

H.264 DAY & NIGHT *NETWORK CAMERA*

INSTALLATION GUIDE

Please read instructions thoroughly before operation and retain it for future reference.

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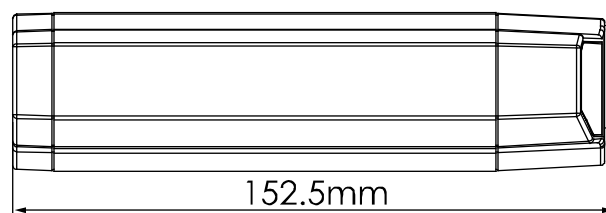
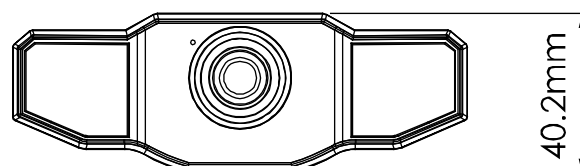
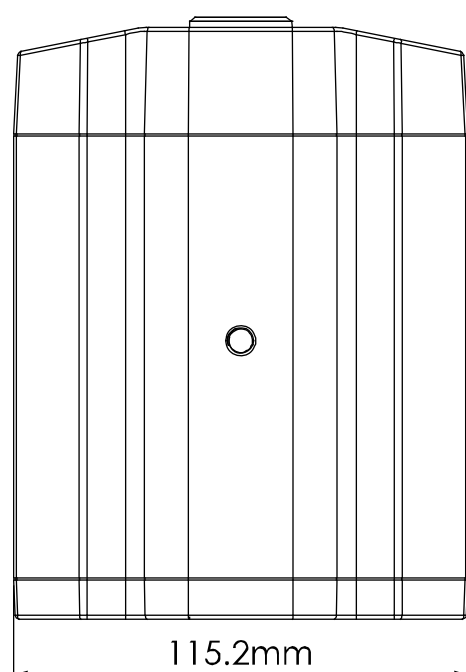
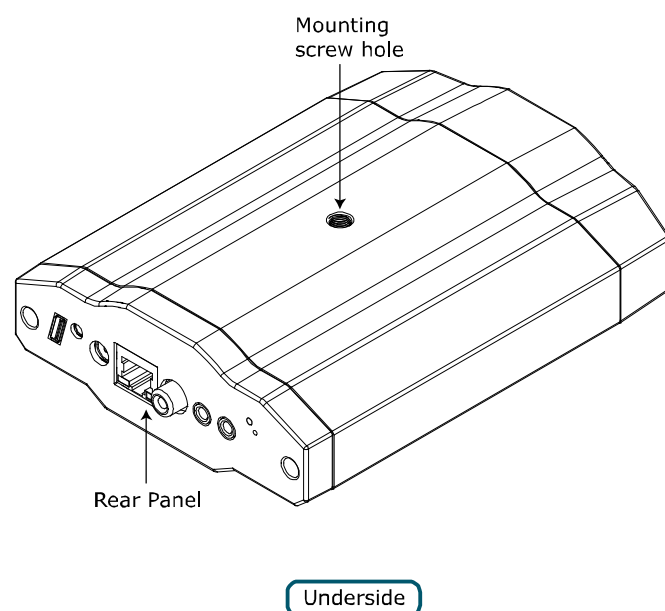
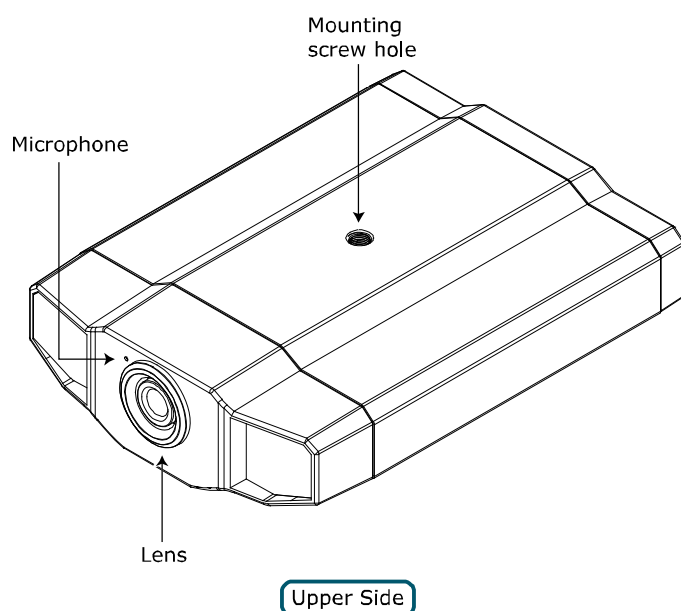
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1. OVERVIEW

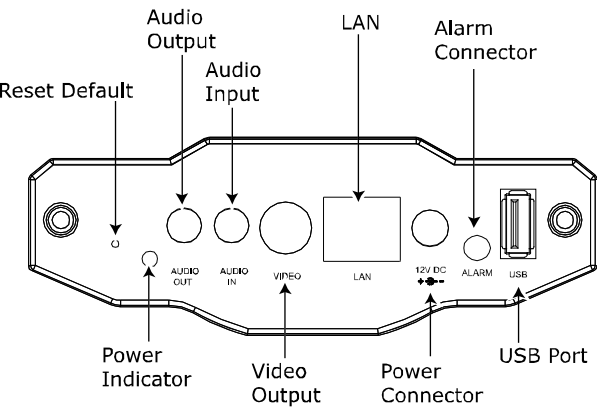
1.1 Package Content

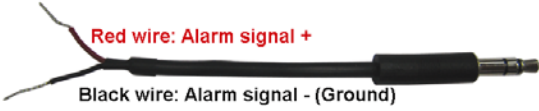
<input type="checkbox"/> Network camera	<input type="checkbox"/> RJ45 network cable
<input type="checkbox"/> Installation Guide	<input type="checkbox"/> Alarm cable
<input type="checkbox"/> Bracket	<input type="checkbox"/> CD-ROM disc (including user manuals & CMS software "Video Viewer")
<input type="checkbox"/> Adapter	

1.2 Hardware Overview



1.3 Rear Panel



CONNECTOR / BUTTON	DESCRIPTION
Reset Default	This button is hidden in the pinhole. Press and hold the reset button until the network camera rebooted. This will reset all parameters, including the IP address to factory default settings.
Power Indicator	When the camera is power-supplied, this indicator will be on as red.
Audio Output	Support the connection to an audio device, such as a speaker, for voice transmission of the remote side.
Audio Input	Support the connection to an audio device, such as a microphone, for voice transmission of the local side.
Video Output	Connect to the video input connector of your monitor with a video cable (i.e. a RCA cable with the BNC connector, or a coaxial cable for video output). * The video cable is optional.
LAN	Connect the camera to the network with the supplied RJ45 cable.
Power Connector	Connect the DC 12V adapter for power supply.
Alarm Connector	Support the connection to an alarm device with the supplied alarm cable for function scalability. <div>■ Alarm Cable</div> 
USB Port	Connect to the optional wireless dongle to have the wireless function, or USB flash drive for video recording.

2. INSTALLATION & CONNECTION

2.1 Install the Hardware

This camera can be installed in two ways: ceiling-mounted and desktop. During the installation, please make sure the upper side of the camera is always facing up, as shown in Figure 1 below (Regardless of which installation way you're using). This is to ensure the video output won't be up side down.

Note: The illustrations below are based on the ceiling-mounted installation.

Note: For the detailed cable connection, please refer to "1.3 Rear Panel" on Page 2.

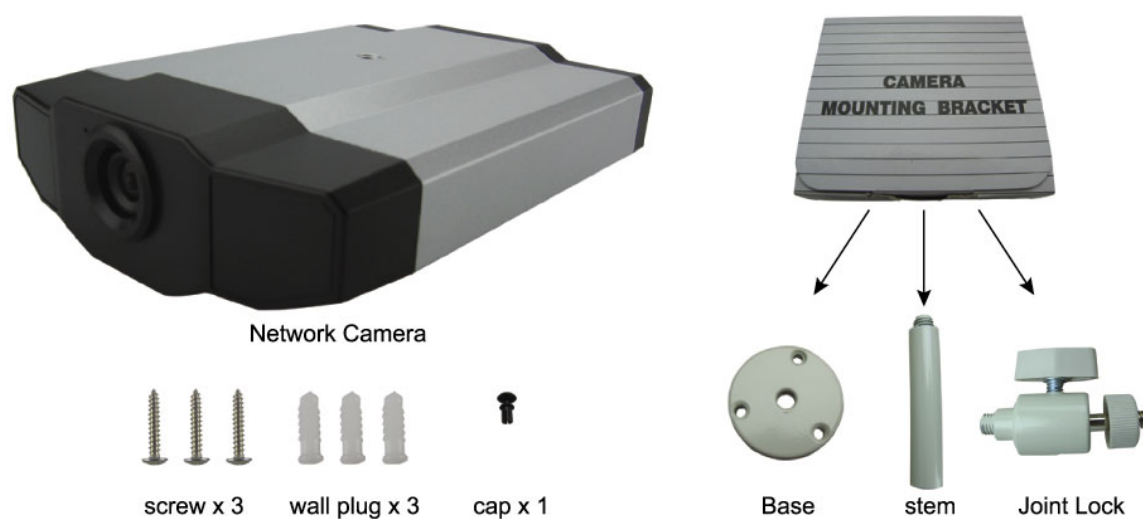
Tool needed: Power drill x 1 (not supplied within the sales package)

Prepare all the parts needed for camera installation.

Find the network camera, bracket package, a bag of screws & wall plugs, and a cap supplied with the sales package, as shown in Figure 1.

Unpack the bracket package to find the bracket disassembled into three parts: the base, stem and joint lock.

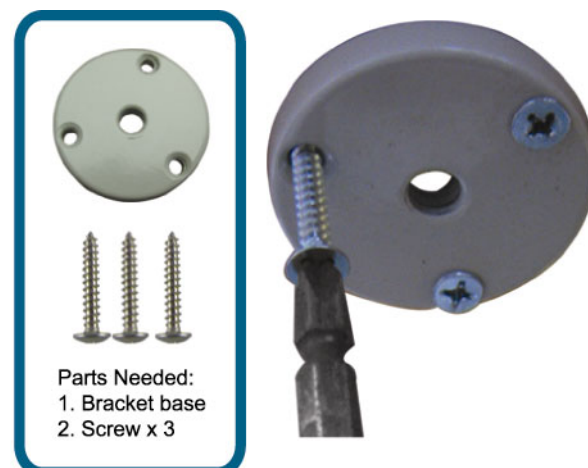
Figure 1: Parts needed for camera installation



1. Fix the base of the bracket.

Fix the base of the bracket with the supplied three screws to where the camera will be installed by using a power drill.

Figure 2: Screw the base to the ceiling

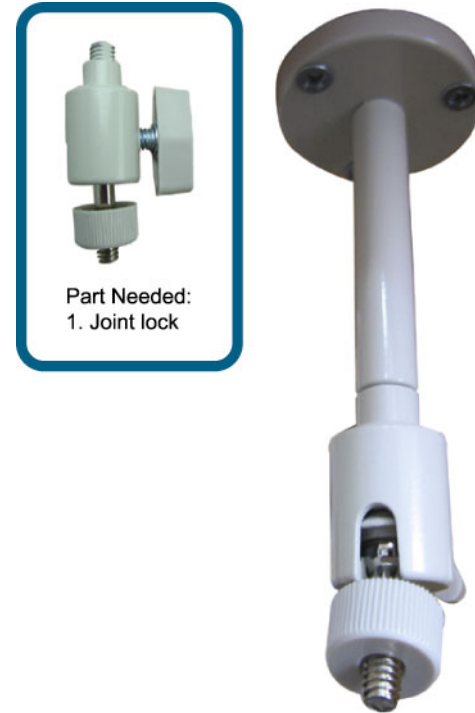


2. Assemble the bracket:
 - a). Align the stem with the central hole of the base, and rotate it to secure, as shown in Figure 3.
 - b). Connect the joint lock to the stem and rotate it to secure, as shown in Figure 4.

Figure 3: Connect the stem to the base



Figure 4: Connect the joint lock to the stem



3. Connect the camera to the bracket.

➤ *Ceiling-mounted:*

With the upper side of the camera facing up, align the mounting screw hole on the upper side with the screw thread of the joint lock, and rotate the camera to secure, as shown in Figure 4.

➤ *Desktop:*

With the upper side of the camera facing up, align the mounting screw hole on the underside with the screw thread of the joint lock, and rotate the camera to secure.

Figure 4: Connect the camera to the bracket

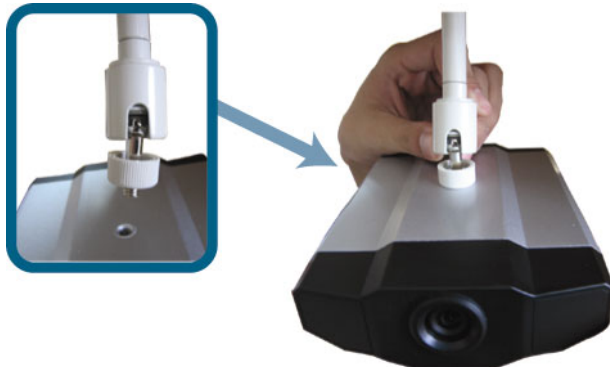
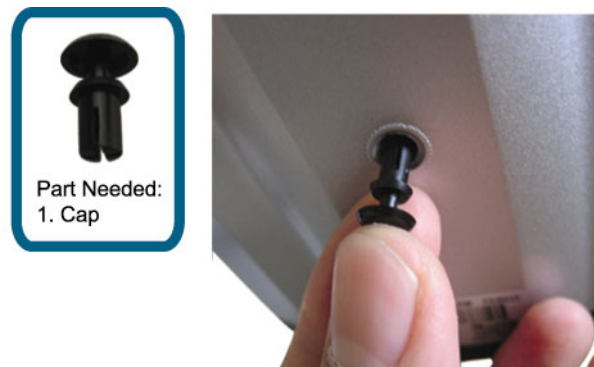


Figure 5: Insert the cap to the camera



4. Insert the cap to the other mounting screw hole of the camera.

➤ *Ceiling-mounted:*

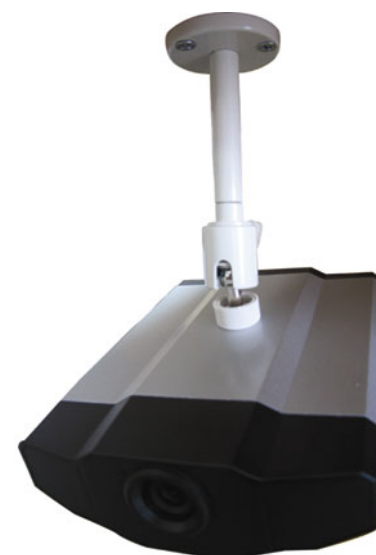
Insert the cap to the mounting screw hole on the underside of the camera, as shown in Figure 5.

➤ *Desktop:*

Insert the cap to the mounting screw hole on the upper side of the camera.

5. Adjust the viewing angle of the camera, and fasten the joint lock to fix the angle. The installation is completed, as shown in Figure 6.

Figure 6: Finish the installation



2.2 Connect an Audio Device (Optional)

This camera supports connection to an audio device (such as a microphone or a speaker) and an alarm device.

Note: The audio device is optional and needs to be purchased separately.

For connection details, please refer to “1.3 Rear Panel” at page 2 and the user manual of the connected external device.

2.3 Connect a USB Device (Optional)

Connect a wireless USB dongle to the USB port of the camera for wireless accessing, or a USB flash drive for video recording.

For wireless settings, please refer to “4. WIRELESS CONNECTION” at page 13.

For the compatible USB flash drive list, please refer to “APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST” at page 21. For details about the video recording function, please refer to “5.3 Video recording directly to USB flash drive” in the user manual.

Note: Please note that this device doesn't support USB hot-swapping or hot-plugging. Before the camera is powered on, make sure the USB device you need is connected properly.

2.4 Connect to Power

Plug the supplied power adapter to the camera's power connector and power outlet.

Note: The regulated power adapter is DC12V 1A to operate this device.

3. ETHERNET CONNECTION

Before using this network camera, please follow the instructions below to finish the network connection setting based on your installation environment:

- To configure the network settings, you must connect the camera to your PC by LAN. For details, please refer to “3.1 Network Connection via LAN” at page 6.
- To configure the Ethernet connection, please refer to “3.2 Ethernet Configurations” at page 9.
- To configure the wireless network connection, please refer to “4. WIRELESS CONNECTION” at page 13.

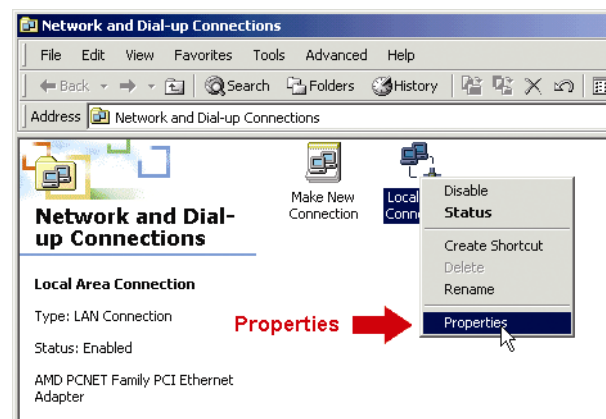
3.1 Network Connection via LAN

Step1: Connect this network camera and your PC via a RJ45 network cable, and make sure the camera is powered on.

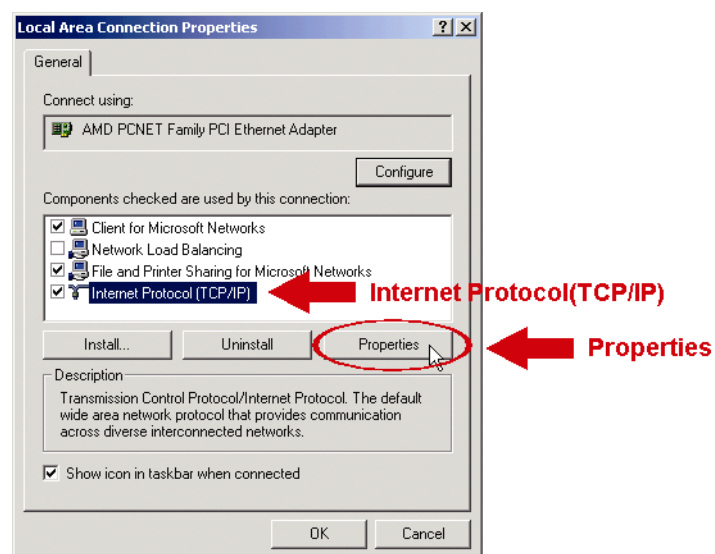
Step2: Set the PC's IP address as “192.168.1.XXX” (1~255, except 10).

For Windows 2000 users:

- Select “Start” → “Settings” → “Network and Dial-up Connections”.
- Right-click on “Local Area Connection”, and select “Properties”.

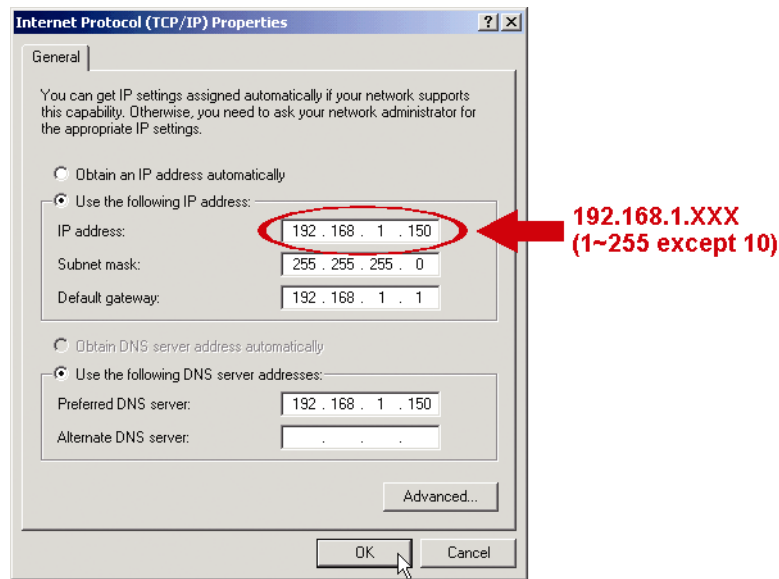


- In the “General” tab, select “Internet Protocol (TCP/IP)”, and select “Properties”.



- In the “General” tab, select “Use the following IP address”, and set the IP address as described below.

Note: It's recommended to note down the current settings first and then change as instructed. It's helpful when you need to restore the PC network settings for connecting to Internet later.



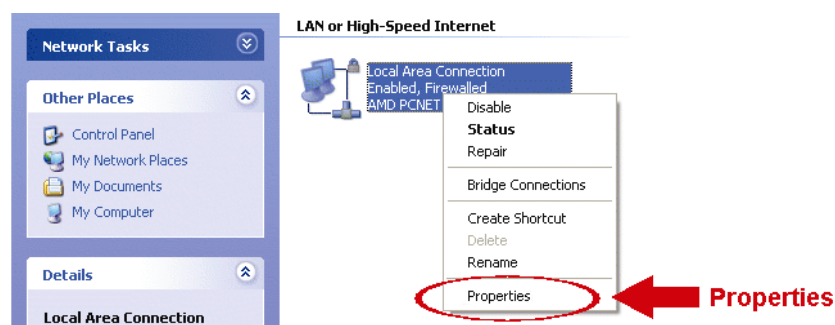
- e) Click “OK” to close the “Internet Protocol (TCP/IP) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

For Windows XP users:

- a) Select “start” → “All Programs” → “Control Panel” → “Network and Internet Connections” → “Network Connections” (If you’re in “Category View”).



- b) In “LAN or High-Speed Internet”, right-click on “Local Area Connection”, and select “Properties”.




- c) In the “General” tab, select “Internet Protocol (TCP/IP)”, and select “Properties”.
- d) In the “General” tab, select “Use the following IP address”, and set the IP address to “192.168.1.XXX” (XXX can be any value from 1~255 except 10).

Note: It’s recommended to note down the current settings first and then change as instructed. It’s helpful when you need to restore the PC network settings for connecting to Internet later.

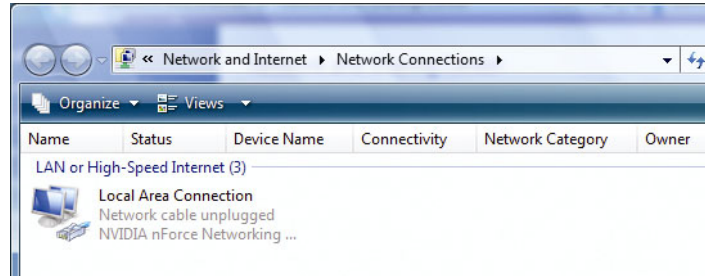
- e) Click “OK” to close the “Internet Protocol (TCP/IP) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

For Windows Vista users:

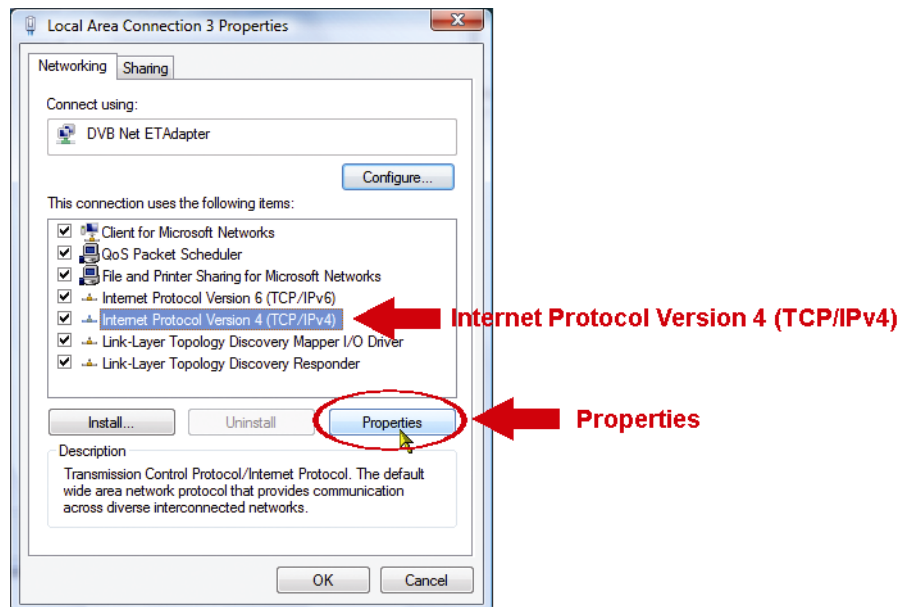
- a) Select “” (start) → “Control Panel” → “Network and Internet” to enter the “Network and Sharing Center”. Then, click “Manage network connections” (If you’re in “Category View”).



- b) Right-click on “Local Area Connection”, and select “Properties”.

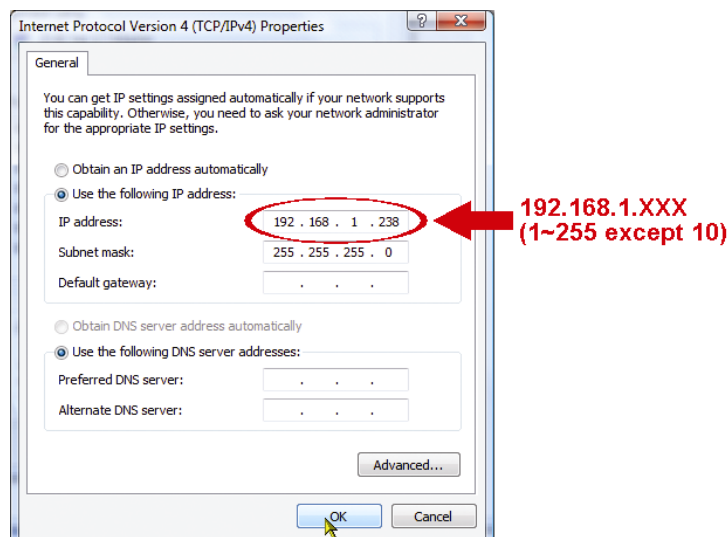


- c) In the “General” tab, select “Internet Protocol Version 4 (TCP/IPv4)”, and select “Properties”.



- d) In the “General” tab, select “Use the following IP address”, and set the IP address as described below.

Note: It’s recommended to note down the current settings first and then change as instructed. It’s helpful when you need to restore the PC network settings for connecting to Internet later.



- e) Click “OK” to close the “Internet Protocol Version 4 (TCP/IPv4) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

3.2 Ethernet Configurations

A quick installation wizard is available via your web browser for password change, date & time settings, and network configurations.

- For details about the wizard, please refer to “3.2.1 Setting in Wizard” at page 9.
- For details about DDNS setting for PPPoE and DHCP, please refer to “3.2.2 DDNS Setting” at page 11.

Note: You can also change the settings in the system configuration page via your web browser later. For details, please refer to “5. ACCESSING THE CAMERA VIA WEB BROWSER” in the user manual.

3.2.1 Setting in Wizard

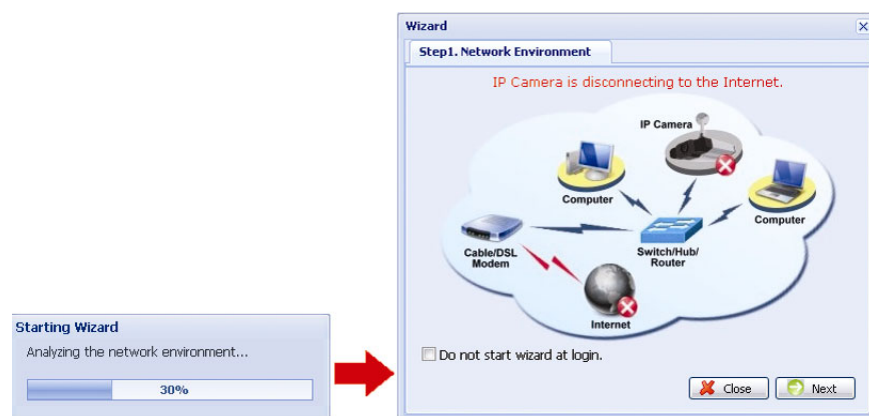
Step1: Open your web browser, for example, Microsoft Internet Explorer, and enter

“<http://192.168.1.10>” in the URL address box.

Step2: In the login page, key in the default user name (*admin*) and password (*admin*), and enter the security code from the image below. Then, click “LOGIN”.



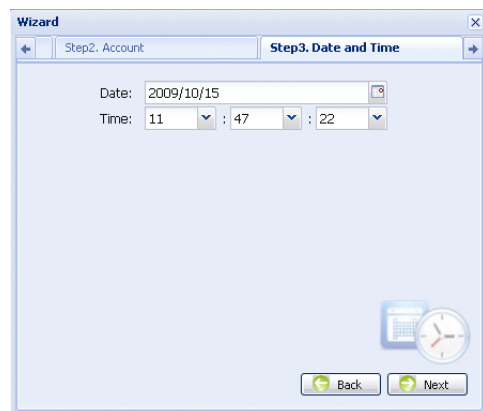
Step3: The wizard is then starting analyzing your network environment, and shows your network environment. Select “Next” to continue.



Step4: In “Account”, change the access password if needed. If not, leave all the columns blank, and select “Next”.

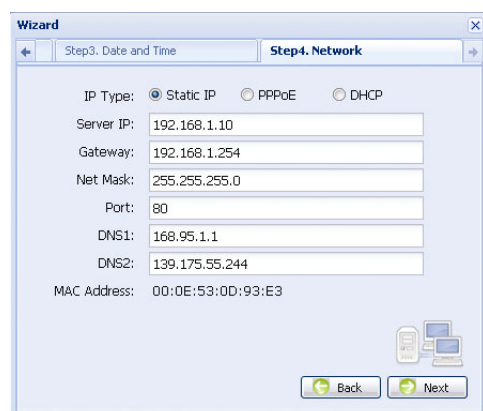


Step5: In “Date and Time”, check if the date and time setting are correct and modify if necessary.



Step6: In “Network”, select the network type based on your network environment (Static IP / PPPoE / DHCP), and key in the information needed.

Note: This camera doesn’t support POE router or hub.



For Static IP:

- Enter the information of “Server IP”, “Gateway” and “Net Mask” obtained from your ISP (Internet Service Provider).
- Enter the port number. The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

For PPPOE:

- Enter the user name and password obtained from your ISP.
- Continue the DDNS setting as instructed in “3.2.2 DDNS Setting” when you’re prompted to restart the web browser in Step8.

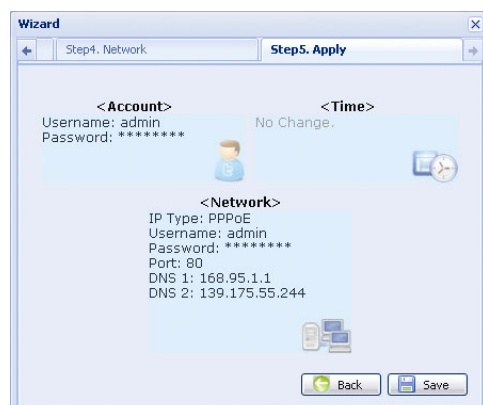
For DHCP:

- Before selecting this option, you need to finish the DHCP router settings first.
Get a router and connect it to the Internet via your PC (with Static IP or PPPoE setting). There are different setting methods for different routers. Please refer to their respective user manuals.
- Continue the DDNS setting as instructed in “3.2.2 DDNS Setting” when you’re prompted to restart the web browser in Step8.

Step7: In “Apply”, all the changes are listed. Check if the changes are correct.

- If yes, click “Save”.
- If no, click “Back” to where the changes should be made for modification, and click “Save” to apply the settings.

Note: You can also change the settings in the system configuration page via your web browser later. For details, please refer to “5. ACCESSING THE CAMERA VIA WEB BROWSER” in the user manual.

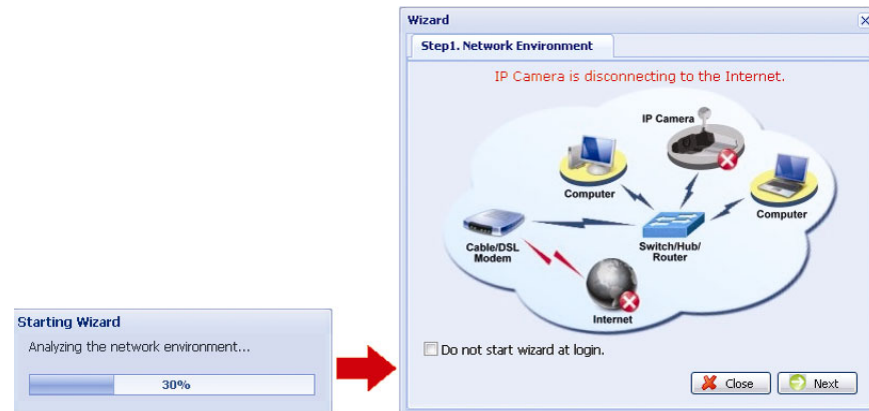


Step8: You will be prompted to restart your web browser for network setting changes.

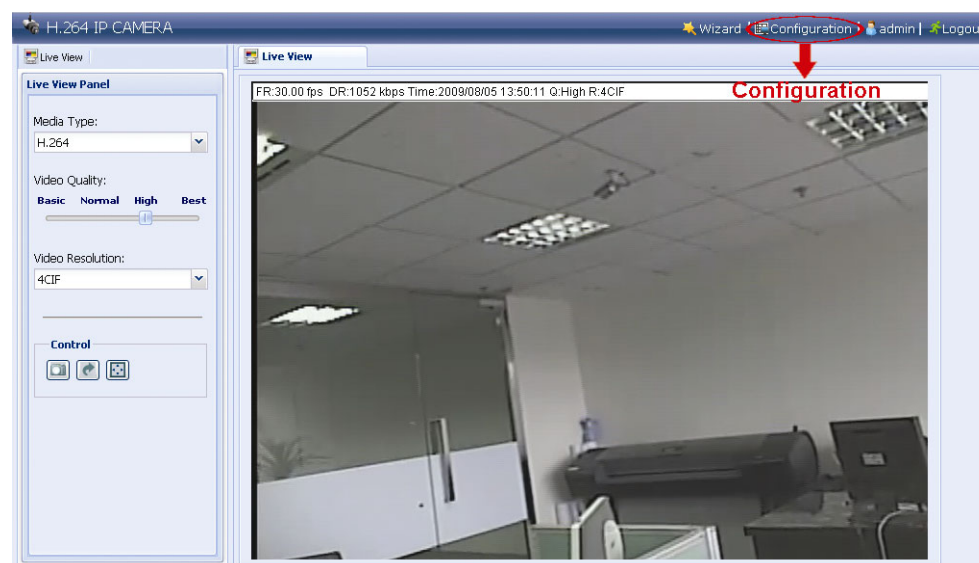
- For PPPoE and DHCP, continue as instructed in “3.2.2 DDNS Setting”.
- For Static IP, disconnect your camera and your PC, and connect them to Internet separately.
Next, enter the IP address of the camera in the URL address box of the web browser, and see if you can access the camera successfully.

3.2.2 DDNS Setting

Step1: Re-log in the network camera, and select “Close” for network environment checking.



Step2: In the live page, click “Configuration” to open the configuration page.

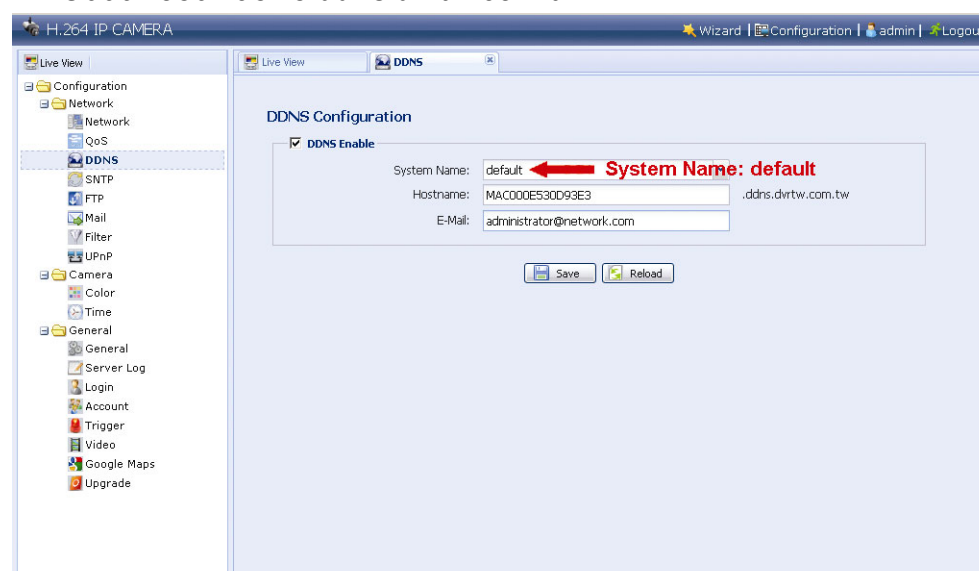


Step3: Click “Network” → “DDNS”, and check “DDNS Enable”.

Step4: Select “default” in “System Name”.

In “Hostname”, keep the default value, i.e. *the MAC address of this camera*, or change the name to a meaningful one. It's easier to memorize.

Then, note down the whole address of the camera, for example,
MAC000E530D93E3.ddns.dvrtw.com.tw.



Note: You can also create a DDNS account from a website which provides free DDNS service. For details, please refer to "APPENDIX 1 CREATING ACCOUNT FOR DDNS SERVICE" at page 16.

Step5: Click "Save" and log out. Then, disconnect your camera and your PC, and connect them to Internet separately.

Step6: Enter the host name you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

4. WIRELESS CONNECTION

Before configuring wireless setting to your network camera, make sure the following things are ready:

- There's a wireless access point or router.
- You have connected one wireless dongle to the camera USB port.

Note: The wireless dongle is optional and you need to purchase it separately.

4.1 Wireless Network Configurations

Step1: Connect this network camera and your PC via a RJ45 network cable.

Step2: Set the PC's IP address as "192.168.1.XXX" (1~255, except 10).

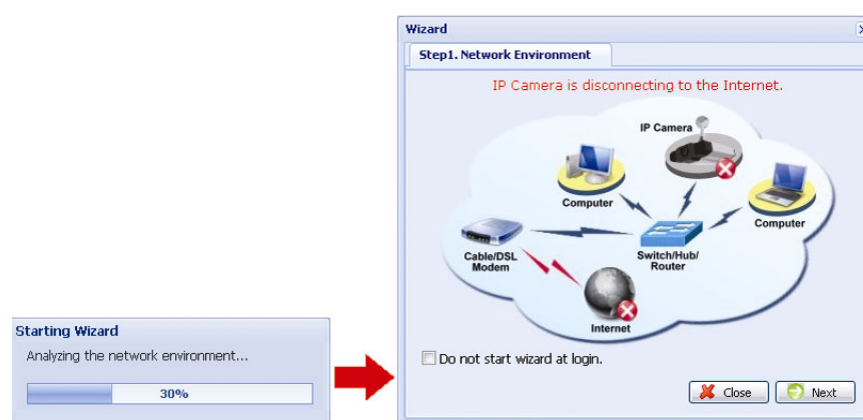
For details, please refer to "3.1 Network Connection via LAN" at page 6.

Step3: Open your web browser, for example, Microsoft Internet Explorer, and key in <http://192.168.1.10> in the URL address box.

In the login page, key in the default user name (*admin*) and password (*admin*), and enter the security code from the image below.



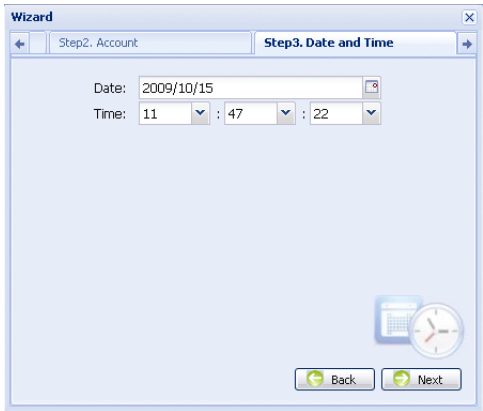
Step4: The wizard is then starting analyzing your network environment, and shows your network environment. Select "Next" to continue.



Step5: In "Account", change the access password if needed. If not, leave all the columns blank, and select "Next".



Step6: In “Date and Time”, check if the date and time setting are correct and modify if necessary.

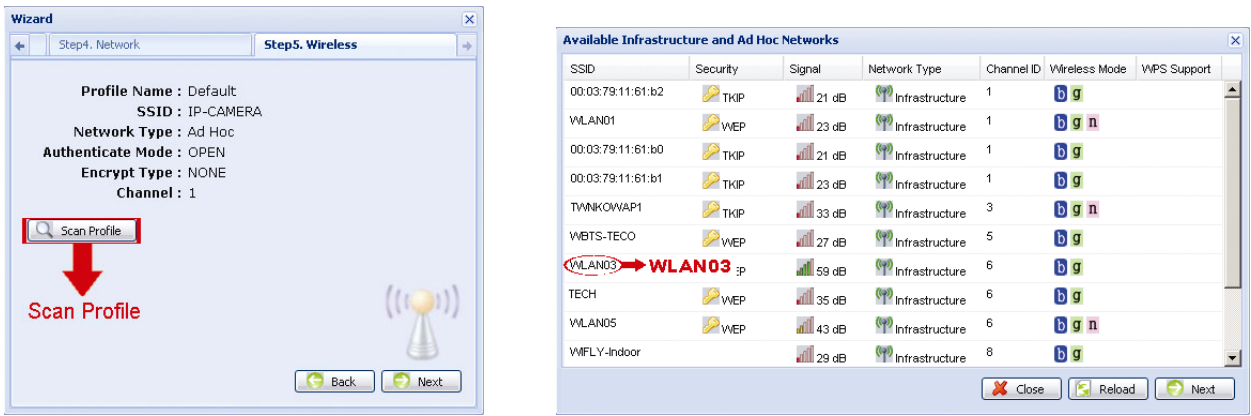


Step7: Skip “Network” and click “Next” to “Wireless”.

In “Wireless”, click “Scan Profile” to search all available wireless access points / routers, and double-click the one your camera is intended to configure for.

Note: This method is available only when the signal strength of the wireless access point / router your camera is intended to configure for is not too weak, and it’s set to open for searching.

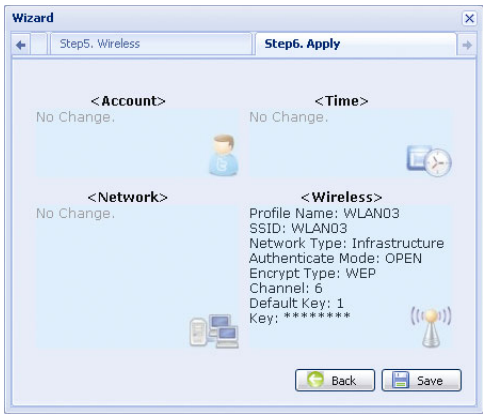
If this method is not working, please close the wizard and manually add the wireless profile as described in “A2.2 Manually” at page 19.



Step8: In “Apply”, all the changes are listed. Check if the changes are correct.

- If yes, click “Save”.
- If no, click “Back” to where the changes should be made for modification, and click “Save” to apply the settings.

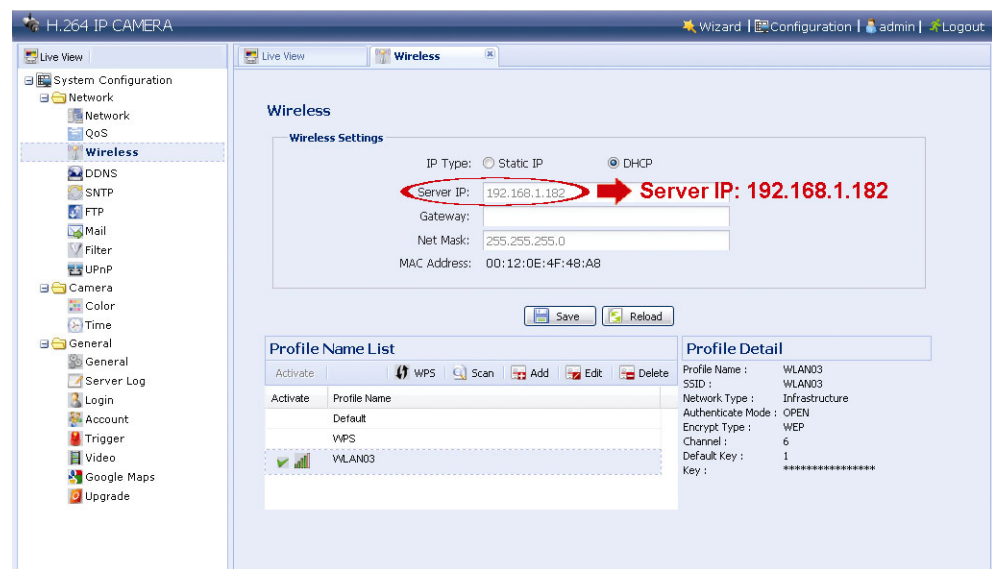
Note: You can also change the settings in the system configuration page via your web browser later. For details, please refer to “5. ACCESSING THE CAMERA VIA WEB BROWSER” in the user manual.



Step8: You will be prompted to restart your web browser for network setting changes. Click “Yes” and re-log into the camera.

Step9: When the login is successful, click “Configuration” on the top-left corner to enter the system setting page.

Then, select “Network” → “Wireless” to enter the wireless setting page, and note down the assigned IP address, similar as follows:



Step10: Log out the camera. Then, remove the network cable between your camera and your PC, and connect your PC to the wireless network the same as the one your camera is configured.

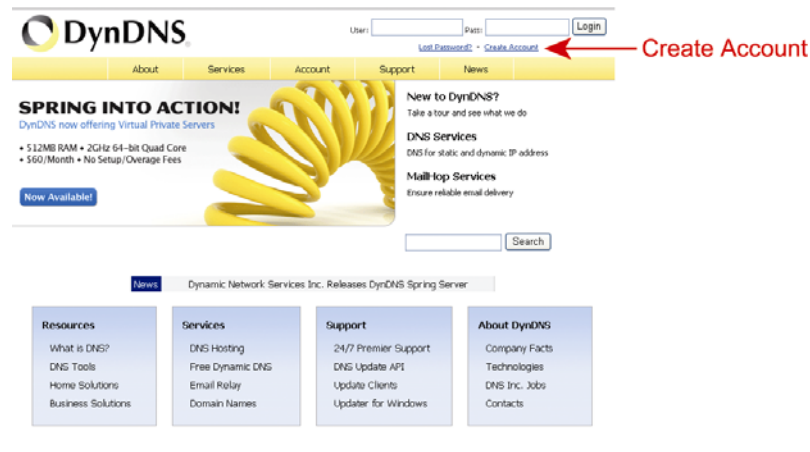
Step11: Enter the IP address you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

APPENDIX 1 CREATING ACCOUNT FOR DDNS SERVICE

For PPPOE or DHCP, you should enter the host name which points to the IP address of your network camera for login first.

There are many websites for free DDNS service application, and below shows an example of DDNS account application from the website <http://www.dyndns.com>.

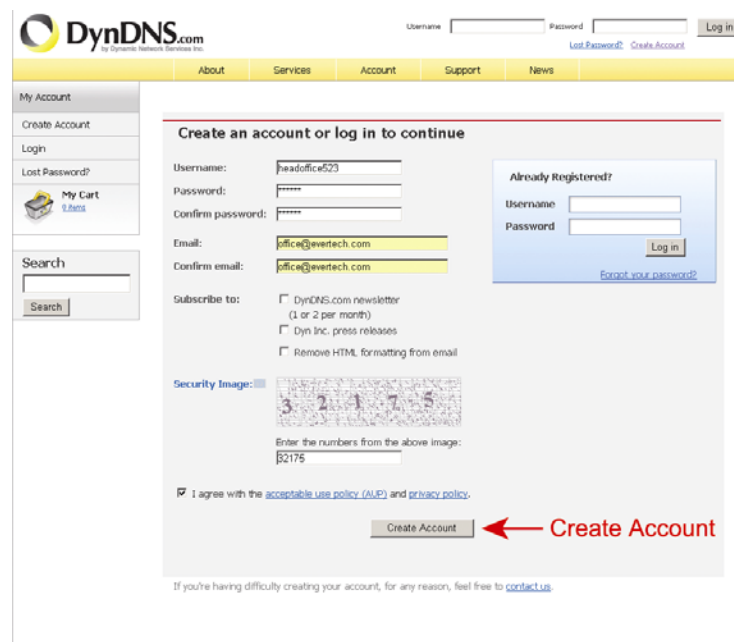
Step1: Go to <http://www.dyndns.com>, and click “Create Account” to sign up a DDNS account.



Step2: Enter all the information necessary for signing up an account according to the website instructions.

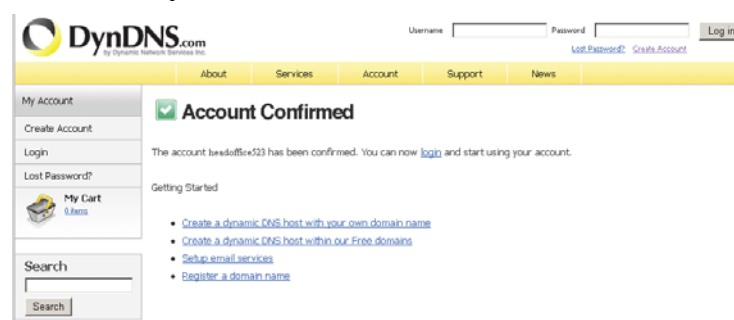
- Key in a user name for login, for example, *headoffice523*.
- Set the password and input it again to confirm.
- Key in your E-mail address and input it again to confirm.

Then, click “Create Account”.



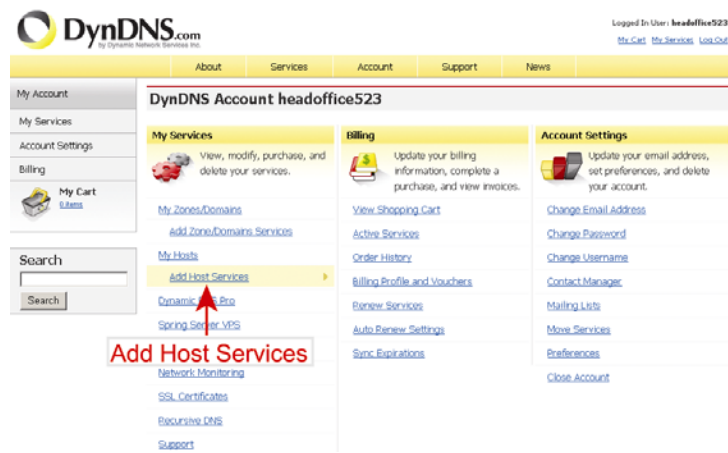
Step3: The system will automatically send a confirmation email to your email account. Please read this email within 48 hours and complete the procedure to activate your account according to the instructions in the email.

When the account is confirmed, you will see “Account Confirmed”. Your account is created successfully now.



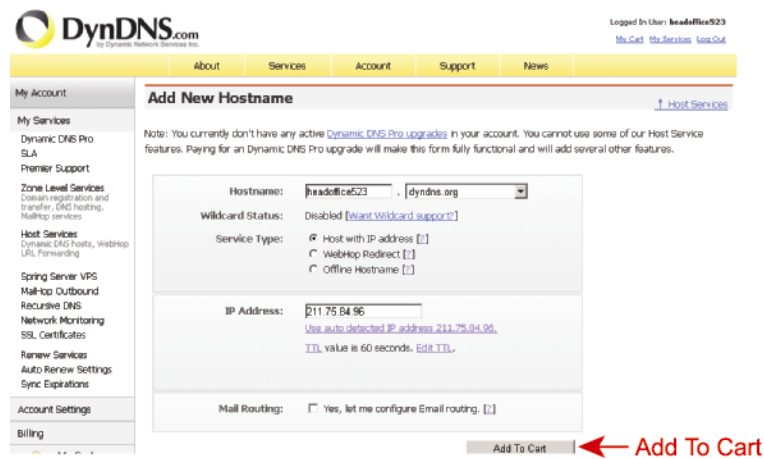
Step4: Click “login”, and enter the user name and password you preset before to log in.

Step5: Click “Add Host Services”.



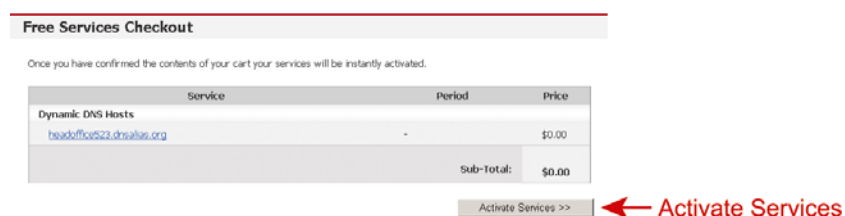
- Input a meaningful host name.
- Choose a host name.
- Enter the IP address you want to redirect.

Note down the whole host name, for example, *headoffice523.dyndns.org*. Then, click “Add To Cart” for billing.



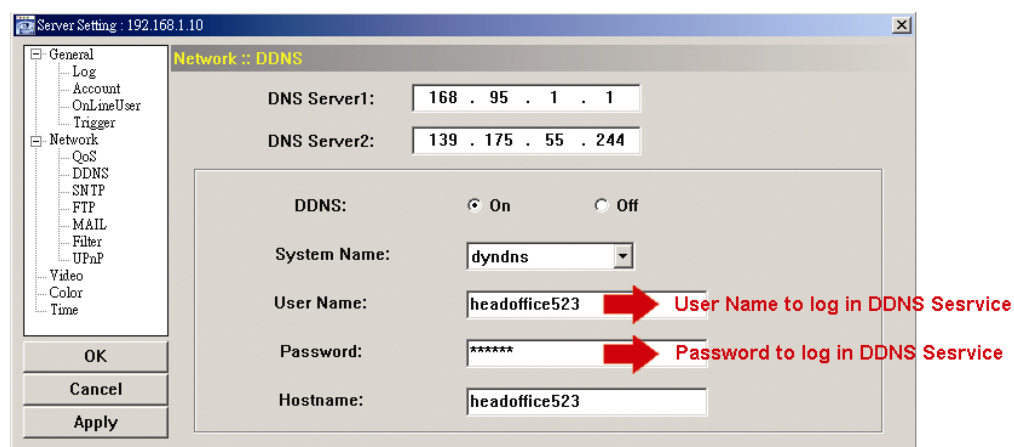
Note: This service is free. Just finish the billing process, and **NO** paying information is required.

Step6: Click “Activate Services” after checkout, and you’re ready to use DDNS services now.



Step7: Return to Video Viewer, and go to “Network” → “DDNS”.

- Select “On” for DDNS.
- Select the system name you set when subscribing the DDNS service from the drop-down list, for example, *dyndns*.
- Enter the user name & password you used to log into the DDNS service.
- Enter the host name you set when subscribing the DDNS service, for example, *headoffice523*.



APPENDIX 2 ADDING WIRELESS PROFILE

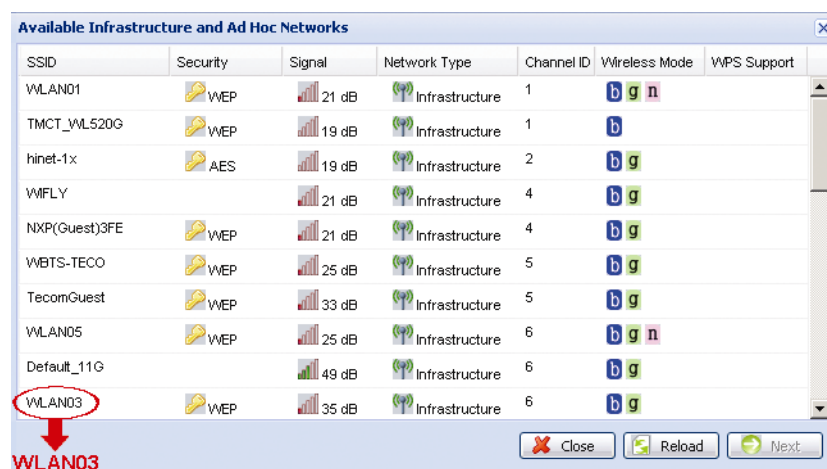
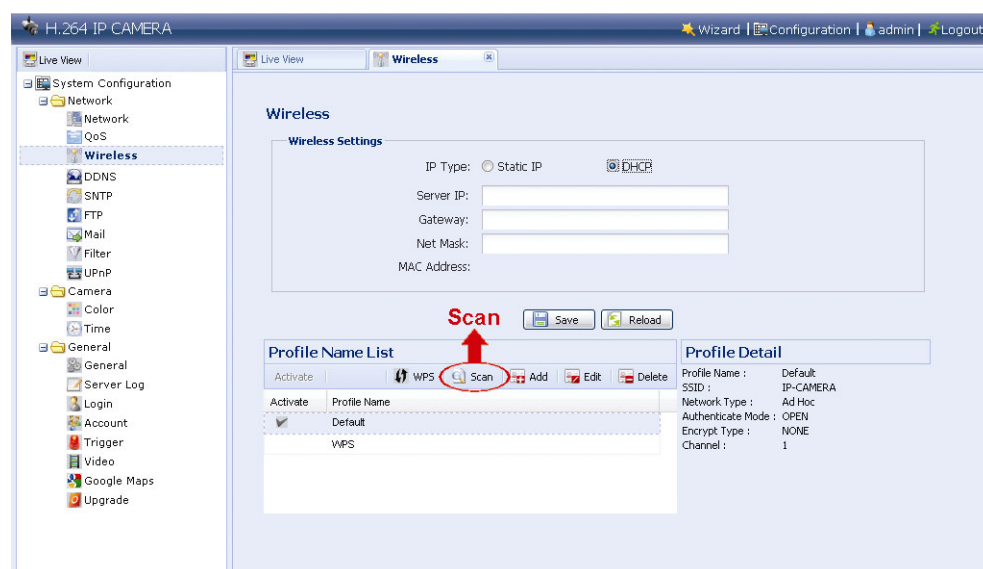
You can also add the wireless profile manually or via the scan function in the system configuration page from the web browser.

A2.1 Via Scan

Note: This method is available only when the signal strength of the wireless access point / router your camera is intended to configure for is not too weak, and it's set to open for searching.

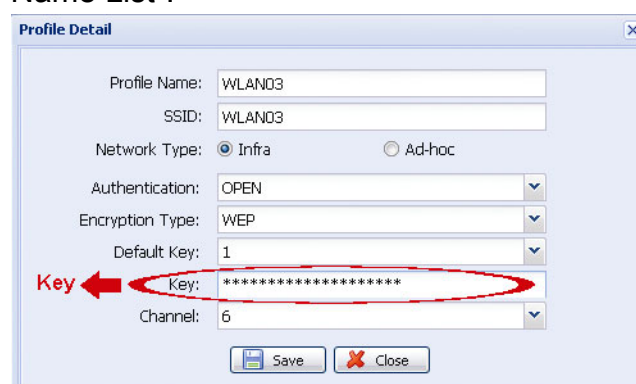
If this method is not working, please manually add the wireless profile as described in "A.2 Manually".

Step1: Click "Scan" to search all available wireless access points / routers, and double-click the one your camera is intended to configure for.



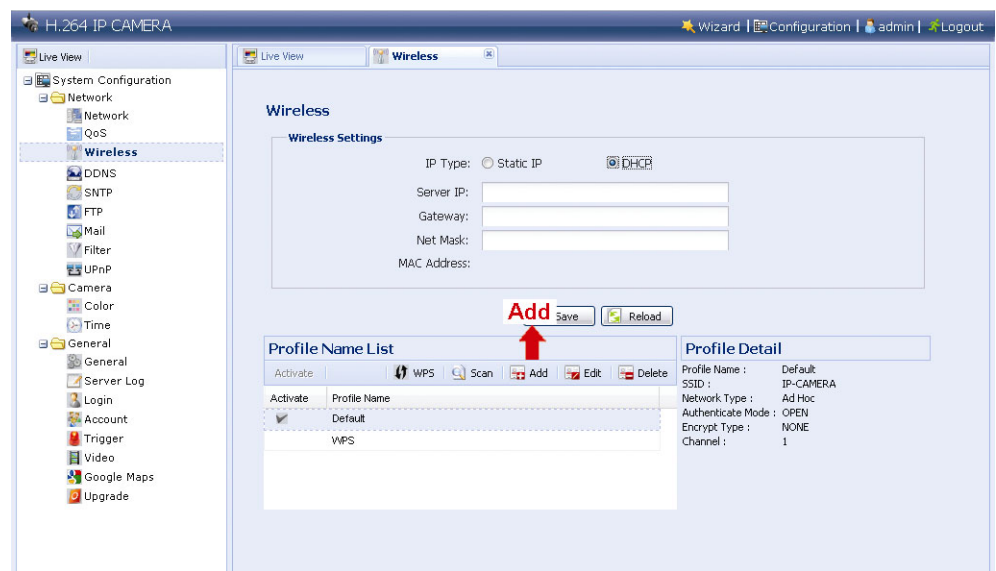
Step2: The setting for the selected wireless access point / router will be shown except for the "Key" column.

Enter the password to access the selected wireless access point / router in "Key", and click "Save". The selected wireless access point / router will be added to "Profile Name List".



A2.2 Manually

Step1: Click “Add” to create a profile manually.



Step2: In “Profile Detail”, enter all the necessary information for access the wireless network, and click “Save”. The selected wireless access point / router will be added to “Profile Name List”.

Note: The setting items shown below may vary based on each option selected.

Item		Description
Profile Name		Give a meaningful name for this Wireless profile.
SSID		This is the name of the wireless access point / router your camera wants to configure for.
Network Type	Infra	Select it when the camera will access the wireless network via an access point or router.
	Ad-hoc	Select it when the camera will connect to other wireless devices, such as your PC or laptop, with a wireless connection.
Authentication		Check which authentication method is used for the wireless access point / router and select the correct one: “Open”, “Shared”, WPAPSK” or “WPA2PSK”.
Encryption Type		Check which encryption type is used for the wireless access point / router and select the correct one: “WEP”, TKIP” or “AES”. Select “NONE” to disable key authentication for wireless network access.
Default Key		In 64-bit WEP, 4 keys are available; in 128-bit WEP, only 1 key is available. Check which key is used for the wireless access point / router and select the correct one.
Key		Enter the key used to access the wireless access point / router. <u>When “WEP” is selected</u> <ul style="list-style-type: none">● For 64 bit, the length of the key allows up to 10 alphanumeric characters or 5 ASCII characters.● For 128 bit, the length of the key allows up to 26 alphanumeric characters or 13 ASCII characters. <u>When “TKIP” or “AES” is selected</u> <p>The length of the key allows 8 ~ 63 alphanumeric characters.</p>
Channel		Check which channel is used for the wireless access point / router and select the correct one.

A2.3 Activate & Connect

Step1: Select the profile you just added in “Profile Name List”, and check the network type of the profile.

Then, in “Wireless Settings”, check the IP address of your camera (Server IP) as described below and note it down.



When the network type is “Infrastructure”

- “Static IP” or “DHCP” is available to choose depending on your needs.
- To select “Static IP”, disable the DHCP server of the router first.
- When “Static IP” is selected, change the server IP in “Server IP” when necessary or keep the default value “192.168.2.10”.
When “DHCP” is selected, click “Reload” and check the IP address assigned in “Server IP”.

When the network type is “Ad-hoc”

- Select “Static IP” only, and change the server IP in “Server IP” when necessary or keep the default value “192.168.2.10”.

Then, click “Save” to save the setting.

Step2: Double-click the profile to activate it, and make sure the signal strength is fine.

Step3: Remove the network cable between your camera and your PC, and connect your PC to the wireless network the same as the one your camera is configured.

Step4: Enter the IP address you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST

The recorded data is saved on EXT3 file system, and can't be read directly from your PC. To read, play and download the recorded data, please refer to "5.3 Video recording directly to USB flash drive" in the user manual.

MANUFACTURER	MODEL	CAPACITY
Transcend	JFV35	4G
	JFV30	8G
Kingston	DataTraveler	1G
PQI	U172P	4G
Apacer	AH320	2GB
	AH320A	8GB
	AH220	1GB
	AH320	4GB
A-data	RB-18	1GB
Sandisk	Cruzer Micro	2G
	Cruzer Micro	4G
	Cruzer4-pk	2G
Netac	U208	1G
MSI	F200	4G
SONY	Micro Vault Tiny 2G	2G
	Micro Vault Tiny 4G	4G
	Micro Vault Tiny	1G