
IP Camera

User Manual

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Important Safety Instructions

Please read this manual carefully and use the camera in strict compliance with it, in order to prevent failures. Keep this manual after reading it.

Notice and Warning

1. Requirements

1.1 Power Requirements

- ❖ The easy-to-use power-off equipment must be packed with the IP cameras to cut off power in emergency if necessary.
- ❖ Please protect the camera tail wire from being pressed.
- ❖ Before installing the camera, please confirm the power supply of it. If the camera comes with POE power supply, please provide the corresponding power supply equipment with POE protocol; If the camera comes with PON power supply, please provide the corresponding power supply equipment with PON protocol;
- ❖ Before connecting the camera, please check if the power supply is available.

1.2 Usage Environment Requirements

- ❖ During transport, use and storing process, please ensure the devices away from moisture, dust, extreme heat, extreme cold, strong electromagnetic radiation environment, etc.
 - ❖ During transport, storing and installation process, please prevent stress, violent vibration, water ingress, etc.
 - ❖ Keep the camera way from water or other liquid to prevent the internal components from damage
 - ❖ Keep the camera in ventilation condition
 - ❖ Keep the camera away from glare (such as lighting, sunlight, etc.) focus, otherwise it will easily lead to too bright or pull light phenomena (not a device failure), and will also affect the life of the sensor components.
 - ❖ It is recommended to use anti-thunder device and the camera together to achieve better effects.
 - ❖ The grounding hole is recommended to connect to the ground to further improve the reliability of the
-

equipment.

- ❖ Before shipping, please pack it with the factory standard packaging, or using the packaging materials of the equal quality.

1.3 Operation and Maintaining Requirements

- ❖ Clean the device body with a soft, dry cloth. If it is difficult to remove the dirt, use a clean, soft cloth dipped with a small amount of neutral detergent, gently wipe, and then dry it. Do not use volatile solvents such as alcohol, benzene or thinners, or strong detergents with abrasive features, otherwise it will damage the surface coating, or reduce the camera performance.
- ❖ Do not disassemble the camera. There are no user-serviceable parts within the camera. Disassembling can cause leaks or bad camera image.
- ❖ Please do not directly touch the sensitive components. If necessary to clean it, please use dry cloth wetting with a little alcohol, slightly and gently wipe the dust.

2. Warnings

- ❖ Do not disassemble or repair the camera on your own. All installation and maintenance should be operated by professional service personnel, using the manufacturer specified attachments / accessories.
- ❖ Sensor device may be damaged by laser beam. Therefore, when using a laser beam device, avoid exposure to radiations to the surface of the laser beam.

3. Statements

- ❖ Product info in the manual are for reference only, if any discrepancy found between the manual and actual product, the actual product shall prevail
 - ❖ Products are updated without notice. Therefore there may be some minor difference between the product before and after updates.
 - ❖ For the latest program and supplementary documentation, please contact our customer service department.
 - ❖ In the case of any problems when using the camera, please contact your supplier or our customer service department.
 - ❖ We have tried to ensure complete and accurate description of the manual content, but because of the actually usage environment of instability or other reasons, part of the actual value of the data may be different with the description in this manual. If the user have any doubts or disputes, please refer to the company eventual interpretation.
 - ❖ If not carried out in accordance with the instruction of guiding operation, any loss thus caused should be responsible by the user party.
-

1. Installation

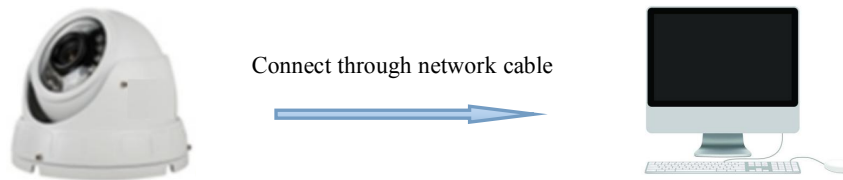
1.1 Operation Environment

Operation System: Windows XP/7/8/10

Network Protocol: TCP/IP

1.2 Installation

1. Connect the IP camera to network or connect it directly to a PC with a network cable
2. Power the camera by POE or PON switch or power adapter;
3. If it is under normal network circumstances, the physical connection of IP camera is thus finished.

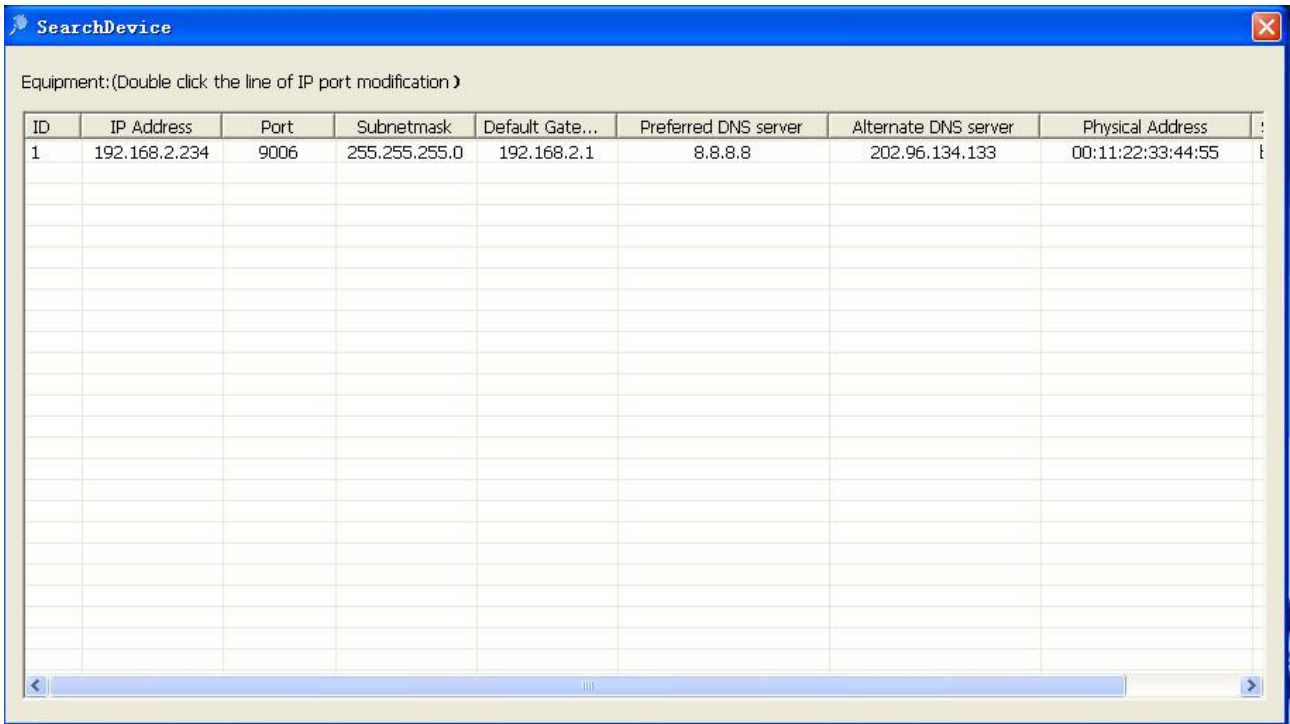


Graph 1: Network Connection

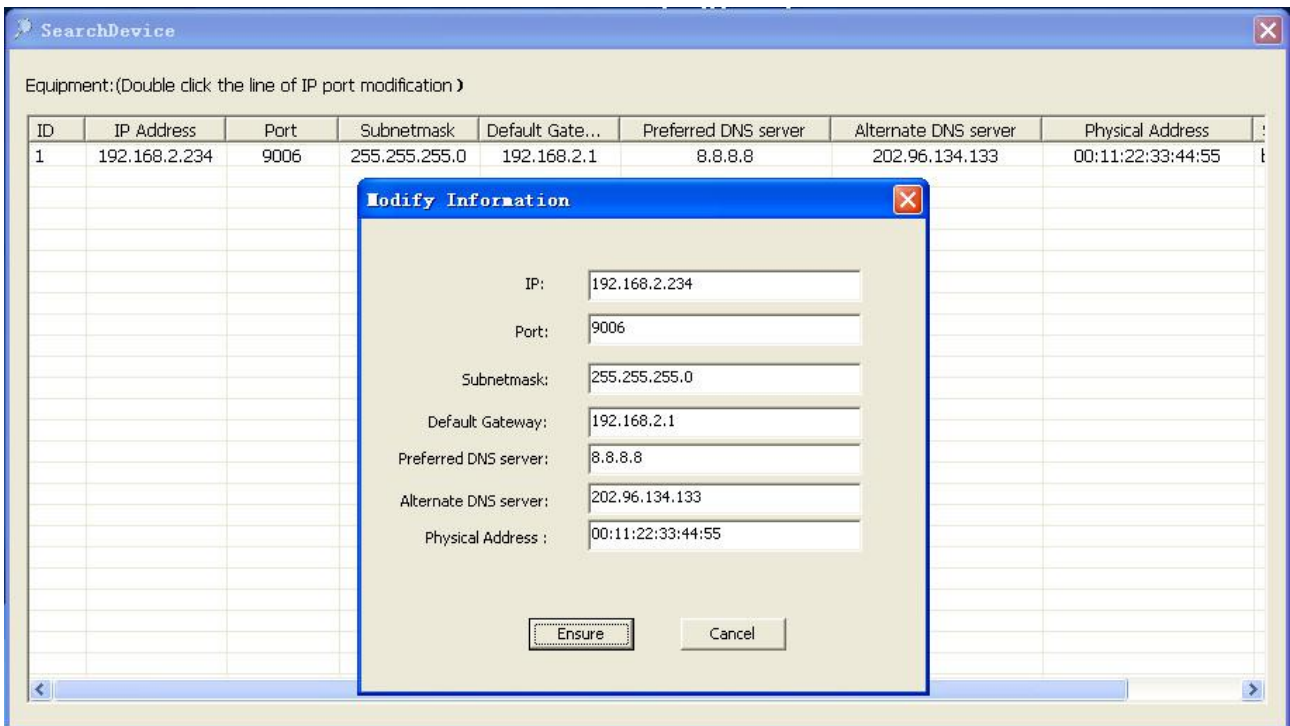
2. Network Configuration

2.1 IP Search

Double click "SearchDevice.exe" file, the search tool will automatically scan all online cameras within the LAN environment. If there is only one single device to modify the configuration, please directly connect the device to a computer to search information, including IP address, media port, subnet mask, default gateway, Mac address, etc. As is shown below:



Double-click the device to modify the IP. The IP info pops up for modification. The users can login the Web to preview real-time video of the device.



NOTE: If the IP Camera is connected to PC directly, user need to assign IP address for the PC manually to ensure that the network segment of IP of the PC must be the same as that of the IPC, so that the camera can be accessed. You can do that by Control Panel\Network and Internet\Network and Sharing Center.

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address:	10 . 100 . 100 . 99
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	10 . 100 . 100 . 1

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server:	10 . 100 . 100 . 1
Alternate DNS server:	. . .

Validate settings upon exit

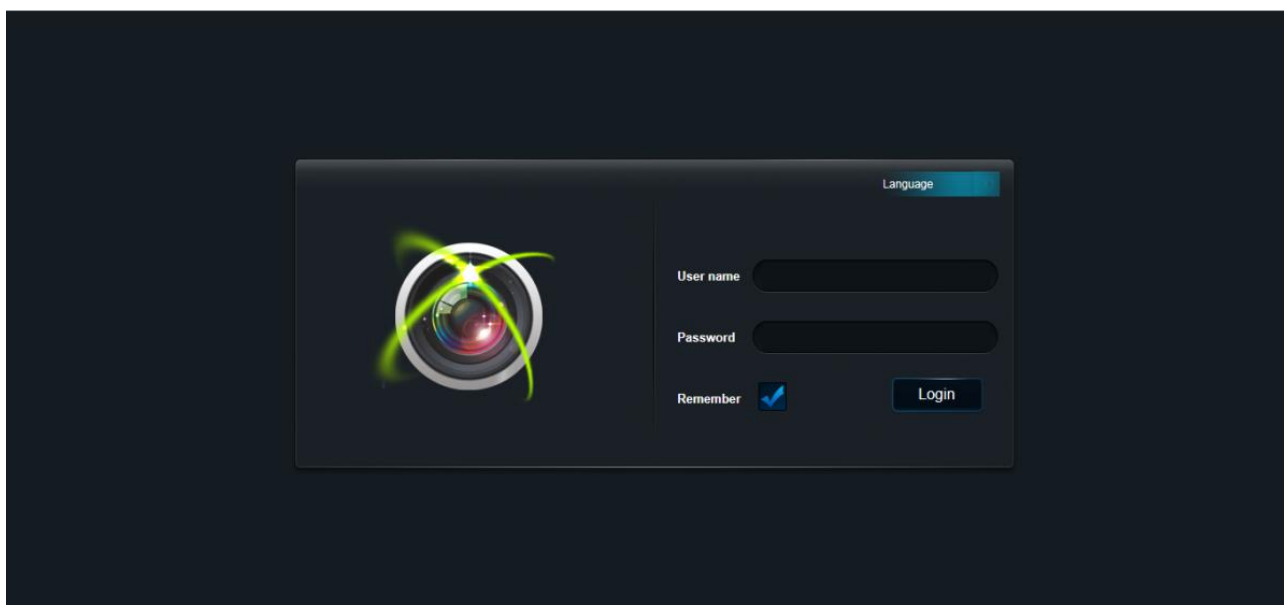
Advanced...

OK Cancel

2.2 Log-in and Log-out

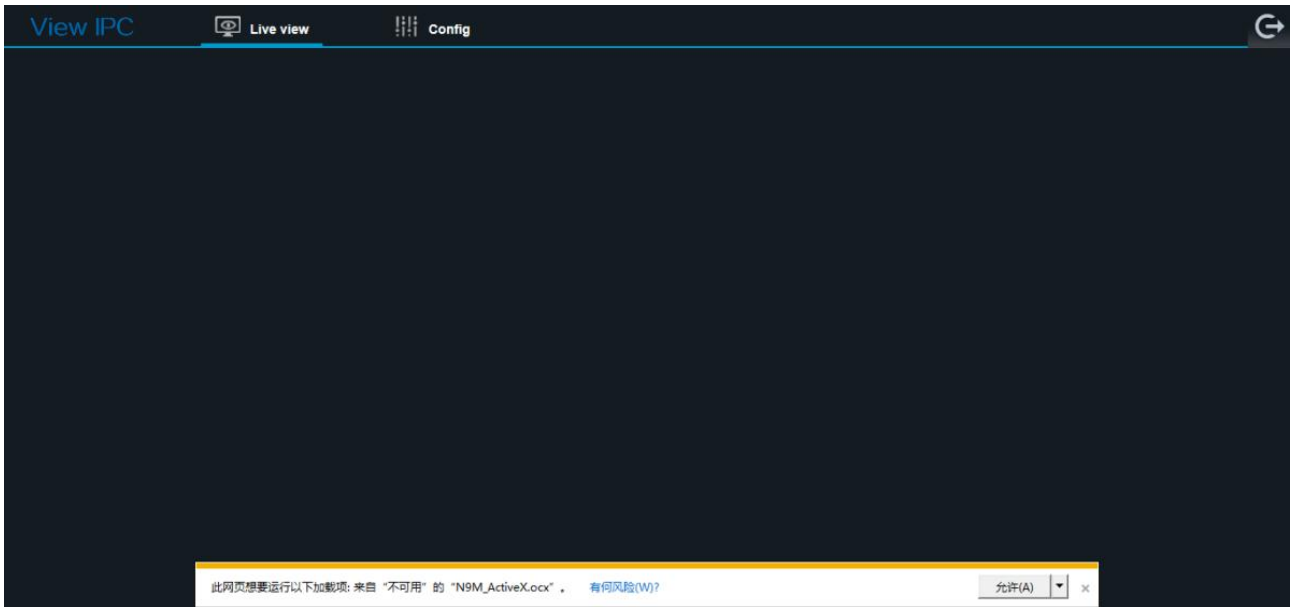
①Enter the IP address of the camera into address bar of IE. After the log-in page pops up, enter the user name (admin), password (null). The default IP address of the device is 192.168.1.100. The Web Port is 80. The format shall be: **http://192.168.1.100:80**


Click “Enter” to enter into the log-in page, as is shown below:



②After the user successfully enter the log-in page, enter your user name and password to sign in. The user need to

download and install IE plug-in for the first time entering into the preview page. Please follow the instructions for installation.






③ After the user enter the main interface of the IP camera, the user can click the button  on the upper right corner to exit the system.

2.3 Main Interface

The main interface display the functions of preview, voice, image snapshot, image configuration, full screen, recording and other function configuration, etc. As is shown below:



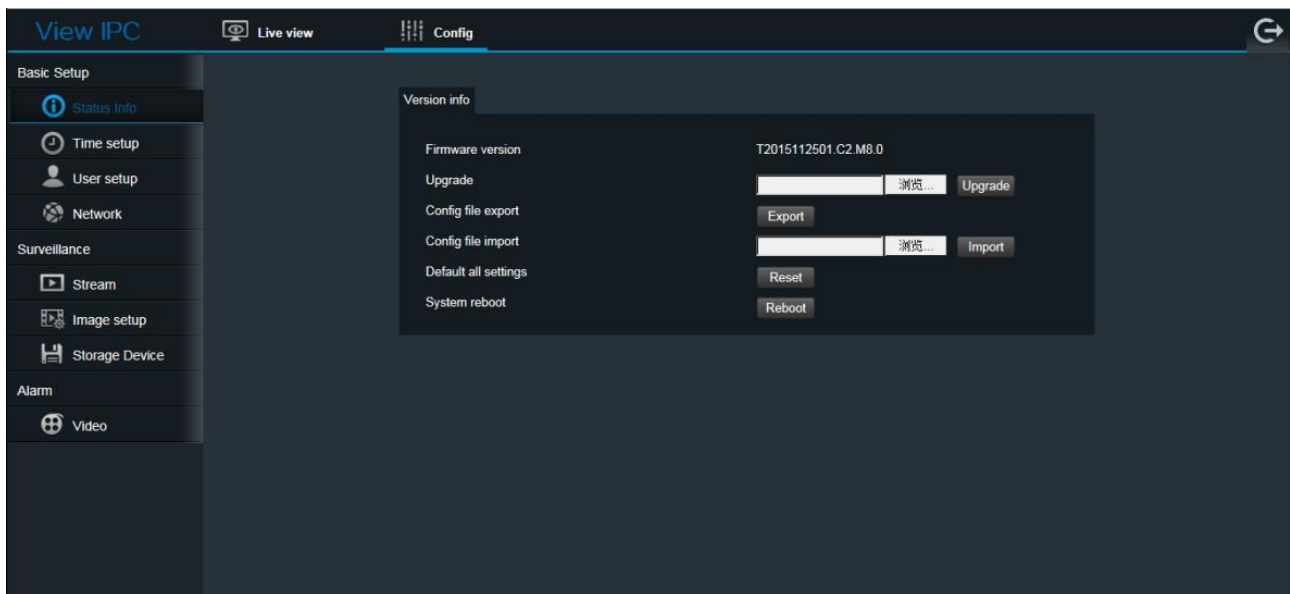
- Preview: Preview video of the IP camera.
 - Voice: Adjust the volume in the video.
-

-
- Snapshot: Click the button  to take the snapshot from the playing video and save it to the configured path.
 - Image Configuration: Click the button  to adjust the image brightness, chroma, saturation, etc.
 - Recording: Click  to enable the video/audio recording function and save to the configured path in the local PC. The recording status will display in the Video Playing Area after the recording function is enabled. The recording will stop after click the “Recording” button.
 - Configuration: enter the configuration interface of the IP camera to operate the system and function configuration

NOTE: The information on the main interface is subject to specific IP camera if there are any differences.

3. Local Configuration

3.1 Status Information



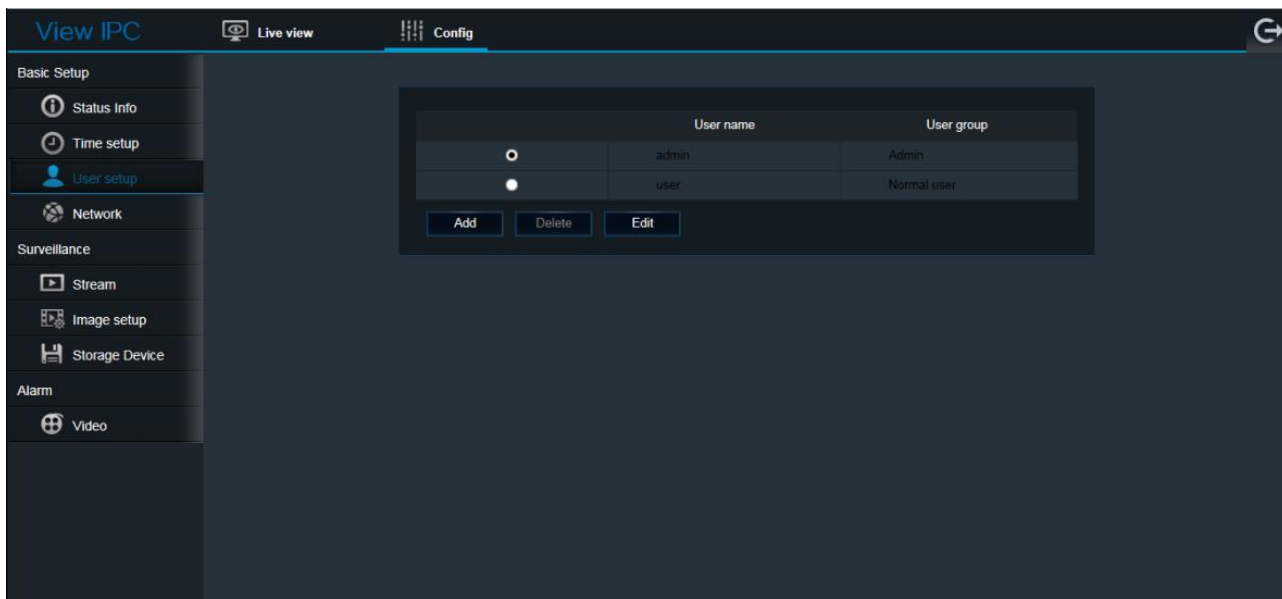
The user can check the IP camera hardware version information.

- Click "Browse" on the “Upgrade” bar, select the upgrade file, click "Upgrade" button to upgrade the camera through the network. After the upgrade, the system restores to the factory defaults;
- Click “Reset” to “Default all settings” , then all the settings will revert to the factory default settings, and restart;
- Click the button “Reboot”, then the camera restarts.

3.2 User Settings

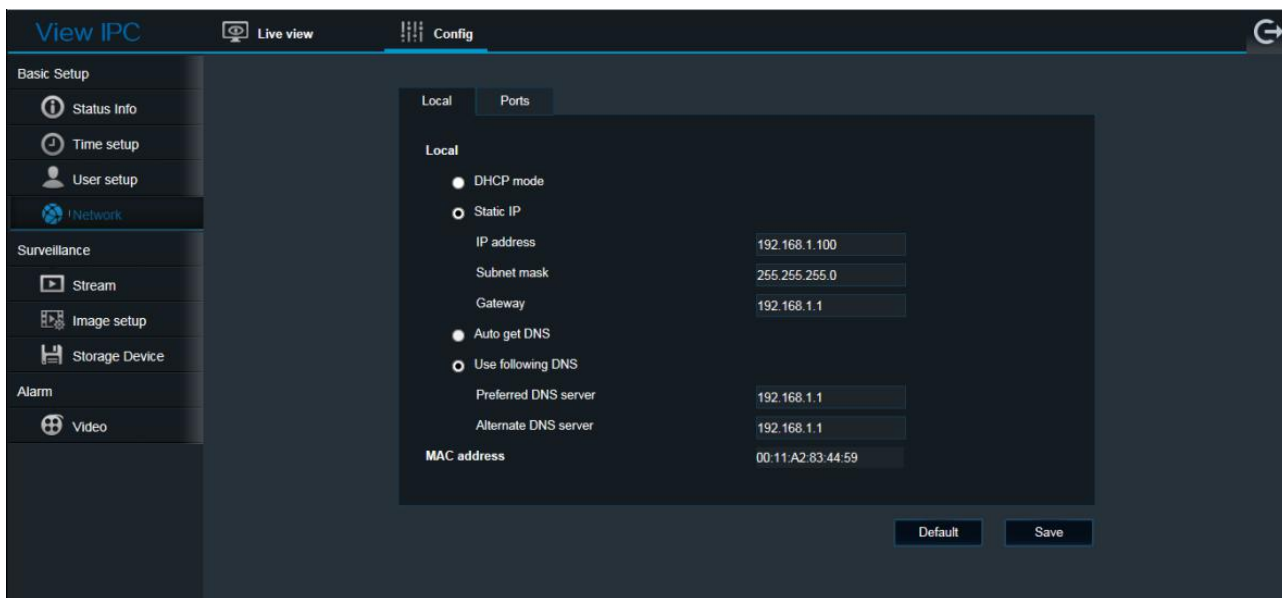
The system supports two levels of authorization with user name “admin” and “user”, among which the “admin” has the highest level of rights to make all the settings. “user” can only view the video, snap image on PC, etc. and

no rights for any settings. For the first time use, please change the two passwords to prevent unauthorized user's log-in.



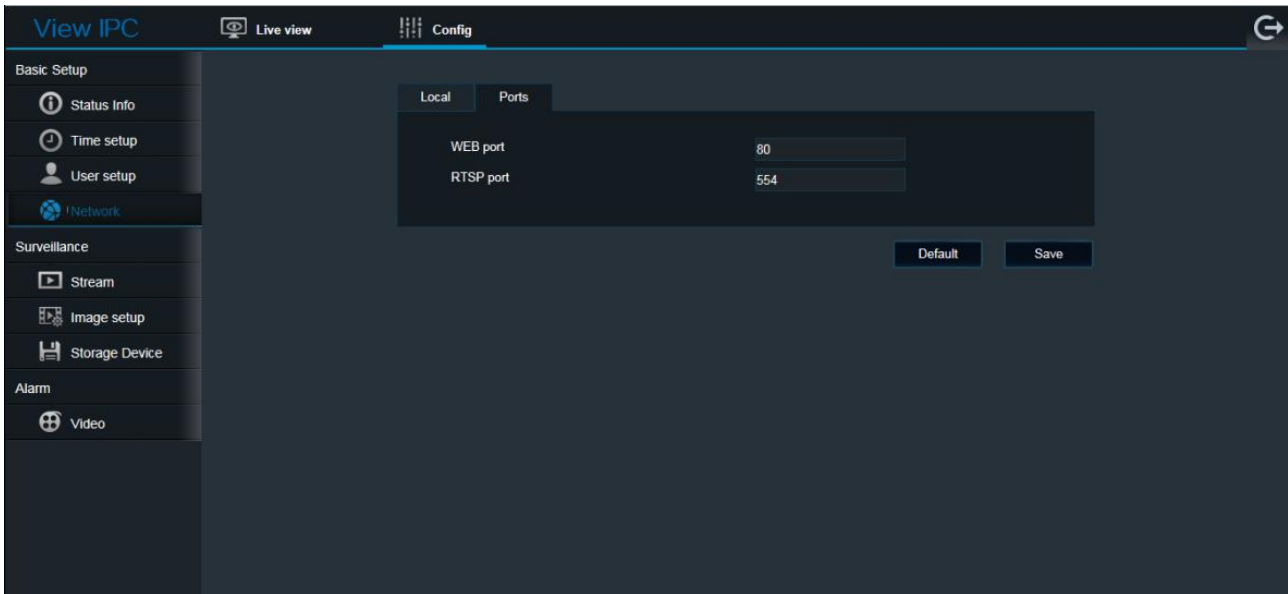
3.3 Network Settings

3.3.1 Wired Network



The user can set the IP network address, subnet mask, gateway, etc. as is shown above.

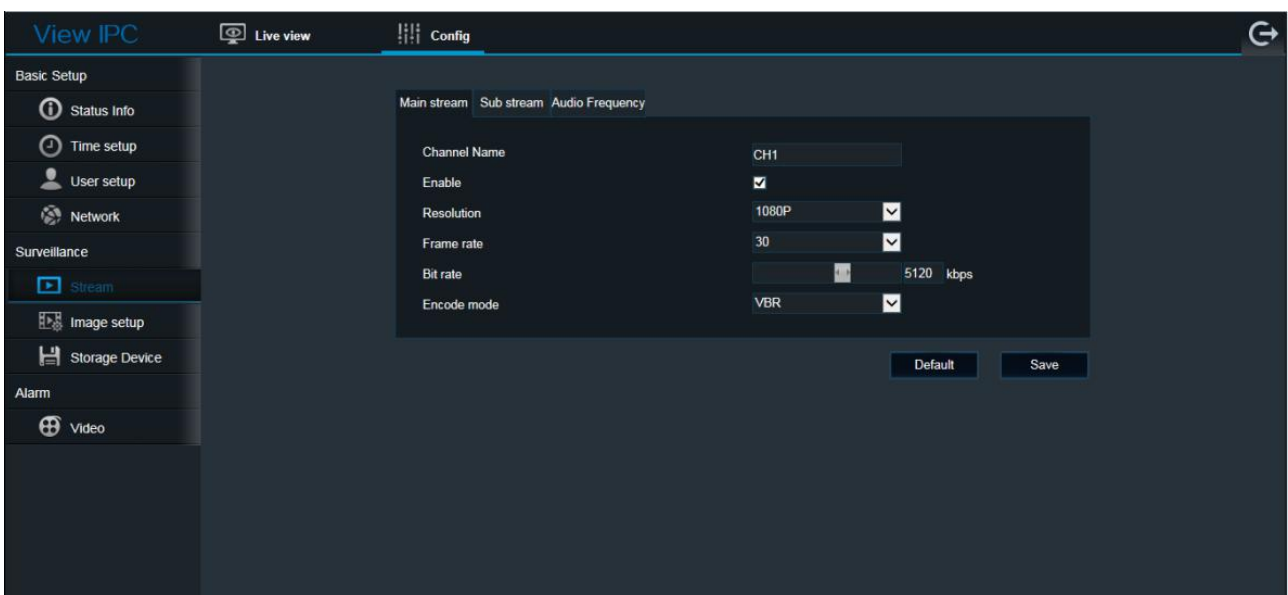
3.3.2 Port Setting



- ① WEB port: IP address identifies a device on the network. The device runs multiple network programs and each program transfers data by port. The Port Settings on the page decides whereby the WEB SERVER send data. During port mapping, it need to be consistent with the port on this page (port 80 by default).
- ② RTSP port: The IP camera supports RTSP protocol, the user can playback video by the tools such as VLC Player.

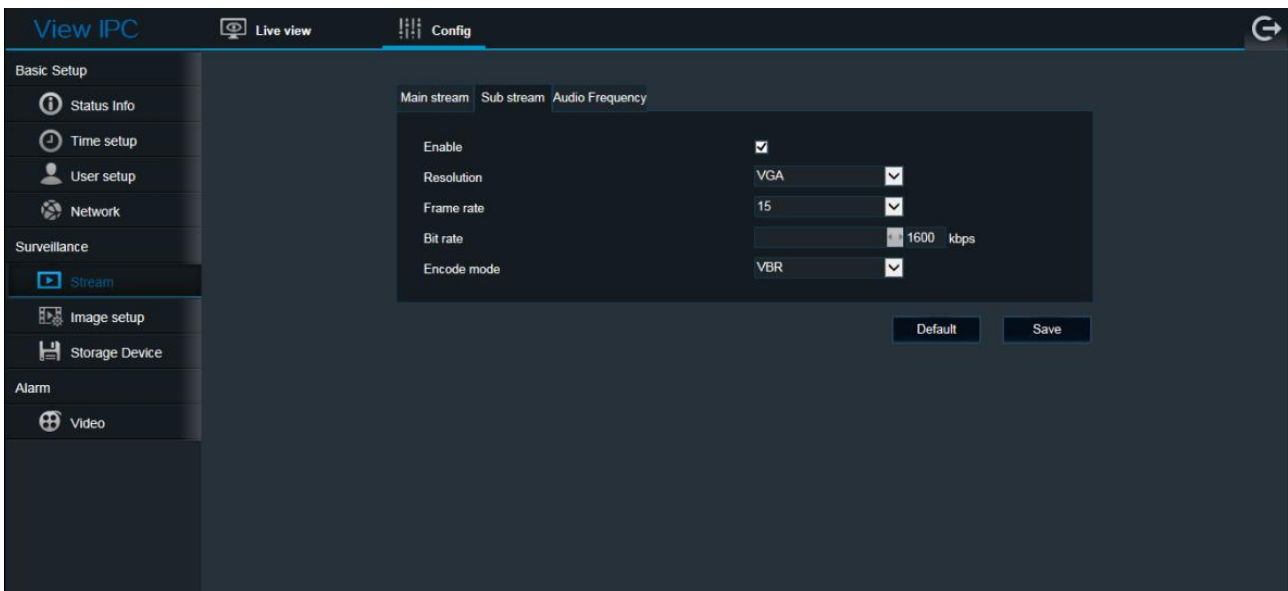
3.4 Stream Settings

3.4.1 Main Stream Settings



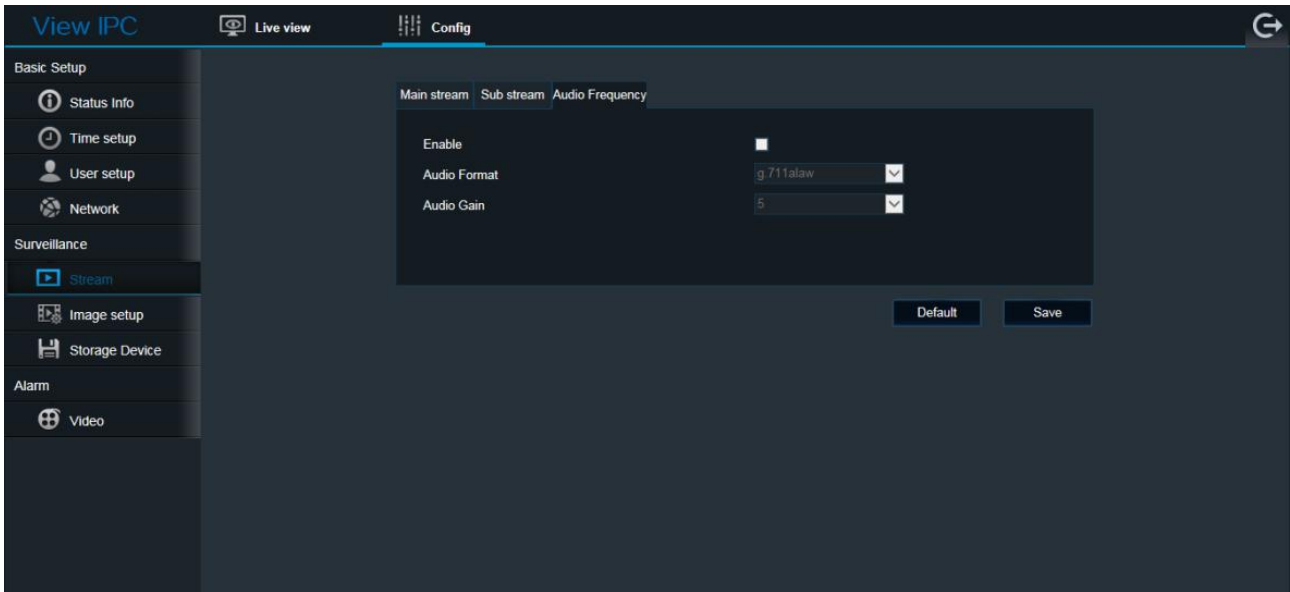
-
- ① Channel Name: Set for the correspondent channel name.
 - ② Frame rate: the measuring of the number of frames, namely, the times the processor updates per second for Picture processing. 1~30 fps optional.
 - ③ Bit Rate: The user can specify the bit rate. Generally speaking, the larger the bit rate is, the clearer the image is. However, the configuration of bit rate shall be combined with network bandwidth. When the network bandwidth is very narrow, and configuring large bit rate, it will cause the video stream not to be transmitted normally, and even worse visual effect.
 - ④ Encoding mode: There are two modes of stream encoding: fixed (CBR) and variable (VBR) optional. If the “fixed CBR” is selected, the camera will encode by this configured fixed bit rate. If “Variable VBR” is selected, the camera will encode based on this configured bit rate but not completely and image quality will not be ignored.

3.4.2 Sub-stream Settings



The sub-stream settings is similar to that of main-stream.

3.4.3 Audio Settings



Audio format: the default audio compression format is G.711.

3.5 Image Settings

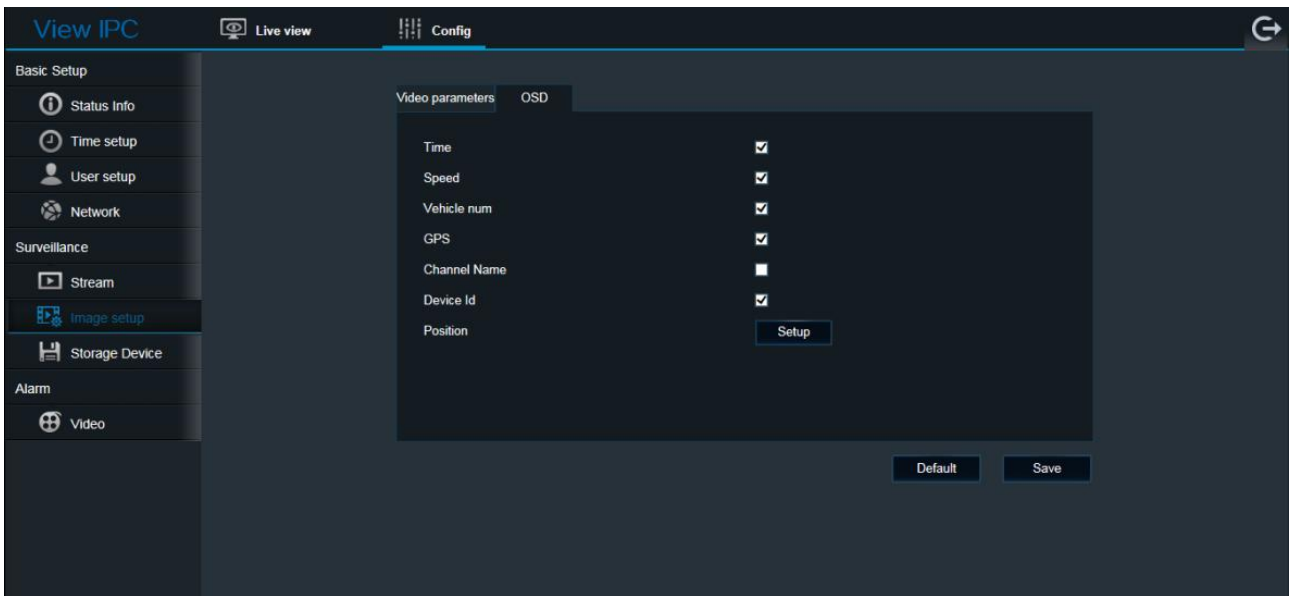
3.5.1 Video Parameters



- ① Color adjust: Move the sliders as in the image above to adjust the image brightness, saturation, contrast, sharpness, exposure
 - ② Infrared Light: Auto / Enable / Disable optional.
 - ③ Day / Night Mode: Auto / Day / Night mode optional.
-

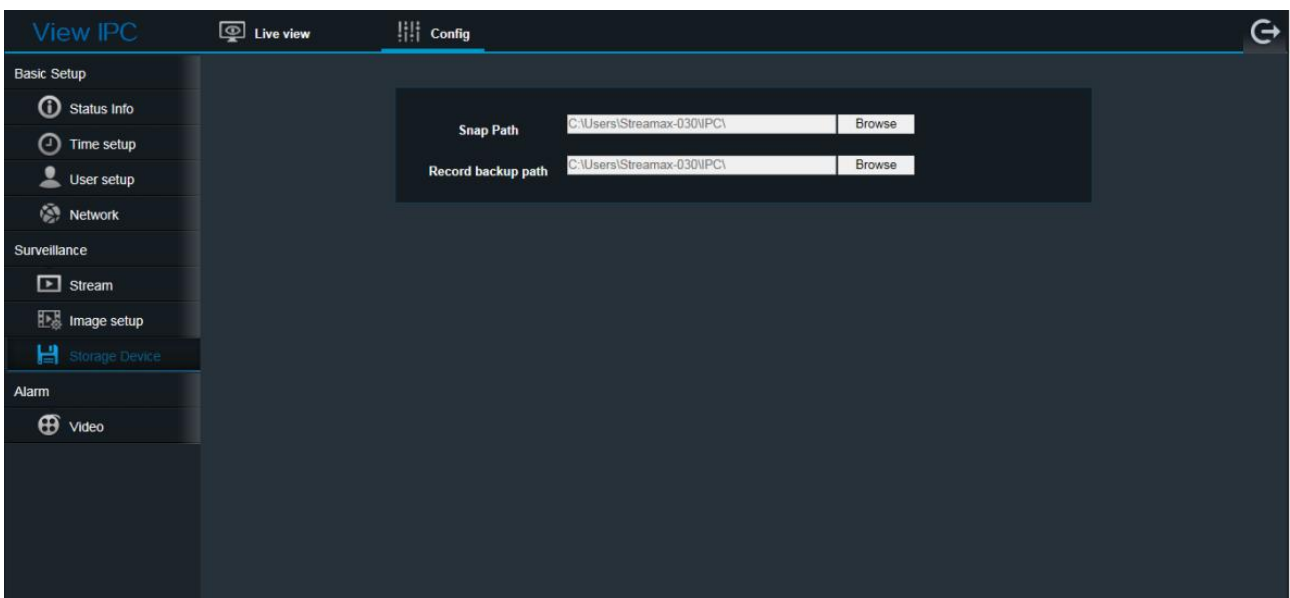
- ④ Flip and mirror: flip up / down or mirror left / right on the picture.
- ⑤ Scene mode: standard/indoor/outdoor optional.
- ⑥ Professional application: inside/outside vehicle optional.

3.5.2 OSD



The user can set the information required to be displayed on the screen, such as time, speed, license plate number, etc., as is shown above.

3.6 Storage Device



Select the snapshot file and the video storage path.

4. MDVR Display Settings

4.1 Installation



As is shown above, connect the camera to MDVR, then connect the MDVR with CP4 display device.

4.2 Display Interface

After the device is connected successfully, below interface will display



- Single: full screen from just one camera
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- Quad: Quad display to show the image from 4 separate cameras
 - 9-Split: show the image from 9 separate cameras
 - Playback: Click to enter the video playback interface.
 - Business menu: Displays "phone", "SMS", "status inquiry".

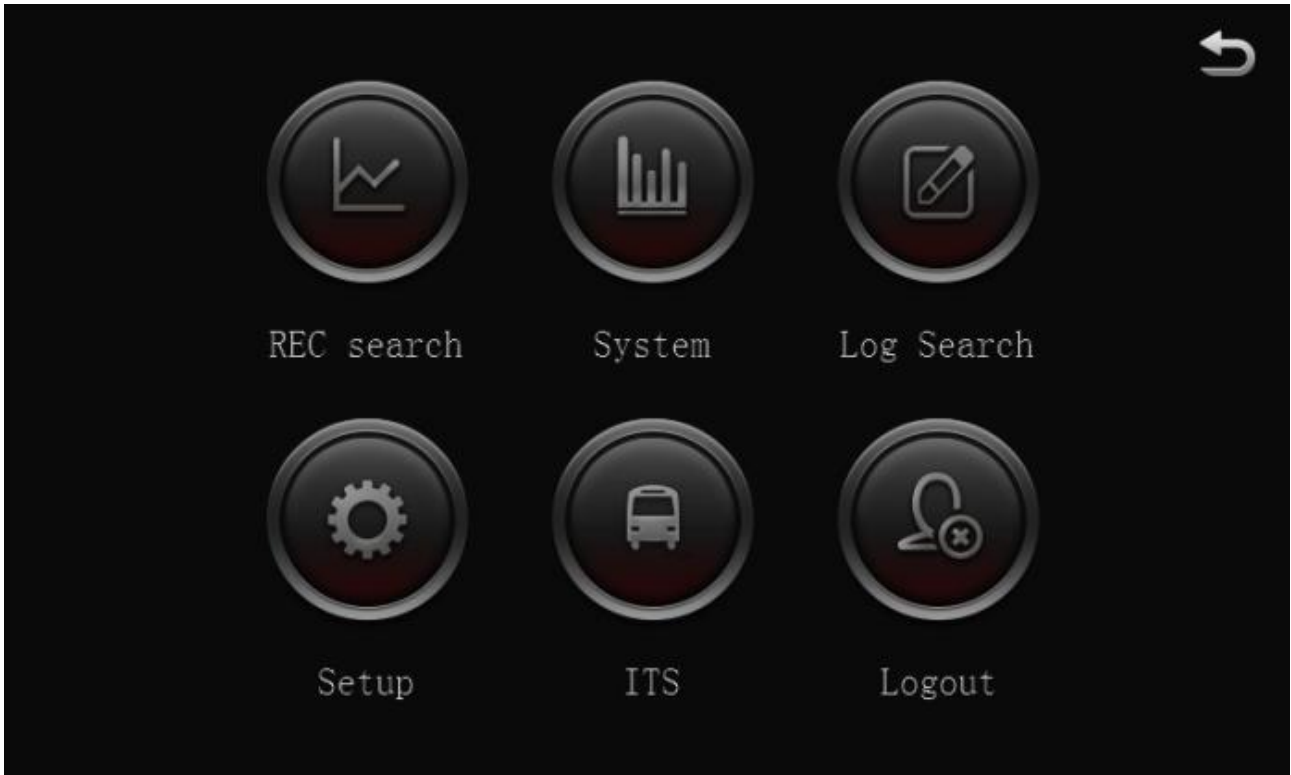
4.3 Main Menu



Click the button on the bottom right on the screen, then the log-in page pops up as follows:

A dark-themed login dialog box with a white border. It contains three input fields: 'User name' with a dropdown menu showing 'guest', 'Password' with an empty text box, and 'Language' with a dropdown menu showing '中文'. At the bottom are two buttons: 'Login' and 'Cancel'.

The default user name: admin. Password: empty. Click “Login”, and then enter the main menu interface.



4.4 Network Settings

In the main menu, click the "Setup" button to enter the setting interface:



Click “Basic Setup” on the upper toolbar, and “Network” on the left, enter the network setup interface.



In this menu, the user can setup the IP address, port and other information of the surveillance MDVR device.

4.5 Image Settings

Click the button "Surveillance" on the top of the screen and "Live View" on the left, then select "Image Setup" to enter the setting page:



The user can setup the brightness, contrast, and other color display features of the IP Camera in this menu


Mirror function: Click the buttons  and , to enable the up / down and left / right of the image.

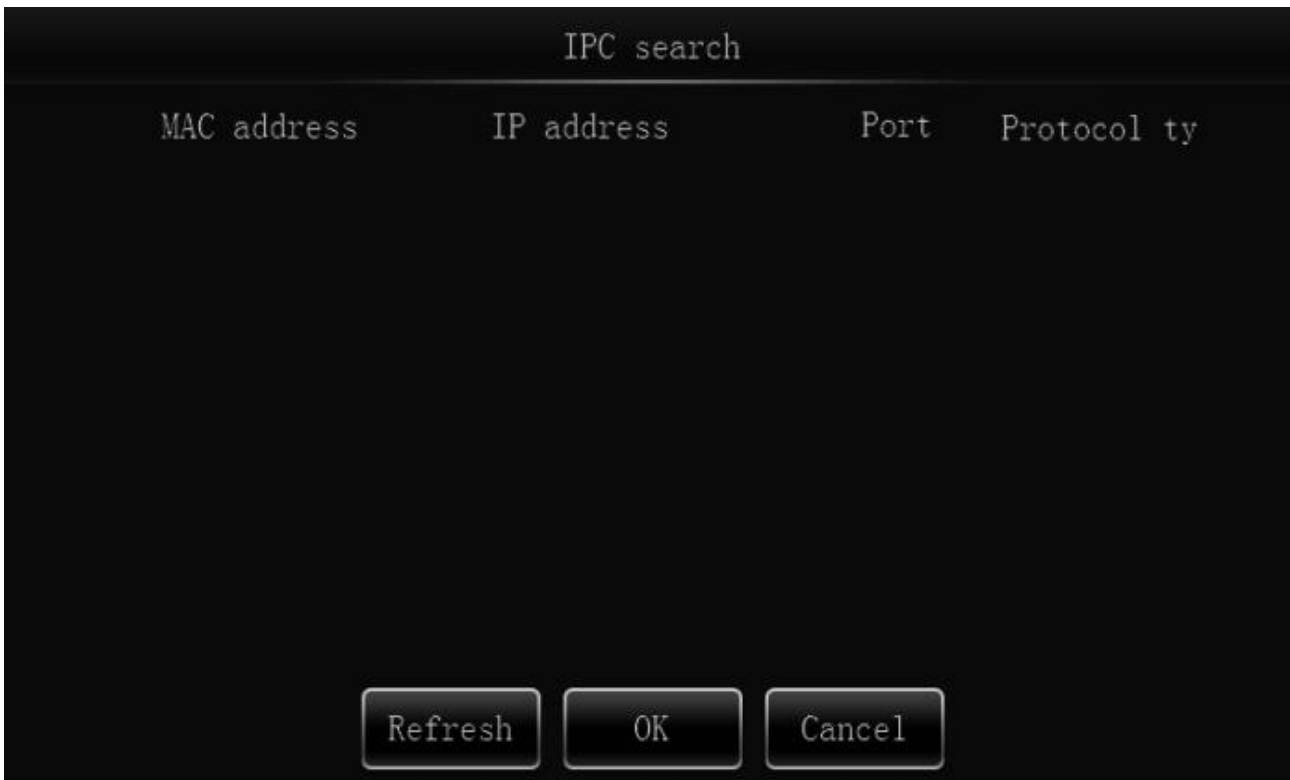
Channel copy: In this menu, the user can copy the channel display. The detailed operations is: Select "Channel" → select "Copy to", then the user can copy the selected channel configuration to any channel or all channels

4.6 IPC Settings


Click the button "Surveillance" → click "IPC setup", as is shown below:

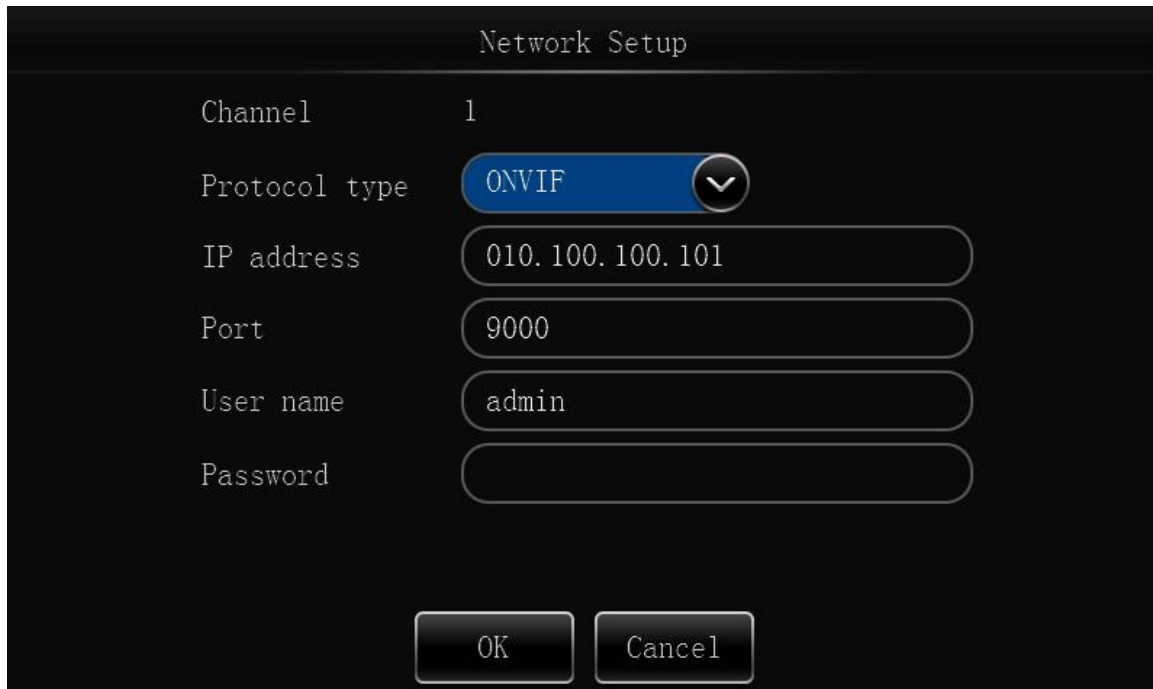


Check the channel number to enable the channels. Click "" button, the user can modify the IP address and protocol type of the camera.






Click the button “”, enter the IP Camera configuration menu, in which users can setup the basic parameters of the cameras.

A screenshot of a 'Network Setup' dialog box with a dark background. The title 'Network Setup' is at the top center. Below it are several configuration fields: 'Channel' with the value '1'; 'Protocol type' with a dropdown menu showing 'ONVIF'; 'IP address' with the value '010.100.100.101'; 'Port' with the value '9000'; 'User name' with the value 'admin'; and 'Password' with an empty field. At the bottom are two buttons: 'OK' and 'Cancel'.

Field	Value
Channel	1
Protocol type	ONVIF
IP address	010.100.100.101
Port	9000
User name	admin
Password	



Click the button , the MDVR can automatically assign IP address to IP Camera and avoid the device conflict.

4.7 IP Camera Update

Click “Maintenance” → “Upgrade”, select “IPC upgrade”, as is shown below:

The image shows a software interface with a dark background. At the top, there is a navigation bar with several icons and labels: a home icon, a gear icon labeled 'Basic Setup', a camera icon labeled 'Surveillance', a document icon labeled 'Collection', a bell icon labeled 'Alarm', and a gear icon labeled 'Maintenance' (which is highlighted with an orange border). To the right of the 'Maintenance' icon is a back arrow icon.

Below the navigation bar is a main menu area with a vertical list of options on the left and a list of upgrade actions on the right. The 'Upgrade' option in the left list is highlighted with an orange border.

Menu Item	Action
Config	
FileData	Device upgrade Upgrade
Upgrade	CP4 Upgrade Upgrade
Storage	IPC upgrade Upgrade
Reset	

Appendix: Frequently Asked Questions

Q: Why does the IP camera not work?

- A:**
1. Check if the POE interface is without power supply. It needs connecting MDVR or switch supporting POE function.
 2. Check if the network port is false. It needs to connect IPC interface to normally supply power.
 3. The MDVR does not work normally.
 4. There is no proper communication between the POE switch and the MDVR device (Disconnected).

Q: Why is it unable to search IPC on the monitor

- A:**
1. This problem is usually caused by the different network segment of the MDVR device and IP camera. Please assign the IP address for the IP cameras automatically by the IP camera fast setup.
 2. To distinguish easily the appearance of PON and POE IP camera,, Streamax defined the one with RJ45 port POE camera, and the one with 6 pins din aviation connector PON camera.
 3. Search IP camera by the IP search tool running on PC. When multiple cameras with the same IP address simultaneously access to the domain network, the tool can search out only one of the IP Cameras. In this case the user need either manually or automatically assign IP through MDVR device.

Q: Why can not log in IE browser.

- A:**
1. The network between the IPC and the computer is disconnected or not in the same network segment. Please check parameters such as IP address, gateway, etc.
 2. User name and password error. The general name / password is admin / 123456 or empty. The general default IP is 192.168.1.100. (192.168.2.234 for old product)

Q: Can not download the IE plugin.

- A:**
1. Check if the ActiveX controls downloading in IE security settings is disabled. Reset and enable it.
 2. Check if the IE plug-in is in an older version. Some browser, such as 360 browser, can not automatically remove plug-in of older version. The user need to manually remove or use "IE Control Complete Remove" tool to uninstall it. Then connect the IPC, it will automatically download new plug-ins.

Q: Why is it unclear when browsing in IE?

- A:** The preview stream is using sub-stream, which can be reset to main stream.

Q: Why can not remotely log in to access the IPC?

- A:**
1. The port is not opened. Please try to map the port on the router.
 2. The UPNP is not opened. Please enable it.
 3. To realize remote view through network, two ports must be enabled: Media port 9006, Web port 85.

Q: How to define POE voltage and pin in RJ45 line order?

- A:**
1. POE is standard DC48V power shared with the network signal pin 1/2/3/6, with 1/2 pin for positive 48V; 3/6 pin for negative power supply. The original 4/5/7/8 pin, as the concept of power supply pin, has been abandoned, so now the IPC POE function may be 4-wire.

Q: How to define PON in 6-pin aviation line?

A: 1. PON is customized with 6-pin in total, respectively 4-pin as network transmission, 2-pin for the power supply and DC12V power supply.

2. To easily distinguish whether the appearance of the product is EPON or POE, defined that RJ45 port pattern is for POE, while 6-pin aviation din is for PON.

Q: The IR effect is bad.

A: Power shortage. The DC power supply output voltage is low or the infrared lamp is in error. Please try to check if the extend line material is poor, or if the intermediate transit points is bad. If so, replace the power supply equipment. Check if the IRCUT is not switched to night mode, which cause the front-end sense chip insensitive to infrared light. Then check if the machine IRCUT mode is in automatic mode.

Q: Day image is good, but night image is vague with a vast expanse.

A: Usually this is common problem with infrared cameras. Because within 80 degree angle in front of the camera (lens), there are objects blocking the infrared light within 1 meter of the camera. The user may properly adjust the angle of the device, most preferably under opened infrared light -watching the pictures while adjusting the angle.

Q: Day image effect is good, however, there is white spot reflected at night.

A: It is caused by the glass in front (within 2 meters) of the camera, usually by the traffic camera in front of the vehicle. The infrared lamp is reflected by the glass in front of the vehicle. In this case the user should use came without IR.

Q: The image at day time is clear, however, it is vague in dark environment (night or dusk) and when the relative movement speed of the object is greater than 30KM / H.

A: It is now the common feature of IPC, not an error, which is caused by the auto shutter compensating for low-light.

Q: Image barrel distortion.

A: The selected lens focal length is too small. Usually there are slight deformation with 3.6MM (or 4MM) lens, and obvious barrel distortion with 2.8MM lens, and even more serious distortion with 2.5MM lens. As inherent characteristics of the lens. It is normal phenomenon.
