English

User's Manual

2.4GHz Color Wireless
MPEG-4 Video Network Camera

MODEL: NC601

Please read this manual carefully and thoroughly before any attempt to install and operate this product and retain it for your future reference.

EU Environmental Protection

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

TABLE OF CONTENTS

INTRODUCTION

Thank you for your interest and support in our product and purchasing this wireless home network camera. This product works at ISM-2.4GHz frequency band, which could be legally used worldwide without permission. We feel confident that you will be pleased with the quality and features of this product.

Notice

This product may cause interferences with other wireless equipment that operates at 2.4GHz ISM band. Please turn off one of the equipments to eliminate the interference.

Product Assurance

This camera will emit electromagnetic wave, just like other wireless products. But its transmitting power is lesser than other wireless products such as mobile phones. The 2.4GHz wireless camera meets wireless frequency security standards and recommended indexes while working. These standards and indexes are certificated by academic organization and represent the cogitative research of the scientific workers who continuously explore and annotate the involved fields. So we believe that our products are safe for customers**.**

Approval Information

All our products meet the requirements of approval FCC or CE, and are granted the FCC or CE certification. They are authorized to bear FCC or CE mark.

FCC

This product meets the requirements specified in Part 15 of FCC Regulation. Operation rests with the following two conditions:

(1) The equipment should not cause any harmful interference;

(2) The equipment must receive and process any interference, including any possible interference caused by operation mistakes.

After testing the product, we confirm that it complies with the provision for class C digital equipment in the 15th part in FCC regulation; and the receiver complies with the limitations for class B digital equipment in Part 15 of FCC regulation. The product generates, applies and emits radio waves. It might cause harmful interferences to wireless communication if not be installed and used following the description of the manual. The product may cause interference in residential area, and the customer should take remedies to eliminate the interference at their own costs. If the product causes any harmful interference to wireless equipment or disturbs the receiving of TV signals (it can be identified by turning on and off the product), you can solve the trouble by following methods:

(1) Readjust the product or put it in another place;

(2) Extend the distance between the equipment interfered and the product; and

(3) Refer to dealers or experienced radio electrician for help.

CE

This product complies with standards including **L**ow **V**oltage **D**evice Directive 73/23/EEC; **EMC** Directive 89/336/EEC and **R&TTE** Directive 1999/5/EC. It passed the subject tests by the authority concerned and is authorized to bear **CE** mark.

Warranty

AEE Technology warrants that this product will be free from defects in materials and workmanship for period of time specified. This limited warranty shall commence from the date of purchase. AEE Technology product's warranty is not transferable and is limited to the original purchaser. If the product is found to be defective then, as your sole remedy and as the manufacturer's only obligation, AEE Technology will repair or replace the product.

This warranty shall not apply to products that have been subjected to abuse, misuse, abnormal electrical or environmental conditions, normal wear and tear or any condition other than what can be considered normal use.

Should you have problems, please consult the local dealer.

Copyright

Restrictions

1. DO NOT use this product to violate one's privacy. Monitoring one's activities without consent is illegal and this product is not designed and manufactured for such purpose;
2. DO NOT put this product near any medical equipment. Radio waves might potentially cause breakdown of electrical medical equipment.
   So this product should be placed at least 1 feet away from any heart pacemaker. Radio waves might potentially influence heart pacemaker and lead to respiratory disturbance;
3. DO NOT use this product for any illegal activities. AEE Technology shall not be responsible for any consequences of illegal acts committed by the user.

Maintenance

1. Ensure the sufficient ventilation space is available;
2. Do not shake or strike the product;
3. Keep it dry and dustless and avoid exposing it to direct sunlight;
4. Do not place the product near any magnetic objects;
5. Avoid putting the product in places where the constantly changed temperature or humidity occurs;
6. Keep the product away from heat sources such as electric heater;
7. Do not use the camera near aggressive chemicals;
8. Do not use this camera near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool and the like;
9. Do not use the camera in the places which are enclosed by metal. The surrounding metal like lifter, cabin, may shield the electromagnetic wave, and result in failure of signal reception;
10. Please obey the local government's environment protection policy;
11. Please turn off the power when left unused;
12. Do not disassemble or repair the camera; doing so might cause damages to the product.

MAIN FEATURES

Easy Installation

The Network Camera **NC601** comes with built-in CPU, Wireless Net Card (IEEE802.11b/g) and Web Server. No need to install the driver for the **NC601**. Setup CD-ROM includes the **IP Finder** software and **Operation Instruction**. Insert the Setup CD-ROM and auto run program should start the application automatically.

With industry standard automatic configuration-**UPnP**(Universal Plug and Play), the **NC601** and your router or PC will automatically decide the best settings allowing you to access your **NC601** without any complicated setup. Once connected, using a simple Web browser, just enter in your free, permanent Web address which comes with the **NC601** and you can see and move the **NC601**!

The **NC601** can be either wall-mounted or ceiling-mounted with the fixing plate or placed on a desktop using the supplied camera stand, providing flexible installation to meet your specific needs.

802.11b/g Wireless LAN Connection Available

The **NC601** is designed to not only work with your existing wired network but also can be compatible with standard 802.11b/g wireless devices, allowing the flexibility to install and operate the **NC601** without running network wire, and utilizing SSID filtering and powerful 64/128 bit WEP encryption helps to protect your wireless network from illegal intrusion. **NC601** can work compatibly with 802.11b, 802.11g and 802.11b/g modes.

High-Speed MPEG4

The **NC601** has an integrated web server. MPEG4 displays up to 30 frames per second, if the network provides enough bandwidth. To conserve bandwidth, MPEG4- Regularly Refresh can be selected from Top Page.

Remote Pan / Tilt Control

Web-based viewing with remote pan and tilt functions lets you adjust the **NC601** angles from a computer in another location.

Multi-Client Access

The **NC601** allows up to 10 users to view MPEG4 image simultaneously. Users can access the Top View Image screen from their own locations. Note that as the number of users simultaneously connected to **NC601** increases, the overall motion performance will decrease.

Audio Transmission

The **NC601** comes with built-in microphone and external microphone input jack, for audio monitoring as well as video monitoring. Sound captured by your **NC601** can be transmitted to the client's PC. The external microphone greatly enhances the ability to pick up the desired sound.

Motion Detection Function

The **NC601** can detect the change of picture being monitored. Once anything happens, it will email to your designated email addresses (maximum 3) and send the picture captured to designated FTP server. You could receive message and take action immediately when an alarm triggered.

Authentication

Authentication window requires you to enter the administrator/general user ID and password. Password security can prevent unregistered users/intruders from accessing your image from their web browsers.

PRODUCT

Package Contents

This package comes with the following items. Please check whether they are all included in the packaging box, if one or some is missing, contact the retailer for replacement.

① Network camera ×1

② Universal Bracket ×1

③ Metal mounting plate (1) ×1

④ Plastic mounting plate (2) ×1

⑤ Power adaptor ×1

⑥ Power adaptor cable ×1

⑦ Network cable ×1

⑧ Plastic screw ×2 (M3 × 10)

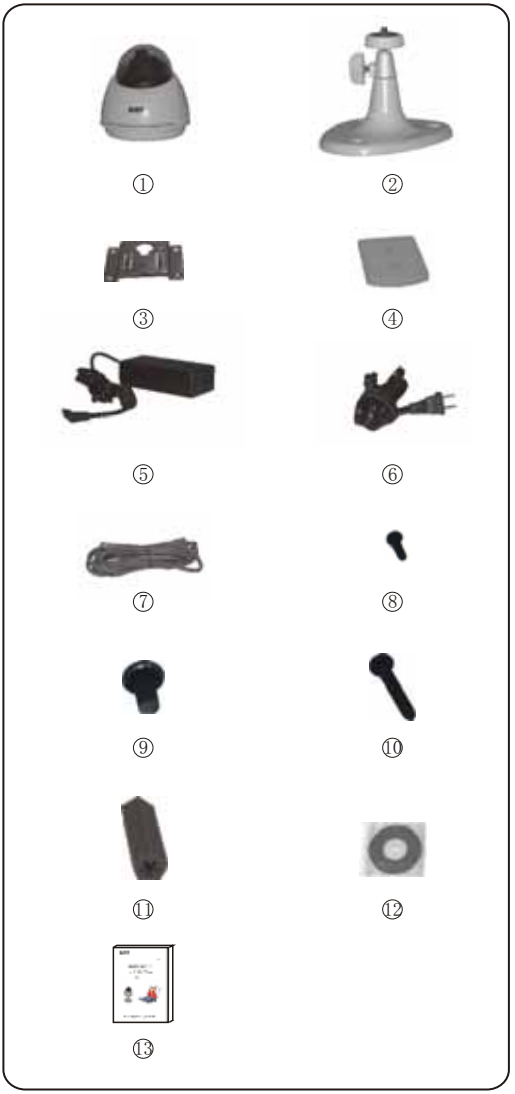
⑨ Mechanical bolt ×1 (M6 × 16)

⑩ Mechanical bolt ×4 (M4 × 30)

⑪ Anchor for screw ×4

⑫ CD-ROM ×1

⑬ User's manual ×1

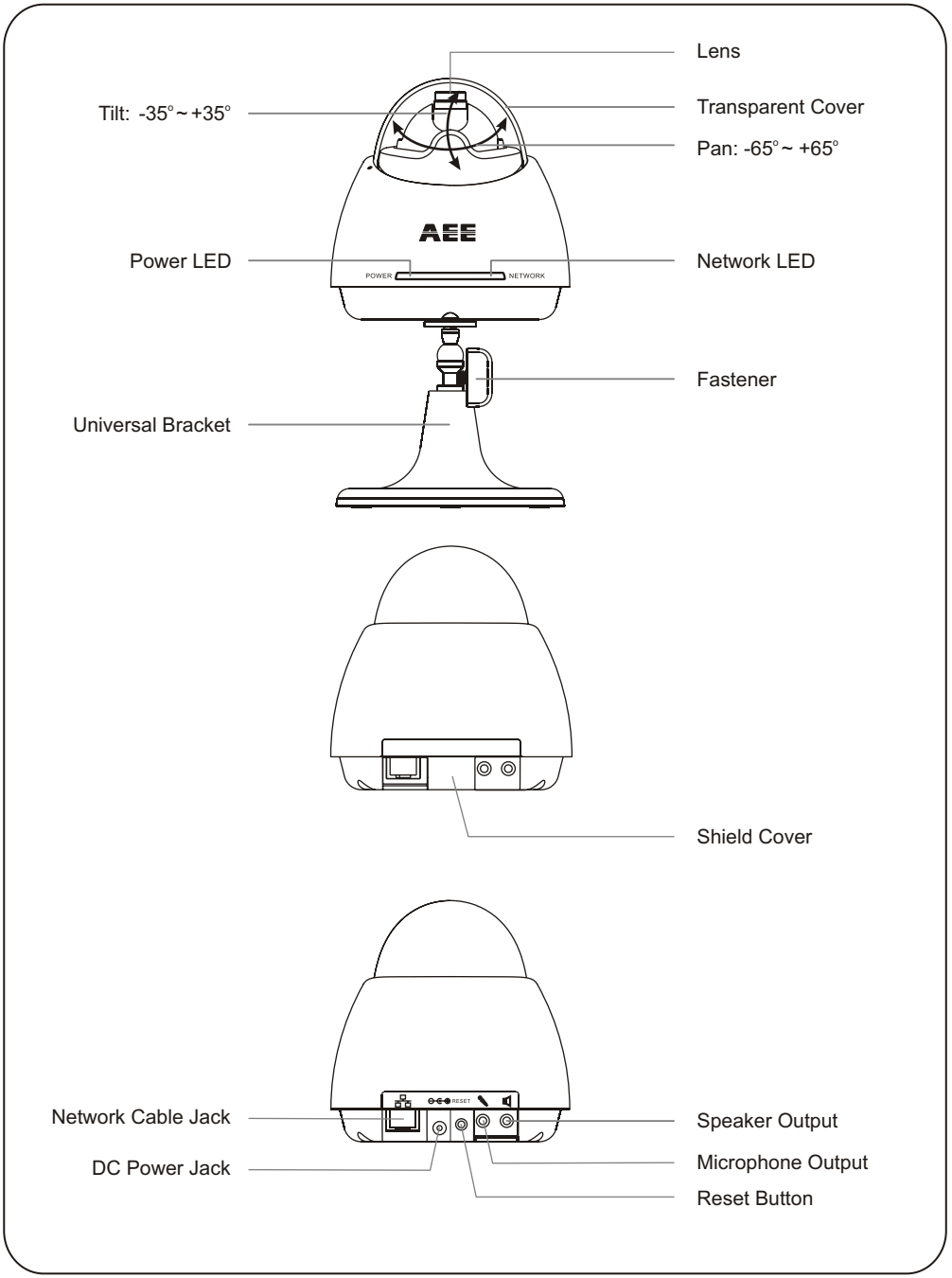


Notes:

1. This product can be either black or silver.

2. The pictures may vary from the actual objects.

Camera Feature Locations



Adapter

This product always conforms to the authenticated AC adapter. The adapter should be marked one of the following:

UL Mark
American power
supply authentication

SAA Mark
Australia power
supply authentication

CE Mark
European Union power
supply authentication

PSE Mark
Japan power
supply authentication

GS Mark
German power
supply authentication

CCC Mark
China power
supply authentication

Note:
When using the power adapter, make sure the rating voltage on it is compatible with that of the device to avoid potential damages resulting from incorrect usage of power supply.

PC System Requirements

The PC (Personal Computer) and the network must meet the following technical specifications for **NC601** to work properly.

1. Processor:	Intel Pentium III, 800MB or Higher (Pentium IV, 2 GHz or Higher recommended)
2. RAM:	128 MB or more
3. Color Monitor:	Suggest at least 800x600 and the latest driver for the Display Adapter
4. OS(Operating System):	Windows 2000/XP
5. Web Browser:	Internet Explorer Version 5.0 or above (DirectX 8.1 or later)
6. Network Protocol:	TCP/IP network protocol installed.
7. Interface:	10/100 Mbps Ethernet® card for your network connection

Note: *The **NC601** comes with setup CD-ROM, suggest the CD-ROM Drive available to install the **IP Finder** software.*

PREPARATION

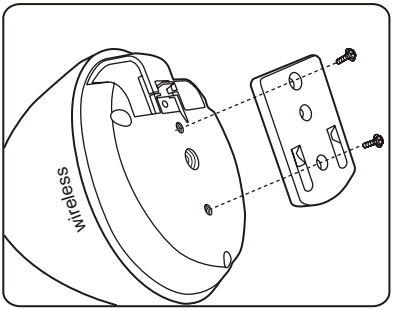
Network Camera Installation

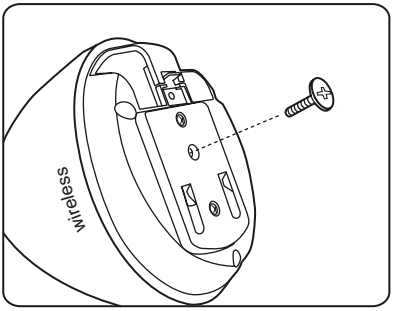
The **NC601** can be located on the wall or ceiling. Please follow the steps below to install **NC601**.

1. Mounting without the universal bracket

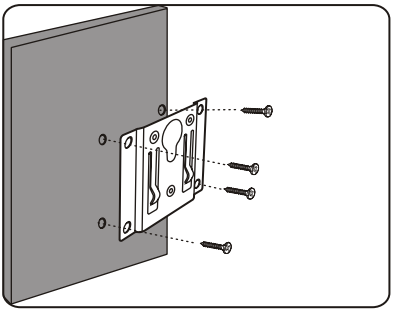
The **NC601** can be mounted on the wall or ceiling with the mounting plate directly.

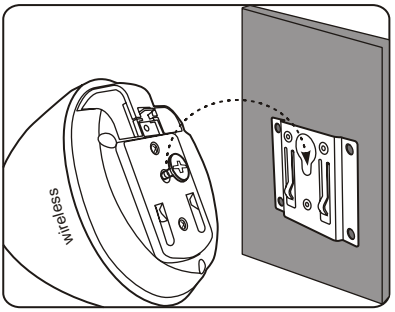
1.1 Locate the plastic mounting plate to the **NC601** with screws.





1.2 Drill four holes on the mounting surface according to holes in the metal mounting plate. Insert the anchors into the holes, then align the metal mounting plate with the holes you just drilled and drive the screws through the metal mounting plate into the anchors, then hang the **NC601** on the metal mounting plate firmly.

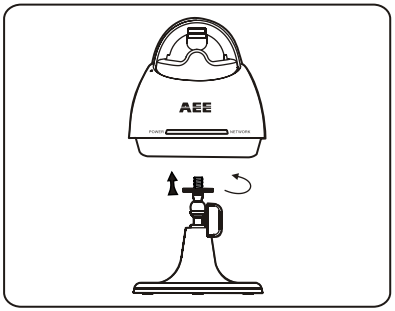


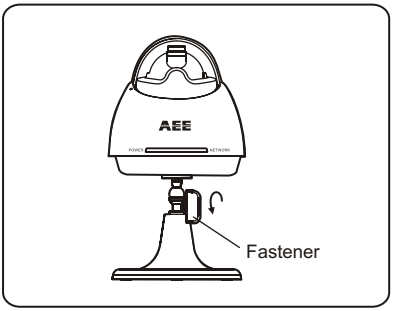


2. Mounting with the universal bracket

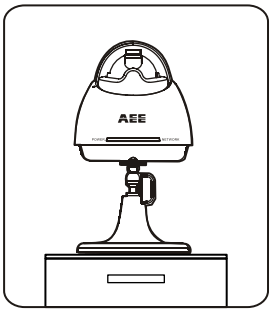
The **NC601** can be mounted on the wall**,** ceiling or desktop with the universal bracket.

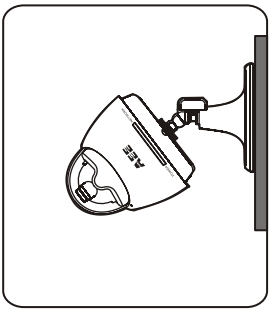
2.1 Connect the universal bracket to the **NC601** firmly. You can adjust the Network Camera **NC601** to a suitable angle by rotating the fastener.

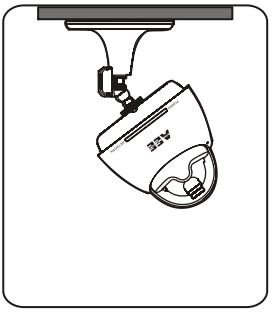




2.2 Locate your **NC601** on the wall, ceiling or desktop.







Network Camera Configuration Type

The **NC601** can be connected over the LAN/Intranet and the Internet. Select from the **NC601** configuration types. Network parameters differ depending on the Network Camera **NC601** configuration type.

Wireless Network

Type 1. Adhoc connection mode

In this connection mode, connect the Network Camera **NC601** to the Wireless Network PC directly.

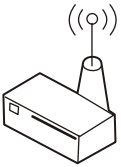
Network Camera **NC601**

Wireless Network PC

Type 2. Infrastructure connection mode

In this mode, connect the **NC601** to the Wireless **AP** (**Access Point**) with Network cable.

Network Camera **NC601**

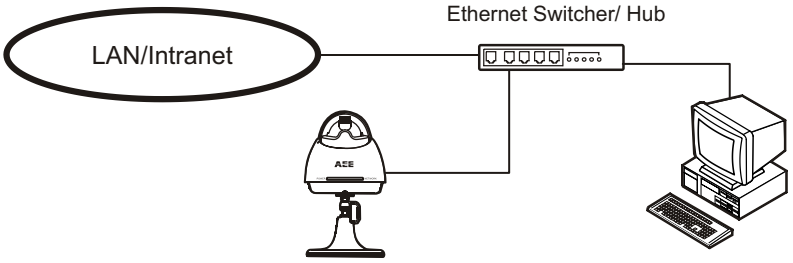


Wireless AP

Wired Network

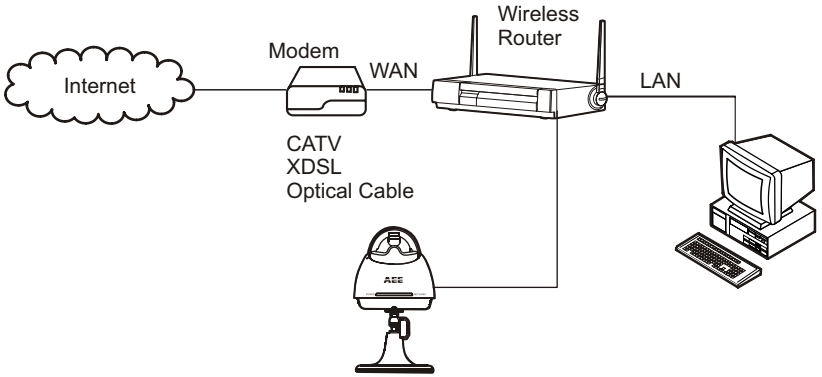
Type 1. LAN/Intranet Connection with an Ethernet Switcher/ Hub

The **NC601** can be installed on the LAN/Intranet by the Ethernet switcher/ hub.



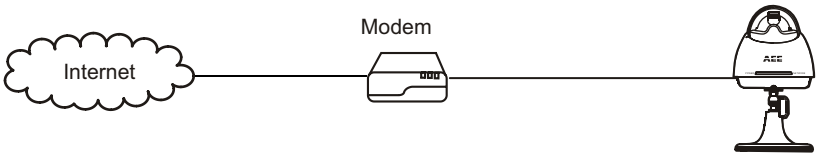
Type 2. Internet Connection with a Broadband Router

The **NC601** can be accessed from the Internet. The broadband router needs Port Forwarding (IP Masquerade) feature on page 23.



Type 3. Internet Direct Connection with a Modem

The **NC601** can be installed with a Modem directly on the network.



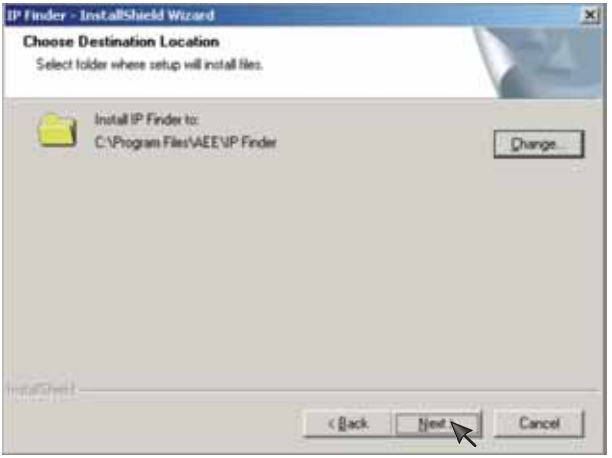
IP Finder Installation

Insert the Setup CD-ROM in the CD-ROM drive of the PC. This will start the installing wizard.
The IP Finder program can easily and quickly help your find **NC601**on the network.

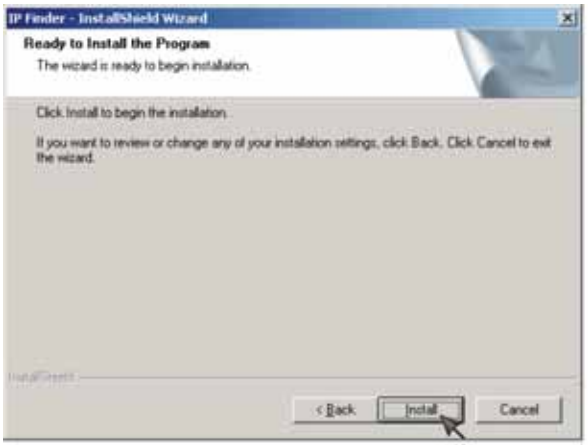
1. Start your PC.

2. Insert the Setup CD-ROM in the CD-ROM drive of the PC. (If Network Camera Setup window does not appear, click "setup.exe" on the Setup CD-ROM.)

2. Select folder where setup will installation. If you want to change the default path. Press **Change...** to replace the path.

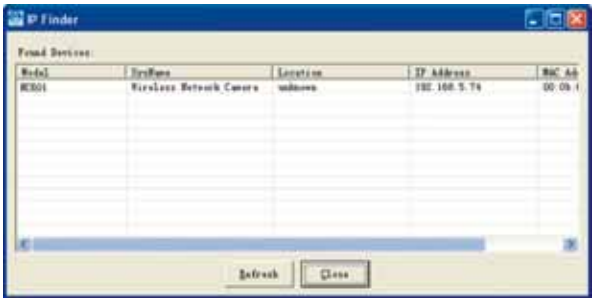


3. Click **Install** to install **IP Finder**.



4. Click **Finish** to end up the installation. Icon  will be created on the desktop.

5. Double-click  to launch the program.



Network Parameters

How to refer the network parameters from the PC

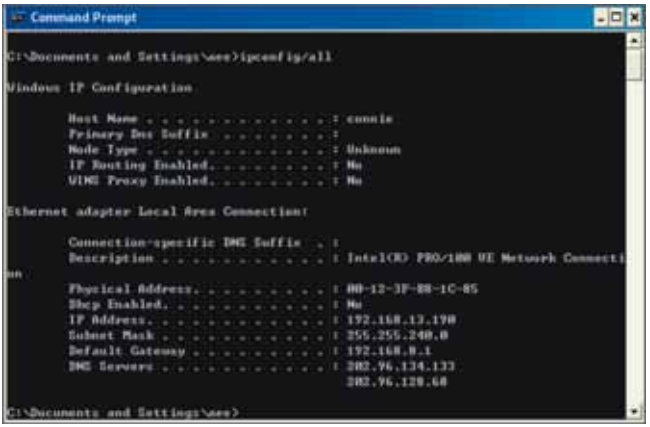
If you cannot get the network parameters, you can refer to the network parameters except for IP address from the PC on the same network in the following procedure.

When using Windows 2000 or Windows XP

1. Click **[Start]** –> **[Program]** (–> **[Accessories]**) –> **[MS-DOS® (Command) Prompt]**. **MS-DOS Prompt** window opens. These steps are slightly different depending on the operating system.

2. Enter "**ipconfig /all**" and press **[Enter]**.

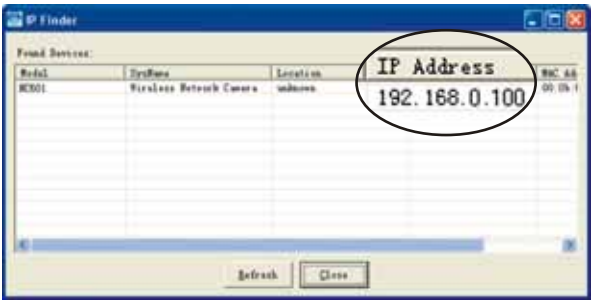
3. Enter "**exit**" and press **[Enter]** to close the window.



Use IP Finder to find IP address of your network camera

1. Connect your **NC601** and PC with RJ-45 cable.

2. Double-click icon . The following window appears. IP address may differ according to different network environment. Take the 192.168.0.100 as example:



Setting IP Address of the PC

1. Follow the steps below, appropriate for your operating system to open TCP/IP Properties window on the PC.

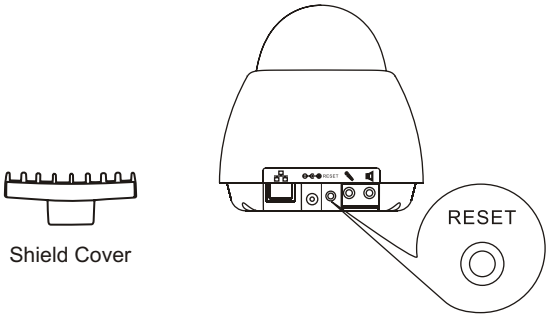
Windows 2000
[Start] –> **[Settings]** –> **[Control Panel]** –> **[Network and Dial-up Connections]** –> **[Local Area Connection Icon] in use** –> **[Properties]** –> Select Internet Protocol [**TCP/IP]** –> **[Properties]** –> **[Use the following IP address]**

Windows XP
[Start] (–> **[Settings]**) –> **[Control Panel]** –> **[Network and Internet Connections]** –> **[Network Connections]** –> **[Local Area Connection Icon] in use** –> **[Properties]** –> **Select Internet Protocol [TCP/IP]** –> **[Properties]** –> **[Use the following IP address]**

2. TCP IP Properties window appears. Set "192.168.0.X" in the IP address data field and "255.255.255.0" in the Subnet Mask data field (X can be 0~255 except 100). This makes the camera and your PC in the same net segment.

3. Click **[OK]**.

Note:
*If you forget your settings, you can remove the shield cover, press the **RESET** button on the **NC601** to enable the default settings. You may refer to the Default Settings section on page 52~53 for more details.*



Proxy Server Setting

A proxy server may prevent you from connecting directly to **NC601** in some corporate environments. The web browser can set up the IP address communication without using a proxy server. Consult your ISP or network administrator.

Note:
A proxy server is generally used to maintain security on a network that offers an Internet connection. The network of **NC601** with the proxy server may cause some problems to the image quality such as taking much time in refresh interval. Consult your ISP or network administrator for details.

1. Start up the **Internet Explorer**.
2. Select **[Tools]** –> **[Internet Options...]** –> **[Connections]** tab and click **[LAN Settings]**. See if the **Use a proxy server** check box is checked or not in the next window. When checked, click **[Advanced...]**.

See if the check box is checked or not

When checked, click [**Advanced...**]

When not checked, click **[Cancel].** Your proxy server settings cause no problems.

3. Enter the IP address of your **NC601** assigned from your ISP or network administrator into the [Do not use proxy server for addresses beginning with data] field.

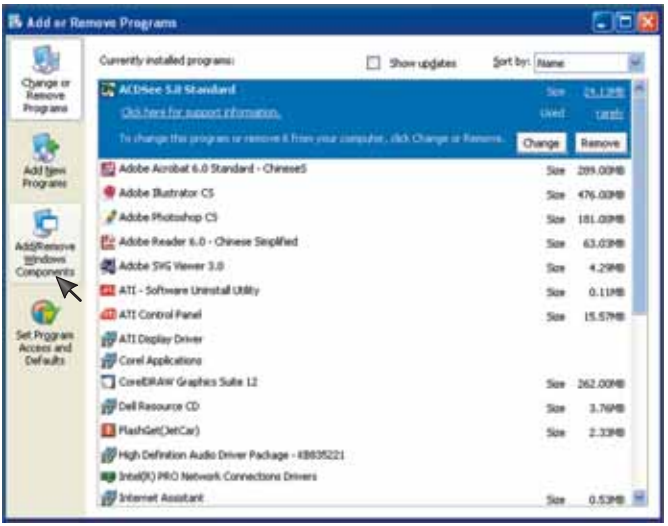
4. Click **[OK]** on all of the opening windows.

UPnP Function

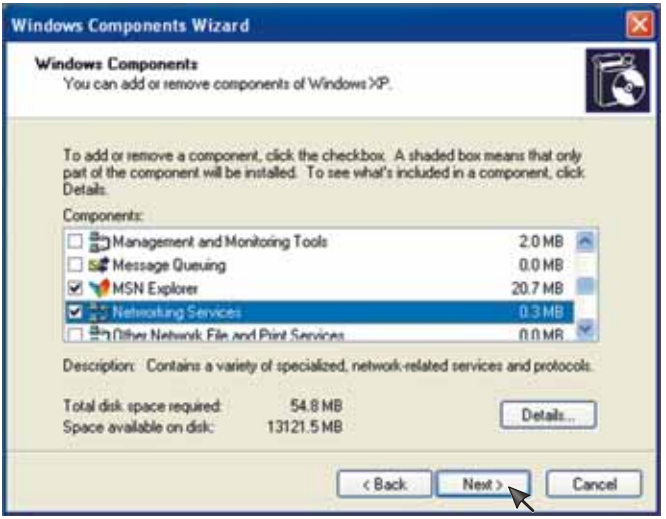
UPnP means **Universal Plug and Play.** This function is only suitable for **Windows XP**. Please take the following steps to activate this function.

1. Click **[Start]** (–> **[Settings]**) –> **[Control Panel]**–> **[Add/Remove Programs]**

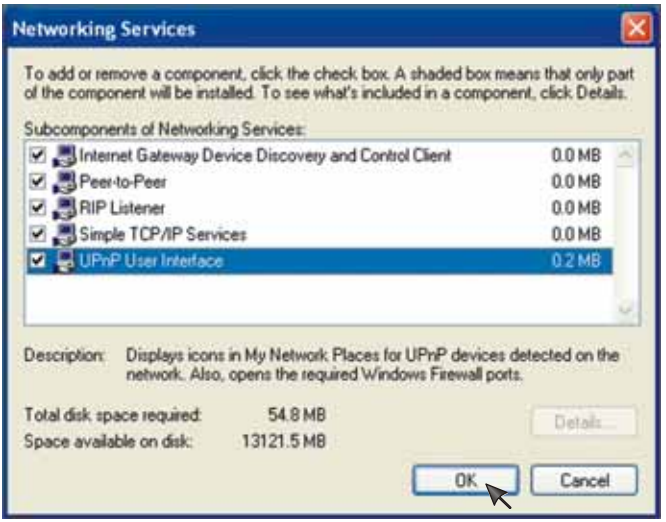
2. Click **[Add/Remove Windows Components]**.



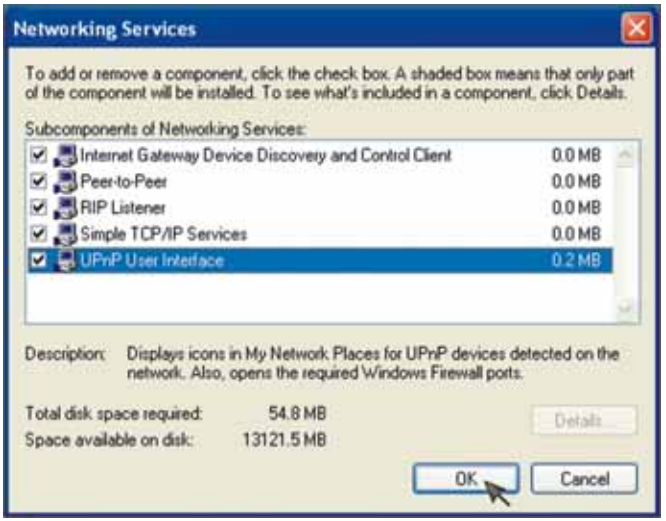
3. Double-click **[Networking Services]**.



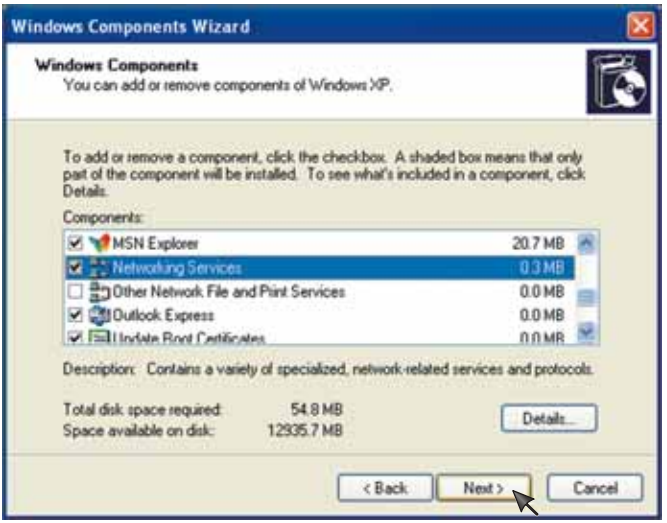
4. Activate the **UPnP** function.



5. Click **[OK]**.



6. Click **[Next]**.



7. Click **[Finish]**. The **UPnP** function is enabled.

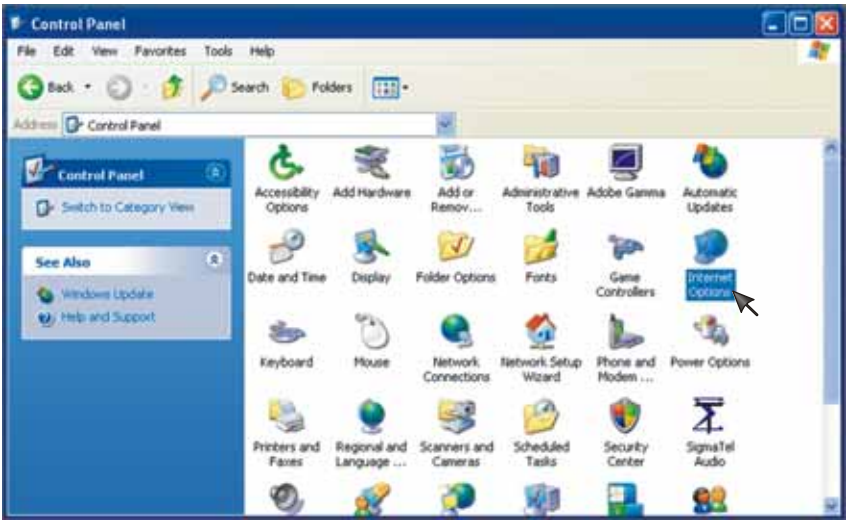
Notes:

- After the **UPnP** function is enabled, click **My Network Places**, you will see the icon  the Network Camera is connected correctly.

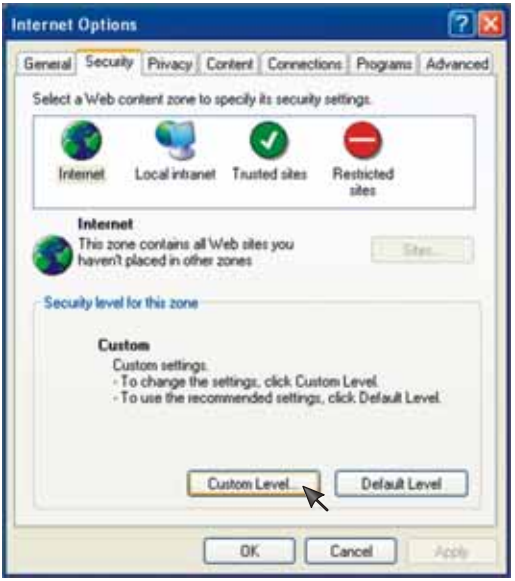
Internet Explorer Security Settings

ActiveX will be used during reviewing the pictures from the **NC601** via **Internet Explorer**. Please take the following steps to reset the **Internet Explorer** safety.

1. Click **[Start]** (–> **[Settings]**) –> **[Control Panel]**–> **[Internet Options]**.



2. Click **[Security]–> [Custom Level]**.



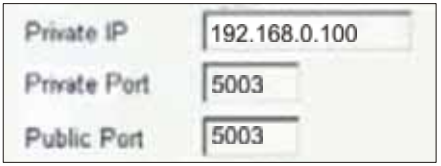
3. Set the security as the following, and reset the security to **Medium**, then click **OK**.

Notes:

- Set "**Automatic prompting for ActiveX controls**" as **Enable**.
- Set "**Download signed ActiveX controls**" as **Enable**.
- Set "**Download unsigned ActiveX controls**" as **Enable** or **Prompt**. You are recommended to set as **Prompt**.
- Set "**Initialize and script ActiveX controls not marked as safe**" as **Enable** or **Prompt**. You are recommended to set as **Prompt**.
- Set "**Run ActiveX controls and plug-ins**" as **Enable**.
- Set "**Script ActiveX controls marked safe for scripting**" as **Enable**.

Set the Network Camera as Virtual Server

The firewall security features built into the router prevent users from accessing the video from the **NC601** over the Internet. The router connects to the Internet over a series of numbered ports. The ports normally used by the **NC601** are blocked from access over the Internet. Therefore, these ports need to be made accessible over the Internet. This is accomplished using the Virtual Server function on the router. The Virtual Server ports used by the camera must be opened through the router for remote access to your **NC601**. See below figure.



Private IP(IP address of **NC601**): 192.168.0.100,Private Port: 80, Public Port: 80.

Important: Some ISPs block access to port 80 and other commonly used Internet ports to conserve bandwidth. Check with your ISP so that you can open the appropriate ports accordingly. If your ISP does not pass traffic on port 80, you will need to change the port the camera uses from 80 to something else, such as 800.

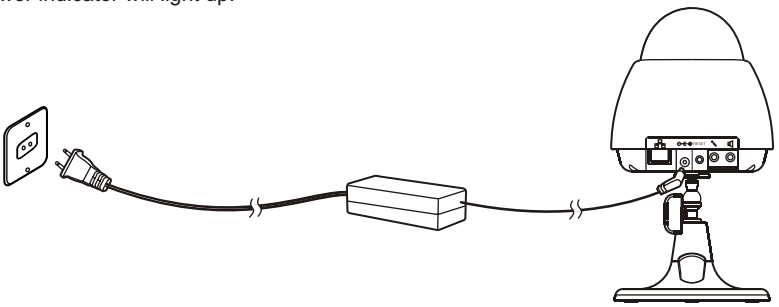
Viewing Your Camera

Not all routers are the same, so refer to your user manual for specific instructions on how to open ports. After all the router settings have been entered correctly, a PC user inside or outside your network will have access to the camera through the Internet Explorer Web browser.

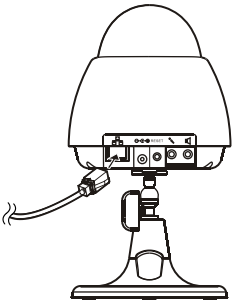
To access the camera from the Internet, type the IP Address of the router given to you by your ISP, followed by a colon, and the port number that you gave your camera (e.g., Http://202.115.122.96:800). It is not necessary to enter the colon and port number if you are using the default Web server port 80. To access from a computer on your local (home) network, simply enter the local IP Address of the Camera (e.g., 192.168.0.100).

Power On the Network Camera

1. Remove the shield cover from the **NC601**. Connect the power adapter to the power jack of the **NC601**. The power indicator will light up.

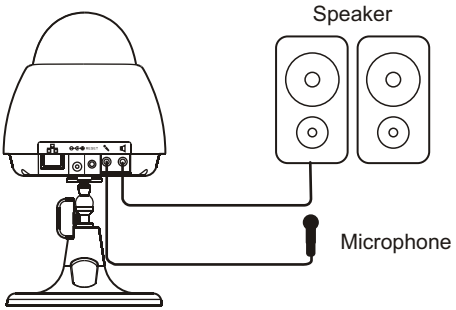


2. Connect the Network Cable to the cable jack.



Notes:

- The Network LED will light up red when connected to Wireless Network, and will light up green when connected to Wired Network.
- You can connect the external Microphone or Speaker to your **NC601** optionally.



NETWORK CAMERA SCREEN AND SETUP WINDOW

Review images from the Network Camera

You can select one of the three ways to review the pictures from the **NC601**.

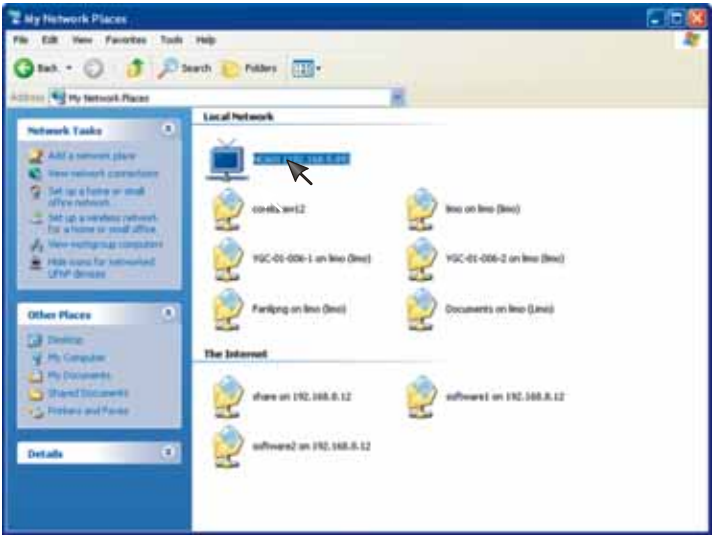
1. Input the IP address (or URL) of the **NC601** on the Web Browser. You will see the home page. Click [**Enter].**

Notes:

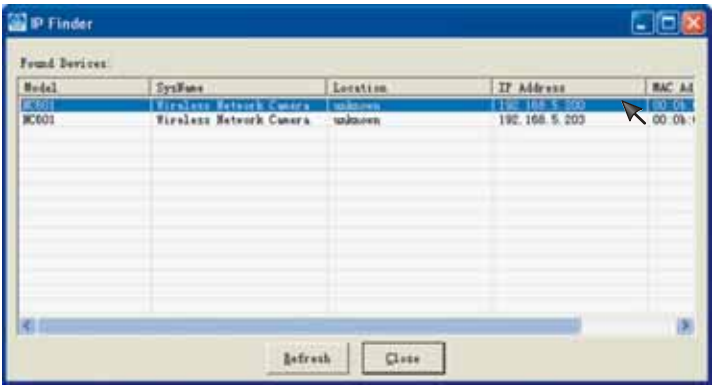
- Through this welcome page, you are allowed to enter the picture viewing interface or enter the system setting interface. After inputting the correct username (the default is **admin**, in lowercase) and password (the default is **admin**, in lowercase), you could choose to click on the item **Enter** to access the picture viewing interface or the item **Setting** to access the system setting interface.

- The general users assigned by the administrator are not allowed to enter the system setting interface. They can only be allowed to enter the picture viewing interface.

2. If your OS is Windows XP, click **[My Network Places]**, double click the icon 
You will see the home page, click [**Enter**].



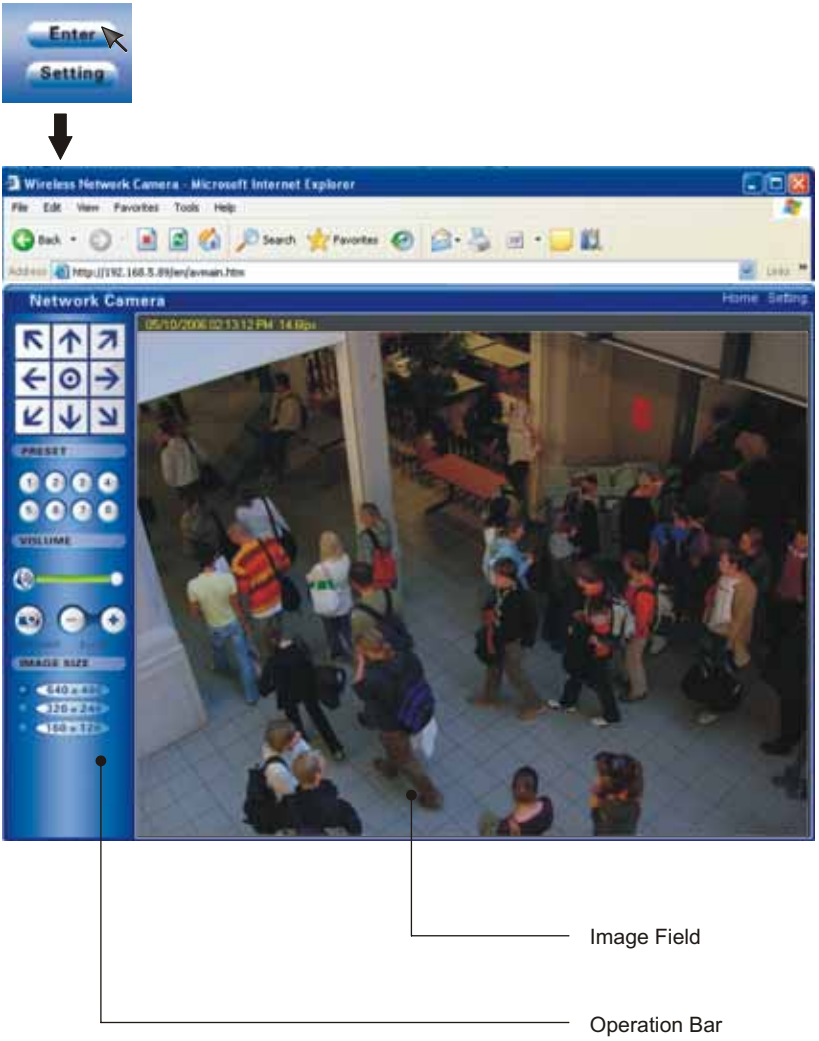
3. Make sure the IP address of the **NC601** the same net segment as that of the PC . Run the **IP Finder** and double-click the related **NC601** IP address.

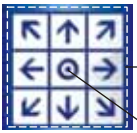


Note:
If DHCP server is installed in your network, the IP address of your network camera may not be the default value 192.168.0.100. We recommend you use IP Finder to get the default IP address of your camera then.

Operating Bar

Click **Enter**, you will see the screen.





(1) Pan/Tilt button

Each surrounding arrow of Pan/Tilt moves the lens Up, Down, Right, Left.

(2) Home position button

Moves the lens to Home Position.

(3) Preset Buttons

All eight preset buttons and home position button can be overridden. Lens moves to the preset/ home position when clicking each registered button. Blue/ White buttons mean Registered/ Not registered.

(4) Mute

4.1) Press Mute button  to turn on/off the volume

4.2) Slide the slide block horizontally to adjust volume per your request

(5) Snapshot

Press the **Snapshot button** to obtain a snapshot of present detective image.

Press **Save** to store it in your computer, and it will be automatically named by present data & time

Press **Cancel** to exit.

(6) Zoom in

Press **Zoom+** to magnify image area to see the details, and press **Zoom-** to return the normal view

(7) Image size:

Three Image Size options for your request: [640x480], [320x240] and [160x120].

Note: *The Pan/Tilt function makes it possible that clicking on the Image Field will turn the lens to directions you like.*

Network Camera Setting Interface

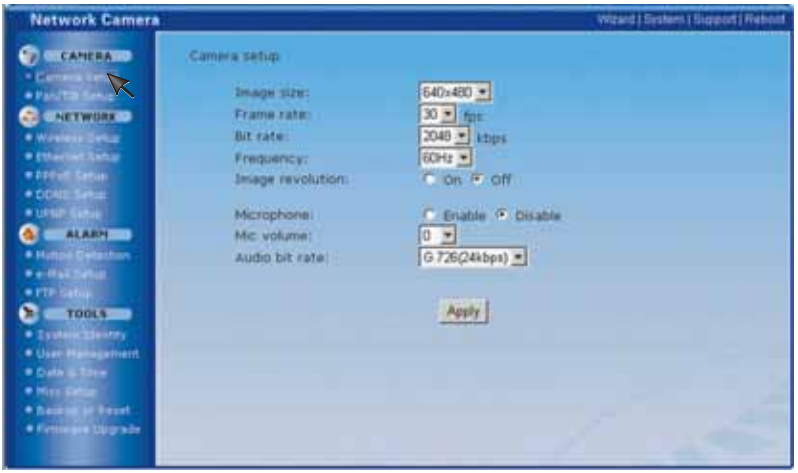
1. Click **setting**, you will see the below interface.

2. For the first time using or after resetting your **NC601** to default settings, account edit interface will appear as below. We recommend you click **here** to change the admin's password and then **Save** for security. By the way, **admin** (in lowercase) is the default setting, if the password is this, the above interface will always appear when you enter.

CAMERA

Camera Setup

For camera setup, you can set Image size , Frame rate, Bit rate, Frequency and so on. You can also turn the built-in Microphone on, adjust Mic volume and set the Audio bit rate.



[Image size] 640 x 480(VGA), 320 x 240(QVGA), 160 x 120(QQVGA)
[Frame rate] 10/15/20/25/30(fps) five options for your request.
[Bit rate] Five options for your request: 512, 768, 1024, 1536, 2048(kbps).
[Frequency] 50Hz & 60Hz for your request.
[Image revolution] Display images upside down.
[Microphone] Turn on/off the built-in microphone.
[Mic volume] Adjust the volume of the microphone, 0~15 options for your request.
[Audio bit rate] Audio clips transmission speed.

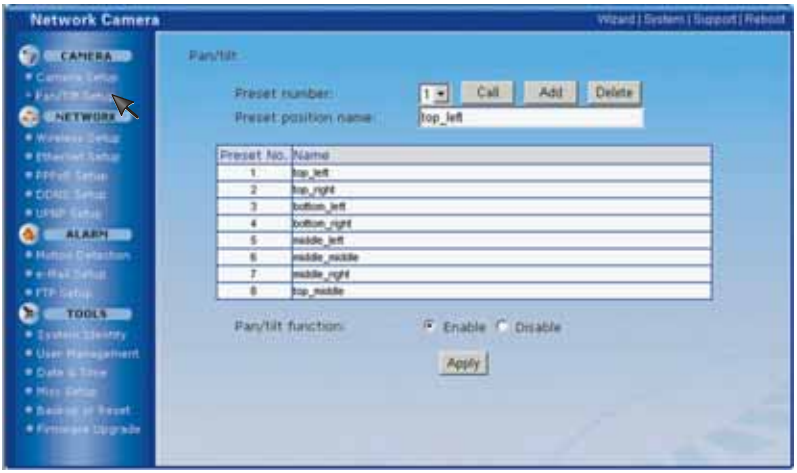
Click **Apply** to confirm your settings.

Note:

1. For Image size, smaller the image size, unclearer but smoother the picture.
2. For Bit rate, lower the bit rate, lower the image quality
3. For Frequency:
3.1) Generally speaking, 50Hz is often used in China, Australia and Europe, 60Hz used in the USA, Canada, Japan and Korea. The frequency should match that of your country, otherwise, the interruption and interference occur.
3.2) For 50Hz, maximum admitted frame rate is 25fps, while 60Hz is 30fps.

Pan/ Tilt setup

Pan/Tilt operation can move the lens 130° horizontally and 70° vertically. This movable lens extends your visual angle. The registered **Preset Position** can be demonstrated on the Operation bar(Refer to page 27).



[Preset number] 1~8 up to 8 preset positions can be memoried.

Call: Turn the lens to the very position you select.

Add: Add new preset position(s)

Delete: Delete former preset position(s)

[**Preset position name]** Name for the preset position you set.

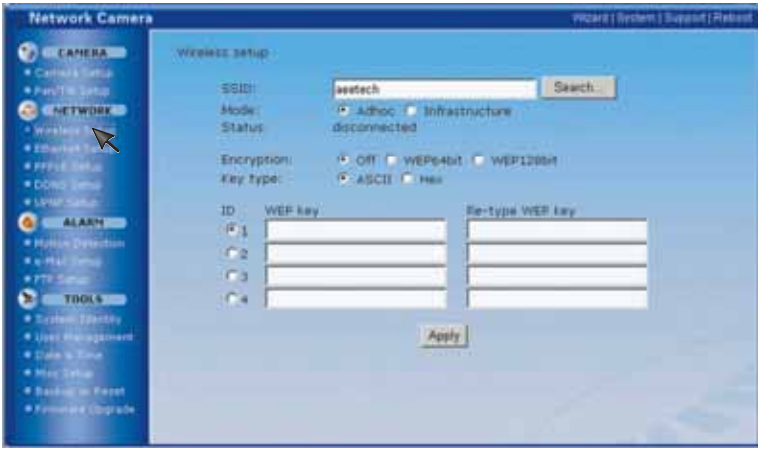
[**Pan/ tilt function]** Enable the lens circumvolution function or disable on the operation bar.

Click on **Apply** to confirm your setting to enable/disable Pan/Tilt function.

NETWORK

Wireless setup

The **NC601** corresponds to the wireless system based on IEEE802.11b/g. Encryption establishes the security to prevent unauthorized users to access the wireless data communication.



[SSID] Type the ID to identify the wireless network you want to access using up to 32 ASC II characters. For your security, be sure to change the factory setting.

[Mode] Infrastructure mode and Adhoc mode

Adhoc Mode: Select **Adhoc** mode when connecting to computer directly,
Infrastructure Mode: Select **Infrastructure** mode when connecting to computer via an access point or a radio router.

[Status] Show the status of the wireless connection.

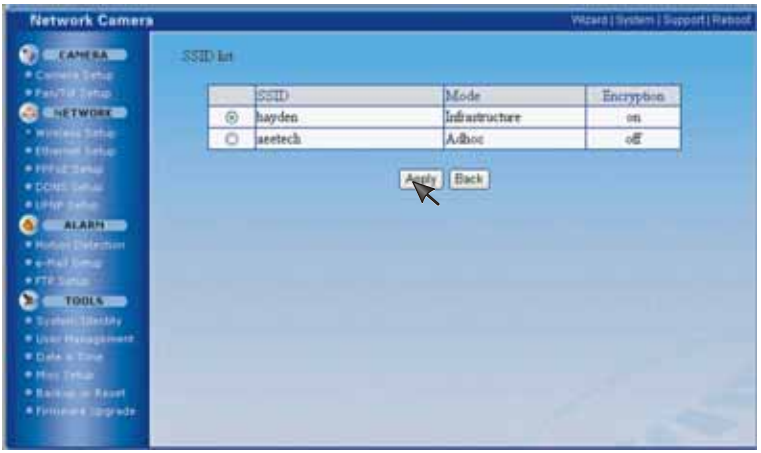
[Encryption] Select the key length, either 64 or 128 bits.

[Key type] You can type the WEP key either in hexadecimal numbers or ASC II characters.

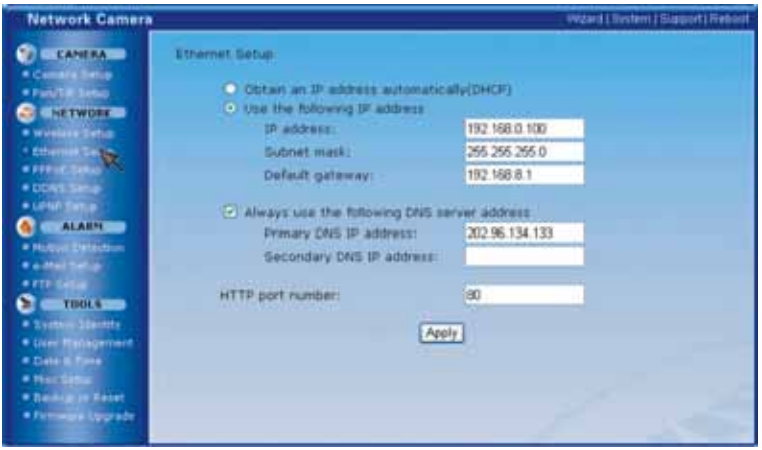
[WEP key] Specify up to 4 WEP keys.

Note:

*You can use the present SSID or you can click **Search...** to search new SSID. And then click **Apply** to use it, or **Back** to cancel it.*



Ethernet setup



Obtain an IP address automatically(DHCP):
If DHCP server is installed on the network, select it when the IP address is assigned by DHCP server. IP address is assigned automatically.

Note:
If DHCP server is installed on your network, the interface may differ from the above image after clicking on ***Ethernet setup****.*

Use the following IP address:
Select this when a fixed IP is set.
[IP address] Type the IP address of your camera
[Subnet mask] Type the subnet mask
[Default gateway] Type the default gateway

Always use the following DNS server address:
[Primary DNS IP address] Type the IP address of the primary DNS server
[Secondary DNS IP address] Type the IP address of the secondary DNS server, if necessary

HTTP port number
The default HTTP port number is 80.

PPPoE setup

The **NC601** can be installed alone without PC on the network. Some XDSL services use PPPoE (Point-to-Point Protocol over Ethernet).

[PPPoE dial-up] Enable or disable PPPoE connection
[e-Mail notification] Remind you with IP address of your **NC601** if **Enable** selected. The precondition is that you have set the relative parameters in your e-mail set (Refer to page 40 for **E-mail alarm setup**).
[Service name] Either an ISP name or a class of service that is configured on the PPPoE server.
[User name] Type a user name.
[Password] Type a password.
[Re-type password] To confirm the password, type the same characters as you typed in the Password box.

Click on **Apply** to confirm your settings.

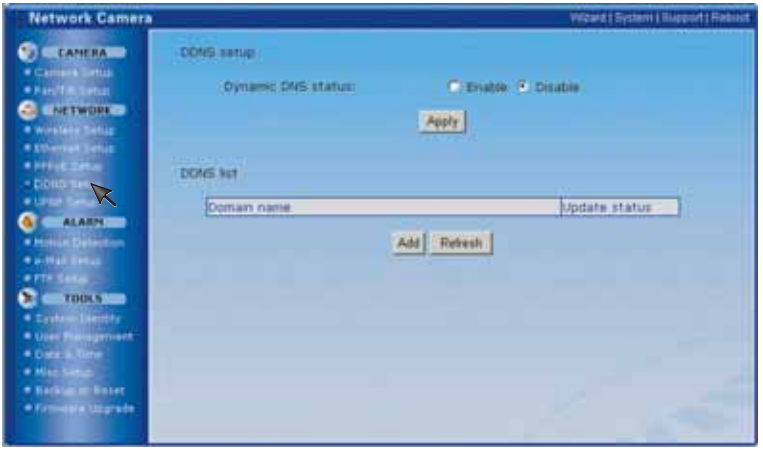
How to access via PPPoE connection

1. After the setup, reboot your network camera.
2. Connect the camera to internet. Refer to **Wired Network-Type 3. Internet Direct Connection with a Modem on the network** on Page 12.

Thus you can access your camera via DDNS or IP address reminded by e-mail.

DDNS setup

Verify that your ISP supports DHCP. If your ISP supports DHCP, or if you assign a domain name to the **NC601**, you need to contract and register for DDNS service. If you set static global IP address to the **NC601** and the broadband router, you do not need to register DDNS service.



[Dynamic DNS status] Enable or disable DDNS connection

Click Apply to confirm [Dynamic DNS status] setting (enable/disable)

[DDNS list] Show the added dynamic domain name

Click **Add** to add new dynamic domain name(s)

Click **Refresh** to Refresh DDNS status

How to add DDNS

1. Firstly **Enable** the Dynamic DNS function and then click **Add**.

2. Click in the round below Choice and then click on **Register Online** to register a domain name and obtain a password. Click **Next** (e.g., Domain name: ooo & Password: aee).

3. Fill in the blanks with domain name and password you obtain at Step 2, leave the IP address unfilled. After that, click **Add** to finish the setup.

Note:

*Click on **Reset** to set the device with another domain name, or **Back** to return the register interface.)*

4. After the **DDNS account added!** appears on the setup interface. You can use the domain name to access your **NC601** quickly and conveniently.

UPNP setup

UPnP function requires a Windows XP operating system. It is a quick way to find Network Camera in your network.
Firstly you need to active the UPNP function on your PC, please refer to page 18-21 for more details.

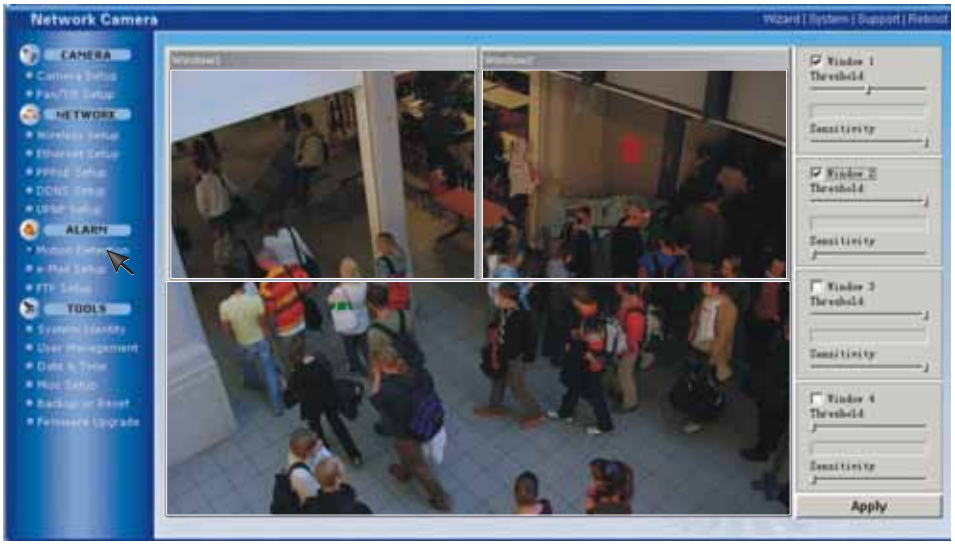
[UPNP] Enable or disable the UPNP function.

Press **Apply** to enable or disable this function.

ALARM

Motion Detection

As the alarm/timer trigger, Motion Detection can activate the Image Transfer feature, which can send the images via e-mail or FTP (File Transfer Protocol). The alarm/timer trigger can be set on this window.



[Window] Up to four windows for you to detect and alarm.
[Threshold] Setup the threshold, once exceed the limit, alarm will be triggered.
[Sensitivity] Set the measurable difference between two sequential images that would indicate motion.

The checked window is effectively set as an alarm trigger.

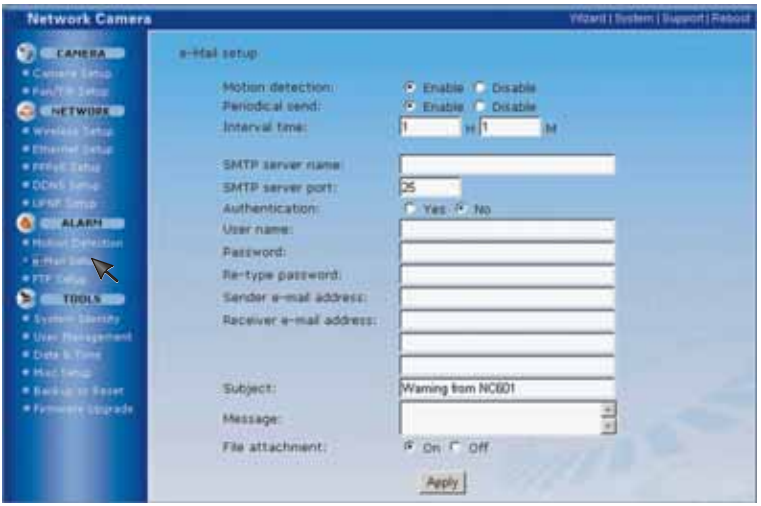
External Sensor Input of External I/O activates the alarm trigger

Note:

1. *When remove a window (for example, Window 1, to another place, please press Apply to make the new detective area in effect) .*
2. *Only the checked window area is effectively set for alarm.*
3. *It is easier to trigger the alarm that you slide the slide block of threshold to left and that of the sensitivity to right.*

E-mail Alarm setup

NC601 can transfer the image via E-mail. The alarm/timer trigger can be set on **Motion Detection** window.



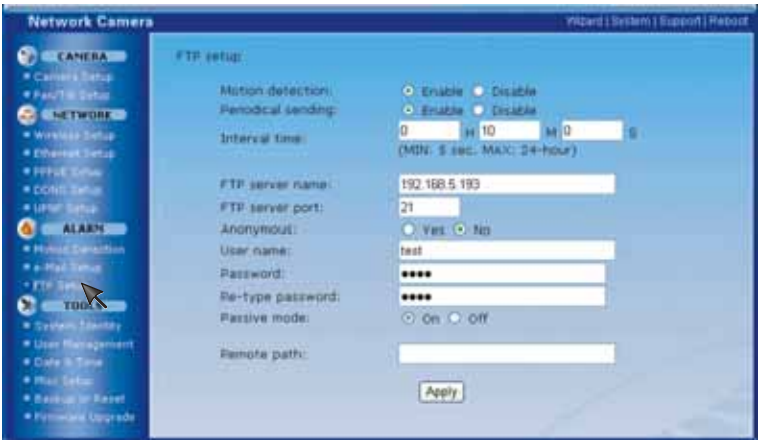
[Motion detection] Trigger to the alarm
[Periodical send] Trigger to the alarm
[Interval time] Sending image frequency when enable the **Periodical send** trigger
[SMTP server name] Type the name or IP address of the SMTP server you want to use for sending an e-mail
[SMTP server port] The default value is 25
[Authentication] Select the authentication required when you send an e-mail.
[User name] & **[Password]** Type the user name and password of the user who has the mail account. This setting is necessary when the SMTP server which sends e-mail performs authentication
[Re-type password] Re-type the password above to confirm
[Sender e-mail address] Set the e-mail address by which you want to send e-mail
[Receiver e-mail address] Set the e-mail address by which you want to receive e-mail(Up to 3 receivers' e-mail address can be set)
[Subject] Subject of the alarm e-mail
[Message] Description of the e-mail
[File attachment] Attach images shot by network camera or not (On/Off).

Note:

The Alarm mode , which uses the Network Camera internal clock., can send the e-mail without transferring the image. Make sure Date and Time has been configured.

FTP Alarm setup

NC601 can also transfer the image via FTP. The alarm/timer trigger can be set on **Motion Detection** window.



[Motion detection] Trigger to the alarm

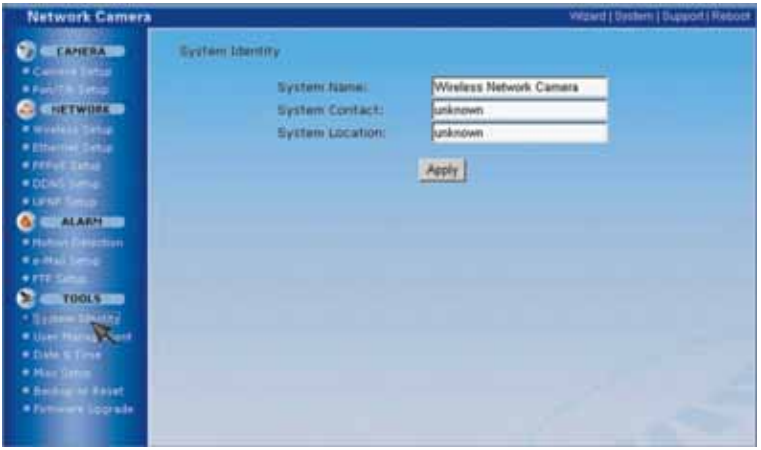
[Periodical send] Trigger to the alarm
[Interval time] Sending image frequency when the trigger is **Periodical send**

[FTP server name] It can be domain name or IP address
[FTP server port] The default port number is 21
[Anonymous] Enable or disable anonymous visiting
[User name] Type your user name
[Password] Type your password
[Re-type password] Re-type your password
[Passive mode] Apply passive mode or not
[Remote path] Path to FTP server where to save the alarm images

Click on **Apply** to confirm your settings above.

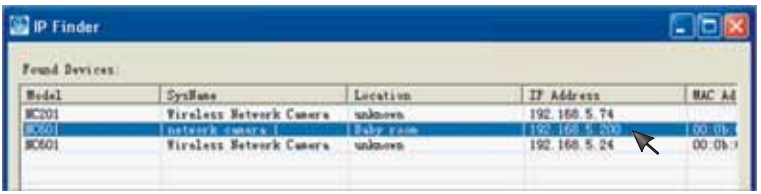
TOOLS

System Identity



[System Name] Name for the present **NC601**, to distinguish from other camera(s) in the network
[System Contact] Note the connecting data of the **NC601**
[System Location] Note the **NC601** location

TIP:
These information you fill in can be displayed on and very important to the IP Finder. It can help to distinguish different Network Cameras in the network. See the below figure.



User Management

[Add] Up to 64 users (including the admin) can be set
[**Pan/tilt]** Indicate whether or not users can use the Pan/tilt function

Note:
1. Maximum to 10 users are allowed to access the camera simultaneously.
2. As the number of users simultaneously connected to Network Camera increases, the overall motion performance will decrease.

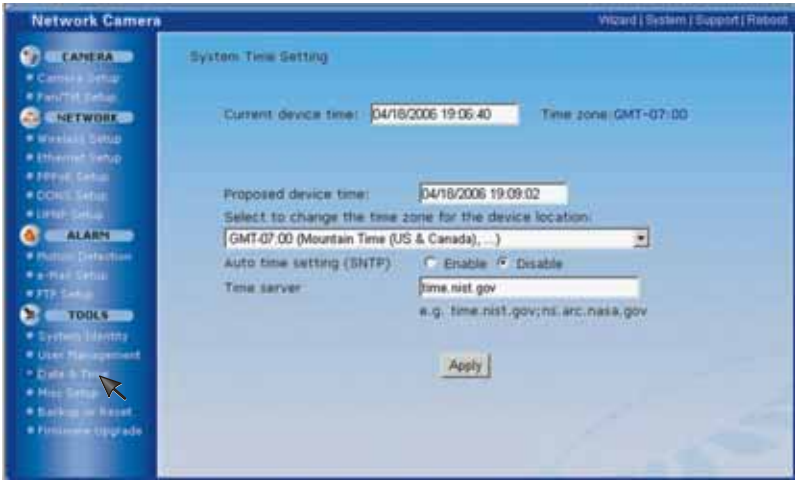
How to add users

1. Click **Add**.

2. Type a user name and password. Re-type the password to confirm your password. Select **Yes** or **No** for the Pan/Tilt control. Then click on **Add**. One user has been added.

3. Click on one username, the following window will appear. You can change the password and enable or disable user to use the Pan/Tilt control. Click **Save** to confirm your settings or **Delete** to delete this user.

Date & Time



[Current device time] Internal time for NC601
[Proposed device time] External time for NC601 (time of client server PC)
[Select to change the time zone for the device location] choose proper time zone
[Auto time setting(SNTP)] Enable or disable this function
[Time server] Type one NTP server name in the box

Note:
*1. If this NTP server cannot work in gear, the **NC601** will be synchro with the clients' PC.*
2. With built-in RTC(Real-time Clock) , this device keeps track of the time even when the power supply is cut off.

MISC setup

[LED control] Turn on/off the power & network LED indicator of **NC601**

Click **Apply** to confirm your above setting.

Backup or Reset

[Reset] Initialize all the parameters to the factory default. Note that all customer-applied settings will be lost, requiring you to reconfigure Network Camera.
[**Backup]** Backup the present configuration for future reference.
[Search...] Search for the very backup configuration and click **Restore** to restore the configuration to your Network Camera.
[Restore] Click Restore button to start restoring a former backup settings

Note:
*1. Do not turn off the power during the Reset to Factory Default. It may interrupt the **NC601** operation.*
2. If Reset to Factory Default is used, all user settings will be lost, and you will have to reconfigure the entire camera.

Firmware Upgrade

Upgrade the program to operate Network Camera on the latest version of the system. If new firmware is released, you can download the latest program from Network Camera Technical Support Site. Installation is easy and fast.
Check the latest firmware version on System Information Page on page 50.

1. Click **Continue**.

2. Click **Browse...** to search for the newest Firmware you downloaded. And then click **Upgrade**.

IMPORTANT:

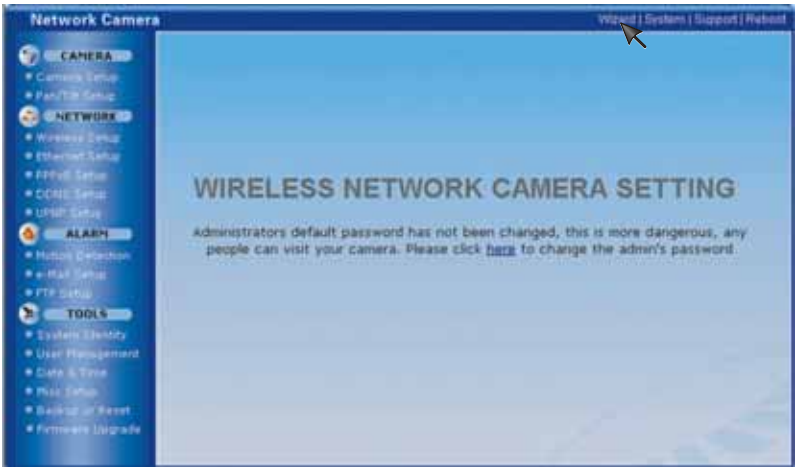
*** It is important to reboot your NC601 if you want to cancel the upgrade. Otherwise some functions may be unavailable.**

* **Do not turn off the power during the Reset to Factory Default. It may interrupt the NC601 operation.**

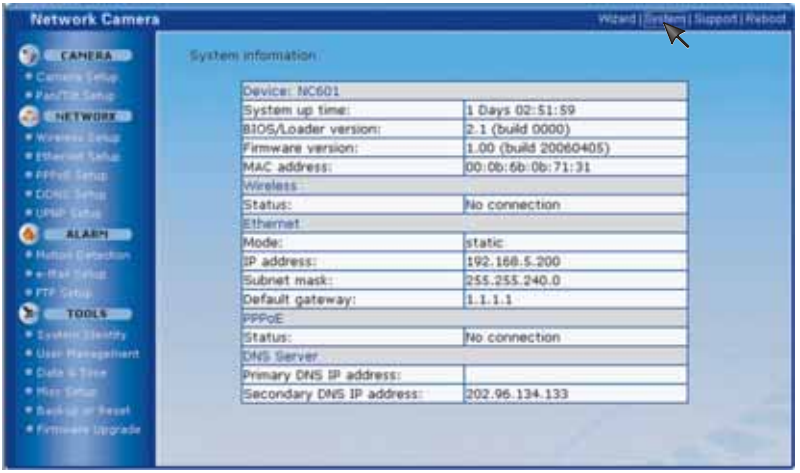
3. Click **Reboot** to update your camera.

SPEEDREAD YOUR NETWORK CAMERA

1. After pressing **setting** on the top interface, you will enter the below interface. You can click **Wizard** to do the quick parameter setting. Following the directions until you finish it.



2. Click **System** to see over system information about your camera



3. Click **Support** to see the support information

4. Click **Reboot** to restart the **NC601**.
Reboot **NC601** retaining any settings you entered. If any operational issues are changed, try this option first.

Note:
*We recommend you rebooting your **NC601** after you change PPPoE parameter. Otherwise some functions may be unavailable.*

DEFAULT SETTINGS

Camera Setup

Image Size	320 x 240
Frame Rate	30
Bit Rate	2048kbps
Frequency	60Hz
Auto White Balance	On
Auto Gain Control	On
Image Revolution	Off
Microphone	Enable
Mic Volume	10
Audio Bit Rate	G. 726 (40kbps)
Pan/Tilt Setup	
Preset Number	1
Preset Position Name	Blank
Pan/Tile Function	Enable

Wireless Setup

Mode	Ad-hoc
SSID	aeetech
Encryption	Off
Key Type	Hex
ID	1
WEP Key	Blank

Ethernet Setup

IP address	192.168.0.100
Subnet Mask	255.255.255.0
Default Gateway	192.168.5.1
Primary DNS IP Address	192.168.5.1
Secondary DNS IP Address	Blank
HTTP Port Number	80
PPPoE Setup	
PPPoE Dial-up	Disable
Service Name	Blank
User Name	Blank
Password	Blank
Re-type Password	Blank
DDNS Setup	
Dynamic DNS Status	Disable
DDNS list	Blank

UPnP Setup	
UPnP	Enable
Motion Detection	
Window 1	Blank
Window 2	Blank
Window 3	Blank
Window 4	Blank
E-Mail Setup	
Motion Detection	Disable
Periodical Send	Disable
Interval Time	1h. 1m.
SMTP Server Name	Blank
SMTP Server Port	25
Authentication	No
User Name	Blank
Password	Blank
Re-type Password	Blank
Sender E-Mail Address	Blank
Subject	Warning from NC601
Message	Blank
File Attachment	On
FTP Setup	
Motion Detection	Disable
Periodical Sending	Disable
Interval Time	1h. 1m. 10s
FTP Server Name	Blank
FTP Server Port	Blank
Anonymous	No
User Name	Blank
Password	Blank
Re-type Password	Blank
Passive Mode	On
Remote Path	Blank
Image File Name	test.jpg
Suffix	Date & Time
System Identity	
System Name	Wireless Network Camera
System Contact	Unknown
System Location	Unknown
User Management	
1	Admin/Administrators/Yes
2	User/Users/Yes
3	test/Users/No
Date & Time	
Current Device Time	1970-1-1 8:00
Time Zone	GMT-07:00
Proposed Device Time	Current PC Time
Auto Time Setting (SNTP)	Disable
Time Server	Time.nist.gov
Misc Setup	
LED Control	On

SPECIFICATIONS

Item	Value
Imaging Sensor	1/4 CMOS
CMOS Total Pixels	310,000
Minimum Illiumination	1.0 Lux
Lens	f=3.7, F 2.0
View Angle	Horizontal: 51.0°, Vertical: 38.9°
Pan Angle	130°
Tilt Angle	70°
Image Format	MPEG4/JPEG
Frame Rate	30fps (QVGA), 30fps (VGA)
Fluorescent Lamp Frequency	50Hz/60Hz
Bit Rate	512 ~ 2048kbps
Supported Protocols	TCP/IP, HTTP, FTP, DHCP, NTP, SMTP, PPPoe, DDNS, UPnP
Message Transferring Method	SMTP
ImageTransferring Method	SMTP, FTP
LAN Interface	10/100 Base-T auto-sensed, RJ-45 connector x 1
Wireless LAN Interface	Protocol: IEEE 802.11b/g 2.4000 ~ 2.4835GHz (54Mbps/22Mbps/11Mbps/5.5Mbps/2Mbps/1Mbps, Auto Switch)
Indicator Display	Power LED: Green Network LED: Red(Wired Network), Green (Wireless Network)
Power	Input 100-240V, 50/60Hz
	Output: DC 5V/1.4A
Dimensions (WxDxH)	110mm x 110mm x 110mm (Main Body)
Weight	Approx. 334g (Main Body)
Operating Temperature	-10°C ~ +50°C / +14°F ~ +122°F
Operating Humidity	20~80% RH
Storage Temperature	-20°C ~ +60°C / -4°F ~ +140°F
Storage Humidity	20~95% RH

**** Specifications are subject to minor change without prior notice.***

TROUBLESHOOTING

If the Network Camera is not working properly, these suggestions might help you eliminate the problem. If it still does not help, take it to your local retailer for assistance.

Problem	Cause and Remedy
Forget the IP address of network camera.	1. Use IP Finder. 2. Use UPNP (only for XP O/S) 3. PPPoE IP Notification can send e-mail to your mailbox 4. Reset your Network to default IP address
Forget the password to access the setting interface.	Initialize the network camera by pressing the **RESET** button.
Wireless communication does not work.	1. Signal strength is weak. Relocate the camera or remove the obstacle around it. 2. Make sure the SSID and Encryption setting shall be identical.
The picture viewing interface does not appear.	1. Maximum 10 users are allowed to access the camera simultaneously through network. 2. Network congestion may prevent the viewing interface from appearing quickly. Wait for a while.
Pan/Tilt panel does not work.	Pan/Tile function is set as disable. Enter the setting interface to enable the Pan/Tilt function.
The color of the picture is strange.	Confirm the color setting of PC is 16 bits or more.
The unreadable characters are displayed.	1. Use the operating system of the selected language; 2. Set the **Encoding** or the **Character Set** of the selected language on the web browser.

GLOSSARY

1. **Network Camera:** A stand-alone device which allows users to view live, full motion video from anywhere on a computer network, even over the Internet, using a standard web browser.

2. **CMOS Sensor:** Technology involving Complementary Metal-Oxide Semiconductor (CMOS) to sense images. CMOS now rivals--and in some cases surpass--CCD technology in dynamic range and noise sensitivity and can offer improvements in resolution.

3. **JPEG:** A standard image format, used widely for photographs. Also known as JPG.

4. **IEEE 802.11b/g:** The specifications developed by the IEEE for wireless network technology. It provides 11 Mbps transmission in the 2.4GHz band usage.

5. **WEP: W**ired **E**quivalent **P**rivacy. A security protocol for wireless network defined in the IEEE 802.11b/g standard. WEP aims to provide security by encrypting data over radio waves so that it is protected as it is transmitted from one end point to another.

6. **Adhoc Mode:** A wireless network system in which devices communicate directly with each other, without the use of a wireless router.

7. **Infrastructure Mode:** One of the wireless network system in which devices communicate with each other by first going through the wireless router.

8. **IP Address:** The unique 32 bit number assigned to each computer connected to the Internet. IP numbers are used by the TCP/IP protocol to route packets of data to their destinations.

9. **TCP/IP:** The collection of "protocols" underlying the functioning of the Internet. Each computer connected to the Internet is identified by a unique IP Address.

10. **SMTP:** Simple Mail Transfer Protocol.

11. **FTP:** File Transfer Protocol. Network cameras equipped with an embedded operating system, such as Linux, can use FTP to send images to a website.

12. **DDNS:** DDNS is a method of keeping a domain name linked to a dynamic IP address with your Network Camera. You can set up your DDNS service and the device will automatically update your DDNS server each time it alter a different IP address.

13. **Time server**: A time server consists of a computer networking device that reads the actual time from a reference clock and distributes this information to its clients using a computer network.

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