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SAFETY PRECAUTIONS

All the following safety and operational instructions to prevent harm or injury to the operator(s) or other persons should be read carefully before the unit is activated.

WARNING

- To prevent fire or shock hazard, avoid exposing this unit to rain or moisture.
- Do not block ventilation openings.
- Do not place anything on top of the unit that might spill or fall into it.
- Do not attempt to service this unit yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Please refer all servicing to qualified professional personnel service personnel.
- Do not use liquid cleaners or aerosols for cleaning.
- To prevent fire or electric shock, do not overload wall outlets or extension cord.
- This unit must be grounded to reduce the risk of electric shock hazard.

CAUTION

Danger of explosion if the Lithium battery (RTC Battery) is incorrectly replaced.

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

1. PRODUCT FEATURES

1.1 Product Introduction

The LAN CAMERA is a state-of-the-art equipment of technological sophistication in its field. It combines multiple digital technical capabilities with the internal network functions of the network video camera. The user can immediately connect with a standard network, and the device can transmit the digital images to a remote browser. The LAN CAMERA is unlike the Web CAMERA, which connects the USB port or communication port with a personal computer. Since the various types of the Web CAMERA must initially be connected and installed with a personal computer, the Web CAMERA is limited regarding some practical applications. Surveillance by remote control is a principal function of the LAN CAMERA, and this surveillance can be maintained by digital network recording and direct Internet seeding. By using the LAN CAMERA you can increase your surveillance capabilities and help yourself monitor your store, your house, factory, school, public space, and so forth. You can set up different size frames and image quality categories in accordance with your requirements. Different settings have different picture qualities and compression ratios to be regulated according to user needs. Connectible network-attached storages (NAS) are used as digital-mode storages without the problems of consolidating and supporting different Networks (Windows 95/98/NT/2000, Macintosh, Novell and Unix). Digital images are more convenient than analogs for search and delivery functions, and enable you to access the latest status instantly. The user can moreover use multiple modes of accessing images, such as schedule, time, and alarm.

The LAN CAMERA is a user-friendly product whose simplified installation and setup procedures make it easy to apply and handle. Additionally it provides all-weather automation-monitored control. Installation will automatically start up the LAN CAMERA, which further supports by default without disrupting the existing network clients. The user need only start up a browser such as the Microsoft Internet Explorer, and proceed with the connections.

1.2 Product Features

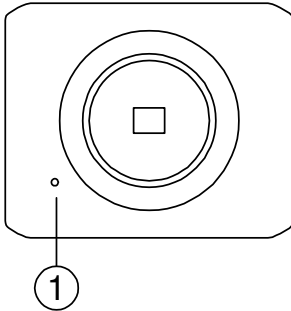
- An inbuilt Web Server and Network Interface. The LAN CAMERA is effective in assuring the safety of an independent digital camera.
- Dual purpose: the LAN CAMERA can simultaneously export both the traditional analogs and the digital images.
- Motion detection: You can select the range and sensitivity of the detection.
- The user can utilize the support Java browser and directly view the general appearance of a picture, and can also set the browser.
- 1/3 inch interlaced CCD (charge - coupled device).
- 380000 pixels. 768x495(NTSC), 752x582(PAL)
- 480 TV lines.
- C / CS Mount Adjustable.
- Automatic white balance programmable (AWB) , Automatic gain control (AGC) , Backlight Compensation (BLC) , Electronic shutter speeds : (NTSC : 1/50-1/10000 sec. PAL : 1/60-1/10000sec).
- The sensitivity is 1-2,000,000 Lux.
- Image compression : JPEG & MJPEG.
- There are 5 levels of image quality the user can select from: very low, low, normal, high, and very high.
- There are 3 different Resolution rates the user can choose from :
- (NTSC : 352x224 : 30 Frames/sec, 720x448 : 18 Frames/sec, 720x224 : 6 Frames/sec).
- (PAL : 352x272 : 25 Frames/sec, 720x544 : 15 Frames/sec, 720x272 : 6 Frames/sec).
- The user can regulate the categories of Brightness, Contrast, Saturation, Hue, and Camera Title.
- A pair of RJ-45 Fast Ethernet 10 / 100 Base-TX port. The LAN CAMERA connects an Ethernet cable to the network cable connector located on the Internet Camera's rear panel and attaches it to the network.
- Protocol for remote control.
- Networking: TCP/IP, DHCP, HTTP, UDP, FTP, SMTP(for E-mail), SNMP, NetBIOS, ICMP, DDNS, DNS.

- Alarm sensor Input/Output Terminals.
- Digital mode saves images via E-mail and FTP.
- The RECORD–SCHEDULE provides seven periods of time and the LAN CAMERA starts and stops recording according to the programmed schedule.
- The device will record as long as the alarm input is activated, and allow users to set the alarm for certain duration.
- The LAN CAMERA permits users to set the date and time.
- The LAN CAMERA enables users to set the administrative status account and password.
- There are 3 levels of users' accounts: Admin, Operation, View. The total number of users' account included under these 3 levels is ten.
- The device permits users to connect with the surveillance simultaneously.
- Time-Lapse and Real-Time recording are featured options.
- The device is capable of working with various known multiplexers and quad processors.
- RS-232 / RS-485 communication port.
- Distribution of live and recorded images through the TCP/IP network environment.
- which will restart operation automatically.
- The LAN CAMERA can automatically check the time with the SNTP via the Internet.
- The device has a microphone installed in its front panel which records sound.
- Luminance detection.
- Update with CF card and RS-232

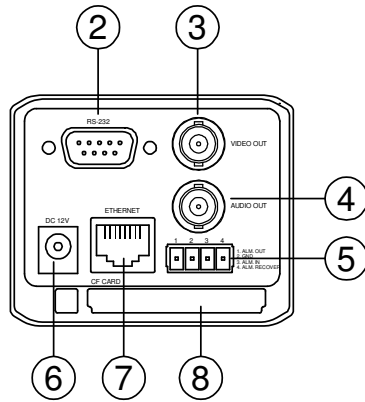
2. DESCRIPTION OF THE FRONT/REAR VIEW

2.1 Front Panel and Rear Panel

-- Front Panel --



-- Rear Panel --



1. MICROPHONE:

The LAN CAMERA has an additional audio function. The device has a microphone built into its front panel which records sound.

2. RS-232 Port:

The RS-232 communication port functions as a connector to an external control device.

3. VIDEO OUT Connector:

The connector provides the unit's composite video signals to a monitor.

4. AUDIO OUT:

This provides the unit's audio signal to a speaker.

5. ALARM I/O:

This is a 4-PIN D-SUB connector including ALARM OUT, GROUND, ALARM IN, and ALARM RECOVER for connecting with external devices. Please refer to the next section for details.

6. Plug Inlet:

The inlet connects to an external power supply. Connect to the provided AC adapter.

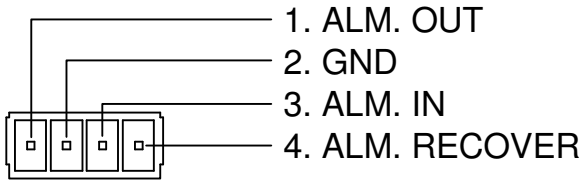
7. ETHERNET 10/100 Connector:

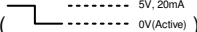
This is one standard RJ-45 connector for 10/100 Mbps Ethernet networks.

8. CF CARD Slot:

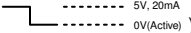
This is used for system software updating and archiving / accessing critical images.

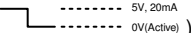
2.2 Terminal Block



1. **ALARM OUT (OUTPUT):** This is an alarm output trigger. Connect this to external devices such as buzzers or lights. ()

2. **GND:** Ground Contact.

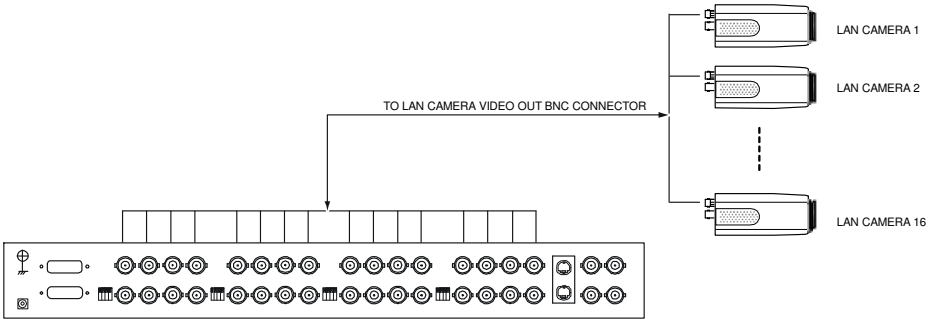
3. **ALARM IN (INPUT):** This is an alarm input that can be programmed in the menu system to active low. ()

4. **ALARM RECOVER (INPUT):** This pin connects to an alarm-clear device for clearing an alarm. ()

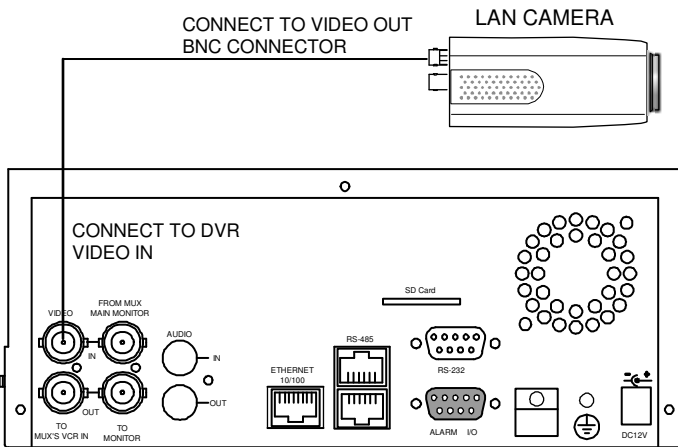
3. INSTALLATION

Please follow the instructions and the diagram below to set up the system.

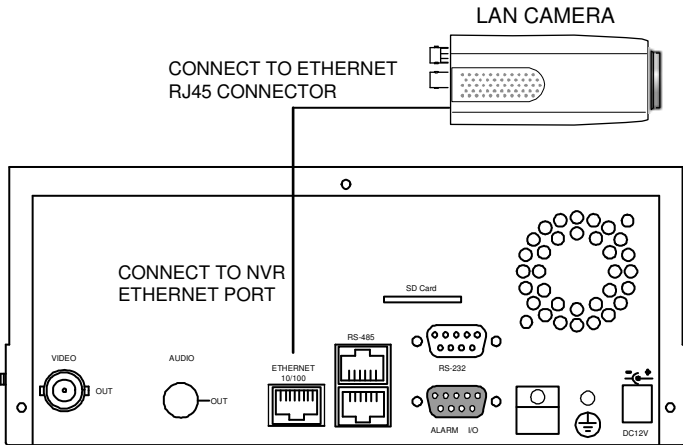
3.1 CONNECTING WITH A MULTIPLEXER



3.2 CONNECTING WITH A DVR



3.3 CONNECTING WITH A NVR



3.4 UPDATING SYSTEM SOFTWARE

If the system software of the LAN CAMERA needs to be upgraded, please take the following steps to safely update it.

Important: Before carrying out the following procedures, please ensure the CF card is working and the file of system software is intact

1. Turn off the LAN CAMERA.
2. Insert the CF card into the built-in CF slot of the unit.
3. Then turn on the unit.
4. The monitor will display the message “**XXXXXX BYTES READ**” Now the LAN CAMERA is updating the system software, which will take approximately 30 seconds to process.
5. Restart the unit when the device sounds a tone twice and displays the message “**PLEASE RESTART**” The process is complete. (If you have already followed the procedure 1~5. the unit, however, not being able to power on. Please first check if the CF card you are using is functioning and the file is intact. And then start procedures 1 ~ 5 all over again.)
6. Verify the version of the system software.

Warning: Don't Interrupt the process while the unit is updating itself and proceed with a CF card containing with no system software of the unit, which would cause the unit hang on.

Warning: Don't connect the RJ-45 cable during the updating system software of the unit, which would cause the unit updating inactive.

4. Network Configuration

4.1 Cable Connections

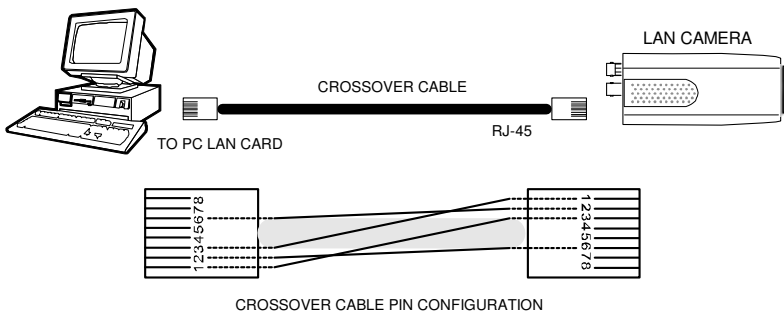
Please follow the instructions below to connect your LAN CAMERA to a computer or a network and to choose a proper RJ-45 cable configuration for connections.

Physical specification of RJ-45 cable for Ethernet

Wire Type	Cat. 5
Connector Type	RJ-45
Max. Cable Length	30 m
Hub Wiring Configuration	Straight Through
PC Wiring Configuration	Cross Over

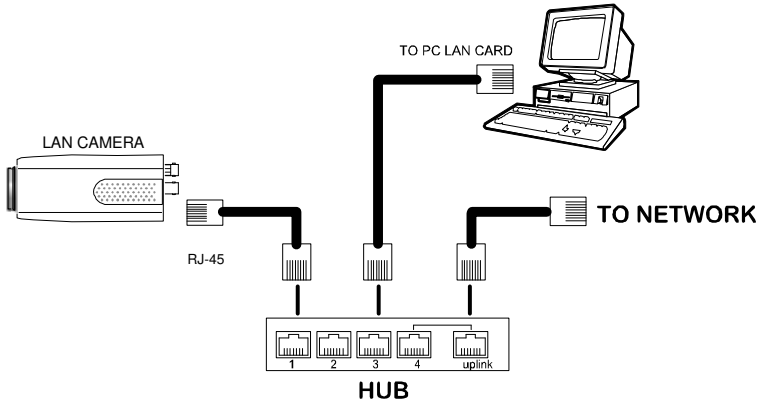
4.1.1 Connect to a computer

Use a crossover LAN cable to connect directly to a computer.



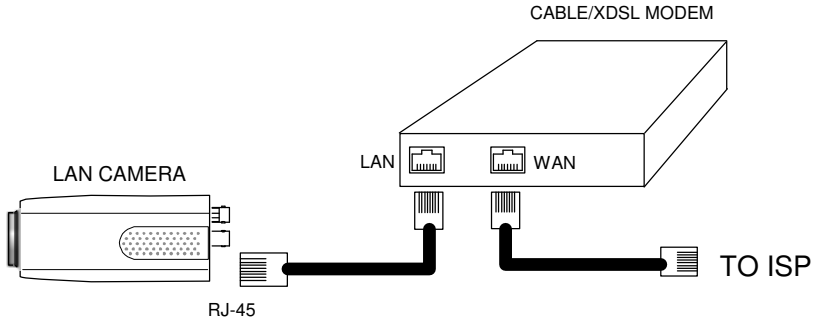
4.1.2 Connect to a LAN Hub (INTRANET)

The RJ-45 PIN configuration for connecting with a LAN Hub is shown below.



4.1.3 Connect to WAN (INTERNET)

The RJ-45 PIN configuration for connecting to a WAN is the same as connecting to a LAN.



4.2 Configure Your LAN CAMERA Network Settings

Upon network hardware connection, you need to activate the network function and configure the proper network settings of the LAN CAMERA.

4.2.1 Enable DHCP Function

This function can only work if the LAN which the unit is connected to has a DHCP server. If the DHCP server is working, the LAN CAMERA will obtain an IP address automatically from the DHCP server. In that case please skip the section 2.3 (Set IP address) and follow section 3. (TCP/IP Communication Software).

4.2.2 Set IP Address

You need to set a NET IP for the unit if the LAN that the unit isn't connected to a DHCP server. Otherwise, please follow the instructions given below:

Set the **IP**, **MASK** and **GATEWAY**. The following is a sample setting.

IP: 192.168.0.1
MASK: 255.255.255.0
GATEWAY: 0.0.0.0

NOTE: When only one unit of the LAN CAMERA is connected to a computer or LAN, you can freely assign an IP address for the LAN CAMERA. For example, there are a range of LAN CAMERA IP addresses from 192.168.0.1 to 192.168.0.255. You can pick one for use from the range of the IP. It's not necessary to set MASK and GATEWAY; leave the settings as default.

When a LAN CAMERA is connected to a WAN, you must acquire a unique, permanent IP address and correctly configure the MASK and GATEWAY settings according to your network architecture. If you have any questions regarding those settings, please contact a qualified MIS professional or your ISP.

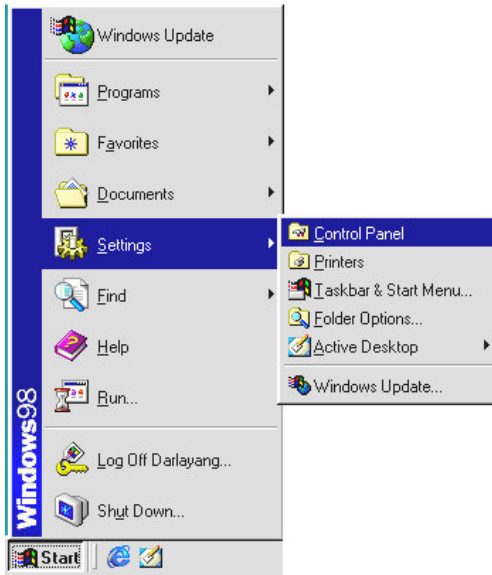
NOTE: When connecting to a network, each connected LAN CAMERA must be assigned a unique IP, which must be in the same class type as your network address. IP

addresses are written as four sets of numbers separated by periods; for example, 192.168.0.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the LAN CAMERA IP address must be the same as the network address. If the connected network is identified as Class B, the first two sets of numbers of the LAN CAMERA IP address must be the same as the network address. If you have any questions regarding these settings, please contact a qualified MIS professional or your ISP.

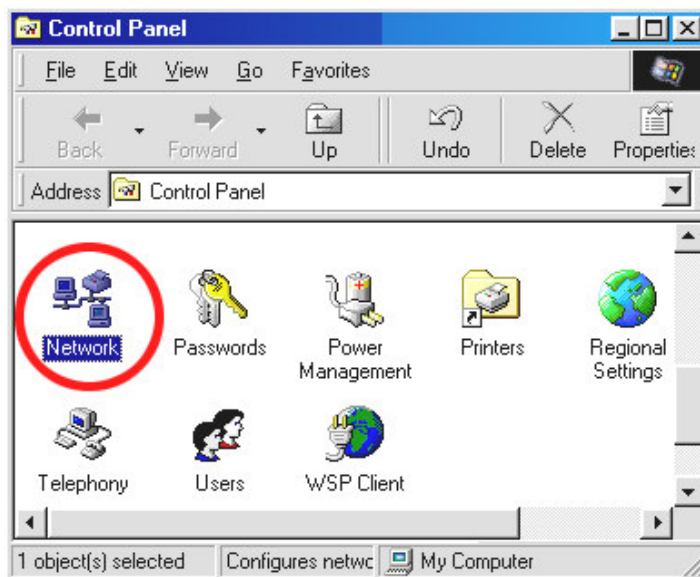
4.3 TCP/IP Communication Software

Follow the instructions below to install the TCP/IP communication program into your computer.

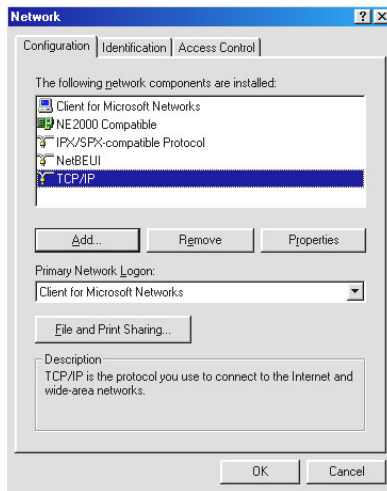
Click the **Start** Menu from your computer, and point to the **Settings/Control panel**.



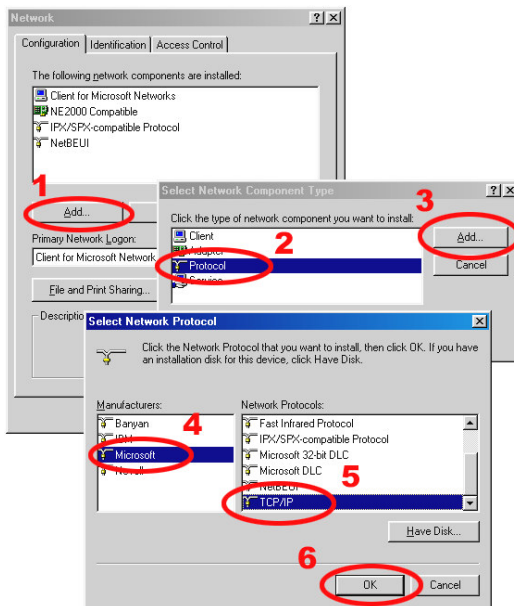
Click the **NETWORK** icon twice to enter the **NETWORK** setting windows.



Click on the **Configuration** tag; check if the TCP/IP is included among the network components list. If the TCP/IP is included, please process step 5. If it is not included, please follow step 4 to install the TCP/IP.



4.4 TCP/IP Installation



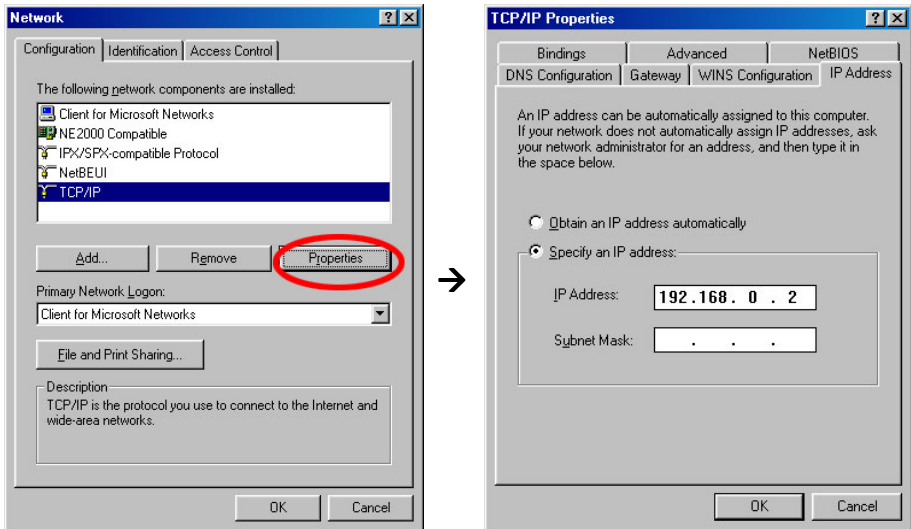
During the installation, you will be requested to insert the windows CD-ROM. After installation, the PC will be restarted.

4.5 TCP/IP Configuration setting

Click **Start** → **Settings** → **Control Panel** → **Network**.

Select **TCP/IP**, and then click **Properties**.

Before processing the LAN CAMERA installation in a WAN, please make sure the Internet connection works properly. If not, please contact your ISP provider.



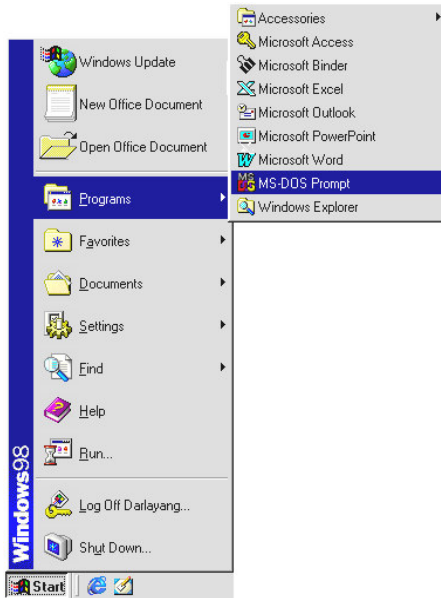
If you are using a DHCP server, please select **Obtain an IP address automatically**. Any assigned IP address for the connected LAN CAMERAs must be in the same class type as the server. If there is no DHCP server, please select **specify an IP address** and type in the IP address of your PC. This IP address must be different from the LAN CAMERA IP but in the same class type.

NOTE: The IP address of a LAN CAMERA in a network must be unique to itself as opposed to those of the other chosen PCs, but in the same class type

4.6 Connection Testing

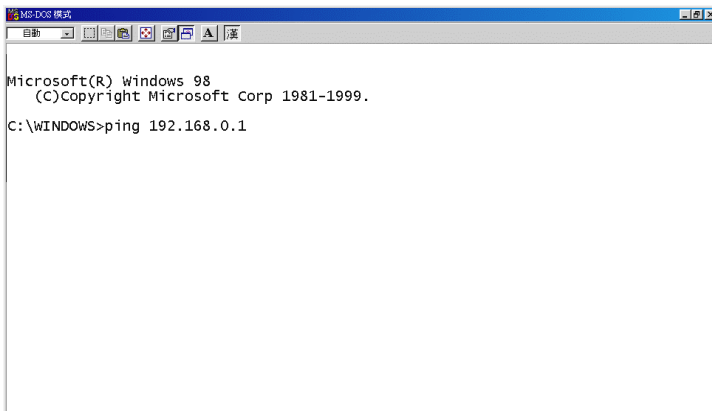
With the previous settings, follow the instructions below to ensure whether you have established the connection successfully.

Click **Start → Programs → MS-DOS Prompt**

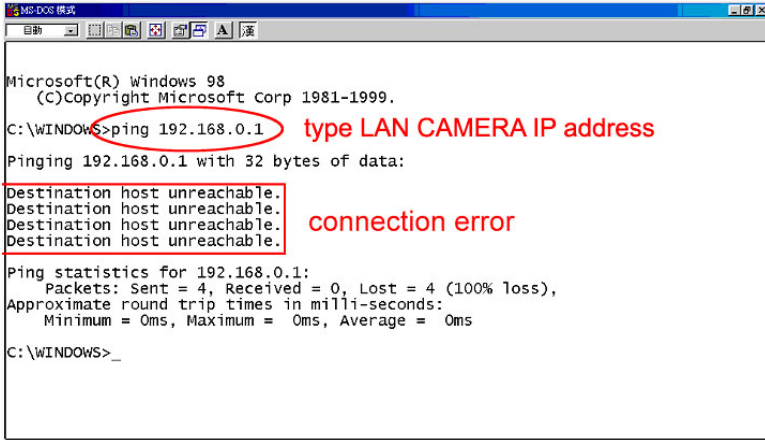


Type in **ping 192.168.0.1** then Enter. (See the sample screen below)

**** This IP is the LAN CAMERA IP address that is assigned for the connected LAN CAMERA in step2.**



If you receive a response as in the sample screen below, the connection hasn't been successfully established. Please re-check all the hardware and software installation by repeating steps 1 to 5. If you still can't establish the connection after rechecking, please contact your dealer.

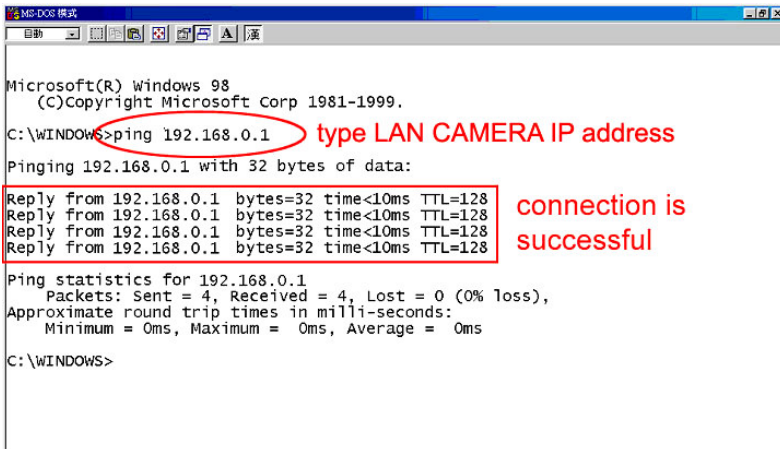


```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>ping 192.168.0.1
Pinging 192.168.0.1 with 32 bytes of data:
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\WINDOWS>
```

type LAN CAMERA IP address

connection error

If you receive a response as in the sample screen below, you have successfully made the connection.



```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>ping 192.168.0.1
Pinging 192.168.0.1 with 32 bytes of data:
Reply from 192.168.0.1 bytes=32 time<10ms TTL=128
Reply from 192.168.0.1 bytes=32 time<10ms TTL=128
Reply from 192.168.0.1 bytes=32 time<10ms TTL=128
Reply from 192.168.0.1 bytes=32 time<10ms TTL=128
Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\WINDOWS>
```

type LAN CAMERA IP address

connection is successful

5. Operating Instructions for Image Software and Network

Two choices of software are available for linking up with the LAN CAMERA: (1) the Microsoft Internet Explorer; and (2) the LAN CAMERA VIEWER, a network browser in a PC which provides the functions of monitoring remote zones or watching recorded data through the TCP/IP protocol.

The details are listed as follows.

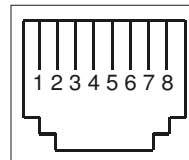
System Requirements

- Intel Pentium 233MHz processor or above. Rating
- At least 32-MB RAM.
- Window 95, 98, NT, ME, 2000 and XP.
- 4 MB VGA card capable of 24-bit true color display.
- 5 MB free hard-disk space for software installation.
- 10/100 Base-TX network for LAN operation.
- The Microsoft Internet Explorer 5 above.

RJ-45 PIN configuration for Ethernet

PIN NO.	PIN Assignment
1.	TX +
2.	TX -
3.	RX +
4.	Not Connected
5.	Not Connected
6.	RX -
7.	Not Connected
8.	Not Connected

RJ-45 socket



Physical specification for Ethernet

Wire Type	Cat. 5
Connector Type	RJ-45
Max. Cable Length	30 M
Hub Wiring Configuration	Straight Through
PC Wiring Configuration	Cross Over

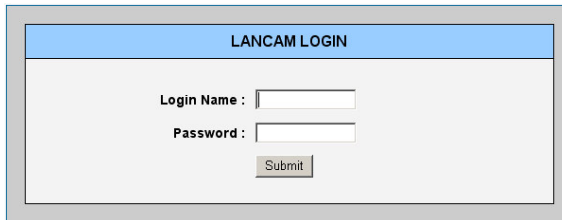
NOTE: For more details on network connections, please refer to the following document.

5.1. Microsoft Internet Explorer

5.1.1 Connecting the LAN CAMERA

1. Start up the Microsoft Internet Explorer, and then follow the steps below to connect the LAN CAMERA:
2. Click the URL block at the top of the screen.
3. Input the URL address of the LAN CAMERA into the URL block and press the “Enter” button to enter the login page.
4. Input the user name (Login Name).
5. Input the password (Password).
6. Click the “Submit” button and enter the home page of the LAN CAMERA: both the user name and password must be provided and be correct.

NOTE: The login page is shown as below. Please input the user name and password of the LAN CAMERA when you see it. If either the user name or the password is incorrect, blank, in upper case or below the minimum length of 3 digits, warning messages will show up. So please check the input data and rectify it if and as necessary.



LANCAM LOGIN

Login Name :

Password :

Description of function keys:

Login Name: Input the user name in the blank space (If the input data is incorrect, blank, in upper case or below the minimum length of 3 digits, warning messages will show up).

Password: Input the password in the blank space (If the input data is incorrect, blank, in upper case or below the minimum length of 3 digits, warning messages will show up).

Submit: Click to enter the home page of the LAN CAMERA.

Browsing images from the LAN CAMERA

The images from the LAN CAMERA will be displayed on the home page while getting online with the LAN CAMERA. There are some buttons provided on the bottom of the home page for further setting:



- Click the **image** button to enter the image-setting page.
- Click the **network** button to enter the network-setting page.
- Click the **system** button to enter the system-setting page.
- Click the **operation** button to enter the operation-setting page.

5.1.2 Change Image Setting

Please follow the steps below to change the image setting through the network if and as necessary.

1. Click the **image** button on the home page to enter the image-setting page.



2. Adjust the image setting including “Resolution”, “Quality”, “Brightness”, “Hue”, “Saturation”, “Backlight”, “Sharpness”, “Fluorescent”, “BLC”, and “Camera Title” if and as necessary.
3. Click the **Submit** button to submit the new image setting.
4. Click the **Home** button to return to the home page while the new image setting acts on the images to effect the desired changes instantly. (If the setting has not been changed by the above steps, any (re)entry onto the home page will find images in their earlier or original setting.)

Description of function keys:

Resolution: Scroll to choose the image resolution (720X480 or 360X240).

Quality: Scroll to choose the image quality (very high, high, normal, low, or very low).

Brightness: Input the image brightness in the blank (0~255).

Contrast: Input the image contrast in the blank (0~255).

HUE: Input the hue value in the blank (0~255).

Saturation: Input the saturation level in the blank (0~255).

Camera Title: Input the camera title in the blank.

Submit: Click to submit the new image setting to the LAN CAMERA.

5.1.3 Change the Network Setting.

Please follow the steps below to change the network setting through the network if and as necessary.

- Set the network options and IP address.

1. Click the **network** button in the home page to enter the network-setting page.

The screenshot shows the IDVIEW network configuration interface. At the top, there are navigation links: Home, Support, Log Out, and Help. The main heading is 'NETWORK'. A sidebar on the left lists 'NETWORK' (selected), 'ETP', 'SMTP', and 'SNTP'. The main content area contains a checkbox labeled 'Use dynamic IP configuration (BOOTP/DHCP)' which is checked. Below this are several input fields: 'IP Address' with values 192, 168, 1, 146; 'Netmask' with values 255, 255, 255, 0; 'Default gateway' with values 192, 168, 1, 254; 'Primary nameserver' with values 192, 168, 1, 1; and 'HTTP Port Number' with the value 80. A 'Submit' button is located below the input fields. At the bottom of the page, there are navigation links: image, network, system, and operation. The footer text reads: 13F, NO. 66, CHUNG-CHENG RD., HSIN-CHUANG CITY, TAIPEI, TAIWAN TEL: 866-2-89921177 FAX: 866-2-89920077.

2. Check the box at the top to enable the DHCP (Dynamic Host Configuration Protocol) function if necessary. Vary any of the network settings including the “Internet Address”, “Subnet Mask”, “DNS Server”, “Gateway”, and the “HTTP Port Number” if and as necessary.
3. Click the **Submit** button to submit the new network setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

Use dynamic IP configuration (BOOTP/DHCP): Automatically provides a dynamic IP address to any LAN CAMERA plugged into the local area network once a check mark is made. Hence no manual setting is required as below.

IP Address: Input the 4-byte IP Address in the blanks separately (each value is between 0 and 255). Every LAN CAMERA has to own an IP address to be identified on the network.

Netmask: Input the 4-byte Subnet Mask in the blanks separately (usually it is 0 or 255). It is used to identify the subnet where the LAN CAMERA is sited.

Default gateway: Input the 4-byte Gateway in the blanks separately (each value is between 0 and 255). The Gateway

Primary name server: Input the 4-byte DNS Server Address in the frames separately (each value is between 0 and 255). The DNS Server is in charge of translating the Domain Name into the IP Address.

HTTP Port Number: Indicates the specific HTTP Port Number.

Submit: Click to submit the new network setting to the LAN CAMERA.

- Set the network options and FTP.

Please follow the steps below to change the FTP setting via the network if and as necessary to upload recording data live.

1. Click the **FTP** button at top left side to enter the “FTP SERVER SETTING” page.

The screenshot shows the IDVIEW web interface. At the top left is the 'IDVIEW' logo. To the right are navigation buttons: 'Home', 'Support', 'Log Out', and 'Help'. On the left side, there is a 'NETWORK' menu with three items: 'FTP' (highlighted in blue), 'SMTP', and 'SNTIP'. The main content area is titled 'FTP SERVER SETTING'. It contains the following fields and controls:

- FTP Server Name:** A label followed by a blank input field.
- FTP IP Address:** A label followed by an input field containing '192.168.1.1' and a 'port' label followed by an input field containing '21'.
- User Name:** A label followed by an input field containing 'guest'.
- Password:** A label followed by a blank input field.
- Image File Name:** A label followed by a blank input field.
- Upload Path:** A label followed by an input field containing '/tmp'.
- A 'submit' button is located below the 'Upload Path' field.

At the bottom of the page, there is a footer with the text: '13F, N.O. 66, CHUNG-CHENG RD, HSIN-CHUANG CITY, TAIPEI, TAIWAN TEL: 886-2-89921177 FAX: 886-2-89920077'. Above this footer are four tabs: 'image', 'network', 'system', and 'operation'.

2. Input the FTP IP Address, User Name, and Password of the FTP Server; and set the Upload Path of the image files when necessary.
3. Click the **Submit** button to submit the new FTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

FTP IP Address: Input the 4-byte FTP server IP Address in the blank separately (each value is between 0 and 255). Every FTP server has to own an IP address to be identified on the network.

User Name: Input the FTP user name in the blank space (if the input data is blank, warning messages will show up).

Password: Input the FTP password in the blank space (if the input space is blank, warning messages will show up).

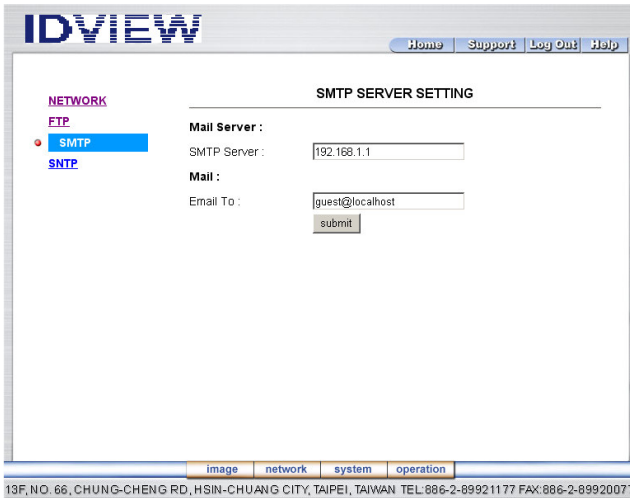
Upload Path: Input the upload path while doing the FTP.

Submit: Click to submit the new FTP setting to the LAN CAMERA.

- Set the network options and SMTP.

Please follow the steps below to change the SMTP setting through the network if and as necessary.

1. Click the **SMTP** button at upper left above to enter the “SMTP SERVER SETTING” page.



2. Input the IP Address of the SMTP server; and set the recipient's e-mail address when and as necessary.
3. Click the **Submit** button to submit the new SMTP setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

SMTP Server: Input the 4-byte SMTP server IP Address in the blank separately (each value is between 0 and 255). Every SMTP server has to own an IP address to be identified on the network.

Email To: The recipient's e-mail address.

Submit: Click to submit the new SMTP setting to the LAN CAMERA.

- Set the network options and SNTP.

Please follow the steps below to change the SNTP setting through the network if and as necessary.

1. Click the **SNTP** button at upper left above to enter the “SNTP SERVER SETTING” page.

The screenshot shows the IDVIEW web interface. At the top left is the 'IDVIEW' logo. To the right are navigation links: 'Home', 'Support!', 'Log Out!', and 'Help'. On the left side, there is a sidebar menu with 'NETWORK' selected, and sub-items 'FTP', 'SMTP', and 'SNTP' (highlighted in blue). The main content area is titled 'SNTP SERVER SETTING'. It contains a form with the following fields: 'SNTP Server Name:' (with a text input field containing '192.168.1.1'), 'SNTP Server:' (with a text input field), and 'Time Zone:' (with a dropdown menu showing 'GMT+08 Taipei,Hong Kong,Beijing'). A 'Submit' button is located below the form. At the bottom of the page, there is a footer with contact information: '13F, NO. 66, CHUNG-CHENG RD, HSIN-CHUANG CITY, TAIPEI, TAIWAN TEL:886-2-89921177 FAX:886-2-89920077'.

2. Input the IP Address of the SNTP server; and choose one of the time zones as and when necessary.
3. Click the **Submit** button to submit the new SMTP setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

SNTP Server: Input the 4-byte SNTP server IP Address in the blank separately (each value is between 0 and 255). Every SNTP server has to own an IP address to be identified on the network.

Time Zone:

Submit: Click to submit the new SNTP setting to the LAN CAMERA.

5.1.4 Change the System Setting — Date and Time

Please follow the steps below to change the date and time of the system setting through the network if and as necessary.

● Set the Date and Time of the system

1. Click the **system** button in the home page to enter the “System - Date and Time” page (default).

The screenshot shows the IDVIEW web interface for configuring the system date and time. The page title is "SYSTEM - DATE AND TIME". It features a navigation bar with "Home", "Support", "Log Out", and "Help". A sidebar on the left has "Date and Time" (selected) and "Users". The main content area is titled "SYSTEM - DATE AND TIME" and contains three sections: "Current Camera Time" with input fields for Date (2003/06/23) and Time (14:17:26); "New Camera Time" with radio buttons for "Set manually", "Synchronize with computer time", and "Synchronize with NTP server". The "Set manually" section has date and time pickers. The "Synchronize with NTP server" section has fields for SNTP address (192.168.1.53), Time Zone (GMT+08 Taipei, Hong Kong, Beijing), and radio buttons for "manual" and "frequency every" (set to "never"). A "Submit" button is at the bottom. A footer contains the address: 13F, NO. 66, CHUNG-CHENG RD., HSIN-CHUAN CITY, TAIPEI, TAIWAN TEL: 866-2-89921177 FAX: 866-2-89920077.

2. Choose one of the three modes shown on the page to set the Date and Time of the system. The three modes are “Set manually”, “Synchronize with computer time”, and “Synchronize with NTP server”.
3. Click the **Submit** button to submit the new Date and Time setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

Current Camera Time: Shows the current date and time of the LAN CAMERA

Set manually: Manually sets the date and time of the LAN CAMERA.

Synchronize with computer time: Synchronizes with the linking computer.

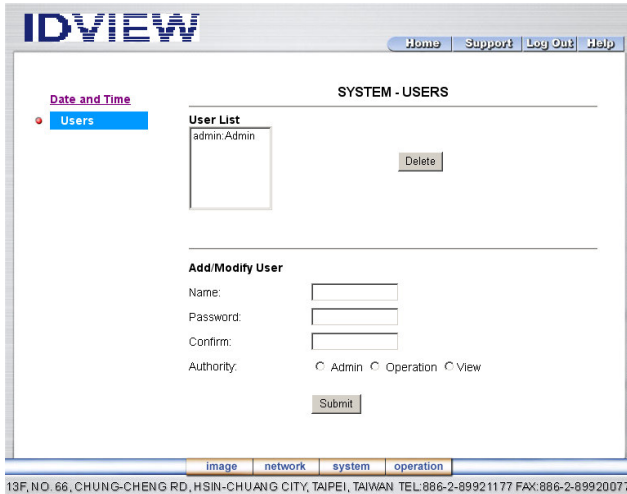
Synchronize with NTP server: Synchronizes with the NTP server. In this mode, two choices of adjusting are provided: doing it manually or setting the frequency to enable the system to do it automatically.

Submit: Click to submit the new setting to the LANCAMERA.

● Change the System Setting — Users.

Please follow the steps below to change the users' authority through the network if necessary.

1. Click the **Users** button on the left side of the “System - Date and Time” page to enter the “System - Users” page.



2. Add, modify or delete any user's data as and when necessary.
3. Click the **Submit** button to submit the new user's setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

User List: The list shows the registered user(s) and the corresponding authority.

Delete: Deletes the user selected.

Name: Input the user's name, which will be added or modified

Password: Input the password of the user's name above.

Confirm: Input the password again for verification.

Authority: Choose an authority option of the user's name from: Administration, Operation, and View.

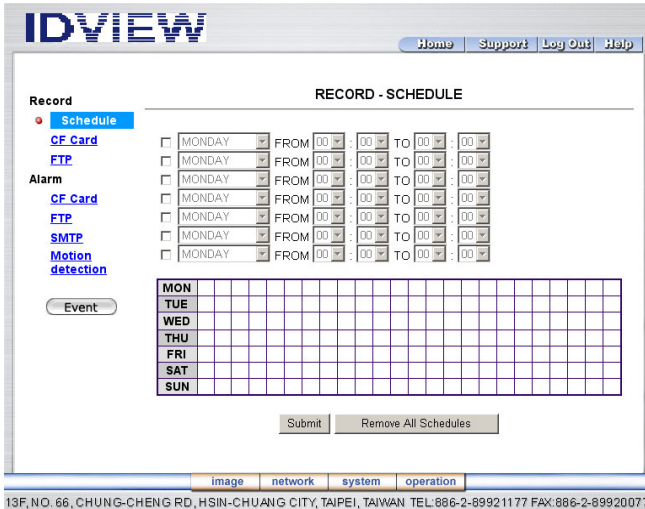
Submit: Click to submit the new setting to the LAN CAMERA.

5.1.5 Change the Record Setting Schedule and Storage

Please follow the steps below to change the recording schedule through the network if and as necessary.

- Set the recording schedule:

1. Click the **Operation** button on the home page to enter the “Record - Schedule” page (default).



2. Check/uncheck any/all of the first seven boxes set vertically in the upper half of the “Record-Schedule” page to enable/disable the programmed recording function, and vary the setting of the targeted item while it is enabled.
3. Click the **Submit** button to submit the new schedule setting.
4. Click the **Remove All Schedule** button to clear out all the data of the schedule setting.

Description of function keys:

Schedule: Check / uncheck the first seven boxes in a vertical row on the left to enable/disable the programmed scheduled recording function if necessary. Vary any of the schedules of the recording setting if and as necessary. [please refer to the above description]

Chart: Schedule list.

Submit: Click to submit the new setting to the LAN CAMERA.

Remove All Schedules: Click to clear out all the data of the schedule setting.

- Change the Record Setting — CF CARD AS STORAGE.

Please follow the steps below to change the CF CARD setting via the network if and as necessary to upload recording data live.

1. Click the **CF Card** button at top left side to enter the “Record –CF CARD AS STORAGE” page.

The screenshot shows the IDVIEW web interface. The main title is "RECORD - CF CARD AS STORAGE". On the left, there are two main sections: "Record" and "Alarm". Under "Record", there are links for "Schedule", "CF Card" (which is highlighted with a blue bar), and "FTP". Under "Alarm", there are links for "CF Card", "FTP", "SMTP", "Motion detection", and "Event". The main content area contains a checkbox labeled "Enable RECORD - Save images into CF card". Below this is a section titled "Image File Number:" with a text input field containing the number "10" and a "submit" button. At the bottom of the page, there are four tabs: "image", "network", "system", and "operation". The footer contains the address: "13F, NO. 66, CHUNG-CHENG RD, HSIN-CHUANG CITY, TAIPEI, TAIWAN TEL: 886-2-89921177 FAX 886-2-89920077".

2. Input the image file number when necessary.
3. Click the **Submit** button to submit the new FTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

Enable RECORD - Save images into CF card: This option enables / disables to save images into a CF card.

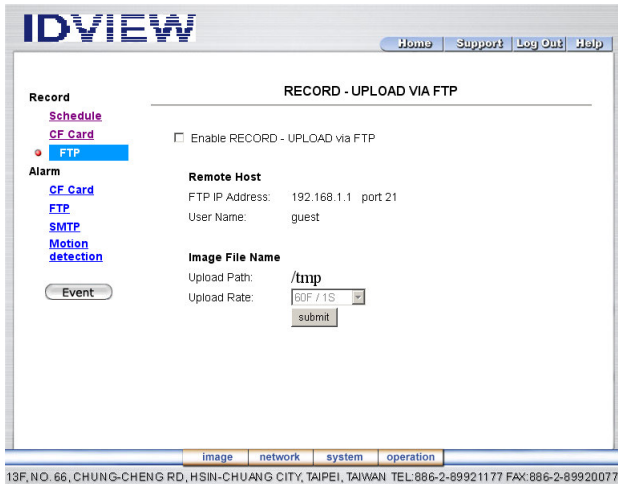
Image File Number: Input the image file number.

Submit: Click to submit the new setting to the LAN CAMERA.

- Change the Record Setting — Upload via the FTP.

Please follow the steps below to change the FTP setting via the network if and as necessary to upload recording data live.

1. Click the **FTP** button at the top left side to enter the “RECORD – UPLOAD VIA FTP ” page.



2. Set the Upload Rate of the image files when necessary.
3. Click the **Submit** button to submit the new FTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

Enable RECORD - UPLOAD via FTP: This option enables / disables to upload via FTP.

Upload Rate: Set the Upload Rate of the image files.

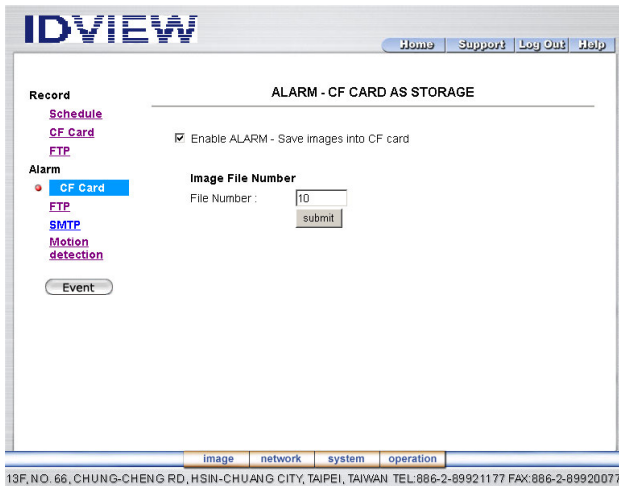
Submit: Click to submit the new setting to the LAN CAMERA.

5.1.6 Change the Alarm Setting

Please follow the steps below to change the Alarm Setting via the network if and as necessary to upload recording data live.

- Change the Alarm Setting — CF CARD AS STORAGE.

1. Click the **CF Card** button on the left side of the Alarm to enter the “ALARM –CF CARD AS STORAGE” page.



2. Input the image file number when necessary.
3. Click the **Submit** button to submit the new FTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

Enable ALARM - Save images into CF card: This option enables / disables saving of images into a CF card.

Image File Number: Input the image file number.

Submit: Click to submit the new setting to the LAN CAMERA.

- Change the Alarm Setting ----- Upload via FTP.

Please follow the steps below to change the FTP setting of the alarm through the network if and when necessary.

1. Click the **FTP** button on the left side of the Alarm to enter the “Alarm – Upload via FTP” page.

The screenshot shows the IDVIEW web interface for configuring alarm settings. The title is "ALARM - UPLOAD VIA FTP". On the left sidebar, under "Alarm", the "FTP" option is selected. The main configuration area includes:

- Enable ALARM - Upload via FTP
- Pre-alarm Memory Buffer : Image(s)
- Alarm Memory Buffer : Image(s)
- Remote Host**
 - FTP Server : 192.168.1.1 port : 21
 - User Name : guest
- Image File Name**
 - Upload Path : /tmp
 - Upload Rate :
- Alarm Duration :

A "submit" button is located at the bottom of the form. The footer contains the address: 13F, NO. 66, CHUNG-CHENG RD, HSIN-CHUANG CITY, TAIPEI, TAIWAN TEL: 886-2-89921177 FAX: 886-2-89920077.

2. Input the Upload Rate of the image files as and when necessary.
3. Input the Alarm Duration as and when necessary.
4. Click the **Submit** button to submit the new FTP setting of the alarm.
5. Click the **Home** button to return to the home page.

Description of function keys:

Enable ALARM - Upload via FTP: This option enables / disables uploading via FTP.

Pre-alarm Memory Buffer: This section of the alarm setting allows images prior to an alarm to be recorded into the FTP server. The user can input the images in the blank space provided for image timing.

Alarm Memory Buffer: This section of the alarm setting allows users to set the alarm for the duration of the time period input in the images in the blank space provided for alarm timing.

Upload Rate: Sets the Upload Rate of the image files.

Alarm Duration: Sets the Alarm Duration.

Submit: Click to submit the new setting to the LAN CAMERA.

- Change the Alarm Setting — Upload via the SMTP.

Please follow the steps below to change the SMTP setting of the alarm through the network if and as necessary.

1. Click the **SMTP** button on the left side of the Alarm to enter the “ALARM– UPLOAD VIA SMTP” page.



2. Input the image file number as and when necessary.
3. Click the **Submit** button to submit the new SMTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

Enable ALARM - UPLOAD via SMTP: This option enables / disables uploading via SMTP.

Image File Number: Input the image file number.

Submit: Click to submit the new setting to the LAN CAMERA.

- Change the Alarm Setting — Motion Detection

Please follow the steps below to enable changes in the motion detection function of the alarm through the network if and as necessary.

Set the motion detection:

1. Click the **Motion detection** button on the left side of the Alarm to enter the “Alarm – Motion Detection” page.



2. Click and drag the mouse across a targeted zone to draw a red rectangle on the image (coordinates provided below).
3. Click the **Save** button to save the motion detection range.
4. Enables / disables the motion detection function.
5. Setup the signal level.
6. Click the **Submit** button to submit the new setting of the recording.
7. Click the **Home** button to return to the home page.

Description of function keys:

The targeted zone: Click and drag the mouse across the targeted zone to draw a red rectangle on the image.

Detection Range: The red rectangle's coordinates.

Save: Click to save the motion detection range.

Motion Detection: This option enables / disables the motion detection function

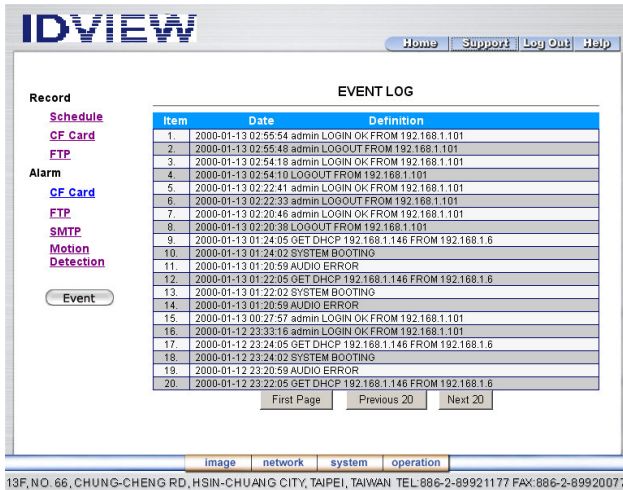
Sensitivity Level: Selects any one of the given options for the setup signal level.

Submit: Click to submit the new setting to the LAN CAMERA.

5.1.7 View the Event Logs

Please follow the steps below to view events through the network if and as necessary.

1. Click the **Event** button at the upper left above to enter the “EVENT LOG” page.



2. Choose one of the three buttons shown on the page to view an event when necessary. The three buttons are titled “First Page”, “Previous 20”, and “Next 20”.

Description of function keys:

First Page: Displays the first page.

Previous 20: Displays the previous page.

Next 20: Displays the next page.

6. SPECIFICATIONS

Model Number	LC-7211	
Image System	NTSC	PAL
CCD sensor	1/3 inch interlaced CCD	
CCD resolution	768 x 494 pixels	752 x 582 pixels
Resolution (video out)	720 x 480 pixels	720 x 576 pixels
Recording rate (Transmission Rate)	Up to 30(25) frame/sec At 352 x 224 (352 x 272)* Up to 18(15) frame/sec At 720 x 448 (720 x 544)*	
Video Output	1.0 Vpp, 75 ohm, composite, negative	
Audio	16 bits, 8 kHz	
Microphone	Yes	
Horizontal resolution	480 TV lines	
Exposure	BLC / AGC / AWB	
Electronic shutter	1/60 – 1/10000 sec	1/50 – 1/10000 sec
Sensitivity	1 lux @ F1.6	
Auto iris type	DC-iris	
Compression	MJPEG	
Picture size	4 ~ 64 KB	
Video fine tune	Brightness, HUE, Saturation, Backlight, Sharpness	
Watermarker	Digital Signature	
Communication Port	RS-232 / RS-485	
Network Interface	Ethernet (RJ-45Wired, 10/100 Base-TX) x 1	
Network Protocol	TCP/IP, DHCP, HTTP, UDP, FTP, SMTP, SNMP, NetBIOS, ICMP, DDNS, DNS	
Motion detecton	Advanced MD (zone, position, sens)	
CF socket	CF memory card as storage (option)	
Day and Night	Yes	
Alarm I / O	Event triggered remote image storage via E-mail and (FTP)	
Secure password / username	Multi-level / Multi-user	
Software Upgrade	Upgrade via Memory Card(CF Card) or RS-232	
Power input	12V DC / 2A	
Operation environmental	Requires proper environmental housing for outdoor use	
Weight	0.5kg	
Operation temperature	5 C ~ 50 C (41 F ~ 122 F)	
Regulation	FCC, CE	
Dimensions	70 (H) x 57 (W) x 135 (D) mm	
Provided Accessories	AC Adapter x 1	
	Instruction manual x 1	
	Power cord x 1	
	CD-R x 1	

7.Function of Client PC

System requirement	Windows
Browser	IE 5.x 6.x
Camera setup	Username / IP / PROXY / Password / Time / Date / Motion / Alarm
Multi-camera link	> 16 camera
Viewer	1 / 4 / 9 / 16 SPLIT
PT control	Support
Save file format	BMP / JPEG / AVI