SANTEC
security solutions

IP-Camera

Model
SNC-240 / SNC-360

Version 1$_{RN}$ / 2008

Dear Customer!

We are thankful, that you have decided to use our SANTEC product.

Please read this manual carefully and follow the instruction before the first usage of the product.

Should you require any technical assistance, please contact your SANTEC reseller or call our hot line.

Further Information is available on our web site: www.santec-video.com

<div style="border:1px solid">

SANTEC Service Hotline in Germany:

+49 / (0) 900 / 1 72 68 32

+49 / (0) 900 / 1 SANTEC

(0,89 €/Minute from the fixed network of German Telekom AG.)

</div>

support@santec-video.com

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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 your distributor / retailer.

- 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 shocks.

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1. PRODUCT FEATURES

1.1 Product Instructions

This user-friendly device combines cutting-edge sophistication with practical reliability and convenience. It features the self-downloading automatic video codec and other components, and is very easy to set up. The SNC-360 has especially high resolution as well as 480 TV lines, a built-in web server and a Network interface to connect you with the Internet securely and fast.

You can access the network to get smooth images through the real-time and synchronized audio / visual stream provided by the device, because it supports two compression modes, the MJPEG and the MPEG4 -- you can change from one to the other as you wish. The MPEG4 file format is a very small size file, so it can save more images over a longer time and can be set extremely fast.

The device also has a built-in website server providing many Internet functions and protocols, including the MDIX protocol which recognizes both the normal and the crossover cables, either of which can connect up with a Network camera.

We hope this device makes it easier for you to get your IP address information. This unit supports the USB interface which helps you to very easily get an IP address to open the IE browser: just type in your IP address to the browser and you can access your Network camera.

The device can hopefully provide the advanced motion detection function to improve your network surveillance with both the powerful and enhanced multi-zone and multi-sensitivity modes of detection. We believe this unit is the right answer to all your network surveillance problems. Try it and you'll see.

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1.2 Product Features

SNC-240:

- The installation of a Codec or execution file is not necessary. The Network camera will automatically send the Codec or any component to a PC if the latter requires it.
- Supports two compression modes, the Motion - JPEG and the MPEG4. You can change from one to another as you wish.
- The MPEG4 is a very small size file, so it can save more images over a longer time and can be sent extremely fast.
- Real - time synchronization of the video and audio functions.
- No latency. The unit will directly power on and run.
- Built-in Web Server and network connection.
- Position a camera any place you want – no PC is required for operation.
- Supports the SD card as a local storage.
- Supports the VGA play mode.
- See live images in any network -connected PC.
- Surveill your house or office via the Internet.
- Supports the MDIX protocol that recognizes both the normal and the crossover cables, either of which can connect up with a Network camera.

SNC-360:

- 1/3" Sony Super HAD CCD sensor.
- 480 TV lines.
- Built-in web server.
- Our comprehensive Plug & Play features-PnP video codec–installation of automatic video codec or any component. PnP IP address–supports UPnP protocol. PnP configuration–USB interface for setup. PnP recording–built-in SD card for recording.
- Auto white balance (AWB) & auto tracing white balance for color temperatures from 2500°k to 9500°k.
- Advanced motion detection–multi-zone & multi-sensitivity.
- Privacy- guarding image masking with free position and size.
- CIF up to Full D1 resolution.
- Low Lux: Employing a high sensitivity image sensor and low noise circuit design produces the 0.5 lux.
- Auto Iris Control (AIC), Auto Gain Control (AGC), Auto Back Light Compensation (ABLC), and Flicker less (FL)
- Fixed shutter speed: 1/1000 sec.
- Supports the SD card as a local storage.
- Dual codec---MPEG4/MJPEG for various applications.
- Real-time and synchronized A/V stream.
- No latency. Synchronized Analogy / Digital signal.
- Position a camera any place you want–No PC is required for operation.
- Supports pre-alarm & post-alarm functions.
- Supports the MDIX protocol. Recognizes both the normal and the crossover cables, either of which can connect up with a Network camera.

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1.3 Technical Specifications

General:

·Built-in Web Server and network interface. You don't need a PC to operate.

Installation:

·Fast and simple installation – connect to your network and assign an IP address within a

minute. The null modem cable enclosed helps you to set up without a network.

Camera:

·Digital, 24-bit color.

Image sensor:

·1/4 inch Sony progressive scan RGB CCD.

·MPEG4 resolution (pixels): 640×480, 320x240

Exposure:

·Automatic AGC.

·White Balance: Indoor installation.

·Exposure times: 1/30-1/27,000s.

Sensitivity:

·Minimum Illumination: 1.5 Lux. F1.2

Image:

·Image frame rate: up to 30 frames/second.

·Supports two compression modes, the Motion - JPEG and the MPEG4.

·5 levels of compression provided. The file size of a M-JPEG compressed image depends

on the image's actual content. Images with a lot of detail will generate bigger files. The level

of compression determines the image quality. High compression requires smaller files while

low compression gives you finer image quality along with bigger files. The table below

contains the average file size in Kbytes, derived from real life tests.

General I/O:

·Input/Output connector to trigger the camera vis-a-vis external events, for instance a door

sensor with a solenoid.

·Event triggered remote image storage through e-mail and FTP.

System Requirements:

·Compatible with operating systems such as Windows 2000 and Windows XP.

·Internet Explorer 6.x.

·Non-network modem installation needs Windows PC.

Supported Protocols:

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·TCP/IP, DHCP, HTTP, UDP, FTP, SMTP, SNTP, ICMP, DDNS, DNS, UPnP

Security:

·Password protection available, unless exposure is preferred.

Connections:

·RJ 45 twisted pair cable, 10/100 Mbit Ethernet network connection.

·Modem connection: RS-232 modem connector for dial-up use. Supports most V90 modems.

·Input/Output connector to trigger the camera vis-a-vis external events.

Operating Environment:

·Operation temperature: 41-122° F (5-50° C).

·Humidity: 20-80% RHG, non-condensing.

WARNING: Avoid aiming the camera at the sun or other extremely bright lights. Irrespective of whether the camera is used or unused, the CCD image sensor may be damaged if exposed to very bright objects. Dimensions and weight are as follows.

Dimensions / Weight:

·Height: 55 (mm)

·Width: 95 (mm)

·Length: 62 (mm)

·Weight: 306 g

(Not including power supply and mini-tripod.)

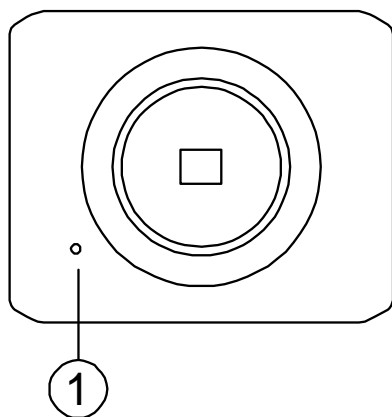**Accessories Included:**

·CD-R x 1
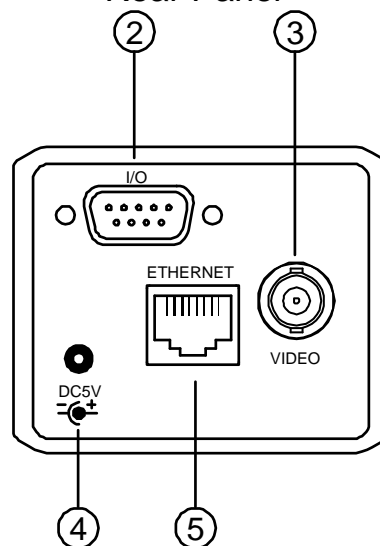
·Power supply: 5V DC/2A.

·Instruction manual.

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2. DESCRIPTION OF THE FRONT/REAR VIEWS

2.1 Front Panel and Rear Panel

-- Front Panel --   -- Rear Panel --

1. **MICROPHONE:**

    The **Network camera** has an additional audio function. The device has a microphone built into its front panel which records sound.

2. **ALARM I/O & RS-232 Port:**

    The RS-232 communication port functions as a connector to an external control device. This port includes ALARM OUT, GROUND, ALARM IN, and ALARM RECOVER for connecting with external devices.

    WARNING: You can't use general RS-232 cables to link up with the I/O connectors in the rear panel of the device (please see the next page for further details).

3. **VIDEO OUT Connector:**

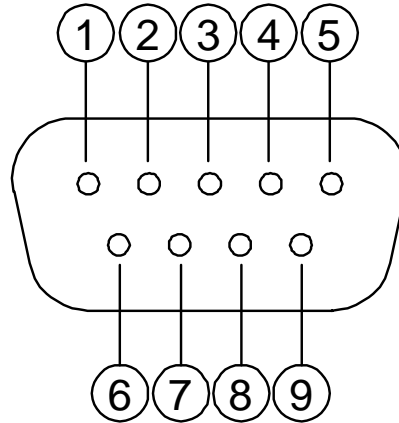   The connector provides the unit's composite video signals to a monitor.

4. **Plug Inlet:**

    A DC 5V inlet that connects to an external power supply.

5. **ETHERNET 10/100 Connector:**

    This is a standard RJ-45 connector for 10/100 Mbps Ethernet networks.
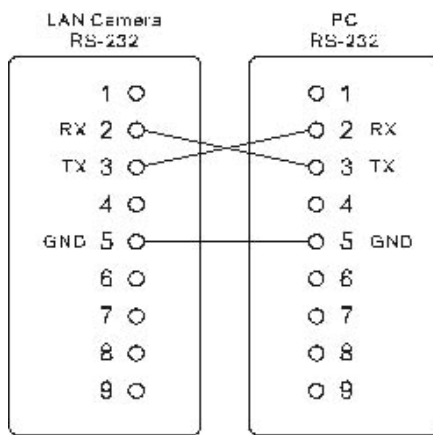
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2.2 RS-232 Port & ALARM I/O

1. **RS-485 D-**

2. **RX:** This pin is one of the RS-232 pins. It connects with the TX pin of another device.

3. **TX:** This pin is one of the RS-232 pins. It connects with the RX pin of another device.

   Please refer to the note below on the standard RS-232 9 Pin Cable with Pin 2 and

   Pin 3 exchanged; see the pin configuration chart below for details.

4. **RS-485 D+**

5. **GND:** Ground contact.

6. **ALARM RESET (INPUT):** This pin connects to an alarm-clear device for clearing an
   alarm. (⌐‾‾‾‾‾ ------- 5V, 20mA └------- 0V(Active))

7. **ALARM IN (INPUT):** This is an alarm input that can be programmed in the menu system
   to active low. (⌐‾‾‾‾‾ ------- 5V, 20mA └------- 0V(Active))

8. **ALARM OUT (OUTPUT):** This is an alarm output trigger. Connect this to external
   devices such as buzzers or lights. (⌐‾‾‾‾‾ ------- 5V, 20mA └------- 0V(Active))

9. **AUDIO OUT:** This provides the unit's audio signal to a speaker.

The pin configuration chart:

Camera	PC
RS232	RS232

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LAN Camera
RS-232

PC
RS-232

```
        1 ○          ○ 1
   RX   2 ○          ○ 2  RX
   TX   3 ○          ○ 3  TX
        4 ○          ○ 4
  GND   5 ○──────────○ 5  GND
        6 ○          ○ 6
        7 ○          ○ 7
        8 ○          ○ 8
        9 ○          ○ 9
```
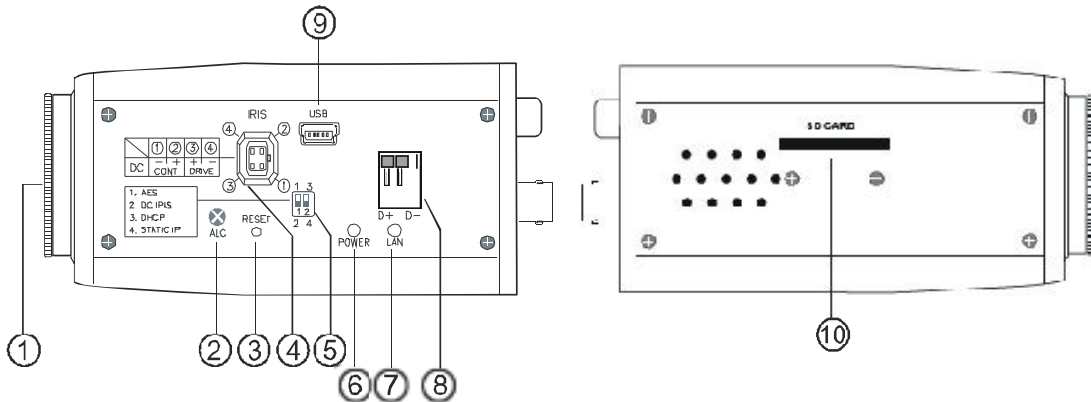
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2.3 Flank Panel

-- Right Flank Panel --   -- Left Flank Panel --

1. **Lens Mount:** This Network camera is used with either a C or a CS mount lens.
2. **ALC VR:** Iris control VR.

    When an auto iris (DC Drive) lens is used, this VR is used to adjust the iris for different lighting environments. Adjust the VR clock-wise to open the iris and counter-clockwise to close the iris of the camera.
3. **RESET:** Recover to factory default.
4. **IRIS:** Auto iris connector.

    This camera works with a DC drive auto iris lens. Please refer to the pin assignment marked on the camera when connecting the auto iris lens.
5. **DIP Switch:**

1 3 **2 4**	**1. AES:** Auto electric shutter.
	2. DC IRIS: Use an auto iris (DC drive)
	3. DHCP: Turn On / Turn Off to use the DHCP protocol. If the switch points upwards, the device can change the setup of network function (enable/disable) via the network.
	4. STATIC IP: If the switch points down, the device can't obtain an IP address from the DHCP server. This option is needed to configure the network communication settings.

6. **POWER Indicator:** Indicates the power status of the unit. The green light indicates the unit is activating. The red light indicates the power is on, the SD card cannot be removed.
7. **LAN Indicator:** Indicates the LAN status of the unit. The green light indicates the 100 Mbps Ethernet network is activating. The red light signals the LAN is data linking.
8. **RS-485** Port**:** The RS-485 communication ports function as connectors when two or more units are serially connected to an external control device.
9. **5pin MINI B** Port**:** The user can use a USB device cable to connect the Network camera to the USB port on the PC**.**

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10. **SD CARD Slot:** This is used for system software updating and archiving / accessing critical images

2.4 The USB function

By connecting the Network camera with a PC via the USB connector, the Network camera can provide two different functions.

1. Insert an SD card: As a card reader.

Insert an SD card into the Network camera, then connect to the PC. You might transfer files between the SD card and the PC. Once you've connected your Network camera to your computer, the Windows system will detect the connection and ask you what you want to do with your SD card.

In other words, if the user connects the Network camera with an SD card and the PC via the USB connector, the Network camera can be used as a normal card reader.

2. Remove an SD card: As a configuring tool.

Before using the USB configuration setting page, please remember to remove the SD card or your PC will read the SD card and won't show this window.

DHCP ON   **DHCP OFF**

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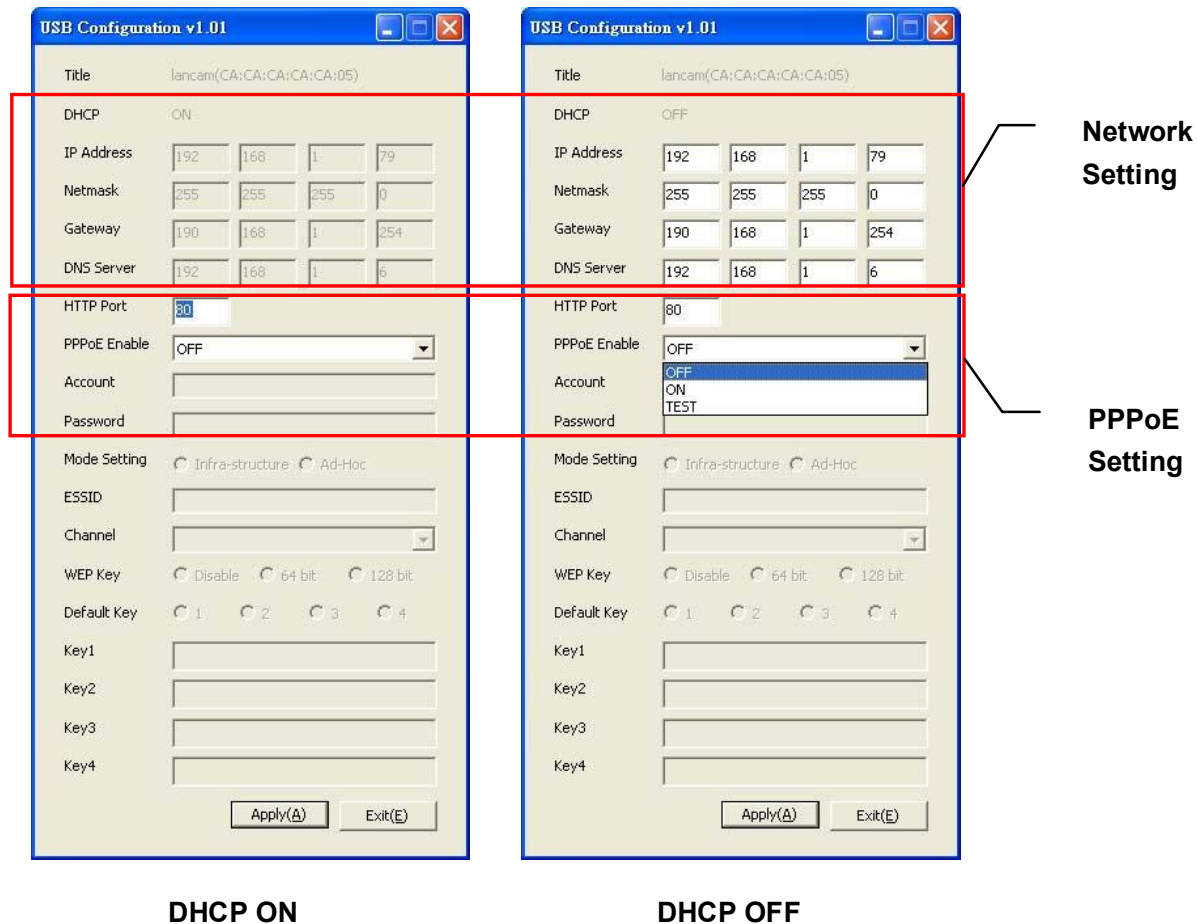
WARNING: After changing the settings, please click the "Apply" button. All of the options will be effective after removing the USB connector.
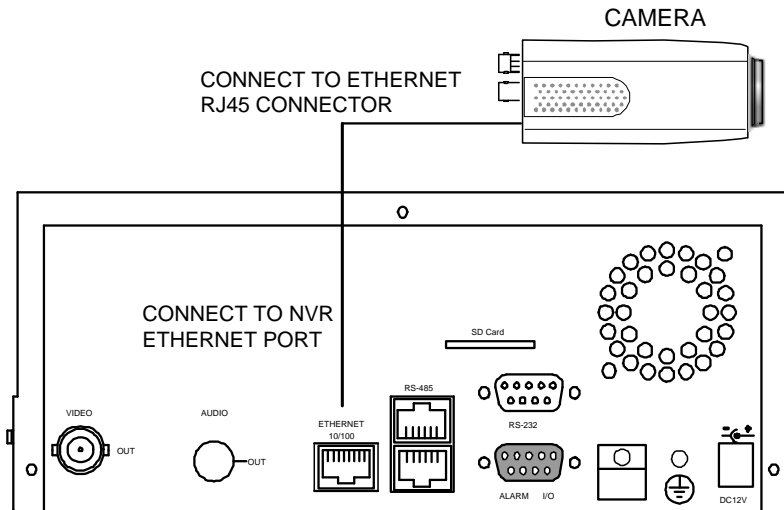
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3. INSTALLATION

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

NOTE: The **Network camera** is linked by its Video Out connection via a BNC connector to a monitor's Video In connection. If this connection is there, you can see some information on the monitor screen, such as the Network camera factory default Static IP address(192.168.1.168). But the Network camera Static IP address can only appear if there is a connection between the Network camera and another device. If there is no such connection, the Network camera factory default Static IP address will not appear on the monitor screen.
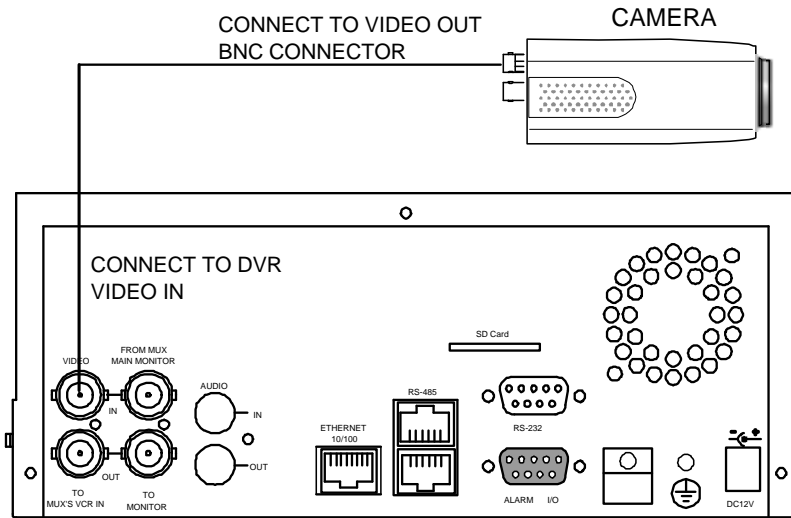
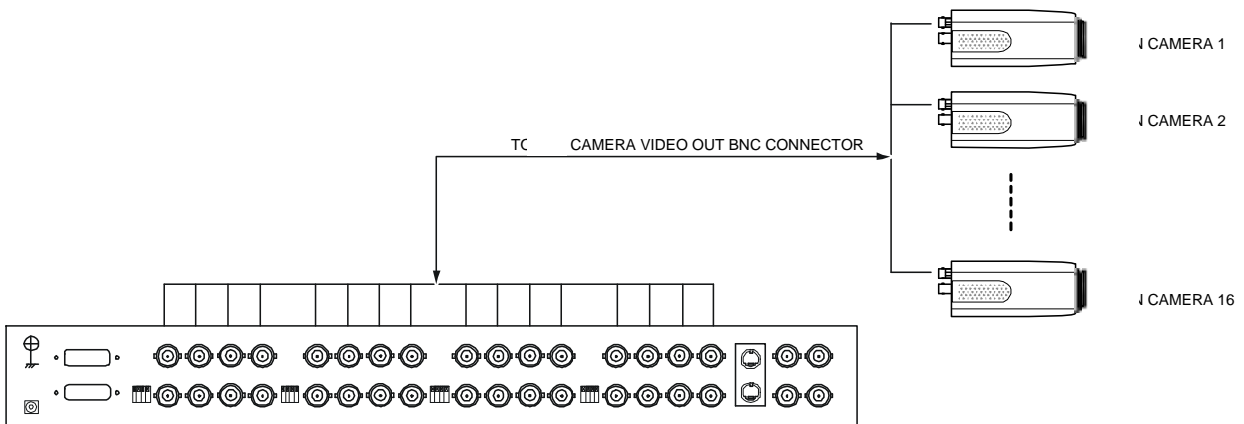## 3.1 CONNECTING WITH AN NVR

Use a cable to connect directly to an NVR.

CAMERA

CONNECT TO ETHERNET
RJ45 CONNECTOR

CONNECT TO NVR
ETHERNET PORT

SD Card

VIDEO AUDIO ETHERNET RS-485 RS-232
10/100

OUT OUT

ALARM I/O DC12V

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3.2 CONNECTING WITH A DVR

CONNECT TO VIDEO OUT
BNC CONNECTOR

CAMERA

CONNECT TO DVR
VIDEO IN

VIDEO
IN
FROM MUX
MAIN MONITOR
AUDIO
IN
OUT
SD Card
RS-485
RS-232
ETHERNET
10/100
ALARM   I/O
DC12V
TO
MUX'S VCR IN
TO
MONITOR

3.3 CONNECTING WITH A MULTIPLEXER

CAMERA 1

CAMERA 2

TO   CAMERA VIDEO OUT BNC CONNECTOR

CAMERA 16

3.4 UPDATING SYSTEM SOFTWARE

If the system software of the Network camera needs to be upgraded, please take the following

steps to safely process it.

Important: Before carrying out the following procedures, please ensure the SD card is

working and the file of the system firmware is intact

1. Format an SD card using the FAT16 format if it is unformatted; there are no limitations to an SD

card's capacity.

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2. Create a directory named **LANCAM** in the SD card if it does not exist.

3. Copy the file of UPDATE.BIN to the **LANCAM**-directory.

4. If the Network camera is running, please power it off first.

5. Insert the SD CARD into the Network camera.

6. Remove the Ethernet cable from the RJ-45 port and then power on the Network camera.

7. In 5 to 10 seconds, a message reading "UPDATE PROCESSING" will show up on the screen on a blue background; if not, please check out steps 1 to 6 carefully or else inform your technical support while ignoring the following steps.

8. DO NOT power off the Network camera while this update process is running until the message "UPDATE OK RESET PLEASE" appears on the screen; it might take 15 to 30 seconds to appear.

9. If the message "UPDATE NG RESET PLEASE" appears rather than "UPDATE OK RESET PLEASE", please write down the error messages shown on the screen and inform your technical support, while ignoring the following steps.

10. Power off the Network camera when this update process is finished, then remove the SD card from the Network camera.

11. Reconnect the Ethernet cable to the RJ-45 port if necessary.

12. Power ON the Network camera and it will work normally if the entire update procedure goes correctly.

13. Verify the version of the system software.

WARNING:

1. **Don't use FAT32 or NTFS or other file formats in step 1.**

2. **Steps 1 to 3 have to be done on a PC.**

3. **Make sure the file of UPDATE.BIN is a correct one in step 3, or the Network camera will not work normally after being updated.**

4. **If the power of the Network camera is suddenly lost in step 8, please remove the SD card first and turn on the Network camera next to test its operation. If the Network camera remains working normally, please go back to step 4; otherwise, please inform your**

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technical support.

5. **In step 10, if the SD card is not removed and the Network camera does not get online as well, the updating process must be repeated again after rebooting the Network camera.**

6. **Make sure that the SD card is inserted in a correct position in step 5, or the Network camera will suffer permanent physical damage.**

7. **If the message "CSUM ERROR" appears in step 8, it implies a problem in the file of UPDATE.BIN.**

8. **Don't interrupt the process while the unit is updating itself; proceed with an SD card not including any system software of the unit, or else the unit will crash.**

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3.5 Network camera SD card Troubleshooting

1. Check if the SD card position is correct or not. Please refer to the manual for the related information.

2. After powering the Network camera on, correctly insert the SD card, and a little icon of "SD" will show up in the upper-right corner of the monitor screen. If not, it means the device detection has failed. Please contact your technical support and ignore the following steps.

3. If no cross sign appears beside the "SD" icon, please go on to the next step. If a cross sign appears, please check the following:

    a. Is it really an SD "Memory" Card?

    b. Is this SD card formatted in the FAT16 format?

    c. Connect the SD card with a PC and test to see whether the PC can read the data or not.

    d. Does this SD card still have the capacity for storing data?

    e. Is the SD card set to write?

    If all the answers are "yes" but the cross sign still persists, please contact your technical support and ignore the following steps.

4. Please make sure the function of "SD CARD ENABLE" is activated in the ALARM and SCHEDULE pages if no cross sign appears beside the "SD" icon on the screen.

5. After recording, read the data on the web page of "sdget.htm". If the data cannot be read through the network, please read it instead in a PC, check the data stored in the "Network camera" directory and contact your technical support regardless of whether there is data or not.

WARNING:

1. **Performing this troubleshooting process may need a monitor, a PC, a card reader and some cables.**

2. **If the SD card is removed while storing or accessing data, the data will be lost.**

3. **If there is a cross sign beside the "SD" icon, it means the SD card has been inserted into the Network camera but cannot perform its writing function. Possible reasons are:**

    a. It is not an SD memory card.

    b. The SD card is unformatted or formatted in a non-FAT16 or non-FAT12 format.

    c. The file system is damaged.

    d. The capacity of the SD card is full.

    e. The SD card is set to be read only.

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4. Turn off the power before inserting the SD card. Otherwise the unit may shut down.

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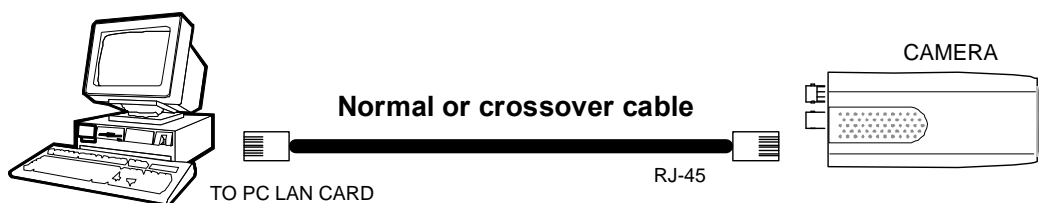# 4. Network Configuration

4.1 Cable Connections

Please follow the instructions below to connect your Network camera to a computer or a network

and to choose a proper RJ-45 cable configuration for connections.

Physical specifications of the RJ-45 cable for Ethernet

Wire Type	Cat. 5
Connector Type	RJ-45
Max. Cable Length	100 m
Hub Wiring Configuration	Straight through or Cross Over
PC Wiring Configuration	Straight through or Cross Over

4.1.1 Connect to a computer

Use a cable to connect directly to a computer.

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4.1.2 Connect to a LAN Hub (INTRANET)

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

TO PC NETWORK CARD

CAMERA

RJ-45

TO NETWORK

1   2   3   4   uplink

HUB

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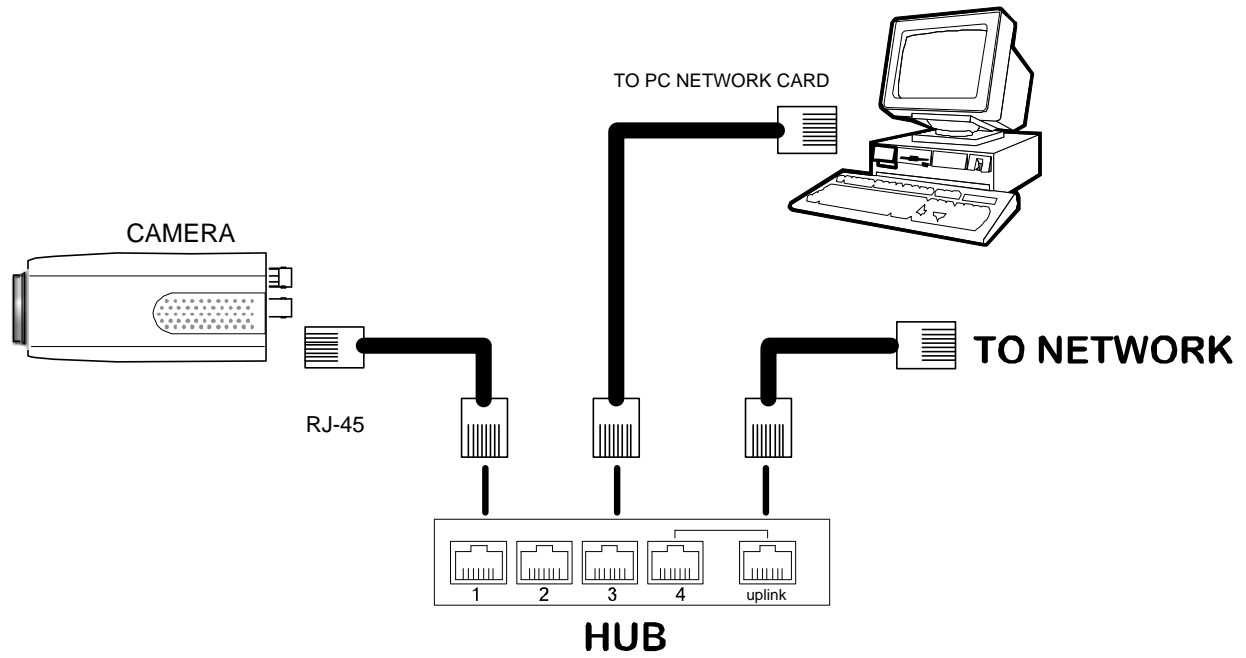
4.2 Configure Your Network camera Network Settings

Upon connecting with the network hardware, you need to activate the network function and configure the proper network settings of the Network 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, please move the dip switch points up to **3** on the flank panel; now the Network camera will obtain an IP address automatically from the DHCP server. In that case, please skip section 4.2.2 (Set IP address) and follow section 4.3 (TCP/IP Communication Software).

4.2.2 Set IP Address

You need to set an IP address for the unit if the LAN 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: 192.168.1.X

MASK: 255.255.255.0

GATEWAY: 0.0.0.0

NOTE: When only one unit of the Network camera is connected to a computer or LAN, you can freely assign an IP address for the Network camera. For example, there is a range of Network camera IP addresses from 192.168.1.1 to 192.168.1.255. 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 Network 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 consult a qualified MIS professional or your ISP.

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NOTE: When connecting to a network, each connected Network 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, 192.168.1.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the Network camera IP address must be the same as in the network address. If the connected network is identified as Class B, the first two sets of numbers of the Network camera IP address must be the same as the network address. If you have any questions regarding these settings, please consult a qualified MIS professional or your ISP.

4.3 TCP/IP Communication Software

Follow the procedure below to install the TCP/IP communication program in your computer.

Click the **Start** menu from your computer, and point to the **Settings/Control Panel.**
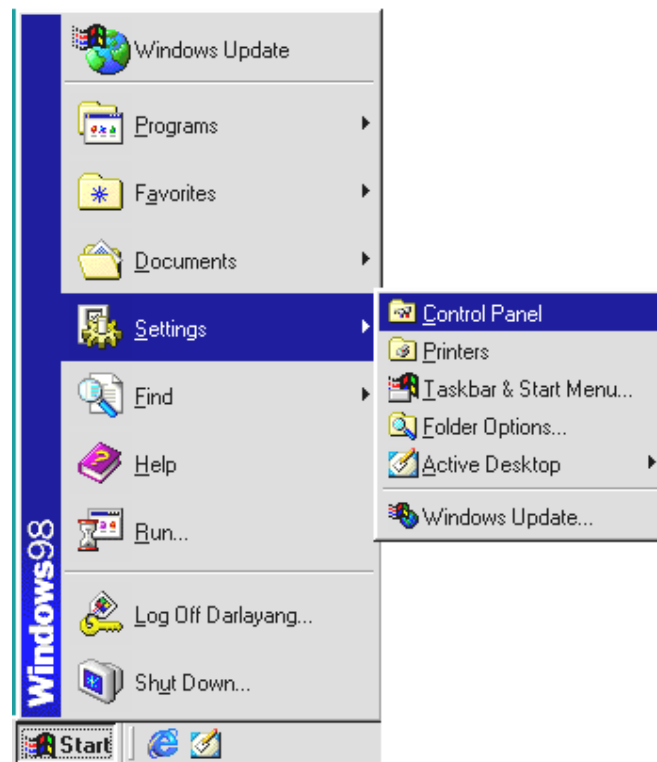
Double click the **Network** icon to enter the windows.

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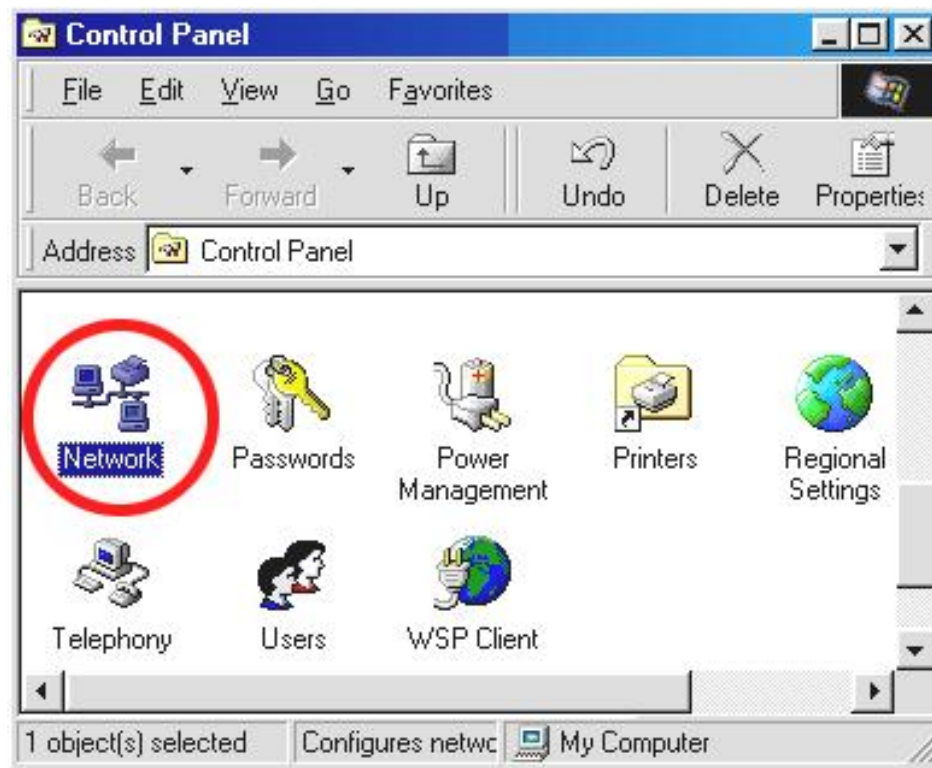
Click the **Configuration** tag, and check if the TCP/IP is included among the network component

list. If the TCP/IP is included, please process section 4.5. If it is not included, please follow

section 4.4 to install the TCP/IP.

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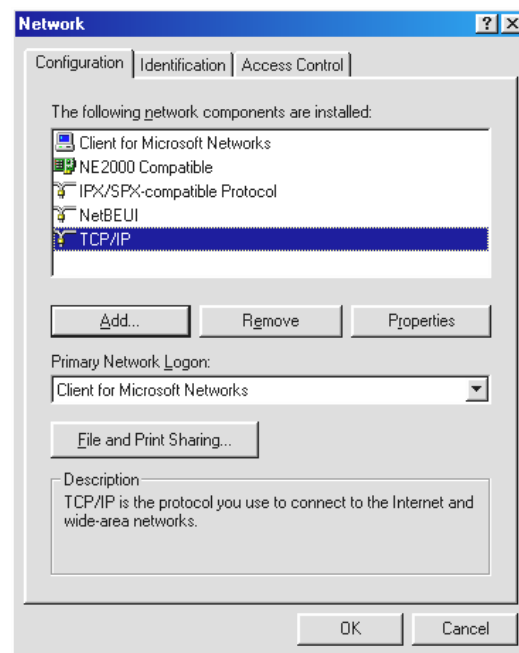
4.4 TCP/IP Installation
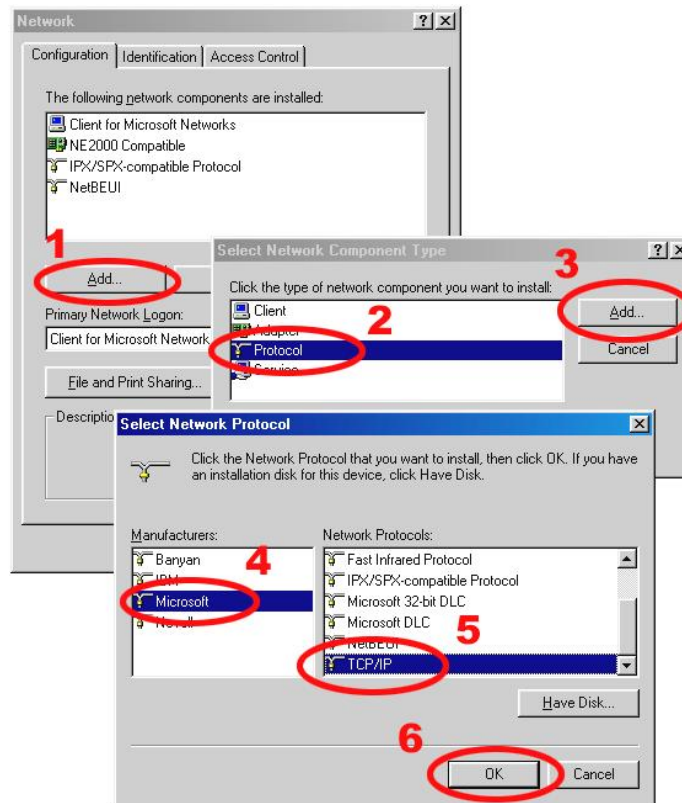
During the installation, you will be requested to insert the Windows CD-ROM. After installation,

the PC may be restarted.

4.5 TCP/IP configuration setting

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

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

Before processing the Network camera installation in a WAN, please make sure the Internet

connection works properly. If not, please contact your ISP provider.

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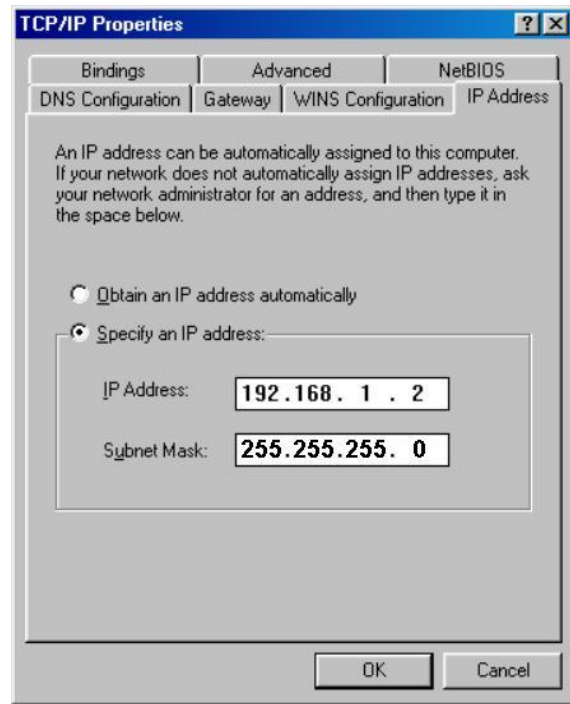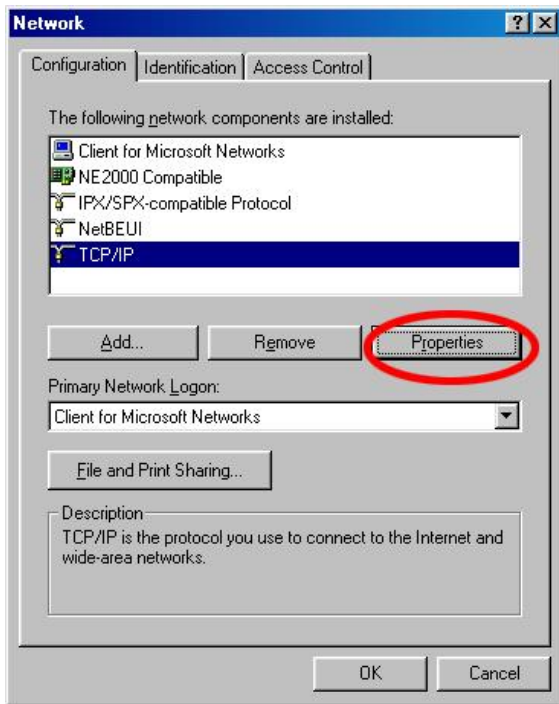
If you are using a DHCP server, please select **Obtain an IP address automatically**. Any

assigned IP address for the connected Network 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 other network IP devices but in the

same class type.

NOTE: The IP address of a Network camera in a network must be unique to itself as

opposed to those of the other chosen PCs, but in the same class type.

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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**
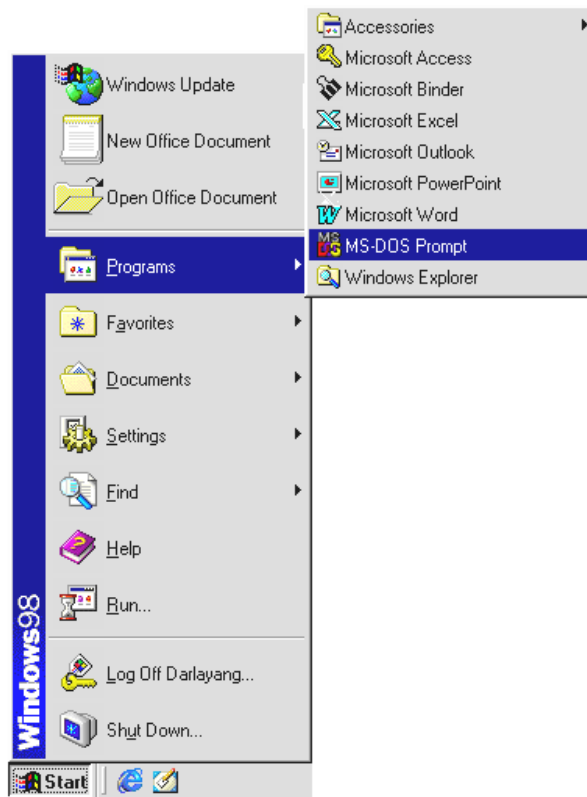
Type in **ping 192.168.1.168,** then enter. (See the sample screen below).

** *This IP is the Network camera IP address that is assigned for the connected Network camera in*

step2.

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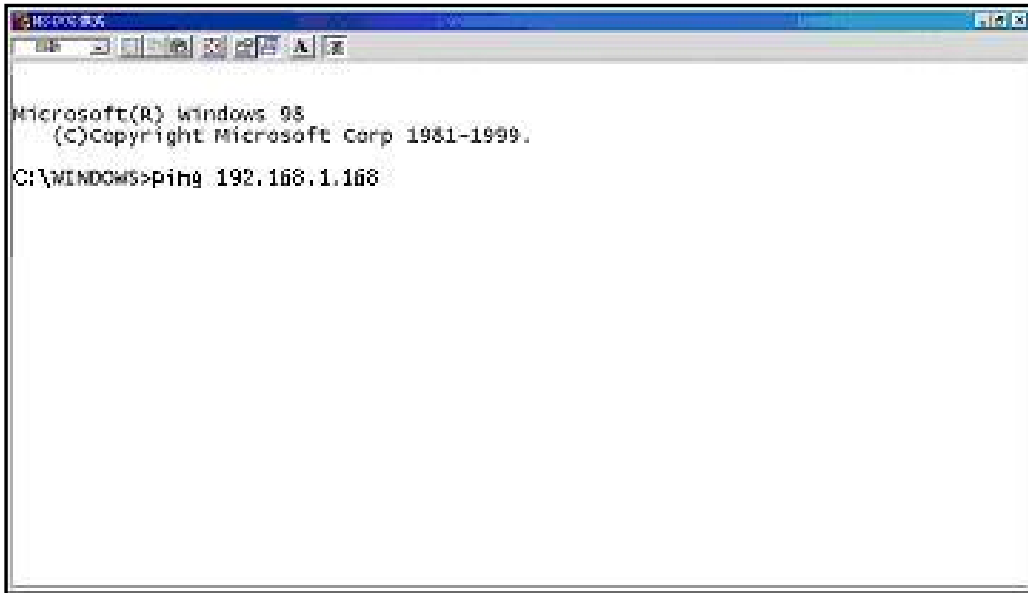
If you receive a response as in the sample screen below, the connection hasn't been successfully established. Please re-check all the hardware and software installations by repeating steps 1 to 5. If you still can't establish the connection after rechecking, please contact your dealer.
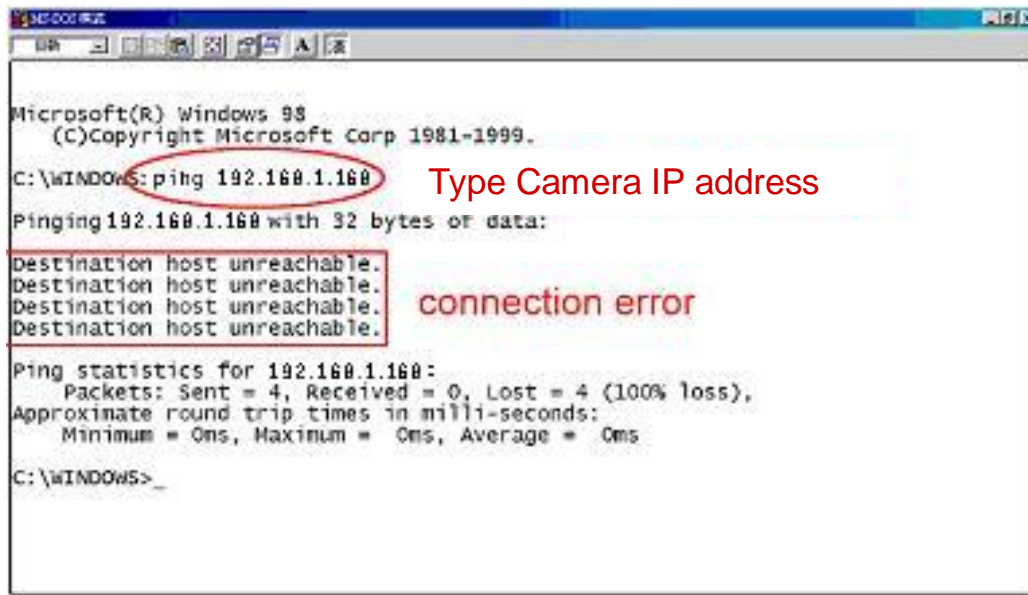
If you receive a response as in the sample screen below, you have successfully made the connection.

Type Camera IP address

```
MS-DOS 프롬프트                                                          _ □ X

    □▶  ▣ □□□▣ ▣ ▣▭ ▣▣

Microsoft(R) windows 98
    (C)Copyright Microsoft Corp 1981-1999.

C:\WINDOWS>ping 192.168.1.168    type LAN CAMERA IP address

Pinging 192.168.1.168 with 32 bytes of data:

Reply from 192.168.1.168  bytes=32 time<10ms TTL=128    connection is
Reply from 192.168.1.168  bytes=32 time<10ms TTL=128
Reply from 192.168.1.168  bytes=32 time<10ms TTL=128    successful
Reply from 192.168.1.168  bytes=32 time<10ms TTL=128

Ping statistics for 192.168.1.168
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\WINDOWS>
```

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5. Operating Instructions for Image Software and Network

Two choices of software are available for linking with the Network camera: (1) the Microsoft Internet Explorer; and (2) the Network 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.

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

1 2 3 4 5 6 7 8
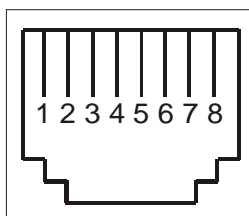
Physical specifications for Ethernet

Wire type	Cat. 5
Connector type	RJ-45
Max. cable length	100 m
Hub wiring configuration	Straight Through or Cross Over
PC wiring configuration	Straight Through or Cross Over

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5.1 Microsoft Internet Explorer

5.1.1 Connecting the Network camera

1. Start up the Microsoft Internet Explorer, and then follow the steps below to connect the Network camera.
2. Click the URL block at the top of the window.
3. Enter the URL address of the Network camera into the URL block and press the "**Enter**" button to enter the home page.
4. Scroll to the bottom of the page, with its six icons, "Image", "Network", "System", "Application, "SD card", and "Pan/Tilt". Whichever you click, the page headlined "Enter Network Password" will appear.
5. Type in the "User Name" and "Password" in the appropriate spaces.
6. Click the "**OK**" button to set your entries, and automatically exit the page.

NOTE: The default "User Name" and "Password" are admin and 9999, respectively.

NOTE: The page headlined "Enter Network Password" is shown below. Please enter the user name and password of the Network camera when you see it. If either the user name or the password is incorrect, please check the input data and rectify it if necessary.

NOTE: Once authorized successfully, it will not appear again until you close the window and reconnect it.

NOTE: The initial sequence of proceeding is to type in your IP address and click the "**Enter**" button to access the home page. If and when you revise or change data in the "**SYSTEM USERS**" page, the sequence will alter to initially show the "**Enter Network Password**" page.

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Browsing images from the Network camera

The images from the Network camera will be displayed on the home page while going online with

the Network camera. Some buttons of the home page are provided for further setting. In the

MJPEG mode or in the MPEG4 mode, there are different display formats of its home page.
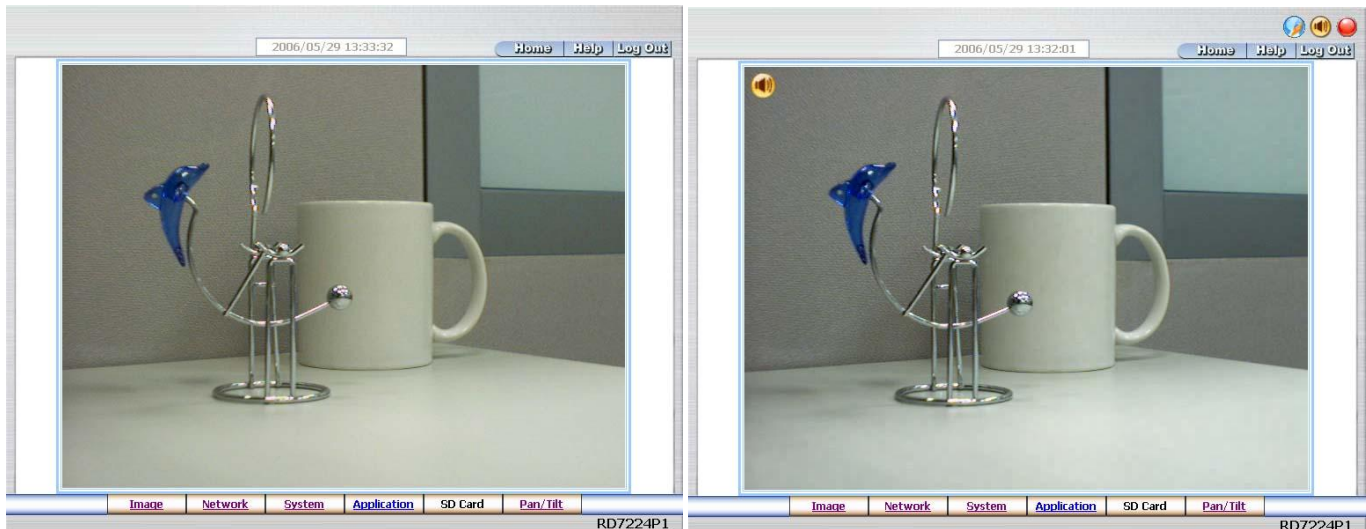
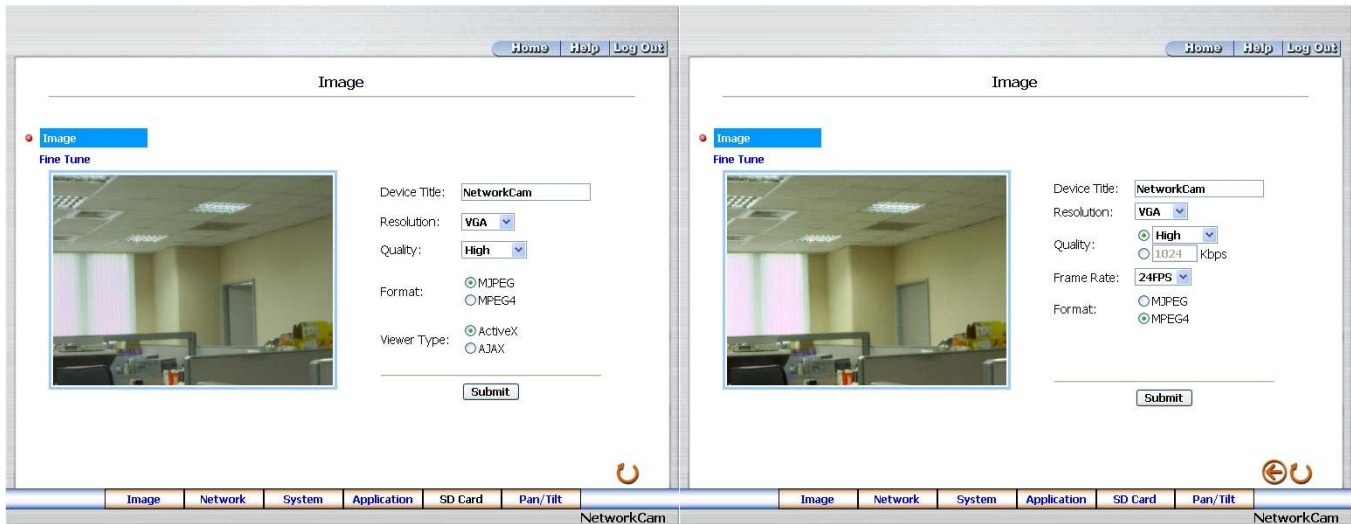| Homepage of MJPEG mode | Homepage of MPEG4 mode |

● 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 **Application** button to enter the Application-setting page.

● Click the **SD card** button to open the SD card- FILELIST of the MEMORY CARD window, if

the SD card is inserted.

● Click the **Pan/Tilt** button to change the Pan/Tilt/Zoom settings.

● Click the [11/10/2005 14:31:37] button to change the time/date display mode.

● Click the 🌐 button to switch the high/low speed network.

● Click the 🔊 button to play the live audio. Click once again to deactivate.

● Click the 🔴 button to archive AVI videos into your PC. Click once again to deactivate.

In the recording mode, there will appear a red twinkling icon 🔴 in the upper-right hand

corner of the image. The AVI file will be saved in the path of c:\.

● **Digital zoom** function: Click the left mouse button on the video display area, and it will

show the zoom-in images. Double click the left mouse button to see the maximum size.

Click the right mouse button on the video display area, and it will show the zoom-out

images. Double click the right mouse button to come back to the normal size.

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5.1.2 Change Image Setting

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

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

   SNC-240:

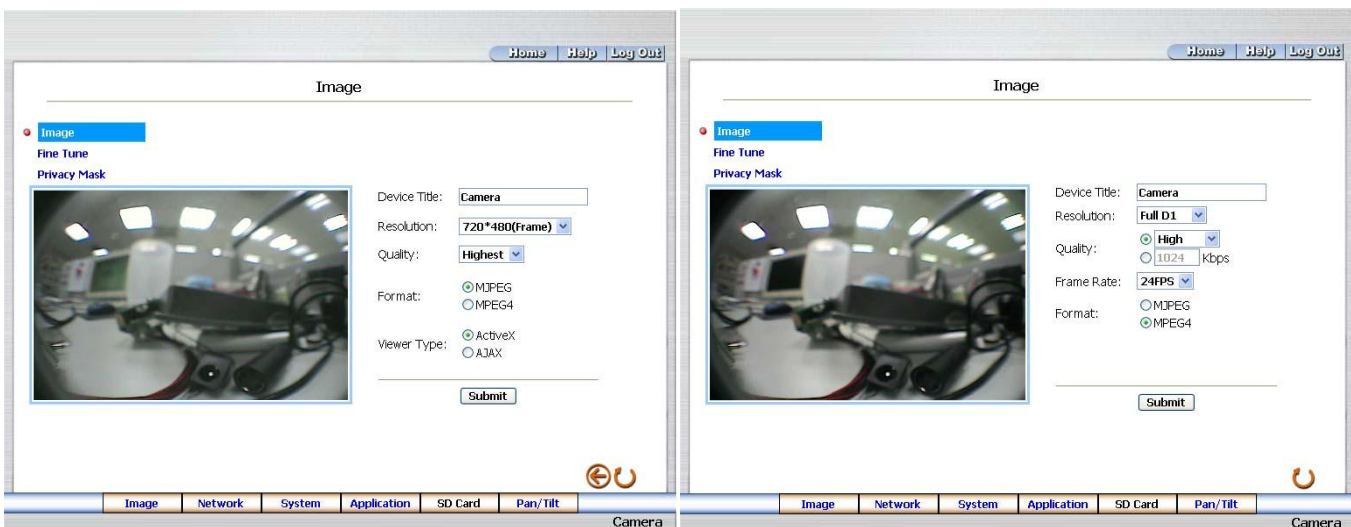   **SNC-360:**

   Image setting page of MJPEG mode   **Image setting page of MPEG4 mode**

2. Adjust the image setting including "Device Title", "Resolution", "Quality", "Frame rate" (MPEG4 mode only), "Format", and "Viewer Type" (MJPEG mode only) if necessary.

3. Click the **Submit** button to submit the new image setting.

4. Click the **Fine Tune** button to enter the Image Fine Tune page to set the details of the device including: "Brightness", "Saturation" and "Sense Up". Click the **Default** button to reset all the settings.

   NOTE: The revised image will appear immediately after any change is made.

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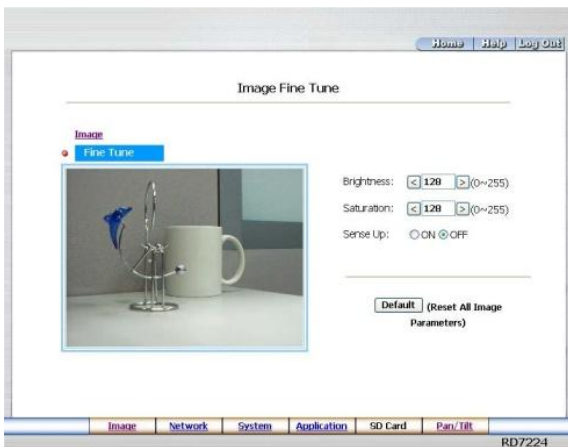
| Image setting page of SNC-240 | Image setting page of SNC-360 |
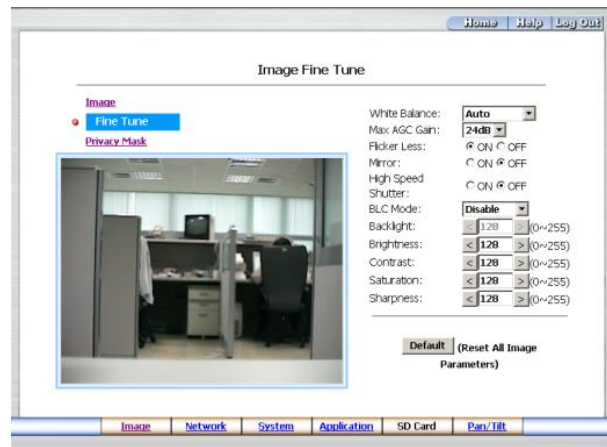
5. Click the **Privacy Mask** button to enter the Privacy Mask page. (For SNC-360 only)

6. 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 settings.)

Exchange the image format

1. Tick on one of the formats, then press the **Submit** button.

2. The Network camera will restart automatically after several seconds.

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Description of function keys:

I.   SNC-240:

Device Title: Type in the camera title in the given space.

Resolution: Scroll to choose the image resolution from "VGA" or "QVGA".

Quality: Scroll to choose the image quality out of a spectrum of qualities ranging from "highest", "high", "medium", and "low" to "lowest". In the MPEG4 mode, you can also set the quality by typing in the value. The custom quality value must be in the range between 64 Kbps to 8192 Kbps.

Frame rate: Click the drop-down list to choose the frame rates of "15FPS", "24FPS" or "25FPS".

Brightness: Enter your desired quality of image brightness from a spectrum of 0 to 255.

Saturation: Type in the saturation level in the blank space (0 to 255).

Format: Click to choose the "MJPEG" or the "MPEG4" mode.

Viewer type: Click to choose the viewer type of the "ActiveX" or "AJAX" mode.

Submit: Click to submit the new image setting to the Network camera.

Default: Click this button to install the default settings in all the entries for image parameters on this page.

II.   SNC-360:

MPEG4 mode:

Device Title: Type in the camera title in the given space.

Resolution: Scroll to choose the image resolution from "VGA" or "QVGA".

Quality: Scroll to choose the image quality out of a spectrum of qualities ranging from "highest", "high", "medium", and "low" to "lowest". In the MPEG4 mode, you can also set the quality by typing in the value. The custom quality value must be in the range between 64 Kbps to 8192 Kbps.

Frame rate: Click the drop-down list to choose the frame rates of "15FPS", "24FPS" or "25FPS".

Format: Click to choose the "MJPEG" or the "MPEG4" mode.

Fine Tune mode:

Brightness: Enter your desired quality of image brightness from a spectrum of 0 to 255.

Saturation: Type in the saturation level in the blank (0 to 255).

MJPEG mode:

Viewer type: Click to choose the viewer type of the "ActiveX" or "AJAX" mode.

Submit: Click to submit the new image setting to the Network camera.

Default: Click this button to install the default settings in all the entries for image parameters on this page.

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5.1.3 Change the Network Setting

Please follow the steps below to change the network settings through the network if necessary.

● *Set the network options and IP address.*

1. Click the **Network** button in the home page to enter the Network page.

2. The accessible networks here are the "FTP" (MJPEG mode only), the "SMTP" (MJPEG mode only), the "SNTP", the "DDNS", the "PPPoE", the "UpnP" and the "Traffic".

3. Fill in the "IP Address", "Netmask", "Default Gateway", "Primary Nameserver", and "HTTP Port" if necessary.

4. Click the **Submit** button to submit the new network setting.

5. Click the **Home** button to return to the home page.

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Description of function keys:

    IP Address: Enter the 4-byte IP Address in the appropriate blank space (the value in each box may be anywhere between 0 and 255). Every Network camera has to own an IP address to be identified on the network.

    Netmask: Fill in the 4-byte Subnet Mask in the required blank spaces (usually any number between 0 and 255). It is used to identify the subnet where the Network camera is sited.

    Default Gateway: Type in the 4-byte Gateway in the relevant blank space (each unit value must be between 0 and 255).

    Primary Nameserver: Enter the 4-byte DNS Server Address in the blank space provided (each value unit must be between 0 and 255). The DNS Server is in charge of translating the Domain Name into the IP Address.

    HTTP Port: Indicates the specific HTTP Port Number. The default is 80.

    Submit: Click to submit the new network setting to the Network camera.

● *Change the Network Setting — FTP (MJPEG mode only).*

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

1. Click the **FTP** button at top left to enter the "FTP Server Setting" page.

2. Type in the "FTP Server" address, the "User Name", and the "Password" of the FTP Server; and set the "File 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: Enter the FTP server DOMAIN NAME in the appropriate blank space.

User Name: Fill in the FTP login user name in the attached blank space (if the data is not provided, warning messages will show up).

Password: Type in the FTP login password in the attached blank space (if the space is blank, warning messages will show up).

File Upload Path: Enter the file upload path while setting the FTP.

Submit: Click to submit the new FTP setting to the Network camera.

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● *Change the Network Setting — SMTP (MJPEG mode only).*

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

1.   Click the **SMTP** button at upper left above to enter the "SMTP Server Setting" page.

2.   Click "My Server Requires Authentication" to checkmark the attached box and activate the function.

3.   Fill in the Account Name, Password and the DOMAIN NAME of the SMTP server, and set the

recipient's e-mail address if necessary.

4.   Click the **Submit** button to submit the new SMTP setting.

5.   Click the **Home** button to return to the home page.

Description of function keys:

    Account Name & Password: Fill in the account name and password if you check marked the "My

Server Requires Authentication" function.

    SMTP Server: Enter the SMTP server DOMAIN NAME in the given blank space.

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

    Submit: Click to submit the new SMTP setting to the Network camera.

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● *Change the Network Setting — SNTP.*

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

1. Click the **SNTP** button at upper left above to enter the "SNTP Server Setting" page.

2. Enter the IP Address of the SNTP server, and choose one of the time zones as and when necessary.

3. Click "Automatically Adjust for Daylight Saving Time Changes" to checkmark the attached box and
   activate the function.

4. Click the **Submit** button to submit the new SNTP setting.

5. Click the **Home** button to return to the home page.

Description of function keys:

   SNTP Server: Enter the SNTP server DOMAIN NAME in the blank space provided.

   Time Zone: As we know, the globe is divided into various time zones. The user must enter his/her
       time zone. If this is not done, the time given by the unit may be incorrect.

   Submit: Click to submit the new SNTP setting to the Network camera.

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- *Change the Network Setting — DDNS.*

The "Network" page has, on its upper left, the "DDNS" icon. Please follow the steps below to change the

DDNS setting through the network if necessary.

1. Click the **DDNS** button at upper left above to enter the "DDNS Setting" page.

2. Click "Enable DDNS Function" to checkmark the attached box and activate the function.

3. Click "DDNS Type" to open the list of three DDNS modes to choose from: "DynDNS", "hn", and

    "adsldns". Click the "Apply" button and connect their website automatically and visit it. Type in your

    dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email

    containing your DDNS Account and DDNS Password in your Email box.

4. Type in the "DDNS Host Name", the "DDNS Account" and the "DDNS Password".

5. Click the **Submit** button to submit the new setting.

6. Click the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.8 (PPPoE & DDNS) for more details.

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Description of function keys:

Enable DDNS Function: Checkmark to activate the function.

DDNS Type: Click to open the list of three DDNS modes to choose from: "DynDNS", "hn", and "adsldns".

Click the "Apply" button and connect this website automatically and enter it. Type in your dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email containing your DDNS Account and DDNS Password in your Email box.

DDNS Host Name: Type in your host name in the attached space.

DDNS Account: Enter it in the given space.

DDNS Password: Enter it in the required space.

Submit: Click to set.

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● *Change the Network Setting — PPPoE.*

The "Network" page has, on its upper left, the "PPPoE" icon. Please follow the steps below to change the

PPPoE setting through the network if necessary.

1.   Click the **PPPoE** button at upper left above to enter the "PPPoE Setting" page.

2.   Click the "PPPoE mode" to activate the function.

3.   Type in the PPPoE "Account" and the PPPoE "Password".

4.   Click the **Submit** button to submit the new setting.

5.   Click the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.8 (PPPoE & DDNS) for more details.

Description of function keys:

PPPoE mode: Click your choices to enable the PPPoE function.

Account: Enter it in the given space.

Password: Enter it in the required space.

Submit: Click to set.

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● *Change the Network Setting —UPnP.*

The "Network" page has, on its upper left, the "UPnP" icon. Please follow the steps below to change the

UPnP setting through the network if necessary.

1. Click the **UPnP** button at upper left above to enter the "Universal Plug and Play" page.
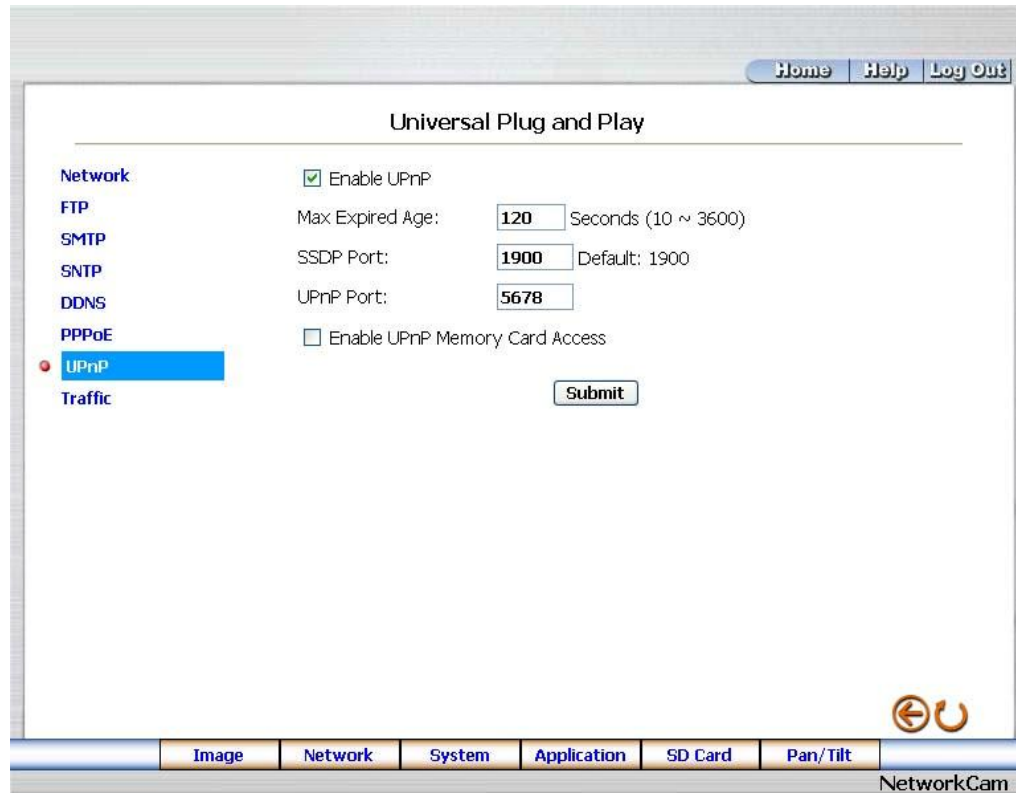
2. Click "Enable UPnP" to checkmark the attached box and activate the function.

3. Type in the UPnP "Max Expired Age", the "SSDP Port" and the "UPnP Port".

4. Click "Enable UPnP Memory Card Access" to checkmark the attached box and activate the

    function.

5. Click the **Submit** button to submit the new setting.

6. Click the **Home** button to return to the home page.

Description of function keys:

Max Expired Age: Enter it in the given space from a range of 10~3600.

SSDP Port: SSDP stands for Simple Service Discovery Protocol. SSDP searches for upstream Internet

gateways using UDP port 1900.

UPnP Port: Type in the UPnP Port in the attached space.

Submit: Click to set.

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●   *Change the Network Setting —Network Traffic.*

The "Network" page has, on its upper left, the "Traffic" icon. Please follow the steps below to change the

UPnP setting through the network if necessary.

1.   Click the **Traffic** button at upper left above to enter the "Network Traffic" page.

2.   Type in the "Maximum Upload Bandwidth" and the "Maximum Download Bandwidth".

3.   Click the **Submit** button to submit the new setting.

4.   Click the **Home** button to return to the home page.

Description of function keys:

Maximum Upload Bandwidth: Enter it in the given space from a range of 0 to 102400.

Maximum Download Bandwidth: Enter it in the required space from a range of 0 to 102400.

Submit: Click to set.

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5.1.4 Change the System Setting

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

- *Set the Date and Time of the system*

1. Click the **System** button in the home page to enter the "Date And Time" page (default).

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 SNTP Server".

3. Click the **Submit** button to submit the new Date and Time settings.

4. Click the **Home** button to return to the home page.

Description of function keys:

The Local Time: Shows the current date and time of the Network camera.

Set Manually: Manually sets the date and time of the Network camera.

**Synchronize With Computer Time:** Synchronizes with the linking computer.

Synchronize With SNTP Server: Synchronizes with the SNTP 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 Network camera.

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● *Change the System Setting — Timestamp. (For SNC-360 only)*

Please follow the steps below to change/add the timestamp through the network if necessary.

1. Click the **Timestamp** button on the left side of the "System - Date and Time" page to enter the
   "System - Timestamp" page.
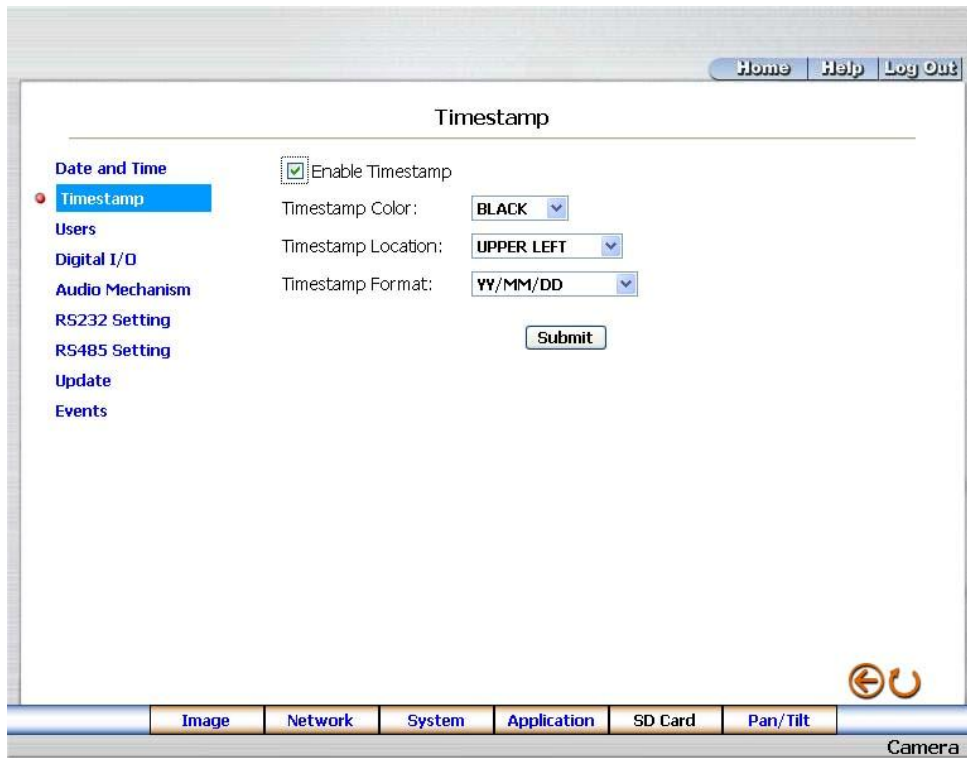
2. Click "**Enable Timestamp**" to checkmark the attached box and activate the function

3. Add or modify any timestamp's data if necessary.

4. Enter the "Timestamp Color" you have chosen.

5. Enter the "Timestamp Location" you have chosen.

6. Enter the "Timestamp Format" you have chosen.

7. Click the **Submit** button to submit the new user's setting.

8. Click the **Home** button to return to the home page.

Description of function keys:

Enable Timestamp: Checkmark to activate the function.

Timestamp Color: Click to open the list of eight color modes to choose from: "BLACK", "WHITE", "RED",
"ORANGE", "YELLOW", "GREEN", "BLUE", and "PURPLE".

Timestamp Location: Click to open the list of four location modes to choose from: "UPPER LEFT",
"UPPER RIGHT", "BOTTOM LEFT", and "BOTTOM RIGHT".

Timestamp Format: Click to open the list of six format modes to choose from: "YY/MM/DD",
"MM/DD/YY", "DD/MM/YY", "YY/MM/DD TITLE", "MM/DD/YY TITLE", and "DD/MM/YY
TITLE".

Submit: Click to set.

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● *Change the System Setting — Users.*

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

1. Click the **Users** button on the left side of the "Date and Time" page to enter the "Users" page.

2. Add, modify or delete any user's data if necessary.
3. Click the **Submit** button to submit the new user's settings.
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 a selected user.

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

Password: Enter the new password of the user's name above.

**Confirm:** Type in the password again for verification.

Authority: Choose an authority option of the user's name from: Admin, Operator, and Viewer.

Submit: Click to submit the new setting to the Network camera.

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● *Change the System Setting — Digital I/O.*

Please follow the steps below to change the Digital I/O through the network if necessary.

1. Click the **Digital I/O** button on the left side of the "Date and Time" page to enter the "Digital I/O Setting" page.
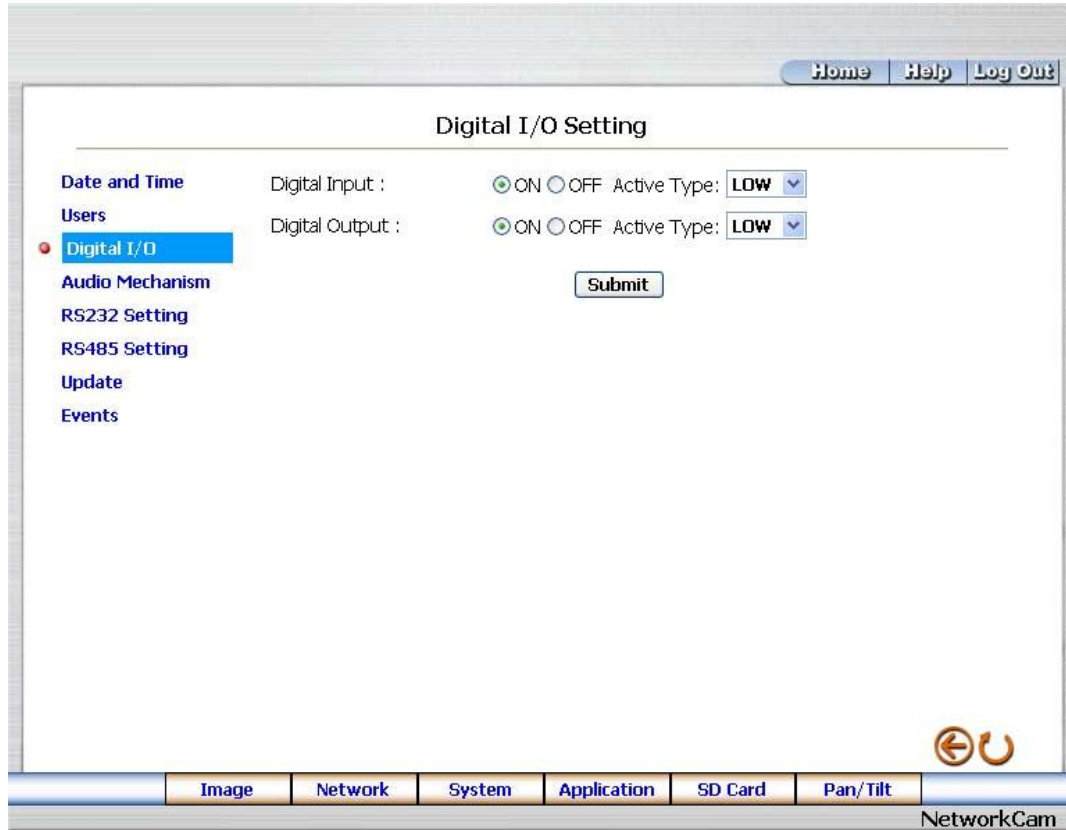
2. Mark the "Digital Input" "ON" or "OFF" and the "Digital Output" "ON" or "OFF". Click your choices to enable.
3. Click the **Submit** button to submit the new user's settings.
4. Click the **Home** button to return to the home page.

Description of function keys:

Digital Input: Select "ON" or "OFF" to use the GPIO connector or shut it down.

Digital Output: Select "ON" or "OFF" to use the GPIO connector or deactivate it.

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●   *Change the System Setting — Audio Mechanism.*

Please follow the steps below to change the Audio Mechanism through the network if necessary.

1.   Click the **Audio Mechanism** button on the left side of the "Date and Time" page to enter the "Audio

Mechanism Setting" page.
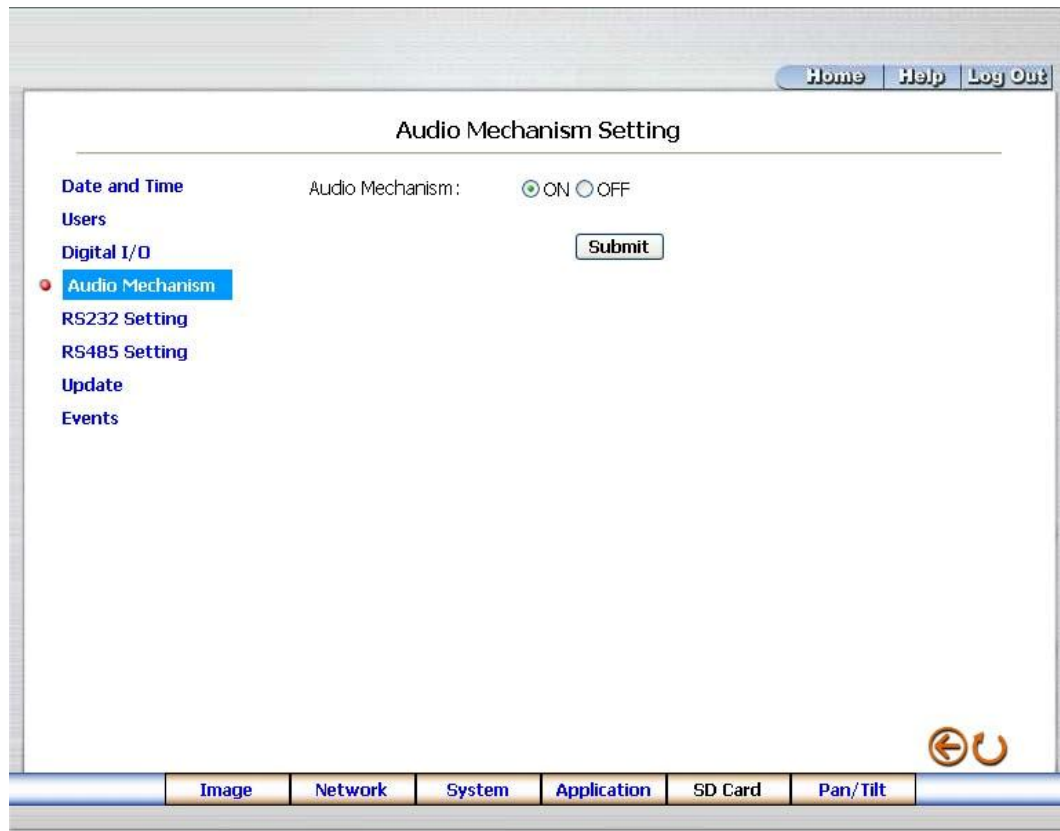
2.   Mark the "Audio Mechanism" "ON" or "OFF".

3.   Click the **Submit** button to submit the new user's settings.

4.   Click the **Home** button to return to the home page.

>   **NOTE**: **This setting is for turning the audio mechanism of the Camera on/off automatically.**

>   **The Live audio service is only provided in the MPEG4 mode via the Web browser.**

Description of function keys:

Audio Mechanism: Select "ON" or "OFF" to activate or deactivate the function.

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● *Change the System Setting — RS232 Setting.*

Click the **RS232 Setting** button on the left side of the "Date and Time" page to enter the "RS232 Setting" page.

Description of function keys:

Baud rate: Eight different speeds can be used: 2400 baud per second, 4800 baud, 9600 baud,

19200 baud, 28800 baud, 38400 baud, 57600 baud and 115200 baud.

Type: Choose one of the types.

Raw format: Set to transmit the ASCII codes.

Canonical format: Set to transmit the character string.

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● *Change the System Setting — RS485 Setting.*

Click the **RS485 Setting** button on the left side of the "Date and Time" page to enter the "RS485 Setting" page.

Description of function keys:

Baud rate: Eight different speeds can be used: 2400 baud per second, 4800 baud, 9600 baud,

19200 baud, 28800 baud, 38400 baud, 57600 baud and 115200 baud.

Type: Choose one of the types.

**Device ID:** You have the option of using an ID code (any number between **1** and **255**).

Raw format: Set to transmit the ASCII codes.

Canonical format: Set to transmit the character string.

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● *Change the System Setting — Update Firmware.*

Please follow the steps below to change the Audio Mechanism through the network if necessary.

1. Click the **Update Firmware** button on the left side of the "Date and Time" page to enter the "Update

    Firmware" page.
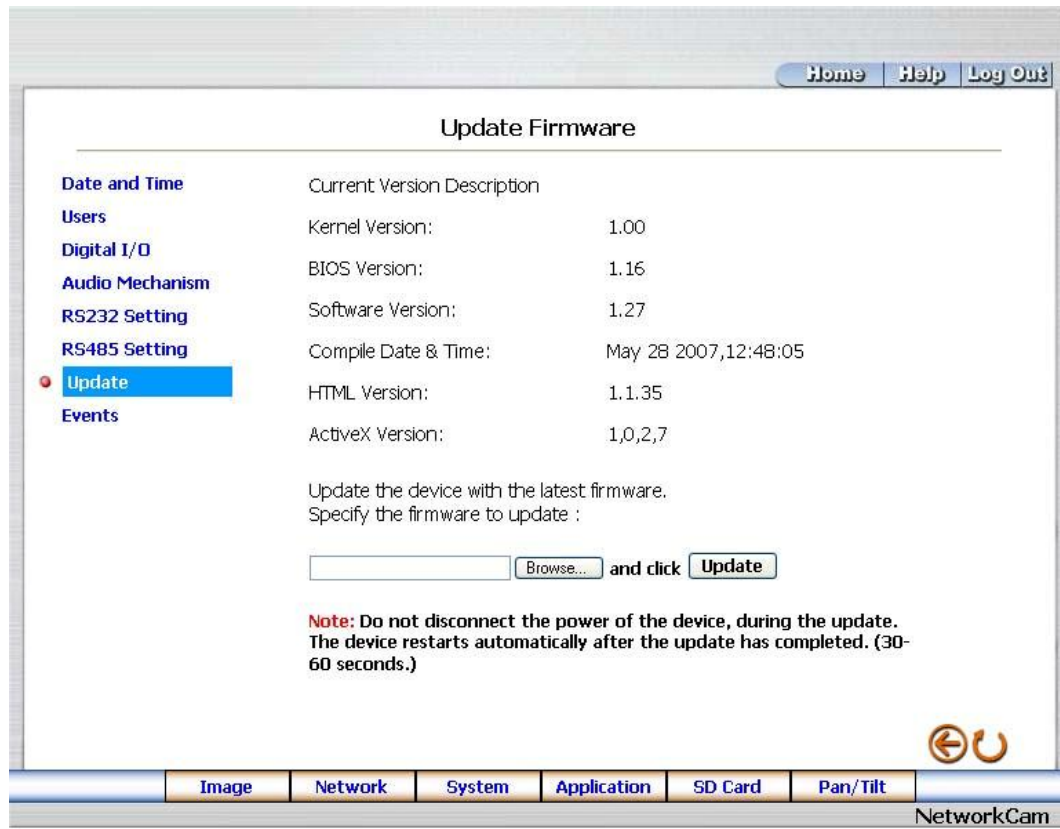
2. Click the "Browse…" button to select the UPDATE.BIN file which was copied into your computer.

3. Click the "Update" button.

4. DO NOT power off the Network camera while this update process is running.

Note: Don't interrupt the process while the unit is updating itself.

Note: Please make sure that the UPDATE.BIN file is fit in with the model of the unit. Updating

with the wrong UPDATE.BIN file may cause any physical damage to the device.

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● *View the Event Logs.*

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

1.   Click the **Events** button on 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 20 pages.

Next 20: Displays the next 20 pages.

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5.1.5 Change the Application Setting

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

● *Change the Application Setting — FTP Application Setting (MJPEG mode only).*

Please follow the steps below to change the FTP setting via the network if necessary to upload recording

data live.

1. Click the **Application** button on the home page to enter the "FTP Application Setting" page

   (default).

2. For the storage setting, type in the required number of images you wish to set in "Pre - Alarm

   Memory Buffer" and "Alarm Memory Buffer respectively" in their corresponding blank spaces.

3. Enter the "Upload Rate" you have chosen.

4. Click "Submit" after each of the above entries for their settings.

5. Click the "Home" button to return to the home page.

Description of function keys:

**Pre – Alarm Memory Buffer:** Fixes the desired number of images to prelude an alarm.

Alarm Memory Buffer: Determines the selected length of the image buffer after an alarm.

Upload Rates: Sets the upload speed rate.

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● *Change the Application Setting — SD Card Application Setting.*

Please follow the steps below to change the SD CARD setting via the network if necessary to upload

recording data live.

1. Click the **SD card** button on the top left to enter the "SD Card Application Setting" page.
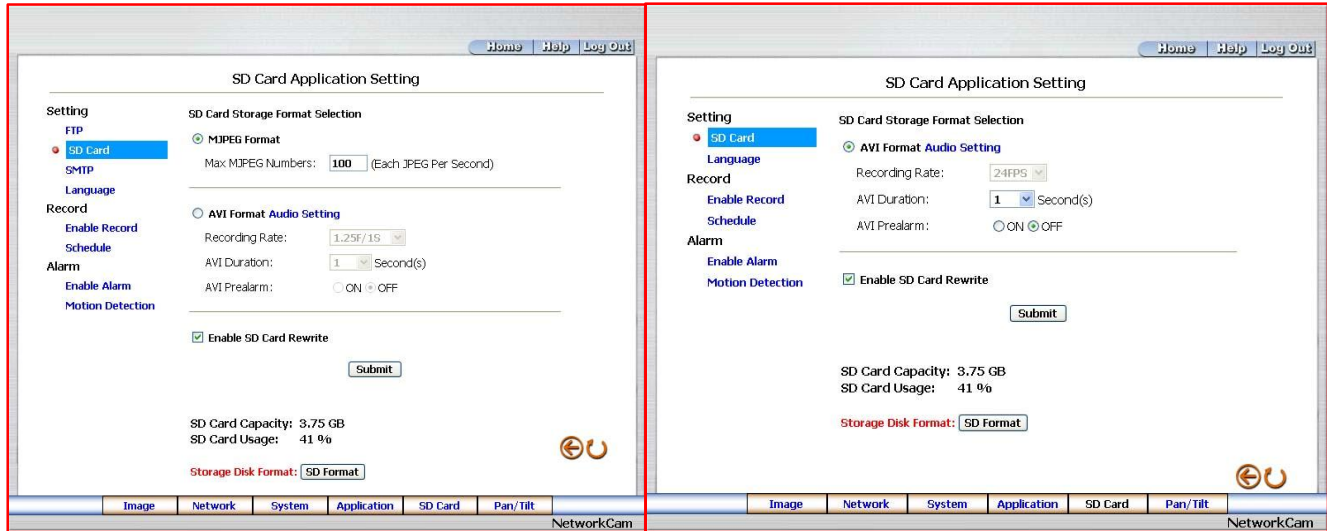
SD Card setting page of MJPEG mode　　　　　**SD Card setting page of MPEG4 mode**

2. You have an option as to which SD - card storage format to use, the MJPEG (MJPEG mode only) or the AVI. Click your selected format and click "Submit" to set it.

3. If it's MJPEG you want, fill in the "Max MJPEG Numbers" entry.

4. If AVI is your choice, enter its recording rate and duration in seconds, and click "Submit" for their setting.

Description of function keys:

MJPEG Format: One image per file.

Max MJPEG Numbers: Sets the number of file sequences you can save per second.

AVI Format audio setting: Unlike a single – image file, this option offers a selected section of a video record.

Recording Rate: Sets your chosen frame rate of frames per second.

AVI Duration: Predetermines the length of each video file in terms of seconds.

Enable SD Card Rewrite: Tick to activate the SD card rewrite function.

SD Card Capacity: The free capacity of the SD card.

SD Card Usage: The percentage of the recorded file on the SD card.

SD Format : Click and press the Yes button to format the SD card.

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● *Change the Application Setting —SMTP Application Setting (MJPEG mode only).*

Please follow the steps below to change the SMTP setting via the network if necessary.

1. Click the **SMTP** button on the left side to enter the "SMTP Application Setting" page.

2. Enter the attached file number as and when necessary. The maximum number which can be used is 8.

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:

File numbers: Sets the quantity of images per Email.

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● _Change the Application Setting —Language Setting._

Please follow the steps below to change the Language setting via the network if necessary.

1. Click the **Language** button on the left side to enter the "Language Setting" page.
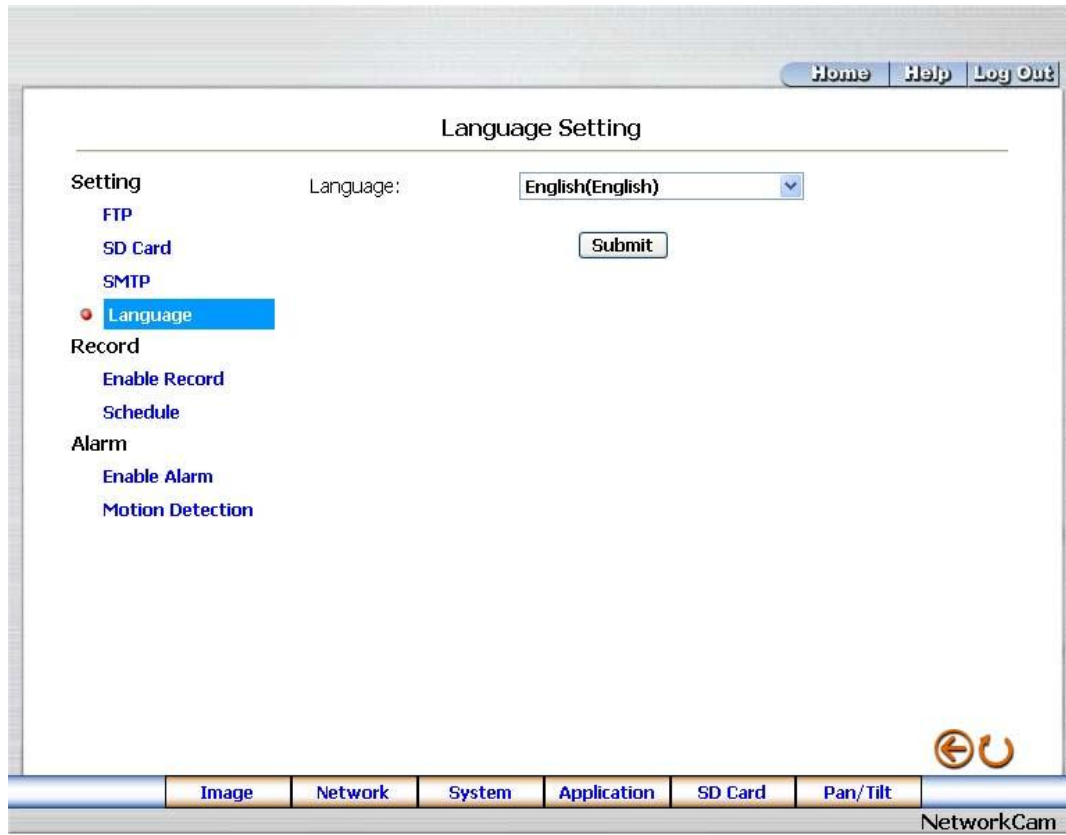
2. You have an option as to which language to use. The default is "English"

3. Click your selected language and click "Submit" to set it.

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● *Change the Application Setting —Record Application Enable Setting.*

Please follow the steps below to change the setting via the network if necessary.

1. Click the **Enable Record** button on the left side of the record to enter the "Record Application

    Enable Setting" page.

Record setting page of MJPEG mode   **Record setting page of MPEG4 mode**

2. Click "Enable Record – UPLOAD Via FTP" to checkmark the attached box and activate the function

    (MJPEG mode only).

3. Click "Enable Record – Save Into SD card" to checkmark the attached box and activate the

    function.

4. Click the **Submit** button to submit the new setting of the recording.

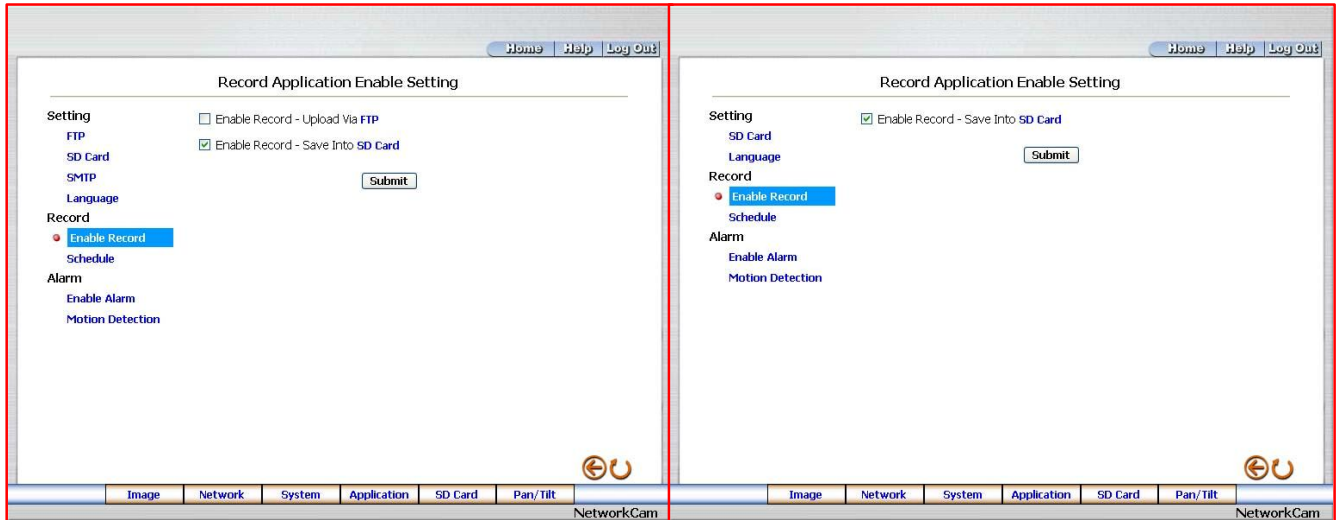5. Click the **Home** button to return to the home page.

Description of function keys:

Enable Record – Upload Via FTP: Activates or deactivates the recording to the FTP server.

Enable Record – Save Into SD Card: Activates or deactivates the recording to the SD card.

● *Change the Application Setting —Record - Schedule.*

1. Click the **Application** button on the home page to enter the "Schedule" page.
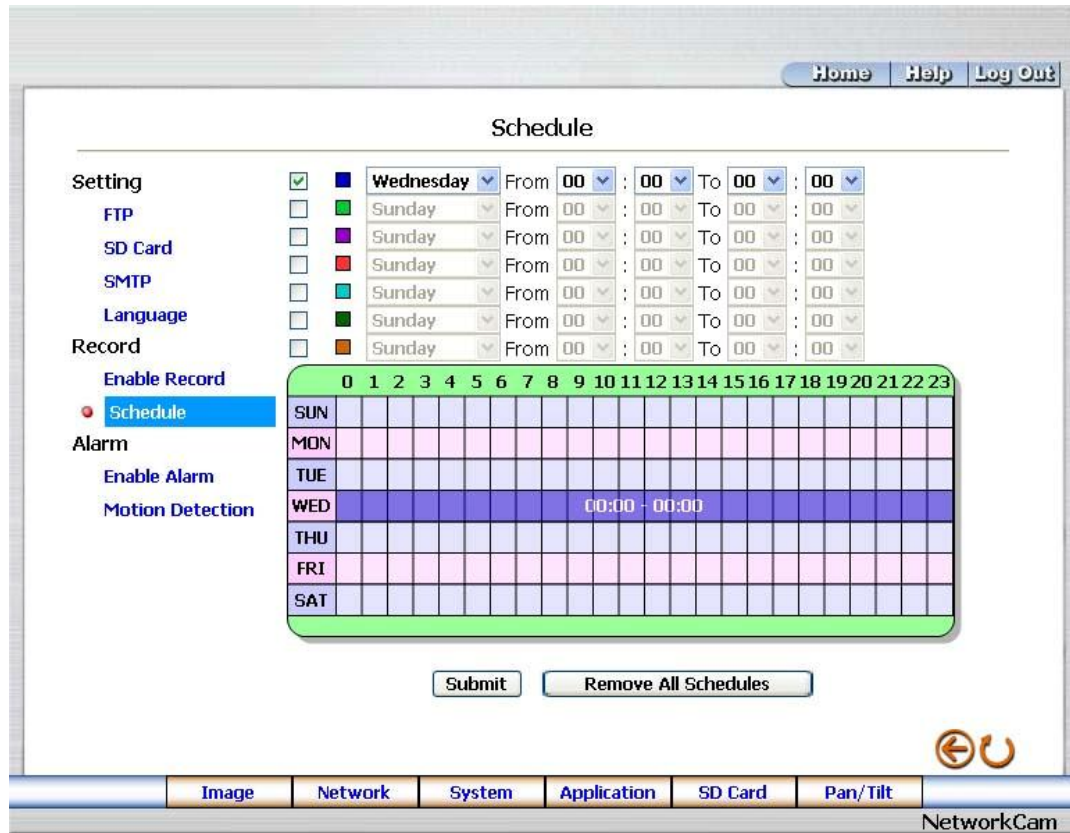
2. Check/uncheck any/all of the first seven boxes set vertically in the upper half of the "Schedule" page to enable/disable the programmed recording function, and vary the setting of the targeted item while it is enabled.

3. Click the **Submit** button to submit the new schedule setting.

4. Click the **Remove All Schedules** 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 necessary (please refer to the above description).

   **Chart:** Schedule list.

   Submit: Click to submit the new setting to the Network camera.

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

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● *Change the Application Setting — Alarm Application Enable Setting.*

Please follow the steps below to change the setting via the network if necessary.

1. Click the **Enable Alarm** button on the left side of the record to enter the "Alarm Application Enable Setting" page.
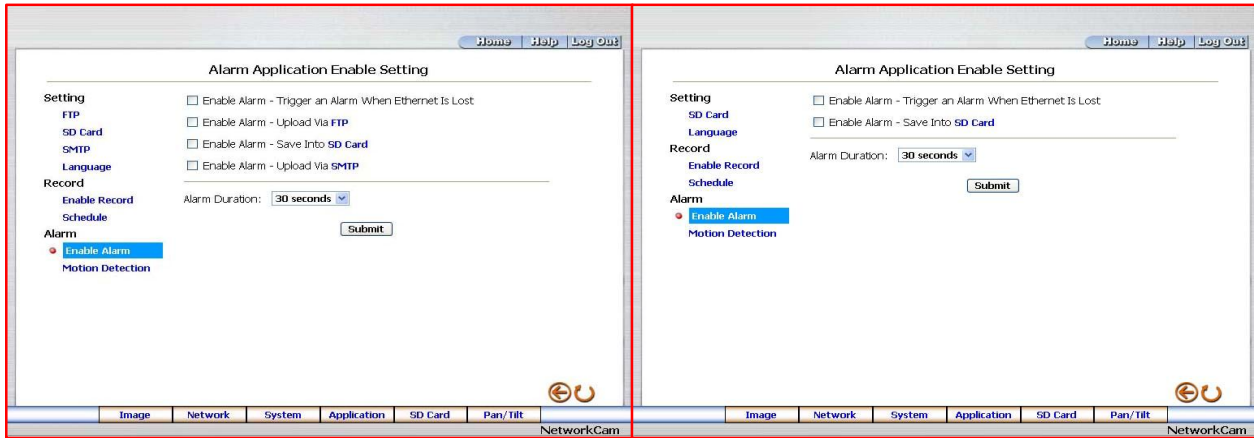
MJPEG mode   **MPEG4 mode**

2. Click "Enable Alarm – Trigger an Alarm When Ethernet Is Lost" to checkmark the attached box and activate the function.

3. Click "Enable Alarm – Upload Via FTP" to checkmark the attached box and activate the function (MJPEG mode only).

4. Click "Enable Alarm – Save Into SD card" to checkmark the attached box and activate the function.

5. Click "Enable Alarm – Upload Via SMTP" to checkmark the attached box and activate the function (MJPEG mode only).

6. Enter the "Alarm Duration" you have chosen.

7. Click the **Submit** button to submit the new setting of the recording.

8. Click the **Home** button to return to the home page.

Description of function keys:

Enable ALARM – Trigger an Alarm When Ethernet Is Lost: Activates or deactivates the alarm triggering while the Ethernet lost.

Enable Alarm – Upload Via FTP: Activates or deactivates the alarm recording upload to the FTP.

Enable Alarm – Save Into SD card: Activates or deactivates the alarm recording to be saved to the SD card.

Enable Alarm – Upload Via SMTP: Activates or deactivates the alarm recording upload to the SMTP.

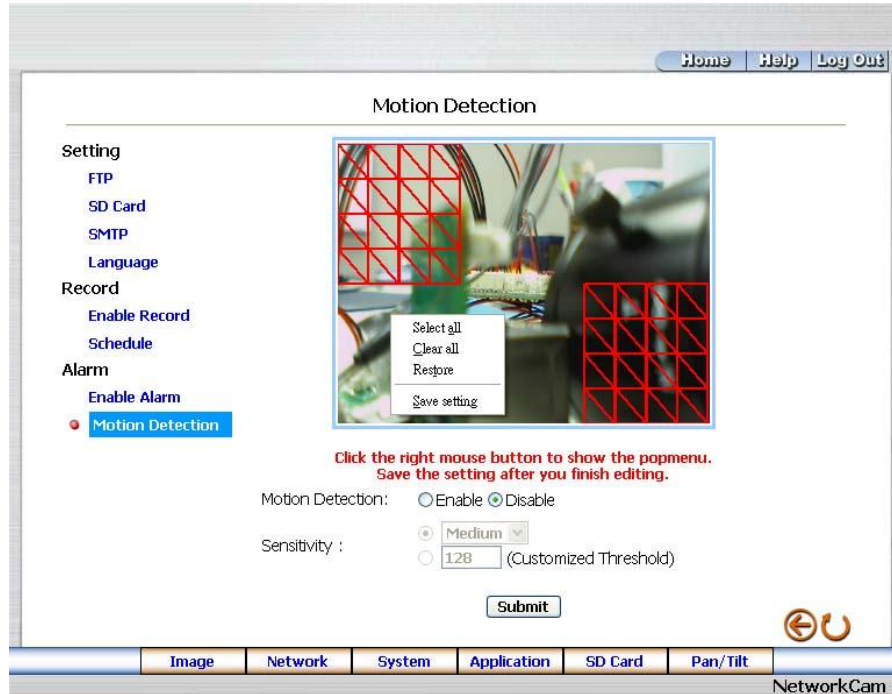**Alarm Duration:** Predetermines the length of the alarm.

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● *Change the Application Setting —Motion Detection.*

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

Set the motion detection:

1.   Click the **Motion Detection** button on the left side of the Alarm to enter the "Motion Detection" page.

2.   Click and drag the left mouse button across a targeted zone to draw a red rectangle on the image (coordinates provided below).

   NOTE: You can set more than one targeted zone depending on your requirement.

3.   Click the right mouse button to see the popup-menu. After setting the target zone, please click "Save setting".

4.   Enables / disables the motion detection function.

5.   Set up the sensitivity.

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: You can select any one of the given options for the setup signal level or
                    just type in the value of Customized Threshold.

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5.1.6 Change the SD card Setting

Please follow the steps below to change the SD card setting through the network if necessary.

● *Change the SD card Setting — FILELIST of MEMORY CARD.*

Please follow the steps below to change the setting via the network if necessary.

1. Click the "SD card" button at the bottom of the home page to enter the page containing the

    "FILELIST of MEMORY CARD". The page comes in two modes, the JPEG and the AVI

    (please refer to the "SD card Application Setting Page").

2. Click the desired file to display the images therein.

3. Each file can be deleted by clicking the attached "DELETE" hyperlink.

NOTE: You can't directly click the hyperlink of the file in the "**FILELIST of MEMORY CARD**" page

    with the right button of the mouse focus and then click "**SAVE**" to save the file.

CAUTION: If you wish to save the SD CARD files from a camera to your computer, you can enter

    the JPEG column in the "**FILELIST of MEMORY CARD** " page to click in and enter the

    particular files in the column. When you click in, the images concerned will appear.

    Move your mouse focus within the image area and click the right button of the mouse. A

    table of item entries will show up. Click "**Save**" and select the path by which to save your

    files.

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5.1.7 Change the Pan/Tilt setting

Click the **Pan/Tilt** button on the home page to open the Speed Dome Controller.
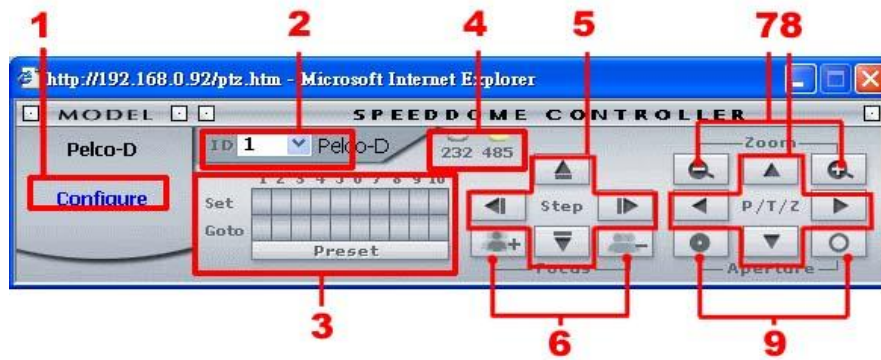
1. Click "**Configure**" to enter to the RS232 and RS485 setting pages (please refer to *Change the System Setting — RS232 Setting* & *Change the System Setting — RS485 Setting*).

2. Select a Speed Dome device ID from the drop-down list on the Speed Dome Controller. The Controller will display the corresponding ID.

3. Each of the ten buttons under 'Set' is connected with a specific position and angle of either panning or tilting of the camera. Click each button to activate its particular position and angle. Press the button under 'Preset' to turn the camera angle by angle to the set positions. Each of the ten buttons designated 'Go to' can be clicked to view the particular corresponding angle of the position in which it is set.

4. Select the connecting port. The RS-232 communication port functions as a connector to an external control device. The RS-485 communication ports function as connectors when two or more units are serially connected to an external control device.

5. Upon the buttons being clicked, a camera will move one short step only in any of the four designated directions.

6. Click the buttons to control the Focus setting on the Speed Dome Controller. Click the "**+**" button to focus far and click the "**–**" button to focus near.

7. Click the buttons to control the Zoom setting on the Speed Dome Controller. Click the "**+**" button to zoom in and click the "**–**" button to zoom out.

8. Upon the buttons being clicked, a camera will turn all the way, without stopping, in one of the four designated directions.

9. Click the buttons to control the Aperture setting on the Speed Dome Controller.

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5.1.8 PPPoE & DDNS

Using the PPPoE

1. Install the XDSL software (obtained from your ISP dealer) in your PC.

2. Search your Network camera's IP address: you can use your Network Viewer's Scan IP program, or just connect the Network camera and the Video monitor. The monitor screen will show the IP address on its right side.

3. Change the switch on the Network camera's side panel to position # 4.

4. Installing an IP address in your PC or notebook.

   Desktop → Move the mouse focus to the Network neighborhood and click the right key of the mouse → Choose the properties → Choose your local connection → Choose the properties and select the configuration → Select the TCP / IP → Choose the properties → Type in the IP address in a four-part formula, for example "192. 168. 1.101" (the first three parts must be identical to the above numbers, only the last part can be changed to your own number, which must never exceed 255) → Click the mask and the mask input, namely "255. 255. 255. 0" (a fixed formula) → Click "OK" → Click "OK".

5. Desktop → Choose IE browser → Type in the Network camera's IP address in the URL (check step # 2 above) → Enter → Network Camera's images will appear.

PPPoE Settings

1. Enter the Network camera's home page → Choose the network → Type in "User Name: admin" and "Password: 9999" → Click "OK'.

2. Choose PPPoE → PPPoE mode: Select "ON" → Type in "Account" → Type in "Password" → Submit → Unplug the power connection.

3. Plug in the Network camera and it will receive an IP address from the ISP dealer (this IP address is dynamic --- every time you unplug and plug in again you'll get a new IP address).

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Test: Go to the Internet.

1. Set your PC to enter the Internet.

2. Desktop → IE browser → Type in the Network camera's IP address (the same address as in the PPPoE settings and step 3 above) → You can see the Network camera's images.

DDNS settings

1. Check your Network camera's IP address (Scan IP software or monitor) → open your IE browser → Use the address to connect to the Network camera or view the images → Choose the network → Type in "User name : admin" and "Password : 9999" → Click "OK" .

2. Choose the "DDNS" → Click "Enable DDNS" → Enter the "DDNS host name", for example "abc123. homeip.net" → Type in "DDNS Account", for example "abc123" → Enter the "DNS Password", for example "7777" → Submit → The settings are now complete → Close the IE browser.

3. Open the IE browser again → Type in the Website address you just applied for, such as "abc123.homeip.net" → You can look at your Network camera's images right away. The procedure is complete.

Note: These settings are only for your ADSL Dynamic IP configuration. If your configuration is fixed (true IP), you don't need to proceed with the PPPoE and DDNS settings. The DDNS is just for your convenience.

5.2 SanView Software

Further information about the SanView software you can find in the corresponding manual.

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7. SPECIFICATIONS

Model Number	SNC-240
Image System	PAL
Image Device	SONY VGA CCD
CCD sensor	1/4 inch progressive CCD
CCD resolution	330K pixels
Network throughout	2.0Mbytes /sec
Video Output	1.0 Vpp, 75 ohm, composite, negative
Audio	16bit, 8 kHz sample rate
Microphone	Built-in
Horizontal resolution	400 TV lines
Exposure	AGC / AWB
Electronic shutter	1/30 – 1/27000 sec
Sensitivity	1.5 lux @ F1.2
Auto iris type	DC-iris
Compression	MJPEG/MPEG4
MJPEG Performance	Up to 25 frames/sec at VGA
MJPEG Picture size	4 ~ 64 KB
MJPEG Watermark	Digital Signature
MJPEG Motion detecton	Advanced MD (zone, position, sensitivity)
MPEG4 Resolution	VGA, QVGA
MPEG4 Quality	5 Levels(Bitrate from 3Mbps to 128Kbps)
MPEG4 Frame rate	25, 24, 15 fps at all resolutions
Video fine tune	Brightness, Saturation
RS-232	Yes
Network Interface	Ethernet (RJ-45Wired, 10/100 Base-TX), MDIX Support
Network Protocol	TCP/IP, DHCP, HTTP, UDP, FTP, SMTP, SNTP, ICMP, DDNS, DNS, UPnP
SD socket	Yes
Alarm I / O	Yes
Secure password	Multi-level / Multi-user
UpgradingSoftware	Upgrade via SD Card, RS-232 or Network
Power input	5V DC / 2A
Operational environment	Requires proper environmental housing for outdoor use
Weight	306g
Dimensions	62 (W) x 50 (H) x 95 (D) mm
Operational temperature	5℃ ~ 50℃ (41℉ ~ 122℉)
Regulation	FCC, CE
Accessories Provided	AC Adapter x 1
	Instruction manual x 1
	CD-R x 1

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Model Number	SNC-360
Image System	PAL
Image Device	1/3" Sony Super HAD CCD (with HQ1 DSP)
Picture Elements	752(H) x 582(V)
Horizontal Resolution	480 TV Lines
Network Throughout	2.4 Mbytes/sec
Video Output	1.0 Vpp, 75 ohm, composite, negative
Audio	16bit, 8 kHz sample rate
Microphone	Built-in
Auto White Balance	2,500 $^\circ$ K ~ 9,500 $^\circ$ K
Fixed Shutter	1/1000 sec
Auto Electronic Shutter	1/50 – 1/100,000 sec
Sensitivity	0.5 lux @ F1.2
Auto Iris Type	DC-iris
Mirror Function	Yes
Flicker Less	Yes
Privacy Zone Masking	3 Areas
Video Fine Tune	Max AGC Gain, Contrast, Brightness, BLC, Sharpness, Saturation, Fluorescent.
Compression	MJPEG/MPEG4
MJPEG Performance	Up to 25 frames/sec
MJPEG Picture size	4 ~ 64 KB
MJPEG Watermark	Digital Signature
MJPEG Motion Detecton	Advanced MD (96 zone, 5 levels sensitivity)
MPEG4 Resolution	Full D1, Half D1, CIF
MPEG4 Quality	5 Fixed Levels and Customized Bitrate (From 64Kbps to 8Mbps)
MPEG4 Framerate	30, 24, 15 fps at all resolutions
SD Socket	Yes
RS-232	Yes
Network Interface	Ethernet (RJ-45Wired, 10/100 Base-TX), MDIX support
Network Protocol	TCP/IP, DHCP, HTTP, UDP, SNTP, ICMP, DDNS, DNS, UpnP, FTP, SMTP
Alarm I / O	Yes
USB Interface	Yes
Secure Password	Multi-level / Multi-user
Software Upgrade	Upgrade via SD Card, RS-232, USB or FTP
Power Input	5V DC / 2A
Operation Environmental	Requires proper environmental housing for outdoor use
Weight	306g
Dimensions	62 (W) x 50 (H) x 95 (D) mm
Operation Temperature	5□C ~ 50□C (41□F ~ 122□F)
Regulation	FCC, CE
Provided Accessories	AC Adapter x 1
	Instruction manual x 1
	CD-R x 1

*Specifications are subject to change without notice.

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APPENDIX 1. –The ARP function

Setting the IP Address

The Ethernet interface on the Network camera has a default IP address (192.168.1.168) that most likely needs to be changed to make it work on your local network. You need to acquire a unique IP address (ask your network administrator). For the initial setting of the IP address, the Network camera needs to be connected to the same network segment as your client, and the IP address can then be configured by using a combination of ARP and ping commands.

Use any of the following ways to set the IP address within thirty seconds after booting the Network camera (re-cycle the power). Setting IP using the method below can only be done on the Ethernet interface.

ARP and ping from Windows or MS-DOS:

The user can open the PC's MS-DOS windows from the WINDOWS 98 operation system, or open the PC's Command Prompt windows from either the WINDOWS 2000 or the WINDOWS XP operation system.

1. Start a DOS prompt window

2. Type the following in 30 seconds after the booting:

   arp -s <IP address> <Ethernet address>

   [**or** arp -s <IP address> < MAC address>]

   ping <IP address>

   Example:

   arp -s 192.168.1.100 00-0C-0C-00-00-01

   ping 192.168.1.100

   The IP address now is: 192.168.1.100.

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ARP and ping from UNIX or GNU/Linux:

1. Start a shell

2. Type the following as superuser (root):

    arp -s <IP address> <Ethernet address>

    [**or** arp -s <IP address> < MAC address>]

    ping <IP address>

    Example:

    arp -s 192.168.1.100 00-0C-0C-00-00-01

    ping 192.168.1.100

The device responds to the ping in the examples above if the new address has been configured.

Note : this method will set the IP address permanently.

Note: The default account and password after the reset are admin and 9999.

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APPENDIX 2. –Register as a DDNS member

The DDNS□dynamic domain name system□ is a function which is provided by an American

company. Please refer to www.dyndns.com. This chapter provides the user with the basic

instructions on how to register a free DDNS service.

Registering for a DDNS

Enter the URL www.dyndns.com. In the upper right-hand corner of the main page, where

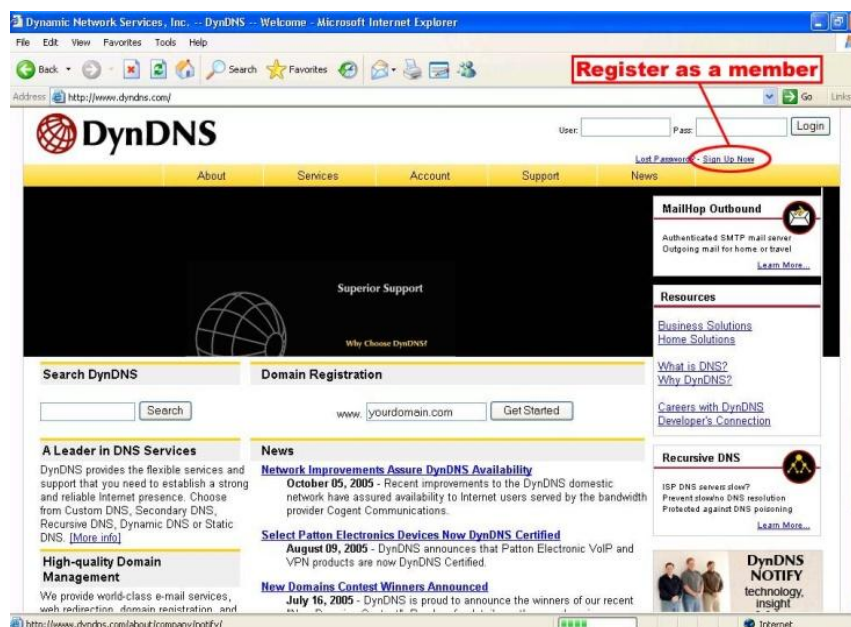there is an item, "Sign Up Now", as shown in Figure 1.

Figure 1

Create an account

After clicking Sign up now, you will enter the Create Account page. Please complete the

form at the bottom of the page to create your account. You will receive an e-mail containing

instructions to activate your account. If you do not follow the directions within 48 hours, you

will need to recreate your account.

Set up the DDNS

After creating the account successfully, please enter your user name and password in the

upper right-hand corner of the main page to login, as shown in Figure 2.

After you login successfully, a text will appear saying "My Services", as shown in Figure 3.
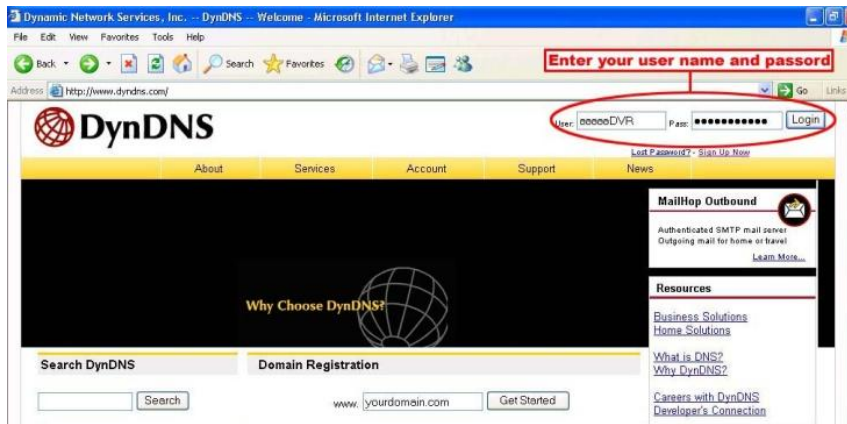
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Figure 2

Figure 3

Click "My Services" to enter the service page. Please click the "Add Host Service" item which is below the "My Hosts" item, as shown in Figure 4.

Click "Add Host Service", and its 5 service items will appear. The Add Dynamic DNS Host item helps to add a new DDNS as shown in Figure 5. Each member may have only one free account, and one free account can have only five DDNS.

Click Add Dynamic DNS Host to enter the DDNS setting page as shown in Figure 6.
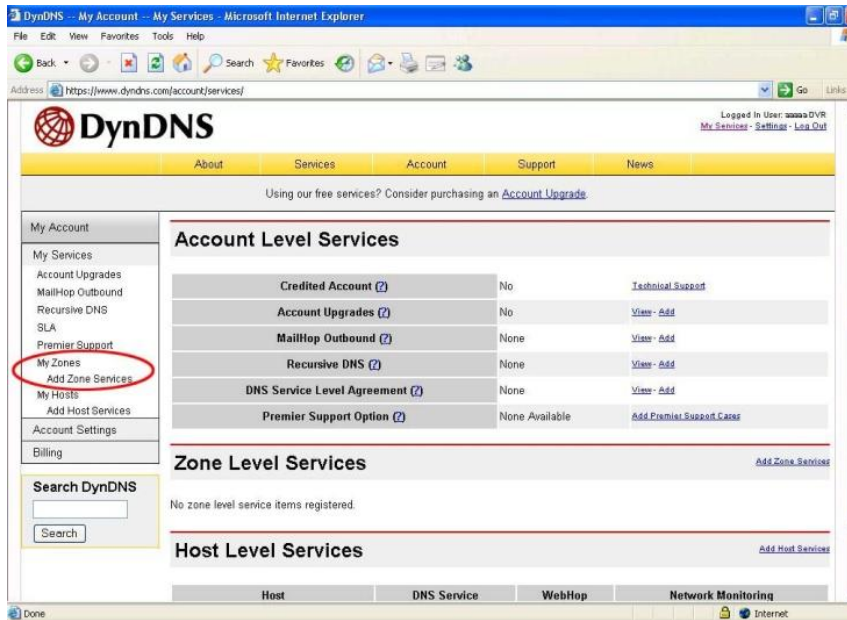
Downloaded from www.Manualslib.com manuals search engine

Figure 4

Figure 5

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Figure 6

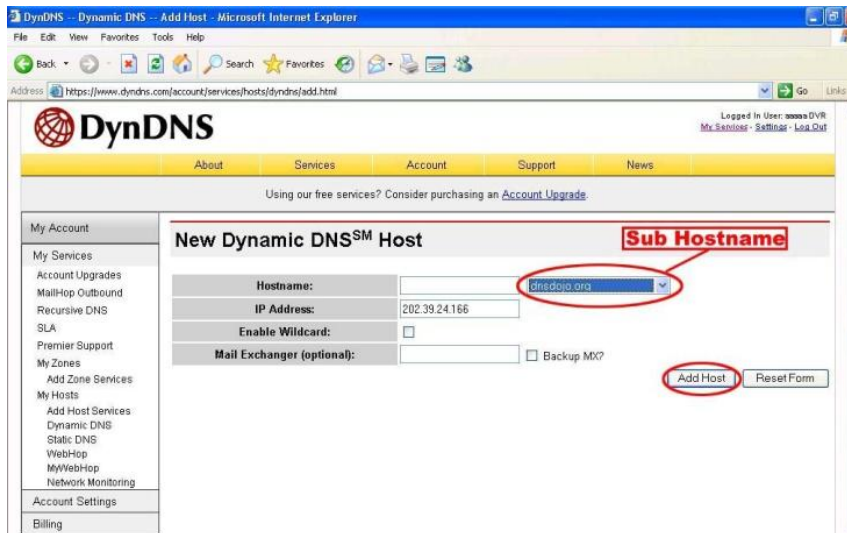All we have to set in this page is the "Hostname" item. The user can choose a Sub

Hostname as s/he likes from the right-hand side of the Hostname's drop-down list.

NOTE: You don't have to set the "IP Address" in the same format as the Network camera's

IP Address. It will renew the IP Address automatically.

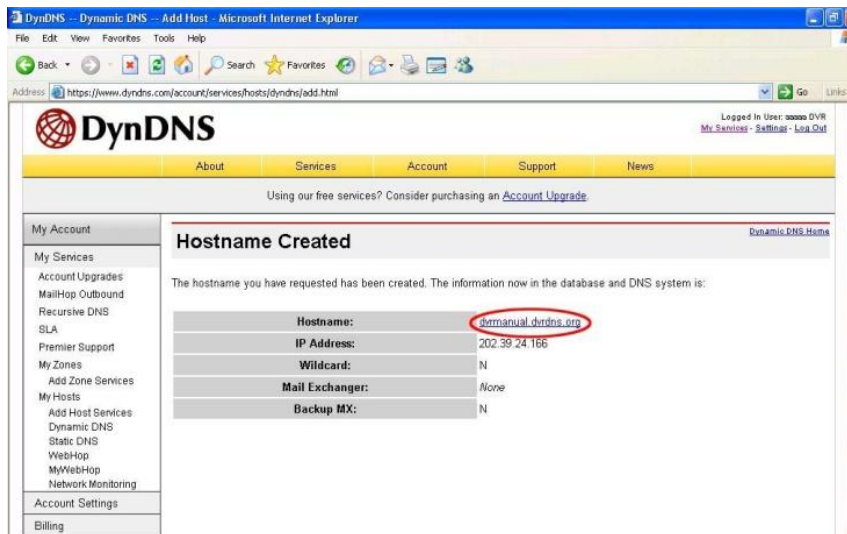After finishing the setting, please press the "Add Host" button as shown in Figure 6.

Figure 7

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APPENDIX 3. –MPEG4 Bit Rate Lookup Table of IP cameras

1. When frame rate is higher than 15 frames/second (15 is not including):

	Highest	High	Medium	Low	Lowest
FULL D1*	3	2.5	2	1.5	1
VGA	2.63	2.25	1.75	1.31	0.88
Half D1*	1.5	1.25	1	0.75	0.5
Half VGA*	1.31	1.13	0.88	0.67	0.44
CIF*	0.75	0.63	0.5	0.38	0.25
QVGA	0.66	0.56	0.44	0.38	0.22
ZOOM x 2	3	2.5	2	1.5	1
ZOOM x 3	3	2.5	2	1.5	1
ZOOM x 4	3	2.5	2	1.5	1

*: For SNC-360 only.

2. When the frame rate is lower or equal to 15 frames/second:

	Highest	High	Medium	Low	Lowest
FULL D1*	2.25	1.94	1.5	1.13	0.75
VGA	1.94	1.69	1.31	0.98	0.66
Half D1*	1.13	0.94	0.75	0.56	0.38
Half VGA*	0.98	0.84	0.66	0.49	0.33
CIF*	0.56	0.47	0.44	0.28	0.19
QVGA	0.5	0.44	0.34	0.25	0.19
ZOOM x 2	2.25	1.88	1.5	1.125	0.75
ZOOM x 3	2.25	1.88	1.5	1.125	0.75
ZOOM x 4	2.25	1.88	1.5	1.125	0.75

*: For SNC-360 only.

Note: The unit is in Mbps/second.

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