Panasonic ®

Network camera
Operating Instructions

Model No. WV-NP1004

SD™

Panasonic
WV-NP1004

i-pro

(Lens is option.)

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and mainte-nance (servicing) instructions in the litera-ture accompanying the appliance.

─ For Canada ─

This Class A digital apparatus complies with Canadian ICES-003.

─ For U.S.A ─

NOTE: This equipment has been tested and found to com-ply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to pro-vide reasonable protection against harmful interference when the equipment is operated in a commercial environ-ment. 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 case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to com-puter or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compli-ance could void the user's authority to operate this equip-ment.

The serial number of this product may be found on the sur-face of the unit.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No.

WARNING:

• This apparatus must be earthed.

• To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture.

• The apparatus should not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, should be placed on the apparatus.

• All work related to the installation of this product should be made by qualified service personnel or system installers.

Important Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

S3125A

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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(2) PERSONAL INJURY OR ANY DAMAGE CAUSED BY INAPPROPRIATE USE OR NEGLIGENT OPERATION OF THE USER;
(3) UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER;

(4) ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY;
(5) ANY CLAIM OR ACTION FOR DAMAGES, BROUGHT BY ANY PERSON OR ORGANIZATION BEING A PHOTOGENIC SUBJECT, DUE TO VIOLATION OF PRIVACY WITH THE RESULT OF THAT SURVEILLANCE-CAMERA'S PICTURE, INCLUDING SAVED DATA, FOR SOME REASON, BECOMES PUBLIC OR IS USED FOR THE PURPOSE OTHER THAN SURVEILLANCE;
(6) ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, ANY LOSS OR DAMAGE, ARISING OUT OF THE IMPROPER DETECTION OR SLIP-UP IN DETECTION BY VMD (Video Motion Detector) FUNCTION OF THE PRODUCT.

CONTENTS

Preface

The network camera WV-NP1004 designed to operate using a PC on a network (10BASE-T/100BASE-TX) and equipped with the traditional analog video output connector (BNC).
By connecting to a network (LAN) or the Internet, images and audio from the camera can be monitored on a PC via a network. *1

Features

1.2 mega pixel CCD

This CCD achieves high resolution image display even when displaying analog video output.

Progressive scan

This scanning method brings high vertical and horizontal resolution, and achieves smooth video processing.

JPEG/MPEG-4 dual encode

JPEG and MPEG-4 images can be displayed simultaneously when being accessed by multiple PCs concurrently.

Auto back focus (ABF) function

By adjusting the CCD position inside the camera using the buttons on the camera or configuring the settings on the setup menu on the [Camera] tab of the "Camera setup" page, back focus will be adjusted automatically. The ABF settings can be configured even after the installation. It is also possible to configure the setup menu to make the camera to adjust the back focus automatically to correct out-of-focus which may be caused when switching between the color image display and the BW image display.

Featured noise reduction function achieves high sensitivity.

Low noise circuit design achieved the minimum illumination of 1.0 lx (F1.4).

Auto shifting to the BW mode in the nighttime

It is unnecessary to switch the color mode when a subject/scene becomes darker since the color mode will shift to the BW mode automatically under low illumination.

Motion detection function *2

This function issues an alarm signal when the camera lens is covered by something such as a cloth, or when the shooting direction of the camera is moved.

SD memory card slot

The FTP backup function and recording of each log on an optional SD memory card are available using the featured SD memory card slot *3

*1 It is necessary to configure the network settings of the PC and its network environment to monitor images and audio from the camera on the PC. It is also necessary that a web browser is installed on the PC.
*2 The motion detection function is not the dedicated function to prevent thefts, fires, etc. We assume no responsibility whatsoever for any damages resulting from the use of the motion detection function.
*3 Performance with this camera has been checked by using Panasonic's SD memory cards (64 MB, 128 MB, 256 MB, 512 MB and 1 GB). If another SD memory card is used, this camera may not operate properly.

About these operating instructions

There are 2 sets of operating instructions for the WV-NP1004 as follows.
- Operating Instructions (book, these operating instructions)
- Network Operating Instructions (PDF)

These "Operating Instructions" contain descriptions of how to install and connect this camera, and how to perform the required network settings. These operating instructions contain also descriptions about the setup items on the [Camera] tab of the "Camera setup" page and descriptions of how to configure the settings using the buttons on the camera.

Refer to the "Network Operating Instructions (PDF)" on the provided CD-ROM for descriptions of how to perform the camera settings and how to operate this camera. Adobe® Reader is required to read PDF.

System requirements for a PC

OS (English version):	Microsoft® Windows® 2000 Professional SP4
	Microsoft® Windows® XP Home Edition SP2
	Microsoft® Windows® XP Professional SP2
Computer:	IBM PC/AT Compatible
CPU:	Pentium® 4 2.4GHz or faster
Memory:	512 MB or more
Monitor:	1 024 x 768 pixels or more, 24-bit True color or better
Network Interface:	10/100Mbps Network interface card must be installed
Web Browser:	Microsoft® Internet Explorer® 6.0 SP2
CD-ROM Drive:	It is necessary to read the operating instructions on the provided CD-ROM.
Adobe® Reader®:	It is necessary to read the operating instructions on the provided CD-ROM.

* Audio will not be heard if a sound card is not installed on a PC. Audio may be interrupted depending on the network environment.

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- SD logo is a trademark.
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Network Security

As you will use this product connected to a network, your attention is called to the following security risks.
 1. Leakage or theft of information through this product
 2. Use of this product for illegal operations by persons with malicious intent
 3. Interference with or stoppage of this product by persons with malicious intent
  It is your responsibility to take precautions such as those described below to protect yourself against the above network security risks.
   • Use this product in a network secured by a firewall, etc.
   • If this product is connected to a network that includes PCs, make sure that the system is not infected by computer viruses or other malicious entities (using a regularly updated anti-virus program, anti-spyware program, etc.).
   • Protect your network against unauthorized access by restricting users to those who log in with an authorized user name and password.
   • Apply measures such as user authentication to protect your network against leakage or theft of information, including image data, authentication information (user names and passwords), alarm mail information, FTP server information and DDNS server information.

Precautions

Refer to all work related to the installation of this product to qualified service personnel or system installer.

Do not attempt to disassemble the product.
There are no serviceable parts inside. Contact the qualified service personnel for maintenance.

Use this appliance for indoor use only.
Do not expose the appliance to direct sunlight for hours and do not install the product near a heater or an air conditioner. Otherwise, it may cause deformation, discoloration and malfunction. Keep the appliance away from water and moisture.

To keep on using with stable performance
 • Parts of this product may deteriorate and it may shorten lifetime of this product when using in locations subject to high temperatures and high humidity. Do not expose the product to direct heat such from a heater.
 • Use the appliance at temperature within +5 °C - +35 °C (41 °F - 95 °F) and humidity below 90 %. (when using the appliance without turning the power off)

Handle the appliance with care.
Do not strike or shake, as this may damage the appliance. It may cause a malfunction.

About the PC monitor
When displaying the same image on the PC monitor at length, the PC monitor may be damaged. It is recommended to use a screen-saver.

When an error is detected, the camera will restart automatically.
This camera will restart when detecting an error caused by any reason. The camera will be inoperable for around 1 minute after the restart just as when the power is turned on.

Cleaning the camera body
Turn the power off when cleaning of the camera. Use a dry cloth to clean the camera. When the dirt is hard to remove, use a mild detergent and wipe gently. Then, wipe with a dry cloth.

Do not use strong abrasive detergent when cleaning the camera body. Otherwise, it may cause discoloration.
When using a chemical cloth for cleaning, read the caution provided with the chemical cloth product.

Cleaning the lens
Use a lens cleaning paper (used to clean camera lenses or lenses of spectacles). When using solvent, use an alcohols solvent. Do not use a thinner or a glass cleaner.

SD memory card
 • When insert an SD memory card into the SD memory card slot, turn the power of the camera off. Otherwise, it may cause malfunction or damage data recorded on the SD memory card.
  Refer to page 16 for descriptions of how to insert/ remove an SD memory card.

- When using an unformatted SD memory card, format it using this camera.
Recorded data on the SD memory card will be deleted when formatted.
If using an unformatted SD memory card or using an SD card formatted with other device, the camera may not work properly or performance deterioration may be caused.
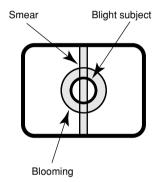Refer to the Network Operating Instructions (PDF) for descriptions of how to format an SD memory card.
- It is recommended to use Panasonic's SD memory card.
Otherwise, the camera may not work properly or performance deterioration may be caused.
- Images saved on the SD memory card may lead to personal information leakage. When it is necessary to give the camera to someone, even when for repair, make sure the SD memory card is removed from the camera.

Do not aim the camera at strong light sources.
A light source such as a spot light causes a blooming (light bleeding) or a smear (vertical lines).

Smear   Blight subject

Blooming

Router
When connecting the camera to the Internet, use a broadband router with the port forwarding function (NAT, IP masquerade).
Refer to the Network Operating Instructions (PDF) for further information about the port forwarding function.

Radio interference
When the camera is used near TV/radio antenna, strong electric field or magnetic field (near a motor or a transformer), images may be distorted and noise sound may be produced.

Safety wire
The safety wire holder is provided on the top of the camera. To prevent the camera from dropping that may cause accidental injury, attach one end of a safety wire (locally procured) to the safety wire holder of the camera and the other end to a locally procured safety wire holder (bracket, etc.) to be installed on the foundation part of the building.

Do not install the camera in a humid or dust-laden environment.
Otherwise, lifetime of the internal parts may be shortened.

Do not strike or shake, as this may damage the appliance.
It may cause a malfunction.
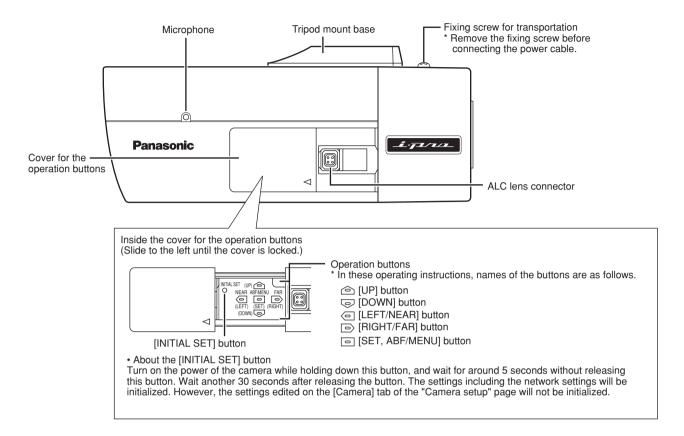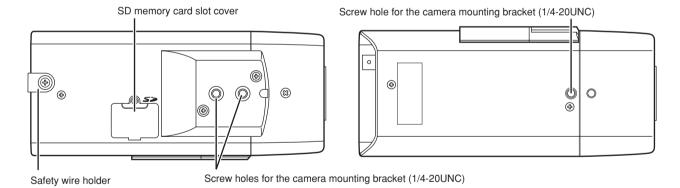
Save the configured settings
We recommend that you note down your settings and save them. We assume no responsibility whatever for any damages resulting from a lost of your settings.

Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with this product, is expressively prohibited.
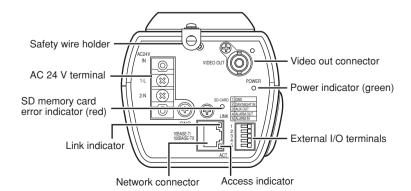
Major Operating Controls and Their Functions

Microphone

Tripod mount base

Fixing screw for transportation
* Remove the fixing screw before connecting the power cable.

Cover for the operation buttons

Panasonic

i-pro

ALC lens connector

Inside the cover for the operation buttons
(Slide to the left until the cover is locked.)

INITIAL SET (UP)
NEAR ABF/MENU FAR
(LEFT) (SET) (RIGHT)
(DOWN)

[INITIAL SET] button

Operation buttons
* In these operating instructions, names of the buttons are as follows.
  - [UP] button
  - [DOWN] button
  - [LEFT/NEAR] button
  - [RIGHT/FAR] button
  - [SET, ABF/MENU] button

• About the [INITIAL SET] button
Turn on the power of the camera while holding down this button, and wait for around 5 seconds without releasing this button. Wait another 30 seconds after releasing the button. The settings including the network settings will be initialized. However, the settings edited on the [Camera] tab of the "Camera setup" page will not be initialized.

<TOP>

SD memory card slot cover

Safety wire holder

Screw holes for the camera mounting bracket (1/4-20UNC)

<BOTTOM>

Screw hole for the camera mounting bracket (1/4-20UNC)

<REAR>

Safety wire holder

AC 24 V terminal

SD memory card error indicator (red)

Link indicator

Network connector

Access indicator

AC24V IN
1-L
2-N
SD CARD
LINK
10BASE-T/ 100BASE-TX
ACT

VIDEO OUT

POWER

1 GND
2 DAY/NIGHT IN
3 AUX OUT
4 ALARM OUT
5 ALARM IN

Video out connector
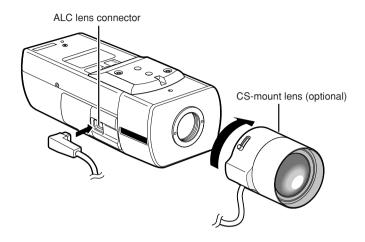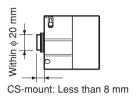
Power indicator (green)

External I/O terminals

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Lens Mounting

Mount the lens by rotating it clockwise slowly. Then, connect the lens cable to the ALC lens connector of the camera.

ALC lens connector

CS-mount lens (optional)

Within φ 20 mm

CS-mount: Less than 8 mm

Optional lens

Lens type	Model number
ALC lens for 1/3 inch CCD cameras 2x varifocal (high resolution)	WV-LZA62/2

Other lenses for 1/3 inch CCD cameras can be mounted on this camera. However, high resolution scanning of this camera may not be fully used for full-scanning (1 280 x 960) or partial scanning (960 x 720).
It is recommended to use a dedicated high-resolution lens when shooting a dark subject with the aperture opened.

Focus adjustment

When shooting an object using an AF lens, the first adjusted focus may be out-of-focus depending on the focal depth of the lens in use. In this case, focus on a darker object with the aperture open to prevent out-of-focus.
When "ABF" is selected for "BACK-FOCUS" on the SETUP menu (→ page 19), the camera can automatically focus on a subject with the best available conditions even when the illumination changes.
• Under near-infrared light, the focus may be slightly out-of-focus than under visible light.
  When the "BACK-FOCUS SETUP" page is displayed and "AUTO" or "PRESET" is selected for "C/L ←→ B/W" using the operation buttons on the camera, the camera can focus on subjects both under near-infrared light and under visible light. (However, the camera will not change the focus according to the illumination change when the focus had been adjusted once.)

How to use a varifocal lens

Before adjusting the varifocal lens, reset the flange-back length position to the default position for the CS-mount (by simultaneously pressing the [LEFT] and [RIGHT] buttons for 2 seconds or more, or by simultaneously pressing the [LEFT] and [RIGHT] buttons after pressing the [SET] button when the cursor is on "MANUAL-ADJ" on the "BACK-FOCUS SETUP" page.
Method of adjustment may be different depending on the lens in use. For further information, refer to the operating instructions of the lens in use.
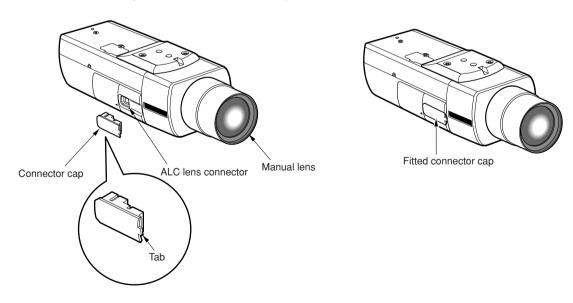

Notes:

- The following are descriptions of how to adjust a normal varifocal lens. For further information, refer to the operating instructions of the lens in use.
    1. Focus on a subject which is located around 10 m away or farther to adjust the flange-back length.
    2. When using an 8x or 10x varifocal lens, adjust the flange-back length after setting the zoom to the WIDE end and settings the focus to the FAR end.
       When using a 2x or 3x varifocal lens, adjust the flange-back length after setting the zoom to the TELE end and settings the focus to the FAR end.
    3. Locate a subject at the center and roughly adjust the angular field of view and the focus by adjusting the zoom position and the focus position. Then, adjust the flange-back length minutely. (→ page 17)
- When the lens in use is not Panasonic's and whose focus range is scalable, adjust the flange-back length after setting the focus position to one step short of the FAR end in step 2. When adjusting the focus in the scalable range, focus may not be adjusted appropriately.

How to use a fixed-focus lens

When using a fixed-focus lens featured the focus adjustment, adjust the flange-back length after setting the lens focus to the FAR end.

When using a manual lens

When using a manual lens, fit the provided connector cap into the ALC lens connector as shown in the illustrations below. (The tab of the connector cap should be toward the lens.)

Connector cap   ALC lens connector   Manual lens

Fitted connector cap

Tab

Installations/Connections

Before start the installation/connection, prepare the required devices and cables.
Before starting the connection, turn the power of the devices including the camera and the PC off or disconnect the power cable from the outlet.

Step 1

Fix an optional camera mounting bracket onto the desired place and mount the camera on it.
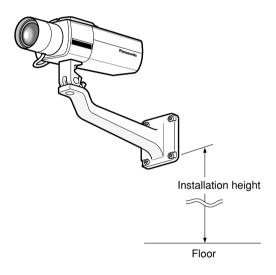Use appropriate screws for the panel/wall material to secure an optional camera mounting bracket.
The following are examples of the camera installation using an optional mounting bracket.
The camera can be mounted on the bracket using the screw holes for the camera mounting bracket (1/4-20UNC).
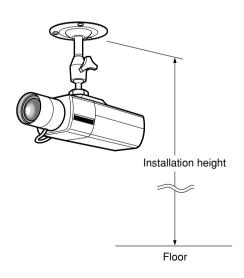
<For wall installation>
Optional camera mounting bracket: WV-831

Installation height

Floor

<For ceiling installation>
Optional camera mounting bracket: WV-7010A

Installation height

Floor

Important:
- Make sure that the installing place is strong enough to support the total weight of the camera and the camera mounting bracket.
- Install the camera mounting bracket on the foundation part of the building or equivalent strong part.
- Method of installation may be different depending on the material of the place where the camera mounting bracket is to be installed.
  When installing on steel: Fix with bolts and nuts (M6 or M8).
  When installing on concrete: Fix with anchor bolts. (M6 or M8)
- Do not use wood screws to fix the camera mounting bracket (option) since they are not strong enough to support the weight of the camera and the bracket.
- Refer to "Select Safety Wire Kit." for details on the installation height of camera mounting bracket.

Step 2

To prevent the camera from dropping that may cause accidental injury, attach a safety wire between the camera and the wall/panel.
Attach one end of the safety wire to the safety wire holder of the camera and the other end to a locally procured safety wire holder to be installed on the foundation part of the building.

<Example: Installing on the wall>

Safety wire

Safety wire

Safety wire holder

Safety wire

Safety wire

Foundation part of the building or equivalently strong part

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Important:

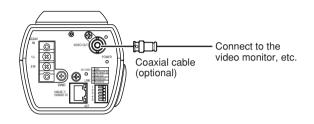Safety wire differs depending on the model and installation height of camera mounting bracket (option). Procure the optional safety wire kit suited for installation. Refer to "Select Safety Wire Kit." for details.
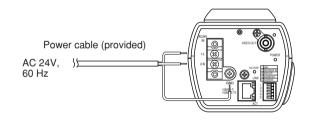
Step 3

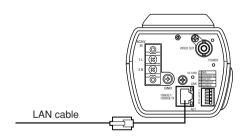Connect a coaxial cable (optional) to the video out connector.

Coaxial cable (optional)

Connect to the video monitor, etc.

Step 4

Connect the AC inlet on the rear of the camera and the AC outlet with a power cable. (locally procured)

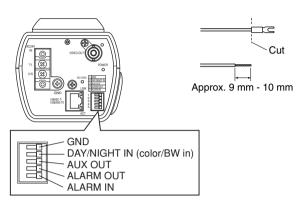Power cable (provided)

AC 24V, 60 Hz

Step 5

Connect a LAN cable (category 5 or better) to the network connector on the rear of the camera.

LAN cable

Step 6

Connect an external device to the EXT I/O connector.
When connecting an external device, remove 9 mm – 10 mm of the outer jacket of the cable and twist the cable core to prevent the short circuit first.

Specification of cable (wire): AWG22 - AWG28
Single core, twisted

Cut

Approx. 9 mm - 10 mm

GND
DAY/NIGHT IN (color/BW in)
AUX OUT
ALARM OUT
ALARM IN

<Ratings>

ALARM IN: 5 V DC pull-up, Drive ability 0.5 mA or more
ALARM OUT: Open collector output
    OPEN: Open or DC 4 V – DC 5 V
    Maximum applied voltage: 20 V
    CLOSE: Make contact with GND (50 mA or less)
AUX OUT: Open collector output
    OPEN: Open or DC 4 V – DC 5 V
    Maximum applied voltage: 20 V
    CLOSE: Make contact with GND (50 mA or less)
DAY/NIGHT IN: 5 V DC pull-up, Drive ability 0.5 mA or more
    Color: Open
    BW: Short circuit
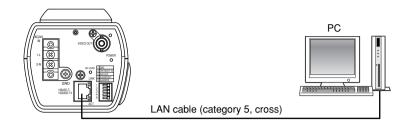 * To validate the color/BW input, select "EXT" for "BW MODE". (→ page 18)

Important:

- Do not connect 2 wires or more directly to a terminal. When it is necessary to connect 2 wires or more, use a splitter.
- Connect an external device with verifying that the ratings are within the specifications above.

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[Connection example]

When connecting with a PC directly

LAN cable (category 5, cross)

<Required cable>

LAN cable (category 5, cross)

When connecting via a network

System device

Connect to the video input connector of a frame switcher, matrix switcher, etc.

Video monitor

Note: When connecting to the video input connector of a device that has the power switch for the connected camera, such as the Panasonic WV-CM142, turn the power switch for the connected camera off.

Recording device

Connect to the video input connector of a digital disk recorder, time lapse VCR, etc.

Network device (Hub, router, ADSL/CATV modem, etc.)

LAN/Internet

PC (Refer to page 7 for the system requirements for a PC)

<Required hardware>

Switching hub or router

<Required cable>

LAN cable (category 5, straight)

Important:

- Use a switching hub or a router which is compliant with 10BASE-T/100BASE-TX.
- Power supply is required for each network camera.
- When connecting multiple network cameras, it is necessary to configure the settings of the router in use. It is also necessary to configure port numbers for each network camera independently. Refer to page 21 for further information about the settings.
  Refer to the operating instructions of the router for descriptions of how to configure the router.

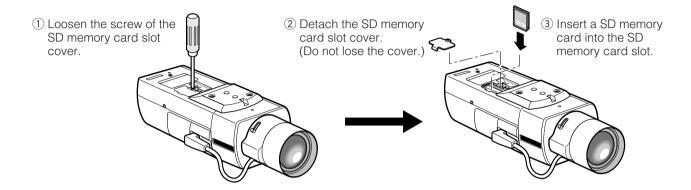# Insert/Remove SD Memory Card

How to insert a SD memory card

Important:

Before inserting a SD memory card, make sure that the power of the camera is turned off.

① Loosen the screw of the SD memory card slot cover.

② Detach the SD memory card slot cover. (Do not lose the cover.)

③ Insert a SD memory card into the SD memory card slot.

④ Attach the cover and tighten the screw.

⑤ Select "Use" for "About SD memory card" on the [SD memory card] tab of "Basic Setup" on the setup menu. (→ Network Operating Instructions (PDF))

How to remove the SD memory card

Important:

Before removing the SD memory card, select "Not use" for "About SD memory card" on the [SD memory card] tab of "Basic Setup" on the setup menu first. (→ Network Operating Instructions (PDF))

① Loosen the screw of the SD memory card slot cover.

② Detach the SD memory card slot cover.

③ Release the locked SD memory card by pushing the card and pull the SD memory card from the slot.

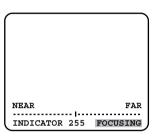④ Attach the cover and tighten the screw.

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Adjust the Flange-Back Length

Before adjusting the flange-back length, adjust the lens first. (→ page 11)
Use the operation buttons on the camera (→ page 10) to adjust the flange-back length.
The flange-back length can also be adjusted on the [Camera] tab of the "Camera setup" page. (→ page 18)

Step 1

Adjust the angular field of view while monitoring the video monitor, then press the [SET] button.

Step 2

The focus position will be displayed at the bottom of the window and the flange-back length will be automatically adjusted.

```
NEAR                FAR
················|·················
INDICATOR 255  FOCUSING
```

Step 3

When it is necessary to adjust the flange-back length minutely after the auto adjustment of the flange-back length, adjust by pressing the [LEFT] or [RIGHT] button.

Notes:
- The displayed focus position will disappear if no operation is performed for 10 seconds or more.
- The flange-back length position will set to the default position for the CS-mount by pressing both the [Left] and [Right] buttons for 2 seconds or more.

Configure the Settings Using the Operation Buttons on the Camera

Each setup item on the [Camera] tab of the "Camera setup" page can be configured using the operation buttons on the camera. The settings relating to image quality, brightness, privacy zone and flange-back length can be configured on the [Camera] tab of the "Camera setup" page. When using the operation buttons, configure the settings while displaying the "Camera" tab page on the video monitor.

The following are descriptions about the setup items on the [Camera] tab and of how to configure them using the operation buttons on the camera.

Refer to the network operating instructions (PDF) for further information about the [Camera] tab.

Settings items of the camera setup page

Settings item	Description
CAMERA	Configure the settings relating to camera operations
CAMERA ID	The camera title can be edited and displayed on the screen.
ALC/ELC	Select the light control method from "ALC", "ALC+" and "ELC" according to the lens in use.
SHUTTER	Select the shutter speed.
AGC	Select the method of the gain adjustment.
SENS UP	Adjust the sensitivity.
SYNC	Display the method of the synchronization.
WHITE BAL	Select the method of the white balance adjustment.
DNR	Configure the settings for the DNR (Digital Noise Reduction) function.
BW MODE	Configure the settings relating to the BW mode such as the settings for switching between the color mode and the BW mode.
PRIVACY ZONE	It is possible to mask a designated zone and as a privacy zone.
EL-ZOOM	Adjust the electronic zoom.
STABILIZER	Select "ON" or "OFF" to determine whether or not to use the image stabilizer to prevent shaky images.
BACK-FOCUS	Select the method of the flange-back length adjustment and adjust the flange-back length minutely.
SPECIAL	
CHROMA GAIN	Adjust the chroma level (color density).
AP GAIN	Adjust the aperture level.
PEDESTAL	Adjust the pedestal level (brightness).
HUE	Adjust the chroma phase.
PIX OFF	Correct image defects such as scratches.
CAMERA RESET SETUP	Reset the settings edited on the [Camera] tab to the default settings.
NETWORK	Configure the network settings.

Basic operation

The following are descriptions of how to configure each setup item on the [Camera] tab using the operation buttons on the camera.
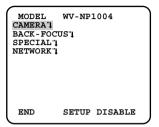
Note:
> The illustrations below are the examples of the [Camera] tab pages to be displayed on a video monitor.

Step 1

Hold down the [SET] button for around 2 seconds.
→ The top page will be displayed.

```
 MODEL    WV-NP1004
CAMERA↴
BACK-FOCUS↴
SPECIAL↴
NETWORK↴




 END     SETUP DISABLE
```
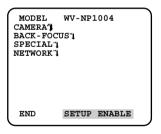
Step 2

Move the cursor onto "END" by press the [UP] or [DOWN] button.

Step 3

Press the [SET] button after moving the cursor onto "SETUP" by pressing the [RIGHT] button.
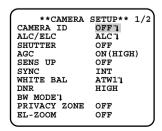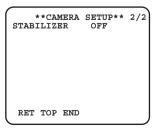→ The "DISABLE" indication will change into "ENABLE" and the settings will become editable.

```
 MODEL    WV-NP1004
CAMERA↴
BACK-FOCUS↴
SPECIAL↴
NETWORK↴




 END     SETUP ENABLE
```

Step 4

Move the cursor onto the desired setup item and press the [SET] button.
→ The setup page of the selected setup item will be displayed.

```
    **CAMERA SETUP** 1/2
CAMERA ID     OFF↴
ALC/ELC       ALC↴
SHUTTER       OFF
AGC           ON(HIGH)
SENS UP       OFF
SYNC          INT
WHITE BAL     ATW1↴
DNR           HIGH
BW MODE↴
PRIVACY ZONE  OFF
EL-ZOOM       OFF
```

```
    **CAMERA SETUP** 2/2
STABILIZER    OFF








 RET TOP END
```

Step 5

Configure the settings for each item.

Select setup item: Move the cursor by pressing the [Up] or [Down] button.

Change the parameter: Press the [Left] or [Right] button.

Display the detailed settings page of the setup item: Press the [SET] button when the setup item with the [↴] mark is selected.

Go back to the previous page: Move the cursor onto "RET" and press the [SET] button.

Go back to the top page: Move the cursor onto "TOP" and press the [SET] button.

Step 6
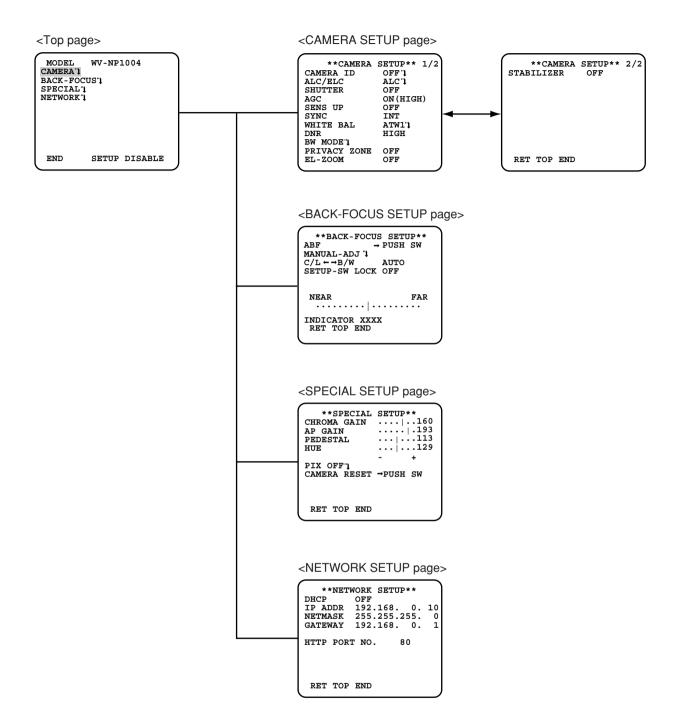
To exit from the SETUP menu and display images from the camera: Move the cursor onto "END" and press the [SET] button.

Notes:
- To prevent erroneous operations, the "DISABLE" indication will always be displayed when the top page is displayed. To operate the SETUP menu, switch the "DISABLE" indication to the "ENABLE" indication first.
- The cursor position will be displayed highlighted.

Camera setup page chart

<Top page>

```
  MODEL    WV-NP1004
 CAMERA ↲
 BACK-FOCUS ↲
 SPECIAL ↲
 NETWORK ↲




  END     SETUP DISABLE
```

<CAMERA SETUP page>

```
     **CAMERA SETUP** 1/2
 CAMERA ID      OFF ↲
 ALC/ELC        ALC ↲
 SHUTTER        OFF
 AGC            ON(HIGH)
 SENS UP        OFF
 SYNC           INT
 WHITE BAL      ATW1 ↲
 DNR            HIGH
 BW MODE ↲
 PRIVACY ZONE   OFF
 EL-ZOOM        OFF
```

```
     **CAMERA SETUP** 2/2
 STABILIZER     OFF





  RET TOP END
```

<BACK-FOCUS SETUP page>

```
    **BACK-FOCUS SETUP**
 ABF          → PUSH SW
 MANUAL-ADJ ↲
 C/L ←→B/W       AUTO
 SETUP-SW LOCK OFF


  NEAR             FAR
   .........|.........

 INDICATOR XXXX
  RET TOP END
```

<SPECIAL SETUP page>

```
     **SPECIAL SETUP**
 CHROMA GAIN   ....|..160
 AP GAIN       .....|.193
 PEDESTAL      ...|...113
 HUE           ...|...129
               -      +
 PIX OFF ↲
 CAMERA RESET →PUSH SW


  RET TOP END
```

<NETWORK SETUP page>

```
    **NETWORK SETUP**
 DHCP       OFF
 IP ADDR  192.168.  0. 10
 NETMASK  255.255.255.  0
 GATEWAY  192.168.  0.  1

 HTTP PORT NO.    80



  RET TOP END
```

Configure the Network Settings

Install the software

Before installing the software, read the readme file on the provided CD-ROM first.

Software included on the provided CD-ROM

• Panasonic IP setting software
  Configure the network settings of the camera. Refer to the following for further information.

• Viewer Software "Network Camera View2"
  It is necessary to install the viewer software "Network Camera Viewer2" to display images on a PC. Install the viewer software by double-clicking the "Setup.exe" icon on the provided CD-ROM.

Configure the network settings of the camera using the Panasonic IP setting software

The network settings of the camera can be configured using the Panasonic IP setting software.
When using multiple cameras, it is necessary to configure the network settings of each camera independently.
When the Panasonic IP setting software does not work to perform the network settings of the camera, perform the network settings of the camera and the PC individually on the "Network setup" page of the setup menu. Refer to the Network Operating Instructions (PDF) for further information.
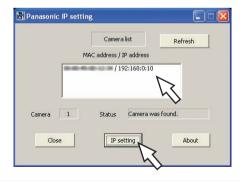

Important:
• When using Windows XP SP2, the "Windows Security Alert" window may be displayed when starting the IP setting software. In this case, click the "Unblock" button on the displayed "Windows Security Alert" window.

• For the security enhancement, the MAC address/IP address of the camera to be configured will not be displayed when around 20 minutes have passed after turning on the power of the camera.

• Panasonic IP setting software is inoperable in other subnets via the same router.

Step 1

Start the Panasonic IP setting software.

Step 2

Click the [IP setting] button after selecting the MAC address/IP address of the camera to be configured.
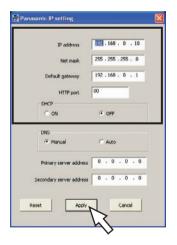

Note:
When using a DHCP server, the IP address assigned to the camera can be displayed by clicking the [Refresh] button of the IP setting software.

Step 3

Complete each network setup item and click the [Apply] button.

Note:
When using a DHCP server, it is possible to set "DNS" to "AUTO".

Important:
• It may take for around 30 seconds to complete to upload the settings to the camera after clicking the [Apply] button. The settings may be invalidated when the AC adapter or the LAN cable is disconnected before completing the upload. In this case, perform the settings again.

• When using a firewall (including software), allow access to all UDP ports.
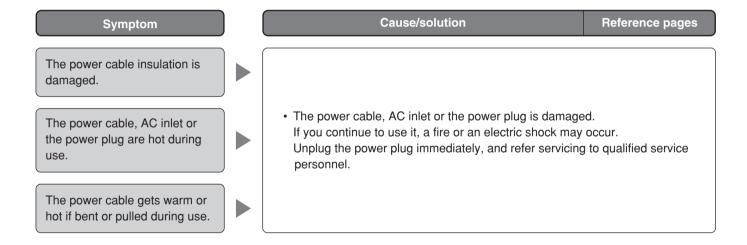
Troubleshooting

Before asking for repairs, check the symptoms with the following table.

Contact your dealer if a problem cannot be solved even after checking and trying the solution or if the problem is not described below.

Symptom	Cause/solution	Reference pages
The power cannot be turned on.	• Is the power cable connected to the AC 24V power supply? → Confirm the cable is firmly connected.	10

Check the power cable, AC inlet and the power plug periodically.

Symptom	Cause/solution	Reference pages
The power cable insulation is damaged.	• The power cable, AC inlet or the power plug is damaged. If you continue to use it, a fire or an electric shock may occur. Unplug the power plug immediately, and refer servicing to qualified service personnel.	
The power cable, AC inlet or the power plug are hot during use.		
The power cable gets warm or hot if bent or pulled during use.		

Specifications

● General specifications

Power source	AC 24 V 60 Hz
Power consumption	Approx. 9.5 W
Ambient temperature	−10 °C - +50 °C
Ambient humidity	90 % or less
Controller interface	Coaxial multiplex/Ethernet
Audio	Captured by the built-in microphone
Dimensions	84 mm (W) x 83 mm (H) x 197.5 mm (D) (excluding connectors/terminals)
Weight	Approx. 0.97 kg

● CAMERA

Image sensor	1/3 inch interline transfer CCD	
Effective pixels	Full scanning mode:	1 296 (H) x 966 (V)
	Partial scanning mode:	960 (H) x 720 (V)
Scanning area	Full scanning mode:	4.8 mm (H) x 3.6 mm (V)
	Partial scanning mode:	3.6 mm (H) x 2.7 mm (V)
AGC	ON (LOW, MID, HIGH)/OFF	
Aperture control	ALC/ALC+/ELC (BLC ON/OFF available)	
Electronic shutter	Full scanning mode: OFF(1/15), 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 Partial scanning mode: OFF(1/60), 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	
Scanning method	Full scanning mode:	15 fps progressive scan
	Partial scanning mode:	30 fps 2:1 interlace scan (with motion adaptive interlace/progressive conversion for network)
Sensitivity up	OFF, x2AUTO, x4AUTO, x6AUTO, x10AUTO*, x2FIX, x4FIX, x6FIX, x10FIX*, x16FIX*, x32FIX* (*: Selectable only when "Partial scanning" is selected for the resolution setting.)	
White balance	ATW1/ATW2/AWC	
DNR	LOW/HIGH	
Color/BW	AUTO1/AUTO2/EXT/ON/OFF	
Electronic Zoom	x5	
Image stabilizer	ON/OFF	
Camera ID	Up to 16 characters ON/OFF	
VMD alarm	ON/OFF, 4 areas available	
Back focus adjustment	ABF/MANUAL/CL/BW	
ALC lens drive	DC drive	
Lens mount	CS-mount	

● Analog

Signal	NTSC	
Video output	VBS: 1.0 V[P-P]/75 Ω, composite (BNC)	
Scanning frequency	Horizontal: 15.734 kHz	Vertical: 59.94 Hz
Synchronization	Internal, VD2	
Resolution	Full scanning mode:	Horizontal: 600 TV lines or more (color mode) 780 TV lines or more (BW mode)
		Vertical: 450 TV lines or more
	Partial scanning mode:	Horizontal: 540 TV lines or more (color mode) 570 TV lines or more (BW mode)
		Vertical: 350 TV lines or more

S/N	50 dB or more (AGC OFF)
Minimum illumination	1.0 lx (color mode), 0.06 lx (BW mode) [Lens F1.4, AGC ON (HIGH), full scanning mode (shutter speed 1/30)/partial scanning mode (electronic shutter speed OFF (1/60))]

● **Network**

Network	10BASE-T/100BASE-TX, RJ45 connector
Resolution Full scanning mode	JPEG: 1 280 x 960/VGA (640 x 480)/QVGA (320 x 240) MPEG-4: VGA (640 x 480)/QVGA (320 x 240), up to 15 fps
Partial scanning mode	JPEG: 960 x 720/VGA (640 x 480)/QVGA (320 x 240) MPEG-4:VGA (640 x 480)/QVGA (320 x 240), up to 30 fps
Image compression method	
MPEG-4	Image quality: LOW/NORMAL/FINE Transmission type: UNICAST/MULTICAST Max bit rate: 64 kbps/128 kbps/256 kbps/1 024 kbps/1 536 kbps/2 048 kbps/3 072 kbps/ 4 096 kbps
JPEG	Image quality: 0 SUPER FINE/1 FINE/2/3/4/5 NORMAL/6/7/8/9 LOW (10 steps: 0-9) Transmission type: PULL/PUSH
Refresh interval (JPEG)	0.1 fps - 30 fps (Frame rate of JPEG will be limited when operating both JPEG and MPEG-4 images.)
Audio compression method	G.726 (ADPCM) 16 kbps/32 kbps
Bandwidth Control	64 kbps/128 kbps/256 kbps/512 kbps/1 024 kbps/2 048 kbps/4 096 kbps/10 Mbps/ Unlimited
Protocol	TCP/IP, UDP/IP, HTTP, RTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP
OS	Microsoft® Windows® 2000 Professional SP4, Microsoft® Windows® XP Home Edition SP2, Microsoft® Windows® XP Professional SP2
Web browser	Internet Explorer 6.0 Service Pack2
Maximum concurrent access number	8 (Depends on network conditions.)
FTP client	Alarm FTP image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SD memory card is available.)
Multi-screen	Images from 8 cameras (4 cameras x 2 groups) can be displayed.
SD memory card (option)	Manufactured by Panasonic (Performance with this camera has been checked.) Capacity: 64 MB, 128 MB, 256 MB, 512 MB, 1 GB
External I/O terminals	DAY/NIGHT IN x1, AUX OUT x1, ALARM IN x1, ALARM OUT x1

● **Options**
Lens: WV-LZA62/2 (x2 varifocal)

Standard Accessories

CD-ROM* .... 1 pc.
Operating Instructions (English version) .... 1 pc.
ALC lens connector cap .... 1 pc.
Warranty .... 1 pc.

The following is for the installation.
Cord label .... 1 pc.

* The IP setting software, the viewer software and the network operating instructions (PDF) are included on the CD-ROM.

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