

Megapixel IP Camera

H.264

(For IE Browser)

User Manual

Statement

Thank you for using our IP camera products. The IP camera designed for network video surveillance, adopted high performance and powerful single SOC chip media processor to integrate audio and video capture, compression and transmission. Standard H.264 Main Profile coding algorithm ensures clearer and smoother video transmission effect. Built-in Web Server allows users to easily perform real-time monitoring and remote control over front-end cameras via IE browser.

The IP cameras are suitable for small and medium-sized enterprises, families, and other environments that require remote network video transmission and monitoring. It is easy to be installed and operated.

Before installation, please check the product and all accessories. If anything is missing, please contact your supplier in time.

Package Contents:

1	IP Camera	X1
2	Power Adapter (refer to camera model)	X1
3	CD	X1
4	User Manual	X1
5	WIFI Antenna (for wireless model)	X1
6	Bracket	X1
7	Network Cable	X1

NOTE:

Contents in this manual may be different from the edition that you are using. Should any unsolved problem occur given that the product is used according to this manual, please contact our technical support department or your product suppliers.

The content of this manual may be updated at irregular intervals without prior notice.

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1. INTRODUCTION

1.1. General Description

This is a minitype camera with elegant and beautiful shape, built-in Web server, open application interface and industrial grade stable performance, makes the industrial network transmission safety, quickly, simple operation, easy control. It integrates audio and image information, perform real-time monitoring synchronously through the network, to achieve real-time monitoring audio and image via a standard Web browser.

1.2. Characteristic

Easy to Install

Just insert the network cable to the RJ45 interface of the camera, inputting the camera's IP address through Microsoft IE, Mozilla Firefox, Safari, Google Chrome or other standard browsers, then using it.

High Quality Image

The camera adopts H.264 video compression, with clear picture, the maximum speed up to 30 frames/second via 10M/100M network real-time transfer.

Open Standard Environment

Support TCP/IP network, support HTTP DNS DHCP PPPoE SMTP FTP SSL TFTP NTP ARP/RARP NFS RTSP RTP RTCP protocols and Dynamic IP(DDNS). Support up to 10 users online simultaneously.

Advanced Extended Function

Connect home appliances and panalarm via GPIO interface to achieve I/O alarm input and output functions.

Simple Management Mode

Using standard web browser, to configure and manage the camera, upgrade the software online directly.

Safety Performance Guarantee

Multi-level users management and passwords definition, the administrator can set different access permission to different level visitors.

Extensive Range Application

Real-time video is transferred by internet, which can't be compared by traditional video surveillance system. Users can view and remote control the real time image at anytime, anywhere via network. The camera can be widely used such as product demonstrations, real-time monitoring, real-time recording and taking. It can also be at the scheduled time or event occurs, send pictures to the specified E-Mail, FTP server timely.

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1.3. Specification

Image Sensor	Image Sensor	1/4" Color CMOS Sensor
	Lens	f: 6 mm, F:2.0 (IR Lens)
	Mini. Illumination	0.5Lux
Audio	Input	1 channel audio input
	Output	1 channel audio output
	Audio Compression	G.711
Video	Image Compression	H.264, MJPEG
	Image Frame Rate	30fps
	Resolution	1280 x 720(30fps), 640 x 480(30fps), 320x240(30fps)
	Flip Mirror Images	Vertical / Horizontal
	Light Frequency	50Hz, 60Hz, Outdoor
	Video Parameters	Brightness, Saturation, Contrast, Hue
Communication	Ethernet Interface	Build in 10/100Mbps,Auto MDI/MDIX , RJ-45
	Supported Protocol	TCP/IP HTTP DNS DHCP PPPoE SMTP FTP SSL TFTP NTP ARP/RARP NFS RTSP RTP RTCP.
	Compress rate level	128Kbps~4Mbps
	Wireless Standard	IEEE 802.11b/g/n
	Data Rate	802.11b: 11Mbps (Max.), 802.11g: 54Mbps (Max.), 802.11n: 150Mbps (Max.),
	Wireless Security	WEP & WPA WPA2 Encryption
Physical	Infrared Light	30 IR LEDs, Night visibility about 25 meters
	Dimension	175(L) x98(W) x98mm(H)
	Alarm Input	1 Channel on/off Input
	Alarm Output	1 Channel relay Output
Power	Power Supply	DC 12V/2.0A (EU,US,AU adapter or other types optional)
	Power Consumption	9 Watts (Max)
Environment	Operate Temper.	-30° ~ 55°C (14°F ~ 131°F)
	Operating Humidity	20% ~ 85% non-condensing
	Storage Temper.	-30°C ~ 60° (14°F ~ 140°F)
	Storage Humidity	0% ~ 90% non-condensing
PC System Requirements	CPU	2.0GHZ or above (suggested 3.0GHZ)
	Memory Size	256MB or above (suggested 1.0GHZ)
	Display Card	64M or above
	Supported OS	Microsoft Windows 2000/XP/Vista/7/8
	Browser	IE6.0/7.0/8.0/Firefox/Safari/Google chrome or other standard browsers

2. INSTALLATION AND SETTINGS

System Requirement:

Operating System: Windows 2000 / XP / Vista / 7/8

Network Protocol: TCP/IP

Network Structure: Applies to all network connections 10/100M LAN platform

Browser: Internet Explore 6.0 or above.

2.1. Network Connection

Intranet and Extranet Connection Reference:

Extranet means public IP, Intranet means private IP. If your IP belongs to the follow range, then it's a private IP :

Category A: 10.0.0.0 - 10.255.255.255

Category B: 172.16.0.0 - 172.31.255.255

Category C: 192.168.0.0 - 192.168.255.255

Intranet Connection: IP camera and user's computer (device) should be under the same network environment, and both of their IP should be under the same subnet, then means correct connection, picture as below:

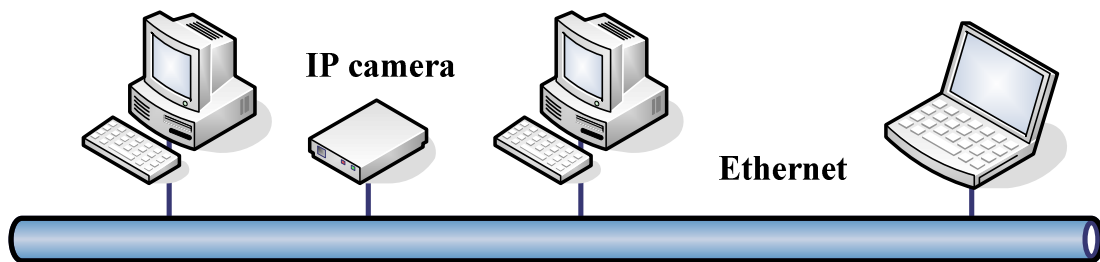


Figure1.0

Extranet Connection: there are 2 ways as below:

(1). IP camera connect to the Internet via router, here camera's IP is a private IP, clients need to connect to IP camera through a router, with forwarding rule to be connected correctly, as below:

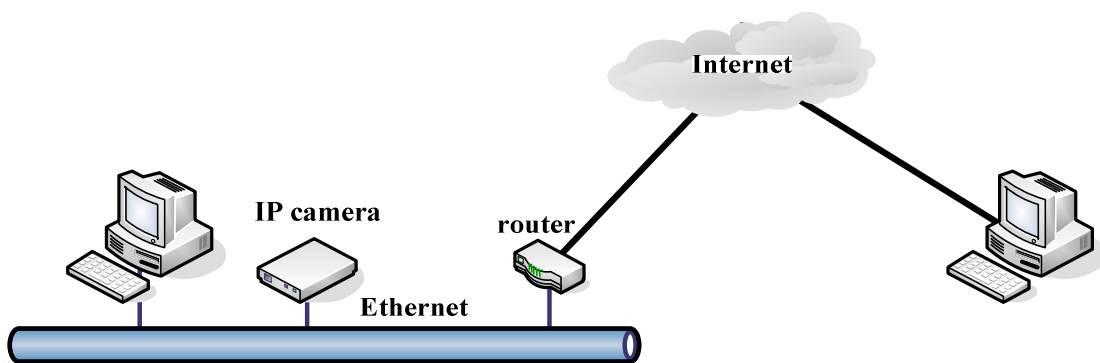


Figure1.1

(2). IP camera connect to the Internet directly, if it's a fixed IP which provided by ISP, just input it. If it's a floating IP, then input the account and password which provided by ISP to dial-up connection.

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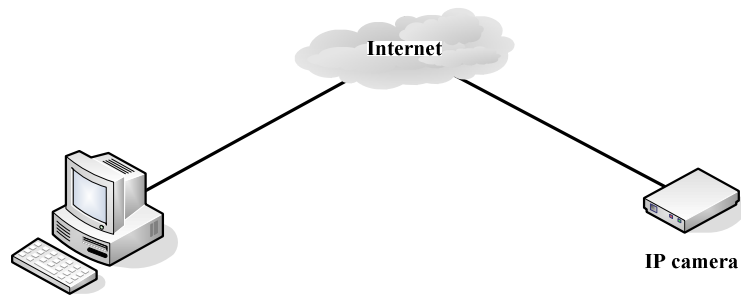


Figure1.2

2.2. IE Browser Settings

OCX will be downloaded automatically when users login the IP Camera, so users have to set the IE browser to enable the OCX be downloaded automatically after signing in. Steps as below:

1. Close the firewall of your computer.
2. Change the ActiveX settings, "IE" browser > "Tool" > "Internet Options" > "Security" > "Custom Level" > "ActiveX control and Plug-ins", all the ActiveX options set to be "Enable":

Especially:

Enable: Download unsigned ActiveX controls

Enable: Initialize and script ActiveX controls not marked as safe

Enable: Run ActiveX controls and plu-ins

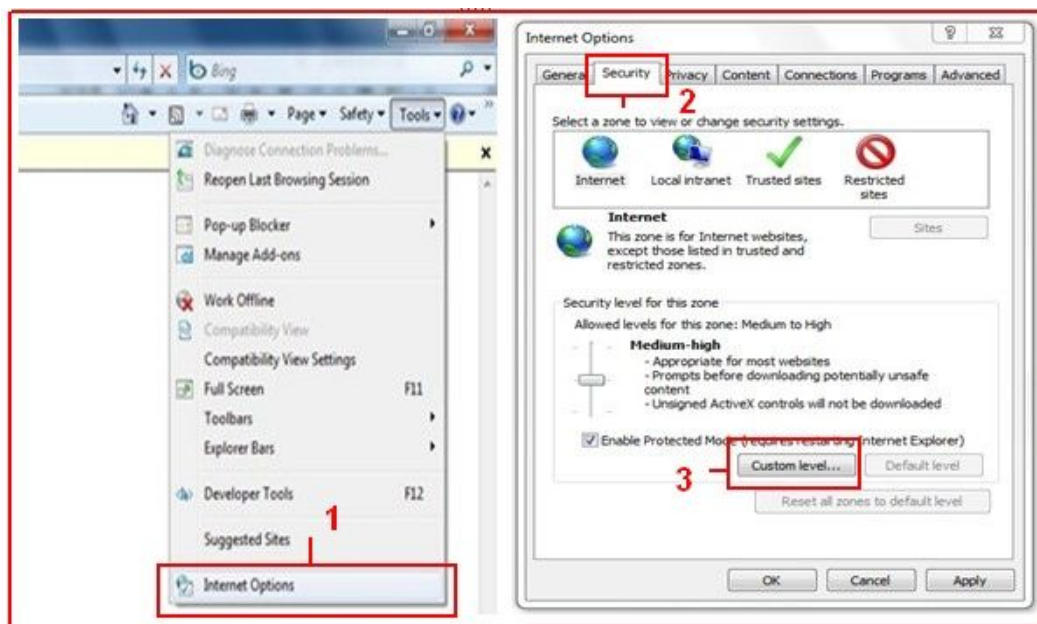


Figure1.3

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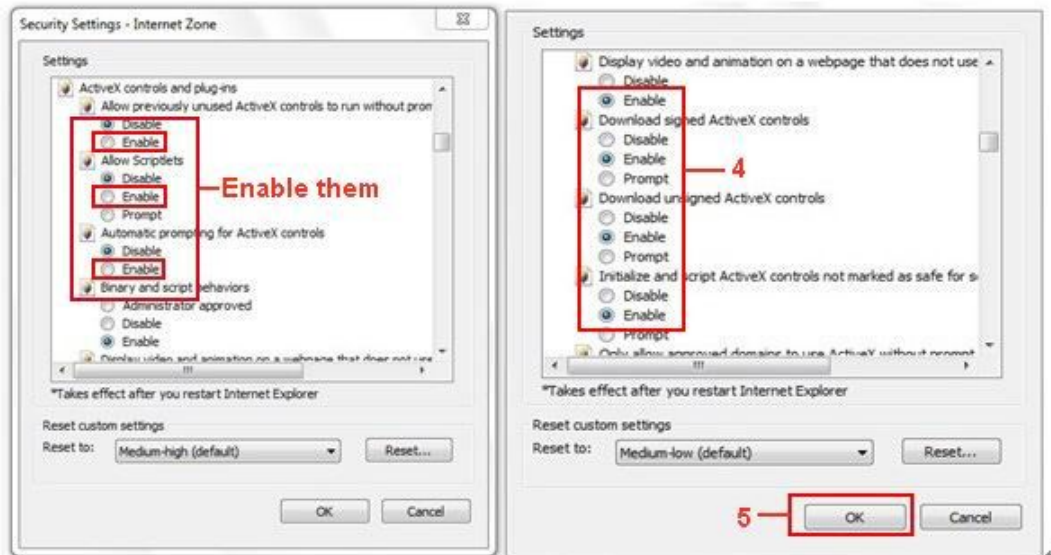


Figure1.4

In addition: you can also click “**Start**” menu>“**Internet Explorer**”, choose “**Internet attributes** “ to enter, or via “**Control Panel**” >“**Internet Explorer**”, enter to Security setting.

2.3. UPnP Service

UPnP could help you to find your camera’s IP more faster. For Window XP, from “**Control Panel**” > “**Add or remove applications**” > “**Add or remove Windows component**” > “**Network service**” > “**Detailed data**” > “**UPnP users interface**”, enable it, factory settings is disable. Then it can allow your operating system to support UPnP.

2.4. IPCam IP Address Search Tool

Step 1: Use tool “**SearchIPCam.exe**” to find IP address of LAN.

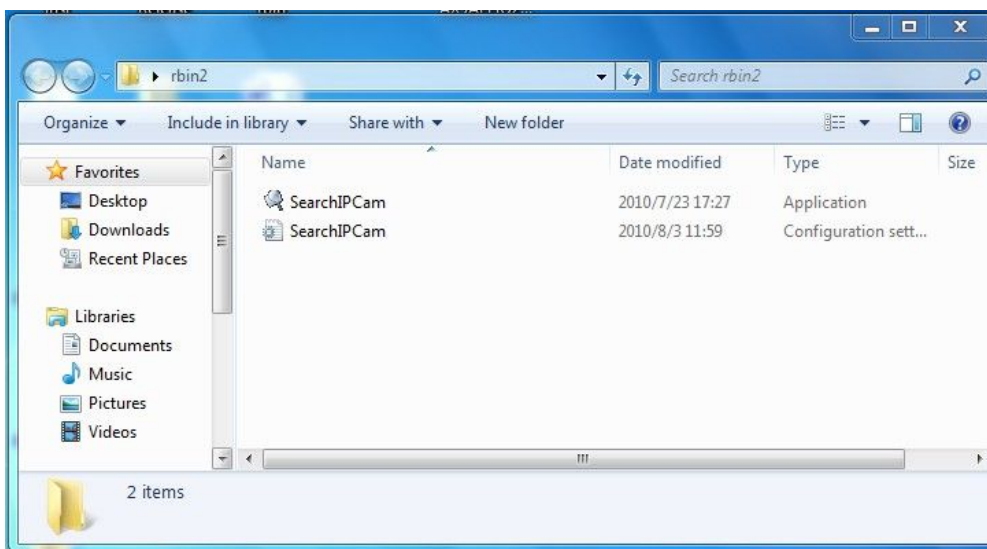
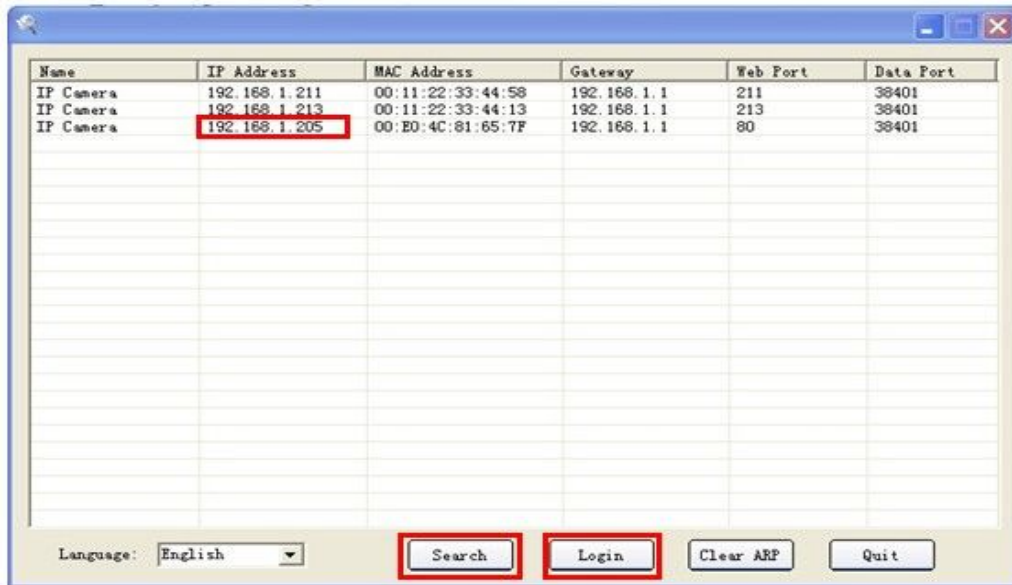


Figure1.5

Step 2: Double click “**Search IPCam**”, camera IP & MAC list will be displayed. If you want to re-search, click

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“Search” again.



Name	IP Address	MAC Address	Gateway	Web Port	Data Port
IP Camera	192.168.1.211	00:11:22:33:44:58	192.168.1.1	211	38401
IP Camera	192.168.1.213	00:11:22:33:44:13	192.168.1.1	213	38401
IP Camera	192.168.1.205	00:80:4C:81:65:7F	192.168.1.1	80	38401

Language: English

Search Login Clear ARP Quit

Figure1.6

Step 3: Choose the IP, click “Login” or double click the IP to enter IE login interface.



Login Language English

User

Password

Login Mobile Phone

Prompt:

1. Case sensitive.
2. Mobile Phone (For Browser that supports Javascript).
3. Please download and complete the installation of Plug-in if your first sign in or sign in does not properly display video.

Load OCX

Figure1.7

2.5. Install the OCX ActiveX

Install the OCX activeX for the first time login; click the  icon on the right bottom,



Download the OCX file [DvmHIPC.am](#), After that, double click to install it automatically.

After OCX installed fully, then input the user name and password to login the camera.

3. SOFTWARE OPERATION (IE BROWSER)

Choose the suitable language, input correct user name and password, then click “Login”

For example,if the factory default settings as below:

IP Address:192.168.1.155

User name: admin

Password: admin



Figure1.8

Language English: Choose languages here

Mobile Phone: For mobile phone login

Load OCX: For OCX installation

Login: Click to login the IE interface as below:



Figure1.9

3.1. Three main functions:



Figure2.0



Live video: Click it, back to live video window from “Playback” or “Params settings”



Playback: Click to query and playback the video files (Details see 5 Playback)



Params Settings: Setting the camera’s parameters (Details see 4 Params settings)

3.2. For Live Video

3.2.1 TOP Menu:



Figure2.1




Play: Play the live video.




Stop: Stop the live video.



Listen: Click it to enable listen function, the icon will change to green color  can hear the live audio from camera via PC if audio is ON. Click it again, will stop listen function.



Talk: Click it to enable talk function, the icon will change to green color  can talk between PC and camera if audio device connected. Click it again, will stop talk function.




Capture: Click to take snapshot, the picture be saved in the PC to it’s appointed path as JPG format, and pop-up the prompt as below:



Figure2.2



Record: Click to start record manually, the icon will change to green color  Record file will be saved in the PC to it’s appointed path as AVI format. Click it again, will stop record function.

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Clear Alarm: Click to stop the alarm manually when there is an alarm triggered, and pop-up prompt as below:



Figure2.3



OSD Settings: Click it will pop-up the OSD settings interface, including OSD Color, Frequency, Image Mirror and Flip.



Figure2.4

OSD: Means "On-Screen Display"

OSD Color: Including Disabled, Black, Red, Green, Blue, Purple, Gray, Silver, Yellow, Olive, Turquoise, White, Light Blue etc.



Figure2.5

Frequency: Including 50HZ, 60HZ, Outdoor.

50HZ/60HZ for the users who use 50HZ/60HZ frequency, outdoor for the users who want to use this camera to monitor the outdoor environment

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Figure2.6

Mirror and Flip

Mirror: Select this icon to see the mirror image. Erase it, will back to normal.

Flip: Select this icon to see the reversal image. Erase it, will back to normal.

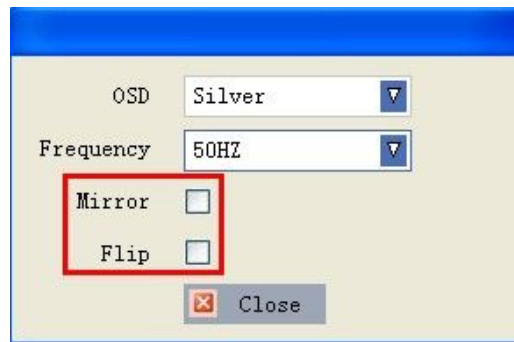



Figure2.7

NOTE: You can choose Mirror and Flip function when you set up the camera in a special position.



Full Screen: Click it, shift to full screen mode, double click left mouse or click the icon  on the left bottom to exit full screen mode

3.2.2 Left Side Menu:

There are some basic operation icons listed on the left side menu as below:

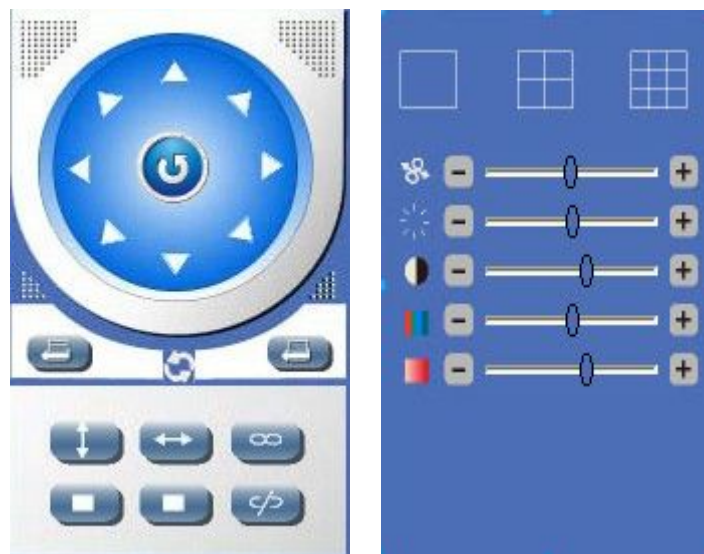


Figure2.8


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PT Control: Not Applicable




Figure3.0




: Click this one, you can view the main channel of the camera you login, move the mouse to the icon, the frame will change to red color .



: Click this one; you can view 4 Channels of cameras which connected, from CH1 to CH4. move the mouse to the icon, the frame will change to red color .



: Click this one; you can view 9 Channels of cameras which connected, from CH1 to CH9. move the mouse to the icon, the frame will change to red color .

NOTE: If you want to view 4/9 channels, you should set the Multi-Device firstly (See 4.13 Multi-Device Settings)

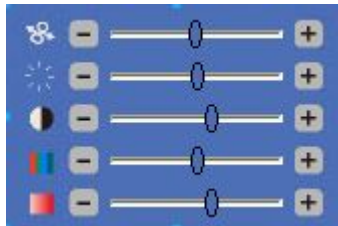


Figure3.1



PTZ speed: Not Applicable



Brightness: set value from 0 to 255, click the icon, it will back to factory settings.



Contrast: set value from 0 to 255, click the icon, it will back to factory settings.



Hue: set value from -128 to 127, click the icon, it will back to factory settings.



Saturation: set value from 0 to 200, click the icon, it will back to factory settings.



Figure3.2

There are 9 icons  at the bottom of the UI which show the status of each channel of the camera.



Grey color: means there is no device connected to the main device from this channel.



Green color: means the device connected from this channel, and it works well.




Red color: means the device of this channel is recording.



Yellow color: means set this channel in multi-device already, but it fails to connect to the main device.

4. PARAMS SETTINGS

4.1. Device Info.

Click “Params Settings” icon , select “Device info”, it will show the basic information such as “Device ID”, “Device Client”, “Device Host”, “Description”, “IP Address”, “UPNP Status”, “DDNS Status” etc. Default device name is “IP Camera”, users can change the camera’s description here, picture as below:

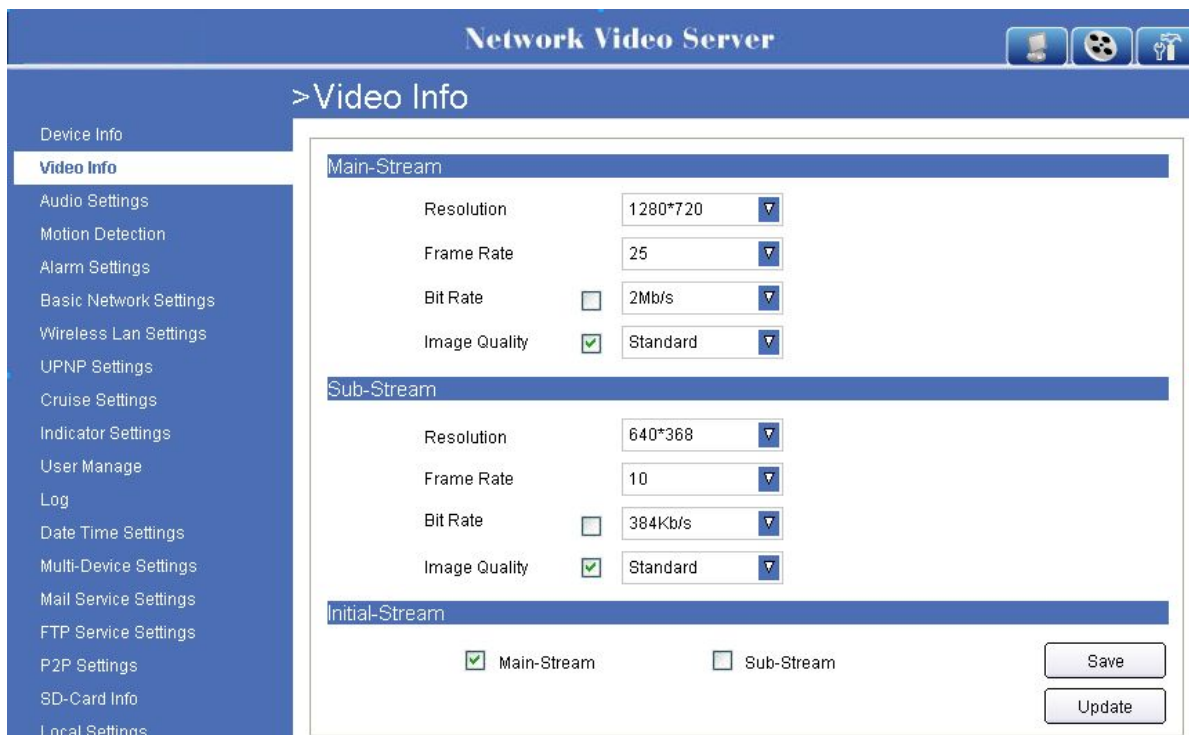


Field	Value
Device ID	000dc5d8e1b4
Device Client Version	1.14.5.36
Device Host Version	83.2.5.68bi
Description	IP CAMERA
IP Address	192.168.1.155
UPNP Status	Normal
DDNS Status	Normal http://6501.apexisip.com:155

Figure3.3

4.2. Video Info.

Click “Video Info” to enter the interface as below:



Section	Field	Value
Main-Stream	Resolution	1280*720
	Frame Rate	25
	Bit Rate	<input type="checkbox"/> 2Mb/s
	Image Quality	<input checked="" type="checkbox"/> Standard
Sub-Stream	Resolution	640*368
	Frame Rate	10
	Bit Rate	<input type="checkbox"/> 384Kb/s
	Image Quality	<input checked="" type="checkbox"/> Standard
Initial-Stream	Selected	<input checked="" type="checkbox"/> Main-Stream <input type="checkbox"/> Sub-Stream

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Figure3.4

There are two options for stream, **Main-Stream** and **Sub-Stream**, users can set the stream based on the actual operation environment, for example, if the bandwidth is good enough, set Main-Stream as Initial-Stream, or choose Sub-Stream will be better.

Set the parameters of **Main-Stream** and **Sub-Stream** as below:

Resolution: 1280x720, 640x368, 320x208 optional.

Frame Rate: Set the frame rate according to the bandwidth. Frame rate could be “Auto” or “from 1fps to 30fps(Real time)”. If the network situation is not ideal, can reduce the frame rate to control the coding rate, make the moving pictures more smoothly

Bit Rate: Higher bit rate means better quality images, but take more bandwidth, so please adjust the settings according to the actual bandwidth. The range of bit rate from 128Kbps~4Mbps.



Figure3.5

Image Quality: Better image quality, higher bit rate value, and it will take more bandwidth, the image quality parameters could be set as below:



Figure3.6

NOTE: When the device runs, only can select Bit Rate or Image Quality either.

4.3. Audio Settings

Click “**Audio Settings**” to enter the interface:

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Figure3.7

Built-in headset: Choose built-in MIC as the audio input device.

External headset: Choose external headset as the audio input device.

4.4. Motion Detection

Click "Motion Detection" to enter the interface:



Figure3.8

Motion Detection Zone Armed:

Can set all zone to be armed, or a specified zone armed.

Before setting a specified zone, should set "Motion Detection" to "ON", then press left mouse, drag it on video area to set the detection zone, and save it, supports 3 area ID mostly.

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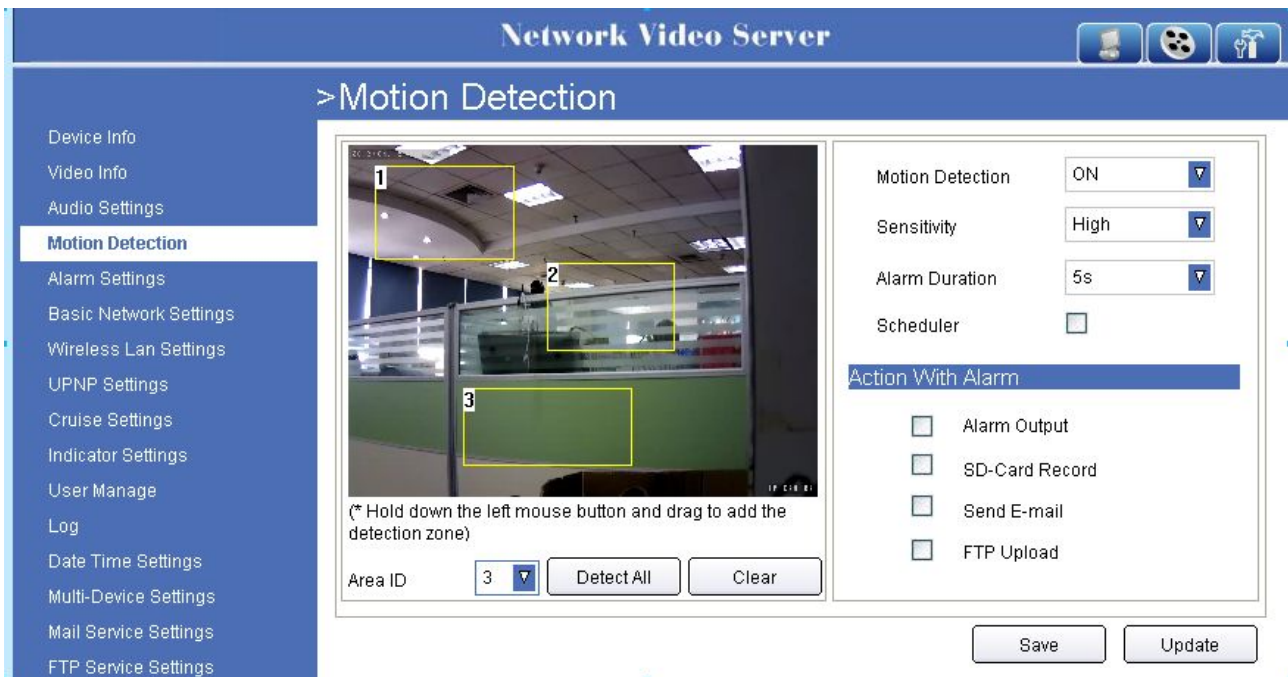


Figure3.9

- **Detect All:** Setting the whole video window as the motion detect armed zone.
- **Clear:** Clear all armed zone.
- **Motion Detection:** Set motion detection armed function ON/OFF.

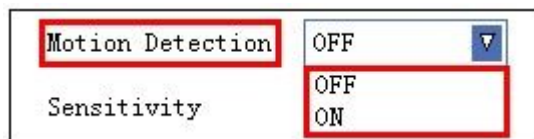


Figure4.0

- **Sensitivity:** Set detection sensitivity as Low, Middle, High, Higher, Highest.

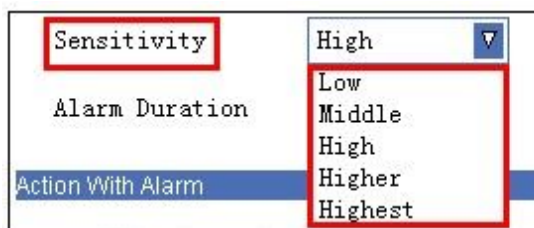


Figure4.1

- **Alarm Duration:** Set each alarm duration, can be forever, 5s, 10s, 15s, 30s, 60s.

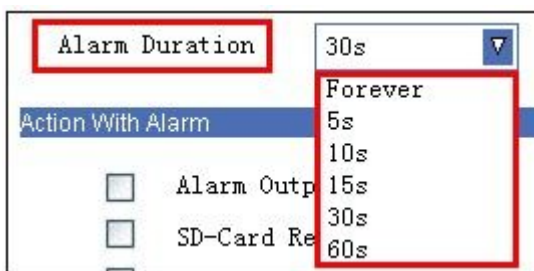
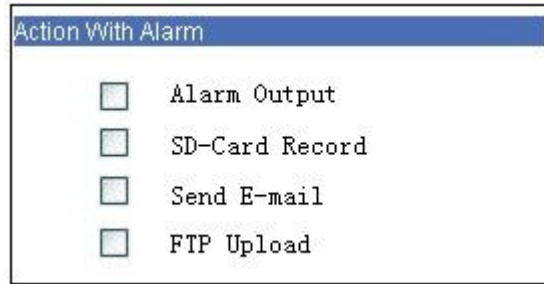


Figure4.2

Action with Alarm

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These are actions optional for motion detection.



A dialog box titled "Action With Alarm" with a blue header. It contains four unchecked checkboxes:

- Alarm Output
- SD-Card Record
- Send E-mail
- FTP Upload

Figure4.3

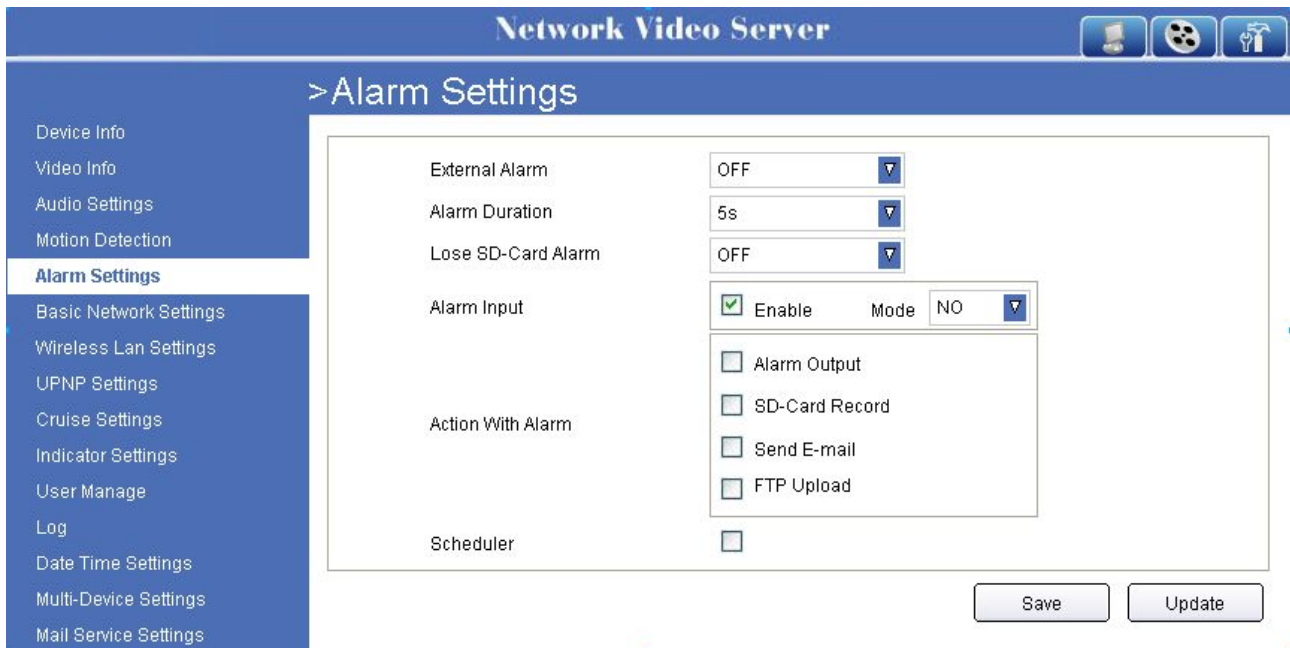
- **Alarm output:** Select it to enable alarm output, unselect to stop.
- **SD-Card Record:** Select it to enable record in SD card, unselect to stop.
- **Send E-mail:** Select it to enable E-mail alert function, unselect to stop. (Mail service details see 4.14)
- **FTP Upload:** Select it to enable FTP upload function, unselect to stop. (FTP details see 4.15)

Click **Save** to save all the settings.

Click **Update** to refresh the settings.

4.5. Alarm Settings

Click "Alarm Settings" to enter the interface:



The "Network Video Server" interface for "Alarm Settings". The left sidebar lists various settings categories, with "Alarm Settings" selected. The main area contains the following settings:

- External Alarm: OFF (dropdown)
- Alarm Duration: 5s (dropdown)
- Lose SD-Card Alarm: OFF (dropdown)
- Alarm Input: Enable, Mode: NO (dropdown)
- Action With Alarm: Alarm Output, SD-Card Record, Send E-mail, FTP Upload
- Scheduler:

Buttons for "Save" and "Update" are located at the bottom right.

Figure4.4

- **External Alarm:** Set external alarm function ON/OFF.



A close-up of the "External Alarm" and "Alarm Duration" settings. The "External Alarm" dropdown is set to "OFF" and is highlighted with a red box. The "Alarm Duration" dropdown is set to "ON" and is also highlighted with a red box.

Figure4.5

- **Alarm Duration:** Set external alarm output duration(Relay close time), can be Forever, 5s, 10s, 15s, 30s, 60s.

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Alarm Duration	30s
Lose SD-Card Alarm	Forever
Alarm Input	5s
	10s
	15s
	30s
	60s
	Alarm Output

Figure4.6

- **Lose SD-Card Alarm:** Set alarm triggered ON/OFF if the SD-Card is lost.

Lose SD-Card Alarm	OFF
Alarm Input	ON
	OFF

Figure4.7

- **Alarm Input:** Set alarm input ON/OFF, it supports NO/NC external alarm device, choose the correct mode to make sure it works well, it refers to the I/O pin6(Input2) and pin7(Input1).

Alarm Input	<input checked="" type="checkbox"/> Enable	Mode	NO
Alarm Input 2	<input checked="" type="checkbox"/> Enable	Mode	NC

Figure4.8

• Action with Alarm

These are actions optional for external alarm triggered.

Action With Alarm	<input type="checkbox"/> Alarm Output
	<input type="checkbox"/> SD-Card Record
	<input type="checkbox"/> Send E-mail
	<input type="checkbox"/> FTP Upload

Figure4.9

Alarm output: Select it to enable alarm output, unselect to stop.

SD-Card Record: Select it to enable record in SD card, unselect to stop.

Send E-mail: Select it to enable E-mail alert function, unselect to stop. (Mail service details see 4.14)

FTP Upload: Select it to enable FTP upload function, unselect to stop. (FTP details see 4.15)

Click **Save** to save all the settings.

Click **Update** to refresh the settings.

4.6. Basic Network Settings

Click "Basic Network Settings" to enter the interface:

>Basic Network Settings

Network Type	Static Address	Enable DDNS	Close
Media Port	38401	DDNS Server Type	Factory DDNS
Web Port	80	DDNS User	abc
Mobile Port	2012	DDNS Password	***
RTSP Port	554	DDNS Host Name	abc.aipc.com
IP Address	192.168.1.155		
Subnet Mask	255.255.255.0		
Gateway	192.168.1.1		
DNS Server	192.168.1.1		
MAC Address	00:11:22:33:44:55		

Save Update

Figure5.0

Network Type: There are three modes: **Static Address, DHCP, PPPoE.**

Network Type	Static Address
Media Port	Static Address
Web Port	DHCP
	PPPoE

Figure5.1

4.6.1 Static Address

Set network parameters manually

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Network Type	Static Address ▾
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554
IP Address	192.168.1.231
Subnet Mask	255.255.255.0
Gateway	192.168.1.1

Figure5.2

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Mobile Port:** Default is 2012.
- **RTSP Port:** Default is 554.
- **IP Address:** Set the IP address of camera.
- **Subnet Mark:** Default is 255.255.255.0.
- **Gateway:** Set the gateway of IP camera. If the camera connect to extranet via router, then the gateway is the router's IP.

NOTE: Please don't change the **Media Port, Web Port, Mobile Port, RTSP Port** if no necessary.

4.6.2 DHCP

Choose DHCP, the camera will get IP address automatically.

Network Type	DHCP ▾
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554

Figure5.3

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Mobile Port:** Default is 2012.
- **RTSP Port:** Default is 554.

NOTE: Please don't change the Media Port, Web Port, Mobile Port, RTSP Port if no necessary.

4.6.3 PPPoE

Set parameters here to enable PPPoE function.

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Network Type	PPPoE 
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554
Enable PPPoE	Open 
PPPoE User	abc
PPPoE Password	***
PPPoE IP Addr	153.24.65.1

Figure5.4

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Mobile Port:** Default is 2012.
- **RTSP Port:** Default is 554.
- **Enable PPPoE:** Choose Open to enable PPPoE function.
- **PPPoE User:** The account provided by ISP
- **PPPoE Password:** The password provided by ISP.
- **PPPoE IP Addr.** If PPPoE dial-up succeed, will display the IP address distributed by ISP.


NOTE: Please don't change the **Media Port**, **Web Port**, **Mobile Port**, **RTSP Port** if no necessary.

DNS Server	192.168.1.1
MAC Address	00:11:22:33:02:03

Figure5.5

- **DNS Server:** Set DNS server
- **MAC Address:** MAC address of IP Camera.

If you don't know **Subnet Mask**, **Gateway**, **DNS Server**. Please check the Local Area Connection Status of your computer; it contains all these information, steps as below:

1. **Control Panel > Network Connections > Local Area Connections > Support > Details**
2. Find the local connection icon  from taskbar, left click it, choose **Support > Details**

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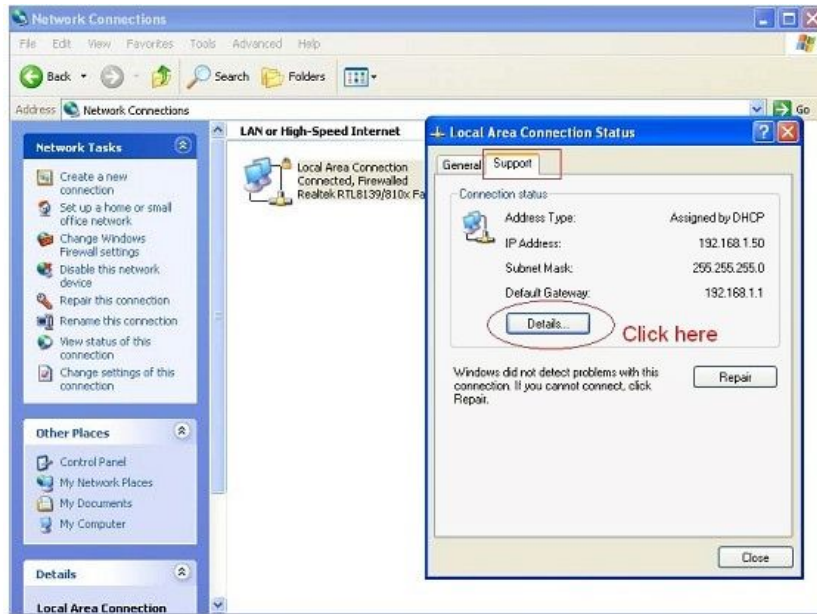


Figure5.6

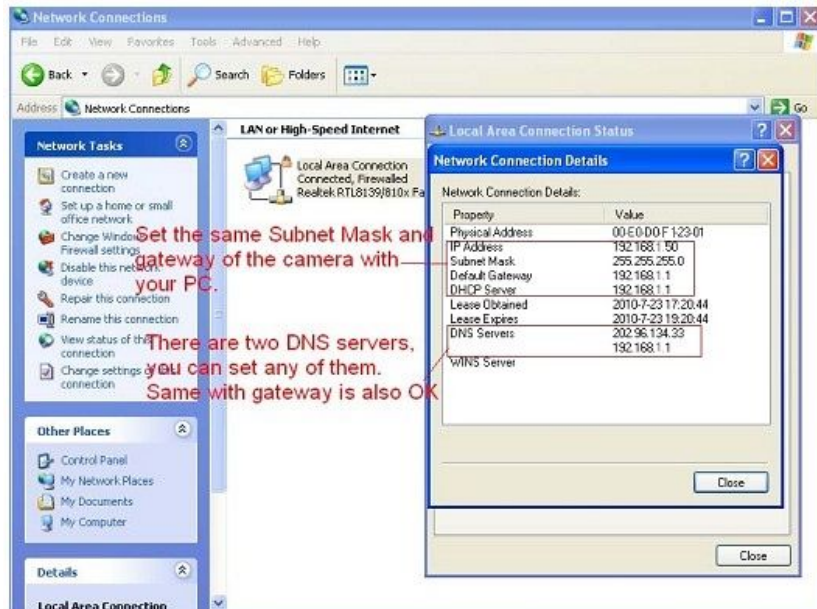


Figure5.7

If you don't know the DNS Server, you can set it the same as Gateway.

4.6.4 DDNS: Enable DDNS function.

Enable DDNS	Open
DDNS Server Type	Factory DDNS
DDNS User	abc
DDNS Password	***
DDNS Host Name	abc.aipcam.com

Figure5.8

There are 2 options:

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Factory DDNS: This domain is provided by manufacturer.

Third Party DDNS: This domain is provided by the 3rd party, such as Dyndns, 3322 etc.

- **Enable DDNS:** Set DDNS function ON/OFF.
- **DDNS Server Type:** Set DDNS server type, such as factory DDNS or third party DDNS server provider.
- **DDNS User:** Registered user name from DDNS server. (If use factory DDNS, it can't be modified.)
- **DDNS Password:** Registered password from DDNS server. (If use factory DDNS, it can't be modified.)
- **DDNS Host Name:** Domain name set by user. (If use factory DDNS, it can't be modified.)

For the third party DDNS, you have to register an account firstly, keep the user, password, host, then input it.

NOTE: Only one DDNS can be chosen, for example, if you use manufacturer's DDNS, the 3rd one won't work, if use the 3rd DDNS, the manufacturer's one won't work.

4.7. Wireless Lan Settings

Click "Wireless Lan Settings" to enter the interface:

The screenshot shows the 'Wireless Lan Settings' page in a Network Video Server web interface. The page has a blue header with the title 'Network Video Server' and three icons. A left sidebar contains a menu with 'Wireless Lan Settings' highlighted. The main content area is titled '>Wireless Lan Settings' and contains a table with columns 'SSID', 'Network Type', 'Encryption', and 'Authentication'. Below the table is a 'Search' button. Underneath the table is a configuration section for 'Using Wireless Lan' with a checked checkbox. The settings include: SSID (Test_wifi), Network Type (Infra), Encryption (TKIP), Authentication (WPA2-PSK), and Key (*****). There are 'Save' and 'Update' buttons at the bottom right of the configuration section.

Figure5.9

Click the icon "**Search**" to scan the wireless network in this environment automatically.

Using Wireless Lan: Set WiFi ON/OFF.

SSID: the ID of Wireless network, it should be the same SSID as the connected WiFi router.

Network Type: Two modes:

1. **Infra** (Infrastructure Mode) , if using normal AP, choose Infra mode..
2. **Ad-Hoc** Mode. If using point-to-point transmission, choose Adhoc mode.

The factory setting is Infra.

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- **Encryption:** WEP, TKIP, AES optional.
- **Authentication:** **WEP:** Open System or Share Key. **TKIP (AES):** WPA-PSK or WPA2-PSK.
- **Select Key:** Choose the channel of WEP share Key.
- **Key:** Input the key the same as the settings in your router.

All the WiFi encryption mode should be the same as WiFi router which connected, and different encryption has different authentication menu.

4.8. UPNP Settings

Click “UPNP Settings” to enter the interface:



Figure6.0

Enable UPNP: Set UPNP function ON/OFF.

Select it to enable UPNP, then the camera will do port forwarding automatically.

It's helpful for using DDNS, if your router support UPNP, then you no need do port forwarding in router.

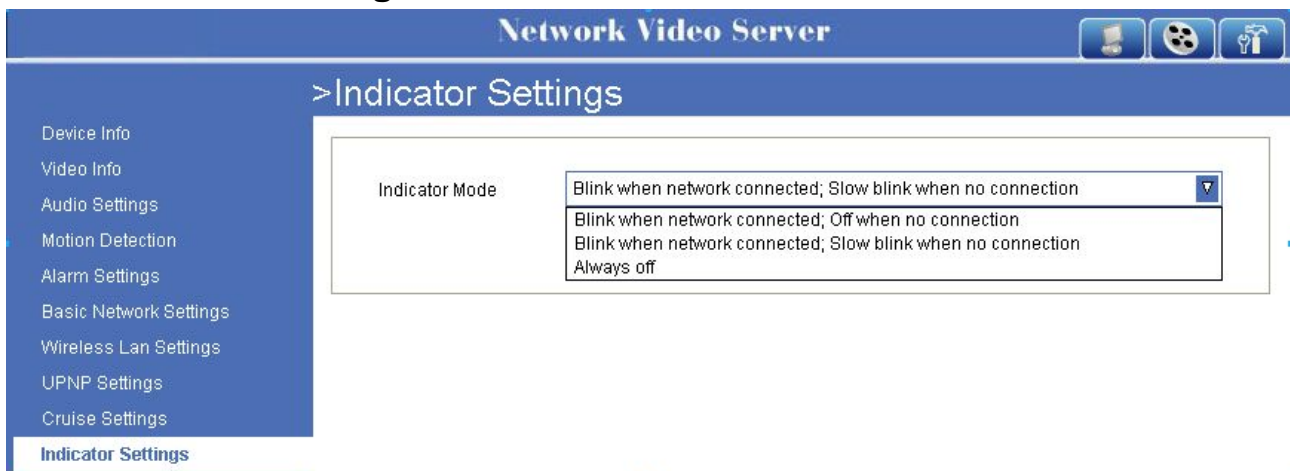
NOTE: Here UPNP only for port forwarding now. It has much relation with security settings of your router, make sure the UPnP function of router is ON.

ATTENTION: If your router doesn't support UPNP function, it may show error information. So we recommend you do port forwarding manually in your router.

4.9. Cruise Settings

Not Applicable

4.10. Indicator Settings



There are 3 Indicator Modes, choose the one, then click "Save"

4.11. User Manage

Click **“User Manage”** to enter the interface:

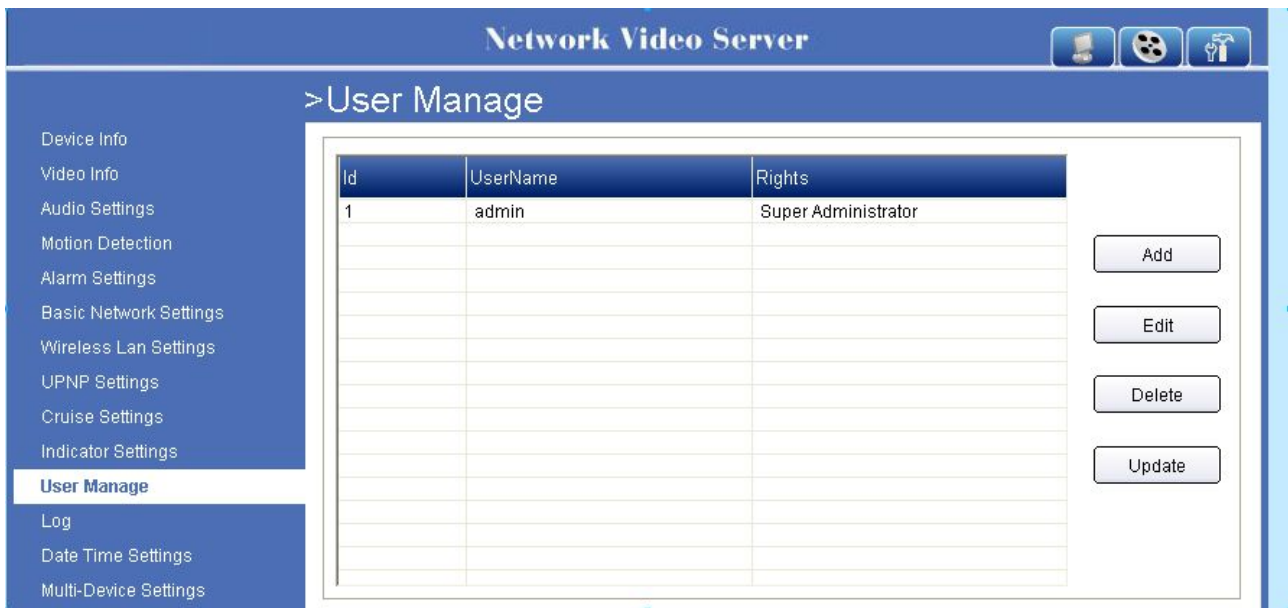


Figure6.2

Every camera supports 16 users, and every user can be divided into three grades including **Super Administrator, Administrator, Operator, Visitor**.

Click **Add**, will pop-up the window as below:



Figure6.3

Super Administrator: Every device has a super administrator, it has the highest permission, can set all the parameters.

Administrator: Lower permission than super administrator, it can set most of the parameters except adding or editing other administrator accounts.

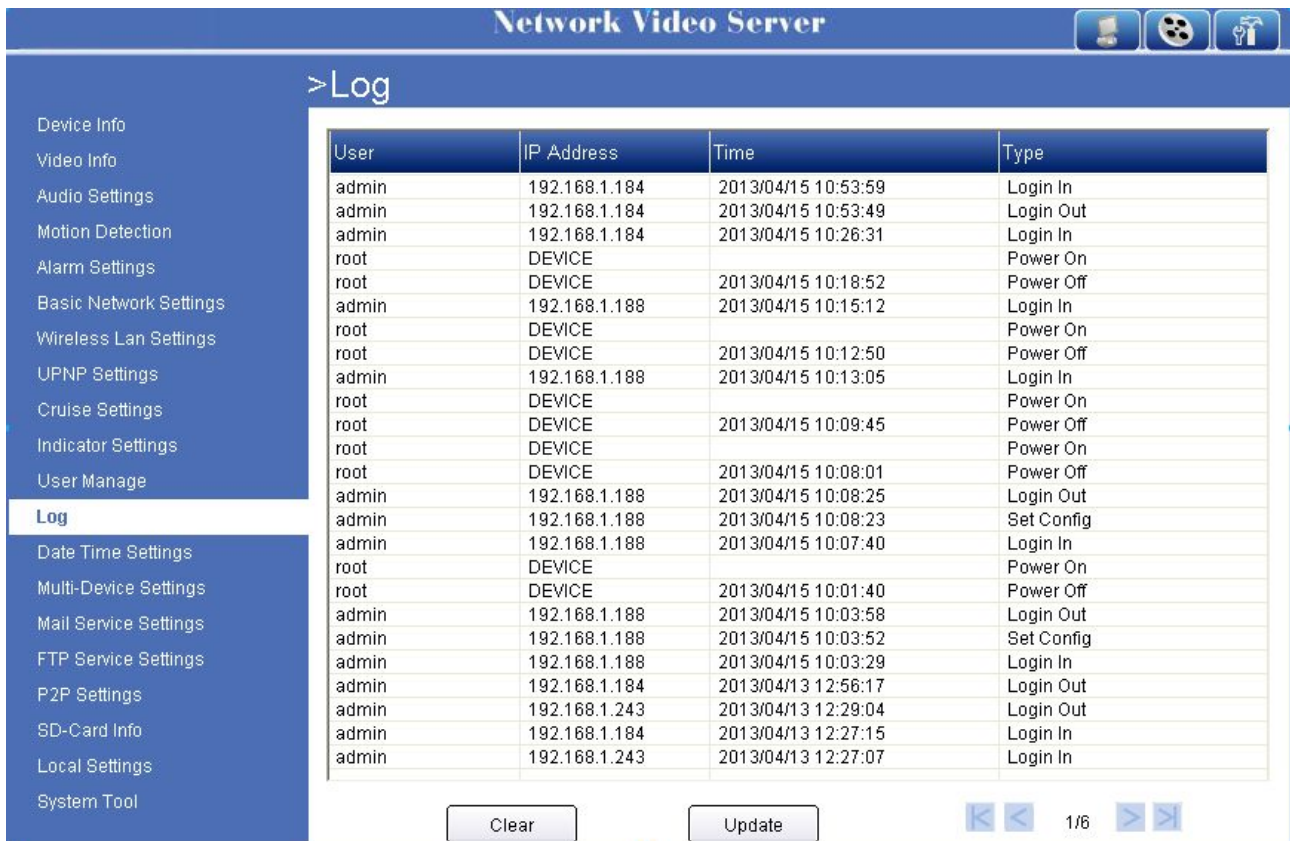
Operator: Lower permission than administrator, can do some operation such as pan/tilt control and set some parameters.

Visitor: The lowest permission, only can view live video, can't control the pan/tilt, parameter settings etc.

4.12. Log

Click **“Log”** to enter the interface:

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The screenshot shows the 'Log' interface of a Network Video Server. On the left is a navigation menu with options like Device Info, Video Info, Audio Settings, Motion Detection, Alarm Settings, Basic Network Settings, Wireless Lan Settings, UPNP Settings, Cruise Settings, Indicator Settings, User Manage, Log, Date Time Settings, Multi-Device Settings, Mail Service Settings, FTP Service Settings, P2P Settings, SD-Card Info, Local Settings, and System Tool. The 'Log' section is active, displaying a table of user activities. The table has columns for User, IP Address, Time, and Type. Below the table are 'Clear' and 'Update' buttons, and a page indicator '1/6' with navigation arrows.

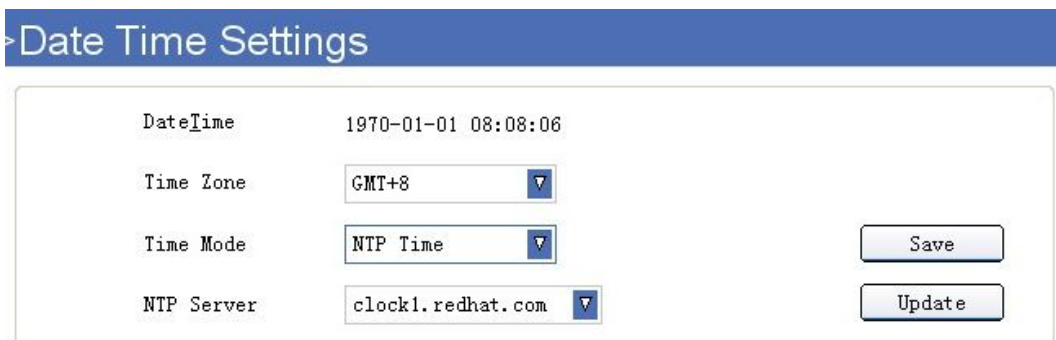
User	IP Address	Time	Type
admin	192.168.1.184	2013/04/15 10:53:59	Login In
admin	192.168.1.184	2013/04/15 10:53:49	Login Out
admin	192.168.1.184	2013/04/15 10:26:31	Login In
root	DEVICE		Power On
root	DEVICE	2013/04/15 10:18:52	Power Off
admin	192.168.1.188	2013/04/15 10:15:12	Login In
root	DEVICE		Power On
root	DEVICE	2013/04/15 10:12:50	Power Off
admin	192.168.1.188	2013/04/15 10:13:05	Login In
root	DEVICE		Power On
root	DEVICE	2013/04/15 10:09:45	Power Off
root	DEVICE		Power On
root	DEVICE	2013/04/15 10:08:01	Power Off
admin	192.168.1.188	2013/04/15 10:08:25	Login Out
admin	192.168.1.188	2013/04/15 10:08:23	Set Config
admin	192.168.1.188	2013/04/15 10:07:40	Login In
root	DEVICE		Power On
root	DEVICE	2013/04/15 10:01:40	Power Off
admin	192.168.1.188	2013/04/15 10:03:58	Login Out
admin	192.168.1.188	2013/04/15 10:03:52	Set Config
admin	192.168.1.188	2013/04/15 10:03:29	Login In
admin	192.168.1.184	2013/04/13 12:56:17	Login Out
admin	192.168.1.243	2013/04/13 12:29:04	Login Out
admin	192.168.1.184	2013/04/13 12:27:15	Login In
admin	192.168.1.243	2013/04/13 12:27:07	Login In

Figure6.4

Record user information, including account, date, time, visitor IP address etc.

4.13. Date Time Settings

Click “Date Time Settings” to enter the interface:



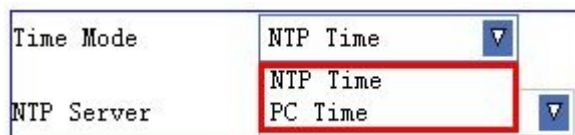
The screenshot shows the 'Date Time Settings' interface. It includes a 'Date Time' field showing '1970-01-01 08:08:06'. There are dropdown menus for 'Time Zone' (set to GMT+8), 'Time Mode' (set to NTP Time), and 'NTP Server' (set to clock1.redhat.com). There are 'Save' and 'Update' buttons.

Figure6.5

Date Time: Display the current date and time

Time Zone: Set the current time zone

Time Mode: Can choose PC Time or NTP Time.



This close-up shows the 'Time Mode' dropdown menu with 'NTP Time' selected. Below it, the 'NTP Server' dropdown menu is open, showing 'NTP Time' and 'PC Time' as options. A red box highlights the 'NTP Time' option in the NTP Server dropdown.

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Figure6.6

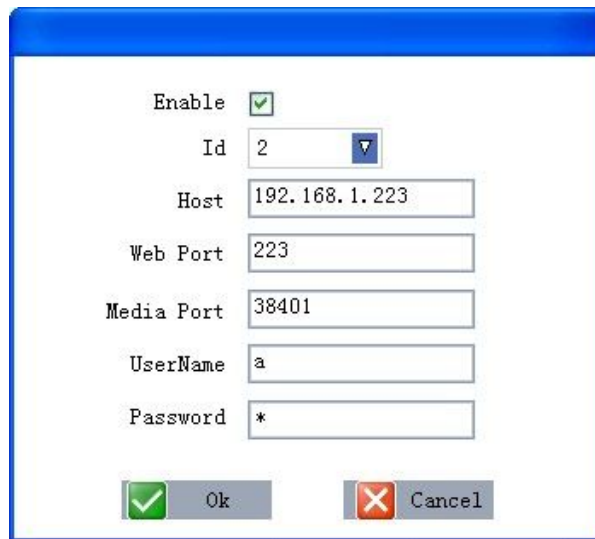
NTP Server: Choose the relevant NTP sever when set time mode as NTP Time.

4.14. Multi-Device Settings

Click “**Multi-Device Settings**” to enter the interface:

Figure6.7

Click **Search**, all the cameras connected in the Lan will be listed, then select a number from the bottom window, click edit, will pop-up a parameter settings window:



A parameter settings window with a blue border. It contains the following fields and controls:

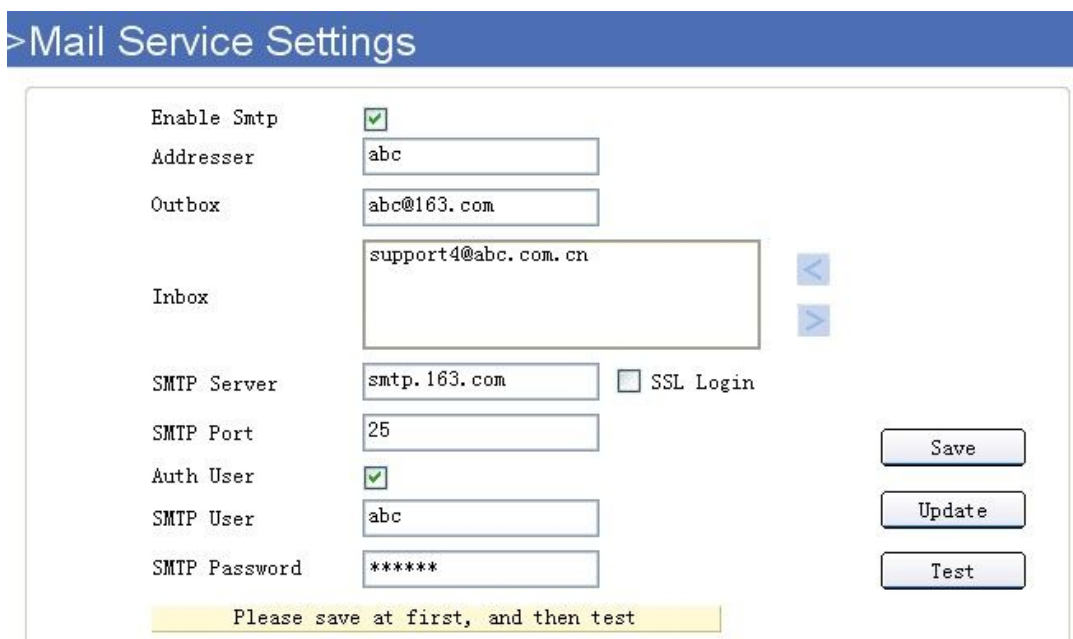
- Enable:
- Id: 2 (dropdown menu)
- Host: 192.168.1.223 (text input)
- Web Port: 223 (text input)
- Media Port: 38401 (text input)
- UserName: a (text input)
- Password: * (text input)
- Buttons: Ok (with green checkmark icon) and Cancel (with red X icon)

Figure6.8

Choose the ID, input host, web port, media port, username, and password manually, click OK to submit.

4.15. Mail Service Settings

Click “**Mail Service Settings**” to enter the interface:



Mail Service Settings

Enable Smtip:

Addresser: abc

Outbox: abc@163.com

Inbox: support4@abc.com.cn

SMTP Server: smtp.163.com SSL Login

SMTP Port: 25

Auth User:

SMTP User: abc

SMTP Password: *****

Buttons: Save, Update, Test

Please save at first, and then test

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Figure6.9

Enable Smtplib: Set e-mail function ON/OFF.

Addresser: Set sender's name.

Outbox: Set sender's email address.

Inbox: Set receiver's email box. (support the most 3 emails simultaneously)

: Add email address

: Delete email address which selected.

SMTP Server: The sender's SMTP server.

SMTP Port: The sender's SMTP Port, usually is 25, some SMTP server have its own port, such as the smtp port for Gmail is 465.

Auth User: Verify the user settings

SMTP User: Set sender's user name.

SMTP password: Set sender's password.

4.16. FTP Service Settings

Set FTP service, Snapshots will be delivered to appointed FTP server when alarmed.

Click "**FTP Service Settings**" to enter the interface:

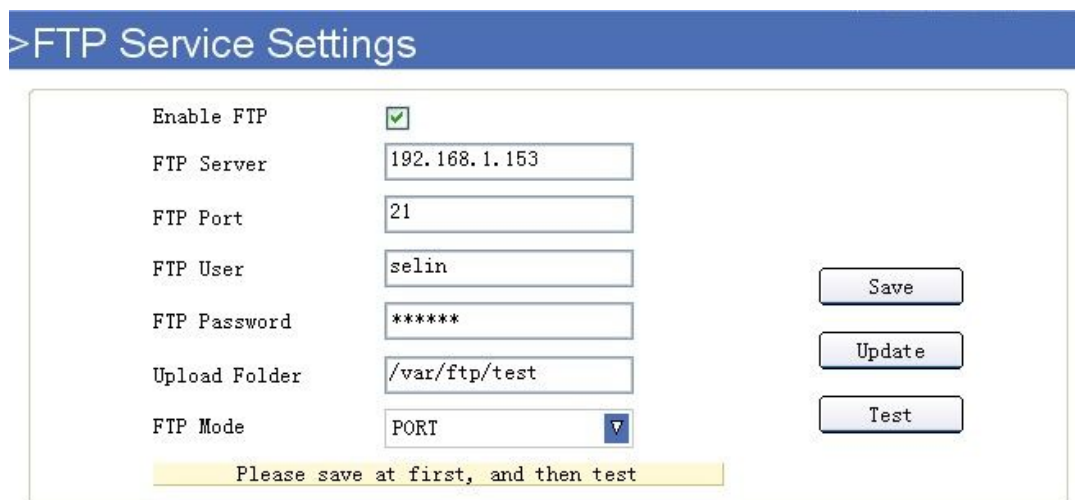


Figure7.0

Enable FTP: Set FTP function ON/OFF.

FTP Server: Set FTP server address.

FTP Port: Set the port of FTP server, default is 21.

FTP User: Set the user name of FTP server.

FTP Password: Set the password of FTP server.

Upload Folder: Set the path of remote FTP server. Make sure that the folder you plan to store images exists. For camera couldn't create the folder itself. Also, the folder must be erasable.

FTP Mode: It supports standard (POST) mode and passive (PASV) mode.

Click save to submit, click test to check the settings.

NOTE: Only alarmed, there will be 3 snapshots sent to the FTP server every 1 second.

4.17. P2P Settings

Users don't need to change the P2P Settings

4.18. SD Card Info.

Click “SD-Card Info” to enter the interface:

The screenshot shows the 'SD-Card Info' configuration page. On the left is a navigation menu with 'SD-Card Info' selected. The main content area is divided into two sections. The top section displays device information: Device Name (SA32G), Total Size (29397.641 MB), Free Space (27799.844 MB), and State (Normal). It includes 'Format' and 'Update' buttons. The bottom section contains operational settings: 'Open Auto cover', 'Open Pre-recording', and 'Alarm capture to SD card' are unchecked; 'Pre-recording Time' is set to 3 Seconds; 'Record Stream' is set to Main-Stream; 'Manual Rec' is set to ON; and 'Manual Rec Pack Time' is set to 10 Minutes. It includes 'Save' and 'Update' buttons.

Figure7.1

Device Name: Display the name of SD card.

Total Size: Display the total size of SD card

Free Space: Display the free space of SD card

State: Display the state of SD card.

Format: Click it to delete all data and format the SD card. (All data will be lost if formatted)

Open Auto cover: Set SD card auto cover when it's full.

Open Pre-recording: Set Pre-recording function(Record the video before alarm triggered).

Pre-recording Time: Set the Pre-recording time, could be from 1 to 6 seconds.

Record Stream: Choose the stream here.

4.19. Local Settings

Click “Local Settings” to enter the interface:

Figure7.2

Enable Alarm Audio: Set audio ON/OFF once alarmed.

Enable Alarm Rec: Set alarm record function ON/OFF.

Alarm Rec Time: Set alarm record duration time, can be 30s, 1min, 2min, 3min, 5min.

Manual Rec Pack Time: Set the manual record file pack time, can be 30min, 1h, 2h, 3h, 5h.

Record Path: Set the path for record file saved..

Capture Path: Set the path for snapshot saved.

4.20. System Tool

Click “**System Tool**” to enter the interface:

Figure7.3

● **Reboot Device:** Click to Reboot the camera.


● **Restore Factory Settings:** Click it, all the parameters will be back to factory settings.

● **Upgrade Device Firmware:** Click “**Browse**”, choose the correct system file for upgrade, then click “**Start**”.

● **Upgrade Device Web UI:** Click “**Browse**”, choose the correct Web UI file for upgrade, then click “**Start**”.

NOTE: Please use the correct upgrade file, must keep the power on when upgrading, wired mode suggested, because wrong operation or incorrect upgrade file maybe damage the device.

5. PLAYBACK

Click , login the playback interface, this is for SD Card files playback.

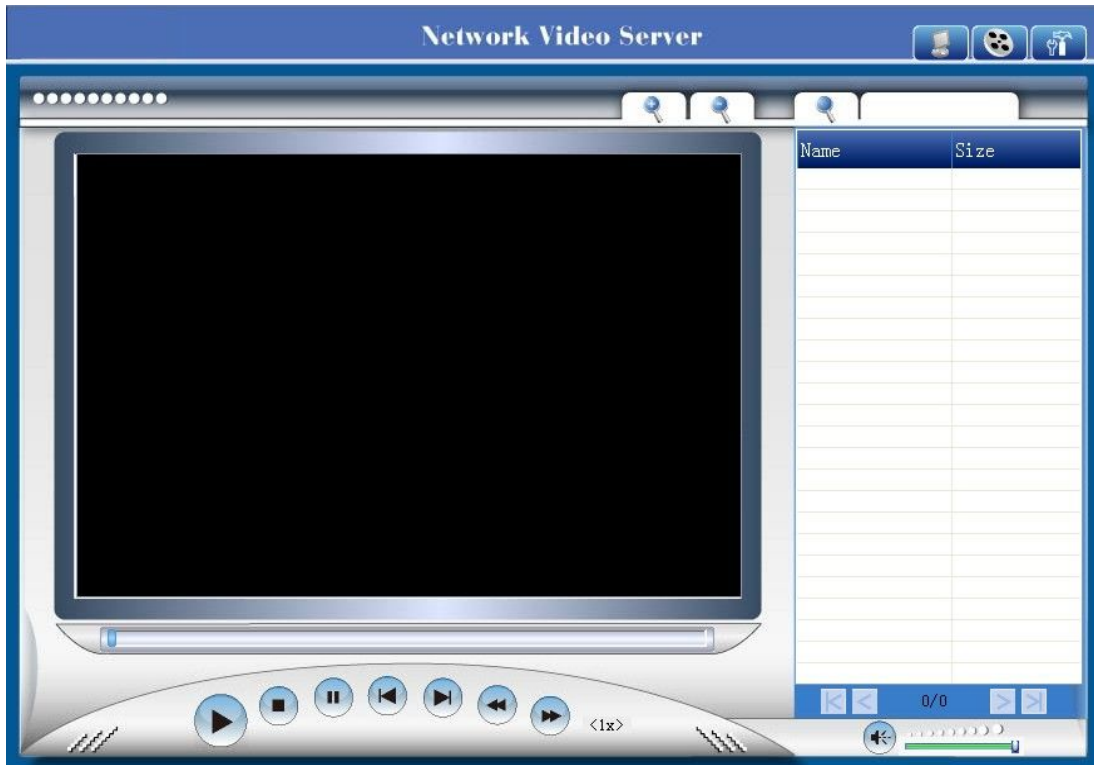


Figure7.4

Click search icon, will pop-up a window for search file, set the mode or time, click OK to submit, then all the correlative files will be listed on the right side.

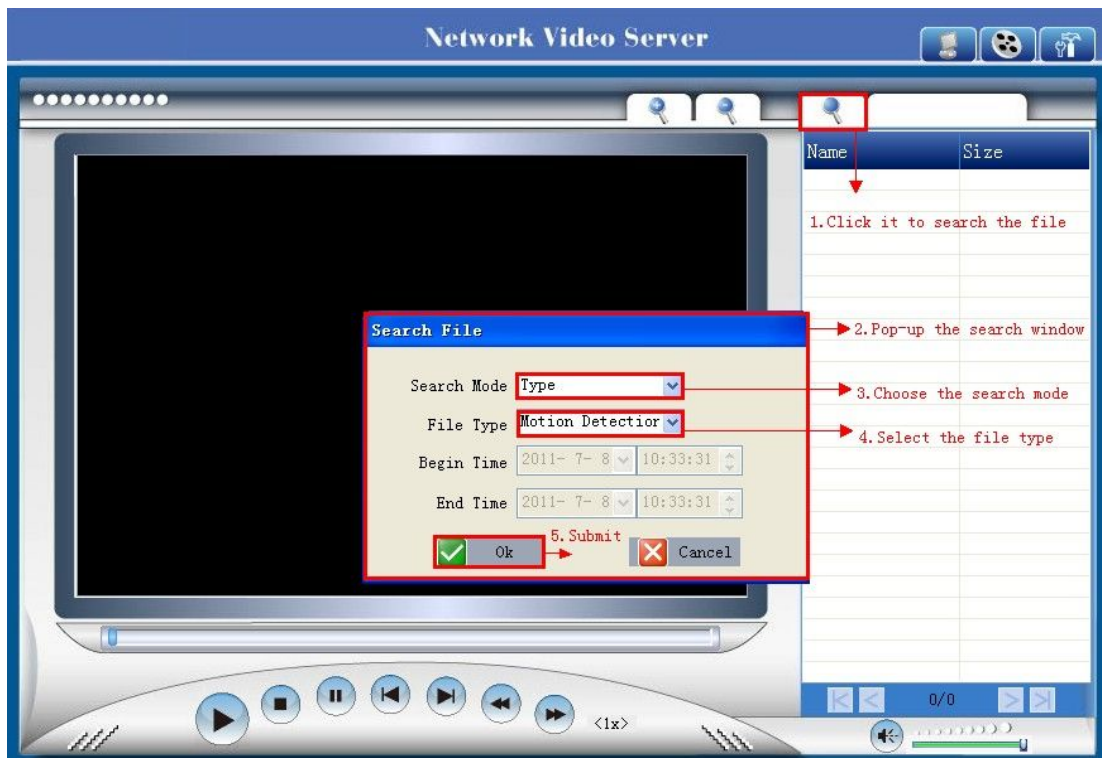


Figure7.5

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Search Mode: There are 4 search modes optional.

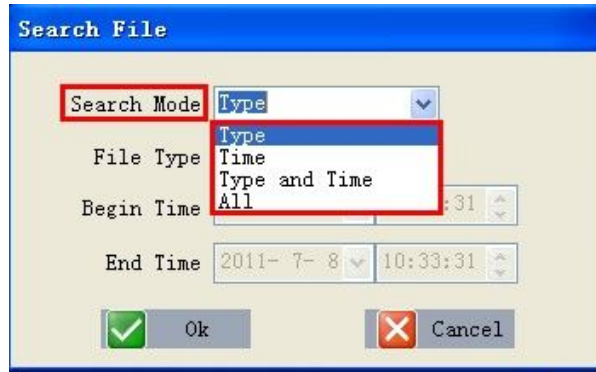


Figure7.6

1. Type: means search by the file type.

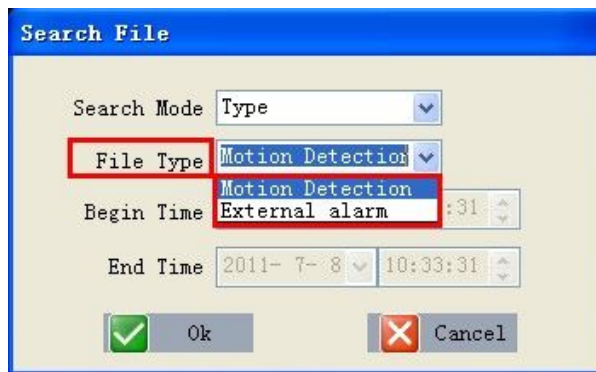


Figure7.7

2. Time: means search by the appointed record time

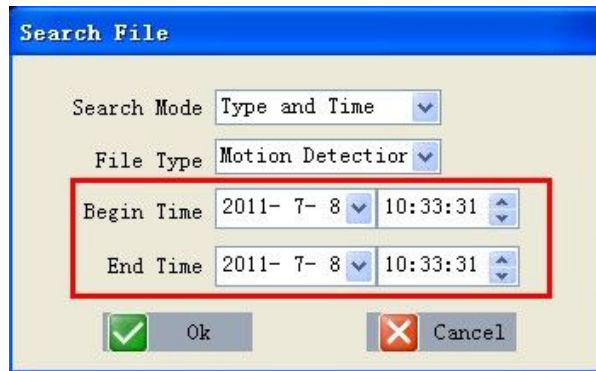


Figure7.8

3. Type and Time: means search by both file type and appointed record time.

4. All: means all the files.


After searching, files will be listed on the right side window, choose the file, double click it or click play icon  to start replay. Users can check the replay file information here, do other operation such as **Stop**, **Pause**, **Previous**, **Next**, **Fast Backward**, **Fast Forward** etc.



Figure7.9

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Image Enlarge and Reduce

During playback, users can enlarge the image to see the video details, it supports 2X, 4X, 8X zoom.

Click the enlarge icon, will pop-up a window to choose the zoom in type.

Click the reduce icon, will zoom out the image.

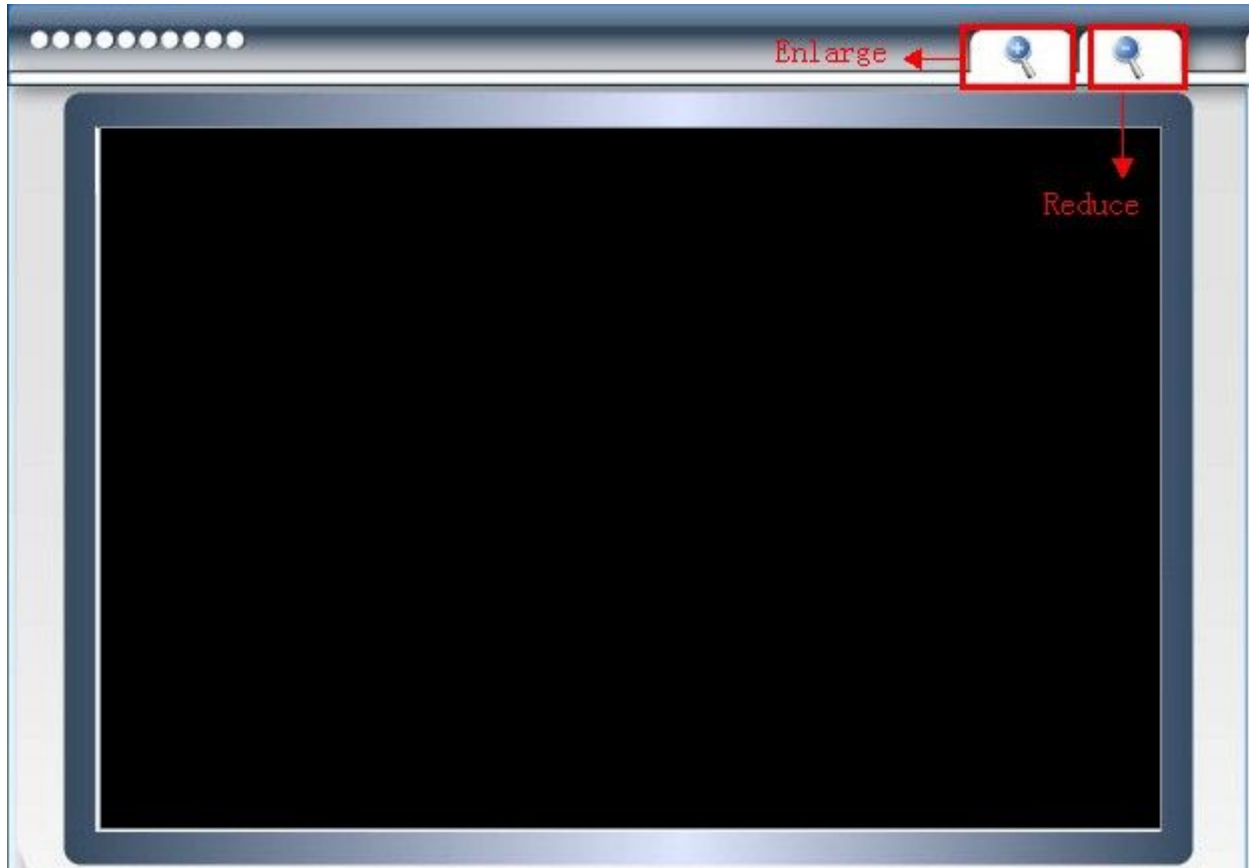


Figure8.0

Audio:

During playback, users can adjust the volume, drag the volume icon on the right bottom side.



Figure8.1

6. FREQUENTLY ASKED QUESTIONS

1. I have forgotten the administrator username and/or password

There is a [RST] button on the rear panel, keep the power on, hold the reset button for 10 seconds, it will restore back to factory default settings as below:

Username: admin


Password: admin

NOTE: Please don't press RST button if without professional guide.

2. There is no picture displayed in IE browser

It maybe the ActiveX problem,

If use the IE browser for the first time, should install the ActiveX, details as below:

Before login, click the ActiveX icon  at the right side of interface to download, save the file, run it to install the ActiveX.

3. Fail to visit IP camera via IE after upgrading

Solution: Clear the browser buffer.

Steps: Open IE>click "Tools"> "Internet Options">"General">"Delete"> "Internet temporary files", delete the cookies and temporary files, then click "OK" and re-login.

4. The video is not smooth

Possible reason 1: The frame rate value is too small.

Solution: Increase the frame rate value.

Possible reason 2: Too many users are connecting to the device.

Solution: Close some connection or reduce the video frame rate.

Possible reason 3: Network bandwidth is too low, lots of lost packets.

Solution: Reduce the video frame rate or video compression bit rate.

5. Fail to visit IP camera via IE browser

Possible Reason 1: Network is disconnected.

Solution: Connect your PC to network, check whether the network works well or not. Check whether the cable problem, or network problem caused by PC virus.

Possible reason 2: IP Address has been occupied by other devices.

Solution: Stop the connection between IP camera and network; connect the IP camera to PC directly, reset IP address according to the proper operations recommended.

Possible reason 3: IP addresses are in different subnets.

Solution: Check IP address, Subnet masking and Gateway.

Possible reason 4: Physical address of network conflict with IP camera.

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Solution: modify the physical address of IP camera.

Possible Reason 5: Web port has been modified.

Solution: Contact Network Administrator to obtain related information.

Possible Reason 6: Unknown.

Solution: Press RESET to restore to factory settings then connect it again, the default IP address is 192.168.1.155, subnet mask is 255.255.255.0

6. The color of image is abnormal (Green or other color)

Sometimes the IP camera images cannot be displayed properly because of different graphics cards, the images appears to be green or other colors, then you should run the programme "Config.exe" from the downloaded OCT files.

(or run C:\windows\system32\Config.exe) to set the following parameters of display buffer: auto-detection, used display card memory or system memory, then run IE , connect IP camera again.

7. There is no voice while monitoring

Possible Reason 1: No audio input connection

Solution: Check audio connection of the host

Possible Reason 2: the relative audio option of IP camera is OFF.

Solution: Check audio parameter settings to see if you have set the audio option ON, but without external audio input.

8. Image processing doesn't work properly

Possible Reason 1: System problem, DirectX function is disabled, which will cause slow display of images and abnormal color.

Possible Reason 2: Hardware problem, graphics card doesn't support image acceleration and hardware zooming functions. (For hardware issue, the only solution is to change the graphics card)

Solution: Install DirectX image driver, then click "Start">"Run">input "dxdiag", set enable "DirectDraw Acceleration" "Direct3D Acceleration" "AGP Texture Acceleration" functions.

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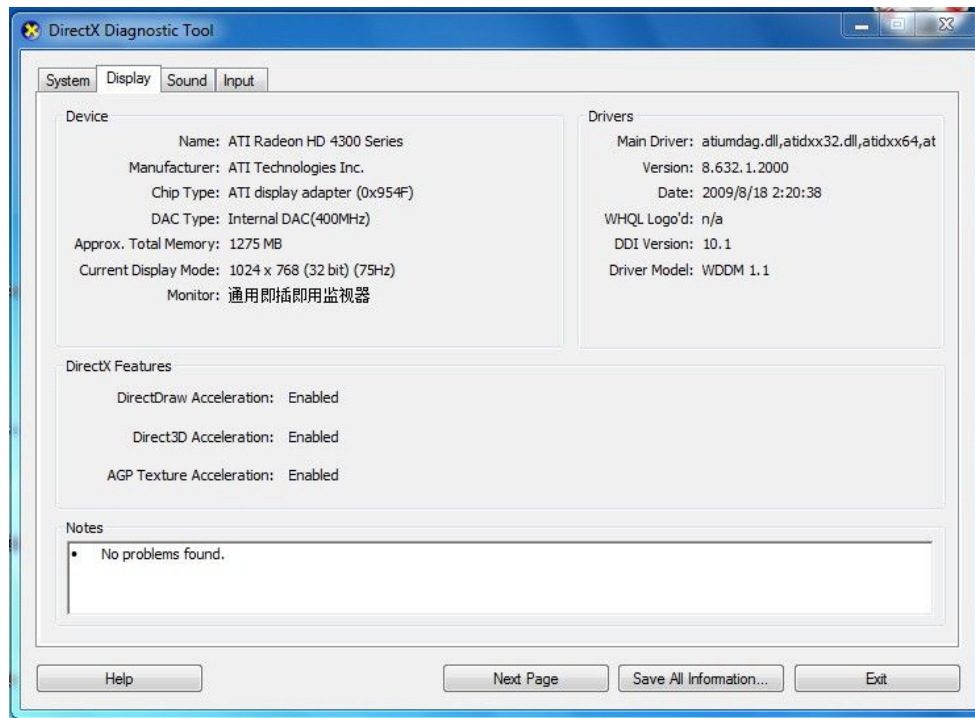


Figure8.2

Note: If you are unable to do it, it means your DirectX is not installed properly or hardware doesn't support this function.

9. Fail to use DDNS

Possible Reason 1: The PC or IP Camera can't connect to the internet.

Solution: Check the internet connection and settings.

Possible Reason 2: Port forward is not set in router.

Solution: Set the port forward of extranet in router correctly.

For example, if IP Camera address is: 192.168.1.100, Media port is 38401, Web port is 85, factory DDNS is <http://test.aipcam.com>. Use TP-Link router as below:

(1) Login the router.



(2) Choose "Forwarding", select "Virtual Servers"

(3) Click the Add New button, pop-up below:

Add or Modify a Virtual Server Entry

Service Port:	<input type="text"/>	(xx-xx or xx)
IP Address:	<input type="text"/>	
Protocol:	<input type="text" value="ALL"/>	▼
Status:	<input type="text" value="Enabled"/>	▼
Common Service Port:	<input type="text" value="-Select One-"/>	▼

Figure8.3

Fill the service port as 85, IP address as 192.168.1.100, click Save.

(4) Repeat the step 3, will pop-up the window again, fill the service port as 38401, IP address as 192.168.1.100, then save.

(5) Then check the "Device Info" –"DDNS Status",

Will show DDNS: <http://test.aipcam.com:85> , input this link in IE, then can visit this camera remotely.

7. OBTAINING TECHNICAL SUPPORT

While we hope your experience with the IP CAMERA network camera is enjoyable and easy to use, you may experience some issues or have some questions that this User's Guide has not answered. Please contact your reseller and ask for help firstly, if they could not resolve your issue, please contact our company.

If your cameras do not support some special functions showed in the manual, please contact our technical support team to obtain the latest Firmware and WEB UI file for doing upgrade.

NOTE: Some old version cameras can't be upgraded to the latest version, that's not only the software difference, but also the hardware difference. If you can't make sure of it, please contact with our technical support team directly.

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body