

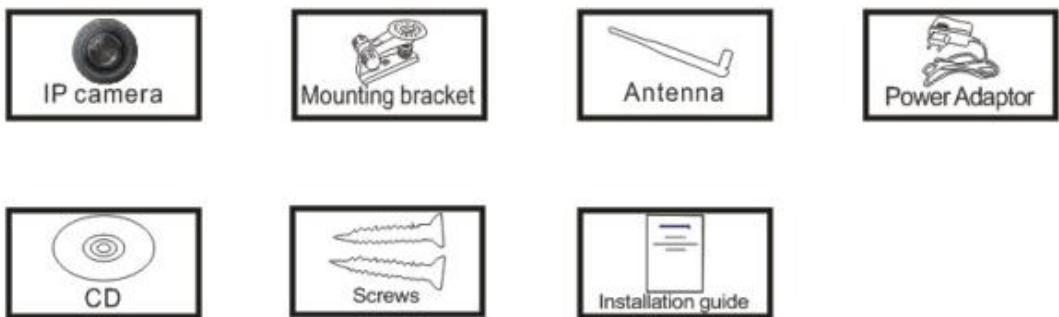
IP Camera

HW0036

Wanscam

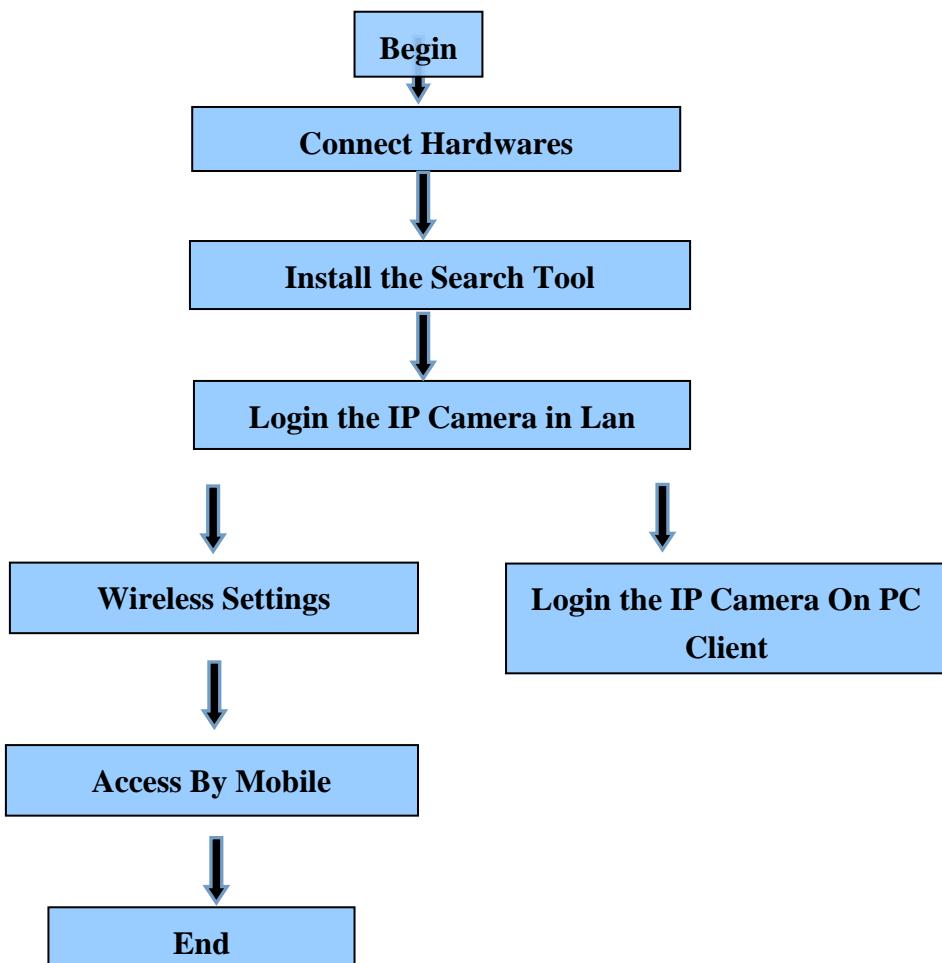
Shenzhen Wanscam Technology Co., Ltd

Packaging list:



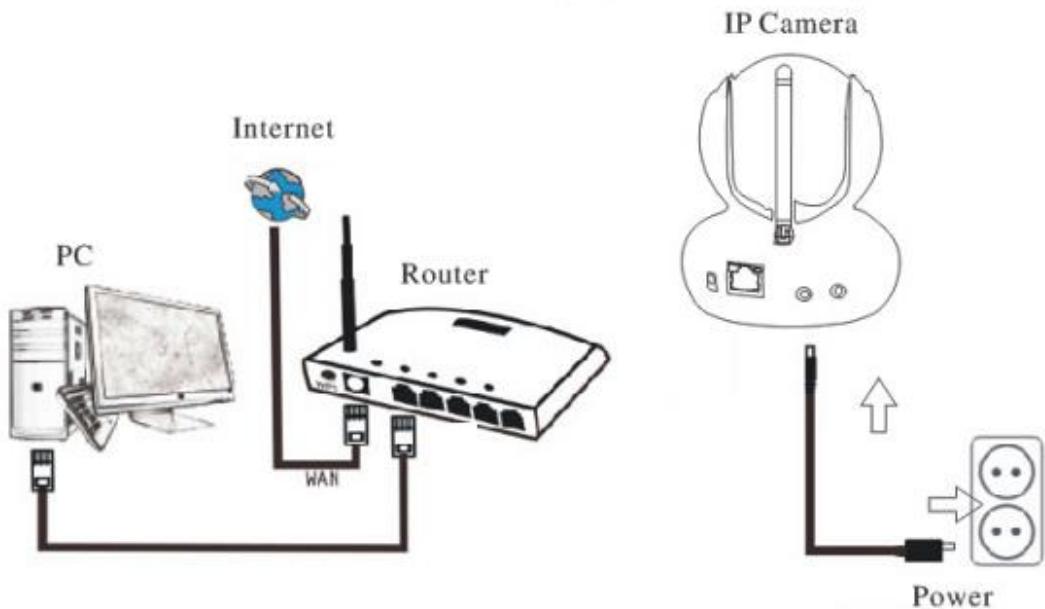
 **Note:** Some camera models don't have separate antenna(fixed)

Installation procedures:



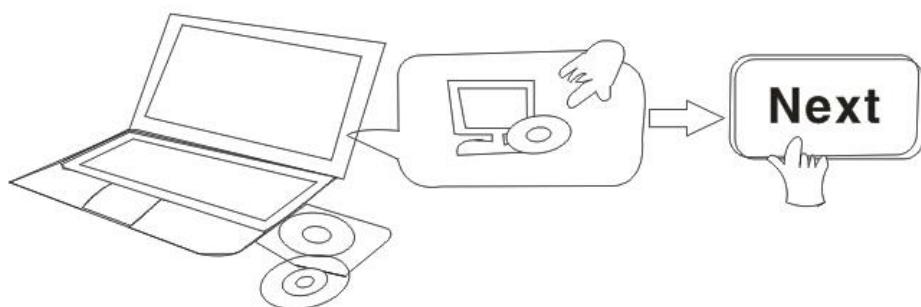
 **Note:** For the first time use IP Camera,please refer to the procedures

above



Connect the Camera with Internet cable and power accordingly as above

2. Install the Search Tool



Open the CD, Install the following software:

1. Open the File "JW & HW series"- "Browser View":

Click "OCX setup"—"Next"—"Install"—"Finish"

2. Open the File “JW & HW series”-“Browser View”:

Copy “Search Tool ” to desktop and run it

3. E-View7 App Installation

APP Download

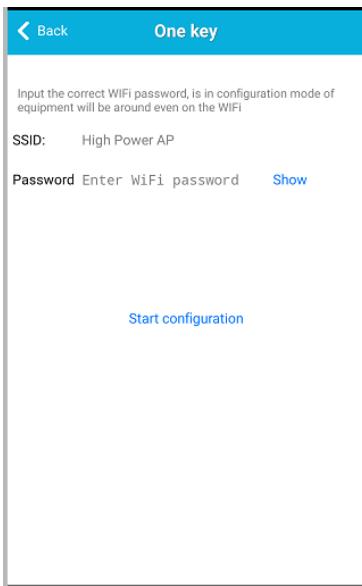
Please Download and install the E-view7 APP before you set up the IP Camera. Search on Google Play store or APP Store for “E-view7”



One Key Setting Function (cell phone must be connected to the WiFi.)

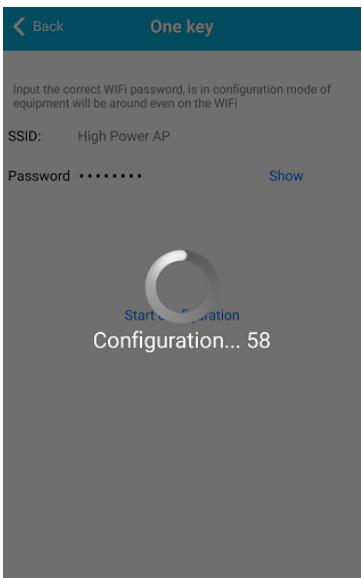
Step1.Connect the camera with power adaptor (you do not need to connect the Ethernet cable).

Step2.Launch the APP, tap on “+” to access the “Add Camera” function, then click on “One Key Setting”, and the screen shown below will appear:



1

Step3. Enter the correct WiFi password, then click on “Start configuration”, like shown in the screen below:



2



3

Step4. Wait for 60 seconds, then choose the respective device and enter the password. If done, click on save to connect to the WiFi.

Three methods to add IP camera

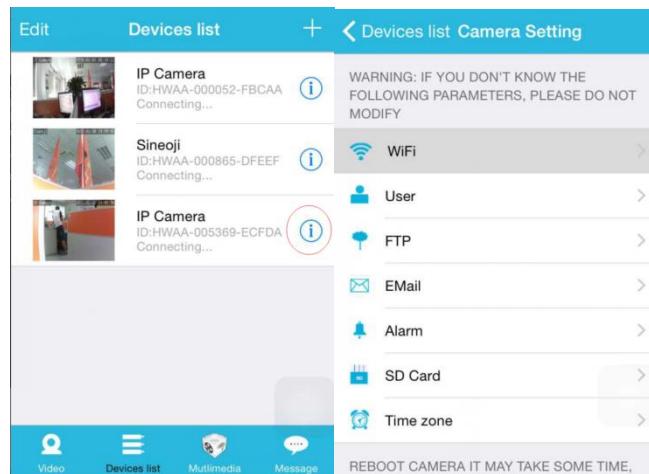
Method 1: Input the P2P ID, User name, Password of your camera manually. Then click “Save”

Method 2: Scan the QR code: Click the “Scan QR code” button, at the bottom of the camera, there is a label of QR Code, then scan the QR code with your smart phone, it will show the ID, input the user name and password, then click “Save”

Method 3: Click “Search”, then you will get the local camera list in your phone. Choose the camera which you want to view, input the user name and password, then click “Save”

Then the video will be showed, refer to picture 7

Click the “!” In the red circle, the camera settings are available, refer to picture 8

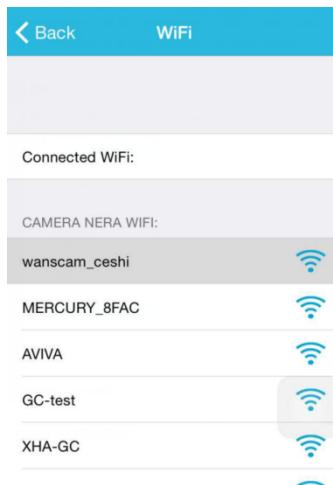


7

8

Open the WiFi settings, showed as Picture 9

choose the correct SSID, and input the password, like picture 10



9

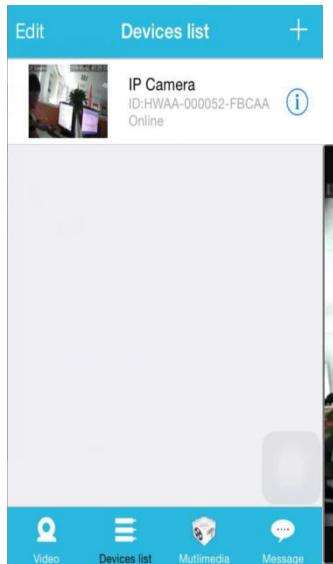


10

After wifi connection, the camera will be rebooting,

You will find the camera online after 3-5 minutes

The video will be showed wirelessly, refer to Picture 11 and 12



11



12

4. Login IP Camera In LAN

After hardwares connection properly, run the search tool, the Camera IP Address will

be showed automatically. (Before viewing camera on IE, you must set One Key Setting)

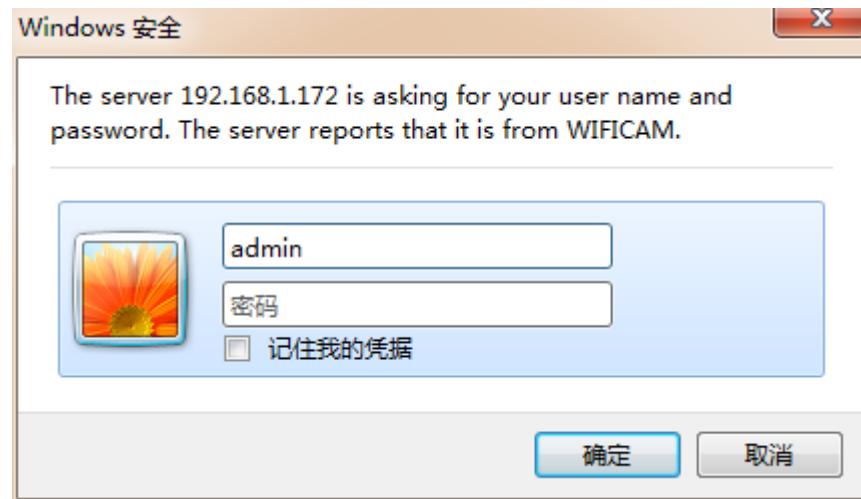
Device	Name	IP Address	P2P-ID	System Version	App Version	MAC
J	IPCAM	192.168.1.113:80	WXO-034737-ACBFC	67.2.6.15	9.1.4.7-IP0-320	00-D
E	IP Camera	192.168.1.163:8009	WXH-000002-BCFEB	V7.1.4.1.13....	E-21.0.720.20	00-E
E	IP Camera	192.168.1.119:80		V6.6.8.1.1-2...	E-21.0.720.21	00-A
H	IPCAM	192.168.1.181:99	WXO-030783-EEBDD	67.4.66.12	9.0.720.66	00-D
E	IP Camera	192.168.1.251:8081	WXH-005421-FBFBE	V7.1.4.1.13....	E-41.1.720.19	00-E
J	IPCAM	192.168.1.168:99	WXO-000002-EAEAD	67.2.6.13	9.1.4.68	00-D
E	IP Camera	192.168.1.142:80	SXH-001001-FEBBE	V7.1.4.1.13....	E-21.1.720.21	00-E
E	IP Camera	192.168.1.187:80	WXH-039212-BCDBC	V7.1.4.1.13....	E-41.1.720.21	00-E
E	IP Camera	192.168.1.144:80	WXH-037090-ACEEC	V7.1.4.1.13....	E-22.0.720.21	00-E
E	Slou-huodongshi	192.168.1.143:80	WXH-011432-CDEFA	V7.1.4.1.13....	E-21.0.720.21	00-E
E	IP Camera	192.168.1.161:80	WXH-035218-FDECD	V6.6.8.1.1-2...	E200.0.45.21	00-A
E	IPCAM	192.168.1.118:80	AAAA-248283-KMEMC	V9.1.4.1.14....	V1.0.1	3C-3
E	IPCAM	192.168.1.164:80	AAAA-161193-VRSKS	V9.1.4.1.14....	V1.0.1	3C-3
E	IP Camera	192.168.1.116:80	WXH-000007-EFEDD	V6.6.9.4.1-2...	E51.0.730.21	00-E
E	HW0046	192.168.1.157:80	WXH-000000-CADEF	V6.6.6.1.1-2...	E-46.0.730.18	00-E
E	5F dianmen	192.168.1.206:2006	WXH-015530-BEEBE	V7.1.4.1.13....	E-22.0.720.21	00-E

☞ **Note:** If the Search Tool shows subnet mask does not match, please click

IP Match

Double click the camera IP address in the search tool.

A Sign-in interface will be showed on your default browser, like the below:



☞ **Note:** username is "admin"; password is none

(Please change the account info for safety after login)

The login screen will be showed after the correct user name and password input

WANSCAM



livestream mode (for Internet Explorer)



videostream mode (for FireFox)



snapshot mode (for smartphone)

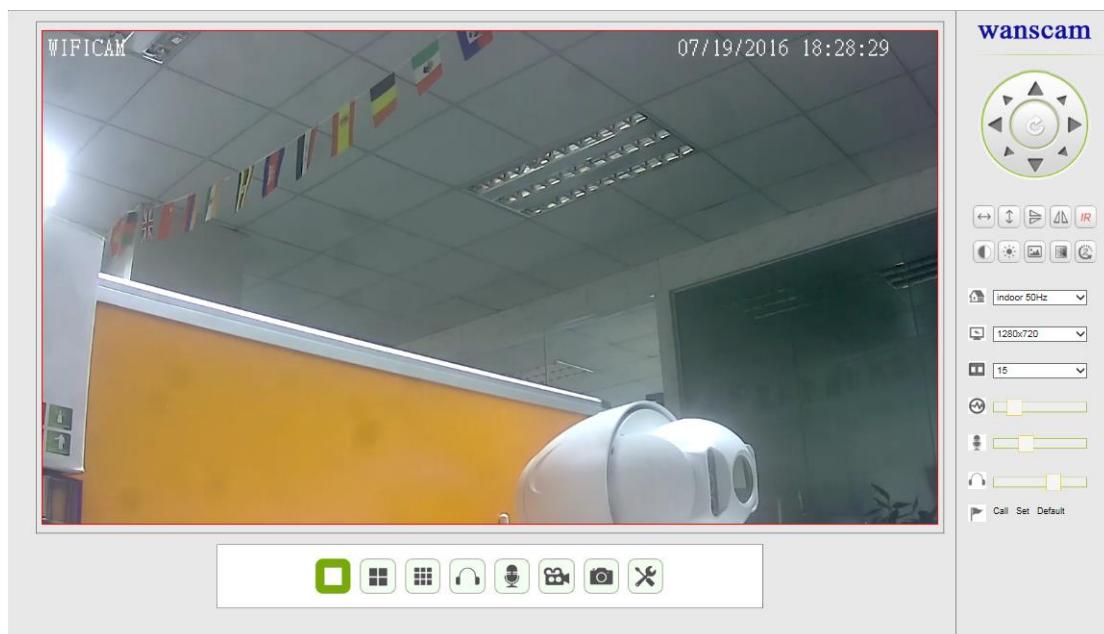


SD card video playback online

Note: If the OCX installed before, then login directly

- A. Click “OCX” to download and Install it.
- B. Refresh the webpage and login again, the camera video will be displayed as below

Live video

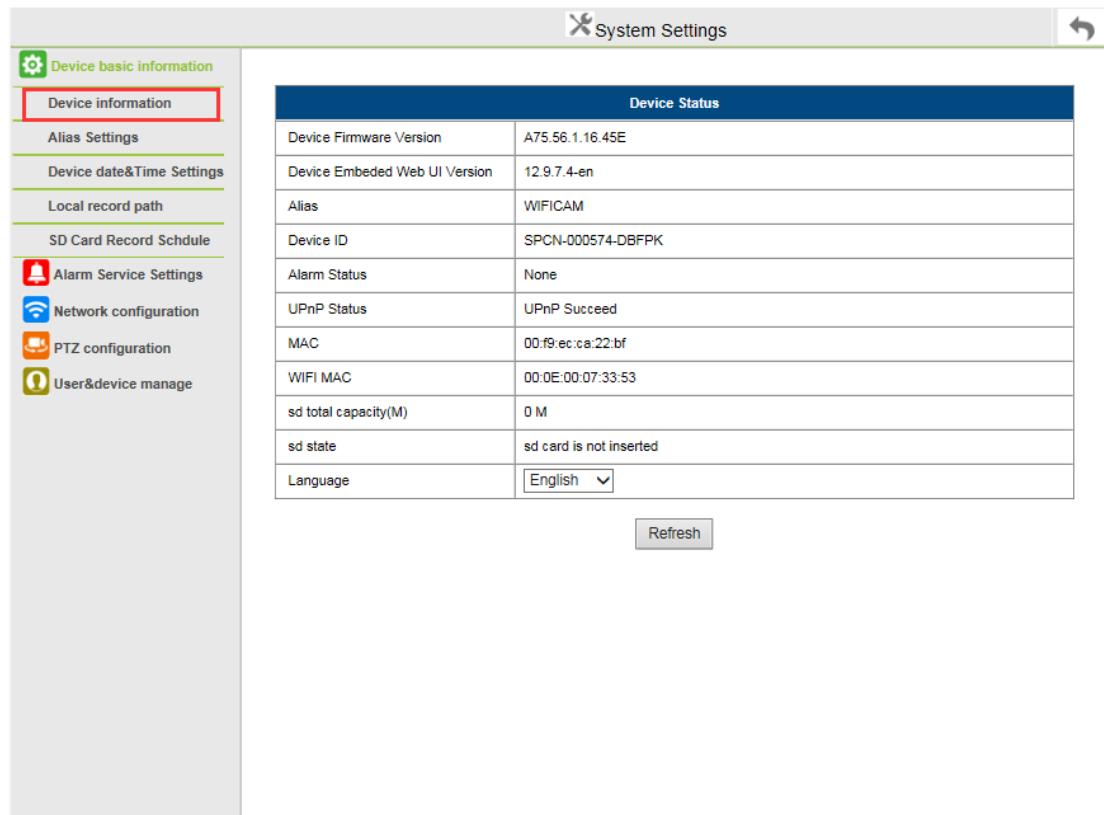


5. Device information Setting



1).Click  , access the “ Device imformation” settings

2)Checking the imformation of the ipcamera



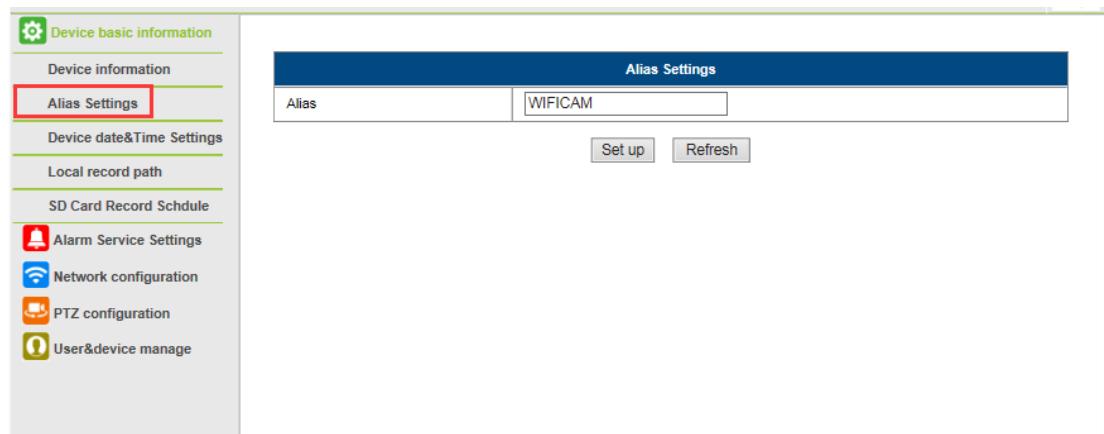
The screenshot shows the 'System Settings' interface with the 'Device Status' tab selected. The left sidebar has a 'Device basic information' section with 'Device information' highlighted. The main content area displays the following device status information:

Device Status	
Device Firmware Version	A75.56.1.16.45E
Device Embedded Web UI Version	12.9.7.4-en
Alias	WIFICAM
Device ID	SPCN-000574-DBFPK
Alarm Status	None
UPnP Status	UPnP Succeed
MAC	00:f9:ec:ca:22:bf
WIFI MAC	00:0E:00:07:33:53
sd total capacity(M)	0 M
sd state	sd card is not inserted
Language	English

At the bottom right of the content area is a 'Refresh' button.

6.Alias setting

The display name of the camera



The screenshot shows the 'Alias Settings' interface. The left sidebar has a 'Device basic information' section with 'Alias Settings' highlighted. The main content area displays the following alias settings:

Alias Settings	
Alias	<input type="text" value="WIFICAM"/>

At the bottom right of the content area are 'Set up' and 'Refresh' buttons.

7. Time Setting



1). Click , access the “time” setting

2) You can choose the NTP server you want, and click “Apply”

3) Choose the time zone you want, click “Apply”, you can get it

Device date&Time Settings	
Device Clock Time	Tue, 19 Jul 2016 18:32:59 UTC
Device Clock Timezone	(GMT +08:00) Beijing, Singapore, Taipei
Sync with NTP Server	<input checked="" type="checkbox"/>
Ntp Server	time.nist.gov
<input type="button" value="Sync with PC Time"/> <input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

8. Record setting

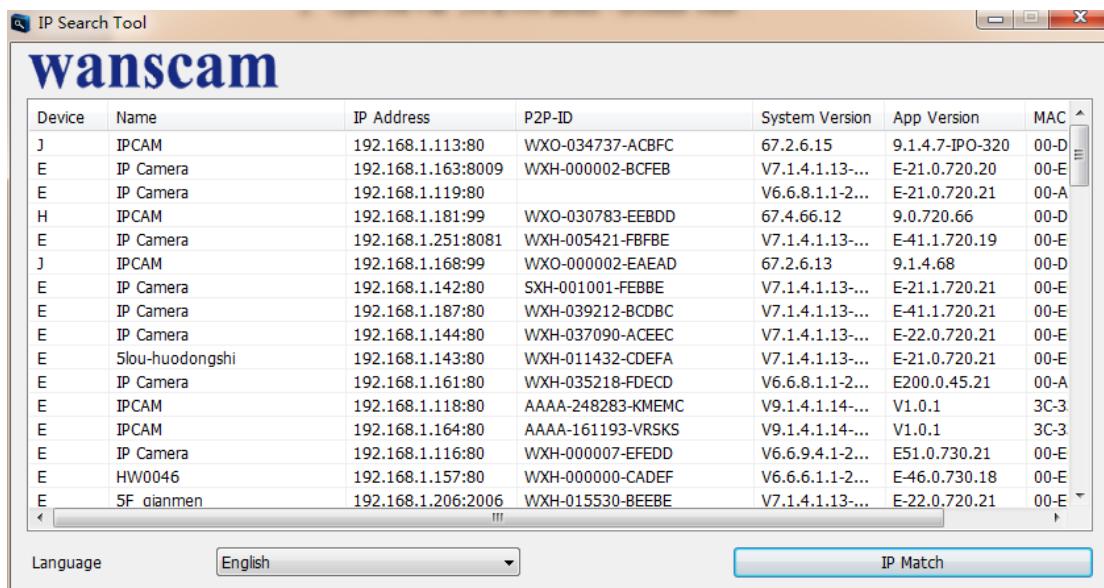
1

Local record path	
Local record path	C:\Users\Administrator\Desktop <input type="button" value="select..."/>
Record file length(MB)	1000 Least 100MB , MAX 1000MB
Record time length(Minute)	5 Least 5 Minutes , MAX 120 Minutes
Reserved disk space(MB)	200 Least 200MB
Record cover	<input checked="" type="checkbox"/>
<input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

- Record & Capture Path: Where to store the files, video and photos. (If you can't choose this, pay attention to your PC OS and IE version, please use the IE browser.)
- Record file length: At least 100MB
- Record time length: At least 5 minutes.
- Reserved disk space: If your pc disk space is less than 200MB, stop recording.
- Record cover: Delete the old files when the disk capacity is almost depleted.

Note :If you can not change the recording path, please follow these steps:

First, please open search tool, Find the camera's ip address :

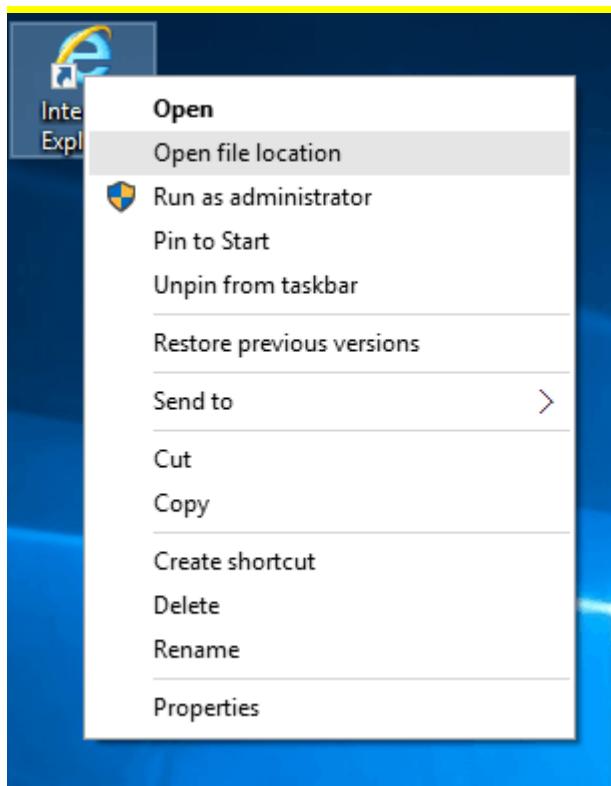


The table lists the following information for 20 found devices:

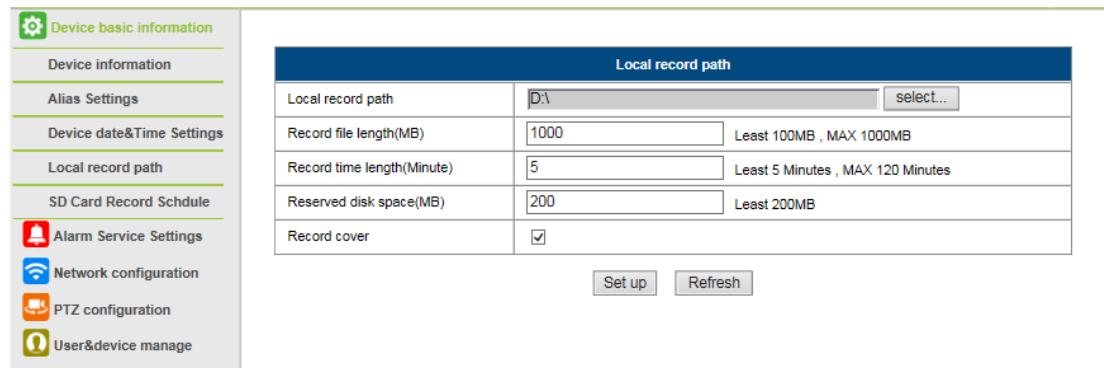
Device	Name	IP Address	P2P-ID	System Version	App Version	MAC
J	IPCAM	192.168.1.113:80	WXO-034737-ACBFC	67.2.6.15	9.1.4.7-IP0-320	00-D
E	IP Camera	192.168.1.163:8009	WXH-000002-BCFEB	V7.1.4.1.13....	E-21.0.720.20	00-E
E	IP Camera	192.168.1.119:80		V6.6.8.1.1-2...	E-21.0.720.21	00-A
H	IPCAM	192.168.1.181:99	WXO-030783-EEBDD	67.4.66.12	9.0.720.66	00-D
E	IP Camera	192.168.1.251:8081	WXH-005421-FBFBE	V7.1.4.1.13....	E-41.1.720.19	00-E
J	IPCAM	192.168.1.168:99	WXO-000002-EAEAD	67.2.6.13	9.1.4.68	00-D
E	IP Camera	192.168.1.142:80	SXH-001001-FEBBE	V7.1.4.1.13....	E-21.1.720.21	00-E
E	IP Camera	192.168.1.187:80	WXH-039212-BCDBC	V7.1.4.1.13....	E-41.1.720.21	00-E
E	IP Camera	192.168.1.144:80	WXH-037090-ACEEC	V7.1.4.1.13....	E-22.0.720.21	00-E
E	Slou-huodongshi	192.168.1.143:80	WXH-011432-CDEFA	V7.1.4.1.13....	E-21.0.720.21	00-E
E	IP Camera	192.168.1.161:80	WXH-035218-FDECD	V6.6.8.1.1-2...	E200.0.45.21	00-A
E	IPCAM	192.168.1.118:80	AAAA-248283-KMEMC	V9.1.4.1.14....	V1.0.1	3C-3
E	IPCAM	192.168.1.164:80	AAAA-161193-VRSKS	V9.1.4.1.14....	V1.0.1	3C-3
E	IP Camera	192.168.1.116:80	WXH-000007-EFEDD	V6.6.9.4.1-2...	E51.0.730.21	00-E
E	HW0046	192.168.1.157:80	WXH-0000000-CADEF	V6.6.6.1.1-2...	E-46.0.730.18	00-E
E	5F oianmen	192.168.1.206:2006	WXH-015530-BEEBE	V7.1.4.1.13....	E-22.0.720.21	00-E

Language: English IP Match

Then, Run IE browser as administrator :



Finally, Paste IP address of the camera in IE browser, Click “Enter” and find the below page then you can modify the video path :



9. Record Schedule

This section explains the **SD card recording settings**. If the SD card has been inserted, the capacity of the card will be displayed. But at first, you need to format it. It includes: Record coverage, Record time, Timer recording. The settings are like follows:

- ⚙️ Device basic information
- ⚙️ Device information
- ⚙️ Alias Settings
- ⚙️ Device date&Time Settings
- ⚙️ Local record path
- ⚙️ SD Card Record Schedule
- ⚙️ Alarm Service Settings
- ⚙️ Network configuration
- ⚙️ PTZ configuration
- ⚙️ User&device manage

Record Schedule																								
sd total capacity(M)		0 M																						
sd state		sd card is not inserted Format																						
Record coverage		<input checked="" type="checkbox"/>																						
record audio		<input checked="" type="checkbox"/>																						
Timer recording		<input checked="" type="checkbox"/>																						
select all		<input checked="" type="checkbox"/>																						
Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								
Set up	Refresh																							



Record coverage: Delete old files when the SD card is nearly full.

Record time: Create a video file every 10 minutes.

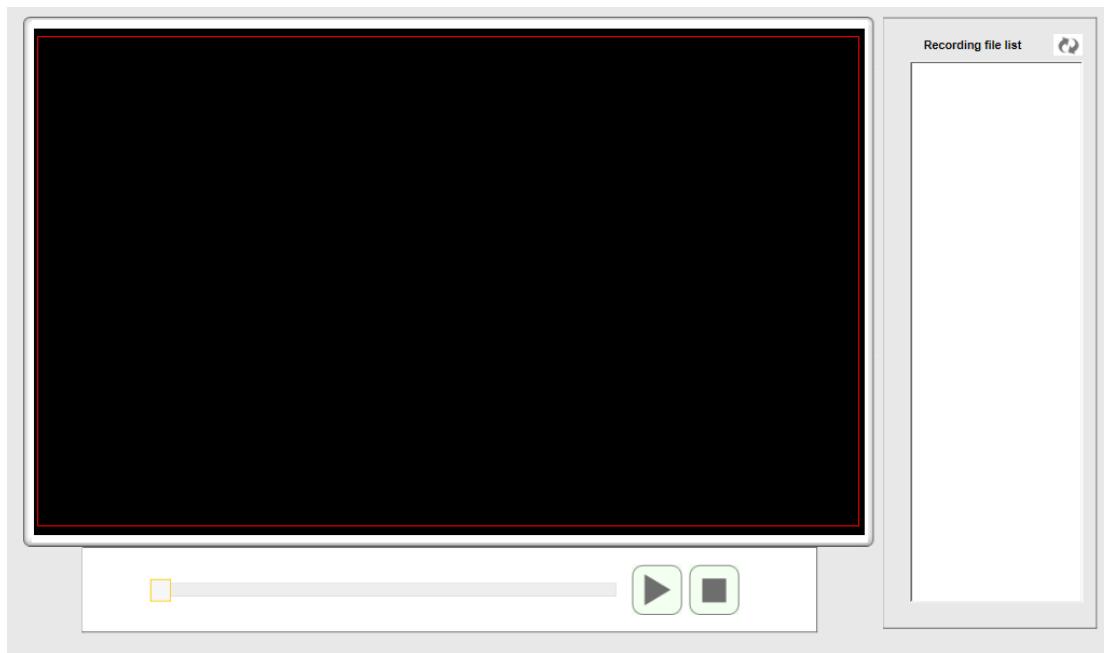
Timer recording: Set the time, select all, store recording to the SD card.

You can playback the video online with **IE browser**. Press the “Enter” button, choose the last



SD card video playback online

sign in code:



10. Mail Service Settings and Alarm Service Settings

- 1). The Mail service settings are a requirement for the alarm function. If your camera will be activated it will send you an email with photos attached. For this, you must assure that the mail service is configured correctly and successfully tested.

Here an example for Gmail.

The screenshot shows a configuration interface for "Mail Service Settings". On the left is a sidebar with various options: Device basic information, Alarm Service Settings, **Mail Service Settings** (which is highlighted with a red box), Ftp Service Settings, Log, Network configuration, PTZ configuration, and User&device manage. The main area is titled "Mail Service Settings" and contains the following fields:

Setting	Value
Sender@qq.com
SMTP Server	smtp.qq.com
SMTP Port	25
Need Authentication	<input checked="" type="checkbox"/>
SSL	NONE
SMTP User@qq.com
SMTP Password	*****
Receiver 1@qq.com
Receiver 2	
Receiver 3	
Receiver 4	
<input type="button" value="Test"/> Please set at first, and then test.	
<input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

It will send an email if the camera is activated.

You must enter the following information:

Sender: Enter your email address

Receiver: Enter your email address or a different email address

SMTP user: Enter the email username

SMTP password: Enter your email password

Note: This function only works if the IP camera is accessed via the network. If you use Gmail, the port should be configured as 465, SSL should be TLS. The most important, make sure that your Gmail has SMTP enabled.

After first test email, you will receive an email from google with a login attempt.

Option 2 :

Change your setting to allow less secure apps to access your account, follow these steps :

1. Go to the "Less secure apps" section in my account.

2. Next to "Access for less secure apps", select Turn on. (Note to Google Apps users : This setting is hidden if your administrator has locked less secure app account access)

3. More details about allow less secure apps, please refer to this link :

<https://support.google.com/a/answer/6260879?hl=en>.

It will send you a notification as soon the camera will be activated (depends on the model)

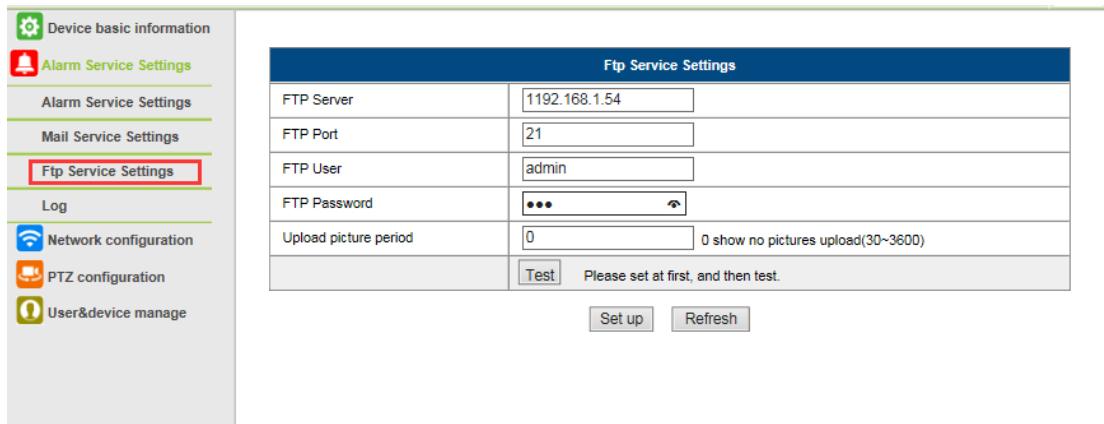
Alarm Service Settings, please use the same settings like in the screenshot below:

Alarm Service Settings	
Motion Detect Armed	<input checked="" type="checkbox"/>
Motion Detect Sensibility	10 <small>The smaller the value, the more sensitive</small>
alarm audio Sensibility	forbid detection
Infrared alarm	<input checked="" type="checkbox"/>
Alarm Input Armed	<input checked="" type="checkbox"/>
Trigger Level	Low
Alarm trigger event	
Alarm preset linkage	None
IO Linkage on Alarm	<input checked="" type="checkbox"/>
Output Level	Low
Send Alarm Notification by Mail	<input checked="" type="checkbox"/>
Upload Image on Alarm	<input checked="" type="checkbox"/>
Upload picture number	0 <small>(0~10)</small>
Alarm recording	<input checked="" type="checkbox"/>
Alarm Arming Time	
Scheduler	<input checked="" type="checkbox"/>
select all	<input checked="" type="checkbox"/>
Day	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

If you let the camera page (browser) on, if the camera will be activated, 1 minute will be recorded.

11.Ftp service setting and system Log

FTP setting:



Ftp Service Settings	
FTP Server	1192.168.1.54
FTP Port	21
FTP User	admin
FTP Password	•••
Upload picture period	0 0 show no pictures upload(30~3600)
	<input type="button" value="Test"/> Please set at first, and then test. <input type="button" value="Set up"/> <input type="button" value="Refresh"/>

- 1). The Alarm log is provided for administrators to monitor the alarm events

Log

```

2016-07-19 17:37:34 localhost ntp ok
2016-07-19 17:37:34 localhost msntp verify time ok
2016-07-19 17:37:59 localhost Date Read last time
2016-07-19 17:33:14 localhost ntp ok
2016-07-19 17:33:14 localhost msntp verify time ok
2016-07-19 17:20:36 localhost Date Read last time
2016-07-19 17:19:30 p2p param opration
2016-07-19 17:19:30 p2p param opration
2016-07-19 17:19:16 localhost Date Read last time
2016-07-19 17:18:28 p2p livestream is run
2016-07-19 17:18:28 p2p param opration
2016-07-19 17:18:13 p2p param opration
2016-07-19 17:18:13 p2p param opration
2016-07-19 17:17:56 localhost Date Read last time
2016-07-19 17:16:36 localhost Date Read last time
2016-07-19 17:11:51 localhost ntp ok
2016-07-19 17:11:51 localhost msntp verify time ok
2016-07-19 17:11:14 localhost Date Read last time
2016-07-19 17:06:29 localhost ntp ok
2016-07-19 17:06:29 localhost msntp verify time ok
2016-07-19 17:00:39 localhost Date Read last time
2016-07-19 16:59:19 localhost Date Read last time
2016-07-19 16:57:59 localhost Date Read last time
2016-07-19 16:50:29 localhost ntp ok
2016-07-19 16:50:29 localhost msntp verify time ok
2016-07-19 16:46:20 localhost Date Read last time
2016-07-19 16:41:35 localhost ntp ok
2016-07-19 16:41:35 localhost msntp verify time ok
2016-07-18 16:32:38 localhost Date Read last time
2016-07-18 16:21:53 localhost ntp ok

```

clear Refresh

12.Basic Network Settings & wireless

1) You may modify the network Settings of IP address and gateway, and the port number

Basic Network Settings	
Obtain IP from DHCP Server	<input type="checkbox"/>
IP Addr	192.168.1.172
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
DNS Server1	8.8.8.8
DNS Server2	202.96.134.33
Http Port	81

Set up Refresh

Wireless Setting



- 1).Click , access the “Wireless” settings
- 2).Search the WIFI signals and choose the SSID you want
- 3).Make sure all the parameters are the same as your router, input the WIFI network key.
- 5).Click “check”, after 30seconds,one notification will show you if the WIFI settings succeed
- 6)If succeed, just go back to select “Apply”, then disconnect the network cable

Note: If the camera IP Address can not be found on the search tool, please connect the internet cable again to check the WIFI settings

ID	SSID	MAC	
1	CAM	00:0E:00:07:28:08	
2	1104	78:D3:8D:C7:DD:31	
3		90:94:E4:CD:03:DC	
4	TP-LINK_26D6	8C:A6:DF:4E:26:D6	
5	wanscam_ipcam	D0:C7:C0:E0:93:9C	
6		00:1E:10:50:51:08	
7	ansinwifi-2.4G	C8:EE:A6:1C:F9:A3	
8	LSGD111	C2:61:18:07:EB:7E	
9	xinghuaan	A8:57:4E:9B:8F:AC	
10	CAM043678	00:0E:00:02:62:61	
11	CAM	00:0E:00:07:28:92	
12	zhou20121209	C0:61:18:B8:B8:6C	

Checking the WIFI signal connection situation

The device is rebooting. Don't shutdown it's power. Please waiting ... 59

13.Rtsp&Onvif

1)Support onvif function and Rtsp function

The image consists of two vertically stacked screenshots of a web-based configuration interface. Both screenshots feature a left sidebar with the following icons and labels:

- Device basic information
- Alarm Service Settings
- Network configuration** (highlighted with a red box)
- Basic Network Settings
- Wireless Lan Settings
- Onvif Stream Settings** (highlighted with a red box)
- Rtsp Stream Settings
- PTZ configuration
- User&device manage

Top Screenshot (Onvif Stream Settings):

Onvif Stream Settings	
Onvifenable	<input type="button" value="open ▾"/>
<input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

Bottom Screenshot (Rtsp Stream Settings):

Rtsp Stream Settings	
Rtspport	10554
Rtspenable	<input type="button" value="open ▾"/>
<input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

14.PTZ setting

Through setting to set some PTZ function

The image shows a screenshot of a web-based configuration interface. The left sidebar includes the following icons and labels:

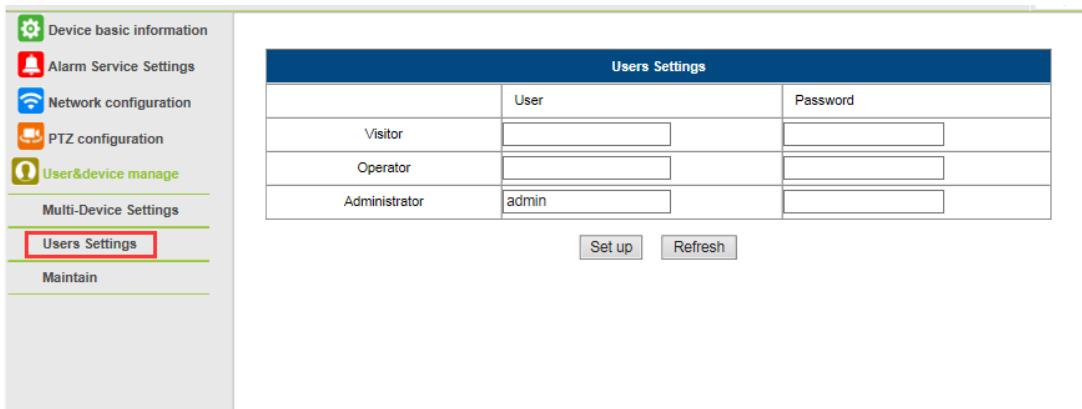
- Device basic information
- Alarm Service Settings
- Network configuration
- PTZ configuration** (highlighted with a red box)
- PTZ Settings** (highlighted with a red box)
- User&device manage

PTZ Settings Form:

PTZ Settings	
Singal lamp	<input type="button" value="open ▾"/>
against pre-bit	<input type="checkbox"/>
Call Preset on boot	<input type="button" value="1 ▾"/>
PTZ Speed	<input type="button" value="Med ▾"/>
Cruise Views	<input type="button" value="Always ▾"/>
<input type="button" value="Set up"/> <input type="button" value="Refresh"/>	

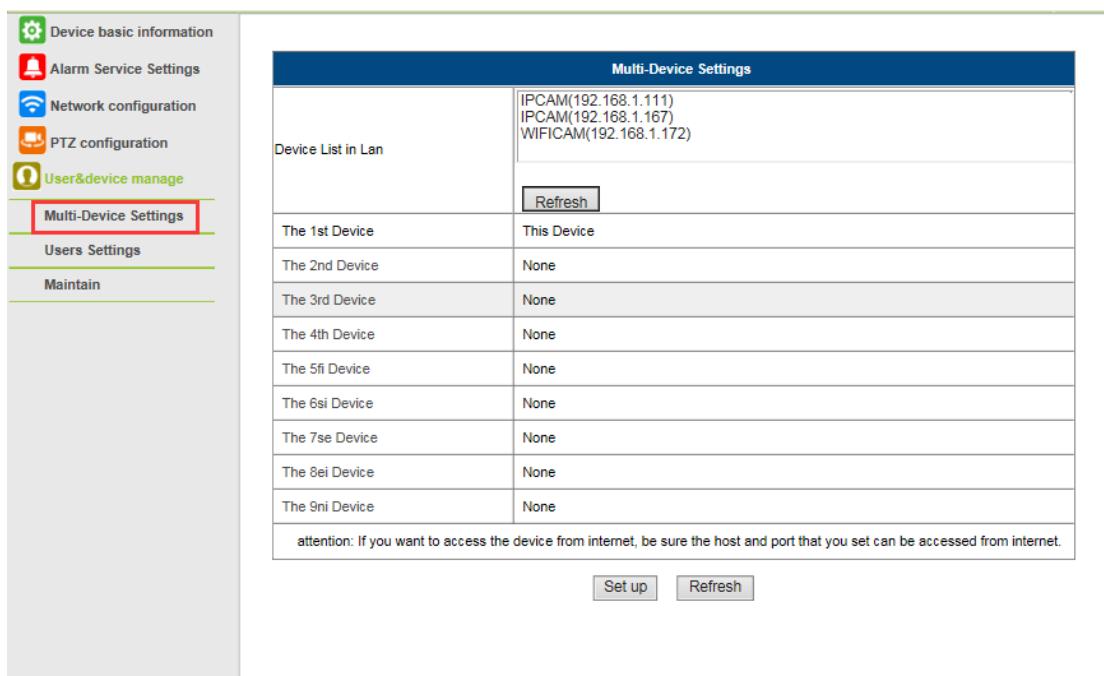
15. User Setting & Multi-Device Setting

1) Modification of the user password



Users Settings		
	User	Password
Visitor		
Operator		
Administrator	admin	

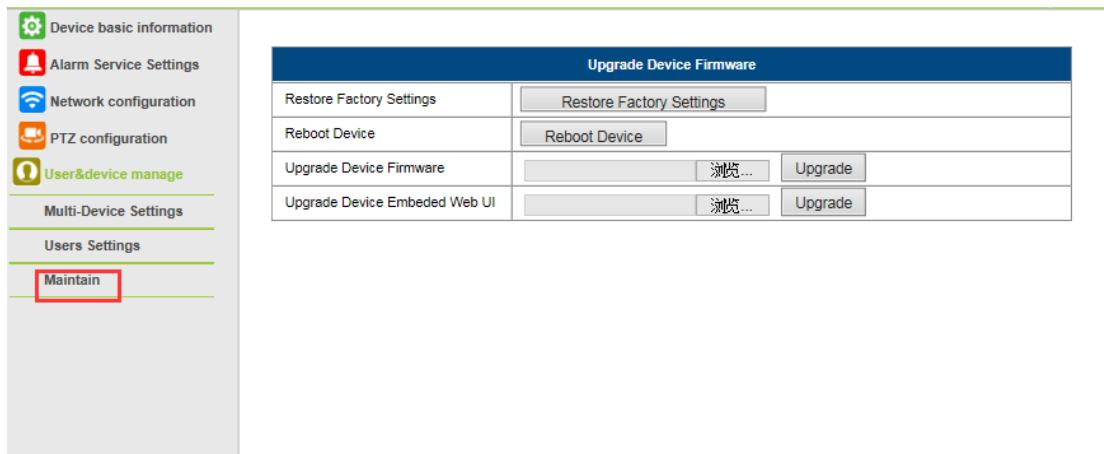
- 2) Refresh the device in LAN search to find add another camera
- 3) Click on "the 2nd device" or any other device
- 4) Click on the LAN equipment added in the search, enter the user name and password
- 5) Click on "Submit"



Multi-Device Settings	
Device List in Lan	IPCAM(192.168.1.111) IPCAM(192.168.1.167) WIFICAM(192.168.1.172)
	<input type="button" value="Refresh"/>
The 1st Device	This Device
The 2nd Device	None
The 3rd Device	None
The 4th Device	None
The 5th Device	None
The 6th Device	None
The 7th Device	None
The 8th Device	None
The 9th Device	None

16.Upgrade Device Firmware

2). With this option you may reboot the camera, restore it to the factory settings, and upgrade the system.



17.Access By Mobile

E-View7 App Installation

A. For IOS (iPhone/iPad),download App “E-view7” in App Store;

For Android phones, download App “E-view7” in Google Play, our official website or you can get it from CD Path:”JW & HW Series”-“Mobile App”.

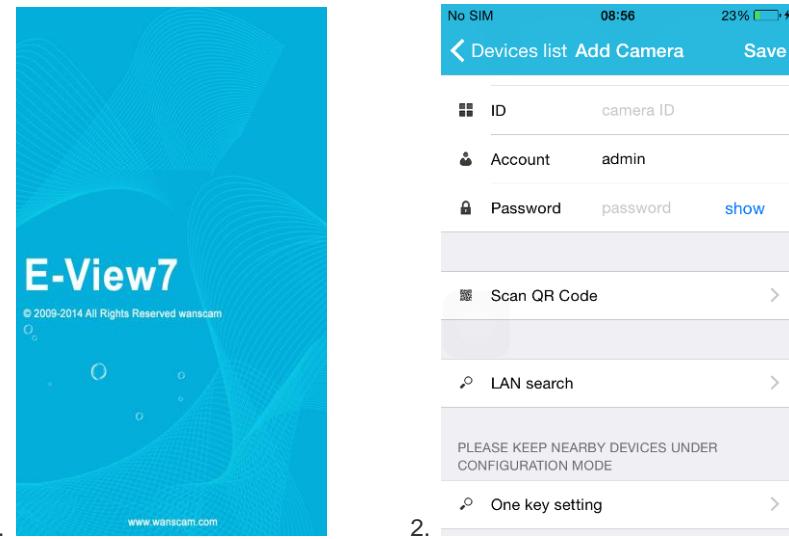
B. Also support scan the App QR-code in the user manual to download directly.

Mobile View



A.Run the App ,please refer to picture 1

B.Add the Camera,please refer to picture 2



Three methods to add IP camera:

Method 1: Input the **P2P ID**, **User name**, **Password** of your camera manually. Then click "**Save**"

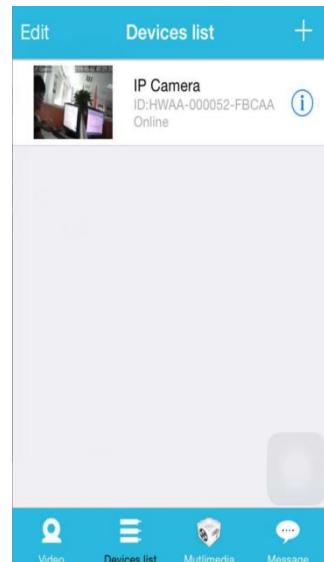
Method 2: Scan the QR code: Click the "**Scan QR code**" button, at the bottom of the camera, there is a label of QR Code, then scan the QR code with your smart phone, it will show the ID, input the user name and password, then click "**Save**"

Method 3: Click "**Search**", then you will get the local camera list in your phone. Choose the camera which you want to view, input the user name and password, then click "**Save**"

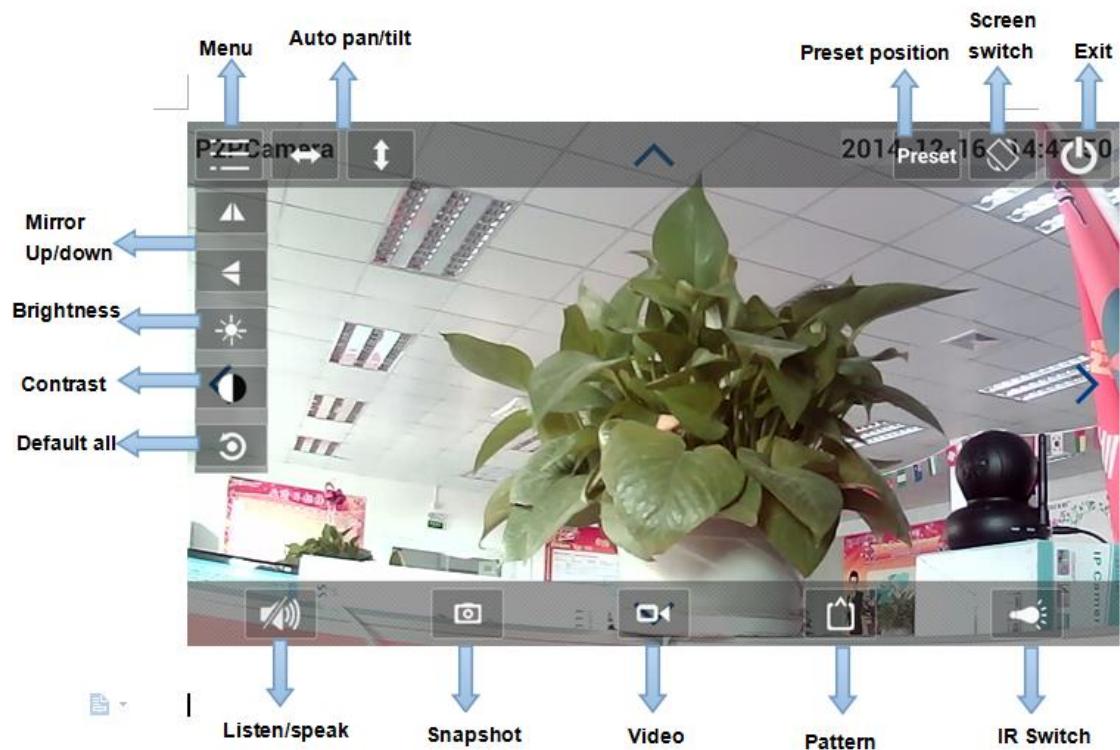
Method 4: Click "**One key setting**", enter the correct SSID and Password, Click "start Configuration"

The operation interface:

A. Device List



B.Live video



7.FAQ :

A.Forget the password

1)Reset your camera, you should press the RESET button for 10 seconds when the power is on(for indoor camera,it's on the bottom of the camera, for outdoor camera , the white reset button is at the end of the power cable).

2)Finishing reset, the camera will restore to factory settings, the user name is"admin"and password is none.

B.No video shown on browser only black screen

 Note:If there is still no live video after run OCX ActiveX,please try to enable the ActiveX options of IE security settings, please do the follow steps:

1.Close the firewall of your computer.

2.Change the ActiveX settings,“IE” browser > “Tool” > “Internet Options” > “Security”>

“Custom Level” > “ActiveX control and Plug-ins”,all the ActiveX options set to be

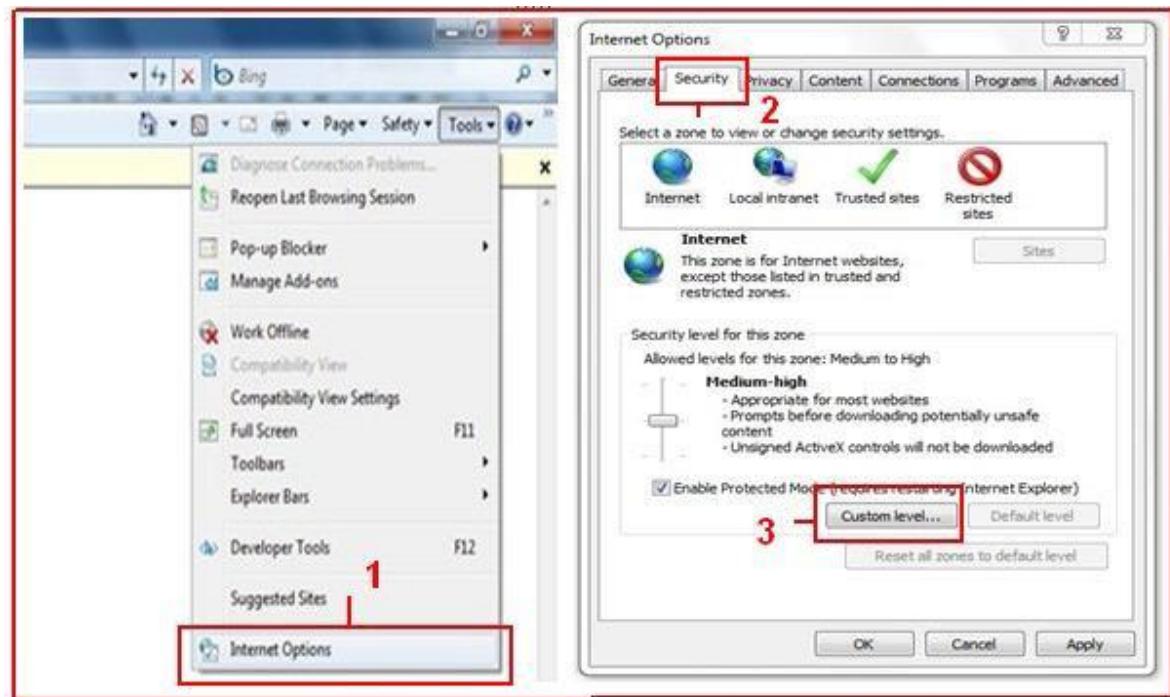
“Enable”:

Especially:

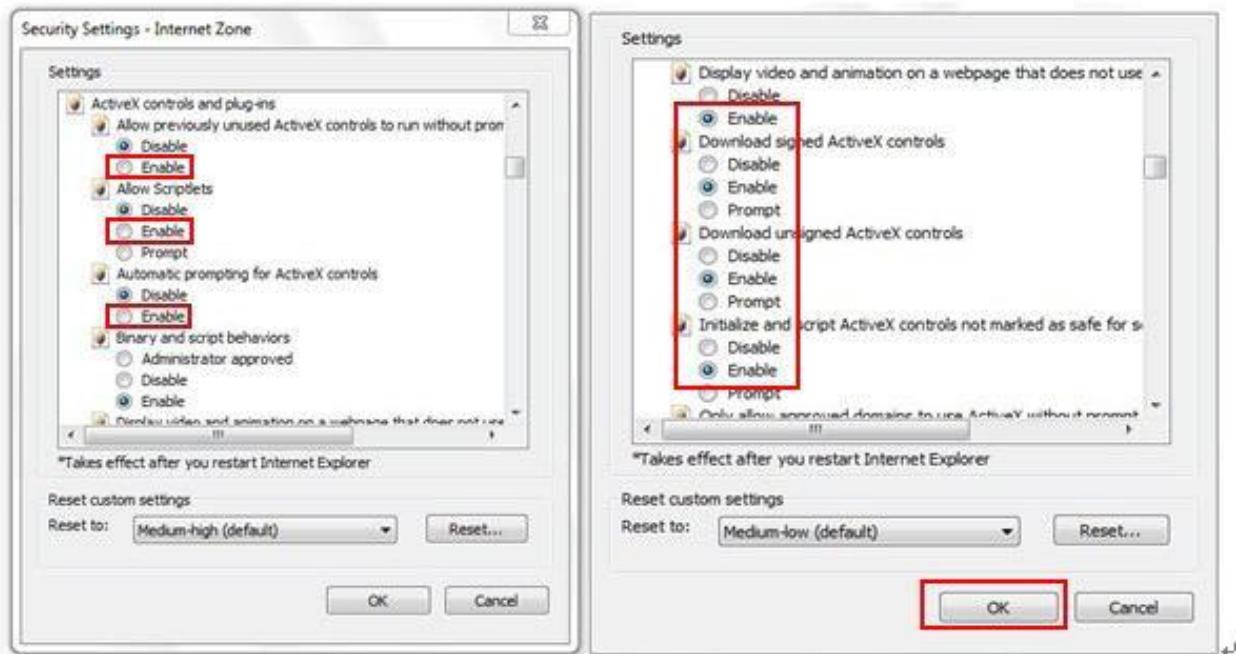
Enable:Download unsigned ActiveX controls

Enable:Initialize and script ActiveX controls not marked as safe

Enable:Run ActiveX controls and plug-ins



a.



b.

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

To comply with FCC RF exposure compliance requirements, this grant is applicable to only mobile configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.