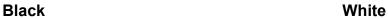
User Manual

Model: FI9821W

Indoor HD Pan/Tilt Wireless IP Camera





FOSCAM

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1 Overviews

FOSCAM FI9821W is an integrated wireless IP Camera with a color CMOS sensor enabling viewing resolution 1280*720. It combines a high quality digital video camera, with a powerful web server, to bring clear video to your desktop from anywhere on your local network or over the Internet

With flexible 300-degree pan and 120-degree tilt, FI9821W gives users more comprehensive control over a monitored site. The FI9821W supports the industry-standard H.264 compression technology, drastically reducing file sizes and conserving valuable network bandwidth.

The IPCAM is based on the TCP/IP standard. There is a WEB server inside which could support Internet Explore. Therefore the management and maintenance of your device is simplified by using the network to achieve the remote configuration, start-up and to upgrade the firmware.

The camera is designed for indoor surveillance applications such as retail stores, offices or banks. Controlling the IPCAM and managing images are simplified by using the provided web interface across the network utilizing wireless connectivity.

1.1 Key Features

- ◆ Standard H.264 video compression algorithm to satisfy the transmission of high definition video in narrow bandwidth network
- ♦ 1.0 Mega Pixel
- ◆ Pan 300 degree, tilt 120 degree
- Supports IE/Firefox/Google/Safari browser or any other standard browsers
- Supports WEP,WPA and WPA2 Encryption
- ♦ Wi-Fi compliant with wireless standards IEEE 802.11b/g/n
- IR night vision (Range:8m)
- Supports image snapshot
- Supports dual-stream
- Supports SD Card to 32G
- Supports IR-Cut and the filter change automatically
- ◆ Embedded FOSCAM DDNS(dynamic domain name service) Service
- Supports two-way audio / remote viewing & record from anywhere anytime
- Multi-level users management with password protection
- ◆ Motion detection alert via email or upload image to FTP
- Supporting Third Party Domain Name Service
- ◆ Supports multiple network protocols: HTTP /TCP /IP /UDP /FTP /DHCP /DDNS / UPNP

1.2 Read Before Use

Please first verify that all contents received are complete according to the Package Contents listed below. Before the Network Camera is installed, please carefully read and follow the instructions in the Quick Installation Guide to avoid damage due to faulty assembly and installation. This also ensures the product is used properly as intended.

1.3 Packing Contents

• IPCAM×1	• CD×1
Wi-Fi Antenna×1 (only available for wireless	Quick Installation Guide ×1
model)	
DC Power Supply×1	Warranty Card×1
 Mounting bracket×1(option) 	
Network Cable×1	

1.4 Physical Description

Front Panel



Figure 1.1

1 Speaker: Built-in speaker

2 LENS: CMOS sensor with fixed focus lens.

3 Infrared LED: 11 IR LEDs

4 Microphone: Built-in microphone

5 WIFI Antenna: Wireless Antenna

Rear Panel



Figure 1.2

LAN: RJ-45/10-100 Base T Power: DC 5V/2A Power supply

Power Light: If the power adapter works well, the light will turn on.

Network Light: The LED will blink when power and network cable are plugged in

SD card: Supports to 32G

Audio Input: This jack is used to plug an external microphone **Audio Output:** This jack is used to plug an external speaker

Bottom View

There are up to three labels located at the bottom of the camera; this is an important feature of original Foscam cameras. If your camera does not have labels as shown in Figure 1.3, it may be a clone. Cloned Foscam cameras can not use original firmware and are not eligible for warranty or technical services.



Figure 1.3

Reset button: Press and hold down the RESET BUTTON for 5 seconds. Wait for 20 seconds after released, the IP camera will reboot and it will be reset back to factory default settings. You must power on the camera before reset.

1.5 SD Card

This camera supports SD Card and the max size of SD card must be under 32G.

When you plug in the SD card during the camera work process, please unplug the power adapter and plug it again, or else the SD Card may be cannot work well.

Go to the **Settings**→**Device Status** →**Device Status** page, you can see the SD card status.



The default storage path of alarm record files is SD card, when the available size of SD card is less than 256M, the old record files will be deleted automatically.

2 Surveillance Software GUI

Please refer to the Quick Installation Guide if you install the camera at first time. After finishing quick installation, you can take time to learn the operation of the software.

2.1 Login Window



Figure 2.1

Please check the login window above, it was divided to 5 sections from no. 1 to 5.

Section1 Enter the User name and password

The default administrator username is admin with a blank password, please reset the password at first using and prevent unauthorized users login the camera (read chapter 3.2.4 about how to change).

Section2 Media port

The Media port is used to transfer video stream, and the default port no. is 888, you can reset the port no. between 1 ~65535 on the **Settings-**→**Network**→**Port** page. The camera will obtain the port no. automatically, you need not to fill it manually.

Section3 Stream

The camera supports two stream modes: Main stream and sub stream. If you want to access the camera form LAN, here you can select Main stream. If you want to access the camera from

Internet, here we recommend sub stream.

Note: When the network bandwidth is badly you"d better select Sub Stream and the video will be more fluency.

Section4 Select the language

You can select the language you need via click on the language dropdown list to switch.

Section5 Login the camera

Click Login button and you will see the surveillance windows.

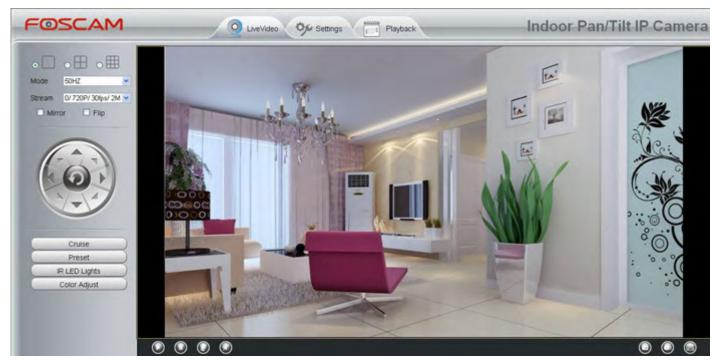
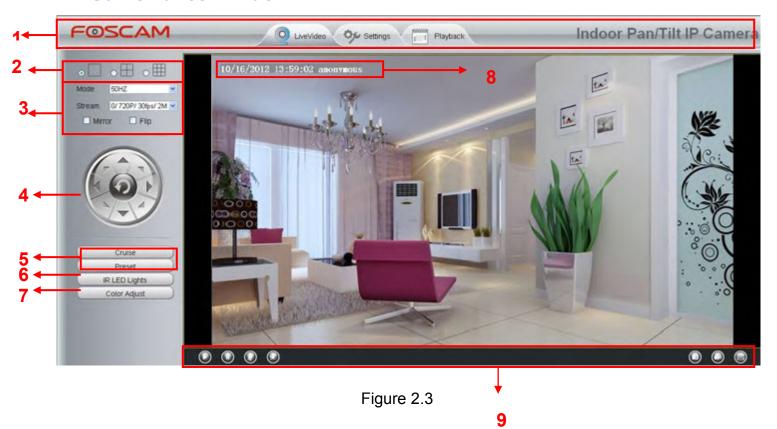


Figure 2.2

2.2 Surveillance Window



Section1 FOSCAM Logo/ LiveVideo / Settings/Playback buttons

FOSCAM: FOSCAM LOGO

: Path to surveillance window. Click this button and back to the surveillance window

Path to Administrator Control Panel, Click it, and it will lead to Administrator Control Panel and do advanced settings.

Playback : Click this button and back to the Playback panel to view the stored audio files stored in the SD Card.

Section 2 Multi-Device Window



The firmware inside the camera supports up to maximum of 9 cameras being monitoring at the same time. You can add other cameras in multi-device setting (read chapter 3.2.5).

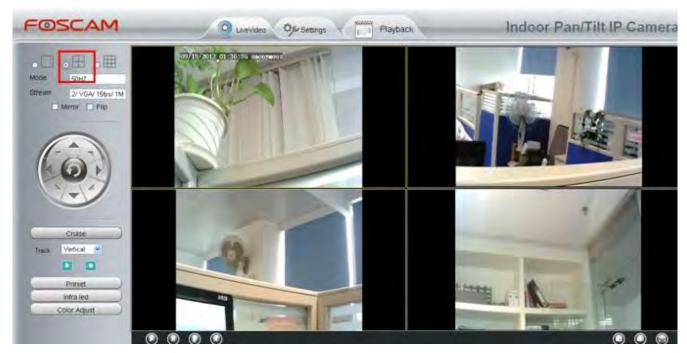


Figure 2.4

Section3 Mode/ Stream / Mirror/ Flip buttons

Mode

- 1) 50HZ -----Indoor surveillance (Region: Europe, China)
- 2) 60HZ -----Indoor surveillance (Region: USA, Canada)

Stream

The default Stream supports four modes: 0/720P/30fps/2M, 1/VGA/25fps/2M, 2/VGA/ 15fps/ 1M and 3/ VGA/10fps/200 The format of the stream type is **Stream type no. / Resolution /**Maximum frame rate/ Bit rate

1) Stream type no.: The number is used to identify the stream type.

2) 720P/ VGA

There are two resolutions, the bigger one is 720P, and the smaller one (VGA) is 640x480 pixels. The bigger the resolution, the better of the image quality is. If you are accessing the camera via internet and want to get more fluent video streaming, please select resolution VGA.

3) Maximum frame rate

When the video format is 50Hz, the maximum frame rate is 25 fps. When the video format is 60Hz, the maximum frame rate is 30 fps. You should lower frame rate when the bandwidth is limited. Normally, when the frame rate above 15, you can achieve fluently video.

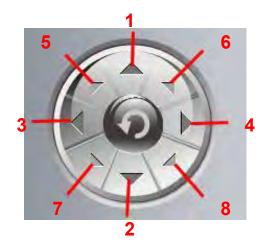
4) Bit rate

Generally speaking, the larger the bit rate is, the clearer video will become. But the bit rate

configuration should combine well with the network bandwidth. When the bandwidth is very narrow, and bit rate is large, that will lead to video can not play well.

You can reset the stream type on **Settings-> Video-> Settings** panel(chapter 3.4.1). After changing, please re-login the camera and you can see the modification.

Section4 Pan/Tilt Control



1-----Up control button,

3-----Left control button,

5---- Up-Left control button

7---- Down-Left control button

2-----Down control button,

4-----Right control button,

6---- Up-Right control button

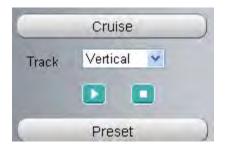
8---- Down-Right control button



Click this button and go to center

Section5 Cruise / Preset settings

Cruise Settings



The default cruise tracks have two types: Vertical and Horizental.

Vertical: The camera will rotate from up to down.

Horizental: The camera will rotate from left to right.

E: Start cruise.

If you want to define or change the cruise trace, please go to **Settings---PTZ---Preset Settings** panel.

How to do cruise?

Firstly: Select one track in the track dropdown list

Secondly: Click Start cruise button, the camera will cruise following the predefined path.

Thirdly: Click stop button and finish cruising.

Preset settings



IPCAM supports 16 preset positions, which is considered enough for DIY home & small business surveillance market

The default preset position is Topmost, Bottom most, Left most, right most, you can add other preset positions.

: Add Click this icon to save the position you need the camera to remember

Delete Select one preset position and click this button to delete it.

GO Select one preset position in the preset dropdown list and click Go to make the camera move the preset position

How to do preset position?

Firstly, move the camera and stop at a desired place where you want make preset position.

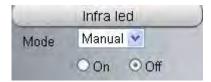
Secondly, click button and enter a descriptive name for the preset position. The preset position cannot contain special characters. Then click OK to save it. If you want to reset the

preset position, click Cancel.

After that, you can move the camera and stop at another place, and set another preset position. You can do all the 16 preset positions with this method.

If you want to see one preset position you have set, only select the preset position name from the preset dropdown list, and click go button, the camera will go to the preset position.

Section6 Infra led



Click Infra led and there are two modes to adjust the infrared led: Auto and Manual . The default mode is Auto.

Auto: Select it and the camera will adjust the infra led (on or off) automatically.

Manual: Select it and you can turn on or turn off the infra led manually.

Section7 Image quality settings

In this page, you can tune Hue, Brightness, Contrast, Saturation, and Sharpness to get higher quality.



Section8 OSD

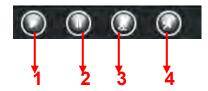
If you have added time and camera name in the video, you can see it in the live window.

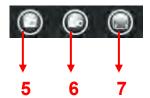
Go to **Settings ---Basic settings---Camera name** panel, and you can change another device name. The default device name is anonymous.

Go to **Settings ---Basic settings---Camera time** panel and adjust the device time.

Go to **Settings ---Video---On Screen Display** panel, you can add or no add OSD.

Section9 Play/Stop/ Talk/Audio/ Snap/ Record/ Full screen button





1-----Play Click it to play the video of the camera

2-----Stop Click it to stop the video of the camera

<u>3----- Talk</u>: Click the button and the icon will become to the nicrophone that connected with PC, people around the camera can here your voice. Click the icon again and stop talking.

<u>4----- Audio</u> Click this icon, the icon will become to you can hear the sound around the camera by the earphone or speakers that connected with PC.

<u>5----- Snapshot:</u> Click it to make snapshot and it pop-up a window which picture you snapshot, right click in the window and save the picture to anywhere you want.

6----- Record: Click the icon and the camera start recording, you can see a green dot in the live window. Click again and stop recording. The default storage path is C:\IPCamRecord. You can change the storage path: Go to **Settings->Record->Storage Location** panel.

<u>7-----Full Screen</u> Click it to make full-screen, or you can double click the surveillance screen to make full-screen. Double click again and exit full-screen.

Onscreen Mouse Control

Right click the mouse and you can adjust the screen ration, full screen and Zoom up.

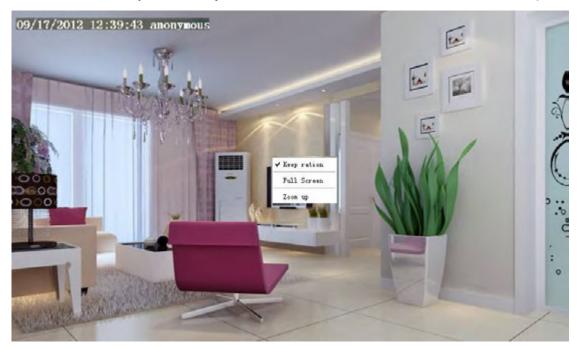


Figure 2.6

Keep ration: Select it and the camera will adjust the size of live window based on the the computer monitor automatically.

Full Screen: Select it and Click it to make full-screen, press ESC and exit full-screen.

Zoom up: Click it and the live view will be digital zoomed up, then click Zoom Down and the live view back to original size.

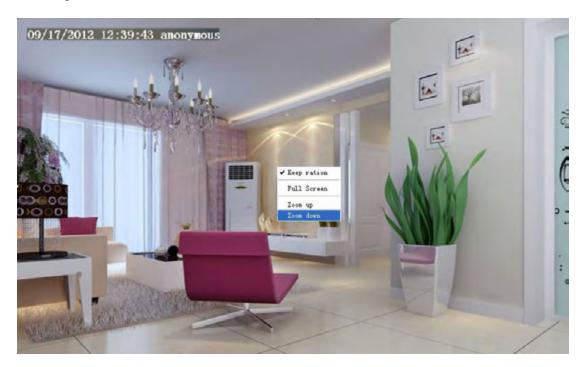


Figure 2.7

09/17/2012 12:39:43 anonymous

V Keep ration
V Full Screen
Screen FTZ
Zoom up
Zoom down

When you select the Full Screen, then click right mouse, there is a **Screen PTZ** button.

Figure 2.8

Click the **Screen PTZ** button and put the mouse on the screen to indicate the camera move direction you prefer, press the left mouse, the camera will move to the corresponding direction. Loosen the mouse and stop moving. Press Esc button or double click right mouse and cancel the function.

NOTE: For MAC OS, the plugin cannot support Onscreen Mouse Control, so you cannot allow to use it.

"

3 Advanced Camera Settings

Click the button "Settings", goes to Administrator Control Panel to make advanced camera settings.

3.1 Device Status

Device Status contains four columns: Device Information, Device Status, Session Status and Log, it will show you various information about your camera.

3.1.1 Device Information

	Refresh
Camera Model	FI9821W
Camera Name	anonymous
Camera ID	000C5D000008
Camera Time	1912/10/16 10:11:19
System Firmware Version	1.2.1.1
App Firmware Version	1.1.1.7
Web Version	1.0.4.3
Plug-In Version	1.0.4.3

Figure 3.1

Camera Model: The camera model no.

Camera Name: The Device Name is a unique name that you can give to your device to help you identify it. Click **Basic Settings** and go to **Camera name** panel where you can change your camera name. The default device name is anonymous.

Camera ID: Display the wired MAC address of your camera. For example Device ID is 000C5D00008, the same MAC ID sticker is found at the bottom of the camera.

Camera Time: The system time of the device. Click **Basic Settings** and go to **Camera time** panel and adjust the time.

System Firmware version: Display the System Firmware version of your camera. **App Firmware version:** Display the application firmware version of your camera.

Web version: Display the web UI version of your camera **Plug-in version:** Display the plug-in version of your camera

3.1.2 Device Status

On this page you can see device status such as Alarm status/ Record Status ,DDNS status ,WIFI status and so on.



Figure 3.2

3.1.3 Session status

Session status will display who and which IP is visiting the camera now.

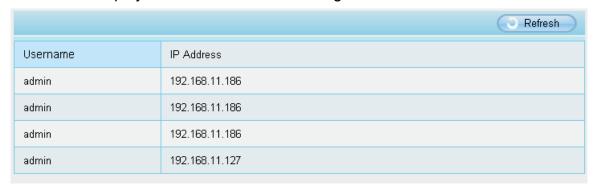


Figure 3.3

3.1.4 Log

The log record shows who and which IP address accessed or logout the camera and when.

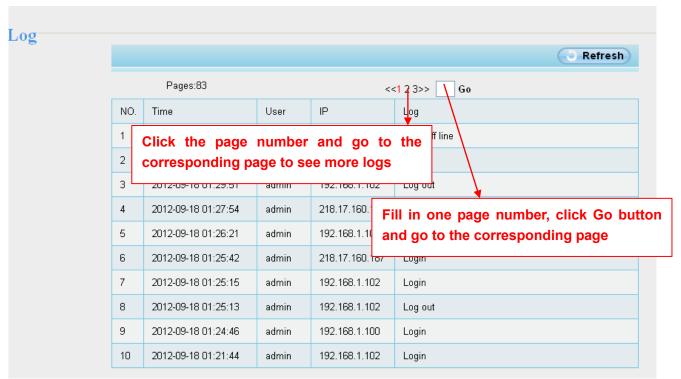


Figure 3.4

3.2 Basic Settings

This section allows you to configure your camera's Name, Time, Mail, User account and Multi-Device.

3.2.1 Camera Name

Default alias is anonymous. You can define a name for your camera here such as apple. Click **Save** to save your changes. The alias name cannot contain special characters.

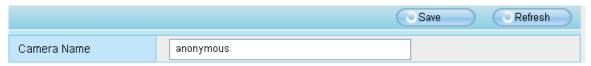


Figure 3.5

3.2.2 Camera Time

This section allows you to configure the settings of the internal system clocks for your camera.

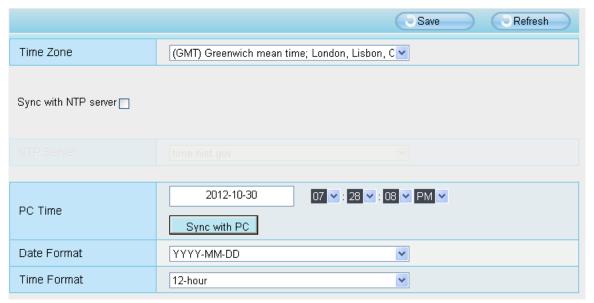


Figure 3.6

Time Zone: Select the time zone for your region from the dropdown menu.

Sync with NTP server: Network Time Protocol will synchronize your camera with an Internet time server. Choose the one that is closest to your camera.

Sync with PC: Select this option to synchronize the date and time of the Network Camera with your computer.

Manually: The administrator can enter the date and time manually. Note select the date and time format.

Click **Save** button to submit your settings.

3.2.3 Mail Settings

If you want the camera to send emails when motion has been detected, here **Mail** will need to be configured.

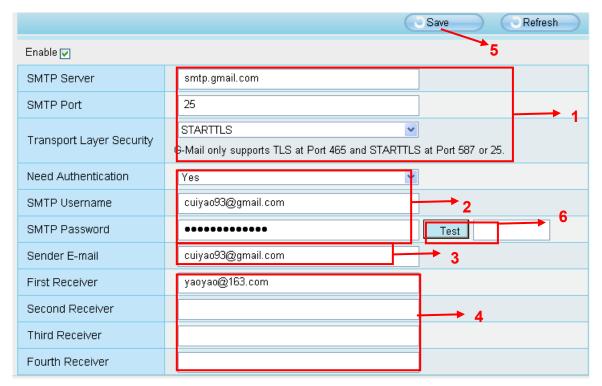


Figure 3.7

<u>1----- SMTP Server/ Port /Transport Layer Security</u> Enter SMTP server for sender. **SMTP port** is usually set as 25. Some SMTP servers have their own port, such as 587 or 465, and Transport Layer Security usually is None. If you use Gmail, Transport Layer Security must be set to TLS or STARTTLS and SMTP Port must be set to 465 or 25 or 587, which port you choose should be decided by which Transport Layer Security you select.

2-----SMTP Username/ password: ID account and password of the sender email address

3----- Sender E-mail Mailbox for sender must support SMTP

4----- Receiver Mailbox for receiver need not support SMTP, you can set 4 receivers

5----Save Click Save to take effect

6----Test Click **Test** to see if Mail has been successfully configured.

Click **Test** to see if Mail has been successfully configured.

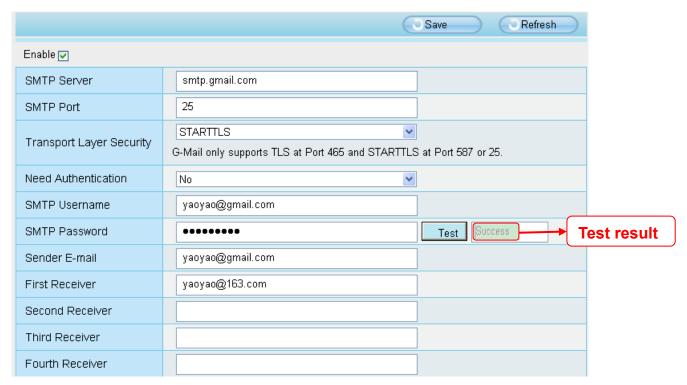


Figure 3.8

If the test success, you can see the **Success** behind the Test, at the same time the receivers will receive a test mail.



Figure 3.9

If the test fails with one of the following errors after clicking **Test**, **verify** that the information you entered is correct and again select **Test** .

- 1) Cannot connect to the server
- 2) Network Error. Please try later
- 3) Server Error

- 4) Incorrect user or password
- 5) The sender is denied by the server. Maybe the server need to authenticate the user, please check it and try again
- 6) The receiver is denied by the server. Maybe because of the anti-spam privacy of the server
- 7) The message is denied by the server. Maybe because of the anti-spam privacy of the server
- 8) The server does not support the authentication mode used by the device

3.2.4 User Accounts

Here you can create users and set privilege, **visitor**, **operator** or **administrator**. The default user accounts are admin, operator and visitor, with a blank password.

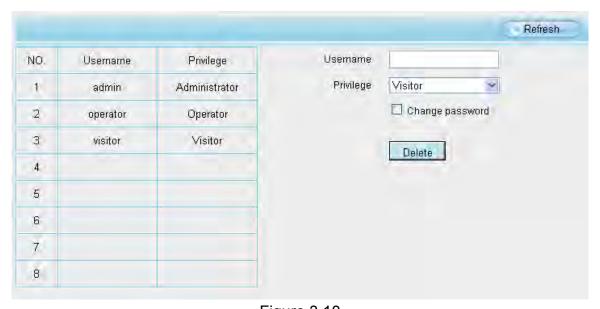


Figure 3.10

How to change the password?

Firstly, select the account which you want to change the password, then select "Change password", enter the old password and the new password, lastly click modify to take effect.

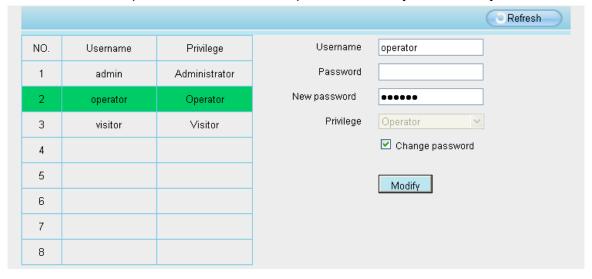


Figure 3.11

How to add account?

Select one blank column, then enter the new user name, password and privilege, last click Add to take effect. You can see the new added account on the Account list.

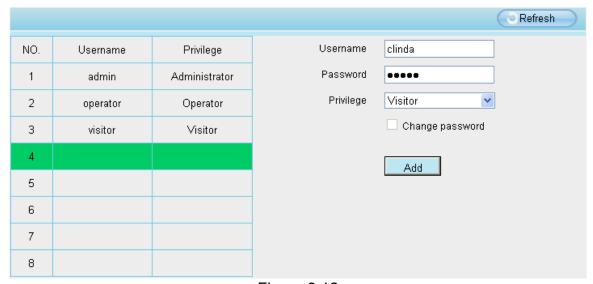


Figure 3.12

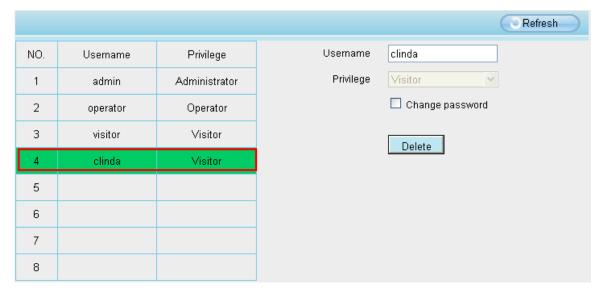


Figure 3.13

Delete Select the account which you want to delete, then click Delete button to take effect.

Note: The default admin account cannot be deleted, but you can add other administrator users.

3.2.5 Multi-Camera

If you want to view multi-surveillance screens on one window, you need to login one camera, and set it as the main device, and do Multi-Device Settings, add other cameras to the first one camera. Before you do multi-cams settings, you need to assign different port such as 81, 82, 83, 84, 85, 86, 87, 88 to the cameras if there is 8 cams installed.

The firmware within the camera can support a maximum of 9 devices monitoring all at the same time. This page you can both add FOSCAM MJPEG and H.264 series cameras to the first camera and view multi-surveillance screen on one window.

Add cameras in LAN

In Multi-Device Settings page, you can see all devices searched in LAN. The 1st Device is the default one. You can add more cameras in the list in LAN for monitoring. The camera's software supports up to 9 IP Cameras online simultaneously. Click **The 2nd Device** and click the item in the **Device List in LAN**, the Alias, Host and Http Port will be filled in the boxes below automatically. Enter the correct username and password then click **Add**. Add more cameras in the same way.

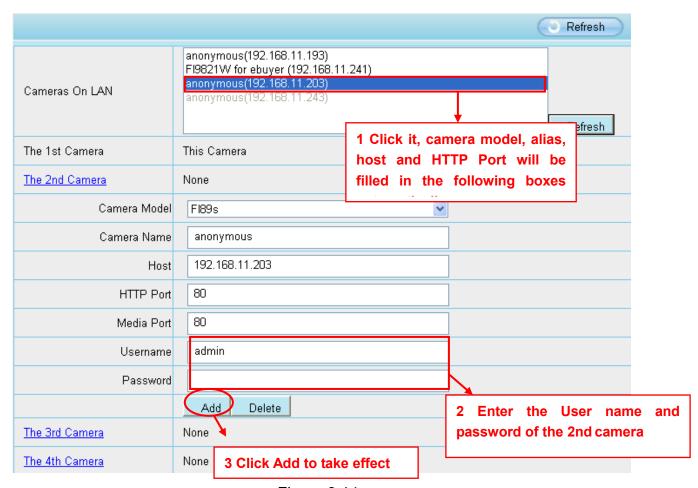


Figure 3.14

Camera Model: Our Company produces two series cameras: MJPEG and H.264. All MJPEG camera models will be named after FI89xx, and all H.264 camera models will be named after FI98xx. Here will show you which series the camera belongs to.

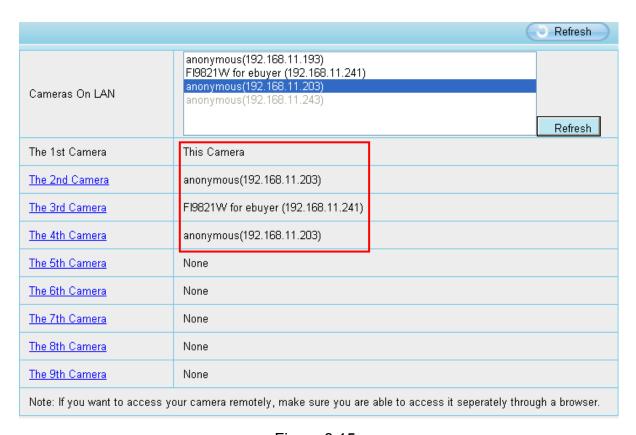


Figure 3.15

Back to **Surveillance Windows**, and click Four Windows option, you will see four cameras you added.

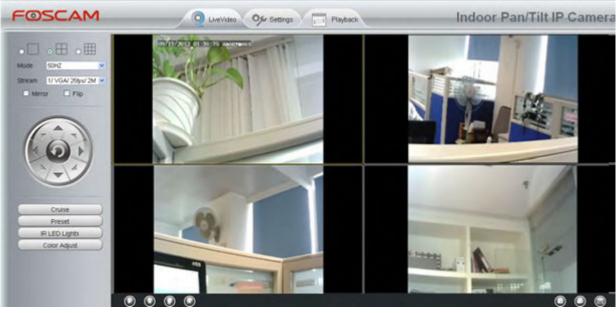


Figure 3.16

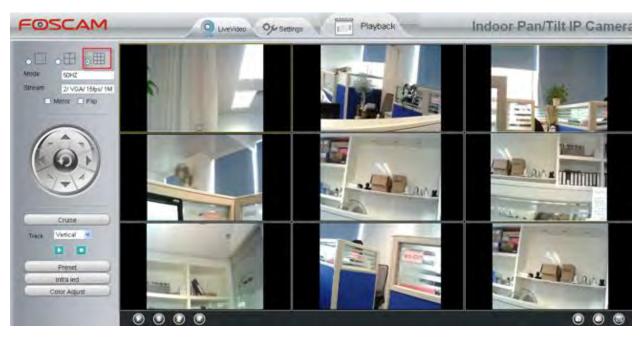
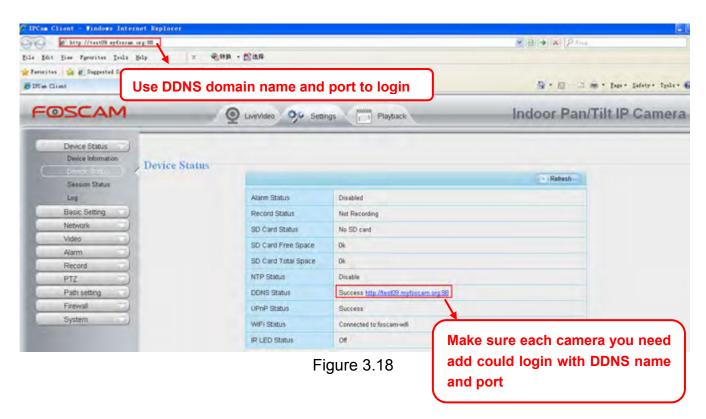


Figure 3.17

Add cameras in WAN

If you want to view all cameras via the internet(remote computer), you will need to add them using DDNS domain name. Firstly, make sure all of the cameras you added can be accessed through the internet. (Read **How to configure DDNS settings** in **chapter 3.3.3**) Login to the first camera using a DDNS domain name and port.



Click **Multi-Device Settings**. Choose **The 2nd Device**. Fill in the 2nd camera's name, DDNS domain name, port number. Enter user name and password and then choose Add. (Figure 3.19)

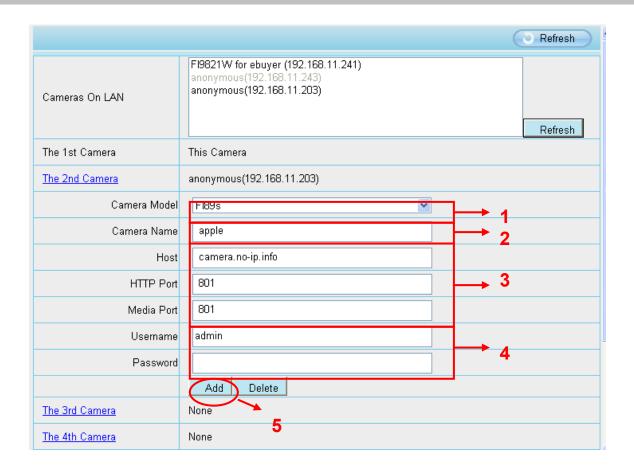


Figure 3.19

- 1---- The camera model: FI89s or FI98s.
- 2---- The 2nd camera's name
- 3---- Fill in the 2nd camera"s DDNS host not LAN IP

NOTE: The FI89s series have the same HTTP Port no. and Media Port no.

- 4 ---- Enter the 2nd camera"s user name and password
- 5---- Click Add button and to take effect

NOTE: Here the Host must be entered as the second camera"s DDNS domain name, not its LAN IP.

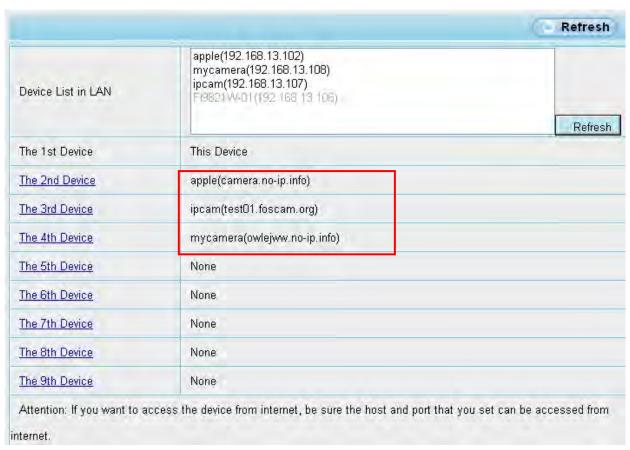


Figure 3.20

Return to video window. You will see all of the cameras accessible through the internet. When you are away from home, you can use the first camera's DDNS domain name and port to view all the cameras via internet.

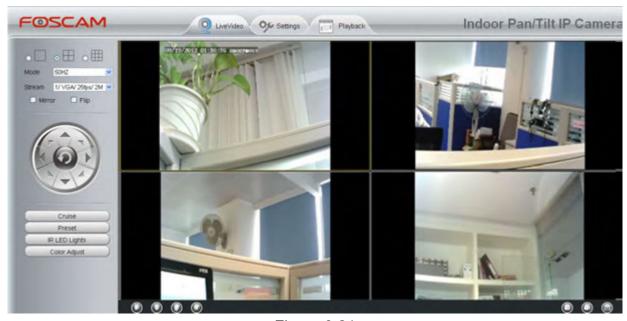


Figure 3.21

3.3 Network

This section will allow you to configure your camera's IP, PPOE, DDNS, Wireless Settings, UPnP and Port.

3.3.1 IP Configuration

If you want to set a static IP for the camera, please go to **IP Configuration** page. Keep the camera in the same subnet of your router or computer.



Figure 3.22

Changing settings here is the same as using the IP Camera Tool. (Figure 3.23/3.24)

It is recommended that you use the subnet mask, gateway and DNS server from your locally attached PC. If you don't know the subnet mask, gateway and DNS server, you can check your computer's local area connection as follows:

Control Panel→Network Connections→Local Area Connections → Choose Support→Details.

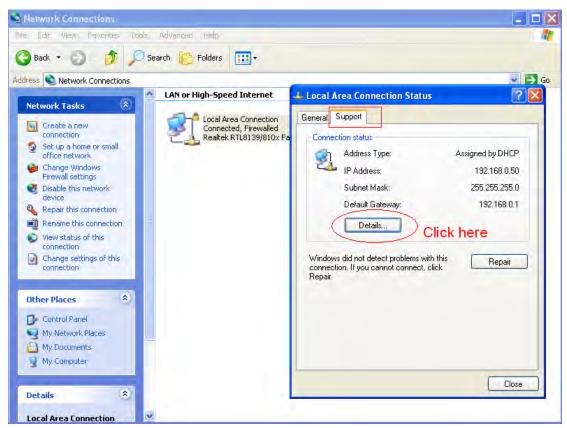


Figure 3.23

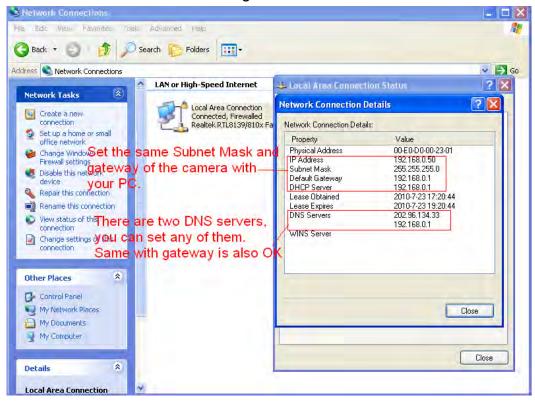


Figure 3.24

If you don't know the DNS server, you can use the same settings as the Default Gateway.

3.3.2 PPPOE

If you are using a PPPoE connection, enable it and enter the User Name and Password for your PPPoE account.

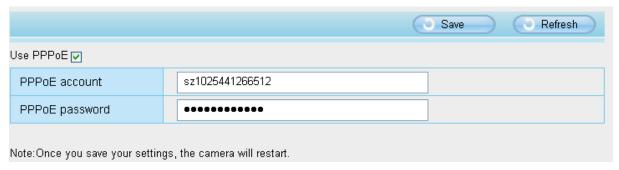


Figure 3.25

3.3.3 **DDNS**

FOSCAM camera has embedded a unique DDNS domain name when producing, and you can directly use the domain name, you can also use the third party domain name.

FOSCAM domain name

Here take <u>test09.myfoscam.org</u> for example. Go to option of **DDNS** on the **Settings->Network** panel, you can see the domain name.

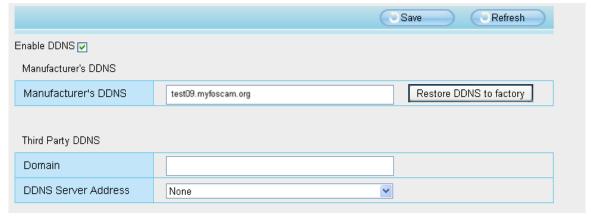


Figure 3.26

Now you can use http:// <u>Domain name + HTTP Port</u> to access the camera via internet.

Take hostname <u>test09.myfoscam.org</u> and <u>HTTP Port no. 8000</u> for example, the accessing link of the camera via internet would be http://test09.myfoscam.org:8000

Restore DDNS to factory: If you have configured Third Party DDNS successfully, but you want to use Manufacturer's DDNS again , here click this button and start Manufacturer's DDNS Service.

Third Party Domain Name Settings

User can also use third part DDNS, such as www.no-ip.com. ,www. 3322.com. here take www.no-ip.com for example:

① Step 1, Go to the website www.no-ip.com to create a free hostname

Firstly: Login on www.no-ip.com and click No-IP Free to register.



Figure 3.27

Please register an account step by step according to instructions on www.no-ip.com

After registration, please login your email which used to register. You will receive an email from website, please click the link to activate your ACCOUNT as indicated in email.

Secondly: Login the link with the registered username and password to create your domain name.



Figure 3.28



Figure 3.29

Please create the domain name step by step according to instructions on www.no-ip.com
Step 2, DO DDNS Service Settings within the Camera

Please set **DDNS Settings** within the camera by **hostname**, a **user name** and **password** you"ve got from www.no-ip.com

Take hostname ycxgwp.no-ip.info, user name foscam, password foscam2012 for example.

<u>Firstly</u>, goes to option of **DDNS Settings** on the administrator panel.

Secondly, select No-lp as a server...

<u>Thirdly</u>, fill <u>foscam</u> as DDNS user, fill password <u>foscam2012</u> as DDNS password, fill <u>ycxgwp.no-ip.info</u> as DDNS domain and server URL, Then click save to make effect. The camera will restart and to take the DDNS settings effective.

<u>Fourthly</u>, after the restart, login the camera, and go to option of <u>Device Status</u> on the administrator panel, and check if the DDNS status is successful.

If failed, please double check if you have input the correct hostname, user name, and password, and try to redo the settings.

Note

If you have set Third Party DDNS successfully ,the Foscam Domain Name will be invalid. The Third Party DDNS and the Foscam Domain Name cannot work at the same time, the last time you configured will take effect.

② Do port forwarding within the router

Example: The camera's LAN IP address is http://192.168.8.102:2000, Media port no. is 9200.

<u>Firstly</u>, login the router, goes to the menu of **Port Forwarding or Port Trigger** (or named **Virtue Server** on some brands of router). **Take Linksys brand router as an example, Login the router, and goes to Applications & Gaming->Single Port Forwarding.**

<u>Secondly</u>, Create a new column by LAN IP address & HTTP Port No. of the camera within the router showed as below.

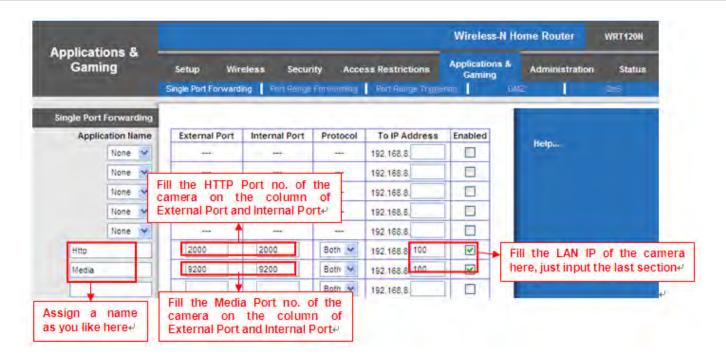


Figure 3.30

③ Use domain name to access the camera via internet

After the port forwarding is finished, you can use <u>the domain name+ http no.</u> to access the camera via internet. Take hostname <u>ycxgwp.no-ip.info</u> and <u>http no. 2000</u> for example, the accessing link of the camera via internet would be http://ycxgwp.no-ip.info:2000

3.3.4 WiFi

<u>Step 1:</u> Choose "Settings" on the top of the camera interface, and go to the "Network" panel on the left side of the screen, then click "Wireless Settings."

Click the **Scan** button and the camera will detect all wireless networks around the area. It should also display your router in the list **(Figure 3.31).**

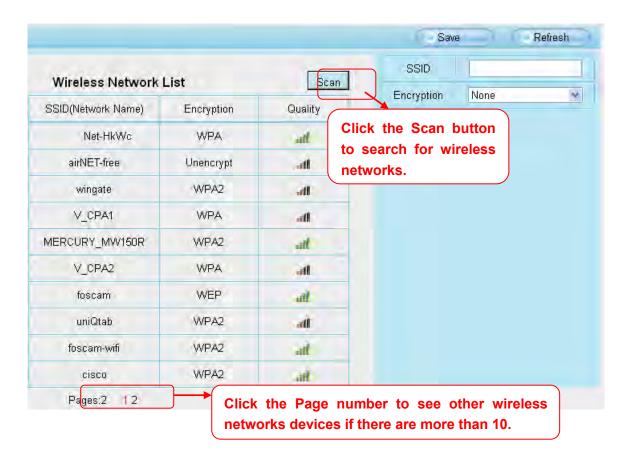


Figure 3.31

<u>Step 2:</u> Click the SSID (name of your router) in the list, the corresponding information related to your network, such as the name and the encryption, will be filled into the relevant fields automatically.

You will only need to fill in the password of your network. Make sure that the SSID, Encryption and the password you filled in are exactly the same for your router.

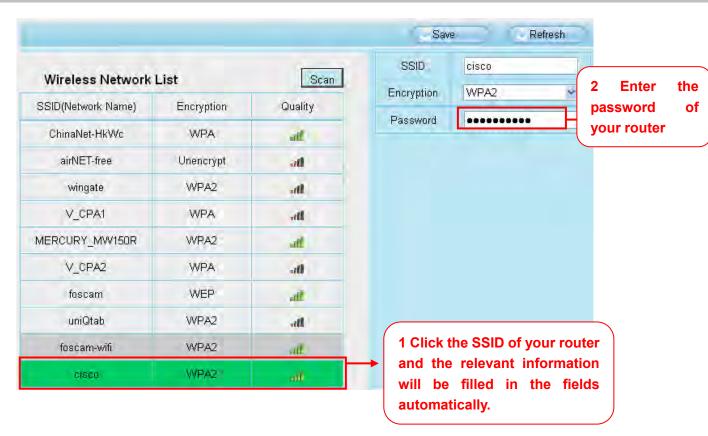


Figure 3.32

<u>Step 3:</u> Please click on the **Save** button after all settings have been entered and disconnect the network cable. Never shut down the power of the camera until the IP camera is able to connect to the wireless network.

The LAN IP address will disappear on the window of IP Camera Tool when the camera is configuring a wireless connection. Wait about 1 minute, the camera should obtain a wireless connection, and the LAN IP of the camera will show again on the window of the IP Camera Tool. The IP address may have changed after the camera receives a wireless connection; we recommend setting a static local IP address if this IP address changes by right clicking the camera in IP Camera Tools, setting a static IP, and pushing OK (see Figure 3.36). Congratulations! You have set up the wireless connection of the camera successfully.

Note

If you fail to make a wireless connection, please refer to your seller or contact us directly for assistance.

3.3.5 UPnP



Figure 3.33

The camera's software will be configured for port forwarding. There may be issues with your routers security settings, and sometimes may error. We recommend you configure port forwarding manually on your router (Figure 3.30).

3.3.6 Port

This camera supports HTTP Port and Media Port. The Media port is used to view the camera's video stream, HTTP Port is used to access the camera remotely. If you want to access the camera and view the video, the Media Port and the HTTP Port must both be configured correctly.

HTTP port / Media port: By default, the HTTP port is set to 88 and the Media port is set to 888. Also, they can be assigned with another port number between 1 and 65535. But make sure they can not be conflict with other existing ports like 25, 21.



Figure 3.34

Another way to change the HTTP port no.

Step 1: Open the IP Camera Tool, select the camera you would like to change the port of, right click on the IP address, and click on "Network Configuration", this brings up the network configuration box as shown in Figure 3.35 and 3.36.

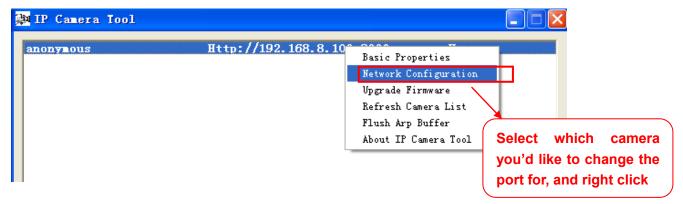


Figure 3.35

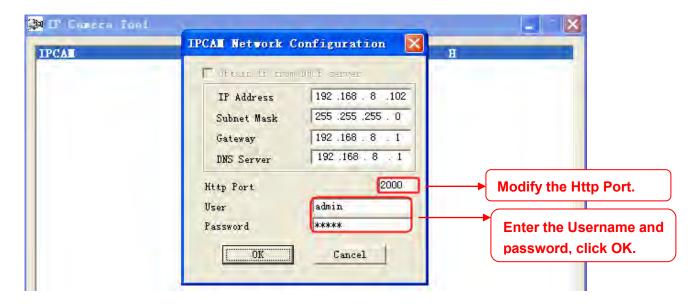
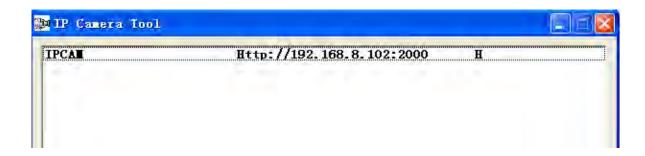


Figure 3.36

Step 2: Enter the username and password of the Administrator (default username is admin with a blank password), and click "OK" to apply changes.

Step 3: Wait around 10 seconds, you'll see that the camera's LAN IP address has changed. In our example it was changed to 2000, so we see http://192.168.8.102:2000 in IP Camera Tool. Also, the LAN IP address is now fixed at a static IP address of http://192.168.8.102:2000. This IP address will not change even if the camera is powered off and back on, the camera will remain on this LAN IP address. This is very important that a static LAN IP address is set, or you may have problems later with remote access and seeing the camera remotely if the camera loses power and reconnects on a different LAN IP address. Make sure you set a static LAN IP address!



Note: 1 Http port and Media port must be different.

2 If the camera cannot be accessed, please make sure the port forwarding is succeed.

3.4Video

This section allows you to configure Video stream settings, On screen display and Snapshot settings.

3.4.1 Settings

	Save Refresh
Stream type	0
Resolution	720P <u> </u>
Bit rate	2M 💌
Frame rate	10
Key frame interval	30

Figure 3.37

Stream type: There are four types to identify different streams you have set.

Resolution: The camera supports two types: 720P, VGA. The higher the resolution is, the clearer video will become. But the code flux will become larger too, and it will take up more bandwidth.

Bit rate: Generally speaking, the larger the bit rate is, the clearer video will become. But the bit rate configuration should combine well with the network bandwidth. When the bandwidth is very narrow, and bit rate is large, that will lead to video can not play well.

Frame rate: Note that a larger frame size takes up more bandwidth. When the video format is 50Hz, the maximum frame rate is 25 fps. When the video format is 60Hz, the maximum frame rate is 30 fps. You should lower frame rate when the bandwidth is limited. Normally, when the frame rate above 15, you can achieve fluently video.

Key Frame Interval: The time between last key frame and next key frame. The shorter the duration, the more likely you will get a better video quality, but at the cost of higher network bandwidth consumption.

3.4.2 On Screen Display

This page is used to add timestamp and device name on the video.

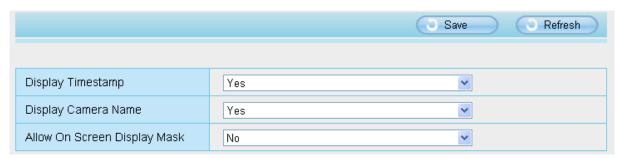


Figure 3.38

Display Timestamp: There are two options: Yes or NO. Select Yes and you can see the system date on the video,

Display Camera Name: There are two options: Yes or NO. Select Yes and you can see the device name on the video,

Allow On Screen Display Mask: There are two options: Yes or NO. Select yes and draw a mask area on the video, the mask area will be black on the video.

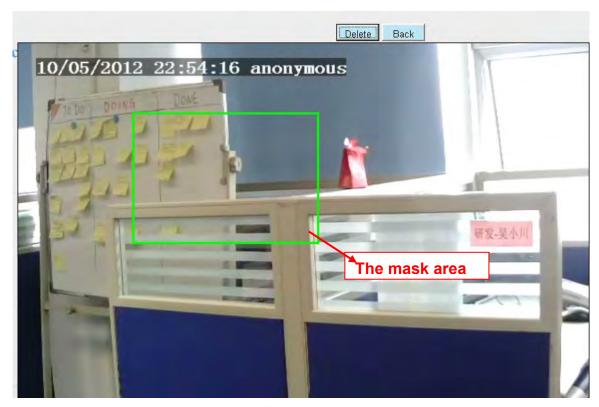


Figure 3.39

Click **Back** button and return to the OSD page, click Save to take effect. Back to the surveillance window, you can see the mask area as the following picture:

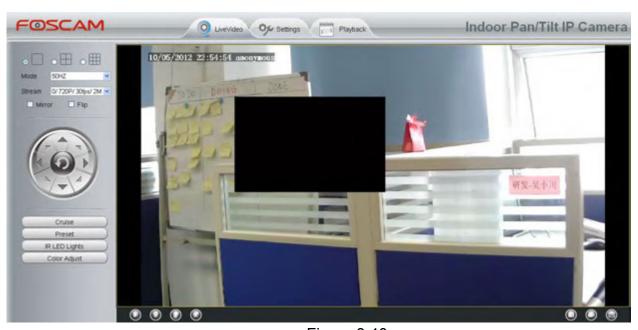


Figure 3.40

3.4.3 Snapshot Settings

On this page you can set the snapshot pictures" image quality and the storage path.

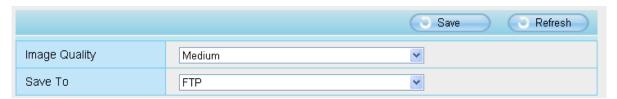


Figure 3.41

Image Quality: Low, Middle and High. The higher the quality, the picture will be clearer.

Save To: FTP or SD Card. If you have done FTP and Alarm settings, when alarming, the camera will snap pictures to the FTP automatically. If select SD Card as the save path, make sure the camera has inserted in the SD card.

3.5 Alarm

IP Camera supports **Motion Detection Alarm**, when the motion has been detected, it will send emails or upload images to FTP.

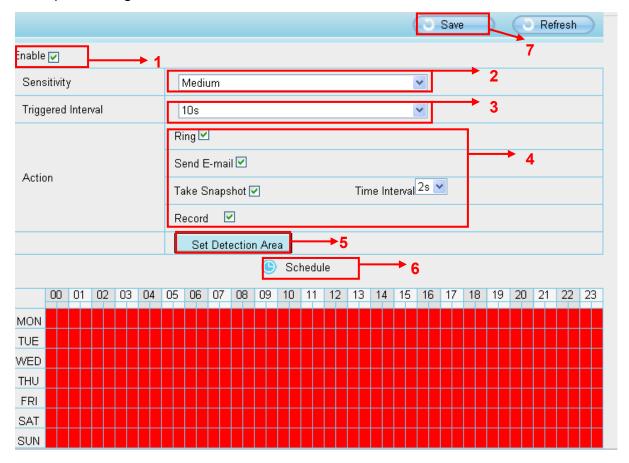


Figure 3.42

To enable motion detection, follow the steps below:

Step 01: Enable Motion detection

<u>Step 02: Sensitivity</u>---- It supports three modes: Low, Middle and High. The higher the sensitivity, the camera will be more easily alarmed. Select one motion sensitivity.

<u>Step 03: Trigger interval</u>--- The interval time between two motion detections. Here supports 5s/6s/7s/8s/9s/10s/11s/12s/13s/14s/15s. Select one interval time.

Step 04: Select the alarm indicator

When the motion has been detected, the alarm status will turn to Detect alarm.

	Refresh		
Alarm Status	Detect alarm		
Record Status	Recording		
SD Card Status	SD card		
SD Card Free Space	3.0G		
SD Card Total Space	3.6G		
NTP Status	Disable		
DDNS Status	Success http://test09.myfoscam.org:88		
UPnP Status	Success		
WiFi Status	Connected to:foscam-wifi		
IR LED Status	Off		

There are four alarm indicators:

A Ring

There is an embedded speaker inside the camera, so if you select **Ring**, when the motion has been detected, the people around the camera will hear beep alarm sound.

B Send E-mail

If you want to receive alarm emails when motion is detected, you must select Send E-mail and set **Mail Settings** first. The alarm email cannot contain the alarm picture if you have not selected Take Snapshot.

C Take Snapshot

If you select this checkbox, when the motion has been detected, the camera will snap the live view window as a still picture and load it to the FTP. Make sure you have set FTP and set FTP as the storage path in **Video->Snapshot settings** panel.

If you select Send Email, at the same time the picture will be send to you as an attachment.

Capture interval: The interval time between two pictures.

D Record

If you select this checkbox, when the motion has been detected, the camera will record automatically and store the record files to the SD Card. Make sure the camera has inserted SD card and you have set the SD card as the Alarm record files storage path, please go to **Record—> Storage location** page to verify this settings.

The default alarm record time is 30s and pre-alarm record time is 5s, please go to **Record—> Alarm Record** page and change the alarm time settings.

Step 05: Set detect area

Click set detect area and it pop up a window, then you can draw the detection area. Click **Back** button after settings. When something moving in the detection area, the camera will alarm.



Figure 3.43

Step 06: Alarm Schedule

① Alarm anytime when motion is detected Click the black button up the MON, you will see all time range turn red. When something moving in the detection area at anytime, the camera will alarm.

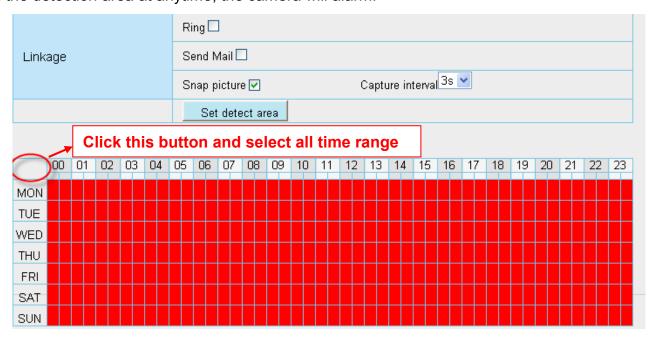


Figure 3.44

2 Specify an alarm schedule

Click the week day words, the corresponding column will be selected. For example, click TUE, the all column of TUE turns to red, that means during Tuesday whole day, when something moving in the detection area, the camera will alarm.

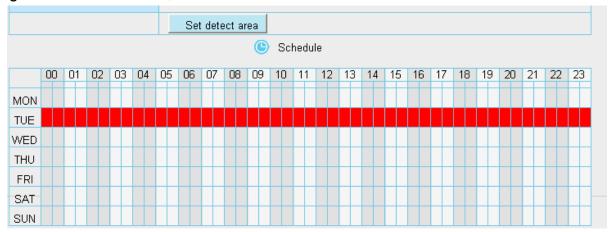


Figure 3.45

③ Press the left mouse and drag it on the time boxes, you can select the serial area,

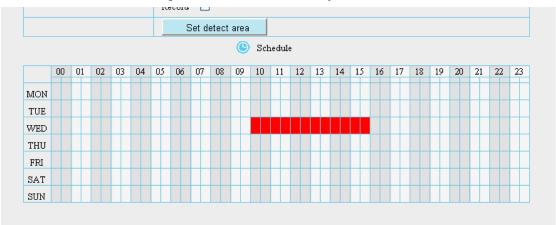


Figure 3.46

Step 07: Click Save button to take effect.

When the motion has been detected during the detection time in the detection area, the camera will alarm and adopt the corresponding alarm indicators.

NOTE: You must set the detection area and detection schedule, or else there is no alarm anywhere and anytime.

3.6 Record

This section will allow you to change the record files storage path and the record time.

3.6.1 Storage Location

On this page you can change the alarm and manually recording storage path.

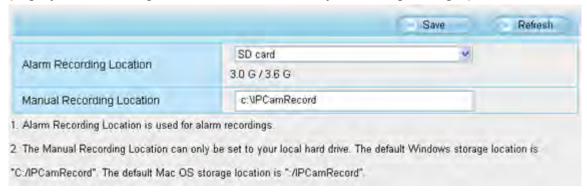


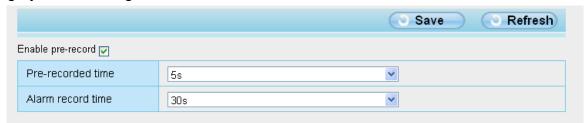
Figure 3.47

Alarm Recording Location : SD card. When the camera alarmed, it will store the alarm files to the SD card. Make sure the camera has been inserted the SD card. On this page, you can see the available space of the SD card.

Manual Recording Location: For Windows OS, the manual recording path is C:/ IPCamRecord, you can change another one. For MAC OS, the manual recording path is: / IPCamRecord.

3.6.2 Alarm Record

This page you can change the Pre-record time and Alarm record time.



The default Pre-recorded time is 5s and the alarm record time is 30s, you can change another time, click Save button to take effect.

3.7 PTZ

This page will allow you to change the pan/tilt speed and do cruise tracks settings.

3.7.1 Pan/Tilt Speed

There are five Pt speed types: very fast, fast, normal, slow and very slowly. Select the desired PTZ speed type and click save button .



Figure 3.48

3.7.2 Preset Settings

This section explains how to add/ delete/ alter one cruise track.

There are two default cruise tracks: Vertical and Horizental.

Vertical: The camera will rotate from up to down **Horizental:** The camera will rotate form left to right.

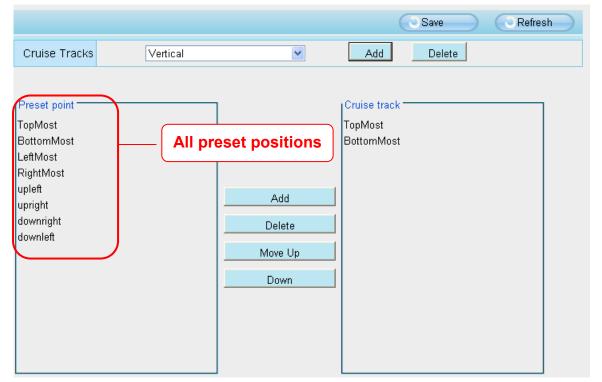


Figure 3.49



Figure 3.50

Add: Add one cruise track.

Delete: Select one cruise track and delete it.

How to do add cruise tracks?

Firstly, Click Add button and enter a descriptive name to identify the cruise track

Secondly: On the lower left of the page, you can see all preset points you have added. Select one preset point and click Add button, you can see the preset point has been added to the cruise track on the cruise track page. You need to add two or more preset points to the cruise track.

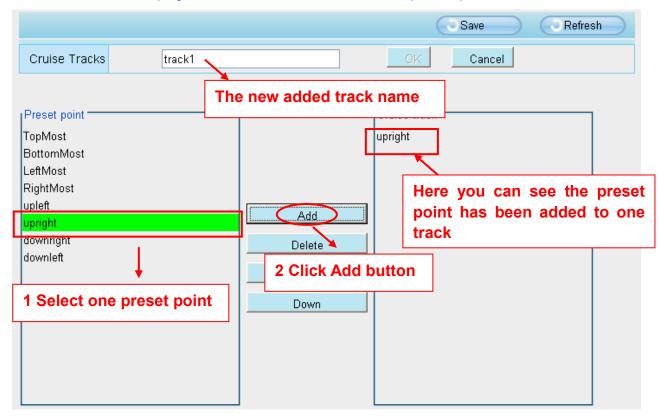


Figure 3.51

Thirdly: Click **OK** button and the cruise track will take effect.

You can add other cruise track as the same method.

For example: I have added three preset points to the "track 1", that means: When I select the "track 1" on the surveillance window, the camera moves as the following track: upright then Right Most last downleft.

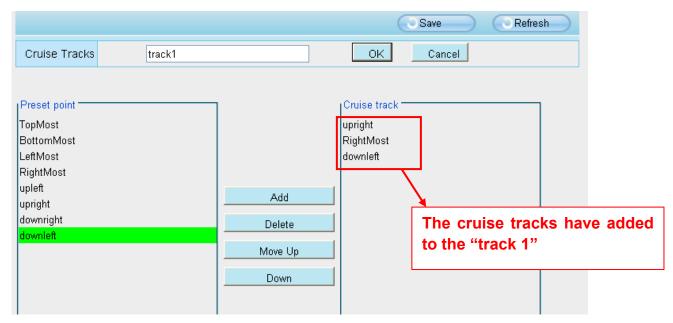
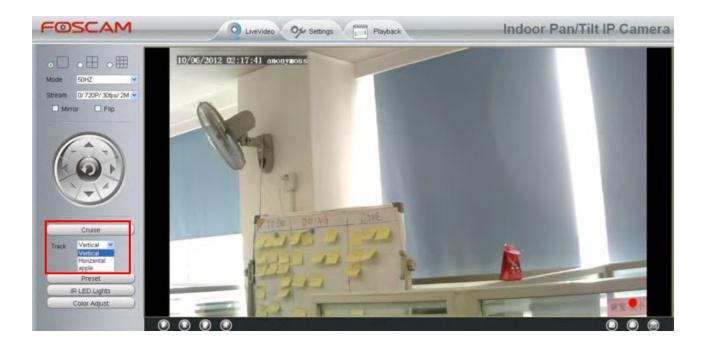


Figure 3.52

After add the cruise track, back to the surveillance window, click Cruise, her you can see all cruise tracks you have added.



There are other buttons between the Preset points and Cruise track, you can use these buttons to adjust the order of preset points or add/delete one preset points in one cruise track,

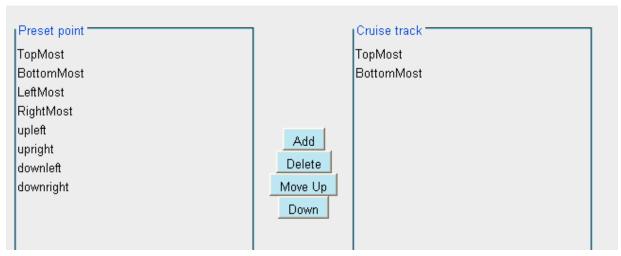


Figure 3.53

Add: Select one preset points and add it to the selected cruise track.

Delete: Select one preset points you have added to one cruise track, click delete.

Move up/ down: Select one cruise track, adjust the order of preset points in one cruise track.

3.8 Path Settings

If you want to upload record files and images to your FTP server, you can set FTP Settings.

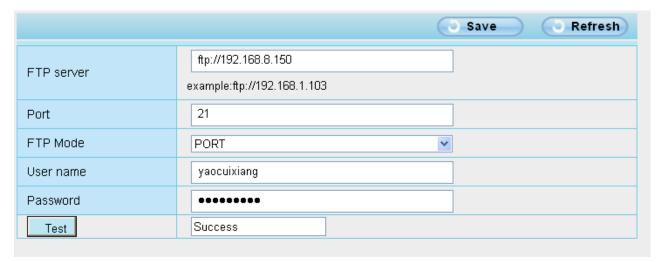


Figure 3.54

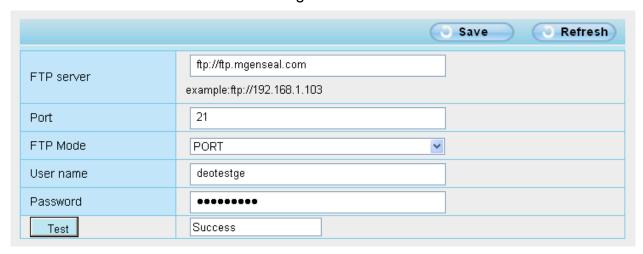


Figure 3.55

FTP server: If your FTP server is located on the LAN, you can set as Figure 3.54.

If you have an FTP server which you can access on the internet, you can set as Figure 3.55.

Port: Default is port 21. If changed, external FTP client program must change the server connection port accordingly.

FTP Mode: Here supports two modes: PORT and PASV.

Username/password: The FTP account and password.

Click Save to take effect.

Click **Test** to see if FTP has been successfully configured.

3.9 Firewall

This section explains how to control the access permission by checking the client PC's IP addresses. It is composed of the following columns: **Block access from these IP addresses** and **Only allow access from these IP addresses**..

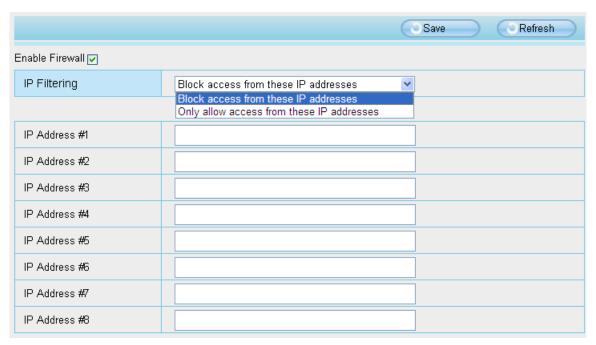


Figure 3.56

Enable firewall, If you select Only allow access from these IP addresses and fill in 8 IP addresses at most, only those clients whose IP addresses listed in the **Only allow access from these IP addresses** can access the Network Camera. If you select **Block access from these IP addresses**, only those clients whose IP addresses are in the IP list cannot access the Network Camera.

Click Save to take effect.

3.10 System

In this panel, you can backup/restore your camera settings, upgrade the firmware to the latest version, restore the camera to default settings and reboot the device.

3.10.1 Back up& Restore settings

Click **Backup** to save all the parameters you have set. These parameters will be stored in a bin file for future use.

Click Browse and select the parameters file you have stored, then click Submit to restore the restore the parameters.

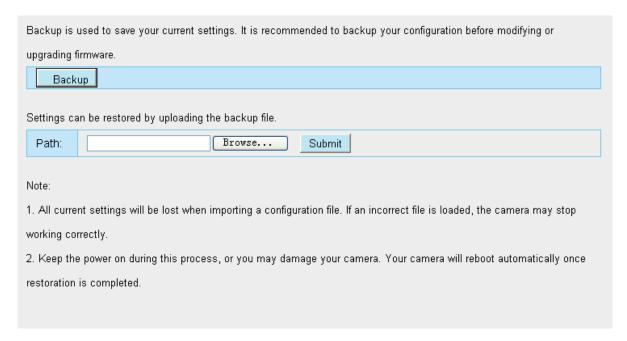


Figure 3.57

3.10.2 System upgrade

Your current firmware version will be displayed on your screen. You may go to the **Device Status-> Device Information** Page to check for the latest firmware versions available.

Click **Browse**, choose the correct bin file and then click **System upgrade**. Make sure you have unplugged the SD card.

Don"t shut down the power during upgrade. After upgrading, you can see the upgrade result.

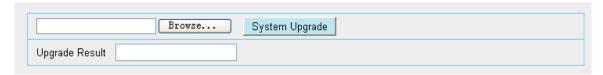


Figure 3.58

Upgrade Firmware by IP Camera Tool

Double click the IP Camera Tool shot icon upgrade the firmware. Then select Upgrade Firmware and enter the username and password, choose the firmware file, and upgrade.



Figure 3.59

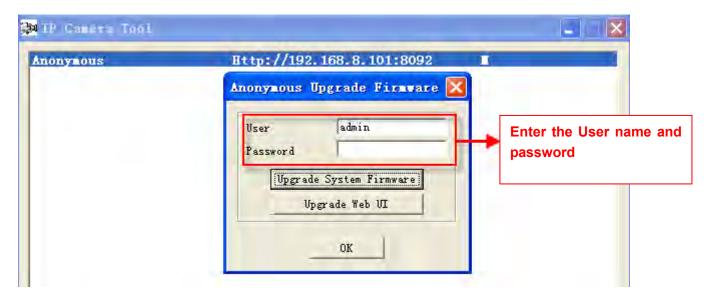


Figure 3.60

CAUTION: If your camera works well with the current firmware, we recommend not upgrading. Please don't upgrade the firmware unnecessarily. Your camera may be damaged if misconfigured during an upgrade.

NOTE:

- 1) Before upgrade the firmware, please unplug the SD card, the upgrade process may be failed otherwise.
- 2) Please ensure you have download the correct firmware package for your camera before upgrading. Read the upgrade documentation (readme.txt file) in the upgrade package before

you upgrade.

- 3) Upon downloading the firmware check the sizes of the .bin files. They must match the size in the readme.txt file. If not, please download the firmware again until the sizes are the same. Your camera will not function correctly if a corrupt .bin file is used.
- 4) Normally, only Device WEB UI need to be upgrade, please do not try to upgrade the Device System Firmware.
- 5) Never shut down the power of the camera during upgrade until the IP camera restart and get connected.

3.10.3 Factory reset

Click All reset and all parameters will return to factory settings if selected. This is similar to press the Reset button on the bottom of the camera..



Figure 3.61

3.10.4 Reboot System

Click **Reboot System** to reboot the camera. This is similar to unplugging the power to the camera.

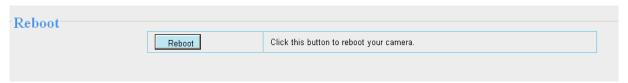
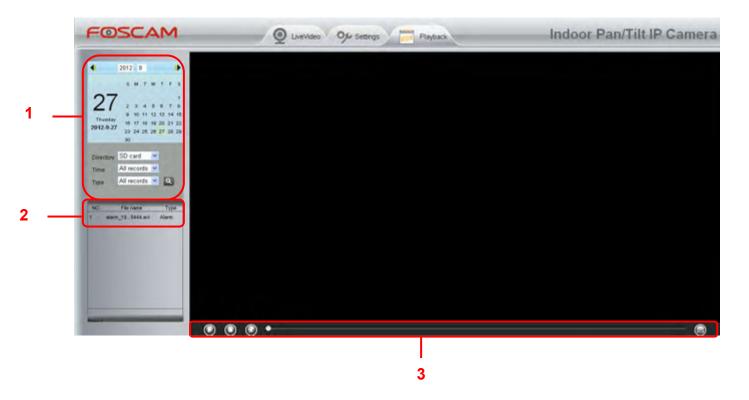


Figure 3.62

4 Playback

On this page you can view the record files stored in the SD card.



Section 1 Define the Record files time and Type

: The storage path of record files

Time All records : Here supports three types: current day, current month and All records. Another way, select the time on the time&date manually.



Type All records : The type of records files, Here supports two typs: Normal record, Alarm record and All records.

Click this button to search all record files satisfy the conditions you selected.

Section 2 Search record files

On this panel you can see all record files satisfy the conditions you set.

Section 3 Play/Stop/Audio/Full screen buttons

Please select one record file before use these buttons.



Click this button to play the record files



Click this button to stop the record files



Open or stop audio



Click this button to make full screen, and double click left mouse to exit full screen.

5 APPENDIX

5.1 Frequently Asked Questions

NOTE: Any questions you would meet, please check Network connections firstly. Check the working status revealed by the indicators on the network server, hub, exchange and network card. If abnormal, check the network connections.

5.1.1 How to download and install the ActiveX for Firefox users

For the first time login the camera, it may prompt you to download plugin.

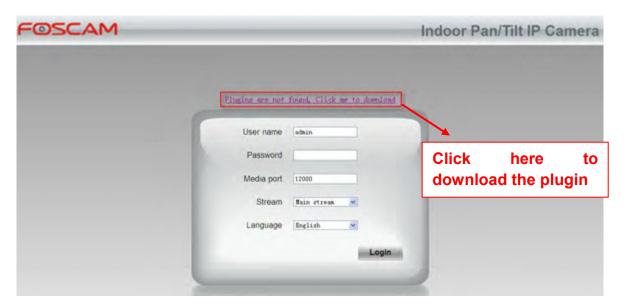


Figure 5.1

Drag the download file to Firefox web page and it will prompt you to Install it.



Figure 5.2

Reboot the Firefox after the plugin installation is successfully completely, then relogin the camera again, you can see the surveillance window

NOTE: If you could not view living video after running the ActiveX, only a red cross in the center of the video or just a black screen. Please change another port number to try. Make sure all firewall or antivirus software on your computer does not block the active download and installation. If you are unable to run the ActiveX control, try shutting down the firewall or antivirus program.

5.1.2 How to download and install the ActiveX for Google Chrome users

For the first time login the camera, it will prompt you to download the ActiveX..



Figure 5.3

Download the plugin and drag it to the **Extensions** page of Google Chrome.

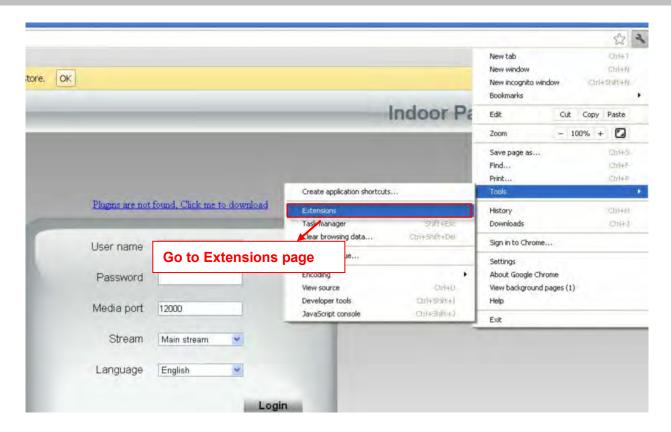


Figure 5.4

Click Add button to install the Plugins.

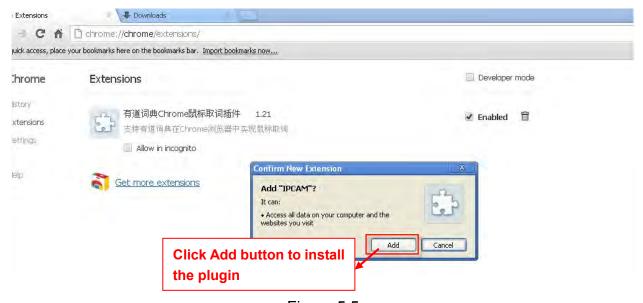


Figure 5.5

Reboot the browser and relogin the camera, you will see the surveillance window.

5.1.3 I have forgotten the administrator password

To reset the administrator username and password, press and hold down the RESET BUTTON for 5 seconds. Upon releasing the reset button, wait for 20 seconds, the camera will reboot and the username and password will return to the factory default administrator username and password. Please power on the camera before reset

Default administrator username: admin

Default administrator password: No password

5.1.4 Camera can not record when I click Record button or I can't change the manually record path

When you use Windows7 or Vista, you may be not able to do manually record or change the record path because of the security settings of computer.

There are two ways to resolve this problem:

- (1) Please add the camera as a trusted site to resolve this issue. The steps are IE browser→Tool→Internet Properties→Security→Trusted sites→Sites→Add
- (2) Open IE browser, then right click, select "Run as administrator"

5.1.5 Subnet doesn't match

Check whether your ipcamera in the same subnet of your computer. The step is **Control**Panel→Network Connections→Dbclick Local Area Connections → Choose

General→Properties.(Figure 3.23/3.24) Check subnet mask, IP address and gateways. When you set IP address please make sure they are in the same subnet. Otherwise you can't access camera.

5.1.6 No Pictures Problems

The video streaming is transmitted by the ActiveX controller. If ActiveX controller isn"t installed correctly you will see no video image. You can resolve this problem by this way:

Download ActiveX controller and set the safety property of IE in the PC when you view it first time: IE browser→Tool→Internet Proper→Security→Custom Level→ActiveX control and Plug-ins. Three options of front should be set to be "Enable", The ActiveX programs read by the computer will be stored. As follows:

Enable: Download unsigned ActiveX controls

Enable: Initialize and script ActiveX controls not marked as safe

Enable: Run ActiveX controls and plug-ins

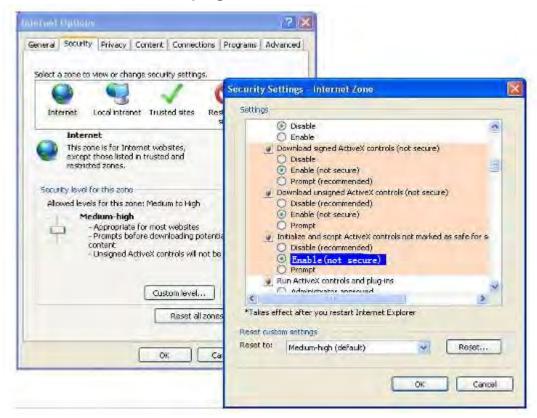


Figure 5.6

If you allow the ActiveX running, but still could not see living video. Please change another port number to try. Don"t use port 88.



Figure 5.7

NOTE: Make sure that your firewall or anti-virus software does not block the camera or ActiveX. If you could not see video, please shut down firewall or anti-virus software to try again.

5.1.7 Can't access IP camera in internet

There are some reasons:

- 1 ActiveX controller is not installed correctly
- 2 The port which camera used is blocked by Firewall or Anti-virus software. Please change another port number and try again. (Figure 5.7)
- 3 Port forwarding is not successful(Figure 3.30)

Check these settings and make sure they are correct.

5.1.8 UPnP always failed

UPnP only contains port forwarding in our recent software. Sometimes, it may be failed to do port forwarding automatically because of firewall or anti-virus software. It also has much relation with router's security settings. So we recommend you do port forwarding manually. You can view your camera in internet successfully after you do port forwarding manually in your router(Figure 3.30).

5.1.9 Camera can not connect wireless

If your camera could not connect wireless after you set wireless settings and plug out the cable. Please check whether your settings are correct or not.

Normally, camera can"t connect wireless mainly because of wrong settings.

Make sure broadcast your SSID; use the same encryption for router and camera.

5.1.10 Can't see other cameras listed in multi-device when using remote

access

If you want to view all the cameras via the WAN, verify that each camera added in the multi-device settings can be accessed by using the DDNS name and port number. Use the DDNS domain name not the camera LAN IP. (For more details see: How to add cameras in WAN)

5.2 Default Parameters

Default network Parameters

IP address: obtain dynamically Subnet mask: obtain dynamically Gateway: obtain dynamically

DDNS: Embedded FOSCAM domain name

Username and password

Default admin username: admin with a blank password

5.3 Specifications

ITEMS		FI9821W	
Image Sensor	Image Sensor	1/4"Color CMOS Sensor	
	Display Resolution	1280*720 Pixels	
	Lens	f: 2.8mm, F:2.4	
	Mini. Illumination	0.5Lux	
Video	Image Compression	H.264	
	Resolution	720p (1280*720) , VGA (640*480)	
	View	H.264 dual streaming	
	Image adjust	The brightness, contrast, saturation , is adjustable	
	Infrared mode	Automatic , manual (on/off)	
	Light Frequency	50Hz, 60Hz	
	Night visibility	Φ5mm 11 IR LEDs, Night visibility up to 8 meters	
	Pan/Tilt Angle	Horizontal:300° & Vertical: 120°	
Network	Ethernet	One 10/100Mbps RJ-45	
	Supported Protocol	TCP/IP、UDP/IP、HTTP、SMTP、FTP、DHCP、DDNS、UPNP	
	Wireless Standard	WIFI(IEEE802.11b/g/n)	
	Support IP address	static IP address, dynamic IP address	
Power	Power Supply	DC 5V/2.0A (EU,US,AU adapter or other types optional)	
	Power Consumption	8Watts (Max.)	
Alarm	Alarm detection	The motion detecting, detection threshold Settings	
	Alarm inform	Support Email、FTP etc alarm inform way	
Hardware	SD CARD	SD CARD (Support to 32G)	
Interface	Audio Input/Output	One audio input jack, One audio output jack.	
	Reset Buttons	One Reset	
	Ethernet	One 10/100Mbps RJ-45	
	Wireless Interface	WIFI antenna	
Environment	Operate Temper.	0° ~ 55°C (32°F ~ 131°F)	
	Operating Humidity	10% ~ 80% non-condensing	
	Storage Temper.	-10°C ~ 60° (14°F ~ 140°F)	
	Storage Humidity	0% ~ 90% non-condensing	
Physical	Dimension	117(L) x114(W) x129mm(H)	
	Gross Weight	814g(Color Box Size:245 x 145 x 165mm)	
	Net Weight	348g	
PC Requirements	CPU	2.0GHZ or above	
	Memory Size	256MB or above	
	Display Card	64M or above	
	Supported OS	Microsoft Windows 2000/XP/Vista ,Mac OS	
	Browser	IE6 and above version or compatible browser, Firefox or other	
		standard browsers	
Software	Upgrade	Upgrade from network	
Certification	CE,FCC		

6 OBTAINING TECHNICAL SUPPORT

While we hope your experience with the IPCAM network camera is enjoyable and easy to use, you may experience some issues or have questions that this User's Guide has not answered. If you have problem with FOSCAM IP camera, please first contact FOSCAM reseller for solving the problems. If our reseller cannot provide service, please contact our service department: tech@foscam.com.

