



VCC-HD2300/HD2300P  
VCC-HD2100/HD2100P

### Chapter 3

# Before You Begin Network Operation

Preparing Your Computer for Network Operation  
Setting Up IP Addresses Automatically (Auto IP Setup)  
Checking the operating environment  
Configure the network information on your PC  
Operation Privileges and Login Users

## Preparing Your Computer for Network Operation

Follow the steps below to prepare your computer for network operation. For detailed procedure, refer to the linked information.

### 1 Assign a unique IP address to each camera.

If you have newly installed two or more cameras on your network, you can accomplish this by using the supplied “Auto IP Setup” software.

### 2 Check your operating environment

### 3 Connect the camera to the network to which your PC is also connected.

### 4 Configure the network information on your PC

You need to configure information such as the IP address of your PC.

### 5 Install the “H.264 Plug-in” from the supplied CD-ROM onto your PC.

Double-click the “setup.exe” icon and complete the steps in the wizard.

You are now ready to monitor the surveillance video in the H.264 format.



### 6 Access the camera from your Web browser.

From your Web browser (Internet Explorer), access the camera and log into the system as an “admin” user (administrator).

### 7 Monitor live video.

When you access the camera and log into the system, live video from the camera appears on the live screen.



If the live screen displays no or distorted video, check your operating environment and connection conditions.

### 8 Configure the necessary settings on the administrator configuration screens.

Although the camera is already configured with the factory default settings so that you can monitor live video immediately after you log into the system, you need to configure necessary settings according to your installation environment and application of the camera.



If this is the first access to the camera, start by configuring the system clock on the CLOCK SETTINGS screen.

### 9 Use associated software applications to extend the capabilities of your surveillance system.

Install the following associated software applications on your PC, as required:

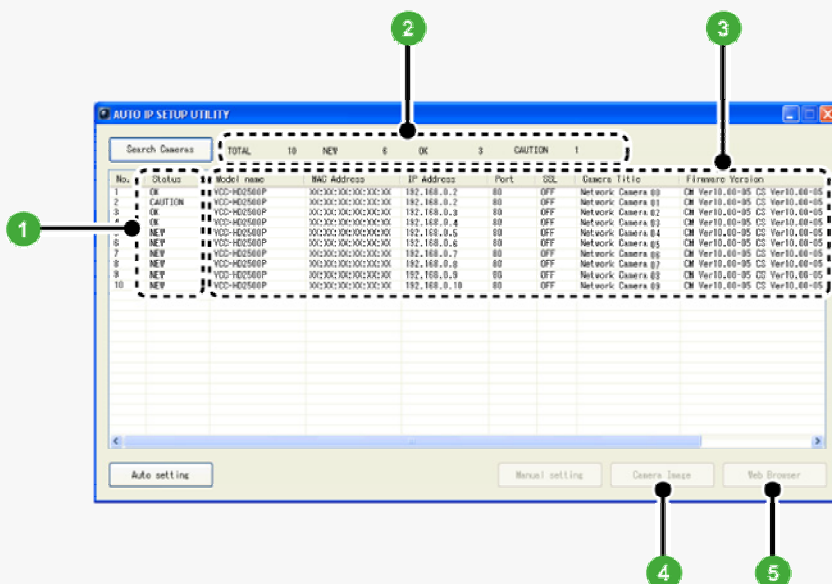
**VA-SW3050Lite (supplied):** Monitor application for monitoring video images from more than one camera simultaneously on a multi-view screen.

**VA-SW3050Server/Client (optional):** Recorder/player application for recording and playing back streaming video data from the network.

## Setting Up IP Addresses Automatically (Auto IP Setup)

If you are installing two or more new cameras on the same local network, you need to change the factory default IP address of each camera to prevent IP address overlap. The supplied “Auto IP Setup” software frees you from this burden by automatically assigning a unique IP address to each camera on your network.

Before setting up the IP addresses automatically, click the [Search Cameras] button in the utility window to search all cameras on the network and display the address settings and details of each camera.



### 1 Status

- NEW:** The camera has the default IP address (“192.168.0.2”).  
→ Assign a unique IP address.
- OK:** The camera has a unique IP address and can be connected successfully to network.
- CAUTION:** The camera cannot be connected successfully to the network because of IP address overlap or other reason.  
→ Change the IP address.

### 2 Number of searched cameras (Total and by status)

### 3 Camera details



“Model name”, “IP Address”, “Port”, “SSL”, “Camera Title”, and “Firmware Version” are not shown if the network board or other hardware is not supported.

“IP Address”, “Port”, “SSL”, and “Camera Title” are editable. (Refer to the “Manually Setting Up IP Addresses of Existing Cameras” section.)

### 4 Camera Image button

Select the desired camera row and click this button. Then, video from the camera appears in a separate window. Use it to check which camera is selected or when editing the camera title or other data.

### 5 Web Browser button

Select the desired camera row and click this button. Then, the Web browser opens and connects to the camera automatically.

## Automatically Setting Up IP Addresses of New Cameras

- 1 Insert the supplied CD-ROM into the CD-ROM drive of your PC.

The opening menu appears.

- 2 Click [Auto IP Setup].

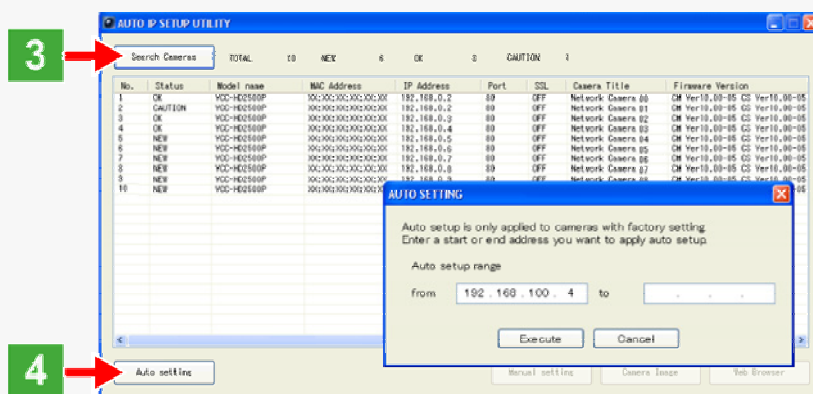
The utility window opens so that you can search cameras.



If you encounter a firewall confirmation dialog box, disable the firewall so that your PC can communicate with the camera.

- 3 Click **Search Cameras**.

The utility searches all cameras on the local network and shows information on each camera one after another.



The above screenshot shows an example when your PC is connected to 10 cameras.

- 4 Click **Auto setting** and, in the address range selection dialog box, click **EXECUTE**.

The utility automatically assigns a series of new IP addresses, starting from the start address.



The dialog box initially shows, as the start IP address, the IP address to be assigned to the first camera that has a status of “NEW”.

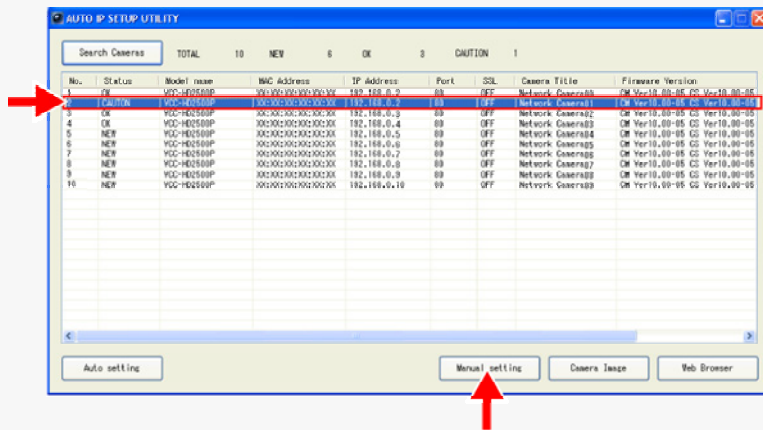
To specify your own address range, type both the start and end IP addresses.

The utility automatically assigns an IP address to each camera located in the LAN, but not beyond the router.

It skips any IP address that is already used.

## Manually Setting Up IP Addresses of Existing Cameras

If you find that the searched cameras have overlapping IP addresses (indicated by a status of “CAUTION”) or if you need to change a camera title, you can edit the displayed camera data manually as described below.



# 1 Select the desired camera and click **Manual setting** .

The camera information dialog box opens.

# 2 Make changes to the camera data and click **EXECUTE** .

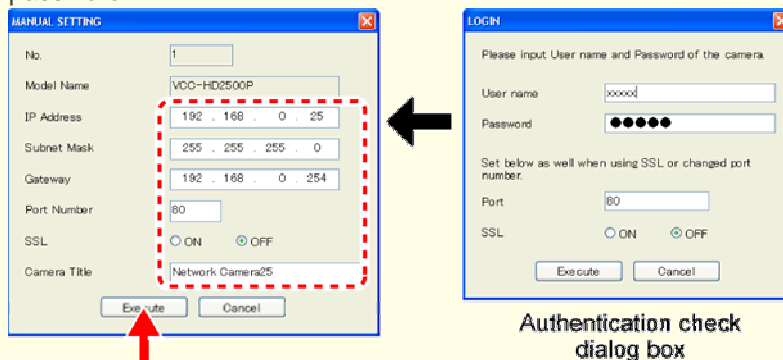
This transmits your changes to the camera.

You can see the problem of IP address overlap has been resolved in the [Status] row of the list, which has been changed from “CAUTION” to “OK”.



You cannot change the model name.

If your login user name and password has been changed from the factory default settings, you will be presented with an authentication check dialog box. In this case, type the current user name and password.



If SSL communication is enabled for the selected camera, you cannot edit the camera data. Change the SSL and port number settings in the authentication check dialog box.

## Checking the operating environment

To operate the camera via network operation, you must meet the following operating requirements.

- PC:** IBM PC/AT compatible
- Operating system:** Windows XP Professional/Windows Vista
- CPU:** Core2Duo E6700 2.66 GHz or higher
- Memory:** Windows XP: 1GB or more  
Windows Vista: 2GB or more
- Network interface:** 10BASE-T/100BASE-TX (RJ-45 connector)
- Display card:** 1920×1200 pixels or higher
- Graphics chip:** ATI RADEON HD2600 series or higher  
nVIDIA GeForce 8600 series or higher  
nVIDIA Quadro FX550 series or higher
- Web browser:** Internet Explorer Ver. 6.0 SP2 or higher, or Internet Explorer Ver. 7.0



- Use a LAN cable no longer than 100 m (109.4 yards) with the shield type CAT5 or higher.
- The live video may be delayed depending on your system environment.
- Use Windows Update to keep the operating system and browser up-to-date.
- Note, however, that Internet Explorer 8 is not supported.

## Configuring the Web Browser

In the cases below, configure the Internet Explorer's settings by clicking [Tool] and then [Internet Options].

### When accessing the camera using SSL encryption for video signal transmission

- 1 Click the [Advanced] tab.
- 2 Make sure that the [Use SSL 2.0] and [Use SSL 3.0] check boxes under [Security] are selected. If deselected, select them.

### When the video refresh is unstable

- 1 Click the [General] tab.
- 2 Under [Temporary Internet Files], click [Settings].  
For Windows Vista, click [Settings] under [Browsing history].
- 3 Set the slider under [Amount of disk space to use:] to a low value (the minimum value recommended by Microsoft).

### When a Java Script “Runtime Error” is displayed during operation

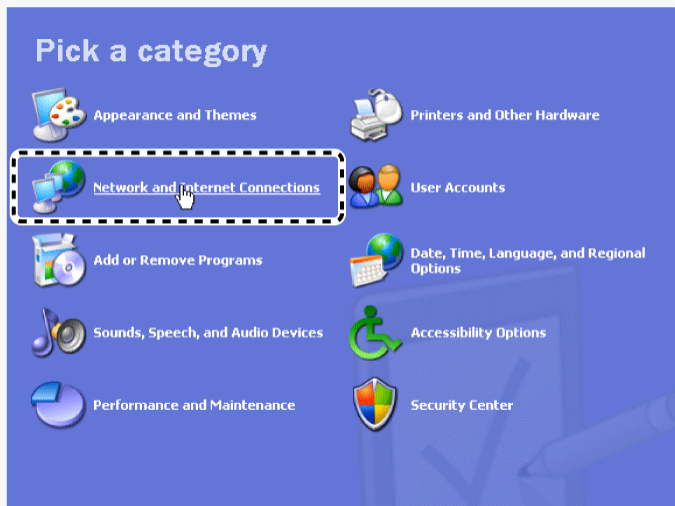
- 1 Click the [Advanced] tab.
- 2 Under [Browsing], deselect the [Display a notification about every script error] check box.
- 3 Select the [Disable script debugging] check box.

# Configure the network information on your PC

## For Windows XP

- 1 In [Control Panel], click [Network and Internet Connections].

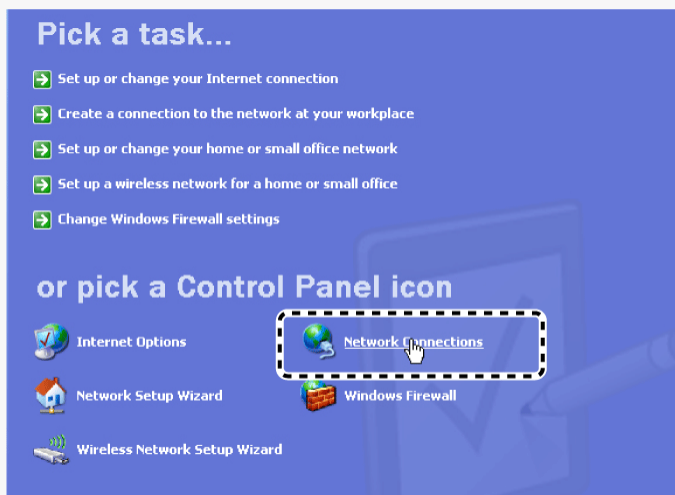
The [Network and Internet Connections] dialog box opens.



- 2 Click [Network Connections].

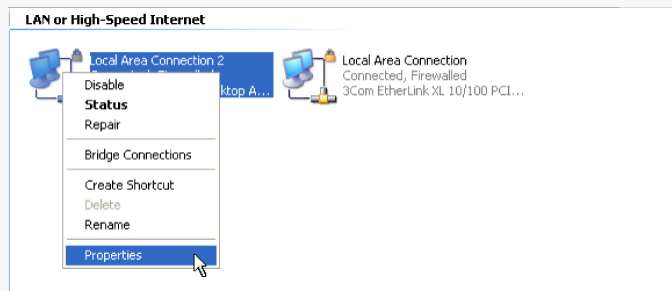
The [Network Connections] dialog box opens.

Under [LAN or High-Speed Internet], the icon representing your LAN interface (Ethernet adapter) configuration appears.



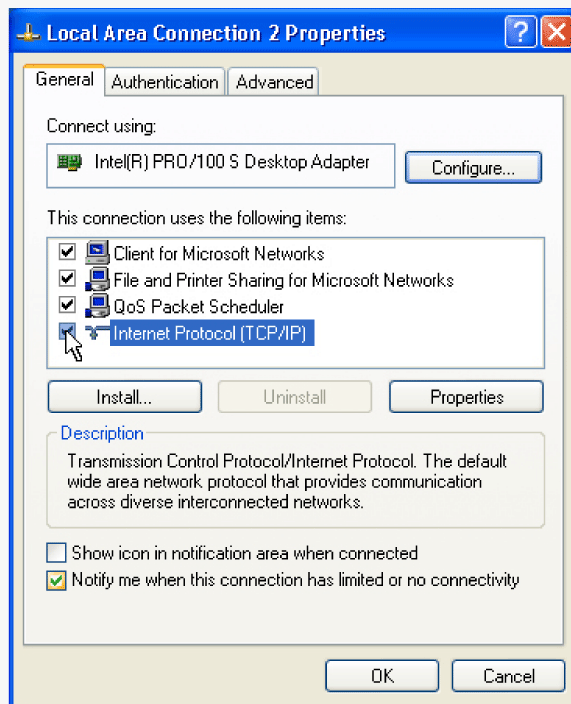
- 3 Right-click on the LAN interface (Ethernet adapter) configuration icon and click [Properties] in the context menu.

The [Local Area Connection Properties] dialog box opens, with the [General] tab shown.



- 4** In the [This connection uses the following items:] list box, select the [Internet Protocol (TCP/IP)] check box.

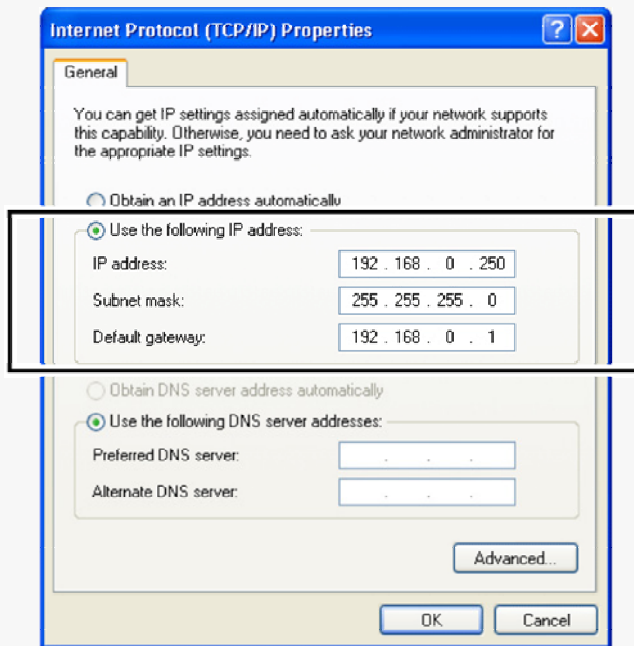
Confirm that the [Internet Protocol (TCP/IP)] check box is selected. If deselected, select the check box.



- 5** Click [Properties].

The [Internet Protocol (TCP/IP) Properties] dialog box opens, with the [General] tab shown.

- 6** Select the [Use the following IP address:] radio button and specify the IP address, the subnet mask, and the default gateway.



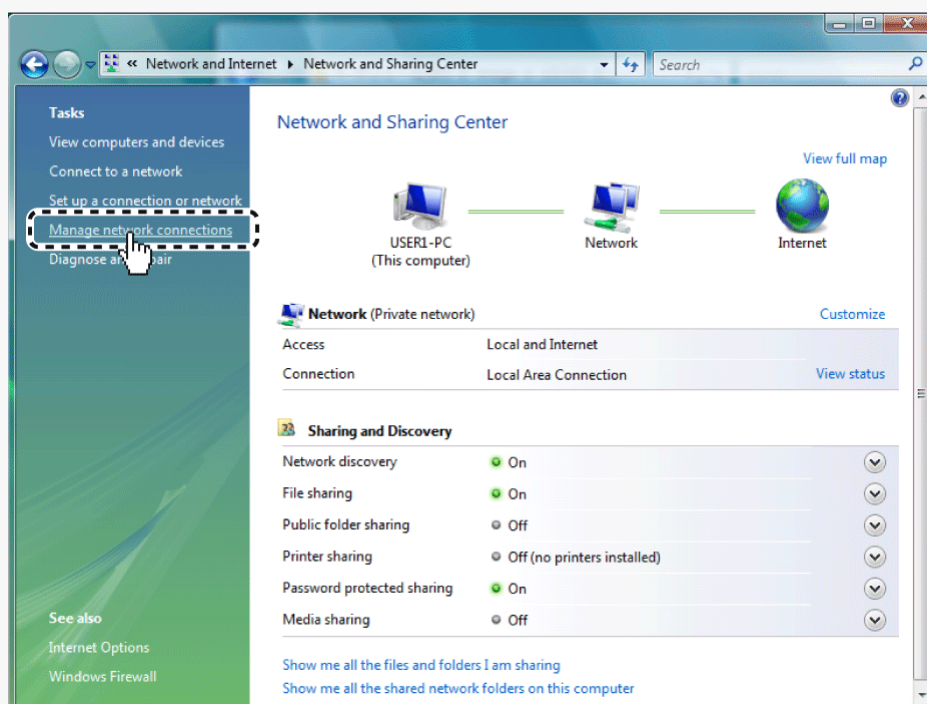
- 7** Check the configured settings and click **OK**.

You are now done with the TCP/IP configuration.  
Close all the dialog boxes that are open.

## For Windows Vista

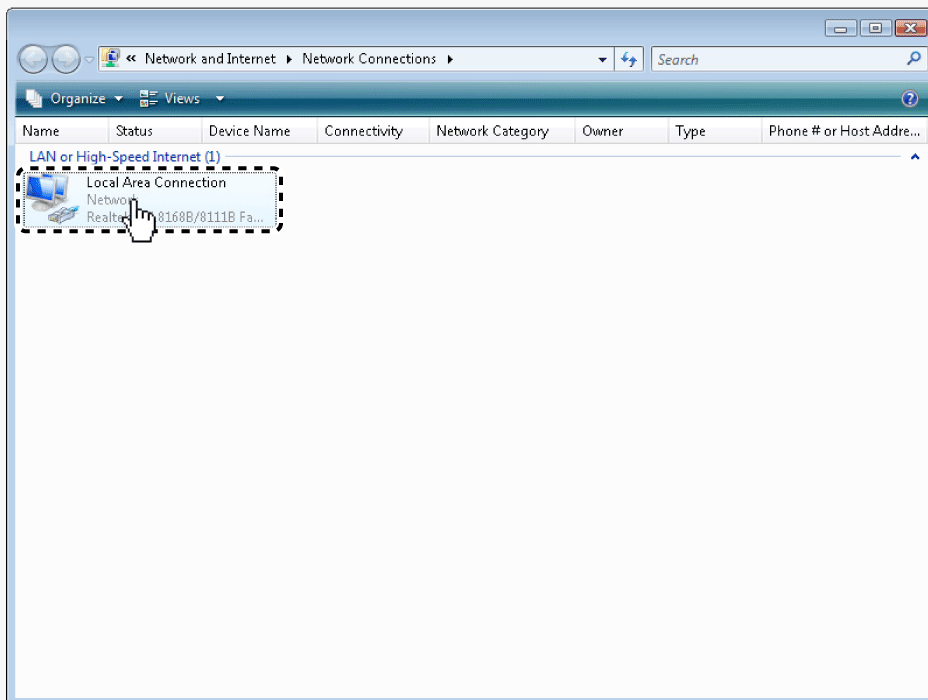
- 1** In [Control Panel], click [Network and Sharing Center].

The [Network and Sharing Center] dialog box opens.



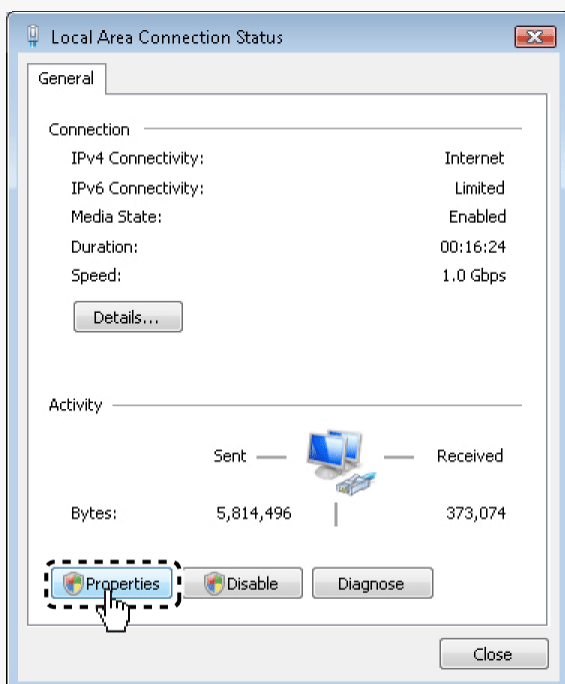
## 2 Click [Manage network connections].

The [Network Connections] dialog box opens.



## 3 Double-click [Local Area Connection].

The [Local Area Connection Status] dialog box opens.



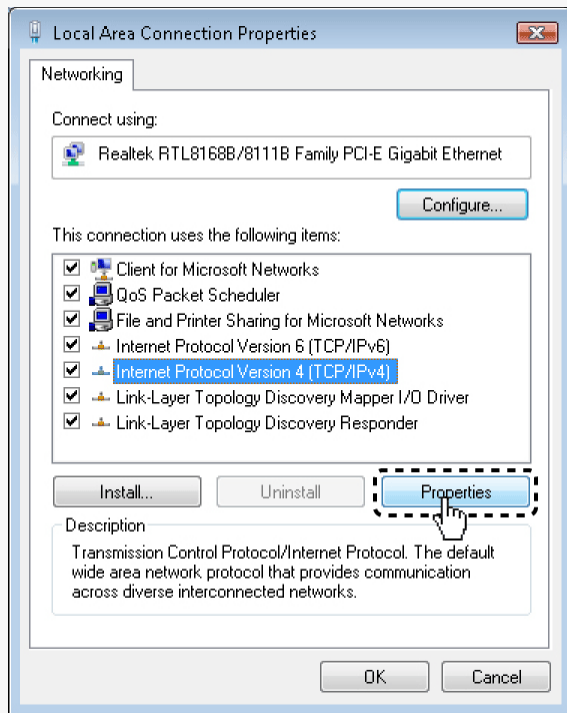
## 4 Click [Properties] and, in the confirmation dialog box, click [Continue].

The [Local Area Connection Properties] dialog box opens.

## 5 Select the [Internet Protocol Version 4 (TCP/IPv4)] check box.

Confirm that the [Internet Protocol Version 4 (TCP/IPv4)] check box is selected.

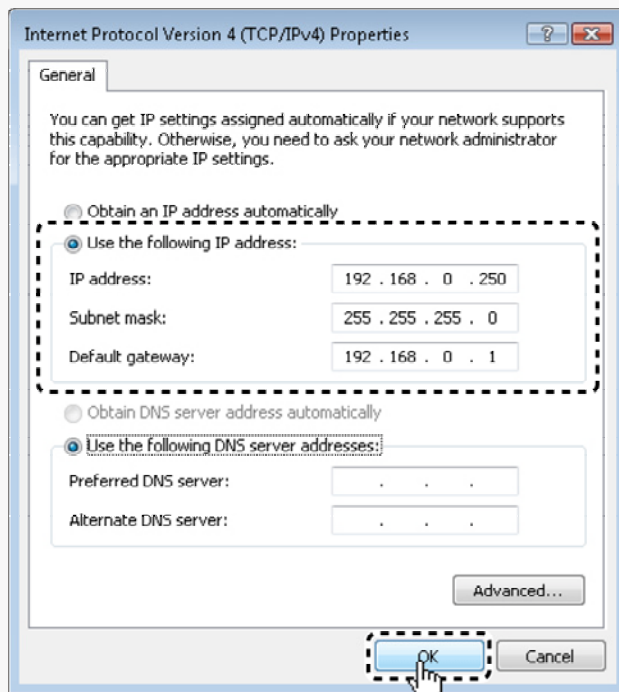
If deselected, select the check box.



## 6 Click [Properties].

The [Internet Protocol Version 4 (TCP/IPv4) Properties] dialog box opens, with the [General] tab shown.

## 7 Select the [Use the following IP address:] radio button and specify the IP address and the subnet mask.



## 8 Check the configured settings and click **OK**.

You are now done with the TCP/IP configuration.  
Close all the dialog boxes that are open.

## Operation Privileges and Login Users

### Operation Privileges

The operation privileges of users who perform network operation are divided into 3 levels (admin, operator, and guest). Each user who attempts to access the camera will be authenticated by the user name and password at login and granted an appropriate operation privilege.

Operation	Operation Privileges		
	admin	operator	guest
Monitor live video.	○	○	○
Switching between JPEG image and H.264 video	○	○	○
Selecting H.264 video stream protocol	○	○	—
Changing the user password	○	○	—
Configuring settings	○	△	—

- ▶ ○ : Available
- ▶ △: Available (Excluding NETWORK SETTINGS)
- ▶ —: Unavailable

### Disabling authentication check at login

You may set [ANONYMOUS USER LOG IN] to “ON” on the USER SETTINGS screen to allow anyone to access the camera without any authentication check at login.



In this case, all login users are regarded as guest users.  
This means that users will be presented with an authentication check dialog box if they attempt to perform any operation beyond the guest user privilege and must enter an adequate user name and password to proceed.

### Login User

Login is permitted to the following 5 users.  
When you access the camera for the first time, log in as an admin user.

Operation Privileges	User	Password (Default)
admin	admin	admin
	admin2	admin2
	admin3	admin3
operator	operator	operator
guest	guest	guest



Update your password periodically for security reasons.  
For details, refer to the “USER SETTINGS” section.

### Limitation of Simultaneous Connections

Up to 20 users have access to one camera at a time.



If two or more users with the same operation privilege, for example, two admin users, log into the system, the user who log in last will take precedence.

If you need to limit the PCs allowed (or disallowed) to access the camera for security reasons, you can register the IP addresses of those PCs on the SECURITY SETTINGS screen.

Updating of live video may become slower depending on your system environment as the number of login users increases.

The number of users who can connect to the system simultaneously may be limited depending on the display resolution setting.

Using the supplied “VA-SW3050Lite” monitoring software or the optional “VA-SW3050 Server/Client” recording/playback software also provides simultaneous access to the camera from your Web browser. However, if the user who is using the software configures one of the following settings, the Web-based admin user will be disconnected from the camera.

- Camera Setting
- Normal Recording & Live Setting (JPEG)
- Live Setting (H.264)
- Alarm Setting