SAMSUNG

iPOLiS

Anywhere

in Real-time

Day & Night Network Camera SNC-550 User's Manual

Thank you for purchasing a SAMSUNG Ipolis Network CAMERA.
Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

ENGLISH

iPOLiS

A brand that is integrated into Samsung's network products, iPOLiS stands for a convenient world (Polis) made safe (Police) through Samsung's superior network performance(Internet protocol). With iPOLiS products' clear digital images transmitted over the internet, real-time monitoring is possible anywhere with an internet connection. Easy remote control functions and the use of existing networks minimize installation costs. With iPOLiS, experience a world of convenience connected anytime, anywhere.

Preface

Thanks for purchasing of SNC-550 camera.

This is a user instruction manual for high resolution D&N network camera and the product mentioned here designates the high resolution D&N network camera.

The user who installs and operates the product shall be aware of this manual and other manuals referenced by this manual before the installation and operation and use properly.

This manual and the software and hardware explained here are protected by copyright law.

So the copy, reprint and translation to other languages of a part of or all contents of this user manual without permission of SamsungTechwin Co., LTD are not allowed except for the copy for general use within the scope of copyright law.

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Note to User

This machine's electromagnetic waves have been registered as suitable for business purposes; the retailer and consumer should be aware of this registration. If in the case of wrongful purchases, please exchange the product for a home use product.

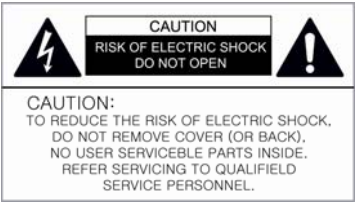
Correct Disposal of This Product

(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products.The Eco mark represents Samsung Techwin s will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.



FCC Compliance Statement

Caution : Any changes or modification in construction of this device which are not expressly approved the party responsible for compliance could void the user's authority to operate the equipment

Note : This equipment has been tested and found to comply with the limits for a Class a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which cause the user will be required to correct the interference at his own expense.

WARNING : Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

WARNING : To prevent electric shock and risk of fire hazards:

Do NOT use power sources other than that specified.
Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

Product Warranty and Limitations

The manufacturers of this product do not take any responsibility for this product; therefore, the manufacturer does not authorize the third-party, but allows that retailer is responsible.

The product warranty does not extend to cover accidents, negligence, abuse, or wrongful use for the whole or any part of the product. Additionally, the manufacturer does not provide warranty for any additional parts or affiliations.

The warranty is for one year from the purchase date. During the period, warranty does not extend to malfunction in these areas.

- Malfunction due to user's negligence
- Dismantlement or replacement by the user
- Connection to alternate power source
- Malfunction due to natural disasters (fire, flood, tsunami, etc.)
- Replacement due to wear and tear
- Instability of network

Warning Symbols

Before attempting to connect or operate this product,

please read these instructions carefully and save this manual for future use.

	Danger : Misuse or wrongful operation of the product may result in death, injury or bring about other fatal results. It indicates absolute caution when operating.
	Caution : Misuse or wrongful operation of the product may result in slight injury or damage to the product. It indicates caution when operating.
	Note : Indication that the user needs to be aware of certain matters, or will find matters helpful in operating the product.

Warning

Before Setup

- Please set up the proper voltage before connecting to power source.
- Please be sure the power is turned off before setup.

- There is risk of shock or fire; be sure to avoid setup in places with high humidity.
- To prevent shocks, please connect the ground wire.
- Do not install the camera on a surface that can not support it.
- Unless the surface is suitable, it could cause falling or other hazards.

During Use

- When opening the product cover, there is a risk of electric shock. Only a professional should open the cover.
- Please use only in an environment with standard temperature and humidity.
- Please do not plug in multiple products to a power source; it is often the cause of fires.
- Please do not place water or heavy objects on the product; it is often a cause of malfunction.
- Please do not use in a location with propane gas, gasoline or other flammable substances to avoid risk of explosion or fire.
- Please do not touch the power plug with wet hands to avoid electric shock.
- Do not pull on the power plug with too much force; a damaged plug may cause electric shock or fires.
- Don't connect the RJ-45 cable to a terminal by constraint.
- Stop using your camera when you find a malfunction.
  If you use your camera around smoke or unusual heat for a

long time,
Fire may be caused.

- Random replacement of built-in battery by other types of batteries may cause explosion. The battery shall be replaced by the same battery. The used batteries shall be disposed carefully because they can cause environment pollutions.
- The battery shall be replaced by the same battery.
- The used batteries shall be disposed carefully because they can cause environment pollutions.

Disassembly and Cleaning

- There is a risk of malfunction, shock or other dangers. Please do not disassemble or attempt to fix the product.
- To prevent malfunction or shock, please do not use a wet cloth or oil-based cleaning product to clean the product exterior. Clean the exterior of the product with a dry cloth.

Caution

- Do not install under extreme temperature conditions
  Use only under temperature conditions between -0°C and

+40°C. Provide good ventilation when using in high temperature conditions.

- Do not install under unstable lighting conditions.
  Severe lighting changes or flickering may hinder normal camera operation.
- Do not drop the camera or subject it to physical shock.
  May cause a product malfunction.
- Never keep the camera face to strong light directly.
  May damage the CCD.
- Avoid touching the camera lens.
  The lens is the most important component of the camera. Be careful not to smear it with fingerprints.
- Do not expose the camera to rain or other types of liquids
  Wipe dry any liquids. Liquids may contain minerals that are corrosive to Electronic components.
- Do not expose the camera to radioactivity.
  Radioactivity exposure may damage the CCD.
- Do not disassemble the camera.
  If you disassemble the product as you please, a Repair Center doesn't repair it for free.
- Please check the created network place first, before trying to connect to a network.
- Please use only the power adapter that is provided with the product.
- Please check national laws to be sure that using the product for monitoring purposes is not illegal.

Ch1. Overview

1.1. SNC-550 Network Camera Introduction

The SNC-550 is a high-tech network camera that uses MPEG-4 codec technology to allow high compression rates and clear picture quality by allowing for high frame rates to be transmitted through the network.

By using the network, remote connection, monitoring, and control is possible from any location for simple use; additionally, set-up requires only a network.

The SNC-550 Network Camera utilizes embedded software solutions (Embedded Web Server, Embedded Streaming Server, Network Protocol) developed by SamsungTechwin, and guarantees performance and safety while offering various solutions through Internet integration.

1.2. Features

❍ High Resolution

By adopting SUPER HAD CCD, this camera provides 530TV line on vertical resolution color, 570TV line on BW (on the basis of VIDEO OUT output)

❍ DAY & NIGHT

This camera has a function that automatically selects the mode that is appropriate for daytime or night-time conditions.

The COLOR mode operates in daytime conditions to provide optimum colors, and BW mode operates in night-time conditions to enhance the definition of the image.

❍ Electronic IRIS

The electronic IRIS function enables continuous automatic control of the shutter between 1/60(1/50)~1/120,000 seconds.

❍ PRIVACY Function

The PRIVACY function conceals the areas you do not wish to appear on the screen.

❍ VIDEO/DC Drive Lens

The video drive lens and the DC drive lens can be selected by the touch of a switch.

❍ High Sensitivity

The built-in high sensitivity COLOR CCD enables a clear image even in 0.002Lux(Sens-up) or lower illumination.

❍ SSNR (Samsung Super Noise Reduction)

By using built-in SSNR function manufactured by SAMSUNG TECHWIN, the amount of low illuminance noise has been significantly reduced, and the signal-to-noise ratio (S/N) as well as horizontal resolution have been improved, resulting in a clear and sharp image display even in the dark.

❍ SPOTLIGHT Function

The SPOTLIGHT function is setting when you want subject in the center of the image exposed correctly, regardless of the back lighting.

❍ Controlled by OSD Menu

The camera can be controlled by selecting text displayed on the monitor screen.

❍ Motion Detection

Once motion is detected, the camera sends an alert signal to the processing unit, which, if used in conjunction with an optional alarm, can provide effective surveillance of your property.

❍ Alarm and interoperation

Motion Detection function is interoperated with Alarm, still picture can be transmitted via e-mail or FTP.

❍ High data compression ratio

With high data compression ratio based on MPEG-4, transmission speed is fast and relatively large number of frame can be transmitted on the same network bandwidth.

❍ Adopt PoE(Power Over Ethernet)

PoE is the function that supplies power in addition to data sending and receiving using LAN cable without separate power connection and it provides convenience for users at installation.

❍ Bi-directional audio and video transmission

Video and bi-directional audio can be transmitted in real time and recording and playing are possible through exclusive viewer installed on user's PC.

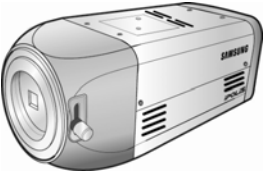
❍ Additional function

SENS-UP, Horizontal reversal, SHARPNESS, SYNC selection(INT/LL), MPEG-4/JPEG selection function.

Ch2. Production Description

2.1. Components and Accessories

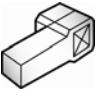
- **High Resolution, Day&Night Network Camera**



- **User's Manual/CD**

- **C-Mount adaptor**

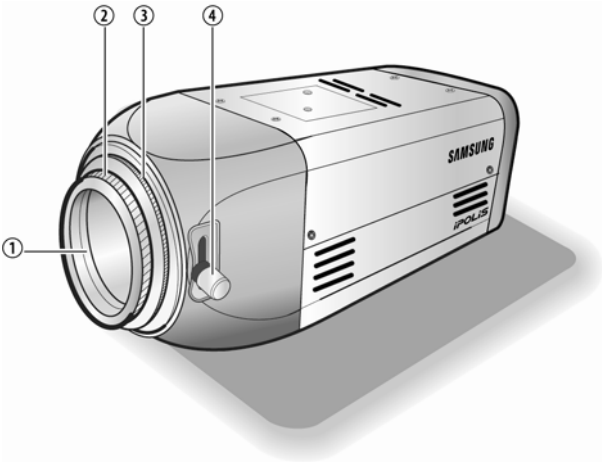
- **Auto iris lens connection plug**



- **DC 12V adaptor**

2.2. Section names and functions

2.2.1. Front



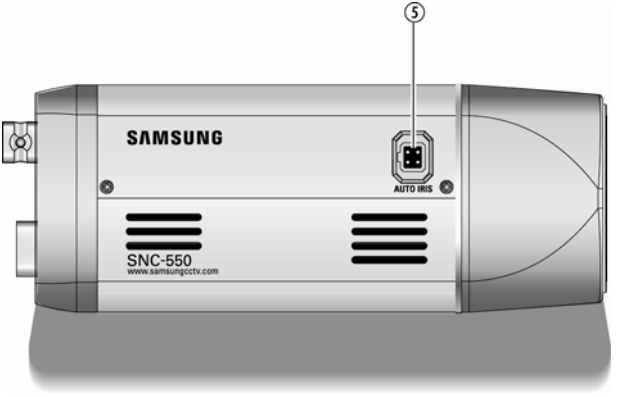
① **CCD protection cap**
Please cover the CCD SENSOR when not using it.

② **C-Mount lens adaptor**
Please attach the C-Mount lens here.

③ **CS-Mount lens adaptor**
Please remove the C-MOUNT lens adaptor and then attach it.

④ **Back Focus adjustment lever**
Please used to adjust back focal length.

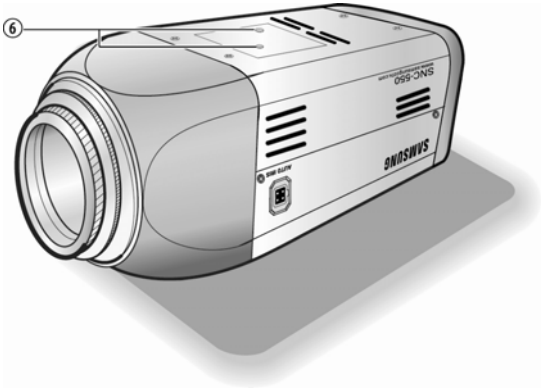
2.2.2. Side



⑤ Auto iris lens connector

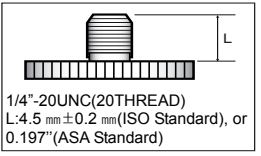
This is the connection terminal for the auto iris lens.

2.2.3. Bottom



⑥ Mounting bracket screw hole

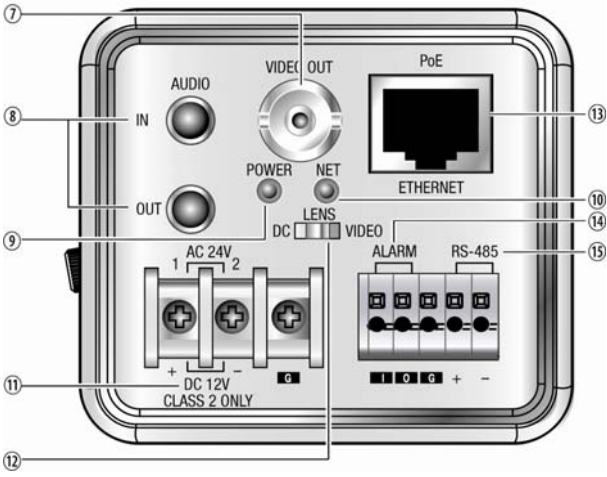
Please use the screw hole when fixing the camera onto the mounting bracket. Please use the clamp screw as specified below.



※ The mounting bracket can be separated and attached to the top of the camera.
In this instance please do not tighten the screw to a depth of more than 4mm, otherwise serious damage can occur to the inside of the camera.

Caution This camera package does not include the mounting bracket. Please refer to the user's manual for installation of the mounting bracket.

2.2.4. Back



⑦ VIDEO OUTPUT TERMINAL

Sends video signal and it can be used for setting 'Incidence at image surface' when you install a camera.

⑧ AUDIO IN/ OUT

IN : Input audio signal to the camera and connect to the microphone.

OUT: Output audio signal to the camera and connect to the speaker.

⑨ POWER LED

Lights up when the correct power is supplied to the camera.

⑩ NETWORK LED

LED lights (green) flash when the camera sends and receives data by the network.

⑪ POWER INPUT TERMINAL

Connects to the power appropriate to each model.

⑫ AUTO IRIS LENS SELECTION SWITCH

Please change the mode to DC or VIDEO depending on the type of auto iris lens being used.

⑬ ETHERNET

Can connect to 10/100 Mbps internet using the standard RJ-45 connector. Can be powered by using a PoE(IEEE 802.3af) equipment.

Caution When you connect SNC-550 network camera to a POE equipment, the voltage on the LAN cable may be high. So make a request an installation and separation to the agency.

⑭ ALARM

Alarm Input (I) : Connecting infrared sensors or other external sensor equipment.

Alarm Output (O) : Connecting bright light, or other relay equipment.

⑮ RS-485

Connecting serial cameras that perform Pan/ Tilt/ Zoom functions.

2.3. Recommended PC specifications

Items	Specifications
CPU	Pentium IV 3.0GHz or higher processor
Main Memory	1GB or higher RAM
HDD	More than 120GB when recording
VGA	128M or higher recommended
OS	Window 2000, XP, 2003
Web Browser	Internet explorer 5.5 or higher
Resolution	1024*768 or higher
Network	10/100 Base-T Ethernet
DirectX	9.0C or higher

Ch3. Installation and Network Setup

3.1. Lens Installation

Lenses are sold separately. Lenses such as an auto iris lens, CS-Mount lens and C-Mount lens can be used.

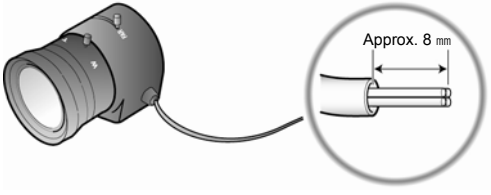
Caution

To effectively realize major performance of this product, the use of DC format auto-iris lens is recommended.

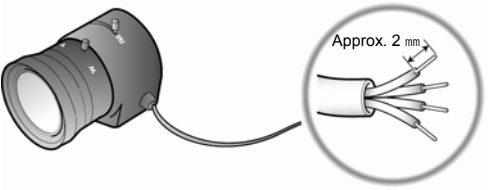
Any foreign objects and fingermarks on the lens can cause inferior image quality in low light level conditions. Please keep the lens clean.

■ When using an auto iris lens

1. Please peel off about 8mm of the outer skin of the auto iris lens cable.

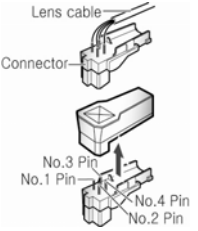


2. Please peel off about 2mm of the outer skin of the insulated conductor inside the lens cable.



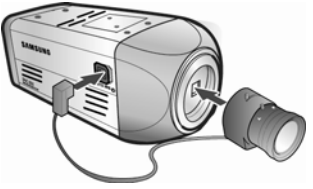
3. Please remove the cover of the auto iris lens connection plug and solder the lens cable to the connector pin in the plug.

Pin No	Lens	
	DC	VIDEO
No.1 Pin	Damping -	Red(power)
No.2Pin	Damping +	NC
No.3 Pin	Drive +	White (video signal)
No.4 Pin	Drive -	Black(GND)



4. Please replace the auto iris lens connection plug cover and take off the CCD protection cap, and then attach the auto iris lens to the camera by screwing it in clockwise.

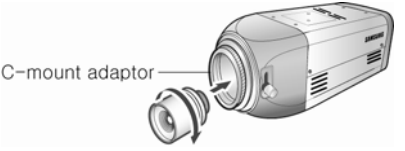
5. Please insert the connection plug that is connected to the auto iris lens cable into the auto lens connector, which is located on the side of the camera.



6. Please set the lens selection switch, located on the side of the camera, to DC or VIDEO depending on the type of auto iris lens which is being used.

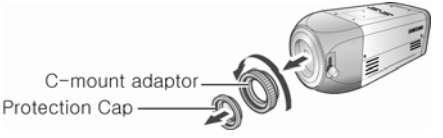
■ When using a C-Mount lens

Please take off the CCD protection cap and attach the C-Mount lens to the camera by screwing it in clockwise.

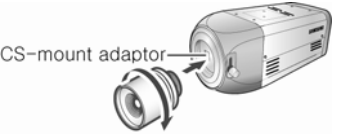


■ When using a CS-Mount lens

1. Please attach the CS-Mount lens to the camera by screwing it in clockwise.



2. Please attach the CS-Mount lens to the camera by screwing it in clockwise.

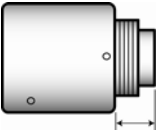


Caution

Please use the specified lens connection parts as shown in the picture below. The use of the wrong sized parts of the wrong size may cause damage to the inside of the camera or result in poor fitting.

Use of a lens which is too heavy affects the balance of the camera and may cause a malfunction. Please use a lens that weighs less than 450g.

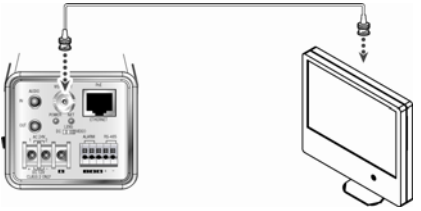
Please select Av mode if possible when adjusting the automatic light control (ALC) of an auto lens. Use of PK mode may cause hunting.



C-mount lens: 10 ㎜ or less
CS- mount lens: 5 ㎜ or less

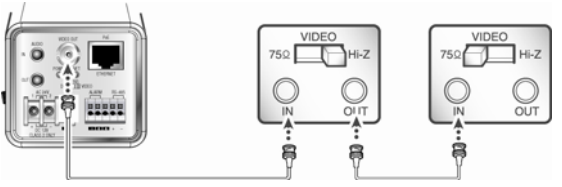
3.2. Connecting to Monitor

Please connect the video output terminal located on the back of the camera to the monitor.



SNC-550 Network Camera Monitor

- The connection method varies depending on the type of monitor and accessories. Please refer to the user's manual for each instrument.
- Please turn off the power when connecting.
- Please select Hi-Z on the 75Ω/Hi-Z switch for the intermediate video TV set and select 75Ωfor the Intermediate device as shown in the picture below.



SNC-550 Network Camera Intermediate End monitor

Caution This product is the network camera which transmits video through network, video output terminal is for installation and used to determine imaging range when installing the product.

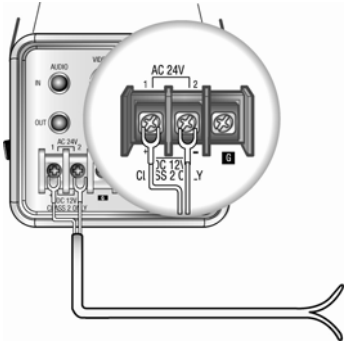
3.3. Connecting to Power

■ AC/DC Power

Both of AC24V and DC12V can be used for the input power of this product.

When using other adaptor not the adaptor (DC12V/4A) provided by the company, make sure that the specification is over AC 24V/1A or DC12V/2A.

■ AC/DC Combined use



In case of SNC-550, as recommended adaptor specification is over AC 24V/1A or DC12V/2A, please use surely the adaptor complying with this specifications.

Table 3-1. When the resistance value of copper wire is at [20℃(68°F)]

Copper wire size (AWG)	#24 (0.22㎟)	#22 (0.33㎟)	#20 (0.52㎟)	#18 (0.83㎟)
Resistance value (Ω/m)	0.078	0.050	0.030	0.018
Voltage drop(V/m)	0.028	0.018	0.011	0.06

- As shown in the Table3-1, voltage decreases as the wire gets longer. Therefore use of an excessively long adaptor output line for connection to the camera may affect the performance of the camera.

※ Standard voltage for camera operation: DC 12V±10%, AC 24V±20%
※ There may be some deviation in voltage drop depending on the type of wire and the manufacturer

Caution In case PoE and power adaptor are connected to camera simultaneously, the power authorized first by the product is used.

■ PoE(Power Over Ethernet)

POE(Power Over Ethernet)is the function of LAN related devices, which supports data and power simultaneously with only connection of LAN cable without separate power input cable installation for power excitation to the product.

When connecting camera to PoE device, please connect to the

device complying with PoE (IEEE802.3af) specifications. In case non-standard product is used, it may cause performance degradation or trouble.

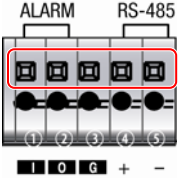
※ Recommended device is as following

Model	Manufacturer
MPSE-01-0A (1 Port)	MOA TELECOM
MPSE-08-0A (8 Ports)	MOA TELECOM

3.4. Connection to External Control Connector

The input order of terminal from left is Alarm input/Alarm output/Ground/RS-485 '+'signal/ RS-485 '-'signal.

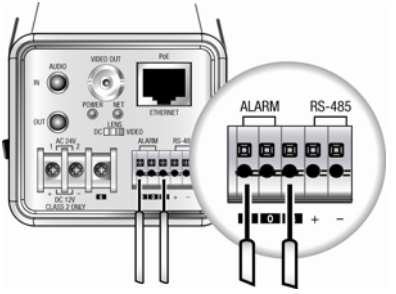
When connecting cable, push stripped part of electric wire in while pushing quadrangle button and take hands off from the button then the wire will be fixed.

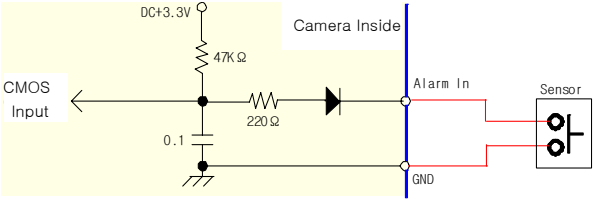


① Alarm Input
② Alarm Output
③ Ground
④ RS-485 '+' Signal
⑤ RS-485 '-' Signal

■ Connecting Alarm Input

This is the input terminal for external alarm signal, use it by connecting as following.

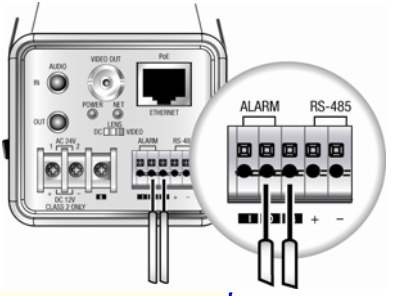


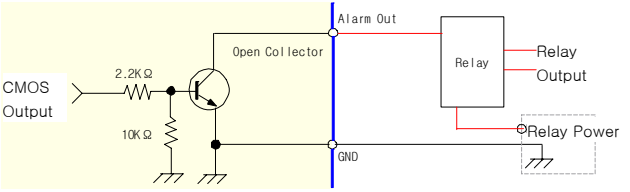


- In case of selecting Normal Open at setup menu:
  In case of contact type, it is short and in case of active type, sensor input acts at “LOW” level.
- In case of selecting Normal Close at setup menu:
  In case of contact type, it is open and in case of active type, sensor input acts at high impedance status(open collector).

■ Connecting Alarm output

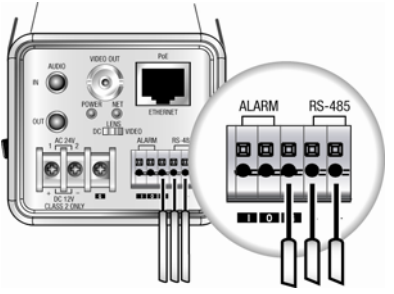
This is the output terminal for external alarm signal, use it by connecting as following.





Alarm output part is Open Collector structure and can be composed by using relay. Rated maximum value is DC +24V, 100 mA.

■ Connecting RS-485



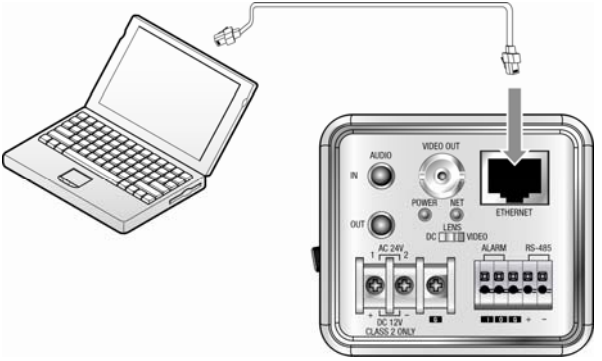
※ GND pin of RS485 part may be not to be connected.
※ It may be effective when communication is not working properly.

3.5. Network configuration and connection method

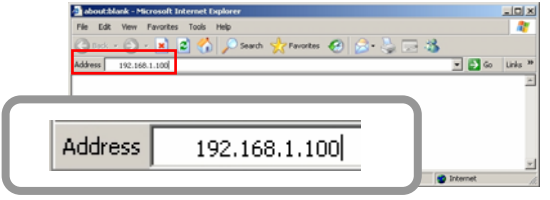
3.5.1. Configuration/connection using Web page

Use when there is one SNC-550 network camera to be installed.

1. Please connect user's PC to SNC-550 network camera using cross cable.

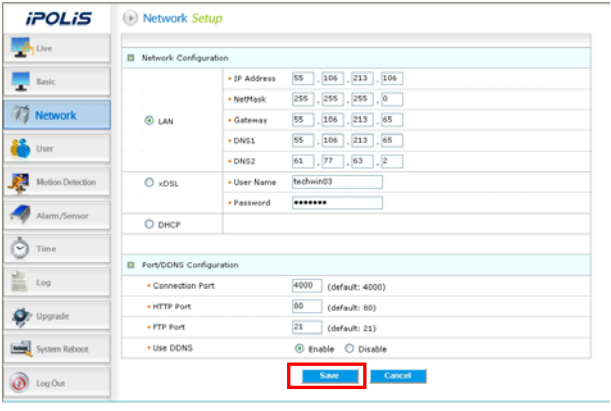


2. Please launch a Web browser on user's PC and enter [192.168.1.100] in the URL address field and push <Enter> button.
   Connect to Webviewer login window of SNC-550 network camera.



3. Please login with administrator's authorization and move to 'Network' page.(Default value for administrator login is ID: admin, PW:11111111)

4. Please configure according to the network environment where SNC-550 network camera will be installed and push <Save> button to save the configuration.



3.5.2. Configuration/connection using Network Manger

Use when there is more than two SNC-550 network camera to be installed.

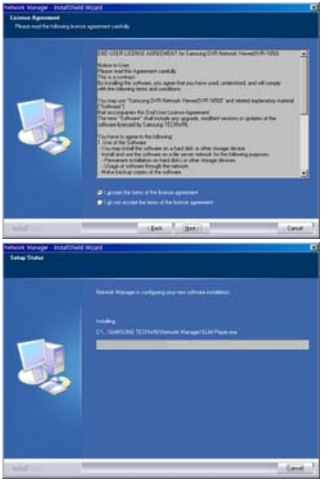
To use Network Manager, Viewer shall be installed. Viewer can be installed using program CD provided when purchasing product or by downloading program from web site.

Program installation from CD

Please insert CD provided with product to CD-ROM drive and execute 'Network Manager Setup.exe' in the CD, the installation step for installing network manager in a PC is proceeded.

Default path of exe file is as follows

C:\Program Files\SAMSUNG TECHWIN\Network Manager\



Program installation from Web site

If you connect http://www.samsungipolis.com, you can download the network manager program.

After copying Setup.exe compressed file on Desktop in My computer, it can be decompressed to designated directory by double clicking Setup.exe file.

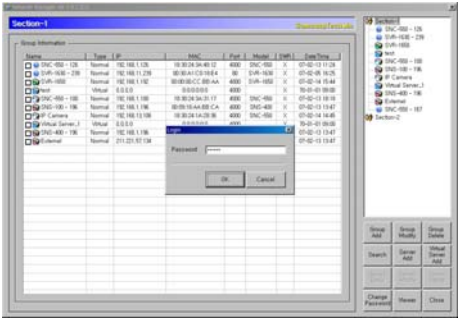
※ 3 icons are registered on the menu after the installation. Each icons are Network Manager, Network Viewer, Network Backup.

■ Network Manager Function

To monitor video or use various functions through Network Viewer, first network value should be configured properly in the main frame of the product. If it is configured correctly, the video and functions of the product connected locally or remotely can be used on the client PC.

Executing Network Manager

Please click Network Manager.exe file and enter Password.



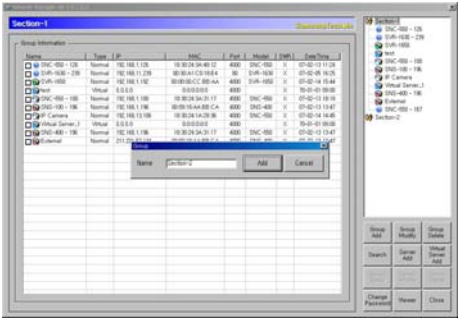
Note

- Network Manager, Network Viewer require Password to use programs when executing program. Initial password is 'admin' and to change Password, please click <Change password> button and change to new password after typing existing password.
- When the program is executed, it will search and add newly installed devices automatically. The same function can be executed by clicking <Search> button during use of program, they will be added to the list on the basis of product model and IP.
- <Viewer> button executes Network Viewer, <Close> button terminates Network Manager.

Add/Modify/Delete New group

Group section is used to add new group to local network or modify and delete existing group.

Network camera, 1 channel/4 channel video server and DVR can be added in the created group.



Caution If a registered group is deleted, all of network camera, 1 channel/4channel video server, virtual server and DVR registered in the group will be deleted.

Adding new device

Adding device connected to local network

- The devices connected to local network such as Network camera, 1 channel/4 channel video server and DVR appear automatically or the list of device newly connected to local network or the device which changed its IP address can shown using <Search> button.
  In case of remote not local, input process is required.

Adding remote device with static IP address

- Because remote device can not be searched by <Search> button, the IP address configured on the main frame of device

should be input precisely. To add device, click <Server Add> button.

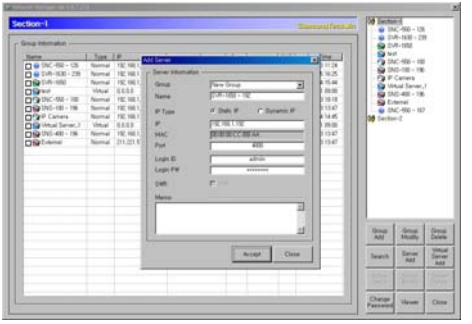
- Please configure the group, name, IP, Password of device to be registered and register to group list by clicking <Apply> button.

Adding remote device with dynamic IP address

Dynamic IP is mainly used in xDSL, cable modem and DHCP. If the device uses line with dynamic IP and 'Use SWR' of Add server window is not activated, as the IP address assigned can not be known, it is not possible to connect from Viewer. To solve this problem, SWR server is used.

- If 'Dynamic IP' is selected on IP property section, IP input column of below input section is inactivated and using SWR is checked.
- After Configuring and applying input information such as group, name, MAC and Password as above, the device using dynamic IP can be registered.

Note SWR saves MAC address of connecting client with IP information of remote device and allows connection.



- To connect multiple devices using IP sharing box, please refer port configuration part of each Admin web site for configuration of each sharing device.

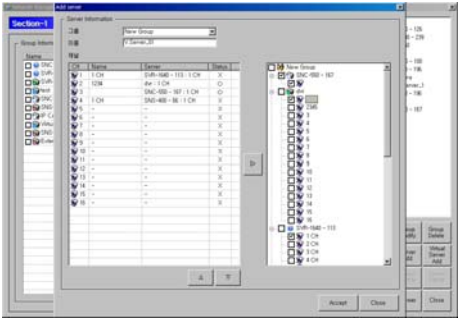
Note

In case of connecting multiple devices using IP sharing box, the devices can be classified by port number. Especially when designating port number, sufficient port range should be ensured as much as the number of channels of the product. For instance, in case of 16 channels DVR, as port 4000 is used as default and port 4001~4016 is used for video, over port 4017 should be used for the ports for other DVRs.

Adding virtual server

- User can create maximum 16 channels of virtual servers with combination of devices. To add virtual server, click <Virtual Server Add> button.

- Please select the group to be registered and enter the name of virtual server.
- Please check “Each channel of registered device” of right side to compose channel of virtual server of left side and change the order.



Note

In case the device in virtual server is not authenticated or there is a channel connected already, right LIVE screen of virtual server may not be shown.

Authenticating registered device

- If clicking added device in list, the content of authorization will be changed from ‘not authenticated’ to ‘Admin’ or ‘Guest’.
- After the execution of Viewer, please select device and connect to display video.
- For new authentication, please click after 1 minute or more from last authentication.

Note

Password should be same to the one configured in device. Products can be classified by icon of the authenticated device.

(Green) : DVR Product

(White) : Network Camera

(Red) : 1 channel/4 channel Server

(Blue) : Virtual Server

(?) : Not authenticated device

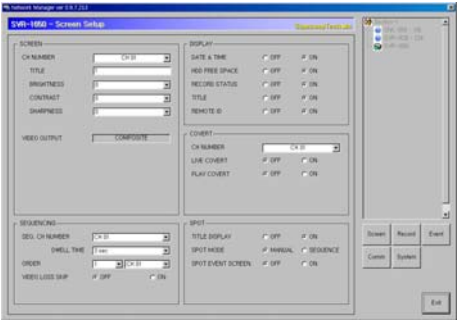
Configuration/Modification/Deletion of registered device

Changing configuration of registered device

According to the types of device, a part of function can be configured by clicking <Server Setup> button in the menu configurable on main frame, the contents configured here are applied to main frame and activated.

- Setup Window of DVR

  In case of DVR, you can adjust the configuration of the main body like below.

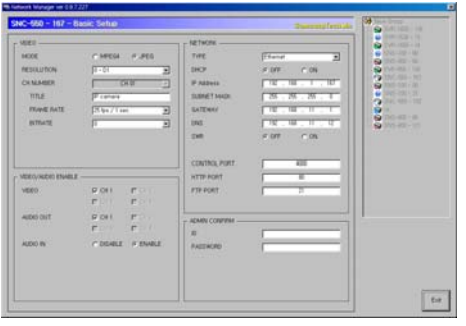


  - **SCREEN : Configures related to Video**
  - **RECORD : Confirms recording related configurations**
  - **EVENT : Configures event related information**
  - **COMM : Configures communication related information**
  - **SYSTEM : Configures system language and basic information**
  - **EXIT : Terminates device configuration and confirms saving**

Caution According to the type or status of product, configuring screen can be altered.

- Setup Window of network camera, 1channel/4channel video server

  In case of network camera, 1channel/4channel video server, you can adjust the configuration of the main body like below.



Caution In case of changing configuration on main frame, the changed configuration can not be saved through Network Manager.

Modification and Deletion of the device

- <Server Modify> button: Modifies registered device
- <Server Delete> button: Deletes registered device from the list

Note

The function of Configuration, modification, deletion for the device can be used when the device is selected from the device list.

Ch4. How to Use Web Viewer

4.1. How to Use Web Viewer

4.1.1. Login

To connect the login page, click the related button on Network Manager or enter IP address of the camera on a internet Web browser and push enter key.

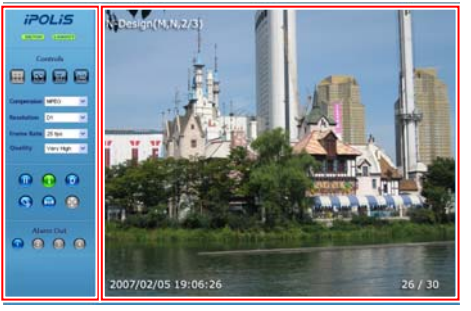
Enter user ID and password and push <Login> button, then it move to related Web page. (Default value is ID: admin, PW: 11111111)

If you click <Guest> button, it move to WebViewer page under the Guest authenticated status. In this case, administrator should permit the Guest connection.

Note If you logged in first as a administrator mode, please change the password of administrator. It can prevent from other users connection to administration page.

4.1.2. Web Viewer screen

Web Viewer screen is composed of menu area for camera/video configuration and screen area for displaying input video from camera.



■ **Controls**

Flip Image

Vertical reversal of channel screen

Stretch Image

When selecting resolution with Half D1 and CIF, stretches channel screen to resolution D1 size.

Save Image

Saves channel screen to 'JPEG file'.

Quad

Converts to 4 split screens (applied only to 4 channel server).

Compression	Video compression mode (the mode of compressing video) - MPEG, JPEG
Resolution	Video resolution (the size of video screen transmitted) - NTSC : D1(704x480), Half D1(704x240), CIF(352x240) - PAL : D1(704x576), Half D1(704x288), CIF(352x288)
Frame Rate	The number of maximum video frame transmitted for each second. - 1, 5, 10, 15, 20, 25, 30
Quality	Quality Configures video quality - Very High, High, Normal, Low, Very Low

Pause Stops video for a while.

OSD Displays related information.

Displays the title

Removes the title

Deinterlace On/off function of Deinterlace.

Note

Deinterlace is a function to adjust the video quality softly by eliminating the border line which was made by an interlace function. The interlace function draws an even line and an odd line of the Image one after the other.

Camera Setup Displays OSD control button of camera.

Camera OSD control button is displayed

Camera OSD is displayed

Day&Night Day&Night configuration function (Color, B/W configuration)

PTZ Control PTZ control function

Instruction for Camera OSD control button

<↑>, <↓> button

Moves selection displaying arrows up and down on camera OSD menu.

<←>, <→> button

Changes configuration of selected field on camera OSD menu.

<Set> button

Displays camera OSD or moves to upper/lower menu of selected field.

<Exit> button

Terminates camera OSD.

※ For configuring the function and detail operating method of SNC-550 network camera, refer ‘Ch6. How to Operate Camera’.

4.2. Using Administration page

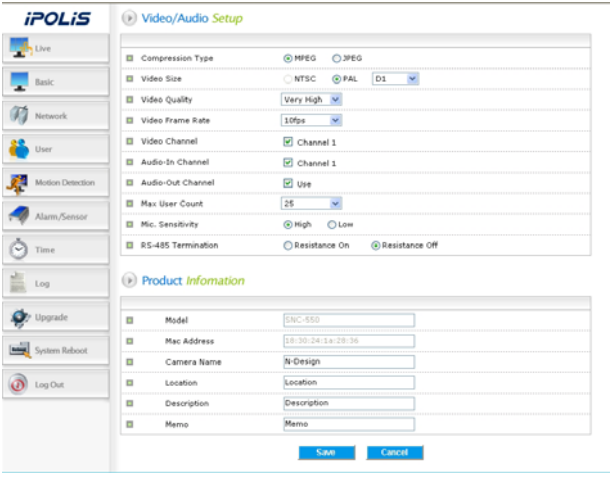
4.2.1. Live

Please Move to Web Viewer page

[Web Viewer live screen]

4.2.2. Basic

Configures basic information for camera.



Video/Audio Setup

Item	Description
Compression	Video compression mode (Compression mode of video in the camera)
Video Size	If the type of installed camera (NTSC/PAL) is selected, then the size of screen on the camera becomes selectable.
Video Quality	Selects the quality of video screen. In case of low speed internet, lower the video quality to see seamless video.
Video FrameRate	Configures the number of transmitted frame per second in the camera.

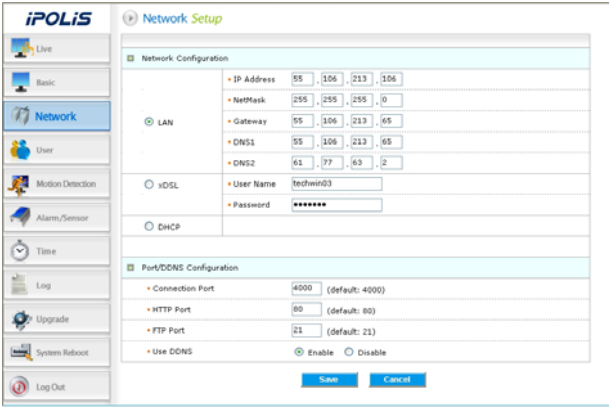
Item	Description
Video Channel	Selects the video channel to be used in the camera.
Audio-In Channel	Selects whether to use the audio input channel in the camera or not.
Audio-Out Channel	Selects whether to use the audio output in the camera or not.
Max User Count	Configures the number of users who can be connected to the camera through the network(1~20 persons)
Mic. Sensitivity	Audio amplifying function onfigures Low for the microphone which has amplifying function and High for the microphone which has no amplifying function. (In case of Line-In signal, configure Low)
RS-485 Termination	Terminating function When multiple cameras are connected via 485, the camera in the end should be terminated to prevent signal loss or incorrect operation.

Product Information

Item	Description
Model	Displays model name of the camera.
Mac Address	Displays MAC Address of the camera.
Camera Name	onfigures name of the camera, it help to classify several cameras.
Location	The location of the installed camera can be entered.
Description	Additional description related to the camera can be entered.
Memo	The contact of camera administrator can be entered.

4.2.3. Network

Configures network information of the camera.



Network Configuration

According to the user's network environment, it is classified into LAN, xDSL, DHCP.

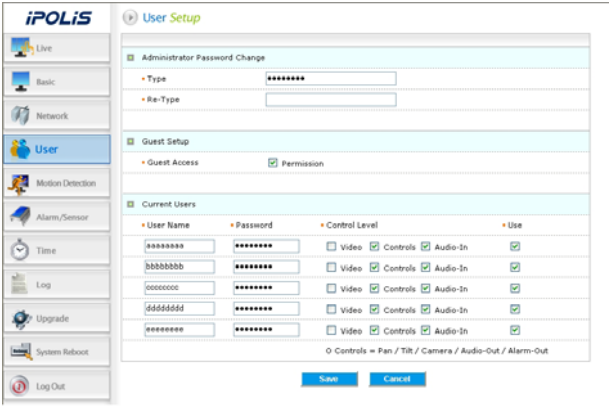
Item	Description
LAN	In case the camera is connected to the local network or xDSL with a static IP address, configure network information to be assigned to the camera.
xDSL	In case of xDSL with a dynamic IP address, enter password in UserName and Password field.
DHCP	This case is selected in case of using IP sharing box/ cable modem.

Port/DDNS Configuration

Item	Description
Connection Port	This controls communication with camera. (Default : 4000)
HTTP Port/ FTP Port	This helps to connect to web page or FTP server. (Default : http=80, ftp=21)
Use DDNS	Choose whether you use DDNS server. IP address for dynamic IP is continuously changed, but if you use DDNS, you can connect server regardless of variable IP address.

4.2.4. User

This describes password change for administrator or user registration.



Item	Description
Administrator Password Change	Change password of administrator
Guest Setup	User clicks 'Guest' button to decide whether allowing guest to connect Main Viewer.
Current User	You can register new user or delete, and set up user's authority.

※ Set up user authority

User's authorities set up at 'Current User' are as follows.

Catetory	Description
Video	Use video related setup function (Compression, Resolution, Framerate, Quality)
Control	Pan, Tilt, Zoom, Audio output, Alarm output
Audio	Audio Input
USE	Whether relevant account is used (If not checked, not allowed log-in)

- **Example 1)** In case control function is limited (Do not check Controls box)

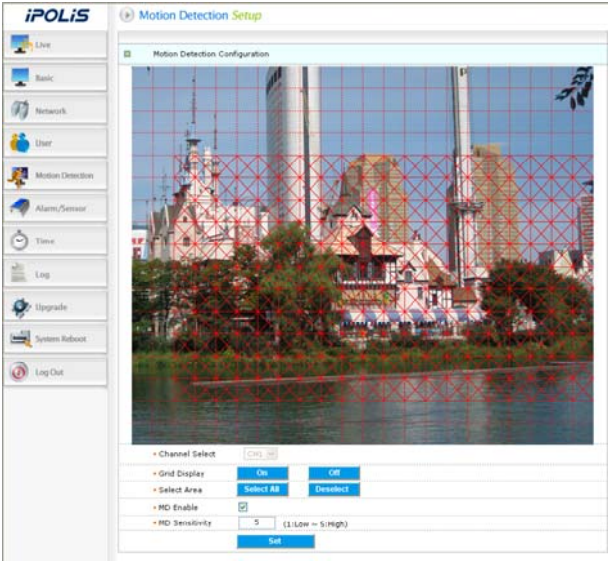
※ Pan, tilt, zoom, audio output, alarm output function icon is inactivated

- **Example 2)** In case video function is limited (Do not check Video)

※ Compression, Resolution, Framerate, Quality set up icon is inactivated.

4.2.5. Motion Detection

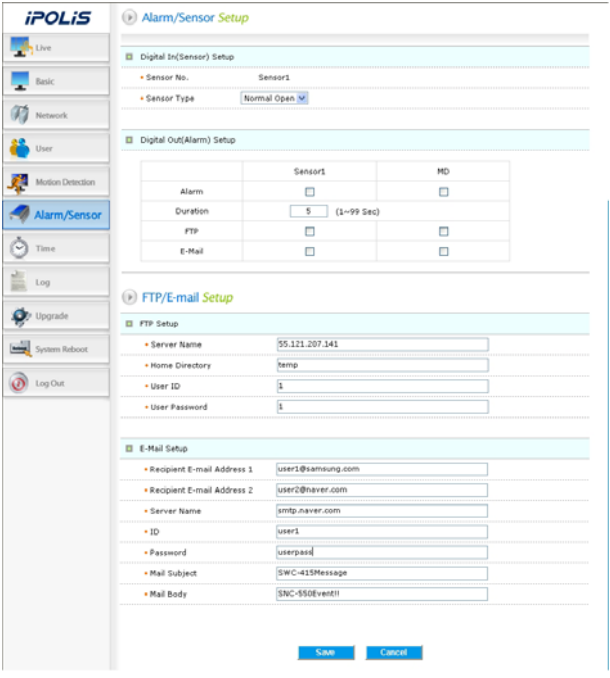
This sets up motion detection function of camera.



Item	Description
Grid Display	Basic grid, used to choose area on the screen, is displayed or hidden.
Select Area	When selecting motion detection area, click <Select All> button to select all areas, or click <Deselect> button to cancel the selected area.
MD Enable	Decide whether you use motion detection function.
MD Sensitivity	Setting up sensitivity to detect motion to adjust input video by situation. You can select 1-5, and 5 is the highest.

4.2.6. Alarm/Sensor

This sets up necessary information when using alarm function by attaching sensor to camera.



Alarm/Sensor Setup

◇ **Digital In Setup**

Item	Description
Sensor Type	Types of sensors are 'Normal open' and 'Normal close.' This selects up type of connected sensor.

◇ **Digital Out Setup**

Item	Description
Alarm	Set up Alarm Out responding when event is recognized by connected sensor (Sensor 1) or Motion Detection (MD)
Duration	Set up time to operate relay. It means the period from the time when sensor detects event to the time when relay is released.
FTP	In case event occurs by sensor (Sensor 1) or Motion Detection (MD) on the screen, decide whether transferring related information to FTP.
E-mail	In case event occurs by sensor (Sensor 1) or Motion Detection (MD) on the screen, decide whether transferring related information by e-mail.

E-mail/FTP Setup

Set up FTP server and e-mail information to which related information is transferred in case alarm occurs.

Item		Description
Mode		Select media for data transfer.
FTP	Server Name	Enter domain or IP address of FTP server.
	Home Directory	Set up home directory to save relevant data at FTP server.
	User ID	Enter ID to connect FTP server.
	User Password	Enter PW to connect FTP server.

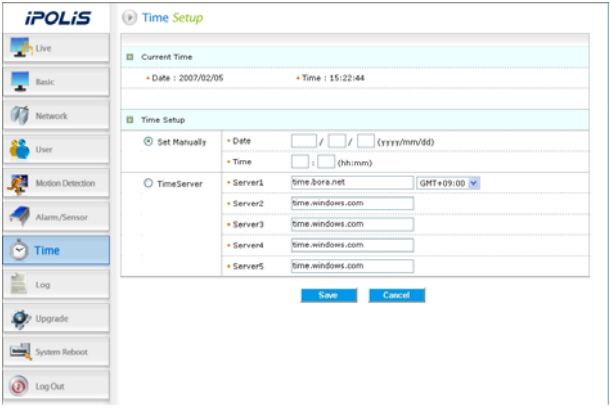
Item		Description
E-mail	Recipient E-mail Address 1 Recipient E-mail Address 2	You can designate up to two e-mail address receiving data when alarm occurs.
	Server Name	In case you use outside e-mail server, enter the name of the outside e-mail server.
	ID	Enter ID to connect the outside e-mail server.
	Password	Enter PW to connect the outside e-mail server.
	Mail Subject	Enter the subject of mail to be transferred.
	Mail Body	Enter the body of mail to be transferred.

Note

If motion is detected, the contents transferred by e-mail or to FTP are varied according to the set-up of 'Video Compression' at Admin page (Basic).

- MPEG : Video length is set by 'Duration' of 'Digital Out Setup'.
  File extension is 'ste', you can play this by 'SLiM Player'.
- JPEG : JPG type image file attached.

4.2.7. Time



Current Time

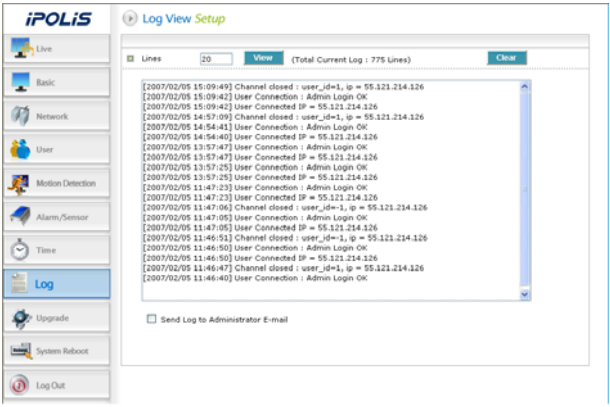
Item	Description
Date	Current setup date displayed
Time	Current setup time displayed

Time Setup

Item	Description
Set Manually	Adjust time manually.
Time Server	Set up address of time server for Server 1 - 5.

4.2.8. LOG

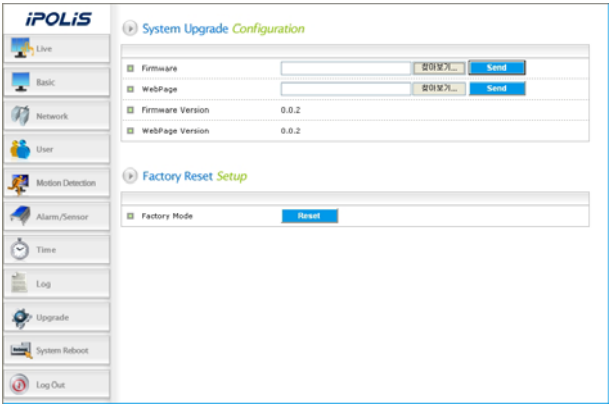
Recent activities made for camera are displayed as log.



Item	Description
Lines	Set up number of lines of the list.
View	Log is viewed with number of lines you set up most recently.
Clear	Delete logs.

4.2.9. Upgrade

Upgrade program of SNC-550 network camera.



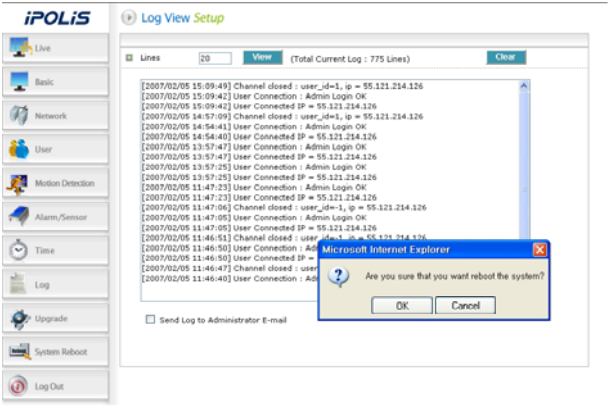
System Upgrade Configuration.

Item	Description
Firmware	Upgrade firmware of SNC-550 network camera.
WebPage	Upgrade webpage of SNC-550 network camera.

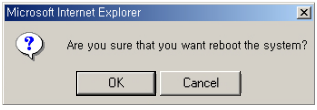
Factory Mode Setup

If you click <Reset> button, server is returned to initial value when shipped from the factory after confirmation procedure by administrator.

4.2.10. System Reboot



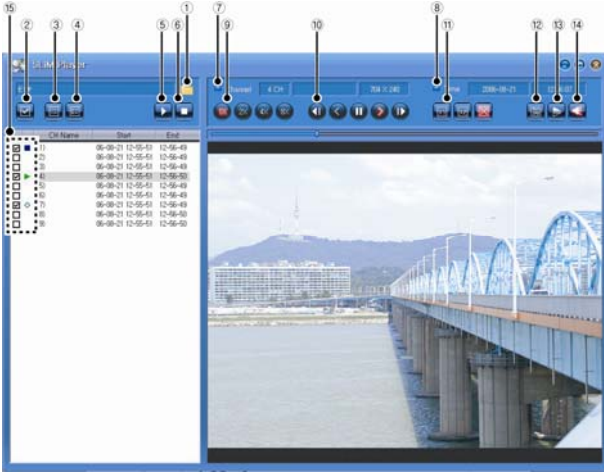
Server is rebooted after confirmation procedure of administrator.



Click <OK> button to reboot server.

4.2.11. SLiM Player

SLiM Player as a program installed with Network Manager performs a function to playback backup data on PC.



Button	Name	Function
1	Select Folder	Clicking on the button, the program will be executed and the folder will appear. At this moment, if you click on the folder where the recorded file is located, the list of recorded files in the folder will appear. The list of recorded files will be arranged and displayed in the order of channel or time.
2	All list check or not check	Select every file or cancel the selection.
3	Selected list check	Select a file.

Button	Name	Function
4	Selected list not check	Cancel the selection of a file.
5	Play	Play the selected files in order.
6	Stop	Stop playing the file and canceling all the selections made.
7	Channel Info	Display the information of the channel that is saved.
8	Time Info	Display the information on the recording time for the file being played.
9	Control of playback speed	Adjust the playing speed.(1x/2x/4x/8x)
10	Control of playback functions	These are functions related to 'play'. ▪ Move to the previous frame. ▪ Play in the reverse direction. ▪ Temporary stop. ▪ Play in the forward direction. ▪ Move to the next frame.
11	Control of playback Image size	Adjusting the size of the screen for playing the content. ▪ 1x zoom/2x zoom/Entire screen ▪ Images with resolutions, 704x240 or 704x288 will not change its size even with 2x zooming.
12	Save as JPEG	Save the screen being played as a JPEG file.
13	Invert	Rotate the screen being played by 180°.
14	Audio ON/OFF	Turn the audio function ON/OFF.
15	Playback File List	◇ : Getting ready for playing ▶ : forward play ◀ : reverse play ❚❚ : pause ■ : stop playing

Ch5. How to Use Network Manager

5.1. What is Network Manager?

Network manager is software for integrated management over network camera, one channel/four channels video server and DVR. It monitors multiple video products installed in remote are in real time.

If configuration is normally completed, you can monitor video through client PC by clicking Network Viewer.exe file or <Viewer> at Network Manager to connect equipments.

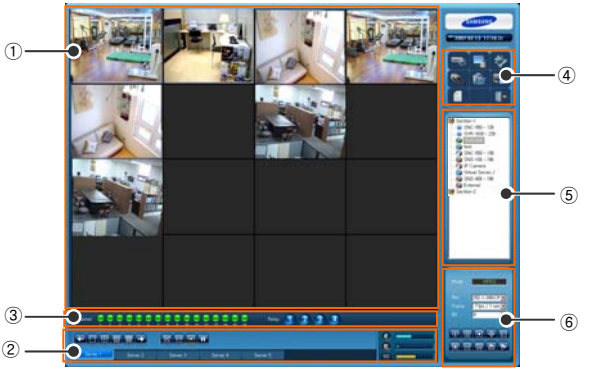
Features

Features of Network Manager are as follows.

- Function to manage multiple network cameras, one channel / four channels video server and DVR
- Real-time monitoring and recording maximum five sets of sixteen channels
- Provide various search method according to recorded contents
- Automatically change GUI screen according to user's PC monitor resolution
- Separate manage/backup program function on viewer
- Single and 4, 9, 16 screen-split function
- PTZ camera control and real-time event detection function

5.2. Composition and Function of Network Manager

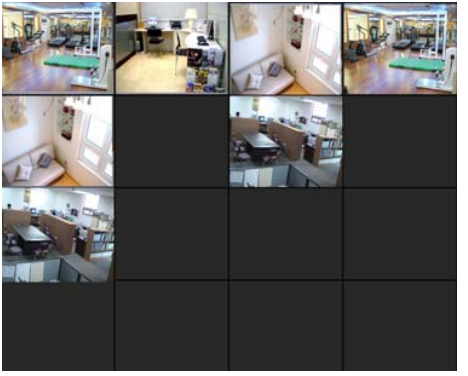
Name of each function is as follows.



①	**Video display part**	④	**Main button part**
②	**Page control part**	⑤	**List display**
③	**Status bar**	⑥	**Channel setup**

5.2.1. Video display part

Video display area shows live video or searched video. Video can be selectively seen by one channel, four channels, nine channels and sixteen channels.



- Double click video: Extend selected channel and output 200% size
- Click right button of mouse: You can use functions such as I-Frame view of selected channel by using pop-up menu.

Pop-up menu

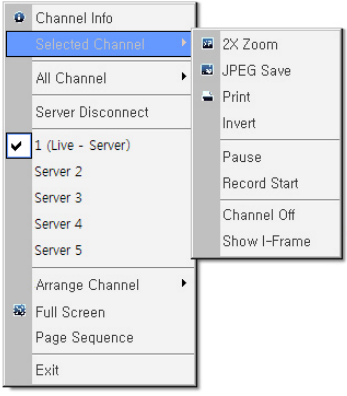
Pop-up menu helps you to use I-Frame view and other various menus easily.

- Channel information: Number, group and name of the selected channel.
- Selected channel: Function to control the selected channel only. “200% view, Save as Jpeg, Print, Rotate 180°, Pause/release,

Start recording, Turn off channel, View I-Frame only (View All-Frame)" These can be operated from ‘Channel set up part’ at the bottom in the right side.

- All channels: Function to control all channels. There are functions like “Pause/release, start record, off channel, View I-Frame only (View All-Frame)”.
- Disconnect and page transfer: Disconnect current connection, or transfer page by five.
- Others: Sorting channel and full screen, page circulation, turn off program.

Note ‘View I-Frame only’ selectively shows standard image among images transferred to main equipment.

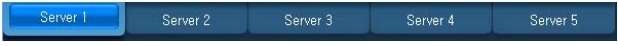


Note	In case of SVR-1640/950E model, the initial setup is "View I-Frame only." If using "View I-Frame only", network transfer speed is 1frame/sec. If using "View All-Frame," it is transferred at the speed set up by recording program at main body of DVR.

Note	UI fits to the resolution of user's monitor resolution. The screen above shows 1280 x 1024 resolutions. In case no camera is installed, the screen is black.

5.2.2. Page control part

Page Transfer

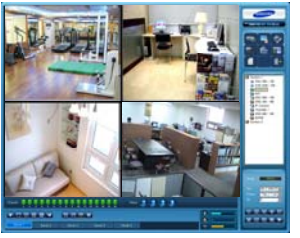


- It can connect maximum five (Live, Search) equipments or virtual servers.
- Name of page is displayed as registered name and if not connected, they are displayed like Server1, Server2, Server3, Server4, Server5.

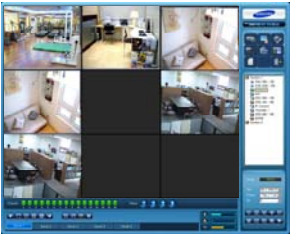
Video Display Control

- If you select one of square type 1,4,9,16 channel buttons, each video arrangement appears.

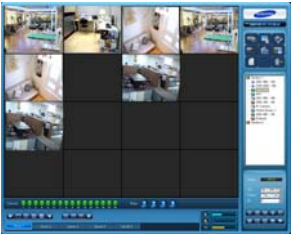
1channel



4channels

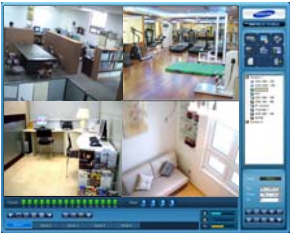


9channels

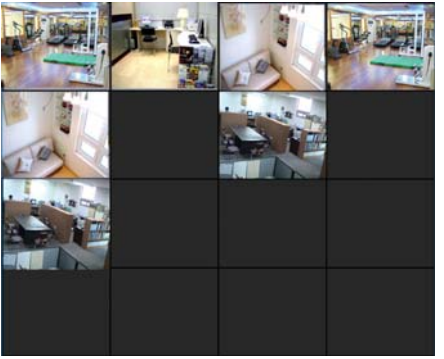


16channels

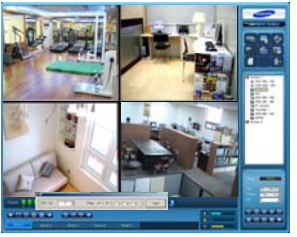
- and In case selected channels are less than 16, front and back channel not displayed at video display part are displayed.



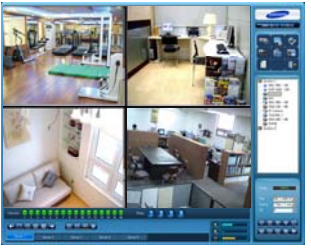
- : This function hides various buttons and status information, and shows video with full screen fitting to your monitor's resolution. If you want to cancel this function, push ESC key on your keyboard.



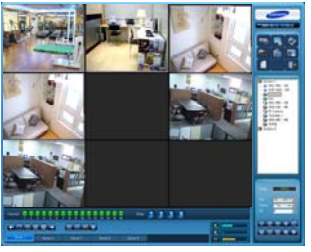
- : This function shows other connected page's video for designated time and automatically transfers.



- . Record all channels' live video currently viewed. (Recording is made with resolution of actual streaming video)



- : Pause all channels' live video currently viewed



Audio Control and HDD display

- Adjust speaker volume and if button is clicked, sound of speaker is muted.
- Adjust microphone volume and if button is clicked, sound of speaker is muted.
- Yellow bar shows the usage level of HDD.

5.2.3. Equipment Status Display Part

While connecting to equipment, edit live video or recorded video.

If you control recorded screen, disconnect the equipment and click search icon at main button part to connect recorded video.

LIVE Status

- Channel: It displays whether the connection between equipment and network is successful and whether 'event' is occurred. If you click green color icon, relevant channel is selected.
  Green : Network connection is successful, Yellow: Network connection is failed, Red: event occurs
- Relay : If you click four buttons, specific signal is sent to equipment.

Search Control

Provide control button for the direction of play or move when playing recorded video.

- , : Decide play direction of recorded video.
- , : Move to backward/forward frame while pausing.
- , : Move to beginning/ending of the current time frame (10 minutes frame) while pausing.

Note

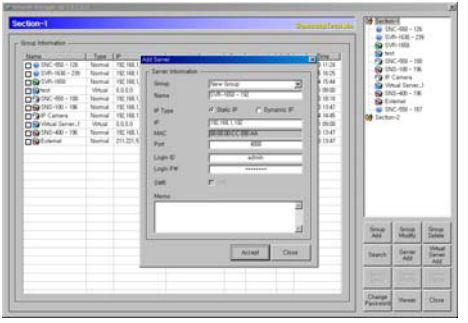
Example :
12:35:15 → 12:30:00, 12:35:15 → 12:39:59

- <Speed> button : Decide speed of play. There are 1x, 2x, 4x, and 8x. In case of 2x and higher, audio is not played. In case of reverse direction, I frame is played with 2x speed or higher.
- Slider : Display the status of current video.

5.2.4. Main Button Part

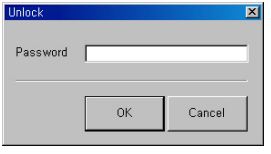
You can set up managing equipment, program set up, search recorded contents and backup from main button part. Main button part is as bellows.

① Managing equipment



- Network Manager program is executed.
- Please see ‘Network Manager functions (page39)’ for details.

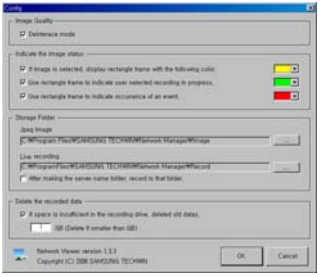
② Lock Program

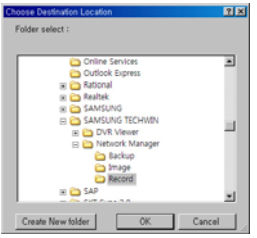


- In case program user is away, current screen is minimized like icon on the bottom of the right side of monitor not others to use this.
- Click the minimized Network Viewer program and enter password to use the program again.

③ Program Setup

Set up environment related to ‘Display video status’, ‘Saved folder’, ‘Delete recorded file’.





- Display video status: Designate color for ‘when selecting video’, ‘when recording at user’s option’, ‘when event occurs’.
- Saved folder: Designate location to save JPEG image or Live recorded file. If you check option, it creates a folder in the name of the equipment to save recorded files.
- Delete recorded files: If the size of empty space in hard drive becomes smaller than designated size, it deletes recorded files from the oldest one to secure empty space.

④ Live Connect/Disconnect

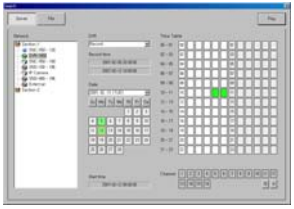
- Connect equipment selected from equipment list to check it in real time.
- If you disconnect Live screen, click icon above one more time.
- In case Live video is connected, the name of connected equipment appears on the ‘Page Control Part’ at the bottom of

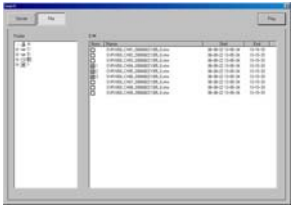
the screen. Maximum five equipments (Live, Search) can be connected. If you click one, relevant equipment is connected.

Note If connection is failed, please check network setup and line.

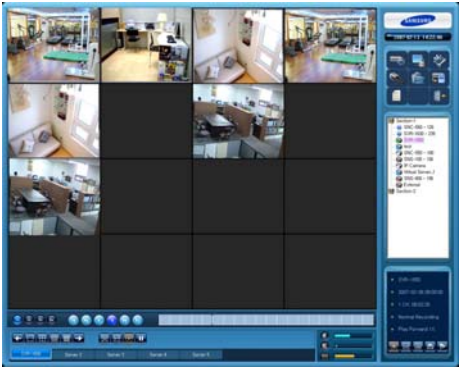
⑤ Search Recording

Search recording such as network camera backup, Live recording and file and display it.





- Either you can search the recorded contents at server or recorded file.
- To search recording at server, select equipment from the left and recording type, and select date in the record time, then recorded areas by time zone are displayed.
- To search file recording, select folder from the left, and select file in the right list, then channel is allocated in the order. Up to 16 channels are played back.
- Select time, channel or file to be played, and click 'Play' button to show the recorded video in such time zone.



Note

- The type of recording may vary according to equipments.
- In case of network camera or one channel/four channels server, only recording is available. In case of DVR, backup and recording are available.

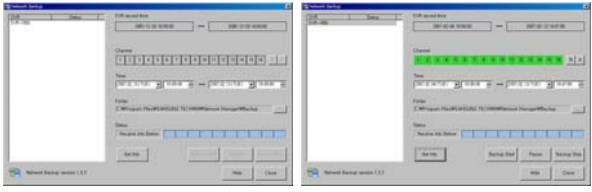
Note

In order to search/playback recorded video, you should disconnect Live video.

⑥ Backup Program

If there is recorded video in the time zone user selects, click 'Backup program' icon or run Network Backup.exe file to back up data onto user's PC.

Caution Backup program function only applies when equipment is DVR. Thus, only DVR is shown on the list.



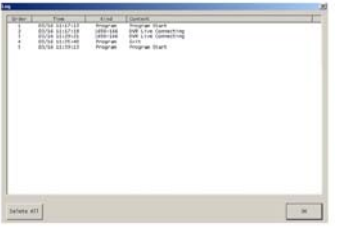
If you select server from the left list of equipment and click 'Receive information' button, channel and time information is displayed to allow user to select item for backup.

Note 100M LAN is recommended for Backup function.

⑦ Log

Show list of functions used by program.

Click <Delete All > button to delete all logs in the list.



⑧ Turn off

Turn off network viewer program.

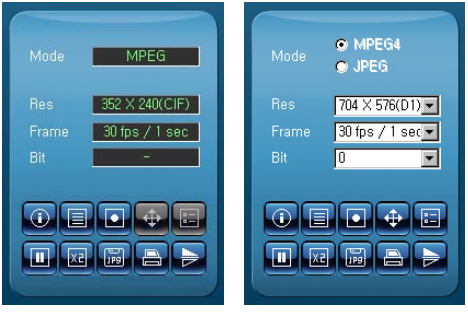
5.2.5. List Display Part

Display group and equipment list registered at Network Manager. You can doubleclick the name of the group to show or hide the list of equipment. If you put mouse cursor on the name of the registered equipment and doubleclick it, it connects and shows Live video. That is, this is same as 'Live Connect/Disconnect' at Main Button Part.

Note Check whether icon is authenticated and doubleclick mouse button from the equipment list. If setup is OK, Live screen appears successfully, and the name of list is activated with light blue color.

5.2.6. Channel Setup Part

If you select one individual channel from Live screen or Video Display Part, channel information is displayed at 'Channel Setup Part'. The activation status varies according to the authority connecting to video information and equipments.



According to the authority, mode, resolution and frame of video can be set up. If setup is not available, information is displayed with green color.

- : Display information regards with channel.

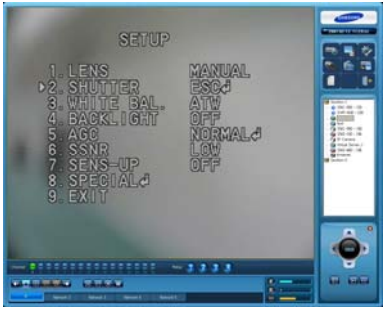
- : Use pop-up menu. Same as View I-Frame function of the selected channel.
- : Record the selected channel. Green color shows it is currently being recorded.
- : Adjust Pan, Tilt, Zoom, and Focus of speed dome camera. Speed can be selected up to 6x when adjusting Pan, Tilt, Zoom and Focus. This function is only available when user has authority to do it.

  - Zoom/Focus: Zoom in/out of selected channel, adjust focus.
  - Use arrow key to adjust up/down angle and left/right rotation of the camera.
  - Preset: You can save maximum 64 cameras position in

advance for future use.

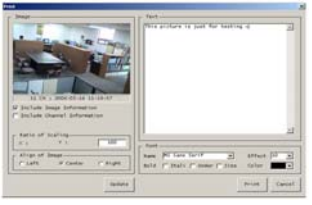
- : Function to control OSD menu of camera. Up/down button moves arrow up and down at OSD menu. Left/right button changes setup value of the selected item.

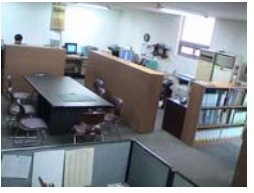
- : Display OSD menu.
- : Move/return to submenu of the selected OSD menu.
- : End OSD menu.



Note Please see the camera's user manual to find how to operate OSD menu of the camera or how to set up in details.

- : Pause the selected Live video.
- : Selected channel's video is showed at 200% and back to 100%. (Same as when you click relevant channel at Video Display Part)
- : Video of selected channel is saved as JPEG file.
- (Information such as date and time is attached on the upper left side of JPEG file.)
- : Print out the selected channel's image.



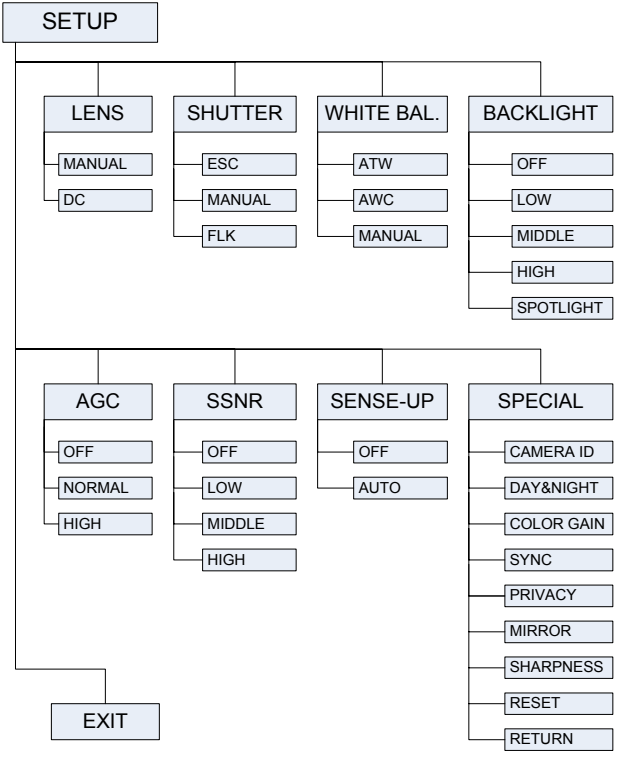


7CH: 2007-01-10 13:51:10

- : Rotate selected channel's video by 180°.

Ch6. How to Operate Camera

6.1. Setup MENU



6.2. How to Set Up Functions

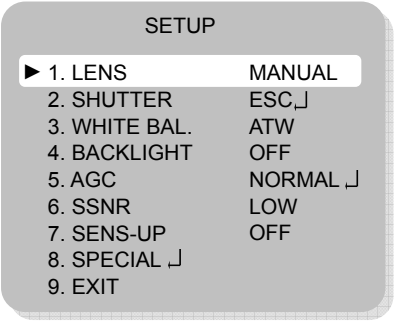
Use OSD button displayed on Web Viewer screen to set up functions.

- : OSD button is popped up in Web Viewer.

Use Network Manager to operate camera OSD.

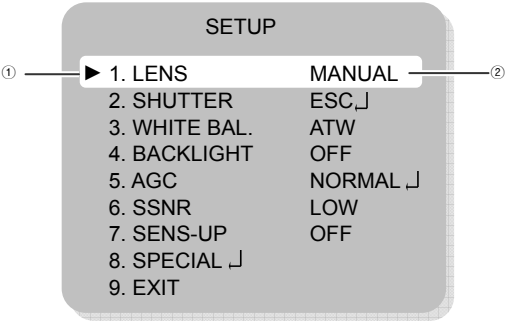
Please see details on page 92.

1. Please press the <SETUP> button.
   - Settings can now be made. The SETUP menu is displayed on the monitor.



2. Please select any function you wish to activate by using the UP and DOWN buttons.

   • The arrow can be moved up or down by using the UP and DOWN buttons. Please position the arrow to point to the function you wish to operate.



① Select any function you wish to operate by using the UP and DOWN buttons.
② Modes can be changed using the LEFT and RIGHT buttons.

3. Please press the LEFT or RIGHT button if you wish to change mode.

   • When the LEFT or RIGHT button is pressed, available values and modes are displayed in order. Please keep pressing the button until you get to the mode you wish to operate.

4. Please select 'EXIT' and then press the <SETUP> button to finish the setting.

Caution

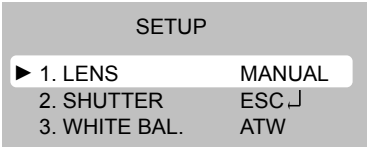
If ↵ appears at the mode you wish to operate, it means that there is a sub-menu which can be selected by pressing the <SETUP> button.

If - - - appears at the mode item, it means that there is no mode available to be selected.

6.2.1. Lens selection (LENS)

This function is used to adjust the brightness of the screen.

1. When the SETUP menu is displayed on the screen, please position the arrow to point to 'LENS' by using the UP and DOWN buttons.
2. Please select the type of the lens you wish to use by pressing the LEFT or RIGHT button.



- DC/VIDEO: Auto iris lens selection

Caution

When using an auto iris lens, the setting of the auto iris lens selection switch, located on the back of the camera, must be on DC or VIDEO depending on the type of the lens which is being used. (Please refer to the picture on page 21)

The brightness of the screen can be adjusted in DC mode. The brightness can be adjusted within the range of 1~70. The optimum level of brightness for the user can be achieved by adjustment.

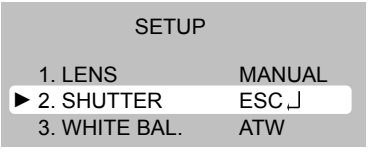
- MANUAL : Manual lens selection

3. Please press the <SETUP> button if you wish to return to the previous menu.

6.2.2. SHUTTER (condition and speed control)

Auto or manual control can be selected.

1. When the SETUP menu is on the screen, please position the arrow to point to 'SHUTTER' by using the DOWN button.
2. Please select the shutter mode by pressing the LEFT or RIGHT button.
   - FLK: Please select 'FLK' mode when flickering occurs on the screen, due to an imbalance between illumination and frequency.
   - ESC: Auto control of the shutter speed can be achieved. When ESC mode is on, the speed is controlled automatically according to the brightness of the screen.
   - MANUAL: The shutter speed can be controlled manually.



3. Please select 'MANUAL' mode if you wish to adjust the shutter manually.
   You can select speed from '1/60' to '1/120,000'sec (NTSC Models), '1/50' to '1/120,000'sec (PAL Models).
4. Please press the <SETUP> button when all the settings are complete.

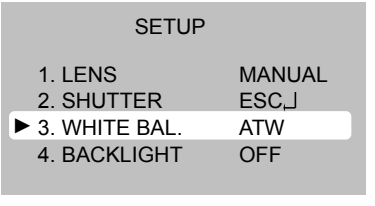
Caution

- When selecting DC/VIDEO lens, the shutter speed is fixed at 1/60.
- While using the internal synchronous system, if the shutter setting is on 'ESC' and the camera is directly facing a bright fluorescent light, the image on the screen can be adversely affected. Therefore please choose the installation location with care.
- When 'MANUAL' mode is on, the SENS UP function does not operate.

6.2.3. WHITE BAL. (WHITE BALANCE control)

The screen color can be adjusted by using the WHITE BALANCE function.

1. Please position the arrow to point to 'WHITE BAL' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.



※ Please select one of the 3 modes below.

- ATW (Auto Tracking White Balance): This mode can be used within the color temperature range 1,800°K ~ 10,500°K

(Ex. fluorescent light, outdoor, sodium vapor lamp or inside tunnels)

- AWC(Auto White Balance Control) : Please press the <SETUP> button while the camera is directed at a piece of white paper to obtain the optimum state under current illumination. If the environment including the light source is changed, you have to adjust the white balance again.
- MANUAL: The manual adjustment mode enables finer adjustment. Please select ATW or AWC first. Please change to manual adjustment mode and press the <SETUP> button. Please set the appropriate color temperature, and then increase or decrease the red and blue color values while monitoring the color changes on the object.

Caution

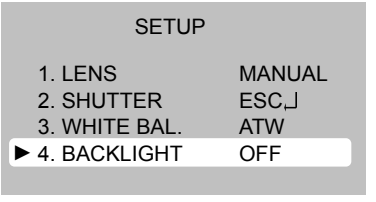
Under the following conditions the WHITE BALANCE function may not operate properly. In such cases, please select the AWC mode.

- When the object's surroundings have a very high color temperature. (Ex. a clear sky and sunset)
- When the object's surroundings are dark
- If the camera directly faces a fluorescent light or is installed in a place where there are considerable changes in illumination, the WHITE BALANCE function may become unstable.

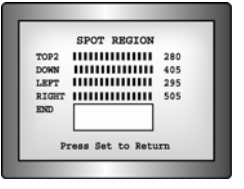
6.2.4. BACKLIGHT (Backlight Compensation)

When there is a strong backlight behind the object, clear images of the background as well as the object can still be obtained by using the BACKLIGHT function.

1. Please position the arrow to point to 'BACKLIGHT' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.



- SPOTLIGHT
  When the SPOT LIGHT is illuminated under the restricted area such as entrance of the APT parking lot or gas station, it exposes the number plate of the automobile accurately and the efficient watch does to be possible.



INCIDENT SPOTLIGHT

  - Day Mode:
    The BLC function accomplishes by SPOTLIGHT window which was set in standard.
  - B/W Mode:
    If both sides of the SPOTLIGHT window be thrown bright light, monitor screen showed up the SPOTLIGHT window.It is

SPOTLIGHT WINDOW
<SPOTLIGHT ON>

possible to a subject in the center of the image exposed correctly.

Caution Under ordinary circumstances, 'SPOTLIGHT' may not be operated unstably.

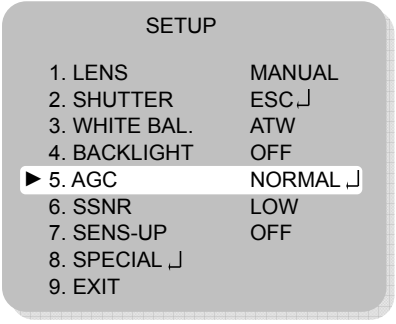
- HIGH/MIDDLE/LOW: You can adjust the sensitivity of Backlight Compensation.
- OFF: BACKLIGHT function does not operate.

BACKLIGHT ON

BACKLIGHT OFF

6.2.5. AGC (Auto Gain Control)

1. Please position the arrow to point to 'AGC' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button. As the level of gain increases, the screen gets brighter and the level of noise also increases.
   - HIGH: The gain increases or decreases within the range of 6dB ~ 34dB.
   - NORMAL: The gain increases or decreases within the range of 6dB ~ 30dB.
   - OFF: The gain is fixed at 6dB.

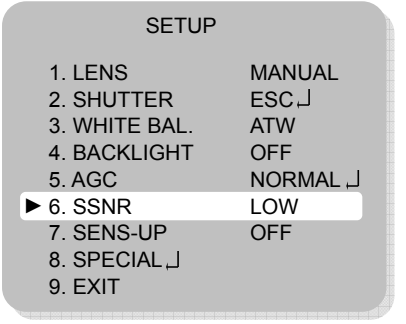


3. Please press the <SETUP> button. The BRIGHTNESS can be adjusted within the range of 1~70.
4. Please press the <SETUP> button when all the settings are complete.

6.2.6. SSNR (Samsung Super Noise reduction)

The background noise in the low light level decreases automatically as the level of gain changes.

1. Please position the arrow to point to 'SSNR' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.



- OFF: There is no reduction in noise level.
- LOW: There is a small reduction in noise level with almost no ghost image.
- MIDDLE: The most effective mode. There is a sufficient reduction in noise levels without causing much ghost imaging.
- HIGH: The level of noise is reduced greatly, however there is an increase in ghost imaging.

6.2.7. SENS-UP (Low Illuminance)

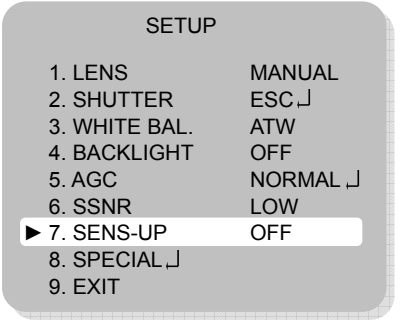
SENS UP helps maintain a bright, clear screen image by automatically detecting changes in the level of light in low light level conditions.

1. Please position the arrow to point to 'SENS UP' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.
   - AUTO: Low light level auto mode
   - OFF: The function does not operate

Caution

When SHUTTER is in the manual mode, SENS UP does not operate.

When AGC is turned off, SENS UP does not operate.



3. Please press the <SETUP> button when all the settings are complete.

Caution

- The maximum storage magnification in low light level can be adjusted by pressing the SETUP button in 'AUTO' mode.(X2~X128)
- As the magnification increases, the screen gets brighter; moving object gets more afterimage.
- If storage magnification is increased while SENS UP is operating, it may cause noise, and spots may appear; however this is normal.

6.2.8. SPECIAL

1. Please position the arrow to point to 'SPECIAL' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the UP or DOWN button.

- CAMERA ID: If the ID is input, the camera ID appears on the monitor.
  - Please position the arrow to point to 'CAMERA ID' by using the UP or DOWN button.
  - Please select 'ON' by pressing the LEFT or RIGHT button.

Caution If 'OFF' is selected, the ID does not appear on the monitor even if it has been input.

3. Please press the <SETUP> button.

4. Up to 15 letters can be used for the ID.
   - Please move the cursor to the letter you wish to choose by using the UP and DOWN button.

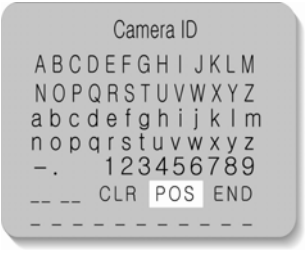
   - Select an ID from A~Z, a~z, 0~9 by using the UP, DOWN, LEFT and RIGHT buttons.
   - Please lock in the letters by using the <SETUP> button.
   - When the letter is locked in, the cursor moves to the next space.
   - Please repeat the above to input the ID.

Caution

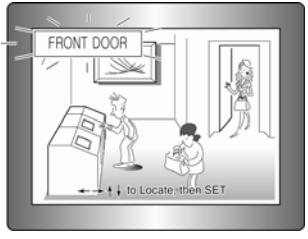
If the wrong name has been input...

If you press the SETUP button after moving the cursor to CLR, all the letters will be erased. If you want to correct a letter, please move the cursor to the arrow at the bottom left of the screen and press 'SET'. Please position the cursor above the letter you wish to correct, and then move the cursor onto the letter you wish to choose and press the SETUP button.

5. When a name has been chosen, please select a position for the name display.
   - Please move the cursor onto 'POS' and then press the SETUP button.



   - The name will appear at the top left hand corner.



- Please find the position you wish to display the name by using the 4 directional buttons, and then press the <SETUP> button.

6. Please select 'END' and then press the SETUP button to complete ID input.

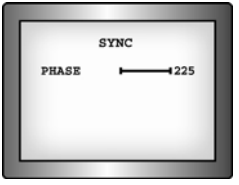
- DAY&NIGHT (ICR TYPE) : Select from COLOR, BW, AUTO or EXT modes.
  - AUTO: According to the input luminance level, IR Cut Filter is automatically switched to the appropriate mode for daytime or night-time. The COLOR mode is operated for daytime, and it converts to BW mode for night-time.
  - COLOR: Video is always showed in color mode.
  - B/W: Video is always showed in B&W mode.
    If you click <SETUP> button, menu which can turn on/off BURST signal appears.
    You can keep or remove BURST signal with ON/OFF

  - EXT: It enables user to control DAY&NIGHT mode by external input signal. (Refer to page 32)

Caution

- If AGC is OFF, you can't select AUTO mode and B/W mode.
- When selecting BW mode, AGC is fixed to HIGH mode.
- It may be out of focus when using Infrared rays lighting compared to general lighting.

- SYNC: Two SYNCHRONIZATION modes are available INTERNAL and EXTERNAL LINELOCK. In LINE-LOCK mode, it synchronizes the video signal between cameras without a synchronous generator. The line-lock synchronization is only used in the areas of 60Hz (NTSC Models) / 50Hz (PAL Models).



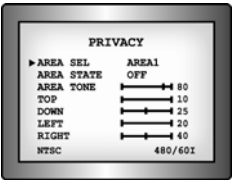
INT: Internal synchronization
L/L: External line-lock synchronization

- If you choose 'LL', you can adjust the desired phase. Press the <SETUP> button.
- You can adjust the desired phase from 0 to 359.

Caution

- When the power frequency is 50Hz, you can not use line-lock mode (NTSC Models).
- When the power frequency is 60Hz, you can not use the line-lock mode (PAL Models).
- 'Sync.' mode is fixed to 'INT' in DC 12V input power.

- PRIVACY: Mask privacy area you do not wish to appear on the screen.
  OFF: Cancels the PRIVACY mode.
  ON: Operates the PRIVACY mode.
  - Please press the SETUP button.
  - Please select the area you do not wish to appear from the 4 areas in AREA SEL mode.



  - Please select ON mode for the chosen area.
  - Please adjust the size of the area to be concealed by using the UP, DOWN, LEFT or RIGHT button.

- MIRROR
  ON: Sets a horizontal image inversion.
  OFF: Cancels the inversion.

MIRROR OFF **MIRROR ON**

- SHARPNESS: The outline of the video image becomes cleaner and more distinctive as the level of SHARPNESS increases. If the level goes up excessively, however, it may affect the video image and generate noise.

- Please press the <SETUP> button.
- The available range of level is 0 ~ 31.

- RESET: Returns to the level which was set by the manufacturer for shipment.
- RETURN: Returns to the SETUP menu.

6.2.9. EXIT

Saves all the setting menus and then exits.

Ch7. Troubleshooting

If there are problems in operation, please refer to the items below. If the problem persists, please contact the agent you purchased this product from.

Problem	Solution
Nothing appears on the screen.	▪ Please check the power connection. ▪ Please check the video signal line connection. ▪ Please check and make sure that the auto lens switch is set to DC (VIDEO) when using a DC(VIDEO) lens. ▪ Open MS-DOS window to check whether SNC-550 network camera is connected to network. ※ In case of ping 192.168.0.100, replace it with IP address set up at server
The video image is not clear.	▪ Please check if the lens is clean. Please clean the lens with a clean cloth or brush. ▪ Please adjust the contrast feature of the monitor. ▪ Please make sure that the screen is not exposed directly to a bright light. Please move the camera if necessary. ▪ Please readjust the back focus of the camera.
The screen is dark.	▪ Please adjust the contrast feature of the monitor. ▪ If you have an intermediate device, set the 75Ω/Hi-z properly, and check the terminals. ▪ Please check if an auto iris lens is being used and adjust the brightness level.

Problem	Solution
There is a problem with the camera operation. The camera surface is too hot and black stripes appear on the screen.	▪ Please check if an appropriate power source to the camera complies with the manufacturer's standard requirement, or if the voltage keeps changing.
The MOTION DETECTION function is not working.	▪ Please check if 'MOTION DETECTION' mode is turned on. ▪ Please check if the MD LEVEL is too low. ▪ Please check the setting of the MD AREA.
Colors are not quite right.	▪ Please check the 'WHITE BAL' setting. (Please refer to page 101)
The screen is flickering.	▪ Please check if the camera is facing directly into sunlight or fluorescent light. ▪ Please check if an auto iris lens is being used. ▪ Please check the connection of the lens connector cable.
L/L mode isn't able to be selected.	▪ Have you connected your camera to DC power source? Connect it to AC power source. ▪ Please check the frequency of power supply (60Hz for NTSC, 50Hz for PAL).
DAYNIGHT(Auto) mode is not working.	▪ Please check if the AGC menu is set to the OFF position.

Problem	Solution
SENS-UP function is not working.	▪ Please check if the AGC menu is set to the OFF position. ▪ Please check if the SHUTTER menu is set to MANUAL mode. ▪ Please check the limit of SENS-UP AUTO mode.
Audio is not working	▪ Please check the audio is selected from admin page. ▪ Please check speaker volume from the viewer. ▪ In case input sound through microphone at Viewer is not outputted through Audio Out of server, please check whether Audio Out channel is selected at admin page. Or check whether microphone is available at Viewer. ▪ Please check audio driver is working in user's PC.
Video is stopped	▪ Please check whether network cable of SNC-550 network camera is correctly connected ▪ In case user uses hub or IP router, check whether these network equipments are working properly. ▪ Open MS-DOS window and check whether SNC-550 network camera is connected to network.

Problem	Solution
No image from web viewer	▪ Click 'refresh (shortcut; F5) ' button at browser to recall the page ▪ Check whether power of camera and network cable is properly connected. ▪ Check whether computer is connected to network. ▪ If you use hub or router, check whether such equipments are properly operated. (Note: Open MS-DOS window and enter network ID of camera at ping 192.168.1.100,) ▪ Connect to Admin page to check whether video output is selected.
No network connection from Network Manger, dedicated viewer	▪ Please check MAC address and IP address of SNC-550 network camera ▪ Check whether network cable is properly connected. (Note : Use ping command) ▪ Check whether connecting to Admin page is available.
Image transferred to FTP or by E-mail cannot be viewed	▪ Video may not be viewed since Divx codec is not installed in user's PC. Divx codec can decode video compressed with MPEG4. Download and install the latest Divx codec, and check video. http://www.divx.com/divx/download

Specifications

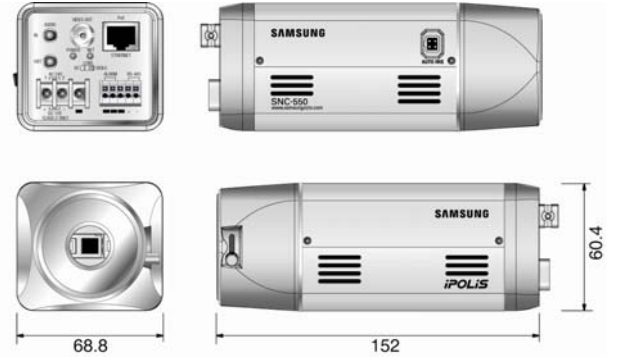
	Items	SNC-550N	SNC-550P
Camera	Sensor	1/3 inch, Super HAD CCD	
	Total Pixels	811(H) x 508(V)	795(H) x 596(V)
	Effective Pixels	768(H) x 494(V)	752(H) x 582(V)
	Scanning System	2:1 Interlace	
	Synchronization	Internal / Line Lock	
	Frequency	H : 15.734KHz / V : 59.94 Hz	H : 15.625KHz / V : 50.00 Hz
	Video Output	1.0Vp-p / 75Ω (Video 0.714 Vp-p Sync 0.286 Vp-p)	1.0Vp-p / 75Ω (Video 0.7 Vp-p Sync 0.3 Vp-p)
	Resolution	530 Lines(Color) / 570 Lines(BW)	
	S/N (Y signal)	50 dB (AGC Off / SHARPNESS Off)	
	Min. Illumination	COLOR: 0.3 Lux @F1.2, 0.002 Lux (Sens-up 128X) B/W: 0.01 Lux @F1.2, 0.0007 Lux (Sens-up 128X)	
	O.S.D	Built-in	
	Day & Night	Color, B/W, AUTO (Filter Auto Change), EXT (External Day & Night Mode Control Capability via Terminal on the Back Panel)	
	Gain Control	NORMAL / HIGH / OFF : Selectable	
	SSNR	LOW / MIDDLE / HIGH / OFF : Selectable	
	White Balance	ATW/AWC/Manual (1,800˚K ~ 10,500˚K)	
	Back Light Compensation	LOW / MIDDLE / HIGH / SPOT / OFF : Selectable	
	Electronic shutter speed	AUTO: (1/60 ~ 1/120,000sec) MANUAL: (X128 ~ X2, 1/60 ~ 1/120K)	AUTO: (1/50 ~ 1/120,000sec) MANUAL: (X128 ~ X2, 1/50 ~ 1/120K)
	Sens-Up	AUTO / OFF(selectable limit X2 ~ X128)	
	Motion Detection	ON / OFF	
	Mirror	ON / OFF	
	Privacy	ON / OFF (4 Programmable Zone)	
	Sharpness	ON / OFF (Level Adjustable)	
	IRIS Control	DC / Video IRIS Lens	
	Lens Mount	CS Mount (Easy Focus Type) C Mount is mountable by using adaptor	

Items			SNC-550N	SNC-550P
Network	Image Resolution		NTSC : 704 x 480(D1), 704 x 240(HD1), 352 x 240(CIF) PAL : 704 x 576(D1), 704 x 288(HD1), 352 x 288(CIF)	
	Compression		MPEG4 / JPEG Selectable	
	Image Compression Step		5Steps (Very Low, Low, Middle, High, Very High)	
	Frame Rate		NTSC/PAL : Max 30/25 frame/sec	
	Audio Format		Both direction audio, 8KHz ADPCM	
	Ethernet		10/100Mbps	
	Protocols		HTTP, TCP/IP, FTP, SMTP, DHCP, DDNS	
	Dynamic IP		xDSL, DHCP supported	
	DDNS		DDNS supported	
	Max. User		20 Users	
	PTZ control		RS-485	
	S/W	Install Program	Supplied	
		IP Installer	Supplied	
		PC Viewer	Supplied	
		Web Server Web ActiveX Control	Supplied	
General	Back Panel Spec.		RJ-45 Connector : Ethernet / PoE 5 pin terminal block : RS-485, Alarm In/Out, GND Video Out (for installation) Audio In/Out	
	Power Source		AC24V±10% / DC12V±10% / PoE	
	Power Consumption		About 7W	
	Operating Temperature/Humidity		0℃ to +40℃ / 30% to 80% RH	
	Dimension		152mm(L) × 68.8mm(W) × 60.4mm(H)	
	Weight		570g	

Network Manager Specifications

Items		SNC-550N
Applied Models		DVR : SVR-1650/1640/950E SamsungTechwin Network Camera : SNC-550 1ch/4ch Server : SNS-100/ 400
Video Compression		MPEG4, JPEG
Audio Compression		ADPCM(Network Camera/Sever), PCM(DVR), Dual
Simultaneous Playback Channel		16 Screens (480fps)
Playback Channel		1,4,9,16
Recording Channels		Max 80 channels (16 channels × 5 pages) Manual Recording
Image Capture		Supported (JPEG)
Pan/Tilt/Zoom		Supported
Relay Control		Supported
Password		2 level (admin, guest)
PC Requirements	CPU	Pentium Ⅳ 3.0GHz or higher
	RAM	Over 1GB recommended
	OS	Windows 2000 or higher versions recommended
	VGA	DirectX 9.0c or more.

Dimension



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