IP Camera

(HD Cloud Camera)

User's manual

Model:FI-321

Note: To protect your privacy, please modify the default password after landing, and please take good care of your username and password.

Manual version:

Version	Dates	Description
V1.0	Sep. 16, 2012	
V1.1	Nov. 23, 2012	Adjustment of interface

Note: in practical application, it is possible that the instruction functions are a little different from the function of the machine .

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Content

Product Overview:

Packing List

- ✓ A set of network Camera
- ✓ An Ethernet cable
- ✓ A set of 5V power adapter
- ✓ A piece of CD
- ✓ Quick Installation Guidelines
- ✓ A set of bracket (base) and mounting
- ✓ A warranty card

Note: The use of non-product rated voltage power supply, will result in equipment damage, and does not enjoy the product warranty. If something is missing of these items,   please contact your dealer.

System Requirements

- • With Microsoft Windows ® 7, Vista ®, XP ®, Mac OS or Linux system computer
- • CPU clocked at 1.3G or higher, at least 128MB of RAM
- • Internet Explorer 7 or higher, Firefox 3.5 or higher, Safari 4 and Chrome 8.0 or higher.

Introduction

Congratulations on your purchase of the Cloud Camera. The Cloud Camera has multiple functions, is dedicated to the small office and home solutions. Unlike traditional IP Camera, Cloud Camera has a complete system with built-in CPU and web server, can transmit high-quality images, the implementation of the security monitoring. Cloud Camera can be accessed and controlled via a local network or the Internet in the browser of any computers or laptops; their installation is simple, the intuitive user WEB interface settings can be combined with 802.11b/n/g wireless

network perfectly .The Cloud Camera also has remote monitoring and motion detection function, making it a complete, cost-effective home security solution.
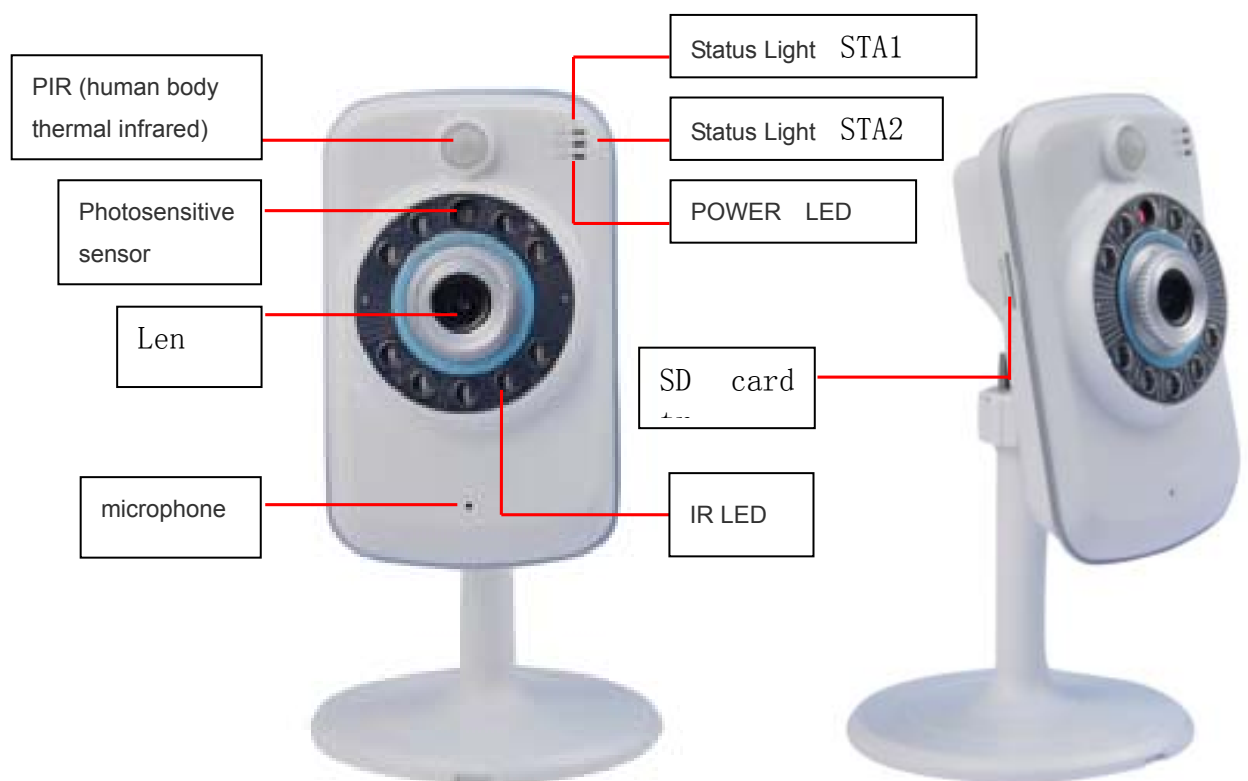
Features

✓　　　Can support H.264/MPEG4/MJPEG stream, suitable for Local, Internet access as well as cross-platform;

✓　　　CMOS sensor, support 1280 * 720,640 * 360 , 320 * 180,160 * 90 real-time video encoding;

✓　　　Support watching the video screen in the smartphone anywhere and anytime, support Windows Phone, Android system smartphone / IPHONE phone / IPAD devices to ensure the image smooth / no stumble. (25 image transmission, can watch 720P HD image);

✓　　　P2P technology-free configuration, plug-and-play (no need to do port mapping , DNS, IP address settings)

✓　　　A key WPS easy wireless connectivity, privacy features, arm function.

✓　　　Intelligent transmission technology (bandwidth adaptive ,code rate adjust dynamically , the priority voice, jitter buffer).

✓　　　Support two-way voice intercom, the use of carrier-grade signal processing (echo cancellation, noise suppression, voice equalizer, comfort noise sound, silence suppression).

✓　　　Support the SNS social networks, openid (QQ, facebook landing)

✓　　　Support firmware remote upgrading (automatically prompt the latest version).

✓　　　Support multi-users, multi-device managements.

✓　　　Two-dimensional code landing, each machine has a unique ID number and password.

✓　　　Financial level encryption protection, (using RSA/DH/DES/MD5/SHA/CRC/BASE64 encryption algorithm).

✓　　Support cloud storage technology.

✓　　　Alarm linkage/ Push, upload video and pictures by E-mail, FTP;have SMS alarm notification methods.

✓　　　Support motion detection, and can be an external alarm detector, to achieve the comprehensive protection;

✓ Support polytype browser viewing device video, such as IE / Firefox / Safari / Google Chrome, etc.;

✓ Support Flash Player, Quicktime, Realplayer, VLC, Mplayer player direct access to the Camera.

✓ Infrared LED for night vision range of 8 meters, whole day monitoring; support IRCUT, day / night filter switch, Image unbiased color

✓ Built-in wifi modules, and the flexibility to set up wireless monitoring environment;

✓ Maximum support 32G SD card storage, alarm photographed and alarm video;

✓ Support the PIR (human infrared thermal sensing).Double insurance arm, to prevent false triggering.

Overview of the Hardware view

Headset/
audio jack

DC5V power
interface

Reset

FN composite
button

Ethernet interface

Camera base

Note: short pressing to the reset hole is the reset function; Press the reset button for 5 seconds to restore the factory settings.

FN composite button function		
Action	LED status	Function
Hold for 3 seconds	STA2 green light long bright	Into the WPS function, easy to connect wifi
Hold for 5 seconds	STA2 green light shining	Into the private function (Visitors cannot see the image and cannot hear the sound)
Hold for 7 seconds	STA2	Into the deployed function (Start motion detection, alarm function)

Installation

Hardware Installation

Connect the network cable and power

Attach the Ethernet cord into Ethernet port behind IPCAM and the other end into the router or other network equipment, to access network.

Connect the original power supply into the wall power outlet or line board, then connect the power of the DC head into the DC power input port behind the Camera, when the PWR indicator lights up in red, indicating the normal supply of electricity.

External audio output interface:
Inserted the External 3.5 inch headphone connector into the AUDIO OUT Jack.

Camera Installation Wizard

The first step : connecting the network:

1**. Wired internet:** IPCAM connected to the power supply and cable network, the front of the machine "PWR" light a long red light. 'STA2 "lights turn red, Wait 20 seconds, into a green light flashing .

STA2 indicator

2. **Wi-Fi:** You can use the WI-FI Protected Setup (WPS) button for Camera to create wireless connection. IPCAM connect electric and start, a: press the "FN" button for three seconds under the rear of the machine, then STA2 green LED indicator light began to flicker. b: press the WPS button on the router in 60 seconds,.

FN button

WPS button is usually in the front or side of the router. Some routers,
You may need to log into the web interface, click the button on

the screen to start the WPS characteristics. If you are not sure whether your router has the WPS button, check the user manual of the router. After a successful connection , The green light of STA2 flashing.

Note: The router's DHCP server function must be enabled.

The second step : landing:

A: Open the browser,input http://www.mipcm.com/ in the address bar, enter the following login screen, enter the ID number and password of the machine (each IPCAM is labeled with a unique ID number and password, need to scratch off the squeegee).
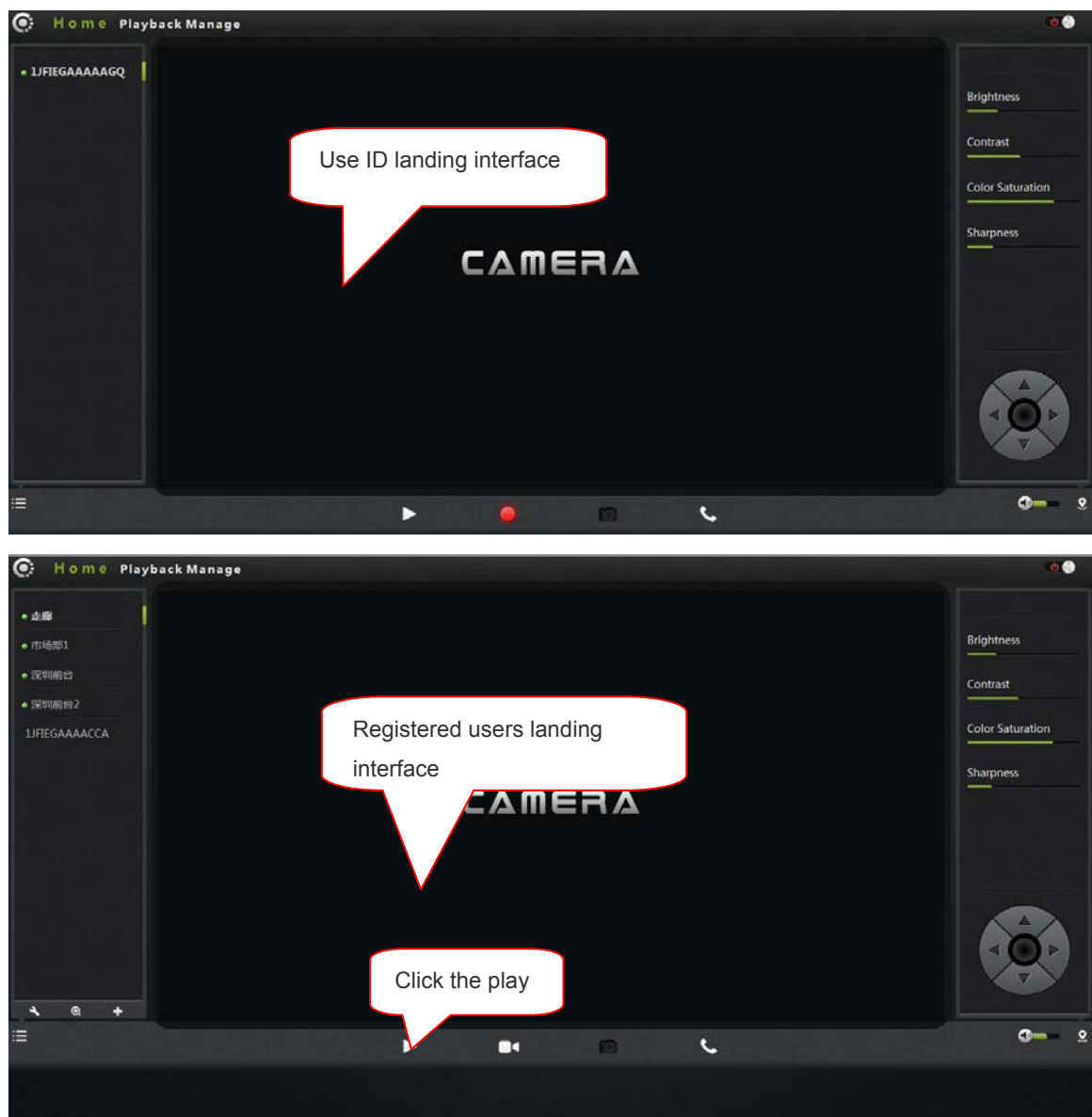
Note: In order to protect your privacy, please modify the factory password after landing, and take good care of the user name and password.
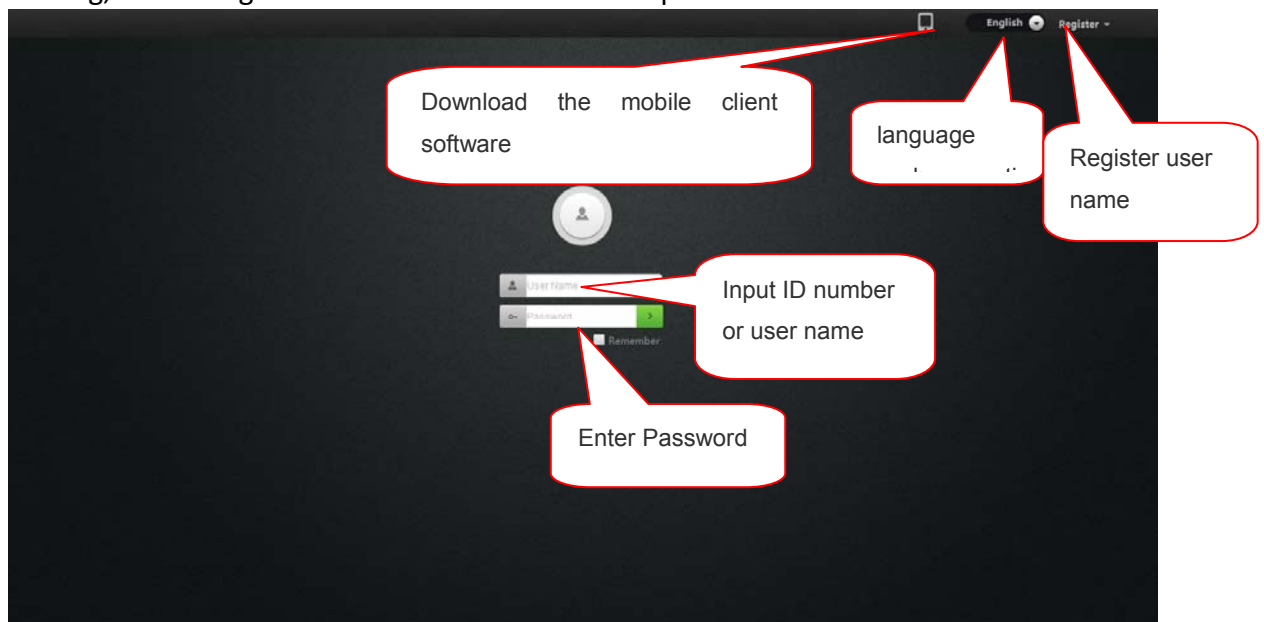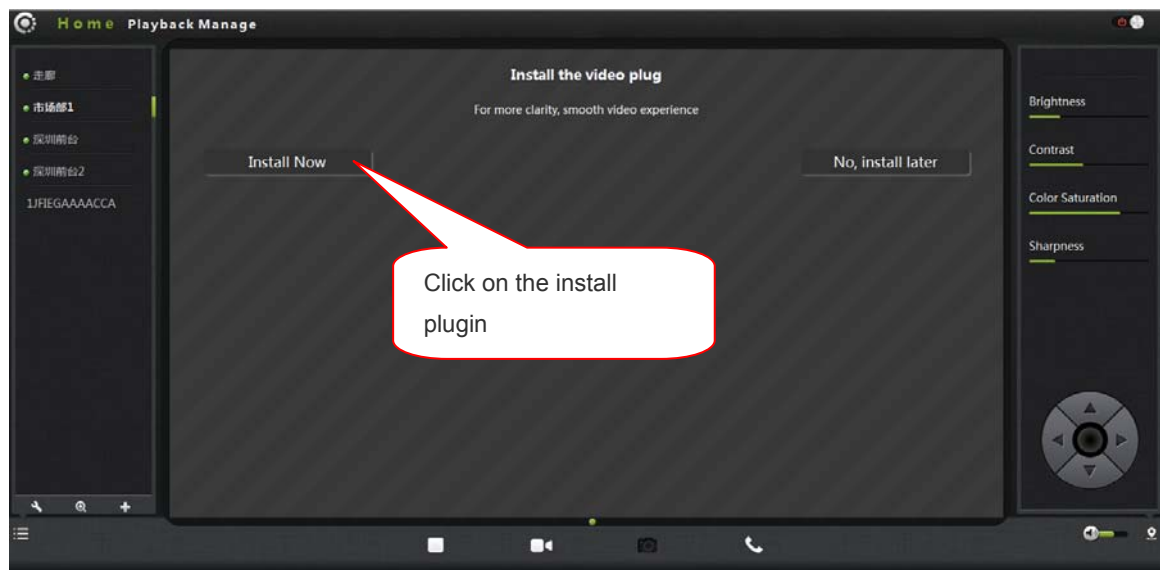

Note: The user can click on the login screen "Register" button to register a user name to manage multiple cameras after landing.

B. Go to the video viewing interface.

C: install plug-ins:

Note: If the user's router is not connected to the Internet, users can watch video via LAN. Running the searching tool in the CD-ROM to search the IP address of the IPCAM. .Double-click the IP address into the login screen.
If the video image is blurring maybe the Camera lens and CMOS sensor is not in a good focal ,please let the camera aims at the object away from 5 meters, slowly turn the lens repeatedly and slowly by hand until the image be the clearest.

Wireless Installation Considerations

Wireless IP cameras allow you to access the network in any wireless coverage area by using a wireless connection. However, the wireless signal is required to pass through the walls, ceilings and other objects, the number, thickness, and position will limit its scope. Usually the change of coverage, depends on your room or office type of building materials and environmental RF (radio frequency) noise. Follow these basic guidelines can maximize the wireless range:
1. The Wall, ceiling between the routers and other network devices (such as the network Cameras) minimize the number --- each wall or ceiling will weaken adapter 3-90 feet (1-30 meters), wireless transmission range.
2. Please note the straight-line distance between the devices. A 1.5 feet (0.5 meters) wall with angle 45 will reach 3 feet (1 meter) thick. In 2 degrees angle, the wall thickness will up to 42 feet(14 meters).Place the device into place directly no barriers in order to get better reception.
3. Building materials. The metal door or aluminum skeleton will weaken the wireless signal. Placing the access points, wireless routers and other network equipment to the signal through the drywall or open doorways .Materials and

objects, such as glass, steel, metal, band insulator, water (fish tanks), mirrors, file cabinets, brick and concrete walls will weaken the wireless signal.

4. The product was placed in a position away from generating the RF noise of electronic devices and appliances at least 3-6 feet or 1-2 meters.

5. If you are using 2.4GHz cordless phones or other radio emitting source equipment (such as microwave ovens), your wireless connection may obviously deteriorated or completely dropped. Put the 2.4GHz phone base away from the wireless device as far as possible. Even if the phone is not using the dock will still transmit signals.

Homepage

Logged in, displays the home page, click on the Play button, and display real-time video images.

First: Camera status bar:

1. Here, you can see the online status of each Camera.Online status for the following categories:

• Green means that your Camera is online and ready.

• Yellow means the Camera online, but the Camera password has been changed. You need to enter a new password in order to access the Camera again.

• Red indicates the Camera is offline and not
accessible remotely.

If the Camera is offline, try the following approaches:
• Check and make sure the Camera's network connection is normal.
• Try restarting your network router.
• Check the Camera cable connections to ensure they are secure connection.
• Check and confirm the Camera STA2 the green light flashes flashing (every 3 seconds flashing 7 times).
If you still cannot access your Camera, please restart the camera.

2. ![icon]: Search the IPCAM in the local LAN, add the

outer IPCAM and manage the Cameras have been added.

3 . ![icon]: The status bar to show and hide icons.
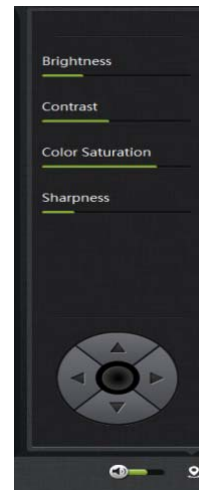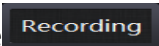
Second: Image settings and PTZ control bar.

1. ![icon]: Exit the video interface.

2. Brightness: adjust the brightness level of the video screen.

3. Contrast: adjust the video screen contrast level.

4. Saturation: adjust the video screen color saturation level.

5. ![icon]: PTZ control IPCAM up / down / left / right rotation.

6. ![icon]: Control the size of the voice of the computer .

7. ![icon] : Status bar display and hide the icon.

THIRD. Interface buttons: ![icons]

1. ![icon] Video play / pause button: Click button on the video image playback /

pause. Click on the inverted triangle button, select playback image resolution (1280 * 720,640 * 360,320 * 180,160 * 90).

2. [image] Record button (the recorded files are stored-FLASH card): Click button on

the audio / video recording [image], the recording icon indicates Click on the inverted

triangle button [image] to enter the mode [Recording]:

The plans record: when optioned, can choose 7 days a
week, 24 hours intermittent video and regular video.

Alarm Recording: When checked, the implementation
of the alarm video Optional I / O alarm mobile
investigative Alarm.
Length of time "refers to the pre-recorded trigger
Video before the video can be directly input time,
second unit. 'Duration "refers to the reported the
police recording time can be directly input
time ,second unit.
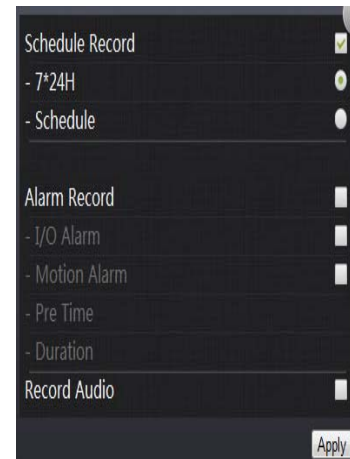
The recorded single frequency: When optioned ,sound recording when select the
alarm recording.

3. [image] Snapshot button: Click the button to capture images of the playing video.

Click on the inverted triangle button [image] , selectable resolution (1280 * 720,640
* 360,320 * 180,160 * 90).

4. [image] Intercom: click buttons, open the microphone / loudspeaker in Camera and
computer, two way sound speaker,can hear each other's voice

Playback

Play the video files recorded in the SD card.

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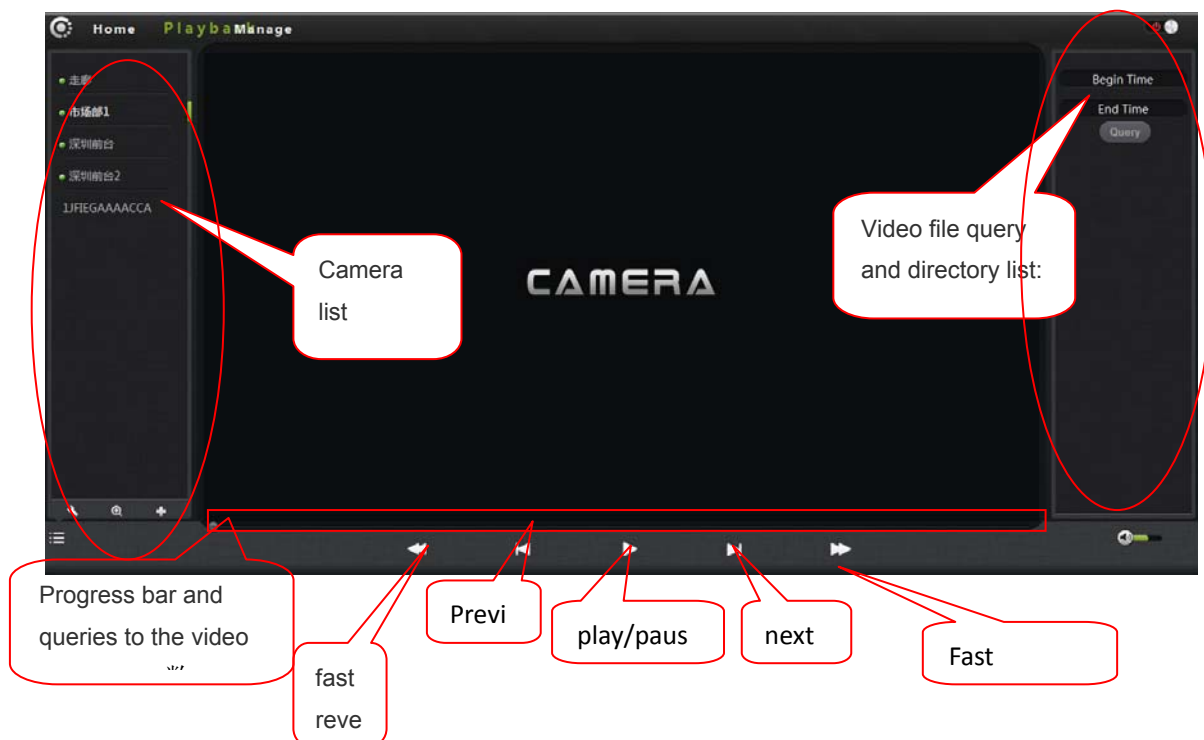
1.Select the Camera in the Camera List.

2. Queries the video files , documents and more information on the right in the image by time.

3. After Inquire, the progress bar will be displayed by color length query to the video file, specify the video player can be selected directly by dragging with the mouse.

4.Video file / rewind / playback video

files can be realized by player image control keys to play, pause / play a video file / fast forward.

Management

This section do the configuration of the Camera settings.

1. Product information:

Display the basic information of the Camera.

Quit, returns to the landing

Modify registered users password
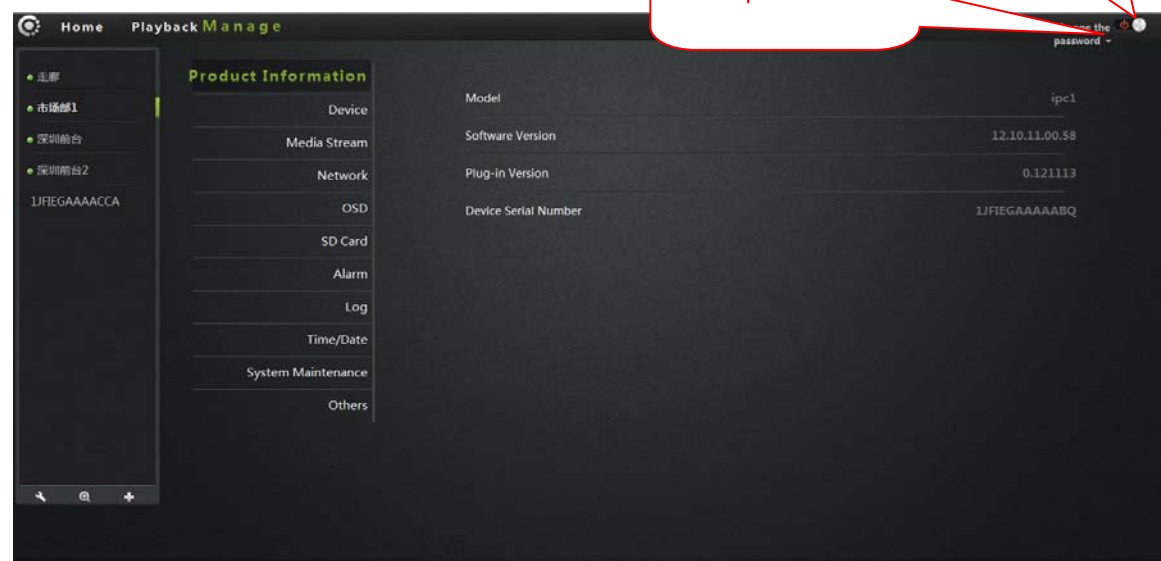
Model: The model of the Camera.

Firmware version: the Camera software firmware version number.

Plug-in version: the Camera video viewing plug-in version number.

Device serial number: ID number of the Camera.

2. Equipment:

Modify the Camera password..
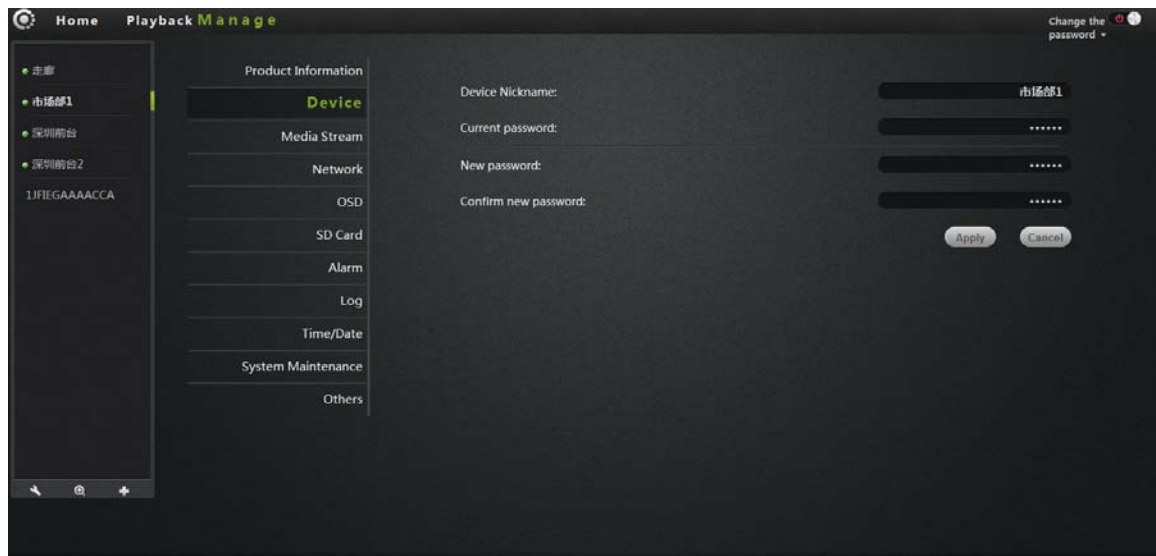
Equipment nickname: the name of the Camera, the user can according to

their own requirements to change the name.

Password: modify the current Camera to enter the login password of the current

Camera

New Password: here, the user can enter the current Camera landed a new
password.

(To protect your privacy, after landing modify the default password, and please take
good care of the user name and password.)

Confirm Password: Re-enter the password of the current Camera modified.

Click" Apply" to save your changes.

3. Media stream:

Audio / video stream bit rate settings.

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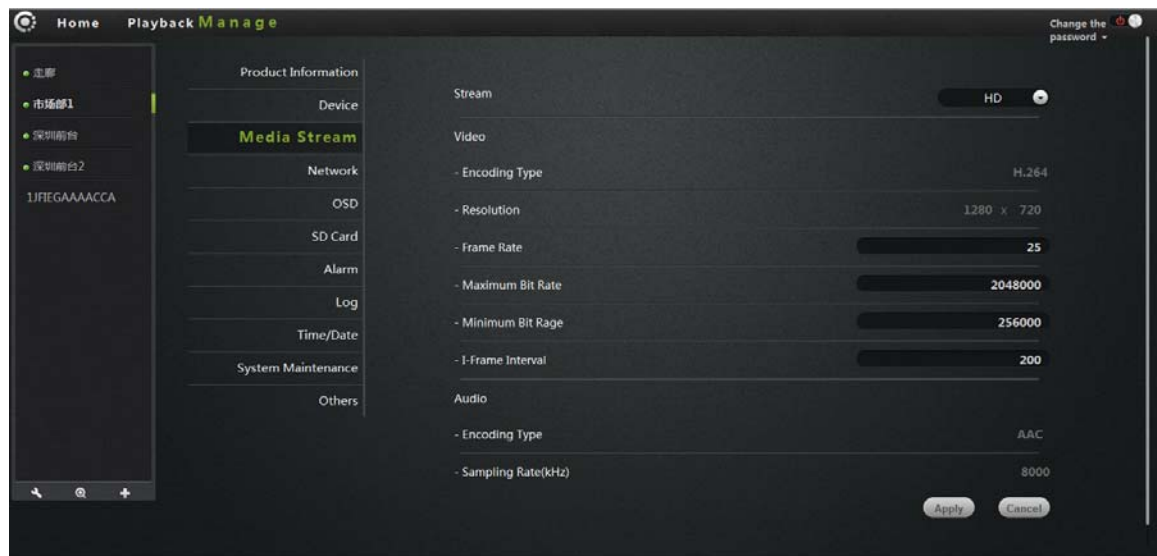
Stream: means the video stream ,have high (HD) / normal (normal) / half (half) /

(min) four, and their corresponding resolution of 1280*720, 640*360, 320*180, 160*90.Different stream, Framerate / bitrate / I frame interval set.

Image:

  Resolution: The resolution of the image display. Select a different stream, corresponding to the different resolution.

Framerate: the number of images per second, use fps. The larger the frame rate, the more fluent image.

Bit rate: use bps. The higher the Bit rate, image display more clear, but the highest occupied network resources. The user can set a maximum and minimum values.

I frame interval: send each key frame interval.

Audio

Encoding types: audio encoding, G.711, G.726, AMR, AAC four encoding.

Sampling rate: refers to the frequency of the audio samples.

Click" Apply" to save your changes.

4. Network:
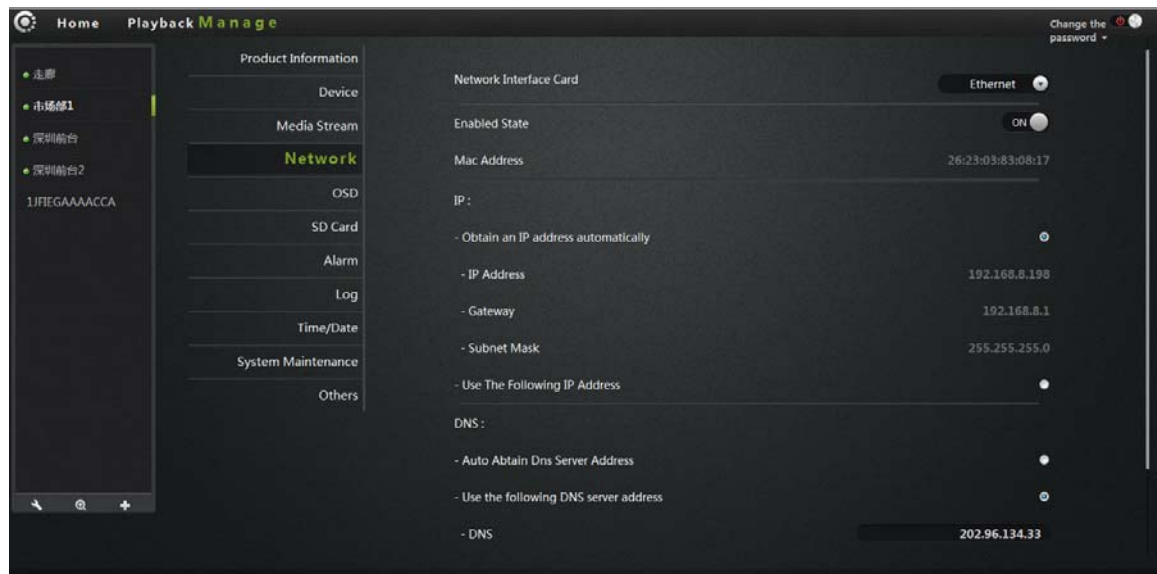
NIC: Ethernet (wired) and wireless networks.

1. Ethernet:

Effective when connected to wired network.
Startup Status: Displays the current Ethernet
enable / disable.
Mac address: Displays the current Ethernet Mac
address.
Automatically obtain an IP address (Cameras
default): select Camera
Machine automatically get connected to the router
and it is automatically assigned to
IP address / gateway / subnet mask information.
Use the following IP address: Check the user
manual allocation
One IP address / gateway / subnet mask to the
Camera.
Dns server address automatically exercised: Check,
Camera
Automatically get to be automatically assigned to the router connected to it DNS
information.
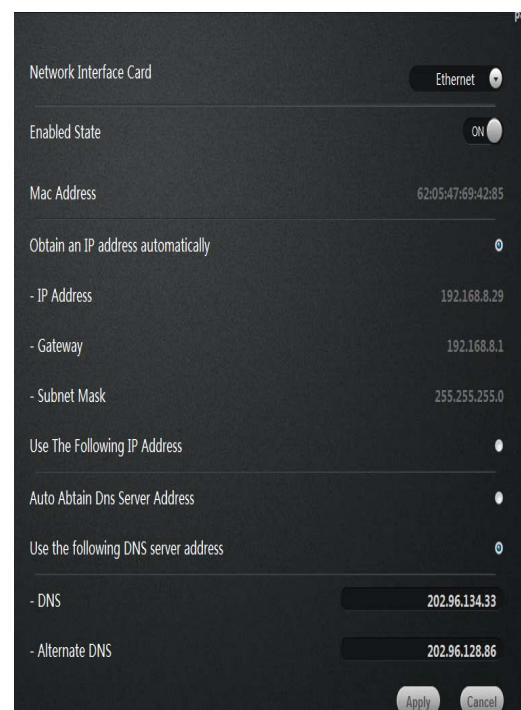
Following dns server addresses: when checked, user manually assign DNS to the Camera

2. Wireless Network:

NIC choose a wireless network.

Startup Status: Displays the current wireless network, enable / disable.

Wireless mode: hot / terminal

A. **Hot spot**: as the default search equipment, network Cameras, wireless ,Hot mode, wireless devices through wireless search

Point to point connection to the Camera.

DHCP: Dynamic Host Configuration Protocol for wireless hotspots, starting address to the end of the address and gateway.

B. **Terminal**: As search equipment.

Connection Status: Displays the status of the wireless network.

Select Network: Wireless will automatically search for the Cameras surrounding the wireless, choose the Network terminal in the drop-down list.

Password: Enter the password for the wireless network equipment.

Click the connect button to connect the selected wireless

Click Apply to save your changes.

Mac address: displays the current wireless network Mac address.

**Automatically obtain an IP address (Cameras default)**: selected,

Machine automatically get connected to the router and it is automatically assigned to

IP address / gateway / subnet mask information.
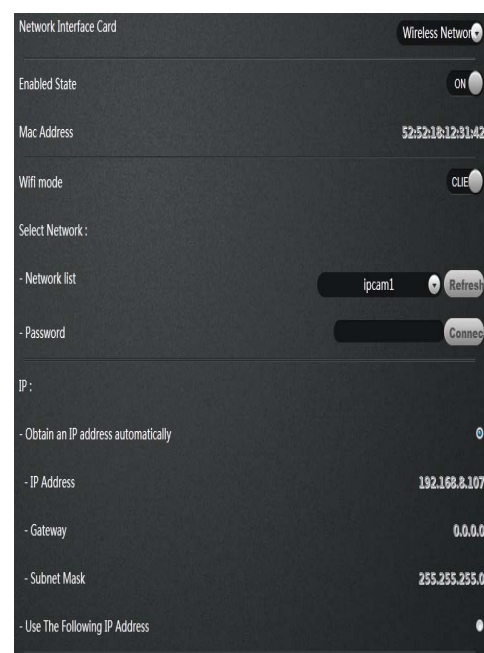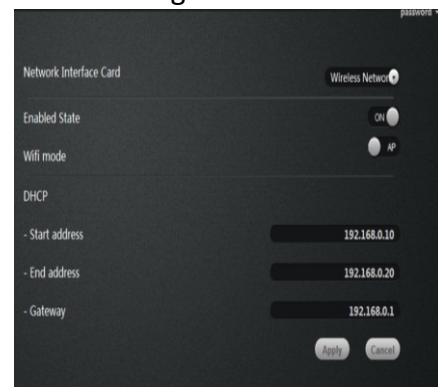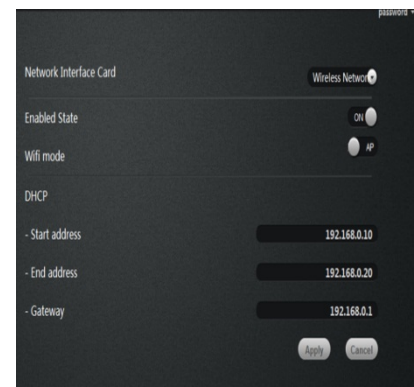
Use the following IP address: Check the user manual allocation

One IP address / gateway / subnet mask to the Camera.

Dns server address automatically exercised: Check, Camera

Automatically get to be automatically assigned to the router connected to it

Its DNS information.

Following dns server addresses: Check user

Manually assign DNS to the Camera.

Click Apply to save your changes.

5. OSD:

Image screen display menu settings.
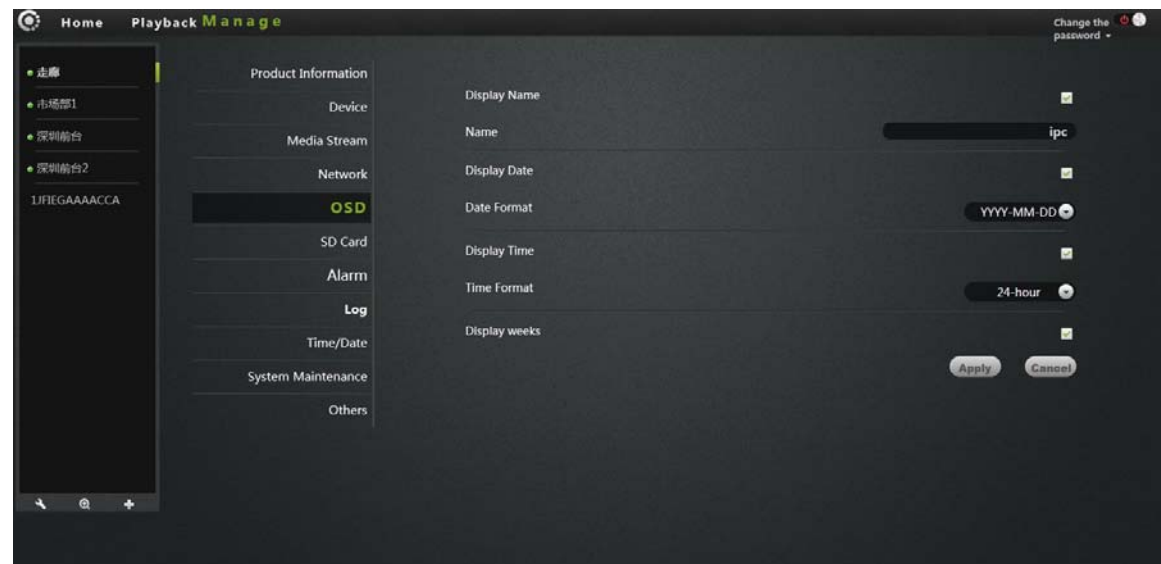
Display Name: Check the upper left corner of the screen will display the name

of the Camera.

Name: The user can modify the screen displays the name of the Camera. (can't have Chinese and symbol, is only English and Allah hundred digital)

Display: Check the upper left corner of the screen will display the date.

Date format: User selectable year / month / day or month / day / year both date formats.

Show time: check, will be displayed in the upper left corner of the screen time.

Time format: user can select 24-hour or 12-hour clock.

Display week: Check the upper left corner of the screen displays the day of the

week.

Click Apply to save your changes

6. SD card:

Display the status of the Camera SD card.

Status: Displays the current SD card plugged into the Camera and whether it has

been read to the Camera.

Capacity: Show the total size of the plug into the Camera's SD card.

Usage: displays the current plug into the SD card in the Camera has been used in

the situation.

Click Apply to save your changes.

7. Alarm:
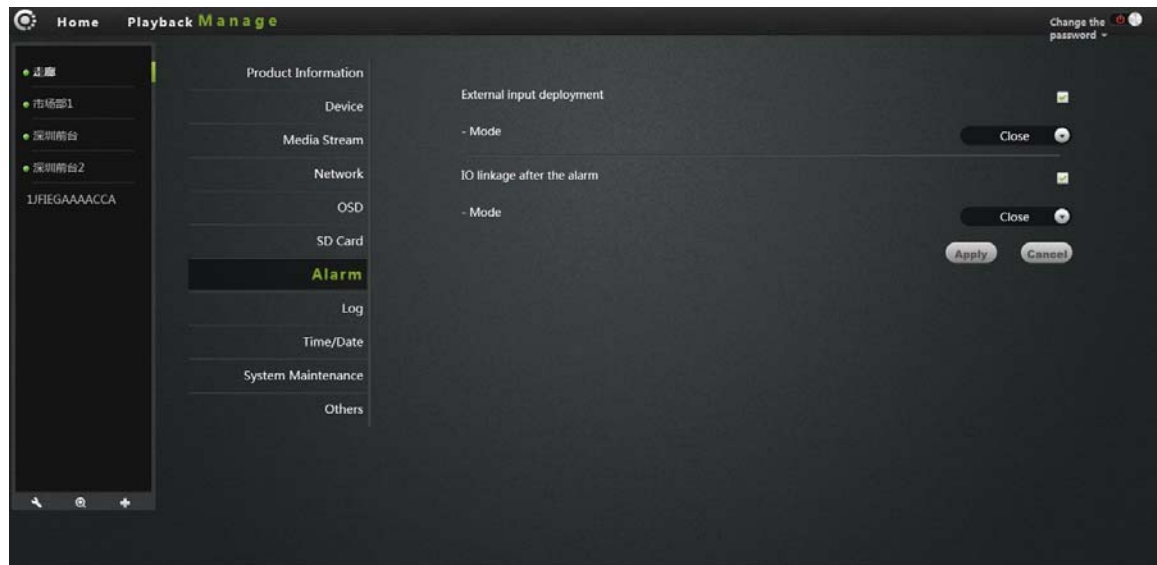
External input arming: trigger signal input, an external alarm sensor probe

(such as smoke alarms probe).When checked can select normally closed or normally open in mode according to the type of external alarm probe equipment.

IO linkage: the alarm trigger signal output, external alarm equipment (such as

speaker equipment).When Checked, the machine triggered the alarm linkage output alarm signal to trigger external alarm, normally closed or normally open mode depending on the type of external alarm devices.
Click Apply to save your changes.

8.Joural

Record all operation to the IPCAM   according to the time sequence record.

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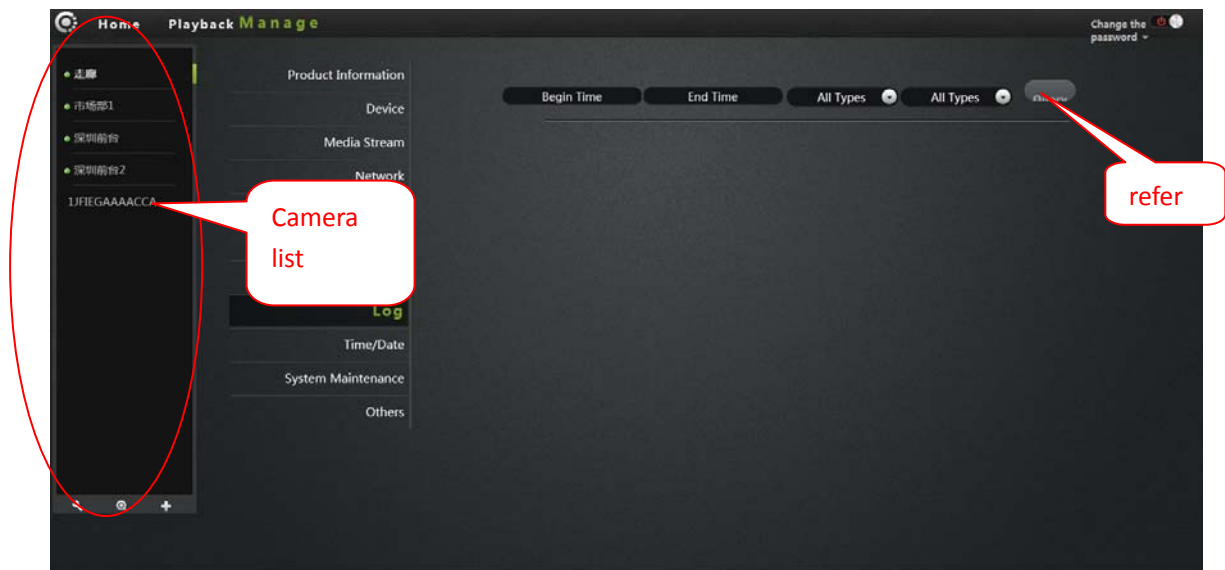
1. Choose the camera in the camera list.
2. Start time: Choose the start time.
3. Finish time: Choose the finish time.
4. Choose the station.
5. Inquire.

9. Date / Time:
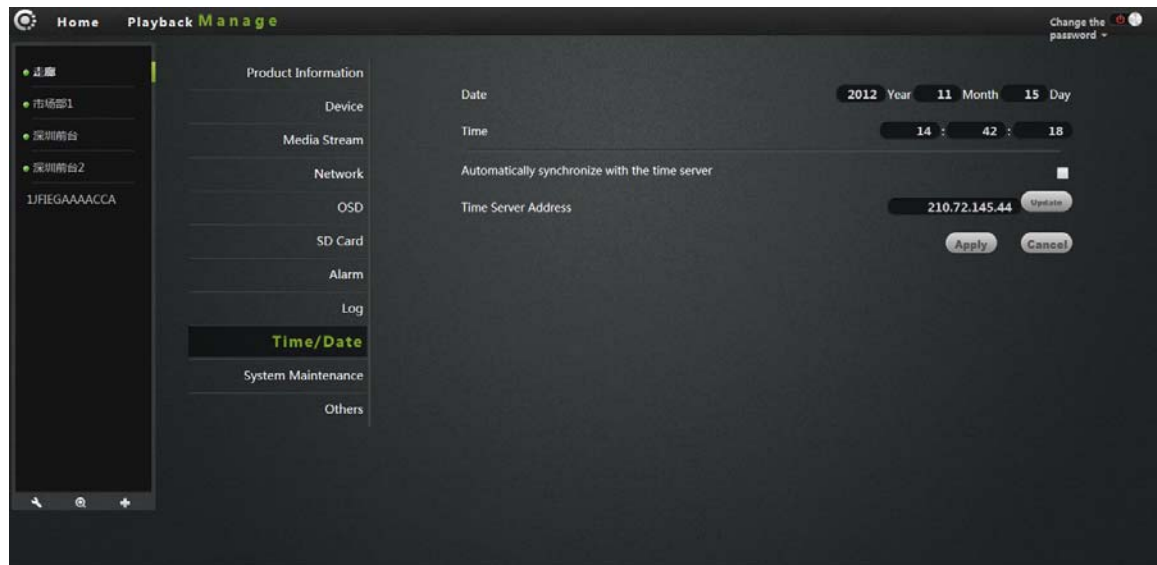
Date: The date of the Camera can be manually modified.

Time: Time of the Camera can be manually modified.

Automatically synchronized with the time server: When checked , Camera time is automatically synchronized with the server time.

Time server address: the address of the time server.

Click Apply to save your changes.

10. System maintenance:
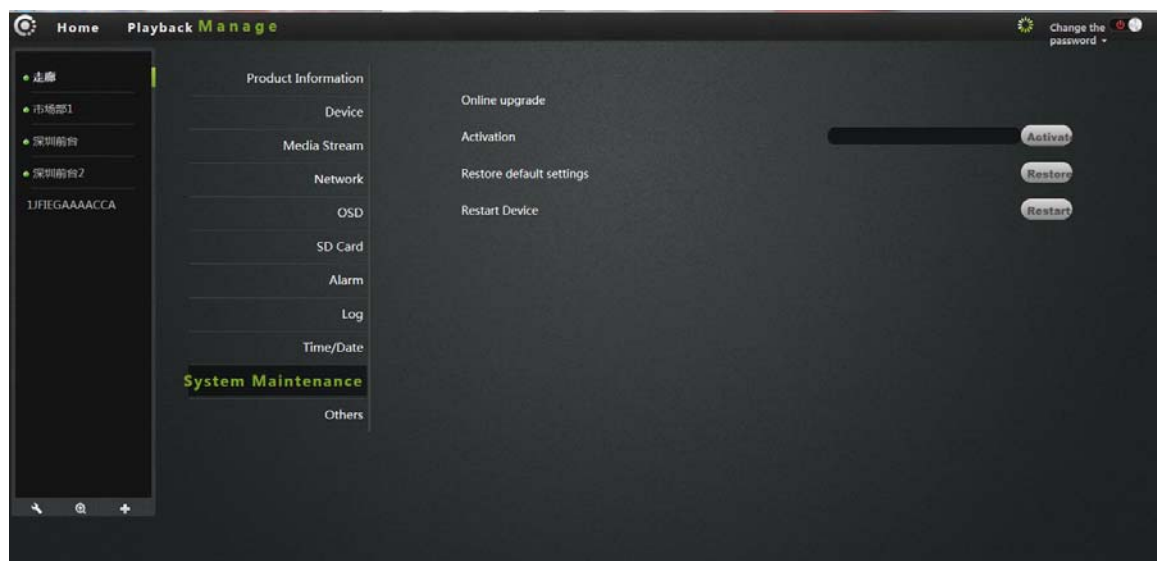
Online upgrade: If have the latest software, will prompt <update> ,click update,

the Camera will upgrade the software online.

Note: Software upgrading is a certain risk to the camera, when software upgrading
cannot cut off the network and power, or the machine will be dead.

Restore the default settings: click the Restore button, the Camera will be

restored to the factory default settings, will cancel the manual camera settings.

Restart the device: Click the reset button to restart the Camera.

Click Apply to save your changes.

11. Others:

PTZ:

    Speed: PTZ speed parameter settings, the greater the value, the faster the PTZ.

Audio:

  Speaker: Setting the sound size of the camera speakers, using the mouse to drag
the slide bar,the greater the value, the greater of the sound .

  Microphone: Setting the sensitivity of the camera microphone, using the mouse
to drag the slide bar , the greater the value, the more sensitive of the
microphone ,the more sound receiving from external environment, the greater of
the computer voice, listen to the voice of the computer end, the greater of the
environment noise accordingly.

Equipment flip: When checked,the picture for up/down ,left/right and the PTZ

will collover,is suitable for backwards setting.

Power frequency: have 50 Hz and 60Hz.User can choose the Hz according to the local power frequency.

Click Apply to save your changes.

Troubleshooting

This chapter provides solutions to problems that may be arised in the IP CAMERA installment and running.

If you encounter the problems, please read the following descriptions. (The following example is based on Windows ® Vista ™ and XP Description .If you are using a different operating system, your computer screen is similar with the following example.)

1.   What is remote access? What can I do?

Through remote access, you can use a web browser from any PC connected to the Internet to access the Camera. So even if you are not at home, you can watch the Camera images, and manage the Camera settings.

To enable remote access, you can simply follow the Quick Installation Wizard.

If you are not connected on the camera, make sure the following items:

....The green LED Camera on SETATE2 green light flashes (every three seconds shine 5 times)

....Network connection is working properly

... Router's LAN & WAN connection is working properly.

... The router has enabled UPnP.

... The router can get a public network IP.

... The router has been upgraded to the latest firmware version.

... You have tried to restart the router by unplugging the power and then plug it again

After the completion of the inspection of the above, you can re-landing.

2.   Why photo Camera's network connection unreliable?

The network cable may be a problem.To make Sure the cable is working, PING the known address of the device in network. If the cable connection is correct and your network connection is working, you should receive a similar (bytes = 32 time = 2 ms) reply.Another possibility is that there is a problem in the network the camera use,

such as hubs or switches. Make sure the power for all devices are connected and working properly.

3. Why Network Camera work locally, but the remote does not work?

This may be caused by the firewall protection , check network firewall with your system administrator. The firewall may need to make some configuration changes, in order to access to the network Camera externally from your local LAN,. For more detailed information, please refer to the relevant sections of the Cameras installed in the router backend.

Ensure that the network Camera does not conflict with any Web server running in your network.

The default router setting might be the problem. Make sure that the router settings configured to allow external access from your local LAN network Cameras.

4. Why the image has some vertical white line?

There may be the CMOS sensor exposure to the hard light (such as direct exposure to sunlight or a halogen light) and overload .The CMOS sensor is located in the rear of the lens, its role is the measure the light signal and converts it to a digital format .So that the computer will present the digital format to the user in the image form.If the CMOS sensor is in the bright light for a long time, do not transfer the network Camera to a dark area immediately, so as not to damage the CMOS sensor.

5. The Camera has blurred image, how to solve it?

If the network Camera works in dim place, the video image may become blurred. Another possibility is that the Camera lens and CMOS sensor are not in good focus, please align the object   5 meters away from the camera, adjust the lens slowly and repeatedly by hand adjusted until the image be the clearest.

6. The image quality is poor, how to improve?

Determine your computer's display properties set at least six colors.16 or 256 colors makes the image appear jitter artifacts, it seems the quality will be poor. Network Camera image display is not configured correctly. Configuration through the Web Management Web video interface, you can adjust the parameters to improve the image quality, these parameters include: brightness, contrast, and color saturation.

7. Why no images on the Web browser?

The ActiveX might not enabled. If you are viewing the camera via Internet Explorer ,make sure to enable ActiveX in the Internet Options menu. You may also need to modify the browser's security settings to allow installation of ActiveX plug. If your Internet Explorer version is less than 7.0, you need to upgrade to a Web browser in order to watch the video sent by the network Camera.

8. PIR poor perfomance, how to improve the quality?
- Need direct induction sensors, it does not apply to the room for multiple obstacles, or glass window barrier items.

- High temperature sensing performance than the low temperature slightly lower, this is the normal, non-sensor damage.

- Only for indoor enclosed space, and installation location should avoid the glass doors and windows, direct sunlight, car headlights, alien infrared interference.

- Should be avoided in the air conditioning vent and vents or air purifiers, humidifiers similar equipment, etc.

- Susceptible to RF radiation interference, away from the place of the wireless device equipped with a high-power.

- This sensor main detects the lateral movement , the longitudinal movement detecting capacity is relatively poor.

- PIR White has a strong inhibitory function, but not 100% inhibition, should avoid installing at the glare interference.

- The temperature of the object, such as the people, cats, dogs, etc. have detected motion, so the mounting height will affect the sensitivity of the detector and the effect of anti-small animals.

  - To prevent malfunction , the Camera setting conditions at room temperature 25 ° C, general adult height of objects can be detected at a distance of 2.5M less than smaller displacement action, 2.5M ~ 5M need a larger displacement to judge as movement.

- Installed at the base should be solid, not moving or vibration.
9. Troubleshooting, LED status indication:

Indicator	Indicator state	statements
POWER (POWER indicator)	Red light Long bright	Power supply is normal
STATE1 (Wireless network instruction)	Green light scintillation	Equipment can normal access Internet, users now can through the PC or mobile phone normal access
	Green light Long bright	Gateway communication have normal, but can't normal access Internet, such as dialing failure

	Red light Long bright	Is connecting to WIFI router, there is no connection or IP address for failure
	Red, green light shine alternately	Say no to do WIFI configuration or configuration of a router WIFI connection or DHCP failure, WIFI switch to ADHOC mode, at this time can through the mobile phone or PC connecting device wireless network, and then through the 192.168.188.254 visit, modify the wireless configuration
	Lights went out	WIFI module are disabled
STA2(Cable network instruction)	Green light scintillation	Equipment can normal access Internet, users now can through the PC or mobile phone normal access
	Green light Long bright	Gateway communication have normal, but can't normal access Internet, such as dialing failure
	Red light Long bright	IP address to obtain success or users set up static IP address, but gateway impassability (for example IP address set wrong)
	Red, green light shine alternately	Dynamic IP address for failure, IP addresses are temporary set to 192.168.187.254, users can set the same network segment for computer IP, and then through the address access, for the equipment configuration static IP address
	Lights went out	Line not connected or user disable

Wireless Infrastructure

Wireless IP CAMERA products are based on industry standards for your home, business or public access the wireless network and provide a simple and compatible high-speed wireless connection.The IP CAMERA strictly follow the IEEE standard, wireless products allows access to the data you need anytime, anywhere safely. You will be able to enjoy the freedom of the wireless network.

Wireless LAN (WLAN) is a unit of the computer network by a wireless signal instead of wires to transmit and receive data. WLAN is more and more used in home and office environments, as well as public places such as airports, coffee shops and universities. WLAN technology in innovative ways to help the communicate more effectively. No cabling and other fixed infrastructure, as well as better mobility provides more convenience for many users.
In many environments, the mobile network equipment needs to be connected to a conventional Ethernet LAN, servers, printers or an Internet connection in order to use via a wired LAN.The wireless router is used to provide such a connection device.

What is wireless?

Wireless or WiFi technology is not using a cable to connect your computer to network.WiFi uses radio frequency to connect wirelessly, so you can be free to connect computers anywhere in your home or office network.

Why buy IPC1 wireless equipment?

IPC1 is the world's leading camera, you can use smart phone access remote monitoring and get smooth video, and equipped with real P2P technology. IPC1 products are at reasonable prices and excellent performance.

The wireless network is how does it work?

Similar with the wireless phone ,the wireless network transmit data from point A to point B via wireless signal. However, for wireless network there are some restrictions on how you can access the network. You must be within the coverage of the wireless network, in order to connect to your computer. The wireless network is divided into two different types : wireless local area network (WLAN) and wireless personal area network (WPAN).

Wireless local area network (WLAN)

In a wireless local area network, the access point (AP) as the computer device to access the network.Access point has a small antenna, whether through radio signals to and from the transmission data.Indoor access

point shown in the drawing, the signal can reach a distance of 300 feet. In outdoor,the signal distance of access point can reach 30 miles at most, can be used such as a factory floor, industrial areas, college and high school campuses, airports, golf courses, as well as many outdoor occasions.

Which kind of person are suitable for wireless network?

Wireless network technology be more and more popular in recent years, almost everyone is using it ,No matter for the home, office and business, D-Link can offer the wireless solution .

Home

• provide broadband access for everyone at home

• browse the web, view email, instant messaging, etc.

• No cable connection in the room around

• Simple and easy to operate

SOHO (Small Office and Home Office)

• Everything will be in your hands when you are at home as well as in the office.

• Remotely access your office from home .

•Share an Internet connection and a printer with multiple computers .

• Do not require a dedicated office space

Where to use the wireless network ?

Not just confined to the home and office, wireless technology has being extended to every corner.People like the freedom of mobility, wireless networks are becoming increasingly popular, more and more public places begin offering wireless access to attract people. The wireless connection in public places is usually called "hot spots".

Use a wireless card in your laptop, you can be in distant places such as: airports, hotels, cafes, libraries, restaurants and conference center with wireless network.

The wireless network is easy to install, if you first installed, you will need to work hard to understand where to start. This is why we want to provide some of the installation steps and tips to help you complete the installation process .

Tips

When you install a wireless network, please note the following:

Place your router or access point in the center position

Verify that your router / access point on the center position of the network, in order to get the best results. Try to place the router / access point to the

highest point in the room, so that the signal can be distributed to your room.If your home is a two-story building, you need to install the repeater signal expanding coverage.

Eliminate interference

Household appliances, such as cordless phones, microwaves, and televisions as far as possible from the router / access point. This will greatly reduce the electrical interference caused by the work of the same frequency.

Security

Prevent your next door neighbors or intruders connect to your wireless network. Open the router's WPA or WEP security features to protect your wireless network.Please refer to the product manual to set the properties detailed information.

Wireless Security

This section describes the different levels of security you can use to protect your data from intrusion. .
ipc1 provides the following security types:
- WPA-PSK (pre-shared password)
- WEP (Wired Equivalent Privacy)

What is WEP?
WEP means Wired Equivalent Privacy. It is based on the IEEE 802.11 standard, using the RC4 encryption algorithm. WEP for data encryption on your wireless network to provide security, so that it can protect the security of transmission from one wireless device to another.
To access the WEP network, you must know the key. The key is the string you create. Using WEP, you must specify the level of encryption. The type of encryption determines the key length.128-bit encryption key is longer than 64.Key input HEX (16 hex -0-9, AF) or ASCII (American Standard Information Interchange Code - alphanumeric characters) format string definition. ASCII format allows you to enter the easy-to-remember string. ASCII string used on the network transmitted converted into HEX. Righteousness four keys can be given, mainly You can easily change the key.
What is WPA?

WPA or Wi-Fi Protected Access, is a Wi-Fi standard, designed to improve the security features of WEP (Wired Equivalent Privacy).

Compared with WEP,WPA has two major improvements:

Improve data encryption through the Temporal Key Integrity Protocol (TKIP).TKIP scrambles the keys using a hashing algorithm and, by adding integrity-checking feature, ensures that the keys have not been tampered with.WPA2 is based on 802.11i, using the Advanced Encryption Standard (AES) instead of TKIP.

User authentication through the Extensible Authentication Protocol (EAP), usually missing in WEP.WEP-based computer hardware MAC address to restrict access to the wireless network is relatively easy listening and steal. EAP is built on a more secure public key encryption system to ensure that only through authorized network users can access the network.

WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alphanumeric password, 8-63 characters long. The password can include symbols (!?* & _) And spaces. This key must be entered on your wireless router or access point the same key.

Complete the quick installation the IP CAMERA guide installation, you can use the IP address has been assigned the Camera.A local IP address for your PC and one or more shared network through a router, so assigned to the IP address of the network Camera.At this time, your local network can see the Camera, configure the router to allow the Camera from a remote viewing can be viewed on the network.

Technical parameters

Specification		FI-321
Image sensor	Sensor	1/4 "color CMOS sensor
	Display Resolution	1280 * 720 pixels (1,000,000 pixels)
	Shot	f: 3.6mm, F: 2.4
	Minimum illumination	0.5Lux
	Perspective	65 degrees
Audio frequency	Input / Output	Built-in MIC and SPEKER, two-way voice intercom
	Audio Compression	G.711/G.726/AAC/ADPCM
Video	Video compression mode	MJPEG/MPEG4/H.264
	Lighting frequency	50Hz, 60Hz
	Image frame rate	1-30fps
	Image resolution	1280 * 720,640 * 360, 384 * 216,256 * 144
	White balance, backlight compensation	Automatic
	Night Vision	12 IR LED, IR distance: 10 meters
Network	Ethernet	A 10/100Mbps RJ-45 interface
	Support Agreement	TCP / IP, UDP / IP, HTTP, SMTP, FTP, DHCP, DDNS, UPNP , RTSP And RTMP, MUTP
	Wireless standards	WIFI (IEEE802.11b/g/n)
	Support IP addresses	Static IP address and dynamic IP address
Alarm	Alarm detection	Motion Detection
	Alarm notification	Support E-mail, FTP, SMS alarm alarm notification methods (requires server support)
	External alarm	External alarm input / output
Hardware interface	Memory card	Micro SD card. (Supports up to 32GB)
	Power supply	DC 5V/2.0A and POE power supply (optional), power consumption <8 watts
	Audio input / output interface	An audio output jack and an audio input socket

	Button	A reset button, a function button
	Wireless interface	1 WIFI external antenna interface
	External alarm I / O	External alarm I / O port
Other	PTZ rotation angle	Horizontal: 320 ° & Vertical: 120 °
	LED indication	Power / network signal / function indicator
Environment	Operating Temperature	0 ° ~ 55 ° C (32 ° F ~ 131 ° F)
	Operating Humidity	10% ~ 80% RH (non-condensing)
	Storage temperature	-10 ° C ~ 60 ° (14 ° F ~ 140 ° F)
Specification	Dimensions (L*W*H)	112 (L) *114 (W) *157mm (H)
	Weight	400g (Containing rack)
Computer Requirements	Central processor	2.0GHz or above (recommended 3.0GHz)
	Memory	256MB or more (Recommended 1.0GB)
	Graphics	64MB or more
	Operating system	Microsoft Windows 2000/XP, Vista, Windows7, Mac OS, Linux
	Browser	IE6 or later / Firefox / Google browser or other standards-compatible browser
Authenticate	Certificate	CE, FCC,ROHS

Warnings

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must be co-located for operating in conjunction with any other antenna or transmitter.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.