XtendLan

XL-ICA-107M1C

Network 1,3Mpix CCD camera

User's Guide

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

DISCLAIMER STATEMENT

Safety Instruction

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into 'Warnings' and 'Cautions':

Warnings: Serious injury or death may be caused if any of these warnings are neglected.

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

⚡	⚠
Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

⚡ **Warnings**

1. In the use of the product, you must strictly comply with the electrical safety regulations of the nation and region.

2. Source with AC 24V or DC 12V according to the IEC60950－1 standard. Please refer to technical specifications for more details.

3. Do not connect several devices to one power adapter as an adapter overload may cause over-heating and can be a fire hazard.

4. Please make sure that the plug is firmly inserted into the power socket.

5. When the product is installed on a wall or ceiling, the device should be firmly fixed.

6. If smoke, odor, or noise rise from the device, turn off the power at once and unplug the power cable, then contact the service center.

7. If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

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⚠ Notice:

1. Make sure the power supply voltage is correct before using the camera.

2. Do not drop the camera or subject it to physical shock.

3. Do not touch CCD (Charge Coupled Device) modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the CCD from dirt.

4. Do not aim the camera at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of CCD at the same time.

5. The CCD may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the CCD will not be exposed to the laser beam.

6. Do not place the camera in extremely hot or cold temperatures (the operating temperature should be between -10°C ~ +60°C), dusty or damp locations, and do not expose it to high electromagnetic radiation.

7. To avoid heat accumulation, good ventilation is required for a proper operating environment.

8. Keep the camera away from liquids.

9. While shipping, the camera should be packed in its original packing, or packing of the same texture.

10. Regular part replacement: a few parts (e.g. electrolytic capacitor) of the equipment should be replaced regularly according to their average life time. The average time varies because of differences between operating environment and usage history, so regular checking is recommended for all users. Please contact with your dealer for more details.

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Chapter 1 Introduction

Network camera is a kind of embedded digital surveillance product that combines the features of both traditional analog camera and net DVS (Digital Video Server). Due to the embedded Linux operation system and the latest Davinci hardware platform of TI, the system operates with high scheduling efficiency. Furthermore, the firmware is burned in the flash, which makes the product small, reliable and highly stable.

1.1 Network camera Functions and Features

Functions:

◆ Network Function :support the TCP/IP protocols(TCP/IP,HTTP,DHCP,DNS,RTSP RTCP,PPPoE, Furthermore,FTP,SMTP,NTP,SNMP addible),and IE browsing.

◆ Heartbeat Function: The server can acquire real time operating performance of the network camera through the heartbeat function.

◆ Alarm Function: The product includes 1 channel of alarm signal input and 1 channel of alarm on/off output, and supports motion detection, video missing, mask alarm and external alarm input.(Get details in Specification)

◆ Voice Talking：Support bidirectional voice talking and monomial voice broadcasting.

◆ User Management: Support multilevel right management. The administrator can create up to 15 separate users with different right levels, which highly improves the system security.

◆ The product offers a 10M/100M self-adaptive Ethernet interface.

◆ Support set the parameters, browses real time videos or checks the camera performance through software or IE, and gets external alarming and stores the compressed bit rate through network.

◆ Support remote upgrades and maintenance.

◆ RS-485 supports monomial transparent channel function so that clients on remote PC can control the serial devices.

Compression Functions:

◆ Support 1 channel video signal and 25fps in Pal (704 × 576) ,30fps in NTSC (704 × 480) real time H.264 or MPEG-4 video Encoding standard compression, which supports both variable bit rate and variable frame rate; besides, you can self-define both the video quality and its compressed bit rate.

◆ Support resolution of 4CIF (PAL:704 × 576, NTSC:704 × 480), DCIF (PAL:528 × 384, NTSC:528 × 320), 2CIF (PAL:704 × 288, NTSC:704 × 240), CIF (PAL:352 × 288, NTSC:352 × 240),QCIF (PAL:176 × 144, NTSC:176 × 120).
Support resolution up to 1600×1200 Pixels for 2.0 megapixels Network Camera.
Support resolution up to 1280×960 Pixels for 1.3 megapixels Network Camera.

Remote Control:

◆ The product offers a 10M/100M self-adaptive Ethernet interface.
◆ Support TCP / IP, HTTP, DNS, RTP / RTCP, PPPoE protocols.
◆ Set the parameters, browse real time videos or check the camera performance through software or IE, and get external alarming and store the compressed bit rate through network.
◆ Support remote upgrades and maintenance.
◆ RS-485 supports monomial transparent channel function so that clients on remote PC can control the serial devices.
◆ Support NAS storage.

1.2 Applications

This camera is ideal for remote control network applications. E.g.:
1. Network surveillance for ATM, bank counters, supermarkets and factories.
2. Remote surveillance for nursing homes, kindergartens and schools.
3. AI janitors.
4. AI building/district management systems.
5. Self-service systems of power plants.
6. Outdoor monitoring systems for bridges, tunnels and crossroad traffic.
7. Pipelining and warehouse monitoring.
8. 24-hour monitoring for road traffic.
9. Remote monitoring of forest and water resources.
10. Surveillance for airdrome, railway station, bus stop etc.

Chapter 2 Installation

Notes：

1. Please check if all the items on the package list have been included with your camera.
2. Read the following contents carefully before the installation.
3. Make sure that all the related equipment is power-off during the installation.
4. Check the power supply to prevent any damage caused by mismatching problems.
5. If the product does not operate properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. Users are responsible for any problem caused by modification or repairing without authorization.

2.1 Panels Description
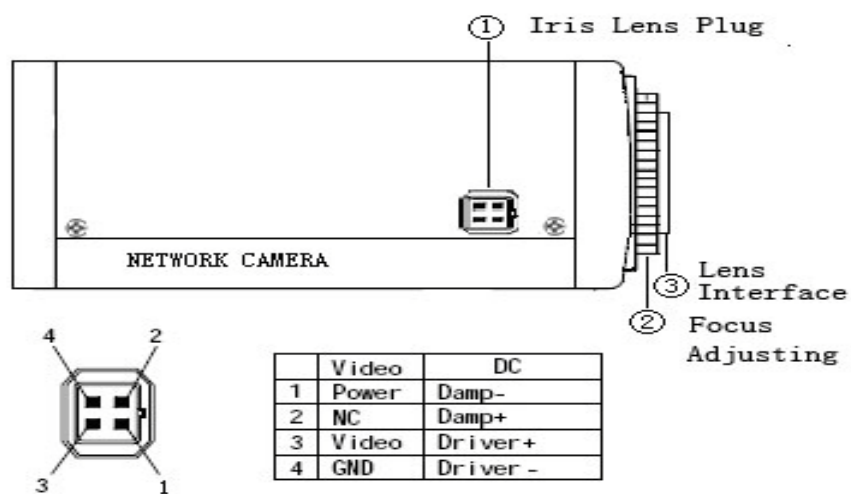
2.1.1 Side Elevation of the Camera

	Video	DC
1	Power	Damp-
2	NC	Damp+
3	Video	Driver+
4	GND	Driver -

Fig 2.1.2 Side Elevation of XL-ICA-107M1C network camera

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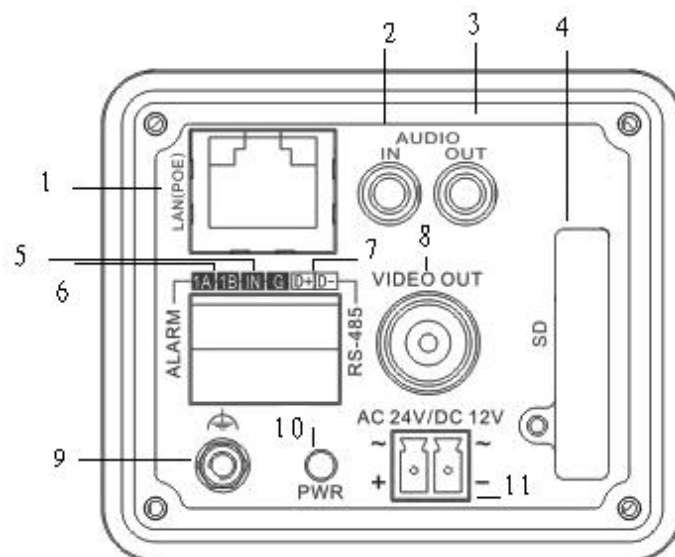User Manual of Network Camera

2.1.2 Rear Panel Description

Fig. 2.1.6 Rear Panel of XL-ICA-107M1C network camera

1. Standard Ethernet (UTP) RJ45 (10M/100M self-adaptive).

2. 1 channel voice talk input,3.5mm audio interface, 2.0～2.4Vp-p, 1kΩ.

3. 1 channel voice talk output, 3.5mm audio interface, electric line level, 600Ω.

4. SDHC card slot (Support SDHC).

5. 1 channel alarm input signal.

6. 1 channel alarm output (1A 1B). Please refer to Section 2.3.2 for pin definition.   (The external

series-wound power should be under 12V DC/ 30mA).

7. RS-485 bus interface (T+ T-).

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8. Standard BNC for 1 channel video output.

9. GND.

10. Power supply indicate lamp.

11. Power supply interface of AC24V or DC12V.

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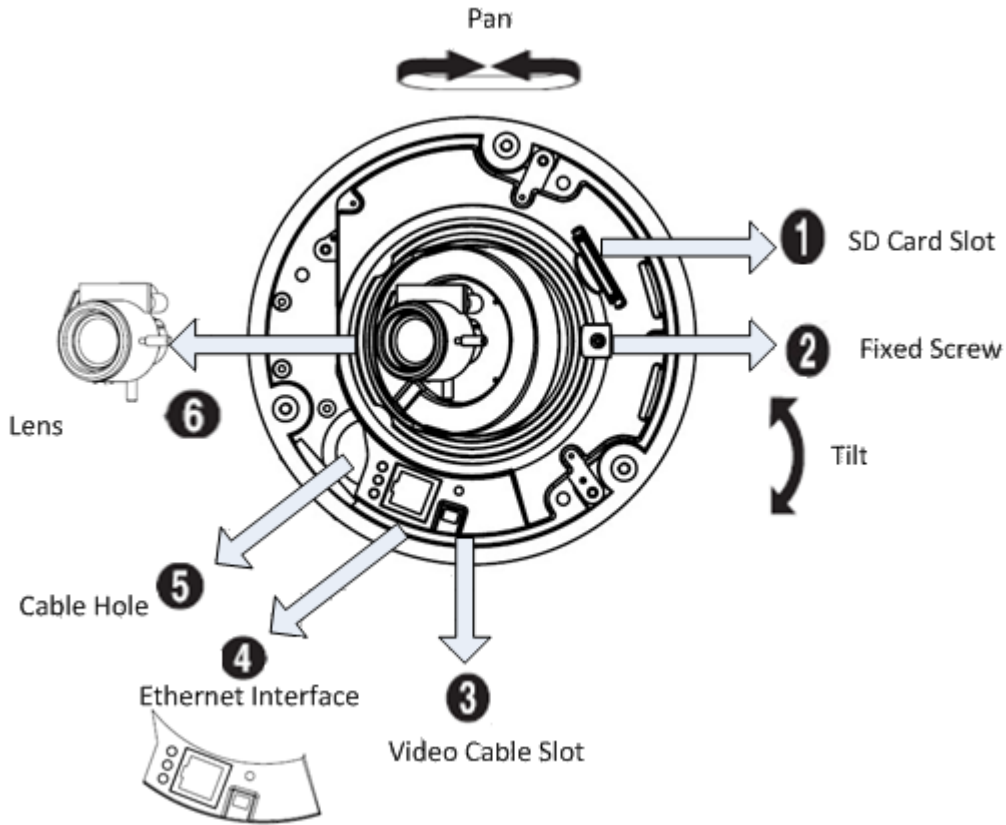
1. SD card slot：Supports SDHC card, and the dimensions of SD meet the market's normal standard.

2. Fixed Screw: Loosen this screw to rotate the camera horizontally and vertically to adjust the pan and tilt position. When the camera angle is determined, lock the fixed screw to fix the camera.

3. Video cable slot: The analog output is not as high definition as network output. The analog video output is just for testing when something unexpected happens.

4. Ethernet Interface:
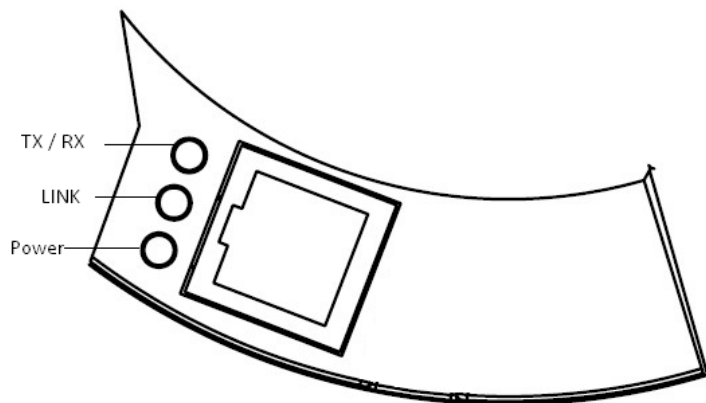
The Ethernet interface is a RJ45 10M / 100M self-adapted Ethernet port. And the three indicate LED's respectively mean transmission and receipt status, link status and power status.

5. Cable Hole: User can select a cable hole from the side or bottom of the camera to thread the cables. When selecting one direction to thread the cable, please cover the other

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cable hole with a waterproof plug.

6. Lens:

Focus lock Handle
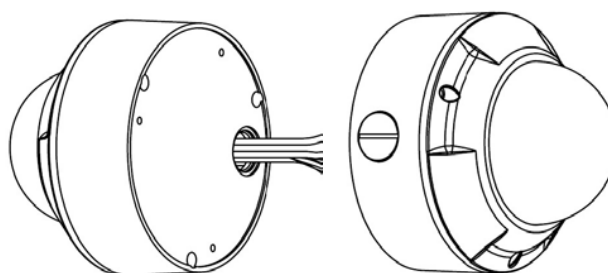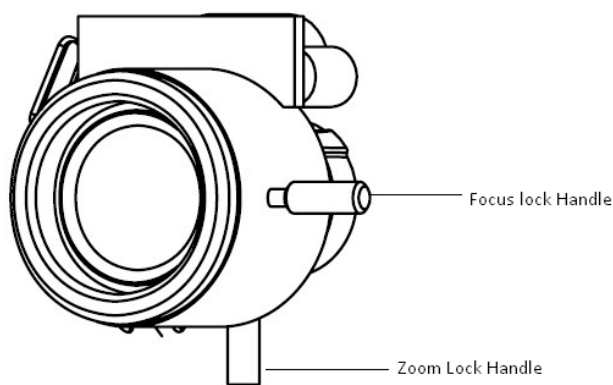
Zoom Lock Handle

First, loosen the zoom lock handle, rotate it until there is an appropriate view angle between TELE and WIDE, then tighten the handle.

Loosen the focus lock handle, rotate it until getting a clear image between NEAR and FAR, then tighten the handle.

2.2 Product Installation

2.2.1 Box camera Installation

Box camera can be fixed in both metope and ceiling. Customers can choose whichever way according to their specific needs. Please follow the steps below:(Take fixing in ceiling as an example, fixing in metope follows the same rule).Choose the fixing method and fix the camera bracket accordingly. If it is metope, then you need to fix the expand bolt (note: the mounting hole of the expand bolt should align with the bracket) before fixing the bracket. If the wall surface is wooden, the first step can be ignored and you can use the self-tapping screw to directly fix the bracket. Please note that the metope on which the camera is fixed should be able to bear at least three times the weight of the bracket and the camera.
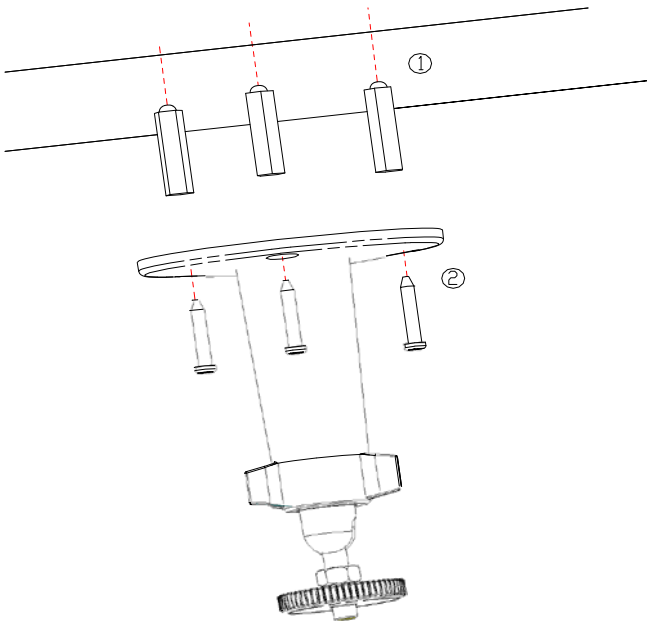
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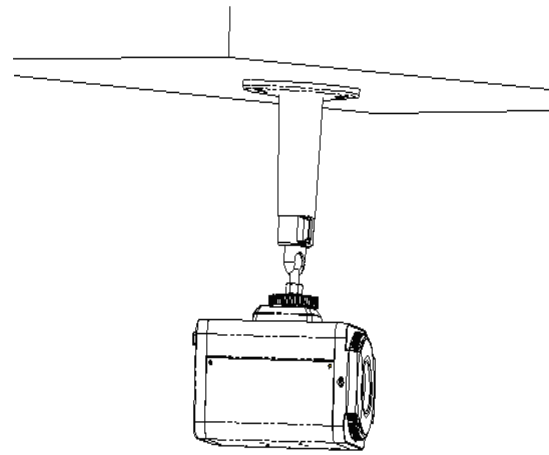
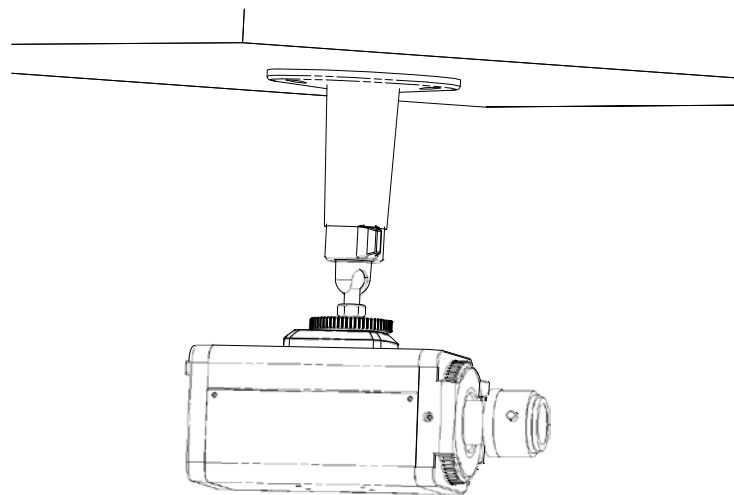Fig 2.2.1 Fix Ceiling Bracket   Fig 2.2.2 Fix Camera

Fig 2.2.3 Fix Lens

2.2.2 Dome camera Installation

Dome camera can be installed include hold equipment, ceiling mounted, cylinders and other styles. Client can be installed in accordance with their own ways to achieve the installation.Please according the following specific steps to install (take ceiling mounted as example), when the wall is wood, use the self-tapping screws to fix the ceiling plate to the wall surface.
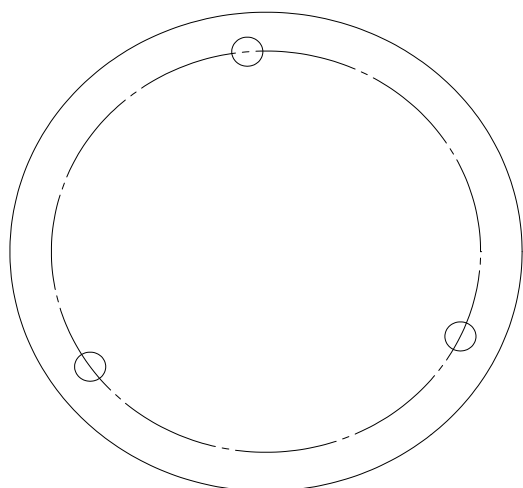
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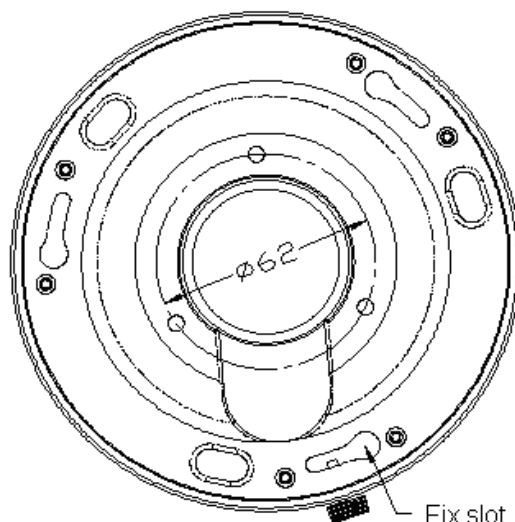

Fig 2.2.4 Fix card

Fig 2.2.5 Fix in Ceiling

Take the three columns of Dome camera insert in the three fix slot of the ceiling plate. Pay attention to the direction of insertion. Let the ceiling plate "I" logo and the Dome camera "I" logo in the same direction. Meanwhile, make the Dome camera along the counterclockwise Rotate 15 degrees until the switch to the fixed date. At the same time, the "I" signs on the Dome camera and the locking screw on the ceiling plate is alignment. Then screw down the locking screw on the Ceiling plate.
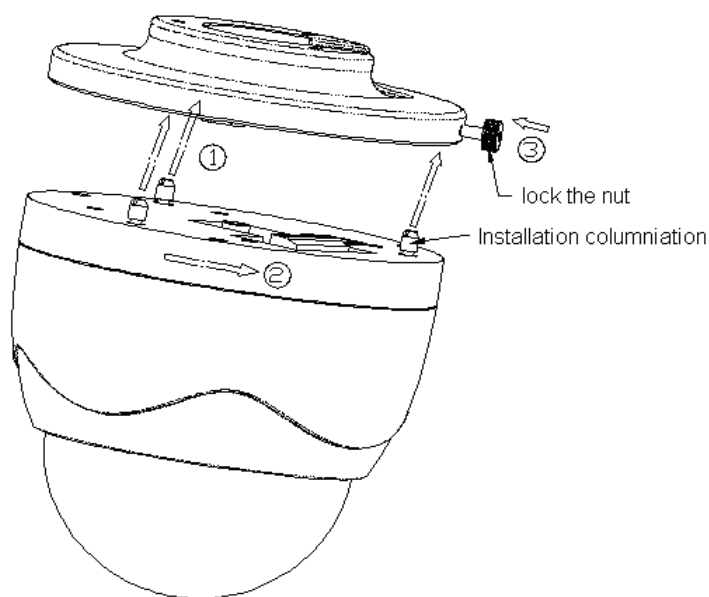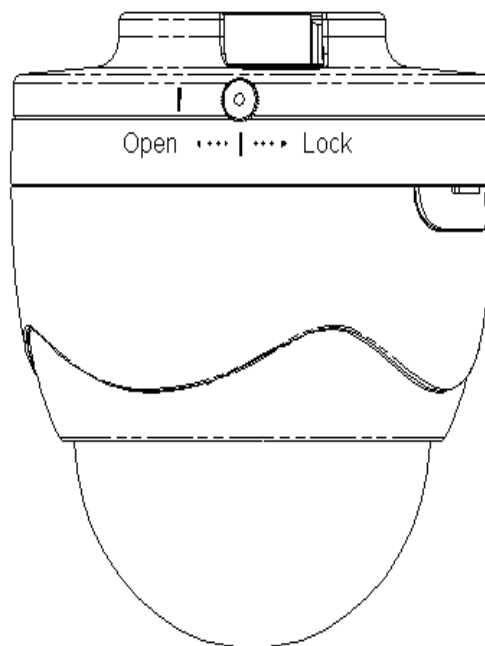

Fig 2.2.6 Dome camera fixing

Fig 2.2.7 Dome camera fixed

2.2.3 Vandal proof Dome camera Installation

The ceiling mount is a suitable installation method for this camera. Please stick to the following steps:

1. First, loosen the screw with a hexagonal Screw driver (attached with the camera), and take down the

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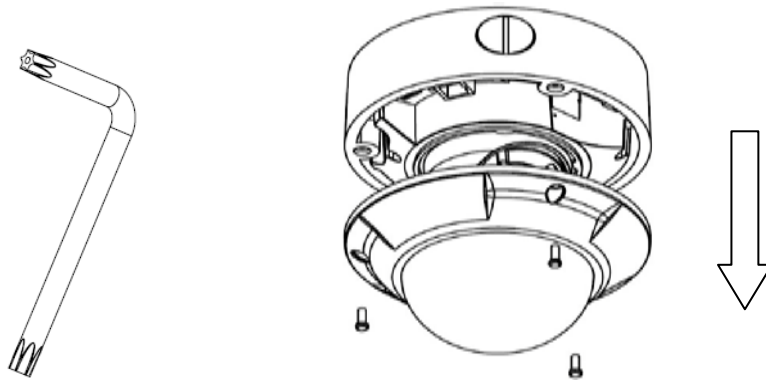
transparent cover shown as below:

Fig. 2.2.8 Unload the Cover

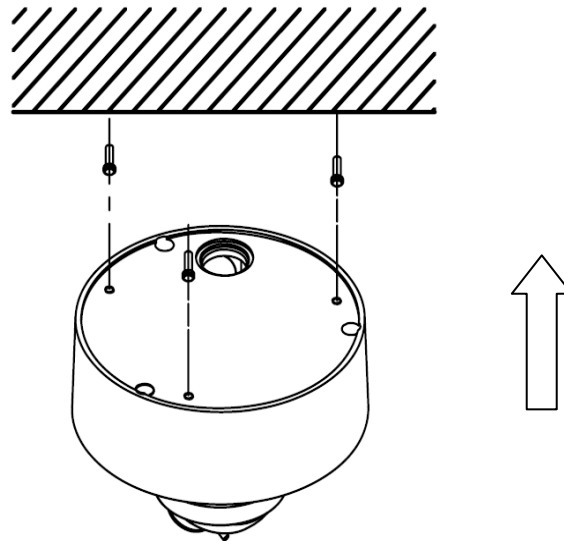2. Use the screws to fix the dome camera on the ceiling.

Fig. 2.2.9 Install the Camera

3. Adjust the camera's view angle while watching the video on the adjustment monitor.
   Loosen the fixed screws, and adjust horizontally and vertically the camera pan and tilt. Adjust the lens focus to get optimal video effect.
4. Tighten the screw after adjusting camera's view angle, and cover the transparent casing.
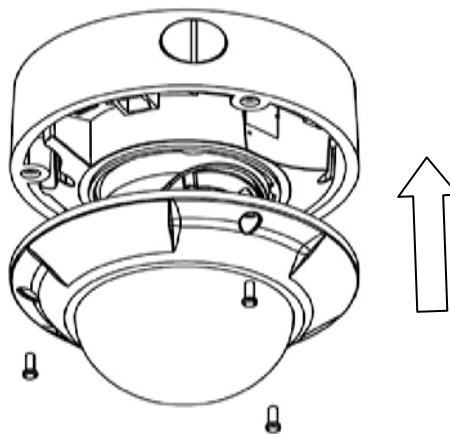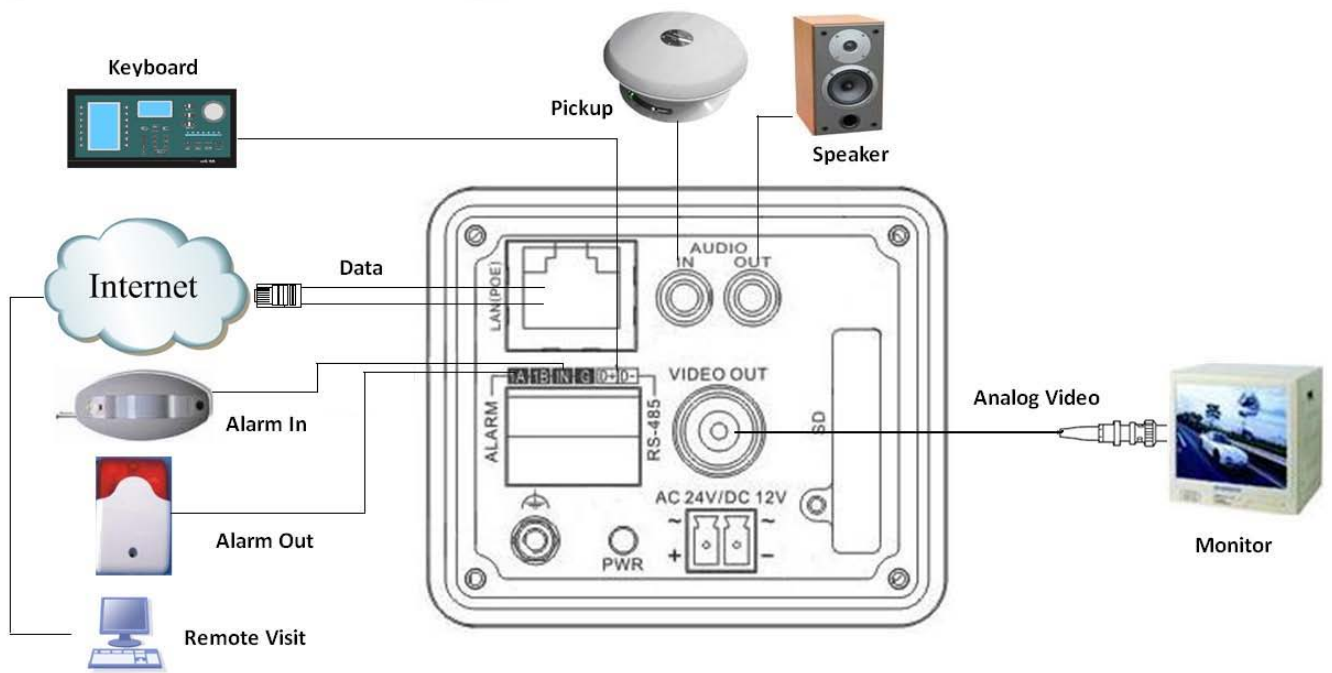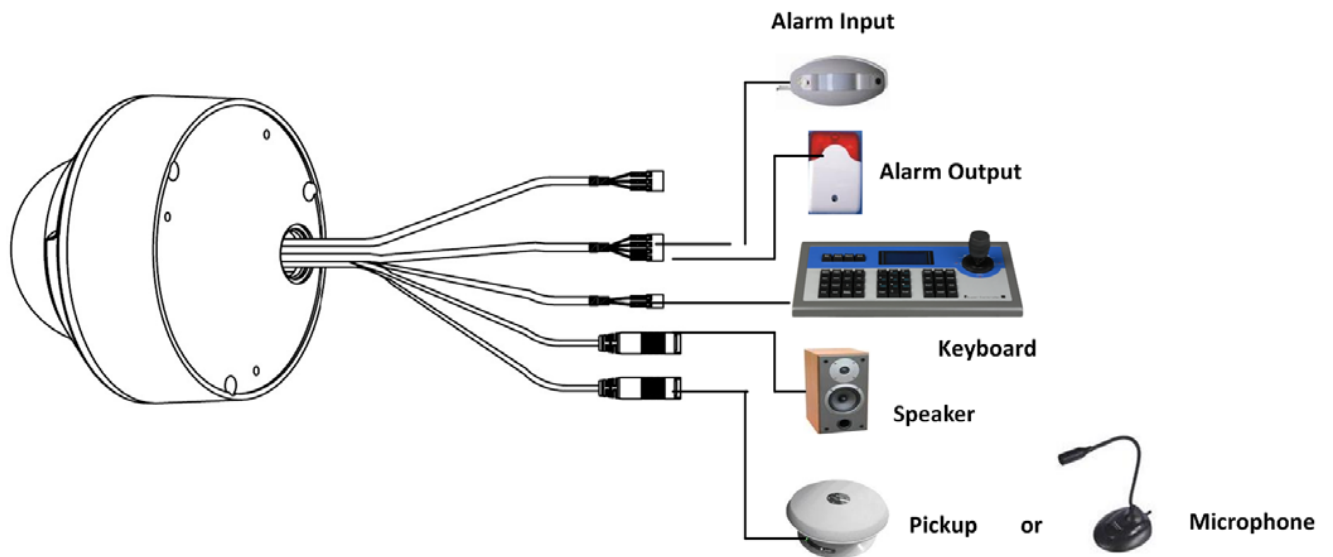
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Fig. 2.2.10 Install the Cover

2.2.4 Topological graph of network camera

Megapixels Network Box Camera Application:

Megapixels Network Dome Camera Application:
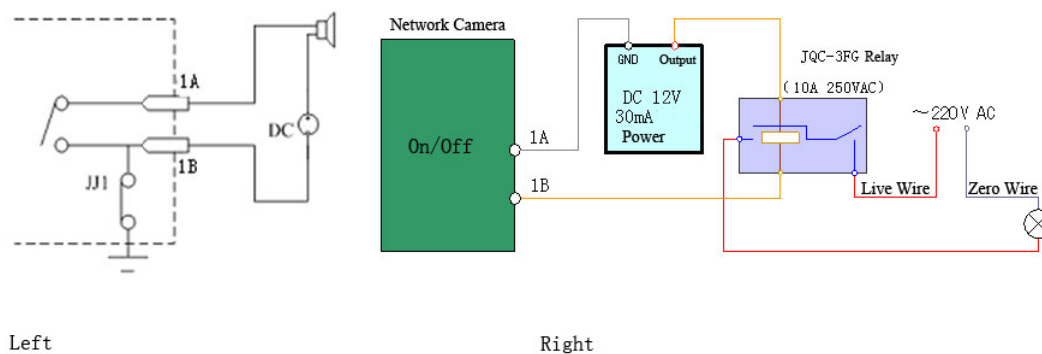
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Notice:

Fig 2.1.12 Alarm output

The alarm output is an on/off output that requires external power supply on connection. The external power supply shall be 12V DC/30mA, or use AC with external relays. Equipment damage or electric shock may cause if without relays.

2.3 Client Software Installation

Note:

It is recommended that user's computer adopted INTEL P3, P4, C4, Core4 CPU, and well-known brands (Asus, Gigabyte, MSI, ECS, and INTEL etc.)Intel chipset motherboard, to ensure the stability of the system. Tested the following models of the current graphics cards support the software installed,ATIRadeonX1650,X1600,X1550,X1300,X800,X600,X550,HD2400,HD2600,NVIDIA   GeForce 8600GT,8500GT,8400GS,7600,7300LE,6600LE,6200LE,INTEL915/945G, pay attention to graphics driver must support hardware scaling function.

Step1: Double click 'Client software 4000 (v2.0)' in the Windows Operating System. The 'Preparing

Setup' dialog box will pop up automatically;
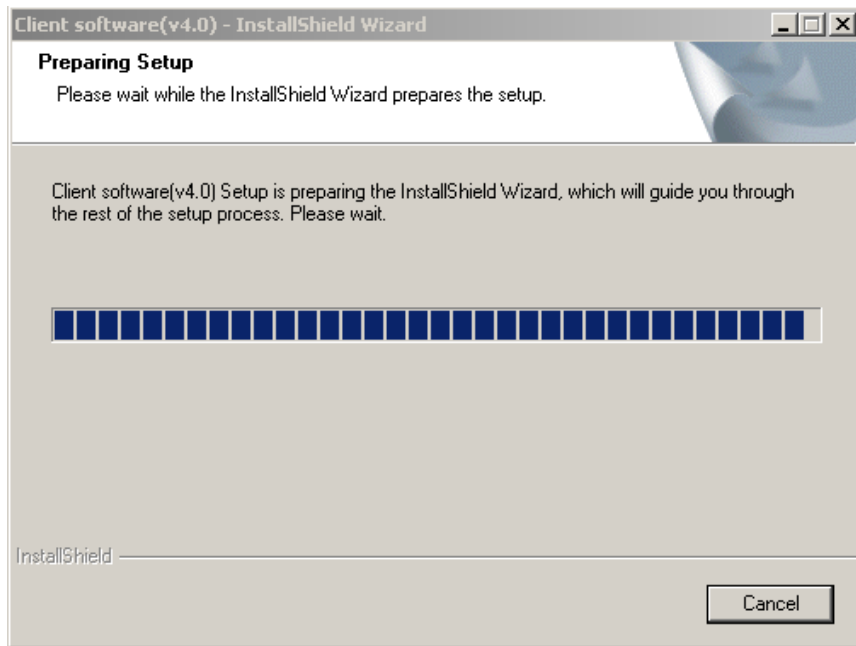
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Fig.2.3.1 Client Software Installation

Step2: Input "User Name", "Company Name";
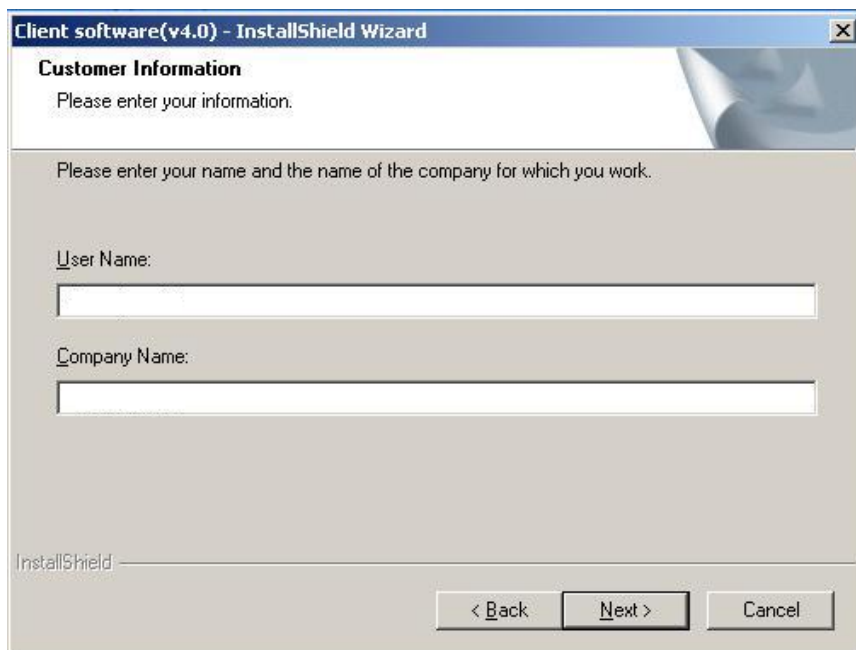
Fig.2.3.2 Customer Information

Step3: Select the destination folder and click 'Next' to go to the next step.

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Fig2.3.3 Ready to Install the Program

Step4: Click 'Install' to start installation till finish the installation;

Fig2.3.4 Installation Complete

Click the 'Finish' button to close the dialog box.

After the client software has been installed, you can find the remote client software through "Start" -> "Programs" on your PC.

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Chapter 3 Parameter Configuration

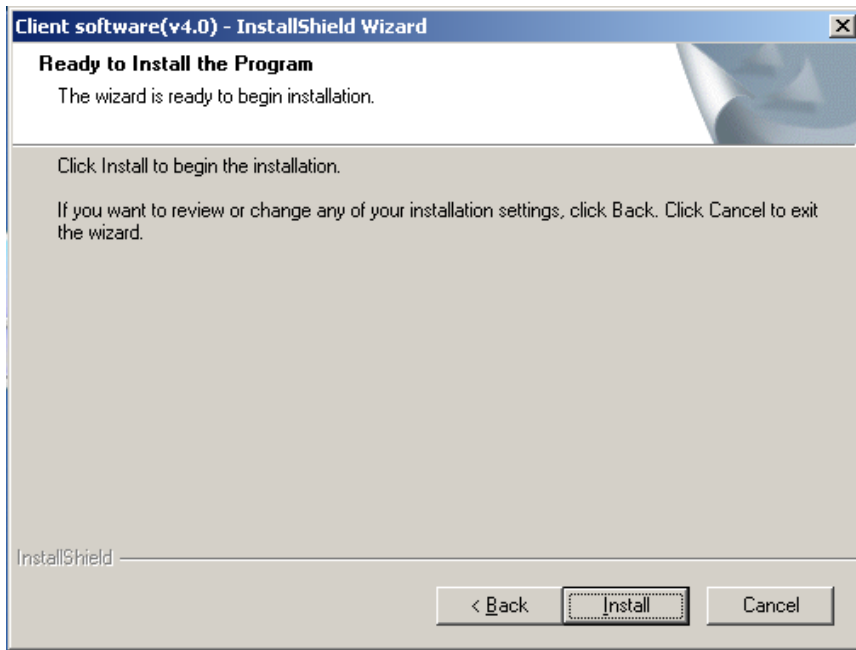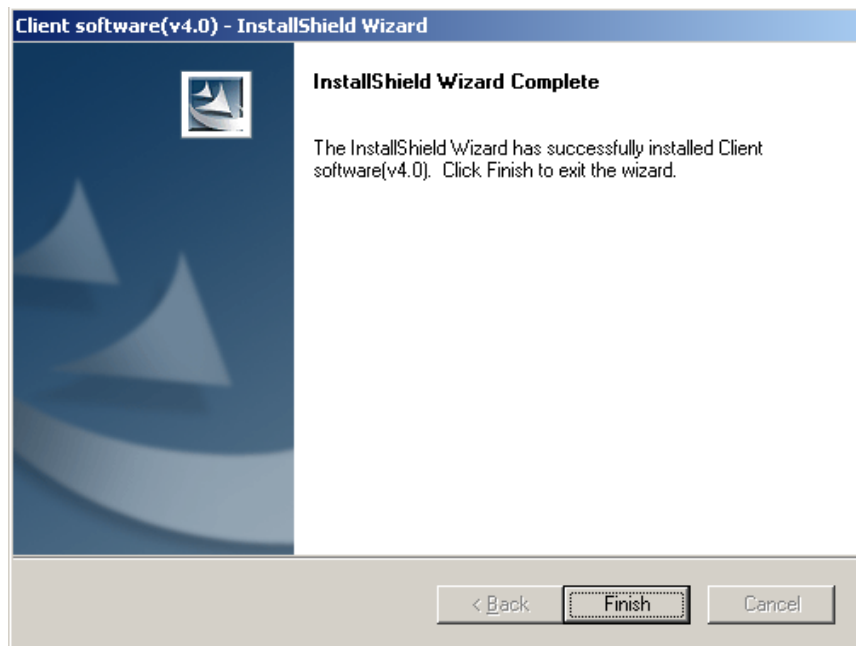There are several network parameters of the camera which need to be set after the hardware installation. Those parameters including IP address, subnet mask and port number, etc. can be set through various kinds of methods, 2 of which are introduced as below.

1.   Set the camera parameters via IE.

2.   Set the camera parameters through the client software.

Please make sure that the PC and network camera are connected and can ping successfully before the parameter setting.

3.1 Visit Network Camera in LAN

There are two ways of connecting between IPC and PC as below:
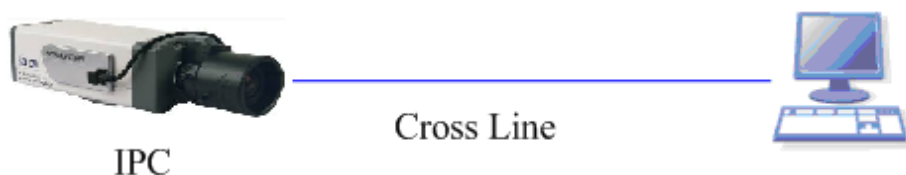

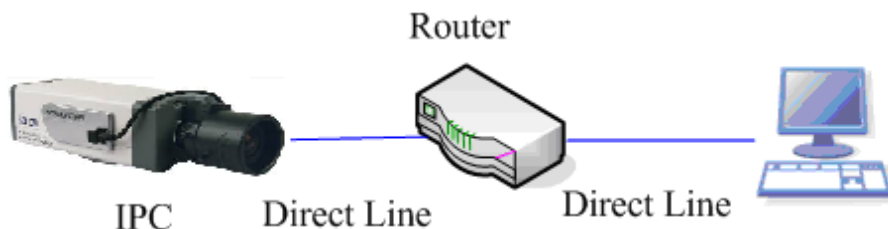Fig. 3.1.3 Cross Line Connection

Fig. 3.1.1 Direct Line Connection

Before visiting network camera, user should detect its IP address. SADP is a tool software which can automatically detect network device in the LAN and give the device's information like IP address, mask, port number, device serial number, software version and so on.

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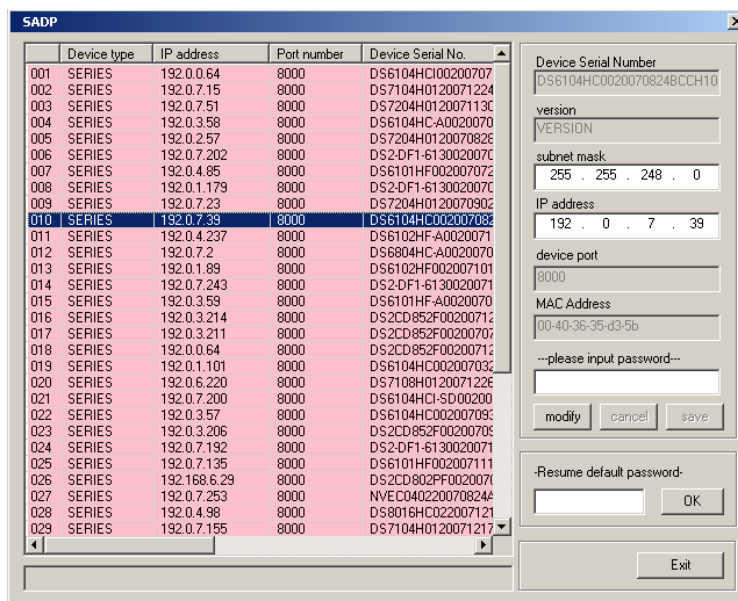
Fig. 3.1.2

Select the device, and set its IP address and mask at the same network segment with the PC.
The detailed introduction of SADP, please refer to Appendix 1.

3.2 Configuration via Web browser

Before visit the camera via web browser, user should adjust security level. Open the web browser, and enter the menu "Tool/ internet option/Security/Custom level", then set the security level to Security Level –Low, or enable ActiveX Control and the Plug-in directly. Figure 3.2.1 gives you a visual illustration. After you can see the camera video, recover the security level for security.

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Fig. 3.2.1 Set the Security Level

The default IP of the camera is 192.0.0.64 with 8000 as the default port, admin as the administrator,

and 12345 as the password. The administrator can create up to 15 separate operators with different right levels.
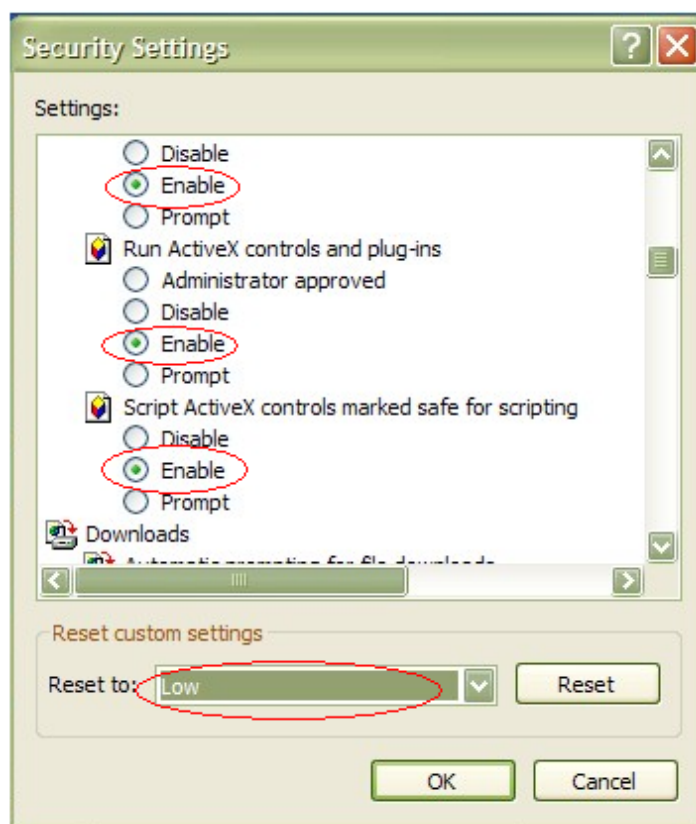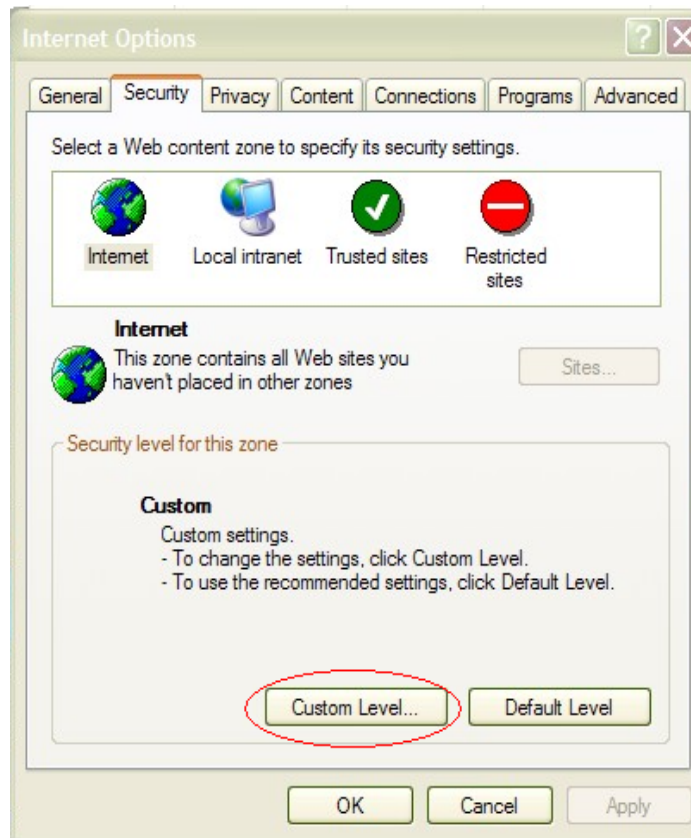
To login the camera through IE, input the IP address in the address column, and the "Login" dialog box will pop-up as Fig. 3.2.2. Input your user name and password, and then click "Login" to enter the "preview" page. Double click the "Camera 01" channel or "Preview" button to preview the video as Figure 3.2.3. Right click the "Camera 01" channel, and the "Main Stream", "Sub Stream" and "Open sound" options will popup. Select the Open sound option if you connect a pickup to the camera.
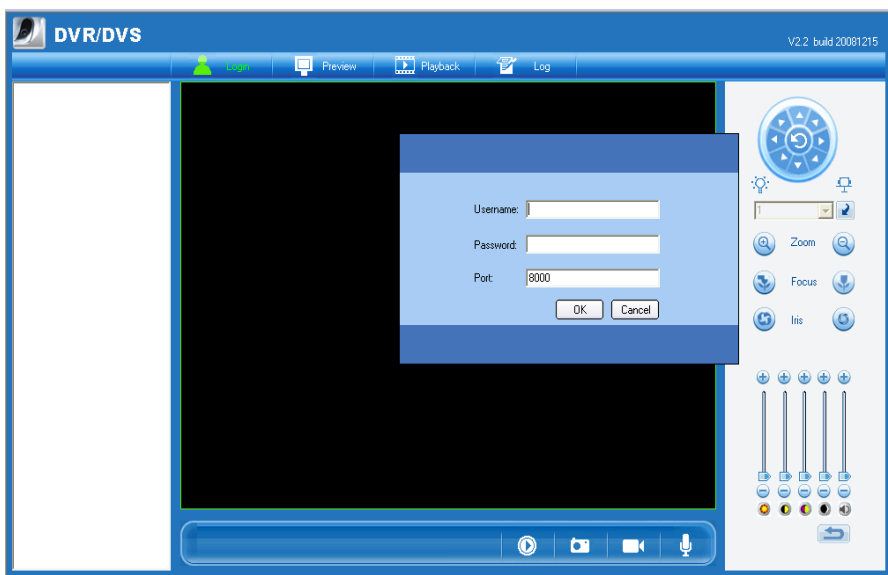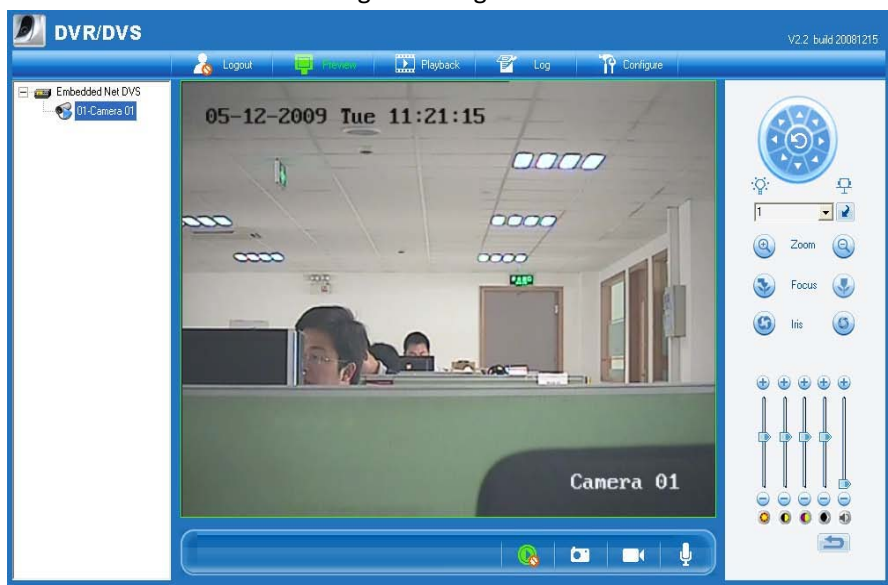

Fig. 3.2.2 Login Interface

Fig 3.2.3 Preview Interface

The "Playback" and "Log" functions can be used only in the condition of existing SD card. To set the camera parameters through IE browser, click "Config" and wait for the "Remote Parameters Config"

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dialog box to pop up, and then set the parameters like IP address, etc. for your demand as Fig. 3.2.4. Enter the menu by invoking the 95th preset. Select the function you want by clicking the direction key. Click the IRIS+ button you can enter the submenu. The menu operation is like the remote control.

Note: If plug the SD card into the camera, user should enter the "config" and select "other function" to format the SD card.

For more specific information of "Remote Parameters Config", please refer to "Instructions of Client Software (version 4.01)" from Section 2.5.3 of remote-distance parameter settings. Instructions can be found in the client software4.01 in the path of "Start" → "Program"→ "client software 4.01" after installation.
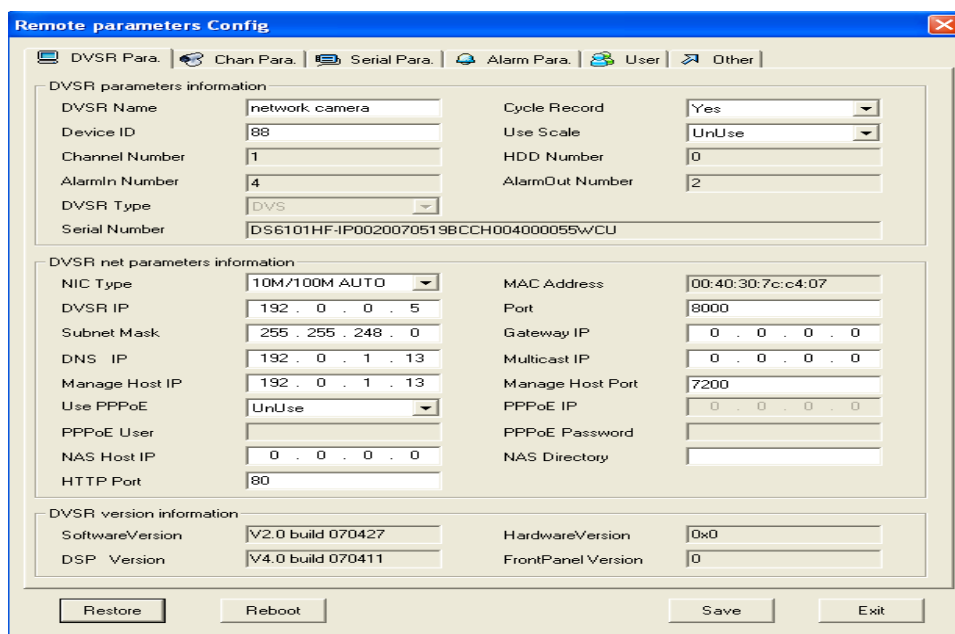
Fig. 3.2.4 Remote Parameters Configuration

3.3 Configuration via Client Software

After the installation of client software-4000(v2.0), there is a short-cut icon named "Client Software-4000(v2.0)" on computer's desktop. Please double click client software icon, a message box of "Register Administrator" as Fig. 3-4-1 will appear the first time running. Password should be more than 6 digits for registration.

Note: Please keep the user name and password in mind .You will not be able to get access the software without the proper login information.

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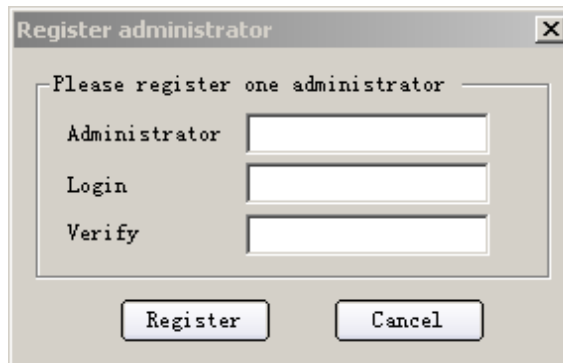
Fig.3.4.1 Register Administrator

Enter the registered user name and password as Fig. 3.3.2. Click "Login" to enter the "Preview" menu as Fig. 3.3.3.
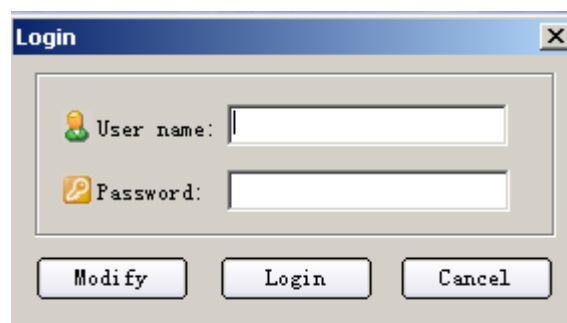
Fig. 3.4.2 User Login
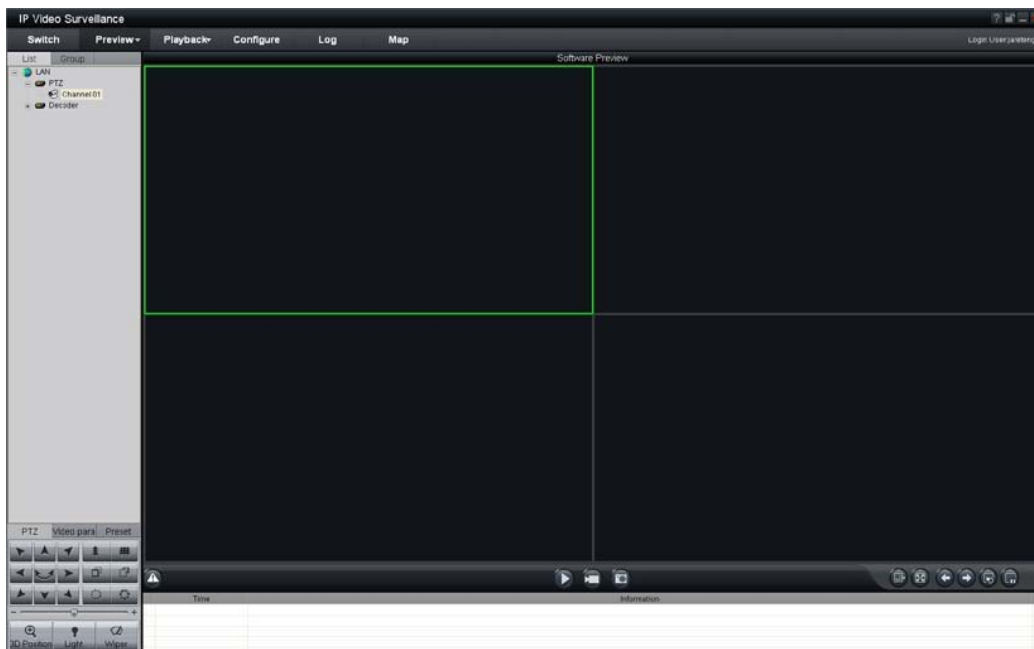
Fig. 3.4.3 Preview Menu

Click the "Configure" button in Fig. 3.3.4, and then right click the blank white space. Click the "Add Area" button, and the "Add Area" message will pop up.
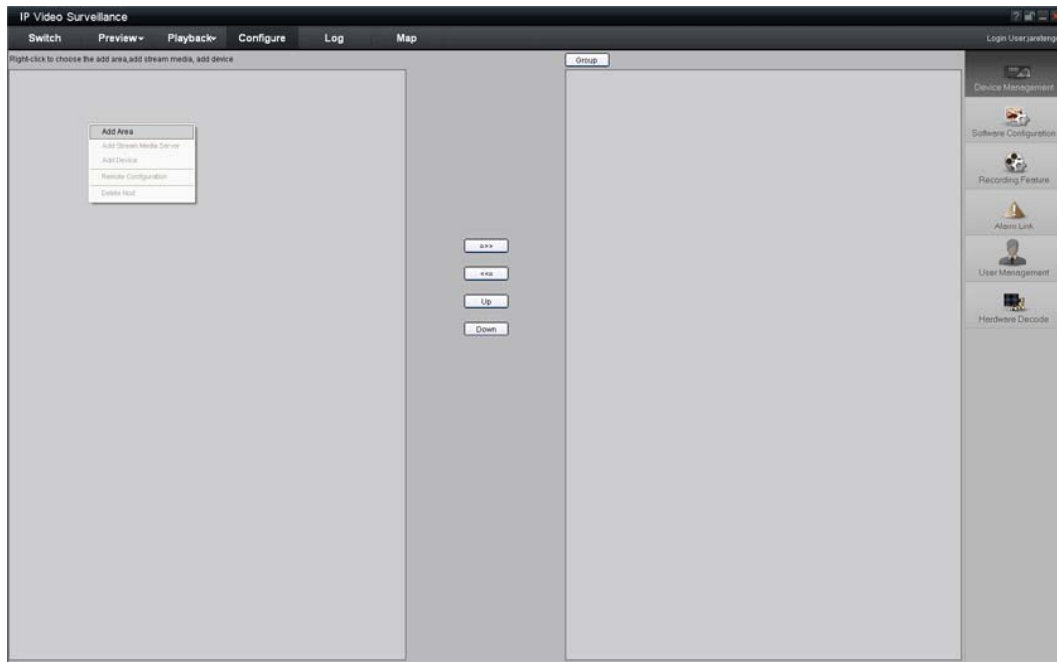
Fig. 3.4.4 Add Area
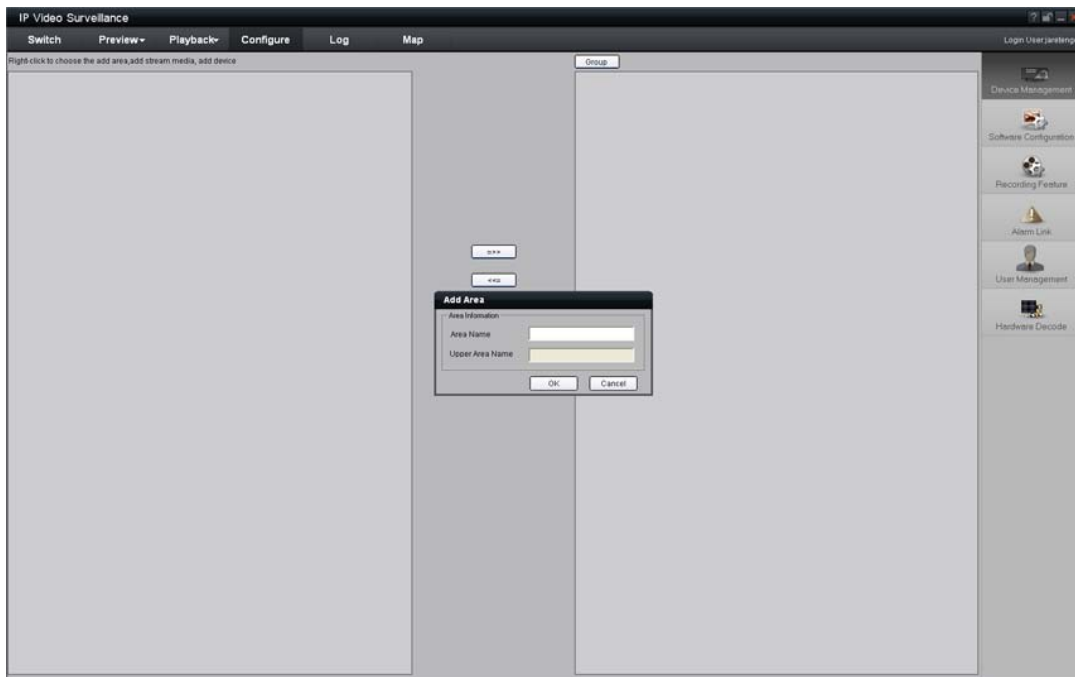
Fig. 3.4.5 Add Area Properties

Input the area name (you can create whatever name you like) and click "OK" as Fig. 3.3.6. Then right click the area you have just created as Fig. 3.3.7.

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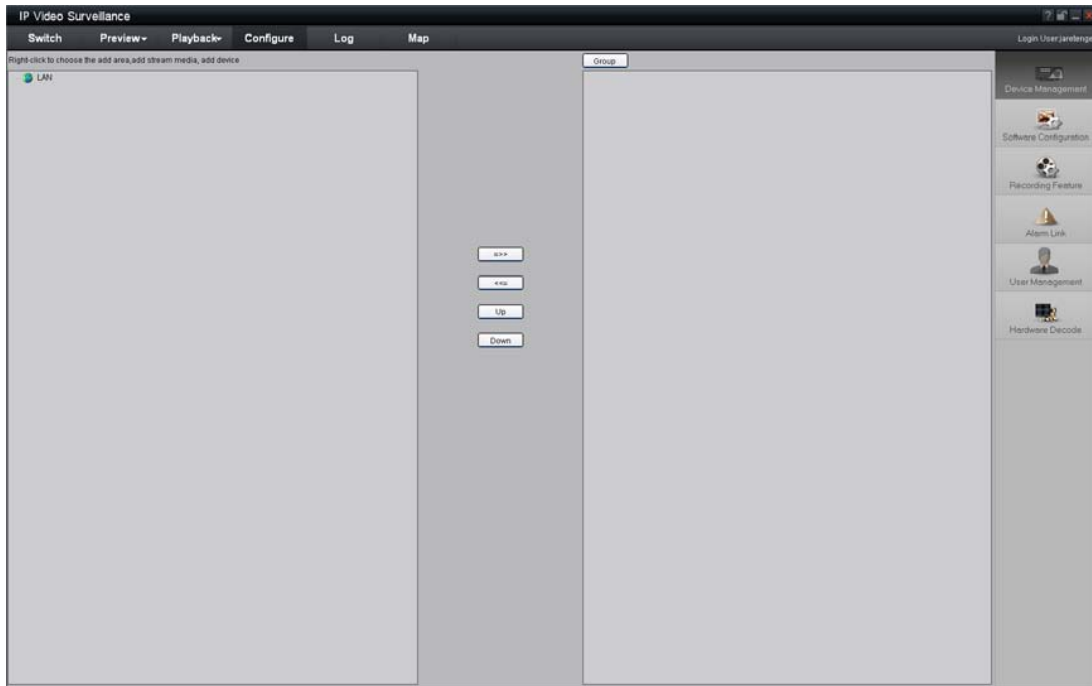
Fig. 3.4.6 Area Name Adding Completed
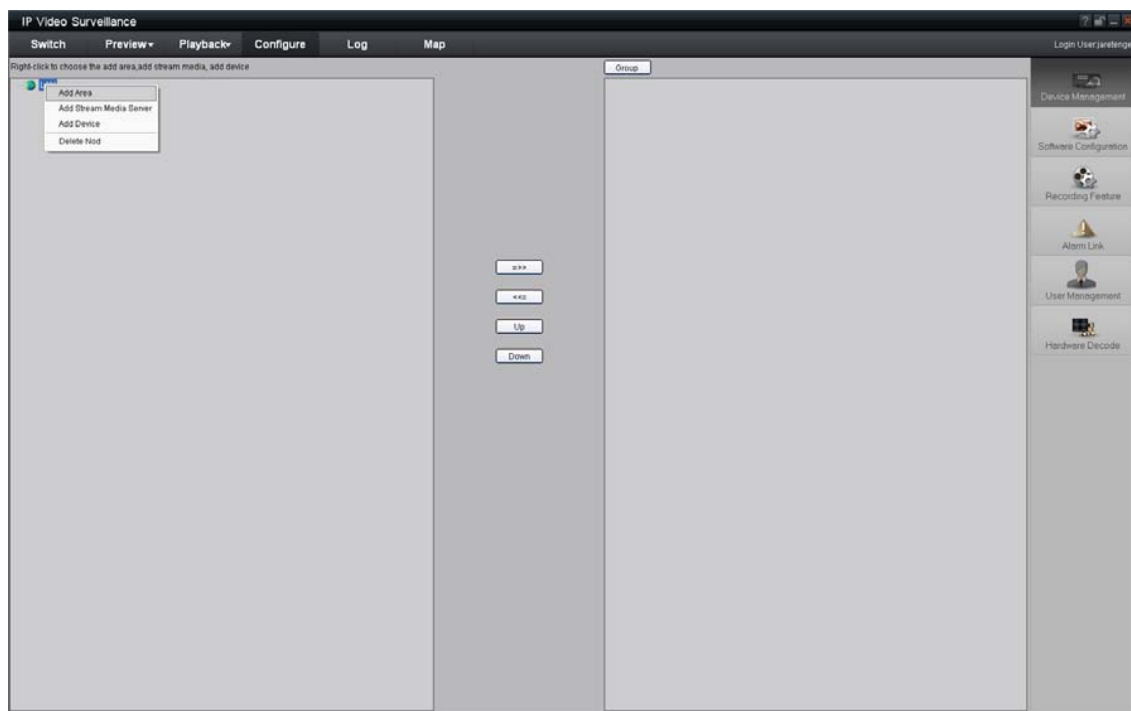
Fig. 3.4.7 Right Click the Area Name

Click "Add Device", and the "Add Device" dialog box will pop up as Fig. 3.3.8. Input your "Device Name". Select "Normal" from "Register" option. Input your camera IP in "Device IP", e.g. 192.0.0.64; "User Name": admin, "Password": 12345, and 8000 for the default "Port", and then modify "Channel" to 1. Click the "OK" button as Fig. 3.3.8.
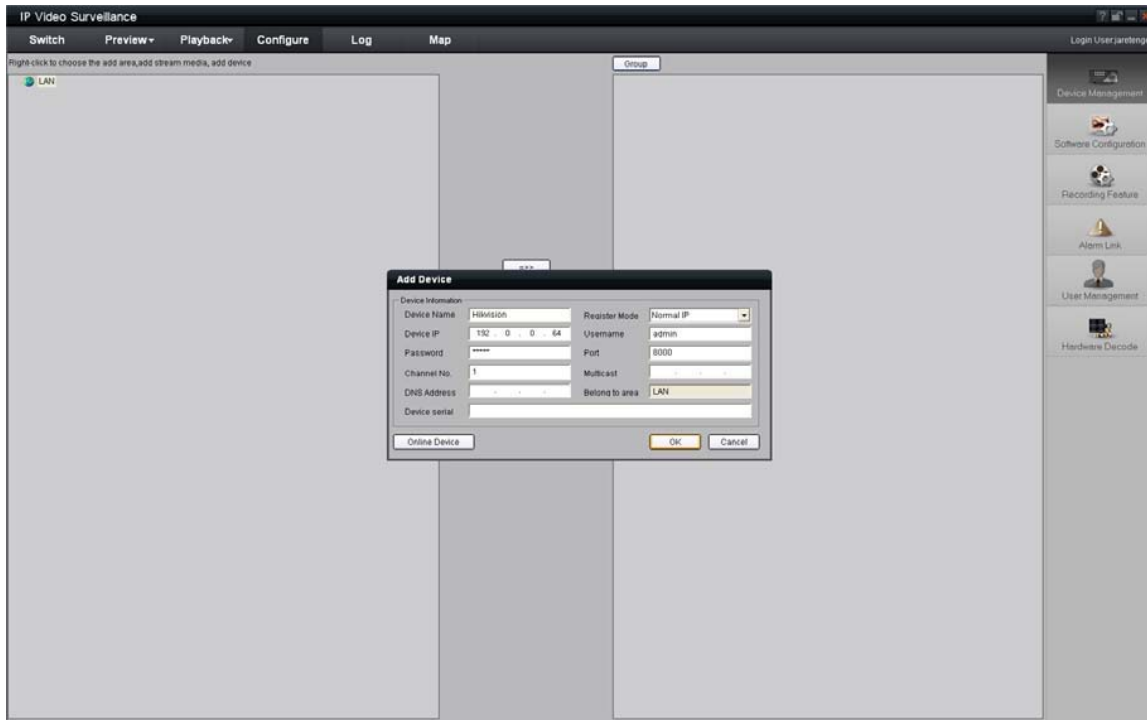
Fig. 3.4.8 Add Device
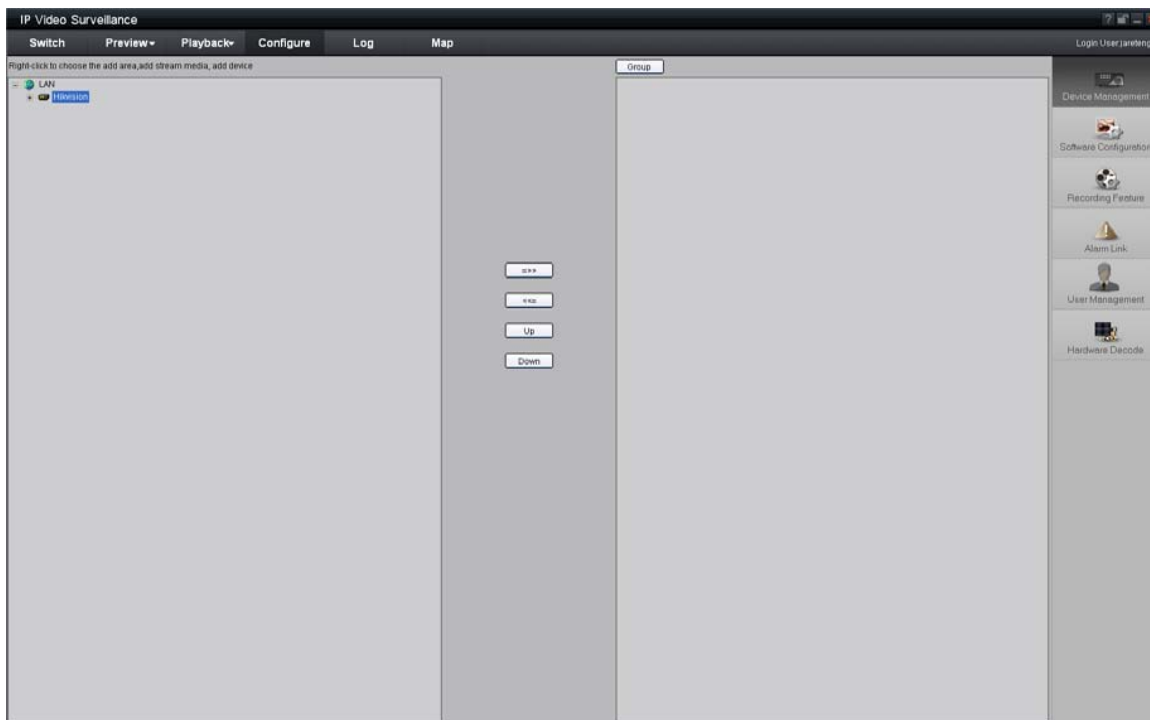
Fig.3.4.9 Camera Adding Completed

Click the "Preview" button to enter the "Preview" menu as Fig. 3-3-10. Double click the channel name in the left tree to preview the camera feed.

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Double click the channel
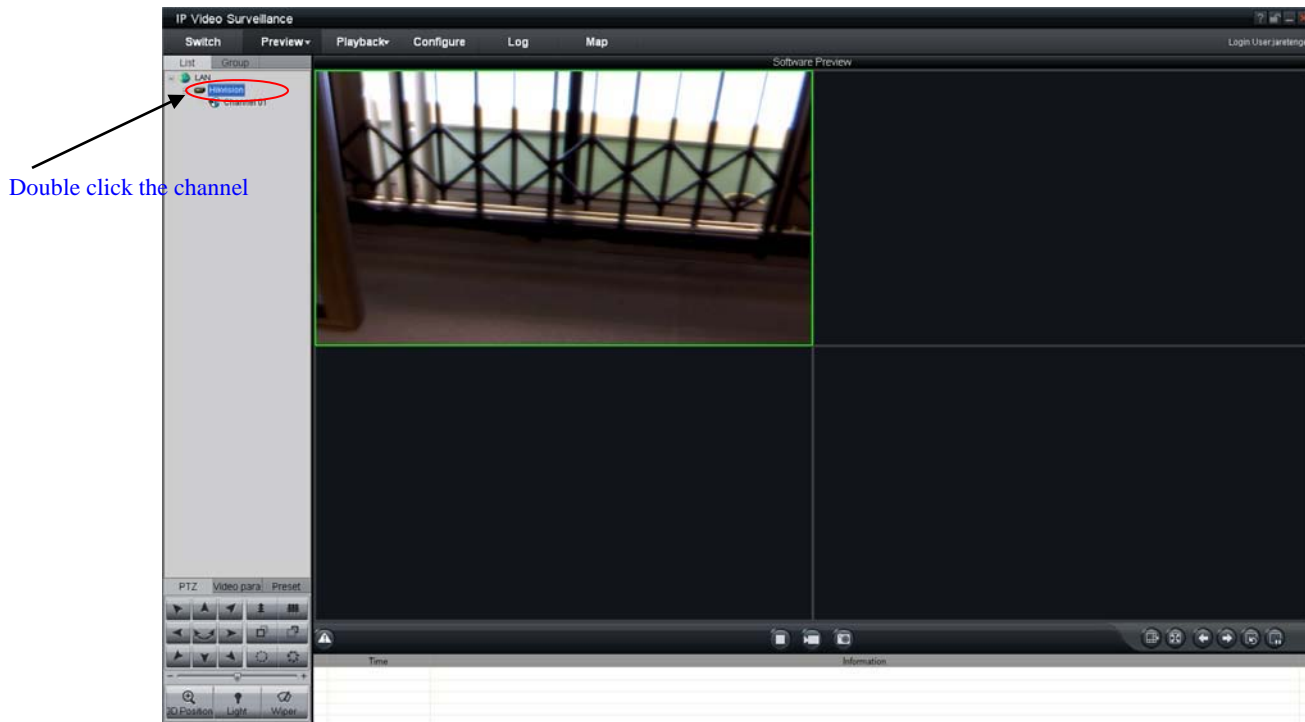
Fig.3.4.10 Preview Menu

Please refer to "Client Software-4000(v2.0)_ENG.pdf" for a more detailed parameters configuration.

You can find the document in the PC Operating System after the installation of client software 4000

v. 2.0 by selecting "Start"-> "All Programs"-> "client software 4000 v. 2.0".
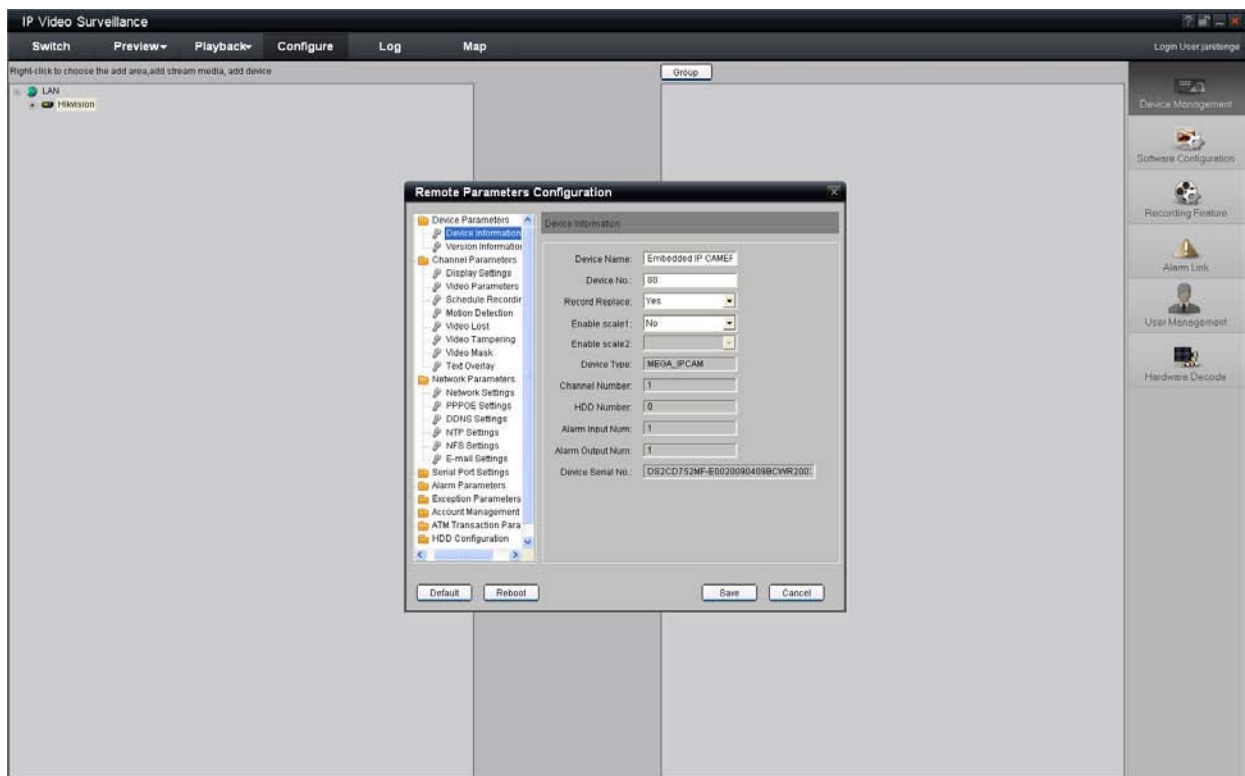
Fig.3.4.11 Remote Configuration

3.4 Visit Network Camera in Internet

3.4.1 Visit network camera with static IP

When there is a static IP from an ISP, open some ports (such as 80 and 8000 ports) in the router. Then a user can visit it through a web browser or client software via the internet. The steps for port forwarding are different for each model of router. Please call the router manufacturer for assistance with port forwarding or visit www.portforward.com.

Note: Refer to Appendix 2 to for a detailed explanation about Port Map.

Users can directly connect the network camera to the internet without using a router.
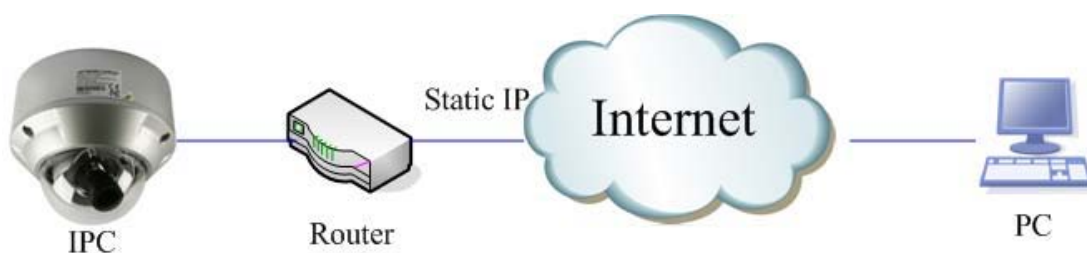
Fig.3.5.1 Static IP through Router access IPC

Fig.3.5.2 Static IP access IPC directly

For the client software to view the camera, in the adding equipment column, select the normal model, and fill in the IP info.

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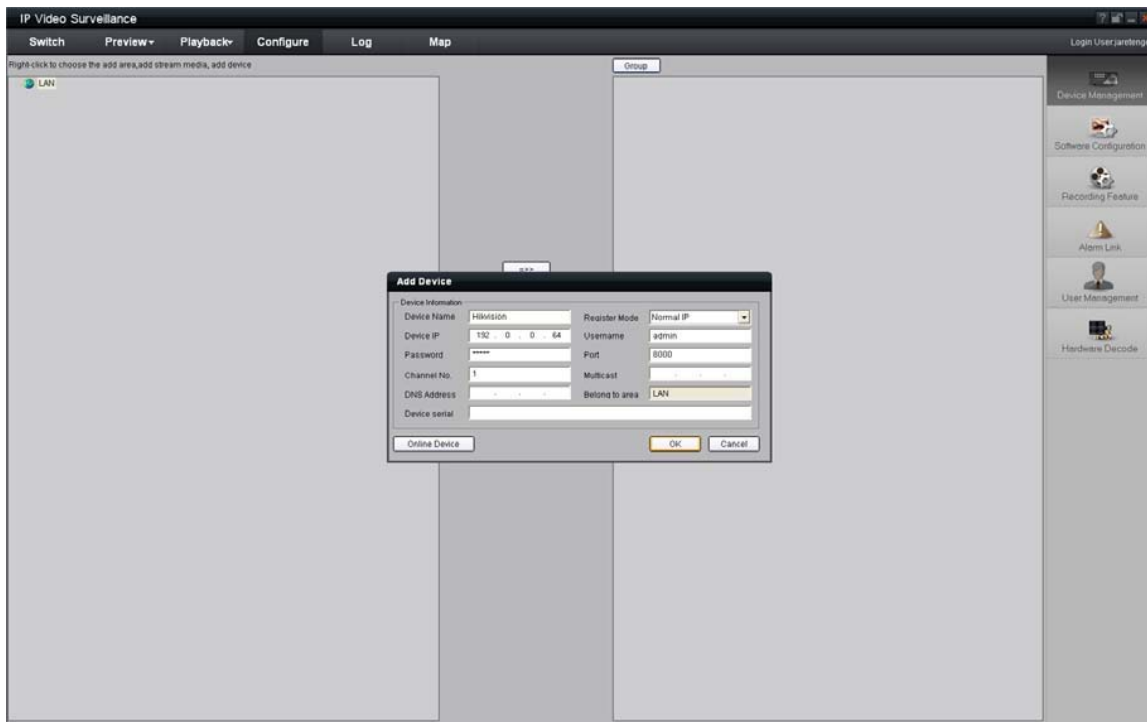
Fig.3.5.3 Selecting Normal Mode

3.4.2 Visit network camera with dynamic IP

Fig.3.5.4 Visit camera through PPPoE dail-up

This camera supports the PPPoE auto dial-up function, connecting the camera to a Modem for dial-up access to an ADSL network to get a public IP address; First, through local network access to the network camera, select "Configure"→"Right Click the Device", Select "Remote Configuration", Select "PPPoE Settings" under "Network Paramters" fill in the PPPoE user name and password and confirm the password. Please restart the network camera after completion of configuration. Then the network camera can obtain a dynamic IP from an ISP operation business. However, the obtained IP address is dynamically assigned via PPPoE, so the IP address always changes accompanied with modem rebooting.
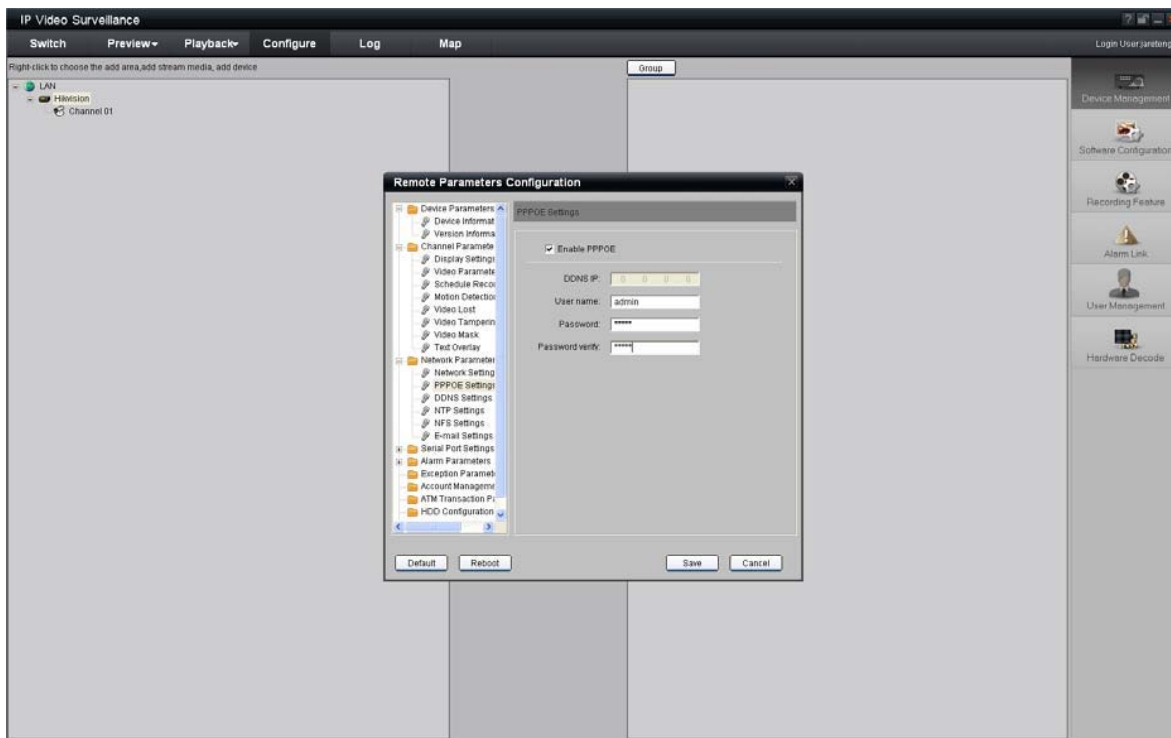
Fig.3.5.5 PPPoE configuration dialog box

It is inconvenient to view a network camera with a dynamic IP, therefore, users should register with a dynamic DNS service provider. (Such as DynDns.com)

Domain name resolution contains normal domain name resolution and private domain name resolution. First, we will introduce normal domain name resolution.

1. **Normal Domain Name Resolution**
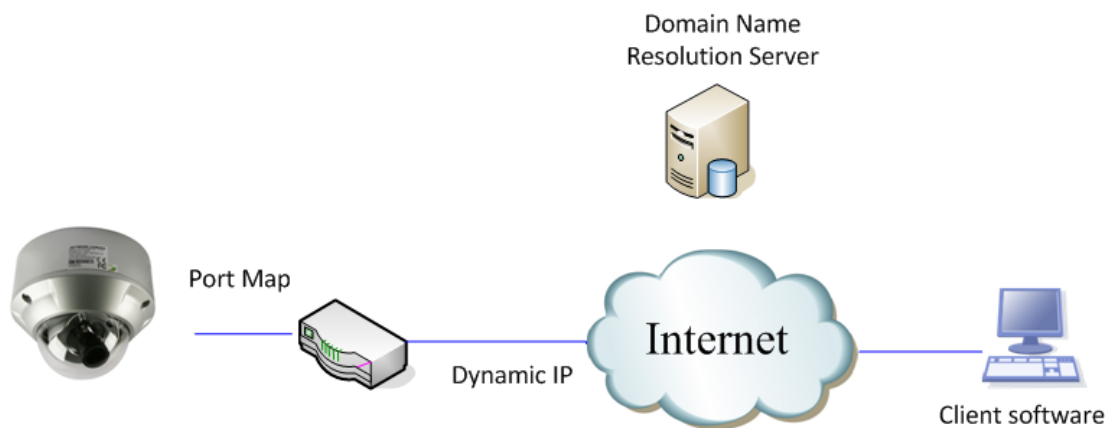
Fig.3.5.6 Normal Domain Name Resolution

Apply a domain name from a domain name provider, then view the camera via the applied domain name. If the camera connects to the internet via a router, users should port forward the router. Please refer to Appendix 2.

Input domain names in the client software or IE to view the network cameras. Take the client software configuration as an example.
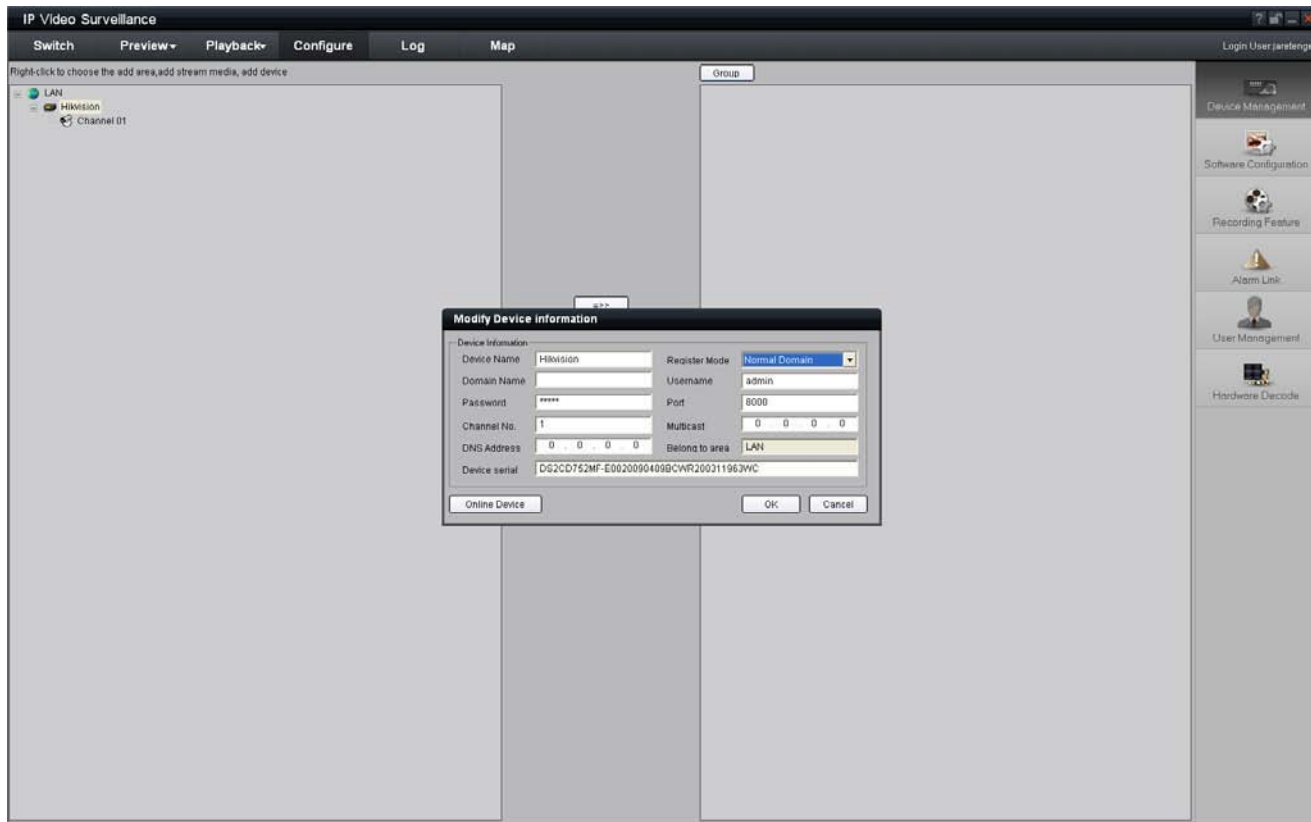
Fig.3.5.7 Selecting Normal Domain Mode

2. **Private Domain Name Resolution**
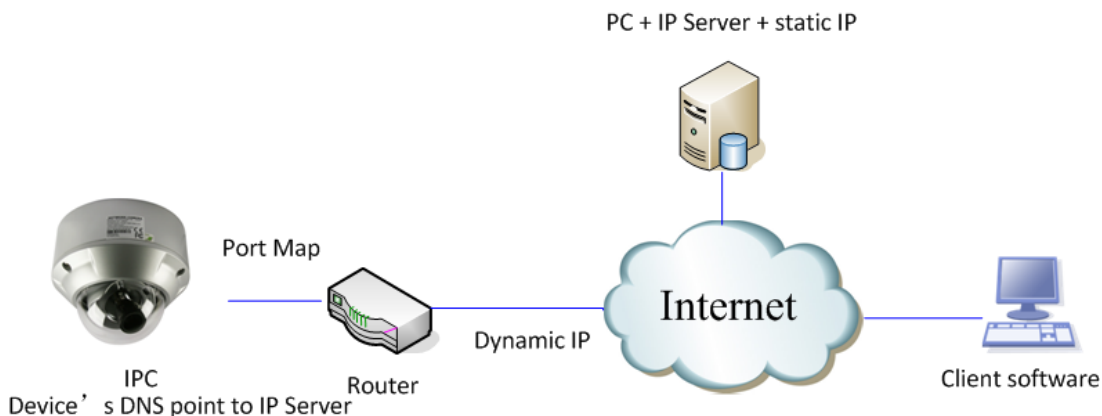
Fig.3.5.8 Private Domain Name Resolution

A PC with a static IP which is running the domain name resolution service is necessary.

When the network camera connects to the internet through PPPoE and obtains an IP address, it will send its name and IP address to the resolution server. When the client software connects to the network camera, it will connect to the resolution server and tell the resolution server the expected

User Manual of Network Camera

camera's name. And the server will find the camera from all the registered cameras and send its IP address to the client software. Once the client software gets the IP address, it can connect the network camera.

Fig.3.5.9 Selecting Private Domain Mode

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Chapter 4 Menu Introduction

Note: In this chapter, we XL-ICA-107M1C as 1.3 megapixels CCD network camera.

4.1 Main Menu

Call preset 95 and the menu will appear on the screen."IRIS +" means "enter", while "IRIS -" means "cancel". Press up / down to move the cursor, and press left / right to select the item.

Note: Take 2.0 megapixels CMOS network camera for example.

Fig.4.1.1 Call 95th Preset

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The main menu displays as below:
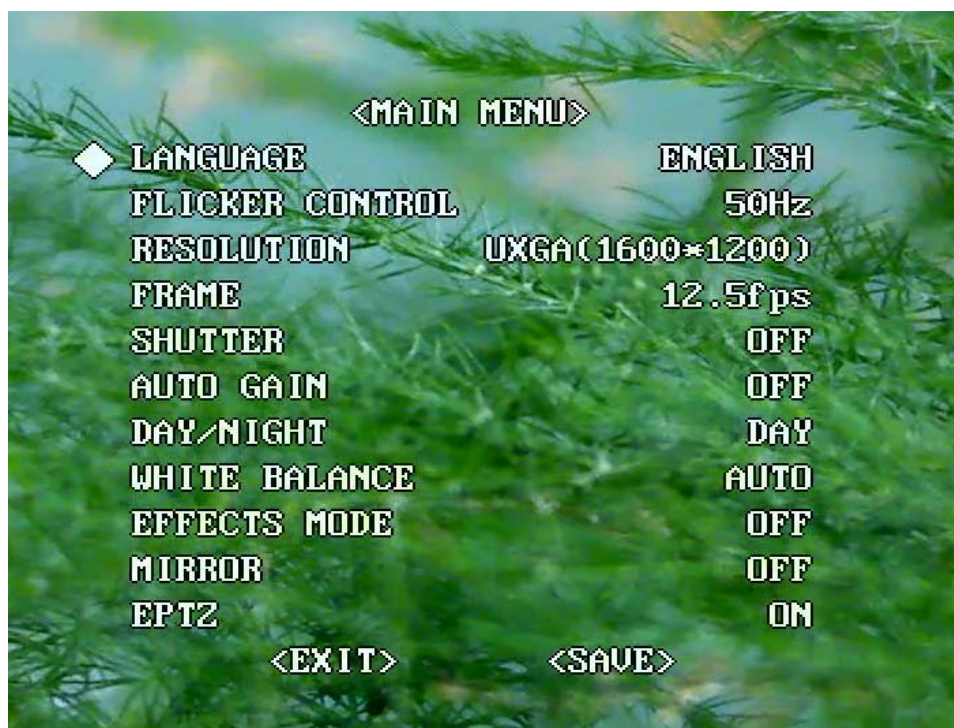
Fig.4.1.2 Main Menu

4.2 Menu Introduction of 2.0 Megapixels CMOS Network Camera

4.2.1 Language settings

Press left / right to select language between Chinese and English;

4.2.2 Flicker Control

Press left / right to select frequency between 50HZ and 60HZ in the FLICKER CONTROL item;

4.2.3 Resolution settings

RESOLUTION can't be changed by pressing left / right button; User can select resolution through "configuration"→"remote configuration"→ "channel configuration "→"Resolution";

4.2.4 Frame settings

FRAME can't be changed by pressing left / right button; User can select resolution through "configuration"→"remote configuration"→ "channel configuration "→"Frame rate";

The relationship between frame and resolution is as below table:

Model	Resolution	Max. Frame Rate	Max bitrate（recommended）
		NTSC	
2 Megapixels CMOS Camera	UXGA	10	4M
	HD720p	15	3M
	SVGA	30	2.5M
	4CIF	30	1.5~2M
	VGA	30	1.5M
	Dcif	30	1.5M
	2cif	30	1.5M
	Cif	30	384K~768K
	Qcif	30	384K~512K

4.2.5 Shutter settings

SHUTTER can be adjusted by pressing left / right. And there are three options in this item: OFF, auto × 2 and auto × 5;

"OFF" means the regulation of the shutter exposure time is default;

"Auto × 2" means the regulation of shutter the exposure time is considerably wider;

"Auto × 5" means the regulation of the shutter exposure time is at its maximum.

The corresponding frame and resolution at different SHUTTER modes is as below:

	60Hz		
Resolution	OFF	Auto × 2	Auto × 5
QCIF CIF 2CIF DCIF 4CIF VGA SVGA	30fps	15fps	5fps

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HD720p	15fps	15fps	5fps
UXGA	10fps	10fps	5fps

4.2.6 Auto Gain settings

Press left / right to adjust AUTO GAIN level among OFF, low, middle and high;

4.2.7 DAY / NIGHT Settings

Press left / right to select DAY / NIGHT mode among DAY, NIGHT and AUTO;

Fig.4.2.1 DAY Mode

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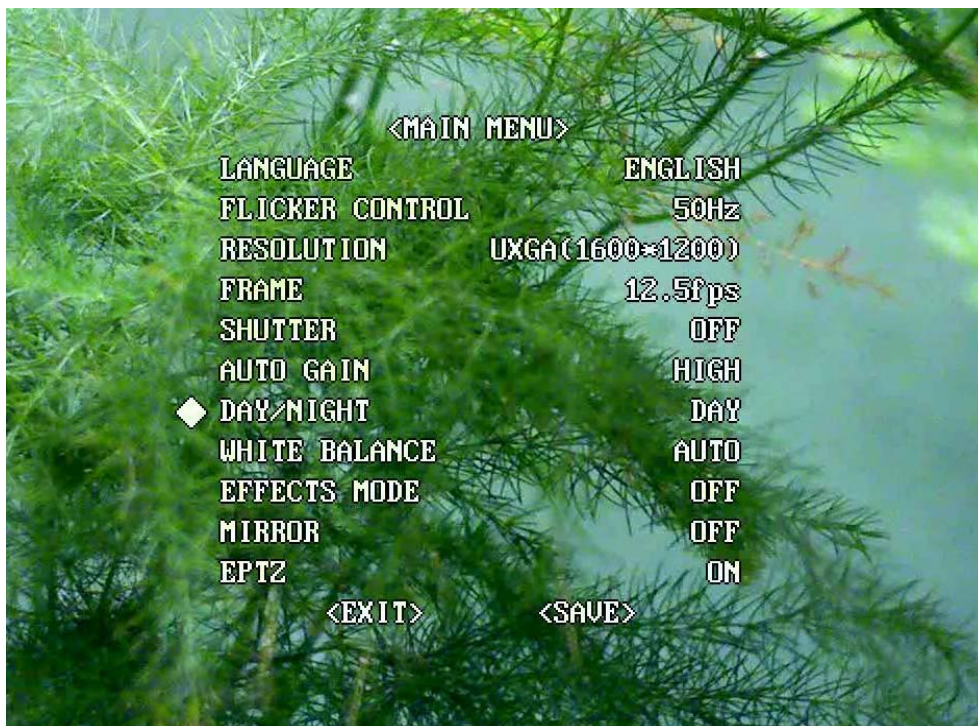
Fig.4.2.2 NIGHT Mode

4.2.8 White Balance Settings
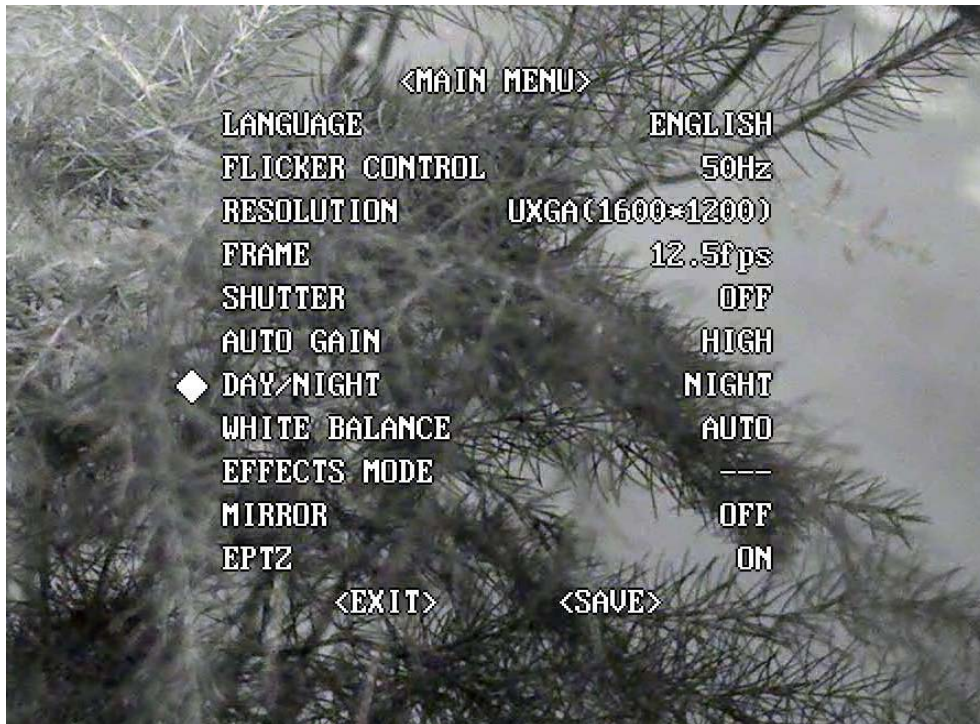
Press left / right to set WHITE BALANCE AUTO or OFF;

4.2.9 Effect Mode settings

Press left / right to select EFFECTS MODE among OFF, SPEIA, NEGTIVE, SOLARIZE1 and SLOARIZE2;

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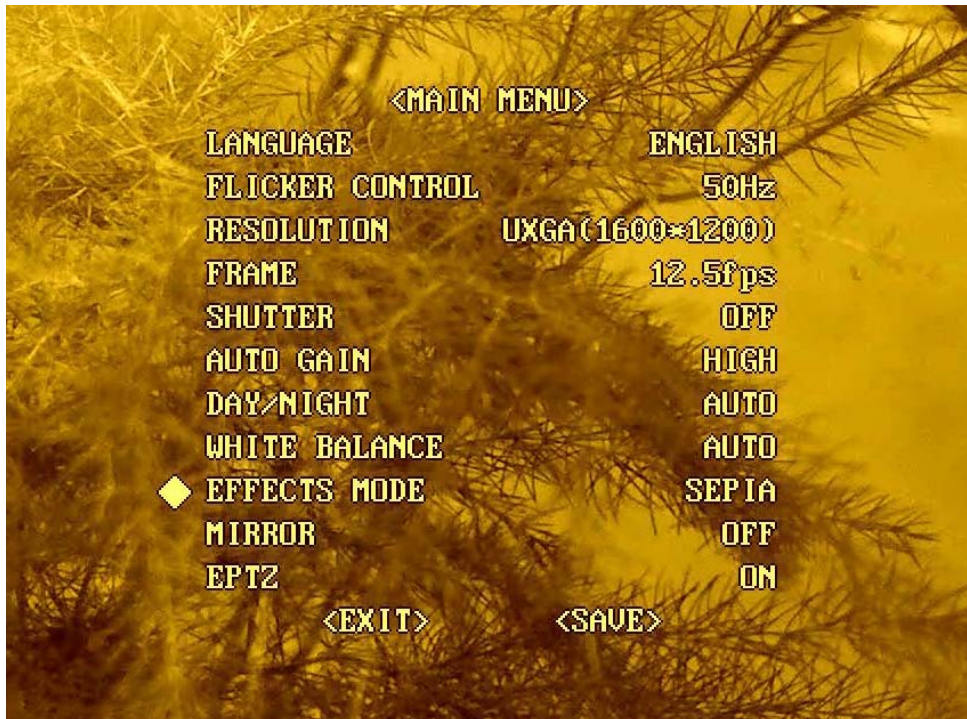
Fig.4.2.3 SEPIA Mode
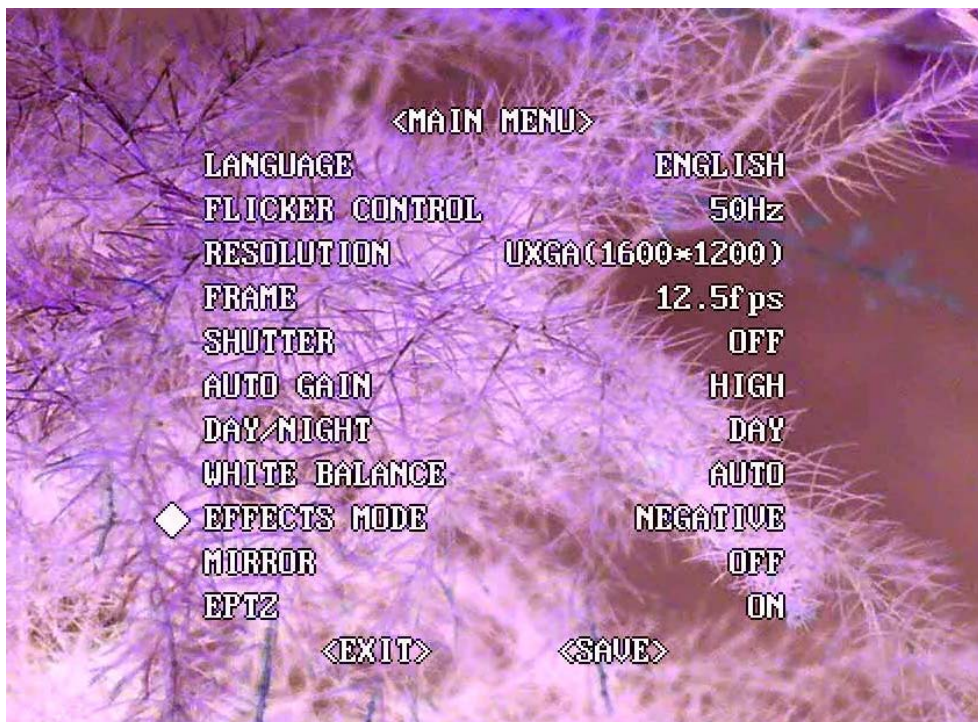
Fig.4.1.1 NEGATIVE Mode

4.2.10 Mirror mode settings

Press left / right to select MIRROR mode among OFF, LEFT RIGHT, UP BOTTOM, and CENTER;

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Off

Left Right

Up Down

Center
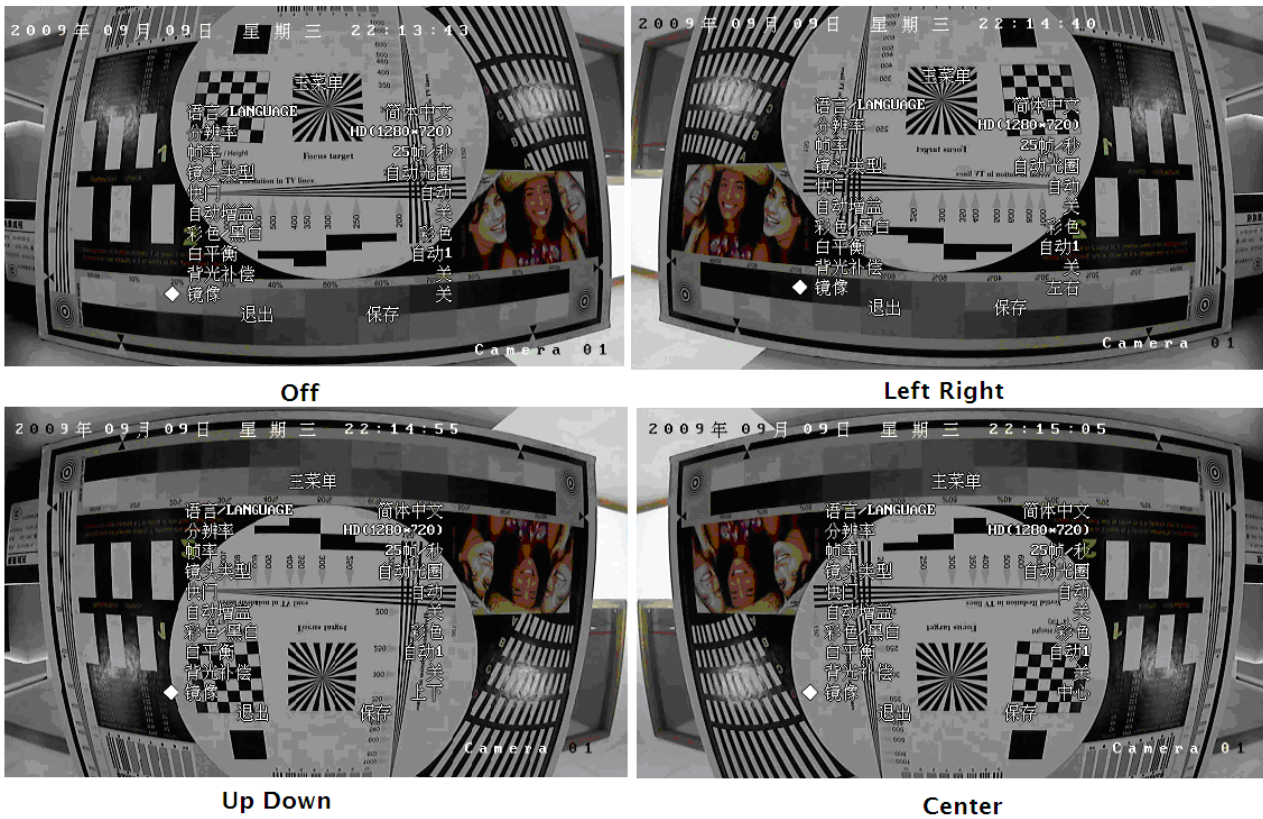
4.2.11 ePTZ settings

Press left / right to set ePTZ ON or OFF;

Under the resolution of QCIF/CIF/DCIF/2CIF/VGA/D1/SVGA, support pan\tilt\zoom operation, pan and tilt operation can be carried out only after zooming in，Support 127 preset positions (95 is excluded and used to call menu).Patrol path supports the preset of movement from Top left-hand corner of the screen to the bottom right-hand, supports 8 manual disposition patrols as well. HD720p resolution only supports pan and tilt operation，does not support zoom operation. UXGA resolution does not support the ePTZ function.

4.3 Menu Introduction of 1.3Megapiixels CCD Network Camera

The main menu displays as below:

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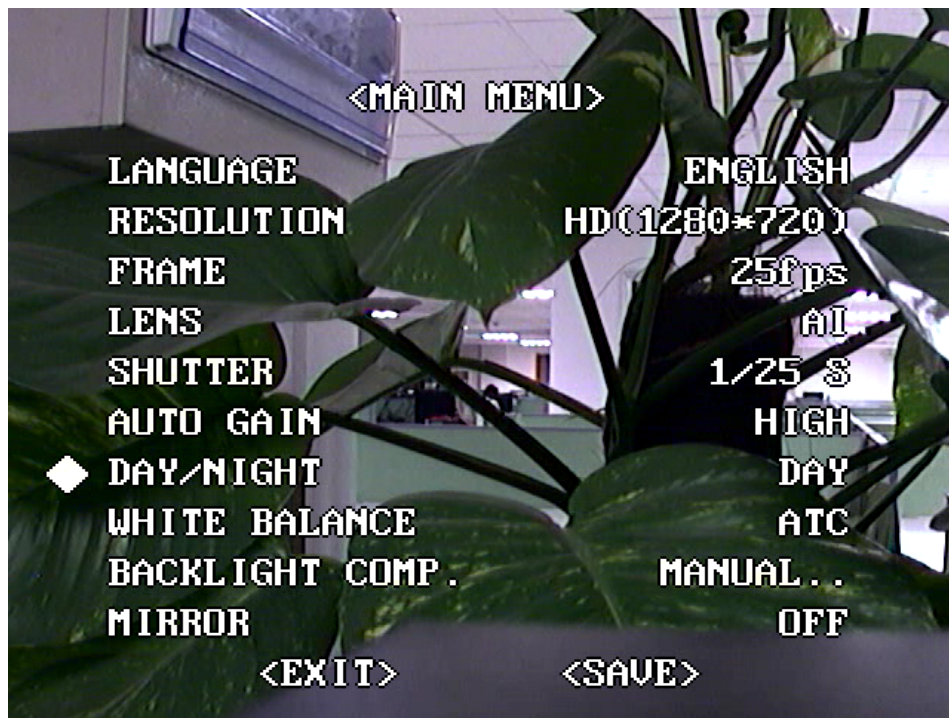
4.3.1 Language settings

Press left / right to select language between Chinese and English.

4.3.2 Resolution settings

RESOLUTION can't be changed by pressing left / right button; User can select resolution through client software, and the path is "configuration"➔"remote configuration"➔ "channel configuration "➔"Resolution".

4.3.3 Frame settings

FRAME can't be changed by pressing left / right button; User can select resolution through "configuration"➔"remote configuration"➔ "channel configuration "➔"Frame rate".

4.3.4 Lens settings

Press left / right to select lens type between AI (auto iris) and AES (automatic electronic shutter);

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4.3.5 Shutter

Press left / right to adjust the exposure time from 1/25s, 1/50s, 1/100s, 1/250s, 1/500s, 1/1ks, 1/2ks, 1/4ks, 1/10ks, 1/100ks.

4.3.6 Auto Gain settings

Press left / right to adjust AUTO GAIN level among OFF, low, middle and high;

Note: When DAY / NIGHT mode is AUTO, AUTO GAIN is invalid.

4.3.7 DAY / NIGHT Settings

Press left / right to select DAY / NIGHT mode among DAY, NIGHT and AUTO;
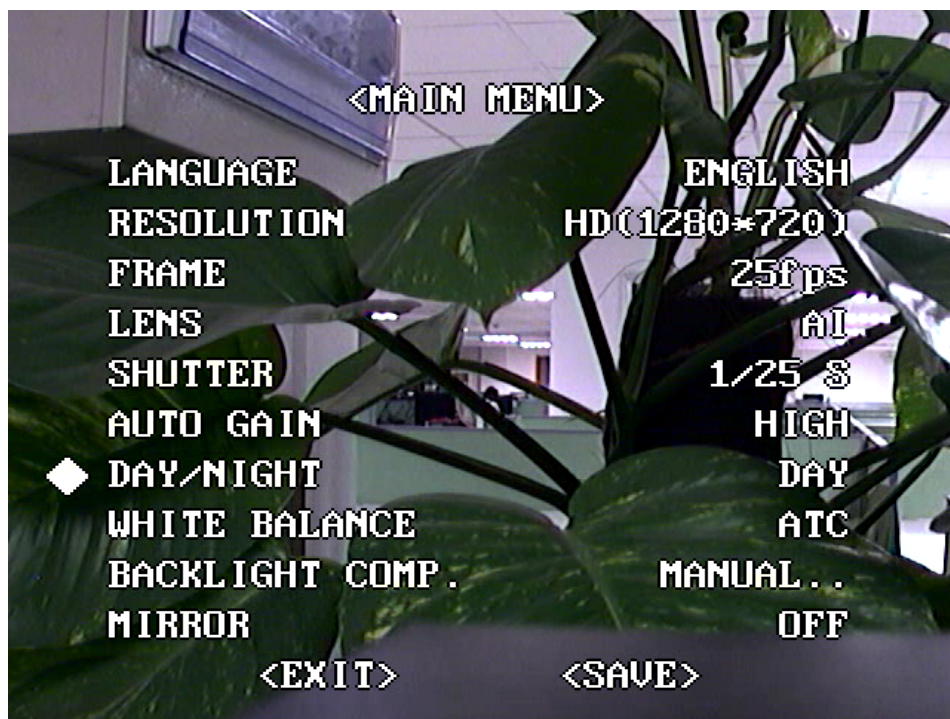
Fig.4.2.1 DAY Mode

Fig.4.2.2 NIGHT Mode

4.3.8 White Balance Settings

Press left / right to set WHITE BALANCE ATW1, ATW2, ATC or MANUAL;

ATW1: Camera uses TTL auto white balance algorithm to ideally recovery color, temperature range is from 2500K to 6500K.

ATW2: Camera uses TTL auto white balance algorithm to ideally recovery color, temperature range is from 2500K to 15000K.

Manual: Adjust temperature value to realize white balance.

Manual WB setting is as below:

Select MWB and the menu will display on the screen:

```
MWB SETTING                      MWB SETTING



TEMP.        ADD                 TEMP.        SUB
BACK                             BACK
```
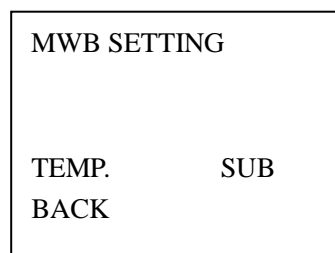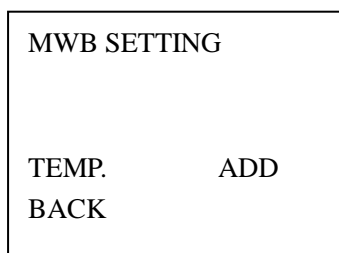
Press up / down to "Temp", and press left / right to add or subtract the value of temperature. After

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settings, move the cursor to "back" and press confirm button "IRIS+" to return to the previous menu.

Note: When DAY / NIGHT mode is NIGHT, the WHITE BALANCE is invalid. Or DAY / NIGHT mode is AUTO, and the video is white and black, WHITE BALANCE is invalid too.

4.3.9 BACKLIGHT COMPENSATION

Press up / down to "BACKLIGHT COMPENSATION", and press left / right to select "OFF" or "MANUAL". Selecting "MANUAL" and the menu will display on the screen:

Move cursor to "BLA", and press left / right to set the BLC area as up, down, left, right, middle or manual, then the BLC area is on the screen:

BLA MANUAL setting step is as following:

Move cursor to "BLA MANUAL", and press "IRIS+" to confirm and go to the submenu:

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Move cursor to "POSITION", and press "IRIS+" to enter the submenu; Press up / down / left / right to adjust the position of BLC area. After setting, press BACK to return to the previous menu.
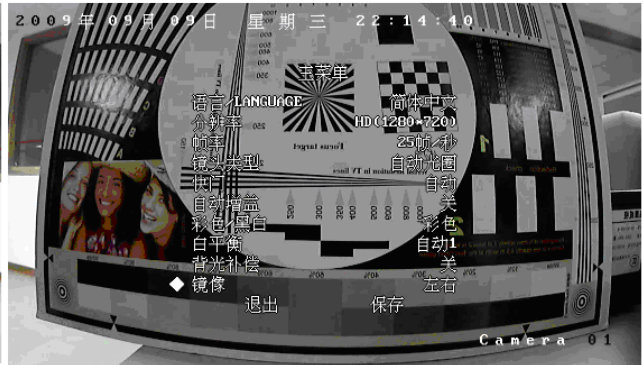

Adjust the BLA size through the same operation as the above BLA position.

4.3.10 Mirror mode settings

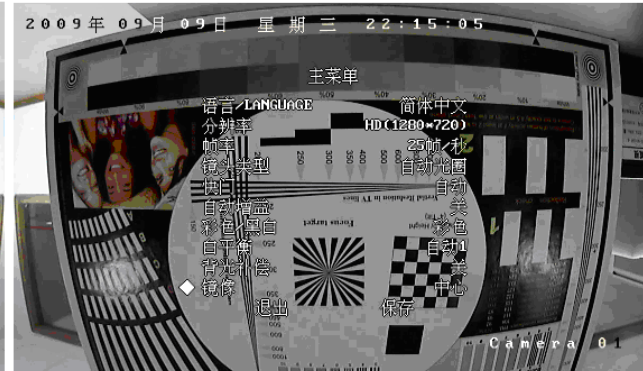Press left / right to select MIRROR mode among OFF, LEFT RIGHT, UP BOTTOM, and CENTER;

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Off
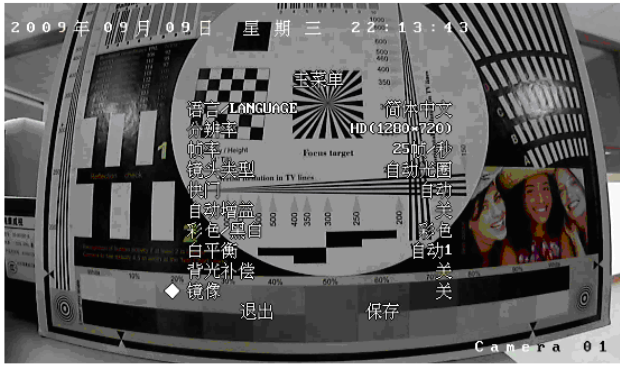
Left Right

Up Down


Center

Appendix 1 SADP Introduction

1. Brief introduction

SADP (Search Active Devices Protocol), can automatically search IP cameras in LAN. User can modify the IP address, subnet mask and port of the device without visiting IP address of the device. Additionally, password of the super user in this device can be recovered as default.

SADP software needs to support sadp, so we should install WinPcap at first, which is placed in the directory of SADP software.

2. Searching active devices online

After installing WinPcap, double click sadpdlg.exe. The software will start to search active devices in LAN, and device type, IP address, Port number, Device Serial No., subnet mask, MAC address, the number of channels, main control and encoding version and device initiating time are showed in the list, as follows:
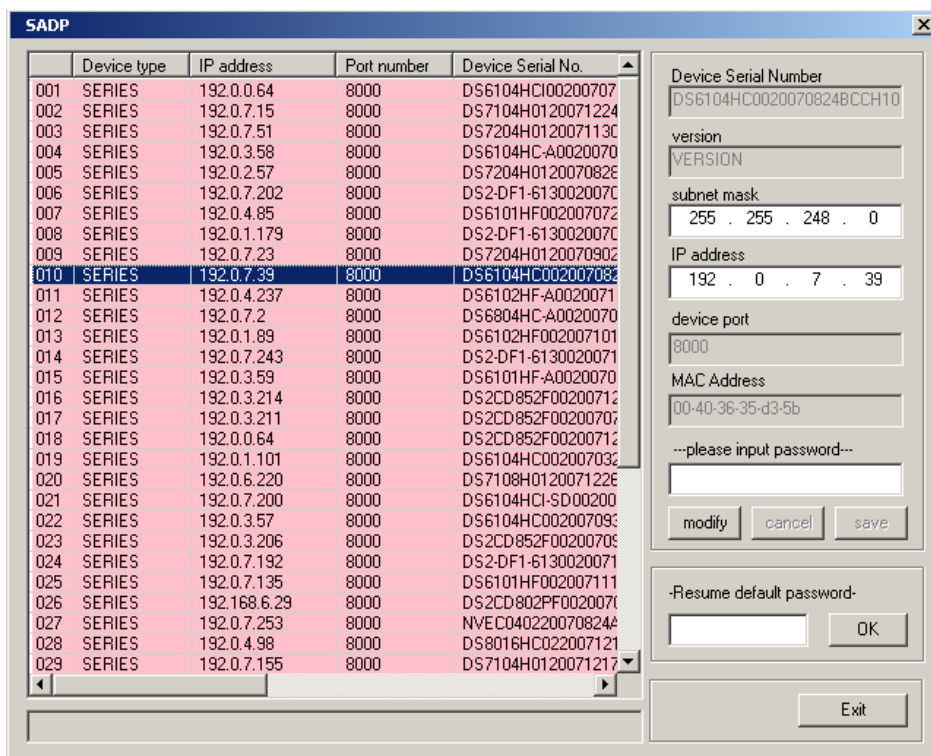
3. Modifying the information of active devices

Select the device that needs modification in the device list, then basic information of the device will be demonstrated in the information column on the right. Click 'modify' button to activate IP address, subnet mask, device port editing and password validating box, as follows:
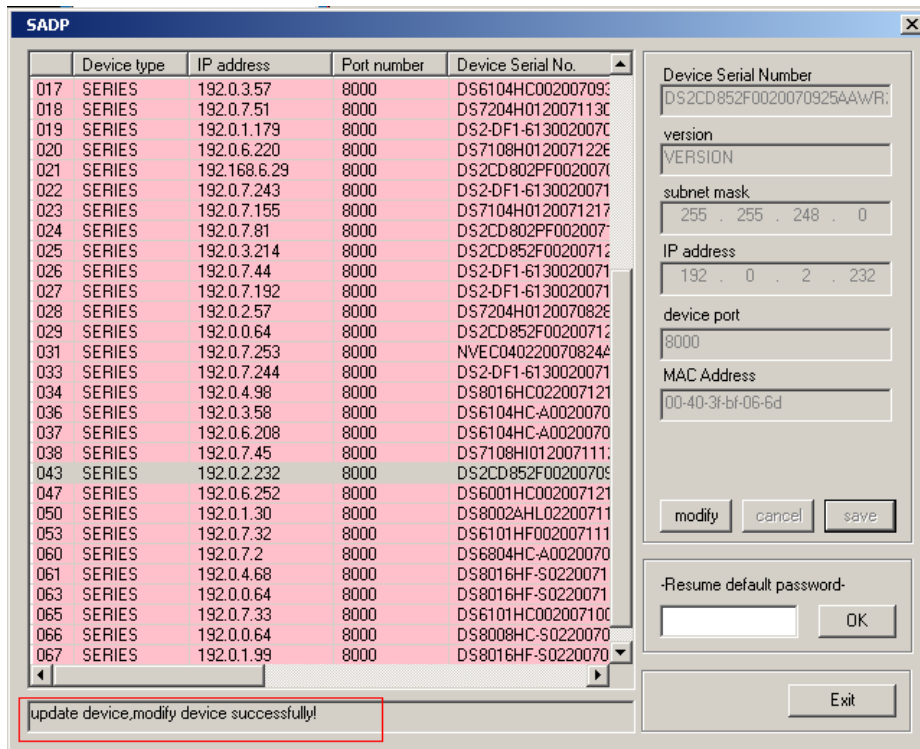
Input the new IP address, subnet mask, and port number, and click 'save' button. If a dialog pops up, showing 'saved successfully', that means you have modified the configuration information; if 'saving failed' dialog pops up, click the 'cancel' button to quit it.

4. Recovering default password

You can reset the password of the super user as '12345' in the case of a lost password.
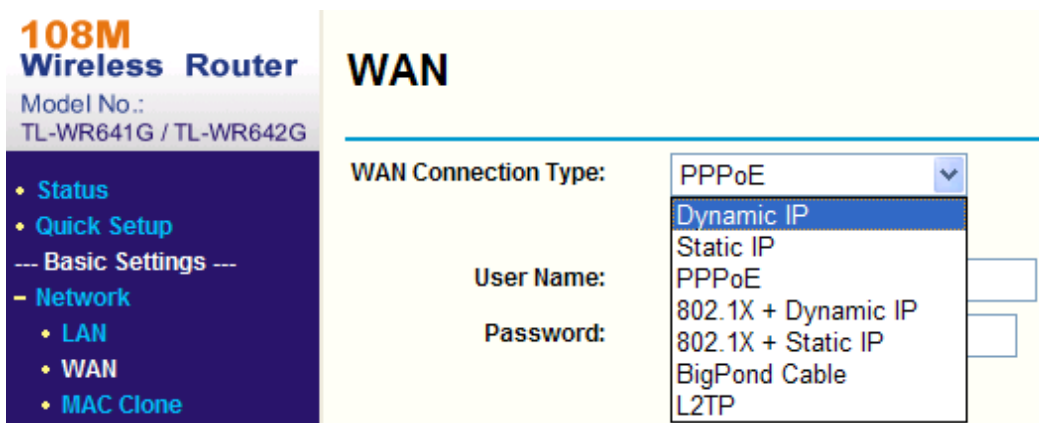
Input certain validation code into the 'Resume default password' box, and click 'OK' to finish the administrator's password initiating.

Appendix 2 Port Map

Note: The following setting is about TP-LINK router (TL-R410), which is maybe distinct from other router's setting.

1. Firstly, select the router's WAN connection Type. As the following Fig. shows:

2. Set the "network parameter" of the router as the below figure. The setting includes subnet mask and gateway.
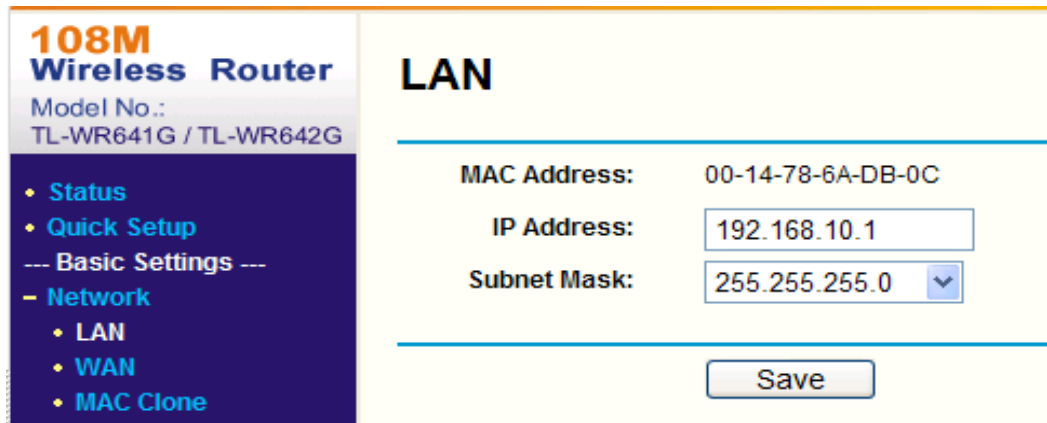
3. Set the port map in the virtual severs of Forwarding. By default, camera uses port 80, 8000, 554 and 8200. You can change these ports value with IE or client software.

The following figure gives the illustration. One camera's ports are 80, 8000, 554, 8200 and its IP address is 192.168.1.23. The other camera's ports are 81, 8001, 555, 8201 and IP is 192.168.1.24. Afterwards, enable all or TCP protocols. Enable the port map after pressing the 'Save'.

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As the above mentioned setting, we map the router's port 80, 8000, 554, 8200 to the network camera 192.168.1.23; and port 81, 8001, 555, 8201 to the network camera 192.168.1.24. In this way, user can visit the 192.168.1.23 through visiting the router's port 80, 8000, 554 and 8200.

Note: The port of the network camera cannot conflict with other ports. For example, some router's web management port is 80. User can amend the router's or the camera's port to solve this problem.

Appendix 3 Pin Definition

(1)UTP between the network port of camera and HUB (Direct Cable)

```
1 (white-orange) ————————————— (white-orange) 1
2 (Orange)        ————————————— (Orange)        2
3 (white-green)   ————————————— (white-green)   3
4 (blue)          ————————————— (blue)          4
5 (white-blue)    ————————————— (white-blue)    5
6 (green)         ————————————— (green)         6
7 (white-brown)   ————————————— (white-brown)   7
8 (brown)         ————————————— (brown)         8
```

(2)UTP between the network port of camera and PC (Cross Cable):

```
1 (white-orange)   ╲       ╱   (white-orange)   1
2 (orange)          ╲     ╱    (orange)          2
3 (white-green)      ╲   ╱     (white-green)     3
4 (blue)          ————————————— (blue)           4
5 (white-blue)    ————————————— (white-blue)     5
6 (green)            ╱   ╲     (green)           6
7 (white-brown)   ————————————— (white-brown)    7
8 (brown)         ————————————— (brown)          8
```

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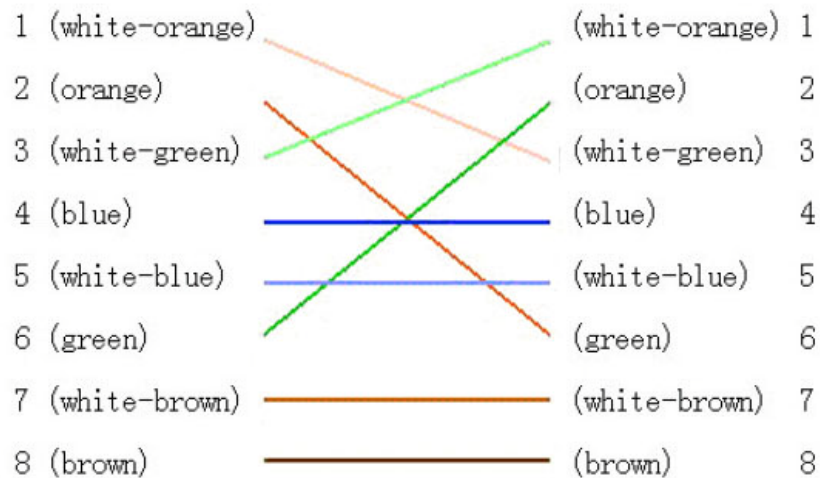
Appendix 4 Product Specification

XL-ICA-107M1C

Specification

Parameter Model	XL-ICA-107M1C
Camera	
Image Sensor	1/3 inch SONY progressive scan CCD
Effective Pixels	1280 (H) × 960 (V), 1.3M CCD
Min. Illumination	Color: 0.1Lux @ F1.2, B / W: 0.01Lux @ F1.2
Electronic Shutter	1/4s to 1/100,000 s
Auto Iris Lens	DC Drive or Video Drive
Day & Night	ICR
S/N Ratio	More than 50dB
Lens	Option
Lens Mount	C / CS mount
Video Output	1Vp-p Composite Output (75Ω/BNC)
Compression Standard	
Video Compression	H.264 or MPEG-4
Video Output	32 K ~ 2M, adjustable (8Mbps maximum)
Audio Compression	OggVorbis
Image	
Max. Image Resolution	1280 × 960
Frame Rate	12.5fps(1280 × 960), 25fps (1280 × 720), 25fps (640 × 480)
Functions	
Motion Detect	Support
Dual Stream	Support
SD Card Local Recording	Support
Heartbeat	Support
Password Protect	Support
Protocols	TCP/IP,HTTP,DHCP,DNS,RTP/RTCP, PPPoE (FTP, SMTP, NTP, SNMP addible)
Interface	
Audio Input	1 channel 3.5mm audio interface (2.0 ~ 2.4Vp-p, 1kΩ)
Audio Output	1 channel 3.5mm audio interface (Line level, 600Ω)
Communication	1 RJ45 10M / 100M self-adaptive Ethernet port and 1 RS-485 interface
Alarm Input	1 channel input
Alarm Output	1 channel signal relay output

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Others	
Working Temperature	-10°C ~ 60°C
Power Supply	AC24V, ±10% / DC12V, ±10%, PoE (Power over Ethernet).
Power Consumption	4W MAX (10W max with ICR working)
Dimensions (mm)	68.5 x 63 x 157.5(2.71" x 2.5" x 6.25")
Weight	600g (1.32lbs)

Dimension