



4 Megapixel Network Camera

User Manual

For Varifocal Lens Bullet & Dome Camera

Please read this manual carefully before use of the products and preserve for reference purposes. Specifications are subject to change without notice*

Notes on Safety

- Please use the specified power supply to connect.
- 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 incase 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 is product instructions, not quality warranty. 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.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. 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 waterproof network camera. All pictures and examples used in the manual are for reference only.

Table of Contents

1 Introduction

2 IE Remote Access

2.1 LAN

2.1.1 Access through IP-Tool

2.1.2 Directly Access through IE

2.2 WAN

3 Remote Preview

3.1 The Remote Preview Interface

3.2 Playback

3.3 Snap Pictures

4 Remote Live Surveillance

4.1 System Configuration

4.1.1 Basic Information

4.1.2 Date & Time

4.1.3 SD Card

4.2 Video Configuration

4.2.1 Camera

4.2.2 Video Stream

4.2.3 OSD Configuration

4.2.4 Video Mask

4.2.5 ROI Configuration

4.3 PTZ Configuration

4.3.1 Protocol

4.3.2 Preset Configuration

4.4 Alarm Configuration

4.4.1 Motion Detection Area

4.4.2 Motion Detection Trigger

4.4.3 Motion Detection Schedule

4.4.4 Alarm Input Trigger

4.4.5 Alarm Input Schedule

4.4.6 Alarm Out

4.4.7 Alarm Server

4.5 Network Configuration

4.5.1 Port

4.5.2 IP Address

4.5.3 Server Configuration

4.5.4 IP Notify

4.5.5 DDNS Configuration

4.5.6 RTSP

4.5.7 UPNP

4.5.8 Mail configuration

4.5.9 FTP Setting

4.6 Advanced Configuration

4.6.1 User Configuration

4.6.2 Security Configuration

4.6.3 Configure Backup & Restore

4.6.4 Reboot

4.6.5 Upgrade

5 Video Search

Appendix

Appendix 1 Q & A

Appendix 2 Installation of Waterproof Rubber Plug

Appendix 3 Specifications

1 Introduction

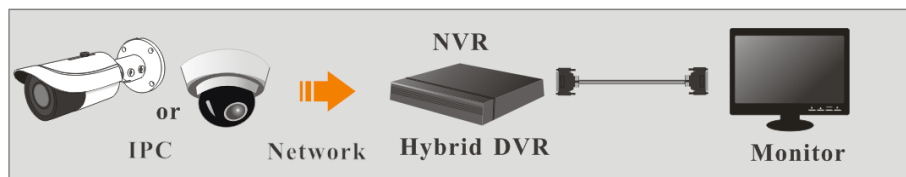
This IP-Cam (short for IP-Camera) is designed for high performance CCTV solutions. It adopts state of the art video processing chips. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC, etc to ensure this system more stable and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

This product is widely used in banks, telecommunication systems, electricity power departments, law systems, factories, storehouses, 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 smart phone, iPad, remote monitoring

Surveillance Application



2 IE Remote Access

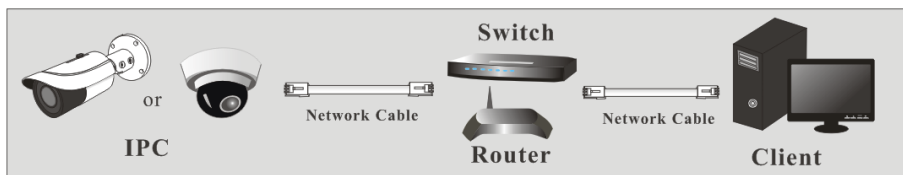
You may connect IP-Cam via LAN (Local Area Network) or WAN (Wide Area Network). The details are as follows:

2.1 LAN (Local network)

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

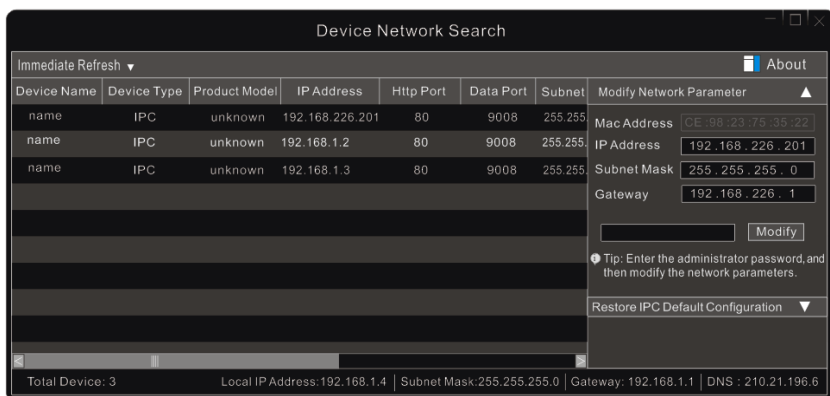
2.1.1 Access through IP-Tool

Network connection:



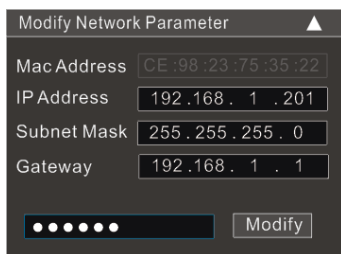
① Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

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 your local network configuration.



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 input the password of the administrator and click “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 to the IP-Cam. IE browser will prompt to download the Active X control. After downloading, a login window will pop up as shown below.



Input the username and password 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**

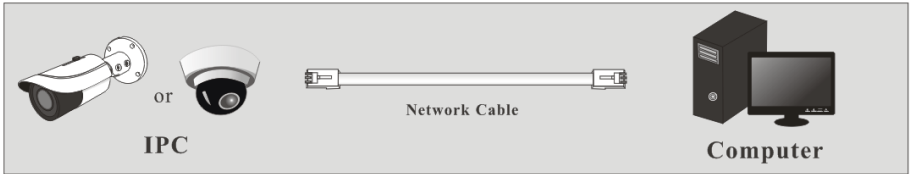
Subnet Mask: **255.255.255.0**

Gateway: **192.168.226.1**

HTTP: **80**

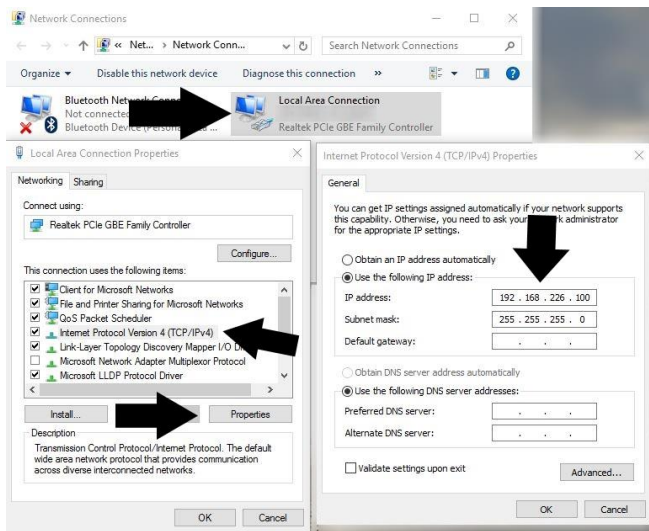
Data port: **9008**

You may use the above default settings when you login the camera for the first time. You may directly connect the camera to the computer through network cable.



① Manually set the IP address of the PC. The network segment should be as the same as the default settings of the IP camera. Open Network and Sharing Center in Windows Control Panel. Click “Change adapter settings,” Right-click “Local Area Connection” and choose Properties, Left-click on “Internet Protocol TCP/IP v4,” and click the properties button.

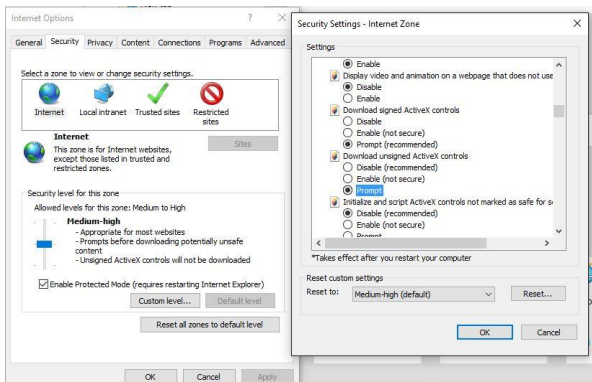
Select “Use the following IP address” and manually enter the following information:
 IP address: 192.168.226.4
 Subnet Mask: 255.255.255.0



② Open the IE browser and input the default address of IP-Cam and connect. The IE browser will download Active X control automatically.

****IMPORTANT:** You must configure IE Internet options before the Active X control will install. Proceed to do the following in Internet Explorer:

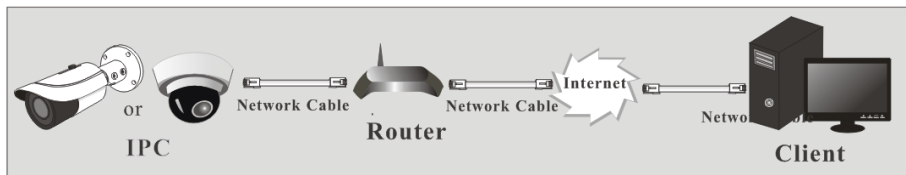
Click on Tools (cog wheel top right corner) > Internet Options > Click Custom level > Scroll to **DOWNLOAD UNSIGNED ACTIVEX CONTROLS** > set it to **PROMPT** > Click OK.



- ③ After downloading Active X control, the login dialog box will pop up.
- ④ Input the default username and password and then enter to view camera, and access camera settings.

2.2 WAN (Router)

➤ Access through a router



- ① Make sure the camera is well connected via LAN and then login the camera via LAN and go to Config➤Network Config➤Port menu to set the port number. ****Note:** Only change the ports if there will be more than 1 camera installed at the location.

Network basic config	
HTTP Port	80
Data Port	9008
RTSP Port	554

Port Setup

- ② Go to Config ➤Network Config➤IP Address menu to modify the IP address.

IP Config

☐ Obtain an IP address automatically

☒ Use the following IP address

IP Address:

Subnet Mask: Gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server

Preferred DNS server: Alternate DNS server:

IP Setup

③ Go to the router's management interface through IE browser to forward the IP address and port of the camera. Login to the router by typing in the default gateway address into the web address bar of the browser (ex. http://192.168.1.1). Navigate to the Port forwarding, Virtual Server, Custom service, or Pinhole section in the router.

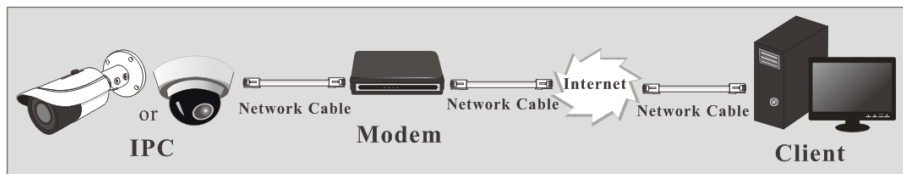
Port Range					
Application	Start	End	Protocol	IP Address	Enable
1	9007	to 9008	Both	192.168.1.201	☒
2	80	to 81	Both	192.168.1.201	☒
3	10000	to 10001	Both	192.168.1.166	☐
4	21000	to 21001	Both	192.168.1.166	☐

Router Setup

④ Open the IE browser and input its WAN IP and http port to access. You can find the WAN IP address under the router status page. It is also called the "Internet IP address."

➤ Access through PPPoE dial-up

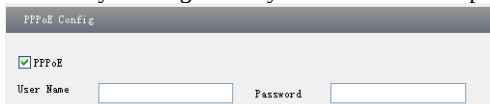
Network connection



You may access the camera through PPPoE auto dial-up. The setting steps are as follow:

① Go to Config ② Network Config ③ Port menu to set the port number.

② Go to Config ⑦Network Config⑦IP Address menu. Check “PPPoE” and then input the username and password which you can get from your internet service provider.

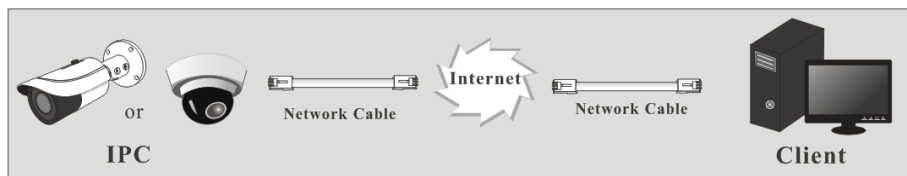


③ Go to Config ⑦Network Config⑦DDNS Config menu. Before you configure the DDNS, please apply for a domain name first. Please refer to 4.4.5 DDNS Configuration for detail information.

④ Open the IE browser and input the domain name and http port to access.

➤ Access through static IP

Network connection



The setting steps are as follow:

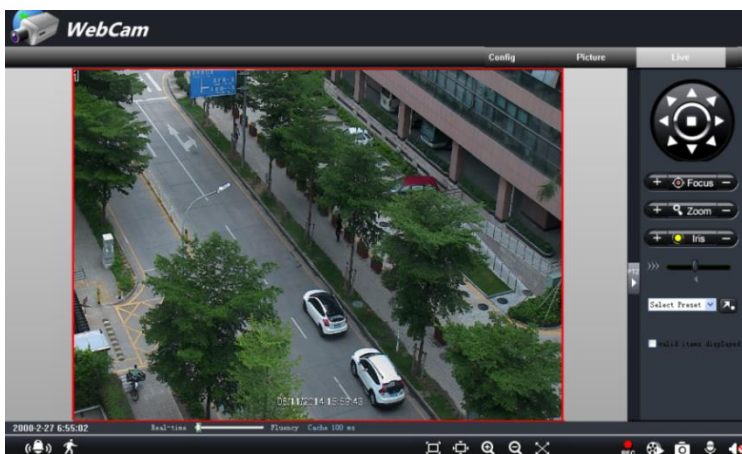
① Go to Config ⑦Network Config⑦Port menu to set the port number.

② Go to Config ⑦Network Config⑦IP Address menu to set the IP address. Check “Use the following IP address” and then input the static IP address and other parameters.

③ Open the IE browser and input the WAN IP and http port to access.

3 Remote Preview

3.1 The Remote Preview Interface



Icon	Description	Icon	Description
	Motion alarm indicator icon		Sensor alarm indicator icon
	Fix size		Start/Stop record
	Actual size		Playback
	Zoom in		Snap
	Zoom out		Talk
	Fullscreen		Enable audio

When motion detection alarm is triggered, the people icon will turn red.
Right click to pop up a pull-down list as shown below:

Stream: Three streams are optional.

Turn off the live: Click this item to close present live preview.

Enable audio: Open the volume.

Full screen: The live preview picture will be full-screen display. Double click or click right mouse to return to the previous interface.

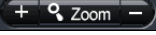
Online user: Display the current user connecting to the device.

System information: Display the device information: device name, firmware version, software build date, kernel version and hardware version.

Click PTZ extended button to unfold PTZ control panel. In remote preview interface, you can view the image from every direction by controlling PTZ panel.

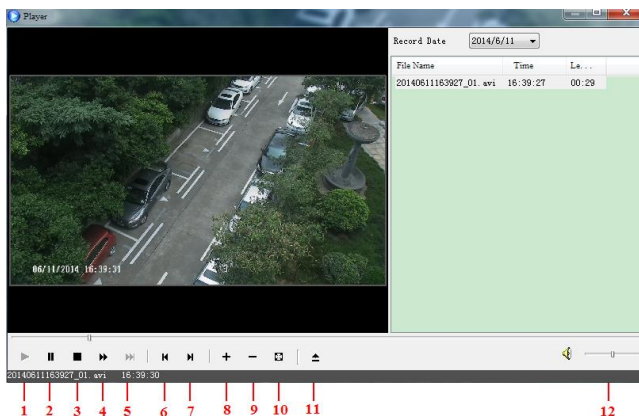
The descriptions of the control panel are as follows:

1 2560x1440 25fps
2 704x576 25fps
3 704x576 25fps
Turn off the live
Enable audio
Full Screen
Online User
System Information

Button	Description
	 to rotate the dome upwards ;  to rotate the dome downwards;  to rotate the dome towards left;  to rotate the dome towards right ;  to rotate the dome diagonally up-left ;  to rotate the dome diagonally up-right;  to rotate the dome diagonally down-left;  to rotate the dome diagonally down-right;  to stop rotating the dome.
	Drag the scroll bar to adjust rotating speed of the dome.
	Focus button. Click  button to have long focus and click  to have short focus so that you can adjust the image clearly.
	Zoom button. Click  to zoom in the image; click  to zoom out the image.
	Iris button. Click  to increase light of the dome; click  to decrease light of the dome.

3.2 Playback

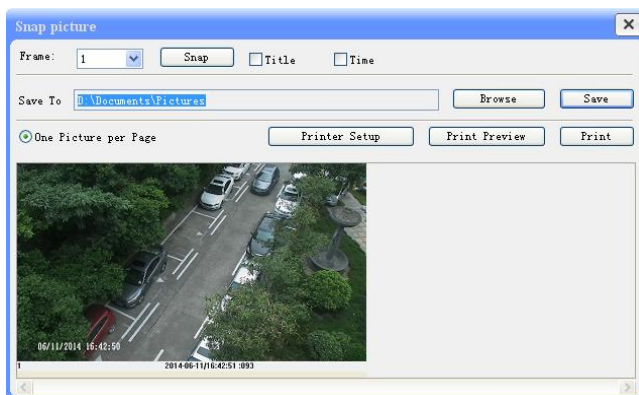
You can click  button to record to the designated drive or folder. To playback video, click  button to pop up a video player. Double click the record file to play the video as shown below.



1	Play	5	Next frame	9	Zoom out
2	Pause	6	The previous file	10	Full screen
3	Stop	7	The next file	11	Path
4	Forward	8	Zoom in	12	Volume

3.3 Snap Pictures

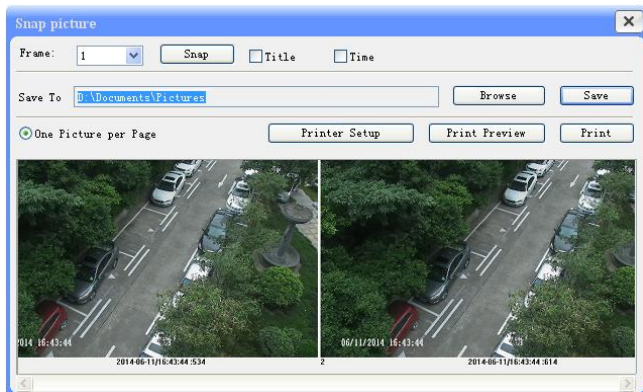
Select the image frame number, and then click “Snap”  icon as shown below:



Single Snap

Snap multiple pictures:

Select the image frame number pull down list box, such as 2, and check “Title” and “Time” to show capture title and time on the snap pictures simultaneously.



Multi-picture Snap

4 Remote Live Surveillance

Functions of remote configurations include System Configuration, Video Configuration, PTZ Configuration, Alarm Configuration, Network Configuration and Advanced Configuration. You should select the menu on the left and then set up the relative parameters.

4.1 System Configuration

The “System configuration” includes three submenus: Basic Information, Date & Time and SD card.

4.1.1 Basic Information

In the “Basic Information” interface, you can set up the device name and can also check system information of the server.

Setting steps:

1. Click the “Config” icon will appear the menu list.
2. Clicking the “Basic Information” will pop up a window as shown below:
3. Input the name of the device in the “Device name” text box.
4. Press the “Save” button to save the settings.

System Information			
Software Version	3.4.2.1 beta7	Software Build Date	2015-T-21 (YYYY-MM-DD)
Kernel Version	20150423	Hardware Version	1.3
MAC	00:84:24:43:AF:T1	Onvif Version	2.3
Device name		Maximum number of	10

Please refer to the following table for parameters and instructions of server basic configuration.

Parameter	Meaning
Software version	The software of the device
Software build date	The software build date of the device
Kernel version	The kernel version of the device
Hardware version	The hardware version of the device
Mac Address	MAC address of device
Maximum number of user	Support max 10 users to access
Device name	Name of the device.

4.1.2 Date & Time

Setting steps:

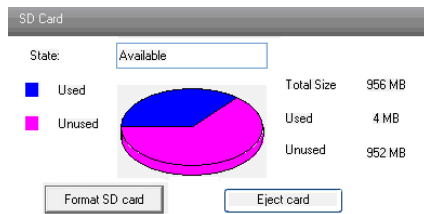
1. Go to System Config ⑦ Date & Time menu as shown below.

Date and Time setting	
Time Zone	GMT-07 (Calgary, Denver, Salt Lake City)
☒ DST Enable	
Timing mode	
☒ Manual	
Set Time	4/28/2016 11:48:55 AM ☐ PC time
☐ NTP	
NTP Server	

2. Set time zone.
3. Enable DST mode as required.
4. Set time. You may set time manually or enable NTP.

4.1.3 SD Card

1. Go to “System Configuration” ⑦ “SD Card” as shown below: (Some models do not support a SD card)



The first time you use the SD card, you should click “Format SD card”.
Click “Eject card” to stop writing data to SD card. Then the SD card can be ejected safely.



Note: Using of SD card function should be coordinated with motion or sensor alarm. When alarm is triggered, the system will automatically snap picture and save the picture into SD card.

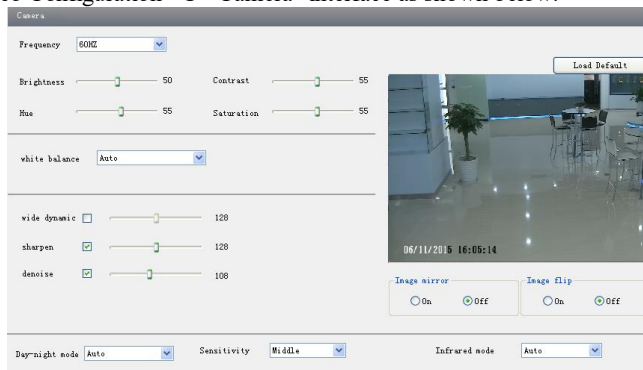
4.2 Video Configuration

Camera Configuration includes four submenus: Camera, Video Stream, OSD Config, Video Mask and ROI Config.

4.2.1 Camera

Setting steps:

1. Go to “Video Configuration” ⑦ “Camera” interface as shown below.



2. You may adjust frequency, brightness, contrast, hue and saturation of the picture.
3. Select white balance mode.
4. Wide dynamic, sharpen, and denoise are adjustable.
5. Set day-night mode, sensitivity, and infrared mode.
6. You may enable the image mirror and image overturn function.
7. Press the “Save” button to save the settings.

4.2.2 Video Stream

Go to “Video configuration” ⑦ “Video Stream” to see an interface as shown below.

The screenshot shows a 'Video Stream' configuration window. It contains a table with three rows for different video streams. Below the table are settings for 'Alarm Picture Size', 'Video encode slice split', 'Audio Encoding', and 'Audio In Type'.

	Resolution	Frame rate	Bitrate type	Video quality	Bitrate	I Frame Interval	Video Encoding	Profile
1	2560x1440	30	CBR	Highest	6144 Kbps	60	H264	High Profile
2	704x480	30	CBR	Highest	1024 Kbps	60	H264	High Profile
3	352x240	30	CBR	Highest	1024 Kbps	60	H264	High Profile

Alarm Picture Size: 2560x1440

☒ Video encode slice split

Audio Encoding: G.711A

Audio In Type: LIN

Three video streams can be adjustable.

Resolution: The higher the resolution is, the clearer the image is.

Frame rate: The higher the frame rate is, the more fluent the video is. However, it increases amount of storage space required. Higher frame rate = less video storage

Bitrate type: Including CBR and VBR. CBR means that no matter how changeable the video resources are, the compression bitrate keeps constant. This will not only facilitate the image quality better in a constant bitrate but also help to calculate the capacity of the recording. VBR means that the compression bitrate can be adjustable according to the change of the video resources. This will help to optimize the network bandwidth.

Video Quality: When VBR is selected, you need to choose image quality. The higher the image quality you choose, the more bitrate will be required.

Bitrate: Please choose it according to the actual network situation.

I Frame interval: It is recommended to use the default value. If the value is over high, the read speed of the group of pictures will be slow resulting in the quality loss of the video.

Video encoding: H264 and H265 are optional. Higher quality of image can be transferred under limited network bandwidth by using H265 video encoding, however, higher quality of the hardware is required.

Profile: Baseline, main/high profile are optional. Baseline profile is mainly used in interactive application with low complexity and delay. Main/high profile is mainly used for higher coding requirement.

Alarm picture size: Please select it according to the actual situation.

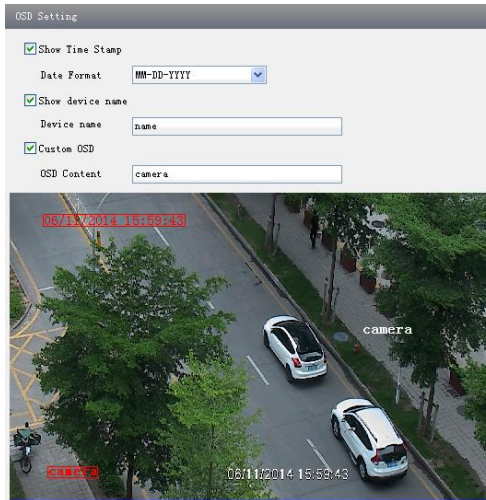
Video encode slice split: If enabled, you may get a more fluent image even though using the low-performance PC.

Audio Encoding: G.711A and G.711U are selectable.

Audio In Type: MIC and LIN are selectable.

4.2.3 OSD Configuration

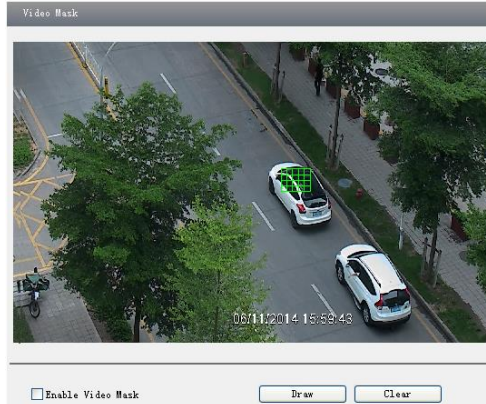
Go to “Video Config”  “OSD Config” menu to display the interface as shown below.



You may set time stamp, device name and custom OSD here. Drag the time stamp and custom OSD to set their position. Then press the “Save” button to save the settings.

4.2.4 Video Mask

Go to “Video Config” ⑦ “Video Mask” menu to display the interface. You can set 4 mask areas at most.



To set up video mask

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



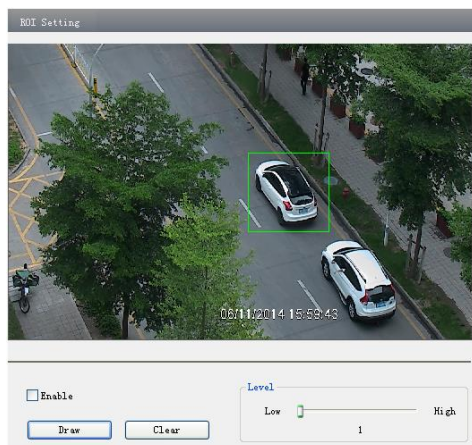
Clear the video mask:

Go to video mask menu and then click “Clear” button to delete the current video mask area.

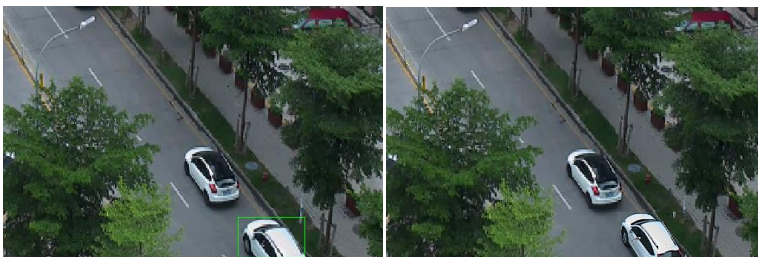
4.2.5 ROI Configuration

To set up ROI

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



Now, you will see the selected ROI area is clearer than other areas, especially in low bitrate condition.



4.3 PTZ Configuration

PTZ Configuration includes two submenus: Protocol and Preset.

4.3.1 Protocol

1. Go to “PTZ Configuration” ⑦ “Protocol” interface as shown below:

2. Input the protocol, address, and baud rate according to the speed dome.

4.3.2 Preset Configuration

1. Go to “PTZ Configuration” ⑦ “Preset” to see an interface as shown below:

Button	Meaning
--------	---------

	▲ to rotate the dome upwards; ▼ to rotate the dome downwards; ◀ to rotate the dome towards left; ▶ to rotate the dome towards right; ■ to stop rotating the dome.
	Focus button. Click  button to have long focus; click  button to have short focus.
	Zoom button. Click  button to zoom in the locale picture ; click  button to zoom out the locale picture.
	Iris button. Click  button to increase light of the dome; click  button to decrease the light of the dome.
	Drag the scroll bar to adjust rotating speed of the dome.

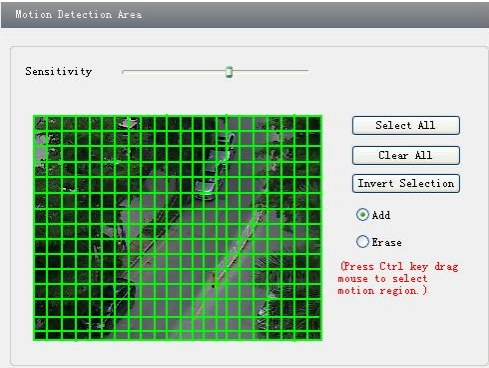
2. Input the preset number and set its position by controlling PTZ control panel and then click Add button to add preset point into the Available position list.
3. Select the preset in the pull down list of the Available position and click Go to button to move the dome to this preset point; click Delete button to delete the checked preset point.
4. After finishing setting, click Save button to save the settings.

4.4 Alarm Configuration

Alarm configuration includes seven submenus: Motion Detection Area, Motion Detection Trigger, Motion Detection Schedule, Alarm Input Trigger, Alarm Input Schedule, Alarm Out and Alarm Server.

4.4.1 Motion Detection Area

1. Go to “Alarm configuration” → “Motion Detection Area” to see an interface as below.
2. Move the “Sensitivity” scroll bar to set up the motion trace sensitivity.
3. Check the “Add”, press the “Ctrl” button and move mouse to select the motion detection area. Select “Erase” and move the mouse to clear all motion detection area.
4. Press the “Save” button to save the settings.



4.4.2 Motion Detection Trigger

1. Go to “Alarm Configuration” → “Motion Detection Trigger” to display an interface as shown below.

- 2. Check “Enable alarm” check box. Then motion based alarm is activated.
- 3. Set alarm holding time.
- 4. Set alarm trigger options.

Motion alarm setting

☒ Enable alarm

Alarm Holding

5 Seconds

Trigger alarm out

☐ Alarm out1

☒ Trigger snap

☒ Trigger Email

Receival email address

☐ Attach picture

EMAIL Subject

EMAIL Content

☒ Trigger FTP

Server address

☐ Uploading picture

Alarm Out: If selected, this would trigger the external relay output on detecting a motion based alarm.

Trigger Snap: If selected, the system will snap images on an alarm and save them in SD card.

Trigger Email: If the email and attach picture checkbox is checked (Email address shall be set first in the Mail config interface), the triggered snap pictures and event will be sent to the designated email address(es).

Trigger FTP: If “Uploading picture” is checked, the triggered snap pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

- 5. Press the “Save” button to save the settings.

4.4.3 Motion Detection Schedule

Go to “Alarm configuration”➤ “Motion Detection schedule” interface as shown below.

Motion schedule setting

☐ Erase

☒ Add

Week Schedule

Sunday

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

Monday

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

Tuesday

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

Wednesday

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

Thursday

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

Friday

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

Saturday

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

Holiday Schedule

Date:

12/17/2009

Add

Delete

Holiday

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

Week schedule

You can set the alarm time from Monday to Sunday for alarm everyday in one week.
Add: Add the schedule for a special day.
Erase: Delete holiday schedule.

Day schedule

You can set alarm time for a holiday or special circumstance.

1. Select a date at the “Date” pull down list, press “Add” button to add that date to the list box on the right side and then move the scroll bar to set the schedule of that day.
2. Select a date in the list box on the right side, and press “Erase” to remove the schedule on that day.

Press the “Save” button to save the settings.

Note: Holiday schedule is priority to Week schedule.

4.4.4 Alarm Input Trigger

1. Enter “Alarm Configuration”→ “Alarm Input Trigger” to see a screen as shown below:

Sensor alarm setting

Sensor Sensor 1

Sensor Name Sensor1 Alarm Type NO

☐ Enable alarm Alarm Holding 20 Seconds

Trigger alarm out

☐ Alarm out1

☒ Trigger snap

☐ Trigger Email

☐ Trigger FTP

Apply settings to All Copy

2. Select the sensor at the “Sensor” pull down list and set the sensor name and alarm type: NO and NC.
3. Enable alarm and select alarm holding time.
4. Set alarm trigger options. The setting steps are the same as that of motion detection trigger. Please refer to motion detection trigger chapter for details.
5. Apply settings to all by clicking “Copy” button to quickly set the same settings for all sensors.

4.4.5 Alarm Input Schedule

Go to “Alarm Configuration”→ “Alarm Input Schedule” as shown below:

Sensor schedule setting

Sensor: Sensor1 Eraser Add

Week Schedule

	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
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Holiday Schedule

Date: 7/ 1/2013 Add Delete

	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
Holiday																									

Copy settings

Apply settings to: All Copy

1. Select the sensor.
2. The following setup steps are similar to Motion Detection Schedule. Please refer to Motion Detection Schedule chapter for more details.

4.4.6 Alarm Out

1. Go to “Alarm configuration” → “Alarm output” as shown below:

Alarm out setting

Alarm Out: Alarm out1

Alarm Holding Time: 10 Seconds

2. Select alarm holding time and alarm name at the “Alarm out” and “Alarm holding time” pull down list box respectively.
3. Press the “Save” button to save the settings.

4.4.7 Alarm Server

Go to “Alarm configuration” → “Alarm Server” interface as shown below.
 You may input the alarm server address and port. When the alarm happens, the camera will automatically transfer the alarm event to the alarm server. If the alarm server is not used, there is no need for you to configure here.

Alarm Server

Server Address:

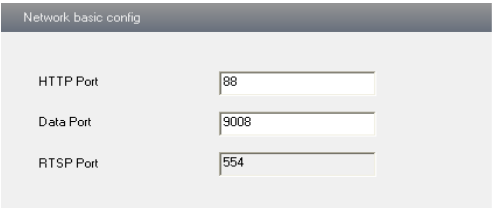
Port:

4.5 Network Configuration

Network configuration includes nine submenus: Port, IP Address, Server Configuration, IP Notify, DDNS Config, RTSP, UPNP, Mail configuration, and FTP.

4.5.1 Port

1. Go to “Network config”🔍 “Port” to see the interface as shown below. *Note: you do not need to change the ports if only 1 camera is being installed



The screenshot shows the 'Network basic config' window. It contains three input fields: 'HTTP Port' with the value '88', 'Data Port' with the value '9008', and 'RTSP Port' with the value '554'.

- 2. Input port number for IE access in the “HTTP Port” textbox.
- 3. Input the port number for audio & video transmission in the “Data Port” textbox.

4.5.2 IP Address

1. Go to “Network Configuration”🔍 “IP Address”.



The screenshot shows two configuration windows. The top window is 'IP Config' and the bottom is 'PPPoE Config'.
In 'IP Config', the 'Obtain an IP address automatically' option is unselected, and 'Use the following IP address' is selected. The IP Address is 192.168.12.154, Subnet Mask is 255.255.255.0, and Gateway is 192.168.12.1. Below this, 'Obtain DNS server address automatically' is unselected, and 'Use the following DNS server' is selected. The Preferred DNS server is 192.168.226.1 and the Alternate DNS server is 8.8.8.8.
The 'PPPoE Config' window has a checkbox for 'PPPoE' which is currently unchecked. Below it are input fields for 'User Name' and 'Password'.

There are two options for IP setup: obtain an IP address auto by DHCP protocol and use the following IP address. You may choose one of options as required.

Use the following IP address: display the IP address, subnet mask, gateway and DNS of the device.

PPPoE: User needs to input the username and password for dial-up internet.

- 1. Login to IE client and then enter username and password of PPPoE, save the setting and exit.

2. Set up IP address change notice.
3. Connect with Modem. Then the device will dial up internet automatically.

Press the “Save” button to save the settings.

4.5.3 Server Configuration

Go to “Network Configuration” ⑦ “Server Config”.

1. Check “Do you want IP Camera to connect Server”.
2. Check the IP address and port of the transfer media server in the CMS/NVMS. Then enable the auto report in the CMS/NVMS when adding a new device. Next, self-define the device ID and input the remaining information of the device in the CMS/NVMS.
3. Input the above-mentioned server IP, server port and device ID in the boxes.
4. Click “Save” button to save the settings.

4.5.4 IP Notify

1. Go to “Network Configuration” ⑦ “IP Notify” to see a tab as shown below.
2. If the “Enable notifying change of IP” is selected, when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically; If “FTP” is selected, when the IP address of the device was changed, a new IP address will be sent to FTP server.

4.5.5 DDNS Configuration

1. Go to “Network Configuration” ⑦ “DDNS Configuration” tab as shown below.

DDNS config

☒ Enable DDNS

DDNS Server Type www.dyndns.com

User Name

Password

Domain

2. Apply for a domain name. Take WWW.dvrdydns.com for example.
Input www.dvrdydns.com in the IE address bar to visit its website. Then click “Registration” button to register as shown below.

NEW USER REGISTRATION

USER NAME

PASSWORD

PASSWORD CONFIRM

FIRST NAME

LAST NAME

SECURITY QUESTION. My first phone number.

ANSWER

CONFIRM YOU'RE HUMAN 718408
New Captcha

Enter the text you see above

Create domain name.

You must create a domain name to continue.

Domain name must start with (a-z, 0-9). Cannot end or start, but may contain a hyphen and is not case-sensitive.

dvrdydns.com

After you successfully request your domain name, you will see your domain in the list.

Search by Domain.

Click a name to edit your domain settings.

NAME	STATUS	DOMAIN
654321ABC	✓	654321abc.dvrdydns.com

Last Update: *Not yet updated* IP Address: 210.21.229.138

[Create additional domain names](#)

3. Select the server type and then input the username, password and domain name you apply for in the DDNS configuration interface.
4. Click “Save” button to save the settings.

4.5.6 RTSP

Go to “Network Configuration” ⑦ “RTSP” interface as shown below.

RTSP

☒ Enable RTSP server

RTSP Port

RTSP Address

☐ Enable anonymous viewer login (no user name or password required)

1. Select “Enable RTSP server”.
2. RTSP Port: Access Port of the streaming media. The default number is 554.
3. RTSP Address: The RTSP address you need to input in the media player.
4. You can also choose to enable anonymous viewer login

4.5.7 UPNP

Go to “Network Configuration” ⑦ “UPNP” interface as shown below.
Select “Enable UPNP” and then input friendly name.

UPNP Setting

☒ Enable UPNP

Friendly Name

Then double click “Network” icon on the desktop of the PC to see an icon with the friendly name and IP address of the camera. You may quickly access the device by double clicking this icon.

4.5.8 Mail configuration

Go to “Network Configuration” ⑦ “Mail configuration” interface.

Mail config

From Email:

User Name: Password:

Server address: Secure Connection:

SMTP Port:

Receive email address:

Receive email address:

1. From Email: sender's e-mail address.
2. User name and password: sender's user name and password.
3. Server address: SMTP server address (ex. smtp.gmailx.com).
4. Select the secure connection type at the Secure Connection pull down list according to the smtp server authentication requirements.
5. Receive email address list: List of all receiving email addresses
6. Receive email address: Type in a receiving email address
7. After all, parameters set up, you can click "Test your account settings". If email sent successful, a "Test Successful" window will pop up, if not, users can try other email addresses or check the smtp settings.

Notice: If you change the static IP into PPPoE and select mailbox, there will be an e-mail sent to your mailbox for notifying a new IP address.

4.5.9 FTP Setting

Go to Network Configuration FTP Setting interface as shown below.

FTP Setting

Server name	Server address	Port	User Name	Upload path

1. Add: Click Add button to input FTP server's server name, address, port number, user name, password, and upload path, click OK to confirm the setting.
2. Modify: Click this button to change some information of the FTP server.
3. Delete: Select certain FTP account. Click this button to delete this account.
4. Test: Select certain FTP account. Click this button to test its validity.

Please refer to the following table for parameters and instructions of FTP configuration.

Parameter	Meaning
Server name	The name of the FTP server
Server address	The address of the FTP server
Port	The port number of the FTP server

User name	The user name of the FTP server
Password	The password of the FTP server
Path	The save path for FTP files



4.6 **Advanced Configuration**

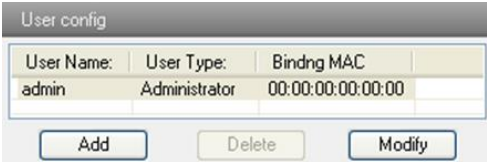
Advanced configuration includes five submenus: User Configuration, Security Configuration, Configure Backup & Restore, Reboot, and Upgrade.

4.6.1 **User Configuration**

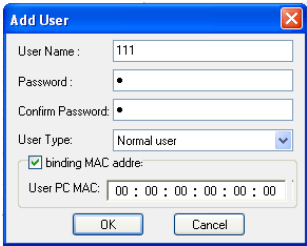
Go to Advanced configuration➤User Configuration interface.

Add user:

- 1. Clicking “Add” button pops up “Add user” dialog box.



User Configuration



Add User

Note: After binding physical address to the IP-CAM, you can access the device on this PC in network only. If the MAC address is “00:00:00:00:00:00”, it means the camera can be connected to any computers.

- 2. Input username in “User Name” textbox (only letters).
- 3. Input characters in “Password” and “Confirm Password” textbox (letters or numbers).
- 4. Input the MAC address of the PC in “Binding MAC address” textbox.
- 5. Click “OK” button and then the new added user will display in the user list.

Modify user:

- 1. Select the user which needs to modify password and physical address in the user configuration list box.
- 2. Clicking “Modify” button will pop up “Modify user” dialog box as shown below.

Modify User

3. Input original password of this user in the “Password” text box.
4. Input new password in the “New password” and “Confirmation” text box.
5. Input computer’s physical address which is used to access the server in the “User PC MAC” text box.
6. Click “OK” button to modify password and binding MAC address successfully.

Delete user:

1. Select the user which needs to delete in the user configuration list box.
2. Clicking “Delete” button will pop up a confirm dialog box. Then click “OK” to delete the user.

Note: The default super administrator cannot be deleted.

<i>Parameter</i>	<i>Meaning</i>
User Name	User name to operate the logon client end
User Type	Type of users, normal user, advanced user and super administrator
Binding MAC address	The MAC addresses of user access the server which should set up according to actual MAC address of server.
Password	Password to log in the client terminal
Confirm Password	Password to log in the client terminal

4.6.2 Security Configuration

1. Go to Advanced Configuration Security Configuration to see a tab shown below.
 2. Check “Enable IP address” check box, select “Deny the following IP address”, input IP address in the IP address list box and click “Add” button. Then this IP address will display in the list box; the operation step of “Allow the following IP address” is the same with “Deny the following IP address”
 3. Select the IP address which needs to be deleted from the IP address list box and click “Delete” button to delete that IP address.
 4. Check “Enable MAC address” check box, select “Deny the following MAC address”, input MAC address in the MAC address list box and click “Add” button. Then this MAC address will display in the list box; the operation step of “Allow the following MAC address” is the same with “Deny the following MAC address”.
5. Select the MAC address which needs to be deleted from the MAC address list box and click “Delete” button to delete that MAC address.
6. Click “Save” button to save the above setting.

The image shows two stacked configuration windows. The top window is titled "IP address filter setting" and contains a checked checkbox for "Enable IP address filtering". Below it are two radio buttons: "Deny the following IP address" (selected) and "Allow the following IP address". There is a large empty text box for listing IP addresses, and "Add" and "Delete" buttons to its right. The bottom window is titled "MAC filter setting" and contains a checked checkbox for "Enable MAC address filtering". It also has two radio buttons: "Deny the following MAC address" (selected) and "Allow the following MAC address". There is a large empty text box for listing MAC addresses, and "Add" and "Delete" buttons to its right. At the bottom of this window is a MAC address field showing "00 : 00 : 00 : 00 : 00 : 00".

4.6.3 Configure Backup & Restore

Go to Advanced configuration➤Configure Backup & Restore Interface.

- **Import & Export Configuration:**

You can import or export the setting information from PC or to device.

1. Click “Browse” to select save path for import or export information on PC.
2. You can import or export all setting information to PC. “User Configuration” and “Network Configuration,” cannot be exported.

The image shows a configuration interface with three sections. The top section, "Import setting", has a "Path" input field with a "Browse" button to its right. Below the path field is a dropdown menu labeled "All configuration exception for" and two checkboxes: "User Config" (checked) and "Network Config" (unchecked). An "Import setting" button is at the bottom of this section. The middle section, "Export setting", contains an "Export setting" button. The bottom section, "Default setting", contains a "Load Default" button.

- **Default Configuration**

Click “Load default” button to restore all system settings to the default status.

4.6.4 Reboot

Go to Advanced configuration—Reboot to see an interface as shown below

Click “Reboot” button to reboot the device.

The image shows a simple interface with a title bar labeled "Reboot". Below the title bar is a single button labeled "Reboot".

4.6.5 Upgrade

Go to Advanced Configuration—Upgrade interface as shown below.



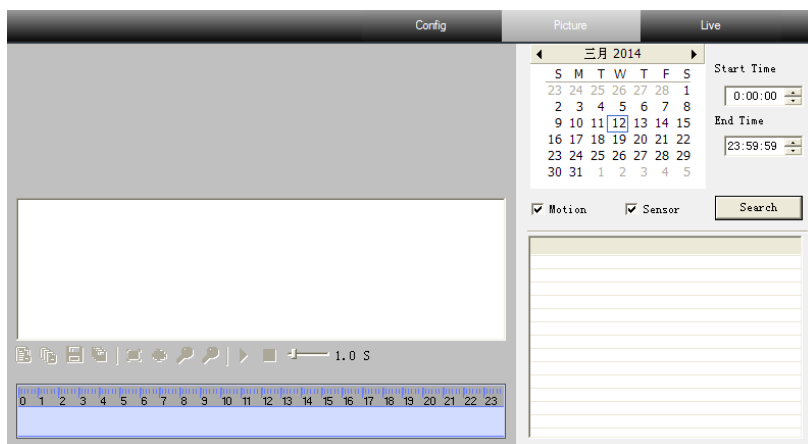
The screenshot shows a web interface titled "Upgrade". It contains a label "Path" followed by a text input field. To the right of the input field is a "Browse" button. Below the input field and the "Browse" button is a yellow button labeled "Update server firmware".

1. Click “Browse” button to select the save path of the upgrade file.
2. Click “Upgrade server firmware” button to start upgrading the application program.
3. The device will restart automatically.
4. After you successfully update the software, click “OK” button to close IE and then re-open IE to connect IP-CAM.

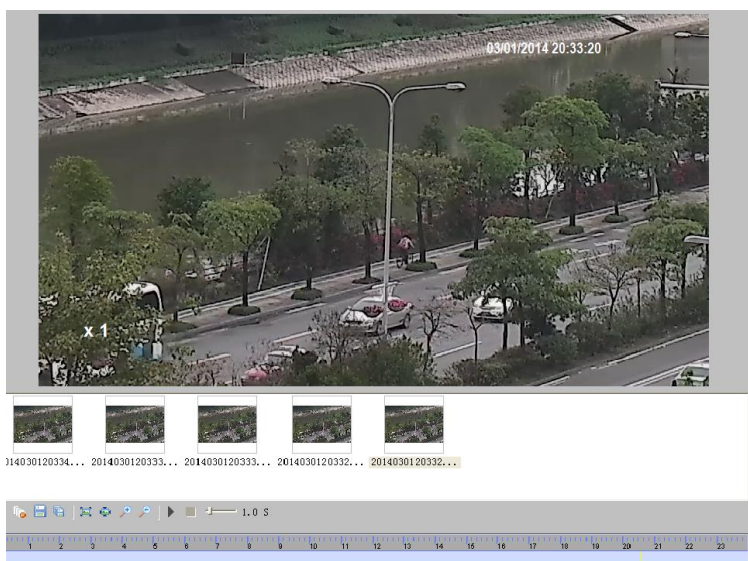
Notice: You can’t disconnect to PC or close the IP-CAM during upgrade.

5 Video Search

Click “Picture” icon and search the images saved in the SD card.



1. Set time: Select date in the “Calendar” and choose the start and end time.
2. Choose event “Motion” or “Sensor”.
3. Click “Search” button to search the picture.
4. Double click a filename or select a filename and then click “View” button in the list box to view captured pictures.



Item	Buttons	Explanations
1		Close: click this button to close the picture chosen.
2		Close all: Click this button to close all pictures viewing.
3		Save: Click this button to select the save path of the picture file on the PC for saving the current picture.
4		Save all: Click this button to select the save path of the picture files on PC for saving all pictures.
5		Fit size: The picture will fit on screen by clicking this button.
6		Actual size: Click this button to display the actual size of the picture.
7		Zoom in: Click this button to amplify the picture.
8		Zoom out: Click this button to zoom out the picture.
9		Slide play: Click this button to play the picture in slide show mode.
10		Stop: Click this button to stop slide show.
11		Play speed: Play speed of the slide show.

Appendix

Appendix 1 Q & A

Q: How to find my password if I forget it?

A : Reset the device to the default factory settings.

Default IP: 192.168.226.201; Username: admin; Password: 123456

Q : Fail to connect devices through IE browser, why?

A: Network is not well connected. Check the connection and make sure it is connected well.

B: IP is not available. Reset the valid IP.

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

D: Exclude the above reasons. Recover default setting by IP-Tool.

Q : IP tool cannot search devices, why?

A : It may be caused by the anti-virus and Windows Firewall/Windows Defender on your computer. Please temporarily disable and try to search device again.

Q : IE cannot download ActiveX control. How can I do?

a. IE browser blocks ActiveX. Please do setup as below.

① Refer to section 2.1.2, on how to configure IE settings

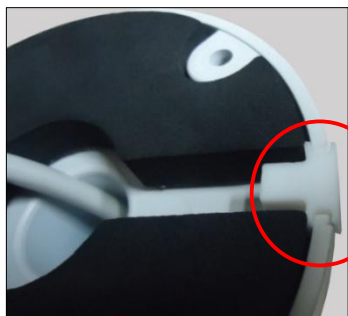
Q : No sound can be heard, why?

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

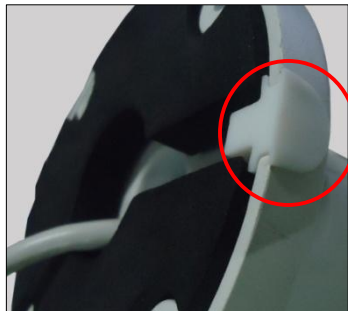
B: Audio function is not enabled at the corresponding channel. Please enable this function.

Appendix 2 Installation of Waterproof Rubber Plug

In order to improve the water-proof effect, the rubber plugs are attached to some network bullet cameras. You may mount the rubber plugs to the mounting base of the camera as required 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		50m IR Water-proof Bullet Network Camera	
Camera	Image Sensor	1/3 " CMOS	
	Image Size	2688×1520	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. illumination	0.05lux@F1.2, AGC ON: 0 lux with IR	
	Lens	8mm@F1.6, angle of view: 38°; (6mm, 12mm optional)	3.3~12mm@F1.4, angle of view: 80°~38°
	Lens Mount	CS	Ø14
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
Image	Angle Adjustment	Any angle	
	Video Compression	H.265/H.264/MJPEG	
	H.265 Type	Main Profile @Leve4.1 High Tier	
	Video Bit Rate	64Kbps~10Mbps	
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 2560×1440(1~30fps)/2304×1296(1~30fps)/1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/ 2304×1296(1~25fps)/1920×1080(1~25fps)/ 1280×720(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
Interfaces	ROI	Support	
	Network	RJ45	
	Video	CVBS output (BNC ×1)	

	Audio	MIC IN×1; MIC OUT×1
	Storage	Support TF card, up to 64GB
	RS485	Support
	Alarm	1CH alarm input; 1 CH alarm output
Function	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 10 users and multi-stream transmission
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP
	Interface Protocol	ONVIF, GB-T/28181-2011
	Storage	TF card storage; network remote storage
	Smart Alarm	Motion alarm; sensor alarm
Others	IR Distance	30~50 m
	Protection Grade	IP66
	Power	DC12V/PoE
	Power Consumption	< 2.5W(ICR OFF); < 6.5W(ICR ON)
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%
	Dimension (mm)	Ø109mm×284mm
	Weight (net)	1115g
	Installation	Wall mounting; pendant mounting

Specification /Model		Vandal-proof Dome Network Camera			
Camera	Image Sensor	1/3 " CMOS			
	Image Size	2688×1520			
	Electronic Shutter	1/25s~1/100000s			
	Auto Iris	Fixed Iris			
	Min. illumination	0.05lux@F1.2, AGC ON; 0 lux with IR		Color: 0.05lux@F1.2, AGC ON; B/W: 0.01lux@F1.2, AGC ON	
	Lens	6mm@F1.6, angle of view: 50°(3.6mm, 8mm optional)	3.3~12mm@F1.4, angle of view: 80°~38°	6mm@F1.6, angle of view: 50°(3.6mm, 8mm optional)	3.3~12mm@F1.4, angle of view: 80°~38°
	Lens Mount	CS	Ø14	CS	Ø14
	Day&Night	ICR			
	WDR	Digital WDR			
	Digital NR	3D DNR			
Image	Angle Adjustment	Pan: 0°~360°; Tilt: 0°~77°; Rotation: 0°~360°			
	Video Compression	H.265/H.264/MJPEG			
	H.265 Type	Main Profile @Leve4.1 High Tier			
	Video Bit Rate	64Kbps~10Mbps			
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240			
	Main Stream	60Hz: 2560×1440(1~30fps)/2304×1296(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/ 2304×1296(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)			
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser			
	ROI	Support			
Interfaces	Network	RJ45			
	Video	CVBS output (BNC ×1)			
	Audio	MIC IN×1; MIC OUT×1			
	Storage	Support TF card, up to 64GB			
	RS485	Support			
	Alarm	1CH alarm input; 1 CH alarm output			
Function	Remote Monitoring	IE browser, CMS remote control			
	Online Connection	Support simultaneous monitoring for up to 10 users and multi-stream transmission			
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP			
	Interface Protocol	ONVIF, GB-T/28181-2011			
	Storage	TF card storage; network remote storage			
	Smart Alarm	Motion alarm; sensor alarm			

Others	IR Distance	20~30 m	NO
	Protection Grade	IP66&IK10	
	Power	DC12V/PoE	
	Power Consumption	< 2.5W(ICR OFF); < 5W(ICR ON)	
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%	
	Dimension (mm)	Ø150mm×114mm	
	Weight (net)	1260g	
	Installation	Pendent mounting (wall mounting available with junction box and bracket)	