EYEONET®

NETWORK CAMERA

User Manual

Please read this instruction carefully before operating the unit and keep it for further reference

■ This product is intended to be supplied by a Listed Power Unit, marked with 'Limited Power Source', 'LPS' on unit, output rated minimum 12V/2 A or POE 48V/ 350mA(depending on models), no more than 2000m altitude of operation and Tma=60 Deg.C.
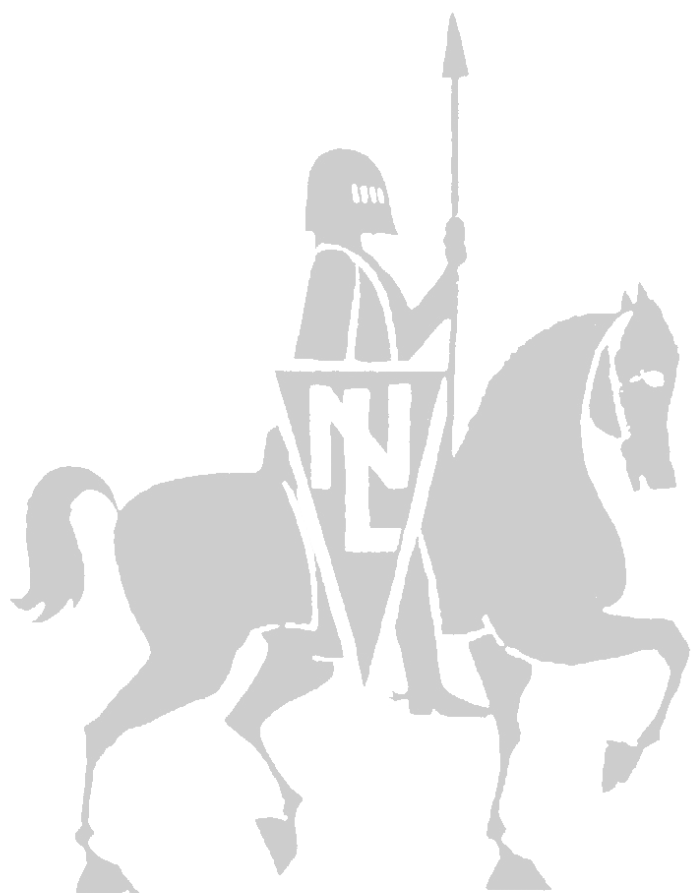
■ As for the modes with PoE function, the function of the ITE being investigated to IEC 60950-1 standard is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment and the ITE is to be connected only to PoE networks without routing to the outside plant.

■ 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 from 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 to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.

■ Avoid aiming the camera directly towards extremely bright objects, such as, sun, as this may damage the image sensor.

■ Please follow the instructions to install the camera. Do not reverse the camera, or the reversing image will be received.

■ Do not operate it in case temperature, humidity and power supply are beyond the limited stipulations.

■ Keep away from heat sources such as radiators, heat registers, stove, etc.

■ Do not expose the product to the direct airflow from an air conditioner.

■ This manual is for using and managing the product. We may reserve the rights of amending the typographical errors, inconsistencies with the latest version, 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.

■ This manual is suitable for IR water-proof network cameras.
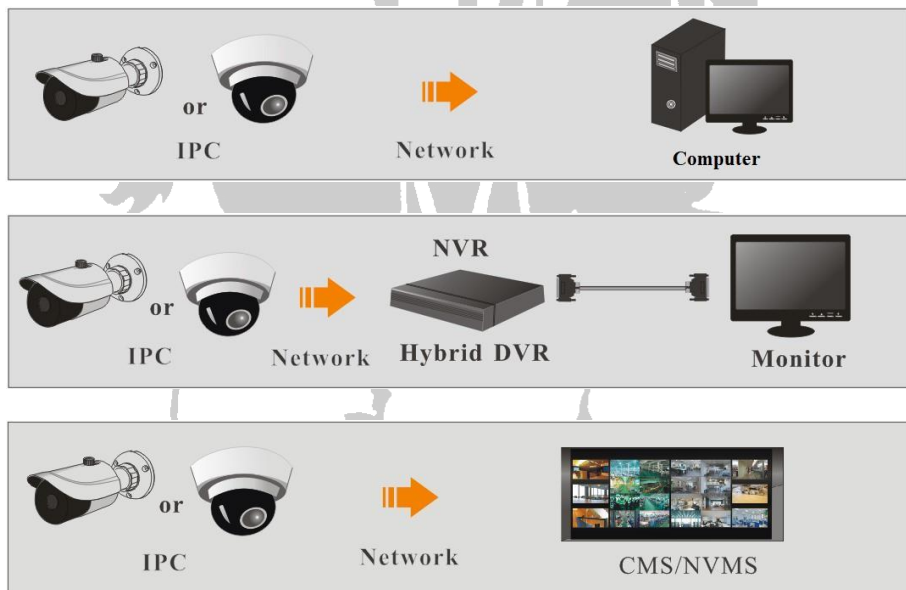
Table of Contents

This IP-CAMERA (short for IP-CAM) is designed for high performance CCTV solutions. It adopts state of the art video processing chips. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC, etc to ensure this system more stable and reliable.

This product is widely used in banks, telecommunication systems, electricity power departments, law systems, factories, storehouses, uptowns, etc. In addition, it is also an ideal choice for surveillance sites with middle or high risks.

Main Features
- ICR auto switch, true day/night
- 3D DNR, digital WDR
- ROI coding
- Support BLC, Defog, Anti-flicker
- Support smart phone, iPad, remote monitoring
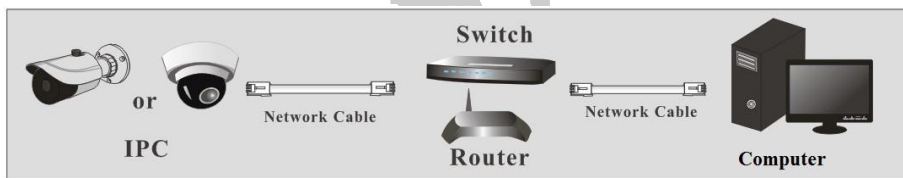
Surveillance Application

Connect IP-Cam via LAN or WAN. Here only take IE browser (6.0) for example. The details are as follows:
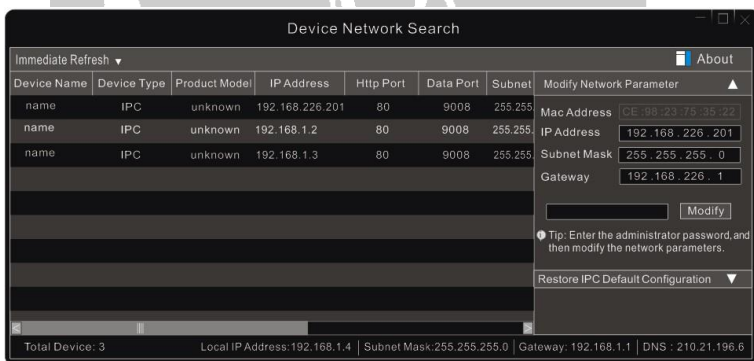
2.1 LAN

In LAN, there are two ways to access IP-Cam: 1. access through IP-Tool; 2. directly access through IE browser.

2.1.1 Access through IP-Tool
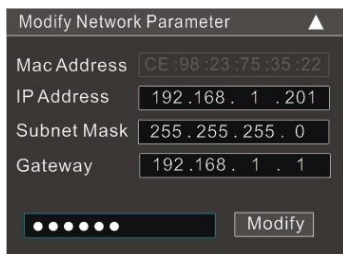
Network connection:

①   Make sure the PC and IP-Cam are connected to the local network and the IP-Tool is installed in the PC from the CD.

②   Double click the IP-Tool icon on the desktop to run this software as shown below:

③   Modify the IP address. The default IP address of this camera is 192.168.226.201. 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 its network address is in the same local network segment as the computer's. Please modify the IP address of your device according to the practical situation.

For example, the IP address of your computer is 192.168.1.4. So 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 "*123456*".

④   Double click the IP address and then the system will pop up the IE browser to connect IP-CAM. Follow directions to download, install and run the Active X control.

Enter the username and password in the login window to log in.

☞   The default username is "*admin*"; the default password is "*123456*".

2.1.2 Directly Access through IE

The default network settings are as shown below:
IP address: **192.168.226.201**
Subnet Mask: **255.255.255.0**
Gateway: **192.168.226.1**

HTTP: **80**
Data port: **9008**

Use the above default settings when logging in the camera for the first time. Directly connect
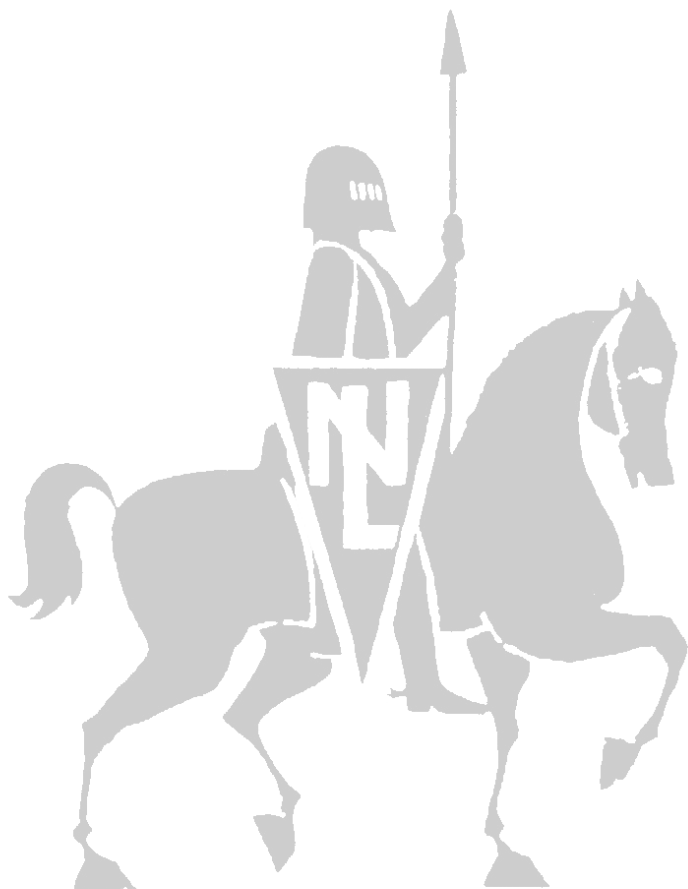
the camera to the computer through network cable.
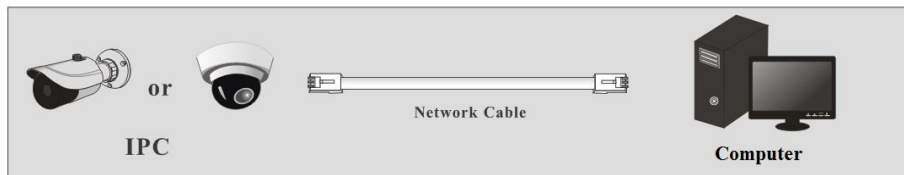
①   Manually set the IP address of the PC and the network segment should be as the same as the default settings of the IP camera. Open the network and share center. Click "Local Area Connection" to pop up the following window.
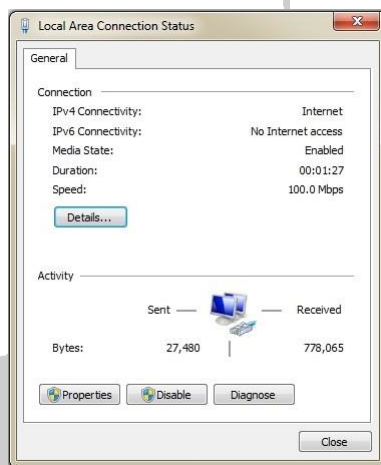
Select "Properties" and then select internet protocol according to the actual situation (for example: IPv4). Next, click the "Properties" button to set the network of the PC.
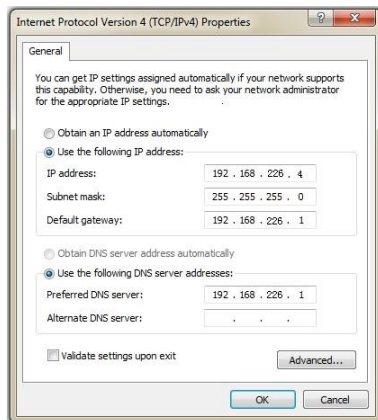
②   Open the IE browser and enter the default address of IP-CAM and confirm.

③   Follow directions to download and install the Active X control.

④   Enter the default username and password in the login window and then enter to view.

2.2 WAN

➢ **Access through the router or virtual server**
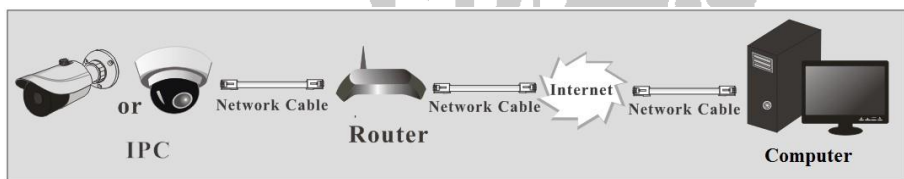
①   Make sure the camera is well connected via LAN and then log in the camera via LAN and go to Config→Network→Port menu to set the port number.

HTTP Port	80
Data Port	9008
RTSP Port	554
	Save

Port Setup

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

IP Setup

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

Router Setup

④　　Open the IE browser and enter its WAN IP and http port to access. (for example, if the http port is changed to 81, please enter "192.198.1.201:81" in the address bar of web browser to access).

➢ **Access through PPPoE dial-up**

Network connection
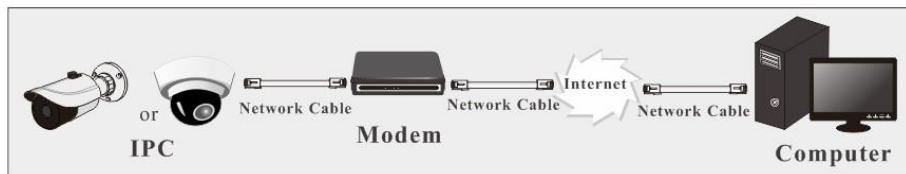
Access the camera through PPPoE auto dial-up. The setting steps are as follow: ①
Go to Config→Network→Port menu to set the port number.

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.

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
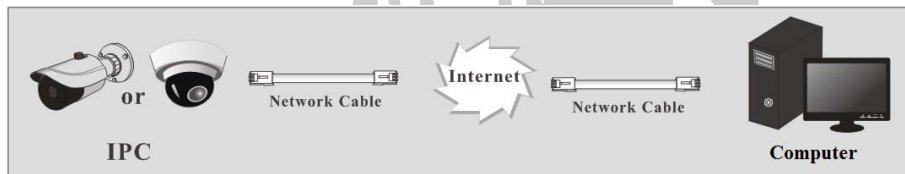
The setting steps are as follow:
① Go to Config→Network→Port menu to set the port number.
② Go to Config →Network→TCP/IP menu to set the IP address. Check "Use the following IP address" and then enter the static IP address and other parameters.
③ Open the IE browser and enter its WAN IP and http port to access.
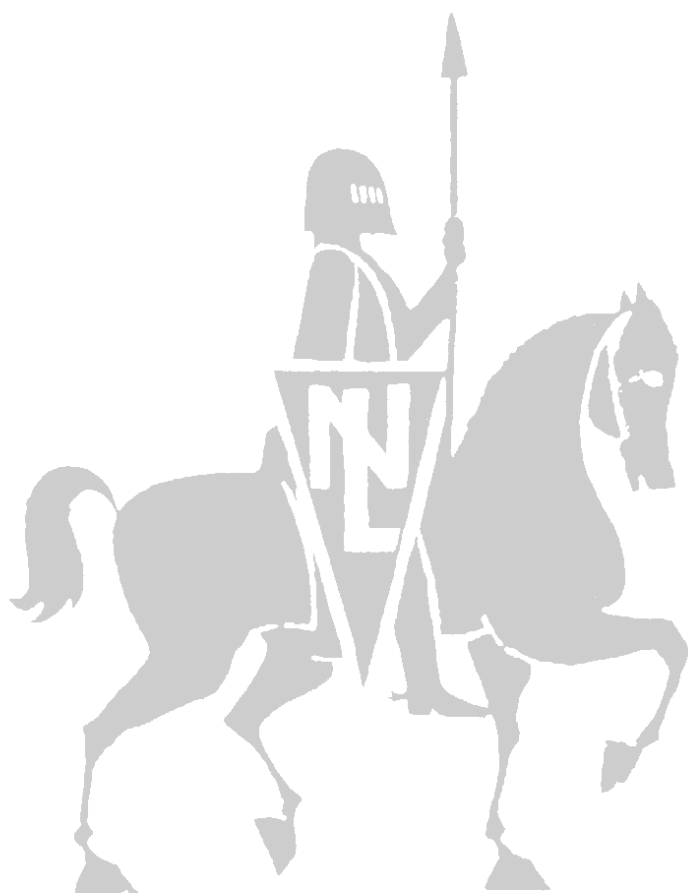
After logging in, the following window will be shown.
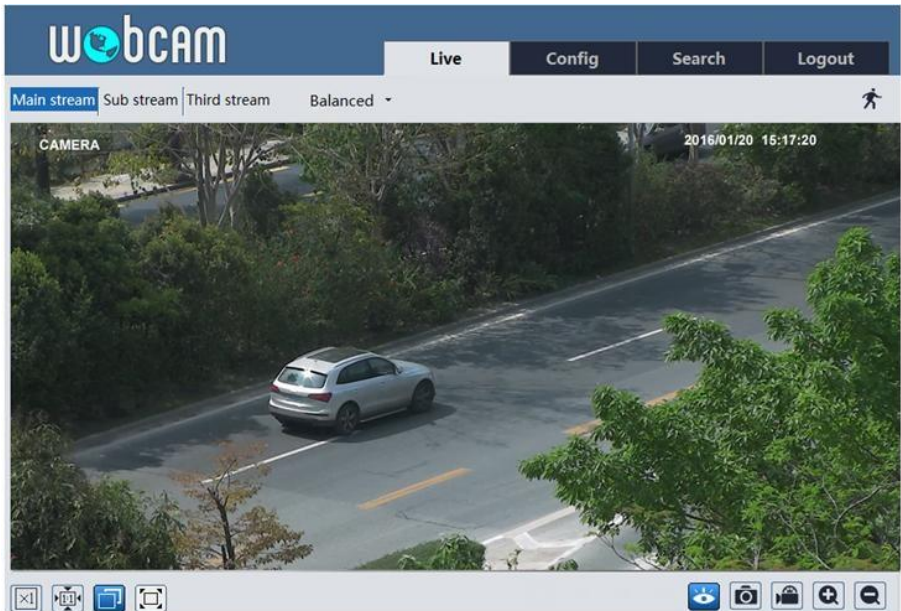
The following table is the instructions of the icons on the live view interface.

Icon	Description	Icon	Description
×1	Original size	📷	Snapshot
1·1	Fit correct scale	📠	Start/stop local recording
▯	Auto (fill the window)	⊕	Zoom in
▢	Full screen	⊖	Zoom out
👁	Start/stop live view	🏃	Motion alarm indicator
✦	AZ control (only available for the model with motorized zoom lens)		

● In full screen mode, double click on the mouse to exit or press the ESC key on the keyboard. Click AZ control button to show AZ control panel. The descriptions of the control panel are as follows:

Icon	Description	Icon	Description
	Zoom -		Zoom +
	Focus -		Focus +
	One key focus (used when image is out of focus after manual adjustment		
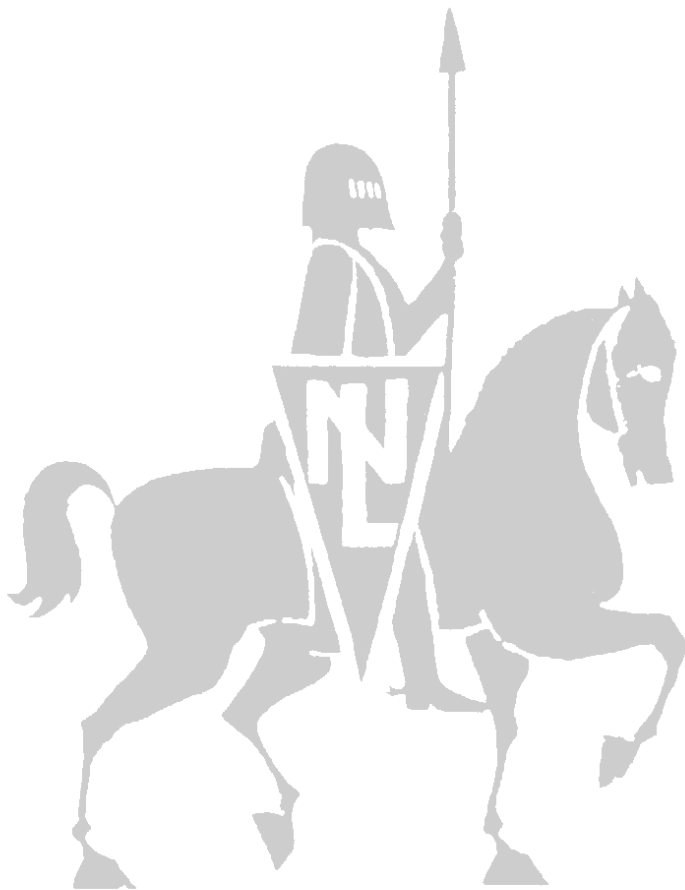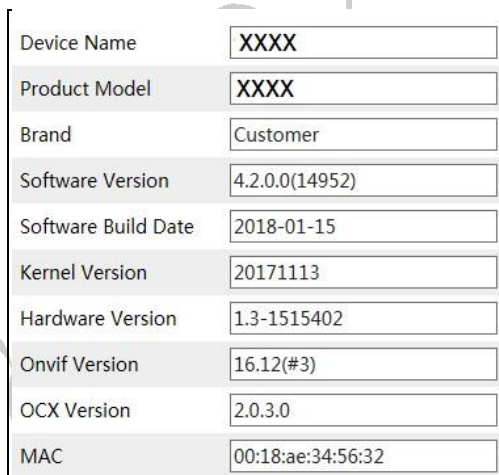
In the Webcam client, choose "Config" to go to the configuration interface. **Note**: Wherever applicable, click the "Save" button to save the settings.

4.1 System Configuration

4.1.1 Basic Information

In the "Basic Information" interface, the system information of the device is listed.
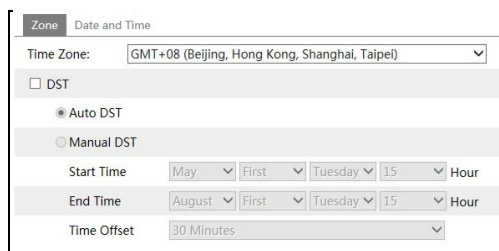
Device Name	XXXX
Product Model	XXXX
Brand	Customer
Software Version	4.2.0.0(14952)
Software Build Date	2018-01-15
Kernel Version	20171113
Hardware Version	1.3-1515402
Onvif Version	16.12(#3)
OCX Version	2.0.3.0
MAC	00:18:ae:34:56:32

Some versions may support QR code. Having enabled P2P (see Network Configuration-P2P), the network camera can be quickly accessed to mobile surveillance client by scanning the QR code. （**Only some customized versions support this function**.）

4.1.2 Date and Time

Go to Config→System→Date and Time. Please refer to the following interface.
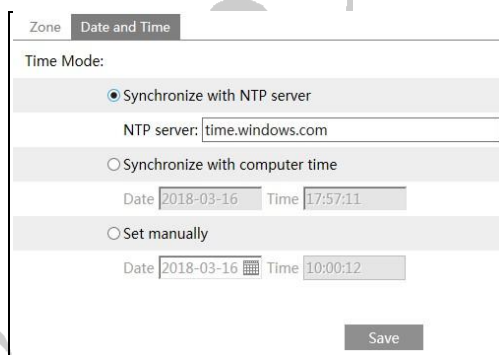
Select the time zone and DST as desired.

Click the "Date and Time" tab to set the time mode.

4.1.3 Local Config

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.
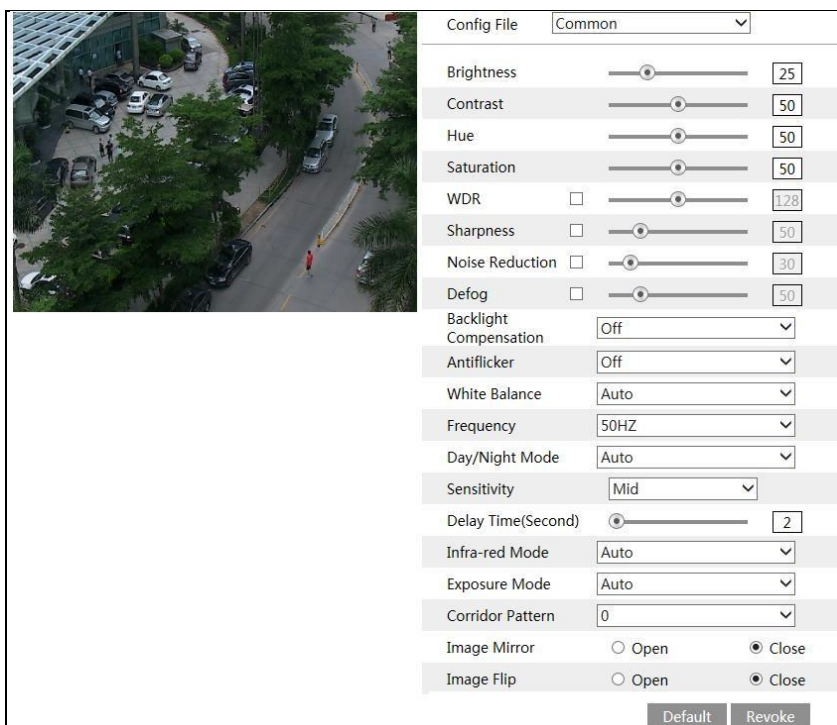
4.2 Image Configuration

Image Configuration includes Display, Video/Audio, OSD, Video Mask and ROI Config.

4.2.1 Display Configuration

Go to Image→Display interface as shown below. The image's brightness, contrast, hue and saturation and so on for common, day and night mode can be set up separately. The image effect can be quickly seen by switching the configuration file.
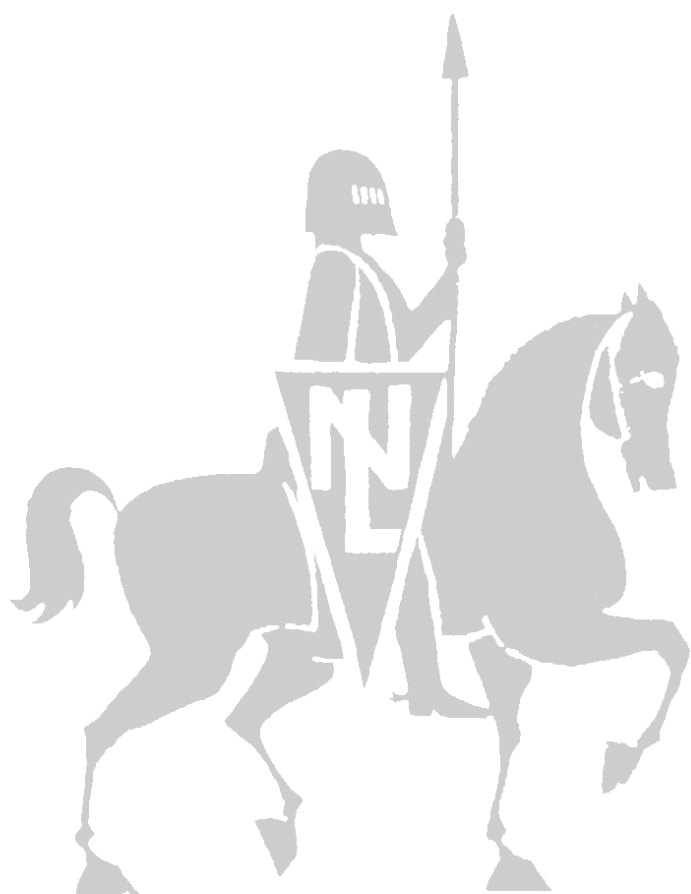
Brightness: Set the brightness level of the camera's image.

Contrast: Set the color difference between the brightest and darkest parts.

Hue: Set the total color degree of the image.

Saturation: Set the degree of color purity. The purer the color is, the brighter the image is.

WDR: WDR can adjust the camera 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.

Sharpness: Set the resolution level of the image plane and the sharpness level of the image edge.

Noise Reduction: Decrease the noise and make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution. **Defog:** Activating this function and setting an appropriate value as needed in foggy, dusty, smoggy or rainy environment to get clear images.

Backlight Compensation:

● Off: disables the backlight compensation function. It is the default 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 mostly 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 and 60Hz can be optional.

Day/night Mode: Please choose the mode as needed.

Sensitivity: High, middle and low can be selected for switching back and forth from day to night modes.

Infrared Mode: Choose "ON", "OFF" and "Auto" (**Some models may not support the infrared mode**).

Exposure Mode: Choose "Auto" or "Manual". If manual is chosen, the digital shutter speed can be adjusted.

Corridor Pattern: Corridor viewing modes can be used for situations such as long hallways. 0, 90, 180 and 270 are available. The default value is 0. The video resolution should be 1080P or below if this function is used.

Image Mirror: Turn the current video image horizontally. **Image Flip**: Turn the current video image vertically.

Schedule Settings of Image Parameters:

Click the "Schedule" tab as shown below.
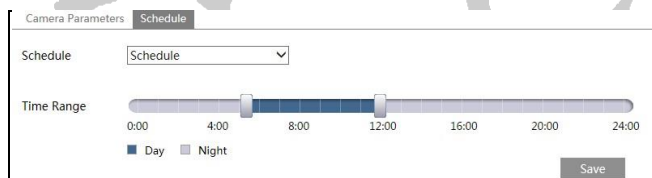
Set full time schedule for common, day, night mode and specified time schedule for day and night. Choose "Schedule" in the drop-down box of schedule as shown below.

Drag " " icons to set the time of day and night. Blue means day time and blank means night time. If the current mode of camera parameters is set to schedule, the image configuration mode will automatically switch between day and night according to the schedule.

4.2.2 Video Configuration

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

Index	Stream	Resolution	Frame	Bitrate Type	Bitrate(Kbps)	Video	I Frame	Video	Profile
1	Main stream	2592x1944 ∨	20	CBR ∨	6144 ∨	Highest ∨	80	H264 ∨	High Profile ∨
2	Sub stream	704x576 ∨	25	CBR ∨	768 ∨	Highest ∨	100	H264 ∨	High Profile ∨
3	Third stream	352x288 ∨	25	CBR ∨	512 ∨	Higher ∨	100	H264 ∨	High Profile ∨

Send Snapshot 2 ∨ Size: (704x576)
☐ Video encode slice split
☐ Watermark   Watermark content: [_____]

Three video streams can be adjustable.

Resolution: The size of image.

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

Bitrate type: CBR and VBR are optional. Bitrate is related to image quality. CBR means that no matter how much change is seen in the video scene, the compression bitrate will be kept constant. VBR means that the compression bitrate will be adjusted according to scene changes. For example, for scenes that do not have much movement, the bitrate will be kept at a lower value. This can help optimize the network width usage.

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, the 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 and H265 are optional. 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: How many snapshots to generate for an event.

Video encode slice split: If this function is enabled, more fluent 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.

4.2.3 OSD Configuration

Go to Image→OSD interface as shown below.

Set time stamp, device name, OSD content and picture overlap here. After enabling the corresponding display and entering the content, drag them to change their position. Then click the "Save" button to save the settings.

Picture Overlap Settings:

Check "OSD Content1", choose "Picture Overlay" and click the "Browse" to select the overlap picture. Then click "Upload" to upload the overlap picture. The pixel of the image shall not exceed 200*200, or it cannot be uploaded.

4.2.4 Video Mask

Go to Image→Video Mask interface as shown below. A maximum of 4 zones can be set up.
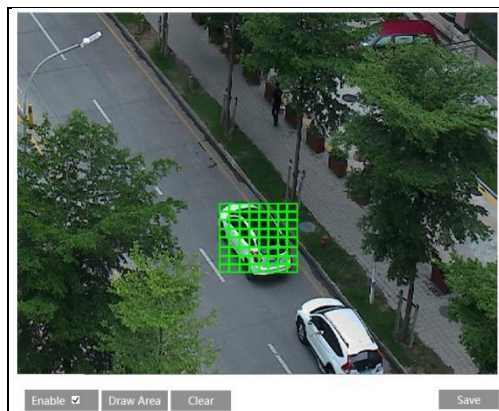
To set up video mask:

1. Enable video mask.
2. Click the "Draw Area" button and then drag the mouse to draw the video mask area.
3. Click the "Save" button to save the settings.
4. Return to the live to verify that the area have been drawn as shown as blocked out in the image.
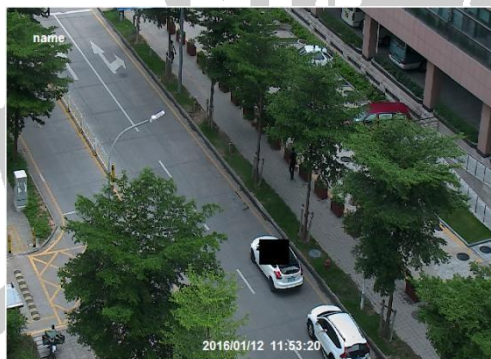
To clear the video mask:

Click the "Clear" button to delete the current video mask area.

4.2.5 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 then have a higher bitrate than the rest of the image, resulting in better image quality for the identified area.
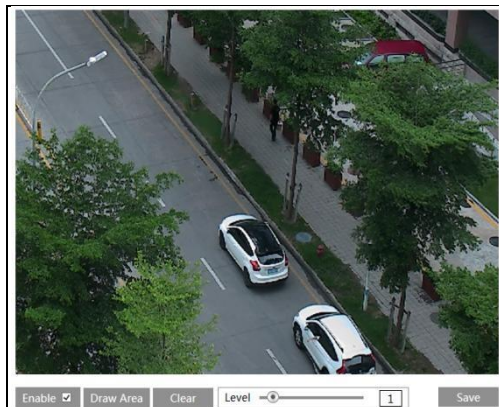
1. Check "Enable" and then click the "Draw Area" button.
2. Drag the mouse to set the ROI area.
3. Set the level.
4. Click the "Save" button to save the settings.
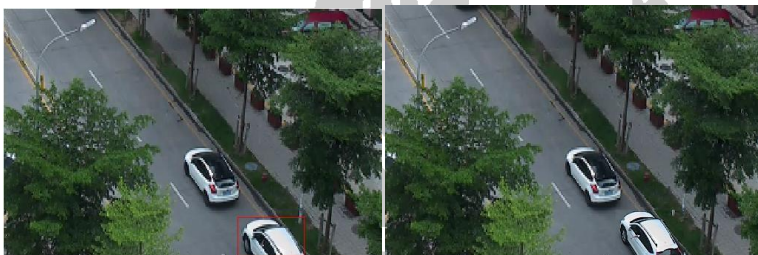
4.2.6 Lens Control

This function is only available for the model with motorized zoom lens. Within this section, zoom and focus can be controlled. If the image is out of focus after a manual adjustment, one key focus can be used to set the focus automatically.
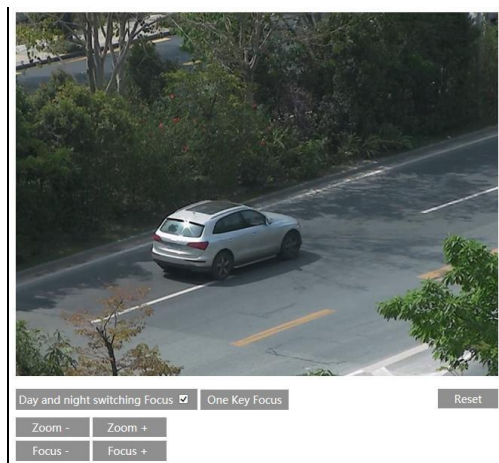
4.3 Alarm Configuration

4.3.1 Motion Detection

Go to Alarm→Motion Detection to set motion detection alarm.
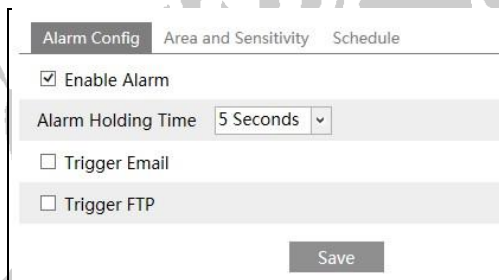
1.   Check "Enable Alarm" check box to activate motion based alarms. If unchecked, the camera will not send out any signals to trigger motion-based recording to the NVR or CMS, even if there is motion in the video.

Trigger Email: If "Trigger Email" and "Attach Picture" checkbox are checked (email address shall be set first in the Email configuration interface), the captured pictures and triggered event will be sent into those addresses.

Trigger FTP: If "Trigger FTP" and "Attach Picture" checkbox 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.
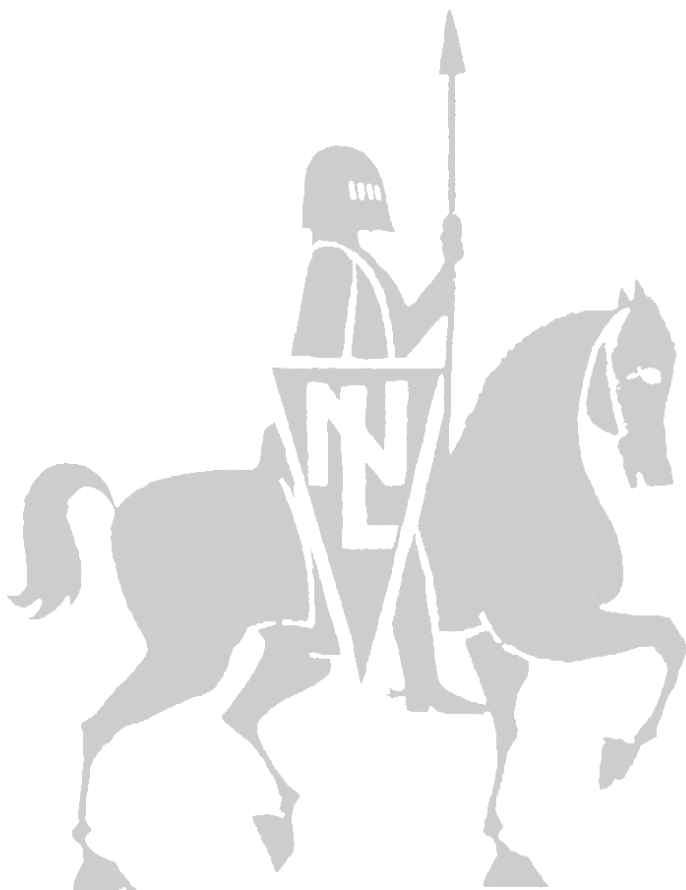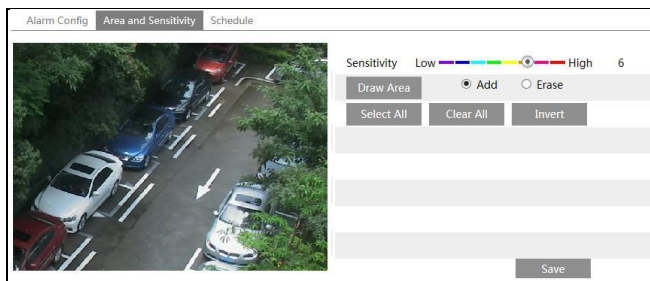
Move the "Sensitivity" scroll bar to set the sensitivity. Higher sensitivity value means that motion will be triggered more easily.

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

After that, click "Save" to save the settings.

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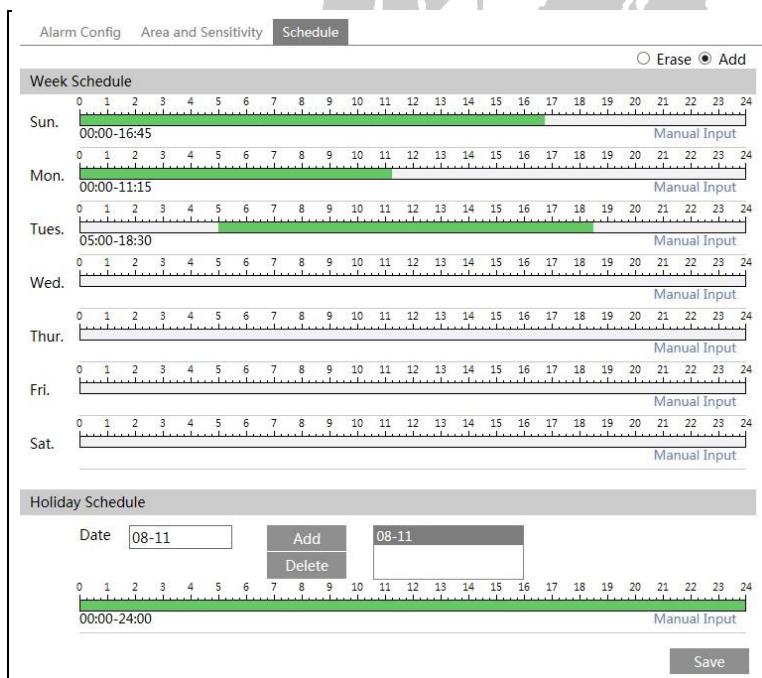
Weekly schedule

Set the alarm time from Monday to Sunday for a single week. Each day is divided in one hour increments. Green means scheduled. Blank means unscheduled. Note that if a specific time period is not scheduled for motion, the camera will not generate a motion alarm even if motion is enabled.

"Add": Add the schedule for a special day. Drag the mouse to set the time on the timeline.

"Erase": Delete the schedule. Drag the mouse to erase the time on the timeline.

Manual Input: Click it for a specific day to enter specific start and end times. This adds more granularities (minutes).

Day schedule
Set the alarm time for alarm a special day, such as a holiday.
Note: Holiday schedule takes priority over Weekly schedule.

4.3.2 Alarm Server

Go to Alarm→Alarm Server interface as shown below.

Enter the server address and port. When an alarm occurs, the camera will transfer the alarm event to the alarm server. If an alarm server is not needed, there is no need to configure this section.

4.4 Event Configuration (Optional)

(Only some customized version may support the following functions).

For more accuracy, here are some recommendations for installation.
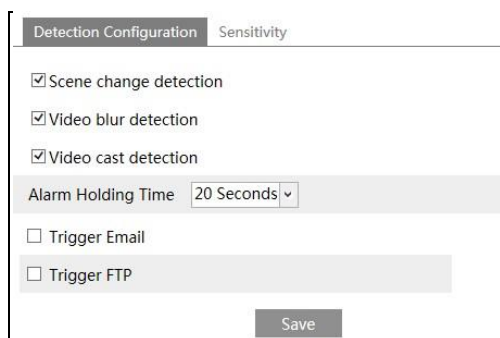
● Cameras should be installed on stable surfaces, as vibrations can affect the accuracy of detection.

● Avoid pointing the camera at the reflective surfaces (like shiny floors, mirrors, glass, lake surfaces and so on).

● Avoid places that are narrow or have too much shadowing.

● Avoid scenario where the object's color is similar to the background color.

● At any time of day or night, please make sure the image of the camera is clear and with adequate and even light, avoiding overexposure or too much darkness on both sides.

4.4.1 Exception

This function can detect changes in the surveillance environment affected by the external factors.

To set exception detection:

Go to Config→Event→Exception interface as shown below.

1. Enable the applicable detection that's desired.

Scene Change Detection: Alarms will be triggered if the scene of the monitor video has changed.
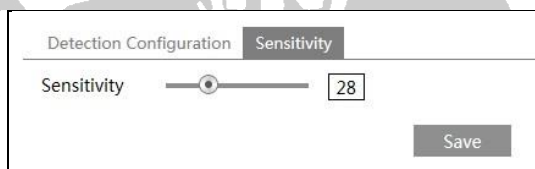
Video Blur Detection: Alarms will be triggered if the video becomes blurry.

Video Cast Detection: Alarms will be triggered if the video becomes obscured.

2. Set the alarm holding time and 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 sensitivity of the exception detection. Click "Sensitivity" tab to go to the interface as shown below.

Drag the slider to set the sensitivity value or directly enter the sensitivity value in the textbox.

Click "Save" button to save the settings.

The sensitivity value of Scene Change Detection: The higher the value is, the more sensitive the system responds to the amplitude of the scene change.

The sensitivity value of Video Blur Detection: The higher the value is, the more sensitive the system responds to the blurriness of the image.

The sensitivity value of Video Cast Detection: The higher the value is, the more sensitive the system responds to the obscuring of the image.

※**The requirements of camera and surrounding area**

1. Auto-focusing function should not been enabled for exception detection.

2. Try not to enable exception detection when light changes greatly in the scene.

3. Please contact us for more detailed application scenarios.

4.4.2 Line Crossing

Line Crossing: Alarms will be triggered if someone or something crosses the pre-defined alarm lines. It can replace the electronic fence, warning line of flood prevention, etc. Go to Config→Event→Line Crossing interface as shown below.

1. Enable line crossing alarm and set the alarm holding time.
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 area and sensitivity of the line crossing alarm. Click the "Area and Sensitivity" tab to go to the interface as shown below.

Set the cordon number and direction. Up to 4 lines can be added. Multiple lines cannot be added simultaneously.

Direction：A<->B, A->B and A<-B optional. This indicates the direction of the intruder who crosses over the alarm line that would trigger the alarm.

A<->B: The alarm will be triggered when the intruder crosses over the alarm line from B to A or from A to B.

A->B: The alarm will be triggered when the intruder crosses over the alarm line from A to B.

A<-B: The alarm will be triggered when the intruder crosses over the alarm line from B to A.
Click the "Draw" button and then drag the mouse to draw a cordon in the image. Click the
"Stop" button to stop drawing. Click the "Clear" button to delete the cordons. Click the "Save"
button to save the settings.

5. Set the schedule of the line crossing alarm. The setup steps of the schedule are the same as
the motion detection schedule setup.

※**Configuration of camera and surrounding area**

1. Auto-focusing function should not be enabled for line crossing detection.
2. Avoid the scenes with many trees or the scenes with various light changes (like many flashing
   headlights). The ambient brightness of the scenes shouldn't be too low.
3. Cameras should be mounted at a height of 2.8 meters or above.
4. Keep the mounting angle of the camera at about 45°.
5. The detected objects should not be less than 1% of the entire image and the largest sizes of
   the detected objects should not be more than 1/8 of the entire image.
6. Make sure cameras can view objects for at least 2 seconds in the detected area for accurate
   detection.
7. Adequate light and clear scenery are crucial for line crossing detection.
8. Please contact us for more detailed application scenarios.

Here we take some improper application scenarios for instance.
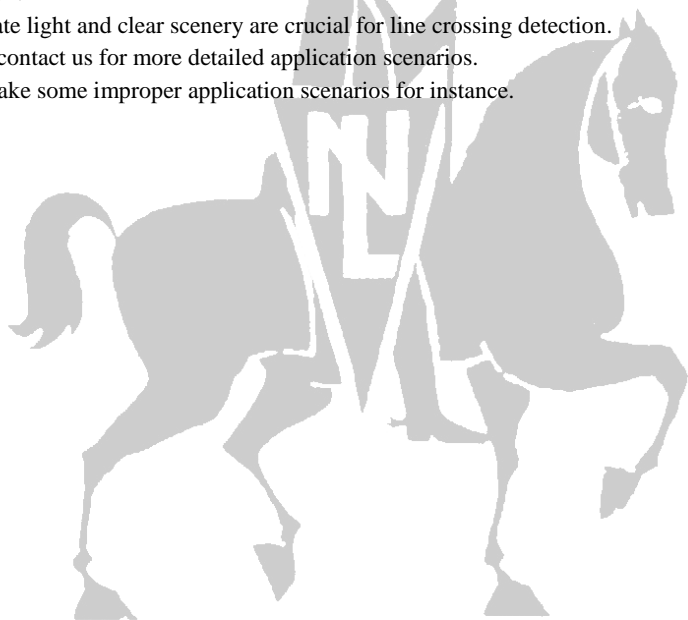
There are so many trees near the road and cars running on the road, which make the scene too complex to detect the crossing objects.

The ground is covered with vegetation; at the right of the fence is a gym where people pass by frequently. The above mentioned environment is too complex to detect the crossing objects.

4.4.3 Intrusion

Intrusion: Alarms will be triggered if someone or something intrudes into the pre-defined areas.

This function can be applicable to important supervision places, danger areas and prohibited areas, like military administrative zones, house breaking, scenic high danger areas, no man's areas, etc.

Go to Config→Event→Intrusion interface as shown below.

1. Enable region intrusion detection alarm and set the alarm holding time.
2. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.
3. Click the "Save" button to save the settings.

4. Set the alarm area of the intrusion detection. Click the "Area" tab to go to the interface as shown below.
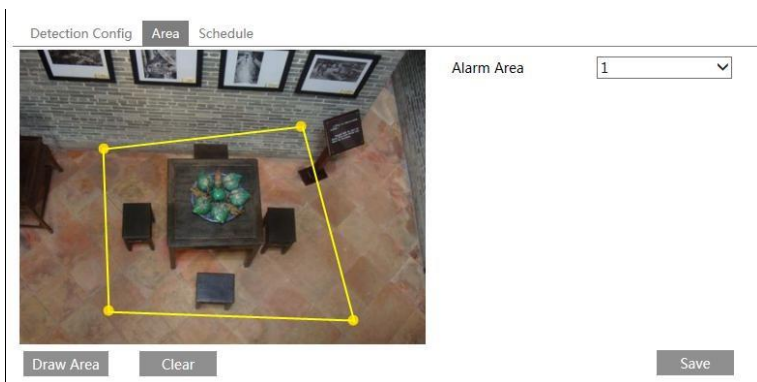
Set the alarm area number on the right side. Up to 4 alarm areas can be added.

Click the "Draw Area" button and then click around the area where you want to set as the alarm area in the image on the left side (the alarm area should be a closed area). Click the

"Stop Draw" button to stop drawing. Click the "Clear" button to delete the alarm area. Click the "Save" button to save the settings.

5. Set the schedule of the intrusion detection. The setup steps of the schedule are the same as the motion detection schedule setup.

※**Configuration requirements of camera and surrounding area**

1. Auto-focusing function should not be enabled for intrusion detection.

2. Avoid the scenes with many trees or the scenes with various light changes (like many flashing headlights). The ambient brightness of the scenes shouldn't be too low.

3. Cameras should be mounted at a height of 2.8 meters or above.

4. Keep the mounting angle of the camera at about 45°.

5. The detected objects should not be less than 1% of the entire image and the largest sizes of the detected objects should not be more than 1/8 of the entire image.

6. Make sure cameras can view objects for at least 2 seconds in the detected area for accurate detection.

7. Adequate light and clear scenery are crucial to line crossing detection.

8. Please contact us for more detailed application scenarios.

Here we take some improper application scenarios for instance.

The camera's angle of depression is not wide enough; there are so many trees in the scene. The above mentioned environment is too complex to detect the intrusion.

The camera's angle of depression is not wide enough; the street lamps at night lead to light interference; the swaying trees in a windy day lead to random interference. All the above mentioned factors make the scene improper for intrusion detection.

4.5 Network Configuration
4.5.1 TCP/IP
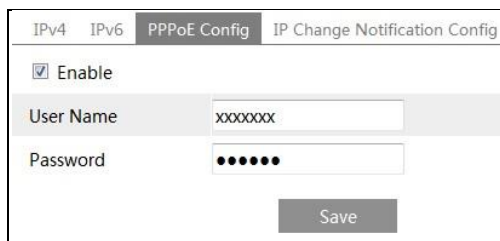
Go to Config→Network→TCP/IP interface as shown below. There are two ways for network connection.

Use IP address (take IPv4 for example)-There are two options for IP setup: obtain an IP address automatically by DHCP protocol and use the following IP address. Please choose one of the options as needed.

Test: Test the effectiveness of the IP address by clicking this 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.

Either method 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.

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

4.5.2 Port

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

HTTP Port: The default HTTP port is 80. It can be changed to any port which is not occupied.

Data Port: The default data port is 9008. Please change it as required. **RTSP Port**: The default port is 554. Please change it as required.

4.5.3 Server Configuration

This function is mainly used for connecting network video management system.
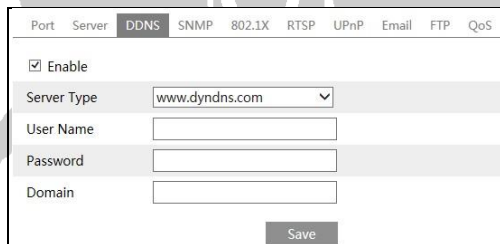
1. Check "Enable".
2. Check the IP address and port of the transfer media server in the ECMS/NVMS. Then enable the auto report in the ECMS/NVMS when adding a new device. Next, enter the remaining information of the device in the ECMS/NVMS. After that, the system will automatically allot a device ID. Please check it in the ECMS/NVMS.   3. Enter the above-mentioned server address, server port and device ID in the corresponding boxes. Click the "Save" button to save the settings.

4.5.4 DDNS

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

2. Apply for a domain name. Take www.dvrdyndns.com for example.
Enter www.dvrdydns.com in the IE address bar to visit its website. Then click the "Registration" button.

Create domain name.

After the domain name is successfully applied for, the domain name will be listed as below.

3. Enter the username, password, domain you apply for in the DDNS configuration interface.

4. Click the "Save" button to save the settings.

4.5.5 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.
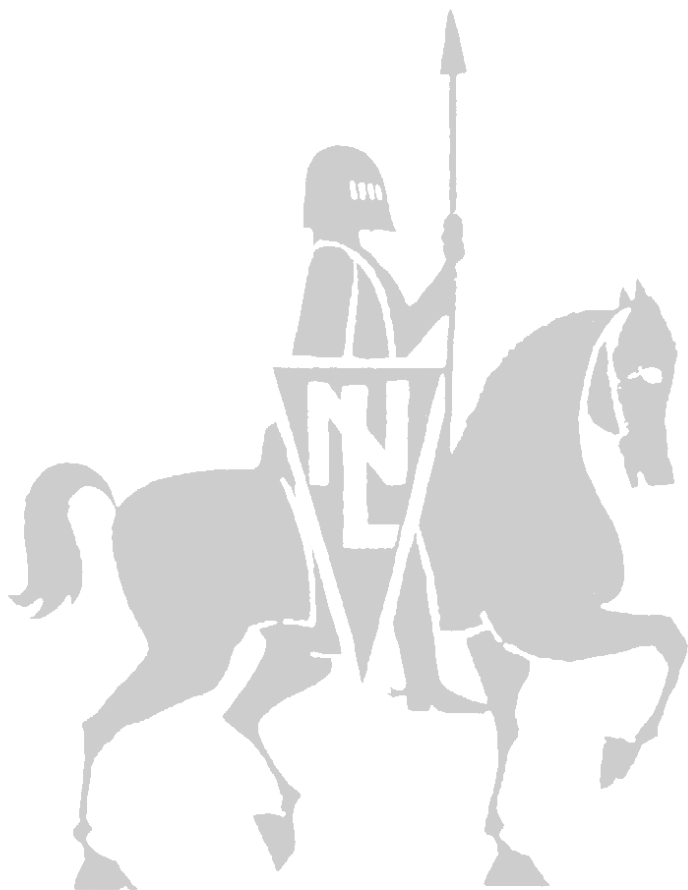
SNMP v1/v2	
☐ Enable SNMPv1	
☐ Enable SNMPv2	
Read SNMP Community	
Write SNMP Community	
Trap Address	. . .
Trap Port	0
Trap community	

SNMP v3	
☐ Enable SNMPv3	
Read User Name	
Security Level	auth, priv
Authentication Algorithm	⊙ MD5 ○ SHA
Authentication Password	
Private-key Algorithm	⊙ DES ○ AES
Private-key Algorithm	
Write User Name	
Security Level	auth, priv
Authentication Algorithm	⊙ MD5 ○ SHA
Authentication Password	
Private-key Algorithm	⊙ DES ○ AES
Private-key Algorithm	

Other Settings	
SNMP Port	0

4.5.6 802.1x

IEEE802.X which is an access control protocol manages the device in connection with the local network by authentication. The setting steps are as follows:

☑ Enable	
Protocol Type	EAP_MD5
EAPOL Version	1
User Name	test
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.

User name and password: The user name and password must be the same with the user name and password applied for and registered in the authentication server.

The structure of 802.1x
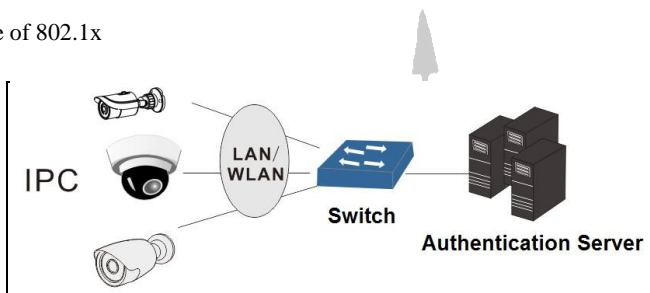
① The network camera initiates the authentication of 802.1x protocol via web client and then the authentication is received by the switch supporting 802.1x protocol.

② The switch provides the camera with a physical or logic local network interface and verifies the camera.

③ Authentication server provides the entity of authentication service for the switch, stored the relative information of web client, realizing the authentication of web client. Please refer to the user manual of the connected switch for more details.

4.5.7 RTSP
Go to Config→Network→RTSP.

Select "Enable" to enable the RTSP function.

Port: Access port of the streaming media. The default number is 554.

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

Multicast Address

Main stream: The address format is

 "rtsp://IP address: rtsp port/profile1?transportmode=mcast". **Sub stream**: The address format is

 "rtsp://IP address: rtsp port/profile2?transportmode=mcast". **Third stream**: The address format is

 "rtsp://IP address: rtsp port/profile3?transportmode=mcast".

If "auto start" is enabled, the multicast received data should be added into a VLC player to play the video.
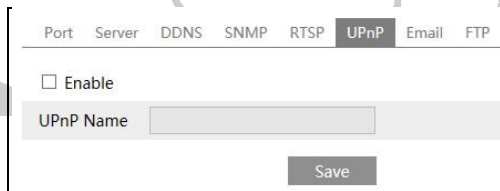
If "Allow anonymous login…" is checked, there is no need to enter the username and password to view the video.

Note: 1. This camera support local play through a VLC player. Enter the RTSP address (unicast or multicast, eg. rtsp://192.168.226.201:554/profile1?transportmode=mcast) in a VLC player to realize the simultaneous play with the web client.

2. The IP address mentioned above cannot be the address of IPV6.

3. Avoid the use of the same multicast address in the same local network.

4. When playing the video through the multicast streams in a VLC player, please pay attention to the mode of the VLC player. If it is set to TCP mode, the video cannot be played.

5. If the coding format of the video of the main stream is MJPEG, the video may be disordered at some resolutions.

4.5.8 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.

4.5.9 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.

User name and password: sender's user name and password. **Server Address**: The SMTP IP address or host name.

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

SMTP Port: The SMTP port.

Send Interval(S): The 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.

4.5.10 FTP

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

Server Name: The name of the FTP server.

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

Upload Path: The directory where files will be uploaded to.

Port: The port of the FTP server.

Use Name and Password: The username and password that are used to login to the FTP server.

4.5.11 P2P (Optional)

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

4.5.12 QoS

QoS (Quality of Service) function is used to provide different quality of services for different network applications. With the deficient 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: 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.

Generally speaking, the larger the number is, the higher the priority is.

4.6 Security Configuration
4.6.1 User Configuration

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

Add user:

1. Click the "Add" button to pop up the following textbox.

2. Enter user name in "User Name" textbox.

3. Enter letters or numbers in "Password" and "Confirm Password" textbox.

4. Choose the use 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, 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 newly 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.

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.

4.6.2 Online User

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

An administrator user can kick out all the other users (including other administrators).

4.6.3 Block and Allow Lists

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

The setup steps are as follows:

Check the "Enable address filtering" check box.

Select "Block/Allow the following address", IPv4/IPv6/MAC and then enter IP address or MAC address in the address box and click the "Add" button.

4.7 Maintenance Configuration
4.7.1 Backup and Restore
Go to Config→Maintenance→Backup & Restore.

● **Import & Export Settings**

Configuration settings of the camera can be exported form 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.

4.7.2 Reboot

Go to Config→Maintenance→Reboot.
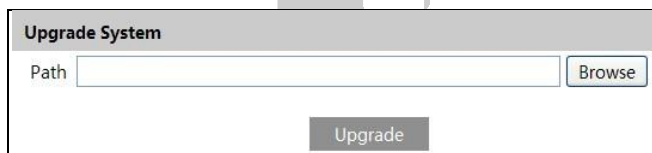
Click the "Reboot" button to reboot the device. **Timed Reboot Setting:**

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.

4.7.3 Upgrade

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

Upgrade System

Path		Browse
	Upgrade	
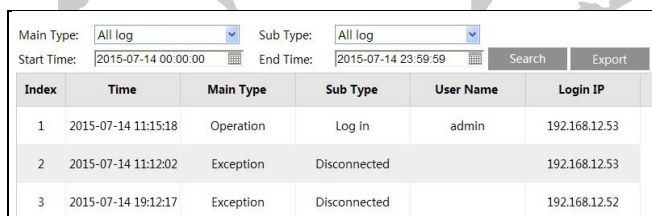
1. Click the "Browse" button to select the save path of the upgrade file
2. Click the "Upgrade" button to start upgrading the firmware.
3. The device will restart automatically

Caution! Do not close the browser or disconnect the camera from the network during the upgrade.

4.7.4 Operation Log

To query and export log:
1. Go to Config→Maintenance→Operation Log.

Main Type:	All log		Sub Type:	All log			
Start Time:	2015-07-14 00:00:00		End Time:	2015-07-14 23:59:59		Search	Export
Index	Time	Main Type	Sub Type		User Name	Login IP	
1	2015-07-14 11:15:18	Operation	Log in		admin	192.168.12.53	
2	2015-07-14 11:12:02	Exception	Disconnected			192.168.12.53	
3	2015-07-14 19:12:17	Exception	Disconnected			192.168.12.52	

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.
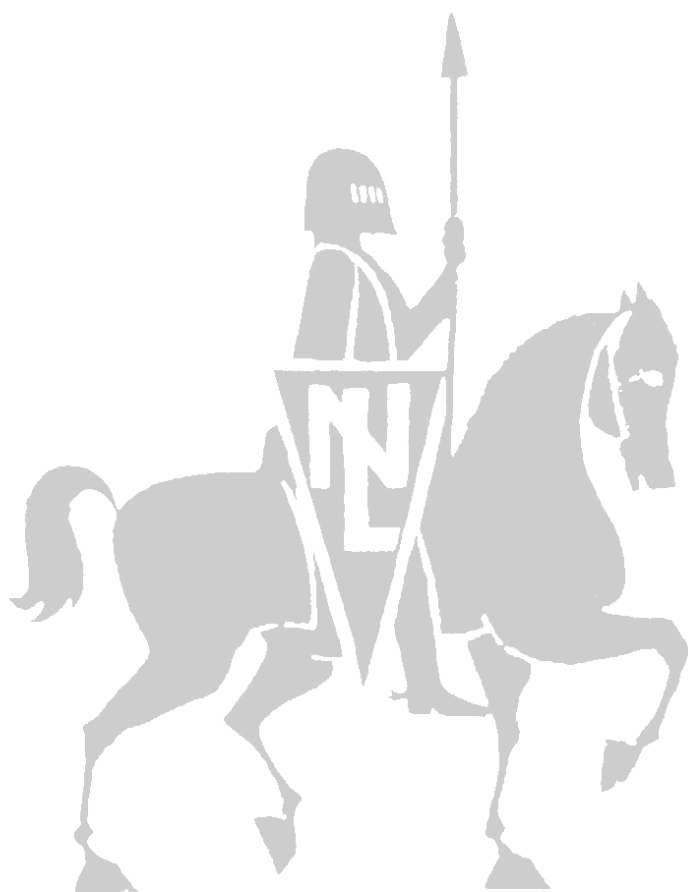
5.1 Photo Search

Click Search→Photo to go to the interface as shown below. Images that are saved on the local PC can be found here.
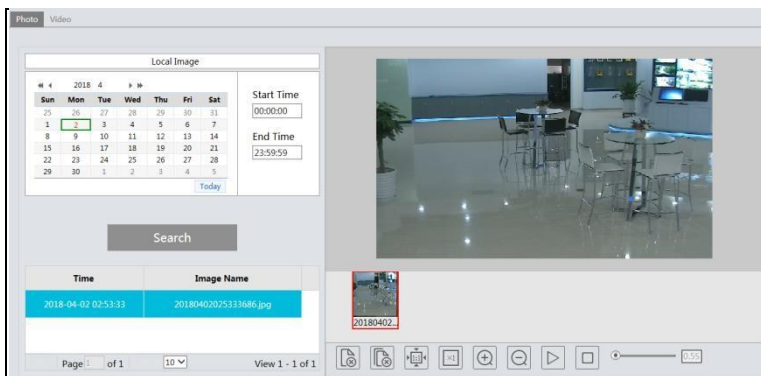
1. Set time: Select date and choose the start and end time in the top left corner.
2. Click the "Search" button to search the photos.
3. Double click a file name in the list to view the captured photos as shown above. The descriptions of the buttons are shown as follows.

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.
	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 the slide show mode.		Stop: Click this button to stop the slide show.
	Play speed: Play speed of the slide show.		

5.2 Video Search

Click Search→Video→Local Video to go to the interface as shown below. Videos were recorded locally to the PC can be played in this interface.
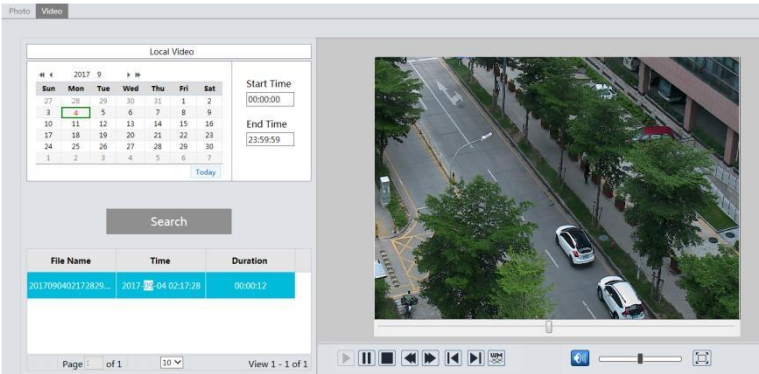
Choose the date and the start time and end time and then click the "Search" button to search the record files. Double click the record file to play the record. The descriptions of the buttons on the playback interface are as follows.

Icon	Description	Icon	Description
▶	Play button. After pausing the video, click this button to continue playing.	❚❚	Pause button
■	Stop button	◀◀	Speed down
▶▶	Speed up	◀❙	Play the previous record.
❙▶	Play the next record.	WM	Watermark display
◀))	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.

Appendix 1 Q & A

How to find the password?

A：Reset the device to the default factory settings.

Default IP: 192.168.226.201; User name: admin; Password: 123456

Fail to connect devices through IE browser.

A: Network is not well connected. Check the connection and make sure it is connected well. B: IP address is not available. Reset 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 IP-Tool.

IP tool cannot search devices.

It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

IE cannot download ActiveX control.

A. IE browser may be set up to block ActiveX. Follow the steps below.

① Open IE browser and then click Tools-----Internet Options.
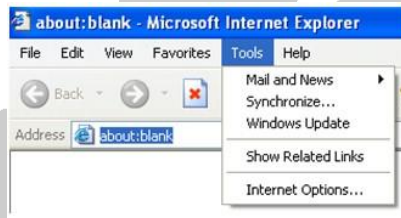
② Select Security------Custom Level….

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.
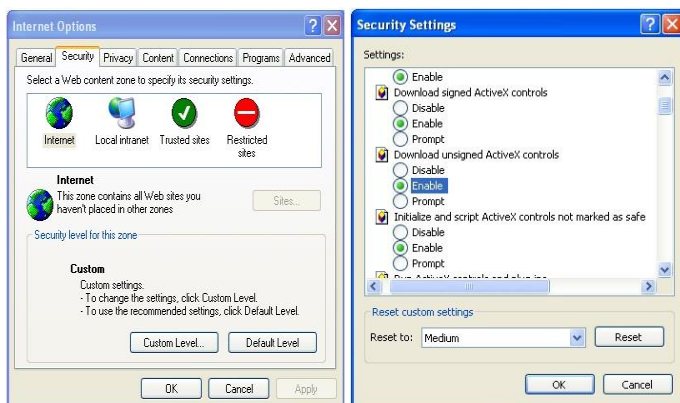
Q：**No sound can be heard.**

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.

Appendix 2 Installation of Water-proof Rubber Plug

In order to improve the water-proof effect, the rubber plugs are attached to some network cameras. You may mount the rubber plugs to the mounting base of the camera as requried when installing. The installation instructions are as follows.

Please mount the rubber plug to the gap of the mounting base.
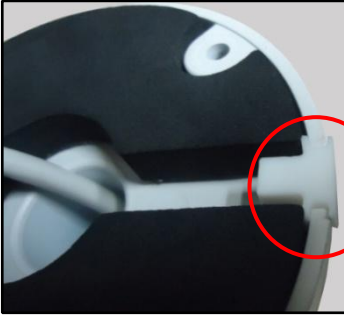
Please let the camber surface of the rubber plug mount outside.
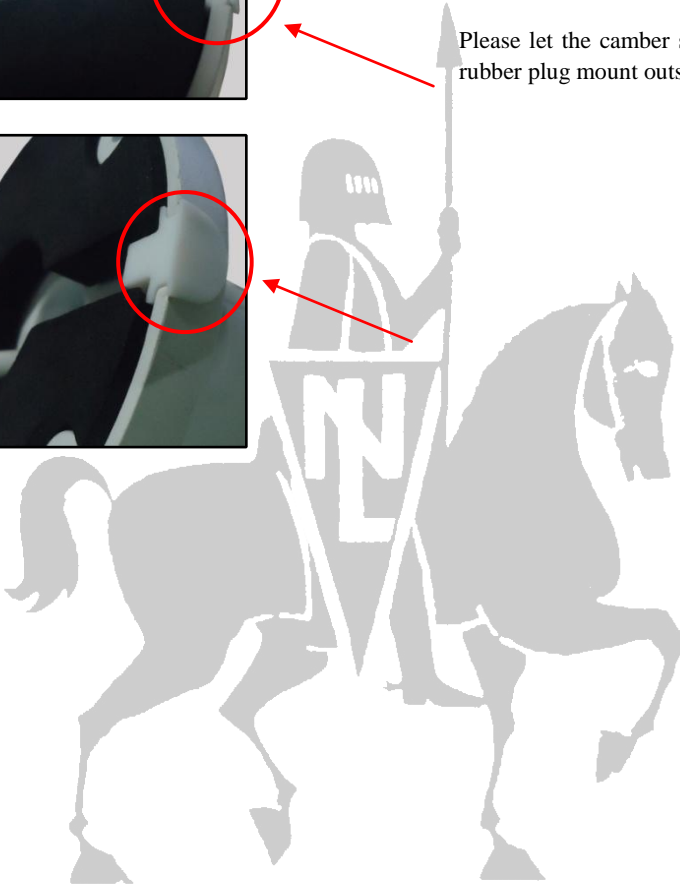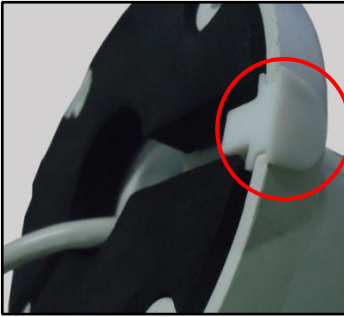
Appendix 3 Specifications

Specification /Model		IR Water-proof Bullet Network Camera
Camera	Image Sensor	1/2.7 " CMOS
	Image Size	2592×1944
	Electronic Shutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR
	Lens	2.8mm@F1.85, horizontal field of view: 93.4° 3.6mm@F2.0, horizontal field of view: 79.4°
	Lens Mount	M12
	Day&Night	ICR
	Digital NR	3D DNR
	WDR	Digital WDR
	Angle Adjustment	Three-axis adjustment
Image	Video Compression	H.265/H.264/MJPEG
	H.265 Type	Main Profile @Leve4.1 High Tier
	Video Bit Rate	128Kbps~10Mbps
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K(2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF, 480×240
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1~30fps)/3MP(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1~25fps)/3MP(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	Web browsing, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, QoS
	Interface Protocol	ONVIF
	Storge	Network remote storage
	Smart Alarm	Motion alarm
Others	IR Distance	Up to 30m
	Ingress Protection	IP66
	Power	DC12V/PoE
	Power Consumption	< 6.5W
	Opterating Environment	Temperature: -30°C~60°C; Relative humidity : less than 95% (non-condensing)
	Dimension (mm)	Ø70mm×156mm
	Weight（net）	370g

Installation	Wall mounting; ceiling mounting

Specification /Model		IR Water-proof Bullet Network Camera	IR Water-proof Bullet Network Camera
Camera	Image Sensor	1/2.7 " CMOS	
	Image Size	2592×1944	
	Electronic Shutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR	
	Lens	2.8mm@F1.85, horizontal field of view:9 3.4°; 3.6mm@F2.0, horizontal field of view: 7 .4°; 2.8-12mm @ F1.4	
	Lens Mount	M12 or Ø14 optional	
	Day&Night	ICR	
	Digital NR	3D DNR	
	WDR	Digital WDR	
	Angle Adjustment	Three-axis adjustment	
Image	Video Compression	H.265/H.264/MJPEG	
	H.265 Type	Main Profile @Leve4.1 High Tier	
	Video Bit Rate	128Kbps~10Mbps	
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K 2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1920×1080(1~30fps)/1280×720(1~30fps) ~30fps)/3MP(1~30fps)/ 50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1920×1080(1~25fps)/ 1280×720(1~25fps) 1~25fps)/3MP(1~25fps)/	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	

Fucntion	Remote Monitoring	Web browsing, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission	
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, ;, DDNS, SMTP, FTP, SNMP, 802.1x, QoS PPPo	
	Interface Protocol	ONVIF	
	Storge	Network remote storage	
	Smart Alarm	Motion alarm	
Others	IR Distance	Up to 30m	
	Ingress Protection	IP66	
	Power	DC12V/PoE	
	Power Consumption	< 10W	
	Opterating Environment	Temperature: -30°C~60°C; Relative humi lity : less than 95% (non-condensing)	
	Dimension (mm)	Ø 87mm×219mm	Ø 87mm×221mm
	Weight（net）	617g	638g
	Installation	Wall mounting; ceiling mounting	

Specification /Model		IR Water-proof Bullet Network Camera
Camera	Image Sensor	1/2.7 ″ CMOS
	Image Size	2592×1944
	Electronic Shutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR
	Lens	3.6mm@F2.0, horizontal field of view: 79.4° (6mm, 8mm optional)
	Lens Mount	M12
	Day&Night	ICR
	Digital NR	3D DNR
	WDR	Digital WDR
Image	Video Compression	H.265/H.264/MJPEG
	H.265 Type	Main Profile @Leve4.1 High Tier
	Video Bit Rate	128Kbps~10Mbps
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K(2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF, 480×240
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1~30fps)/3MP(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1~25fps)/3MP(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)

	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	Web browsing, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, QoS
	Interface Protocol	ONVIF
	Storge	Network remote storage
	Smart Alarm	Motion alarm
Others	IR Distance	Up to 50 m
	Ingress Protection	IP66
	Power	DC12V/PoE
	Power Consumption	<9W
	Opterating Environment	Temperature: -30°C~60°C; Relative humidity : less than 95% (non-condensing)
	Dimension (mm)	99×188×86 (W× D ×H)
	Weight （net）	450g
	Installation	Wall mounting

Specification /Model		IR Vandal-proof Dome Camera
Camera	Image Sensor	1/2.7 ″ CMOS
	Image Size	2592×1944
	Electronic Shutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR
	Lens	2.8mm@F1.85, horizontal field of view: 93.4° 3.6mm@F2.0, horizontal field of view: 79.4°
	Lens Mount	M12
	Day&Night	ICR
	Digital NR	3D DNR
	WDR	Digital WDR
	Angle Adjustment	Pan: 0°~355°, Tilt: 0°~67°, Rotate: 0°~355°
Image	Video Compression	H.265/H.264/MJPEG

	H.265 Type	Main Profile @Leve4.1 High Tier
	Video Bit Rate	128Kbps~10Mbps
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K(2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF, 480×240
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1~30fps)/3MP(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1~25fps)/3MP(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	Web browsing, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, QoS
	Interface Protocol	ONVIF
	Storge	Network remote storage
	Smart Alarm	Motion alarm
Others	IR Distance	Up to 30m
	Ingress Protection	IP66&IK10
	Power	DC12V/PoE
	Power Consumption	< 6W
	Opterating Environment	Temperature: -30°C~60°C; Relative humidity : less than 95% (non-condensing)
	Dimension (mm)	Ø 117mm×90mm
	Weight（net）	593g
	Installation	Ceiling mounting (wall mounting available with the juction box and bracket)

Specification /Model		IR Water-proof Dome Network Camera	IR Water-proof Dome Network Camera
Camera	Image Sensor	1/2.7 ˝ CMOS	
	Image Size	2592×1944	
	Electronic Shutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR	

	Lens	2.8mm@F1.85, horizontal field of view: 93.4°
		3.6mm@F2.0, horizontal field of view: 79.4°
	Lens Mount	M12
	Day&Night	ICR
	Digital NR	3D DNR
	WDR	Digital WDR
	Angle Adjustment	Any angle
Image	Video Compression	H.265/H.264/MJPEG
	H.265 Type	Main Profile @Leve4.1 High Tier
	Video Bit Rate	128Kbps~10Mbps
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K(2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF,) 480×24
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1~30fps)/3MP(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps)
		50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1~25fps)/3MP(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast,Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	Web browsing, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PP PoE, DDNS, SMTP, FTP, SNMP, 802.1x, QoS
	Interface Protocol	ONVIF
	Storge	Network remote storage
	Smart Alarm	Motion alarm
Others	IR Distance	Up to 30m
	Ingress Protection	IP66
	Power	DC12V (PoE power supply optional)
	Power Consumption	< 5W
	Opterating Environment	Temperature: -30°C~60°C; Relative humidity : less than 95% (non-condensing)

Dimension (mm)	Ø 87mm×108mm	Ø 84.3mm×94.6mm
Weight（net）	404g	419g
Installation	Ceiling mounting (wall mounting available with the juction box and bracket)	

Specification /Model || IR Water-proof Dome Network Camera	
Camera	Image Sensor	1/2.7 " CMOS
	Image Size	2592×1944
	Electronic Shutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.013lux@F1.2, AGC ON: 0lux with IR
	Lens	2.8-12mm @ F1.4
	Lens Mount	Ø14
	Day&Night	ICR
	Digital NR	3D DNR
	WDR	Digital WDR
	Angle Adjustment	Any angle
Image	Video Compression	H.265/H.264/MJPEG
	H.265 Type	Main Profile @Leve4.1 High Tier
	Video Bit Rate	128Kbps~10Mbps
	Resolution	5MP (2592 ×1944), 4MP (2592 ×1520), 2K(2560×1440), 3MP(2304×1296), 2048×1536 1080P, 720P, D1, CIF, 480×240
	Main Stream	60Hz: 5MP (1~20fps) /4MP(1~30fps)/ 2K(1~30fps)/3MP(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz:5MP (1~20fps)/ 4MP (1~25fps)/ 2K (1~25fps)/3MP(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, Anti-flicker, etc. adjustable through client or web browser
	ROI	Support
Interface	Network	RJ45
Fucntion	Remote Monitoring	Web browsing, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 6 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, QoS
	Interface Protocol	ONVIF
	Storge	Network remote storage
	Smart Alarm	Motion alarm
Others	IR Distance	Up to 30m
	Ingress Protection	IP66

Power	DC12V/PoE
Power Consumption	< 9.5W
Opterating Environment	Temperature: -30°C~60°C; Relative humidity : less than 95% (non-condensing)
Dimension (mm)	Ø 109mm×130mm
Weight (net)	675g
Installation	Ceiling mounting (wall mounting available with the juction box and bracket)

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