Switch Linkage or Timing.

- **Alarm Linkage:** after selecting this mode, set the Alarm Out Name and the Alarm Holding Time in the “Alarm Holding Time” pull down list.
- **Manual Operation:** after selecting this mode, set the Alarm Type and click “Open” to trigger the alarm out immediately. Click “Close” to stop alarm output.

Config Home > Alarm > Alarm Out

Alarm Out Mode	Manual Operation	▼
Manual Operation	Open	Close
Save		

- **Day/Night Switch Linkage:** after selecting this mode, choose to Open or Close the alarm output when the camera switches to day mode or night mode.

Config Home > Alarm > Alarm Out

Alarm Out Mode	Day/night switch linkage	▼
Day	Close	▼
Night	Close	▼
Save		

- **Timing:** select the alarm type. Select “Add” and drag the mouse on the timeline to set the schedule of alarm out. Select “Erase” and drag the mouse on the timeline to delete the set time schedule. After the schedule is saved, the alarm out will be triggered in the specified time.

Alarm Out Mode	Timing	▼
Alarm Type	NC	▼
☒ Erase ☐ Add		
Time Range	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 Manual Input	
Save		

3.4.4 Alarm Server

Go to Alarm→Alarm Server interface as shown below.

Set the server address, port, heartbeat and heartbeat interval. When an alarm occurs, the camera will transfer the alarm event to the alarm server.

Server Address	
Port	0
Heartbeat	Disable ▼
Heartbeat interval	30 Second

3.5 Network Configuration

3.5.1 TCP/IP

Go to Config→Network→TCP/IP interface as shown below.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☒ Obtain an IP address automatically			
☐ Use the following IP address			
IP Address	192.168.1.150	Test	
Subnet Mask	255.255.255.0		
Gateway	192.168.1.1		
Preferred DNS Server	8.8.8.8		
Alternate DNS Server	8.8.8.8		

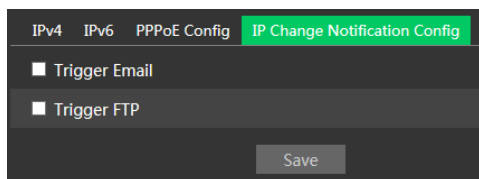
Use IP address (IPv4 for example). There are two options for IP setup: "Obtain an IP address automatically" (by DHCP) and "Use the following IP address".

Test: test the effectiveness of the IP address by clicking the button.

Use PPPoE. Click the "PPPoE Config" tab to go to the interface as shown below. Enable PPPoE and then enter the user name and password from your ISP.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☒ Enable			
User Name	xxxxxxxx		
Password	•••••		
Save			

Either methods of network connection can be used. If PPPoE is used to connect internet, the camera will get a dynamic WAN IP address. This IP address will change frequently. To be notified, the IP change notification function can be used. Click “IP Change Notification Config” to go to the interface as shown below.



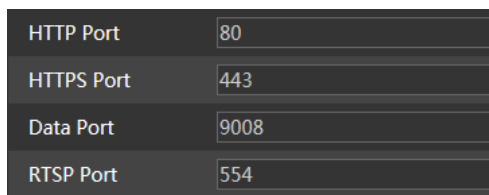
IPv4	IPv6	PPPoE Config	IP Change Notification Config
☐ Trigger Email			
☐ Trigger FTP			
<button>Save</button>			

Trigger Email: when the IP address of the device change, the new IP address will be sent to the email address that has been set up.

Trigger FTP: when the IP address of the device change, the new IP address will be sent to FTP server that has been set up.

3.5.2 Port

Go to Config→Network→Port interface as shown below. HTTP port, Data port and RTSP port can be set.



HTTP Port	80
HTTPS Port	443
Data Port	9008
RTSP Port	554

HTTP Port: default is 80.

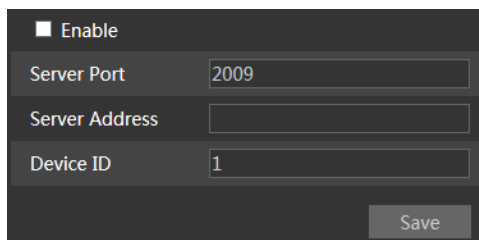
HTTPS Port: default is 443.

Data Port: default is 9008.

RTSP Port: default is 554.

3.5.3 Server Configuration

This function is used for connecting the Comelit Advance VMS.



☒ Enable	
Server Port	2009
Server Address	
Device ID	1
<button>Save</button>	

1. Check "Enable".
2. Check the IP address and port of the transfer media server in the Comelit Advance VMS. Then enable the auto report in the Comelit Advance VMS when adding a new device. Next, enter the remaining information of the device in the Comelit Advance VMS. After that, the system will automatically allot a device ID. Please check it in the Comelit Advance VMS.
3. Enter the above-mentioned server address, server port and device ID in the corresponding boxes. Click the "Save" button to save the settings.

3.5.4 DDNS

- 4 If the camera is set up with a DHCP connection, DDNS should be set.
- 5 1. Go to Config→Network→ DDNS.

2. Apply for a domain name. Take www.comelitdns.com for example. Enter www.comelitdns.com in the IE address bar to visit its website. Choose your language and then click the "Register product" button.

3.5.5 SNMP

To get camera status, parameters and alarm information and remotely manage the camera, the SNMP function can be used. Before using SNMP, please install an SNMP management tool and set the parameters of the SNMP, such as SNMP port, trap address.

1. Go to Config→Network→SNMP.
2. Check the corresponding version checkbox (Enable SNMPv1, Enable SNMPv2, Enable SNMPv3) according to the version of the SNMP software that will be used.
3. Set the values for "Read SNMP Community", "Write SNMP Community", "Trap Address", "Trap Port" and so on. Please make sure the settings are the same as that of the SNMP software.

Note: please use the different version in accordance with the security level you required. The higher the version is, the higher the level of the security is.

SNMP v1/v2	
☐ Enable SNMPv1	
☐ Enable SNMPv2	
Read SNMP Community	public
Write SNMP Community	private
Trap Address	192.168.226.201
Trap Port	162
Trap community	public

SNMP v3	
☐ Enable SNMPv3	
Read User Name	public
Security Level	auth, priv
Authentication Algorithm	☐ MD5 ☒ SHA
Authentication Password	••••••••
Private-key Algorithm	☐ DES ☒ AES
Private-key Algorithm	••••••••
Write User Name	private
Security Level	auth, priv
Authentication Algorithm	☐ MD5 ☒ SHA
Authentication Password	••••••~
Private-key Algorithm	☐ DES ☒ AES
Private-key Algorithm	••••••~

Other Settings	
SNMP Port	161

3.5.6 802.1x

If it is enabled, the camera's data can be protected. When the camera is connected to the network protected by the IEEE802.1x, user authentication is needed.

☒ Enable	
Protocol Type	EAP_MD5
EAPOL Version	1
User Name	
Password	••••••
Confirm Password	••••••

To use this function, the camera shall be connected to a switch supporting 802.1x protocol. The switch can be reckoned as an authentication system to identify the device in a local network. If the camera connected to the network interface of the switch has passed the authentication of the switch, it can be accessed via the local network.

Protocol Type and EAPOL Version: please use the default settings.

Username and Password: the Username and the Password must be the same with the username and password applied for and registered in the authentication server.

3.5.7 RTSP

Go to Config→Network→RTSP.

Port	Server	DDNS	SNMP	802.1X	RTSP	UPnP	Email	FTP	HTTPS	P2P	QoS
☒ Enable											
Port	554										
Address	rtsp://IP or domain name:port/profile1										
	rtsp://IP or domain name:port/profile2										
	rtsp://IP or domain name:port/profile3										
	rtsp://IP or domain name:port/profile4										
	rtsp://IP or domain name:port/profile5										
	rtsp://IP or domain name:port/profile6										
	rtsp://IP or domain name:port/profile7										
	rtsp://IP or domain name:port/profile8										
	rtsp://IP or domain name:port/profile9										
	rtsp://IP or domain name:port/profile10										
	rtsp://IP or domain name:port/profile11										
Multicast address											
Main stream	239.0.0.0					50554		☒ Automatic start			
Sub stream	239.0.0.1					51554		☒ Automatic start			
Third stream	239.0.0.2					52554		☒ Automatic start			
Audio	239.0.0.3					53554		☒ Automatic start			
☒ Allow anonymous login (No username or password required)											

Select “Enable” to enable the RTSP function.

Port: access port of the streaming media (default is 554).

Address: the RTSP address (unicast) format that can be used to play the stream in a media player.

Multicast Address

The address format is:

rtsp://IP address: rtsp port/profile1?transportmode=mcast

.....

rtsp://IP address: rtsp port/profile11?transportmode=mcast

3.5.8 UPNP

If this function is enabled, the camera can be quickly accessed through the LAN.

Go to Config→Network→UPnP. Enable UPnP and then enter UPnP name.

3.5.9 Email

If you need to trigger Email when an alarm happens or IP address is changed, please set the Email here first.

Go to Config→Network →Email.

Sender Address: sender's e-mail address.

Username and Password: sender's username and password.

Server Address: SMTP IP address or hostname.

Select the secure connection type at the "Secure Connection" pull-down list according to what's required.

SMTP Port: SMTP port.

Send Interval(S): time interval of sending email. For example, if it is set to 60 seconds and multiple motion detection alarms are triggered within 60 seconds, they will be considered as only one alarm event and only one email will be sent. If one motion alarm event is triggered and then another motion detection alarm event is triggered after 60 seconds, two emails will be sent. When different alarms are triggered at the same time, multiple emails will be sent separately.

Click the “Test” button to test the connection of the account.

Recipient Address: receiver’s e-mail address.

3.5.10 FTP

After an FTP server is set up, captured pictures from events will be uploaded to the FTP server.

Go to Config→Network →FTP.

PortServerDDNSSNMP802.1XRTSPUPnPEmailFTPHTTPS P2PQoS

Server Name	Server Address	Port	User Name	Upload Path

AddModifyDeleteTest

Save

Server Name: name of the FTP server.

Server Address: IP address or domain name of the FTP server.

Upload Path: directory where files will be uploaded.

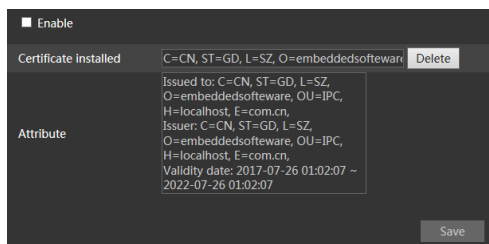
Port: port of the FTP server.

Use Name and Password: Username and Password that are used to login into the FTP server.

3.5.11 HTTPS

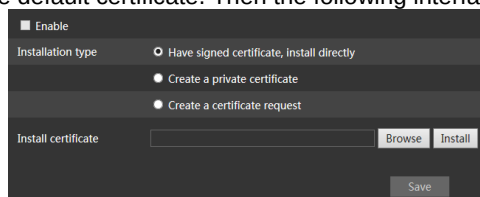
HTTPS provides authentication of the web site and protects user privacy.

Go to Config Config→Network→HTTPS as shown below.



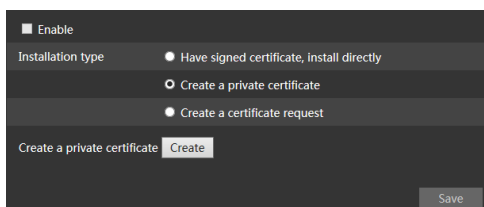
There is a certificate installed by default as shown above. Enable this function and save it. Then the camera can be accessed by entering **https://IP address:https port** via the web browser (eg. https://192.168.1.150:443).

A private certificate can be created if users don't want to use the default one. Click "Delete" to erase the default certificate. Then the following interface will be displayed.



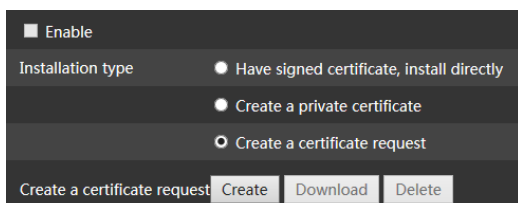
* If there is a signed certificate, click "Browse" to select it and then click "Install" to install it.

* Click "Create a private certificate" to enter the following creation interface.



Click the "Create" button to create a private certificate. Enter the country (only two letters available), domain (camera's IP address/domain), validity date, password, province/state, region and so on. Then click "OK" to save the settings.

* Click "Create a certificate request" to enter into the following interface.



Click “Create” to create the certificate request. Then download the certificate request and submit it to the trusted certificate authority for signature. After receiving the signed certificate, import the certificate to the device.

3.5.12 P2P (optional)

If this function is enabled, the network camera can be quickly accessed by adding the device ID in mobile surveillance client or Comelit Advance VMS client via WAN. Enable this function by going to Config→Network→P2P interface.

☒ Enable

Save

3.5.13 QoS

QoS (Quality of Service) function is used to provide different quality of services for different network applications. With insufficient bandwidth, the router or switch will sort the data streams and transfer them according to their priority to solve the network delay and network congestion by using this function.
Go to Config→Network→QoS.

Video/Audio DSCP	0
Alarm DSCP	0
Manager DSCP	0

Video/Audio DSCP: the range is from 0 to 63.
Alarm DSCP: the range is from 0 to 63.
Manager DSCP: the range is from 0 to 63.
The higher the number is, the higher the priority is

3.6 Security Configuration

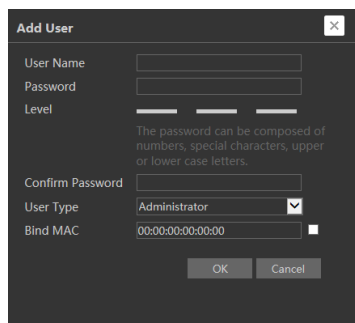
3.6.1 User Configuration

Go to Config→Security→User interface as shown below.

Add Modify Delete			
Index	User Name	User Type	Bind MAC
1	admin	Administrator	

Add user:

1. Click “Add” button to pop up the following textbox.



Add User [X]

User Name:

Password:

Level:

The password can be composed of numbers, special characters, upper or lower case letters.

Confirm Password:

User Type: Administrator [v]

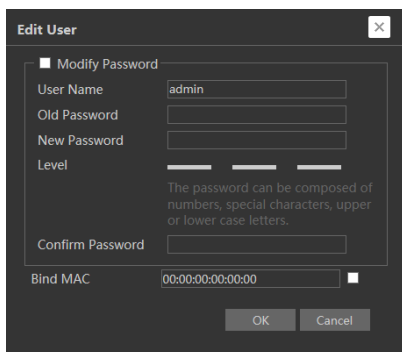
Bind MAC: 00:00:00:00:00:00 ☐

OK Cancel

2. Enter user name in “User Name” textbox.
3. Enter letters or numbers in “Password” and “Confirm Password” textbox.
4. Choose the user type. Administrator has all permissions. Normal user can only view the live video. Advanced user has the same permissions as an Administrator except for user management, backup settings, factory reset, and upgrading the firmware.
5. Enter the MAC address of the PC in “Bind MAC” textbox.
If this option is enabled, only the PC with the specified MAC address can access the camera for that user.
6. Click the “OK” button and then the new added user will be displayed in the user list.

Modify user:

1. Select a user to modify password and MAC address if necessary in the user configuration list box.
2. The “Edit user” dialog box pops up by clicking the “Modify” button.



Edit User [X]

☒ Modify Password

User Name: admin

Old Password:

New Password:

Level:

The password can be composed of numbers, special characters, upper or lower case letters.

Confirm Password:

Bind MAC: 00:00:00:00:00:00 ☐

OK Cancel

3. Enter the old password of the user in the “Old Password” text box.
4. Enter the new password in the “New password” and “Confirm Password” text box.
5. Enter computer’s MAC address as necessary.
6. Click the “OK” button to save the settings.

Note: to change the access level of a user, the user must be deleted and added again with the new access level.

Delete user:

1. Select the user to be deleted in the user configuration list box.
2. Click the “Delete” button to delete the user.

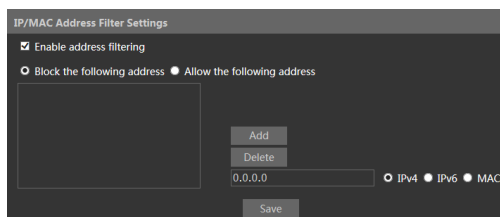
Note: the default administrator account cannot be deleted.

3.6.2 Online User

Go to Config→Security→Online User to view the user who is viewing the live video.

3.6.3 Block and Allow Lists

Go to Config→Security→Block and Allow Lists as shown below.



Setting steps are as follows:

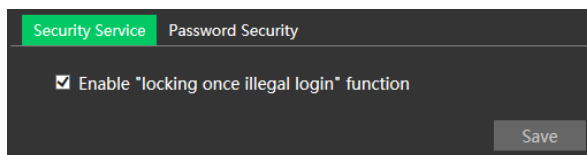
Check “Enable IP address filtering” check box.

Select “Block the following IP address”, input IP address in the IP address list box and click “Add” button. The operation step of “Allow the following IP address” and MAC address filter settings are the same as “Block the following IP address”.

After you set the IP address or MAC address, the system will block or allow the user using the added IP address or MAC address to access the camera.

3.6.4 Security Management

Go to Config→Security→Security Management as shown below.



In order to prevent malicious password unlocking, “locking once illegal login” function can be enabled. If this function is enabled, login failure after trying six times will make the login interface locked. The camera can be logged in again after a half hour or after the camera reboots.

3.7 Maintenance Configuration

3.7.1 Backup and Restore

Go to Config→Maintenance→Backup & Restore.

The screenshot shows a web interface for 'Import Setting', 'Export Settings', and 'Default Settings'. The 'Import Setting' section has a 'Path' input field with a 'Sfoglia...' button and an 'Import Setting' button. The 'Export Settings' section has an 'Export Settings' button. The 'Default Settings' section has a 'Keep' section with three checkboxes: 'Network Config', 'Security Configuration', and 'Image Configuration', and a 'Load Default' button.

- **Import & Export Settings**

Configuration settings of the camera can be exported from a camera into another camera.

1. Click “Browse” to select the save path for import or export information on the PC.
2. Click the “Import Setting” or “Export Setting” button.

- **Default Settings**

Click the “Load Default” button to restore all system settings to the default factory settings except those you want to keep.

3.7.2 Reboot

Go to Config→Maintenance→Reboot.

Click the “Reboot” button to reboot the device.

Timed Reboot setting

If necessary, the camera can be set up to reboot on a time interval. Enable “Time Settings”, set the date and time and then click the “Save” button to save the settings.

3.7.3 Upgrade

Go to Config→Maintenance→Upgrade. In this interface, the camera firmware can be updated.

Local upgrade

Path

Browse

Upgrade

1. Click the “Browse” button to select the path of the upgrade file
 2. Click the “Upgrade” button to start upgrading the firmware.
 3. The device will restart automatically
- Caution!** Do not close the browser or disconnect the camera from the network during the upgrade.

3.7.4 Operation Log

To query and export log:

1. Go to Config→Maintenance→Operation Log.

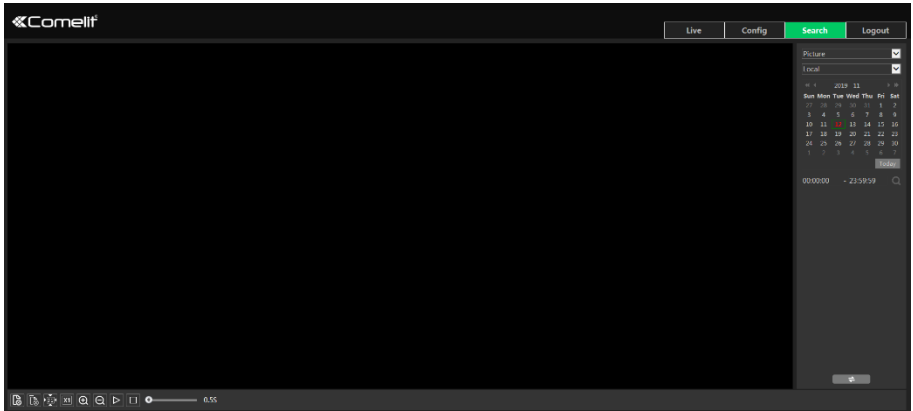
Main Type	All log	☒	Sub Type	All log	☒		
Start Time	2019-11-12 00:00:00	☐	End Time	2019-11-12 23:59:59	☐	Search	Export
Index	Time		Main Type	Sub Type		User Name	Login IP
1	2019-11-12 17:40:00		Alarm				
2	2019-11-12 17:38:46		Operation	System config modify			
3	2019-11-12 17:36:46		Alarm				

2. Select the main type, sub type, start and end time.
3. Click “Search” to view the operation log.
4. Click “Export” to export the operation log.

4 Search

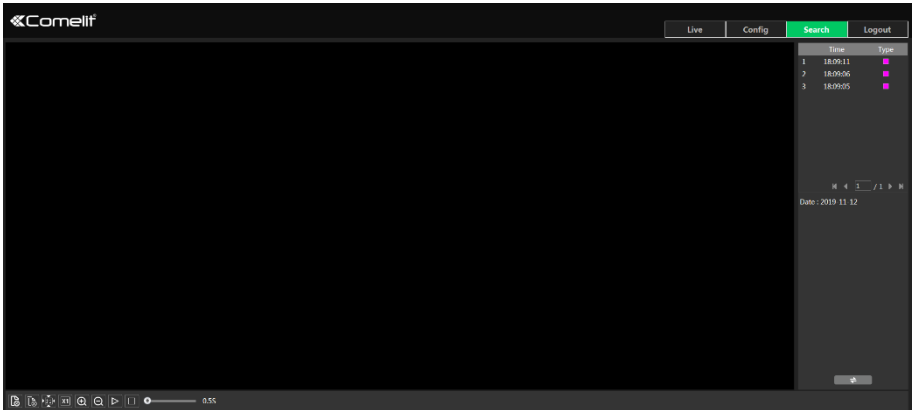
4.1 Image search

Click Search to go to the interface as shown below. The images saved on the micro-SD card can be found here.



● Local Image Search

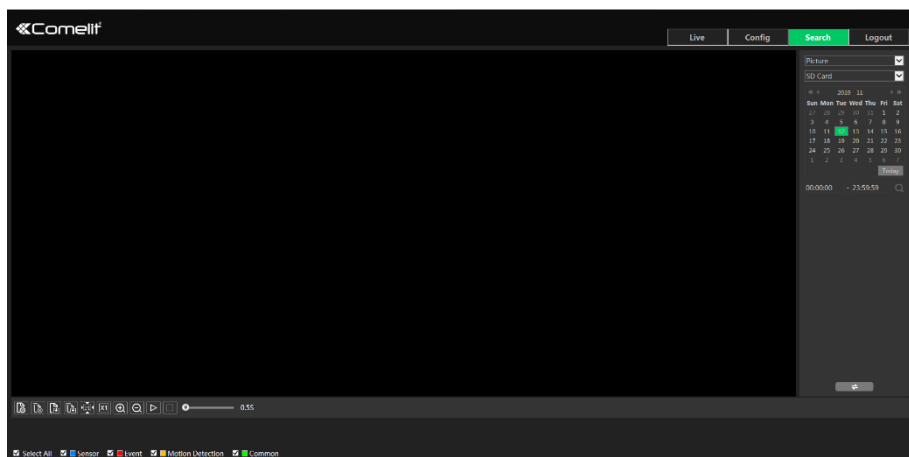
1. Choose “Picture”—“Local”.
2. Set time: select the date and choose the start and end time.
3. Click  to search the images.
4. Double click on the file name in the list to view the snapshots as shown above.



Click  to return to the previous interface.

● Micro-SD card image search

1. Choose “Picture”—“SD Card”.



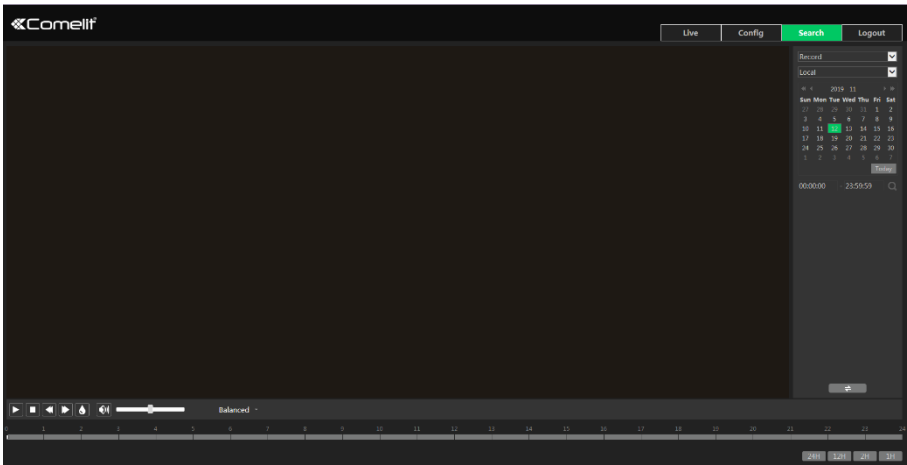
The descriptions of the buttons are shown as follows:

Icon	Description	Icon	Description
	Close: Select an image and click this button to close the image.		Close all: Click this button to close all images.
	Save: Click this button to select the path for saving the image on the PC		Save all: Click this button to select the path for saving all images on the PC.
	Fit size: Click to fit the image on the screen		Actual size: Click this button to display the actual size of the image.
	Zoom in: Click this button to digitally zoom in.		Zoom out: Click this button to digitally zoom out.
	Slide show play: Click this button to start slide show mode		Stop: Click this button to stop the slide show.
	Play speed: Play speed of the slide show.		

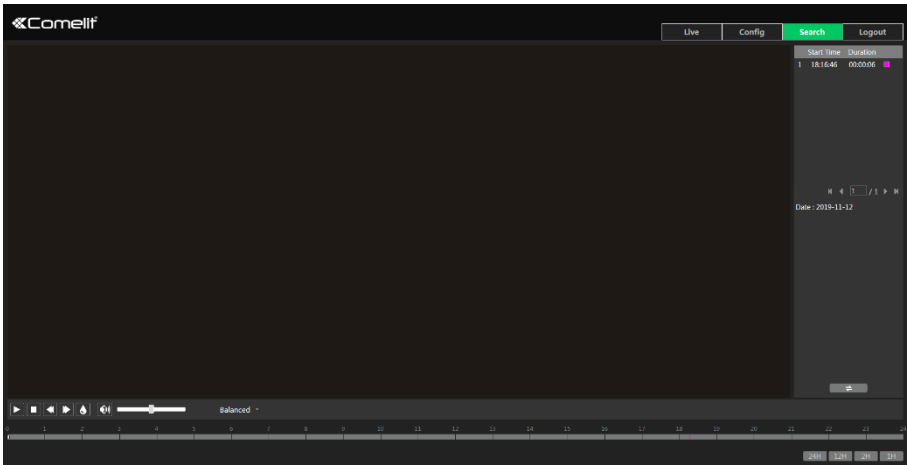
4.2 Video search

4.2.1 Local Video Search

Click Search to go to the interface as shown below. Videos were recorded locally to the PC can be played in this interface.



1. Choose “Record” —“Local”.
 2. Set search time: select the date and choose the start and end time.
 3. Click  to search the images.
- Double click on a file name in the list to start playback.



Icon	Description	Icon	Description
	Play button. After pausing the video, click this button to continue playing.		Pause button.
	Stop button.		Speed down.
	Speed up.		Click it to play the previous record.

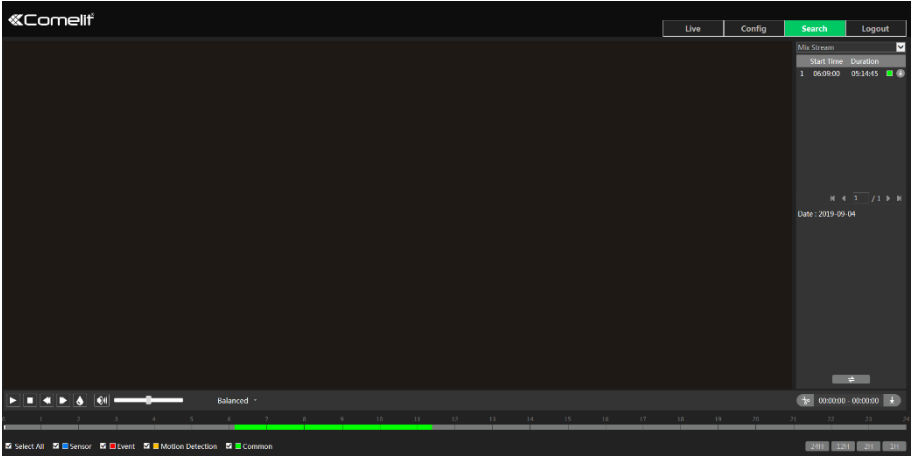
Icon	Description	Icon	Description
	Click it to play the next record.		Watermark display.
	Click it to enable / disable audio; drag the slider to adjust the volume after enabling audio.		Full screen. Click it to display full screen. Double click to exit full screen.

4.2.2 Micro-SD card video search

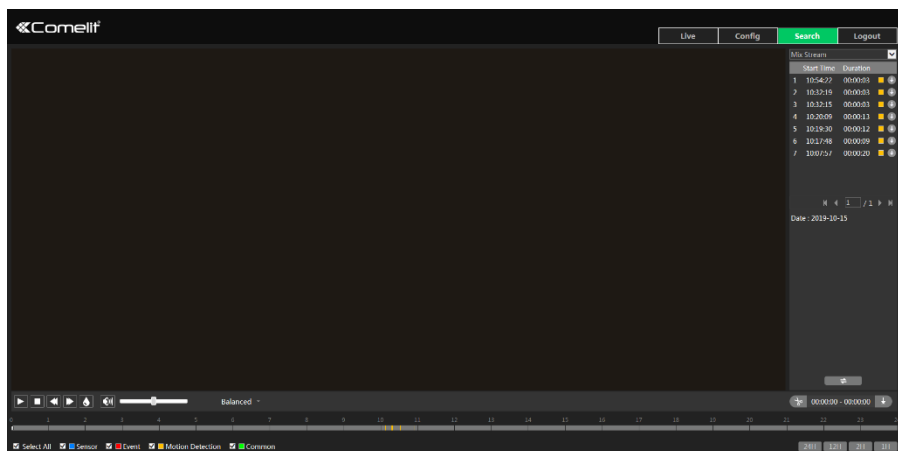
Click Search to go to the interface as shown below. Videos that were recorded on the micro-SD card can be played in this interface.

1. Choose “Record”—“SD Card”.
2. Set search time: select the date and choose the start and end time.

Click  to search the images.



3. 1. Select the alarm events at the bottom of the interface.
 4. Select mix stream (video and audio stream) or video stream as needed.
- Double click on a file name in the list to start playback.



The timetable can be shown in 24h/12h/2h/1h format by clicking the corresponding buttons.

Video clip and downloading operations:

1. Search the video files according to the above mentioned steps.
2. Select the start time by clicking on the timetable.
3. Click  to set the start time and then this button turns green ().
4. Select the end time by clicking on the timetable. Then click  to set the end time.
5. Click  to download the video file in the PC.

Index	Process	Record	Start Time	End Time	Path	Operate
1	100%	Cut	2019-10-15 11:28:55	2019-10-15 11:30:24	Desktop	Cancel

Set up C:\Users\Y...omellif\...Desktop
Clear List
Close

Click “Set up” to set the storage directory of the video files.

Click “Open” to play the video.

Click “Clear List” to clear the downloading list.

Click “Close” to close the downloading window

Appendix

Troubleshooting

Password forgot

A: Reset the device to the default factory settings.

Default IP: 192.168.1.150; Username: admin; Password: admin

Fail to connect devices through Internet Explorer browser.

A: Network is not well connected. Check the connection.

B: IP address is not available. Change the IP address.

C: Web port number has been changed: contact administrator to get the correct port number.

D: Exclude the above reasons. Restore to default setting by Comelit Advance IP Tool.

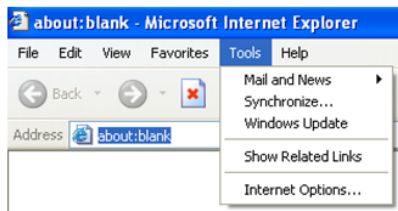
Comelit Advance IP tool cannot search devices.

The anti-virus software in your computer may cause it. Please stop it and try to search device again.

Internet Explorer cannot download ActiveX control.

A. Internet Explorer browser may be setup to block ActiveX. Follow the steps below.

① Open the browser and then click Tools → Internet Options.

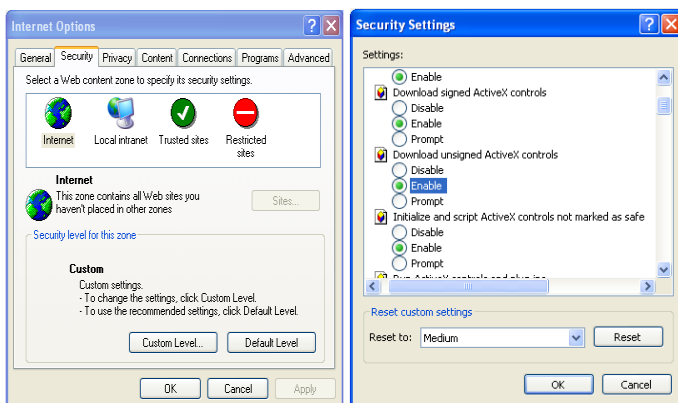


② Select Security → Custom Level....

③ Enable all the options under “ActiveX controls and plug-ins”.

④ Click OK to finish setup.

B. Other plug-ins or anti-virus blocks ActiveX. Please uninstall or close them.



No sound can be heard.

A: Audio input device is not connected. Please connect and try again.

B: Audio function is not enabled at the corresponding channel. Please enable this function.